ALS Environmental, Land	Issue No. 4
	Date: 03/03/2020
QF.7.5.1 Data Amendments Form	Issued and Authorised by Quality Manager

SDG	Sample Event	Sample ID	Date Amended	Amendment Reason	Analysis/Component	Authorised (Lab Manager)	Previous Value	New Value	Units	Supersedes Report
201020-9	23113810	CP107	28/05/2021	Analytical/Quality Issue	PAH EPAMS Acenaphthylene	Geraint Pumford	2.39	0.0726	µg/L	599546

Appendix General

1. Results are expressed on a dry weight basis (dried at 35ºC) for all soil analyses except for the following: NRA and CEN Leach tests, flash point LOI, pH, ammonium as NH4 by the BRE method, VOC TICs and SVOC TICs.

2. If sufficient sample is received a sub sample will be retained free of charge for 30 days after analysis is completed (e-mailed) for all sample types unless the sample is destroyed on testing. The prepared soil sub sample that is analysed for asbestos will be retained for a period of 6 months after the analysis date. All bulk samples will be retained for a period of 6 months after the analysis date. All samples received and not scheduled will be disposed of one month after the date of receipt unless we are instructed to the contrary. Once the initial period has expired, a storage charge will be applied for each month or part thereof until the client cancels the request for sample storage. ALS reserve the right to charge for samples received and stored but not analysed.

3. With respect to turnaround, we will always endeavour to meet client requirements wherever possible, but turnaround times cannot be absolutely guaranteed due to so many variables beyond our control.

4. We take responsibility for any test performed by sub-contractors (marked with an asterisk). We endeavour to use UKAS/MCERTS Accredited Laboratories, who either complete a quality questionnaire or are audited by ourselves. For some determinands there are no UKAS/MCERTS Accredited Laboratories, in this instance a laboratory with a known track record will be utilised.

5. If no separate volatile sample is supplied by the client, or if a headspace or sediment is present in the volatile sample, the integrity of the data may be compromised. This will be flagged up as an invalid VOC on the test schedule and the result marked as deviating on the test certificate.

6. NDP - No determination possible due to insufficient/unsuitable sample.

7. Results relate only to the items tested.

8. LoDs (Limit of Detection) for wet tests reported on a dry weight basis are not corrected for moisture content.

9. **Surrogate recoveries** - Surrogates are added to your sample to monitor recovery of the test requested. A % recovery is reported, results are not corrected for the recovery measured. Typical recoveries for organics tests are 70-130%. Recoveries in soils are affected by organic rich or clay rich matrices. Waters can be affected by remediation fluids or high amounts of sediment. Test results are only ever reported if all of the associated quality checks pass; it is assumed that all recoveries outside of the values above are due to matrix affect.

10. Stones/debris are not routinely removed. We always endeavour to take a representative sub sample from the received sample.

11. In certain circumstances the method detection limit may be elevated due to the sample being outside the calibration range. Other factors that may contribute to this include possible interferences. In both cases the sample would be diluted which would cause the method detection limit to be raised.

12. Mercury results quoted on soils will not include volatile mercury as the analysis is performed on a dried and crushed sample.

13. For leachate preparations other than Zero Headspace Extraction (ZHE) volatile loss may occur.

14. For the BSEN 12457-3 two batch process to allow the cumulative release to be calculated, the volume of the leachate produced is measured and filtered for all tests. We therefore cannot carry out any unfiltered analysis. The tests affected include volatiles GCFID/GCMS and all subcontracted analysis.

15. Analysis and identification of specific compounds using GCFID is by retention time only, and we routinely calibrate and quantify for benzene, toluene, ethylbenzenes and xylenes (BTEX). For total volatiles in the C5-C12 range, the total area of the chromatogram is integrated and expressed as ug/kg or ug/l. Although this analysis is commonly used for the quantification of gasoline range organics (GRO), the system will also detect other compounds such as chlorinated solvents, and this may lead to a falsely high result with respect to hydrocarbons only. It is not possible to specifically identify these non-hydrocarbons, as standards are not routinely run for any other compounds, and for more definitive identification, volatiles by GCMS should be utilised.

16. We are accredited to MCERTS for sand, clay and loam/topsoil, or any of these materials - whether these are derived from naturally occurring soil profiles, or from fill/made ground, as long as these materials constitute the major part of the sample. Other coarse granular material such as concrete, gravel and brick are not accredited if they comprise the major part of the sample.

17. **Tentatively Identified Compounds (TICs)** are non-target peaks in VOC and SVOC analysis. All non-target peaks detected with a concentration above the LoD are subjected to a mass spectral library search. Non-target peaks with a library search confidence of >75% are reported based on the best mass spectral library match. When a non-target peak with a library search confidence of <75% is detected it is reported as "mixed hydrocarbons". Non-target compounds identified from the scan data are semi-quantified relative to one of the deuterated internal standards, under the same chromatographic conditions as the target compounds. This result is reported as a semi-quantitative value and reported as Tentatively Identified Compounds (TICs). TICs are outside the scope of UKAS accreditation and are not moisture corrected.

18. **Sample Deviations**

If a sample is classed as deviated then the associated results may be compromised.

1	**Container with Headspace provided for volatiles analysis**
2	**Incorrect container received**
3	**Deviation from method**
4	**Matrix interference**
♦	**Sample holding time exceeded in laboratory**
@	**Sample holding time exceeded due to late arrival of instructions or samples**
§	**Sampled on date not provided**

19. **Asbestos**

When requested, the individual sub sample scheduled will be analysed in house for the presence of asbestos fibres and asbestos containing material by our documented in house method TM048 based on HSG 248 (2005), which is accredited to ISO17025. If a specific asbestos fibre type is not found this will be reported as "Not detected". If no asbestos fibre types are found all will be reported as "Not detected" and the sub sample analysed deemed to be clear of asbestos. If an asbestos fibre type is found it will be reported as detected (for each fibre type found). Testing can be carried out on asbestos positive samples, but, due to Health and Safety considerations, may be replaced by alternative tests or reported as No Determination Possible (NDP). The quantity of asbestos present is not determined unless specifically requested.

Identification of Asbestos in Bulk Materials & Soils

The results for identification of asbestos in bulk materials are obtained from supplied bulk materials which have been examined to determine the presence of asbestos fibres using ALS (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining, based on HSG 248 (2005).

The results for identification of asbestos in soils are obtained from a homogenised sub sample which has been examined to determine the presence of asbestos fibres using ALS (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining, based on HSG 248 (2005).

Asbestos Type	Common Name
Chrysotile	White Asbestos
Amosite	Brown Asbestos
Crocidolite	Blue Asbestos
Fibrous Actinolite	-
Fibrous Anthophyllite	-
Fibrous Tremolite	-

Visual Estimation Of Fibre Content

Estimation of fibre content is not permitted as part of our UKAS accredited test other than: - Trace - Where only one or two asbestos fibres were identified.

Respirable Fibres

Respirable fibres are defined as fibres of <3 µm diameter, longer than 5 µm and with aspect ratios of at least 3:1 that can be inhaled into the lower regions of the lung and are generally acknowledged to be most important predictor of hazard and risk for cancers of the lung.
Standing Committee of Analysts, *The Quantification of Asbestos in Soil (2017).*

Further guidance on typical asbestos fibre content of manufactured products can be found in HSG 264.

The identification of asbestos containing materials and soils falls within our schedule of tests for which we hold UKAS accreditation, however opinions, interpretations and all other information contained in the report are outside the scope of UKAS accreditation.

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Wardell Armstrong LLP
36 Park Row
Leeds
LS1 5JL

Attention: Jonathan Currie

CERTIFICATE OF ANALYSIS

Date of report Generation:	27 October 2020
Customer:	Wardell Armstrong LLP
Sample Delivery Group (SDG):	201020-14
Your Reference:	LD10162
Location:	Ten Acres Lane
Report No:	572888

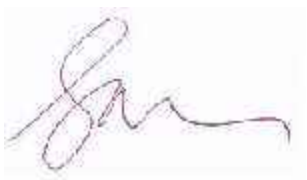
We received 10 samples on Thursday October 15, 2020 and 5 of these samples were scheduled for analysis which was completed on Tuesday October 27, 2020. Accredited laboratory tests are defined within the report, but opinions, interpretations and on-site data expressed herein are outside the scope of ISO 17025 accreditation.

Should this report require incorporation into client reports, it must be used in its entirety and not simply with the data sections alone.

Chemical testing (unless subcontracted) performed at ALS Life Sciences Ltd Hawarden (Method codes TM) or ALS Life Sciences Ltd Aberdeen (Method codes S).

All sample data is provided by the customer. The reported results relate to the sample supplied, and on the basis that this data is correct.
Incorrect sampling dates and/or sample information will affect the validity of results.
The customer is not permitted to reproduce this report except in full without the approval of the laboratory.

Approved By:



Sonia McWhan

Operations Manager

CERTIFICATE OF ANALYSIS

SDG:	201020-14	**Client Reference:**	LD10162	**Report Number:**	572888
Location:	Ten Acres Lane	**Order Number:**	LD1yy9	**Superseded Report:**	

Received Sample Overview

Lab Sample No(s)	Customer Sample Ref.	AGS Ref.	Depth (m)	Sampled Date
230y7328	CP104		7.30 - 7.30	13/10/2020
23067321	NO ID		1.50 - 1.50	05/10/2020
23067326	TP109		1.30 - 1.30	09/10/2020
23067333	TP113		0.40 - 0.40	13/10/2020
23067357	TP115		0.40 - 0.40	13/10/2020
23067353	TP116		2.20 - 2.20	13/10/2020
23067323	TP140		0.50 - 1.60	09/10/2020
23067337	TP142		2.70 - 2.70	13/10/2020
23067343	TP146		0.80 - 0.80	13/10/2020
23067349	TP146		4.30 - 4.30	13/10/2020

Only received samples which have had analysis scheduled will be shown on the following pages.

Validated

CERTIFICATE OF ANALYSIS

SDG:	201020-14	**Client Reference:**	LD10162	**Report Number:**	572888
Location:	Ten Acres Lane	**Order Number:**	LD1yy9	**Superseded Report:**	

Results Legend

X Test

N No Determination Possible

Sample Types -

S - Soil/Solid
UNS - Unspecified Solid
GW - Ground Water
SW - Surface Water
LE - Land Leachate
PL - Prepared Leachate
PR - Process Water
SA - Saline Water
TE - Trade Effluent
TS - Treated Sewage
US - Untreated Sewage
RE - Recreational Water
DW - Drinking Water Non-regulatory
UNL - Unspecified Liquid
SL - Sludge
G - Gas
OTH - Other

Lab Sample No(s)			23067328			23067357			23067353			23067337		23067349
Customer Sample Reference			CP104			TP115			TP116			TP142		TP146
AGS Reference														
Depth (m)			7.30 - 7.30			0.40 - 0.40			2.20 - 2.20			2.70 - 2.70		4.30 - 4.30
Container			1kg TUB with Handle (ALE260)	250g Amber Jar (ALE210)	60g VOC (ALE215)	1kg TUB with Handle (ALE260)	250g Amber Jar (ALE210)	60g VOC (ALE215)	1kg TUB with Handle (ALE260)	250g Amber Jar (ALE210)	60g VOC (ALE215)	1kg TUB with Handle (ALE260)	250g Amber Jar (ALE210)	60g VOC (ALE215)	1kg TUB with Handle (ALE260)	250g Amber Jar (ALE210)
Sample Type			S	S	S	S	S	S	S	S	S	S	S	S	S	S
Alkalinity Filtered as CaCO3	All	NDPs: 0 Tests: 1													X	
Anions by Kone (soil)	All	NDPs: 0 Tests: 4		X			X			X			X			
Anions by Kone (w)	All	NDPs: 0 Tests: 1													X	
Asbestos ID in Solid Samples	All	NDPs: 0 Tests: 4	X			X			X			X				
Boron Water Soluble	All	NDPs: 0 Tests: 4		X			X			X			X			
CEN Readings	All	NDPs: 0 Tests: 1													X	
Cyanide Comp/Free/Total/Thiocyanate	All	NDPs: 0 Tests: 5		X			X			X			X		X	
Dissolved Metals by ICP-MS	All	NDPs: 0 Tests: 1													X	
Dissolved Organic/Inorganic Carbon	All	NDPs: 0 Tests: 1													X	
Easily Liberated Sulphide	All	NDPs: 0 Tests: 4		X			X			X			X			
EPH CWG (Aliphatic) Filtered GC (W)	All	NDPs: 0 Tests: 1													X	
EPH CWG (Aromatic) Filtered GC (W)	All	NDPs: 0 Tests: 1													X	
EPH CWG GC (S)	All	NDPs: 0 Tests: 4		X			X			X			X			
GRO by GC-FID (S)	All	NDPs: 0 Tests: 4			X			X			X			X		
GRO by GC-FID (W)	All	NDPs: 0 Tests: 1													X	

Results Legend

X Test

N No Determination Possible

Sample Types -

S - Soil/Solid
UNS - Unspecified Solid
GW - Ground Water
SW - Surface Water
LE - Land Leachate
PL - Prepared Leachate
PR - Process Water
SA - Saline Water
TE - Trade Effluent
TS - Treated Sewage
US - Untreated Sewage
RE - Recreational Water
DW - Drinking Water Non-regulatory
UNL - Unspecified Liquid
SL - Sludge
G - Gas
OTH - Other

Lab Sample No(s)			23067328			23067357			23067353			23067337			23067349	
Customer Sample Reference			CP104			TP115			TP116			TP142			TP146	
AGS Reference																
Depth (m)			7.30 - 7.30			0.40 - 0.40			2.20 - 2.20			2.70 - 2.70			4.30 - 4.30	
Container			1kg TUB with Handle (ALE260)	250g Amber Jar (ALE210)	60g VOC (ALE215)	1kg TUB with Handle (ALE260)	250g Amber Jar (ALE210)	60g VOC (ALE215)	1kg TUB with Handle (ALE260)	250g Amber Jar (ALE210)	60g VOC (ALE215)	1kg TUB with Handle (ALE260)	250g Amber Jar (ALE210)	60g VOC (ALE215)	1kg TUB with Handle (ALE260)	250g Amber Jar (ALE210)
Sample Type			S	S	S	S	S	S	S	S	S	S	S	S	S	S
Hexavalent Chromium (s)	All	NDPs: 0 Tests: 4		X			X			X			X			
Low Level Hexavalent Chromium (w)	All	NDPs: 0 Tests: 1													X	
Mercury Dissolved	All	NDPs: 0 Tests: 1													X	
Metals in solid samples by OES	All	NDPs: 0 Tests: 4		X			X			X			X			
PAH by GCMS	All	NDPs: 0 Tests: 4		X			X			X			X			
PAH in waters by GC-MS (diss.filt)	All	NDPs: 0 Tests: 1													X	
PCBs by GCMS	All	NDPs: 0 Tests: 2		X			X									
pH	All	NDPs: 0 Tests: 4		X			X			X			X			
pH Value	All	NDPs: 0 Tests: 1													X	
Phenols by HPLC (S)	All	NDPs: 0 Tests: 4		X			X			X			X			
Phenols by HPLC (W)	All	NDPs: 0 Tests: 1													X	
Sample description	All	NDPs: 0 Tests: 5		X			X			X			X			X
Semi Volatile Organic Compounds	All	NDPs: 0 Tests: 1		X												
Sulphide	All	NDPs: 0 Tests: 1													X	
Total Organic Carbon	All	NDPs: 0 Tests: 4		X			X			X			X			

Validated

CERTIFICATE OF ANALYSIS

SDG:	201020-14	**Client Reference:**	LD10162	**Report Number:**	572888
Location:	Ten Acres Lane	**Order Number:**	LD1yy9	**Superseded Report:**	

Results Legend

X **Test**

N **No Determination Possible**

Sample Types -
S - Soil/Solid
UNS - Unspecified Solid
GW - Ground Water
SW - Surface Water
LE - Land Leachate
PL - Prepared Leachate
PR - Process Water
SA - Saline Water
TE - Trade Effluent
TS - Treated Sewage
US - Untreated Sewage
RE - Recreational Water
DW - Drinking Water Non-regulatory
UNL - Unspecified Liquid
SL - Sludge
G - Gas
OTH - Other

Lab Sample No(s)			23067328		23067357		23067353		23067337		23067349				
Customer Sample Reference			CP104		TP115		TP116		TP142		TP146				
AGS Reference															
Depth (m)			7.30 - 7.30		0.40 - 0.40		2.20 - 2.20		2.70 - 2.70		4.30 - 4.30				
Container			1kg TUB with Handle (ALE260)	250g Amber Jar (ALE210)	60g VOC (ALE215)	1kg TUB with Handle (ALE260)	250g Amber Jar (ALE210)	60g VOC (ALE215)	1kg TUB with Handle (ALE260)	250g Amber Jar (ALE210)	60g VOC (ALE215)	1kg TUB with Handle (ALE260)	250g Amber Jar (ALE210)	60g VOC (ALE215)	1kg TUB with Handle (ALE260)	250g Amber Jar (ALE210)
Sample Type			S	S	S	S	S	S	S	S	S	S	S	S	S	S
Total Sulphate	All	NDPs: 0 Tests: 4		X			X			X			X			
TPH CWG Filtered (W)	All	NDPs: 0 Tests: 1													X	
TPH CWG GC (S)	All	NDPs: 0 Tests: 4		X			X			X			X			
VOC MS (S)	All	NDPs: 0 Tests: 4			X			X			X			X		

CERTIFICATE OF ANALYSIS

SDG:	201020-14	**Client Reference:**	LD10162	**Report Number:**	572888
Location:	Ten Acres Lane	**Order Number:**	LD1yy9	**Superseded Report:**	

Sample Descriptions

Grain Sizes

very fine	<0.063mm	**fine**	0.063mm - 0.1mm	**medium**	0.1mm - 2mm	**coarse**	2mm - 10mm	**very coarse**	>10mm

Lab Sample No(s)	Customer Sample Ref.	Depth (m)	Colour	Description	Inclusions	Inclusions 2
23067328	CP104	7.30 - 7.30	Dark Brown	Sand	Stones	Oil/Petroleum
23067357	TP115	0.40 - 0.40	Dark Brown	Sandy Loam	Stones	Brick
23067353	TP116	2.20 - 2.20	Dark Brown	Sandy Silt Loam	Stones	None
23067337	TP142	2.70 - 2.70	Dark Brown	Silty Clay	Stones	None
23067349	TP146	4.30 - 4.30	Black	Loamy Sand	Vegetation	Stones

These descriptions are only intended to act as a cross check if sample identities are questioned, and to provide a log of sample matrices with respect to MCERTS validation. They are not intended as full geological descriptions.

We are accredited to MCERTS for sand, clay and loam/topsoil, or any of these materials - whether these are derived from naturally ocurring soil profiles, or from fill/made ground, as long as these materials constitute the major part of the sample.

Other coarse granular materials such as concrete, gravel and brick are not accredited if they comprise the major part of the sample.

Validated

CERTIFICATE OF ANALYSIS

SDG:	201020-14	**Client Reference:**	LD10162	**Report Number:**	572888
Location:	Ten Acres Lane	**Order Number:**	LD1yy9	**Superseded Report:**	

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	CP104	TP115	TP116	TP142	TP146
			Depth (m)	7.30 - 7.30	0.40 - 0.40	2.20 - 2.20	2.70 - 2.70	4.30 - 4.30
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	13/10/2020	13/10/2020	13/10/2020	13/10/2020	13/10/2020
			Sample Time	-	-	-	-	-
			Date Received	15/10/2020	15/10/2020	15/10/2020	15/10/2020	15/10/2020
			SDG Ref	201020-14	201020-14	201020-14	201020-14	201020-14
			Lab Sample No.(s)	23067328	23067357	23067353	23067337	23067349
			AGS Reference					
Moisture Content Ratio (% of as received sample)	%	PM024		14	17	18	21	15
Phenol	<0.01 mg/kg	TM062 (S)		0.0234 M	<0.01 M	<0.01 M	<0.01 @ M	
Cresols	<0.01 mg/kg	TM062 (S)		0.0351 M	<0.01 M	<0.01 M	<0.01 @ M	
Xylenols	<0.015 mg/kg	TM062 (S)		<0.015 M	<0.015 M	<0.015 M	<0.015 @ M	
Phenols, Total Detected monohydric	<0.035 mg/kg	TM062 (S)		0.0585 M	<0.035 M	<0.035 M	<0.035 @ M	
Soil Organic Matter (SOM)	<0.35 %	TM132		2.09 #	5.74 #	2.9 #	3.64 #	
pH	1 pH Units	TM133		9.86 M	8.38 M	8.38 M	7.94 M	
Chromium, Hexavalent	<0.6 mg/kg	TM151		<0.6 #	<0.6 #	<0.6 #	<0.6 #	
Cyanide, Total	<1 mg/kg	TM153		<1 M	<1 M	<1 M	<1 M	
PCB congener 28	<3 µg/kg	TM168		83.4 M	<15 M			
PCB congener 52	<3 µg/kg	TM168		92.4 M	<15 M			
PCB congener 101	<3 µg/kg	TM168		170 M	<15 M			
PCB congener 118	<3 µg/kg	TM168		109 M	<15 M			
PCB congener 138	<3 µg/kg	TM168		88.7 M	<15 M			
PCB congener 153	<3 µg/kg	TM168		58.2 M	<15 M			
PCB congener 180	<3 µg/kg	TM168		14.2 M	<15 M			
Sum of detected PCB 7 Congeners	<21 µg/kg	TM168		616	<105			
Sulphide, Easily liberated	<15 mg/kg	TM180		388 @ M	<15 @ M	19.5 @ M	<15 @ M	
Arsenic	<0.6 mg/kg	TM181		32 M	12.8 M	14 M	11.9 M	
Cadmium	<0.02 mg/kg	TM181		1.19 M	0.95 M	0.155 M	0.222 M	
Chromium	<0.9 mg/kg	TM181		99.4 M	24.9 M	25.2 M	23.4 M	
Copper	<1.4 mg/kg	TM181		510 M	61.3 M	600 M	37.2 M	
Lead	<0.7 mg/kg	TM181		165 M	245 M	32.7 M	77 M	
Mercury	<0.14 mg/kg	TM181		<1.4 M	<0.14 M	<0.14 M	<0.14 M	
Nickel	<0.2 mg/kg	TM181		145 M	24.5 M	32.3 M	30 M	
Selenium	<1 mg/kg	TM181		<10 #	<1 #	<1 #	<1 #	
Zinc	<1.9 mg/kg	TM181		316 M	218 M	74.1 M	77.3 M	
Sulphate, Total	<48 mg/kg	TM221		1320 M	634 M	158 M	188 M	
Boron, water soluble	<1 mg/kg	TM222		15.2 M	<1 M	1.81 M	6.21 M	
Water Soluble Sulphate as SO4 2:1 Extract	<0.004 g/l	TM243		0.0779 M	0.0154 M	0.0348 M	0.0863 M	

Validated

CERTIFICATE OF ANALYSIS

SDG:	201020-14	**Client Reference:**	LD10162	**Report Number:**	572888
Location:	Ten Acres Lane	**Order Number:**	LD1yy9	**Superseded Report:**	

PAH by GCMS

Results Legend	
#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	CP104	TP115	TP116	TP142		
			Depth (m)	7.30 - 7.30	0.40 - 0.40	2.20 - 2.20	2.70 - 2.70		
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)		
			Date Sampled	13/10/2020	13/10/2020	13/10/2020	13/10/2020		
			Sample Time	-	-	-	-		
			Date Received	15/10/2020	15/10/2020	15/10/2020	15/10/2020		
			SDG Ref	201020-14	201020-14	201020-14	201020-14		
			Lab Sample No.(s)	23067328	23067357	23067353	23067337		
			AGS Reference						
Naphthalene-d8 % recovery**	%	TM218		80.4	95.1	94.1	95		
Acenaphthene-d10 % recovery**	%	TM218		83	87.1	83.7	84.2		
Phenanthrene-d10 % recovery**	%	TM218		81.6	96	87.3	89.8		
Chrysene-d12 % recovery**	%	TM218		63.6	92.9	92.3	94.5		
Perylene-d12 % recovery**	%	TM218		51.2	85.2	84.6	88		
Naphthalene	<9 µg/kg	TM218		84.7 @ M	971 M	22.2 M	<9 M		
Acenaphthylene	<12 µg/kg	TM218		<12 @ M	205 M	15.9 M	<12 M		
Acenaphthene	<8 µg/kg	TM218		76.1 @ M	800 M	16.5 M	24.1 M		
Fluorene	<10 µg/kg	TM218		71.8 @ M	782 M	13.6 M	16.9 M		
Phenanthrene	<15 µg/kg	TM218		368 @ M	7300 M	86.5 M	179 M		
Anthracene	<16 µg/kg	TM218		81.3 @ M	1430 M	40.8 M	41.5 M		
Fluoranthene	<17 µg/kg	TM218		441 @ M	8010 M	140 M	229 M		
Pyrene	<15 µg/kg	TM218		388 @ M	7030 M	147 M	203 M		
Benz(a)anthracene	<14 µg/kg	TM218		158 @ M	3190 M	59.9 M	93.4 M		
Chrysene	<10 µg/kg	TM218		190 @ M	2970 M	48 M	95 M		
Benzo(b)fluoranthene	<15 µg/kg	TM218		273 @ M	3250 M	64 M	78 M		
Benzo(k)fluoranthene	<14 µg/kg	TM218		68.2 @ M	1180 M	20.1 M	38.4 M		
Benzo(a)pyrene	<15 µg/kg	TM218		117 @ M	2570 M	63.4 M	83.8 M		
Indeno(1,2,3-cd)pyrene	<18 µg/kg	TM218		70.9 @ M	1530 M	49.7 M	57.4 M		
Dibenzo(a,h)anthracene	<23 µg/kg	TM218		<23 @ M	266 M	<23 M	<23 M		
Benzo(g,h,i)perylene	<24 µg/kg	TM218		77.2 @ M	1400 M	58.8 M	56.3 M		
PAH, Total Detected USEPA 16	<118 µg/kg	TM218		2460	42900	846	1200		

CERTIFICATE OF ANALYSIS

SDG:	201020-14	**Client Reference:**	LD10162	**Report Number:**	572888
Location:	Ten Acres Lane	**Order Number:**	LD1yy9	**Superseded Report:**	

Semi Volatile Organic Compounds

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+§@	Sample deviation (see appendix)

Customer Sample Ref.	CP104						
Depth (m)	7.30 - 7.30						
Sample Type	Soil/Solid (S)						
Date Sampled	13/10/2020						
Sample Time	-						
Date Received	15/10/2020						
SDG Ref	201020-14						
Lab Sample No.(s)	23067328						
AGS Reference							
Component	**LOD/Units**	**Method**					
Phenol	<100 µg/kg	TM157	<100				
Pentachlorophenol	<100 µg/kg	TM157	<100				
n-Nitroso-n-dipropylamine	<100 µg/kg	TM157	<100				
Nitrobenzene	<100 µg/kg	TM157	<100				
Isophorone	<100 µg/kg	TM157	<100				
Hexachloroethane	<100 µg/kg	TM157	<100				
Hexachlorocyclopentadiene	<100 µg/kg	TM157	<100				
Hexachlorobutadiene	<100 µg/kg	TM157	<100				
Hexachlorobenzene	<100 µg/kg	TM157	<100				
n-Dioctyl phthalate	<100 µg/kg	TM157	<100				
Dimethyl phthalate	<100 µg/kg	TM157	<100				
Diethyl phthalate	<100 µg/kg	TM157	<100				
n-Dibutyl phthalate	<100 µg/kg	TM157	<100				
Dibenzofuran	<100 µg/kg	TM157	<100				
Carbazole	<100 µg/kg	TM157	<100				
Butylbenzyl phthalate	<100 µg/kg	TM157	<100				
bis(2-Ethylhexyl) phthalate	<100 µg/kg	TM157	164				
bis(2-Chloroethoxy)methane	<100 µg/kg	TM157	<100				
bis(2-Chloroethyl)ether	<100 µg/kg	TM157	<100				
Azobenzene	<100 µg/kg	TM157	<100				
4-Nitrophenol	<100 µg/kg	TM157	<100				
4-Nitroaniline	<100 µg/kg	TM157	<100				
4-Methylphenol	<100 µg/kg	TM157	<100				
4-Chlorophenylphenylether	<100 µg/kg	TM157	<100				
4-Chloroaniline	<100 µg/kg	TM157	<100				
4-Chloro-3-methylphenol	<100 µg/kg	TM157	<100				
4-Bromophenylphenylether	<100 µg/kg	TM157	<100				
3-Nitroaniline	<100 µg/kg	TM157	<100				
2-Nitrophenol	<100 µg/kg	TM157	<100				
2-Nitroaniline	<100 µg/kg	TM157	<100				
2-Methylphenol	<100 µg/kg	TM157	<100				
1,2,4-Trichlorobenzene	<100 µg/kg	TM157	<100				
2-Chlorophenol	<100 µg/kg	TM157	<100				

CERTIFICATE OF ANALYSIS

SDG:	201020-14	**Client Reference:**	LD10162	**Report Number:**	572888
Location:	Ten Acres Lane	**Order Number:**	LD1yy9	**Superseded Report:**	

Semi Volatile Organic Compounds

Results Legend	
#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+§@	Sample deviation (see appendix)

Customer Sample Ref.	CP104
Depth (m)	7.30 - 7.30
Sample Type	Soil/Solid (S)
Date Sampled	13/10/2020
Sample Time	.
Date Received	15/10/2020
SDG Ref	201020-14
Lab Sample No.(s)	23067328
AGS Reference	

Component	LOD/Units	Method	
2,6-Dinitrotoluene	<100 µg/kg	TM157	<100
2,4-Dinitrotoluene	<100 µg/kg	TM157	<100
2,4-Dimethylphenol	<100 µg/kg	TM157	<100
2,4-Dichlorophenol	<100 µg/kg	TM157	<100
2,4,6-Trichlorophenol	<100 µg/kg	TM157	<100
2,4,5-Trichlorophenol	<100 µg/kg	TM157	<100
1,4-Dichlorobenzene	<100 µg/kg	TM157	<100
1,3-Dichlorobenzene	<100 µg/kg	TM157	<100
1,2-Dichlorobenzene	<100 µg/kg	TM157	<100
2-Chloronaphthalene	<100 µg/kg	TM157	<100
2-Methylnaphthalene	<100 µg/kg	TM157	<100
Acenaphthylene	<100 µg/kg	TM157	<100
Acenaphthene	<100 µg/kg	TM157	<100
Anthracene	<100 µg/kg	TM157	<100
Benzo(a)anthracene	<100 µg/kg	TM157	<100
Benzo(b)fluoranthene	<100 µg/kg	TM157	176
Benzo(k)fluoranthene	<100 µg/kg	TM157	<100
Benzo(a)pyrene	<100 µg/kg	TM157	<100
Benzo(g,h,i)perylene	<100 µg/kg	TM157	<100
Chrysene	<100 µg/kg	TM157	<100
Fluoranthene	<100 µg/kg	TM157	257
Fluorene	<100 µg/kg	TM157	<100
Indeno(1,2,3-cd)pyrene	<100 µg/kg	TM157	<100
Phenanthrene	<100 µg/kg	TM157	222
Pyrene	<100 µg/kg	TM157	269
Naphthalene	<100 µg/kg	TM157	<100
Dibenzo(a,h)anthracene	<100 µg/kg	TM157	<100
Bis(2-chloroisopropyl) ether	<100 µg/kg	TM157	<100

Validated

CERTIFICATE OF ANALYSIS

SDG:	201020-14	**Client Reference:**	LD10162	**Report Number:**	572888
Location:	Ten Acres Lane	**Order Number:**	LD1yy9	**Superseded Report:**	

TPH CWG (S)

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	CP104	TP115	TP116	TP142		
			Depth (m)	7.30 - 7.30	0.40 - 0.40	2.20 - 2.20	2.70 - 2.70		
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)		
			Date Sampled	13/10/2020	13/10/2020	13/10/2020	13/10/2020		
			Sample Time	-	-	-	-		
			Date Received	15/10/2020	15/10/2020	15/10/2020	15/10/2020		
			SDG Ref	201020-14	201020-14	201020-14	201020-14		
			Lab Sample No.(s)	23067328	23067357	23067353	23067337		
			AGS Reference						
GRO Surrogate % recovery**	%	TM089		99.6	84.7	73.3	106		
Aliphatics >C5-C6	<10 µg/kg	TM089		46.8	10.9	35.4	<10		
Aliphatics >C6-C8	<10 µg/kg	TM089		122	15.7	68.3	<10		
Aliphatics >C8-C10	<10 µg/kg	TM089		414	25.4	165	<10		
Aliphatics >C10-C12	<1000 µg/kg	TM414		<1000	<1000	5640	<1000		
Aliphatics >C12-C16	<1000 µg/kg	TM414		7190	<1000	129000	<1000		
Aliphatics >C16-C21	<1000 µg/kg	TM414		22800	2850	111000	<1000		
Aliphatics >C21-C35	<1000 µg/kg	TM414		140000	11300	74000	<1000		
Aliphatics >C35-C44	<1000 µg/kg	TM414		32700	1490	47300	<1000		
Total Aliphatics >C10-C44	<5000 µg/kg	TM414		204000	16400	367000	<5000		
Total Aliphatics & Aromatics >C10-C44	<10000 µg/kg	TM414		321000	163000	461000	<10000		
Aromatics >EC5-EC7	<10 µg/kg	TM089		18.7	<10	<10	<10		
Aromatics >EC7-EC8	<10 µg/kg	TM089		14	<10	<10	<10		
Aromatics >EC8-EC10	<10 µg/kg	TM089		276	16.9	110	<10		
Aromatics > EC10-EC12	<1000 µg/kg	TM414		9410	<1000	<1000	<1000		
Aromatics > EC12-EC16	<1000 µg/kg	TM414		9750	4730	35900	<1000		
Aromatics > EC16-EC21	<1000 µg/kg	TM414		7680	36000	14100	<1000		
Aromatics > EC21-EC35	<1000 µg/kg	TM414		89000	95500	41800	2890		
Aromatics >EC35-EC44	<1000 µg/kg	TM414		<1000	10500	2260	<1000		
Aromatics > EC40-EC44	<1000 µg/kg	TM414		<1000	1610	1150	<1000		
Total Aromatics > EC10-EC44	<5000 µg/kg	TM414		117000	147000	94600	<5000		
Total Aliphatics & Aromatics >C5-C44	<10000 µg/kg	TM414		322000	163000	462000	<10000		
Total Aliphatics >C5-C10	<50 µg/kg	TM089		583	52	268	<50		
Total Aromatics >EC5-EC10	<50 µg/kg	TM089		309	<50	110	<50		
GRO >C5-C10	<20 µg/kg	TM089		892	52	378	<20		

Validated

CERTIFICATE OF ANALYSIS

SDG:	201020-14	**Client Reference:**	LD10162	**Report Number:**	572888
Location:	Ten Acres Lane	**Order Number:**	LD1yy9	**Superseded Report:**	

VOC MS (S)

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	CP104	TP115	TP116	TP142		
			Depth (m)	7.30 - 7.30	0.40 - 0.40	2.20 - 2.20	2.70 - 2.70		
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)		
			Date Sampled	13/10/2020	13/10/2020	13/10/2020	13/10/2020		
			Sample Time	-	-	-	-		
			Date Received	15/10/2020	15/10/2020	15/10/2020	15/10/2020		
			SDG Ref	201020-14	201020-14	201020-14	201020-14		
			Lab Sample No.(s)	23067328	23067357	23067353	23067337		
			AGS Reference						
Dibromofluoromethane**	%	TM116		108	110	108	102		
Toluene-d8**	%	TM116		97.9	98.3	99.2	96.6		
4-Bromofluorobenzene**	%	TM116		93.2	96.5	97.1	73.9		
Dichlorodifluoromethane	<6 µg/kg	TM116		<120 M					
Chloromethane	<7 µg/kg	TM116		<140 #					
Vinyl Chloride	<6 µg/kg	TM116		<120 M					
Bromomethane	<10 µg/kg	TM116		<200 M					
Chloroethane	<10 µg/kg	TM116		<200 M					
Trichlorofluorormethane	<6 µg/kg	TM116		<120 M					
1,1-Dichloroethene	<10 µg/kg	TM116		<200 #					
Carbon Disulphide	<7 µg/kg	TM116		<140 M					
Dichloromethane	<10 µg/kg	TM116		<200 #					
Methyl Tertiary Butyl Ether	<10 µg/kg	TM116		<200 M	<200 M	<200 M	<10 M		
trans-1,2-Dichloroethene	<10 µg/kg	TM116		<200 M					
1,1-Dichloroethane	<8 µg/kg	TM116		<160 M					
cis-1,2-Dichloroethene	<6 µg/kg	TM116		<120 M					
2,2-Dichloropropane	<10 µg/kg	TM116		<200					
Bromochloromethane	<10 µg/kg	TM116		<200 M					
Chloroform	<8 µg/kg	TM116		<160 M					
1,1,1-Trichloroethane	<7 µg/kg	TM116		<140 M					
1,1-Dichloropropene	<10 µg/kg	TM116		<200 M					
Carbontetrachloride	<10 µg/kg	TM116		<200 M					
1,2-Dichloroethane	<5 µg/kg	TM116		<100 M					
Benzene	<9 µg/kg	TM116		<180 M	<180 M	<180 M	<9 M		
Trichloroethene	<9 µg/kg	TM116		<180 #					
1,2-Dichloropropane	<10 µg/kg	TM116		<200 M					
Dibromomethane	<9 µg/kg	TM116		<180 M					
Bromodichloromethane	<7 µg/kg	TM116		<140 M					
cis-1,3-Dichloropropene	<10 µg/kg	TM116		<200 M					
Toluene	<7 µg/kg	TM116		<140 M	<140 M	<140 M	<7 M		
trans-1,3-Dichloropropene	<10 µg/kg	TM116		<200					
1,1,2-Trichloroethane	<10 µg/kg	TM116		<200 M					
1,3-Dichloropropane	<7 µg/kg	TM116		<140 M					

CERTIFICATE OF ANALYSIS

SDG:	201020-14	**Client Reference:**	LD10162	**Report Number:**	572888
Location:	Ten Acres Lane	**Order Number:**	LD1yy9	**Superseded Report:**	

VOC MS (S)

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	CP104	TP115	TP116	TP142		
			Depth (m)	7.30 - 7.30	0.40 - 0.40	2.20 - 2.20	2.70 - 2.70		
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)		
			Date Sampled	13/10/2020	13/10/2020	13/10/2020	13/10/2020		
			Sample Time	.	.	.	.		
			Date Received	15/10/2020	15/10/2020	15/10/2020	15/10/2020		
			SDG Ref	201020-14	201020-14	201020-14	201020-14		
			Lab Sample No.(s)	23067328	23067357	23067353	23067337		
			AGS Reference						
Tetrachloroethene	<5 µg/kg	TM116		<100 M					
Dibromochloromethane	<10 µg/kg	TM116		<200 M					
1,2-Dibromoethane	<10 µg/kg	TM116		<200 M					
Chlorobenzene	<5 µg/kg	TM116		<100 M					
1,1,1,2-Tetrachloroethane	<10 µg/kg	TM116		<200 M					
Ethylbenzene	<4 µg/kg	TM116		<80 M	<80 M	<80 M	<4 M		
p/m-Xylene	<10 µg/kg	TM116		<200 #	<200 #	<200 #	<10 #		
o-Xylene	<10 µg/kg	TM116		<200 M	<200 M	<200 M	<10 M		
Styrene	<10 µg/kg	TM116		<200 #					
Bromoform	<10 µg/kg	TM116		<200 M					
Isopropylbenzene	<5 µg/kg	TM116		<100 #					
1,1,2,2-Tetrachloroethane	<10 µg/kg	TM116		<200 #					
1,2,3-Trichloropropane	<16 µg/kg	TM116		<320 M					
Bromobenzene	<10 µg/kg	TM116		<200 M					
Propylbenzene	<10 µg/kg	TM116		<200 M					
2-Chlorotoluene	<9 µg/kg	TM116		<180 M					
1,3,5-Trimethylbenzene	<8 µg/kg	TM116		<160 M					
4-Chlorotoluene	<10 µg/kg	TM116		<200 M					
tert-Butylbenzene	<14 µg/kg	TM116		<280 M					
1,2,4-Trimethylbenzene	<9 µg/kg	TM116		<180 #					
sec-Butylbenzene	<10 µg/kg	TM116		<200					
4-Isopropyltoluene	<10 µg/kg	TM116		<200 M					
1,3-Dichlorobenzene	<8 µg/kg	TM116		<160 M					
1,4-Dichlorobenzene	<5 µg/kg	TM116		<100 M					
n-Butylbenzene	<11 µg/kg	TM116		<220					
1,2-Dichlorobenzene	<10 µg/kg	TM116		<200 M					
1,2-Dibromo-3-chloropropane	<14 µg/kg	TM116		<280 M					
Tert-amyl methyl ether	<10 µg/kg	TM116		<200 #					
1,2,4-Trichlorobenzene	<20 µg/kg	TM116		<400					
Hexachlorobutadiene	<20 µg/kg	TM116		<400					
Naphthalene	<13 µg/kg	TM116		<260 M					
1,2,3-Trichlorobenzene	<20 µg/kg	TM116		<400 #					
1,3,5-Trichlorobenzene	<20 µg/kg	TM116		<400					

Validated

CERTIFICATE OF ANALYSIS

SDG:	201020-14	**Client Reference:**	LD10162	**Report Number:**	572888
Location:	Ten Acres Lane	**Order Number:**	LD1yy9	**Superseded Report:**	

VOC MS (S)

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	CP104	TP115	TP116	TP142		
			Depth (m)	7.30 - 7.30	0.40 - 0.40	2.20 - 2.20	2.70 - 2.70		
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)		
			Date Sampled	13/10/2020	13/10/2020	13/10/2020	13/10/2020		
			Sample Time	.	.	.	.		
			Date Received	15/10/2020	15/10/2020	15/10/2020	15/10/2020		
			SDG Ref	201020-14	201020-14	201020-14	201020-14		
			Lab Sample No.(s)	23067328	23067357	23067353	23067337		
			AGS Reference						
Sum of Detected Xylenes	<0.02 mg/kg	TM116		<0.4	<0.4	<0.4	<0.02		
Sum of BTEX	<40 µg/kg	TM116		<800	<800	<800	<40		

CERTIFICATE OF ANALYSIS

SDG:	201020-14	**Client Reference:**	LD10162	**Report Number:**	572888
Location:	Ten Acres Lane	**Order Number:**	LD1yy9	**Superseded Report:**	

Asbestos Identification - Solid Samples

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
*	Subcontracted test.
(F)	Trigger breach confirmed
1-5&♦$@	Sample deviation (see appendix)

		Date of Analysis	Analysed By	Comments	Amosite (Brown) Asbestos	Chrysotile (White) Asbestos	Crocidolite (Blue) Asbestos	Fibrous Actinolite	Fibrous Anthophyllite	Fibrous Tremolite	Non-Asbestos Fibre
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Receieved SDG Original Sample Method Number	CP104 7.30 - 7.30 SOLID 13/10/2020 00:00:00 15/10/2020 05:00:00 201020-14 23067328 TM048	27/10/2020	James Richards	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Receieved SDG Original Sample Method Number	TP115 0.40 - 0.40 SOLID 13/10/2020 00:00:00 15/10/2020 05:00:00 201020-14 23067357 TM048	27/10/2020	Barbara Urbanek-Walsh	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Receieved SDG Original Sample Method Number	TP116 2.20 - 2.20 SOLID 13/10/2020 00:00:00 15/10/2020 05:00:00 201020-14 23067353 TM048	27/10/2020	Marcin Magdziarek	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Receieved SDG Original Sample Method Number	TP142 2.70 - 2.70 SOLID 13/10/2020 00:00:00 15/10/2020 05:00:00 201020-14 23067337 TM048	27/10/2020	Marcin Magdziarek	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected

CERTIFICATE OF ANALYSIS

SDG:	201020-14	**Client Reference:**	LD10162	**Report Number:**	572888
Location:	Ten Acres Lane	**Order Number:**	LD1yy9	**Superseded Report:**	

CEN 10:1 SINGLE STAGE LEACHATE TEST

CEN ANALYTICAL RESULTS

REF : BS EN 12457/2

Client Reference		**Site Location**	Ten Acres Lane
Mass Sample taken (kg)	0.099	**Natural Moisture Content (%)**	10.5
Mass of dry sample (kg)	0.090	**Dry Matter Content (%)**	90.5
Particle Size <4mm	>95%		

Case	
SDG	201020-14
Lab Sample Number(s)	230y7349
Sampled Date	13-Oct-2020
Customer Sample Ref.	TP146
Depth (m)	4.30 - 4.30

Eluate Analysis	**C_2 Concⁿ in 10:1 eluate (mg/l)**		**A_2 10:1 concⁿ leached (mg/kg)**				
	Result	**Limit of Detection**	**Result**	**Limit of Detection**			
Aliphatics >C12-C16	<0.01	<0.01	<0.1	<0.1	-	-	-
Aliphatics >C16-C21	<0.01	<0.01	<0.1	<0.1	-	-	-
Aliphatics >C21-C35	<0.01	<0.01	<0.1	<0.1	-	-	-
Total Aliphatics >C12-C35	<0.01	<0.01	<0.1	<0.1	-	-	-
Aromatics >EC12-EC16	0.012	<0.01	0.12	<0.1	-	-	-
Aromatics >EC16-EC21	<0.01	<0.01	<0.1	<0.1	-	-	-
Aromatics >EC21-EC35	<0.01	<0.01	<0.1	<0.1	-	-	-
Aromatics >EC16-EC35	<0.01	<0.01	<0.1	<0.1	-	-	-
Total Aromatics >EC12-EC35	0.012	<0.01	0.12	<0.1	-	-	-
TPH (Total Aliphatics + Total Aromatics) >C5-C35	0.065	<0.01	0.65	<0.1	-	-	-
Low Level Hexavalent Chromium	<0.003	<0.003	<0.03	<0.03	-	-	-
Sulphate (soluble)	112	<2	1120	<20	-	-	-
Sulphide	<0.01	<0.01	<0.1	<0.1	-	-	-
Dissolved Organic Carbon	5.91	<3	59.1	<30	-	-	-
Mercury Dissolved (CVAF)	<0.00001	<0.00001	<0.0001	<0.0001	-	-	-
Naphthalene (diss.filt)	<0.00001	<0.00001	<0.0001	<0.0001	-	-	-
Total Cyanide (W)	<0.05	<0.05	<0.5	<0.5	-	-	-
Acenaphthene (diss.filt)	0.0000828	<0.000005	0.000828	<0.00005	-	-	-
Arsenic	0.00153	<0.0005	0.0153	<0.005	-	-	-
Free Cyanide (W)	<0.05	<0.05	<0.5	<0.5	-	-	-
Acenaphthylene (diss.filt)	0.0000941	<0.000005	0.000941	<0.00005	-	-	-
Phenol by HPLC (W)	<0.002	<0.002	<0.02	<0.02	-	-	-
Cresols by HPLC (W)	<0.006	<0.006	<0.06	<0.06	-	-	-
Fluoranthene (diss.filt)	0.0000232	<0.000005	0.000232	<0.00005	-	-	-
Thiocyanate (W)	<0.05	<0.05	<0.5	<0.5	-	-	-
Anthracene (diss.filt)	0.00000861	<0.000005	0.0000861	<0.00005	-	-	-
Xylenols by HPLC (W)	<0.008	<0.008	<0.08	<0.08	-	-	-
Boron	0.319	<0.01	3.19	<0.1	-	-	-
Phenanthrene (diss.filt)	0.00005	<0.000005	0.0005	<0.00005	-	-	-
Total Alkalinity Filtered as CaCO3	80	<2	800	<20	-	-	-
Cadmium	<0.00008	<0.00008	<0.0008	<0.0008	-	-	-
Fluorene (diss.filt)	0.0000302	<0.000005	0.000302	<0.00005	-	-	-
Chrysene (diss.filt)	<0.000005	<0.000005	<0.00005	<0.00005	-	-	-
Pyrene (diss.filt)	0.000019	<0.000005	0.00019	<0.00005	-	-	-
Total Monohydric Phenols (W)	<0.016	<0.016	<0.16	<0.16	-	-	-

Leach Test Information

Date Prepared	22-Oct-2020
pH (pH Units)	8.19
Conductivity (µS/cm)	324.00
Temperature (°C)	16.40
Volume Leachant (Litres)	0.891

Mcerts Certification does not apply to leachates

27/10/2020 17:14:10

17:13:44 27/10/2020

CERTIFICATE OF ANALYSIS

SDG:	201020-14	**Client Reference:**	LD10162	**Report Number:**	572888
Location:	Ten Acres Lane	**Order Number:**	LD1yy9	**Superseded Report:**	

CEN 10:1 SINGLE STAGE LEACHATE TEST

CEN ANALYTICAL RESULTS

REF : BS EN 12457/2

Client Reference		**Site Location**	Ten Acres Lane
Mass Sample taken (kg)	0.099	**Natural Moisture Content (%)**	10.5
Mass of dry sample (kg)	0.090	**Dry Matter Content (%)**	90.5
Particle Size <4mm	>95%		

Case	
SDG	201020-14
Lab Sample Number(s)	230y7349
Sampled Date	13-Oct-2020
Customer Sample Ref.	TP146
Depth (m)	4.30 - 4.30

Eluate Analysis	**C_2 Concⁿ in 10:1 eluate (mg/l)**		**A_2 10:1 concⁿ leached (mg/kg)**				
	Result	**Limit of Detection**	**Result**	**Limit of Detection**			
Benzo(a)anthracene (diss.filt)	<0.000005	<0.000005	<0.00005	<0.00005	-	-	-
Chromium	0.00448	<0.001	0.0448	<0.01	-	-	-
Benzo(b)fluoranthene (diss.filt)	<0.000005	<0.000005	<0.00005	<0.00005	-	-	-
Benzo(k)fluoranthene (diss.filt)	<0.000005	<0.000005	<0.00005	<0.00005	-	-	-
Benzo(a)pyrene (diss.filt)	<0.000002	<0.000002	<0.00002	<0.00002	-	-	-
Copper	0.00487	<0.0003	0.0487	<0.003	-	-	-
Dibenzo(a,h)anthracene (diss.filt)	<0.000005	<0.000005	<0.00005	<0.00005	-	-	-
Lead	0.00139	<0.0002	0.0139	<0.002	-	-	-
Benzo(g,h,i)perylene (diss.filt)	<0.000005	<0.000005	<0.00005	<0.00005	-	-	-
Indeno(1,2,3-cd)pyrene (diss.filt)	<0.000005	<0.000005	<0.00005	<0.00005	-	-	-
PAH 16 EPA Total by GCMS (diss.filt)	0.000308	<0.000082	0.00308	<0.00082	-	-	-
Nickel	0.00245	<0.0004	0.0245	<0.004	-	-	-
Selenium	<0.001	<0.001	<0.01	<0.01	-	-	-
Calcium (Dis.Filt) mg/l	70.3	<0.2	703	<2	-	-	-
TPH CWG (W)							
Surrogate Recovery	-	<0	-	<0	-	-	-
GRO TOT (C5-C12)	0.053	<0.05	0.53	<0.5	-	-	-
Aliphatics C5-C6	<0.01	<0.01	<0.1	<0.1	-	-	-
Aliphatics >C6-C8	<0.01	<0.01	<0.1	<0.1	-	-	-
Aliphatics >C8-C10	<0.01	<0.01	<0.1	<0.1	-	-	-
Aliphatics >C10-C12	0.02	<0.01	0.2	<0.1	-	-	-
Aromatics C6-C7	<0.01	<0.01	<0.1	<0.1	-	-	-
Aromatics >C7-C8	<0.01	<0.01	<0.1	<0.1	-	-	-
MTBE GC-FID	<0.003	<0.003	<0.03	<0.03	-	-	-
Aromatics >EC8 -EC10	<0.01	<0.01	<0.1	<0.1	-	-	-
Aromatics >EC10-EC12	0.013	<0.01	0.13	<0.1	-	-	-
Benzene by GC	<0.007	<0.007	<0.07	<0.07	-	-	-
Toluene by GC	<0.004	<0.004	<0.04	<0.04	-	-	-
Ethylbenzene by GC	<0.005	<0.005	<0.05	<0.05	-	-	-
m & p Xylene by GC	<0.008	<0.008	<0.08	<0.08	-	-	-
o Xylene by GC	<0.003	<0.003	<0.03	<0.03	-	-	-
Sum m&p and o Xylene by GC	<0.011	<0.011	<0.11	<0.11	-	-	-
Sum of BTEX by GC	<0.028	<0.028	<0.28	<0.28	-	-	-

Leach Test Information

Date Prepared	22-Oct-2020
pH (pH Units)	8.19
Conductivity (µS/cm)	324.00
Temperature (°C)	16.40
Volume Leachant (Litres)	0.891

Mcerts Certification does not apply to leachates

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Table of Results - Appendix

Method No	Reference	Description
PM024	Modified BS 1377	Soil preparation including homogenisation, moisture screens of soils for Asbestos Containing Material
PM115		Leaching Procedure for CEN One Stage Leach Test 2:1 & 10:1 1 Step
TM043	Method 2320B, AWWA/APHA, 20th Ed., 1999 / BS 2690: Part109 1984	Determination of alkalinity in aqueous samples
TM048	HSG 248, Asbestos: The analysts' guide for sampling, analysis and clearance procedures	Identification of Asbestos in Bulk Material
TM0y2 (S)	National Grid Property Holdings Methods for the Collection & Analysis of Samples from National Grid Sites version 1 Sec 3.9	Determination of Phenols in Soils by HPLC
TM089	Modified: US EPA Methods 8020 & 602	Determination of Gasoline Range Hydrocarbons (GRO) by Headspace GC-FID (C4-C12)
TM090	Method 5310, AWWA/APHA, 20th Ed., 1999 / Modified: US EPA Method 415.1 & 9060	Determination of Total Organic Carbon/Total Inorganic Carbon in Water and Waste Water
TM101	Method 4500B & C, AWWA/APHA, 20th Ed., 1999	Determination of Sulphide in soil and water samples using the Kone Analyser
TM11y	Modified: US EPA Method 8260, 8120, 8020, 624, 610 & 602	Determination of Volatile Organic Compounds by Headspace / GC-MS
TM132	In - house Method	ELTRA CS800 Operators Guide
TM133	BS 1377: Part 3 1990;BS 6068-2.5	Determination of pH in Soil and Water using the GLpH pH Meter
TM151	Method 3500D, AWWA/APHA, 20th Ed., 1999	Determination of Hexavalent Chromium using Kone analyser
TM152	Method 3125B, AWWA/APHA, 20th Ed., 1999	Analysis of Aqueous Samples by ICP-MS
TM153	Method 4500A,B,C, I, M AWWA/APHA, 20th Ed., 1999	Determination of Total Cyanide, Free (Easily Liberatable) Cyanide and Thiocyanate using the Skalar SANS+ System Segmented Flow Analyser
TM157	HP 6890 Gas Chromatograph (GC) system and HP 5973 Mass Selective Detector (MSD).	Determination of SVOC in Soils by GC-MS extracted by sonication in DCM/Acetone
TM1y8	EPA Method 8082, Polychlorinated Biphenyls by Gas Chromatography	Determination of WHO12 and EC7 Polychlorinated Biphenyl Congeners by GC-MS in Soils
TM174	Analysis of Petroleum Hydrocarbons in Environmental Media – Total Petroleum Hydrocarbon Criteria	Determination of Speciated Extractable Petroleum Hydrocarbons in Waters by GC-FID
TM178	Modified: US EPA Method 8100	Determination of Polynuclear Aromatic Hydrocarbons (PAH) by GC-MS in Waters
TM180	Sulphide in waters and waste waters 1991 ISBN 01 175 7186 SCA rec. 2007 (unpublished)'	The Determination Of Easily Liberated Sulphide In Soil Samples by Ion Selective Electrode Technique
TM181	US EPA Method 6010B	Determination of Routine Metals in Soil by iCap 6500 Duo ICP-OES
TM183	BS EN 23506:2002, (BS 6068-2.74:2002) ISBN 0 580 38924 3	Determination of Trace Level Mercury in Waters and Leachates by PSA Cold Vapour Atomic Fluorescence Spectrometry
TM184	EPA Methods 325.1 & 325.2,	The Determination of Anions in Aqueous Matrices using the Kone Spectrophotometric Analysers
TM218	Shaker extraction - EPA method 3546.	The determination of PAH in soil samples by GC-MS
TM221	Inductively Coupled Plasma - Atomic Emission Spectroscopy. An Atlas of Spectral Information: Winge, Fassel, Peterson and Floyd	Determination of Acid extractable Sulphate in Soils by IRIS Emission Spectrometer
TM222	In-House Method	Determination of Hot Water Soluble Boron in Soils (10:1 Water:soil) by IRIS Emission Spectrometer
TM227	Standard methods for the examination of waters and wastewaters 20th Edition, AWWA/APHA Method 4500.	Determination of Total Cyanide, Free (Easily Liberatable) Cyanide and Thiocyanate
TM243		Mixed Anions In Soils By Kone
TM245	By GC-FID	Determination of GRO by Headspace in waters
TM25y	The measurement of Electrical Conductivity and the Laboratory determination of pH Value of Natural, Treated and Wastewaters. HMSO, 1978. ISBN 011 751428 4.	Determination of pH in Water and Leachate using the GLpH pH Meter
TM259	by HPLC	Determination of Phenols in Waters and Leachates by HPLC
TM331		Low Level Hexavalent Chromium
TM414	Analysis of Petroleum Hydrocarbons in Environmental Media – Total Petroleum Hydrocarbon Criteria	Determination of Speciated Extractable Petroleum Hydrocarbons in Soils by GCxGC-FID

NA = not applicable.

Chemical testing (unless subcontracted) performed at ALS Life Sciences Ltd Hawarden (Method codes TM) or ALS Life Sciences Ltd Aberdeen (Method codes S).

CERTIFICATE OF ANALYSIS

SDG:	201020-14	**Client Reference:**	LD10162	**Report Number:**	572888
Location:	Ten Acres Lane	**Order Number:**	LD1yy9	**Superseded Report:**	

Test Completion Dates

Lab Sample No(s)	23067328	23067357	23067353	23067337	23067349
Customer Sample Ref.	CP104	TP115	TP116	TP142	TP146
AGS Ref.					
Depth	7.30 - 7.30	0.40 - 0.40	2.20 - 2.20	2.70 - 2.70	4.30 - 4.30
Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
Alkalinity Filtered as CaCO3					26-Oct-2020
Anions by Kone (soil)	27-Oct-2020	27-Oct-2020	27-Oct-2020	27-Oct-2020	
Anions by Kone (w)					26-Oct-2020
Asbestos ID in Solid Samples	27-Oct-2020	27-Oct-2020	27-Oct-2020	27-Oct-2020	
Boron Water Soluble	26-Oct-2020	26-Oct-2020	26-Oct-2020	26-Oct-2020	
CEN 10:1 Leachate (1 Stage)					24-Oct-2020
CEN Readings					25-Oct-2020
Cyanide Comp/Free/Total/Thiocyanate	27-Oct-2020	27-Oct-2020	27-Oct-2020	27-Oct-2020	27-Oct-2020
Dissolved Metals by ICP-MS					27-Oct-2020
Dissolved Organic/Inorganic Carbon					26-Oct-2020
Easily Liberated Sulphide	27-Oct-2020	27-Oct-2020	27-Oct-2020	27-Oct-2020	
EPH CWG (Aliphatic) Filtered GC (W)					27-Oct-2020
EPH CWG (Aromatic) Filtered GC (W)					27-Oct-2020
EPH CWG GC (S)	27-Oct-2020	27-Oct-2020	27-Oct-2020	27-Oct-2020	
GRO by GC-FID (S)	25-Oct-2020	25-Oct-2020	25-Oct-2020	25-Oct-2020	
GRO by GC-FID (W)					26-Oct-2020
Hexavalent Chromium (s)	26-Oct-2020	26-Oct-2020	26-Oct-2020	26-Oct-2020	
Low Level Hexavalent Chromium (w)					26-Oct-2020
Mercury Dissolved					27-Oct-2020
Metals in solid samples by OES	27-Oct-2020	26-Oct-2020	27-Oct-2020	26-Oct-2020	
Moisture at 105C					22-Oct-2020
PAH by GCMS	27-Oct-2020	26-Oct-2020	24-Oct-2020	24-Oct-2020	
PAH in waters by GC-MS (diss.filt)					26-Oct-2020
PCBs by GCMS	27-Oct-2020	27-Oct-2020			
pH	27-Oct-2020	27-Oct-2020	27-Oct-2020	27-Oct-2020	
pH Value					27-Oct-2020
Phenols by HPLC (S)	27-Oct-2020	27-Oct-2020	27-Oct-2020	27-Oct-2020	
Phenols by HPLC (W)					27-Oct-2020
Sample description	23-Oct-2020	23-Oct-2020	23-Oct-2020	23-Oct-2020	22-Oct-2020
Semi Volatile Organic Compounds	26-Oct-2020				
Sulphide					27-Oct-2020
Total Organic Carbon	27-Oct-2020	27-Oct-2020	27-Oct-2020	27-Oct-2020	
Total Sulphate	27-Oct-2020	27-Oct-2020	27-Oct-2020	27-Oct-2020	
TPH CWG Filtered (W)					27-Oct-2020
TPH CWG GC (S)	27-Oct-2020	27-Oct-2020	27-Oct-2020	27-Oct-2020	
VOC MS (S)	24-Oct-2020	24-Oct-2020	24-Oct-2020	24-Oct-2020	

Appendix General

1. Results are expressed on a dry weight basis (dried at 35ºC) for all soil analyses except for the following: NRA and CEN Leach tests, flash point LOI, pH, ammonium as NH4 by the BRE method, VOC TICs and SVOC TICs.

2. If sufficient sample is received a sub sample will be retained free of charge for 30 days after analysis is completed (e-mailed) for all sample types unless the sample is destroyed on testing. The prepared soil sub sample that is analysed for asbestos will be retained for a period of 6 months after the analysis date. All bulk samples will be retained for a period of 6 months after the analysis date. All samples received and not scheduled will be disposed of one month after the date of receipt unless we are instructed to the contrary. Once the initial period has expired, a storage charge will be applied for each month or part thereof until the client cancels the request for sample storage. ALS reserve the right to charge for samples received and stored but not analysed.

3. With respect to turnaround, we will always endeavour to meet client requirements wherever possible, but turnaround times cannot be absolutely guaranteed due to so many variables beyond our control.

4. We take responsibility for any test performed by sub-contractors (marked with an asterisk). We endeavour to use UKAS/MCERTS Accredited Laboratories, who either complete a quality questionnaire or are audited by ourselves. For some determinands there are no UKAS/MCERTS Accredited Laboratories, in this instance a laboratory with a known track record will be utilised.

5. If no separate volatile sample is supplied by the client, or if a headspace or sediment is present in the volatile sample, the integrity of the data may be compromised. This will be flagged up as an invalid VOC on the test schedule and the result marked as deviating on the test certificate.

6. NDP - No determination possible due to insufficient/unsuitable sample.

7. Results relate only to the items tested.

8. LoDs (Limit of Detection) for wet tests reported on a dry weight basis are not corrected for moisture content.

9. **Surrogate recoveries** - Surrogates are added to your sample to monitor recovery of the test requested. A % recovery is reported, results are not corrected for the recovery measured. Typical recoveries for organics tests are 70-130%. Recoveries in soils are affected by organic rich or clay rich matrices. Waters can be affected by remediation fluids or high amounts of sediment. Test results are only ever reported if all of the associated quality checks pass; it is assumed that all recoveries outside of the values above are due to matrix affect.

10. Stones/debris are not routinely removed. We always endeavour to take a representative sub sample from the received sample.

11. In certain circumstances the method detection limit may be elevated due to the sample being outside the calibration range. Other factors that may contribute to this include possible interferences. In both cases the sample would be diluted which would cause the method detection limit to be raised.

12. Mercury results quoted on soils will not include volatile mercury as the analysis is performed on a dried and crushed sample.

13. For leachate preparations other than Zero Headspace Extraction (ZHE) volatile loss may occur.

14. For the BSEN 12457-3 two batch process to allow the cumulative release to be calculated, the volume of the leachate produced is measured and filtered for all tests. We therefore cannot carry out any unfiltered analysis. The tests affected include volatiles GCFID/GCMS and all subcontracted analysis.

15. Analysis and identification of specific compounds using GCFID is by retention time only, and we routinely calibrate and quantify for benzene, toluene, ethylbenzenes and xylenes (BTEX). For total volatiles in the C5-C12 range, the total area of the chromatogram is integrated and expressed as ug/kg or ug/l. Although this analysis is commonly used for the quantification of gasoline range organics (GRO), the system will also detect other compounds such as chlorinated solvents, and this may lead to a falsely high result with respect to hydrocarbons only. It is not possible to specifically identify these non-hydrocarbons, as standards are not routinely run for any other compounds, and for more definitive identification, volatiles by GCMS should be utilised.

16. We are accredited to MCERTS for sand, clay and loam/topsoil, or any of these materials - whether these are derived from naturally occurring soil profiles, or from fill/made ground, as long as these materials constitute the major part of the sample. Other coarse granular material such as concrete, gravel and brick are not accredited if they comprise the major part of the sample.

17. **Tentatively Identified Compounds (TICs)** are non-target peaks in VOC and SVOC analysis. All non-target peaks detected with a concentration above the LoD are subjected to a mass spectral library search. Non-target peaks with a library search confidence of >75% are reported based on the best mass spectral library match. When a non-target peak with a library search confidence of <75% is detected it is reported as "mixed hydrocarbons". Non-target compounds identified from the scan data are semi-quantified relative to one of the deuterated internal standards, under the same chromatographic conditions as the target compounds. This result is reported as a semi-quantitative value and reported as Tentatively Identified Compounds (TICs). TICs are outside the scope of UKAS accreditation and are not moisture corrected.

18. **Sample Deviations**

If a sample is classed as deviated then the associated results may be compromised.

1	**Container with Headspace provided for volatiles analysis**
2	**Incorrect container received**
3	**Deviation from method**
4	**Matrix interference**
♦	**Sample holding time exceeded in laboratory**
@	**Sample holding time exceeded due to late arrival of instructions or samples**
§	**Sampled on date not provided**

19. **Asbestos**

When requested, the individual sub sample scheduled will be analysed in house for the presence of asbestos fibres and asbestos containing material by our documented in house method TM048 based on HSG 248 (2005), which is accredited to ISO17025. If a specific asbestos fibre type is not found this will be reported as "Not detected". If no asbestos fibre types are found all will be reported as "Not detected" and the sub sample analysed deemed to be clear of asbestos. If an asbestos fibre type is found it will be reported as detected (for each fibre type found). Testing can be carried out on asbestos positive samples, but, due to Health and Safety considerations, may be replaced by alternative tests or reported as No Determination Possible (NDP). The quantity of asbestos present is not determined unless specifically requested.

Identification of Asbestos in Bulk Materials & Soils

The results for identification of asbestos in bulk materials are obtained from supplied bulk materials which have been examined to determine the presence of asbestos fibres using ALS (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining, based on HSG 248 (2005).

The results for identification of asbestos in soils are obtained from a homogenised sub sample which has been examined to determine the presence of asbestos fibres using ALS (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining, based on HSG 248 (2005).

Asbestos Type	Common Name
Chrysotile	White Asbestos
Amosite	Brown Asbestos
Crocidolite	Blue Asbestos
Fibrous Actinolite	-
Fibrous Anthophyllite	-
Fibrous Tremolite	-

Visual Estimation Of Fibre Content

Estimation of fibre content is not permitted as part of our UKAS accredited test other than: - Trace - Where only one or two asbestos fibres were identified.

Respirable Fibres

Respirable fibres are defined as fibres of <3 µm diameter, longer than 5 µm and with aspect ratios of at least 3:1 that can be inhaled into the lower regions of the lung and are generally acknowledged to be most important predictor of hazard and risk for cancers of the lung.
Standing Committee of Analysts, *The Quantification of Asbestos in Soil (2017).*

Further guidance on typical asbestos fibre content of manufactured products can be found in HSG 264.

The identification of asbestos containing materials and soils falls within our schedule of tests for which we hold UKAS accreditation, however opinions, interpretations and all other information contained in the report are outside the scope of UKAS accreditation.

Unit 7-8 Hawarden Business Park
Manor Road (off Manor Lane)
Hawarden
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Website: www.alsenvironmental.co.uk

Wardell Armstrong LLP
36 Park Row
Leeds
LS1 5JL

Attention: Jonathan Currie

CERTIFICATE OF ANALYSIS

Date of report Generation:	12 November 2020
Customer:	Wardell Armstrong LLP
Sample Delivery Group (SDG):	201023-143
Your Reference:	LD10162
Location:	Ten Acres Lane
Report No:	575474

This report has been revised and directly supersedes 575469 in its entirety.

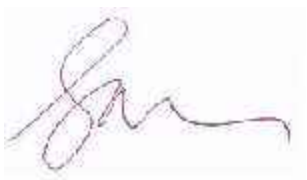
We received 10 samples on Friday October 16, 2020 and 5 of these samples were scheduled for analysis which was completed on Thursday November 12, 2020. Accredited laboratory tests are defined within the report, but opinions, interpretations and on-site data expressed herein are outside the scope of ISO 17025 accreditation.

Should this report require incorporation into client reports, it must be used in its entirety and not simply with the data sections alone.

Chemical testing (unless subcontracted) performed at ALS Life Sciences Ltd Hawarden (Method codes TM) or ALS Life Sciences Ltd Aberdeen (Method codes S).

All sample data is provided by the customer. The reported results relate to the sample supplied, and on the basis that this data is correct.
Incorrect sampling dates and/or sample information will affect the validity of results.
The customer is not permitted to reproduce this report except in full without the approval of the laboratory.

Approved By:



Sonia McWhan

Operations Manager

CERTIFICATE OF ANALYSIS

SDG:	201023-143	**Client Reference:**	LD10162	**Report Number:**	575474
Location:	Ten Acres Lane	**Order Number:**	LD1674	**Superseded Report:**	5754y9

Received Sample Overview

Lab Sample No(s)	Customer Sample Ref.	AGS Ref.	Depth (m)	Sampled Date
23103778	CP109		1.00 - 1.00	14/10/2020
23103782	CP109		3.50 - 3.50	14/10/2020
23103788	CP109		7.50 - 7.50	14/10/2020
23103810	TP114		0.70 - 0.70	14/10/2020
23103816	TP114		3.40 - 3.40	14/10/2020
23103806	TP128		3.60 - 3.60	14/10/2020
23103843	TP131		2.50 - 2.50	14/10/2020
2310379y	TP145		2.30 - 2.30	14/10/2020
23103823	TP145		3.80 - 3.80	14/10/2020
23103831	TP145		3.80 - 3.80	14/10/2020

Only received samples which have had analysis scheduled will be shown on the following pages.

Validated

CERTIFICATE OF ANALYSIS

SDG:	201023-143	**Client Reference:**	LD10162	**Report Number:**	575474
Location:	Ten Acres Lane	**Order Number:**	LD1674	**Superseded Report:**	5754y9

Results Legend

X Test

N No Determination Possible

Sample Types -

S - Soil/Solid
UNS - Unspecified Solid
GW - Ground Water
SW - Surface Water
LE - Land Leachate
PL - Prepared Leachate
PR - Process Water
SA - Saline Water
TE - Trade Effluent
TS - Treated Sewage
US - Untreated Sewage
RE - Recreational Water
DW - Drinking Water Non-regulatory
UNL - Unspecified Liquid
SL - Sludge
G - Gas
OTH - Other

Lab Sample No(s)			23103788			23103816			23103806			23103796			23103823
Customer Sample Reference			CP109			TP114			TP128			TP145			TP145
AGS Reference															
Depth (m)			7.50 - 7.50			3.40 - 3.40			3.60 - 3.60			2.30 - 2.30			3.80 - 3.80
Container			1kg TUB with Handle (ALE260)	250g Amber Jar (ALE210)	60g VOC (ALE215)	1kg TUB with Handle (ALE260)	250g Amber Jar (ALE210)	60g VOC (ALE215)	1kg TUB with Handle (ALE260)	250g Amber Jar (ALE210)	60g VOC (ALE215)	1kg TUB with Handle (ALE260)	250g Amber Jar (ALE210)	1kg TUB with Handle (ALE260)	250g Amber Jar (ALE210)	60g VOC (ALE215)
Sample Type			S	S	S	S	S	S	S	S	S	S	S	S	S	S
Alkalinity Filtered as CaCO3	All	NDPs: 0 Tests: 1										X				
Anions by Kone (soil)	All	NDPs: 0 Tests: 4		X			X			X					X	
Anions by Kone (w)	All	NDPs: 0 Tests: 1										X				
Asbestos ID in Solid Samples	All	NDPs: 0 Tests: 4	X			X			X					X		
Asbestos Quantification - Full	All	NDPs: 0 Tests: 1	X													
Boron Water Soluble	All	NDPs: 0 Tests: 4		X			X			X					X	
CEN Readings	All	NDPs: 0 Tests: 1										X				
Cyanide Comp/Free/Total/Thiocyanate	All	NDPs: 0 Tests: 5		X			X			X		X			X	
Dissolved Metals by ICP-MS	All	NDPs: 0 Tests: 1										X				
Dissolved Organic/Inorganic Carbon	All	NDPs: 0 Tests: 1										X				
Easily Liberated Sulphide	All	NDPs: 0 Tests: 4		X			X			X					X	
EPH CWG (Aliphatic) Filtered GC (W)	All	NDPs: 0 Tests: 1										X				
EPH CWG (Aromatic) Filtered GC (W)	All	NDPs: 0 Tests: 1										X				
EPH CWG GC (S)	All	NDPs: 0 Tests: 4		X			X			X					X	
GRO by GC-FID (S)	All	NDPs: 0 Tests: 4			X			X			X					X

CERTIFICATE OF ANALYSIS

SDG:	201023-143	**Client Reference:**	LD10162	**Report Number:**	575474
Location:	Ten Acres Lane	**Order Number:**	LD1674	**Superseded Report:**	5754y9

Results Legend

- X Test
- N No Determination Possible

Sample Types -

S - Soil/Solid
UNS - Unspecified Solid
GW - Ground Water
SW - Surface Water
LE - Land Leachate
PL - Prepared Leachate
PR - Process Water
SA - Saline Water
TE - Trade Effluent
TS - Treated Sewage
US - Untreated Sewage
RE - Recreational Water
DW - Drinking Water Non-regulatory
UNL - Unspecified Liquid
SL - Sludge
G - Gas
OTH - Other

Lab Sample No(s)			23103788			23103816			23103806			23103796		23103823		
Customer Sample Reference			CP109			TP114			TP128			TP145		TP145		
AGS Reference																
Depth (m)			7.50 - 7.50			3.40 - 3.40			3.60 - 3.60			2.30 - 2.30		3.80 - 3.80		
Container			1kg TUB with Handle (ALE260)	250g Amber Jar (ALE210)	60g VOC (ALE215)	1kg TUB with Handle (ALE260)	250g Amber Jar (ALE210)	60g VOC (ALE215)	1kg TUB with Handle (ALE260)	250g Amber Jar (ALE210)	60g VOC (ALE215)	1kg TUB with Handle (ALE260)	250g Amber Jar (ALE210)	1kg TUB with Handle (ALE260)	250g Amber Jar (ALE210)	60g VOC (ALE215)
Sample Type			S	S	S	S	S	S	S	S	S	S	S	S	S	S
GRO by GC-FID (W)	All	NDPs: 0 Tests: 1										X				
Hexavalent Chromium (s)	All	NDPs: 0 Tests: 4		X			X			X					X	
Low Level Hexavalent Chromium (w)	All	NDPs: 0 Tests: 1										X				
Mercury Dissolved	All	NDPs: 0 Tests: 1										X				
Metals in solid samples by OES	All	NDPs: 0 Tests: 4		X			X			X					X	
PAH by GCMS	All	NDPs: 0 Tests: 4		X			X			X					X	
PAH in waters by GC-MS (diss.filt)	All	NDPs: 0 Tests: 1										X				
PCBs by GCMS	All	NDPs: 0 Tests: 3					X			X					X	
pH	All	NDPs: 0 Tests: 4		X			X			X					X	
pH Value	All	NDPs: 0 Tests: 1										X				
Phenols by HPLC (S)	All	NDPs: 0 Tests: 4		X			X			X					X	
Phenols by HPLC (W)	All	NDPs: 0 Tests: 1										X				
Sample description	All	NDPs: 0 Tests: 5		X			X			X			X		X	
Semi Volatile Organic Compounds	All	NDPs: 0 Tests: 2		X											X	
Sulphide	All	NDPs: 0 Tests: 1										X				

CERTIFICATE OF ANALYSIS

SDG:	201023-143	Client Reference:	LD10162	Report Number:	575474
Location:	Ten Acres Lane	Order Number:	LD1674	Superseded Report:	5754y9

Results Legend

- X Test
- N No Determination Possible

Sample Types -

- S - Soil/Solid
- UNS - Unspecified Solid
- GW - Ground Water
- SW - Surface Water
- LE - Land Leachate
- PL - Prepared Leachate
- PR - Process Water
- SA - Saline Water
- TE - Trade Effluent
- TS - Treated Sewage
- US - Untreated Sewage
- RE - Recreational Water
- DW - Drinking Water Non-regulatory
- UNL - Unspecified Liquid
- SL - Sludge
- G - Gas
- OTH - Other

Lab Sample No(s)			23103788			23103816			23103806			23103796		23103823		
Customer Sample Reference			CP109			TP114			TP128			TP145		TP145		
AGS Reference																
Depth (m)			7.50 - 7.50			3.40 - 3.40			3.60 - 3.60			2.30 - 2.30		3.80 - 3.80		
Container			1kg TUB with Handle (ALE260)	250g Amber Jar (ALE210)	60g VOC (ALE215)	1kg TUB with Handle (ALE260)	250g Amber Jar (ALE210)	60g VOC (ALE215)	1kg TUB with Handle (ALE260)	250g Amber Jar (ALE210)	60g VOC (ALE215)	1kg TUB with Handle (ALE260)	250g Amber Jar (ALE210)	1kg TUB with Handle (ALE260)	250g Amber Jar (ALE210)	60g VOC (ALE215)
Sample Type			S	S	S	S	S	S	S	S	S	S	S	S	S	S
Total Organic Carbon	All	NDPs: 0 Tests: 4		X			X			X					X	
Total Sulphate	All	NDPs: 0 Tests: 4		X			X			X					X	
TPH CWG Filtered (W)	All	NDPs: 0 Tests: 1										X				
TPH CWG GC (S)	All	NDPs: 0 Tests: 4		X			X			X					X	

CERTIFICATE OF ANALYSIS

SDG:	201023-143	**Client Reference:**	LD10162	**Report Number:**	575474
Location:	Ten Acres Lane	**Order Number:**	LD1674	**Superseded Report:**	5754y9

Sample Descriptions

Grain Sizes

very fine	<0.063mm	**fine**	0.063mm - 0.1mm	**medium**	0.1mm - 2mm	**coarse**	2mm - 10mm	**very coarse**	>10mm

Lab Sample No(s)	Customer Sample Ref.	Depth (m)	Colour	Description	Inclusions	Inclusions 2
23103788	CP109	7.50 - 7.50	Dark Brown	Sand	Stones	Brick
23103816	TP114	3.40 - 3.40	Black	Loamy Sand	Stones	Vegetation
23103806	TP128	3.60 - 3.60	Grey	Loamy Sand	Stones	Vegetation
23103796	TP145	2.30 - 2.30	Dark Brown	Silty Clay Loam	Stones	Oil/Petroleum
23103823	TP145	3.80 - 3.80	Black	Silt Loam	Stones	Vegetation

These descriptions are only intended to act as a cross check if sample identities are questioned, and to provide a log of sample matrices with respect to MCERTS validation. They are not intended as full geological descriptions.

We are accredited to MCERTS for sand, clay and loam/topsoil, or any of these materials - whether these are derived from naturally ocurring soil profiles, or from fill/made ground, as long as these materials constitute the major part of the sample.

Other coarse granular materials such as concrete, gravel and brick are not accredited if they comprise the major part of the sample.

CERTIFICATE OF ANALYSIS

SDG:	201023-143	**Client Reference:**	LD10162	**Report Number:**	575474
Location:	Ten Acres Lane	**Order Number:**	LD1674	**Superseded Report:**	5754y9

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	CP109	TP114	TP128	TP145	TP145
			Depth (m)	7.50 - 7.50	3.40 - 3.40	3.60 - 3.60	2.30 - 2.30	3.80 - 3.80
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	14/10/2020	14/10/2020	14/10/2020	14/10/2020	14/10/2020
			Sample Time	-	-	-	-	-
			Date Received	16/10/2020	16/10/2020	16/10/2020	16/10/2020	16/10/2020
			SDG Ref	201023-143	201023-143	201023-143	201023-143	201023-143
			Lab Sample No.(s)	23103788	23103816	23103806	23103796	23103823
			AGS Reference					
Moisture Content Ratio (% of as received sample)	%	PM024		13	20	28	35	32
Phenol	<0.01 mg/kg	TM062 (S)		<0.01 @ M	<0.01 @ M	<0.01 @ M		<0.01 @ M
Cresols	<0.01 mg/kg	TM062 (S)		0.0345 @ M	0.0375 @ M	<0.01 @ M		<0.01 @ M
Xylenols	<0.015 mg/kg	TM062 (S)		<0.015 @ M	0.0625 @ M	<0.015 @ M		<0.015 @ M
Phenols, Total Detected monohydric	<0.035 mg/kg	TM062 (S)		<0.035 @ M	0.1 @ M	<0.035 @ M		<0.035 @ M
Soil Organic Matter (SOM)	<0.35 %	TM132		0.759 #	11.5 #	7.69 #		19.8 #
pH	1 pH Units	TM133		9.27 M	6.19 M	7.23 M		7.5 M
Chromium, Hexavalent	<0.6 mg/kg	TM151		<0.6 #	<1.2 #	<0.6 #		<0.6 #
Cyanide, Total	<1 mg/kg	TM153		<1 @ M	79.5 @ M	<1 @ M		<1 @ M
PCB congener 28	<3 µg/kg	TM168			<3 M	<3 M		<60 M
PCB congener 52	<3 µg/kg	TM168			<3 M	<3 M		<60 M
PCB congener 101	<3 µg/kg	TM168			<3 M	<3 M		<60 M
PCB congener 118	<3 µg/kg	TM168			<3 M	<3 M		<60 M
PCB congener 138	<3 µg/kg	TM168			<3 M	<3 M		<60 M
PCB congener 153	<3 µg/kg	TM168			<3 M	<3 M		<60 M
PCB congener 180	<3 µg/kg	TM168			<3 M	<3 M		<60 M
Sum of detected PCB 7 Congeners	<21 µg/kg	TM168			<21	<21		<420
Sulphide, Easily liberated	<15 mg/kg	TM180		41.8 @ M	332 @ M	<15 @ M		51.2 @ M
Arsenic	<0.6 mg/kg	TM181		22 M	45.4 M	309 M		72.5 M
Cadmium	<0.02 mg/kg	TM181		<0.2 M	0.574 M	0.069 M		0.692 M
Chromium	<0.9 mg/kg	TM181		585 M	884 M	36 M		28.4 M
Copper	<1.4 mg/kg	TM181		423 M	105 M	38.4 M		271 M
Lead	<0.7 mg/kg	TM181		30.1 M	28700 M	341 M		227 M
Mercury	<0.14 mg/kg	TM181		<1.4 M	0.344 M	1.12 M		0.457 M
Nickel	<0.2 mg/kg	TM181		535 M	65.8 M	5.68 M		46.4 M
Selenium	<1 mg/kg	TM181		<10 #	<1 #	16.9 #		<1 #
Zinc	<1.9 mg/kg	TM181		283 M	384 M	79.4 M		338 M
Sulphate, Total	<48 mg/kg	TM221		6110 M	3510 M	19800 M		1140 M
Boron, water soluble	<1 mg/kg	TM222		15.3 M	5.75 M	1.73 M		2.74 M
Water Soluble Sulphate as SO4 2:1 Extract	<0.004 g/l	TM243		0.0683 M	0.329 M	0.0985 M		0.048 M
Asbestos Quantification - Gravimetric - %	<0.001 %	TM304		5.11 #				
Asbestos Quantification - PCOM Evaluation - %	<0.001 %	TM304		<0.001 #				
Additional Asbestos Components (Using TM048)		TM304		None #				

CERTIFICATE OF ANALYSIS

SDG:	201023-143	**Client Reference:**	LD10162	**Report Number:**	575474
Location:	Ten Acres Lane	**Order Number:**	LD1674	**Superseded Report:**	5754y9

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	CP109	TP114	TP128	TP145	TP145
			Depth (m)	7.50 - 7.50	3.40 - 3.40	3.60 - 3.60	2.30 - 2.30	3.80 - 3.80
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	14/10/2020	14/10/2020	14/10/2020	14/10/2020	14/10/2020
			Sample Time	.	.	.	.	.
			Date Received	16/10/2020	16/10/2020	16/10/2020	16/10/2020	16/10/2020
			SDG Ref	201023-143	201023-143	201023-143	201023-143	201023-143
			Lab Sample No.(s)	23103788	23103816	23103806	23103796	23103823
			AGS Reference					
Analysts Comments		TM304		N/C				
Asbestos Quantification - Total - %	<0.001 %	TM304		5.11 #				

CERTIFICATE OF ANALYSIS

SDG:	201023-143	**Client Reference:**	LD10162	**Report Number:**	575474
Location:	Ten Acres Lane	**Order Number:**	LD1674	**Superseded Report:**	5754y9

PAH by GCMS

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	CP109	TP114	TP128	TP145		
			Depth (m)	7.50 - 7.50	3.40 - 3.40	3.60 - 3.60	3.80 - 3.80		
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)		
			Date Sampled	14/10/2020	14/10/2020	14/10/2020	14/10/2020		
			Sample Time	-	-	-	-		
			Date Received	16/10/2020	16/10/2020	16/10/2020	16/10/2020		
			SDG Ref	201023-143	201023-143	201023-143	201023-143		
			Lab Sample No.(s)	23103788	23103816	23103806	23103823		
			AGS Reference						
Naphthalene-d8 % recovery**	%	TM218		88.9	89.6	91	79.1		
Acenaphthene-d10 % recovery**	%	TM218		87.6	94.5	95.3	87.7		
Phenanthrene-d10 % recovery**	%	TM218		90.2	100	96.5	90.5		
Chrysene-d12 % recovery**	%	TM218		85	88.8	87	84.5		
Perylene-d12 % recovery**	%	TM218		73.4	80	81.4	76.7		
Naphthalene	<9 µg/kg	TM218		38.2 @ M	63.9 @ M	<9 @ M	602 @ M		
Acenaphthylene	<12 µg/kg	TM218		<12 @ M	16.5 @ M	<12 @ M	218 @ M		
Acenaphthene	<8 µg/kg	TM218		53 @ M	74 @ M	<8 @ M	1230 @ M		
Fluorene	<10 µg/kg	TM218		32.9 @ M	66 @ M	<10 @ M	956 @ M		
Phenanthrene	<15 µg/kg	TM218		158 @ M	685 @ M	34.3 @ M	3660 @ M		
Anthracene	<16 µg/kg	TM218		47.7 @ M	175 @ M	<16 @ M	1770 @ M		
Fluoranthene	<17 µg/kg	TM218		171 @ M	1110 @ M	73.9 @ M	13900 @ M		
Pyrene	<15 µg/kg	TM218		145 @ M	1020 @ M	57.4 @ M	13000 @ M		
Benz(a)anthracene	<14 µg/kg	TM218		58.9 @ M	507 @ M	55 @ M	3470 @ M		
Chrysene	<10 µg/kg	TM218		49.1 @ M	541 @ M	65.3 @ M	4550 @ M		
Benzo(b)fluoranthene	<15 µg/kg	TM218		31.8 @ M	698 @ M	95.4 @ M	7520 @ M		
Benzo(k)fluoranthene	<14 µg/kg	TM218		17.9 @ M	229 @ M	29.6 @ M	<70 @ M		
Benzo(a)pyrene	<15 µg/kg	TM218		42.1 @ M	493 @ M	34 @ M	3570 @ M		
Indeno(1,2,3-cd)pyrene	<18 µg/kg	TM218		26.8 @ M	327 @ M	42.4 @ M	2820 @ M		
Dibenzo(a,h)anthracene	<23 µg/kg	TM218		<23 @ M	54.4 @ M	<23 @ M	422 @ M		
Benzo(g,h,i)perylene	<24 µg/kg	TM218		29 @ M	313 @ M	38.6 @ M	2760 @ M		
PAH, Total Detected USEPA 16	<118 µg/kg	TM218		901	6370	526	60400		

CERTIFICATE OF ANALYSIS

SDG:	201023-143	**Client Reference:**	LD10162	**Report Number:**	575474
Location:	Ten Acres Lane	**Order Number:**	LD1674	**Superseded Report:**	5754y9

Semi Volatile Organic Compounds

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	CP109	TP145				
			Depth (m)	7.50 - 7.50	3.80 - 3.80				
			Sample Type	Soil/Solid (S)	Soil/Solid (S)				
			Date Sampled	14/10/2020	14/10/2020				
			Sample Time	.	.				
			Date Received	16/10/2020	16/10/2020				
			SDG Ref	201023-143	201023-143				
			Lab Sample No.(s)	23103788	23103823				
			AGS Reference						
Phenol	<100 µg/kg	TM157		<100	<500				
Pentachlorophenol	<100 µg/kg	TM157		<100	<500				
n-Nitroso-n-dipropylamine	<100 µg/kg	TM157		<100	<500				
Nitrobenzene	<100 µg/kg	TM157		<100	<500				
Isophorone	<100 µg/kg	TM157		<100	<500				
Hexachloroethane	<100 µg/kg	TM157		<100	<500				
Hexachlorocyclopentadiene	<100 µg/kg	TM157		<100	<500				
Hexachlorobutadiene	<100 µg/kg	TM157		<100	<500				
Hexachlorobenzene	<100 µg/kg	TM157		<100	<500				
n-Dioctyl phthalate	<100 µg/kg	TM157		<100	<500				
Dimethyl phthalate	<100 µg/kg	TM157		<100	<500				
Diethyl phthalate	<100 µg/kg	TM157		<100	<500				
n-Dibutyl phthalate	<100 µg/kg	TM157		<100	<500				
Dibenzofuran	<100 µg/kg	TM157		<100	<500				
Carbazole	<100 µg/kg	TM157		<100	<500				
Butylbenzyl phthalate	<100 µg/kg	TM157		<100	<500				
bis(2-Ethylhexyl) phthalate	<100 µg/kg	TM157		<100	<500				
bis(2-Chloroethoxy)methane	<100 µg/kg	TM157		<100	<500				
bis(2-Chloroethyl)ether	<100 µg/kg	TM157		<100	<500				
Azobenzene	<100 µg/kg	TM157		<100	<500				
4-Nitrophenol	<100 µg/kg	TM157		<100	<500				
4-Nitroaniline	<100 µg/kg	TM157		<100	<500				
4-Methylphenol	<100 µg/kg	TM157		<100	<500				
4-Chlorophenylphenylether	<100 µg/kg	TM157		<100	<500				
4-Chloroaniline	<100 µg/kg	TM157		<100	<500				
4-Chloro-3-methylphenol	<100 µg/kg	TM157		<100	<500				
4-Bromophenylphenylether	<100 µg/kg	TM157		<100	<500				
3-Nitroaniline	<100 µg/kg	TM157		<100	<500				
2-Nitrophenol	<100 µg/kg	TM157		<200	<1000				
2-Nitroaniline	<100 µg/kg	TM157		<200	<1000				
2-Methylphenol	<100 µg/kg	TM157		<100	<500				
1,2,4-Trichlorobenzene	<100 µg/kg	TM157		<100	<500				
2-Chlorophenol	<100 µg/kg	TM157		<100	<500				

CERTIFICATE OF ANALYSIS

SDG:	201023-143	**Client Reference:**	LD10162	**Report Number:**	575474
Location:	Ten Acres Lane	**Order Number:**	LD1674	**Superseded Report:**	5754y9

Semi Volatile Organic Compounds

Results Legend	
#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	CP109	TP145				
			Depth (m)	7.50 - 7.50	3.80 - 3.80				
			Sample Type	Soil/Solid (S)	Soil/Solid (S)				
			Date Sampled	14/10/2020	14/10/2020				
			Sample Time	.	.				
			Date Received	16/10/2020	16/10/2020				
			SDG Ref	201023-143	201023-143				
			Lab Sample No.(s)	23103788	23103823				
			AGS Reference						
2,6-Dinitrotoluene	<100 µg/kg	TM157		<100	<500				
2,4-Dinitrotoluene	<100 µg/kg	TM157		<100	<500				
2,4-Dimethylphenol	<100 µg/kg	TM157		<100	<500				
2,4-Dichlorophenol	<100 µg/kg	TM157		<100	<500				
2,4,6-Trichlorophenol	<100 µg/kg	TM157		<100	<500				
2,4,5-Trichlorophenol	<100 µg/kg	TM157		<100	<500				
1,4-Dichlorobenzene	<100 µg/kg	TM157		<100	<500				
1,3-Dichlorobenzene	<100 µg/kg	TM157		<100	<500				
1,2-Dichlorobenzene	<100 µg/kg	TM157		<100	<500				
2-Chloronaphthalene	<100 µg/kg	TM157		<100	<500				
2-Methylnaphthalene	<100 µg/kg	TM157		<100	<500				
Acenaphthylene	<100 µg/kg	TM157		<100	<500				
Acenaphthene	<100 µg/kg	TM157		<100	<500				
Anthracene	<100 µg/kg	TM157		<100	<500				
Benzo(a)anthracene	<100 µg/kg	TM157		<100	818				
Benzo(b)fluoranthene	<100 µg/kg	TM157		<100	774				
Benzo(k)fluoranthene	<100 µg/kg	TM157		<100	934				
Benzo(a)pyrene	<100 µg/kg	TM157		<100	<500				
Benzo(g,h,i)perylene	<100 µg/kg	TM157		<100	<500				
Chrysene	<100 µg/kg	TM157		115	1400				
Fluoranthene	<100 µg/kg	TM157		368	3150				
Fluorene	<100 µg/kg	TM157		<100	<500				
Indeno(1,2,3-cd)pyrene	<100 µg/kg	TM157		<100	<500				
Phenanthrene	<100 µg/kg	TM157		380	1280				
Pyrene	<100 µg/kg	TM157		311	2740				
Naphthalene	<100 µg/kg	TM157		127	<500				
Dibenzo(a,h)anthracene	<100 µg/kg	TM157		<100	<500				
Bis(2-chloroisopropyl) ether	<100 µg/kg	TM157		<100	<500				

CERTIFICATE OF ANALYSIS

SDG:	201023-143	**Client Reference:**	LD10162	**Report Number:**	575474
Location:	Ten Acres Lane	**Order Number:**	LD1674	**Superseded Report:**	5754y9

TPH CWG (S)

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	CP109	TP114	TP128	TP145		
			Depth (m)	7.50 - 7.50	3.40 - 3.40	3.60 - 3.60	3.80 - 3.80		
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)		
			Date Sampled	14/10/2020	14/10/2020	14/10/2020	14/10/2020		
			Sample Time	-	-	-	-		
			Date Received	16/10/2020	16/10/2020	16/10/2020	16/10/2020		
			SDG Ref	201023-143	201023-143	201023-143	201023-143		
			Lab Sample No.(s)	23103788	23103816	23103806	23103823		
			AGS Reference						
GRO Surrogate % recovery**	%	TM089		97.6 @	111	94.3	81.2		
Aliphatics >C5-C6	<10 µg/kg	TM089		24.2 @	40	<10	14.6		
Aliphatics >C6-C8	<10 µg/kg	TM089		65.6 @	67.5	<10	73		
Aliphatics >C8-C10	<10 µg/kg	TM089		117 @	65	<10	101		
Aliphatics >C10-C12	<1000 µg/kg	TM414		<1000	<1000	<1000	1440		
Aliphatics >C12-C16	<1000 µg/kg	TM414		<1000	<1000	<1000	45300		
Aliphatics >C16-C21	<1000 µg/kg	TM414		<1000	4210	<1000	541000		
Aliphatics >C21-C35	<1000 µg/kg	TM414		80800	37500	14600	3590000		
Aliphatics >C35-C44	<1000 µg/kg	TM414		38300	8330	2450	1610000		
Total Aliphatics >C10-C44	<5000 µg/kg	TM414		120000	51100	17800	5790000		
Total Aliphatics & Aromatics >C10-C44	<10000 µg/kg	TM414		143000	110000	22700	7890000		
Aromatics >EC5-EC7	<10 µg/kg	TM089		13.8 @	<10	<10	<10		
Aromatics >EC7-EC8	<10 µg/kg	TM089		<10 @	<10	<10	<10		
Aromatics >EC8-EC10	<10 µg/kg	TM089		78.2 @	43.8	<10	67.2		
Aromatics > EC10-EC12	<1000 µg/kg	TM414		<1000	<1000	<1000	<1000		
Aromatics > EC12-EC16	<1000 µg/kg	TM414		<1000	<1000	<1000	27200		
Aromatics > EC16-EC21	<1000 µg/kg	TM414		1960	7550	<1000	88000		
Aromatics > EC21-EC35	<1000 µg/kg	TM414		18800	44600	3730	1980000		
Aromatics >EC35-EC44	<1000 µg/kg	TM414		2290	6730	<1000	3150		
Aromatics > EC40-EC44	<1000 µg/kg	TM414		<1000	2580	<1000	<1000		
Total Aromatics > EC10-EC44	<5000 µg/kg	TM414		23000	59300	<5000	2100000		
Total Aliphatics & Aromatics >C5-C44	<10000 µg/kg	TM414		144000	111000	17800	7890000		
Total Aliphatics >C5-C10	<50 µg/kg	TM089		207 @	173	<50	188		
Total Aromatics >EC5-EC10	<50 µg/kg	TM089		92 @	<50	<50	67.2		
GRO >C5-C10	<20 µg/kg	TM089		299 @	173	<20	256		

CERTIFICATE OF ANALYSIS

SDG:	201023-143	**Client Reference:**	LD10162	**Report Number:**	575474
Location:	Ten Acres Lane	**Order Number:**	LD1674	**Superseded Report:**	5754y9

Asbestos Identification - Solid Samples

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
*	Subcontracted test.
(F)	Trigger breach confirmed
1-5&♦$@	Sample deviation (see appendix)

		Date of Analysis	Analysed By	Comments	Amosite (Brown) Asbestos	Chrysotile (White) Asbestos	Crocidolite (Blue) Asbestos	Fibrous Actinolite	Fibrous Anthophyllite	Fibrous Tremolite	Non-Asbestos Fibre
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	CP106 7.50 - 7.50 SOLID 14/10/2020 00:00:00 16/10/2020 05:00:00 201023-143 23103788 TM048	03/11/2020	James Richards	Fibre bundle and material typical of asbestos cement debris in soil	Detected (#)	Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	TP114 3.40 - 3.40 SOLID 14/10/2020 00:00:00 16/10/2020 05:00:00 201023-143 23103816 TM048	03/11/2020	James Richards	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	TP128 3.60 - 3.60 SOLID 14/10/2020 00:00:00 16/10/2020 05:00:00 201023-143 23103806 TM048	03/11/2020	James Richards	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	TP145 3.80 - 3.80 SOLID 14/10/2020 00:00:00 16/10/2020 05:00:00 201023-143 23103823 TM048	03/11/20	Andrzej Ferfecki	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected

CERTIFICATE OF ANALYSIS

SDG:	201023-143	**Client Reference:**	LD10162	**Report Number:**	575474
Location:	Ten Acres Lane	**Order Number:**	LD1674	**Superseded Report:**	5754y9

Asbestos Quantification - Full

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
*	Subcontracted test.
(F)	Trigger breach confirmed
1-5&♦§@	Sample deviation (see appendix)

		Additional Asbestos Components	Analysts Comments	Asbestos Quantification - Gravimetric - %	Asbestos Quantification - PCOM	Asbestos Quantification - Total - %
Cust. Sample Ref.	CP109	None (#)	N/C	5.1096 (#)	<0.001 (#)	5.1102 (#)
Depth (m)	7.50 - 7.50					
Sample Type	SOLID					
Date Sampled	14/10/2020 00:00:00					
Date Receieved	16/10/2020 05:00:00					
SDG	201023-143					
Original Sample	23103788					
Method Number	TM304					

CERTIFICATE OF ANALYSIS

SDG:	201023-143	**Client Reference:**	LD10162	**Report Number:**	575474
Location:	Ten Acres Lane	**Order Number:**	LD1674	**Superseded Report:**	5754y9

CEN 10:1 SINGLE STAGE LEACHATE TEST

CEN ANALYTICAL RESULTS

REF : BS EN 12457/2

Client Reference		**Site Location**	Ten Acres Lane
Mass Sample taken (kg)	0.127	**Natural Moisture Content (%)**	40.9
Mass of dry sample (kg)	0.090	**Dry Matter Content (%)**	71
Particle Size <4mm	>95%		

Case	
SDG	201023-143
Lab Sample Number(s)	2310379y
Sampled Date	14-Oct-2020
Customer Sample Ref.	TP145
Depth (m)	2.30 - 2.30

Eluate Analysis	**C_2** Conc^n in 10:1 eluate (mg/l)		**A_2** 10:1 conc^n leached (mg/kg)				
	Result	**Limit of Detection**	**Result**	**Limit of Detection**			
Aliphatics >C12-C16	<0.01	<0.01	<0.1	<0.1	-	-	-
Aliphatics >C16-C21	<0.01	<0.01	<0.1	<0.1	-	-	-
Aliphatics >C21-C35	<0.01	<0.01	<0.1	<0.1	-	-	-
Total Aliphatics >C12-C35	<0.01	<0.01	<0.1	<0.1	-	-	-
Aromatics >EC12-EC16	<0.01	<0.01	<0.1	<0.1	-	-	-
Aromatics >EC16-EC21	<0.01	<0.01	<0.1	<0.1	-	-	-
Aromatics >EC21-EC35	<0.01	<0.01	<0.1	<0.1	-	-	-
Aromatics >EC16-EC35	<0.01	<0.01	<0.1	<0.1	-	-	-
Total Aromatics >EC12-EC35	<0.01	<0.01	<0.1	<0.1	-	-	-
TPH (Total Aliphatics + Total Aromatics) >C5-C35	<0.01	<0.01	<0.1	<0.1	-	-	-
Low Level Hexavalent Chromium	<0.003	<0.003	<0.03	<0.03	-	-	-
Sulphate (soluble)	54.4	<2	544	<20	-	-	-
Sulphide	<0.01	<0.01	<0.1	<0.1	-	-	-
Dissolved Organic Carbon	5.34	<3	53.4	<30	-	-	-
Mercury Dissolved (CVAF)	<0.00001	<0.00001	<0.0001	<0.0001	-	-	-
Naphthalene (diss.filt)	0.0000253	<0.00001	0.000253	<0.0001	-	-	-
Total Cyanide (W)	<0.05	<0.05	<0.5	<0.5	-	-	-
Acenaphthene (diss.filt)	0.000222	<0.000005	0.00222	<0.00005	-	-	-
Arsenic	0.0734	<0.0005	0.734	<0.005	-	-	-
Free Cyanide (W)	<0.05	<0.05	<0.5	<0.5	-	-	-
Acenaphthylene (diss.filt)	0.000226	<0.000005	0.00226	<0.00005	-	-	-
Phenol by HPLC (W)	<0.002	<0.002	<0.02	<0.02	-	-	-
Cresols by HPLC (W)	<0.006	<0.006	<0.06	<0.06	-	-	-
Fluoranthene (diss.filt)	0.00015	<0.000005	0.0015	<0.00005	-	-	-
Thiocyanate (W)	<0.05	<0.05	<0.5	<0.5	-	-	-
Anthracene (diss.filt)	0.0000154	<0.000005	0.000154	<0.00005	-	-	-
Xylenols by HPLC (W)	<0.008	<0.008	<0.08	<0.08	-	-	-
Boron	0.0427	<0.01	0.427	<0.1	-	-	-
Phenanthrene (diss.filt)	0.0000381	<0.000005	0.000381	<0.00005	-	-	-
Total Alkalinity Filtered as CaCO3	49.5	<2	495	<20	-	-	-
Cadmium	<0.00008	<0.00008	<0.0008	<0.0008	-	-	-
Fluorene (diss.filt)	0.0000399	<0.000005	0.000399	<0.00005	-	-	-
Chrysene (diss.filt)	0.00000786	<0.000005	0.0000786	<0.00005	-	-	-
Pyrene (diss.filt)	0.000115	<0.000005	0.00115	<0.00005	-	-	-
Total Monohydric Phenols (W)	<0.016	<0.016	<0.16	<0.16	-	-	-

Leach Test Information

Date Prepared	31-Oct-2020
pH (pH Units)	8.07
Conductivity (µS/cm)	218.00
Temperature (°C)	20.90
Volume Leachant (Litres)	0.863

Mcerts Certification does not apply to leachates

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CERTIFICATE OF ANALYSIS

SDG:	201023-143	**Client Reference:**	LD10162	**Report Number:**	575474
Location:	Ten Acres Lane	**Order Number:**	LD1674	**Superseded Report:**	5754y9

CEN 10:1 SINGLE STAGE LEACHATE TEST

CEN ANALYTICAL RESULTS

REF : BS EN 12457/2

Client Reference		**Site Location**	Ten Acres Lane
Mass Sample taken (kg)	0.127	**Natural Moisture Content (%)**	40.9
Mass of dry sample (kg)	0.090	**Dry Matter Content (%)**	71
Particle Size <4mm	>95%		

Case	
SDG	201023-143
Lab Sample Number(s)	2310379y
Sampled Date	14-Oct-2020
Customer Sample Ref.	TP145
Depth (m)	2.30 - 2.30

Eluate Analysis	**C_2 Conc^n in 10:1 eluate (mg/l)**		**A_2 10:1 conc^n leached (mg/kg)**				
	Result	**Limit of Detection**	**Result**	**Limit of Detection**			
Benzo(a)anthracene (diss.filt)	<0.000005	<0.000005	<0.00005	<0.00005	-	-	-
Chromium	<0.001	<0.001	<0.01	<0.01	-	-	-
Benzo(b)fluoranthene (diss.filt)	<0.000005	<0.000005	<0.00005	<0.00005	-	-	-
Benzo(k)fluoranthene (diss.filt)	<0.000005	<0.000005	<0.00005	<0.00005	-	-	-
Benzo(a)pyrene (diss.filt)	<0.000002	<0.000002	<0.00002	<0.00002	-	-	-
Copper	0.00071	<0.0003	0.0071	<0.003	-	-	-
Dibenzo(a,h)anthracene (diss.filt)	<0.000005	<0.000005	<0.00005	<0.00005	-	-	-
Lead	<0.0002	<0.0002	<0.002	<0.002	-	-	-
Benzo(g,h,i)perylene (diss.filt)	<0.000005	<0.000005	<0.00005	<0.00005	-	-	-
Indeno(1,2,3-cd)pyrene (diss.filt)	<0.000005	<0.000005	<0.00005	<0.00005	-	-	-
PAH 16 EPA Total by GCMS (diss.filt)	0.00084	<0.000082	0.0084	<0.00082	-	-	-
Nickel	0.00106	<0.0004	0.0106	<0.004	-	-	-
Selenium	0.00114	<0.001	0.0114	<0.01	-	-	-
Calcium (Dis.Filt) mg/l	40	<0.2	400	<2	-	-	-
TPH CWG (W)							
Surrogate Recovery	-	<0	-	<0	-	-	-
GRO TOT (C5-C12)	<0.05	<0.05	<0.5	<0.5	-	-	-
Aliphatics C5-C6	<0.01	<0.01	<0.1	<0.1	-	-	-
Aliphatics >C6-C8	<0.01	<0.01	<0.1	<0.1	-	-	-
Aliphatics >C8-C10	<0.01	<0.01	<0.1	<0.1	-	-	-
Aliphatics >C10-C12	<0.01	<0.01	<0.1	<0.1	-	-	-
Aromatics C6-C7	<0.01	<0.01	<0.1	<0.1	-	-	-
Aromatics >C7-C8	<0.01	<0.01	<0.1	<0.1	-	-	-
MTBE GC-FID	<0.003	<0.003	<0.03	<0.03	-	-	-
Aromatics >EC8 -EC10	<0.01	<0.01	<0.1	<0.1	-	-	-
Aromatics >EC10-EC12	<0.01	<0.01	<0.1	<0.1	-	-	-
Benzene by GC	<0.007	<0.007	<0.07	<0.07	-	-	-
Toluene by GC	<0.004	<0.004	<0.04	<0.04	-	-	-
Ethylbenzene by GC	<0.005	<0.005	<0.05	<0.05	-	-	-
m & p Xylene by GC	<0.008	<0.008	<0.08	<0.08	-	-	-
o Xylene by GC	<0.003	<0.003	<0.03	<0.03	-	-	-
Sum m&p and o Xylene by GC	<0.011	<0.011	<0.11	<0.11	-	-	-
Sum of BTEX by GC	<0.028	<0.028	<0.28	<0.28	-	-	-

Leach Test Information

Date Prepared	31-Oct-2020
pH (pH Units)	8.07
Conductivity (µS/cm)	218.00
Temperature (°C)	20.90
Volume Leachant (Litres)	0.863

Mcerts Certification does not apply to leachates

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Table of Results - Appendix

Method No	Reference	Description
PM024	Modified BS 1377	Soil preparation including homogenisation, moisture screens of soils for Asbestos Containing Material
PM115		Leaching Procedure for CEN One Stage Leach Test 2:1 & 10:1 1 Step
TM043	Method 2320B, AWWA/APHA, 20th Ed., 1999 / BS 2690: Part109 1984	Determination of alkalinity in aqueous samples
TM048	HSG 248, Asbestos: The analysts' guide for sampling, analysis and clearance procedures	Identification of Asbestos in Bulk Material
TM0y2 (S)	National Grid Property Holdings Methods for the Collection & Analysis of Samples from National Grid Sites version 1 Sec 3.9	Determination of Phenols in Soils by HPLC
TM089	Modified: US EPA Methods 8020 & 602	Determination of Gasoline Range Hydrocarbons (GRO) by Headspace GC-FID (C4-C12)
TM090	Method 5310, AWWA/APHA, 20th Ed., 1999 / Modified: US EPA Method 415.1 & 9060	Determination of Total Organic Carbon/Total Inorganic Carbon in Water and Waste Water
TM101	Method 4500B & C, AWWA/APHA, 20th Ed., 1999	Determination of Sulphide in soil and water samples using the Kone Analyser
TM132	In - house Method	ELTRA CS800 Operators Guide
TM133	BS 1377: Part 3 1990;BS 6068-2.5	Determination of pH in Soil and Water using the GLpH pH Meter
TM151	Method 3500D, AWWA/APHA, 20th Ed., 1999	Determination of Hexavalent Chromium using Kone analyser
TM152	Method 3125B, AWWA/APHA, 20th Ed., 1999	Analysis of Aqueous Samples by ICP-MS
TM153	Method 4500A,B,C, I, M AWWA/APHA, 20th Ed., 1999	Determination of Total Cyanide, Free (Easily Liberatable) Cyanide and Thiocyanate using the Skalar SANS+ System Segmented Flow Analyser
TM157	HP 6890 Gas Chromatograph (GC) system and HP 5973 Mass Selective Detector (MSD).	Determination of SVOC in Soils by GC-MS extracted by sonication in DCM/Acetone
TM1y8	EPA Method 8082, Polychlorinated Biphenyls by Gas Chromatography	Determination of WHO12 and EC7 Polychlorinated Biphenyl Congeners by GC-MS in Soils
TM174	Analysis of Petroleum Hydrocarbons in Environmental Media – Total Petroleum Hydrocarbon Criteria	Determination of Speciated Extractable Petroleum Hydrocarbons in Waters by GC-FID
TM178	Modified: US EPA Method 8100	Determination of Polynuclear Aromatic Hydrocarbons (PAH) by GC-MS in Waters
TM180	Sulphide in waters and waste waters 1991 ISBN 01 175 7186 SCA rec. 2007 (unpublished)'	The Determination Of Easily Liberated Sulphide In Soil Samples by Ion Selective Electrode Technique
TM181	US EPA Method 6010B	Determination of Routine Metals in Soil by iCap 6500 Duo ICP-OES
TM183	BS EN 23506:2002, (BS 6068-2.74:2002) ISBN 0 580 38924 3	Determination of Trace Level Mercury in Waters and Leachates by PSA Cold Vapour Atomic Fluorescence Spectrometry
TM184	EPA Methods 325.1 & 325.2,	The Determination of Anions in Aqueous Matrices using the Kone Spectrophotometric Analysers
TM218	Shaker extraction - EPA method 3546.	The determination of PAH in soil samples by GC-MS
TM221	Inductively Coupled Plasma - Atomic Emission Spectroscopy. An Atlas of Spectral Information: Winge, Fassel, Peterson and Floyd	Determination of Acid extractable Sulphate in Soils by IRIS Emission Spectrometer
TM222	In-House Method	Determination of Hot Water Soluble Boron in Soils (10:1 Water:soil) by IRIS Emission Spectrometer
TM227	Standard methods for the examination of waters and wastewaters 20th Edition, AWWA/APHA Method 4500.	Determination of Total Cyanide, Free (Easily Liberatable) Cyanide and Thiocyanate
TM243		Mixed Anions In Soils By Kone
TM245	By GC-FID	Determination of GRO by Headspace in waters
TM25y	The measurement of Electrical Conductivity and the Laboratory determination of pH Value of Natural, Treated and Wastewaters. HMSO, 1978. ISBN 011 751428 4.	Determination of pH in Water and Leachate using the GLpH pH Meter
TM259	by HPLC	Determination of Phenols in Waters and Leachates by HPLC
TM304	HSE Contract research Report no 83/1996	Asbestos Quantification in Soil: Fibres identified by morphology only
TM331		Low Level Hexavalent Chromium
TM414	Analysis of Petroleum Hydrocarbons in Environmental Media – Total Petroleum Hydrocarbon Criteria	Determination of Speciated Extractable Petroleum Hydrocarbons in Soils by GCxGC-FID

NA = not applicable.

Chemical testing (unless subcontracted) performed at ALS Life Sciences Ltd Hawarden (Method codes TM) or ALS Life Sciences Ltd Aberdeen (Method codes S).

CERTIFICATE OF ANALYSIS

SDG:	201023-143	**Client Reference:**	LD10162	**Report Number:**	575474
Location:	Ten Acres Lane	**Order Number:**	LD1674	**Superseded Report:**	5754y9

Test Completion Dates

Lab Sample No(s)	23103788	23103816	23103806	23103796	23103823
Customer Sample Ref.	CP109	TP114	TP128	TP145	TP145
AGS Ref.					
Depth	7.50 - 7.50	3.40 - 3.40	3.60 - 3.60	2.30 - 2.30	3.80 - 3.80
Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
Alkalinity Filtered as CaCO3				03-Nov-2020	
Anions by Kone (soil)	04-Nov-2020	04-Nov-2020	04-Nov-2020		04-Nov-2020
Anions by Kone (w)				03-Nov-2020	
Asbestos ID in Solid Samples	03-Nov-2020	03-Nov-2020	03-Nov-2020		03-Nov-2020
Asbestos Quantification - Full	12-Nov-2020				
Boron Water Soluble	03-Nov-2020	03-Nov-2020	03-Nov-2020		03-Nov-2020
CEN 10:1 Leachate (1 Stage)				31-Oct-2020	
CEN Readings				03-Nov-2020	
Cyanide Comp/Free/Total/Thiocyanate	03-Nov-2020	04-Nov-2020	03-Nov-2020	05-Nov-2020	03-Nov-2020
Dissolved Metals by ICP-MS				04-Nov-2020	
Dissolved Organic/Inorganic Carbon				05-Nov-2020	
Easily Liberated Sulphide	03-Nov-2020	03-Nov-2020	03-Nov-2020		03-Nov-2020
EPH CWG (Aliphatic) Filtered GC (W)				04-Nov-2020	
EPH CWG (Aromatic) Filtered GC (W)				04-Nov-2020	
EPH CWG GC (S)	03-Nov-2020	03-Nov-2020	03-Nov-2020		03-Nov-2020
GRO by GC-FID (S)	02-Nov-2020	02-Nov-2020	02-Nov-2020		02-Nov-2020
GRO by GC-FID (W)				02-Nov-2020	
Hexavalent Chromium (s)	04-Nov-2020	04-Nov-2020	04-Nov-2020		04-Nov-2020
Low Level Hexavalent Chromium (w)				03-Nov-2020	
Mercury Dissolved				03-Nov-2020	
Metals in solid samples by OES	03-Nov-2020	03-Nov-2020	03-Nov-2020		03-Nov-2020
Moisture at 105C				31-Oct-2020	
PAH by GCMS	01-Nov-2020	03-Nov-2020	03-Nov-2020		03-Nov-2020
PAH in waters by GC-MS (diss.filt)				03-Nov-2020	
PCBs by GCMS		04-Nov-2020	04-Nov-2020		04-Nov-2020
pH	02-Nov-2020	02-Nov-2020	03-Nov-2020		02-Nov-2020
pH Value				03-Nov-2020	
Phenols by HPLC (S)	03-Nov-2020	03-Nov-2020	03-Nov-2020		03-Nov-2020
Phenols by HPLC (W)				04-Nov-2020	
Sample description	30-Oct-2020	30-Oct-2020	30-Oct-2020	30-Oct-2020	30-Oct-2020
Semi Volatile Organic Compounds	03-Nov-2020				03-Nov-2020
Sulphide				04-Nov-2020	
Total Organic Carbon	03-Nov-2020	03-Nov-2020	03-Nov-2020		03-Nov-2020
Total Sulphate	03-Nov-2020	03-Nov-2020	03-Nov-2020		03-Nov-2020
TPH CWG Filtered (W)				04-Nov-2020	
TPH CWG GC (S)	03-Nov-2020	03-Nov-2020	03-Nov-2020		03-Nov-2020

Appendix General

1. Results are expressed on a dry weight basis (dried at 35ºC) for all soil analyses except for the following: NRA and CEN Leach tests, flash point LOI, pH, ammonium as NH4 by the BRE method, VOC TICs and SVOC TICs.

2. If sufficient sample is received a sub sample will be retained free of charge for 30 days after analysis is completed (e-mailed) for all sample types unless the sample is destroyed on testing. The prepared soil sub sample that is analysed for asbestos will be retained for a period of 6 months after the analysis date. All bulk samples will be retained for a period of 6 months after the analysis date. All samples received and not scheduled will be disposed of one month after the date of receipt unless we are instructed to the contrary. Once the initial period has expired, a storage charge will be applied for each month or part thereof until the client cancels the request for sample storage. ALS reserve the right to charge for samples received and stored but not analysed.

3. With respect to turnaround, we will always endeavour to meet client requirements wherever possible, but turnaround times cannot be absolutely guaranteed due to so many variables beyond our control.

4. We take responsibility for any test performed by sub-contractors (marked with an asterisk). We endeavour to use UKAS/MCERTS Accredited Laboratories, who either complete a quality questionnaire or are audited by ourselves. For some determinands there are no UKAS/MCERTS Accredited Laboratories, in this instance a laboratory with a known track record will be utilised.

5. If no separate volatile sample is supplied by the client, or if a headspace or sediment is present in the volatile sample, the integrity of the data may be compromised. This will be flagged up as an invalid VOC on the test schedule and the result marked as deviating on the test certificate.

6. NDP - No determination possible due to insufficient/unsuitable sample.

7. Results relate only to the items tested.

8. LoDs (Limit of Detection) for wet tests reported on a dry weight basis are not corrected for moisture content.

9. **Surrogate recoveries** - Surrogates are added to your sample to monitor recovery of the test requested. A % recovery is reported, results are not corrected for the recovery measured. Typical recoveries for organics tests are 70-130%. Recoveries in soils are affected by organic rich or clay rich matrices. Waters can be affected by remediation fluids or high amounts of sediment. Test results are only ever reported if all of the associated quality checks pass; it is assumed that all recoveries outside of the values above are due to matrix affect.

10. Stones/debris are not routinely removed. We always endeavour to take a representative sub sample from the received sample.

11. In certain circumstances the method detection limit may be elevated due to the sample being outside the calibration range. Other factors that may contribute to this include possible interferences. In both cases the sample would be diluted which would cause the method detection limit to be raised.

12. Mercury results quoted on soils will not include volatile mercury as the analysis is performed on a dried and crushed sample.

13. For leachate preparations other than Zero Headspace Extraction (ZHE) volatile loss may occur.

14. For the BSEN 12457-3 two batch process to allow the cumulative release to be calculated, the volume of the leachate produced is measured and filtered for all tests. We therefore cannot carry out any unfiltered analysis. The tests affected include volatiles GCFID/GCMS and all subcontracted analysis.

15. Analysis and identification of specific compounds using GCFID is by retention time only, and we routinely calibrate and quantify for benzene, toluene, ethylbenzenes and xylenes (BTEX). For total volatiles in the C5-C12 range, the total area of the chromatogram is integrated and expressed as ug/kg or ug/l. Although this analysis is commonly used for the quantification of gasoline range organics (GRO), the system will also detect other compounds such as chlorinated solvents, and this may lead to a falsely high result with respect to hydrocarbons only. It is not possible to specifically identify these non-hydrocarbons, as standards are not routinely run for any other compounds, and for more definitive identification, volatiles by GCMS should be utilised.

16. We are accredited to MCERTS for sand, clay and loam/topsoil, or any of these materials - whether these are derived from naturally occurring soil profiles, or from fill/made ground, as long as these materials constitute the major part of the sample. Other coarse granular material such as concrete, gravel and brick are not accredited if they comprise the major part of the sample.

17. **Tentatively Identified Compounds (TICs)** are non-target peaks in VOC and SVOC analysis. All non-target peaks detected with a concentration above the LoD are subjected to a mass spectral library search. Non-target peaks with a library search confidence of >75% are reported based on the best mass spectral library match. When a non-target peak with a library search confidence of <75% is detected it is reported as "mixed hydrocarbons". Non-target compounds identified from the scan data are semi-quantified relative to one of the deuterated internal standards, under the same chromatographic conditions as the target compounds. This result is reported as a semi-quantitative value and reported as Tentatively Identified Compounds (TICs). TICs are outside the scope of UKAS accreditation and are not moisture corrected.

18. **Sample Deviations**

If a sample is classed as deviated then the associated results may be compromised.

1	**Container with Headspace provided for volatiles analysis**
2	**Incorrect container received**
3	**Deviation from method**
4	**Matrix interference**
♦	**Sample holding time exceeded in laboratory**
@	**Sample holding time exceeded due to late arrival of instructions or samples**
§	**Sampled on date not provided**

19. **Asbestos**

When requested, the individual sub sample scheduled will be analysed in house for the presence of asbestos fibres and asbestos containing material by our documented in house method TM048 based on HSG 248 (2005), which is accredited to ISO17025. If a specific asbestos fibre type is not found this will be reported as "Not detected". If no asbestos fibre types are found all will be reported as "Not detected" and the sub sample analysed deemed to be clear of asbestos. If an asbestos fibre type is found it will be reported as detected (for each fibre type found). Testing can be carried out on asbestos positive samples, but, due to Health and Safety considerations, may be replaced by alternative tests or reported as No Determination Possible (NDP). The quantity of asbestos present is not determined unless specifically requested.

Identification of Asbestos in Bulk Materials & Soils

The results for identification of asbestos in bulk materials are obtained from supplied bulk materials which have been examined to determine the presence of asbestos fibres using ALS (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining, based on HSG 248 (2005).

The results for identification of asbestos in soils are obtained from a homogenised sub sample which has been examined to determine the presence of asbestos fibres using ALS (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining, based on HSG 248 (2005).

Asbestos Type	Common Name
Chrysotile	White Asbestos
Amosite	Brown Asbestos
Crocidolite	Blue Asbestos
Fibrous Actinolite	-
Fibrous Anthophyllite	-
Fibrous Tremolite	-

Visual Estimation Of Fibre Content

Estimation of fibre content is not permitted as part of our UKAS accredited test other than: - Trace - Where only one or two asbestos fibres were identified.

Respirable Fibres

Respirable fibres are defined as fibres of <3 µm diameter, longer than 5 µm and with aspect ratios of at least 3:1 that can be inhaled into the lower regions of the lung and are generally acknowledged to be most important predictor of hazard and risk for cancers of the lung.
Standing Committee of Analysts, *The Quantification of Asbestos in Soil (2017).*

Further guidance on typical asbestos fibre content of manufactured products can be found in HSG 264.

The identification of asbestos containing materials and soils falls within our schedule of tests for which we hold UKAS accreditation, however opinions, interpretations and all other information contained in the report are outside the scope of UKAS accreditation.

Unit 7-8 Hawarden Business Park
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Wardell Armstrong LLP
36 Park Row
Leeds
LS1 5JL

Attention: Jonathan Currie

CERTIFICATE OF ANALYSIS

Date of report Generation:	05 November 2020
Customer:	Wardell Armstrong LLP
Sample Delivery Group (SDG):	201024-94
Your Reference:	LD10162
Location:	Ten Acres Lane
Report No:	574318

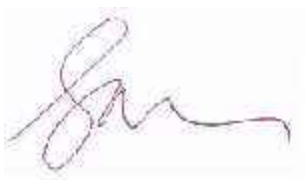
We received 7 samples on Tuesday October 20, 2020 and 3 of these samples were scheduled for analysis which was completed on Thursday November 05, 2020. Accredited laboratory tests are defined within the report, but opinions, interpretations and on-site data expressed herein are outside the scope of ISO 17025 accreditation.

Should this report require incorporation into client reports, it must be used in its entirety and not simply with the data sections alone.

Chemical testing (unless subcontracted) performed at ALS Life Sciences Ltd Hawarden (Method codes TM) or ALS Life Sciences Ltd Aberdeen (Method codes S).

All sample data is provided by the customer. The reported results relate to the sample supplied, and on the basis that this data is correct.
Incorrect sampling dates and/or sample information will affect the validity of results.
The customer is not permitted to reproduce this report except in full without the approval of the laboratory.

Approved By:



Sonia McWhan

Operations Manager

CERTIFICATE OF ANALYSIS

SDG:	201024-94	**Client Reference:**	LD10162	**Report Number:**	574318
Location:	Ten Acres Lane	**Order Number:**	LD1676	**Superseded Report:**	

Received Sample Overview

Lab Sample No(s)	Customer Sample Ref.	AGS Ref.	Depth (m)	Sampled Date
23110937	CP112		8.00 - 8.00	16/10/2020
23110963	TP125		2.30 - 2.30	16/10/2020
23110967	TP125		3.20 - 3.20	16/10/2020
23110944	TP127		1.20 - 1.20	16/10/2020
23110952	TP127		4.35 - 4.35	16/10/2020
23110971	TP127		4.40	16/10/2020
23110957	TP135		0.75 - 0.75	16/10/2020

Only received samples which have had analysis scheduled will be shown on the following pages.

Validated

CERTIFICATE OF ANALYSIS

SDG:	201024-94	**Client Reference:**	LD10162	**Report Number:**	574318
Location:	Ten Acres Lane	**Order Number:**	LD1676	**Superseded Report:**	

Results Legend

X Test

N No Determination Possible

Sample Types -
S - Soil/Solid
UNS - Unspecified Solid
GW - Ground Water
SW - Surface Water
LE - Land Leachate
PL - Prepared Leachate
PR - Process Water
SA - Saline Water
TE - Trade Effluent
TS - Treated Sewage
US - Untreated Sewage
RE - Recreational Water
DW - Drinking Water Non-regulatory
UNL - Unspecified Liquid
SL - Sludge
G - Gas
OTH - Other

Lab Sample No(s)			23110937			23110963			23110944		
Customer Sample Reference			CP112			TP125			TP127		
AGS Reference											
Depth (m)			8.00 - 8.00			2.30 - 2.30			1.20 - 1.20		
Container			1kg TUB with Handle (ALE260)	250g Amber Jar (ALE210)	60g VOC (ALE215)	1kg TUB with Handle (ALE260)	250g Amber Jar (ALE210)	60g VOC (ALE215)	1kg TUB with Handle (ALE260)	250g Amber Jar (ALE210)	60g VOC (ALE215)
Sample Type			S	S	S	S	S	S	S	S	S
Anions by Kone (soil)	All	NDPs: 0 Tests: 3		X			X			X	
Asbestos ID in Solid Samples	All	NDPs: 0 Tests: 3	X			X			X		
Boron Water Soluble	All	NDPs: 0 Tests: 3		X			X			X	
Cyanide Comp/Free/Total/Thiocyanate	All	NDPs: 0 Tests: 3		X			X			X	
Easily Liberated Sulphide	All	NDPs: 0 Tests: 3		X			X			X	
EPH CWG GC (S)	All	NDPs: 0 Tests: 3		X			X			X	
GRO by GC-FID (S)	All	NDPs: 0 Tests: 3			X			X			X
Hexavalent Chromium (s)	All	NDPs: 0 Tests: 3		X			X			X	
Metals in solid samples by OES	All	NDPs: 0 Tests: 3		X			X			X	
PAH by GCMS	All	NDPs: 0 Tests: 3		X			X			X	
PCBs by GCMS	All	NDPs: 0 Tests: 2					X			X	
pH	All	NDPs: 0 Tests: 3		X			X			X	
Phenols by HPLC (S)	All	NDPs: 0 Tests: 3		X			X			X	
Sample description	All	NDPs: 0 Tests: 3		X			X			X	
Semi Volatile Organic Compounds	All	NDPs: 0 Tests: 2					X			X	

Validated

CERTIFICATE OF ANALYSIS

SDG:	201024-94	**Client Reference:**	LD10162	**Report Number:**	574318
Location:	Ten Acres Lane	**Order Number:**	LD1676	**Superseded Report:**	

Results Legend

X **Test**

N **No Determination Possible**

Sample Types -
S - Soil/Solid
UNS - Unspecified Solid
GW - Ground Water
SW - Surface Water
LE - Land Leachate
PL - Prepared Leachate
PR - Process Water
SA - Saline Water
TE - Trade Effluent
TS - Treated Sewage
US - Untreated Sewage
RE - Recreational Water
DW - Drinking Water Non-regulatory
UNL - Unspecified Liquid
SL - Sludge
G - Gas
OTH - Other

Lab Sample No(s)			2311937			2311963			2311944		
Customer Sample Reference			CP112			TP125			TP127		
AGS Reference											
Depth (m)			8.00 - 8.00			2.30 - 2.30			1.20 - 1.20		
Container			1kg TUB with Handle (ALE260)	250g Amber Jar (ALE210)	60g VOC (ALE215)	1kg TUB with Handle (ALE260)	250g Amber Jar (ALE210)	60g VOC (ALE215)	1kg TUB with Handle (ALE260)	250g Amber Jar (ALE210)	60g VOC (ALE215)
Sample Type			S	S	S	S	S	S	S	S	S
Total Organic Carbon	All	NDPs: 0 Tests: 3		X			X			X	
Total Sulphate	All	NDPs: 0 Tests: 3		X			X			X	
TPH CWG GC (S)	All	NDPs: 0 Tests: 3		X			X			X	
VOC MS (S)	All	NDPs: 0 Tests: 3			X			X			X

CERTIFICATE OF ANALYSIS

SDG:	201024-94	**Client Reference:**	LD10162	**Report Number:**	574318
Location:	Ten Acres Lane	**Order Number:**	LD1676	**Superseded Report:**	

Sample Descriptions

Grain Sizes

very fine	<0.063mm	**fine**	0.063mm - 0.1mm	**medium**	0.1mm - 2mm	**coarse**	2mm - 10mm	**very coarse**	>10mm

Lab Sample No(s)	Customer Sample Ref.	Depth (m)	Colour	Description	Inclusions	Inclusions 2
23110937	CP112	8.00 - 8.00	Dark Brown	Sand	Stones	Vegetation
23110963	TP125	2.30 - 2.30	Dark Brown	Loamy Sand	Stones	Vegetation
23110944	TP127	1.20 - 1.20	Black	Loamy Sand	Stones	Vegetation

These descriptions are only intended to act as a cross check if sample identities are questioned, and to provide a log of sample matrices with respect to MCERTS validation. They are not intended as full geological descriptions.

We are accredited to MCERTS for sand, clay and loam/topsoil, or any of these materials - whether these are derived from naturally ocurring soil profiles, or from fill/made ground, as long as these materials constitute the major part of the sample.

Other coarse granular materials such as concrete, gravel and brick are not accredited if they comprise the major part of the sample.

Validated

CERTIFICATE OF ANALYSIS

SDG:	201024-94	**Client Reference:**	LD10162	**Report Number:**	574318
Location:	Ten Acres Lane	**Order Number:**	LD1676	**Superseded Report:**	

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	CP112	TP125	TP127			
			Depth (m)	8.00 - 8.00	2.30 - 2.30	1.20 - 1.20			
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)			
			Date Sampled	16/10/2020	16/10/2020	16/10/2020			
			Sample Time	-	-	-			
			Date Received	20/10/2020	20/10/2020	20/10/2020			
			SDG Ref	201024-94	201024-94	201024-94			
			Lab Sample No.(s)	23110937	23110963	23110944			
			AGS Reference						
Moisture Content Ratio (% of as received sample)	%	PM024		9.6	16	18			
Phenol	<0.01 mg/kg	TM062 (S)		9.53 @ M	<0.01 @ M	<0.01 @ M			
Cresols	<0.01 mg/kg	TM062 (S)		<0.05 @ M	<0.01 @ M	<0.01 @ M			
Xylenols	<0.015 mg/kg	TM062 (S)		0.3 @ M	<0.015 @ M	<0.015 @ M			
Phenols, Total Detected monohydric	<0.035 mg/kg	TM062 (S)		9.83 @ M	<0.035 @ M	<0.035 @ M			
Soil Organic Matter (SOM)	<0.35 %	TM132		0.96 #	4.26 #	22.6 #			
pH	1 pH Units	TM133		8.48 M	7.62 M	6.13 M			
Chromium, Hexavalent	<0.6 mg/kg	TM151		<0.6 #	<0.6 #	<0.6 #			
Cyanide, Total	<1 mg/kg	TM153		<1 @ M	<1 @ M	<1 @ M			
PCB congener 28	<3 µg/kg	TM168			<3 M	<3 M			
PCB congener 52	<3 µg/kg	TM168			<3 M	<3 M			
PCB congener 101	<3 µg/kg	TM168			<3 M	<3 M			
PCB congener 118	<3 µg/kg	TM168			<3 M	<3 M			
PCB congener 138	<3 µg/kg	TM168			<3 M	<3 M			
PCB congener 153	<3 µg/kg	TM168			<3 M	<3 M			
PCB congener 180	<3 µg/kg	TM168			<3 M	<3 M			
Sum of detected PCB 7 Congeners	<21 µg/kg	TM168			<21	<21			
Sulphide, Easily liberated	<15 mg/kg	TM180		<15 @ M	<15 @ M	<15 @ M			
Arsenic	<0.6 mg/kg	TM181		24.7 M	29.1 M	26.1 M			
Cadmium	<0.02 mg/kg	TM181		0.0928 M	0.242 M	0.667 M			
Chromium	<0.9 mg/kg	TM181		3.6 M	15.5 M	17 M			
Copper	<1.4 mg/kg	TM181		9.55 M	102 M	325 M			
Lead	<0.7 mg/kg	TM181		33.9 M	139 M	322 M			
Mercury	<0.14 mg/kg	TM181		<0.14 M	0.21 M	0.511 M			
Nickel	<0.2 mg/kg	TM181		9.21 M	42.8 M	28.9 M			
Selenium	<1 mg/kg	TM181		<1 #	<1 #	<1 #			
Zinc	<1.9 mg/kg	TM181		49.4 M	179 M	142 M			
Sulphate, Total	<48 mg/kg	TM221		456 M	440 M	683 M			
Boron, water soluble	<1 mg/kg	TM222		5.18 M	<1 M	1.99 M			
Water Soluble Sulphate as SO4 2:1 Extract	<0.004 g/l	TM243		0.173 M	0.121 M	0.0795 M			

Validated

CERTIFICATE OF ANALYSIS

SDG:	201024-94	**Client Reference:**	LD10162	**Report Number:**	574318
Location:	Ten Acres Lane	**Order Number:**	LD1676	**Superseded Report:**	

PAH by GCMS

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	CP112	TP125	TP127			
			Depth (m)	8.00 - 8.00	2.30 - 2.30	1.20 - 1.20			
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)			
			Date Sampled	16/10/2020	16/10/2020	16/10/2020			
			Sample Time	-	-	-			
			Date Received	20/10/2020	20/10/2020	20/10/2020			
			SDG Ref	201024-94	201024-94	201024-94			
			Lab Sample No.(s)	23110937	23110963	23110944			
			AGS Reference						
Naphthalene-d8 % recovery**	%	TM218		91.7	78.6	73.2			
Acenaphthene-d10 % recovery**	%	TM218		99.5	79.5	78.2			
Phenanthrene-d10 % recovery**	%	TM218		107	81.6	83.4			
Chrysene-d12 % recovery**	%	TM218		104	83.2	81.4			
Perylene-d12 % recovery**	%	TM218		87.5	80.6	78.3			
Naphthalene	<9 µg/kg	TM218		27 @ M	16.4 @ M	276 @ M			
Acenaphthylene	<12 µg/kg	TM218		<12 @ M	18.9 @ M	79.3 @ M			
Acenaphthene	<8 µg/kg	TM218		38.7 @ M	25.4 @ M	439 @ M			
Fluorene	<10 µg/kg	TM218		43.9 @ M	17.8 @ M	365 @ M			
Phenanthrene	<15 µg/kg	TM218		280 @ M	272 @ M	2920 @ M			
Anthracene	<16 µg/kg	TM218		64.2 @ M	51.9 @ M	685 @ M			
Fluoranthene	<17 µg/kg	TM218		315 @ M	557 @ M	4250 @ M			
Pyrene	<15 µg/kg	TM218		302 @ M	462 @ M	4170 @ M			
Benz(a)anthracene	<14 µg/kg	TM218		142 @ M	202 @ M	2070 @ M			
Chrysene	<10 µg/kg	TM218		148 @ M	284 @ M	2010 @ M			
Benzo(b)fluoranthene	<15 µg/kg	TM218		148 @ M	442 @ M	2440 @ M			
Benzo(k)fluoranthene	<14 µg/kg	TM218		44 @ M	121 @ M	949 @ M			
Benzo(a)pyrene	<15 µg/kg	TM218		106 @ M	195 @ M	2020 @ M			
Indeno(1,2,3-cd)pyrene	<18 µg/kg	TM218		53.3 @ M	217 @ M	1460 @ M			
Dibenzo(a,h)anthracene	<23 µg/kg	TM218		<23 @ M	35.5 @ M	275 @ M			
Benzo(g,h,i)perylene	<24 µg/kg	TM218		63.6 @ M	195 @ M	1280 @ M			
PAH, Total Detected USEPA 16	<118 µg/kg	TM218		1780	3110	25700			

CERTIFICATE OF ANALYSIS

SDG:	201024-94	**Client Reference:**	LD10162	**Report Number:**	574318
Location:	Ten Acres Lane	**Order Number:**	LD1676	**Superseded Report:**	

Semi Volatile Organic Compounds

Results Legend	
#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	Depth (m)	Sample Type	Date Sampled	Sample Time	Date Received	SDG Ref	Lab Sample No.(s)	AGS Reference				
			TP125	2.30 - 2.30	Soil/Solid (S)	16/10/2020	.	20/10/2020	201024-94	23110963					
			TP127	1.20 - 1.20	Soil/Solid (S)	16/10/2020	.	20/10/2020	201024-94	23110944					
Phenol	<100 µg/kg	TM157	<100												
Pentachlorophenol	<100 µg/kg	TM157	<100												
n-Nitroso-n-dipropylamine	<100 µg/kg	TM157	<100												
Nitrobenzene	<100 µg/kg	TM157	<100												
Isophorone	<100 µg/kg	TM157	<100												
Hexachloroethane	<100 µg/kg	TM157	<100												
Hexachlorocyclopentadiene	<100 µg/kg	TM157	<200												
Hexachlorobutadiene	<100 µg/kg	TM157	<100												
Hexachlorobenzene	<100 µg/kg	TM157	<100												
n-Dioctyl phthalate	<100 µg/kg	TM157	<100												
Dimethyl phthalate	<100 µg/kg	TM157	<100												
Diethyl phthalate	<100 µg/kg	TM157	<100												
n-Dibutyl phthalate	<100 µg/kg	TM157	<100												
Dibenzofuran	<100 µg/kg	TM157	<100												
Carbazole	<100 µg/kg	TM157	<100												
Butylbenzyl phthalate	<100 µg/kg	TM157	<100												
bis(2-Ethylhexyl) phthalate	<100 µg/kg	TM157	<100												
bis(2-Chloroethoxy)methane	<100 µg/kg	TM157	<100												
bis(2-Chloroethyl)ether	<100 µg/kg	TM157	<100												
Azobenzene	<100 µg/kg	TM157	<100												
4-Nitrophenol	<100 µg/kg	TM157	<100												
4-Nitroaniline	<100 µg/kg	TM157	<100												
4-Methylphenol	<100 µg/kg	TM157	<100												
4-Chlorophenylphenylether	<100 µg/kg	TM157	<100												
4-Chloroaniline	<100 µg/kg	TM157	<100												
4-Chloro-3-methylphenol	<100 µg/kg	TM157	<100												
4-Bromophenylphenylether	<100 µg/kg	TM157	<100												
3-Nitroaniline	<100 µg/kg	TM157	<100												
2-Nitrophenol	<100 µg/kg	TM157	<100												
2-Nitroaniline	<100 µg/kg	TM157	<100												
2-Methylphenol	<100 µg/kg	TM157	<100												
1,2,4-Trichlorobenzene	<100 µg/kg	TM157	<100												
2-Chlorophenol	<100 µg/kg	TM157	<100												

Validated

CERTIFICATE OF ANALYSIS

SDG:	201024-94	**Client Reference:**	LD10162	**Report Number:**	574318
Location:	Ten Acres Lane	**Order Number:**	LD1676	**Superseded Report:**	

Semi Volatile Organic Compounds

Results Legend	
#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	TP125	TP127				
			Depth (m)	2.30 - 2.30	1.20 - 1.20				
			Sample Type	Soil/Solid (S)	Soil/Solid (S)				
			Date Sampled	16/10/2020	16/10/2020				
			Sample Time	.	.				
			Date Received	20/10/2020	20/10/2020				
			SDG Ref	201024-94	201024-94				
			Lab Sample No.(s)	23110963	23110944				
			AGS Reference						
2,6-Dinitrotoluene	<100 µg/kg	TM157		<100	<100				
2,4-Dinitrotoluene	<100 µg/kg	TM157		<100	<100				
2,4-Dimethylphenol	<100 µg/kg	TM157		<100	<100				
2,4-Dichlorophenol	<100 µg/kg	TM157		<100	<100				
2,4,6-Trichlorophenol	<100 µg/kg	TM157		<100	<100				
2,4,5-Trichlorophenol	<100 µg/kg	TM157		<100	<100				
1,4-Dichlorobenzene	<100 µg/kg	TM157		<100	<100				
1,3-Dichlorobenzene	<100 µg/kg	TM157		<100	<100				
1,2-Dichlorobenzene	<100 µg/kg	TM157		<100	<100				
2-Chloronaphthalene	<100 µg/kg	TM157		<100	<100				
2-Methylnaphthalene	<100 µg/kg	TM157		<100	467				
Acenaphthylene	<100 µg/kg	TM157		<100	<100				
Acenaphthene	<100 µg/kg	TM157		<100	981				
Anthracene	<100 µg/kg	TM157		<100	934				
Benzo(a)anthracene	<100 µg/kg	TM157		279	2060				
Benzo(b)fluoranthene	<100 µg/kg	TM157		463	2140				
Benzo(k)fluoranthene	<100 µg/kg	TM157		365	1730				
Benzo(a)pyrene	<100 µg/kg	TM157		237	1950				
Benzo(g,h,i)perylene	<100 µg/kg	TM157		175	1180				
Chrysene	<100 µg/kg	TM157		398	2230				
Fluoranthene	<100 µg/kg	TM157		938	4840				
Fluorene	<100 µg/kg	TM157		<100	741				
Indeno(1,2,3-cd)pyrene	<100 µg/kg	TM157		197	1330				
Phenanthrene	<100 µg/kg	TM157		541	4560				
Pyrene	<100 µg/kg	TM157		787	4320				
Naphthalene	<100 µg/kg	TM157		<100	595				
Dibenzo(a,h)anthracene	<100 µg/kg	TM157		<100	136				
Bis(2-chloroisopropyl) ether	<100 µg/kg	TM157		<100	<100				

Validated

CERTIFICATE OF ANALYSIS

SDG:	201024-94	**Client Reference:**	LD10162	**Report Number:**	574318
Location:	Ten Acres Lane	**Order Number:**	LD1676	**Superseded Report:**	

TPH CWG (S)

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	CP112	TP125	TP127			
			Depth (m)	8.00 - 8.00	2.30 - 2.30	1.20 - 1.20			
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)			
			Date Sampled	16/10/2020	16/10/2020	16/10/2020			
			Sample Time	-	-	-			
			Date Received	20/10/2020	20/10/2020	20/10/2020			
			SDG Ref	201024-94	201024-94	201024-94			
			Lab Sample No.(s)	23110937	23110963	23110944			
			AGS Reference						
GRO Surrogate % recovery**	%	TM089		105	96.2	88.4			
Aliphatics >C5-C6	<10 µg/kg	TM089		18.9	<10	<10			
Aliphatics >C6-C8	<10 µg/kg	TM089		42.2	<10	<10			
Aliphatics >C8-C10	<10 µg/kg	TM089		393	<10	11.1			
Aliphatics >C10-C12	<1000 µg/kg	TM414		<1000	<1000	<1000			
Aliphatics >C12-C16	<1000 µg/kg	TM414		<1000	<1000	1330			
Aliphatics >C16-C21	<1000 µg/kg	TM414		1810	<1000	2190			
Aliphatics >C21-C35	<1000 µg/kg	TM414		5600	<1000	28300			
Aliphatics >C35-C44	<1000 µg/kg	TM414		<1000	<1000	2440			
Total Aliphatics >C10-C44	<5000 µg/kg	TM414		8760	<5000	34400			
Total Aliphatics & Aromatics >C10-C44	<10000 µg/kg	TM414		12600	10200	165000			
Aromatics >EC5-EC7	<10 µg/kg	TM089		<10	<10	<10			
Aromatics >EC7-EC8	<10 µg/kg	TM089		<10	<10	<10			
Aromatics >EC8-EC10	<10 µg/kg	TM089		262	<10	<10			
Aromatics > EC10-EC12	<1000 µg/kg	TM414		<1000	<1000	<1000			
Aromatics > EC12-EC16	<1000 µg/kg	TM414		<1000	<1000	7340			
Aromatics > EC16-EC21	<1000 µg/kg	TM414		1170	2520	33700			
Aromatics > EC21-EC35	<1000 µg/kg	TM414		1540	5440	79900			
Aromatics >EC35-EC44	<1000 µg/kg	TM414		<1000	<1000	9670			
Aromatics > EC40-EC44	<1000 µg/kg	TM414		<1000	<1000	1970			
Total Aromatics > EC10-EC44	<5000 µg/kg	TM414		<5000	9050	131000			
Total Aliphatics & Aromatics >C5-C44	<10000 µg/kg	TM414		<10000	<10000	165000			
Total Aliphatics >C5-C10	<50 µg/kg	TM089		454	<50	<50			
Total Aromatics >EC5-EC10	<50 µg/kg	TM089		262	<50	<50			
GRO >C5-C10	<20 µg/kg	TM089		716	<20	<20			

Validated

CERTIFICATE OF ANALYSIS

SDG:	201024-94	**Client Reference:**	LD10162	**Report Number:**	574318
Location:	Ten Acres Lane	**Order Number:**	LD1676	**Superseded Report:**	

VOC MS (S)

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	CP112	TP125	TP127			
			Depth (m)	8.00 - 8.00	2.30 - 2.30	1.20 - 1.20			
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)			
			Date Sampled	16/10/2020	16/10/2020	16/10/2020			
			Sample Time	-	-	-			
			Date Received	20/10/2020	20/10/2020	20/10/2020			
			SDG Ref	201024-94	201024-94	201024-94			
			Lab Sample No.(s)	23110937	23110963	23110944			
			AGS Reference						
Dibromofluoromethane**	%	TM116		112	110	114			
Toluene-d8**	%	TM116		100	100	100			
4-Bromofluorobenzene**	%	TM116		91.9	85.9	86.6			
Dichlorodifluoromethane	<6 µg/kg	TM116			<120 M	<120 M			
Chloromethane	<7 µg/kg	TM116			<140 #	<140 #			
Vinyl Chloride	<6 µg/kg	TM116			<120 M	<120 M			
Bromomethane	<10 µg/kg	TM116			<200 M	<200 M			
Chloroethane	<10 µg/kg	TM116			<200 M	<200 M			
Trichlorofluorormethane	<6 µg/kg	TM116			<120 M	<120 M			
1,1-Dichloroethene	<10 µg/kg	TM116			<200 #	<200 #			
Carbon Disulphide	<7 µg/kg	TM116			<140 M	<140 M			
Dichloromethane	<10 µg/kg	TM116			<200 #	<200 #			
Methyl Tertiary Butyl Ether	<10 µg/kg	TM116		<200 M	<200 M	<200 M			
trans-1,2-Dichloroethene	<10 µg/kg	TM116			<200 M	<200 M			
1,1-Dichloroethane	<8 µg/kg	TM116			<160 M	<160 M			
cis-1,2-Dichloroethene	<6 µg/kg	TM116			<120 M	<120 M			
2,2-Dichloropropane	<10 µg/kg	TM116			<200	<200			
Bromochloromethane	<10 µg/kg	TM116			<200 M	<200 M			
Chloroform	<8 µg/kg	TM116			<160 M	<160 M			
1,1,1-Trichloroethane	<7 µg/kg	TM116			<140 M	<140 M			
1,1-Dichloropropene	<10 µg/kg	TM116			<200 M	<200 M			
Carbontetrachloride	<10 µg/kg	TM116			<200 M	<200 M			
1,2-Dichloroethane	<5 µg/kg	TM116			<100 M	<100 M			
Benzene	<9 µg/kg	TM116		<180 M	<180 M	<180 M			
Trichloroethene	<9 µg/kg	TM116			<180 #	<180 #			
1,2-Dichloropropane	<10 µg/kg	TM116			<200 M	<200 M			
Dibromomethane	<9 µg/kg	TM116			<180 M	<180 M			
Bromodichloromethane	<7 µg/kg	TM116			<140 M	<140 M			
cis-1,3-Dichloropropene	<10 µg/kg	TM116			<200 M	<200 M			
Toluene	<7 µg/kg	TM116		<140 M	<140 M	<140 M			
trans-1,3-Dichloropropene	<10 µg/kg	TM116			<200	<200			
1,1,2-Trichloroethane	<10 µg/kg	TM116			<200 M	<200 M			
1,3-Dichloropropane	<7 µg/kg	TM116			<140 M	<140 M			

CERTIFICATE OF ANALYSIS

SDG:	201024-94	**Client Reference:**	LD10162	**Report Number:**	574318
Location:	Ten Acres Lane	**Order Number:**	LD1676	**Superseded Report:**	

VOC MS (S)

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	CP112	TP125	TP127			
			Depth (m)	8.00 - 8.00	2.30 - 2.30	1.20 - 1.20			
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)			
			Date Sampled	16/10/2020	16/10/2020	16/10/2020			
			Sample Time	.	.	.			
			Date Received	20/10/2020	20/10/2020	20/10/2020			
			SDG Ref	201024-94	201024-94	201024-94			
			Lab Sample No.(s)	23110937	23110963	23110944			
			AGS Reference						
Tetrachloroethene	<5 µg/kg	TM116			<100 M	<100 M			
Dibromochloromethane	<10 µg/kg	TM116			<200 M	<200 M			
1,2-Dibromoethane	<10 µg/kg	TM116			<200 M	<200 M			
Chlorobenzene	<5 µg/kg	TM116			<100 M	<100 M			
1,1,1,2-Tetrachloroethane	<10 µg/kg	TM116			<200 M	<200 M			
Ethylbenzene	<4 µg/kg	TM116		<80 M	<80 M	<80 M			
p/m-Xylene	<10 µg/kg	TM116		<200 #	<200 #	<200 #			
o-Xylene	<10 µg/kg	TM116		<200 M	<200 M	<200 M			
Styrene	<10 µg/kg	TM116			<200 #	<200 #			
Bromoform	<10 µg/kg	TM116			<200 M	<200 M			
Isopropylbenzene	<5 µg/kg	TM116			<100 #	<100 #			
1,1,2,2-Tetrachloroethane	<10 µg/kg	TM116			<200 #	<200 #			
1,2,3-Trichloropropane	<16 µg/kg	TM116			<320 M	<320 M			
Bromobenzene	<10 µg/kg	TM116			<200 M	<200 M			
Propylbenzene	<10 µg/kg	TM116			<200 M	<200 M			
2-Chlorotoluene	<9 µg/kg	TM116			<180 M	<180 M			
1,3,5-Trimethylbenzene	<8 µg/kg	TM116			<160 M	<160 M			
4-Chlorotoluene	<10 µg/kg	TM116			<200 M	<200 M			
tert-Butylbenzene	<14 µg/kg	TM116			<280 M	<280 M			
1,2,4-Trimethylbenzene	<9 µg/kg	TM116			<180 #	<180 #			
sec-Butylbenzene	<10 µg/kg	TM116			<200	<200			
4-Isopropyltoluene	<10 µg/kg	TM116			<200 M	<200 M			
1,3-Dichlorobenzene	<8 µg/kg	TM116			<160 M	<160 M			
1,4-Dichlorobenzene	<5 µg/kg	TM116			<100 M	<100 M			
n-Butylbenzene	<11 µg/kg	TM116			<220	<220			
1,2-Dichlorobenzene	<10 µg/kg	TM116			<200 M	<200 M			
1,2-Dibromo-3-chloropropane	<14 µg/kg	TM116			<280 M	<280 M			
Tert-amyl methyl ether	<10 µg/kg	TM116			<200 #	<200 #			
1,2,4-Trichlorobenzene	<20 µg/kg	TM116			<400	<400			
Hexachlorobutadiene	<20 µg/kg	TM116			<400	<400			
Naphthalene	<13 µg/kg	TM116			<260 M	<260 M			
1,2,3-Trichlorobenzene	<20 µg/kg	TM116			<400 #	<400 #			
1,3,5-Trichlorobenzene	<20 µg/kg	TM116			<400	<400			

Validated

CERTIFICATE OF ANALYSIS

SDG:	201024-94	**Client Reference:**	LD10162	**Report Number:**	574318
Location:	Ten Acres Lane	**Order Number:**	LD1676	**Superseded Report:**	

VOC MS (S)

Results Legend	
#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	CP112	TP125	TP127			
			Depth (m)	8.00 - 8.00	2.30 - 2.30	1.20 - 1.20			
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)			
			Date Sampled	16/10/2020	16/10/2020	16/10/2020			
			Sample Time	.	.	.			
			Date Received	20/10/2020	20/10/2020	20/10/2020			
			SDG Ref	201024-94	201024-94	201024-94			
			Lab Sample No.(s)	23110937	23110963	23110944			
			AGS Reference						
Sum of Detected Xylenes	<0.02 mg/kg	TM116		<0.4	<0.4	<0.4			
Sum of BTEX	<40 µg/kg	TM116		<800	<800	<800			

CERTIFICATE OF ANALYSIS

SDG:	201024-94	**Client Reference:**	LD10162	**Report Number:**	574318
Location:	Ten Acres Lane	**Order Number:**	LD1676	**Superseded Report:**	

Asbestos Identification - Solid Samples

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
*	Subcontracted test.
(F)	Trigger breach confirmed
1-5&♦§@	Sample deviation (see appendix)

		Date of Analysis	Analysed By	Comments	Amosite (Brown) Asbestos	Chrysotile (White) Asbestos	Crocidolite (Blue) Asbestos	Fibrous Actinolite	Fibrous Anthophyllite	Fibrous Tremolite	Non-Asbestos Fibre
Cust. Sample Ref.	CP112	04/11/2020	Christian Hallam	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Depth (m)	8.00 - 8.00										
Sample Type	SOLID										
Date Sampled	16/10/2020 00:00:00										
Date Received	20/10/2020 09:00:00										
SDG	201024-94										
Original Sample	23110937										
Method Number	TM048										
Cust. Sample Ref.	TP125	04/11/2020	Christian Hallam	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Depth (m)	2.30 - 2.30										
Sample Type	SOLID										
Date Sampled	16/10/2020 00:00:00										
Date Received	20/10/2020 09:00:00										
SDG	201024-94										
Original Sample	23110963										
Method Number	TM048										
Cust. Sample Ref.	TP127	04/11/2020	Christian Hallam	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Depth (m)	1.20 - 1.20										
Sample Type	SOLID										
Date Sampled	16/10/2020 00:00:00										
Date Received	20/10/2020 09:00:00										
SDG	201024-94										
Original Sample	23110944										
Method Number	TM048										

CERTIFICATE OF ANALYSIS

SDG:	201024-94	**Client Reference:**	LD10162	**Report Number:**	574318
Location:	Ten Acres Lane	**Order Number:**	LD1676	**Superseded Report:**	

Table of Results - Appendix

Method No	Reference	Description
PM024	Modified BS 1377	Soil preparation including homogenisation, moisture screens of soils for Asbestos Containing Material
TM048	HSG 248, Asbestos: The analysts' guide for sampling, analysis and clearance procedures	Identification of Asbestos in Bulk Material
TM062 (S)	National Grid Property Holdings Methods for the Collection & Analysis of Samples from National Grid Sites version 1 Sec 3.9	Determination of Phenols in Soils by HPLC
TM089	Modified: US EPA Methods 8020 & 602	Determination of Gasoline Range Hydrocarbons (GRO) by Headspace GC-FID (C4-C12)
TM116	Modified: US EPA Method 8260, 8120, 8020, 624, 610 & 602	Determination of Volatile Organic Compounds by Headspace / GC-MS
TM132	In - house Method	ELTRA CS800 Operators Guide
TM133	BS 1377: Part 3 1990;BS 6068-2.5	Determination of pH in Soil and Water using the GLpH pH Meter
TM151	Method 3500D, AWWA/APHA, 20th Ed., 1999	Determination of Hexavalent Chromium using Kone analyser
TM153	Method 4500A,B,C, I, M AWWA/APHA, 20th Ed., 1999	Determination of Total Cyanide, Free (Easily Liberatable) Cyanide and Thiocyanate using the Skalar SANS+ System Segmented Flow Analyser
TM157	HP 6890 Gas Chromatograph (GC) system and HP 5973 Mass Selective Detector (MSD).	Determination of SVOC in Soils by GC-MS extracted by sonication in DCM/Acetone
TM168	EPA Method 8082, Polychlorinated Biphenyls by Gas Chromatography	Determination of WHO12 and EC7 Polychlorinated Biphenyl Congeners by GC-MS in Soils
TM180	Sulphide in waters and waste waters 1991 ISBN 01 175 7186 SCA rec. 2007 (unpublished)'	The Determination Of Easily Liberated Sulphide In Soil Samples by Ion Selective Electrode Technique
TM181	US EPA Method 6010B	Determination of Routine Metals in Soil by iCap 6500 Duo ICP-OES
TM218	Shaker extraction - EPA method 3546.	The determination of PAH in soil samples by GC-MS
TM221	Inductively Coupled Plasma - Atomic Emission Spectroscopy. An Atlas of Spectral Information: Winge, Fassel, Peterson and Floyd	Determination of Acid extractable Sulphate in Soils by IRIS Emission Spectrometer
TM222	In-House Method	Determination of Hot Water Soluble Boron in Soils (10:1 Water:soil) by IRIS Emission Spectrometer
TM243		Mixed Anions In Soils By Kone
TM414	Analysis of Petroleum Hydrocarbons in Environmental Media – Total Petroleum Hydrocarbon Criteria	Determination of Speciated Extractable Petroleum Hydrocarbons in Soils by GCxGC-FID

NA = not applicable.

Chemical testing (unless subcontracted) performed at ALS Life Sciences Ltd Hawarden (Method codes TM) or ALS Life Sciences Ltd Aberdeen (Method codes S).

CERTIFICATE OF ANALYSIS

SDG:	201024-94	**Client Reference:**	LD10162	**Report Number:**	574318
Location:	Ten Acres Lane	**Order Number:**	LD1676	**Superseded Report:**	

Test Completion Dates

Lab Sample No(s)	23110937	23110963	23110944
Customer Sample Ref.	CP112	TP125	TP127
AGS Ref.			
Depth	8.00 - 8.00	2.30 - 2.30	1.20 - 1.20
Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
Anions by Kone (soil)	04-Nov-2020	05-Nov-2020	05-Nov-2020
Asbestos ID in Solid Samples	04-Nov-2020	04-Nov-2020	04-Nov-2020
Boron Water Soluble	03-Nov-2020	04-Nov-2020	03-Nov-2020
Cyanide Comp/Free/Total/Thiocyanate	04-Nov-2020	04-Nov-2020	04-Nov-2020
Easily Liberated Sulphide	04-Nov-2020	03-Nov-2020	03-Nov-2020
EPH CWG GC (S)	03-Nov-2020	03-Nov-2020	03-Nov-2020
GRO by GC-FID (S)	02-Nov-2020	02-Nov-2020	02-Nov-2020
Hexavalent Chromium (s)	04-Nov-2020	04-Nov-2020	04-Nov-2020
Metals in solid samples by OES	03-Nov-2020	03-Nov-2020	03-Nov-2020
PAH by GCMS	02-Nov-2020	04-Nov-2020	04-Nov-2020
PCBs by GCMS		04-Nov-2020	04-Nov-2020
pH	03-Nov-2020	04-Nov-2020	03-Nov-2020
Phenols by HPLC (S)	05-Nov-2020	05-Nov-2020	05-Nov-2020
Sample description	30-Oct-2020	31-Oct-2020	30-Oct-2020
Semi Volatile Organic Compounds		03-Nov-2020	03-Nov-2020
Total Organic Carbon	03-Nov-2020	03-Nov-2020	03-Nov-2020
Total Sulphate	03-Nov-2020	03-Nov-2020	03-Nov-2020
TPH CWG GC (S)	03-Nov-2020	03-Nov-2020	03-Nov-2020
VOC MS (S)	02-Nov-2020	03-Nov-2020	02-Nov-2020

Appendix General

1. Results are expressed on a dry weight basis (dried at 35ºC) for all soil analyses except for the following: NRA and CEN Leach tests, flash point LOI, pH, ammonium as NH4 by the BRE method, VOC TICs and SVOC TICs.

2. If sufficient sample is received a sub sample will be retained free of charge for 30 days after analysis is completed (e-mailed) for all sample types unless the sample is destroyed on testing. The prepared soil sub sample that is analysed for asbestos will be retained for a period of 6 months after the analysis date. All bulk samples will be retained for a period of 6 months after the analysis date. All samples received and not scheduled will be disposed of one month after the date of receipt unless we are instructed to the contrary. Once the initial period has expired, a storage charge will be applied for each month or part thereof until the client cancels the request for sample storage. ALS reserve the right to charge for samples received and stored but not analysed.

3. With respect to turnaround, we will always endeavour to meet client requirements wherever possible, but turnaround times cannot be absolutely guaranteed due to so many variables beyond our control.

4. We take responsibility for any test performed by sub-contractors (marked with an asterisk). We endeavour to use UKAS/MCERTS Accredited Laboratories, who either complete a quality questionnaire or are audited by ourselves. For some determinands there are no UKAS/MCERTS Accredited Laboratories, in this instance a laboratory with a known track record will be utilised.

5. If no separate volatile sample is supplied by the client, or if a headspace or sediment is present in the volatile sample, the integrity of the data may be compromised. This will be flagged up as an invalid VOC on the test schedule and the result marked as deviating on the test certificate.

6. NDP - No determination possible due to insufficient/unsuitable sample.

7. Results relate only to the items tested.

8. LoDs (Limit of Detection) for wet tests reported on a dry weight basis are not corrected for moisture content.

9. **Surrogate recoveries** - Surrogates are added to your sample to monitor recovery of the test requested. A % recovery is reported, results are not corrected for the recovery measured. Typical recoveries for organics tests are 70-130%. Recoveries in soils are affected by organic rich or clay rich matrices. Waters can be affected by remediation fluids or high amounts of sediment. Test results are only ever reported if all of the associated quality checks pass; it is assumed that all recoveries outside of the values above are due to matrix affect.

10. Stones/debris are not routinely removed. We always endeavour to take a representative sub sample from the received sample.

11. In certain circumstances the method detection limit may be elevated due to the sample being outside the calibration range. Other factors that may contribute to this include possible interferences. In both cases the sample would be diluted which would cause the method detection limit to be raised.

12. Mercury results quoted on soils will not include volatile mercury as the analysis is performed on a dried and crushed sample.

13. For leachate preparations other than Zero Headspace Extraction (ZHE) volatile loss may occur.

14. For the BSEN 12457-3 two batch process to allow the cumulative release to be calculated, the volume of the leachate produced is measured and filtered for all tests. We therefore cannot carry out any unfiltered analysis. The tests affected include volatiles GCFID/GCMS and all subcontracted analysis.

15. Analysis and identification of specific compounds using GCFID is by retention time only, and we routinely calibrate and quantify for benzene, toluene, ethylbenzenes and xylenes (BTEX). For total volatiles in the C5-C12 range, the total area of the chromatogram is integrated and expressed as ug/kg or ug/l. Although this analysis is commonly used for the quantification of gasoline range organics (GRO), the system will also detect other compounds such as chlorinated solvents, and this may lead to a falsely high result with respect to hydrocarbons only. It is not possible to specifically identify these non-hydrocarbons, as standards are not routinely run for any other compounds, and for more definitive identification, volatiles by GCMS should be utilised.

16. We are accredited to MCERTS for sand, clay and loam/topsoil, or any of these materials - whether these are derived from naturally occurring soil profiles, or from fill/made ground, as long as these materials constitute the major part of the sample. Other coarse granular material such as concrete, gravel and brick are not accredited if they comprise the major part of the sample.

17. **Tentatively Identified Compounds (TICs)** are non-target peaks in VOC and SVOC analysis. All non-target peaks detected with a concentration above the LoD are subjected to a mass spectral library search. Non-target peaks with a library search confidence of >75% are reported based on the best mass spectral library match. When a non-target peak with a library search confidence of <75% is detected it is reported as "mixed hydrocarbons". Non-target compounds identified from the scan data are semi-quantified relative to one of the deuterated internal standards, under the same chromatographic conditions as the target compounds. This result is reported as a semi-quantitative value and reported as Tentatively Identified Compounds (TICs). TICs are outside the scope of UKAS accreditation and are not moisture corrected.

18. **Sample Deviations**

If a sample is classed as deviated then the associated results may be compromised.

1	**Container with Headspace provided for volatiles analysis**
2	**Incorrect container received**
3	**Deviation from method**
4	**Matrix interference**
♦	**Sample holding time exceeded in laboratory**
@	**Sample holding time exceeded due to late arrival of instructions or samples**
§	**Sampled on date not provided**

19. **Asbestos**

When requested, the individual sub sample scheduled will be analysed in house for the presence of asbestos fibres and asbestos containing material by our documented in house method TM048 based on HSG 248 (2005), which is accredited to ISO17025. If a specific asbestos fibre type is not found this will be reported as "Not detected". If no asbestos fibre types are found all will be reported as "Not detected" and the sub sample analysed deemed to be clear of asbestos. If an asbestos fibre type is found it will be reported as detected (for each fibre type found). Testing can be carried out on asbestos positive samples, but, due to Health and Safety considerations, may be replaced by alternative tests or reported as No Determination Possible (NDP). The quantity of asbestos present is not determined unless specifically requested.

Identification of Asbestos in Bulk Materials & Soils

The results for identification of asbestos in bulk materials are obtained from supplied bulk materials which have been examined to determine the presence of asbestos fibres using ALS (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining, based on HSG 248 (2005).

The results for identification of asbestos in soils are obtained from a homogenised sub sample which has been examined to determine the presence of asbestos fibres using ALS (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining, based on HSG 248 (2005).

Asbestos Type	Common Name
Chrysotile	White Asbestos
Amosite	Brown Asbestos
Crocidolite	Blue Asbestos
Fibrous Actinolite	-
Fibrous Anthophyllite	-
Fibrous Tremolite	-

Visual Estimation Of Fibre Content

Estimation of fibre content is not permitted as part of our UKAS accredited test other than: - Trace - Where only one or two asbestos fibres were identified.

Respirable Fibres

Respirable fibres are defined as fibres of <3 µm diameter, longer than 5 µm and with aspect ratios of at least 3:1 that can be inhaled into the lower regions of the lung and are generally acknowledged to be most important predictor of hazard and risk for cancers of the lung.
Standing Committee of Analysts, *The Quantification of Asbestos in Soil (2017).*

Further guidance on typical asbestos fibre content of manufactured products can be found in HSG 264.

The identification of asbestos containing materials and soils falls within our schedule of tests for which we hold UKAS accreditation, however opinions, interpretations and all other information contained in the report are outside the scope of UKAS accreditation.

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Wardell Armstrong LLP
36 Park Row
Leeds
LS1 5JL

Attention: Jonathan Currie

CERTIFICATE OF ANALYSIS

Date of report Generation:	05 November 2020
Customer:	Wardell Armstrong LLP
Sample Delivery Group (SDG):	201026-6
Your Reference:	LD10162
Location:	Ten Acres Lane
Report No:	574319

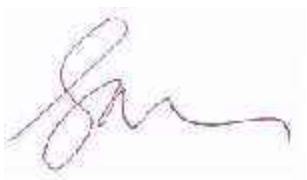
We received 9 samples on Monday October 26, 2020 and 4 of these samples were scheduled for analysis which was completed on Thursday November 05, 2020. Accredited laboratory tests are defined within the report, but opinions, interpretations and on-site data expressed herein are outside the scope of ISO 17025 accreditation.

Should this report require incorporation into client reports, it must be used in its entirety and not simply with the data sections alone.

Chemical testing (unless subcontracted) performed at ALS Life Sciences Ltd Hawarden (Method codes TM) or ALS Life Sciences Ltd Aberdeen (Method codes S).

All sample data is provided by the customer. The reported results relate to the sample supplied, and on the basis that this data is correct.
Incorrect sampling dates and/or sample information will affect the validity of results.
The customer is not permitted to reproduce this report except in full without the approval of the laboratory.

Approved By:



Sonia McWhan

Operations Manager

CERTIFICATE OF ANALYSIS

SDG:	201026-6	**Client Reference:**	LD10162	**Report Number:**	574319
Location:	Ten Acres Lane	**Order Number:**	LD1675	**Superseded Report:**	

Received Sample Overview

Lab Sample No(s)	Customer Sample Ref.	AGS Ref.	Depth (m)	Sampled Date
23114666	CP112		1.50 - 1.50	15/10/2020
23114670	CP112		3.00 - 3.00	15/10/2020
23114633	TP117		1.70 - 1.70	15/10/2020
23114642	TP117		1.80 - 1.80	15/10/2020
23114638	TP117		4.20 - 4.20	15/10/2020
23114658	TP118		0.50 - 0.50	15/10/2020
23114653	TP118		1.80 - 1.80	15/10/2020
23114662	TP130		0.30 - 0.30	15/10/2020
23114649	TP134		0.20 - 0.20	15/10/2020

Only received samples which have had analysis scheduled will be shown on the following pages.

Validated

CERTIFICATE OF ANALYSIS

SDG:	201026-6	**Client Reference:**	LD10162	**Report Number:**	574319
Location:	Ten Acres Lane	**Order Number:**	LD1675	**Superseded Report:**	

Results Legend

X Test

N No Determination Possible

Sample Types -

S - Soil/Solid
UNS - Unspecified Solid
GW - Ground Water
SW - Surface Water
LE - Land Leachate
PL - Prepared Leachate
PR - Process Water
SA - Saline Water
TE - Trade Effluent
TS - Treated Sewage
US - Untreated Sewage
RE - Recreational Water
DW - Drinking Water Non-regulatory
UNL - Unspecified Liquid
SL - Sludge
G - Gas
OTH - Other

Lab Sample No(s)			23114638			23114653			23114662			23114649		
Customer Sample Reference			TP117			TP118			TP130			TP134		
AGS Reference														
Depth (m)			4.20 - 4.20			1.80 - 1.80			0.30 - 0.30			0.20 - 0.20		
Container			1kg TUB with Handle (ALE260)	250g Amber Jar (ALE210)	60g VOC (ALE215)	1kg TUB with Handle (ALE260)	250g Amber Jar (ALE210)	60g VOC (ALE215)	1kg TUB with Handle (ALE260)	250g Amber Jar (ALE210)	60g VOC (ALE215)	1kg TUB with Handle (ALE260)	250g Amber Jar (ALE210)	60g VOC (ALE215)
Sample Type			S	S	S	S	S	S	S	S	S	S	S	S
Anions by Kone (soil)	All	NDPs: 0 Tests: 4		X			X			X			X	
Asbestos ID in Solid Samples	All	NDPs: 0 Tests: 4	X			X			X			X		
Boron Water Soluble	All	NDPs: 0 Tests: 4		X			X			X			X	
Cyanide Comp/Free/Total/Thiocyanate	All	NDPs: 0 Tests: 4		X			X			X			X	
Easily Liberated Sulphide	All	NDPs: 0 Tests: 4		X			X			X			X	
EPH CWG GC (S)	All	NDPs: 0 Tests: 4		X			X			X			X	
GRO by GC-FID (S)	All	NDPs: 0 Tests: 4			X			X			X			X
Hexavalent Chromium (s)	All	NDPs: 0 Tests: 4		X			X			X			X	
Metals in solid samples by OES	All	NDPs: 0 Tests: 4		X			X			X			X	
PAH by GCMS	All	NDPs: 0 Tests: 4		X			X			X			X	
PCBs by GCMS	All	NDPs: 0 Tests: 2		X			X							
pH	All	NDPs: 0 Tests: 4		X			X			X			X	
Phenols by HPLC (S)	All	NDPs: 0 Tests: 4		X			X			X			X	
Sample description	All	NDPs: 0 Tests: 4		X			X			X			X	
Semi Volatile Organic Compounds	All	NDPs: 0 Tests: 1		X										

Validated

CERTIFICATE OF ANALYSIS

SDG:	201026-6	**Client Reference:**	LD10162	**Report Number:**	574319
Location:	Ten Acres Lane	**Order Number:**	LD1675	**Superseded Report:**	

Results Legend

X **Test**

N **No Determination Possible**

Sample Types -
S - Soil/Solid
UNS - Unspecified Solid
GW - Ground Water
SW - Surface Water
LE - Land Leachate
PL - Prepared Leachate
PR - Process Water
SA - Saline Water
TE - Trade Effluent
TS - Treated Sewage
US - Untreated Sewage
RE - Recreational Water
DW - Drinking Water Non-regulatory
UNL - Unspecified Liquid
SL - Sludge
G - Gas
OTH - Other

Lab Sample No(s)			2314638			2314653			2314662			2314649		
Customer Sample Reference			TP117			TP118			TP130			TP134		
AGS Reference														
Depth (m)			4.20 - 4.20			1.80 - 1.80			0.30 - 0.30			0.20 - 0.20		
Container			1kg TUB with Handle (ALE260)	250g Amber Jar (ALE210)	60g VOC (ALE215)	1kg TUB with Handle (ALE260)	250g Amber Jar (ALE210)	60g VOC (ALE215)	1kg TUB with Handle (ALE260)	250g Amber Jar (ALE210)	60g VOC (ALE215)	1kg TUB with Handle (ALE260)	250g Amber Jar (ALE210)	60g VOC (ALE215)
Sample Type			S	S	S	S	S	S	S	S	S	S	S	S
Total Organic Carbon	All	NDPs: 0 Tests: 4		X			X			X			X	
Total Sulphate	All	NDPs: 0 Tests: 4		X			X			X			X	
TPH CWG GC (S)	All	NDPs: 0 Tests: 4		X			X			X			X	
VOC MS (S)	All	NDPs: 0 Tests: 4			X			X			X			X

CERTIFICATE OF ANALYSIS

SDG:	201026-6	**Client Reference:**	LD10162	**Report Number:**	574319
Location:	Ten Acres Lane	**Order Number:**	LD1675	**Superseded Report:**	

Sample Descriptions

Grain Sizes

very fine	<0.063mm	**fine**	0.063mm - 0.1mm	**medium**	0.1mm - 2mm	**coarse**	2mm - 10mm	**very coarse**	>10mm

Lab Sample No(s)	Customer Sample Ref.	Depth (m)	Colour	Description	Inclusions	Inclusions 2
23114638	TP117	4.20 - 4.20	Black	Loamy Sand	Vegetation	Stones
23114653	TP118	1.80 - 1.80	Dark Brown	Sandy Silt Loam	None	Stones
23114662	TP130	0.30 - 0.30	Dark Brown	Loamy Sand	Vegetation	Stones
23114649	TP134	0.20 - 0.20	Dark Brown	Sandy Clay Loam	Vegetation	Stones

These descriptions are only intended to act as a cross check if sample identities are questioned, and to provide a log of sample matrices with respect to MCERTS validation. They are not intended as full geological descriptions.

We are accredited to MCERTS for sand, clay and loam/topsoil, or any of these materials - whether these are derived from naturally ocurring soil profiles, or from fill/made ground, as long as these materials constitute the major part of the sample.

Other coarse granular materials such as concrete, gravel and brick are not accredited if they comprise the major part of the sample.

Validated

CERTIFICATE OF ANALYSIS

SDG:	201026-6	**Client Reference:**	LD10162	**Report Number:**	574319
Location:	Ten Acres Lane	**Order Number:**	LD1675	**Superseded Report:**	

Results Legend	
#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	TP117	TP118	TP130	TP134		
			Depth (m)	4.20 - 4.20	1.80 - 1.80	0.30 - 0.30	0.20 - 0.20		
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)		
			Date Sampled	15/10/2020	15/10/2020	15/10/2020	15/10/2020		
			Sample Time	-	-	-	-		
			Date Received	26/10/2020	26/10/2020	26/10/2020	26/10/2020		
			SDG Ref	201026-6	201026-6	201026-6	201026-6		
			Lab Sample No.(s)	23114638	23114653	23114662	23114649		
			AGS Reference						
Moisture Content Ratio (% of as received sample)	%	PM024		40	18	11	23		
Phenol	<0.01 mg/kg	TM062 (S)		1.37 @ M	<0.01 @ M	<0.01 @ M	<0.01 @ M		
Cresols	<0.01 mg/kg	TM062 (S)		6.16 @ M	<0.01 @ M	<0.01 @ M	<0.01 @ M		
Xylenols	<0.015 mg/kg	TM062 (S)		3.22 @ M	<0.015 @ M	<0.015 @ M	<0.015 @ M		
Phenols, Total Detected monohydric	<0.035 mg/kg	TM062 (S)		10.8 @ M	<0.035 @ M	<0.035 @ M	<0.035 @ M		
Soil Organic Matter (SOM)	<0.35 %	TM132		46.9 #	2.47 #	3.97 #	5.47 #		
pH	1 pH Units	TM133		6.94 M	7.59 M	8.1 M	8.58 M		
Chromium, Hexavalent	<0.6 mg/kg	TM151		<0.6 #	<0.6 #	<0.6 #	<0.6 #		
Cyanide, Total	<1 mg/kg	TM153		4.83 @ M	<1 @ M	<1 @ M	<1 @ M		
PCB congener 28	<3 µg/kg	TM168		<60 M	<3 M				
PCB congener 52	<3 µg/kg	TM168		<60 M	<3 M				
PCB congener 101	<3 µg/kg	TM168		<60 M	<3 M				
PCB congener 118	<3 µg/kg	TM168		<60 M	<3 M				
PCB congener 138	<3 µg/kg	TM168		<60 M	<3 M				
PCB congener 153	<3 µg/kg	TM168		<60 M	<3 M				
PCB congener 180	<3 µg/kg	TM168		<60 M	<3 M				
Sum of detected PCB 7 Congeners	<21 µg/kg	TM168		<420	<21				
Sulphide, Easily liberated	<15 mg/kg	TM180		317 @ M	<15 @ M	<15 @ M	<15 @ M		
Arsenic	<0.6 mg/kg	TM181		35.3 M	16.7 M	13.8 M	16.2 M		
Cadmium	<0.02 mg/kg	TM181		0.383 M	0.0964 M	1.44 M	0.354 M		
Chromium	<0.9 mg/kg	TM181		11.1 M	18.3 M	16.1 M	19.9 M		
Copper	<1.4 mg/kg	TM181		143 M	36.3 M	83.5 M	101 M		
Lead	<0.7 mg/kg	TM181		283 M	35.9 M	193 M	204 M		
Mercury	<0.14 mg/kg	TM181		1.43 M	0.141 M	0.693 M	0.248 M		
Nickel	<0.2 mg/kg	TM181		28.1 M	30.5 M	27.2 M	39.5 M		
Selenium	<1 mg/kg	TM181		<1 #	<1 #	<1 #	<1 #		
Zinc	<1.9 mg/kg	TM181		186 M	69.5 M	294 M	297 M		
Sulphate, Total	<48 mg/kg	TM221		1010 M	206 M	1260 M	257 M		
Boron, water soluble	<1 mg/kg	TM222		2.47 M	<1 M	<1 M	<1 M		
Water Soluble Sulphate as SO4 2:1 Extract	<0.004 g/l	TM243		0.079 M	0.0563 M	0.451 M	0.0178 M		

Validated

CERTIFICATE OF ANALYSIS

SDG:	201026-6	**Client Reference:**	LD10162	**Report Number:**	574319
Location:	Ten Acres Lane	**Order Number:**	LD1675	**Superseded Report:**	

PAH by GCMS

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	TP117	TP118	TP130	TP134		
			Depth (m)	4.20 - 4.20	1.80 - 1.80	0.30 - 0.30	0.20 - 0.20		
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)		
			Date Sampled	15/10/2020	15/10/2020	15/10/2020	15/10/2020		
			Sample Time	-	-	-	-		
			Date Received	26/10/2020	26/10/2020	26/10/2020	26/10/2020		
			SDG Ref	201026-6	201026-6	201026-6	201026-6		
			Lab Sample No.(s)	23114638	23114653	23114662	23114649		
			AGS Reference						
Naphthalene-d8 % recovery**	%	TM218		111	88.6	85.7	84.3		
Acenaphthene-d10 % recovery**	%	TM218		118	87	86.8	87.1		
Phenanthrene-d10 % recovery**	%	TM218		99.8	86.5	91.4	85.7		
Chrysene-d12 % recovery**	%	TM218		89.6	83.1	94.1	90.9		
Perylene-d12 % recovery**	%	TM218		81	81.3	94.4	89.5		
Naphthalene	<9 µg/kg	TM218		279000 @ M	264 @ M	109 @ M	2300 @ M		
Acenaphthylene	<12 µg/kg	TM218		2780 @ M	94.9 @ M	52.8 @ M	232 @ M		
Acenaphthene	<8 µg/kg	TM218		341000 @ M	198 @ M	249 @ M	1420 @ M		
Fluorene	<10 µg/kg	TM218		322000 @ M	228 @ M	186 @ M	1200 @ M		
Phenanthrene	<15 µg/kg	TM218		1550000 @ M	1570 @ M	1920 @ M	10000 @ M		
Anthracene	<16 µg/kg	TM218		467000 @ M	333 @ M	411 @ M	2150 @ M		
Fluoranthene	<17 µg/kg	TM218		1290000 @ M	1710 @ M	3000 @ M	9640 @ M		
Pyrene	<15 µg/kg	TM218		1120000 @ M	1650 @ M	2800 @ M	9260 @ M		
Benz(a)anthracene	<14 µg/kg	TM218		432000 @ M	749 @ M	1330 @ M	4720 @ M		
Chrysene	<10 µg/kg	TM218		432000 @ M	726 @ M	1310 @ M	4550 @ M		
Benzo(b)fluoranthene	<15 µg/kg	TM218		461000 @ M	931 @ M	1860 @ M	4990 @ M		
Benzo(k)fluoranthene	<14 µg/kg	TM218		173000 @ M	351 @ M	594 @ M	2050 @ M		
Benzo(a)pyrene	<15 µg/kg	TM218		376000 @ M	692 @ M	1440 @ M	4290 @ M		
Indeno(1,2,3-cd)pyrene	<18 µg/kg	TM218		255000 @ M	446 @ M	1150 @ M	2920 @ M		
Dibenzo(a,h)anthracene	<23 µg/kg	TM218		51600 @ M	67.7 @ M	202 @ M	541 @ M		
Benzo(g,h,i)perylene	<24 µg/kg	TM218		208000 @ M	442 @ M	1070 @ M	2550 @ M		
PAH, Total Detected USEPA 16	<118 µg/kg	TM218		7770000	10400	17700	62900		

CERTIFICATE OF ANALYSIS

SDG:	201026-6	**Client Reference:**	LD10162	**Report Number:**	574319
Location:	Ten Acres Lane	**Order Number:**	LD1675	**Superseded Report:**	

Semi Volatile Organic Compounds

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+§@	Sample deviation (see appendix)

Customer Sample Ref.	TP117
Depth (m)	4.20 - 4.20
Sample Type	Soil/Solid (S)
Date Sampled	15/10/2020
Sample Time	-
Date Received	26/10/2020
SDG Ref	201026-6
Lab Sample No.(s)	23114638
AGS Reference	

Component	LOD/Units	Method	
Phenol	<100 µg/kg	TM157	<2000
Pentachlorophenol	<100 µg/kg	TM157	<2000
n-Nitroso-n-dipropylamine	<100 µg/kg	TM157	<2000
Nitrobenzene	<100 µg/kg	TM157	<2000
Isophorone	<100 µg/kg	TM157	<2000
Hexachloroethane	<100 µg/kg	TM157	<2000
Hexachlorocyclopentadiene	<100 µg/kg	TM157	<4000
Hexachlorobutadiene	<100 µg/kg	TM157	<2000
Hexachlorobenzene	<100 µg/kg	TM157	<2000
n-Dioctyl phthalate	<100 µg/kg	TM157	<2000
Dimethyl phthalate	<100 µg/kg	TM157	<2000
Diethyl phthalate	<100 µg/kg	TM157	<2000
n-Dibutyl phthalate	<100 µg/kg	TM157	<2000
Dibenzofuran	<100 µg/kg	TM157	114000
Carbazole	<100 µg/kg	TM157	47300
Butylbenzyl phthalate	<100 µg/kg	TM157	<2000
bis(2-Ethylhexyl) phthalate	<100 µg/kg	TM157	<2000
bis(2-Chloroethoxy)methane	<100 µg/kg	TM157	<2000
bis(2-Chloroethyl)ether	<100 µg/kg	TM157	<2000
Azobenzene	<100 µg/kg	TM157	<2000
4-Nitrophenol	<100 µg/kg	TM157	<2000
4-Nitroaniline	<100 µg/kg	TM157	<2000
4-Methylphenol	<100 µg/kg	TM157	<2000
4-Chlorophenylphenylether	<100 µg/kg	TM157	<2000
4-Chloroaniline	<100 µg/kg	TM157	<2000
4-Chloro-3-methylphenol	<100 µg/kg	TM157	<2000
4-Bromophenylphenylether	<100 µg/kg	TM157	<2000
3-Nitroaniline	<100 µg/kg	TM157	<2000
2-Nitrophenol	<100 µg/kg	TM157	<2000
2-Nitroaniline	<100 µg/kg	TM157	<2000
2-Methylphenol	<100 µg/kg	TM157	<2000
1,2,4-Trichlorobenzene	<100 µg/kg	TM157	<2000
2-Chlorophenol	<100 µg/kg	TM157	<2000

CERTIFICATE OF ANALYSIS

SDG:	201026-6	**Client Reference:**	LD10162	**Report Number:**	574319
Location:	Ten Acres Lane	**Order Number:**	LD1675	**Superseded Report:**	

Semi Volatile Organic Compounds

Results Legend	
#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+§@	Sample deviation (see appendix)

		Customer Sample Ref.	TP117
		Depth (m)	4.20 - 4.20
		Sample Type	Soil/Solid (S)
		Date Sampled	15/10/2020
		Sample Time	.
		Date Received	26/10/2020
		SDG Ref	201026-6
		Lab Sample No.(s)	23114638
		AGS Reference	
Component	**LOD/Units**	**Method**	
2,6-Dinitrotoluene	<100 µg/kg	TM157	<2000
2,4-Dinitrotoluene	<100 µg/kg	TM157	<2000
2,4-Dimethylphenol	<100 µg/kg	TM157	<2000
2,4-Dichlorophenol	<100 µg/kg	TM157	<2000
2,4,6-Trichlorophenol	<100 µg/kg	TM157	<2000
2,4,5-Trichlorophenol	<100 µg/kg	TM157	<2000
1,4-Dichlorobenzene	<100 µg/kg	TM157	<2000
1,3-Dichlorobenzene	<100 µg/kg	TM157	<2000
1,2-Dichlorobenzene	<100 µg/kg	TM157	<2000
2-Chloronaphthalene	<100 µg/kg	TM157	<2000
2-Methylnaphthalene	<100 µg/kg	TM157	97400
Acenaphthylene	<100 µg/kg	TM157	<2000
Acenaphthene	<100 µg/kg	TM157	174000
Anthracene	<100 µg/kg	TM157	196000
Benzo(a)anthracene	<100 µg/kg	TM157	196000
Benzo(b)fluoranthene	<100 µg/kg	TM157	197000
Benzo(k)fluoranthene	<100 µg/kg	TM157	155000
Benzo(a)pyrene	<100 µg/kg	TM157	192000
Benzo(g,h,i)perylene	<100 µg/kg	TM157	111000
Chrysene	<100 µg/kg	TM157	196000
Fluoranthene	<100 µg/kg	TM157	621000
Fluorene	<100 µg/kg	TM157	152000
Indeno(1,2,3-cd)pyrene	<100 µg/kg	TM157	133000
Phenanthrene	<100 µg/kg	TM157	725000
Pyrene	<100 µg/kg	TM157	513000
Naphthalene	<100 µg/kg	TM157	144000
Dibenzo(a,h)anthracene	<100 µg/kg	TM157	11300
Bis(2-chloroisopropyl) ether	<100 µg/kg	TM157	<2000

CERTIFICATE OF ANALYSIS

SDG:	201026-6	**Client Reference:**	LD10162	**Report Number:**	574319
Location:	Ten Acres Lane	**Order Number:**	LD1675	**Superseded Report:**	

TPH CWG (S)

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	TP117	TP118	TP130	TP134		
			Depth (m)	4.20 - 4.20	1.80 - 1.80	0.30 - 0.30	0.20 - 0.20		
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)		
			Date Sampled	15/10/2020	15/10/2020	15/10/2020	15/10/2020		
			Sample Time	-	-	-	-		
			Date Received	26/10/2020	26/10/2020	26/10/2020	26/10/2020		
			SDG Ref	201026-6	201026-6	201026-6	201026-6		
			Lab Sample No.(s)	23114638	23114653	23114662	23114649		
			AGS Reference						
GRO Surrogate % recovery**	%	TM089		93.3	71.1	93	92.7		
Aliphatics >C5-C6	<10 µg/kg	TM089		142	13.3	<10	<10		
Aliphatics >C6-C8	<10 µg/kg	TM089		853	30.3	<10	36.7		
Aliphatics >C8-C10	<10 µg/kg	TM089		5520	56.9	<10	49.8		
Aliphatics >C10-C12	<1000 µg/kg	TM414		20600	<1000	<1000	<1000		
Aliphatics >C12-C16	<1000 µg/kg	TM414		48100	<1000	<1000	1890		
Aliphatics >C16-C21	<1000 µg/kg	TM414		60000	<1000	2400	2270		
Aliphatics >C21-C35	<1000 µg/kg	TM414		388000	1750	14300	6620		
Aliphatics >C35-C44	<1000 µg/kg	TM414		129000	<1000	2340	<1000		
Total Aliphatics >C10-C44	<5000 µg/kg	TM414		646000	<5000	19300	12200		
Total Aliphatics & Aromatics >C10-C44	<10000 µg/kg	TM414		23800000	<10000	65500	568000		
Aromatics >EC5-EC7	<10 µg/kg	TM089		165	<10	<10	<10		
Aromatics >EC7-EC8	<10 µg/kg	TM089		134	<10	<10	<10		
Aromatics >EC8-EC10	<10 µg/kg	TM089		3680	38.7	<10	32.8		
Aromatics > EC10-EC12	<1000 µg/kg	TM414		459000	<1000	<1000	28800		
Aromatics > EC12-EC16	<1000 µg/kg	TM414		2610000	<1000	<1000	63700		
Aromatics > EC16-EC21	<1000 µg/kg	TM414		8780000	2320	7020	181000		
Aromatics > EC21-EC35	<1000 µg/kg	TM414		10200000	4040	34900	257000		
Aromatics >EC35-EC44	<1000 µg/kg	TM414		1050000	<1000	3660	25500		
Aromatics > EC40-EC44	<1000 µg/kg	TM414		157000	<1000	<1000	2770		
Total Aromatics > EC10-EC44	<5000 µg/kg	TM414		23100000	7360	46200	556000		
Total Aliphatics & Aromatics >C5-C44	<10000 µg/kg	TM414		23800000	<10000	65500	568000		
Total Aliphatics >C5-C10	<50 µg/kg	TM089		6510	100	<50	86.5		
Total Aromatics >EC5-EC10	<50 µg/kg	TM089		3980	<50	<50	<50		
GRO >C5-C10	<20 µg/kg	TM089		10500	100	<20	86.5		

Validated

CERTIFICATE OF ANALYSIS

SDG:	201026-6	**Client Reference:**	LD10162	**Report Number:**	574319
Location:	Ten Acres Lane	**Order Number:**	LD1675	**Superseded Report:**	

VOC MS (S)

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	TP117	TP118	TP130	TP134		
			Depth (m)	4.20 - 4.20	1.80 - 1.80	0.30 - 0.30	0.20 - 0.20		
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)		
			Date Sampled	15/10/2020	15/10/2020	15/10/2020	15/10/2020		
			Sample Time	-	-	-	-		
			Date Received	26/10/2020	26/10/2020	26/10/2020	26/10/2020		
			SDG Ref	201026-6	201026-6	201026-6	201026-6		
			Lab Sample No.(s)	23114638	23114653	23114662	23114649		
			AGS Reference						
Dibromofluoromethane**	%	TM116		118	113	113	113		
Toluene-d8**	%	TM116		98.4	100	101	101		
4-Bromofluorobenzene**	%	TM116		80.6	77.4	87.1	86.1		
Dichlorodifluoromethane	<6 µg/kg	TM116		<120 M					
Chloromethane	<7 µg/kg	TM116		<140 #					
Vinyl Chloride	<6 µg/kg	TM116		<120 M					
Bromomethane	<10 µg/kg	TM116		<200 M					
Chloroethane	<10 µg/kg	TM116		<200 M					
Trichlorofluorormethane	<6 µg/kg	TM116		<120 M					
1,1-Dichloroethene	<10 µg/kg	TM116		<200 #					
Carbon Disulphide	<7 µg/kg	TM116		<140 M					
Dichloromethane	<10 µg/kg	TM116		<200 #					
Methyl Tertiary Butyl Ether	<10 µg/kg	TM116		<200 M	<100 M	<100 M	<100 M		
trans-1,2-Dichloroethene	<10 µg/kg	TM116		<200 M					
1,1-Dichloroethane	<8 µg/kg	TM116		<160 M					
cis-1,2-Dichloroethene	<6 µg/kg	TM116		<120 M					
2,2-Dichloropropane	<10 µg/kg	TM116		<200					
Bromochloromethane	<10 µg/kg	TM116		<200 M					
Chloroform	<8 µg/kg	TM116		<160 M					
1,1,1-Trichloroethane	<7 µg/kg	TM116		<140 M					
1,1-Dichloropropene	<10 µg/kg	TM116		<200 M					
Carbontetrachloride	<10 µg/kg	TM116		<200 M					
1,2-Dichloroethane	<5 µg/kg	TM116		<100 M					
Benzene	<9 µg/kg	TM116		<180 M	<90 M	<90 M	<90 M		
Trichloroethene	<9 µg/kg	TM116		<180 #					
1,2-Dichloropropane	<10 µg/kg	TM116		<200 M					
Dibromomethane	<9 µg/kg	TM116		<180 M					
Bromodichloromethane	<7 µg/kg	TM116		<140 M					
cis-1,3-Dichloropropene	<10 µg/kg	TM116		<200 M					
Toluene	<7 µg/kg	TM116		<140 M	<70 M	<70 M	<70 M		
trans-1,3-Dichloropropene	<10 µg/kg	TM116		<200					
1,1,2-Trichloroethane	<10 µg/kg	TM116		<200 M					
1,3-Dichloropropane	<7 µg/kg	TM116		<140 M					

CERTIFICATE OF ANALYSIS

SDG:	201026-6	**Client Reference:**	LD10162	**Report Number:**	574319
Location:	Ten Acres Lane	**Order Number:**	LD1675	**Superseded Report:**	

VOC MS (S)

Results Legend	
#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	TP117	TP118	TP130	TP134		
			Depth (m)	4.20 - 4.20	1.80 - 1.80	0.30 - 0.30	0.20 - 0.20		
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)		
			Date Sampled	15/10/2020	15/10/2020	15/10/2020	15/10/2020		
			Sample Time	.	.	.	.		
			Date Received	26/10/2020	26/10/2020	26/10/2020	26/10/2020		
			SDG Ref	201026-6	201026-6	201026-6	201026-6		
			Lab Sample No.(s)	23114638	23114653	23114662	23114649		
			AGS Reference						
Tetrachloroethene	<5 µg/kg	TM116		<100 M					
Dibromochloromethane	<10 µg/kg	TM116		<200 M					
1,2-Dibromoethane	<10 µg/kg	TM116		<200 M					
Chlorobenzene	<5 µg/kg	TM116		<100 M					
1,1,1,2-Tetrachloroethane	<10 µg/kg	TM116		<200 M					
Ethylbenzene	<4 µg/kg	TM116		360 M	<40 M	<40 M	<40 M		
p/m-Xylene	<10 µg/kg	TM116		<200 #	<100 #	<100 #	<100 #		
o-Xylene	<10 µg/kg	TM116		<200 M	<100 M	<100 M	<100 M		
Styrene	<10 µg/kg	TM116		<200 #					
Bromoform	<10 µg/kg	TM116		<200 M					
Isopropylbenzene	<5 µg/kg	TM116		<100 #					
1,1,2,2-Tetrachloroethane	<10 µg/kg	TM116		<200 #					
1,2,3-Trichloropropane	<16 µg/kg	TM116		<320 M					
Bromobenzene	<10 µg/kg	TM116		<200 M					
Propylbenzene	<10 µg/kg	TM116		<200 M					
2-Chlorotoluene	<9 µg/kg	TM116		<180 M					
1,3,5-Trimethylbenzene	<8 µg/kg	TM116		<160 M					
4-Chlorotoluene	<10 µg/kg	TM116		<200 M					
tert-Butylbenzene	<14 µg/kg	TM116		<280 M					
1,2,4-Trimethylbenzene	<9 µg/kg	TM116		653 #					
sec-Butylbenzene	<10 µg/kg	TM116		<200					
4-Isopropyltoluene	<10 µg/kg	TM116		<200 M					
1,3-Dichlorobenzene	<8 µg/kg	TM116		<160 M					
1,4-Dichlorobenzene	<5 µg/kg	TM116		<100 M					
n-Butylbenzene	<11 µg/kg	TM116		<220					
1,2-Dichlorobenzene	<10 µg/kg	TM116		<200 M					
1,2-Dibromo-3-chloropropane	<14 µg/kg	TM116		<280 M					
Tert-amyl methyl ether	<10 µg/kg	TM116		<200 #					
1,2,4-Trichlorobenzene	<20 µg/kg	TM116		<400					
Hexachlorobutadiene	<20 µg/kg	TM116		<400					
Naphthalene	<13 µg/kg	TM116		83400 M					
1,2,3-Trichlorobenzene	<20 µg/kg	TM116		<400 #					
1,3,5-Trichlorobenzene	<20 µg/kg	TM116		<400					

CERTIFICATE OF ANALYSIS

SDG:	201026-6	**Client Reference:**	LD10162	**Report Number:**	574319
Location:	Ten Acres Lane	**Order Number:**	LD1675	**Superseded Report:**	

VOC MS (S)

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	TP117	TP118	TP130	TP134		
			Depth (m)	4.20 - 4.20	1.80 - 1.80	0.30 - 0.30	0.20 - 0.20		
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)		
			Date Sampled	15/10/2020	15/10/2020	15/10/2020	15/10/2020		
			Sample Time	.	.	.	.		
			Date Received	26/10/2020	26/10/2020	26/10/2020	26/10/2020		
			SDG Ref	201026-6	201026-6	201026-6	201026-6		
			Lab Sample No.(s)	23114638	23114653	23114662	23114649		
			AGS Reference						
Sum of Detected Xylenes	<0.02 mg/kg	TM116		<0.4	<0.2	<0.2	<0.2		
Sum of BTEX	<40 µg/kg	TM116		<800	<400	<400	<400		

CERTIFICATE OF ANALYSIS

SDG:	201026-6	**Client Reference:**	LD10162	**Report Number:**	574319
Location:	Ten Acres Lane	**Order Number:**	LD1675	**Superseded Report:**	

Asbestos Identification - Solid Samples

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
*	Subcontracted test.
(F)	Trigger breach confirmed
1-5&♦$@	Sample deviation (see appendix)

		Date of Analysis	Analysed By	Comments	Amosite (Brown) Asbestos	Chrysotile (White) Asbestos	Crocidolite (Blue) Asbestos	Fibrous Actinolite	Fibrous Anthophyllite	Fibrous Tremolite	Non-Asbestos Fibre
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Receieved SDG Original Sample Method Number	TP117 4.20 - 4.20 SOLID 15/10/2020 00:00:00 26/10/2020 09:00:00 201026-6 23114638 TM048	04/11/2020	Christian Hallam	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Receieved SDG Original Sample Method Number	TP118 1.80 - 1.80 SOLID 15/10/2020 00:00:00 26/10/2020 09:00:00 201026-6 23114653 TM048	04/11/2020	James Richards	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Receieved SDG Original Sample Method Number	TP130 0.30 - 0.30 SOLID 15/10/2020 00:00:00 26/10/2020 09:00:00 201026-6 23114662 TM048	04/11/2020	Paul Poynton	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Receieved SDG Original Sample Method Number	TP134 0.20 - 0.20 SOLID 15/10/2020 00:00:00 26/10/2020 09:00:00 201026-6 23114649 TM048	04/11/2020	Christian Hallam	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected

CERTIFICATE OF ANALYSIS

SDG:	201026-6	**Client Reference:**	LD10162	**Report Number:**	574319
Location:	Ten Acres Lane	**Order Number:**	LD1675	**Superseded Report:**	

Table of Results - Appendix

Method No	Reference	Description
PM024	Modified BS 1377	Soil preparation including homogenisation, moisture screens of soils for Asbestos Containing Material
TM048	HSG 248, Asbestos: The analysts' guide for sampling, analysis and clearance procedures	Identification of Asbestos in Bulk Material
TM062 (S)	National Grid Property Holdings Methods for the Collection & Analysis of Samples from National Grid Sites version 1 Sec 3.9	Determination of Phenols in Soils by HPLC
TM089	Modified: US EPA Methods 8020 & 602	Determination of Gasoline Range Hydrocarbons (GRO) by Headspace GC-FID (C4-C12)
TM116	Modified: US EPA Method 8260, 8120, 8020, 624, 610 & 602	Determination of Volatile Organic Compounds by Headspace / GC-MS
TM132	In - house Method	ELTRA CS800 Operators Guide
TM133	BS 1377: Part 3 1990;BS 6068-2.5	Determination of pH in Soil and Water using the GLpH pH Meter
TM151	Method 3500D, AWWA/APHA, 20th Ed., 1999	Determination of Hexavalent Chromium using Kone analyser
TM153	Method 4500A,B,C, I, M AWWA/APHA, 20th Ed., 1999	Determination of Total Cyanide, Free (Easily Liberatable) Cyanide and Thiocyanate using the Skalar SANS+ System Segmented Flow Analyser
TM157	HP 6890 Gas Chromatograph (GC) system and HP 5973 Mass Selective Detector (MSD).	Determination of SVOC in Soils by GC-MS extracted by sonication in DCM/Acetone
TM168	EPA Method 8082, Polychlorinated Biphenyls by Gas Chromatography	Determination of WHO12 and EC7 Polychlorinated Biphenyl Congeners by GC-MS in Soils
TM180	Sulphide in waters and waste waters 1991 ISBN 01 175 7186 SCA rec. 2007 (unpublished)'	The Determination Of Easily Liberated Sulphide In Soil Samples by Ion Selective Electrode Technique
TM181	US EPA Method 6010B	Determination of Routine Metals in Soil by iCap 6500 Duo ICP-OES
TM218	Shaker extraction - EPA method 3546.	The determination of PAH in soil samples by GC-MS
TM221	Inductively Coupled Plasma - Atomic Emission Spectroscopy. An Atlas of Spectral Information: Winge, Fassel, Peterson and Floyd	Determination of Acid extractable Sulphate in Soils by IRIS Emission Spectrometer
TM222	In-House Method	Determination of Hot Water Soluble Boron in Soils (10:1 Water:soil) by IRIS Emission Spectrometer
TM243		Mixed Anions In Soils By Kone
TM414	Analysis of Petroleum Hydrocarbons in Environmental Media – Total Petroleum Hydrocarbon Criteria	Determination of Speciated Extractable Petroleum Hydrocarbons in Soils by GCxGC-FID

NA = not applicable.

Chemical testing (unless subcontracted) performed at ALS Life Sciences Ltd Hawarden (Method codes TM) or ALS Life Sciences Ltd Aberdeen (Method codes S).

CERTIFICATE OF ANALYSIS

SDG:	201026-6	**Client Reference:**	LD10162	**Report Number:**	574319
Location:	Ten Acres Lane	**Order Number:**	LD1675	**Superseded Report:**	

Test Completion Dates

Lab Sample No(s)	23114638	23114653	23114662	23114649
Customer Sample Ref.	TP117	TP118	TP130	TP134
AGS Ref.				
Depth	4.20 - 4.20	1.80 - 1.80	0.30 - 0.30	0.20 - 0.20
Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
Anions by Kone (soil)	05-Nov-2020	05-Nov-2020	05-Nov-2020	05-Nov-2020
Asbestos ID in Solid Samples	04-Nov-2020	04-Nov-2020	04-Nov-2020	04-Nov-2020
Boron Water Soluble	03-Nov-2020	04-Nov-2020	03-Nov-2020	04-Nov-2020
Cyanide Comp/Free/Total/Thiocyanate	03-Nov-2020	03-Nov-2020	03-Nov-2020	03-Nov-2020
Easily Liberated Sulphide	03-Nov-2020	03-Nov-2020	04-Nov-2020	03-Nov-2020
EPH CWG GC (S)	03-Nov-2020	03-Nov-2020	03-Nov-2020	03-Nov-2020
GRO by GC-FID (S)	02-Nov-2020	02-Nov-2020	02-Nov-2020	02-Nov-2020
Hexavalent Chromium (s)	04-Nov-2020	04-Nov-2020	04-Nov-2020	04-Nov-2020
Metals in solid samples by OES	03-Nov-2020	04-Nov-2020	03-Nov-2020	04-Nov-2020
PAH by GCMS	04-Nov-2020	04-Nov-2020	03-Nov-2020	03-Nov-2020
PCBs by GCMS	04-Nov-2020	04-Nov-2020		
pH	03-Nov-2020	03-Nov-2020	03-Nov-2020	03-Nov-2020
Phenols by HPLC (S)	04-Nov-2020	05-Nov-2020	04-Nov-2020	04-Nov-2020
Sample description	30-Oct-2020	30-Oct-2020	30-Oct-2020	30-Oct-2020
Semi Volatile Organic Compounds	03-Nov-2020			
Total Organic Carbon	03-Nov-2020	03-Nov-2020	03-Nov-2020	03-Nov-2020
Total Sulphate	03-Nov-2020	03-Nov-2020	03-Nov-2020	03-Nov-2020
TPH CWG GC (S)	03-Nov-2020	03-Nov-2020	03-Nov-2020	03-Nov-2020
VOC MS (S)	02-Nov-2020	02-Nov-2020	02-Nov-2020	02-Nov-2020

Appendix General

1. Results are expressed on a dry weight basis (dried at 35ºC) for all soil analyses except for the following: NRA and CEN Leach tests, flash point LOI, pH, ammonium as NH4 by the BRE method, VOC TICs and SVOC TICs.

2. If sufficient sample is received a sub sample will be retained free of charge for 30 days after analysis is completed (e-mailed) for all sample types unless the sample is destroyed on testing. The prepared soil sub sample that is analysed for asbestos will be retained for a period of 6 months after the analysis date. All bulk samples will be retained for a period of 6 months after the analysis date. All samples received and not scheduled will be disposed of one month after the date of receipt unless we are instructed to the contrary. Once the initial period has expired, a storage charge will be applied for each month or part thereof until the client cancels the request for sample storage. ALS reserve the right to charge for samples received and stored but not analysed.

3. With respect to turnaround, we will always endeavour to meet client requirements wherever possible, but turnaround times cannot be absolutely guaranteed due to so many variables beyond our control.

4. We take responsibility for any test performed by sub-contractors (marked with an asterisk). We endeavour to use UKAS/MCERTS Accredited Laboratories, who either complete a quality questionnaire or are audited by ourselves. For some determinands there are no UKAS/MCERTS Accredited Laboratories, in this instance a laboratory with a known track record will be utilised.

5. If no separate volatile sample is supplied by the client, or if a headspace or sediment is present in the volatile sample, the integrity of the data may be compromised. This will be flagged up as an invalid VOC on the test schedule and the result marked as deviating on the test certificate.

6. NDP - No determination possible due to insufficient/unsuitable sample.

7. Results relate only to the items tested.

8. LoDs (Limit of Detection) for wet tests reported on a dry weight basis are not corrected for moisture content.

9. **Surrogate recoveries** - Surrogates are added to your sample to monitor recovery of the test requested. A % recovery is reported, results are not corrected for the recovery measured. Typical recoveries for organics tests are 70-130%. Recoveries in soils are affected by organic rich or clay rich matrices. Waters can be affected by remediation fluids or high amounts of sediment. Test results are only ever reported if all of the associated quality checks pass; it is assumed that all recoveries outside of the values above are due to matrix affect.

10. Stones/debris are not routinely removed. We always endeavour to take a representative sub sample from the received sample.

11. In certain circumstances the method detection limit may be elevated due to the sample being outside the calibration range. Other factors that may contribute to this include possible interferences. In both cases the sample would be diluted which would cause the method detection limit to be raised.

12. Mercury results quoted on soils will not include volatile mercury as the analysis is performed on a dried and crushed sample.

13. For leachate preparations other than Zero Headspace Extraction (ZHE) volatile loss may occur.

14. For the BSEN 12457-3 two batch process to allow the cumulative release to be calculated, the volume of the leachate produced is measured and filtered for all tests. We therefore cannot carry out any unfiltered analysis. The tests affected include volatiles GCFID/GCMS and all subcontracted analysis.

15. Analysis and identification of specific compounds using GCFID is by retention time only, and we routinely calibrate and quantify for benzene, toluene, ethylbenzenes and xylenes (BTEX). For total volatiles in the C5-C12 range, the total area of the chromatogram is integrated and expressed as ug/kg or ug/l. Although this analysis is commonly used for the quantification of gasoline range organics (GRO), the system will also detect other compounds such as chlorinated solvents, and this may lead to a falsely high result with respect to hydrocarbons only. It is not possible to specifically identify these non-hydrocarbons, as standards are not routinely run for any other compounds, and for more definitive identification, volatiles by GCMS should be utilised.

16. We are accredited to MCERTS for sand, clay and loam/topsoil, or any of these materials - whether these are derived from naturally occurring soil profiles, or from fill/made ground, as long as these materials constitute the major part of the sample. Other coarse granular material such as concrete, gravel and brick are not accredited if they comprise the major part of the sample.

17. **Tentatively Identified Compounds (TICs)** are non-target peaks in VOC and SVOC analysis. All non-target peaks detected with a concentration above the LoD are subjected to a mass spectral library search. Non-target peaks with a library search confidence of >75% are reported based on the best mass spectral library match. When a non-target peak with a library search confidence of <75% is detected it is reported as "mixed hydrocarbons". Non-target compounds identified from the scan data are semi-quantified relative to one of the deuterated internal standards, under the same chromatographic conditions as the target compounds. This result is reported as a semi-quantitative value and reported as Tentatively Identified Compounds (TICs). TICs are outside the scope of UKAS accreditation and are not moisture corrected.

18. **Sample Deviations**

If a sample is classed as deviated then the associated results may be compromised.

1	**Container with Headspace provided for volatiles analysis**
2	**Incorrect container received**
3	**Deviation from method**
4	**Matrix interference**
♦	**Sample holding time exceeded in laboratory**
@	**Sample holding time exceeded due to late arrival of instructions or samples**
§	**Sampled on date not provided**

19. **Asbestos**

When requested, the individual sub sample scheduled will be analysed in house for the presence of asbestos fibres and asbestos containing material by our documented in house method TM048 based on HSG 248 (2005), which is accredited to ISO17025. If a specific asbestos fibre type is not found this will be reported as "Not detected". If no asbestos fibre types are found all will be reported as "Not detected" and the sub sample analysed deemed to be clear of asbestos. If an asbestos fibre type is found it will be reported as detected (for each fibre type found). Testing can be carried out on asbestos positive samples, but, due to Health and Safety considerations, may be replaced by alternative tests or reported as No Determination Possible (NDP). The quantity of asbestos present is not determined unless specifically requested.

Identification of Asbestos in Bulk Materials & Soils

The results for identification of asbestos in bulk materials are obtained from supplied bulk materials which have been examined to determine the presence of asbestos fibres using ALS (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining, based on HSG 248 (2005).

The results for identification of asbestos in soils are obtained from a homogenised sub sample which has been examined to determine the presence of asbestos fibres using ALS (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining, based on HSG 248 (2005).

Asbestos Type	Common Name
Chrysotile	White Asbestos
Amosite	Brown Asbestos
Crocidolite	Blue Asbestos
Fibrous Actinolite	-
Fibrous Anthophyllite	-
Fibrous Tremolite	-

Visual Estimation Of Fibre Content

Estimation of fibre content is not permitted as part of our UKAS accredited test other than: - Trace - Where only one or two asbestos fibres were identified.

Respirable Fibres

Respirable fibres are defined as fibres of <3 µm diameter, longer than 5 µm and with aspect ratios of at least 3:1 that can be inhaled into the lower regions of the lung and are generally acknowledged to be most important predictor of hazard and risk for cancers of the lung.
Standing Committee of Analysts, *The Quantification of Asbestos in Soil (2017).*

Further guidance on typical asbestos fibre content of manufactured products can be found in HSG 264.

The identification of asbestos containing materials and soils falls within our schedule of tests for which we hold UKAS accreditation, however opinions, interpretations and all other information contained in the report are outside the scope of UKAS accreditation.

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Website: www.alsenvironmental.co.uk

Wardell Armstrong LLP
36 Park Row
Leeds
LS1 5JL

Attention: Jonathan Currie

CERTIFICATE OF ANALYSIS

Date of report Generation:	09 November 2020
Customer:	Wardell Armstrong LLP
Sample Delivery Group (SDG):	201027-76
Your Reference:	LD10162
Location:	Ten Acres Lane
Report No:	574679

We received 4 samples on Tuesday October 27, 2020 and 3 of these samples were scheduled for analysis which was completed on Monday November 09, 2020. Accredited laboratory tests are defined within the report, but opinions, interpretations and on-site data expressed herein are outside the scope of ISO 17025 accreditation.

Should this report require incorporation into client reports, it must be used in its entirety and not simply with the data sections alone.

Chemical testing (unless subcontracted) performed at ALS Life Sciences Ltd Hawarden (Method codes TM) or ALS Life Sciences Ltd Aberdeen (Method codes S).

All sample data is provided by the customer. The reported results relate to the sample supplied, and on the basis that this data is correct.
Incorrect sampling dates and/or sample information will affect the validity of results.
The customer is not permitted to reproduce this report except in full without the approval of the laboratory.

Approved By:

Sonia McWhan

Operations Manager

CERTIFICATE OF ANALYSIS

SDG:	201027-76	**Client Reference:**	LD10162	**Report Number:**	574679
Location:	Ten Acres Lane	**Order Number:**	LD1683	**Superseded Report:**	

Received Sample Overview

Lab Sample No(s)	Customer Sample Ref.	AGS Ref.	Depth (m)	Sampled Date
23122295	WS102		2.80 - 2.80	23/10/2020
23122288	WS107		1.40 - 1.40	23/10/2020
23122291	WS108		0.80 - 0.80	23/10/2020
23122301	WS119		1.50 - 1.50	23/10/2020

Only received samples which have had analysis scheduled will be shown on the following pages.

Validated

CERTIFICATE OF ANALYSIS

SDG:	201027-76	**Client Reference:**	LD10162	**Report Number:**	574679
Location:	Ten Acres Lane	**Order Number:**	LD1683	**Superseded Report:**	

Results Legend

X Test

N No Determination Possible

Sample Types -

S - Soil/Solid
UNS - Unspecified Solid
GW - Ground Water
SW - Surface Water
LE - Land Leachate
PL - Prepared Leachate
PR - Process Water
SA - Saline Water
TE - Trade Effluent
TS - Treated Sewage
US - Untreated Sewage
RE - Recreational Water
DW - Drinking Water Non-regulatory
UNL - Unspecified Liquid
SL - Sludge
G - Gas
OTH - Other

			Lab Sample No(s)		23122295		23122288		23122301	
			Customer Sample Reference		WS102		WS107		WS119	
			AGS Reference							
			Depth (m)		2.80 - 2.80		1.40 - 1.40		1.50 - 1.50	
			Container		250g Amber Jar (ALE210)	60g VOC (ALE215)	250g Amber Jar (ALE210)	60g VOC (ALE215)	250g Amber Jar (ALE210)	60g VOC (ALE215)
			Sample Type		S	S	S	S	S	S
Anions by Kone (soil)	All	NDPs: 0 Tests: 3			X		X		X	
Asbestos ID in Solid Samples	All	NDPs: 0 Tests: 3			X		X		X	
Boron Water Soluble	All	NDPs: 0 Tests: 3			X		X		X	
Cyanide Comp/Free/Total/Thiocyanate	All	NDPs: 0 Tests: 3			X		X		X	
Easily Liberated Sulphide	All	NDPs: 0 Tests: 3			X		X		X	
EPH CWG GC (S)	All	NDPs: 0 Tests: 3			X		X		X	
GRO by GC-FID (S)	All	NDPs: 0 Tests: 3				X		X		X
Hexavalent Chromium (s)	All	NDPs: 0 Tests: 3			X		X		X	
Metals in solid samples by OES	All	NDPs: 0 Tests: 3			X		X		X	
PAH by GCMS	All	NDPs: 0 Tests: 3			X		X			X
PCBs by GCMS	All	NDPs: 0 Tests: 1			X					
pH	All	NDPs: 0 Tests: 3			X		X		X	
Phenols by HPLC (S)	All	NDPs: 0 Tests: 3			X		X		X	
Sample description	All	NDPs: 0 Tests: 3			X		X		X	
Semi Volatile Organic Compounds	All	NDPs: 0 Tests: 1			X					

Validated

CERTIFICATE OF ANALYSIS

SDG:	201027-76	**Client Reference:**	LD10162	**Report Number:**	574679
Location:	Ten Acres Lane	**Order Number:**	LD1683	**Superseded Report:**	

Results Legend

X **Test**

N **No Determination Possible**

Sample Types -
S - Soil/Solid
UNS - Unspecified Solid
GW - Ground Water
SW - Surface Water
LE - Land Leachate
PL - Prepared Leachate
PR - Process Water
SA - Saline Water
TE - Trade Effluent
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RE - Recreational Water
DW - Drinking Water Non-regulatory
UNL - Unspecified Liquid
SL - Sludge
G - Gas
OTH - Other

Lab Sample No(s)			23122295		23122288		23122301	
Customer Sample Reference			WS102		WS107		WS119	
AGS Reference								
Depth (m)			2.80 - 2.80		1.40 - 1.40		1.50 - 1.50	
Container			250g Amber Jar (ALE210)	60g VOC (ALE215)	250g Amber Jar (ALE210)	60g VOC (ALE215)	250g Amber Jar (ALE210)	60g VOC (ALE215)
Sample Type			S	S	S	S	S	S
Total Organic Carbon	All	NDPs: 0 Tests: 3	X		X		X	
Total Sulphate	All	NDPs: 0 Tests: 3	X		X		X	
TPH CWG GC (S)	All	NDPs: 0 Tests: 3	X		X		X	
VOC MS (S)	All	NDPs: 0 Tests: 3		X		X		X

CERTIFICATE OF ANALYSIS

SDG:	201027-76	**Client Reference:**	LD10162	**Report Number:**	574679
Location:	Ten Acres Lane	**Order Number:**	LD1683	**Superseded Report:**	

Sample Descriptions

Grain Sizes

very fine	<0.063mm	**fine**	0.063mm - 0.1mm	**medium**	0.1mm - 2mm	**coarse**	2mm - 10mm	**very coarse**	>10mm

Lab Sample No(s)	Customer Sample Ref.	Depth (m)	Colour	Description	Inclusions	Inclusions 2
23122295	WS102	2.80 - 2.80	Black	Sludge	Oil/Petroleum	None
23122288	WS107	1.40 - 1.40	Dark Brown	Silt Loam	Stones	Oil/Petroleum
23122301	WS119	1.50 - 1.50	Dark Brown	Sand	Stones	None

These descriptions are only intended to act as a cross check if sample identities are questioned, and to provide a log of sample matrices with respect to MCERTS validation. They are not intended as full geological descriptions.

We are accredited to MCERTS for sand, clay and loam/topsoil, or any of these materials - whether these are derived from naturally ocurring soil profiles, or from fill/made ground, as long as these materials constitute the major part of the sample.

Other coarse granular materials such as concrete, gravel and brick are not accredited if they comprise the major part of the sample.

Validated

CERTIFICATE OF ANALYSIS

SDG:	201027-76	**Client Reference:**	LD10162	**Report Number:**	574679
Location:	Ten Acres Lane	**Order Number:**	LD1683	**Superseded Report:**	

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	WS102	WS107	WS119			
			Depth (m)	2.80 - 2.80	1.40 - 1.40	1.50 - 1.50			
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)			
			Date Sampled	23/10/2020	23/10/2020	23/10/2020			
			Sample Time	-	-	-			
			Date Received	27/10/2020	27/10/2020	27/10/2020			
			SDG Ref	201027-76	201027-76	201027-76			
			Lab Sample No.(s)	23122295	23122288	23122301			
			AGS Reference						
Moisture Content Ratio (% of as received sample)	%	PM024		42	37	17			
Phenol	<0.01 mg/kg	TM062 (S)		<0.01 #	0.0159 M	<0.01 M			
Cresols	<0.01 mg/kg	TM062 (S)		0.0346 #	0.0159 M	<0.01 M			
Xylenols	<0.015 mg/kg	TM062 (S)		<0.015 #	<0.015 M	<0.015 M			
Phenols, Total Detected monohydric	<0.035 mg/kg	TM062 (S)		<0.035 #	<0.035 M	<0.035 M			
Soil Organic Matter (SOM)	<0.35 %	TM132		15.5 #	16.4 #	31.2 #			
pH	1 pH Units	TM133		7.22 #	6.79 M	7.2 M			
Chromium, Hexavalent	<0.6 mg/kg	TM151		<0.6 #	<6 #	<0.6 #			
Cyanide, Total	<1 mg/kg	TM153		3.1 #	<1 M	<1 M			
PCB congener 28	<3 µg/kg	TM168		<15 #					
PCB congener 52	<3 µg/kg	TM168		<15 #					
PCB congener 101	<3 µg/kg	TM168		<15 #					
PCB congener 118	<3 µg/kg	TM168		<15 #					
PCB congener 138	<3 µg/kg	TM168		<15 #					
PCB congener 153	<3 µg/kg	TM168		<15 #					
PCB congener 180	<3 µg/kg	TM168		<15 #					
Sum of detected PCB 7 Congeners	<21 µg/kg	TM168		<105					
Sulphide, Easily liberated	<15 mg/kg	TM180		54.5 @ #	84.2 @ M	<15 @ M			
Arsenic	<0.6 mg/kg	TM181		55.9 #	44.7 M	24.7 M			
Cadmium	<0.02 mg/kg	TM181		0.845 #	0.394 M	0.558 M			
Chromium	<0.9 mg/kg	TM181		35.5 #	22.1 M	<0.9 M			
Copper	<1.4 mg/kg	TM181		207 #	89.3 M	117 M			
Lead	<0.7 mg/kg	TM181		291 #	186 M	6.38 M			
Mercury	<0.14 mg/kg	TM181		0.334 #	0.44 M	<0.14 M			
Nickel	<0.2 mg/kg	TM181		45.5 #	27.9 M	50.2 M			
Selenium	<1 mg/kg	TM181		2 #	<1 #	<1 #			
Zinc	<1.9 mg/kg	TM181		279 #	92.1 M	15.7 M			
Sulphate, Total	<48 mg/kg	TM221		916 #	910 M	497 M			
Boron, water soluble	<1 mg/kg	TM222		3.73 #	3.07 M	<1 M			
Water Soluble Sulphate as SO4 2:1 Extract	<0.004 g/l	TM243		0.0663 #	<0.004 M	0.0399 M			

Validated

CERTIFICATE OF ANALYSIS

SDG:	201027-76	**Client Reference:**	LD10162	**Report Number:**	574679
Location:	Ten Acres Lane	**Order Number:**	LD1683	**Superseded Report:**	

PAH by GCMS

Results Legend	
#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	WS102	WS107	WS119			
			Depth (m)	2.80 - 2.80	1.40 - 1.40	1.50 - 1.50			
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)			
			Date Sampled	23/10/2020	23/10/2020	23/10/2020			
			Sample Time	-	-	-			
			Date Received	27/10/2020	27/10/2020	27/10/2020			
			SDG Ref	201027-76	201027-76	201027-76			
			Lab Sample No.(s)	23122295	23122288	23122301			
			AGS Reference						
Naphthalene-d8 % recovery**	%	TM218		78.4	86	76.6			
Acenaphthene-d10 % recovery**	%	TM218		79.3	82.4	76.1			
Phenanthrene-d10 % recovery**	%	TM218		82.5	85.6	65.9			
Chrysene-d12 % recovery**	%	TM218		85.6	91.1	55			
Perylene-d12 % recovery**	%	TM218		86.6	90.6	45.4			
Naphthalene	<9 µg/kg	TM218		3610 #	260 M	<9 M			
Acenaphthylene	<12 µg/kg	TM218		452 #	363 M	<12 M			
Acenaphthene	<8 µg/kg	TM218		7230 #	1200 M	<8 M			
Fluorene	<10 µg/kg	TM218		7840 #	871 M	<10 M			
Phenanthrene	<15 µg/kg	TM218		38100 #	3660 M	156 M			
Anthracene	<16 µg/kg	TM218		8050 #	599 M	51.6 M			
Fluoranthene	<17 µg/kg	TM218		29800 #	3650 M	320 M			
Pyrene	<15 µg/kg	TM218		24500 #	3570 M	294 M			
Benz(a)anthracene	<14 µg/kg	TM218		10000 #	1870 M	328 M			
Chrysene	<10 µg/kg	TM218		10500 #	1940 M	338 M			
Benzo(b)fluoranthene	<15 µg/kg	TM218		11800 #	2430 M	537 M			
Benzo(k)fluoranthene	<14 µg/kg	TM218		4160 #	911 M	209 M			
Benzo(a)pyrene	<15 µg/kg	TM218		9130 #	1750 M	444 M			
Indeno(1,2,3-cd)pyrene	<18 µg/kg	TM218		5720 #	1260 M	376 M			
Dibenzo(a,h)anthracene	<23 µg/kg	TM218		776 #	163 M	54.4 M			
Benzo(g,h,i)perylene	<24 µg/kg	TM218		4990 #	1130 M	314 M			
PAH, Total Detected USEPA 16	<118 µg/kg	TM218		177000	25600	3420			

CERTIFICATE OF ANALYSIS

SDG:	201027-76	**Client Reference:**	LD10162	**Report Number:**	574679
Location:	Ten Acres Lane	**Order Number:**	LD1683	**Superseded Report:**	

Semi Volatile Organic Compounds

Results Legend	
#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+§@	Sample deviation (see appendix)

Customer Sample Ref.	WS102
Depth (m)	2.80 - 2.80
Sample Type	Soil/Solid (S)
Date Sampled	23/10/2020
Sample Time	-
Date Received	27/10/2020
SDG Ref	201027-76
Lab Sample No.(s)	23122295
AGS Reference	

Component	LOD/Units	Method	
Phenol	<100 µg/kg	TM157	<200
Pentachlorophenol	<100 µg/kg	TM157	<200
n-Nitroso-n-dipropylamine	<100 µg/kg	TM157	<200
Nitrobenzene	<100 µg/kg	TM157	<200
Isophorone	<100 µg/kg	TM157	<200
Hexachloroethane	<100 µg/kg	TM157	<200
Hexachlorocyclopentadiene	<100 µg/kg	TM157	<1000
Hexachlorobutadiene	<100 µg/kg	TM157	<200
Hexachlorobenzene	<100 µg/kg	TM157	<200
n-Dioctyl phthalate	<100 µg/kg	TM157	<200
Dimethyl phthalate	<100 µg/kg	TM157	<200
Diethyl phthalate	<100 µg/kg	TM157	<200
n-Dibutyl phthalate	<100 µg/kg	TM157	<200
Dibenzofuran	<100 µg/kg	TM157	4130
Carbazole	<100 µg/kg	TM157	1720
Butylbenzyl phthalate	<100 µg/kg	TM157	<200
bis(2-Ethylhexyl) phthalate	<100 µg/kg	TM157	<200
bis(2-Chloroethoxy)methane	<100 µg/kg	TM157	<200
bis(2-Chloroethyl)ether	<100 µg/kg	TM157	<200
Azobenzene	<100 µg/kg	TM157	<200
4-Nitrophenol	<100 µg/kg	TM157	<200
4-Nitroaniline	<100 µg/kg	TM157	<200
4-Methylphenol	<100 µg/kg	TM157	<200
4-Chlorophenylphenylether	<100 µg/kg	TM157	<200
4-Chloroaniline	<100 µg/kg	TM157	<200
4-Chloro-3-methylphenol	<100 µg/kg	TM157	<200
4-Bromophenylphenylether	<100 µg/kg	TM157	<200
3-Nitroaniline	<100 µg/kg	TM157	<200
2-Nitrophenol	<100 µg/kg	TM157	<200
2-Nitroaniline	<100 µg/kg	TM157	<200
2-Methylphenol	<100 µg/kg	TM157	<200
1,2,4-Trichlorobenzene	<100 µg/kg	TM157	<200
2-Chlorophenol	<100 µg/kg	TM157	<200

CERTIFICATE OF ANALYSIS

SDG:	201027-76	**Client Reference:**	LD10162	**Report Number:**	574679
Location:	Ten Acres Lane	**Order Number:**	LD1683	**Superseded Report:**	

Semi Volatile Organic Compounds

Results Legend	
#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+§@	Sample deviation (see appendix)

		Customer Sample Ref.	WS102
		Depth (m)	2.80 - 2.80
		Sample Type	Soil/Solid (S)
		Date Sampled	23/10/2020
		Sample Time	.
		Date Received	27/10/2020
		SDG Ref	201027-76
		Lab Sample No.(s)	23122295
		AGS Reference	
Component	**LOD/Units**	**Method**	
2,6-Dinitrotoluene	<100 µg/kg	TM157	<200
2,4-Dinitrotoluene	<100 µg/kg	TM157	<200
2,4-Dimethylphenol	<100 µg/kg	TM157	<200
2,4-Dichlorophenol	<100 µg/kg	TM157	<200
2,4,6-Trichlorophenol	<100 µg/kg	TM157	<200
2,4,5-Trichlorophenol	<100 µg/kg	TM157	<200
1,4-Dichlorobenzene	<100 µg/kg	TM157	<200
1,3-Dichlorobenzene	<100 µg/kg	TM157	<200
1,2-Dichlorobenzene	<100 µg/kg	TM157	<200
2-Chloronaphthalene	<100 µg/kg	TM157	<200
2-Methylnaphthalene	<100 µg/kg	TM157	2080
Acenaphthylene	<100 µg/kg	TM157	561
Acenaphthene	<100 µg/kg	TM157	4960
Anthracene	<100 µg/kg	TM157	6480
Benzo(a)anthracene	<100 µg/kg	TM157	8580
Benzo(b)fluoranthene	<100 µg/kg	TM157	8300
Benzo(k)fluoranthene	<100 µg/kg	TM157	6750
Benzo(a)pyrene	<100 µg/kg	TM157	7440
Benzo(g,h,i)perylene	<100 µg/kg	TM157	4010
Chrysene	<100 µg/kg	TM157	8490
Fluoranthene	<100 µg/kg	TM157	28900
Fluorene	<100 µg/kg	TM157	5520
Indeno(1,2,3-cd)pyrene	<100 µg/kg	TM157	4290
Phenanthrene	<100 µg/kg	TM157	32100
Pyrene	<100 µg/kg	TM157	21900
Naphthalene	<100 µg/kg	TM157	1600
Dibenzo(a,h)anthracene	<100 µg/kg	TM157	521
Bis(2-chloroisopropyl) ether	<100 µg/kg	TM157	<200

Validated

CERTIFICATE OF ANALYSIS

SDG:	201027-76	**Client Reference:**	LD10162	**Report Number:**	574679
Location:	Ten Acres Lane	**Order Number:**	LD1683	**Superseded Report:**	

TPH CWG (S)

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	WS102	WS107	WS119			
			Depth (m)	2.80 - 2.80	1.40 - 1.40	1.50 - 1.50			
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)			
			Date Sampled	23/10/2020	23/10/2020	23/10/2020			
			Sample Time	-	-	-			
			Date Received	27/10/2020	27/10/2020	27/10/2020			
			SDG Ref	201027-76	201027-76	201027-76			
			Lab Sample No.(s)	23122295	23122288	23122301			
			AGS Reference						
GRO Surrogate % recovery**	%	TM089		83.6	91.6	90.8			
Aliphatics >C5-C6	<10 µg/kg	TM089		67.5	19.1	18.2			
Aliphatics >C6-C8	<10 µg/kg	TM089		223	44.5	23			
Aliphatics >C8-C10	<10 µg/kg	TM089		211	41.3	105			
Aliphatics >C10-C12	<1000 µg/kg	TM414		<1000	<1000	<1000			
Aliphatics >C12-C16	<1000 µg/kg	TM414		2370	<1000	<1000			
Aliphatics >C16-C21	<1000 µg/kg	TM414		7660	4730	<1000			
Aliphatics >C21-C35	<1000 µg/kg	TM414		146000	21000	<1000			
Aliphatics >C35-C44	<1000 µg/kg	TM414		74300	3630	<1000			
Total Aliphatics >C10-C44	<5000 µg/kg	TM414		230000	29700	<5000			
Total Aliphatics & Aromatics >C10-C44	<10000 µg/kg	TM414		697000	221000	<10000			
Aromatics >EC5-EC7	<10 µg/kg	TM089		<10	<10	<10			
Aromatics >EC7-EC8	<10 µg/kg	TM089		<10	<10	<10			
Aromatics >EC8-EC10	<10 µg/kg	TM089		140	27	70.2			
Aromatics > EC10-EC12	<1000 µg/kg	TM414		3780	<1000	<1000			
Aromatics > EC12-EC16	<1000 µg/kg	TM414		47100	10000	<1000			
Aromatics > EC16-EC21	<1000 µg/kg	TM414		176000	41100	<1000			
Aromatics > EC21-EC35	<1000 µg/kg	TM414		219000	128000	4560			
Aromatics >EC35-EC44	<1000 µg/kg	TM414		21200	11600	<1000			
Aromatics > EC40-EC44	<1000 µg/kg	TM414		3860	1470	<1000			
Total Aromatics > EC10-EC44	<5000 µg/kg	TM414		467000	191000	6400			
Total Aliphatics & Aromatics >C5-C44	<10000 µg/kg	TM414		697000	221000	<10000			
Total Aliphatics >C5-C10	<50 µg/kg	TM089		502	105	146			
Total Aromatics >EC5-EC10	<50 µg/kg	TM089		140	<50	70.2			
GRO >C5-C10	<20 µg/kg	TM089		642	105	217			

Validated

CERTIFICATE OF ANALYSIS

SDG:	201027-76	**Client Reference:**	LD10162	**Report Number:**	574679
Location:	Ten Acres Lane	**Order Number:**	LD1683	**Superseded Report:**	

VOC MS (S)

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	WS102	WS107	WS119			
			Depth (m)	2.80 - 2.80	1.40 - 1.40	1.50 - 1.50			
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)			
			Date Sampled	23/10/2020	23/10/2020	23/10/2020			
			Sample Time	-	-	-			
			Date Received	27/10/2020	27/10/2020	27/10/2020			
			SDG Ref	201027-76	201027-76	201027-76			
			Lab Sample No.(s)	23122295	23122288	23122301			
			AGS Reference						
Dibromofluoromethane**	%	TM116		113	117	117			
Toluene-d8**	%	TM116		98.4	101	102			
4-Bromofluorobenzene**	%	TM116		82.9	95.5	99.6			
Dichlorodifluoromethane	<6 µg/kg	TM116		<120 #					
Chloromethane	<7 µg/kg	TM116		<140 #					
Vinyl Chloride	<6 µg/kg	TM116		<120 #					
Bromomethane	<10 µg/kg	TM116		<200 #					
Chloroethane	<10 µg/kg	TM116		<200 #					
Trichlorofluorormethane	<6 µg/kg	TM116		<120 #					
1,1-Dichloroethene	<10 µg/kg	TM116		<200 #					
Carbon Disulphide	<7 µg/kg	TM116		<140 #					
Dichloromethane	<10 µg/kg	TM116		<200 #					
Methyl Tertiary Butyl Ether	<10 µg/kg	TM116		<200 #	<200 M	<200 M			
trans-1,2-Dichloroethene	<10 µg/kg	TM116		<200 #					
1,1-Dichloroethane	<8 µg/kg	TM116		<160 #					
cis-1,2-Dichloroethene	<6 µg/kg	TM116		<120 #					
2,2-Dichloropropane	<10 µg/kg	TM116		<200					
Bromochloromethane	<10 µg/kg	TM116		<200 #					
Chloroform	<8 µg/kg	TM116		<160 #					
1,1,1-Trichloroethane	<7 µg/kg	TM116		<140 #					
1,1-Dichloropropene	<10 µg/kg	TM116		<200 #					
Carbontetrachloride	<10 µg/kg	TM116		<200 #					
1,2-Dichloroethane	<5 µg/kg	TM116		<100 #					
Benzene	<9 µg/kg	TM116		<180 #	<180 M	<180 M			
Trichloroethene	<9 µg/kg	TM116		<180 #					
1,2-Dichloropropane	<10 µg/kg	TM116		<200 #					
Dibromomethane	<9 µg/kg	TM116		<180 #					
Bromodichloromethane	<7 µg/kg	TM116		<140 #					
cis-1,3-Dichloropropene	<10 µg/kg	TM116		<200 #					
Toluene	<7 µg/kg	TM116		<140 #	<140 M	<140 M			
trans-1,3-Dichloropropene	<10 µg/kg	TM116		<200					
1,1,2-Trichloroethane	<10 µg/kg	TM116		<200 #					
1,3-Dichloropropane	<7 µg/kg	TM116		<140 #					

CERTIFICATE OF ANALYSIS

SDG:	201027-76	**Client Reference:**	LD10162	**Report Number:**	574679
Location:	Ten Acres Lane	**Order Number:**	LD1683	**Superseded Report:**	

VOC MS (S)

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	WS102	WS107	WS119			
			Depth (m)	2.80 - 2.80	1.40 - 1.40	1.50 - 1.50			
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)			
			Date Sampled	23/10/2020	23/10/2020	23/10/2020			
			Sample Time	.	.	.			
			Date Received	27/10/2020	27/10/2020	27/10/2020			
			SDG Ref	201027-76	201027-76	201027-76			
			Lab Sample No.(s)	23122295	23122288	23122301			
			AGS Reference						
Tetrachloroethene	<5 µg/kg	TM116		<100 #					
Dibromochloromethane	<10 µg/kg	TM116		<200 #					
1,2-Dibromoethane	<10 µg/kg	TM116		<200 #					
Chlorobenzene	<5 µg/kg	TM116		<100 #					
1,1,1,2-Tetrachloroethane	<10 µg/kg	TM116		<200 #					
Ethylbenzene	<4 µg/kg	TM116		<80 #	<80 M	<80 M			
p/m-Xylene	<10 µg/kg	TM116		<200 #	<200 #	<200 #			
o-Xylene	<10 µg/kg	TM116		<200 #	<200 M	<200 M			
Styrene	<10 µg/kg	TM116		<200 #					
Bromoform	<10 µg/kg	TM116		<200 #					
Isopropylbenzene	<5 µg/kg	TM116		<100 #					
1,1,2,2-Tetrachloroethane	<10 µg/kg	TM116		<200 #					
1,2,3-Trichloropropane	<16 µg/kg	TM116		<320 #					
Bromobenzene	<10 µg/kg	TM116		<200 #					
Propylbenzene	<10 µg/kg	TM116		<200 #					
2-Chlorotoluene	<9 µg/kg	TM116		<180 #					
1,3,5-Trimethylbenzene	<8 µg/kg	TM116		<160 #					
4-Chlorotoluene	<10 µg/kg	TM116		<200 #					
tert-Butylbenzene	<14 µg/kg	TM116		<280 #					
1,2,4-Trimethylbenzene	<9 µg/kg	TM116		<180 #					
sec-Butylbenzene	<10 µg/kg	TM116		<200					
4-Isopropyltoluene	<10 µg/kg	TM116		<200 #					
1,3-Dichlorobenzene	<8 µg/kg	TM116		<160 #					
1,4-Dichlorobenzene	<5 µg/kg	TM116		<100 #					
n-Butylbenzene	<11 µg/kg	TM116		<220					
1,2-Dichlorobenzene	<10 µg/kg	TM116		<200 #					
1,2-Dibromo-3-chloropropane	<14 µg/kg	TM116		<280 #					
Tert-amyl methyl ether	<10 µg/kg	TM116		<200 #					
1,2,4-Trichlorobenzene	<20 µg/kg	TM116		<400					
Hexachlorobutadiene	<20 µg/kg	TM116		<400					
Naphthalene	<13 µg/kg	TM116		<260 #					
1,2,3-Trichlorobenzene	<20 µg/kg	TM116		<400 #					
1,3,5-Trichlorobenzene	<20 µg/kg	TM116		<400					

CERTIFICATE OF ANALYSIS

SDG:	201027-76	**Client Reference:**	LD10162	**Report Number:**	574679
Location:	Ten Acres Lane	**Order Number:**	LD1683	**Superseded Report:**	

VOC MS (S)

Results Legend	
#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	WS102	WS107	WS119			
			Depth (m)	2.80 - 2.80	1.40 - 1.40	1.50 - 1.50			
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)			
			Date Sampled	23/10/2020	23/10/2020	23/10/2020			
			Sample Time	.	.	.			
			Date Received	27/10/2020	27/10/2020	27/10/2020			
			SDG Ref	201027-76	201027-76	201027-76			
			Lab Sample No.(s)	23122295	23122288	23122301			
			AGS Reference						
Sum of Detected Xylenes	<0.02 mg/kg	TM116		<0.4	<0.4	<0.4			
Sum of BTEX	<40 µg/kg	TM116		<800	<800	<800			

CERTIFICATE OF ANALYSIS

SDG:	201027-76	**Client Reference:**	LD10162	**Report Number:**	574679
Location:	Ten Acres Lane	**Order Number:**	LD1683	**Superseded Report:**	

Asbestos Identification - Solid Samples

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
*	Subcontracted test.
(F)	Trigger breach confirmed
1-5&♦§@	Sample deviation (see appendix)

		Date of Analysis	Analysed By	Comments	Amosite (Brown) Asbestos	Chrysotile (White) Asbestos	Crocidolite (Blue) Asbestos	Fibrous Actinolite	Fibrous Anthophyllite	Fibrous Tremolite	Non-Asbestos Fibre
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Receieved SDG Original Sample Method Number	WS102 2.80 - 2.80 SOLID 23/10/2020 00:00:00 27/10/2020 05:00:00 201027-76 23122295 TM048	05/11/20	Andrzej Ferfecki	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Receieved SDG Original Sample Method Number	WS107 1.40 - 1.40 SOLID 23/10/2020 00:00:00 27/10/2020 05:00:00 201027-76 23122288 TM048	05/11/2020	Christian Hallam	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Receieved SDG Original Sample Method Number	WS119 1.50 - 1.50 SOLID 23/10/2020 00:00:00 27/10/2020 05:00:00 201027-76 23122301 TM048	05/11/2020	Christian Hallam	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected

CERTIFICATE OF ANALYSIS

SDG:	201027-76	**Client Reference:**	LD10162	**Report Number:**	574679
Location:	Ten Acres Lane	**Order Number:**	LD1683	**Superseded Report:**	

Table of Results - Appendix

Method No	Reference	Description
PM024	Modified BS 1377	Soil preparation including homogenisation, moisture screens of soils for Asbestos Containing Material
TM048	HSG 248, Asbestos: The analysts' guide for sampling, analysis and clearance procedures	Identification of Asbestos in Bulk Material
TM062 (S)	National Grid Property Holdings Methods for the Collection & Analysis of Samples from National Grid Sites version 1 Sec 3.9	Determination of Phenols in Soils by HPLC
TM089	Modified: US EPA Methods 8020 & 602	Determination of Gasoline Range Hydrocarbons (GRO) by Headspace GC-FID (C4-C12)
TM116	Modified: US EPA Method 8260, 8120, 8020, 624, 610 & 602	Determination of Volatile Organic Compounds by Headspace / GC-MS
TM132	In - house Method	ELTRA CS800 Operators Guide
TM133	BS 1377: Part 3 1990;BS 6068-2.5	Determination of pH in Soil and Water using the GLpH pH Meter
TM151	Method 3500D, AWWA/APHA, 20th Ed., 1999	Determination of Hexavalent Chromium using Kone analyser
TM153	Method 4500A,B,C, I, M AWWA/APHA, 20th Ed., 1999	Determination of Total Cyanide, Free (Easily Liberatable) Cyanide and Thiocyanate using the Skalar SANS+ System Segmented Flow Analyser
TM157	HP 6890 Gas Chromatograph (GC) system and HP 5973 Mass Selective Detector (MSD).	Determination of SVOC in Soils by GC-MS extracted by sonication in DCM/Acetone
TM168	EPA Method 8082, Polychlorinated Biphenyls by Gas Chromatography	Determination of WHO12 and EC7 Polychlorinated Biphenyl Congeners by GC-MS in Soils
TM180	Sulphide in waters and waste waters 1991 ISBN 01 175 7186 SCA rec. 2007 (unpublished)'	The Determination Of Easily Liberated Sulphide In Soil Samples by Ion Selective Electrode Technique
TM181	US EPA Method 6010B	Determination of Routine Metals in Soil by iCap 6500 Duo ICP-OES
TM218	Shaker extraction - EPA method 3546.	The determination of PAH in soil samples by GC-MS
TM221	Inductively Coupled Plasma - Atomic Emission Spectroscopy. An Atlas of Spectral Information: Winge, Fassel, Peterson and Floyd	Determination of Acid extractable Sulphate in Soils by IRIS Emission Spectrometer
TM222	In-House Method	Determination of Hot Water Soluble Boron in Soils (10:1 Water:soil) by IRIS Emission Spectrometer
TM243		Mixed Anions In Soils By Kone
TM414	Analysis of Petroleum Hydrocarbons in Environmental Media – Total Petroleum Hydrocarbon Criteria	Determination of Speciated Extractable Petroleum Hydrocarbons in Soils by GCxGC-FID

NA = not applicable.

Chemical testing (unless subcontracted) performed at ALS Life Sciences Ltd Hawarden (Method codes TM) or ALS Life Sciences Ltd Aberdeen (Method codes S).

CERTIFICATE OF ANALYSIS

SDG:	201027-76	**Client Reference:**	LD10162	**Report Number:**	574679
Location:	Ten Acres Lane	**Order Number:**	LD1683	**Superseded Report:**	

Test Completion Dates

Lab Sample No(s)	23122295	23122288	23122301
Customer Sample Ref.	WS102	WS107	WS119
AGS Ref.			
Depth	2.80 - 2.80	1.40 - 1.40	1.50 - 1.50
Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
Anions by Kone (soil)	05-Nov-2020	05-Nov-2020	05-Nov-2020
Asbestos ID in Solid Samples	05-Nov-2020	05-Nov-2020	05-Nov-2020
Boron Water Soluble	05-Nov-2020	04-Nov-2020	04-Nov-2020
Cyanide Comp/Free/Total/Thiocyanate	05-Nov-2020	05-Nov-2020	05-Nov-2020
Easily Liberated Sulphide	04-Nov-2020	04-Nov-2020	04-Nov-2020
EPH CWG GC (S)	04-Nov-2020	04-Nov-2020	04-Nov-2020
GRO by GC-FID (S)	03-Nov-2020	03-Nov-2020	02-Nov-2020
Hexavalent Chromium (s)	05-Nov-2020	05-Nov-2020	05-Nov-2020
Metals in solid samples by OES	04-Nov-2020	05-Nov-2020	05-Nov-2020
PAH by GCMS	05-Nov-2020	04-Nov-2020	09-Nov-2020
PCBs by GCMS	05-Nov-2020		
pH	04-Nov-2020	04-Nov-2020	04-Nov-2020
Phenols by HPLC (S)	06-Nov-2020	06-Nov-2020	06-Nov-2020
Sample description	31-Oct-2020	31-Oct-2020	31-Oct-2020
Semi Volatile Organic Compounds	04-Nov-2020		
Total Organic Carbon	05-Nov-2020	04-Nov-2020	05-Nov-2020
Total Sulphate	04-Nov-2020	04-Nov-2020	04-Nov-2020
TPH CWG GC (S)	04-Nov-2020	04-Nov-2020	04-Nov-2020
VOC MS (S)	02-Nov-2020	02-Nov-2020	02-Nov-2020

Appendix General

1. Results are expressed on a dry weight basis (dried at 35ºC) for all soil analyses except for the following: NRA and CEN Leach tests, flash point LOI, pH, ammonium as NH4 by the BRE method, VOC TICs and SVOC TICs.

2. If sufficient sample is received a sub sample will be retained free of charge for 30 days after analysis is completed (e-mailed) for all sample types unless the sample is destroyed on testing. The prepared soil sub sample that is analysed for asbestos will be retained for a period of 6 months after the analysis date. All bulk samples will be retained for a period of 6 months after the analysis date. All samples received and not scheduled will be disposed of one month after the date of receipt unless we are instructed to the contrary. Once the initial period has expired, a storage charge will be applied for each month or part thereof until the client cancels the request for sample storage. ALS reserve the right to charge for samples received and stored but not analysed.

3. With respect to turnaround, we will always endeavour to meet client requirements wherever possible, but turnaround times cannot be absolutely guaranteed due to so many variables beyond our control.

4. We take responsibility for any test performed by sub-contractors (marked with an asterisk). We endeavour to use UKAS/MCERTS Accredited Laboratories, who either complete a quality questionnaire or are audited by ourselves. For some determinands there are no UKAS/MCERTS Accredited Laboratories, in this instance a laboratory with a known track record will be utilised.

5. If no separate volatile sample is supplied by the client, or if a headspace or sediment is present in the volatile sample, the integrity of the data may be compromised. This will be flagged up as an invalid VOC on the test schedule and the result marked as deviating on the test certificate.

6. NDP - No determination possible due to insufficient/unsuitable sample.

7. Results relate only to the items tested.

8. LoDs (Limit of Detection) for wet tests reported on a dry weight basis are not corrected for moisture content.

9. **Surrogate recoveries** - Surrogates are added to your sample to monitor recovery of the test requested. A % recovery is reported, results are not corrected for the recovery measured. Typical recoveries for organics tests are 70-130%. Recoveries in soils are affected by organic rich or clay rich matrices. Waters can be affected by remediation fluids or high amounts of sediment. Test results are only ever reported if all of the associated quality checks pass; it is assumed that all recoveries outside of the values above are due to matrix affect.

10. Stones/debris are not routinely removed. We always endeavour to take a representative sub sample from the received sample.

11. In certain circumstances the method detection limit may be elevated due to the sample being outside the calibration range. Other factors that may contribute to this include possible interferences. In both cases the sample would be diluted which would cause the method detection limit to be raised.

12. Mercury results quoted on soils will not include volatile mercury as the analysis is performed on a dried and crushed sample.

13. For leachate preparations other than Zero Headspace Extraction (ZHE) volatile loss may occur.

14. For the BSEN 12457-3 two batch process to allow the cumulative release to be calculated, the volume of the leachate produced is measured and filtered for all tests. We therefore cannot carry out any unfiltered analysis. The tests affected include volatiles GCFID/GCMS and all subcontracted analysis.

15. Analysis and identification of specific compounds using GCFID is by retention time only, and we routinely calibrate and quantify for benzene, toluene, ethylbenzenes and xylenes (BTEX). For total volatiles in the C5-C12 range, the total area of the chromatogram is integrated and expressed as ug/kg or ug/l. Although this analysis is commonly used for the quantification of gasoline range organics (GRO), the system will also detect other compounds such as chlorinated solvents, and this may lead to a falsely high result with respect to hydrocarbons only. It is not possible to specifically identify these non-hydrocarbons, as standards are not routinely run for any other compounds, and for more definitive identification, volatiles by GCMS should be utilised.

16. We are accredited to MCERTS for sand, clay and loam/topsoil, or any of these materials - whether these are derived from naturally occurring soil profiles, or from fill/made ground, as long as these materials constitute the major part of the sample. Other coarse granular material such as concrete, gravel and brick are not accredited if they comprise the major part of the sample.

17. **Tentatively Identified Compounds (TICs)** are non-target peaks in VOC and SVOC analysis. All non-target peaks detected with a concentration above the LoD are subjected to a mass spectral library search. Non-target peaks with a library search confidence of >75% are reported based on the best mass spectral library match. When a non-target peak with a library search confidence of <75% is detected it is reported as "mixed hydrocarbons". Non-target compounds identified from the scan data are semi-quantified relative to one of the deuterated internal standards, under the same chromatographic conditions as the target compounds. This result is reported as a semi-quantitative value and reported as Tentatively Identified Compounds (TICs). TICs are outside the scope of UKAS accreditation and are not moisture corrected.

18. **Sample Deviations**

If a sample is classed as deviated then the associated results may be compromised.

1	**Container with Headspace provided for volatiles analysis**
2	**Incorrect container received**
3	**Deviation from method**
4	**Matrix interference**
♦	**Sample holding time exceeded in laboratory**
@	**Sample holding time exceeded due to late arrival of instructions or samples**
§	**Sampled on date not provided**

19. **Asbestos**

When requested, the individual sub sample scheduled will be analysed in house for the presence of asbestos fibres and asbestos containing material by our documented in house method TM048 based on HSG 248 (2005), which is accredited to ISO17025. If a specific asbestos fibre type is not found this will be reported as "Not detected". If no asbestos fibre types are found all will be reported as "Not detected" and the sub sample analysed deemed to be clear of asbestos. If an asbestos fibre type is found it will be reported as detected (for each fibre type found). Testing can be carried out on asbestos positive samples, but, due to Health and Safety considerations, may be replaced by alternative tests or reported as No Determination Possible (NDP). The quantity of asbestos present is not determined unless specifically requested.

Identification of Asbestos in Bulk Materials & Soils

The results for identification of asbestos in bulk materials are obtained from supplied bulk materials which have been examined to determine the presence of asbestos fibres using ALS (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining, based on HSG 248 (2005).

The results for identification of asbestos in soils are obtained from a homogenised sub sample which has been examined to determine the presence of asbestos fibres using ALS (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining, based on HSG 248 (2005).

Asbestos Type	Common Name
Chrysotile	White Asbestos
Amosite	Brown Asbestos
Crocidolite	Blue Asbestos
Fibrous Actinolite	-
Fibrous Anthophyllite	-
Fibrous Tremolite	-

Visual Estimation Of Fibre Content

Estimation of fibre content is not permitted as part of our UKAS accredited test other than: - Trace - Where only one or two asbestos fibres were identified.

Respirable Fibres

Respirable fibres are defined as fibres of <3 µm diameter, longer than 5 µm and with aspect ratios of at least 3:1 that can be inhaled into the lower regions of the lung and are generally acknowledged to be most important predictor of hazard and risk for cancers of the lung.
Standing Committee of Analysts, *The Quantification of Asbestos in Soil (2017).*

Further guidance on typical asbestos fibre content of manufactured products can be found in HSG 264.

The identification of asbestos containing materials and soils falls within our schedule of tests for which we hold UKAS accreditation, however opinions, interpretations and all other information contained in the report are outside the scope of UKAS accreditation.

Unit 7-8 Hawarden Business Park
Manor Road (off Manor Lane)
Hawarden
Deeside
CH5 3US
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Website: www.alsenvironmental.co.uk

Wardell Armstrong LLP
36 Park Row
Leeds
LS1 5JL

Attention: Jonathan Currie

CERTIFICATE OF ANALYSIS

Date of report Generation:	12 November 2020
Customer:	Wardell Armstrong LLP
Sample Delivery Group (SDG):	201027-83
Your Reference:	LD10162
Location:	Ten Acres Lane
Report No:	575456

This report has been revised and directly supersedes 574099 in its entirety.

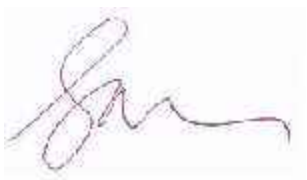
We received 7 samples on Tuesday October 27, 2020 and 5 of these samples were scheduled for analysis which was completed on Thursday November 12, 2020. Accredited laboratory tests are defined within the report, but opinions, interpretations and on-site data expressed herein are outside the scope of ISO 17025 accreditation.

Should this report require incorporation into client reports, it must be used in its entirety and not simply with the data sections alone.

Chemical testing (unless subcontracted) performed at ALS Life Sciences Ltd Hawarden (Method codes TM) or ALS Life Sciences Ltd Aberdeen (Method codes S).

All sample data is provided by the customer. The reported results relate to the sample supplied, and on the basis that this data is correct.
Incorrect sampling dates and/or sample information will affect the validity of results.
The customer is not permitted to reproduce this report except in full without the approval of the laboratory.

Approved By:



Sonia McWhan

Operations Manager

CERTIFICATE OF ANALYSIS

SDG:	201027-83	**Client Reference:**	LD10162	**Report Number:**	575456
Location:	Ten Acres Lane	**Order Number:**	LD1688	**Superseded Report:**	574099

Received Sample Overview

Lab Sample No(s)	Customer Sample Ref.	AGS Ref.	Depth (m)	Sampled Date
23123528	WS103 ES1		0.85 - 0.87	23/10/2020
23123532	WS103 ES2		3.41 - 3.45	23/10/2020
23123536	WS105 ES1		2.50 - 2.50	23/10/2020
23123539	WS105 ES2		4.60 - 4.60	23/10/2020
23123553	WS111 ES1		0.35 - 0.35	23/10/2020
23123548	WS112 ES1		0.90 - 0.90	23/10/2020
23123543	WS113 ES1		0.85 - 0.85	23/10/2020

Only received samples which have had analysis scheduled will be shown on the following pages.

Validated

CERTIFICATE OF ANALYSIS

SDG:	201027-83	**Client Reference:**	LD10162	**Report Number:**	575456
Location:	Ten Acres Lane	**Order Number:**	LD1688	**Superseded Report:**	574099

Results Legend

X **Test**

N **No Determination Possible**

Sample Types -

S - Soil/Solid
UNS - Unspecified Solid
GW - Ground Water
SW - Surface Water
LE - Land Leachate
PL - Prepared Leachate
PR - Process Water
SA - Saline Water
TE - Trade Effluent
TS - Treated Sewage
US - Untreated Sewage
RE - Recreational Water
DW - Drinking Water Non-regulatory
UNL - Unspecified Liquid
SL - Sludge
G - Gas
OTH - Other

Lab Sample No(s)			23123532		23123536		23123553			23123548		23123543		
Customer Sample Reference			WS103 ES2		WS105 ES1		WS111 ES1			WS112 ES1		WS113 ES1		
AGS Reference														
Depth (m)			3.41 - 3.45		2.50 - 2.50		0.35 - 0.35			0.90 - 0.90		0.85 - 0.85		
Container			250g Amber Jar (ALE210)	60g VOC (ALE215)	250g Amber Jar (ALE210)	60g VOC (ALE215)	1kg TUB with Handle (ALE260)	250g Amber Jar (ALE210)	60g VOC (ALE215)	1kg TUB with Handle (ALE260)	250g Amber Jar (ALE210)	60g VOC (ALE215)	250g Amber Jar (ALE210)	60g VOC (ALE215)
Sample Type			S	S	S	S	S	S	S	S	S	S	S	S
Anions by Kone (soil)	All	NDPs: 0 Tests: 5	X		X			X			X		X	
Asbestos ID in Solid Samples	All	NDPs: 0 Tests: 5	X		X		X			X			X	
Asbestos Quantification - Full	All	NDPs: 0 Tests: 1								X				
Boron Water Soluble	All	NDPs: 0 Tests: 5	X		X			X			X		X	
Cyanide Comp/Free/Total/Thiocyanate	All	NDPs: 0 Tests: 5	X		X			X			X		X	
Easily Liberated Sulphide	All	NDPs: 0 Tests: 5	X		X			X			X		X	
EPH CWG GC (S)	All	NDPs: 0 Tests: 5	X		X			X			X		X	
GRO by GC-FID (S)	All	NDPs: 0 Tests: 5		X		X			X			X		X
Hexavalent Chromium (s)	All	NDPs: 0 Tests: 5	X		X			X			X		X	
Metals in solid samples by OES	All	NDPs: 0 Tests: 5	X		X			X			X		X	
PAH by GCMS	All	NDPs: 0 Tests: 5	X		X			X			X		X	
PCBs by GCMS	All	NDPs: 0 Tests: 1			X									
pH	All	NDPs: 0 Tests: 5	X		X			X			X		X	
Phenols by HPLC (S)	All	NDPs: 0 Tests: 5	X		X			X			X		X	
Sample description	All	NDPs: 0 Tests: 5	X		X			X			X		X	

CERTIFICATE OF ANALYSIS

SDG:	201027-83	**Client Reference:**	LD10162	**Report Number:**	575456
Location:	Ten Acres Lane	**Order Number:**	LD1688	**Superseded Report:**	574099

Results Legend

X **Test**

N **No Determination Possible**

Sample Types -
S - Soil/Solid
UNS - Unspecified Solid
GW - Ground Water
SW - Surface Water
LE - Land Leachate
PL - Prepared Leachate
PR - Process Water
SA - Saline Water
TE - Trade Effluent
TS - Treated Sewage
US - Untreated Sewage
RE - Recreational Water
DW - Drinking Water Non-regulatory
UNL - Unspecified Liquid
SL - Sludge
G - Gas
OTH - Other

Lab Sample No(s)			23123532		23123536		23123553			23123548		23123543	
Customer Sample Reference			WS103 ES2		WS105 ES1		WS111 ES1			WS112 ES1		WS113 ES1	
AGS Reference													
Depth (m)			3.41 - 3.45		2.50 - 2.50		0.35 - 0.35			0.90 - 0.90		0.85 - 0.85	
Container			250g Amber Jar (ALE210)	60g VOC (ALE215)	250g Amber Jar (ALE210)	60g VOC (ALE215)	1kg TUB with Handle (ALE260)	250g Amber Jar (ALE210)	60g VOC (ALE215)	1kg TUB with Handle (ALE260)	250g Amber Jar (ALE210)	60g VOC (ALE215)	250g Amber Jar (ALE210)	60g VOC (ALE215)
Sample Type			S	S	S	S	S	S	S	S	S	S	S	S
Semi Volatile Organic Compounds	All	NDPs: 0 Tests: 2	X		X									
Total Organic Carbon	All	NDPs: 0 Tests: 5	X		X			X			X		X	
Total Sulphate	All	NDPs: 0 Tests: 5	X		X			X			X		X	
TPH CWG GC (S)	All	NDPs: 0 Tests: 5	X		X			X			X		X	
VOC MS (S)	All	NDPs: 0 Tests: 5		X		X			X			X		X

CERTIFICATE OF ANALYSIS

SDG:	201027-83	**Client Reference:**	LD10162	**Report Number:**	575456
Location:	Ten Acres Lane	**Order Number:**	LD1688	**Superseded Report:**	574099

Sample Descriptions

Grain Sizes

very fine	<0.063mm	**fine**	0.063mm - 0.1mm	**medium**	0.1mm - 2mm	**coarse**	2mm - 10mm	**very coarse**	>10mm

Lab Sample No(s)	Customer Sample Ref.	Depth (m)	Colour	Description	Inclusions	Inclusions 2
23123532	WS103 ES2	3.41 - 3.45	Dark Brown	Loamy Sand	N/A	Stones
23123536	WS105 ES1	2.50 - 2.50	Black	Sand	None	Stones
23123553	WS111 ES1	0.35 - 0.35	Black	Sand	None	Stones
23123548	WS112 ES1	0.90 - 0.90	Black	Sand	None	Stones
23123543	WS113 ES1	0.85 - 0.85	Cream	Clay	Vegetation	N/A

These descriptions are only intended to act as a cross check if sample identities are questioned, and to provide a log of sample matrices with respect to MCERTS validation. They are not intended as full geological descriptions.

We are accredited to MCERTS for sand, clay and loam/topsoil, or any of these materials - whether these are derived from naturally ocurring soil profiles, or from fill/made ground, as long as these materials constitute the major part of the sample.

Other coarse granular materials such as concrete, gravel and brick are not accredited if they comprise the major part of the sample.

Validated

CERTIFICATE OF ANALYSIS

SDG:	201027-83	**Client Reference:**	LD10162	**Report Number:**	575456
Location:	Ten Acres Lane	**Order Number:**	LD1688	**Superseded Report:**	574099

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	WS103 ES2	WS105 ES1	WS111 ES1	WS112 ES1	WS113 ES1
			Depth (m)	3.41 - 3.45	2.50 - 2.50	0.35 - 0.35	0.90 - 0.90	0.85 - 0.85
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	23/10/2020	23/10/2020	23/10/2020	23/10/2020	23/10/2020
			Sample Time	.	.	.	.	.
			Date Received	27/10/2020	27/10/2020	27/10/2020	27/10/2020	27/10/2020
			SDG Ref	201027-83	201027-83	201027-83	201027-83	201027-83
			Lab Sample No.(s)	23123532	23123536	23123553	23123548	23123543
			AGS Reference					
Moisture Content Ratio (% of as received sample)	%	PM024		25	14	8.7	17	21
Phenol	<0.01 mg/kg	TM062 (S)		<0.01 M	<0.01 M	<0.01 M	<0.01 M	<0.01 M
Cresols	<0.01 mg/kg	TM062 (S)		<0.01 M	0.0116 M	<0.01 M	<0.01 M	<0.01 M
Xylenols	<0.015 mg/kg	TM062 (S)		<0.015 M	<0.015 M	<0.015 M	<0.015 M	<0.015 M
Phenols, Total Detected monohydric	<0.035 mg/kg	TM062 (S)		<0.035 M	<0.035 M	<0.035 M	<0.035 M	<0.035 M
Soil Organic Matter (SOM)	<0.35 %	TM132		5.59 #	2.17 #	8.81 #	25.9 #	0.938 #
pH	1 pH Units	TM133		7.99 M	7.8 M	6.27 M	8.09 M	5.89 M
Chromium, Hexavalent	<0.6 mg/kg	TM151		<0.6 #	<0.6 #	<0.6 #	<0.6 #	<0.6 #
Cyanide, Total	<1 mg/kg	TM153		7.06 M	<1 M	<1 M	1.99 M	<1 M
PCB congener 28	<3 µg/kg	TM168			<15 M			
PCB congener 52	<3 µg/kg	TM168			<15 M			
PCB congener 101	<3 µg/kg	TM168			<15 M			
PCB congener 118	<3 µg/kg	TM168			<15 M			
PCB congener 138	<3 µg/kg	TM168			<15 M			
PCB congener 153	<3 µg/kg	TM168			<15 M			
PCB congener 180	<3 µg/kg	TM168			<15 M			
Sum of detected PCB 7 Congeners	<21 µg/kg	TM168			<105			
Sulphide, Easily liberated	<15 mg/kg	TM180		<15 @ M	306 @ M	<15 @ M	<15 @ M	<15 @ M
Arsenic	<0.6 mg/kg	TM181		21.2 M	7.25 M	60 M	40.9 M	9.79 M
Cadmium	<0.02 mg/kg	TM181		0.0571 M	0.295 M	<0.02 M	0.552 M	<0.02 M
Chromium	<0.9 mg/kg	TM181		15 M	9.53 M	48.8 M	9.11 M	19.5 M
Copper	<1.4 mg/kg	TM181		30.2 M	26 M	23.9 M	121 M	11.6 M
Lead	<0.7 mg/kg	TM181		37.6 M	62.9 M	56.6 M	229 M	15.5 M
Mercury	<0.14 mg/kg	TM181		0.24 M	0.326 M	0.254 M	0.716 M	<0.14 M
Nickel	<0.2 mg/kg	TM181		26.3 M	131 M	44.3 M	36.4 M	20.5 M
Selenium	<1 mg/kg	TM181		<1 #	<1 #	<1 #	<1 #	<1 #
Zinc	<1.9 mg/kg	TM181		59.8 M	438 M	36.3 M	444 M	32.2 M
Sulphate, Total	<48 mg/kg	TM221		626 M	5100 M	1830 M	716 M	665 M
Boron, water soluble	<1 mg/kg	TM222		1.67 M	8.54 M	1.97 M	<1 M	1.32 M
Water Soluble Sulphate as SO4 2:1 Extract	<0.004 g/l	TM243		0.175 M	0.381 M	0.0497 M	0.0674 M	0.31 M
Asbestos Quantification - Gravimetric - %	<0.001 %	TM304					0.109 #	
Asbestos Quantification - PCOM Evaluation - %	<0.001 %	TM304					<0.001 #	
Additional Asbestos Components (Using TM048)		TM304					None #	

Validated

CERTIFICATE OF ANALYSIS

SDG:	201027-83	**Client Reference:**	LD10162	**Report Number:**	575456
Location:	Ten Acres Lane	**Order Number:**	LD1688	**Superseded Report:**	574099

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	Depth (m)	Sample Type	Date Sampled	Sample Time	Date Received	SDG Ref	Lab Sample No.(s)	AGS Reference
			WS103 ES2	3.41 - 3.45	Soil/Solid (S)	23/10/2020	.	27/10/2020	201027-83	23123532	
			WS105 ES1	2.50 - 2.50	Soil/Solid (S)	23/10/2020	.	27/10/2020	201027-83	23123536	
			WS111 ES1	0.35 - 0.35	Soil/Solid (S)	23/10/2020	.	27/10/2020	201027-83	23123553	
			WS112 ES1	0.90 - 0.90	Soil/Solid (S)	23/10/2020	.	27/10/2020	201027-83	23123548	
			WS113 ES1	0.85 - 0.85	Soil/Solid (S)	23/10/2020	.	27/10/2020	201027-83	23123543	
Analysts Comments		TM304							N/C		
Asbestos Quantification - Total - %	<0.001 %	TM304							0.109 #		

Validated

CERTIFICATE OF ANALYSIS

SDG:	201027-83	**Client Reference:**	LD10162	**Report Number:**	575456
Location:	Ten Acres Lane	**Order Number:**	LD1688	**Superseded Report:**	574099

PAH by GCMS

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	WS103 ES2	WS105 ES1	WS111 ES1	WS112 ES1	WS113 ES1
			Depth (m)	3.41 - 3.45	2.50 - 2.50	0.35 - 0.35	0.90 - 0.90	0.85 - 0.85
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	23/10/2020	23/10/2020	23/10/2020	23/10/2020	23/10/2020
			Sample Time	.	.	.	.	.
			Date Received	27/10/2020	27/10/2020	27/10/2020	27/10/2020	27/10/2020
			SDG Ref	201027-83	201027-83	201027-83	201027-83	201027-83
			Lab Sample No.(s)	23123532	23123536	23123553	23123548	23123543
			AGS Reference					
Naphthalene-d8 % recovery**	%	TM218		90.9	90.1	90	90.4	91
Acenaphthene-d10 % recovery**	%	TM218		93.2	96.8	93.4	95.2	91.8
Phenanthrene-d10 % recovery**	%	TM218		94.3	101	94.9	95.2	92.2
Chrysene-d12 % recovery**	%	TM218		83.1	101	78.3	75.8	80.3
Perylene-d12 % recovery**	%	TM218		81.6	92.3	77	72.8	80.4
Naphthalene	<9 µg/kg	TM218		26.6 M	62.7 M	2140 M	6040 M	<9 M
Acenaphthylene	<12 µg/kg	TM218		202 M	<60 M	318 M	1110 M	<12 M
Acenaphthene	<8 µg/kg	TM218		41.1 M	1700 M	4010 M	14600 M	<8 M
Fluorene	<10 µg/kg	TM218		206 M	1360 M	3140 M	12400 M	<10 M
Phenanthrene	<15 µg/kg	TM218		1380 M	16000 M	21100 M	84100 M	24.2 M
Anthracene	<16 µg/kg	TM218		558 M	4110 M	4480 M	17000 M	<16 M
Fluoranthene	<17 µg/kg	TM218		1670 M	18300 M	22100 M	108000 M	28.2 M
Pyrene	<15 µg/kg	TM218		1550 M	15800 M	21200 M	103000 M	27.7 M
Benz(a)anthracene	<14 µg/kg	TM218		1030 M	7700 M	9650 M	46800 M	<14 M
Chrysene	<10 µg/kg	TM218		858 M	6280 M	9690 M	45200 M	15.6 M
Benzo(b)fluoranthene	<15 µg/kg	TM218		936 M	6760 M	10400 M	52800 M	23.3 M
Benzo(k)fluoranthene	<14 µg/kg	TM218		320 M	2490 M	3370 M	17600 M	<14 M
Benzo(a)pyrene	<15 µg/kg	TM218		732 M	6220 M	7440 M	39200 M	<15 M
Indeno(1,2,3-cd)pyrene	<18 µg/kg	TM218		397 M	3510 M	4420 M	28100 M	<18 M
Dibenzo(a,h)anthracene	<23 µg/kg	TM218		76.4 M	712 M	749 M	3990 M	<23 M
Benzo(g,h,i)perylene	<24 µg/kg	TM218		360 M	3530 M	4370 M	23500 M	<24 M
PAH, Total Detected USEPA 16	<118 µg/kg	TM218		10300	94500	129000	604000	119

CERTIFICATE OF ANALYSIS

SDG:	201027-83	**Client Reference:**	LD10162	**Report Number:**	575456
Location:	Ten Acres Lane	**Order Number:**	LD1688	**Superseded Report:**	574099

Semi Volatile Organic Compounds

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	WS103 ES2	WS105 ES1				
			Depth (m)	3.41 - 3.45	2.50 - 2.50				
			Sample Type	Soil/Solid (S)	Soil/Solid (S)				
			Date Sampled	23/10/2020	23/10/2020				
			Sample Time	.	.				
			Date Received	27/10/2020	27/10/2020				
			SDG Ref	201027-83	201027-83				
			Lab Sample No.(s)	23123532	23123536				
			AGS Reference						
Phenol	<100 µg/kg	TM157		<100	<100				
Pentachlorophenol	<100 µg/kg	TM157		<100	<100				
n-Nitroso-n-dipropylamine	<100 µg/kg	TM157		<100	<100				
Nitrobenzene	<100 µg/kg	TM157		<100	<100				
Isophorone	<100 µg/kg	TM157		<100	<100				
Hexachloroethane	<100 µg/kg	TM157		<100	<100				
Hexachlorocyclopentadiene	<100 µg/kg	TM157		<100	<100				
Hexachlorobutadiene	<100 µg/kg	TM157		<100	<100				
Hexachlorobenzene	<100 µg/kg	TM157		<100	<100				
n-Dioctyl phthalate	<100 µg/kg	TM157		<100	<100				
Dimethyl phthalate	<100 µg/kg	TM157		<100	<100				
Diethyl phthalate	<100 µg/kg	TM157		<100	<100				
n-Dibutyl phthalate	<100 µg/kg	TM157		<100	<100				
Dibenzofuran	<100 µg/kg	TM157		<100	<100				
Carbazole	<100 µg/kg	TM157		<100	<100				
Butylbenzyl phthalate	<100 µg/kg	TM157		<100	<100				
bis(2-Ethylhexyl) phthalate	<100 µg/kg	TM157		<100	769				
bis(2-Chloroethoxy)methane	<100 µg/kg	TM157		<100	<100				
bis(2-Chloroethyl)ether	<100 µg/kg	TM157		<100	<100				
Azobenzene	<100 µg/kg	TM157		<100	<100				
4-Nitrophenol	<100 µg/kg	TM157		<100	<100				
4-Nitroaniline	<100 µg/kg	TM157		<100	<100				
4-Methylphenol	<100 µg/kg	TM157		<100	<100				
4-Chlorophenylphenylether	<100 µg/kg	TM157		<100	<100				
4-Chloroaniline	<100 µg/kg	TM157		<100	<100				
4-Chloro-3-methylphenol	<100 µg/kg	TM157		<100	<100				
4-Bromophenylphenylether	<100 µg/kg	TM157		<100	<100				
3-Nitroaniline	<100 µg/kg	TM157		<100	<100				
2-Nitrophenol	<100 µg/kg	TM157		<100	<100				
2-Nitroaniline	<100 µg/kg	TM157		<100	<100				
2-Methylphenol	<100 µg/kg	TM157		<100	<100				
1,2,4-Trichlorobenzene	<100 µg/kg	TM157		<100	<100				
2-Chlorophenol	<100 µg/kg	TM157		<100	<100				

CERTIFICATE OF ANALYSIS

SDG:	201027-83	**Client Reference:**	LD10162	**Report Number:**	575456
Location:	Ten Acres Lane	**Order Number:**	LD1688	**Superseded Report:**	574099

Semi Volatile Organic Compounds

Results Legend	
#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	WS103 ES2	WS105 ES1				
			Depth (m)	3.41 - 3.45	2.50 - 2.50				
			Sample Type	Soil/Solid (S)	Soil/Solid (S)				
			Date Sampled	23/10/2020	23/10/2020				
			Sample Time	.	.				
			Date Received	27/10/2020	27/10/2020				
			SDG Ref	201027-83	201027-83				
			Lab Sample No.(s)	23123532	23123536				
			AGS Reference						
2,6-Dinitrotoluene	<100 µg/kg	TM157		<100	<100				
2,4-Dinitrotoluene	<100 µg/kg	TM157		<100	121				
2,4-Dimethylphenol	<100 µg/kg	TM157		<100	<100				
2,4-Dichlorophenol	<100 µg/kg	TM157		<100	<100				
2,4,6-Trichlorophenol	<100 µg/kg	TM157		<100	<100				
2,4,5-Trichlorophenol	<100 µg/kg	TM157		<100	<100				
1,4-Dichlorobenzene	<100 µg/kg	TM157		<100	<100				
1,3-Dichlorobenzene	<100 µg/kg	TM157		<100	<100				
1,2-Dichlorobenzene	<100 µg/kg	TM157		<100	<100				
2-Chloronaphthalene	<100 µg/kg	TM157		<100	<100				
2-Methylnaphthalene	<100 µg/kg	TM157		<100	<100				
Acenaphthylene	<100 µg/kg	TM157		687	<100				
Acenaphthene	<100 µg/kg	TM157		<100	127				
Anthracene	<100 µg/kg	TM157		774	208				
Benzo(a)anthracene	<100 µg/kg	TM157		1780	502				
Benzo(b)fluoranthene	<100 µg/kg	TM157		1380	545				
Benzo(k)fluoranthene	<100 µg/kg	TM157		1430	420				
Benzo(a)pyrene	<100 µg/kg	TM157		1430	402				
Benzo(g,h,i)perylene	<100 µg/kg	TM157		737	271				
Chrysene	<100 µg/kg	TM157		1680	501				
Fluoranthene	<100 µg/kg	TM157		3120	1410				
Fluorene	<100 µg/kg	TM157		266	136				
Indeno(1,2,3-cd)pyrene	<100 µg/kg	TM157		522	246				
Phenanthrene	<100 µg/kg	TM157		1980	989				
Pyrene	<100 µg/kg	TM157		2540	1220				
Naphthalene	<100 µg/kg	TM157		<100	<100				
Dibenzo(a,h)anthracene	<100 µg/kg	TM157		<100	<100				
Bis(2-chloroisopropyl) ether	<100 µg/kg	TM157		<100	<100				

CERTIFICATE OF ANALYSIS

SDG:	201027-83	**Client Reference:**	LD10162	**Report Number:**	575456
Location:	Ten Acres Lane	**Order Number:**	LD1688	**Superseded Report:**	574099

TPH CWG (S)

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	WS103 ES2	WS105 ES1	WS111 ES1	WS112 ES1	WS113 ES1
			Depth (m)	3.41 - 3.45	2.50 - 2.50	0.35 - 0.35	0.90 - 0.90	0.85 - 0.85
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	23/10/2020	23/10/2020	23/10/2020	23/10/2020	23/10/2020
			Sample Time	.	.	.	.	.
			Date Received	27/10/2020	27/10/2020	27/10/2020	27/10/2020	27/10/2020
			SDG Ref	201027-83	201027-83	201027-83	201027-83	201027-83
			Lab Sample No.(s)	23123532	23123536	23123553	23123548	23123543
			AGS Reference					
GRO Surrogate % recovery**	%	TM089		84.8	106	78.5	78.9	113
Aliphatics >C5-C6	<10 µg/kg	TM089		<10	111	177	60	<10
Aliphatics >C6-C8	<10 µg/kg	TM089		<10	157	251	175	<10
Aliphatics >C8-C10	<10 µg/kg	TM089		<10	485	136	196	<10
Aliphatics >C10-C12	<1000 µg/kg	TM414		<1000	14400	<1000	4260	<1000
Aliphatics >C12-C16	<1000 µg/kg	TM414		<1000	221000	3720	7520	<1000
Aliphatics >C16-C21	<1000 µg/kg	TM414		<1000	402000	2390	5590	<1000
Aliphatics >C21-C35	<1000 µg/kg	TM414		<1000	368000	9170	7650	<1000
Aliphatics >C35-C44	<1000 µg/kg	TM414		<1000	98000	<1000	3810	<1000
Total Aliphatics >C10-C44	<5000 µg/kg	TM414		<5000	1100000	16200	28800	<5000
Total Aliphatics & Aromatics >C10-C44	<10000 µg/kg	TM414		39100	1400000	65800	1590000	53300
Aromatics >EC5-EC7	<10 µg/kg	TM089		<10	<10	<10	<10	<10
Aromatics >EC7-EC8	<10 µg/kg	TM089		<10	<10	<10	<10	<10
Aromatics >EC8-EC10	<10 µg/kg	TM089		<10	324	90.9	131	<10
Aromatics > EC10-EC12	<1000 µg/kg	TM414		<1000	1560	<1000	5660	<1000
Aromatics > EC12-EC16	<1000 µg/kg	TM414		<1000	93300	4280	78400	<1000
Aromatics > EC16-EC21	<1000 µg/kg	TM414		10600	113000	14300	449000	<1000
Aromatics > EC21-EC35	<1000 µg/kg	TM414		25800	84000	29600	933000	3230
Aromatics >EC35-EC44	<1000 µg/kg	TM414		<1000	2350	<1000	99500	49200
Aromatics > EC40-EC44	<1000 µg/kg	TM414		<1000	<1000	<1000	13600	<1000
Total Aromatics > EC10-EC44	<5000 µg/kg	TM414		38000	294000	49500	1570000	52400
Total Aliphatics & Aromatics >C5-C44	<10000 µg/kg	TM414		38000	1400000	66400	1600000	52400
Total Aliphatics >C5-C10	<50 µg/kg	TM089		<50	753	564	431	<50
Total Aromatics >EC5-EC10	<50 µg/kg	TM089		<50	324	90.9	131	<50
GRO >C5-C10	<20 µg/kg	TM089		<20	1080	655	562	<20

CERTIFICATE OF ANALYSIS

SDG:	201027-83	**Client Reference:**	LD10162	**Report Number:**	575456
Location:	Ten Acres Lane	**Order Number:**	LD1688	**Superseded Report:**	574099

VOC MS (S)

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	WS103 ES2	WS105 ES1	WS111 ES1	WS112 ES1	WS113 ES1
			Depth (m)	3.41 - 3.45	2.50 - 2.50	0.35 - 0.35	0.90 - 0.90	0.85 - 0.85
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	23/10/2020	23/10/2020	23/10/2020	23/10/2020	23/10/2020
			Sample Time	.	.	.	.	.
			Date Received	27/10/2020	27/10/2020	27/10/2020	27/10/2020	27/10/2020
			SDG Ref	201027-83	201027-83	201027-83	201027-83	201027-83
			Lab Sample No.(s)	23123532	23123536	23123553	23123548	23123543
			AGS Reference					
Dibromofluoromethane**	%	TM116		111	121	110	117	112
Toluene-d8**	%	TM116		99.7	82.7	98.9	97.6	99.4
4-Bromofluorobenzene**	%	TM116		93	70.4	89.1	88.7	84.9
Dichlorodifluoromethane	<6 µg/kg	TM116		<120 M	20.9 M			
Chloromethane	<7 µg/kg	TM116		<140 #	<7 #			
Vinyl Chloride	<6 µg/kg	TM116		<120 M	<6 M			
Bromomethane	<10 µg/kg	TM116		<200 M	<10 M			
Chloroethane	<10 µg/kg	TM116		<200 M	<10 M			
Trichlorofluorormethane	<6 µg/kg	TM116		<120 M	<6 M			
1,1-Dichloroethene	<10 µg/kg	TM116		<200 #	<10 #			
Carbon Disulphide	<7 µg/kg	TM116		<140 M	13.8 M			
Dichloromethane	<10 µg/kg	TM116		<200 #	<10 #			
Methyl Tertiary Butyl Ether	<10 µg/kg	TM116		<200 M	<10 M	<200 M	<200 M	<10 M
trans-1,2-Dichloroethene	<10 µg/kg	TM116		<200 M	<10 M			
1,1-Dichloroethane	<8 µg/kg	TM116		<160 M	<8 M			
cis-1,2-Dichloroethene	<6 µg/kg	TM116		<120 M	<6 M			
2,2-Dichloropropane	<10 µg/kg	TM116		<200	<10			
Bromochloromethane	<10 µg/kg	TM116		<200 M	<10 M			
Chloroform	<8 µg/kg	TM116		<160 M	<8 M			
1,1,1-Trichloroethane	<7 µg/kg	TM116		<140 M	<7 M			
1,1-Dichloropropene	<10 µg/kg	TM116		<200 M	<10 M			
Carbontetrachloride	<10 µg/kg	TM116		<200 M	<10 M			
1,2-Dichloroethane	<5 µg/kg	TM116		<100 M	<5 M			
Benzene	<9 µg/kg	TM116		<180 M	<9 M	<180 M	<180 M	<9 M
Trichloroethene	<9 µg/kg	TM116		<180 #	<9 #			
1,2-Dichloropropane	<10 µg/kg	TM116		<200 M	<10 M			
Dibromomethane	<9 µg/kg	TM116		<180 M	<9 M			
Bromodichloromethane	<7 µg/kg	TM116		<140 M	<7 M			
cis-1,3-Dichloropropene	<10 µg/kg	TM116		<200 M	<10 M			
Toluene	<7 µg/kg	TM116		<140 M	<7 M	<140 M	<140 M	<7 M
trans-1,3-Dichloropropene	<10 µg/kg	TM116		<200	<10			
1,1,2-Trichloroethane	<10 µg/kg	TM116		<200 M	<10 M			
1,3-Dichloropropane	<7 µg/kg	TM116		<140 M	<7 M			

Validated

CERTIFICATE OF ANALYSIS

SDG:	201027-83	**Client Reference:**	LD10162	**Report Number:**	575456
Location:	Ten Acres Lane	**Order Number:**	LD1688	**Superseded Report:**	574099

VOC MS (S)

Results Legend	
#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	WS103 ES2	WS105 ES1	WS111 ES1	WS112 ES1	WS113 ES1
			Depth (m)	3.41 - 3.45	2.50 - 2.50	0.35 - 0.35	0.90 - 0.90	0.85 - 0.85
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	23/10/2020	23/10/2020	23/10/2020	23/10/2020	23/10/2020
			Sample Time	.	.	.	.	.
			Date Received	27/10/2020	27/10/2020	27/10/2020	27/10/2020	27/10/2020
			SDG Ref	201027-83	201027-83	201027-83	201027-83	201027-83
			Lab Sample No.(s)	23123532	23123536	23123553	23123548	23123543
			AGS Reference					
Tetrachloroethene	<5 µg/kg	TM116		<100 M	<5 M			
Dibromochloromethane	<10 µg/kg	TM116		<200 M	<10 M			
1,2-Dibromoethane	<10 µg/kg	TM116		<200 M	<10 M			
Chlorobenzene	<5 µg/kg	TM116		<100 M	40.1 M			
1,1,1,2-Tetrachloroethane	<10 µg/kg	TM116		<200 M	<10 M			
Ethylbenzene	<4 µg/kg	TM116		<80 M	<4 M	<80 M	<80 M	<4 M
p/m-Xylene	<10 µg/kg	TM116		<200 #	<10 #	<200 #	<200 #	<10 #
o-Xylene	<10 µg/kg	TM116		<200 M	<10 M	<200 M	<200 M	<10 M
Styrene	<10 µg/kg	TM116		<200 #	<10 #			
Bromoform	<10 µg/kg	TM116		<200 M	<10 M			
Isopropylbenzene	<5 µg/kg	TM116		<100 #	<5 #			
1,1,2,2-Tetrachloroethane	<10 µg/kg	TM116		<200 #	<10 #			
1,2,3-Trichloropropane	<16 µg/kg	TM116		<320 M	<16 M			
Bromobenzene	<10 µg/kg	TM116		<200 M	<10 M			
Propylbenzene	<10 µg/kg	TM116		<200 M	<10 M			
2-Chlorotoluene	<9 µg/kg	TM116		<180 M	<9 M			
1,3,5-Trimethylbenzene	<8 µg/kg	TM116		<160 M	<8 M			
4-Chlorotoluene	<10 µg/kg	TM116		<200 M	<10 M			
tert-Butylbenzene	<14 µg/kg	TM116		<280 M	<14 M			
1,2,4-Trimethylbenzene	<9 µg/kg	TM116		<180 #	<9 #			
sec-Butylbenzene	<10 µg/kg	TM116		<200	<10			
4-Isopropyltoluene	<10 µg/kg	TM116		<200 M	<10 M			
1,3-Dichlorobenzene	<8 µg/kg	TM116		<160 M	<8 M			
1,4-Dichlorobenzene	<5 µg/kg	TM116		<100 M	<5 M			
n-Butylbenzene	<11 µg/kg	TM116		<220	<11			
1,2-Dichlorobenzene	<10 µg/kg	TM116		<200 M	29 M			
1,2-Dibromo-3-chloropropane	<14 µg/kg	TM116		<280 M	<14 M			
Tert-amyl methyl ether	<10 µg/kg	TM116		<200 #	<10 #			
1,2,4-Trichlorobenzene	<20 µg/kg	TM116		<400	<20			
Hexachlorobutadiene	<20 µg/kg	TM116		<400	<20			
Naphthalene	<13 µg/kg	TM116		<260 M	<13 M			
1,2,3-Trichlorobenzene	<20 µg/kg	TM116		<400 #	<20 #			
1,3,5-Trichlorobenzene	<20 µg/kg	TM116		<400	<20			

Validated

CERTIFICATE OF ANALYSIS

SDG:	201027-83	**Client Reference:**	LD10162	**Report Number:**	575456
Location:	Ten Acres Lane	**Order Number:**	LD1688	**Superseded Report:**	574099

VOC MS (S)

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	WS103 ES2	WS105 ES1	WS111 ES1	WS112 ES1	WS113 ES1
			Depth (m)	3.41 - 3.45	2.50 - 2.50	0.35 - 0.35	0.90 - 0.90	0.85 - 0.85
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	23/10/2020	23/10/2020	23/10/2020	23/10/2020	23/10/2020
			Sample Time	.	.	.	.	.
			Date Received	27/10/2020	27/10/2020	27/10/2020	27/10/2020	27/10/2020
			SDG Ref	201027-83	201027-83	201027-83	201027-83	201027-83
			Lab Sample No.(s)	23123532	23123536	23123553	23123548	23123543
			AGS Reference					
Sum of Detected Xylenes	<0.02 mg/kg	TM116		<0.4	<0.02	<0.4	<0.4	<0.02
Sum of BTEX	<40 µg/kg	TM116		<800	<40	<800	<800	<40

CERTIFICATE OF ANALYSIS

SDG:	201027-83	**Client Reference:**	LD10162	**Report Number:**	575456
Location:	Ten Acres Lane	**Order Number:**	LD1688	**Superseded Report:**	574099

Asbestos Identification - Solid Samples

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
*	Subcontracted test.
(F)	Trigger breach confirmed
1-5&♦$@	Sample deviation (see appendix)

		Date of Analysis	Analysed By	Comments	Amosite (Brown) Asbestos	Chrysotile (White) Asbestos	Crocidolite (Blue) Asbestos	Fibrous Actinolite	Fibrous Anthophyllite	Fibrous Tremolite	Non-Asbestos Fibre
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Receieved SDG Original Sample Method Number	WS103 ES2 3.41 - 3.45 SOLID 23/10/2020 00:00:00 27/10/2020 09:00:00 201027-83 23123532 TM048	03/11/2020	Paul Poynton	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Receieved SDG Original Sample Method Number	WS105 ES1 2.50 - 2.50 SOLID 23/10/2020 00:00:00 27/10/2020 09:00:00 201027-83 23123536 TM048	03/11/2020	James Richards	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Receieved SDG Original Sample Method Number	WS111 ES1 0.35 - 0.35 SOLID 23/10/2020 00:00:00 27/10/2020 09:00:00 201027-83 23123553 TM048	03/11/2020	Paul Poynton	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Receieved SDG Original Sample Method Number	WS112 ES1 0.90 - 0.90 SOLID 23/10/2020 00:00:00 27/10/2020 09:00:00 201027-83 23123548 TM048	03/11/2020	Paul Poynton	ACM debris in soil	Not Detected (#)	Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Receieved SDG Original Sample Method Number	WS113 ES1 0.85 - 0.85 SOLID 23/10/2020 00:00:00 27/10/2020 09:00:00 201027-83 23123543 TM048	03/11/2020	Marcin Magdziarek	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected

CERTIFICATE OF ANALYSIS

SDG:	201027-83	**Client Reference:**	LD10162	**Report Number:**	575456
Location:	Ten Acres Lane	**Order Number:**	LD1688	**Superseded Report:**	574099

Asbestos Quantification - Full

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
*	Subcontracted test.
(F)	Trigger breach confirmed
1-5&♦$@	Sample deviation (see appendix)

		Additional Asbestos Components	Analysts Comments	Asbestos Quantification - Gravimetric - %	Asbestos Quantification - PCOM	Asbestos Quantification - Total - %
Cust. Sample Ref.	WS112 ES1	None (#)	N/C	0.1093 (#)	<0.001 (#)	0.1093 (#)
Depth (m)	0.90 - 0.90					
Sample Type	SOLID					
Date Sampled	23/10/2020 00:00:00					
Date Receieved	27/10/2020 09:00:00					
SDG	201027-83					
Original Sample	23123548					
Method Number	TM304					

CERTIFICATE OF ANALYSIS

SDG:	201027-83	**Client Reference:**	LD10162	**Report Number:**	575456
Location:	Ten Acres Lane	**Order Number:**	LD1688	**Superseded Report:**	574099

Table of Results - Appendix

Method No	Reference	Description
PM024	Modified BS 1377	Soil preparation including homogenisation, moisture screens of soils for Asbestos Containing Material
TM048	HSG 248, Asbestos: The analysts' guide for sampling, analysis and clearance procedures	Identification of Asbestos in Bulk Material
TM062 (S)	National Grid Property Holdings Methods for the Collection & Analysis of Samples from National Grid Sites version 1 Sec 3.9	Determination of Phenols in Soils by HPLC
TM089	Modified: US EPA Methods 8020 & 602	Determination of Gasoline Range Hydrocarbons (GRO) by Headspace GC-FID (C4-C12)
TM116	Modified: US EPA Method 8260, 8120, 8020, 624, 610 & 602	Determination of Volatile Organic Compounds by Headspace / GC-MS
TM132	In - house Method	ELTRA CS800 Operators Guide
TM133	BS 1377: Part 3 1990;BS 6068-2.5	Determination of pH in Soil and Water using the GLpH pH Meter
TM151	Method 3500D, AWWA/APHA, 20th Ed., 1999	Determination of Hexavalent Chromium using Kone analyser
TM153	Method 4500A,B,C, I, M AWWA/APHA, 20th Ed., 1999	Determination of Total Cyanide, Free (Easily Liberatable) Cyanide and Thiocyanate using the Skalar SANS+ System Segmented Flow Analyser
TM157	HP 6890 Gas Chromatograph (GC) system and HP 5973 Mass Selective Detector (MSD).	Determination of SVOC in Soils by GC-MS extracted by sonication in DCM/Acetone
TM168	EPA Method 8082, Polychlorinated Biphenyls by Gas Chromatography	Determination of WHO12 and EC7 Polychlorinated Biphenyl Congeners by GC-MS in Soils
TM180	Sulphide in waters and waste waters 1991 ISBN 01 175 7186 SCA rec. 2007 (unpublished)'	The Determination Of Easily Liberated Sulphide In Soil Samples by Ion Selective Electrode Technique
TM181	US EPA Method 6010B	Determination of Routine Metals in Soil by iCap 6500 Duo ICP-OES
TM218	Shaker extraction - EPA method 3546.	The determination of PAH in soil samples by GC-MS
TM221	Inductively Coupled Plasma - Atomic Emission Spectroscopy. An Atlas of Spectral Information: Winge, Fassel, Peterson and Floyd	Determination of Acid extractable Sulphate in Soils by IRIS Emission Spectrometer
TM222	In-House Method	Determination of Hot Water Soluble Boron in Soils (10:1 Water:soil) by IRIS Emission Spectrometer
TM243		Mixed Anions In Soils By Kone
TM304	HSE Contract research Report no 83/1996	Asbestos Quantification in Soil: Fibres identified by morphology only
TM414	Analysis of Petroleum Hydrocarbons in Environmental Media – Total Petroleum Hydrocarbon Criteria	Determination of Speciated Extractable Petroleum Hydrocarbons in Soils by GCxGC-FID

NA = not applicable.

Chemical testing (unless subcontracted) performed at ALS Life Sciences Ltd Hawarden (Method codes TM) or ALS Life Sciences Ltd Aberdeen (Method codes S).

CERTIFICATE OF ANALYSIS

SDG:	201027-83	**Client Reference:**	LD10162	**Report Number:**	575456
Location:	Ten Acres Lane	**Order Number:**	LD1688	**Superseded Report:**	574099

Test Completion Dates

Lab Sample No(s)	23123532	23123536	23123553	23123548	23123543
Customer Sample Ref.	WS103 ES2	WS105 ES1	WS111 ES1	WS112 ES1	WS113 ES1
AGS Ref.					
Depth	3.41 - 3.45	2.50 - 2.50	0.35 - 0.35	0.90 - 0.90	0.85 - 0.85
Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
Anions by Kone (soil)	04-Nov-2020	04-Nov-2020	04-Nov-2020	04-Nov-2020	04-Nov-2020
Asbestos ID in Solid Samples	03-Nov-2020	03-Nov-2020	03-Nov-2020	03-Nov-2020	03-Nov-2020
Asbestos Quantification - Full				12-Nov-2020	
Boron Water Soluble	03-Nov-2020	02-Nov-2020	03-Nov-2020	02-Nov-2020	03-Nov-2020
Cyanide Comp/Free/Total/Thiocyanate	04-Nov-2020	04-Nov-2020	04-Nov-2020	04-Nov-2020	04-Nov-2020
Easily Liberated Sulphide	03-Nov-2020	03-Nov-2020	03-Nov-2020	03-Nov-2020	03-Nov-2020
EPH CWG GC (S)	02-Nov-2020	02-Nov-2020	02-Nov-2020	02-Nov-2020	02-Nov-2020
GRO by GC-FID (S)	02-Nov-2020	02-Nov-2020	02-Nov-2020	02-Nov-2020	02-Nov-2020
Hexavalent Chromium (s)	03-Nov-2020	03-Nov-2020	03-Nov-2020	03-Nov-2020	03-Nov-2020
Metals in solid samples by OES	03-Nov-2020	03-Nov-2020	03-Nov-2020	03-Nov-2020	03-Nov-2020
PAH by GCMS	02-Nov-2020	01-Nov-2020	02-Nov-2020	02-Nov-2020	02-Nov-2020
PCBs by GCMS		04-Nov-2020			
pH	02-Nov-2020	03-Nov-2020	03-Nov-2020	29-Oct-2020	03-Nov-2020
Phenols by HPLC (S)	04-Nov-2020	04-Nov-2020	04-Nov-2020	04-Nov-2020	03-Nov-2020
Sample description	29-Oct-2020	29-Oct-2020	29-Oct-2020	29-Oct-2020	29-Oct-2020
Semi Volatile Organic Compounds	02-Nov-2020	02-Nov-2020			
Total Organic Carbon	03-Nov-2020	03-Nov-2020	03-Nov-2020	03-Nov-2020	03-Nov-2020
Total Sulphate	03-Nov-2020	03-Nov-2020	03-Nov-2020	03-Nov-2020	03-Nov-2020
TPH CWG GC (S)	02-Nov-2020	02-Nov-2020	02-Nov-2020	02-Nov-2020	02-Nov-2020
VOC MS (S)	02-Nov-2020	02-Nov-2020	02-Nov-2020	02-Nov-2020	02-Nov-2020

Appendix General

1. Results are expressed on a dry weight basis (dried at 35ºC) for all soil analyses except for the following: NRA and CEN Leach tests, flash point LOI, pH, ammonium as NH4 by the BRE method, VOC TICs and SVOC TICs.

2. If sufficient sample is received a sub sample will be retained free of charge for 30 days after analysis is completed (e-mailed) for all sample types unless the sample is destroyed on testing. The prepared soil sub sample that is analysed for asbestos will be retained for a period of 6 months after the analysis date. All bulk samples will be retained for a period of 6 months after the analysis date. All samples received and not scheduled will be disposed of one month after the date of receipt unless we are instructed to the contrary. Once the initial period has expired, a storage charge will be applied for each month or part thereof until the client cancels the request for sample storage. ALS reserve the right to charge for samples received and stored but not analysed.

3. With respect to turnaround, we will always endeavour to meet client requirements wherever possible, but turnaround times cannot be absolutely guaranteed due to so many variables beyond our control.

4. We take responsibility for any test performed by sub-contractors (marked with an asterisk). We endeavour to use UKAS/MCERTS Accredited Laboratories, who either complete a quality questionnaire or are audited by ourselves. For some determinands there are no UKAS/MCERTS Accredited Laboratories, in this instance a laboratory with a known track record will be utilised.

5. If no separate volatile sample is supplied by the client, or if a headspace or sediment is present in the volatile sample, the integrity of the data may be compromised. This will be flagged up as an invalid VOC on the test schedule and the result marked as deviating on the test certificate.

6. NDP - No determination possible due to insufficient/unsuitable sample.

7. Results relate only to the items tested.

8. LoDs (Limit of Detection) for wet tests reported on a dry weight basis are not corrected for moisture content.

9. **Surrogate recoveries** - Surrogates are added to your sample to monitor recovery of the test requested. A % recovery is reported, results are not corrected for the recovery measured. Typical recoveries for organics tests are 70-130%. Recoveries in soils are affected by organic rich or clay rich matrices. Waters can be affected by remediation fluids or high amounts of sediment. Test results are only ever reported if all of the associated quality checks pass; it is assumed that all recoveries outside of the values above are due to matrix affect.

10. Stones/debris are not routinely removed. We always endeavour to take a representative sub sample from the received sample.

11. In certain circumstances the method detection limit may be elevated due to the sample being outside the calibration range. Other factors that may contribute to this include possible interferences. In both cases the sample would be diluted which would cause the method detection limit to be raised.

12. Mercury results quoted on soils will not include volatile mercury as the analysis is performed on a dried and crushed sample.

13. For leachate preparations other than Zero Headspace Extraction (ZHE) volatile loss may occur.

14. For the BSEN 12457-3 two batch process to allow the cumulative release to be calculated, the volume of the leachate produced is measured and filtered for all tests. We therefore cannot carry out any unfiltered analysis. The tests affected include volatiles GCFID/GCMS and all subcontracted analysis.

15. Analysis and identification of specific compounds using GCFID is by retention time only, and we routinely calibrate and quantify for benzene, toluene, ethylbenzenes and xylenes (BTEX). For total volatiles in the C5-C12 range, the total area of the chromatogram is integrated and expressed as ug/kg or ug/l. Although this analysis is commonly used for the quantification of gasoline range organics (GRO), the system will also detect other compounds such as chlorinated solvents, and this may lead to a falsely high result with respect to hydrocarbons only. It is not possible to specifically identify these non-hydrocarbons, as standards are not routinely run for any other compounds, and for more definitive identification, volatiles by GCMS should be utilised.

16. We are accredited to MCERTS for sand, clay and loam/topsoil, or any of these materials - whether these are derived from naturally occurring soil profiles, or from fill/made ground, as long as these materials constitute the major part of the sample. Other coarse granular material such as concrete, gravel and brick are not accredited if they comprise the major part of the sample.

17. **Tentatively Identified Compounds (TICs)** are non-target peaks in VOC and SVOC analysis. All non-target peaks detected with a concentration above the LoD are subjected to a mass spectral library search. Non-target peaks with a library search confidence of >75% are reported based on the best mass spectral library match. When a non-target peak with a library search confidence of <75% is detected it is reported as "mixed hydrocarbons". Non-target compounds identified from the scan data are semi-quantified relative to one of the deuterated internal standards, under the same chromatographic conditions as the target compounds. This result is reported as a semi-quantitative value and reported as Tentatively Identified Compounds (TICs). TICs are outside the scope of UKAS accreditation and are not moisture corrected.

18. **Sample Deviations**

If a sample is classed as deviated then the associated results may be compromised.

1	**Container with Headspace provided for volatiles analysis**
2	**Incorrect container received**
3	**Deviation from method**
4	**Matrix interference**
♦	**Sample holding time exceeded in laboratory**
@	**Sample holding time exceeded due to late arrival of instructions or samples**
§	**Sampled on date not provided**

19. **Asbestos**

When requested, the individual sub sample scheduled will be analysed in house for the presence of asbestos fibres and asbestos containing material by our documented in house method TM048 based on HSG 248 (2005), which is accredited to ISO17025. If a specific asbestos fibre type is not found this will be reported as "Not detected". If no asbestos fibre types are found all will be reported as "Not detected" and the sub sample analysed deemed to be clear of asbestos. If an asbestos fibre type is found it will be reported as detected (for each fibre type found). Testing can be carried out on asbestos positive samples, but, due to Health and Safety considerations, may be replaced by alternative tests or reported as No Determination Possible (NDP). The quantity of asbestos present is not determined unless specifically requested.

Identification of Asbestos in Bulk Materials & Soils

The results for identification of asbestos in bulk materials are obtained from supplied bulk materials which have been examined to determine the presence of asbestos fibres using ALS (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining, based on HSG 248 (2005).

The results for identification of asbestos in soils are obtained from a homogenised sub sample which has been examined to determine the presence of asbestos fibres using ALS (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining, based on HSG 248 (2005).

Asbestos Type	Common Name
Chrysotile	White Asbestos
Amosite	Brown Asbestos
Crocidolite	Blue Asbestos
Fibrous Actinolite	-
Fibrous Anthophyllite	-
Fibrous Tremolite	-

Visual Estimation Of Fibre Content

Estimation of fibre content is not permitted as part of our UKAS accredited test other than: - Trace - Where only one or two asbestos fibres were identified.

Respirable Fibres

Respirable fibres are defined as fibres of <3 µm diameter, longer than 5 µm and with aspect ratios of at least 3:1 that can be inhaled into the lower regions of the lung and are generally acknowledged to be most important predictor of hazard and risk for cancers of the lung.
Standing Committee of Analysts, *The Quantification of Asbestos in Soil (2017).*

Further guidance on typical asbestos fibre content of manufactured products can be found in HSG 264.

The identification of asbestos containing materials and soils falls within our schedule of tests for which we hold UKAS accreditation, however opinions, interpretations and all other information contained in the report are outside the scope of UKAS accreditation.

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Website: www.alsenvironmental.co.uk

Wardell Armstrong LLP
36 Park Row
Leeds
LS1 5JL

Attention: Jonathan Currie

CERTIFICATE OF ANALYSIS

Date of report Generation:	19 November 2020
Customer:	Wardell Armstrong LLP
Sample Delivery Group (SDG):	201030-141
Your Reference:	LD10162
Location:	Ten Acres Lane
Report No:	576327

This report has been revised and directly supersedes 574926 in its entirety.

We received 11 samples on Wednesday October 28, 2020 and 6 of these samples were scheduled for analysis which was completed on Thursday November 19, 2020. Accredited laboratory tests are defined within the report, but opinions, interpretations and on-site data expressed herein are outside the scope of ISO 17025 accreditation.

Should this report require incorporation into client reports, it must be used in its entirety and not simply with the data sections alone.

Chemical testing (unless subcontracted) performed at ALS Life Sciences Ltd Hawarden (Method codes TM) or ALS Life Sciences Ltd Aberdeen (Method codes S).

All sample data is provided by the customer. The reported results relate to the sample supplied, and on the basis that this data is correct.
Incorrect sampling dates and/or sample information will affect the validity of results.
The customer is not permitted to reproduce this report except in full without the approval of the laboratory.

Approved By:

Sonia McWhan

Operations Manager

CERTIFICATE OF ANALYSIS

SDG:	201030-141	**Client Reference:**	LD10162	**Report Number:**	576327
Location:	Ten Acres Lane	**Order Number:**	LD1689	**Superseded Report:**	574926

Received Sample Overview

Lab Sample No(s)	Customer Sample Ref.	AGS Ref.	Depth (m)	Sampled Date
23147571	CP101	ES	4.00 - 5.00	28/10/2020
23147576	CP103	ES	2.00 - 3.00	26/10/2020
23147564	CP103	ES	4.00 - 5.00	26/10/2020
23147580	CP103	ES	9.00	27/10/2020
23147554	NO ID			
23147601	WS101	ES	0.50 - 0.60	28/10/2020
23147605	WS101	ES	3.40 - 3.42	28/10/2020
23147615	WS104	ES	4.72 - 5.00	28/10/2020
23147609	WS106	ES	2.72 - 2.78	28/10/2020
23147585	WS109	ES	2.60 - 2.70	28/10/2020
23147593	WS109	ES	3.65 - 3.75	28/10/2020

Only received samples which have had analysis scheduled will be shown on the following pages.

Validated

CERTIFICATE OF ANALYSIS

SDG:	201030-141	**Client Reference:**	LD10162	**Report Number:**	576327
Location:	Ten Acres Lane	**Order Number:**	LD1689	**Superseded Report:**	574926

Results Legend

X **Test**

N **No Determination Possible**

Sample Types -

S - Soil/Solid
UNS - Uns6ecified Solid
GW - Ground Water
SW - Surface Water
LE - Land Leachate
PL - Prepared Leachate
PR - Process Water
SA - Saline Water
TE - Trade Effluent
TS - Treated Sewage
US - Untreated Sewage
RE - Recreational Water
DW - Drinking Water Non-regulatory
UNL - Unspecified Liquid
SL - Sludge
G - Gas
OTH - Other

Lab Sample No(s)			23147571		23147576		23147605	23147615		23147609		23147593		
Customer Sample Reference			CP101		CP103		WS101	WS104		WS106		WS109		
AGS Reference			ES		ES		ES	ES		ES		ES		
Depth (m)			4.00 - 5.00		2.00 - 3.00		3.40 - 3.42	4.72 - 5.00		2.72 - 2.78		3.65 - 3.75		
Container			1kg TUB with Handle (ALE260)	250g Amber Jar (ALE210)	1kg TUB with Handle (ALE260)	250g Amber Jar (ALE210)	60g VOC (ALE215)	250g Amber Jar (ALE210)	60g VOC (ALE215)	250g Amber Jar (ALE210)	250g Amber Jar (ALE210)	60g VOC (ALE215)	250g Amber Jar (ALE210)	60g VOC (ALE215)
Sample Type			S	S	S	S	S	S	S	S	S	S	S	S
Alkalinity Filtered as CaCO3	All	NDPs: 0 Tests: 2	X							X				
Anions by Kone (soil)	All	NDPs: 0 Tests: 4				X		X			X		X	
Anions by Kone (w)	All	NDPs: 0 Tests: 2	X							X				
Asbestos ID in Solid Samples	All	NDPs: 0 Tests: 4			X			X			X		X	
Asbestos Quantification - Full	All	NDPs: 0 Tests: 1			X									
Boron Water Soluble	All	NDPs: 0 Tests: 4				X		X			X		X	
CEN Readings	All	NDPs: 0 Tests: 2	X							X				
Cyanide Comp/Free/Total/Thiocyanate	All	NDPs: 0 Tests: 6	X			X		X		X	X		X	
Dissolved Metals by ICP-MS	All	NDPs: 0 Tests: 2	X							X				
Dissolved Organic/Inorganic Carbon	All	NDPs: 0 Tests: 2	X							X				
Easily Liberated Sulphide	All	NDPs: 0 Tests: 4				X		X			X		X	
EPH CWG (Aliphatic) Filtered GC (W)	All	NDPs: 0 Tests: 1								X				
EPH CWG (Aromatic) Filtered GC (W)	All	NDPs: 0 Tests: 1								X				
EPH CWG GC (S)	All	NDPs: 0 Tests: 4				X		X			X		X	
GRO by GC-FID (S)	All	NDPs: 0 Tests: 4					X		X			X		X

Validated

CERTIFICATE OF ANALYSIS

SDG:	201030-141	**Client Reference:**	LD10162	**Report Number:**	576327
Location:	Ten Acres Lane	**Order Number:**	LD1689	**Superseded Report:**	574926

Results Legend

X Test

N No Determination Possible

Sample Types -

S - Soil/Solid
UNS - Uns6ecified Solid
GW - Ground Water
SW - Surface Water
LE - Land Leachate
PL - Prepared Leachate
PR - Process Water
SA - Saline Water
TE - Trade Effluent
TS - Treated Sewage
US - Untreated Sewage
RE - Recreational Water
DW - Drinking Water Non-regulatory
UNL - Unspecified Liquid
SL - Sludge
G - Gas
OTH - Other

Lab Sample No(s)			23147571		23147576		23147605	23147615	23147609		23147593	
Customer Sample Reference			CP101		CP103		WS101	WS104	WS106		WS109	
AGS Reference			ES		ES		ES	ES	ES		ES	
Depth (m)			4.00 - 5.00		2.00 - 3.00		3.40 - 3.42	4.72 - 5.00	2.72 - 2.78		3.65 - 3.75	
Container			1kg TUB with Handle (ALE260)	250g Amber Jar (ALE210)	1kg TUB with Handle (ALE260)	250g Amber Jar (ALE210)	60g VOC (ALE215)	250g Amber Jar (ALE210)	60g VOC (ALE215)	250g Amber Jar (ALE210)	250g Amber Jar (ALE210)	60g VOC (ALE215)	250g Amber Jar (ALE210)	60g VOC (ALE215)
Sample Type			S	S	S	S	S	S	S	S	S	S	S	S
GRO by GC-FID (W)	All	NDPs: 0 Tests: 1							X					
Hexavalent Chromium (s)	All	NDPs: 0 Tests: 4				X		X			X		X	
Low Level Hexavalent Chromium (w)	All	NDPs: 0 Tests: 2	X						X					
Mercury Dissolved	All	NDPs: 0 Tests: 2	X						X					
Metals in solid samples by OES	All	NDPs: 0 Tests: 4				X		X			X		X	
PAH by GCMS	All	NDPs: 0 Tests: 4				X		X			X		X	
PAH in waters by GC-MS (diss.filt)	All	NDPs: 0 Tests: 2	X						X					
PCBs by GCMS	All	NDPs: 0 Tests: 2						X					X	
pH	All	NDPs: 0 Tests: 4				X		X			X		X	
pH Value	All	NDPs: 0 Tests: 2	X						X					
Phenols by HPLC (S)	All	NDPs: 0 Tests: 4				X		X			X		X	
Phenols by HPLC (W)	All	NDPs: 0 Tests: 2	X						X					
Sample description	All	NDPs: 0 Tests: 6		X		X		X	X		X		X	
Semi Volatile Organic Compounds	All	NDPs: 0 Tests: 3				X			X		X			
Sulphide	All	NDPs: 0 Tests: 2	X						X					

Validated

CERTIFICATE OF ANALYSIS

SDG:	201030-141	**Client Reference:**	LD10162	**Report Number:**	576327
Location:	Ten Acres Lane	**Order Number:**	LD1689	**Superseded Report:**	574926

Results Legend

X **Test**

N **No Determination Possible**

Sample Types -
S - Soil/Solid
UNS - Uns6ecified Solid
GW - Ground Water
SW - Surface Water
LE - Land Leachate
PL - Prepared Leachate
PR - Process Water
SA - Saline Water
TE - Trade Effluent
TS - Treated Sewage
US - Untreated Sewage
RE - Recreational Water
DW - Drinking Water Non-regulatory
UNL - Unspecified Liquid
SL - Sludge
G - Gas
OTH - Other

Lab Sample No(s)			23147571		23147576		23147605	23147615	23147609		23147593		
Customer Sample Reference			CP101		CP103		WS101	WS104	WS106		WS109		
AGS Reference			ES		ES		ES	ES	ES		ES		
Depth (m)			4.00 - 5.00		2.00 - 3.00		3.40 - 3.42	4.72 - 5.00	2.72 - 2.78		3.65 - 3.75		
Container			1kg TUB with Handle (ALE260)	250g Amber Jar (ALE210)	1kg TUB with Handle (ALE260)	250g Amber Jar (ALE210)	60g VOC (ALE215)	250g Amber Jar (ALE210)	60g VOC (ALE215)	250g Amber Jar (ALE210)	250g Amber Jar (ALE210)	60g VOC (ALE215)	250g Amber Jar (ALE210)	60g VOC (ALE215)
Sample Type			S	S	S	S	S	S	S	S	S	S	S	S
Total Organic Carbon	All	NDPs: 0 Tests: 4				X		X			X		X	
Total Sulphate	All	NDPs: 0 Tests: 4				X		X			X		X	
TPH CWG Filtered (W)	All	NDPs: 0 Tests: 1								X				
TPH CWG GC (S)	All	NDPs: 0 Tests: 4				X		X			X		X	
VOC MS (S)	All	NDPs: 0 Tests: 4					X		X			X		X

CERTIFICATE OF ANALYSIS

SDG:	201030-141	**Client Reference:**	LD10162	**Report Number:**	576327
Location:	Ten Acres Lane	**Order Number:**	LD1689	**Superseded Report:**	574926

Sample Descriptions

Grain Sizes

very fine	<0.063mm	**fine**	0.063mm - 0.1mm	**medium**	0.1mm - 2mm	**coarse**	2mm - 10mm	**very coarse**	>10mm

Lab Sample No(s)	Customer Sample Ref.	Depth (m)	Colour	Description	Inclusions	Inclusions 2
23147571	CP101	4.00 - 5.00	Black	Loamy Sand	Vegetation	Stones
23147576	CP103	2.00 - 3.00	Dark Brown	Loamy Sand	Vegetation	Stones
23147605	WS101	3.40 - 3.42	Light Brown	Silt Loam	None	Stones
23147615	WS104	4.72 - 5.00	Black	Loamy Sand	Vegetation	Stones
23147609	WS106	2.72 - 2.78	Dark Brown	Sandy Loam	Stones	None
23147593	WS109	3.65 - 3.75	Dark Brown	Loamy Sand	None	Stones

These descriptions are only intended to act as a cross check if sample identities are questioned, and to provide a log of sample matrices with respect to MCERTS validation. They are not intended as full geological descriptions.

We are accredited to MCERTS for sand, clay and loam/topsoil, or any of these materials - whether these are derived from naturally ocurring soil profiles, or from fill/made ground, as long as these materials constitute the major part of the sample.

Other coarse granular materials such as concrete, gravel and brick are not accredited if they comprise the major part of the sample.

Validated

CERTIFICATE OF ANALYSIS

SDG:	201030-141	**Client Reference:**	LD10162	**Report Number:**	576327
Location:	Ten Acres Lane	**Order Number:**	LD1689	**Superseded Report:**	574926

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	CP101	CP103	WS101	WS104	WS106	WS109
			Depth (m)	4.00 - 5.00	2.00 - 3.00	3.40 - 3.42	4.72 - 5.00	2.72 - 2.78	3.65 - 3.75
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	28/10/2020	26/10/2020	28/10/2020	28/10/2020	28/10/2020	28/10/2020
			Sample Time	.	.	.	.	.	.
			Date Received	28/10/2020	28/10/2020	28/10/2020	28/10/2020	28/10/2020	28/10/2020
			SDG Ref	201030-141	201030-141	201030-141	201030-141	201030-141	201030-141
			Lab Sample No.(s)	23147571	23147576	23147605	23147615	23147609	23147593
			AGS Reference	ES	ES	ES	ES	ES	ES
Moisture Content Ratio (% of as received sample)	%	PM024		20	18	18	19	8.6	19
Phenol	<0.01 mg/kg	TM062 (S)			<0.01 @ M	<0.01 M		<0.01 M	<0.01 M
Cresols	<0.01 mg/kg	TM062 (S)			<0.01 @ M	<0.01 M		<0.01 M	0.332 M
Xylenols	<0.015 mg/kg	TM062 (S)			<0.015 @ M	<0.015 M		<0.015 M	0.221 M
Phenols, Total Detected monohydric	<0.035 mg/kg	TM062 (S)			<0.035 @ M	<0.035 M		<0.035 M	0.554 M
Soil Organic Matter (SOM)	<0.35 %	TM132			8.53 #	1.09 #		0.538 #	6.71 #
pH	1 pH Units	TM133			8.31 M	8.59 M		7.96 M	8.63 M
Chromium, Hexavalent	<0.6 mg/kg	TM151			<0.6 #	<0.6 #		<0.6 #	<0.6 #
Cyanide, Total	<1 mg/kg	TM153			<1 M	<1 M		<1 M	1.72 M
PCB congener 28	<3 µg/kg	TM168				<3 M			<30 M
PCB congener 52	<3 µg/kg	TM168				<3 M			<30 M
PCB congener 101	<3 µg/kg	TM168				<3 M			<30 M
PCB congener 118	<3 µg/kg	TM168				<3 M			<30 M
PCB congener 138	<3 µg/kg	TM168				<3 M			<30 M
PCB congener 153	<3 µg/kg	TM168				<3 M			<30 M
PCB congener 180	<3 µg/kg	TM168				<3 M			<30 M
Sum of detected PCB 7 Congeners	<21 µg/kg	TM168				<21			<210
Sulphide, Easily liberated	<15 mg/kg	TM180			52.9 @ M	<15 ♦ M		<15 ♦ M	176 ♦ M
Arsenic	<0.6 mg/kg	TM181			17.2 M	6.27 M		5.34 M	10.5 M
Cadmium	<0.02 mg/kg	TM181			0.742 M	<0.02 M		0.185 M	0.157 M
Chromium	<0.9 mg/kg	TM181			23.6 M	10.5 M		11.9 M	14.7 M
Copper	<1.4 mg/kg	TM181			57.5 M	15.1 M		13.1 M	37.6 M
Lead	<0.7 mg/kg	TM181			250 M	7.17 M		11.9 M	63.1 M
Mercury	<0.14 mg/kg	TM181			<0.14 M	<0.14 M		<0.14 M	<0.14 M
Nickel	<0.2 mg/kg	TM181			27.3 M	17.3 M		25.7 M	28.7 M
Selenium	<1 mg/kg	TM181			<1 #	<1 #		<1 #	<1 #
Zinc	<1.9 mg/kg	TM181			444 M	47.3 M		53 M	62.4 M
Sulphate, Total	<48 mg/kg	TM221			1560 M	248 M		<48 M	471 M
Boron, water soluble	<1 mg/kg	TM222			<1 M	<1 M		<1 M	<1 M
Water Soluble Sulphate as SO4 2:1 Extract	<0.004 g/l	TM243			0.324 M	0.0659 M		0.0119 M	0.0388 M
Asbestos Quantification - Gravimetric - %	<0.001 %	TM304			0.0046 #				
Asbestos Quantification - PCOM Evaluation - %	<0.001 %	TM304			<0.001 #				
Additional Asbestos Components (Using TM048)		TM304			Amosite Detected #				

Validated

CERTIFICATE OF ANALYSIS

SDG:	201030-141	**Client Reference:**	LD10162	**Report Number:**	576327
Location:	Ten Acres Lane	**Order Number:**	LD1689	**Superseded Report:**	574926

Results Legend	
#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	CP101	CP103	WS101	WS104	WS106	WS109
			Depth (m)	4.00 - 5.00	2.00 - 3.00	3.40 - 3.42	4.72 - 5.00	2.72 - 2.78	3.65 - 3.75
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	28/10/2020	26/10/2020	28/10/2020	28/10/2020	28/10/2020	28/10/2020
			Sample Time	.	.	.	.	.	.
			Date Received	28/10/2020	28/10/2020	28/10/2020	28/10/2020	28/10/2020	28/10/2020
			SDG Ref	201030-141	201030-141	201030-141	201030-141	201030-141	201030-141
			Lab Sample No.(s)	23147571	23147576	23147605	23147615	23147609	23147593
			AGS Reference	ES	ES	ES	ES	ES	ES
Analysts Comments		TM304		Loose fibres in soil.				
Asbestos Quantification - Total - %	<0.001 %	TM304		0.0046 #				

CERTIFICATE OF ANALYSIS

SDG:	201030-141	**Client Reference:**	LD10162	**Report Number:**	576327
Location:	Ten Acres Lane	**Order Number:**	LD1689	**Superseded Report:**	574926

PAH by GCMS

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	CP103	WS101	WS106	WS109		
			Depth (m)	2.00 - 3.00	3.40 - 3.42	2.72 - 2.78	3.65 - 3.75		
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)		
			Date Sampled	26/10/2020	28/10/2020	28/10/2020	28/10/2020		
			Sample Time	-	-	-	-		
			Date Received	28/10/2020	28/10/2020	28/10/2020	28/10/2020		
			SDG Ref	201030-141	201030-141	201030-141	201030-141		
			Lab Sample No.(s)	23147576	23147605	23147609	23147593		
			AGS Reference	ES	ES	ES	ES		
Naphthalene-d8 % recovery**	%	TM218		81	80.6	94.8	79.4		
Acenaphthene-d10 % recovery**	%	TM218		79.6	76.9	91.1	82.6		
Phenanthrene-d10 % recovery**	%	TM218		83	77.9	93.3	88.2		
Chrysene-d12 % recovery**	%	TM218		102	70.4	84.1	84.6		
Perylene-d12 % recovery**	%	TM218		105	70.7	85.9	78.2		
Naphthalene	<9 µg/kg	TM218		214 M	<9 M	<9 M	22400 M		
Acenaphthylene	<12 µg/kg	TM218		900 M	<12 M	<12 M	820 M		
Acenaphthene	<8 µg/kg	TM218		2900 M	<8 M	<8 M	20500 M		
Fluorene	<10 µg/kg	TM218		2170 M	<10 M	<10 M	20000 M		
Phenanthrene	<15 µg/kg	TM218		11200 M	29.9 M	<15 M	98300 M		
Anthracene	<16 µg/kg	TM218		5360 M	<16 M	<16 M	24400 M		
Fluoranthene	<17 µg/kg	TM218		25200 M	<17 M	<17 M	79600 M		
Pyrene	<15 µg/kg	TM218		22100 M	21.6 M	<15 M	72100 M		
Benz(a)anthracene	<14 µg/kg	TM218		12400 M	<14 M	<14 M	25300 M		
Chrysene	<10 µg/kg	TM218		11000 M	<10 M	<10 M	22200 M		
Benzo(b)fluoranthene	<15 µg/kg	TM218		15700 M	<15 M	<15 M	18500 M		
Benzo(k)fluoranthene	<14 µg/kg	TM218		5620 M	<14 M	<14 M	8310 M		
Benzo(a)pyrene	<15 µg/kg	TM218		11300 M	<15 M	<15 M	21800 M		
Indeno(1,2,3-cd)pyrene	<18 µg/kg	TM218		8930 M	<18 M	<18 M	13200 M		
Dibenzo(a,h)anthracene	<23 µg/kg	TM218		1450 M	<23 M	<23 M	1630 M		
Benzo(g,h,i)perylene	<24 µg/kg	TM218		6640 M	<24 M	<24 M	12300 M		
PAH, Total Detected USEPA 16	<118 µg/kg	TM218		143000	<118	<118	461000		

CERTIFICATE OF ANALYSIS

SDG:	201030-141	**Client Reference:**	LD10162	**Report Number:**	576327
Location:	Ten Acres Lane	**Order Number:**	LD1689	**Superseded Report:**	574926

Semi Volatile Organic Compounds

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	CP103	WS106	WS109			
			Depth (m)	2.00 - 3.00	2.72 - 2.78	3.65 - 3.75			
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)			
			Date Sampled	26/10/2020	28/10/2020	28/10/2020			
			Sample Time	.	.	.			
			Date Received	28/10/2020	28/10/2020	28/10/2020			
			SDG Ref	201030-141	201030-141	201030-141			
			Lab Sample No.(s)	23147576	23147609	23147593			
			AGS Reference	ES	ES	ES			
Phenol	<100 µg/kg	TM157		<200	<100	<500			
Pentachlorophenol	<100 µg/kg	TM157		<200	<100	<500			
n-Nitroso-n-dipropylamine	<100 µg/kg	TM157		<200	<100	<500			
Nitrobenzene	<100 µg/kg	TM157		<200	<100	<500			
Isophorone	<100 µg/kg	TM157		<200	<100	<500			
Hexachloroethane	<100 µg/kg	TM157		<200	<100	<500			
Hexachlorocyclopentadiene	<100 µg/kg	TM157		<200	<100	<500			
Hexachlorobutadiene	<100 µg/kg	TM157		<200	<100	<500			
Hexachlorobenzene	<100 µg/kg	TM157		<200	<100	<500			
n-Dioctyl phthalate	<100 µg/kg	TM157		<200	<100	<500			
Dimethyl phthalate	<100 µg/kg	TM157		<200	<100	<500			
Diethyl phthalate	<100 µg/kg	TM157		<200	<100	<500			
n-Dibutyl phthalate	<100 µg/kg	TM157		<200	<100	<500			
Dibenzofuran	<100 µg/kg	TM157		268	<100	13200			
Carbazole	<100 µg/kg	TM157		<200	<100	6290			
Butylbenzyl phthalate	<100 µg/kg	TM157		<200	<100	<500			
bis(2-Ethylhexyl) phthalate	<100 µg/kg	TM157		<200	<100	<500			
bis(2-Chloroethoxy)methane	<100 µg/kg	TM157		<200	<100	<500			
bis(2-Chloroethyl)ether	<100 µg/kg	TM157		<200	<100	<500			
Azobenzene	<100 µg/kg	TM157		<200	<100	<500			
4-Nitrophenol	<100 µg/kg	TM157		<200	<100	<500			
4-Nitroaniline	<100 µg/kg	TM157		<200	<100	<500			
4-Methylphenol	<100 µg/kg	TM157		<200	<100	<500			
4-Chlorophenylphenylether	<100 µg/kg	TM157		<200	<100	<500			
4-Chloroaniline	<100 µg/kg	TM157		<200	<100	<500			
4-Chloro-3-methylphenol	<100 µg/kg	TM157		<200	<100	<500			
4-Bromophenylphenylether	<100 µg/kg	TM157		<200	<100	<500			
3-Nitroaniline	<100 µg/kg	TM157		<200	<100	<500			
2-Nitrophenol	<100 µg/kg	TM157		<200	<100	<500			
2-Nitroaniline	<100 µg/kg	TM157		<200	<100	<500			
2-Methylphenol	<100 µg/kg	TM157		<200	<100	<500			
1,2,4-Trichlorobenzene	<100 µg/kg	TM157		<200	<100	<500			
2-Chlorophenol	<100 µg/kg	TM157		<200	<100	<500			

CERTIFICATE OF ANALYSIS

SDG:	201030-141	**Client Reference:**	LD10162	**Report Number:**	576327
Location:	Ten Acres Lane	**Order Number:**	LD1689	**Superseded Report:**	574926

Semi Volatile Organic Compounds

Results Legend	
#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	CP103	WS106	WS109			
			Depth (m)	2.00 - 3.00	2.72 - 2.78	3.65 - 3.75			
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)			
			Date Sampled	26/10/2020	28/10/2020	28/10/2020			
			Sample Time	.	.	.			
			Date Received	28/10/2020	28/10/2020	28/10/2020			
			SDG Ref	201030-141	201030-141	201030-141			
			Lab Sample No.(s)	23147576	23147609	23147593			
			AGS Reference	ES	ES	ES			
2,6-Dinitrotoluene	<100 µg/kg	TM157		<200	<100	<500			
2,4-Dinitrotoluene	<100 µg/kg	TM157		<200	<100	<500			
2,4-Dimethylphenol	<100 µg/kg	TM157		<200	<100	<500			
2,4-Dichlorophenol	<100 µg/kg	TM157		<200	<100	<500			
2,4,6-Trichlorophenol	<100 µg/kg	TM157		<200	<100	<500			
2,4,5-Trichlorophenol	<100 µg/kg	TM157		<200	<100	<500			
1,4-Dichlorobenzene	<100 µg/kg	TM157		<200	<100	<500			
1,3-Dichlorobenzene	<100 µg/kg	TM157		<200	<100	<500			
1,2-Dichlorobenzene	<100 µg/kg	TM157		<200	<100	<500			
2-Chloronaphthalene	<100 µg/kg	TM157		<200	<100	<500			
2-Methylnaphthalene	<100 µg/kg	TM157		<200	<100	5810			
Acenaphthylene	<100 µg/kg	TM157		<200	<100	1590			
Acenaphthene	<100 µg/kg	TM157		927	<100	21100			
Anthracene	<100 µg/kg	TM157		793	<100	24100			
Benzo(a)anthracene	<100 µg/kg	TM157		2510	<100	25800			
Benzo(b)fluoranthene	<100 µg/kg	TM157		2570	<100	23000			
Benzo(k)fluoranthene	<100 µg/kg	TM157		2270	<100	20400			
Benzo(a)pyrene	<100 µg/kg	TM157		2980	<100	29100			
Benzo(g,h,i)perylene	<100 µg/kg	TM157		1730	<100	16800			
Chrysene	<100 µg/kg	TM157		2560	<100	26300			
Fluoranthene	<100 µg/kg	TM157		5100	<100	84800			
Fluorene	<100 µg/kg	TM157		451	<100	19800			
Indeno(1,2,3-cd)pyrene	<100 µg/kg	TM157		2180	<100	18100			
Phenanthrene	<100 µg/kg	TM157		1430	<100	92300			
Pyrene	<100 µg/kg	TM157		4380	<100	66500			
Naphthalene	<100 µg/kg	TM157		<200	<100	15000			
Dibenzo(a,h)anthracene	<100 µg/kg	TM157		293	<100	2940			
Bis(2-chloroisopropyl) ether	<100 µg/kg	TM157		<200	<100	<500			

Validated

CERTIFICATE OF ANALYSIS

SDG:	201030-141	**Client Reference:**	LD10162	**Report Number:**	576327
Location:	Ten Acres Lane	**Order Number:**	LD1689	**Superseded Report:**	574926

TPH CWG (S)

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	CP103	WS101	WS106	WS109		
			Depth (m)	2.00 - 3.00	3.40 - 3.42	2.72 - 2.78	3.65 - 3.75		
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)		
			Date Sampled	26/10/2020	28/10/2020	28/10/2020	28/10/2020		
			Sample Time	-	-	-	-		
			Date Received	28/10/2020	28/10/2020	28/10/2020	28/10/2020		
			SDG Ref	201030-141	201030-141	201030-141	201030-141		
			Lab Sample No.(s)	23147576	23147605	23147609	23147593		
			AGS Reference	ES	ES	ES	ES		
GRO Surrogate % recovery**	%	TM089		107	82.9	128	91.6		
Aliphatics >C5-C6	<10 µg/kg	TM089		22	<10	<10	89.8		
Aliphatics >C6-C8	<10 µg/kg	TM089		53.7	<10	10.9	396		
Aliphatics >C8-C10	<10 µg/kg	TM089		686	<10	25.2	2850		
Aliphatics >C10-C12	<1000 µg/kg	TM414		<1000	<1000	<1000	1040		
Aliphatics >C12-C16	<1000 µg/kg	TM414		2610	<1000	<1000	2260		
Aliphatics >C16-C21	<1000 µg/kg	TM414		15800	<1000	<1000	2530		
Aliphatics >C21-C35	<1000 µg/kg	TM414		22200	<1000	<1000	3570		
Aliphatics >C35-C44	<1000 µg/kg	TM414		3110	<1000	<1000	<1000		
Total Aliphatics >C10-C44	<5000 µg/kg	TM414		43700	<5000	<5000	9920		
Total Aliphatics & Aromatics >C10-C44	<10000 µg/kg	TM414		225000	<10000	<10000	1440000		
Aromatics >EC5-EC7	<10 µg/kg	TM089		<10	<10	<10	49.2		
Aromatics >EC7-EC8	<10 µg/kg	TM089		<10	<10	<10	156		
Aromatics >EC8-EC10	<10 µg/kg	TM089		458	<10	16.4	1900		
Aromatics > EC10-EC12	<1000 µg/kg	TM414		<1000	<1000	<1000	23000		
Aromatics > EC12-EC16	<1000 µg/kg	TM414		12800	<1000	<1000	157000		
Aromatics > EC16-EC21	<1000 µg/kg	TM414		40100	<1000	<1000	513000		
Aromatics > EC21-EC35	<1000 µg/kg	TM414		116000	<1000	<1000	656000		
Aromatics >EC35-EC44	<1000 µg/kg	TM414		11700	<1000	<1000	84400		
Aromatics > EC40-EC44	<1000 µg/kg	TM414		2520	<1000	<1000	18600		
Total Aromatics > EC10-EC44	<5000 µg/kg	TM414		181000	<5000	<5000	1430000		
Total Aliphatics & Aromatics >C5-C44	<10000 µg/kg	TM414		226000	<10000	<10000	1450000		
Total Aliphatics >C5-C10	<50 µg/kg	TM089		761	<50	<50	3340		
Total Aromatics >EC5-EC10	<50 µg/kg	TM089		458	<50	<50	2110		
GRO >C5-C10	<20 µg/kg	TM089		1220	<20	<20	5440		

CERTIFICATE OF ANALYSIS

SDG:	201030-141	**Client Reference:**	LD10162	**Report Number:**	576327
Location:	Ten Acres Lane	**Order Number:**	LD1689	**Superseded Report:**	574926

VOC MS (S)

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	CP103	WS101	WS106	WS109		
			Depth (m)	2.00 - 3.00	3.40 - 3.42	2.72 - 2.78	3.65 - 3.75		
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)		
			Date Sampled	26/10/2020	28/10/2020	28/10/2020	28/10/2020		
			Sample Time	-	-	-	-		
			Date Received	28/10/2020	28/10/2020	28/10/2020	28/10/2020		
			SDG Ref	201030-141	201030-141	201030-141	201030-141		
			Lab Sample No.(s)	23147576	23147605	23147609	23147593		
			AGS Reference	ES	ES	ES	ES		
Dibromofluoromethane**	%	TM116		118	109	110	122		
Toluene-d8**	%	TM116		96.2	89.7	93.2	96.9		
4-Bromofluorobenzene**	%	TM116		90.3	71.7	86	88.9		
Dichlorodifluoromethane	<6 µg/kg	TM116		<120 M		<6 M	<120 M		
Chloromethane	<7 µg/kg	TM116		<140 #		<7 #	<140 #		
Vinyl Chloride	<6 µg/kg	TM116		<120 M		<6 M	<120 M		
Bromomethane	<10 µg/kg	TM116		<200 M		<10 M	<200 M		
Chloroethane	<10 µg/kg	TM116		<200 M		<10 M	<200 M		
Trichlorofluorormethane	<6 µg/kg	TM116		<120 M		<6 M	<120 M		
1,1-Dichloroethene	<10 µg/kg	TM116		<200 #		<10 #	<200 #		
Carbon Disulphide	<7 µg/kg	TM116		<140 M		<7 M	<140 M		
Dichloromethane	<10 µg/kg	TM116		<200 #		<10 #	<200 #		
Methyl Tertiary Butyl Ether	<10 µg/kg	TM116		<200 M	<10 M	<10 M	<200 M		
trans-1,2-Dichloroethene	<10 µg/kg	TM116		<200 M		<10 M	<200 M		
1,1-Dichloroethane	<8 µg/kg	TM116		<160 M		<8 M	<160 M		
cis-1,2-Dichloroethene	<6 µg/kg	TM116		<120 M		<6 M	<120 M		
2,2-Dichloropropane	<10 µg/kg	TM116		<200		<10	<200		
Bromochloromethane	<10 µg/kg	TM116		<200 M		<10 M	<200 M		
Chloroform	<8 µg/kg	TM116		<160 M		<8 M	<160 M		
1,1,1-Trichloroethane	<7 µg/kg	TM116		<140 M		<7 M	<140 M		
1,1-Dichloropropene	<10 µg/kg	TM116		<200 M		<10 M	<200 M		
Carbontetrachloride	<10 µg/kg	TM116		<200 M		<10 M	<200 M		
1,2-Dichloroethane	<5 µg/kg	TM116		<100 M		<5 M	<100 M		
Benzene	<9 µg/kg	TM116		<180 M	<9 M	<9 M	<180 M		
Trichloroethene	<9 µg/kg	TM116		<180 #		<9 #	<180 #		
1,2-Dichloropropane	<10 µg/kg	TM116		<200 M		<10 M	<200 M		
Dibromomethane	<9 µg/kg	TM116		<180 M		<9 M	<180 M		
Bromodichloromethane	<7 µg/kg	TM116		<140 M		<7 M	<140 M		
cis-1,3-Dichloropropene	<10 µg/kg	TM116		<200 M		<10 M	<200 M		
Toluene	<7 µg/kg	TM116		<140 M	<7 M	<7 M	229 M		
trans-1,3-Dichloropropene	<10 µg/kg	TM116		<200		<10	<200		
1,1,2-Trichloroethane	<10 µg/kg	TM116		<200 M		<10 M	<200 M		
1,3-Dichloropropane	<7 µg/kg	TM116		<140 M		<7 M	<140 M		

CERTIFICATE OF ANALYSIS

SDG:	201030-141	**Client Reference:**	LD10162	**Report Number:**	576327
Location:	Ten Acres Lane	**Order Number:**	LD1689	**Superseded Report:**	574926

VOC MS (S)

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	CP103	WS101	WS106	WS109		
			Depth (m)	2.00 - 3.00	3.40 - 3.42	2.72 - 2.78	3.65 - 3.75		
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)		
			Date Sampled	26/10/2020	28/10/2020	28/10/2020	28/10/2020		
			Sample Time	.	.	.	.		
			Date Received	28/10/2020	28/10/2020	28/10/2020	28/10/2020		
			SDG Ref	201030-141	201030-141	201030-141	201030-141		
			Lab Sample No.(s)	23147576	23147605	23147609	23147593		
			AGS Reference	ES	ES	ES	ES		
Tetrachloroethene	<5 µg/kg	TM116		<100 M		<5 M	<100 M		
Dibromochloromethane	<10 µg/kg	TM116		<200 M		<10 M	<200 M		
1,2-Dibromoethane	<10 µg/kg	TM116		<200 M		<10 M	<200 M		
Chlorobenzene	<5 µg/kg	TM116		<100 M		<5 M	<100 M		
1,1,1,2-Tetrachloroethane	<10 µg/kg	TM116		<200 M		<10 M	<200 M		
Ethylbenzene	<4 µg/kg	TM116		<80 M	<4 M	<4 M	287 M		
p/m-Xylene	<10 µg/kg	TM116		<200 #	<10 #	<10 #	497 #		
o-Xylene	<10 µg/kg	TM116		<200 M	<10 M	<10 M	317 M		
Styrene	<10 µg/kg	TM116		<200 #		<10 #	<200 #		
Bromoform	<10 µg/kg	TM116		<200 M		<10 M	<200 M		
Isopropylbenzene	<5 µg/kg	TM116		<100 #		<5 #	<100 #		
1,1,2,2-Tetrachloroethane	<10 µg/kg	TM116		<200 #		<10 #	<200 #		
1,2,3-Trichloropropane	<16 µg/kg	TM116		<320 M		<16 M	<320 M		
Bromobenzene	<10 µg/kg	TM116		<200 M		<10 M	<200 M		
Propylbenzene	<10 µg/kg	TM116		<200 M		<10 M	<200 M		
2-Chlorotoluene	<9 µg/kg	TM116		<180 M		<9 M	<180 M		
1,3,5-Trimethylbenzene	<8 µg/kg	TM116		<160 M		<8 M	204 M		
4-Chlorotoluene	<10 µg/kg	TM116		<200 M		<10 M	<200 M		
tert-Butylbenzene	<14 µg/kg	TM116		<280 M		<14 M	<280 M		
1,2,4-Trimethylbenzene	<9 µg/kg	TM116		<180 #		<9 #	619 #		
sec-Butylbenzene	<10 µg/kg	TM116		<200		<10	<200		
4-Isopropyltoluene	<10 µg/kg	TM116		<200 M		<10 M	<200 M		
1,3-Dichlorobenzene	<8 µg/kg	TM116		<160 M		<8 M	<160 M		
1,4-Dichlorobenzene	<5 µg/kg	TM116		<100 M		<5 M	<100 M		
n-Butylbenzene	<11 µg/kg	TM116		<220		<11	<220		
1,2-Dichlorobenzene	<10 µg/kg	TM116		<200 M		<10 M	<200 M		
1,2-Dibromo-3-chloropropane	<14 µg/kg	TM116		<280 M		<14 M	<280 M		
Tert-amyl methyl ether	<10 µg/kg	TM116		<200 #		<10 #	<200 #		
1,2,4-Trichlorobenzene	<20 µg/kg	TM116		<400		<20	<400		
Hexachlorobutadiene	<20 µg/kg	TM116		<400		<20	<400		
Naphthalene	<13 µg/kg	TM116		<260 M		<13 M	102000 3 M		
1,2,3-Trichlorobenzene	<20 µg/kg	TM116		<400 #		<20 #	<400 #		
1,3,5-Trichlorobenzene	<20 µg/kg	TM116		<400		<20	<400		

Validated

CERTIFICATE OF ANALYSIS

SDG:	201030-141	**Client Reference:**	LD10162	**Report Number:**	576327
Location:	Ten Acres Lane	**Order Number:**	LD1689	**Superseded Report:**	574926

VOC MS (S)

Results Legend	
#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	CP103	WS101	WS106	WS109		
			Depth (m)	2.00 - 3.00	3.40 - 3.42	2.72 - 2.78	3.65 - 3.75		
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)		
			Date Sampled	26/10/2020	28/10/2020	28/10/2020	28/10/2020		
			Sample Time	.	.	.	.		
			Date Received	28/10/2020	28/10/2020	28/10/2020	28/10/2020		
			SDG Ref	201030-141	201030-141	201030-141	201030-141		
			Lab Sample No.(s)	23147576	23147605	23147609	23147593		
			AGS Reference	ES	ES	ES	ES		
Sum of Detected Xylenes	<0.02 mg/kg	TM116		<0.4	<0.02	<0.02	0.813		
Sum of BTEX	<40 µg/kg	TM116		<800	<40	<40	1330		

CERTIFICATE OF ANALYSIS

SDG:	201030-141	**Client Reference:**	LD10162	**Report Number:**	576327
Location:	Ten Acres Lane	**Order Number:**	LD1689	**Superseded Report:**	574926

Asbestos Identification - Solid Samples

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
*	Subcontracted test.
(F)	Trigger breach confirmed
1-5&♦$@	Sample deviation (see appendix)

		Date of Analysis	Analysed By	Comments	Amosite (Brown) Asbestos	Chrysotile (White) Asbestos	Crocidolite (Blue) Asbestos	Fibrous Actinolite	Fibrous Anthophyllite	Fibrous Tremolite	Non-Asbestos Fibre
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Receieved SDG Original Sample Method Number	CP103ES 2.00 - 3.00 SOLID 26/10/2020 00:00:00 28/10/2020 05:00:00 201030-141 23147576 TM048	09/11/2020	James Richards	Fibre bundles and ACM debris in soil	Not Detected (#)	Detected (#)	Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Receieved SDG Original Sample Method Number	WS101ES 3.40 - 3.42 SOLID 28/10/2020 00:00:00 28/10/2020 05:00:00 201030-141 23147605 TM048	09/11/2020	Marcin Magdziarek	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Receieved SDG Original Sample Method Number	WS106ES 2.72 - 2.78 SOLID 28/10/2020 00:00:00 28/10/2020 05:00:00 201030-141 23147609 TM048	09/11/2020	Marcin Magdziarek	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Receieved SDG Original Sample Method Number	WS109ES 3.65 - 3.75 SOLID 28/10/2020 00:00:00 28/10/2020 05:00:00 201030-141 23147593 TM048	09/11/2020	Marcin Magdziarek	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected

CERTIFICATE OF ANALYSIS

SDG:	201030-141	**Client Reference:**	LD10162	**Report Number:**	576327
Location:	Ten Acres Lane	**Order Number:**	LD1689	**Superseded Report:**	574926

Asbestos Quantification - Full

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
*	Subcontracted test.
(F)	Trigger breach confirmed
1-5&♦$@	Sample deviation (see appendix)

		Additional Asbestos Components	Analysts Comments	Asbestos Quantification - Gravimetric - %	Asbestos Quantification - PCOM	Asbestos Quantification - Total - %
Cust. Sample Ref.	CP103ES	Amosite Detected (#)	Loose fibres in soil.	0.0046 (#)	<0.001 (#)	0.0046 (#)
Depth (m)	2.00 - 3.00					
Sample Type	SOLID					
Date Sampled	26/10/2020 00:00:00					
Date Receieved	28/10/2020 05:00:00					
SDG	201030-141					
Original Sample	23147576					
Method Number	TM304					

CERTIFICATE OF ANALYSIS

SDG:	201030-141	**Client Reference:**	LD10162	**Report Number:**	576327
Location:	Ten Acres Lane	**Order Number:**	LD1689	**Superseded Report:**	574926

CEN 10:1 SINGLE STAGE LEACHATE TEST

CEN ANALYTICAL RESULTS

REF : BS EN 12457/2

Client Reference		**Site Location**	Ten Acres Lane
Mass Sample taken (kg)	0.102	**Natural Moisture Content (%)**	14.1
Mass of dry sample (kg)	0.090	**Dry Matter Content (%)**	87.6
Particle Size <4mm	>J5%		

Case	
SDG	201030-141
Lab Sample Number(s)	23147571
Sampled Date	28-Oct-2020
Customer Sample Ref.	CP101 ESZ
Depth (m)	4.00 - 5.00

Eluate Analysis	**C_2 Concⁿ in 10:1 eluate (mg/l)**		**A_2 10:1 concⁿ leached (mg/kg)**				
	Result	**Limit of Detection**	**Result**	**Limit of Detection**			
Low Level Hexavalent Chromium	0.00303	<0.003	0.0303	<0.03	-	-	-
Sulphate (soluble)	30.8	<2	308	<20	-	-	-
Sulphide	0.0532	<0.01	0.532	<0.1	-	-	-
Dissolved Organic Carbon	19.4	<3	194	<30	-	-	-
Mercury Dissolved (CVAF)	0.0000194	<0.00001	0.000194	<0.0001	-	-	-
Naphthalene (diss.filt)	0.0000236	<0.00001	0.000236	<0.0001	-	-	-
Total Cyanide (W)	<0.05	<0.05	<0.5	<0.5	-	-	-
Acenaphthene (diss.filt)	0.000009	<0.000005	0.00009	<0.00005	-	-	-
Arsenic	0.009	<0.0005	0.09	<0.005	-	-	-
Free Cyanide (W)	<0.05	<0.05	<0.5	<0.5	-	-	-
Acenaphthylene (diss.filt)	<0.000005	<0.000005	<0.00005	<0.00005	-	-	-
Phenol by HPLC (W)	<0.002	<0.002	<0.02	<0.02	-	-	-
Cresols by HPLC (W)	<0.006	<0.006	<0.06	<0.06	-	-	-
Fluoranthene (diss.filt)	0.0000141	<0.000005	0.000141	<0.00005	-	-	-
Thiocyanate (W)	<0.05	<0.05	<0.5	<0.5	-	-	-
Anthracene (diss.filt)	<0.000005	<0.000005	<0.00005	<0.00005	-	-	-
Xylenols by HPLC (W)	<0.008	<0.008	<0.08	<0.08	-	-	-
Boron	0.0684	<0.01	0.684	<0.1	-	-	-
Phenanthrene (diss.filt)	0.00000978	<0.000005	0.0000978	<0.00005	-	-	-
Total Alkalinity Filtered as CaCO3	22	<2	220	<20	-	-	-
Cadmium	<0.00008	<0.00008	<0.0008	<0.0008	-	-	-
Fluorene (diss.filt)	<0.000005	<0.000005	<0.00005	<0.00005	-	-	-
Chrysene (diss.filt)	<0.000005	<0.000005	<0.00005	<0.00005	-	-	-
Pyrene (diss.filt)	0.0000106	<0.000005	0.000106	<0.00005	-	-	-
Total Monohydric Phenols (W)	<0.016	<0.016	<0.16	<0.16	-	-	-
Benzo(a)anthracene (diss.filt)	<0.000005	<0.000005	<0.00005	<0.00005	-	-	-
Chromium	0.00418	<0.001	0.0418	<0.01	-	-	-
Benzo(b)fluoranthene (diss.filt)	<0.000005	<0.000005	<0.00005	<0.00005	-	-	-
Benzo(k)fluoranthene (diss.filt)	<0.000005	<0.000005	<0.00005	<0.00005	-	-	-
Benzo(a)pyrene (diss.filt)	<0.000002	<0.000002	<0.00002	<0.00002	-	-	-
Copper	0.00295	<0.0003	0.0295	<0.003	-	-	-
Dibenzo(a,h)anthracene (diss.filt)	<0.000005	<0.000005	<0.00005	<0.00005	-	-	-
Lead	0.00432	<0.0002	0.0432	<0.002	-	-	-
Benzo(g,h,i)perylene (diss.filt)	<0.000005	<0.000005	<0.00005	<0.00005	-	-	-
Indeno(1,2,3-cd)pyrene (diss.filt)	<0.000005	<0.000005	<0.00005	<0.00005	-	-	-

Leach Test Information

Date Prepared	04-Nov-2020
pH (pH Units)	9.17
Conductivity (µS/cm)	104.00
Temperature (°C)	21.10
Volume Leachant (Litres)	0.888

Mcerts Certification does not apply to leachates

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CERTIFICATE OF ANALYSIS

SDG:	201030-141	**Client Reference:**	LD10162	**Report Number:**	576327
Location:	Ten Acres Lane	**Order Number:**	LD1689	**Superseded Report:**	574926

CEN 10:1 SINGLE STAGE LEACHATE TEST

CEN ANALYTICAL RESULTS

REF : BS EN 12457/2

Client Reference		**Site Location**	Ten Acres Lane
Mass Sample taken (kg)	0.102	**Natural Moisture Content (%)**	14.1
Mass of dry sample (kg)	0.090	**Dry Matter Content (%)**	87.6
Particle Size <4mm	>J5%		

Case	
SDG	201030-141
Lab Sample Number(s)	23147571
Sampled Date	28-Oct-2020
Customer Sample Ref.	CP101 ESZ
Depth (m)	4.00 - 5.00

Eluate Analysis	**C_2 Concⁿ in 10:1 eluate (mg/l)**		**A_2 10:1 concⁿ leached (mg/kg)**				
	Result	**Limit of Detection**	**Result**	**Limit of Detection**			
PAH 16 EPA Total by GCMS (diss.filt)	<0.000082	<0.000082	<0.00082	<0.00082	-	-	-
Nickel	0.00173	<0.0004	0.0173	<0.004	-	-	-
Selenium	<0.001	<0.001	<0.01	<0.01	-	-	-
Calcium (Dis.Filt) mg/l	10.9	<0.2	109	<2	-	-	-

Leach Test Information

Date Prepared	04-Nov-2020
pH (pH Units)	9.17
Conductivity (µS/cm)	104.00
Temperature (°C)	21.10
Volume Leachant (Litres)	0.888

Mcerts Certification does not apply to leachates
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CERTIFICATE OF ANALYSIS

SDG:	201030-141	**Client Reference:**	LD10162	**Report Number:**	576327
Location:	Ten Acres Lane	**Order Number:**	LD1689	**Superseded Report:**	574926

CEN 10:1 SINGLE STAGE LEACHATE TEST

CEN ANALYTICAL RESULTS

REF : BS EN 12457/2

Client Reference		**Site Location**	Ten Acres Lane
Mass Sample taken (kg)	0.111	**Natural Moisture Content (%)**	23.J
Mass of dry sample (kg)	0.090	**Dry Matter Content (%)**	80.7
Particle Size <4mm	>J5%		

Case	
SDG	201030-141
Lab Sample Number(s)	23147615
Sampled Date	28-Oct-2020
Customer Sample Ref.	WS104 ESZ
Depth (m)	4.72 - 5.00

Eluate Analysis	**C_2** Conc^n in 10:1 eluate (mg/l)		**A_2** 10:1 conc^n leached (mg/kg)				
	Result	**Limit of Detection**	**Result**	**Limit of Detection**			
Ali6hatics >C12-C1y	<0.01	<0.01	<0.1	<0.1	-	-	-
Aliphatics >C16-C21	<0.01	<0.01	<0.1	<0.1	-	-	-
Aliphatics >C21-C35	<0.01	<0.01	<0.1	<0.1	-	-	-
Total Aliphatics >C12-C35	<0.01	<0.01	<0.1	<0.1	-	-	-
Aromatics >EC12-EC16	<0.01	<0.01	<0.1	<0.1	-	-	-
Aromatics >EC16-EC21	<0.01	<0.01	<0.1	<0.1	-	-	-
Aromatics >EC21-EC35	<0.01	<0.01	<0.1	<0.1	-	-	-
Aromatics >EC16-EC35	<0.01	<0.01	<0.1	<0.1	-	-	-
Total Aromatics >EC12-EC35	<0.01	<0.01	<0.1	<0.1	-	-	-
TPH (Total Aliphatics + Total Aromatics) >C5-C35	<0.01	<0.01	<0.1	<0.1	-	-	-
Low Level Hexavalent Chromium	0.00424	<0.003	0.0424	<0.03	-	-	-
Sulphate (soluble)	30.3	<2	303	<20	-	-	-
Sulphide	<0.01	<0.01	<0.1	<0.1	-	-	-
Dissolved Organic Carbon	7.34	<3	73.4	<30	-	-	-
Mercury Dissolved (CVAF)	<0.00001	<0.00001	<0.0001	<0.0001	-	-	-
Naphthalene (diss.filt)	<0.00001	<0.00001	<0.0001	<0.0001	-	-	-
Total Cyanide (W)	<0.05	<0.05	<0.5	<0.5	-	-	-
Acenaphthene (diss.filt)	0.00000889	<0.000005	0.0000889	<0.00005	-	-	-
Arsenic	0.0028	<0.0005	0.028	<0.005	-	-	-
Free Cyanide (W)	<0.05	<0.05	<0.5	<0.5	-	-	-
Acenaphthylene (diss.filt)	<0.000005	<0.000005	<0.00005	<0.00005	-	-	-
Phenol by HPLC (W)	<0.002	<0.002	<0.02	<0.02	-	-	-
Cresols by HPLC (W)	<0.006	<0.006	<0.06	<0.06	-	-	-
Fluoranthene (diss.filt)	0.0000134	<0.000005	0.000134	<0.00005	-	-	-
Thiocyanate (W)	<0.05	<0.05	<0.5	<0.5	-	-	-
Anthracene (diss.filt)	<0.000005	<0.000005	<0.00005	<0.00005	-	-	-
Xylenols by HPLC (W)	<0.008	<0.008	<0.08	<0.08	-	-	-
Boron	0.125	<0.01	1.25	<0.1	-	-	-
Phenanthrene (diss.filt)	0.0000111	<0.000005	0.000111	<0.00005	-	-	-
Total Alkalinity Filtered as CaCO3	90	<2	900	<20	-	-	-
Cadmium	<0.00008	<0.00008	<0.0008	<0.0008	-	-	-
Fluorene (diss.filt)	0.00000508	<0.000005	0.0000508	<0.00005	-	-	-
Chrysene (diss.filt)	<0.000005	<0.000005	<0.00005	<0.00005	-	-	-
Pyrene (diss.filt)	0.00000904	<0.000005	0.0000904	<0.00005	-	-	-
Total Monohydric Phenols (W)	<0.016	<0.016	<0.16	<0.16	-	-	-

Leach Test Information

Date Prepared	04-Nov-2020
pH (pH Units)	7.82
Conductivity (µS/cm)	205.00
Temperature (°C)	20.70
Volume Leachant (Litres)	0.879

Mcerts Certification does not apply to leachates
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CERTIFICATE OF ANALYSIS

SDG:	201030-141	**Client Reference:**	LD10162	**Report Number:**	576327
Location:	Ten Acres Lane	**Order Number:**	LD1689	**Superseded Report:**	574926

CEN 10:1 SINGLE STAGE LEACHATE TEST

CEN ANALYTICAL RESULTS

REF : BS EN 12457/2

Client Reference		**Site Location**	Ten Acres Lane
Mass Sample taken (kg)	0.111	**Natural Moisture Content (%)**	23.J
Mass of dry sample (kg)	0.090	**Dry Matter Content (%)**	80.7
Particle Size <4mm	>J5%		

Case	
SDG	201030-141
Lab Sample Number(s)	23147615
Sampled Date	28-Oct-2020
Customer Sample Ref.	WS104 ESZ
Depth (m)	4.72 - 5.00

Eluate Analysis	**C_2 Concⁿ in 10:1 eluate (mg/l)**		**A_2 10:1 concⁿ leached (mg/kg)**				
	Result	**Limit of Detection**	**Result**	**Limit of Detection**			
Benzo(a)anthracene (diss.filt)	<0.000005	<0.000005	<0.00005	<0.00005	-	-	-
Chromium	0.00316	<0.001	0.0316	<0.01	-	-	-
Benzo(b)fluoranthene (diss.filt)	<0.000005	<0.000005	<0.00005	<0.00005	-	-	-
Benzo(k)fluoranthene (diss.filt)	<0.000005	<0.000005	<0.00005	<0.00005	-	-	-
Benzo(a)pyrene (diss.filt)	<0.000002	<0.000002	<0.00002	<0.00002	-	-	-
Copper	0.00227	<0.0003	0.0227	<0.003	-	-	-
Dibenzo(a,h)anthracene (diss.filt)	<0.000005	<0.000005	<0.00005	<0.00005	-	-	-
Lead	0.000368	<0.0002	0.00368	<0.002	-	-	-
Benzo(g,h,i)perylene (diss.filt)	<0.000005	<0.000005	<0.00005	<0.00005	-	-	-
Indeno(1,2,3-cd)pyrene (diss.filt)	<0.000005	<0.000005	<0.00005	<0.00005	-	-	-
PAH 16 EPA Total by GCMS (diss.filt)	<0.000082	<0.000082	<0.00082	<0.00082	-	-	-
Nickel	<0.0004	<0.0004	<0.004	<0.004	-	-	-
Selenium	<0.001	<0.001	<0.01	<0.01	-	-	-
Calcium (Dis.Filt) mg/l	33.6	<0.2	336	<2	-	-	-
TPH CWG (W)							
Surrogate Recovery	-	<0	-	<0	-	-	-
GRO TOT (C5-C12)	<0.05	<0.05	<0.5	<0.5	-	-	-
Aliphatics C5-C6	<0.01	<0.01	<0.1	<0.1	-	-	-
Aliphatics >C6-C8	<0.01	<0.01	<0.1	<0.1	-	-	-
Aliphatics >C8-C10	<0.01	<0.01	<0.1	<0.1	-	-	-
Aliphatics >C10-C12	<0.01	<0.01	<0.1	<0.1	-	-	-
Aromatics C6-C7	<0.01	<0.01	<0.1	<0.1	-	-	-
Aromatics >C7-C8	<0.01	<0.01	<0.1	<0.1	-	-	-
MTBE GC-FID	<0.003	<0.003	<0.03	<0.03	-	-	-
Aromatics >EC8 -EC10	<0.01	<0.01	<0.1	<0.1	-	-	-
Aromatics >EC10-EC12	<0.01	<0.01	<0.1	<0.1	-	-	-
Benzene by GC	<0.007	<0.007	<0.07	<0.07	-	-	-
Toluene by GC	<0.004	<0.004	<0.04	<0.04	-	-	-
Ethylbenzene by GC	<0.005	<0.005	<0.05	<0.05	-	-	-
m & p Xylene by GC	<0.008	<0.008	<0.08	<0.08	-	-	-
o Xylene by GC	<0.003	<0.003	<0.03	<0.03	-	-	-
Sum m&p and o Xylene by GC	<0.011	<0.011	<0.11	<0.11	-	-	-
Sum of BTEX by GC	<0.028	<0.028	<0.28	<0.28	-	-	-

Leach Test Information

Date Prepared	04-Nov-2020
pH (pH Units)	7.82
Conductivity (µS/cm)	205.00
Temperature (°C)	20.70
Volume Leachant (Litres)	0.879

Mcerts Certification does not apply to leachates

19/11/2020 16:16:45

Table of Results - Appendix

Method No	Reference	Description
PM024	Modified BS 1377	Soil preparation including homogenisation, moisture screens of soils for Asbestos Containing Material
PM115		Leaching Procedure for CEN One Stage Leach Test 2:1 & 10:1 1 Step
TM043	Method 2320B, AWWA/APHA, 20th Ed., 1999 / BS 2690: Part109 1984	Determination of alkalinity in aqueous samples
TM048	HSG 248, Asbestos: The analysts' guide for sampling, analysis and clearance procedures	Identification of Asbestos in Bulk Material
TM062 (S)	National Grid Property Holdings Methods for the Collection & Analysis of Samples from National Grid Sites version 1 Sec 3.9	Determination of Phenols in Soils by HPLC
TM089	Modified: US EPA Methods 8020 & 602	Determination of Gasoline Range Hydrocarbons (GRO) by Headspace GC-FID (C4-C12)
TM090	Method 5310, AWWA/APHA, 20th Ed., 1999 / Modified: US EPA Method 415.1 & 9060	Determination of Total Organic Carbon/Total Inorganic Carbon in Water and Waste Water
TM101	Method 4500B & C, AWWA/APHA, 20th Ed., 1999	Determination of Sulphide in soil and water samples using the Kone Analyser
TM116	Modified: US EPA Method 8260, 8120, 8020, 624, 610 & 602	Determination of Volatile Organic Compounds by Headspace / GC-MS
TM132	In - house Method	ELTRA CS800 Operators Guide
TM133	BS 1377: Part 3 1990;BS 6068-2.5	Determination of pH in Soil and Water using the GLpH pH Meter
TM151	Method 3500D, AWWA/APHA, 20th Ed., 1999	Determination of Hexavalent Chromium using Kone analyser
TM152	Method 3125B, AWWA/APHA, 20th Ed., 1999	Analysis of Aqueous Samples by ICP-MS
TM153	Method 4500A,B,C, I, M AWWA/APHA, 20th Ed., 1999	Determination of Total Cyanide, Free (Easily Liberatable) Cyanide and Thiocyanate using the Skalar SANS+ System Segmented Flow Analyser
TM157	HP 6890 Gas Chromatograph (GC) system and HP 5973 Mass Selective Detector (MSD).	Determination of SVOC in Soils by GC-MS extracted by sonication in DCM/Acetone
TM168	EPA Method 8082, Polychlorinated Biphenyls by Gas Chromatography	Determination of WHO12 and EC7 Polychlorinated Biphenyl Congeners by GC-MS in Soils
TM174	Analysis of Petroleum Hydrocarbons in Environmental Media – Total Petroleum Hydrocarbon Criteria	Determination of Speciated Extractable Petroleum Hydrocarbons in Waters by GC-FID
TM178	Modified: US EPA Method 8100	Determination of Polynuclear Aromatic Hydrocarbons (PAH) by GC-MS in Waters
TM180	Sulphide in waters and waste waters 1991 ISBN 01 175 7186 SCA rec. 2007 (unpublished)'	The Determination Of Easily Liberated Sulphide In Soil Samples by Ion Selective Electrode Technique
TM181	US EPA Method 6010B	Determination of Routine Metals in Soil by iCap 6500 Duo ICP-OES
TM183	BS EN 23506:2002, (BS 6068-2.74:2002) ISBN 0 580 38924 3	Determination of Trace Level Mercury in Waters and Leachates by PSA Cold Vapour Atomic Fluorescence Spectrometry
TM184	EPA Methods 325.1 & 325.2,	The Determination of Anions in Aqueous Matrices using the Kone Spectrophotometric Analysers
TM218	Shaker extraction - EPA method 3546.	The determination of PAH in soil samples by GC-MS
TM221	Inductively Coupled Plasma - Atomic Emission Spectroscopy. An Atlas of Spectral Information: Winge, Fassel, Peterson and Floyd	Determination of Acid extractable Sulphate in Soils by IRIS Emission Spectrometer
TM222	In-House Method	Determination of Hot Water Soluble Boron in Soils (10:1 Water:soil) by IRIS Emission Spectrometer
TM227	Standard methods for the examination of waters and wastewaters 20th Edition, AWWA/APHA Method 4500.	Determination of Total Cyanide, Free (Easily Liberatable) Cyanide and Thiocyanate
TM243		Mixed Anions In Soils By Kone
TM245	By GC-FID	Determination of GRO by Headspace in waters
TM256	The measurement of Electrical Conductivity and the Laboratory determination of pH Value of Natural, Treated and Wastewaters. HMSO, 1978. ISBN 011 751428 4.	Determination of pH in Water and Leachate using the GLpH pH Meter
TM259	by HPLC	Determination of Phenols in Waters and Leachates by HPLC
TM304	HSE Contract research Report no 83/1996	Asbestos Quantification in Soil: Fibres identified by morphology only
TM331		Low Level Hexavalent Chromium
TM414	Analysis of Petroleum Hydrocarbons in Environmental Media – Total Petroleum Hydrocarbon Criteria	Determination of Speciated Extractable Petroleum Hydrocarbons in Soils by GCxGC-FID

NA = not applicable.

Chemical testing (unless subcontracted) performed at ALS Life Sciences Ltd Hawarden (Method codes TM) or ALS Life Sciences Ltd Aberdeen (Method codes S).

CERTIFICATE OF ANALYSIS

SDG:	201030-141	**Client Reference:**	LD10162	**Report Number:**	576327
Location:	Ten Acres Lane	**Order Number:**	LD1689	**Superseded Report:**	574926

Test Completion Dates

Lab Sample No(s)	23147571	23147576	23147605	23147615	23147609	23147593
Customer Sample Ref.	CP101	CP103	WS101	WS104	WS106	WS109
AGS Ref.	ES	ES	ES	ES	ES	ES
Depth	4.00 - 5.00	2.00 - 3.00	3.40 - 3.42	4.72 - 5.00	2.72 - 2.78	3.65 - 3.75
Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
Alkalinity Filtered as CaCO3	06-Nov-2020			06-Nov-2020		
Anions by Kone (soil)		09-Nov-2020	09-Nov-2020		09-Nov-2020	09-Nov-2020
Anions by Kone (w)	09-Nov-2020			09-Nov-2020		
Asbestos ID in Solid Samples		09-Nov-2020	09-Nov-2020		09-Nov-2020	09-Nov-2020
Asbestos Quantification - Full		19-Nov-2020				
Boron Water Soluble		05-Nov-2020	05-Nov-2020		05-Nov-2020	09-Nov-2020
CEN 10:1 Leachate (1 Stage)	04-Nov-2020			04-Nov-2020		
CEN Readings	07-Nov-2020			07-Nov-2020		
Cyanide Comp/Free/Total/Thiocyanate	10-Nov-2020	06-Nov-2020	06-Nov-2020	10-Nov-2020	06-Nov-2020	06-Nov-2020
Dissolved Metals by ICP-MS	10-Nov-2020			10-Nov-2020		
Dissolved Organic/Inorganic Carbon	07-Nov-2020			07-Nov-2020		
Easily Liberated Sulphide		09-Nov-2020	09-Nov-2020		09-Nov-2020	09-Nov-2020
EPH CWG (Aliphatic) Filtered GC (W)				09-Nov-2020		
EPH CWG (Aromatic) Filtered GC (W)				09-Nov-2020		
EPH CWG GC (S)		06-Nov-2020	06-Nov-2020		06-Nov-2020	06-Nov-2020
GRO by GC-FID (S)		05-Nov-2020	04-Nov-2020		04-Nov-2020	05-Nov-2020
GRO by GC-FID (W)				09-Nov-2020		
Hexavalent Chromium (s)		09-Nov-2020	09-Nov-2020		10-Nov-2020	09-Nov-2020
Low Level Hexavalent Chromium (w)	09-Nov-2020			09-Nov-2020		
Mercury Dissolved	09-Nov-2020			06-Nov-2020		
Metals in solid samples by OES		06-Nov-2020	06-Nov-2020		06-Nov-2020	06-Nov-2020
Moisture at 105C	04-Nov-2020			04-Nov-2020		
PAH by GCMS		05-Nov-2020	06-Nov-2020		06-Nov-2020	06-Nov-2020
PAH in waters by GC-MS (diss.filt)	09-Nov-2020			09-Nov-2020		
PCBs by GCMS			06-Nov-2020			06-Nov-2020
pH		05-Nov-2020	05-Nov-2020		04-Nov-2020	04-Nov-2020
pH Value	09-Nov-2020			09-Nov-2020		
Phenols by HPLC (S)		10-Nov-2020	10-Nov-2020		10-Nov-2020	10-Nov-2020
Phenols by HPLC (W)	09-Nov-2020			10-Nov-2020		
Sample description	03-Nov-2020	03-Nov-2020	03-Nov-2020	03-Nov-2020	03-Nov-2020	03-Nov-2020
Semi Volatile Organic Compounds		06-Nov-2020			06-Nov-2020	06-Nov-2020
Sulphide	09-Nov-2020			09-Nov-2020		
Total Organic Carbon		06-Nov-2020	09-Nov-2020		06-Nov-2020	09-Nov-2020
Total Sulphate		09-Nov-2020	05-Nov-2020		09-Nov-2020	09-Nov-2020
TPH CWG Filtered (W)				09-Nov-2020		
TPH CWG GC (S)		06-Nov-2020	06-Nov-2020		06-Nov-2020	06-Nov-2020
VOC MS (S)		04-Nov-2020	04-Nov-2020		04-Nov-2020	06-Nov-2020

Appendix General

1. Results are expressed on a dry weight basis (dried at 35ºC) for all soil analyses except for the following: NRA and CEN Leach tests, flash point LOI, pH, ammonium as NH4 by the BRE method, VOC TICs and SVOC TICs.

2. If sufficient sample is received a sub sample will be retained free of charge for 30 days after analysis is completed (e-mailed) for all sample types unless the sample is destroyed on testing. The prepared soil sub sample that is analysed for asbestos will be retained for a period of 6 months after the analysis date. All bulk samples will be retained for a period of 6 months after the analysis date. All samples received and not scheduled will be disposed of one month after the date of receipt unless we are instructed to the contrary. Once the initial period has expired, a storage charge will be applied for each month or part thereof until the client cancels the request for sample storage. ALS reserve the right to charge for samples received and stored but not analysed.

3. With respect to turnaround, we will always endeavour to meet client requirements wherever possible, but turnaround times cannot be absolutely guaranteed due to so many variables beyond our control.

4. We take responsibility for any test performed by sub-contractors (marked with an asterisk). We endeavour to use UKAS/MCERTS Accredited Laboratories, who either complete a quality questionnaire or are audited by ourselves. For some determinands there are no UKAS/MCERTS Accredited Laboratories, in this instance a laboratory with a known track record will be utilised.

5. If no separate volatile sample is supplied by the client, or if a headspace or sediment is present in the volatile sample, the integrity of the data may be compromised. This will be flagged up as an invalid VOC on the test schedule and the result marked as deviating on the test certificate.

6. NDP - No determination possible due to insufficient/unsuitable sample.

7. Results relate only to the items tested.

8. LoDs (Limit of Detection) for wet tests reported on a dry weight basis are not corrected for moisture content.

9. **Surrogate recoveries** - Surrogates are added to your sample to monitor recovery of the test requested. A % recovery is reported, results are not corrected for the recovery measured. Typical recoveries for organics tests are 70-130%. Recoveries in soils are affected by organic rich or clay rich matrices. Waters can be affected by remediation fluids or high amounts of sediment. Test results are only ever reported if all of the associated quality checks pass; it is assumed that all recoveries outside of the values above are due to matrix affect.

10. Stones/debris are not routinely removed. We always endeavour to take a representative sub sample from the received sample.

11. In certain circumstances the method detection limit may be elevated due to the sample being outside the calibration range. Other factors that may contribute to this include possible interferences. In both cases the sample would be diluted which would cause the method detection limit to be raised.

12. Mercury results quoted on soils will not include volatile mercury as the analysis is performed on a dried and crushed sample.

13. For leachate preparations other than Zero Headspace Extraction (ZHE) volatile loss may occur.

14. For the BSEN 12457-3 two batch process to allow the cumulative release to be calculated, the volume of the leachate produced is measured and filtered for all tests. We therefore cannot carry out any unfiltered analysis. The tests affected include volatiles GCFID/GCMS and all subcontracted analysis.

15. Analysis and identification of specific compounds using GCFID is by retention time only, and we routinely calibrate and quantify for benzene, toluene, ethylbenzenes and xylenes (BTEX). For total volatiles in the C5-C12 range, the total area of the chromatogram is integrated and expressed as ug/kg or ug/l. Although this analysis is commonly used for the quantification of gasoline range organics (GRO), the system will also detect other compounds such as chlorinated solvents, and this may lead to a falsely high result with respect to hydrocarbons only. It is not possible to specifically identify these non-hydrocarbons, as standards are not routinely run for any other compounds, and for more definitive identification, volatiles by GCMS should be utilised.

16. We are accredited to MCERTS for sand, clay and loam/topsoil, or any of these materials - whether these are derived from naturally occurring soil profiles, or from fill/made ground, as long as these materials constitute the major part of the sample. Other coarse granular material such as concrete, gravel and brick are not accredited if they comprise the major part of the sample.

17. **Tentatively Identified Compounds (TICs)** are non-target peaks in VOC and SVOC analysis. All non-target peaks detected with a concentration above the LoD are subjected to a mass spectral library search. Non-target peaks with a library search confidence of >75% are reported based on the best mass spectral library match. When a non-target peak with a library search confidence of <75% is detected it is reported as "mixed hydrocarbons". Non-target compounds identified from the scan data are semi-quantified relative to one of the deuterated internal standards, under the same chromatographic conditions as the target compounds. This result is reported as a semi-quantitative value and reported as Tentatively Identified Compounds (TICs). TICs are outside the scope of UKAS accreditation and are not moisture corrected.

18. **Sample Deviations**

If a sample is classed as deviated then the associated results may be compromised.

1	**Container with Headspace provided for volatiles analysis**
2	**Incorrect container received**
3	**Deviation from method**
4	**Matrix interference**
♦	**Sample holding time exceeded in laboratory**
@	**Sample holding time exceeded due to late arrival of instructions or samples**
§	**Sampled on date not provided**

19. **Asbestos**

When requested, the individual sub sample scheduled will be analysed in house for the presence of asbestos fibres and asbestos containing material by our documented in house method TM048 based on HSG 248 (2005), which is accredited to ISO17025. If a specific asbestos fibre type is not found this will be reported as "Not detected". If no asbestos fibre types are found all will be reported as "Not detected" and the sub sample analysed deemed to be clear of asbestos. If an asbestos fibre type is found it will be reported as detected (for each fibre type found). Testing can be carried out on asbestos positive samples, but, due to Health and Safety considerations, may be replaced by alternative tests or reported as No Determination Possible (NDP). The quantity of asbestos present is not determined unless specifically requested.

Identification of Asbestos in Bulk Materials & Soils

The results for identification of asbestos in bulk materials are obtained from supplied bulk materials which have been examined to determine the presence of asbestos fibres using ALS (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining, based on HSG 248 (2005).

The results for identification of asbestos in soils are obtained from a homogenised sub sample which has been examined to determine the presence of asbestos fibres using ALS (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining, based on HSG 248 (2005).

Asbestos Type	Common Name
Chrysotile	White Asbestos
Amosite	Brown Asbestos
Crocidolite	Blue Asbestos
Fibrous Actinolite	-
Fibrous Anthophyllite	-
Fibrous Tremolite	-

Visual Estimation Of Fibre Content

Estimation of fibre content is not permitted as part of our UKAS accredited test other than: - Trace - Where only one or two asbestos fibres were identified.

Respirable Fibres

Respirable fibres are defined as fibres of <3 µm diameter, longer than 5 µm and with aspect ratios of at least 3:1 that can be inhaled into the lower regions of the lung and are generally acknowledged to be most important predictor of hazard and risk for cancers of the lung.
Standing Committee of Analysts, *The Quantification of Asbestos in Soil (2017).*

Further guidance on typical asbestos fibre content of manufactured products can be found in HSG 264.

The identification of asbestos containing materials and soils falls within our schedule of tests for which we hold UKAS accreditation, however opinions, interpretations and all other information contained in the report are outside the scope of UKAS accreditation.

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Wardell Armstrong LLP
36 Park Row
Leeds
LS1 5JL

Attention: Jonathan Currie

CERTIFICATE OF ANALYSIS

Date of report Generation:	13 November 2020
Customer:	Wardell Armstrong LLP
Sample Delivery Group (SDG):	201103-84
Your Reference:	LD10162
Location:	Ten Acres Lane
Report No:	575502

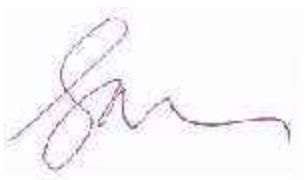
We received 4 samples on Tuesday November 03, 2020 and 2 of these samples were scheduled for analysis which was completed on Friday November 13, 2020. Accredited laboratory tests are defined within the report, but opinions, interpretations and on-site data expressed herein are outside the scope of ISO 17025 accreditation.

Should this report require incorporation into client reports, it must be used in its entirety and not simply with the data sections alone.

Chemical testing (unless subcontracted) performed at ALS Life Sciences Ltd Hawarden (Method codes TM) or ALS Life Sciences Ltd Aberdeen (Method codes S).

All sample data is provided by the customer. The reported results relate to the sample supplied, and on the basis that this data is correct.
Incorrect sampling dates and/or sample information will affect the validity of results.
The customer is not permitted to reproduce this report except in full without the approval of the laboratory.

Approved By:



Sonia McWhan

Operations Manager

CERTIFICATE OF ANALYSIS

SDG:	201103-84	**Client Reference:**	LD10162	**Report Number:**	575502
Location:	Ten Acres Lane	**Order Number:**	LD1692	**Superseded Report:**	

Received Sample Overview

Lab Sample No(s)	Customer Sample Ref.	AGS Ref.	Depth (m)	Sampled Date
23170018	NO ID	A		
23170023	RH108		0.00 - 1.00	30/10/2020
23170030	RH108		5.00 - 6.00	30/10/2020
23170034	RH108		8.00 - 9.00	02/11/2020

Only received samples which have had analysis scheduled will be shown on the following pages.

CERTIFICATE OF ANALYSIS

SDG:	201103-84	**Client Reference:**	LD10162	**Report Number:**	575502
Location:	Ten Acres Lane	**Order Number:**	LD1692	**Superseded Report:**	

Results Legend

X Test

N No Determination Possible

Sample Types -
S - Soil/Solid
UNS - Unspecified Solid
GW - Ground Water
SW - Surface Water
LE - Land Leachate
PL - Prepared Leachate
PR - Process Water
SA - Saline Water
TE - Trade Effluent
TS - Treated Sewage
US - Untreated Sewage
RE - Recreational Water
DW - Drinking Water Non-regulatory
UNL - Unspecified Liquid
SL - Sludge
G - Gas
OTH - Other

Lab Sample No(s)						23170023				23170030		
Customer Sample Reference						RH108				RH108		
AGS Reference												
Depth (m)						0.00 - 1.00				5.00 - 6.00		
Container						1kg TUB with Handle (ALE260)	250g Amber Jar (ALE210)	60g VOC (ALE215)	1kg TUB with Handle (ALE260)	250g Amber Jar (ALE210)	60g VOC (ALE215)	
Sample Type						S	S	S	S	S	S	
Anions by Kone (soil)	All	NDPs: 0 Tests: 2					X			X		
Asbestos ID in Solid Samples	All	NDPs: 0 Tests: 2				X			X			
Boron Water Soluble	All	NDPs: 0 Tests: 2					X			X		
Cyanide Comp/Free/Total/Thiocyanate	All	NDPs: 0 Tests: 2					X			X		
Easily Liberated Sulphide	All	NDPs: 0 Tests: 2					X			X		
EPH CWG GC (S)	All	NDPs: 0 Tests: 2					X			X		
GRO by GC-FID (S)	All	NDPs: 0 Tests: 2						X			X	
Hexavalent Chromium (s)	All	NDPs: 0 Tests: 2					X			X		
Metals in solid samples by OES	All	NDPs: 0 Tests: 2					X			X		
PAH by GCMS	All	NDPs: 0 Tests: 2					X			X		
pH	All	NDPs: 0 Tests: 2					X			X		
Phenols by HPLC (S)	All	NDPs: 0 Tests: 2					X			X		
Sample description	All	NDPs: 0 Tests: 2					X			X		
Total Organic Carbon	All	NDPs: 0 Tests: 2					X			X		
Total Sulphate	All	NDPs: 0 Tests: 2					X			X		

Validated

CERTIFICATE OF ANALYSIS

SDG:	201103-84	**Client Reference:**	LD10162	**Report Number:**	575502
Location:	Ten Acres Lane	**Order Number:**	LD1692	**Superseded Report:**	

Results Legend

X **Test**

N **No Determination Possible**

Sample Types -
S - Soil/Solid
UNS - Unspecified Solid
GW - Ground Water
SW - Surface Water
LE - Land Leachate
PL - Prepared Leachate
PR - Process Water
SA - Saline Water
TE - Trade Effluent
TS - Treated Sewage
US - Untreated Sewage
RE - Recreational Water
DW - Drinking Water Non-regulatory
UNL - Unspecified Liquid
SL - Sludge
G - Gas
OTH - Other

Lab Sample No(s)							23170023					23170030
Customer Sample Reference							RH108					RH108
AGS Reference												
Depth (m)							0.00 - 1.00					5.00 - 6.00
Container							1kg TUB with Handle (ALE260)	250g Amber Jar (ALE210)	60g VOC (ALE215)	1kg TUB with Handle (ALE260)	250g Amber Jar (ALE210)	60g VOC (ALE215)
Sample Type							S	S	S	S	S	S
TPH CWG GC (S)	All		NDPs: 0 Tests: 2					X			X	
VOC MS (S)	All		NDPs: 0 Tests: 2						X			X

CERTIFICATE OF ANALYSIS

SDG:	201103-84	**Client Reference:**	LD10162	**Report Number:**	575502
Location:	Ten Acres Lane	**Order Number:**	LD1692	**Superseded Report:**	

Sample Descriptions

Grain Sizes

very fine	<0.063mm	**fine**	0.063mm - 0.1mm	**medium**	0.1mm - 2mm	**coarse**	2mm - 10mm	**very coarse**	>10mm

Lab Sample No(s)	Customer Sample Ref.	Depth (m)	Colour	Description	Inclusions	Inclusions 2
23170023	RH108	0.00 - 1.00	Dark Brown	Loamy Sand	Stones	Vegetation
23170030	RH108	5.00 - 6.00	Dark Brown	Silt Loam	None	None

These descriptions are only intended to act as a cross check if sample identities are questioned, and to provide a log of sample matrices with respect to MCERTS validation. They are not intended as full geological descriptions.

We are accredited to MCERTS for sand, clay and loam/topsoil, or any of these materials - whether these are derived from naturally ocurring soil profiles, or from fill/made ground, as long as these materials constitute the major part of the sample.

Other coarse granular materials such as concrete, gravel and brick are not accredited if they comprise the major part of the sample.

Validated

CERTIFICATE OF ANALYSIS

SDG:	201103-84	**Client Reference:**	LD10162	**Report Number:**	575502
Location:	Ten Acres Lane	**Order Number:**	LD1692	**Superseded Report:**	

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	RH108	RH108				
			Depth (m)	0.00 - 1.00	5.00 - 6.00				
			Sample Type	Soil/Solid (S)	Soil/Solid (S)				
			Date Sampled	30/10/2020	30/10/2020				
			Sample Time	.	.				
			Date Received	03/11/2020	03/11/2020				
			SDG Ref	201103-84	201103-84				
			Lab Sample No.(s)	23170023	23170030				
			AGS Reference						
Moisture Content Ratio (% of as received sample)	%	PM024		14	10				
Phenol	<0.01 mg/kg	TM062 (S)		<0.01 M	<0.01 M				
Cresols	<0.01 mg/kg	TM062 (S)		<0.01 M	<0.01 M				
Xylenols	<0.015 mg/kg	TM062 (S)		<0.015 M	<0.015 M				
Phenols, Total Detected monohydric	<0.035 mg/kg	TM062 (S)		<0.035 M	<0.035 M				
Soil Organic Matter (SOM)	<0.35 %	TM132		37.4 #	1.34 #				
pH	1 pH Units	TM133		8.65 M	8.41 M				
Chromium, Hexavalent	<0.6 mg/kg	TM151		<0.6 #	<0.6 #				
Cyanide, Total	<1 mg/kg	TM153		<1 M	<1 M				
Sulphide, Easily liberated	<15 mg/kg	TM180		<15 @ M	<15 @ M				
Arsenic	<0.6 mg/kg	TM181		18.1 M	6.97 M				
Cadmium	<0.02 mg/kg	TM181		0.379 M	0.128 M				
Chromium	<0.9 mg/kg	TM181		15.7 M	18.1 M				
Copper	<1.4 mg/kg	TM181		82.6 M	21.8 M				
Lead	<0.7 mg/kg	TM181		233 M	13.3 M				
Mercury	<0.14 mg/kg	TM181		0.368 M	<0.14 M				
Nickel	<0.2 mg/kg	TM181		30.1 M	32.4 M				
Selenium	<1 mg/kg	TM181		<1 #	<1 #				
Zinc	<1.9 mg/kg	TM181		233 M	63.5 M				
Sulphate, Total	<48 mg/kg	TM221		549 M	132 M				
Boron, water soluble	<1 mg/kg	TM222		<1 M	<1 M				
Water Soluble Sulphate as SO4 2:1 Extract	<0.004 g/l	TM243		0.0767 M	0.0827 M				

CERTIFICATE OF ANALYSIS

SDG:	201103-84	**Client Reference:**	LD10162	**Report Number:**	575502
Location:	Ten Acres Lane	**Order Number:**	LD1692	**Superseded Report:**	

PAH by GCMS

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	RH108	RH108				
			Depth (m)	0.00 - 1.00	5.00 - 6.00				
			Sample Type	Soil/Solid (S)	Soil/Solid (S)				
			Date Sampled	30/10/2020	30/10/2020				
			Sample Time	-	-				
			Date Received	03/11/2020	03/11/2020				
			SDG Ref	201103-84	201103-84				
			Lab Sample No.(s)	23170023	23170030				
			AGS Reference						
Naphthalene-d8 % recovery**	%	TM218		84.1	79				
Acenaphthene-d10 % recovery**	%	TM218		91	84.1				
Phenanthrene-d10 % recovery**	%	TM218		94.7	85.4				
Chrysene-d12 % recovery**	%	TM218		89.5	82				
Perylene-d12 % recovery**	%	TM218		85.9	82.9				
Naphthalene	<9 µg/kg	TM218		318 M	33.5 M				
Acenaphthylene	<12 µg/kg	TM218		35 M	<12 M				
Acenaphthene	<8 µg/kg	TM218		283 M	46.1 M				
Fluorene	<10 µg/kg	TM218		231 M	33.8 M				
Phenanthrene	<15 µg/kg	TM218		1960 M	249 M				
Anthracene	<16 µg/kg	TM218		523 M	50.3 M				
Fluoranthene	<17 µg/kg	TM218		2470 M	240 M				
Pyrene	<15 µg/kg	TM218		2200 M	213 M				
Benz(a)anthracene	<14 µg/kg	TM218		1100 M	100 M				
Chrysene	<10 µg/kg	TM218		1070 M	93.8 M				
Benzo(b)fluoranthene	<15 µg/kg	TM218		1330 M	77.4 M				
Benzo(k)fluoranthene	<14 µg/kg	TM218		432 M	34.8 M				
Benzo(a)pyrene	<15 µg/kg	TM218		920 M	80.7 M				
Indeno(1,2,3-cd)pyrene	<18 µg/kg	TM218		679 M	50.1 M				
Dibenzo(a,h)anthracene	<23 µg/kg	TM218		97.9 M	<23 M				
Benzo(g,h,i)perylene	<24 µg/kg	TM218		567 M	52.4 M				
PAH, Total Detected USEPA 16	<118 µg/kg	TM218		14200	1360				

CERTIFICATE OF ANALYSIS

SDG:	201103-84	**Client Reference:**	LD10162	**Report Number:**	575502
Location:	Ten Acres Lane	**Order Number:**	LD1692	**Superseded Report:**	

TPH CWG (S)

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	RH108	RH108				
			Depth (m)	0.00 - 1.00	5.00 - 6.00				
			Sample Type	Soil/Solid (S)	Soil/Solid (S)				
			Date Sampled	30/10/2020	30/10/2020				
			Sample Time	-	-				
			Date Received	03/11/2020	03/11/2020				
			SDG Ref	201103-84	201103-84				
			Lab Sample No.(s)	23170023	23170030				
			AGS Reference						
GRO Surrogate % recovery**	%	TM089		47.4 4	109				
Aliphatics >C5-C6	<10 µg/kg	TM089		15.1 4	<10				
Aliphatics >C6-C8	<10 µg/kg	TM089		63.8 4	33.6				
Aliphatics >C8-C10	<10 µg/kg	TM089		45.2 4	43.7				
Aliphatics >C10-C12	<1000 µg/kg	TM414		<1000	<1000				
Aliphatics >C12-C16	<1000 µg/kg	TM414		<1000	<1000				
Aliphatics >C16-C21	<1000 µg/kg	TM414		<1000	<1000				
Aliphatics >C21-C35	<1000 µg/kg	TM414		3440	1050				
Aliphatics >C35-C44	<1000 µg/kg	TM414		<1000	<1000				
Total Aliphatics >C10-C44	<5000 µg/kg	TM414		5370	<5000				
Total Aliphatics & Aromatics >C10-C44	<10000 µg/kg	TM414		33600	<10000				
Aromatics >EC5-EC7	<10 µg/kg	TM089		<10 4	<10				
Aromatics >EC7-EC8	<10 µg/kg	TM089		<10 4	<10				
Aromatics >EC8-EC10	<10 µg/kg	TM089		30.2 4	29.1				
Aromatics > EC10-EC12	<1000 µg/kg	TM414		<1000	<1000				
Aromatics > EC12-EC16	<1000 µg/kg	TM414		2270	<1000				
Aromatics > EC16-EC21	<1000 µg/kg	TM414		7670	<1000				
Aromatics > EC21-EC35	<1000 µg/kg	TM414		16800	1660				
Aromatics >EC35-EC44	<1000 µg/kg	TM414		<1000	<1000				
Aromatics > EC40-EC44	<1000 µg/kg	TM414		<1000	<1000				
Total Aromatics > EC10-EC44	<5000 µg/kg	TM414		28200	<5000				
Total Aliphatics & Aromatics >C5-C44	<10000 µg/kg	TM414		33700	<10000				
Total Aliphatics >C5-C10	<50 µg/kg	TM089		124 4	77.3				
Total Aromatics >EC5-EC10	<50 µg/kg	TM089		<50 4	<50				
GRO >C5-C10	<20 µg/kg	TM089		124 4	77.3				

Validated

CERTIFICATE OF ANALYSIS

SDG:	201103-84	**Client Reference:**	LD10162	**Report Number:**	575502
Location:	Ten Acres Lane	**Order Number:**	LD1692	**Superseded Report:**	

VOC MS (S)

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	RH108	RH108				
			Depth (m)	0.00 - 1.00	5.00 - 6.00				
			Sample Type	Soil/Solid (S)	Soil/Solid (S)				
			Date Sampled	30/10/2020	30/10/2020				
			Sample Time	.	.				
			Date Received	03/11/2020	03/11/2020				
			SDG Ref	201103-84	201103-84				
			Lab Sample No.(s)	23170023	23170030				
			AGS Reference						
Dibromofluoromethane**	%	TM116		116	110				
Toluene-d8**	%	TM116		95.5	89.8				
4-Bromofluorobenzene**	%	TM116		82.4	70.2				
Methyl Tertiary Butyl Ether	<10 µg/kg	TM116		<200 M	<10 M				
Benzene	<9 µg/kg	TM116		<180 M	<9 M				
Toluene	<7 µg/kg	TM116		<140 M	<7 M				
Ethylbenzene	<4 µg/kg	TM116		<80 M	<4 M				
p/m-Xylene	<10 µg/kg	TM116		<200 #	<10 #				
o-Xylene	<10 µg/kg	TM116		<200 M	<10 M				
Sum of Detected Xylenes	<0.02 mg/kg	TM116		<0.4	<0.02				
Sum of BTEX	<40 µg/kg	TM116		<800	<40				

CERTIFICATE OF ANALYSIS

SDG:	201103-84	**Client Reference:**	LD10162	**Report Number:**	575502
Location:	Ten Acres Lane	**Order Number:**	LD1692	**Superseded Report:**	

Asbestos Identification - Solid Samples

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
*	Subcontracted test.
(F)	Trigger breach confirmed
1-5&♦§@	Sample deviation (see appendix)

		Date of Analysis	Analysed By	Comments	Amosite (Brown) Asbestos	Chrysotile (White) Asbestos	Crocidolite (Blue) Asbestos	Fibrous Actinolite	Fibrous Anthophyllite	Fibrous Tremolite	Non-Asbestos Fibre
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Receieved SDG Original Sample Method Number	RH108 0.00 - 1.00 SOLID 30/10/2020 00:00:00 03/11/2020 09:00:00 201103-84 23170023 TM048	11/11/2020	Barbara Urbanek-Walsh	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Receieved SDG Original Sample Method Number	RH108 5.00 - 6.00 SOLID 30/10/2020 00:00:00 03/11/2020 09:00:00 201103-84 23170030 TM048	12/11/2020	Marcin Magdziarek	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected

CERTIFICATE OF ANALYSIS

SDG:	201103-84	**Client Reference:**	LD10162	**Report Number:**	575502
Location:	Ten Acres Lane	**Order Number:**	LD1692	**Superseded Report:**	

Table of Results - Appendix

Method No	Reference	Description
PM024	Modified BS 1377	Soil preparation including homogenisation, moisture screens of soils for Asbestos Containing Material
TM048	HSG 248, Asbestos: The analysts' guide for sampling, analysis and clearance procedures	Identification of Asbestos in Bulk Material
TM062 (S)	National Grid Property Holdings Methods for the Collection & Analysis of Samples from National Grid Sites version 1 Sec 3.9	Determination of Phenols in Soils by HPLC
TM089	Modified: US EPA Methods 8020 & 602	Determination of Gasoline Range Hydrocarbons (GRO) by Headspace GC-FID (C4-C12)
TM116	Modified: US EPA Method 8260, 8120, 8020, 624, 610 & 602	Determination of Volatile Organic Compounds by Headspace / GC-MS
TM132	In - house Method	ELTRA CS800 Operators Guide
TM133	BS 1377: Part 3 1990;BS 6068-2.5	Determination of pH in Soil and Water using the GLpH pH Meter
TM151	Method 3500D, AWWA/APHA, 20th Ed., 1999	Determination of Hexavalent Chromium using Kone analyser
TM153	Method 4500A,B,C, I, M AWWA/APHA, 20th Ed., 1999	Determination of Total Cyanide, Free (Easily Liberatable) Cyanide and Thiocyanate using the Skalar SANS+ System Segmented Flow Analyser
TM180	Sulphide in waters and waste waters 1991 ISBN 01 175 7186 SCA rec. 2007 (unpublished)'	The Determination Of Easily Liberated Sulphide In Soil Samples by Ion Selective Electrode Technique
TM181	US EPA Method 6010B	Determination of Routine Metals in Soil by iCap 6500 Duo ICP-OES
TM218	Shaker extraction - EPA method 3546.	The determination of PAH in soil samples by GC-MS
TM221	Inductively Coupled Plasma - Atomic Emission Spectroscopy. An Atlas of Spectral Information: Winge, Fassel, Peterson and Floyd	Determination of Acid extractable Sulphate in Soils by IRIS Emission Spectrometer
TM222	In-House Method	Determination of Hot Water Soluble Boron in Soils (10:1 Water:soil) by IRIS Emission Spectrometer
TM243		Mixed Anions In Soils By Kone
TM414	Analysis of Petroleum Hydrocarbons in Environmental Media – Total Petroleum Hydrocarbon Criteria	Determination of Speciated Extractable Petroleum Hydrocarbons in Soils by GCxGC-FID

NA = not applicable.

Chemical testing (unless subcontracted) performed at ALS Life Sciences Ltd Hawarden (Method codes TM) or ALS Life Sciences Ltd Aberdeen (Method codes S).

CERTIFICATE OF ANALYSIS

SDG:	201103-84	**Client Reference:**	LD10162	**Report Number:**	575502
Location:	Ten Acres Lane	**Order Number:**	LD1692	**Superseded Report:**	

Test Completion Dates

Lab Sample No(s)	23170023	23170030
Customer Sample Ref.	RH108	RH108
AGS Ref.		
Depth	0.00 - 1.00	5.00 - 6.00
Type	Soil/Solid (S)	Soil/Solid (S)
Anions by Kone (soil)	12-Nov-2020	12-Nov-2020
Asbestos ID in Solid Samples	11-Nov-2020	12-Nov-2020
Boron Water Soluble	10-Nov-2020	10-Nov-2020
Cyanide Comp/Free/Total/Thiocyanate	10-Nov-2020	10-Nov-2020
Easily Liberated Sulphide	11-Nov-2020	11-Nov-2020
EPH CWG GC (S)	09-Nov-2020	09-Nov-2020
GRO by GC-FID (S)	06-Nov-2020	06-Nov-2020
Hexavalent Chromium (s)	12-Nov-2020	12-Nov-2020
Metals in solid samples by OES	10-Nov-2020	10-Nov-2020
PAH by GCMS	09-Nov-2020	06-Nov-2020
pH	06-Nov-2020	06-Nov-2020
Phenols by HPLC (S)	12-Nov-2020	13-Nov-2020
Sample description	05-Nov-2020	05-Nov-2020
Total Organic Carbon	10-Nov-2020	10-Nov-2020
Total Sulphate	11-Nov-2020	11-Nov-2020
TPH CWG GC (S)	09-Nov-2020	09-Nov-2020
VOC MS (S)	06-Nov-2020	06-Nov-2020

Appendix General

1. Results are expressed on a dry weight basis (dried at 35ºC) for all soil analyses except for the following: NRA and CEN Leach tests, flash point LOI, pH, ammonium as NH4 by the BRE method, VOC TICs and SVOC TICs.

2. If sufficient sample is received a sub sample will be retained free of charge for 30 days after analysis is completed (e-mailed) for all sample types unless the sample is destroyed on testing. The prepared soil sub sample that is analysed for asbestos will be retained for a period of 6 months after the analysis date. All bulk samples will be retained for a period of 6 months after the analysis date. All samples received and not scheduled will be disposed of one month after the date of receipt unless we are instructed to the contrary. Once the initial period has expired, a storage charge will be applied for each month or part thereof until the client cancels the request for sample storage. ALS reserve the right to charge for samples received and stored but not analysed.

3. With respect to turnaround, we will always endeavour to meet client requirements wherever possible, but turnaround times cannot be absolutely guaranteed due to so many variables beyond our control.

4. We take responsibility for any test performed by sub-contractors (marked with an asterisk). We endeavour to use UKAS/MCERTS Accredited Laboratories, who either complete a quality questionnaire or are audited by ourselves. For some determinands there are no UKAS/MCERTS Accredited Laboratories, in this instance a laboratory with a known track record will be utilised.

5. If no separate volatile sample is supplied by the client, or if a headspace or sediment is present in the volatile sample, the integrity of the data may be compromised. This will be flagged up as an invalid VOC on the test schedule and the result marked as deviating on the test certificate.

6. NDP - No determination possible due to insufficient/unsuitable sample.

7. Results relate only to the items tested.

8. LoDs (Limit of Detection) for wet tests reported on a dry weight basis are not corrected for moisture content.

9. **Surrogate recoveries** - Surrogates are added to your sample to monitor recovery of the test requested. A % recovery is reported, results are not corrected for the recovery measured. Typical recoveries for organics tests are 70-130%. Recoveries in soils are affected by organic rich or clay rich matrices. Waters can be affected by remediation fluids or high amounts of sediment. Test results are only ever reported if all of the associated quality checks pass; it is assumed that all recoveries outside of the values above are due to matrix affect.

10. Stones/debris are not routinely removed. We always endeavour to take a representative sub sample from the received sample.

11. In certain circumstances the method detection limit may be elevated due to the sample being outside the calibration range. Other factors that may contribute to this include possible interferences. In both cases the sample would be diluted which would cause the method detection limit to be raised.

12. Mercury results quoted on soils will not include volatile mercury as the analysis is performed on a dried and crushed sample.

13. For leachate preparations other than Zero Headspace Extraction (ZHE) volatile loss may occur.

14. For the BSEN 12457-3 two batch process to allow the cumulative release to be calculated, the volume of the leachate produced is measured and filtered for all tests. We therefore cannot carry out any unfiltered analysis. The tests affected include volatiles GCFID/GCMS and all subcontracted analysis.

15. Analysis and identification of specific compounds using GCFID is by retention time only, and we routinely calibrate and quantify for benzene, toluene, ethylbenzenes and xylenes (BTEX). For total volatiles in the C5-C12 range, the total area of the chromatogram is integrated and expressed as ug/kg or ug/l. Although this analysis is commonly used for the quantification of gasoline range organics (GRO), the system will also detect other compounds such as chlorinated solvents, and this may lead to a falsely high result with respect to hydrocarbons only. It is not possible to specifically identify these non-hydrocarbons, as standards are not routinely run for any other compounds, and for more definitive identification, volatiles by GCMS should be utilised.

16. We are accredited to MCERTS for sand, clay and loam/topsoil, or any of these materials - whether these are derived from naturally occurring soil profiles, or from fill/made ground, as long as these materials constitute the major part of the sample. Other coarse granular material such as concrete, gravel and brick are not accredited if they comprise the major part of the sample.

17. **Tentatively Identified Compounds (TICs)** are non-target peaks in VOC and SVOC analysis. All non-target peaks detected with a concentration above the LoD are subjected to a mass spectral library search. Non-target peaks with a library search confidence of >75% are reported based on the best mass spectral library match. When a non-target peak with a library search confidence of <75% is detected it is reported as "mixed hydrocarbons". Non-target compounds identified from the scan data are semi-quantified relative to one of the deuterated internal standards, under the same chromatographic conditions as the target compounds. This result is reported as a semi-quantitative value and reported as Tentatively Identified Compounds (TICs). TICs are outside the scope of UKAS accreditation and are not moisture corrected.

18. **Sample Deviations**

If a sample is classed as deviated then the associated results may be compromised.

1	**Container with Headspace provided for volatiles analysis**
2	**Incorrect container received**
3	**Deviation from method**
4	**Matrix interference**
♦	**Sample holding time exceeded in laboratory**
@	**Sample holding time exceeded due to late arrival of instructions or samples**
§	**Sampled on date not provided**

19. **Asbestos**

When requested, the individual sub sample scheduled will be analysed in house for the presence of asbestos fibres and asbestos containing material by our documented in house method TM048 based on HSG 248 (2005), which is accredited to ISO17025. If a specific asbestos fibre type is not found this will be reported as "Not detected". If no asbestos fibre types are found all will be reported as "Not detected" and the sub sample analysed deemed to be clear of asbestos. If an asbestos fibre type is found it will be reported as detected (for each fibre type found). Testing can be carried out on asbestos positive samples, but, due to Health and Safety considerations, may be replaced by alternative tests or reported as No Determination Possible (NDP). The quantity of asbestos present is not determined unless specifically requested.

Identification of Asbestos in Bulk Materials & Soils

The results for identification of asbestos in bulk materials are obtained from supplied bulk materials which have been examined to determine the presence of asbestos fibres using ALS (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining, based on HSG 248 (2005).

The results for identification of asbestos in soils are obtained from a homogenised sub sample which has been examined to determine the presence of asbestos fibres using ALS (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining, based on HSG 248 (2005).

Asbestos Type	Common Name
Chrysotile	White Asbestos
Amosite	Brown Asbestos
Crocidolite	Blue Asbestos
Fibrous Actinolite	-
Fibrous Anthophyllite	-
Fibrous Tremolite	-

Visual Estimation Of Fibre Content

Estimation of fibre content is not permitted as part of our UKAS accredited test other than: - Trace - Where only one or two asbestos fibres were identified.

Respirable Fibres

Respirable fibres are defined as fibres of <3 µm diameter, longer than 5 µm and with aspect ratios of at least 3:1 that can be inhaled into the lower regions of the lung and are generally acknowledged to be most important predictor of hazard and risk for cancers of the lung.
Standing Committee of Analysts, *The Quantification of Asbestos in Soil (2017).*

Further guidance on typical asbestos fibre content of manufactured products can be found in HSG 264.

The identification of asbestos containing materials and soils falls within our schedule of tests for which we hold UKAS accreditation, however opinions, interpretations and all other information contained in the report are outside the scope of UKAS accreditation.

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Wardell Armstrong LLP
36 Park Row
Leeds
LS1 5JL

Attention: Jonathan Currie

CERTIFICATE OF ANALYSIS

Date of report Generation:	18 November 2020
Customer:	Wardell Armstrong LLP
Sample Delivery Group (SDG):	201106-125
Your Reference:	LD10162
Location:	Ten Acres Lane
Report No:	576141

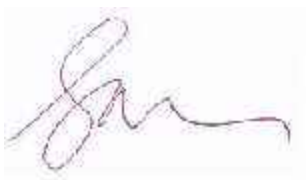
We received 12 samples on Friday November 06, 2020 and 12 of these samples were scheduled for analysis which was completed on Tuesday November 17, 2020. Accredited laboratory tests are defined within the report, but opinions, interpretations and on-site data expressed herein are outside the scope of ISO 17025 accreditation.

Should this report require incorporation into client reports, it must be used in its entirety and not simply with the data sections alone.

Chemical testing (unless subcontracted) performed at ALS Life Sciences Ltd Hawarden (Method codes TM) or ALS Life Sciences Ltd Aberdeen (Method codes S).

All sample data is provided by the customer. The reported results relate to the sample supplied, and on the basis that this data is correct.
Incorrect sampling dates and/or sample information will affect the validity of results.
The customer is not permitted to reproduce this report except in full without the approval of the laboratory.

Approved By:



Sonia McWhan

Operations Manager

CERTIFICATE OF ANALYSIS

SDG:	201106-125	**Client Reference:**	LD10162	**Report Number:**	576141
Location:	Ten Acres Lane	**Order Number:**	LD1706	**Superseded Report:**	

Received Sample Overview

Lab Sample No(s)	Customer Sample Ref.	AGS Ref.	Depth (m)	Sampled Date
23193673	CP108		0.50 - 0.50	04/11/2020
23193677	CP108		1.80 - 1.80	04/11/2020
23193681	TP108		2.30 - 2.30	04/11/2020
23193659	TP123		0.80 - 0.80	04/11/2020
23193666	TP123		2.40 - 2.40	04/11/2020
23193692	TP128		3.60 - 3.60	04/11/2020
23193637	TP137		1.20 - 1.20	04/11/2020
23193697	TP139		1.50 - 1.50	04/11/2020
23193651	TP139		2.40 - 2.40	04/11/2020
23193663	TP141		0.50 - 0.50	04/11/2020
23193695	TP145		2.30 - 2.30	04/11/2020
23193656	TP145		3.80 - 3.80	04/11/2020

Only received samples which have had analysis scheduled will be shown on the following pages.

Validated

CERTIFICATE OF ANALYSIS

SDG:	201106-125	**Client Reference:**	LD10162	**Report Number:**	576141
Location:	Ten Acres Lane	**Order Number:**	LD1706	**Superseded Report:**	

Results Legend

X **Test**

N **No Determination Possible**

Sample Types -

S - Soil/Solid
UNS - Unspecified Solid
GW - Ground Water
SW - Surface Water
LE - Land Leachate
PL - Prepared Leachate
PR - Process Water
SA - Saline Water
TE - Trade Effluent
TS - Treated Sewage
US - Untreated Sewage
RE - Recreational Water
DW - Drinking Water Non-regulatory
UNL - Unspecified Liquid
SL - Sludge
G - Gas
OTH - Other

Lab Sample No(s)			23193673		23193677		23193681		23193659		23193666		23193692	23193637	23193697		23193651		23193663		23193695	
Customer Sample Reference			CP108		CP108		TP108		TP123		TP123		TP128	TP137	TP139		TP139		TP141		TP145	
AGS Reference																						
Depth (m)			0.50 - 0.50		1.80 - 1.80		2.30 - 2.30		0.80 - 0.80		2.40 - 2.40		3.60 - 3.60	1.20 - 1.20	1.50 - 1.50		2.40 - 2.40		0.50 - 0.50		2.30 - 2.30	
Container			250g Amber Jar (ALE210)	60g VOC (ALE215)	250g Amber Jar (ALE210)	250g Amber Jar (ALE210)	60g VOC (ALE215)	250g Amber Jar (ALE210)	60g VOC (ALE215)	250g Amber Jar (ALE210)	250g Amber Jar (ALE210)	250g Amber Jar (ALE210)	60g VOC (ALE215)	250g Amber Jar (ALE210)	250g Amber Jar (ALE210)	60g VOC (ALE215)	250g Amber Jar (ALE210)	60g VOC (ALE215)	250g Amber Jar (ALE210)	60g VOC (ALE215)	250g Amber Jar (ALE210)	60g VOC (ALE215)
Sample Type			S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S
Cyanide Comp/Free/Total/Thiocyanate	All	NDPs: 0 Tests: 9	X		X			X		X	X			X		X				X		
GRO by GC-FID (S)	All	NDPs: 0 Tests: 9		X			X		X	X		X					X		X		X	
PAH by GCMS	All	NDPs: 0 Tests: 10	X		X			X		X	X		X	X		X				X		
Phenols by HPLC (S)	All	NDPs: 0 Tests: 12	X		X	X		X		X	X		X	X		X		X		X		
Sample description	All	NDPs: 0 Tests: 10	X		X	X		X		X	X		X	X		X						
VOC MS (S)	All	NDPs: 0 Tests: 10		X			X		X	X		X			X		X		X		X	

23193656	TP145		3.80 - 3.80	60g VOC (ALE215)	250g Amber Jar (ALE210)
				S	S
					X
				X	
					X
					X
					X
				X	

CERTIFICATE OF ANALYSIS

SDG:	201106-125	**Client Reference:**	LD10162	**Report Number:**	576141
Location:	Ten Acres Lane	**Order Number:**	LD1706	**Superseded Report:**	

Sample Descriptions

Grain Sizes

very fine	<0.063mm	**fine**	0.063mm - 0.1mm	**medium**	0.1mm - 2mm	**coarse**	2mm - 10mm	**very coarse**	>10mm

Lab Sample No(s)	Customer Sample Ref.	Depth (m)	Colour	Description	Inclusions	Inclusions 2
23193673	CP108	0.50 - 0.50	Dark Brown	Sandy Clay Loam	Stones	N/A
23193677	CP108	1.80 - 1.80	Dark Brown	Sandy Loam	Stones	Tar
23193681	TP108	2.30 - 2.30	Black	Silt Loam	None	None
23193659	TP123	0.80 - 0.80	Dark Brown	Loamy Sand	Stones	Vegetation
23193666	TP123	2.40 - 2.40	Dark Brown	Sand	Stones	None
23193692	TP128	3.60 - 3.60	Cream	Silt Loam	Vegetation	Stones
23193637	TP137	1.20 - 1.20	Dark Brown	Sandy Loam	Stones	Vegetation
23193651	TP139	2.40 - 2.40	Dark Brown	Sandy Clay	Stones	Tar
23193697	TP139	1.50 - 1.50	Dark Brown	Sand	Stones	N/A
23193663	TP141	0.50 - 0.50	Dark Brown	Clay Loam	Vegetation	Stones
23193656	TP145	3.80 - 3.80	Dark Brown	Clay Loam	None	Stones
23193695	TP145	2.30 - 2.30	Black	Loamy Sand	Vegetation	Stones

These descriptions are only intended to act as a cross check if sample identities are questioned, and to provide a log of sample matrices with respect to MCERTS validation. They are not intended as full geological descriptions.

We are accredited to MCERTS for sand, clay and loam/topsoil, or any of these materials - whether these are derived from naturally ocurring soil profiles, or from fill/made ground, as long as these materials constitute the major part of the sample.

Other coarse granular materials such as concrete, gravel and brick are not accredited if they comprise the major part of the sample.

Validated

CERTIFICATE OF ANALYSIS

SDG:	201106-125	**Client Reference:**	LD10162	**Report Number:**	576141
Location:	Ten Acres Lane	**Order Number:**	LD1706	**Superseded Report:**	

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	CP108	CP108	TP108	TP123	TP123	TP128
			Depth (m)	0.50 - 0.50	1.80 - 1.80	2.30 - 2.30	0.80 - 0.80	2.40 - 2.40	3.60 - 3.60
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	04/11/2020	04/11/2020	04/11/2020	04/11/2020	04/11/2020	04/11/2020
			Sample Time	.	.	.	.	.	.
			Date Received	06/11/2020	06/11/2020	06/11/2020	06/11/2020	06/11/2020	06/11/2020
			SDG Ref	201106-125	201106-125	201106-125	201106-125	201106-125	201106-125
			Lab Sample No.(s)	23193673	23193677	23193681	23193659	23193666	23193692
			AGS Reference						
Moisture Content Ratio (% of as received sample)	%	PM024		26	26	33	17	29	34
Phenol	<0.01 mg/kg	TM062 (S)		<0.01 M	<0.01 M	<0.01 M	<0.01 M	<0.01 M	<0.01 M
Cresols	<0.01 mg/kg	TM062 (S)		0.0135 M	<0.01 M	0.0447 M	<0.01 M	<0.01 M	<0.01 M
Xylenols	<0.015 mg/kg	TM062 (S)		<0.015 M	<0.015 M	<0.015 M	<0.015 M	<0.015 M	<0.015 M
Phenols, Total Detected monohydric	<0.035 mg/kg	TM062 (S)		<0.035 M	<0.035 M	<0.035 M	<0.035 M	<0.035 M	<0.035 M
Cyanide, Total	<1 mg/kg	TM153		<1 M	<1 M		<1 M	45.1 M	<1 M

Validated

CERTIFICATE OF ANALYSIS

SDG:	201106-125	**Client Reference:**	LD10162	**Report Number:**	576141
Location:	Ten Acres Lane	**Order Number:**	LD1706	**Superseded Report:**	

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	TP137	TP139	TP139	TP141	TP145	TP145
			Depth (m)	1.20 - 1.20	1.50 - 1.50	2.40 - 2.40	0.50 - 0.50	2.30 - 2.30	3.80 - 3.80
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	04/11/2020	04/11/2020	04/11/2020	04/11/2020	04/11/2020	04/11/2020
			Sample Time	.	.	.	00:00:00	.	00:00:00
			Date Received	06/11/2020	06/11/2020	06/11/2020	06/11/2020	06/11/2020	06/11/2020
			SDG Ref	201106-125	201106-125	201106-125	201106-125	201106-125	201106-125
			Lab Sample No.(s)	23193637	23193697	23193651	23193663	23193695	23193656
			AGS Reference						
Moisture Content Ratio (% of as received sample)	%	PM024		21	30	22	20	34	20
Phenol	<0.01 mg/kg	TM062 (S)		<0.01 M	<0.01 M	<0.01 M	<0.01 M	<0.01 M	<0.01 M
Cresols	<0.01 mg/kg	TM062 (S)		<0.01 M	<0.01 M	<0.01 M	0.0125 M	0.0304 M	<0.01 M
Xylenols	<0.015 mg/kg	TM062 (S)		<0.015 M	<0.015 M	<0.015 M	<0.015 M	0.532 M	<0.015 M
Phenols, Total Detected monohydric	<0.035 mg/kg	TM062 (S)		<0.035 M	<0.035 M	<0.035 M	<0.035 M	0.562 M	<0.035 M
Cyanide, Total	<1 mg/kg	TM153			51.9 M	<1 M		<1 M	<1 M

CERTIFICATE OF ANALYSIS

SDG:	201106-125	**Client Reference:**	LD10162	**Report Number:**	576141
Location:	Ten Acres Lane	**Order Number:**	LD1706	**Superseded Report:**	

GRO 7y GC-FID (S)

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	CP108	TP108	TP123	TP123	TP128	TP139
			Depth (m)	0.50 - 0.50	2.30 - 2.30	0.80 - 0.80	2.40 - 2.40	3.60 - 3.60	2.40 - 2.40
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	04/11/2020	04/11/2020	04/11/2020	04/11/2020	04/11/2020	04/11/2020
			Sample Time	.	.	.	.	.	.
			Date Received	06/11/2020	06/11/2020	06/11/2020	06/11/2020	06/11/2020	06/11/2020
			SDG Ref	201106-125	201106-125	201106-125	201106-125	201106-125	201106-125
			Lab Sample No.(s)	23193673	23193681	23193659	23193666	23193692	23193651
			AGS Reference						
GRO Surrogate % recovery**	%	TM089		126	33.9 4	98.3	112 2	101	111
GRO TOT (Moisture Corrected)	<100 µg/kg	TM089		<100 M	1320 4	159 M	173 2 M	<100 M	<100 M
Aliphatics >C5-C6	<10 µg/kg	TM089		<10	71.5 4	<10	<10 2	<10	<10
Aliphatics >C6-C8	<10 µg/kg	TM089		12.2	246 4	23	25.6 2	<10	<10
Aliphatics >C8-C10	<10 µg/kg	TM089		14.9	210 4	50.8	28.4 2	<10	<10
Aliphatics >C10-C12	<10 µg/kg	TM089		14.9	389 4	25.4	56.8 2	<10	<10
Aromatics >EC5-EC7	<10 µg/kg	TM089		<10	<10 4	<10	<10 2	<10	<10
Aromatics >EC7-EC8	<10 µg/kg	TM089		<10	<10 4	<10	<10 2	<10	<10
Aromatics >EC8-EC10	<10 µg/kg	TM089		<10	140 4	33.9	18.5 2	<10	<10
Aromatics >EC10-EC12	<10 µg/kg	TM089		<10	259 4	16.9	38.3 2	<10	<10
Total Aliphatics >C5-C12	<50 µg/kg	TM089		<50	916 4	99.2	111 2	<50	<50
Total Aromatics >EC5-EC12	<50 µg/kg	TM089		<50	399 4	50.8	56.8 2	<50	<50

Validated

CERTIFICATE OF ANALYSIS

SDG:	201106-125	**Client Reference:**	LD10162	**Report Number:**	576141
Location:	Ten Acres Lane	**Order Number:**	LD1706	**Superseded Report:**	

GRO 7y GC-FID (S)

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	TP141	TP145	TP145			
			Depth (m)	0.50 - 0.50	2.30 - 2.30	3.80 - 3.80			
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)			
			Date Sampled	04/11/2020	04/11/2020	04/11/2020			
			Sample Time	00:00:00	-	00:00:00			
			Date Received	06/11/2020	06/11/2020	06/11/2020			
			SDG Ref	201106-125	201106-125	201106-125			
			Lab Sample No.(s)	23193663	23193695	23193656			
			AGS Reference						
GRO Surrogate % recovery**	%	TM089		76.4	89	88.8			
GRO TOT (Moisture Corrected)	<100 µg/kg	TM089		1880 M	1150 M	907 M			
Aliphatics >C5-C6	<10 µg/kg	TM089		11.3	44.1	27.5			
Aliphatics >C6-C8	<10 µg/kg	TM089		58.8	210	67.5			
Aliphatics >C8-C10	<10 µg/kg	TM089		224	345	153			
Aliphatics >C10-C12	<10 µg/kg	TM089		855	192	334			
Aromatics >EC5-EC7	<10 µg/kg	TM089		<10	<10	<10			
Aromatics >EC7-EC8	<10 µg/kg	TM089		10	<10	<10			
Aromatics >EC8-EC10	<10 µg/kg	TM089		149	230	101			
Aromatics >EC10-EC12	<10 µg/kg	TM089		570	128	223			
Total Aliphatics >C5-C12	<50 µg/kg	TM089		1150	790	581			
Total Aromatics >EC5-EC12	<50 µg/kg	TM089		729	357	324			

Validated

CERTIFICATE OF ANALYSIS

SDG:	201106-125	**Client Reference:**	LD10162	**Report Number:**	576141
Location:	Ten Acres Lane	**Order Number:**	LD1706	**Superseded Report:**	

PAH by GCMS

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	CP108	CP108	TP123	TP123	TP128	TP137
			Depth (m)	0.50 - 0.50	1.80 - 1.80	0.80 - 0.80	2.40 - 2.40	3.60 - 3.60	1.20 - 1.20
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	04/11/2020	04/11/2020	04/11/2020	04/11/2020	04/11/2020	04/11/2020
			Sample Time	.	.	.	.	.	.
			Date Received	06/11/2020	06/11/2020	06/11/2020	06/11/2020	06/11/2020	06/11/2020
			SDG Ref	201106-125	201106-125	201106-125	201106-125	201106-125	201106-125
			Lab Sample No.(s)	23193673	23193677	23193659	23193666	23193692	23193637
			AGS Reference						
Naphthalene-d8 % recovery**	%	TM218		80.3	79.1	79.4	74.6	75	82.4
Acenaphthene-d10 % recovery**	%	TM218		81.5	81.4	83.6	80.2	78.5	84.2
Phenanthrene-d10 % recovery**	%	TM218		81.6	84	82	76.4	78	82.7
Chrysene-d12 % recovery**	%	TM218		85.7	92	81.7	83.4	80.9	84.3
Perylene-d12 % recovery**	%	TM218		83.7	89.4	71.1	84	81.6	71.6
Naphthalene	<9 µg/kg	TM218		289 M	127 M	56.8 M	1250 M	313 M	29.7 M
Acenaphthylene	<12 µg/kg	TM218		66.2 M	131 M	381 M	1370 M	272 M	<12 M
Acenaphthene	<8 µg/kg	TM218		240 M	324 M	75.5 M	1870 M	103 M	191 M
Fluorene	<10 µg/kg	TM218		214 M	385 M	84.4 M	3770 M	244 M	188 M
Phenanthrene	<15 µg/kg	TM218		2460 M	3590 M	873 M	34100 M	1310 M	2330 M
Anthracene	<16 µg/kg	TM218		755 M	843 M	295 M	13500 M	367 M	613 M
Fluoranthene	<17 µg/kg	TM218		3230 M	5030 M	1500 M	43700 M	1440 M	2210 M
Pyrene	<15 µg/kg	TM218		3350 M	4900 M	1540 M	40000 M	1360 M	1860 M
Benz(a)anthracene	<14 µg/kg	TM218		2590 M	2540 M	1210 M	35000 M	656 M	1160 M
Chrysene	<10 µg/kg	TM218		2360 M	2530 M	1170 M	30600 M	691 M	1120 M
Benzo(b)fluoranthene	<15 µg/kg	TM218		3280 M	1590 M	1320 M	26700 M	844 M	1160 M
Benzo(k)fluoranthene	<14 µg/kg	TM218		1340 M	934 M	488 M	11200 M	290 M	394 M
Benzo(a)pyrene	<15 µg/kg	TM218		3650 M	2300 M	1210 M	35000 M	656 M	876 M
Indeno(1,2,3-cd)pyrene	<18 µg/kg	TM218		2380 M	1400 M	879 M	21400 M	497 M	498 M
Dibenzo(a,h)anthracene	<23 µg/kg	TM218		391 M	272 M	234 M	4830 M	87.9 M	109 M
Benzo(g,h,i)perylene	<24 µg/kg	TM218		2140 M	1360 M	900 M	17900 M	543 M	503 M
PAH, Total Detected USEPA 16	<118 µg/kg	TM218		28700	28300	12200	322000	9680	13200

CERTIFICATE OF ANALYSIS

SDG:	201106-125	**Client Reference:**	LD10162	**Report Number:**	576141
Location:	Ten Acres Lane	**Order Number:**	LD1706	**Superseded Report:**	

PAH by GCMS

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	TP139	TP139	TP145	TP145		
			Depth (m)	1.50 - 1.50	2.40 - 2.40	2.30 - 2.30	3.80 - 3.80		
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)		
			Date Sampled	04/11/2020	04/11/2020	04/11/2020	04/11/2020		
			Sample Time	.	.	.	00:00:00		
			Date Received	06/11/2020	06/11/2020	06/11/2020	06/11/2020		
			SDG Ref	201106-125	201106-125	201106-125	201106-125		
			Lab Sample No.(s)	23193697	23193651	23193695	23193656		
			AGS Reference						
Naphthalene-d8 % recovery**	%	TM218		79.1	83.8	81.5	76.9		
Acenaphthene-d10 % recovery**	%	TM218		81	86.9	88.9	79.7		
Phenanthrene-d10 % recovery**	%	TM218		75.2	88.1	93.1	81.3		
Chrysene-d12 % recovery**	%	TM218		73.5	89.3	95	86.3		
Perylene-d12 % recovery**	%	TM218		70.2	83.4	86.8	88.4		
Naphthalene	<9 µg/kg	TM218		72.8 M	<9 M	259 M	672 M		
Acenaphthylene	<12 µg/kg	TM218		38.5 M	<12 M	<120 M	153 M		
Acenaphthene	<8 µg/kg	TM218		38.8 M	<8 M	878 M	2860 M		
Fluorene	<10 µg/kg	TM218		41 M	<10 M	791 M	2280 M		
Phenanthrene	<15 µg/kg	TM218		459 M	80.1 M	4560 M	16000 M		
Anthracene	<16 µg/kg	TM218		111 M	<16 M	1930 M	4120 M		
Fluoranthene	<17 µg/kg	TM218		722 M	99 M	19800 M	23000 M		
Pyrene	<15 µg/kg	TM218		696 M	135 M	19000 M	20800 M		
Benz(a)anthracene	<14 µg/kg	TM218		381 M	67.3 M	7420 M	9510 M		
Chrysene	<10 µg/kg	TM218		408 M	78.4 M	7050 M	9230 M		
Benzo(b)fluoranthene	<15 µg/kg	TM218		427 M	112 M	7740 M	10900 M		
Benzo(k)fluoranthene	<14 µg/kg	TM218		179 M	26.2 M	3100 M	3880 M		
Benzo(a)pyrene	<15 µg/kg	TM218		402 M	49.3 M	6980 M	9070 M		
Indeno(1,2,3-cd)pyrene	<18 µg/kg	TM218		319 M	47.8 M	5130 M	5540 M		
Dibenzo(a,h)anthracene	<23 µg/kg	TM218		56.3 M	<23 M	826 M	973 M		
Benzo(g,h,i)perylene	<24 µg/kg	TM218		315 M	53.9 M	5820 M	5270 M		
PAH, Total Detected USEPA 16	<118 µg/kg	TM218		4670	749	91200	124000		

Validated

CERTIFICATE OF ANALYSIS

SDG:	201106-125	**Client Reference:**	LD10162	**Report Number:**	576141
Location:	Ten Acres Lane	**Order Number:**	LD1706	**Superseded Report:**	

VOC MS (S)

Results Legend	
#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	CP108	TP108	TP123	TP123	TP128	TP139
			Depth (m)	0.50 - 0.50	2.30 - 2.30	0.80 - 0.80	2.40 - 2.40	3.60 - 3.60	1.50 - 1.50
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	04/11/2020	04/11/2020	04/11/2020	04/11/2020	04/11/2020	04/11/2020
			Sample Time	.	.	.	.	.	.
			Date Received	06/11/2020	06/11/2020	06/11/2020	06/11/2020	06/11/2020	06/11/2020
			SDG Ref	201106-125	201106-125	201106-125	201106-125	201106-125	201106-125
			Lab Sample No.(s)	23193673	23193681	23193659	23193666	23193692	23193697
			AGS Reference						
Toluene-d8**	%	TM116							99.6
Methyl Tertiary Butyl Ether	<10 µg/kg	TM116		<200 M	<200 M	<200 M	<200 2 M	<200 M	
Benzene	<9 µg/kg	TM116		<180 M	<180 M	<180 M	<180 2 M	<180 M	<180 M
Toluene	<7 µg/kg	TM116		<140 M	<140 M	<140 M	<140 2 M	<140 M	<140 M
Ethylbenzene	<4 µg/kg	TM116		<80 M	<80 M	<80 M	<80 2 M	<80 M	<80 M
p/m-Xylene	<10 µg/kg	TM116		<200 #	<200 #	<200 #	<200 2 #	<200 #	<200 #
o-Xylene	<10 µg/kg	TM116		<200 M	<200 M	<200 M	<200 2 M	<200 M	<200 M
Sum of Detected Xylenes	<0.02 mg/kg	TM116		<0.4	<0.4	<0.4	<0.4 2	<0.4	
Sum of BTEX	<40 µg/kg	TM116		<800	<800	<800	<800 2	<800	

CERTIFICATE OF ANALYSIS

SDG:	201106-125	**Client Reference:**	LD10162	**Report Number:**	576141
Location:	Ten Acres Lane	**Order Number:**	LD1706	**Superseded Report:**	

VOC MS (S)

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	TP139	TP141	TP145	TP145		
			Depth (m)	2.40 - 2.40	0.50 - 0.50	2.30 - 2.30	3.80 - 3.80		
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)		
			Date Sampled	04/11/2020	04/11/2020	04/11/2020	04/11/2020		
			Sample Time	.	00:00:00	.	00:00:00		
			Date Received	06/11/2020	06/11/2020	06/11/2020	06/11/2020		
			SDG Ref	201106-125	201106-125	201106-125	201106-125		
			Lab Sample No.(s)	23193651	23193663	23193695	23193656		
			AGS Reference						
Methyl Tertiary Butyl Ether	<10 µg/kg	TM116		<10 M	<200 M	<200 M	<200 M		
Benzene	<9 µg/kg	TM116		<9 M	<180 M	<180 M	<180 M		
Toluene	<7 µg/kg	TM116		<7 M	<140 M	<140 M	<140 M		
Ethylbenzene	<4 µg/kg	TM116		<4 M	<80 M	<80 M	<80 M		
p/m-Xylene	<10 µg/kg	TM116		<10 #	<200 #	<200 #	<200 #		
o-Xylene	<10 µg/kg	TM116		<10 M	<200 M	<200 M	<200 M		
Sum of Detected Xylenes	<0.02 mg/kg	TM116		<0.02	<0.4	<0.4	<0.4		
Sum of BTEX	<40 µg/kg	TM116		<40	<800	<800	<800		

Table of Results - Appendix

Method No	Reference	Description
PM024	Modified BS 1377	Soil preparation including homogenisation, moisture screens of soils for Asbestos Containing Material
TM062 (S)	National Grid Property Holdings Methods for the Collection & Analysis of Samples from National Grid Sites version 1 Sec 3.9	Determination of Phenols in Soils by HPLC
TM089	Modified: US EPA Methods 8020 & 602	Determination of Gasoline Range Hydrocarbons (GRO) by Headspace GC-FID (C4-C12)
TM116	Modified: US EPA Method 8260, 8120, 8020, 624, 610 & 602	Determination of Volatile Organic Compounds by Headspace / GC-MS
TM153	Method 4500A,B,C, I, M AWWA/APHA, 20th Ed., 1999	Determination of Total Cyanide, Free (Easily Liberatable) Cyanide and Thiocyanate using the Skalar SANS+ System Segmented Flow Analyser
TM218	Shaker extraction - EPA method 3546.	The determination of PAH in soil samples by GC-MS

NA = not applicable.

Chemical testing (unless subcontracted) performed at ALS Life Sciences Ltd Hawarden (Method codes TM) or ALS Life Sciences Ltd Aberdeen (Method codes S).

CERTIFICATE OF ANALYSIS

SDG:	201106-125	**Client Reference:**	LD10162	**Report Number:**	576141
Location:	Ten Acres Lane	**Order Number:**	LD1706	**Superseded Report:**	

Test Completion Dates

Lab Sample No(s)	23193673	23193677	23193681	23193659	23193666	23193692	23193637	23193651	23193697	23193663
Customer Sample Ref.	CP108	CP108	TP108	TP123	TP123	TP128	TP137	TP139	TP139	TP141
AGS Ref.										
Depth	0.50 - 0.50	1.80 - 1.80	2.30 - 2.30	0.80 - 0.80	2.40 - 2.40	3.60 - 3.60	1.20 - 1.20	2.40 - 2.40	1.50 - 1.50	0.50 - 0.50
Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
Cyanide Comp/Free/Total/Thiocyanate	13-Nov-2020	13-Nov-2020		13-Nov-2020	13-Nov-2020	12-Nov-2020		13-Nov-2020	13-Nov-2020	
GRO by GC-FID (S)	13-Nov-2020		13-Nov-2020	13-Nov-2020	12-Nov-2020	13-Nov-2020		13-Nov-2020		11-Nov-2020
PAH by GCMS	12-Nov-2020	12-Nov-2020		12-Nov-2020	12-Nov-2020	12-Nov-2020	12-Nov-2020	12-Nov-2020	12-Nov-2020	
Phenols by HPLC (S)	17-Nov-2020	13-Nov-2020	16-Nov-2020	13-Nov-2020	17-Nov-2020	17-Nov-2020	17-Nov-2020	17-Nov-2020	17-Nov-2020	17-Nov-2020
Sample description	10-Nov-2020	10-Nov-2020	10-Nov-2020	10-Nov-2020	10-Nov-2020	10-Nov-2020	10-Nov-2020	10-Nov-2020	10-Nov-2020	10-Nov-2020
VOC MS (S)	12-Nov-2020		12-Nov-2020	12-Nov-2020	13-Nov-2020	12-Nov-2020		12-Nov-2020	12-Nov-2020	12-Nov-2020

Lab Sample No(s)	23193656	23193695
Customer Sample Ref.	TP145	TP145
AGS Ref.		
Depth	3.80 - 3.80	2.30 - 2.30
Type	Soil/Solid (S)	Soil/Solid (S)
Cyanide Comp/Free/Total/Thiocyanate	12-Nov-2020	12-Nov-2020
GRO by GC-FID (S)	13-Nov-2020	11-Nov-2020
PAH by GCMS	12-Nov-2020	12-Nov-2020
Phenols by HPLC (S)	17-Nov-2020	17-Nov-2020
Sample description	10-Nov-2020	10-Nov-2020
VOC MS (S)	12-Nov-2020	12-Nov-2020

Appendix General

1. Results are expressed on a dry weight basis (dried at 35ºC) for all soil analyses except for the following: NRA and CEN Leach tests, flash point LOI, pH, ammonium as NH4 by the BRE method, VOC TICs and SVOC TICs.

2. If sufficient sample is received a sub sample will be retained free of charge for 30 days after analysis is completed (e-mailed) for all sample types unless the sample is destroyed on testing. The prepared soil sub sample that is analysed for asbestos will be retained for a period of 6 months after the analysis date. All bulk samples will be retained for a period of 6 months after the analysis date. All samples received and not scheduled will be disposed of one month after the date of receipt unless we are instructed to the contrary. Once the initial period has expired, a storage charge will be applied for each month or part thereof until the client cancels the request for sample storage. ALS reserve the right to charge for samples received and stored but not analysed.

3. With respect to turnaround, we will always endeavour to meet client requirements wherever possible, but turnaround times cannot be absolutely guaranteed due to so many variables beyond our control.

4. We take responsibility for any test performed by sub-contractors (marked with an asterisk). We endeavour to use UKAS/MCERTS Accredited Laboratories, who either complete a quality questionnaire or are audited by ourselves. For some determinands there are no UKAS/MCERTS Accredited Laboratories, in this instance a laboratory with a known track record will be utilised.

5. If no separate volatile sample is supplied by the client, or if a headspace or sediment is present in the volatile sample, the integrity of the data may be compromised. This will be flagged up as an invalid VOC on the test schedule and the result marked as deviating on the test certificate.

6. NDP - No determination possible due to insufficient/unsuitable sample.

7. Results relate only to the items tested.

8. LoDs (Limit of Detection) for wet tests reported on a dry weight basis are not corrected for moisture content.

9. **Surrogate recoveries** - Surrogates are added to your sample to monitor recovery of the test requested. A % recovery is reported, results are not corrected for the recovery measured. Typical recoveries for organics tests are 70-130%. Recoveries in soils are affected by organic rich or clay rich matrices. Waters can be affected by remediation fluids or high amounts of sediment. Test results are only ever reported if all of the associated quality checks pass; it is assumed that all recoveries outside of the values above are due to matrix affect.

10. Stones/debris are not routinely removed. We always endeavour to take a representative sub sample from the received sample.

11. In certain circumstances the method detection limit may be elevated due to the sample being outside the calibration range. Other factors that may contribute to this include possible interferences. In both cases the sample would be diluted which would cause the method detection limit to be raised.

12. Mercury results quoted on soils will not include volatile mercury as the analysis is performed on a dried and crushed sample.

13. For leachate preparations other than Zero Headspace Extraction (ZHE) volatile loss may occur.

14. For the BSEN 12457-3 two batch process to allow the cumulative release to be calculated, the volume of the leachate produced is measured and filtered for all tests. We therefore cannot carry out any unfiltered analysis. The tests affected include volatiles GCFID/GCMS and all subcontracted analysis.

15. Analysis and identification of specific compounds using GCFID is by retention time only, and we routinely calibrate and quantify for benzene, toluene, ethylbenzenes and xylenes (BTEX). For total volatiles in the C5-C12 range, the total area of the chromatogram is integrated and expressed as ug/kg or ug/l. Although this analysis is commonly used for the quantification of gasoline range organics (GRO), the system will also detect other compounds such as chlorinated solvents, and this may lead to a falsely high result with respect to hydrocarbons only. It is not possible to specifically identify these non-hydrocarbons, as standards are not routinely run for any other compounds, and for more definitive identification, volatiles by GCMS should be utilised.

16. We are accredited to MCERTS for sand, clay and loam/topsoil, or any of these materials - whether these are derived from naturally occurring soil profiles, or from fill/made ground, as long as these materials constitute the major part of the sample. Other coarse granular material such as concrete, gravel and brick are not accredited if they comprise the major part of the sample.

17. **Tentatively Identified Compounds (TICs)** are non-target peaks in VOC and SVOC analysis. All non-target peaks detected with a concentration above the LoD are subjected to a mass spectral library search. Non-target peaks with a library search confidence of >75% are reported based on the best mass spectral library match. When a non-target peak with a library search confidence of <75% is detected it is reported as "mixed hydrocarbons". Non-target compounds identified from the scan data are semi-quantified relative to one of the deuterated internal standards, under the same chromatographic conditions as the target compounds. This result is reported as a semi-quantitative value and reported as Tentatively Identified Compounds (TICs). TICs are outside the scope of UKAS accreditation and are not moisture corrected.

18. **Sample Deviations**

If a sample is classed as deviated then the associated results may be compromised.

1	**Container with Headspace provided for volatiles analysis**
2	**Incorrect container received**
3	**Deviation from method**
4	**Matrix interference**
♦	**Sample holding time exceeded in laboratory**
@	**Sample holding time exceeded due to late arrival of instructions or samples**
§	**Sampled on date not provided**

19. **Asbestos**

When requested, the individual sub sample scheduled will be analysed in house for the presence of asbestos fibres and asbestos containing material by our documented in house method TM048 based on HSG 248 (2005), which is accredited to ISO17025. If a specific asbestos fibre type is not found this will be reported as "Not detected". If no asbestos fibre types are found all will be reported as "Not detected" and the sub sample analysed deemed to be clear of asbestos. If an asbestos fibre type is found it will be reported as detected (for each fibre type found). Testing can be carried out on asbestos positive samples, but, due to Health and Safety considerations, may be replaced by alternative tests or reported as No Determination Possible (NDP). The quantity of asbestos present is not determined unless specifically requested.

Identification of Asbestos in Bulk Materials & Soils

The results for identification of asbestos in bulk materials are obtained from supplied bulk materials which have been examined to determine the presence of asbestos fibres using ALS (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining, based on HSG 248 (2005).

The results for identification of asbestos in soils are obtained from a homogenised sub sample which has been examined to determine the presence of asbestos fibres using ALS (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining, based on HSG 248 (2005).

Asbestos Type	Common Name
Chrysotile	White Asbestos
Amosite	Brown Asbestos
Crocidolite	Blue Asbestos
Fibrous Actinolite	-
Fibrous Anthophyllite	-
Fibrous Tremolite	-

Visual Estimation Of Fibre Content

Estimation of fibre content is not permitted as part of our UKAS accredited test other than: - Trace - Where only one or two asbestos fibres were identified.

Respirable Fibres

Respirable fibres are defined as fibres of <3 µm diameter, longer than 5 µm and with aspect ratios of at least 3:1 that can be inhaled into the lower regions of the lung and are generally acknowledged to be most important predictor of hazard and risk for cancers of the lung.
Standing Committee of Analysts, *The Quantification of Asbestos in Soil (2017).*

Further guidance on typical asbestos fibre content of manufactured products can be found in HSG 264.

The identification of asbestos containing materials and soils falls within our schedule of tests for which we hold UKAS accreditation, however opinions, interpretations and all other information contained in the report are outside the scope of UKAS accreditation.

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Website: www.alsenvironmental.co.uk

Wardell Armstrong LLP
36 Park Row
Leeds
LS1 5JL

Attention: Jonathan Currie

CERTIFICATE OF ANALYSIS

Date of report Generation:	18 November 2020
Customer:	Wardell Armstrong LLP
Sample Delivery Group (SDG):	201107-75
Your Reference:	LD10162
Location:	Ten Acres Lane
Report No:	575935

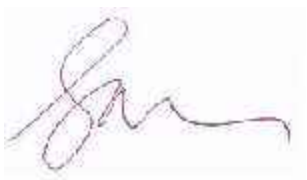
We received 11 samples on Saturday November 07, 2020 and 10 of these samples were scheduled for analysis which was completed on Wednesday November 18, 2020. Accredited laboratory tests are defined within the report, but opinions, interpretations and on-site data expressed herein are outside the scope of ISO 17025 accreditation.

Should this report require incorporation into client reports, it must be used in its entirety and not simply with the data sections alone.

Chemical testing (unless subcontracted) performed at ALS Life Sciences Ltd Hawarden (Method codes TM) or ALS Life Sciences Ltd Aberdeen (Method codes S).

All sample data is provided by the customer. The reported results relate to the sample supplied, and on the basis that this data is correct.
Incorrect sampling dates and/or sample information will affect the validity of results.
The customer is not permitted to reproduce this report except in full without the approval of the laboratory.

Approved By:



Sonia McWhan

Operations Manager

CERTIFICATE OF ANALYSIS

SDG:	201107-75	**Client Reference:**	LD10162	**Report Number:**	575935
Location:	Ten Acres Lane	**Order Number:**		**Superseded Report:**	

Received Sample Overview

Lab Sample No(s)	Customer Sample Ref.	AGS Ref.	Depth (m)	Sampled Date
23200572	CP104		1.30 - 1.30	05/11/2020
23200610	CP113		0.80 - 0.80	05/11/2020
23200602	TP102		1.60 - 1.60	05/11/2020
23200596	TP114		3.40 - 3.40	05/11/2020
23200618	TP126		0.50 - 0.50	05/11/2020
23200615	TP136		0.80 - 0.80	05/11/2020
23200581	TP138		1.60 - 1.60	05/11/2020
23200577	TP144		0.40 - 0.40	05/11/2020
23200621	TP149		0.50 - 0.50	05/11/2020
23200628	TP149		1.60 - 1.60	05/11/2020
23200586	TP150		2.20 - 2.20	05/11/2020

Only received samples which have had analysis scheduled will be shown on the following pages.

Validated

CERTIFICATE OF ANALYSIS

SDG:	201107-75	**Client Reference:**	LD10162	**Report Number:**	575935
Location:	Ten Acres Lane	**Order Number:**		**Superseded Report:**	

Results Legend

X **Test**

N **No Determination Possible**

Sample Types -

S - Soil/Solid
UNS - Unspecified Solid
GW - Ground Water
SW - Surface Water
LE - Land Leachate
PL - Prepared Leachate
PR - Process Water
SA - Saline Water
TE - Trade Effluent
TS - Treated Sewage
US - Untreated Sewage
RE - Recreational Water
DW - Drinking Water Non-regulatory
UNL - Unspecified Liquid
SL - Sludge
G - Gas
OTH - Other

Lab Sample No(s)			23200610	23200602	23200596	23200618	23200615	23200581	23200577	23200621	23200628	23200586					
Customer Sample Reference			CP113	TP102	TP114	TP126	TP136	TP138	TP144	TP149	TP149	TP150					
AGS Reference																	
Depth (m)			0.80 - 0.80	1.60 - 1.60	3.40 - 3.40	0.50 - 0.50	0.80 - 0.80	1.60 - 1.60	0.40 - 0.40	0.50 - 0.50	1.60 - 1.60	2.20 - 2.20					
Container			250g Amber Jar (ALE210)	60g VOC (ALE215)	250g Amber Jar (ALE210)	60g VOC (ALE215)	250g Amber Jar (ALE210)	60g VOC (ALE215)	250g Amber Jar (ALE210)	250g Amber Jar (ALE210)	250g Amber Jar (ALE210)	60g VOC (ALE215)	250g Amber Jar (ALE210)	60g VOC (ALE215)	250g Amber Jar (ALE210)	60g VOC (ALE215)	
Sample Type			S	S	S	S	S	S	S	S	S	S	S	S	S	S	
Cyanide Comp/Free/Total/Thiocyanate	All	NDPs: 0 Tests: 1					X										
GRO by GC-FID (S)	All	NDPs: 0 Tests: 6		X		X		X				X		X		X	
PAH by GCMS	All	NDPs: 0 Tests: 6				X		X	X		X	X		X			
Phenols by HPLC (S)	All	NDPs: 0 Tests: 8	X		X		X		X	X	X	X		X			
Sample description	All	NDPs: 0 Tests: 10	X		X		X		X	X	X	X		X		X	
VOC MS (S)	All	NDPs: 0 Tests: 6		X		X		X				X		X		X	

CERTIFICATE OF ANALYSIS

SDG:	201107-75	**Client Reference:**	LD10162	**Report Number:**	575935
Location:	Ten Acres Lane	**Order Number:**		**Superseded Report:**	

Sample Descriptions

Grain Sizes

very fine	<0.063mm	fine	0.063mm - 0.1mm	medium	0.1mm - 2mm	coarse	2mm - 10mm	very coarse	>10mm

Lab Sample No(s)	Customer Sample Ref.	Depth (m)	Colour	Description	Inclusions	Inclusions 2
23200610	CP113	0.80 - 0.80	Dark Brown	Loamy Sand	None	Stones
23200602	TP102	1.60 - 1.60	Dark Brown	Clay Loam	Vegetation	Stones
23200596	TP114	3.40 - 3.40	Dark Brown	Sandy Loam	Vegetation	Stones
23200618	TP126	0.50 - 0.50	Dark Brown	Loamy Sand	None	Stones
23200615	TP136	0.80 - 0.80	Dark Brown	Loamy Sand	Vegetation	Stones
23200581	TP138	1.60 - 1.60	Dark Brown	Loamy Sand	Vegetation	Stones
23200577	TP144	0.40 - 0.40	Dark Brown	Clay Loam	Vegetation	Stones
23200621	TP149	0.50 - 0.50	Black	Stone/Soil	Vegetation	Stones
23200628	TP149	1.60 - 1.60	Dark Brown	Loamy Sand	None	Stones
23200586	TP150	2.20 - 2.20	Dark Brown	Loamy Sand	Vegetation	Stones

These descriptions are only intended to act as a cross check if sample identities are questioned, and to provide a log of sample matrices with respect to MCERTS validation. They are not intended as full geological descriptions.

We are accredited to MCERTS for sand, clay and loam/topsoil, or any of these materials - whether these are derived from naturally ocurring soil profiles, or from fill/made ground, as long as these materials constitute the major part of the sample.

Other coarse granular materials such as concrete, gravel and brick are not accredited if they comprise the major part of the sample.

Validated

CERTIFICATE OF ANALYSIS

SDG:	201107-75	**Client Reference:**	LD10162	**Report Number:**	575935
Location:	Ten Acres Lane	**Order Number:**		**Superseded Report:**	

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	CP113	TP102	TP114	TP126	TP136	TP138
			Depth (m)	0.80 - 0.80	1.60 - 1.60	3.40 - 3.40	0.50 - 0.50	0.80 - 0.80	1.60 - 1.60
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	05/11/2020	05/11/2020	05/11/2020	05/11/2020	05/11/2020	05/11/2020
			Sample Time	.	.	.	.	.	.
			Date Received	07/11/2020	07/11/2020	07/11/2020	07/11/2020	07/11/2020	07/11/2020
			SDG Ref	201107-75	201107-75	201107-75	201107-75	201107-75	201107-75
			Lab Sample No.(s)	23200610	23200602	23200596	23200618	23200615	23200581
			AGS Reference						
Moisture Content Ratio (% of as received sample)	%	PM024		13	15	13	19	17	21
Phenol	<0.01 mg/kg	TM062 (S)		<0.01 M	<0.01 M	<0.01 M		<0.01 M	<0.01 M
Cresols	<0.01 mg/kg	TM062 (S)		<0.01 M	0.0118 M	<0.01 M		<0.01 M	<0.01 M
Xylenols	<0.015 mg/kg	TM062 (S)		<0.015 M	0.0236 M	<0.015 M		<0.015 M	<0.015 M
Phenols, Total Detected monohydric	<0.035 mg/kg	TM062 (S)		<0.035 M	<0.035 M	<0.035 M		<0.035 M	<0.035 M
Cyanide, Total	<1 mg/kg	TM153				<1 M			

CERTIFICATE OF ANALYSIS

SDG:	201107-75	**Client Reference:**	LD10162	**Report Number:**	575935
Location:	Ten Acres Lane	**Order Number:**		**Superseded Report:**	

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	TP144	TP149	TP149	TP150
			Depth (m)	0.40 - 0.40	0.50 - 0.50	1.60 - 1.60	2.20 - 2.20
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	05/11/2020	05/11/2020	05/11/2020	05/11/2020
			Sample Time	.	.	.	.
			Date Received	07/11/2020	07/11/2020	07/11/2020	07/11/2020
			SDG Ref	201107-75	201107-75	201107-75	201107-75
			Lab Sample No.(s)	23200577	23200621	23200628	23200586
			AGS Reference				
Moisture Content Ratio (% of as received sample)	%	PM024		18	22	15	20
Phenol	<0.01 mg/kg	TM062 (S)		<0.01 M	<0.01 #	<0.01 M	
Cresols	<0.01 mg/kg	TM062 (S)		<0.01 M	<0.01 #	<0.01 M	
Xylenols	<0.015 mg/kg	TM062 (S)		<0.015 M	<0.015 #	<0.015 M	
Phenols, Total Detected monohydric	<0.035 mg/kg	TM062 (S)		<0.035 M	<0.035 #	<0.035 M	

Validated

CERTIFICATE OF ANALYSIS

SDG:	201107-75	**Client Reference:**	LD10162	**Report Number:**	575935
Location:	Ten Acres Lane	**Order Number:**		**Superseded Report:**	

GRO by GC-FID (S)

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	CP113	TP102	TP114	TP149	TP149	TP150
			Depth (m)	0.80 - 0.80	1.60 - 1.60	3.40 - 3.40	0.50 - 0.50	1.60 - 1.60	2.20 - 2.20
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	05/11/2020	05/11/2020	05/11/2020	05/11/2020	05/11/2020	05/11/2020
			Sample Time	.	.	.	.	.	.
			Date Received	07/11/2020	07/11/2020	07/11/2020	07/11/2020	07/11/2020	07/11/2020
			SDG Ref	201107-75	201107-75	201107-75	201107-75	201107-75	201107-75
			Lab Sample No.(s)	23200610	23200602	23200596	23200621	23200628	23200586
			AGS Reference						
GRO Surrogate % recovery**	%	TM089		102	75.8	77	71.7	113	79.6
GRO TOT (Moisture Corrected)	<100 µg/kg	TM089		<100 M	118 M	<100 M	388 #	<100 M	1610 M
Aliphatics >C5-C6	<10 µg/kg	TM089		<10	<10	<10	<10	<10	17.6
Aliphatics >C6-C8	<10 µg/kg	TM089		<10	16.5	<10	28.4	<10	79.4
Aliphatics >C8-C10	<10 µg/kg	TM089		<10	33	<10	49	<10	154
Aliphatics >C10-C12	<10 µg/kg	TM089		<10	24.8	<10	161	<10	755
Aromatics >EC5-EC7	<10 µg/kg	TM089		<10	<10	<10	<10	<10	<10
Aromatics >EC7-EC8	<10 µg/kg	TM089		<10	<10	<10	<10	<10	<10
Aromatics >EC8-EC10	<10 µg/kg	TM089		<10	22.4	<10	32.3	<10	102
Aromatics >EC10-EC12	<10 µg/kg	TM089		<10	16.5	<10	107	<10	503
Total Aliphatics >C5-C12	<50 µg/kg	TM089		<50	74.3	<50	239	<50	1010
Total Aromatics >EC5-EC12	<50 µg/kg	TM089		<50	<50	<50	139	<50	605

Validated

CERTIFICATE OF ANALYSIS

SDG: 201107-75 **Client Reference:** LD10162 **Report Number:** 575935
Location: Ten Acres Lane **Order Number:** **Superseded Report:**

PAH by GCMS

Results Legend	
#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	TP114	TP126	TP136	TP144	TP149	TP149
			Depth (m)	3.40 - 3.40	0.50 - 0.50	0.80 - 0.80	0.40 - 0.40	0.50 - 0.50	1.60 - 1.60
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	05/11/2020	05/11/2020	05/11/2020	05/11/2020	05/11/2020	05/11/2020
			Sample Time	.	.	.	.	.	.
			Date Received	07/11/2020	07/11/2020	07/11/2020	07/11/2020	07/11/2020	07/11/2020
			SDG Ref	201107-75	201107-75	201107-75	201107-75	201107-75	201107-75
			Lab Sample No.(s)	23200596	23200618	23200615	23200577	23200621	23200628
			AGS Reference						
Naphthalene-d8 % recovery**	%	TM218		82.4	75	84.8	81.3	79.8	89.3
Acenaphthene-d10 % recovery**	%	TM218		89.3	84.7	89	87.8	84.8	92.5
Phenanthrene-d10 % recovery**	%	TM218		88.8	87.4	88.7	86.2	90.8	96
Chrysene-d12 % recovery**	%	TM218		83.7	78.8	84.9	85.9	93.5	102
Perylene-d12 % recovery**	%	TM218		83.5	75.1	85.2	86.9	88.1	103
Naphthalene	<9 µg/kg	TM218		18.7 M	17500 M	<9 M	207 M	443 #	13.2 M
Acenaphthylene	<12 µg/kg	TM218		<12 M	997 M	<12 M	<60 M	75.1 #	<12 M
Acenaphthene	<8 µg/kg	TM218		<8 M	80200 M	<8 M	1750 M	1690 #	<8 M
Fluorene	<10 µg/kg	TM218		<10 M	62400 M	<10 M	1080 M	1380 #	<10 M
Phenanthrene	<15 µg/kg	TM218		94.2 M	365000 M	46.7 M	10800 M	18500 #	<15 M
Anthracene	<16 µg/kg	TM218		<16 M	97400 M	<16 M	3290 M	4690 #	<16 M
Fluoranthene	<17 µg/kg	TM218		152 M	400000 M	66.4 M	16400 M	28700 #	<17 M
Pyrene	<15 µg/kg	TM218		148 M	340000 M	65.9 M	12700 M	26400 #	<15 M
Benz(a)anthracene	<14 µg/kg	TM218		79.8 M	134000 M	31 M	6420 M	13000 #	<14 M
Chrysene	<10 µg/kg	TM218		86.1 M	144000 M	33.3 M	5610 M	12900 #	<10 M
Benzo(b)fluoranthene	<15 µg/kg	TM218		121 M	159000 M	35.8 M	7200 M	12300 #	<15 M
Benzo(k)fluoranthene	<14 µg/kg	TM218		37.2 M	53800 M	<14 M	2590 M	4460 #	<14 M
Benzo(a)pyrene	<15 µg/kg	TM218		78.6 M	123000 M	24.8 M	5700 M	10700 #	<15 M
Indeno(1,2,3-cd)pyrene	<18 µg/kg	TM218		58.5 M	79600 M	<18 M	3710 M	6600 #	<18 M
Dibenzo(a,h)anthracene	<23 µg/kg	TM218		<23 M	16400 M	<23 M	730 M	1500 #	<23 M
Benzo(g,h,i)perylene	<24 µg/kg	TM218		69.6 M	72700 M	<24 M	3690 M	6280 #	<24 M
PAH, Total Detected USEPA 16	<118 µg/kg	TM218		944	2150000	304	81900	150000	<118

Validated

CERTIFICATE OF ANALYSIS

SDG:	201107-75	**Client Reference:**	LD10162	**Report Number:**	575935
Location:	Ten Acres Lane	**Order Number:**		**Superseded Report:**	

VOC MS (S)

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	CP113	TP102	TP114	TP149	TP149	TP150
			Depth (m)	0.80 - 0.80	1.60 - 1.60	3.40 - 3.40	0.50 - 0.50	1.60 - 1.60	2.20 - 2.20
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	05/11/2020	05/11/2020	05/11/2020	05/11/2020	05/11/2020	05/11/2020
			Sample Time	.	.	.	.	.	.
			Date Received	07/11/2020	07/11/2020	07/11/2020	07/11/2020	07/11/2020	07/11/2020
			SDG Ref	201107-75	201107-75	201107-75	201107-75	201107-75	201107-75
			Lab Sample No.(s)	23200610	23200602	23200596	23200621	23200628	23200586
			AGS Reference						
Methyl Tertiary Butyl Ether	<10 µg/kg	TM116		<10 M	<200 M	<200 M	<200 #	<10 M	<200 M
Benzene	<9 µg/kg	TM116		<9 M	<180 M	<180 M	<180 #	<9 M	<180 M
Toluene	<7 µg/kg	TM116		<7 M	<140 M	<140 M	<140 #	<7 M	<140 M
Ethylbenzene	<4 µg/kg	TM116		<4 M	<80 M	<80 M	<80 #	<4 M	<80 M
p/m-Xylene	<10 µg/kg	TM116		<10 #	<200 #	<200 #	<200 #	<10 #	<200 #
o-Xylene	<10 µg/kg	TM116		<10 M	<200 M	<200 M	<200 #	<10 M	<200 M
Sum of Detected Xylenes	<0.02 mg/kg	TM116		<0.02	<0.4	<0.4	<0.4	<0.02	<0.4
Sum of BTEX	<40 µg/kg	TM116		<40	<800	<800	<800	<40	<800

CERTIFICATE OF ANALYSIS

SDG:	201107-75	**Client Reference:**	LD10162	**Report Number:**	575935
Location:	Ten Acres Lane	**Order Number:**		**Superseded Report:**	

Table of Results - Appendix

Method No	Reference	Description
PM024	Modified BS 1377	Soil preparation including homogenisation, moisture screens of soils for Asbestos Containing Material
TM062 (S)	National Grid Property Holdings Methods for the Collection & Analysis of Samples from National Grid Sites version 1 Sec 3.9	Determination of Phenols in Soils by HPLC
TM089	Modified: US EPA Methods 8020 & 602	Determination of Gasoline Range Hydrocarbons (GRO) by Headspace GC-FID (C4-C12)
TM116	Modified: US EPA Method 8260, 8120, 8020, 624, 610 & 602	Determination of Volatile Organic Compounds by Headspace / GC-MS
TM153	Method 4500A,B,C, I, M AWWA/APHA, 20th Ed., 1999	Determination of Total Cyanide, Free (Easily Liberatable) Cyanide and Thiocyanate using the Skalar SANS+ System Segmented Flow Analyser
TM218	Shaker extraction - EPA method 3546.	The determination of PAH in soil samples by GC-MS

NA = not applicable.

Chemical testing (unless subcontracted) performed at ALS Life Sciences Ltd Hawarden (Method codes TM) or ALS Life Sciences Ltd Aberdeen (Method codes S).

CERTIFICATE OF ANALYSIS

SDG:	201107-75	**Client Reference:**	LD10162	**Report Number:**	575935
Location:	Ten Acres Lane	**Order Number:**		**Superseded Report:**	

Test Completion Dates

Lab Sample No(s)	23200610	23200602	23200596	23200618	23200615	23200581	23200577	23200621	23200628	23200586
Customer Sample Ref.	CP113	TP102	TP114	TP126	TP136	TP138	TP144	TP149	TP149	TP150
AGS Ref.										
Depth	0.80 - 0.80	1.60 - 1.60	3.40 - 3.40	0.50 - 0.50	0.80 - 0.80	1.60 - 1.60	0.40 - 0.40	0.50 - 0.50	1.60 - 1.60	2.20 - 2.20
Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
Cyanide Comp/Free/Total/Thiocyanate			13-Nov-2020							
GRO by GC-FID (S)	13-Nov-2020	13-Nov-2020	13-Nov-2020					13-Nov-2020	13-Nov-2020	13-Nov-2020
PAH by GCMS			16-Nov-2020	13-Nov-2020	16-Nov-2020		16-Nov-2020	13-Nov-2020	13-Nov-2020	
Phenols by HPLC (S)	18-Nov-2020	18-Nov-2020	18-Nov-2020		17-Nov-2020	18-Nov-2020	18-Nov-2020	18-Nov-2020	18-Nov-2020	
Sample description	10-Nov-2020	10-Nov-2020	10-Nov-2020	10-Nov-2020	10-Nov-2020	10-Nov-2020	10-Nov-2020	10-Nov-2020	10-Nov-2020	10-Nov-2020
VOC MS (S)	13-Nov-2020	13-Nov-2020	13-Nov-2020					13-Nov-2020	13-Nov-2020	12-Nov-2020

Appendix General

1. Results are expressed on a dry weight basis (dried at 35ºC) for all soil analyses except for the following: NRA and CEN Leach tests, flash point LOI, pH, ammonium as NH4 by the BRE method, VOC TICs and SVOC TICs.

2. If sufficient sample is received a sub sample will be retained free of charge for 30 days after analysis is completed (e-mailed) for all sample types unless the sample is destroyed on testing. The prepared soil sub sample that is analysed for asbestos will be retained for a period of 6 months after the analysis date. All bulk samples will be retained for a period of 6 months after the analysis date. All samples received and not scheduled will be disposed of one month after the date of receipt unless we are instructed to the contrary. Once the initial period has expired, a storage charge will be applied for each month or part thereof until the client cancels the request for sample storage. ALS reserve the right to charge for samples received and stored but not analysed.

3. With respect to turnaround, we will always endeavour to meet client requirements wherever possible, but turnaround times cannot be absolutely guaranteed due to so many variables beyond our control.

4. We take responsibility for any test performed by sub-contractors (marked with an asterisk). We endeavour to use UKAS/MCERTS Accredited Laboratories, who either complete a quality questionnaire or are audited by ourselves. For some determinands there are no UKAS/MCERTS Accredited Laboratories, in this instance a laboratory with a known track record will be utilised.

5. If no separate volatile sample is supplied by the client, or if a headspace or sediment is present in the volatile sample, the integrity of the data may be compromised. This will be flagged up as an invalid VOC on the test schedule and the result marked as deviating on the test certificate.

6. NDP - No determination possible due to insufficient/unsuitable sample.

7. Results relate only to the items tested.

8. LoDs (Limit of Detection) for wet tests reported on a dry weight basis are not corrected for moisture content.

9. **Surrogate recoveries** - Surrogates are added to your sample to monitor recovery of the test requested. A % recovery is reported, results are not corrected for the recovery measured. Typical recoveries for organics tests are 70-130%. Recoveries in soils are affected by organic rich or clay rich matrices. Waters can be affected by remediation fluids or high amounts of sediment. Test results are only ever reported if all of the associated quality checks pass; it is assumed that all recoveries outside of the values above are due to matrix affect.

10. Stones/debris are not routinely removed. We always endeavour to take a representative sub sample from the received sample.

11. In certain circumstances the method detection limit may be elevated due to the sample being outside the calibration range. Other factors that may contribute to this include possible interferences. In both cases the sample would be diluted which would cause the method detection limit to be raised.

12. Mercury results quoted on soils will not include volatile mercury as the analysis is performed on a dried and crushed sample.

13. For leachate preparations other than Zero Headspace Extraction (ZHE) volatile loss may occur.

14. For the BSEN 12457-3 two batch process to allow the cumulative release to be calculated, the volume of the leachate produced is measured and filtered for all tests. We therefore cannot carry out any unfiltered analysis. The tests affected include volatiles GCFID/GCMS and all subcontracted analysis.

15. Analysis and identification of specific compounds using GCFID is by retention time only, and we routinely calibrate and quantify for benzene, toluene, ethylbenzenes and xylenes (BTEX). For total volatiles in the C5-C12 range, the total area of the chromatogram is integrated and expressed as ug/kg or ug/l. Although this analysis is commonly used for the quantification of gasoline range organics (GRO), the system will also detect other compounds such as chlorinated solvents, and this may lead to a falsely high result with respect to hydrocarbons only. It is not possible to specifically identify these non-hydrocarbons, as standards are not routinely run for any other compounds, and for more definitive identification, volatiles by GCMS should be utilised.

16. We are accredited to MCERTS for sand, clay and loam/topsoil, or any of these materials - whether these are derived from naturally occurring soil profiles, or from fill/made ground, as long as these materials constitute the major part of the sample. Other coarse granular material such as concrete, gravel and brick are not accredited if they comprise the major part of the sample.

17. **Tentatively Identified Compounds (TICs)** are non-target peaks in VOC and SVOC analysis. All non-target peaks detected with a concentration above the LoD are subjected to a mass spectral library search. Non-target peaks with a library search confidence of >75% are reported based on the best mass spectral library match. When a non-target peak with a library search confidence of <75% is detected it is reported as "mixed hydrocarbons". Non-target compounds identified from the scan data are semi-quantified relative to one of the deuterated internal standards, under the same chromatographic conditions as the target compounds. This result is reported as a semi-quantitative value and reported as Tentatively Identified Compounds (TICs). TICs are outside the scope of UKAS accreditation and are not moisture corrected.

18. **Sample Deviations**

If a sample is classed as deviated then the associated results may be compromised.

1	**Container with Headspace provided for volatiles analysis**
2	**Incorrect container received**
3	**Deviation from method**
4	**Matrix interference**
♦	**Sample holding time exceeded in laboratory**
@	**Sample holding time exceeded due to late arrival of instructions or samples**
§	**Sampled on date not provided**

19. **Asbestos**

When requested, the individual sub sample scheduled will be analysed in house for the presence of asbestos fibres and asbestos containing material by our documented in house method TM048 based on HSG 248 (2005), which is accredited to ISO17025. If a specific asbestos fibre type is not found this will be reported as "Not detected". If no asbestos fibre types are found all will be reported as "Not detected" and the sub sample analysed deemed to be clear of asbestos. If an asbestos fibre type is found it will be reported as detected (for each fibre type found). Testing can be carried out on asbestos positive samples, but, due to Health and Safety considerations, may be replaced by alternative tests or reported as No Determination Possible (NDP). The quantity of asbestos present is not determined unless specifically requested.

Identification of Asbestos in Bulk Materials & Soils

The results for identification of asbestos in bulk materials are obtained from supplied bulk materials which have been examined to determine the presence of asbestos fibres using ALS (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining, based on HSG 248 (2005).

The results for identification of asbestos in soils are obtained from a homogenised sub sample which has been examined to determine the presence of asbestos fibres using ALS (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining, based on HSG 248 (2005).

Asbestos Type	Common Name
Chrysotile	White Asbestos
Amosite	Brown Asbestos
Crocidolite	Blue Asbestos
Fibrous Actinolite	-
Fibrous Anthophyllite	-
Fibrous Tremolite	-

Visual Estimation Of Fibre Content

Estimation of fibre content is not permitted as part of our UKAS accredited test other than: - Trace - Where only one or two asbestos fibres were identified.

Respirable Fibres

Respirable fibres are defined as fibres of <3 µm diameter, longer than 5 µm and with aspect ratios of at least 3:1 that can be inhaled into the lower regions of the lung and are generally acknowledged to be most important predictor of hazard and risk for cancers of the lung.
Standing Committee of Analysts, *The Quantification of Asbestos in Soil (2017).*

Further guidance on typical asbestos fibre content of manufactured products can be found in HSG 264.

The identification of asbestos containing materials and soils falls within our schedule of tests for which we hold UKAS accreditation, however opinions, interpretations and all other information contained in the report are outside the scope of UKAS accreditation.

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Wardell Armstrong LLP
36 Park Row
Leeds
LS1 5JL

Attention: Jonathan Currie

CERTIFICATE OF ANALYSIS

Date of report Generation:	17 November 2020
Customer:	Wardell Armstrong LLP
Sample Delivery Group (SDG):	201111-40
Your Reference:	LD10162
Location:	Ten Acres Lane
Report No:	575848

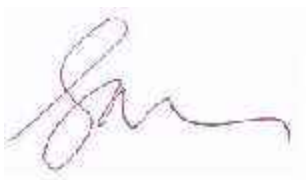
We received 3 samples on Wednesday November 11, 2020 and 3 of these samples were scheduled for analysis which was completed on Tuesday November 17, 2020. Accredited laboratory tests are defined within the report, but opinions, interpretations and on-site data expressed herein are outside the scope of ISO 17025 accreditation.

Should this report require incorporation into client reports, it must be used in its entirety and not simply with the data sections alone.

Chemical testing (unless subcontracted) performed at ALS Life Sciences Ltd Hawarden (Method codes TM) or ALS Life Sciences Ltd Aberdeen (Method codes S).

All sample data is provided by the customer. The reported results relate to the sample supplied, and on the basis that this data is correct.
Incorrect sampling dates and/or sample information will affect the validity of results.
The customer is not permitted to reproduce this report except in full without the approval of the laboratory.

Approved By:



Sonia McWhan

Operations Manager

CERTIFICATE OF ANALYSIS

SDG:	201111-40	**Client Reference:**	LD10162	**Report Number:**	575848
Location:	Ten Acres Lane	**Order Number:**	LD1708	**Superseded Report:**	

Received Sample Overview

Lab Sample No(s)	Customer Sample Ref.	AGS Ref.	Depth (m)	Sampled Date
23216356	TP118		1.80 - 1.80	06/11/2020
23216353	TP130		0.30 - 0.30	06/11/2020
23216344	TP134		0.20 - 0.20	06/11/2020

Only received samples which have had analysis scheduled will be shown on the following pages.

Validated

CERTIFICATE OF ANALYSIS

SDG:	201111-40	**Client Reference:**	LD10162	**Report Number:**	575848
Location:	Ten Acres Lane	**Order Number:**	LD1708	**Superseded Report:**	

Results Legend

X **Test**

N **No Determination Possible**

Sample Types -

S - Soil/Solid
UNS - Unspecified Solid
GW - Ground Water
SW - Surface Water
LE - Land Leachate
PL - Prepared Leachate
PR - Process Water
SA - Saline Water
TE - Trade Effluent
TS - Treated Sewage
US - Untreated Sewage
RE - Recreational Water
DW - Drinking Water Non-regulatory
UNL - Unspecified Liquid
SL - Sludge
G - Gas
OTH - Other

Lab Sample No(s)			23216356	23216353	23216344
Customer Sample Reference			TP118	TP130	TP134
AGS Reference					
Depth (m)			1.80 - 1.80	0.30 - 0.30	0.20 - 0.20
Container			250g Amber Jar (ALE210)	250g Amber Jar (ALE210)	250g Amber Jar (ALE210)
Sample Type			S	S	S
Cyanide Comp/Free/Total/Thiocyanate	All	NDPs: 0 Tests: 3	X	X	X
PAH by GCMS	All	NDPs: 0 Tests: 3	X	X	X
Phenols by HPLC (S)	All	NDPs: 0 Tests: 3	X	X	X
Sample description	All	NDPs: 0 Tests: 3	X	X	X

CERTIFICATE OF ANALYSIS

SDG:	201111-40	**Client Reference:**	LD10162	**Report Number:**	575848
Location:	Ten Acres Lane	**Order Number:**	LD1708	**Superseded Report:**	

Sample Descriptions

Grain Sizes

very fine	<0.063mm	**fine**	0.063mm - 0.1mm	**medium**	0.1mm - 2mm	**coarse**	2mm - 10mm	**very coarse**	>10mm

Lab Sample No(s)	Customer Sample Ref.	Depth (m)	Colour	Description	Inclusions	Inclusions 2
23216356	TP118	1.80 - 1.80	Grey	Loamy Sand	Stones	None
23216353	TP130	0.30 - 0.30	Dark Brown	Sandy Loam	Stones	Vegetation
23216344	TP134	0.20 - 0.20	Dark Brown	Loamy Sand	Stones	Vegetation

These descriptions are only intended to act as a cross check if sample identities are questioned, and to provide a log of sample matrices with respect to MCERTS validation. They are not intended as full geological descriptions.

We are accredited to MCERTS for sand, clay and loam/topsoil, or any of these materials - whether these are derived from naturally ocurring soil profiles, or from fill/made ground, as long as these materials constitute the major part of the sample.

Other coarse granular materials such as concrete, gravel and brick are not accredited if they comprise the major part of the sample.

Validated

CERTIFICATE OF ANALYSIS

SDG:	201111-40	**Client Reference:**	LD10162	**Report Number:**	575848
Location:	Ten Acres Lane	**Order Number:**	LD1708	**Superseded Report:**	

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	TP118	TP130	TP134
			Depth (m)	1.80 - 1.80	0.30 - 0.30	0.20 - 0.20
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	06/11/2020	06/11/2020	06/11/2020
			Sample Time	.	.	.
			Date Received	11/11/2020	11/11/2020	11/11/2020
			SDG Ref	201111-40	201111-40	201111-40
			Lab Sample No.(s)	23216356	23216353	23216344
			AGS Reference			
Moisture Content Ratio (% of as received sample)	%	PM024		7.6	20	21
Phenol	<0.01 mg/kg	TM062 (S)		<0.01 M	<0.01 M	<0.01 M
Cresols	<0.01 mg/kg	TM062 (S)		<0.01 M	<0.01 M	<0.01 M
Xylenols	<0.015 mg/kg	TM062 (S)		<0.015 M	<0.015 M	<0.015 M
Phenols, Total Detected monohydric	<0.035 mg/kg	TM062 (S)		<0.035 M	<0.035 M	<0.035 M
Cyanide, Total	<1 mg/kg	TM153		<1 M	<1 M	<1 M

Validated

CERTIFICATE OF ANALYSIS

SDG:	201111-40	**Client Reference:**	LD10162	**Report Number:**	575848
Location:	Ten Acres Lane	**Order Number:**	LD1708	**Superseded Report:**	

PAH by GCMS

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	TP118	TP130	TP134			
			Depth (m)	1.80 - 1.80	0.30 - 0.30	0.20 - 0.20			
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)			
			Date Sampled	06/11/2020	06/11/2020	06/11/2020			
			Sample Time	.	.	.			
			Date Received	11/11/2020	11/11/2020	11/11/2020			
			SDG Ref	201111-40	201111-40	201111-40			
			Lab Sample No.(s)	23216356	23216353	23216344			
			AGS Reference						
Naphthalene-d8 % recovery**	%	TM218		95.9	95.2	92			
Acenaphthene-d10 % recovery**	%	TM218		105	94.8	90.5			
Phenanthrene-d10 % recovery**	%	TM218		101	96.2	85			
Chrysene-d12 % recovery**	%	TM218		93.9	96.5	71.5			
Perylene-d12 % recovery**	%	TM218		86.3	99.9	71			
Naphthalene	<9 µg/kg	TM218		39 M	5470 M	<450 M			
Acenaphthylene	<12 µg/kg	TM218		15 M	<60 M	<600 M			
Acenaphthene	<8 µg/kg	TM218		81.7 M	2200 M	<400 M			
Fluorene	<10 µg/kg	TM218		75 M	1490 M	<500 M			
Phenanthrene	<15 µg/kg	TM218		538 M	10800 M	<750 M			
Anthracene	<16 µg/kg	TM218		173 M	2490 M	<800 M			
Fluoranthene	<17 µg/kg	TM218		1070 M	8180 M	<850 M			
Pyrene	<15 µg/kg	TM218		1040 M	7480 M	<750 M			
Benz(a)anthracene	<14 µg/kg	TM218		448 M	3720 M	<700 M			
Chrysene	<10 µg/kg	TM218		399 M	3380 M	<500 M			
Benzo(b)fluoranthene	<15 µg/kg	TM218		585 M	3800 M	1360 M			
Benzo(k)fluoranthene	<14 µg/kg	TM218		227 M	1340 M	<700 M			
Benzo(a)pyrene	<15 µg/kg	TM218		417 M	2990 M	<750 M			
Indeno(1,2,3-cd)pyrene	<18 µg/kg	TM218		275 M	1750 M	1950 M			
Dibenzo(a,h)anthracene	<23 µg/kg	TM218		47 M	362 M	<1150 M			
Benzo(g,h,i)perylene	<24 µg/kg	TM218		230 M	1600 M	<1200 M			
PAH, Total Detected USEPA 16	<118 µg/kg	TM218		5650	57100	<5900			

Table of Results - Appen5ix

Method No	Reference	Description
PM024	Modified BS 1377	Soil preparation including homogenisation, moisture screens of soils for Asbestos Containing Material
TM062 (S)	National Grid Property Holdings Methods for the Collection & Analysis of Samples from National Grid Sites version 1 Sec 3.9	Determination of Phenols in Soils by HPLC
TM153	Method 4500A,B,C, I, M AWWA/APHA, 20th Ed., 1999	Determination of Total Cyanide, Free (Easily Liberatable) Cyanide and Thiocyanate using the Skalar SANS+ System Segmented Flow Analyser
TM218	Shaker extraction - EPA method 3546.	The determination of PAH in soil samples by GC-MS

NA = not applicable.

Chemical testing (unless subcontracted) performed at ALS Life Sciences Ltd Hawarden (Method codes TM) or ALS Life Sciences Ltd Aberdeen (Method codes S).

CERTIFICATE OF ANALYSIS

SDG:	201111-40	**Client Reference:**	LD10162	**Report Number:**	575848
Location:	Ten Acres Lane	**Order Number:**	LD1708	**Superseded Report:**	

Test Completion Dates

Lab Sample No(s)	23216356	23216353	23216344
Customer Sample Ref.	TP118	TP130	TP134
AGS Ref.			
Depth	1.80 - 1.80	0.30 - 0.30	0.20 - 0.20
Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
Cyanide Comp/Free/Total/Thiocyanate	16-Nov-2020	16-Nov-2020	16-Nov-2020
PAH by GCMS	17-Nov-2020	17-Nov-2020	17-Nov-2020
Phenols by HPLC (S)	17-Nov-2020	17-Nov-2020	17-Nov-2020
Sample description	12-Nov-2020	12-Nov-2020	12-Nov-2020

Appendix General

1. Results are expressed on a dry weight basis (dried at 35ºC) for all soil analyses except for the following: NRA and CEN Leach tests, flash point LOI, pH, ammonium as NH4 by the BRE method, VOC TICs and SVOC TICs.

2. If sufficient sample is received a sub sample will be retained free of charge for 30 days after analysis is completed (e-mailed) for all sample types unless the sample is destroyed on testing. The prepared soil sub sample that is analysed for asbestos will be retained for a period of 6 months after the analysis date. All bulk samples will be retained for a period of 6 months after the analysis date. All samples received and not scheduled will be disposed of one month after the date of receipt unless we are instructed to the contrary. Once the initial period has expired, a storage charge will be applied for each month or part thereof until the client cancels the request for sample storage. ALS reserve the right to charge for samples received and stored but not analysed.

3. With respect to turnaround, we will always endeavour to meet client requirements wherever possible, but turnaround times cannot be absolutely guaranteed due to so many variables beyond our control.

4. We take responsibility for any test performed by sub-contractors (marked with an asterisk). We endeavour to use UKAS/MCERTS Accredited Laboratories, who either complete a quality questionnaire or are audited by ourselves. For some determinands there are no UKAS/MCERTS Accredited Laboratories, in this instance a laboratory with a known track record will be utilised.

5. If no separate volatile sample is supplied by the client, or if a headspace or sediment is present in the volatile sample, the integrity of the data may be compromised. This will be flagged up as an invalid VOC on the test schedule and the result marked as deviating on the test certificate.

6. NDP - No determination possible due to insufficient/unsuitable sample.

7. Results relate only to the items tested.

8. LoDs (Limit of Detection) for wet tests reported on a dry weight basis are not corrected for moisture content.

9. **Surrogate recoveries** - Surrogates are added to your sample to monitor recovery of the test requested. A % recovery is reported, results are not corrected for the recovery measured. Typical recoveries for organics tests are 70-130%. Recoveries in soils are affected by organic rich or clay rich matrices. Waters can be affected by remediation fluids or high amounts of sediment. Test results are only ever reported if all of the associated quality checks pass; it is assumed that all recoveries outside of the values above are due to matrix affect.

10. Stones/debris are not routinely removed. We always endeavour to take a representative sub sample from the received sample.

11. In certain circumstances the method detection limit may be elevated due to the sample being outside the calibration range. Other factors that may contribute to this include possible interferences. In both cases the sample would be diluted which would cause the method detection limit to be raised.

12. Mercury results quoted on soils will not include volatile mercury as the analysis is performed on a dried and crushed sample.

13. For leachate preparations other than Zero Headspace Extraction (ZHE) volatile loss may occur.

14. For the BSEN 12457-3 two batch process to allow the cumulative release to be calculated, the volume of the leachate produced is measured and filtered for all tests. We therefore cannot carry out any unfiltered analysis. The tests affected include volatiles GCFID/GCMS and all subcontracted analysis.

15. Analysis and identification of specific compounds using GCFID is by retention time only, and we routinely calibrate and quantify for benzene, toluene, ethylbenzenes and xylenes (BTEX). For total volatiles in the C5-C12 range, the total area of the chromatogram is integrated and expressed as ug/kg or ug/l. Although this analysis is commonly used for the quantification of gasoline range organics (GRO), the system will also detect other compounds such as chlorinated solvents, and this may lead to a falsely high result with respect to hydrocarbons only. It is not possible to specifically identify these non-hydrocarbons, as standards are not routinely run for any other compounds, and for more definitive identification, volatiles by GCMS should be utilised.

16. We are accredited to MCERTS for sand, clay and loam/topsoil, or any of these materials - whether these are derived from naturally occurring soil profiles, or from fill/made ground, as long as these materials constitute the major part of the sample. Other coarse granular material such as concrete, gravel and brick are not accredited if they comprise the major part of the sample.

17. **Tentatively Identified Compounds (TICs)** are non-target peaks in VOC and SVOC analysis. All non-target peaks detected with a concentration above the LoD are subjected to a mass spectral library search. Non-target peaks with a library search confidence of >75% are reported based on the best mass spectral library match. When a non-target peak with a library search confidence of <75% is detected it is reported as "mixed hydrocarbons". Non-target compounds identified from the scan data are semi-quantified relative to one of the deuterated internal standards, under the same chromatographic conditions as the target compounds. This result is reported as a semi-quantitative value and reported as Tentatively Identified Compounds (TICs). TICs are outside the scope of UKAS accreditation and are not moisture corrected.

18. **Sample Deviations**

If a sample is classed as deviated then the associated results may be compromised.

1	**Container with Headspace provided for volatiles analysis**
2	**Incorrect container received**
3	**Deviation from method**
4	**Matrix interference**
♦	**Sample holding time exceeded in laboratory**
@	**Sample holding time exceeded due to late arrival of instructions or samples**
§	**Sampled on date not provided**

19. **Asbestos**

When requested, the individual sub sample scheduled will be analysed in house for the presence of asbestos fibres and asbestos containing material by our documented in house method TM048 based on HSG 248 (2005), which is accredited to ISO17025. If a specific asbestos fibre type is not found this will be reported as "Not detected". If no asbestos fibre types are found all will be reported as "Not detected" and the sub sample analysed deemed to be clear of asbestos. If an asbestos fibre type is found it will be reported as detected (for each fibre type found). Testing can be carried out on asbestos positive samples, but, due to Health and Safety considerations, may be replaced by alternative tests or reported as No Determination Possible (NDP). The quantity of asbestos present is not determined unless specifically requested.

Identification of Asbestos in Bulk Materials & Soils

The results for identification of asbestos in bulk materials are obtained from supplied bulk materials which have been examined to determine the presence of asbestos fibres using ALS (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining, based on HSG 248 (2005).

The results for identification of asbestos in soils are obtained from a homogenised sub sample which has been examined to determine the presence of asbestos fibres using ALS (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining, based on HSG 248 (2005).

Asbestos Type	Common Name
Chrysotile	White Asbestos
Amosite	Brown Asbestos
Crocidolite	Blue Asbestos
Fibrous Actinolite	-
Fibrous Anthophyllite	-
Fibrous Tremolite	-

Visual Estimation Of Fibre Content

Estimation of fibre content is not permitted as part of our UKAS accredited test other than: - Trace - Where only one or two asbestos fibres were identified.

Respirable Fibres

Respirable fibres are defined as fibres of <3 µm diameter, longer than 5 µm and with aspect ratios of at least 3:1 that can be inhaled into the lower regions of the lung and are generally acknowledged to be most important predictor of hazard and risk for cancers of the lung.
Standing Committee of Analysts, *The Quantification of Asbestos in Soil (2017).*

Further guidance on typical asbestos fibre content of manufactured products can be found in HSG 264.

The identification of asbestos containing materials and soils falls within our schedule of tests for which we hold UKAS accreditation, however opinions, interpretations and all other information contained in the report are outside the scope of UKAS accreditation.

Unit 7-8 Hawarden Business Park
Manor Road (off Manor Lane)
Hawarden
Deeside
CH5 3US
Tel: (01244) 528700
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email: hawardencustomerservices@alsglobal.com
Website: www.alsenvironmental.co.uk

Wardell Armstrong LLP
36 Park Row
Leeds
LS1 5JL

Attention: Jonathan Currie

CERTIFICATE OF ANALYSIS

Date of report Generation:	12 June 2021
Customer:	Wardell Armstrong LLP
Sample Delivery Group (SDG):	201204-111
Your Reference:	LD10162
Location:	Ten Acres Lane
Report No:	601714

This report has been revised and directly supersedes 600162 in its entirety.

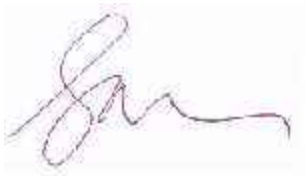
We received 12 samples on Friday December 04, 2020 and 11 of these samples were scheduled for analysis which was completed on Tuesday June 01, 2021. Accredited laboratory tests are defined within the report, but opinions, interpretations and on-site data expressed herein are outside the scope of ISO 17025 accreditation.

Should this report require incorporation into client reports, it must be used in its entirety and not simply with the data sections alone.

Chemical testing (unless subcontracted) performed at ALS Life Sciences Ltd Hawarden (Method codes TM) or ALS Life Sciences Ltd Aberdeen (Method codes S).

All sample data is provided by the customer. The reported results relate to the sample supplied, and on the basis that this data is correct.
Incorrect sampling dates and/or sample information will affect the validity of results.
The customer is not permitted to reproduce this report except in full without the approval of the laboratory.

Approved By:



Sonia McWhan

Operations Manager

CERTIFICATE OF ANALYSIS

SDG:	201204-111	**Client Reference:**	LD10162	**Report Number:**	601714
Location:	Ten Acres Lane	**Order Number:**	LD1728	**Superseded Report:**	600162

Receiveh Sample Overview

Lab Sample No(s)	Customer Sample Ref.	AGS Ref.	Depth (m)	Sampleh Date
23366904	CP107		0.00 - 0.00	02/12/2020
23367032	CP108		0.00 - 0.00	02/12/2020
23366986	CP109		0.00 - 0.00	02/12/2020
23366948	CP110		0.00 - 0.00	02/12/2020
23367170	CP103 (1)		0.00 - 0.00	02/12/2020
23366928	CP103 (2)		0.00 - 0.00	02/12/2020
23367187	NO ID			
23367050	RH101		0.00 - 0.00	02/12/2020
23367006	RH102		0.00 - 0.00	02/12/2020
23367152	SW01		0.00 - 0.00	02/12/2020
23367130	SW02		0.00 - 0.00	02/12/2020
23367087	SW03		0.00 - 0.00	02/12/2020

Only received samples which have had analysis scheduled will be shown on the following pages.

Validated

CERTIFICATE OF ANALYSIS

SDG:	201204-111	**Client Reference:**	LD10162	**Report Number:**	601714
Location:	Ten Acres Lane	**Order Number:**	LD1728	**Superseded Report:**	600162

Results Legend

X Test

N No Determination Possible

Sample Types -
S - Soil/Solid
UNS - Unspecified Solid
GW - Ground Water
SW - Surface Water
LE - Land Leachate
PL - Prepared Leachate
PR - Process Water
SA - Saline Water
TE - Trade Effluent
TS - Treated Sewage
US - Untreated Sewage
RE - Recreational Water
DW - Drinking Water Non-regulatory
UNL - Unspecified Liquid
SL - Sludge
G - Gas
OTH - Other

Lab Sample No(s)						23366904						23367032						23366986					23366948
Customer Sample Reference						CP107						CP108						CP109					CP110
AGS Reference																							
Depth (m)						0.00 - 0.00						0.00 - 0.00						0.00 - 0.00					0.00 - 0.00
Container						500ml Plastic (ALE208)	HNO3 Filtered (ALE204)	NaOH (ALE245)	Vial (ALE297)	ZnAc (ALE246)	0.5l glass bottle (ALE227)	500ml Plastic (ALE208)	HNO3 Filtered (ALE204)	NaOH (ALE245)	Vial (ALE297)	ZnAc (ALE246)	0.5l glass bottle (ALE227)	500ml Plastic (ALE208)	HNO3 Filtered (ALE204)	NaOH (ALE245)	Vial (ALE297)	ZnAc (ALE246)	0.5l glass bottle (ALE227)	500ml Plastic (ALE208)
Sample Type						GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
Alkalinity as CaCO3	All	NDPs: 0 Tests: 11				X						X						X						X
Anions by Kone (w)	All	NDPs: 0 Tests: 11				X						X						X						X
Cyanide Comp/Free/Total/Thiocyanate	All	NDPs: 0 Tests: 11			X								X						X					
Dissolved Metals by ICP-MS	All	NDPs: 0 Tests: 11		X									X						X					
Dissolved Organic/Inorganic Carbon	All	NDPs: 0 Tests: 11	X								X						X						X	
EPH CWG (Aliphatic) Aqueous GC (W)	All	NDPs: 0 Tests: 11	X								X						X						X	
EPH CWG (Aromatic) Aqueous GC (W)	All	NDPs: 0 Tests: 11	X								X						X						X	
GRO by GC-FID (W)	All	NDPs: 0 Tests: 11				X							X						X					
Hexavalent Chromium (w)	All	NDPs: 0 Tests: 11	X									X						X						X
Mercury Dissolved	All	NDPs: 0 Tests: 11		X									X						X					
PAH Spec MS - Aqueous (W)	All	NDPs: 0 Tests: 11	X								X						X						X	
Redox Potential	All	NDPs: 0 Tests: 11	X								X						X						X	
Sulphide	All	NDPs: 0 Tests: 11							X							X						X		
SVOC MS (W) - Aqueous	All	NDPs: 0 Tests: 11	X								X						X						X	
TPH CWG (W)	All	NDPs: 0 Tests: 11	X								X						X						X	

23367050	RH101		0.00 - 0.00	Vial (ALE297)	GW										X							
				NaOH (ALE245)	GW				X													
				HNO3 Filtered (ALE204)	GW					X								X				
				500ml Plastic (ALE208)	GW		X		X								X					
				0.5l glass bottle (ALE227)	GW						X		X		X				X		X		X
23366928	CP103 (2)		0.00 - 0.00	ZnAc (ALE246)	GW																X		
				Vial (ALE297)	GW										X								
				NaOH (ALE245)	GW				X														
				HNO3 Filtered (ALE204)	GW					X								X					
				500ml Plastic (ALE208)	GW		X		X								X						
				0.5l glass bottle (ALE227)	GW						X		X		X				X		X		X
23367170	CP103 (1)		0.00 - 0.00	ZnAc (ALE246)	GW																X		
				Vial (ALE297)	GW										X								
				NaOH (ALE245)	GW				X														
				HNO3 Filtered (ALE204)	GW					X								X					
				500ml Plastic (ALE208)	GW		X		X								X						
				0.5l glass bottle (ALE227)	GW						X		X		X				X		X		X
23366948	CP110		0.00 - 0.00	ZnAc (ALE246)	GW																X		
				Vial (ALE297)	GW										X								
				NaOH (ALE245)	GW				X														
				HNO3 Filtered (ALE204)	GW					X								X					

Validated

CERTIFICATE OF ANALYSIS

SDG:	201204-111	**Client Reference:**	LD10162	**Report Number:**	601714
Location:	Ten Acres Lane	**Order Number:**	LD1728	**Superseded Report:**	600162

Results Legend

X **Test**

N **No Determination Possible**

Sample Types -
S - Soil/Solid
UNS - Unspecified Solid
GW - Ground Water
SW - Surface Water
LE - Land Leachate
PL - Prepared Leachate
PR - Process Water
SA - Saline Water
TE - Trade Effluent
TS - Treated Sewage
US - Untreated Sewage
RE - Recreational Water
DW - Drinking Water Non-regulatory
UNL - Unspecified Liquid
SL - Sludge
G - Gas
OTH - Other

Lab Sample No(s)						23366904						23367032						23366986				23366948
Customer Sample Reference						CP107						CP108						CP109				CP110
AGS Reference																						
Depth (m)						0.00 - 0.00						0.00 - 0.00						0.00 - 0.00				0.00 - 0.00
Container	500ml Plastic (ALE208)	HNO3 Filtered (ALE204)	NaOH (ALE245)	Vial (ALE297)	ZnAc (ALE246)	0.5l glass bottle (ALE227)	500ml Plastic (ALE208)	HNO3 Filtered (ALE204)	NaOH (ALE245)	Vial (ALE297)	ZnAc (ALE246)	0.5l glass bottle (ALE227)	500ml Plastic (ALE208)	HNO3 Filtered (ALE204)	NaOH (ALE245)	Vial (ALE297)	ZnAc (ALE246)	0.5l glass bottle (ALE227)	500ml Plastic (ALE208)			
Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW			
VOC MS (W)				X						X						X						

All

NDPs: 0
Tests: 11

23367050	RH101		0.00 - 0.00	Vial (ALE297)	GW	X
				NaOH (ALE245)	GW	
				HNO3 Filtered (ALE204)	GW	
				500ml Plastic (ALE208)	GW	
				0.5l glass bottle (ALE227)	GW	
23366928	CP103 (2)		0.00 - 0.00	ZnAc (ALE246)	GW	
				Vial (ALE297)	GW	X
				NaOH (ALE245)	GW	
				HNO3 Filtered (ALE204)	GW	
				500ml Plastic (ALE208)	GW	
				0.5l glass bottle (ALE227)	GW	
23367170	CP103 (1)		0.00 - 0.00	ZnAc (ALE246)	GW	
				Vial (ALE297)	GW	X
				NaOH (ALE245)	GW	
				HNO3 Filtered (ALE204)	GW	
				500ml Plastic (ALE208)	GW	
				0.5l glass bottle (ALE227)	GW	
23366948	CP110		0.00 - 0.00	ZnAc (ALE246)	GW	
				Vial (ALE297)	GW	X
				NaOH (ALE245)	GW	
				HNO3 Filtered (ALE204)	GW	

Validated

CERTIFICATE OF ANALYSIS

SDG:	201204-111	**Client Reference:**	LD10162	**Report Number:**	601714
Location:	Ten Acres Lane	**Order Number:**	LD1728	**Superseded Report:**	600162

Results Legend

X Test

N No Determination Possible

Sample Types -
S - Soil/Solid
UNS - Unspecified Solid
GW - Ground Water
SW - Surface Water
LE - Land Leachate
PL - Prepared Leachate
PR - Process Water
SA - Saline Water
TE - Trade Effluent
TS - Treated Sewage
US - Untreated Sewage
RE - Recreational Water
DW - Drinking Water Non-regulatory
UNL - Unspecified Liquid
SL - Sludge
G - Gas
OTH - Other

Lab Sample No(s)			23367050	23367006						23367152						23367130					
Customer Sample Reference			RH101	RH102						SW01						SW02					
AGS Reference																					
Depth (m)			0.00 - 0.00	0.00 - 0.00						0.00 - 0.00						0.00 - 0.00					
Container			ZnAc (ALE246)	0.5l glass bottle (ALE227)	500ml Plastic (ALE208)	HNO3 Filtered (ALE204)	NaOH (ALE245)	Vial (ALE297)	ZnAc (ALE246)	0.5l glass bottle (ALE227)	500ml Plastic (ALE208)	HNO3 Filtered (ALE204)	NaOH (ALE245)	Vial (ALE297)	ZnAc (ALE246)	0.5l glass bottle (ALE227)	500ml Plastic (ALE208)	HNO3 Filtered (ALE204)	NaOH (ALE245)	Vial (ALE297)	ZnAc (ALE246)
Sample Type			GW	GW	GW	GW	GW	GW	GW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW
Alkalinity as CaCO3	All	NDPs: 0 Tests: 11			X						X						X				
Anions by Kone (w)	All	NDPs: 0 Tests: 11			X						X						X				
Cyanide Comp/Free/Total/Thiocyanate	All	NDPs: 0 Tests: 11					X						X						X		
Dissolved Metals by ICP-MS	All	NDPs: 0 Tests: 11				X						X						X			
Dissolved Organic/Inorganic Carbon	All	NDPs: 0 Tests: 11		X						X						X					
EPH CWG (Aliphatic) Aqueous GC (W)	All	NDPs: 0 Tests: 11		X						X						X					
EPH CWG (Aromatic) Aqueous GC (W)	All	NDPs: 0 Tests: 11		X						X						X					
GRO by GC-FID (W)	All	NDPs: 0 Tests: 11						X						X						X	
Hexavalent Chromium (w)	All	NDPs: 0 Tests: 11			X						X						X				
Mercury Dissolved	All	NDPs: 0 Tests: 11				X						X						X			
PAH Spec MS - Aqueous (W)	All	NDPs: 0 Tests: 11		X						X						X					
Redox Potential	All	NDPs: 0 Tests: 11		X						X						X					
Sulphide	All	NDPs: 0 Tests: 11	X						X						X						X
SVOC MS (W) - Aqueous	All	NDPs: 0 Tests: 11		X						X						X					
TPH CWG (W)	All	NDPs: 0 Tests: 11		X						X						X					

						23367087
					SW03	
				0.00 - 0.00		
ZnAc (ALE246)	Vial (ALE297)	NaOH (ALE245)	HNO3 Filtered (ALE204)	500ml Plastic (ALE208)	0.5l glass bottle (ALE227)	
SW	SW	SW	SW	SW	SW	
				X		
				X		
		X				
			X			
					X	
					X	
					X	
	X					
				X		
			X			
					X	
					X	
X						
					X	
					X	

Validated

CERTIFICATE OF ANALYSIS

SDG:	201204-111	**Client Reference:**	LD10162	**Report Number:**	601714
Location:	Ten Acres Lane	**Order Number:**	LD1728	**Superseded Report:**	600162

Results Legend

X **Test**

N **No Determination Possible**

Sample Types -
S - Soil/Solid
UNS - Unspecified Solid
GW - Ground Water
SW - Surface Water
LE - Land Leachate
PL - Prepared Leachate
PR - Process Water
SA - Saline Water
TE - Trade Effluent
TS - Treated Sewage
US - Untreated Sewage
RE - Recreational Water
DW - Drinking Water Non-regulatory
UNL - Unspecified Liquid
SL - Sludge
G - Gas
OTH - Other

Lab Sample No(s)	23367050					23367006							23367152							23367130				
Customer Sample Reference	RH101					RH102							SW01							SW02				
AGS Reference																								
Depth (m)	0.00 - 0.00					0.00 - 0.00							0.00 - 0.00							0.00 - 0.00				
Container	ZnAc (ALE246)	0.5l glass bottle (ALE227)	500ml Plastic (ALE208)	HNO3 Filtered (ALE204)	NaOH (ALE245)	Vial (ALE297)	ZnAc (ALE246)	0.5l glass bottle (ALE227)	500ml Plastic (ALE208)	HNO3 Filtered (ALE204)	NaOH (ALE245)	Vial (ALE297)	ZnAc (ALE246)	0.5l glass bottle (ALE227)	500ml Plastic (ALE208)	HNO3 Filtered (ALE204)	NaOH (ALE245)	Vial (ALE297)	ZnAc (ALE246)				
Sample Type	GW	GW	GW	GW	GW	GW	GW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW				
VOC MS (W)	All	NDPs: 0 Tests: 11																						
						X						X						X					

23367087	SW03		0.00 - 0.00	ZnAc (ALE246)	SW		
				Vial (ALE297)	SW		X
				NaOH (ALE245)	SW		
				HNO3 Filtered (ALE204)	SW		
				500ml Plastic (ALE208)	SW		
				0.5l glass bottle (ALE227)	SW		

Validated

CERTIFICATE OF ANALYSIS

SDG:	201204-111	**Client Reference:**	LD10162	**Report Number:**	601714
Location:	Ten Acres Lane	**Order Number:**	LD1728	**Superseded Report:**	600162

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	CP107	CP108	CP109	CP110	CP103 (1)	CP103 (2)
			Depth (m)	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
			Sample Type	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)
			Date Sampled	02/12/2020	02/12/2020	02/12/2020	02/12/2020	02/12/2020	02/12/2020
			Sample Time	.	.	.	.	.	.
			Date Received	04/12/2020	04/12/2020	04/12/2020	04/12/2020	04/12/2020	04/12/2020
			SDG Ref	201204-111	201204-111	201204-111	201204-111	201204-111	201204-111
			Lab Sample No.(s)	23366904	23367032	23366986	23366948	23367170	23366928
			AGS Reference						
Alkalinity, Total as CaCO3	<2 mg/l	TM043		687 #	391 #	1380 #	692 #	702 #	724 #
Carbon, Organic (diss.filt)	<3 mg/l	TM090		18.7	3.73	270	8.89	11.5	12.6
Sulphide	<0.01 mg/l	TM101		0.49 #	0.015 #	0.786 #	0.0223 #	1.59 #	0.598 #
Redox potential	mV	TM110		144	131	107	181	137	143
Arsenic (diss.filt)	<0.5 µg/l	TM152		9.85 #	5.41 #	33.3 #	2.36 #	4.08 #	1.43 #
Boron (diss.filt)	<10 µg/l	TM152		2260 #	198 #	11100 #	854 #	768 #	742 #
Cadmium (diss.filt)	<0.08 µg/l	TM152		<0.08 #	<0.08 #	<0.08 #	11 #	<0.08 #	<0.08 #
Chromium (diss.filt)	<1 µg/l	TM152		5.11 #	<1 #	10.7 #	<1 #	7.75 #	6.98 #
Copper (diss.filt)	<0.3 µg/l	TM152		<0.3 #	0.465 #	<0.3 #	140 #	<0.3 #	1.07 #
Lead (diss.filt)	<0.2 µg/l	TM152		0.266 #	0.614 #	5.53 #	3.73 #	0.274 #	2.71 #
Manganese (diss.filt)	<3 µg/l	TM152		230 #	360 #	73 #	485 #	277 #	257 #
Nickel (diss.filt)	<0.4 µg/l	TM152		1.16 #	1.07 #	11.7 #	36.5 #	0.771 #	2.75 #
Selenium (diss.filt)	<1 µg/l	TM152		<1 #	<1 #	1.84 #	1.09 #	<1 #	1.39 #
Calcium (Dis.Filt)	<0.2 mg/l	TM152		107 #	187 #	24.4 #	228 #	193 #	236 #
Iron (Dis.Filt)	<0.019 mg/l	TM152		0.783 #	11 #	0.967 #	0.245 #	0.24 #	0.116 #
Mercury (diss.filt)	<0.01 µg/l	TM183		<0.01 #	<0.01 #	<0.01 #	<0.01 #	<0.01 #	<0.01 #
Sulphate	<2 mg/l	TM184		118 #	177 #	<10 #	82.2 #	135 #	228 #
Cyanide, Total	<0.05 mg/l	TM227		0.13 #	<0.05 #	0.18 #	<0.05 #	<0.05 #	<0.05 #
Cyanide, Free	<0.05 mg/l	TM227		<0.05 #	<0.05 #	<0.05 #	<0.05 #	<0.05 #	<0.05 #
Cyanide, Complex	<0.05 mg/l	TM227		0.13	<0.05	0.18	<0.05	<0.05	<0.05
Thiocyanate	<0.05 mg/l	TM227		<0.05 #	<0.05 #	0.12 #	<0.05 #	<0.05 #	<0.05 #
Chromium, Hexavalent	<0.03 mg/l	TM241		<0.03 #	<0.03 #	<0.03 #	<0.03 #	<0.03 #	<0.03 #

Validated

CERTIFICATE OF ANALYSIS

SDG:	201204-111	**Client Reference:**	LD10162	**Report Number:**	601714
Location:	Ten Acres Lane	**Order Number:**	LD1728	**Superseded Report:**	600162

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	RH101	RH102	SW01	SW02	SW03
			Depth (m)	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
			Sample Type	Ground Water (GW)	Ground Water (GW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)
			Date Sampled	02/12/2020	02/12/2020	02/12/2020	02/12/2020	02/12/2020
			Sample Time	.	.	.	.	.
			Date Received	04/12/2020	04/12/2020	04/12/2020	04/12/2020	04/12/2020
			SDG Ref	201204-111	201204-111	201204-111	201204-111	201204-111
			Lab Sample No.(s)	23367050	23367006	23367152	23367130	23367087
			AGS Reference					
Alkalinity, Total as CaCO3	<2 mg/l	TM043		488 #	1650 #	37.5 #	33.1 #	32.1 #
Carbon, Organic (diss.filt)	<3 mg/l	TM090		4.81	353	5.26	5.61	5.05
Sulphide	<0.01 mg/l	TM101		<0.01 #	0.967 #	0.0183	<0.01	0.0116
Redox potential	mV	TM110		130	132	121	126	122
Arsenic (diss.filt)	<0.5 µg/l	TM152		1.54 #	4.41 #	0.918 #	0.907 #	0.894 #
Boron (diss.filt)	<10 µg/l	TM152		295 #	11100 #	28.6 #	22.7 #	20.7 #
Cadmium (diss.filt)	<0.08 µg/l	TM152		<0.08 #	<0.08 #	<0.08 #	<0.08 #	<0.08 #
Chromium (diss.filt)	<1 µg/l	TM152		<1 #	4.28 #	6.25 #	<1 #	<1 #
Copper (diss.filt)	<0.3 µg/l	TM152		1.63 #	0.43 #	3.38 #	3.27 #	3.52 #
Lead (diss.filt)	<0.2 µg/l	TM152		2.89 #	0.927 #	1.05 #	1.2 #	1.04 #
Manganese (diss.filt)	<3 µg/l	TM152		265 #	238 #	16.7 #	17 #	14.7 #
Nickel (diss.filt)	<0.4 µg/l	TM152		1.02 #	10.4 #	2.07 #	2.12 #	2.05 #
Selenium (diss.filt)	<1 µg/l	TM152		<1 #	<1 #	<1 #	<1 #	<1 #
Calcium (Dis.Filt)	<0.2 mg/l	TM152		170 #	210 #	16.5 #	15.7 #	15.5 #
Iron (Dis.Filt)	<0.019 mg/l	TM152		0.0921 #	2.22 #	0.193 #	0.184 #	0.189 #
Mercury (diss.filt)	<0.01 µg/l	TM183		<0.01 #	<0.01 #	<0.01	<0.01	<0.01
Sulphate	<2 mg/l	TM184		207 #	23.6 #	17.9 #	17.4 #	16.7 #
Cyanide, Total	<0.05 mg/l	TM227		<0.05 #	<0.05 #	<0.05	<0.05	<0.05
Cyanide, Free	<0.05 mg/l	TM227		<0.05 #	<0.05 #	<0.05	<0.05	<0.05
Cyanide, Complex	<0.05 mg/l	TM227		<0.05	<0.05	<0.05	<0.05	<0.05
Thiocyanate	<0.05 mg/l	TM227		<0.05 #	<0.05 #	<0.05	<0.05	<0.05
Chromium, Hexavalent	<0.03 mg/l	TM241		<0.03 #	<0.03 #	<0.03	<0.03	<0.03

Validated

CERTIFICATE OF ANALYSIS

SDG:	201204-111	**Client Reference:**	LD10162	**Report Number:**	601714
Location:	Ten Acres Lane	**Order Number:**	LD1728	**Superseded Report:**	600162

PAH Spec MS - Aqueous (W)

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	CP107	CP108	CP109	CP110	CP103 (1)	CP103 (2)
			Depth (m)	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
			Sample Type	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)
			Date Sampled	02/12/2020	02/12/2020	02/12/2020	02/12/2020	02/12/2020	02/12/2020
			Sample Time	.	.	.	.	.	.
			Date Received	04/12/2020	04/12/2020	04/12/2020	04/12/2020	04/12/2020	04/12/2020
			SDG Ref	201204-111	201204-111	201204-111	201204-111	201204-111	201204-111
			Lab Sample No.(s)	23366904	23367032	23366986	23366948	23367170	23366928
			AGS Reference						
Naphthalene (aq)	<0.01 µg/l	TM178		0.0944 #	0.0314 #	2.25 #	0.0605 #	0.339 #	0.386 #
Acenaphthene (aq)	<0.005 µg/l	TM178		1.47 #	0.05 #	1.87 #	0.0956 #	2.95 #	1.68 #
Acenaphthylene (aq)	<0.005 µg/l	TM178		0.0375 #	<0.005 #	0.169 #	0.161 #	0.0168 #	0.0131 #
Fluoranthene (aq)	<0.005 µg/l	TM178		1.49 #	0.18 #	2.37 #	2.37 #	1.87 #	2.09 #
Anthracene (aq)	<0.005 µg/l	TM178		0.179 #	0.015 #	0.382 #	0.195 #	0.146 #	0.243 #
Phenanthrene (aq)	<0.005 µg/l	TM178		0.623 #	0.0517 #	2.17 #	0.616 #	0.171 #	1.05 #
Fluorene (aq)	<0.005 µg/l	TM178		0.357 #	0.0163 #	1.04 #	0.0674 #	0.258 #	0.232 #
Chrysene (aq)	<0.005 µg/l	TM178		0.504 #	0.0297 #	0.764 #	1.26 #	0.409 #	0.95 #
Pyrene (aq)	<0.005 µg/l	TM178		1.51 #	0.129 #	2.35 #	2.9 #	1.3 #	1.81 #
Benzo(a)anthracene (aq)	<0.005 µg/l	TM178		0.375 #	0.0362 #	0.537 #	0.936 #	0.303 #	0.835 #
Benzo(b)fluoranthene (aq)	<0.005 µg/l	TM178		0.711 #	0.0107 #	1.38 #	2.46 #	0.446 #	1.71 #
Benzo(k)fluoranthene (aq)	<0.005 µg/l	TM178		0.217 #	0.00605 #	0.421 #	0.769 #	0.138 #	0.741 #
Benzo(a)pyrene (aq)	<0.002 µg/l	TM178		0.425 #	0.012 #	0.688 #	1.84 #	0.249 #	1.18 #
Dibenzo(a,h)anthracene (aq)	<0.005 µg/l	TM178		0.0606 #	<0.005 #	0.109 #	0.288 #	0.0376 #	0.135 #
Benzo(g,h,i)perylene (aq)	<0.005 µg/l	TM178		0.348 #	0.0107 #	0.594 #	1.25 #	0.193 #	0.821 #
Indeno(1,2,3-cd)pyrene (aq)	<0.005 µg/l	TM178		0.323 #	<0.005 #	0.602 #	1.57 #	0.194 #	0.637 #
PAH, Total Detected USEPA 16 (aq)	<0.082 µg/l	TM178		8.72 #	0.579 #	17.7 #	16.9 #	9.01 #	14.5 #

Validated

CERTIFICATE OF ANALYSIS

SDG:	201204-111	**Client Reference:**	LD10162	**Report Number:**	601714
Location:	Ten Acres Lane	**Order Number:**	LD1728	**Superseded Report:**	600162

PAH Spec MS - Aqueous (W)

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	RH101	RH102	SW01	SW02	SW03
			Depth (m)	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
			Sample Type	Ground Water (GW)	Ground Water (GW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)
			Date Sampled	02/12/2020	02/12/2020	02/12/2020	02/12/2020	02/12/2020
			Sample Time	.	.	.	.	.
			Date Received	04/12/2020	04/12/2020	04/12/2020	04/12/2020	04/12/2020
			SDG Ref	201204-111	201204-111	201204-111	201204-111	201204-111
			Lab Sample No.(s)	23367050	23367006	23367152	23367130	23367087
			AGS Reference					
Naphthalene (aq)	<0.01 µg/l	TM178		0.11 #	0.235 #	0.0241 #	0.0682 #	0.0683 #
Acenaphthene (aq)	<0.005 µg/l	TM178		<0.025 #	2.66 #	0.0179 #	0.0075 #	0.0101 #
Acenaphthylene (aq)	<0.005 µg/l	TM178		<0.025 #	0.0275 #	0.00716 #	0.00789 #	<0.005 #
Fluoranthene (aq)	<0.005 µg/l	TM178		0.264 #	0.0733 #	0.485 #	0.0809 #	0.024 #
Anthracene (aq)	<0.005 µg/l	TM178		0.0473 #	0.0523 #	0.0288 #	0.00757 #	<0.005 #
Phenanthrene (aq)	<0.005 µg/l	TM178		0.319 #	0.107 #	0.13 #	0.0383 #	0.0158 #
Fluorene (aq)	<0.005 µg/l	TM178		0.0593 #	0.0832 #	0.0118 #	0.00871 #	0.00676 #
Chrysene (aq)	<0.005 µg/l	TM178		0.235 #	0.0176 #	0.229 #	0.054 #	0.0141 #
Pyrene (aq)	<0.005 µg/l	TM178		0.286 #	0.0506 #	0.473 #	0.0785 #	0.0236 #
Benzo(a)anthracene (aq)	<0.005 µg/l	TM178		0.11 #	0.0123 #	0.182 #	0.0458 #	0.0109 #
Benzo(b)fluoranthene (aq)	<0.005 µg/l	TM178		0.2 #	0.0229 #	0.319 #	0.0801 #	0.0144 #
Benzo(k)fluoranthene (aq)	<0.005 µg/l	TM178		0.077 #	0.0105 #	0.0976 #	0.0312 #	0.00764 #
Benzo(a)pyrene (aq)	<0.002 µg/l	TM178		0.127 #	0.0173 #	0.186 #	0.0464 #	0.0107 #
Dibenzo(a,h)anthracene (aq)	<0.005 µg/l	TM178		<0.025 #	<0.005 #	0.0285 #	0.00759 #	<0.005 #
Benzo(g,h,i)perylene (aq)	<0.005 µg/l	TM178		0.13 #	<0.005 #	0.171 #	0.0424 #	<0.005 #
Indeno(1,2,3-cd)pyrene (aq)	<0.005 µg/l	TM178		0.0963 #	<0.005 #	0.173 #	0.0254 #	<0.005 #
PAH, Total Detected USEPA 16 (aq)	<0.082 µg/l	TM178		2.06 #	3.37 #	2.56 #	0.63 #	0.206 #

Validated

CERTIFICATE OF ANALYSIS

SDG:	201204-111	**Client Reference:**	LD10162	**Report Number:**	601714
Location:	Ten Acres Lane	**Order Number:**	LD1728	**Superseded Report:**	600162

SVOC MS (W) - Aqueous

Results Legend	
#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	CP107	CP108	CP109	CP110	CP103 (1)	CP103 (2)
			Depth (m)	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
			Sample Type	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)
			Date Sampled	02/12/2020	02/12/2020	02/12/2020	02/12/2020	02/12/2020	02/12/2020
			Sample Time	.	.	.	.	.	.
			Date Received	04/12/2020	04/12/2020	04/12/2020	04/12/2020	04/12/2020	04/12/2020
			SDG Ref	201204-111	201204-111	201204-111	201204-111	201204-111	201204-111
			Lab Sample No.(s)	23366904	23367032	23366986	23366948	23367170	23366928
			AGS Reference						
1,2,4-Trichlorobenzene (aq)	<1 µg/l	TM176		<1 #	<4 #	<10 #	<8 #	<1 #	<1 #
1,2-Dichlorobenzene (aq)	<1 µg/l	TM176		<1 #	<4 #	<10 #	<8 #	<1 #	<1 #
1,3-Dichlorobenzene (aq)	<1 µg/l	TM176		<1 #	<4 #	<10 #	<8 #	<1 #	<1 #
1,4-Dichlorobenzene (aq)	<1 µg/l	TM176		<1 #	<4 #	<10 #	<8 #	<1 #	<1 #
2,4,5-Trichlorophenol (aq)	<1 µg/l	TM176		<1 #	<4 #	<10 #	<8 #	<1 #	<1 #
2,4,6-Trichlorophenol (aq)	<1 µg/l	TM176		<1 #	<4 #	<10 #	<8 #	<1 #	<1 #
2,4-Dichlorophenol (aq)	<1 µg/l	TM176		<1 #	<4 #	<10 #	<8 #	<1 #	<1 #
2,4-Dimethylphenol (aq)	<1 µg/l	TM176		<1 #	<4 #	11.5 #	<8 #	<1 #	<1 #
2,4-Dinitrotoluene (aq)	<1 µg/l	TM176		<1 #	<4 #	<10 #	<8 #	<1 #	<1 #
2,6-Dinitrotoluene (aq)	<1 µg/l	TM176		<1 #	<4 #	<10 #	<8 #	<1 #	<1 #
2-Chloronaphthalene (aq)	<1 µg/l	TM176		<1 #	<4 #	<10 #	<8 #	<1 #	<1 #
2-Chlorophenol (aq)	<1 µg/l	TM176		<1 #	<4 #	<10 #	<8 #	<1 #	<1 #
2-Methylnaphthalene (aq)	<1 µg/l	TM176		<1 #	<4 #	<10 #	<8 #	<1 #	<1 #
2-Methylphenol (aq)	<1 µg/l	TM176		<1 #	<4 #	<10 #	<8 #	<1 #	<1 #
2-Nitroaniline (aq)	<1 µg/l	TM176		<1 #	<4 #	<10 #	<8 #	<1 #	<1 #
2-Nitrophenol (aq)	<1 µg/l	TM176		<1 #	<4 #	<10 #	<8 #	<1 #	<1 #
3-Nitroaniline (aq)	<1 µg/l	TM176		<1 #	<4 #	<10 #	<8 #	<1 #	<1 #
4-Bromophenylphenylether (aq)	<1 µg/l	TM176		<1 #	<4 #	<10 #	<8 #	<1 #	<1 #
4-Chloro-3-methylphenol (aq)	<1 µg/l	TM176		<1 #	<4 #	<10 #	<8 #	<1 #	<1 #
4-Chloroaniline (aq)	<1 µg/l	TM176		<1	<4	<10	<8	<1	<1
4-Chlorophenylphenylether (aq)	<1 µg/l	TM176		<1 #	<4 #	<10 #	<8 #	<1 #	<1 #
4-Methylphenol (aq)	<1 µg/l	TM176		<1 #	<4 #	<10 #	<8 #	<1 #	<1 #
4-Nitroaniline (aq)	<1 µg/l	TM176		<1 #	<4 #	<10 #	<8 #	<1 #	<1 #
4-Nitrophenol (aq)	<1 µg/l	TM176		<1	<4	<10	<8	<1	<1
Azobenzene (aq)	<1 µg/l	TM176		<1 #	<4 #	<10 #	<8 #	<1 #	<1 #
bis(2-Chloroethyl)ether (aq)	<1 µg/l	TM176		<1 #	<4 #	<10 #	<8 #	<1 #	<1 #
bis(2-Chloroethoxy)methane (aq)	<1 µg/l	TM176		<1 #	<4 #	<10 #	<8 #	<1 #	<1 #
bis(2-Ethylhexyl) phthalate (aq)	<2 µg/l	TM176		<2 #	<8 #	<20 #	<16 #	<2 #	<2 #
Butylbenzyl phthalate (aq)	<1 µg/l	TM176		<1 #	<4 #	<10 #	<8 #	<1 #	<1 #
Carbazole (aq)	<1 µg/l	TM176		<1 #	<4 #	<10 #	<8 #	<1 #	<1 #
Dibenzofuran (aq)	<1 µg/l	TM176		<1 #	<4 #	<10 #	<8 #	<1 #	<1 #
n-Dibutyl phthalate (aq)	<1 µg/l	TM176		<1 #	<4 #	<10 #	<8 #	<1 #	<1 #
Diethyl phthalate (aq)	<1 µg/l	TM176		<1 #	<4 #	<10 #	<8 #	<1 #	<1 #

CERTIFICATE OF ANALYSIS

SDG:	201204-111	**Client Reference:**	LD10162	**Report Number:**	601714
Location:	Ten Acres Lane	**Order Number:**	LD1728	**Superseded Report:**	600162

SVOC MS (W) - Aqueous

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	CP107	CP108	CP109	CP110	CP103 (1)	CP103 (2)
			Depth (m)	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
			Sample Type	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)
			Date Sampled	02/12/2020	02/12/2020	02/12/2020	02/12/2020	02/12/2020	02/12/2020
			Sample Time	.	.	.	.	.	.
			Date Received	04/12/2020	04/12/2020	04/12/2020	04/12/2020	04/12/2020	04/12/2020
			SDG Ref	201204-111	201204-111	201204-111	201204-111	201204-111	201204-111
			Lab Sample No.(s)	23366904	23367032	23366986	23366948	23367170	23366928
			AGS Reference						
Dimethyl phthalate (aq)	<1 µg/l	TM176		<1 #	<4 #	<10 #	<8 #	<1 #	<1 #
n-Dioctyl phthalate (aq)	<5 µg/l	TM176		<5 #	<20 #	<50 #	<40 #	<5 #	<5 #
Hexachlorobenzene (aq)	<1 µg/l	TM176		<1 #	<4 #	<10 #	<8 #	<1 #	<1 #
Hexachlorobutadiene (aq)	<1 µg/l	TM176		<1 #	<4 #	<10 #	<8 #	<1 #	<1 #
Pentachlorophenol (aq)	<1 µg/l	TM176		<1	<4	<10	<8	<1	<1
Phenol (aq)	<1 µg/l	TM176		<1	<4	<10	<8	<1	<1
n-Nitroso-n-dipropylamine (aq)	<1 µg/l	TM176		<1 #	<4 #	<10 #	<8 #	<1 #	<1 #
Hexachloroethane (aq)	<1 µg/l	TM176		<1 #	<4 #	<10 #	<8 #	<1 #	<1 #
Nitrobenzene (aq)	<1 µg/l	TM176		<1 #	<4 #	<10 #	<8 #	<1 #	<1 #
Isophorone (aq)	<1 µg/l	TM176		<1 #	<4 #	<10 #	<8 #	<1 #	<1 #
Hexachlorocyclopentadiene (aq)	<1 µg/l	TM176		<1	<4	<10	<8	<1	<1

CERTIFICATE OF ANALYSIS

SDG:	201204-111	**Client Reference:**	LD10162	**Report Number:**	601714
Location:	Ten Acres Lane	**Order Number:**	LD1728	**Superseded Report:**	600162

SVOC MS (W) - Aqueous

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	RH101	RH102	SW01	SW02	SW03
			Depth (m)	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
			Sample Type	Ground Water (GW)	Ground Water (GW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)
			Date Sampled	02/12/2020	02/12/2020	02/12/2020	02/12/2020	02/12/2020
			Sample Time	-	-	-	-	-
			Date Received	04/12/2020	04/12/2020	04/12/2020	04/12/2020	04/12/2020
			SDG Ref	201204-111	201204-111	201204-111	201204-111	201204-111
			Lab Sample No.(s)	23367050	23367006	23367152	23367130	23367087
			AGS Reference					
1,2,4-Trichlorobenzene (aq)	<1 µg/l	TM176		<20 #	<8 #	<1 #	<1 #	<1 #
1,2-Dichlorobenzene (aq)	<1 µg/l	TM176		<20 #	<8 #	<1 #	<1 #	<1 #
1,3-Dichlorobenzene (aq)	<1 µg/l	TM176		<20 #	<8 #	<1 #	<1 #	<1 #
1,4-Dichlorobenzene (aq)	<1 µg/l	TM176		<20 #	<8 #	<1 #	<1 #	<1 #
2,4,5-Trichlorophenol (aq)	<1 µg/l	TM176		<20 #	<8 #	<1 #	<1 #	<1 #
2,4,6-Trichlorophenol (aq)	<1 µg/l	TM176		<20 #	<8 #	<1 #	<1 #	<1 #
2,4-Dichlorophenol (aq)	<1 µg/l	TM176		<20 #	<8 #	<1 #	<1 #	<1 #
2,4-Dimethylphenol (aq)	<1 µg/l	TM176		<20 #	<8 #	<1 #	<1 #	<1 #
2,4-Dinitrotoluene (aq)	<1 µg/l	TM176		<20 #	<8 #	<1 #	<1 #	<1 #
2,6-Dinitrotoluene (aq)	<1 µg/l	TM176		<20 #	<8 #	<1 #	<1 #	<1 #
2-Chloronaphthalene (aq)	<1 µg/l	TM176		<20 #	<8 #	<1 #	<1 #	<1 #
2-Chlorophenol (aq)	<1 µg/l	TM176		<20 #	<8 #	<1 #	<1 #	<1 #
2-Methylnaphthalene (aq)	<1 µg/l	TM176		<20 #	<8 #	<1 #	<1 #	<1 #
2-Methylphenol (aq)	<1 µg/l	TM176		<20 #	<8 #	<1 #	<1 #	<1 #
2-Nitroaniline (aq)	<1 µg/l	TM176		<20 #	<8 #	<1 #	<1 #	<1 #
2-Nitrophenol (aq)	<1 µg/l	TM176		<20 #	<8 #	<1 #	<1 #	<1 #
3-Nitroaniline (aq)	<1 µg/l	TM176		<20 #	<8 #	<1 #	<1 #	<1 #
4-Bromophenylphenylether (aq)	<1 µg/l	TM176		<20 #	<8 #	<1 #	<1 #	<1 #
4-Chloro-3-methylphenol (aq)	<1 µg/l	TM176		<20 #	<8 #	<1 #	<1 #	<1 #
4-Chloroaniline (aq)	<1 µg/l	TM176		<20	<8	<1	<1	<1
4-Chlorophenylphenylether (aq)	<1 µg/l	TM176		<20 #	<8 #	<1 #	<1 #	<1 #
4-Methylphenol (aq)	<1 µg/l	TM176		<20 #	40.1 #	<1 #	<1 #	<1 #
4-Nitroaniline (aq)	<1 µg/l	TM176		<20 #	<8 #	<1 #	<1 #	<1 #
4-Nitrophenol (aq)	<1 µg/l	TM176		<20	<8	<1	<1	<1
Azobenzene (aq)	<1 µg/l	TM176		<20 #	<8 #	<1 #	<1 #	<1 #
bis(2-Chloroethyl)ether (aq)	<1 µg/l	TM176		<20 #	<8 #	<1 #	<1 #	<1 #
bis(2-Chloroethoxy)methane (aq)	<1 µg/l	TM176		<20 #	<8 #	<1 #	<1 #	<1 #
bis(2-Ethylhexyl) phthalate (aq)	<2 µg/l	TM176		<40 #	<16 #	<2 #	<2 #	<2 #
Butylbenzyl phthalate (aq)	<1 µg/l	TM176		<20 #	<8 #	<1 #	<1 #	<1 #
Carbazole (aq)	<1 µg/l	TM176		<20 #	<8 #	<1 #	<1 #	<1 #
Dibenzofuran (aq)	<1 µg/l	TM176		<20 #	<8 #	<1 #	<1 #	<1 #
n-Dibutyl phthalate (aq)	<1 µg/l	TM176		<20 #	<8 #	<1 #	<1 #	<1 #
Diethyl phthalate (aq)	<1 µg/l	TM176		<20 #	<8 #	<1 #	<1 #	<1 #

Validated

CERTIFICATE OF ANALYSIS

SDG:	201204-111	**Client Reference:**	LD10162	**Report Number:**	601714
Location:	Ten Acres Lane	**Order Number:**	LD1728	**Superseded Report:**	600162

SVOC MS (W) - Aqueous

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	RH101	RH102	SW01	SW02	SW03
			Depth (m)	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
			Sample Type	Ground Water (GW)	Ground Water (GW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)
			Date Sampled	02/12/2020	02/12/2020	02/12/2020	02/12/2020	02/12/2020
			Sample Time	.	.	.	.	.
			Date Received	04/12/2020	04/12/2020	04/12/2020	04/12/2020	04/12/2020
			SDG Ref	201204-111	201204-111	201204-111	201204-111	201204-111
			Lab Sample No.(s)	23367050	23367006	23367152	23367130	23367087
			AGS Reference					
Dimethyl phthalate (aq)	<1 µg/l	TM176		<20 #	<8 #	<1 #	<1 #	<1 #
n-Dioctyl phthalate (aq)	<5 µg/l	TM176		<100 #	<40 #	<5 #	<5 #	<5 #
Hexachlorobenzene (aq)	<1 µg/l	TM176		<20 #	<8 #	<1 #	<1 #	<1 #
Hexachlorobutadiene (aq)	<1 µg/l	TM176		<20 #	<8 #	<1 #	<1 #	<1 #
Pentachlorophenol (aq)	<1 µg/l	TM176		<20	<8	<1	<1	<1
Phenol (aq)	<1 µg/l	TM176		<20	16.3	<1	<1	<1
n-Nitroso-n-dipropylamine (aq)	<1 µg/l	TM176		<20 #	<8 #	<1 #	<1 #	<1 #
Hexachloroethane (aq)	<1 µg/l	TM176		<20 #	<8 #	<1 #	<1 #	<1 #
Nitrobenzene (aq)	<1 µg/l	TM176		<20 #	<8 #	<1 #	<1 #	<1 #
Isophorone (aq)	<1 µg/l	TM176		<20 #	<8 #	<1 #	<1 #	<1 #
Hexachlorocyclopentadiene (aq)	<1 µg/l	TM176		<20	<8	<1	<1	<1

CERTIFICATE OF ANALYSIS

SDG:	201204-111	**Client Reference:**	LD10162	**Report Number:**	601714
Location:	Ten Acres Lane	**Order Number:**	LD1728	**Superseded Report:**	600162

TPH CWG (W)

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	CP107	CP108	CP109	CP110	CP103 (1)	CP103 (2)
			Depth (m)	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
			Sample Type	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)
			Date Sampled	02/12/2020	02/12/2020	02/12/2020	02/12/2020	02/12/2020	02/12/2020
			Sample Time	.	.	.	.	.	.
			Date Received	04/12/2020	04/12/2020	04/12/2020	04/12/2020	04/12/2020	04/12/2020
			SDG Ref	201204-111	201204-111	201204-111	201204-111	201204-111	201204-111
			Lab Sample No.(s)	23366904	23367032	23366986	23366948	23367170	23366928
			AGS Reference						
GRO Surrogate % recovery**	%	TM245		102	94	101	99	103	91
GRO >C5-C12	<50 µg/l	TM245		<50 #	<50 #	280 #	<50 #	<50 #	<50 #
Methyl tertiary butyl ether (MTBE)	<3 µg/l	TM245		<3 #	<3 #	<3 #	<3 #	<3 #	<3 #
Benzene	<7 µg/l	TM245		<7 #	<7 #	<7 #	<7 #	<7 #	<7 #
Toluene	<4 µg/l	TM245		<4 #	<4 #	<4 #	<4 #	<4 #	<4 #
Ethylbenzene	<5 µg/l	TM245		<5 #	<5 #	<5 #	<5 #	<5 #	<5 #
m,p-Xylene	<8 µg/l	TM245		<8 #	<8 #	<8 #	<8 #	<8 #	<8 #
o-Xylene	<3 µg/l	TM245		<3 #	<3 #	3 #	<3 #	<3 #	<3 #
Sum of detected Xylenes	<11 µg/l	TM245		<11	<11	<11	<11	<11	<11
Sum of detected BTEX	<28 µg/l	TM245		<28	<28	<28	<28	<28	<28
Aliphatics >C5-C6	<10 µg/l	TM245		<10	<10	<10	<10	<10	<10
Aliphatics >C6-C8	<10 µg/l	TM245		<10	<10	22	<10	<10	<10
Aliphatics >C8-C10	<10 µg/l	TM245		<10	<10	25	<10	<10	<10
Aliphatics >C10-C12	<10 µg/l	TM245		<10	<10	117	<10	<10	<10
Aliphatics >C12-C16 (aq)	<10 µg/l	TM174		<10	<10	<20	<10	<10	<10
Aliphatics >C16-C21 (aq)	<10 µg/l	TM174		<10	<10	28	14	<10	<10
Aliphatics >C21-C35 (aq)	<10 µg/l	TM174		<10	<10	147	213	<10	<10
Total Aliphatics >C12-C35 (aq)	<10 µg/l	TM174		<10	<10	175	227	<10	<10
Aromatics >EC5-EC7	<10 µg/l	TM245		<10	<10	<10	<10	<10	<10
Aromatics >EC7-EC8	<10 µg/l	TM245		<10	<10	<10	<10	<10	<10
Aromatics >EC8-EC10	<10 µg/l	TM245		<10	<10	26	<10	<10	<10
Aromatics >EC10-EC12	<10 µg/l	TM245		<10	<10	78	<10	<10	<10
Aromatics >EC12-EC16 (aq)	<10 µg/l	TM174		25	<10	101	<10	19	<10
Aromatics >EC16-EC21 (aq)	<10 µg/l	TM174		16	<10	112	24	14	<10
Aromatics >EC21-EC35 (aq)	<10 µg/l	TM174		34	<10	<20	149	<10	<10
Total Aromatics >EC12-EC35 (aq)	<10 µg/l	TM174		75	<10	213	173	33	<10
Total Aliphatics & Aromatics >C5-35 (aq)	<10 µg/l	TM174		101	<10	669	400	33	<10
Aliphatics >C16-C35 Aqueous	<10 µg/l	TM174		<10	<10	175	227	<10	<10

CERTIFICATE OF ANALYSIS

SDG:	201204-111	**Client Reference:**	LD10162	**Report Number:**	601714
Location:	Ten Acres Lane	**Order Number:**	LD1728	**Superseded Report:**	600162

TPH CWG (W)

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	RH101	RH102	SW01	SW02	SW03
			Depth (m)	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
			Sample Type	Ground Water (GW)	Ground Water (GW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)
			Date Sampled	02/12/2020	02/12/2020	02/12/2020	02/12/2020	02/12/2020
			Sample Time	.	.	.	.	.
			Date Received	04/12/2020	04/12/2020	04/12/2020	04/12/2020	04/12/2020
			SDG Ref	201204-111	201204-111	201204-111	201204-111	201204-111
			Lab Sample No.(s)	23367050	23367006	23367152	23367130	23367087
			AGS Reference					
GRO Surrogate % recovery**	%	TM245		94	89	103	102	110
GRO >C5-C12	<50 µg/l	TM245		<50 #	88 #	<50 #	<50 #	<50 #
Methyl tertiary butyl ether (MTBE)	<3 µg/l	TM245		<3 #	<3 #	<3 #	<3 #	<3 #
Benzene	<7 µg/l	TM245		<7 #	<7 #	<7 #	<7 #	<7 #
Toluene	<4 µg/l	TM245		<4 #	<4 #	<4 #	<4 #	<4 #
Ethylbenzene	<5 µg/l	TM245		<5 #	<5 #	<5 #	<5 #	<5 #
m,p-Xylene	<8 µg/l	TM245		<8 #	<8 #	<8 #	<8 #	<8 #
o-Xylene	<3 µg/l	TM245		<3 #	<3 #	<3 #	<3 #	<3 #
Sum of detected Xylenes	<11 µg/l	TM245		<11	<11	<11	<11	<11
Sum of detected BTEX	<28 µg/l	TM245		<28	<28	<28	<28	<28
Aliphatics >C5-C6	<10 µg/l	TM245		<10	14	<10	<10	<10
Aliphatics >C6-C8	<10 µg/l	TM245		<10	16	<10	<10	<10
Aliphatics >C8-C10	<10 µg/l	TM245		<10	<10	<10	<10	<10
Aliphatics >C10-C12	<10 µg/l	TM245		<10	23	<10	<10	<10
Aliphatics >C12-C16 (aq)	<10 µg/l	TM174		<50	<10	<10	<10	<10
Aliphatics >C16-C21 (aq)	<10 µg/l	TM174		<50	<10	<10	<10	<10
Aliphatics >C21-C35 (aq)	<10 µg/l	TM174		<50	<10	<10	<10	<10
Total Aliphatics >C12-C35 (aq)	<10 µg/l	TM174		<50	<10	<10	<10	<10
Aromatics >EC5-EC7	<10 µg/l	TM245		<10	<10	<10	<10	<10
Aromatics >EC7-EC8	<10 µg/l	TM245		<10	<10	<10	<10	<10
Aromatics >EC8-EC10	<10 µg/l	TM245		<10	<10	<10	<10	<10
Aromatics >EC10-EC12	<10 µg/l	TM245		<10	15	<10	<10	<10
Aromatics >EC12-EC16 (aq)	<10 µg/l	TM174		<50	<10	<10	<10	<10
Aromatics >EC16-EC21 (aq)	<10 µg/l	TM174		<50	<10	<10	<10	<10
Aromatics >EC21-EC35 (aq)	<10 µg/l	TM174		<50	<10	23	<10	<10
Total Aromatics >EC12-EC35 (aq)	<10 µg/l	TM174		<50	<10	23	<10	<10
Total Aliphatics & Aromatics >C5-35 (aq)	<10 µg/l	TM174		<10	88	23	<10	<10
Aliphatics >C16-C35 Aqueous	<10 µg/l	TM174		<50	<10	<10	<10	<10

CERTIFICATE OF ANALYSIS

SDG:	201204-111	**Client Reference:**	LD10162	**Report Number:**	601714
Location:	Ten Acres Lane	**Order Number:**	LD1728	**Superseded Report:**	600162

VOC MS (W)

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	CP107	CP108	CP109	CP110	CP103 (1)	CP103 (2)
			Depth (m)	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
			Sample Type	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)
			Date Sampled	02/12/2020	02/12/2020	02/12/2020	02/12/2020	02/12/2020	02/12/2020
			Sample Time	-	-	-	-	-	-
			Date Received	04/12/2020	04/12/2020	04/12/2020	04/12/2020	04/12/2020	04/12/2020
			SDG Ref	201204-111	201204-111	201204-111	201204-111	201204-111	201204-111
			Lab Sample No.(s)	23366904	23367032	23366986	23366948	23367170	23366928
			AGS Reference						
Dibromofluoromethane**	%	TM208		110	111	105	112	108	112
Toluene-d8**	%	TM208		98.2	98.8	98	98.2	98.4	97.9
4-Bromofluorobenzene**	%	TM208		95.6	96.2	99.6	97.2	100	96
Dichlorodifluoromethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Chloromethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Vinyl chloride	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Bromomethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Chloroethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Trichlorofluoromethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,1-Dichloroethene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Carbon disulphide	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Dichloromethane	<3 µg/l	TM208		<3 #	<3 #	<3 #	<3 #	<3 #	<3 #
Methyl tertiary butyl ether (MTBE)	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
trans-1,2-Dichloroethene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,1-Dichloroethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
cis-1,2-Dichloroethene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
2,2-Dichloropropane	<1 µg/l	TM208		<1	<1	<1	<1	<1	<1
Bromochloromethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Chloroform	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,1,1-Trichloroethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,1-Dichloropropene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Carbontetrachloride	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,2-Dichloroethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Benzene	<1 µg/l	TM208		<1 #	<1 #	3.06 #	<1 #	<1 #	<1 #
Trichloroethene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,2-Dichloropropane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Dibromomethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Bromodichloromethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
cis-1,3-Dichloropropene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Toluene	<1 µg/l	TM208		<1 #	<1 #	2.44 #	<1 #	<1 #	<1 #
trans-1,3-Dichloropropene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,1,2-Trichloroethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,3-Dichloropropane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #

CERTIFICATE OF ANALYSIS

SDG:	201204-111	**Client Reference:**	LD10162	**Report Number:**	601714
Location:	Ten Acres Lane	**Order Number:**	LD1728	**Superseded Report:**	600162

VOC MS (W)

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	CP107	CP108	CP109	CP110	CP103 (1)	CP103 (2)
			Depth (m)	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
			Sample Type	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)
			Date Sampled	02/12/2020	02/12/2020	02/12/2020	02/12/2020	02/12/2020	02/12/2020
			Sample Time	.	.	.	.	.	.
			Date Received	04/12/2020	04/12/2020	04/12/2020	04/12/2020	04/12/2020	04/12/2020
			SDG Ref	201204-111	201204-111	201204-111	201204-111	201204-111	201204-111
			Lab Sample No.(s)	23366904	23367032	23366986	23366948	23367170	23366928
			AGS Reference						
Tetrachloroethene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Dibromochloromethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,2-Dibromoethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Chlorobenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,1,1,2-Tetrachloroethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Ethylbenzene	<1 µg/l	TM208		<1 #	<1 #	1.95 #	<1 #	<1 #	<1 #
m,p-Xylene	<1 µg/l	TM208		<1 #	<1 #	3.39 #	<1 #	<1 #	<1 #
o-Xylene	<1 µg/l	TM208		<1 #	<1 #	2.66 #	<1 #	<1 #	<1 #
Styrene	<1 µg/l	TM208		<1 #	<1 #	1.83 #	<1 #	<1 #	<1 #
Bromoform	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Isopropylbenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,1,2,2-Tetrachloroethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,2,3-Trichloropropane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Bromobenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Propylbenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
2-Chlorotoluene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,3,5-Trimethylbenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
4-Chlorotoluene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
tert-Butylbenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,2,4-Trimethylbenzene	<1 µg/l	TM208		<1 #	<1 #	1.41 #	<1 #	<1 #	<1 #
sec-Butylbenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
4-iso-Propyltoluene	<1 µg/l	TM208		1.17 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,3-Dichlorobenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,4-Dichlorobenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
n-Butylbenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,2-Dichlorobenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,2-Dibromo-3-chloropropane	<1 µg/l	TM208		<1	<1	<1	<1	<1	<1
1,2,4-Trichlorobenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Hexachlorobutadiene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
tert-Amyl methyl ether (TAME)	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Naphthalene	<1 µg/l	TM208		<1 #	<1 #	4.3 #	<1 #	1.37 #	<1 #
1,2,3-Trichlorobenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,3,5-Trichlorobenzene	<1 µg/l	TM208		<1	<1	<1	<1	<1	<1

CERTIFICATE OF ANALYSIS

SDG:	201204-111	**Client Reference:**	LD10162	**Report Number:**	601714
Location:	Ten Acres Lane	**Order Number:**	LD1728	**Superseded Report:**	600162

VOC MS (W)

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	RH101	RH102	SW01	SW02	SW03
			Depth (m)	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
			Sample Type	Ground Water (GW)	Ground Water (GW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)
			Date Sampled	02/12/2020	02/12/2020	02/12/2020	02/12/2020	02/12/2020
			Sample Time	-	-	-	-	-
			Date Received	04/12/2020	04/12/2020	04/12/2020	04/12/2020	04/12/2020
			SDG Ref	201204-111	201204-111	201204-111	201204-111	201204-111
			Lab Sample No.(s)	23367050	23367006	23367152	23367130	23367087
			AGS Reference					
Dibromofluoromethane**	%	TM208		113	112	109	107	104
Toluene-d8**	%	TM208		97.9	98.1	98.4	98.5	98.5
4-Bromofluorobenzene**	%	TM208		97.1	95.5	99.6	98.4	98.3
Dichlorodifluoromethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
Chloromethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
Vinyl chloride	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
Bromomethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
Chloroethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
Trichlorofluoromethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
1,1-Dichloroethene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
Carbon disulphide	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
Dichloromethane	<3 µg/l	TM208		<3 #	<3 #	<3 #	<3 #	<3 #
Methyl tertiary butyl ether (MTBE)	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
trans-1,2-Dichloroethene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
1,1-Dichloroethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
cis-1,2-Dichloroethene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
2,2-Dichloropropane	<1 µg/l	TM208		<1	<1	<1	<1	<1
Bromochloromethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
Chloroform	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
1,1,1-Trichloroethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
1,1-Dichloropropene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
Carbontetrachloride	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
1,2-Dichloroethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
Benzene	<1 µg/l	TM208		<1 #	1.82 #	<1 #	<1 #	<1 #
Trichloroethene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
1,2-Dichloropropane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
Dibromomethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
Bromodichloromethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
cis-1,3-Dichloropropene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
Toluene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
trans-1,3-Dichloropropene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
1,1,2-Trichloroethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
1,3-Dichloropropane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #

CERTIFICATE OF ANALYSIS

SDG:	201204-111	**Client Reference:**	LD10162	**Report Number:**	601714
Location:	Ten Acres Lane	**Order Number:**	LD1728	**Superseded Report:**	600162

VOC MS (W)

Results Legend	
#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	RH101	RH102	SW01	SW02	SW03
			Depth (m)	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
			Sample Type	Ground Water (GW)	Ground Water (GW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)
			Date Sampled	02/12/2020	02/12/2020	02/12/2020	02/12/2020	02/12/2020
			Sample Time	.	.	.	.	.
			Date Received	04/12/2020	04/12/2020	04/12/2020	04/12/2020	04/12/2020
			SDG Ref	201204-111	201204-111	201204-111	201204-111	201204-111
			Lab Sample No.(s)	23367050	23367006	23367152	23367130	23367087
			AGS Reference					
Tetrachloroethene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
Dibromochloromethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
1,2-Dibromoethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
Chlorobenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
1,1,1,2-Tetrachloroethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
Ethylbenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
m,p-Xylene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
o-Xylene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
Styrene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
Bromoform	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
Isopropylbenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
1,1,2,2-Tetrachloroethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
1,2,3-Trichloropropane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
Bromobenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
Propylbenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
2-Chlorotoluene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
1,3,5-Trimethylbenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
4-Chlorotoluene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
tert-Butylbenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
1,2,4-Trimethylbenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
sec-Butylbenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
4-iso-Propyltoluene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
1,3-Dichlorobenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
1,4-Dichlorobenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
n-Butylbenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
1,2-Dichlorobenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
1,2-Dibromo-3-chloropropane	<1 µg/l	TM208		<1	<1	<1	<1	<1
1,2,4-Trichlorobenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
Hexachlorobutadiene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
tert-Amyl methyl ether (TAME)	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
Naphthalene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
1,2,3-Trichlorobenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
1,3,5-Trichlorobenzene	<1 µg/l	TM208		<1	<1	<1	<1	<1

Table of Results - Appendix

Method No	Reference	Description
TM043	Method 2320B, AWWA/APHA, 20th Ed., 1999 / BS 2690: Part109 1984	Determination of alkalinity in aqueous samples
TM090	Method 5310, AWWA/APHA, 20th Ed., 1999 / Modified: US EPA Method 415.1 & 9060	Determination of Total Organic Carbon/Total Inorganic Carbon in Water and Waste Water
TM101	Method 4500B & C, AWWA/APHA, 20th Ed., 1999	Determination of Sulphide in soil and water samples using the Kone Analyser
TM110	BS 1377: Part 3 1990	Redox Potential
TM152	Method 3125B, AWWA/APHA, 20th Ed., 1999	Analysis of Aqueous Samples by ICP-MS
TM174	Analysis of Petroleum Hydrocarbons in Environmental Media – Total Petroleum Hydrocarbon Criteria	Determination of Speciated Extractable Petroleum Hydrocarbons in Waters by GC-FID
TM176	EPA 8270D Semi-Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)	Determination of SVOCs in Water by GCMS
TM178	Modified: US EPA Method 8100	Determination of Polynuclear Aromatic Hydrocarbons (PAH) by GC-MS in Waters
TM183	BS EN 23506:2002, (BS 6068-2.74:2002) ISBN 0 580 38924 3	Determination of Trace Level Mercury in Waters and Leachates by PSA Cold Vapour Atomic Fluorescence Spectrometry
TM184	EPA Methods 325.1 & 325.2,	The Determination of Anions in Aqueous Matrices using the Kone Spectrophotometric Analysers
TM208	Modified: US EPA Method 8260b & 624	Determination of Volatile Organic Compounds by Headspace / GC-MS in Waters
TM227	Standard methods for the examination of waters and wastewaters 20th Edition, AWWA/APHA Method 4500.	Determination of Total Cyanide, Free (Easily Liberatable) Cyanide and Thiocyanate
TM241	Methods for the Examination of Waters and Associated Materials; Chromium in Raw and Potable Waters and Sewage Effluents 1980.	The Determination of Hexavalent Chromium in Waters and Leachates using the Kone Analyser
TM245	By GC-FID	Determination of GRO by Headspace in waters

NA = not applicable.

Chemical testing (unless subcontracted) performed at ALS Life Sciences Ltd Hawarden (Method codes TM) or ALS Life Sciences Ltd Aberdeen (Method codes S).

CERTIFICATE OF ANALYSIS

SDG:	201204-111	**Client Reference:**	LD10162	**Report Number:**	601714
Location:	Ten Acres Lane	**Order Number:**	LD1728	**Superseded Report:**	600162

Test Completion Dates

Lab Sample No(s)	23366904	23367032	23366986	23366948	23367170	23366928	23367050	23367006	23367152	23367130
Customer Sample Ref.	CP107	CP108	CP109	CP110	CP103 (1)	CP103 (2)	RH101	RH102	SW01	SW02
AGS Ref.										
Depth	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Type	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water	Surface Water	Surface Water
Alkalinity as CaCO3	09-Dec-2020	09-Dec-2020	10-Dec-2020	09-Dec-2020	09-Dec-2020	09-Dec-2020	09-Dec-2020	09-Dec-2020	09-Dec-2020	09-Dec-2020
Anions by Kone (w)	09-Dec-2020	09-Dec-2020	11-Dec-2020	09-Dec-2020	09-Dec-2020	09-Dec-2020	09-Dec-2020	11-Dec-2020	11-Dec-2020	09-Dec-2020
Cyanide Comp/Free/Total/Thiocyanate	08-Dec-2020	08-Dec-2020	08-Dec-2020	09-Dec-2020	08-Dec-2020	09-Dec-2020	09-Dec-2020	09-Dec-2020	08-Dec-2020	08-Dec-2020
Dissolved Metals by ICP-MS	10-Dec-2020	10-Dec-2020	10-Dec-2020	10-Dec-2020	11-Dec-2020	10-Dec-2020	10-Dec-2020	10-Dec-2020	11-Dec-2020	11-Dec-2020
Dissolved Organic/Inorganic Carbon	09-Dec-2020	08-Dec-2020	09-Dec-2020	08-Dec-2020	08-Dec-2020	09-Dec-2020	08-Dec-2020	08-Dec-2020	08-Dec-2020	08-Dec-2020
EPH CWG (Aliphatic) Aqueous GC (W)	11-Dec-2020	11-Dec-2020	11-Dec-2020	11-Dec-2020	11-Dec-2020	10-Dec-2020	11-Dec-2020	11-Dec-2020	11-Dec-2020	10-Dec-2020
EPH CWG (Aromatic) Aqueous GC (W)	11-Dec-2020	11-Dec-2020	11-Dec-2020	11-Dec-2020	11-Dec-2020	10-Dec-2020	11-Dec-2020	11-Dec-2020	11-Dec-2020	10-Dec-2020
GRO by GC-FID (W)	08-Dec-2020	09-Dec-2020	09-Dec-2020	09-Dec-2020	09-Dec-2020	09-Dec-2020	08-Dec-2020	09-Dec-2020	09-Dec-2020	09-Dec-2020
Hexavalent Chromium (w)	08-Dec-2020	08-Dec-2020	08-Dec-2020	08-Dec-2020	08-Dec-2020	08-Dec-2020	08-Dec-2020	08-Dec-2020	08-Dec-2020	08-Dec-2020
Mercury Dissolved	07-Dec-2020	08-Dec-2020	07-Dec-2020	08-Dec-2020	07-Dec-2020	08-Dec-2020	08-Dec-2020	08-Dec-2020	07-Dec-2020	07-Dec-2020
PAH Spec MS - Aqueous (W)	10-Dec-2020	10-Dec-2020	10-Dec-2020	10-Dec-2020	10-Dec-2020	01-Jun-2021	11-Dec-2020	01-Jun-2021	10-Dec-2020	10-Dec-2020
Redox Potential	09-Dec-2020	09-Dec-2020	09-Dec-2020	09-Dec-2020	09-Dec-2020	09-Dec-2020	09-Dec-2020	09-Dec-2020	09-Dec-2020	09-Dec-2020
Sulphide	10-Dec-2020	10-Dec-2020	10-Dec-2020	10-Dec-2020	10-Dec-2020	10-Dec-2020	10-Dec-2020	10-Dec-2020	10-Dec-2020	10-Dec-2020
SVOC MS (W) - Aqueous	09-Dec-2020	09-Dec-2020	09-Dec-2020	09-Dec-2020	09-Dec-2020	11-Dec-2020	09-Dec-2020	09-Dec-2020	09-Dec-2020	09-Dec-2020
TPH CWG (W)	11-Dec-2020	11-Dec-2020	11-Dec-2020	11-Dec-2020	11-Dec-2020	10-Dec-2020	11-Dec-2020	11-Dec-2020	11-Dec-2020	10-Dec-2020
VOC MS (W)	08-Dec-2020	08-Dec-2020	09-Dec-2020	08-Dec-2020	09-Dec-2020	08-Dec-2020	08-Dec-2020	08-Dec-2020	09-Dec-2020	09-Dec-2020

Lab Sample No(s)	23367087
Customer Sample Ref.	SW03
AGS Ref.	
Depth	0.00 - 0.00
Type	Surface Water
Alkalinity as CaCO3	09-Dec-2020
Anions by Kone (w)	09-Dec-2020
Cyanide Comp/Free/Total/Thiocyanate	08-Dec-2020
Dissolved Metals by ICP-MS	11-Dec-2020
Dissolved Organic/Inorganic Carbon	08-Dec-2020
EPH CWG (Aliphatic) Aqueous GC (W)	10-Dec-2020
EPH CWG (Aromatic) Aqueous GC (W)	10-Dec-2020
GRO by GC-FID (W)	09-Dec-2020
Hexavalent Chromium (w)	08-Dec-2020
Mercury Dissolved	07-Dec-2020
PAH Spec MS - Aqueous (W)	10-Dec-2020
Redox Potential	09-Dec-2020
Sulphide	10-Dec-2020
SVOC MS (W) - Aqueous	09-Dec-2020
TPH CWG (W)	10-Dec-2020
VOC MS (W)	09-Dec-2020

ALS Environmental, Land	Issue No. 4
	Date: 03/03/2020
QF.7.5.1 Data Amendments Form	Issued and Authorised by Quality Manager

SDG	Sample Event	Sample ID	Date Amended	Amendment Reason	Analysis/Component	Authorised (Lab Manager)	Previous Value	New Value	Units	Supersedes Report
201204-111	23378270	CP103	01/06/2021	Analytical/Quality Issue	PAH EPAMS Acenaphthylene	Geraint Pumford	1.71	0.013177	µg/L	600162
201204-111	23376759	RH102	01/06/2021	Analytical/Quality Issue	PAH EPAMS Acenaphthylene	Geraint Pumford	2.71	0.02752	µg/L	600162

Appendix General

1. Results are expressed on a dry weight basis (dried at 35ºC) for all soil analyses except for the following: NRA and CEN Leach tests, flash point LOI, pH, ammonium as NH4 by the BRE method, VOC TICs and SVOC TICs.

2. If sufficient sample is received a sub sample will be retained free of charge for 30 days after analysis is completed (e-mailed) for all sample types unless the sample is destroyed on testing. The prepared soil sub sample that is analysed for asbestos will be retained for a period of 6 months after the analysis date. All bulk samples will be retained for a period of 6 months after the analysis date. All samples received and not scheduled will be disposed of one month after the date of receipt unless we are instructed to the contrary. Once the initial period has expired, a storage charge will be applied for each month or part thereof until the client cancels the request for sample storage. ALS reserve the right to charge for samples received and stored but not analysed.

3. With respect to turnaround, we will always endeavour to meet client requirements wherever possible, but turnaround times cannot be absolutely guaranteed due to so many variables beyond our control.

4. We take responsibility for any test performed by sub-contractors (marked with an asterisk). We endeavour to use UKAS/MCERTS Accredited Laboratories, who either complete a quality questionnaire or are audited by ourselves. For some determinands there are no UKAS/MCERTS Accredited Laboratories, in this instance a laboratory with a known track record will be utilised.

5. If no separate volatile sample is supplied by the client, or if a headspace or sediment is present in the volatile sample, the integrity of the data may be compromised. This will be flagged up as an invalid VOC on the test schedule and the result marked as deviating on the test certificate.

6. NDP - No determination possible due to insufficient/unsuitable sample.

7. Results relate only to the items tested.

8. LoDs (Limit of Detection) for wet tests reported on a dry weight basis are not corrected for moisture content.

9. **Surrogate recoveries** - Surrogates are added to your sample to monitor recovery of the test requested. A % recovery is reported, results are not corrected for the recovery measured. Typical recoveries for organics tests are 70-130%. Recoveries in soils are affected by organic rich or clay rich matrices. Waters can be affected by remediation fluids or high amounts of sediment. Test results are only ever reported if all of the associated quality checks pass; it is assumed that all recoveries outside of the values above are due to matrix affect.

10. Stones/debris are not routinely removed. We always endeavour to take a representative sub sample from the received sample.

11. In certain circumstances the method detection limit may be elevated due to the sample being outside the calibration range. Other factors that may contribute to this include possible interferences. In both cases the sample would be diluted which would cause the method detection limit to be raised.

12. Mercury results quoted on soils will not include volatile mercury as the analysis is performed on a dried and crushed sample.

13. For leachate preparations other than Zero Headspace Extraction (ZHE) volatile loss may occur.

14. For the BSEN 12457-3 two batch process to allow the cumulative release to be calculated, the volume of the leachate produced is measured and filtered for all tests. We therefore cannot carry out any unfiltered analysis. The tests affected include volatiles GCFID/GCMS and all subcontracted analysis.

15. Analysis and identification of specific compounds using GCFID is by retention time only, and we routinely calibrate and quantify for benzene, toluene, ethylbenzenes and xylenes (BTEX). For total volatiles in the C5-C12 range, the total area of the chromatogram is integrated and expressed as ug/kg or ug/l. Although this analysis is commonly used for the quantification of gasoline range organics (GRO), the system will also detect other compounds such as chlorinated solvents, and this may lead to a falsely high result with respect to hydrocarbons only. It is not possible to specifically identify these non-hydrocarbons, as standards are not routinely run for any other compounds, and for more definitive identification, volatiles by GCMS should be utilised.

16. We are accredited to MCERTS for sand, clay and loam/topsoil, or any of these materials - whether these are derived from naturally occurring soil profiles, or from fill/made ground, as long as these materials constitute the major part of the sample. Other coarse granular material such as concrete, gravel and brick are not accredited if they comprise the major part of the sample.

17. **Tentatively Identified Compounds (TICs)** are non-target peaks in VOC and SVOC analysis. All non-target peaks detected with a concentration above the LoD are subjected to a mass spectral library search. Non-target peaks with a library search confidence of >75% are reported based on the best mass spectral library match. When a non-target peak with a library search confidence of <75% is detected it is reported as "mixed hydrocarbons". Non-target compounds identified from the scan data are semi-quantified relative to one of the deuterated internal standards, under the same chromatographic conditions as the target compounds. This result is reported as a semi-quantitative value and reported as Tentatively Identified Compounds (TICs). TICs are outside the scope of UKAS accreditation and are not moisture corrected.

18. **Sample Deviations**

If a sample is classed as deviated then the associated results may be compromised.

1	**Container with Headspace provided for volatiles analysis**
2	**Incorrect container received**
3	**Deviation from method**
4	**Matrix interference**
♦	**Sample holding time exceeded in laboratory**
@	**Sample holding time exceeded due to late arrival of instructions or samples**
§	**Sampled on date not provided**

19. **Asbestos**

When requested, the individual sub sample scheduled will be analysed in house for the presence of asbestos fibres and asbestos containing material by our documented in house method TM048 based on HSG 248 (2005), which is accredited to ISO17025. If a specific asbestos fibre type is not found this will be reported as "Not detected". If no asbestos fibre types are found all will be reported as "Not detected" and the sub sample analysed deemed to be clear of asbestos. If an asbestos fibre type is found it will be reported as detected (for each fibre type found). Testing can be carried out on asbestos positive samples, but, due to Health and Safety considerations, may be replaced by alternative tests or reported as No Determination Possible (NDP). The quantity of asbestos present is not determined unless specifically requested.

Identification of Asbestos in Bulk Materials & Soils

The results for identification of asbestos in bulk materials are obtained from supplied bulk materials which have been examined to determine the presence of asbestos fibres using ALS (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining, based on HSG 248 (2005).

The results for identification of asbestos in soils are obtained from a homogenised sub sample which has been examined to determine the presence of asbestos fibres using ALS (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining, based on HSG 248 (2005).

Asbestos Type	Common Name
Chrysotile	White Asbestos
Amosite	Brown Asbestos
Crocidolite	Blue Asbestos
Fibrous Actinolite	-
Fibrous Anthophyllite	-
Fibrous Tremolite	-

Visual Estimation Of Fibre Content

Estimation of fibre content is not permitted as part of our UKAS accredited test other than: - Trace - Where only one or two asbestos fibres were identified.

Respirable Fibres

Respirable fibres are defined as fibres of <3 µm diameter, longer than 5 µm and with aspect ratios of at least 3:1 that can be inhaled into the lower regions of the lung and are generally acknowledged to be most important predictor of hazard and risk for cancers of the lung.
Standing Committee of Analysts, *The Quantification of Asbestos in Soil (2017).*

Further guidance on typical asbestos fibre content of manufactured products can be found in HSG 264.

The identification of asbestos containing materials and soils falls within our schedule of tests for which we hold UKAS accreditation, however opinions, interpretations and all other information contained in the report are outside the scope of UKAS accreditation.

Unit 7-8 Hawarden Business Park
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Hawarden
Deeside
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Tel: (01244) 528700
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Website: www.alsenvironmental.co.uk

Wardell Armstrong LLP
36 Park Row
Leeds
LS1 5JL

Attention: Jonathan Currie

CERTIFICATE OF ANALYSIS

Date of report Generation:	15 December 2020
Customer:	Wardell Armstrong LLP
Sample Delivery Group (SDG):	201207-11
Your Reference:	LD10162
Location:	Ten Acres Lane
Report No:	579951

This report has been revised and directly supersedes 579950 in its entirety.

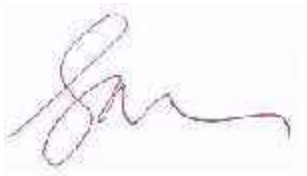
We received 1 sample on Sunday December 06, 2020 and 1 of these samples were scheduled for analysis which was completed on Monday December 14, 2020. Accredited laboratory tests are defined within the report, but opinions, interpretations and on-site data expressed herein are outside the scope of ISO 17025 accreditation.

Should this report require incorporation into client reports, it must be used in its entirety and not simply with the data sections alone.

Chemical testing (unless subcontracted) performed at ALS Life Sciences Ltd Hawarden (Method codes TM) or ALS Life Sciences Ltd Aberdeen (Method codes S).

All sample data is provided by the customer. The reported results relate to the sample supplied, and on the basis that this data is correct.
Incorrect sampling dates and/or sample information will affect the validity of results.
The customer is not permitted to reproduce this report except in full without the approval of the laboratory.

Approved By:



Sonia McWhan

Operations Manager

CERTIFICATE OF ANALYSIS

SDG:	201207-11	**Client Reference:**	LD10162	**Report Number:**	579951
Location:	Ten Acres Lane	**Order Number:**	LD1732	**Superseded Report:**	579950

Received Sample Overview

Lab Sample No(s)	Customer Sample Ref.	AGS Ref.	Depth (m)	Sampled Date
23379646	RH108		0.00 - 0.00	04/12/2020

Only received samples which have had analysis scheduled will be shown on the following pages.

Validated

CERTIFICATE OF ANALYSIS

SDG:	201207-11	**Client Reference:**	LD10162	**Report Number:**	579951
Location:	Ten Acres Lane	**Order Number:**	LD1732	**Superseded Report:**	579950

Results Legend

X Test

N No Determination Possible

Sample Types -

S - Soil/Solid
UNS - Uns9ecified Solid
GW - Ground Water
SW - Surface Water
LE - Land Leachate
PL - Pre9ared Leachate
PR - Process Water
SA - Saline Water
TE - Trade Effluent
TS - Treated Sewage
US - Untreated Sewage
RE - Recreational Water
DW - Drinking Water Non-regulatory
UNL - Unspecified Liquid
SL - Sludge
G - Gas
OTH - Other

Lab Sample No(s)			23379646					
Customer Sample Reference			RH108					
AGS Reference								
Depth (m)			0.00 - 0.00					
Container			0.5l glass bottle (ALE227)	500ml Plastic (ALE208)	NaOH (ALE245)	Vial (ALE297)	ZnAc (ALE246)
Sample Type			GW	GW	GW	GW	GW
Alkalinity as CaCO3	All	NDPs: 0 Tests: 1		X			
Anions by Kone (w)	All	NDPs: 0 Tests: 1		X			
Cyanide Comp/Free/Total/Thiocyanate	All	NDPs: 0 Tests: 1			X		
Dissolved Metals by ICP-MS	All	NDPs: 0 Tests: 1		X			
Dissolved Organic/Inorganic Carbon	All	NDPs: 0 Tests: 1	X				
EPH CWG (Aliphatic) Aqueous GC (W)	All	NDPs: 0 Tests: 1	X				
EPH CWG (Aromatic) Aqueous GC (W)	All	NDPs: 0 Tests: 1	X				
GRO by GC-FID (W)	All	NDPs: 0 Tests: 1				X	
Hexavalent Chromium (w)	All	NDPs: 0 Tests: 1		X			
Mercury Dissolved	All	NDPs: 0 Tests: 1		X			
PAH Spec MS - Aqueous (W)	All	NDPs: 0 Tests: 1	X				
Redox Potential	All	NDPs: 0 Tests: 1	X				
Sulphide	All	NDPs: 0 Tests: 1					X
SVOC MS (W) - Aqueous	All	NDPs: 0 Tests: 1	X				
TPH CWG (W)	All	NDPs: 0 Tests: 1	X				

Validated

CERTIFICATE OF ANALYSIS

SDG:	201207-11	**Client Reference:**	LD10162	**Report Number:**	579951
Location:	Ten Acres Lane	**Order Number:**	LD1732	**Superseded Report:**	579950

Results Legend

X **Test**

N **No Determination Possible**

Sample Types -
S - Soil/Solid
UNS - Uns9ecified Solid
GW - Ground Water
SW - Surface Water
LE - Land Leachate
PL - Pre9ared Leachate
PR - Process Water
SA - Saline Water
TE - Trade Effluent
TS - Treated Sewage
US - Untreated Sewage
RE - Recreational Water
DW - Drinking Water Non-regulatory
UNL - Unspecified Liquid
SL - Sludge
G - Gas
OTH - Other

Lab Sample No(s)			23379646				
Customer Sample Reference			RH108				
AGS Reference							
Depth (m)			0.00 - 0.00				
Container			0.5l glass bottle (ALE227)	500ml Plastic (ALE208)	NaOH (ALE245)	Vial (ALE297)	ZnAc (ALE246)
Sample Type			GW	GW	GW	GW	GW
VOC MS (W)	All	NDPs: 0 Tests: 1				X	

Validated

CERTIFICATE OF ANALYSIS

SDG:	201207-11	**Client Reference:**	LD10162	**Report Number:**	579951
Location:	Ten Acres Lane	**Order Number:**	LD1732	**Superseded Report:**	579950

Results Legend	
#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+§@	Sample deviation (see appendix)

Customer Sample Ref.	RH108
Depth (m)	0.00 - 0.00
Sample Type	Ground Water (GW)
Date Sampled	04/12/2020
Sample Time	-
Date Received	06/12/2020
SDG Ref	201207-11
Lab Sample No.(s)	23379646
AGS Reference	

Component	LOD/Units	Method	
Alkalinity, Total as CaCO3	<2 mg/l	TM043	1400 #
Carbon, Organic (diss.filt)	<3 mg/l	TM090	6.93
Sulphide	<0.01 mg/l	TM101	<0.01 #
Redox potential	mV	TM110	150
Arsenic (diss.filt)	<0.5 µg/l	TM152	0.829 2 #
Boron (diss.filt)	<10 µg/l	TM152	456 2 #
Cadmium (diss.filt)	<0.08 µg/l	TM152	0.304 2 #
Chromium (diss.filt)	<1 µg/l	TM152	<1 2 #
Copper (diss.filt)	<0.3 µg/l	TM152	1.68 2 #
Lead (diss.filt)	<0.2 µg/l	TM152	<0.2 2 #
Manganese (diss.filt)	<3 µg/l	TM152	1230 2 #
Nickel (diss.filt)	<0.4 µg/l	TM152	4.67 2 #
Selenium (diss.filt)	<1 µg/l	TM152	3.63 2 #
Calcium (Dis.Filt)	<0.2 mg/l	TM152	81.3 2 #
Iron (Dis.Filt)	<0.019 mg/l	TM152	<0.019 2 #
Mercury (diss.filt)	<0.01 µg/l	TM183	<0.01 2 #
Sulphate	<2 mg/l	TM184	348 #
Cyanide, Total	<0.05 mg/l	TM227	<0.05 #
Cyanide, Free	<0.05 mg/l	TM227	<0.05 #
Cyanide, Complex	<0.05 mg/l	TM227	<0.05
Thiocyanate	<0.05 mg/l	TM227	<0.05 #
Chromium, Hexavalent	<0.03 mg/l	TM241	<0.03 #

Validated

CERTIFICATE OF ANALYSIS

SDG:	201207-11	**Client Reference:**	LD10162	**Report Number:**	579951
Location:	Ten Acres Lane	**Order Number:**	LD1732	**Superseded Report:**	579950

PAH Spec MS - Aqueous (W)

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+§@	Sample deviation (see appendix)

Customer Sample Ref.	RH108
Depth (m)	0.00 - 0.00
Sample Type	Ground Water (GW)
Date Sampled	04/12/2020
Sample Time	-
Date Received	06/12/2020
SDG Ref	201207-11
Lab Sample No.(s)	23379646
AGS Reference	

Component	LOD/Units	Method	
Naphthalene (aq)	<0.01 µg/l	TM178	1.43 #
Acenaphthene (aq)	<0.005 µg/l	TM178	1.17 #
Acenaphthylene (aq)	<0.005 µg/l	TM178	0.266 #
Fluoranthene (aq)	<0.005 µg/l	TM178	19.7 #
Anthracene (aq)	<0.005 µg/l	TM178	2.9 #
Phenanthrene (aq)	<0.005 µg/l	TM178	11.9 #
Fluorene (aq)	<0.005 µg/l	TM178	1.23 #
Chrysene (aq)	<0.005 µg/l	TM178	21.5 #
Pyrene (aq)	<0.005 µg/l	TM178	19.5 #
Benzo(a)anthracene (aq)	<0.005 µg/l	TM178	19.9 #
Benzo(b)fluoranthene (aq)	<0.005 µg/l	TM178	33.2 #
Benzo(k)fluoranthene (aq)	<0.005 µg/l	TM178	14.9 #
Benzo(a)pyrene (aq)	<0.002 µg/l	TM178	23 #
Dibenzo(a,h)anthracene (aq)	<0.005 µg/l	TM178	4.83 #
Benzo(g,h,i)perylene (aq)	<0.005 µg/l	TM178	23.2 #
Indeno(1,2,3-cd)pyrene (aq)	<0.005 µg/l	TM178	22.1 #
PAH, Total Detected USEPA 16 (aq)	<0.082 µg/l	TM178	221 #

CERTIFICATE OF ANALYSIS

SDG:	201207-11	**Client Reference:**	LD10162	**Report Number:**	579951
Location:	Ten Acres Lane	**Order Number:**	LD1732	**Superseded Report:**	579950

SVOC MS (W) - Aqueous

Results Legend	
#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+§@	Sample deviation (see appendix)

Customer Sample Ref.	RH108
Depth (m)	0.00 - 0.00
Sample Type	Ground Water (GW)
Date Sampled	04/12/2020
Sample Time	-
Date Received	06/12/2020
SDG Ref	201207-11
Lab Sample No.(s)	23379646
AGS Reference	

Component	LOD/Units	Method	
1,2,4-Trichlorobenzene (aq)	<1 µg/l	TM176	<100 #
1,2-Dichlorobenzene (aq)	<1 µg/l	TM176	<100 #
1,3-Dichlorobenzene (aq)	<1 µg/l	TM176	<100 #
1,4-Dichlorobenzene (aq)	<1 µg/l	TM176	<100 #
2,4,5-Trichlorophenol (aq)	<1 µg/l	TM176	<100 #
2,4,6-Trichlorophenol (aq)	<1 µg/l	TM176	<100 #
2,4-Dichlorophenol (aq)	<1 µg/l	TM176	<100 #
2,4-Dimethylphenol (aq)	<1 µg/l	TM176	<100 #
2,4-Dinitrotoluene (aq)	<1 µg/l	TM176	<100 #
2,6-Dinitrotoluene (aq)	<1 µg/l	TM176	<100 #
2-Chloronaphthalene (aq)	<1 µg/l	TM176	<100 #
2-Chlorophenol (aq)	<1 µg/l	TM176	<100 #
2-Methylnaphthalene (aq)	<1 µg/l	TM176	<100 #
2-Methylphenol (aq)	<1 µg/l	TM176	<100 #
2-Nitroaniline (aq)	<1 µg/l	TM176	<100 #
2-Nitrophenol (aq)	<1 µg/l	TM176	<100 #
3-Nitroaniline (aq)	<1 µg/l	TM176	<100 #
4-Bromophenylphenylether (aq)	<1 µg/l	TM176	<100 #
4-Chloro-3-methylphenol (aq)	<1 µg/l	TM176	<100 #
4-Chloroaniline (aq)	<1 µg/l	TM176	<100
4-Chlorophenylphenylether (aq)	<1 µg/l	TM176	<100 #
4-Methylphenol (aq)	<1 µg/l	TM176	<100 #
4-Nitroaniline (aq)	<1 µg/l	TM176	<100 #
4-Nitrophenol (aq)	<1 µg/l	TM176	<100
Azobenzene (aq)	<1 µg/l	TM176	<100 #
bis(2-Chloroethyl)ether (aq)	<1 µg/l	TM176	<100 #
bis(2-Chloroethoxy)methane (aq)	<1 µg/l	TM176	<100 #
bis(2-Ethylhexyl) phthalate (aq)	<2 µg/l	TM176	<200 #
Butylbenzyl phthalate (aq)	<1 µg/l	TM176	<100 #
Carbazole (aq)	<1 µg/l	TM176	<100 #
Dibenzofuran (aq)	<1 µg/l	TM176	<100 #
n-Dibutyl phthalate (aq)	<1 µg/l	TM176	<100 #
Diethyl phthalate (aq)	<1 µg/l	TM176	<100 #

Validated

CERTIFICATE OF ANALYSIS

SDG:	201207-11	**Client Reference:**	LD10162	**Report Number:**	579951
Location:	Ten Acres Lane	**Order Number:**	LD1732	**Superseded Report:**	579950

SVOC MS (W) - Aqueous

Results Legend	
#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	Depth (m)	Sample Type	Date Sampled	Sample Time	Date Received	SDG Ref	Lab Sample No.(s)	AGS Reference
			RH108	0.00 - 0.00	Ground Water (GW)	04/12/2020	.	06/12/2020	201207-11	23379646	
Dimethyl phthalate (aq)	<1 µg/l	TM176	<100 #								
n-Dioctyl phthalate (aq)	<5 µg/l	TM176	<500 #								
Hexachlorobenzene (aq)	<1 µg/l	TM176	<100 #								
Hexachlorobutadiene (aq)	<1 µg/l	TM176	<100 #								
Pentachlorophenol (aq)	<1 µg/l	TM176	<100								
Phenol (aq)	<1 µg/l	TM176	<100								
n-Nitroso-n-dipropylamine (aq)	<1 µg/l	TM176	<100 #								
Hexachloroethane (aq)	<1 µg/l	TM176	<100 #								
Nitrobenzene (aq)	<1 µg/l	TM176	<100 #								
Isophorone (aq)	<1 µg/l	TM176	<100 #								
Hexachlorocyclopentadiene (aq)	<1 µg/l	TM176	<100								

Validated

CERTIFICATE OF ANALYSIS

SDG:	201207-11	**Client Reference:**	LD10162	**Report Number:**	579951
Location:	Ten Acres Lane	**Order Number:**	LD1732	**Superseded Report:**	579950

TPH CWG (W)

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+§@	Sample deviation (see appendix)

Customer Sample Ref.			RH108					
Depth (m)			0.00 - 0.00					
Sample Type			Ground Water (GW)					
Date Sampled			04/12/2020					
Sample Time			-					
Date Received			06/12/2020					
SDG Ref			201207-11					
Lab Sample No.(s)			23379646					
AGS Reference								
Component	**LOD/Units**	**Method**						
GRO Surrogate % recovery**	%	TM245	115					
GRO >C5-C12	<50 µg/l	TM245	<50 #					
Methyl tertiary butyl ether (MTBE)	<3 µg/l	TM245	<3 #					
Benzene	<7 µg/l	TM245	<7 #					
Toluene	<4 µg/l	TM245	<4 #					
Ethylbenzene	<5 µg/l	TM245	<5 #					
m,p-Xylene	<8 µg/l	TM245	<8 #					
o-Xylene	<3 µg/l	TM245	<3 #					
Sum of detected Xylenes	<11 µg/l	TM245	<11					
Sum of detected BTEX	<28 µg/l	TM245	<28					
Aliphatics >C5-C6	<10 µg/l	TM245	<10					
Aliphatics >C6-C8	<10 µg/l	TM245	<10					
Aliphatics >C8-C10	<10 µg/l	TM245	<10					
Aliphatics >C10-C12	<10 µg/l	TM245	<10					
Aliphatics >C12-C16 (aq)	<10 µg/l	TM174	111					
Aliphatics >C16-C21 (aq)	<10 µg/l	TM174	174					
Aliphatics >C21-C35 (aq)	<10 µg/l	TM174	3550					
Total Aliphatics >C12-C35 (aq)	<10 µg/l	TM174	3840					
Aromatics >EC5-EC7	<10 µg/l	TM245	<10					
Aromatics >EC7-EC8	<10 µg/l	TM245	<10					
Aromatics >EC8-EC10	<10 µg/l	TM245	<10					
Aromatics >EC10-EC12	<10 µg/l	TM245	<10					
Aromatics >EC12-EC16 (aq)	<10 µg/l	TM174	60					
Aromatics >EC16-EC21 (aq)	<10 µg/l	TM174	123					
Aromatics >EC21-EC35 (aq)	<10 µg/l	TM174	671					
Total Aromatics >EC12-EC35 (aq)	<10 µg/l	TM174	854					
Total Aliphatics & Aromatics >C5-35 (aq)	<10 µg/l	TM174	4700					
Aliphatics >C16-C35 Aqueous	<10 µg/l	TM174	3720					

CERTIFICATE OF ANALYSIS

SDG:	201207-11	**Client Reference:**	LD10162	**Report Number:**	579951
Location:	Ten Acres Lane	**Order Number:**	LD1732	**Superseded Report:**	579950

VOC MS (W)

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+§@	Sample deviation (see appendix)

Customer Sample Ref.	RH108
Depth (m)	0.00 - 0.00
Sample Type	Ground Water (GW)
Date Sampled	04/12/2020
Sample Time	-
Date Received	06/12/2020
SDG Ref	201207-11
Lab Sample No.(s)	23379646
AGS Reference	

Component	LOD/Units	Method	
Dibromofluoromethane**	%	TM208	110
Toluene-d8**	%	TM208	93.6
4-Bromofluorobenzene**	%	TM208	74.7
Dichlorodifluoromethane	<1 µg/l	TM208	<1 #
Chloromethane	<1 µg/l	TM208	<1 #
Vinyl chloride	<1 µg/l	TM208	<1 #
Bromomethane	<1 µg/l	TM208	<1 #
Chloroethane	<1 µg/l	TM208	<1 #
Trichlorofluoromethane	<1 µg/l	TM208	<1 #
1,1-Dichloroethene	<1 µg/l	TM208	<1 #
Carbon disulphide	<1 µg/l	TM208	<1 #
Dichloromethane	<3 µg/l	TM208	<3 #
Methyl tertiary butyl ether (MTBE)	<1 µg/l	TM208	<1 #
trans-1,2-Dichloroethene	<1 µg/l	TM208	<1 #
1,1-Dichloroethane	<1 µg/l	TM208	<1 #
cis-1,2-Dichloroethene	<1 µg/l	TM208	<1 #
2,2-Dichloropropane	<1 µg/l	TM208	<1
Bromochloromethane	<1 µg/l	TM208	<1 #
Chloroform	<1 µg/l	TM208	1.48 #
1,1,1-Trichloroethane	<1 µg/l	TM208	<1 #
1,1-Dichloropropene	<1 µg/l	TM208	<1 #
Carbontetrachloride	<1 µg/l	TM208	<1 #
1,2-Dichloroethane	<1 µg/l	TM208	<1 #
Benzene	<1 µg/l	TM208	<1 #
Trichloroethene	<1 µg/l	TM208	<1 #
1,2-Dichloropropane	<1 µg/l	TM208	<1 #
Dibromomethane	<1 µg/l	TM208	<1 #
Bromodichloromethane	<1 µg/l	TM208	<1 #
cis-1,3-Dichloropropene	<1 µg/l	TM208	<1 #
Toluene	<1 µg/l	TM208	<1 #
trans-1,3-Dichloropropene	<1 µg/l	TM208	<1 #
1,1,2-Trichloroethane	<1 µg/l	TM208	<1 #
1,3-Dichloropropane	<1 µg/l	TM208	<1 #

CERTIFICATE OF ANALYSIS

SDG:	201207-11	**Client Reference:**	LD10162	**Report Number:**	579951
Location:	Ten Acres Lane	**Order Number:**	LD1732	**Superseded Report:**	579950

VOC MS (W)

Results Legend	
#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+§@	Sample deviation (see appendix)

Customer Sample Ref.	RH108
Depth (m)	0.00 - 0.00
Sample Type	Ground Water (GW)
Date Sampled	04/12/2020
Sample Time	.
Date Received	06/12/2020
SDG Ref	201207-11
Lab Sample No.(s)	23379646
AGS Reference	

Component	LOD/Units	Method	
Tetrachloroethene	<1 µg/l	TM208	<1 #
Dibromochloromethane	<1 µg/l	TM208	<1 #
1,2-Dibromoethane	<1 µg/l	TM208	<1 #
Chlorobenzene	<1 µg/l	TM208	<1 #
1,1,1,2-Tetrachloroethane	<1 µg/l	TM208	<1 #
Ethylbenzene	<1 µg/l	TM208	<1 #
m,p-Xylene	<1 µg/l	TM208	<1 #
o-Xylene	<1 µg/l	TM208	<1 #
Styrene	<1 µg/l	TM208	<1 #
Bromoform	<1 µg/l	TM208	<1 #
Isopropylbenzene	<1 µg/l	TM208	<1 #
1,1,2,2-Tetrachloroethane	<1 µg/l	TM208	<1 #
1,2,3-Trichloropropane	<1 µg/l	TM208	<1 #
Bromobenzene	<1 µg/l	TM208	<1 #
Propylbenzene	<1 µg/l	TM208	<1 #
2-Chlorotoluene	<1 µg/l	TM208	<1 #
1,3,5-Trimethylbenzene	<1 µg/l	TM208	<1 #
4-Chlorotoluene	<1 µg/l	TM208	<1 #
tert-Butylbenzene	<1 µg/l	TM208	<1 #
1,2,4-Trimethylbenzene	<1 µg/l	TM208	<1 #
sec-Butylbenzene	<1 µg/l	TM208	<1 #
4-iso-Propyltoluene	<1 µg/l	TM208	<1 #
1,3-Dichlorobenzene	<1 µg/l	TM208	<1 #
1,4-Dichlorobenzene	<1 µg/l	TM208	<1 #
n-Butylbenzene	<1 µg/l	TM208	<1 #
1,2-Dichlorobenzene	<1 µg/l	TM208	<1 #
1,2-Dibromo-3-chloropropane	<1 µg/l	TM208	<1
1,2,4-Trichlorobenzene	<1 µg/l	TM208	<1 #
Hexachlorobutadiene	<1 µg/l	TM208	<1 #
tert-Amyl methyl ether (TAME)	<1 µg/l	TM208	<1 #
Naphthalene	<1 µg/l	TM208	<1 #
1,2,3-Trichlorobenzene	<1 µg/l	TM208	<1 #
1,3,5-Trichlorobenzene	<1 µg/l	TM208	<1

CERTIFICATE OF ANALYSIS

SDG:	201207-11	**Client Reference:**	LD10162	**Report Number:**	579951
Location:	Ten Acres Lane	**Order Number:**	LD1732	**Superseded Report:**	579950

Table of Results - Appendix

Method No	Reference	Description
TM043	Method 2320B, AWWA/APHA, 20th Ed., 1999 / BS 2690: Part109 1984	Determination of alkalinity in aqueous samples
TM090	Method 5310, AWWA/APHA, 20th Ed., 1999 / Modified: US EPA Method 415.1 & 9060	Determination of Total Organic Carbon/Total Inorganic Carbon in Water and Waste Water
TM101	Method 4500B & C, AWWA/APHA, 20th Ed., 1999	Determination of Sulphide in soil and water samples using the Kone Analyser
TM110	BS 1377: Part 3 1990	Redox Potential
TM152	Method 3125B, AWWA/APHA, 20th Ed., 1999	Analysis of Aqueous Samples by ICP-MS
TM174	Analysis of Petroleum Hydrocarbons in Environmental Media – Total Petroleum Hydrocarbon Criteria	Determination of Speciated Extractable Petroleum Hydrocarbons in Waters by GC-FID
TM176	EPA 8270D Semi-Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)	Determination of SVOCs in Water by GCMS
TM178	Modified: US EPA Method 8100	Determination of Polynuclear Aromatic Hydrocarbons (PAH) by GC-MS in Waters
TM183	BS EN 23506:2002, (BS 6068-2.74:2002) ISBN 0 580 38924 3	Determination of Trace Level Mercury in Waters and Leachates by PSA Cold Vapour Atomic Fluorescence Spectrometry
TM184	EPA Methods 325.1 & 325.2,	The Determination of Anions in Aqueous Matrices using the Kone Spectrophotometric Analysers
TM208	Modified: US EPA Method 8260b & 624	Determination of Volatile Organic Compounds by Headspace / GC-MS in Waters
TM227	Standard methods for the examination of waters and wastewaters 20th Edition, AWWA/APHA Method 4500.	Determination of Total Cyanide, Free (Easily Liberatable) Cyanide and Thiocyanate
TM241	Methods for the Examination of Waters and Associated Materials; Chromium in Raw and Potable Waters and Sewage Effluents 1980.	The Determination of Hexavalent Chromium in Waters and Leachates using the Kone Analyser
TM245	By GC-FID	Determination of GRO by Headspace in waters

NA = not applicable.

Chemical testing (unless subcontracted) performed at ALS Life Sciences Ltd Hawarden (Method codes TM) or ALS Life Sciences Ltd Aberdeen (Method codes S).

CERTIFICATE OF ANALYSIS

SDG:	201207-11	**Client Reference:**	LD10162	**Report Number:**	579951
Location:	Ten Acres Lane	**Order Number:**	LD1732	**Superseded Report:**	579950

Test Completion Dates

Lab Sample No(s)	23379646
Customer Sample Ref.	RH108
AGS Ref.	
Depth	0.00 - 0.00
Type	Ground Water
Alkalinity as CaCO3	10-Dec-2020
Anions by Kone (w)	14-Dec-2020
Cyanide Comp/Free/Total/Thiocyanate	10-Dec-2020
Dissolved Metals by ICP-MS	11-Dec-2020
Dissolved Organic/Inorganic Carbon	09-Dec-2020
EPH CWG (Aliphatic) Aqueous GC (W)	14-Dec-2020
EPH CWG (Aromatic) Aqueous GC (W)	14-Dec-2020
GRO by GC-FID (W)	09-Dec-2020
Hexavalent Chromium (w)	11-Dec-2020
Mercury Dissolved	08-Dec-2020
PAH Spec MS - Aqueous (W)	14-Dec-2020
Redox Potential	09-Dec-2020
Sulphide	14-Dec-2020
SVOC MS (W) - Aqueous	14-Dec-2020
TPH CWG (W)	14-Dec-2020
VOC MS (W)	09-Dec-2020

Appendix General

1. Results are expressed on a dry weight basis (dried at 35ºC) for all soil analyses except for the following: NRA and CEN Leach tests, flash point LOI, pH, ammonium as NH4 by the BRE method, VOC TICs and SVOC TICs.

2. If sufficient sample is received a sub sample will be retained free of charge for 30 days after analysis is completed (e-mailed) for all sample types unless the sample is destroyed on testing. The prepared soil sub sample that is analysed for asbestos will be retained for a period of 6 months after the analysis date. All bulk samples will be retained for a period of 6 months after the analysis date. All samples received and not scheduled will be disposed of one month after the date of receipt unless we are instructed to the contrary. Once the initial period has expired, a storage charge will be applied for each month or part thereof until the client cancels the request for sample storage. ALS reserve the right to charge for samples received and stored but not analysed.

3. With respect to turnaround, we will always endeavour to meet client requirements wherever possible, but turnaround times cannot be absolutely guaranteed due to so many variables beyond our control.

4. We take responsibility for any test performed by sub-contractors (marked with an asterisk). We endeavour to use UKAS/MCERTS Accredited Laboratories, who either complete a quality questionnaire or are audited by ourselves. For some determinands there are no UKAS/MCERTS Accredited Laboratories, in this instance a laboratory with a known track record will be utilised.

5. If no separate volatile sample is supplied by the client, or if a headspace or sediment is present in the volatile sample, the integrity of the data may be compromised. This will be flagged up as an invalid VOC on the test schedule and the result marked as deviating on the test certificate.

6. NDP - No determination possible due to insufficient/unsuitable sample.

7. Results relate only to the items tested.

8. LoDs (Limit of Detection) for wet tests reported on a dry weight basis are not corrected for moisture content.

9. **Surrogate recoveries** - Surrogates are added to your sample to monitor recovery of the test requested. A % recovery is reported, results are not corrected for the recovery measured. Typical recoveries for organics tests are 70-130%. Recoveries in soils are affected by organic rich or clay rich matrices. Waters can be affected by remediation fluids or high amounts of sediment. Test results are only ever reported if all of the associated quality checks pass; it is assumed that all recoveries outside of the values above are due to matrix affect.

10. Stones/debris are not routinely removed. We always endeavour to take a representative sub sample from the received sample.

11. In certain circumstances the method detection limit may be elevated due to the sample being outside the calibration range. Other factors that may contribute to this include possible interferences. In both cases the sample would be diluted which would cause the method detection limit to be raised.

12. Mercury results quoted on soils will not include volatile mercury as the analysis is performed on a dried and crushed sample.

13. For leachate preparations other than Zero Headspace Extraction (ZHE) volatile loss may occur.

14. For the BSEN 12457-3 two batch process to allow the cumulative release to be calculated, the volume of the leachate produced is measured and filtered for all tests. We therefore cannot carry out any unfiltered analysis. The tests affected include volatiles GCFID/GCMS and all subcontracted analysis.

15. Analysis and identification of specific compounds using GCFID is by retention time only, and we routinely calibrate and quantify for benzene, toluene, ethylbenzenes and xylenes (BTEX). For total volatiles in the C5-C12 range, the total area of the chromatogram is integrated and expressed as ug/kg or ug/l. Although this analysis is commonly used for the quantification of gasoline range organics (GRO), the system will also detect other compounds such as chlorinated solvents, and this may lead to a falsely high result with respect to hydrocarbons only. It is not possible to specifically identify these non-hydrocarbons, as standards are not routinely run for any other compounds, and for more definitive identification, volatiles by GCMS should be utilised.

16. We are accredited to MCERTS for sand, clay and loam/topsoil, or any of these materials - whether these are derived from naturally occurring soil profiles, or from fill/made ground, as long as these materials constitute the major part of the sample. Other coarse granular material such as concrete, gravel and brick are not accredited if they comprise the major part of the sample.

17. **Tentatively Identified Compounds (TICs)** are non-target peaks in VOC and SVOC analysis. All non-target peaks detected with a concentration above the LoD are subjected to a mass spectral library search. Non-target peaks with a library search confidence of >75% are reported based on the best mass spectral library match. When a non-target peak with a library search confidence of <75% is detected it is reported as "mixed hydrocarbons". Non-target compounds identified from the scan data are semi-quantified relative to one of the deuterated internal standards, under the same chromatographic conditions as the target compounds. This result is reported as a semi-quantitative value and reported as Tentatively Identified Compounds (TICs). TICs are outside the scope of UKAS accreditation and are not moisture corrected.

18. **Sample Deviations**

If a sample is classed as deviated then the associated results may be compromised.

1	**Container with Headspace provided for volatiles analysis**
2	**Incorrect container received**
3	**Deviation from method**
4	**Matrix interference**
♦	**Sample holding time exceeded in laboratory**
@	**Sample holding time exceeded due to late arrival of instructions or samples**
§	**Sampled on date not provided**

19. **Asbestos**

When requested, the individual sub sample scheduled will be analysed in house for the presence of asbestos fibres and asbestos containing material by our documented in house method TM048 based on HSG 248 (2005), which is accredited to ISO17025. If a specific asbestos fibre type is not found this will be reported as "Not detected". If no asbestos fibre types are found all will be reported as "Not detected" and the sub sample analysed deemed to be clear of asbestos. If an asbestos fibre type is found it will be reported as detected (for each fibre type found). Testing can be carried out on asbestos positive samples, but, due to Health and Safety considerations, may be replaced by alternative tests or reported as No Determination Possible (NDP). The quantity of asbestos present is not determined unless specifically requested.

Identification of Asbestos in Bulk Materials & Soils

The results for identification of asbestos in bulk materials are obtained from supplied bulk materials which have been examined to determine the presence of asbestos fibres using ALS (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining, based on HSG 248 (2005).

The results for identification of asbestos in soils are obtained from a homogenised sub sample which has been examined to determine the presence of asbestos fibres using ALS (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining, based on HSG 248 (2005).

Asbestos Type	Common Name
Chrysotile	White Asbestos
Amosite	Brown Asbestos
Crocidolite	Blue Asbestos
Fibrous Actinolite	-
Fibrous Anthophyllite	-
Fibrous Tremolite	-

Visual Estimation Of Fibre Content

Estimation of fibre content is not permitted as part of our UKAS accredited test other than: - Trace - Where only one or two asbestos fibres were identified.

Respirable Fibres

Respirable fibres are defined as fibres of <3 µm diameter, longer than 5 µm and with aspect ratios of at least 3:1 that can be inhaled into the lower regions of the lung and are generally acknowledged to be most important predictor of hazard and risk for cancers of the lung.
Standing Committee of Analysts, *The Quantification of Asbestos in Soil (2017).*

Further guidance on typical asbestos fibre content of manufactured products can be found in HSG 264.

The identification of asbestos containing materials and soils falls within our schedule of tests for which we hold UKAS accreditation, however opinions, interpretations and all other information contained in the report are outside the scope of UKAS accreditation.

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Fax: (01244) 528701
email: hawardencustomerservices@alsglobal.com
Website: www.alsenvironmental.co.uk

Wardell Armstrong LLP
36 Park Row
Leeds
LS1 5JL

Attention: Jonathan Currie

CERTIFICATE OF ANALYSIS

Date of report Generation:	21 December 2020
Customer:	Wardell Armstrong LLP
Sample Delivery Group (SDG):	201212-66
Your Reference:	LD10162
Location:	Ten Acres Lane
Report No:	581010

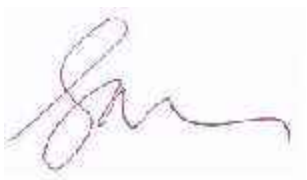
We received 2 samples on Saturday December 12, 2020 and 2 of these samples were scheduled for analysis which was completed on Monday December 21, 2020. Accredited laboratory tests are defined within the report, but opinions, interpretations and on-site data expressed herein are outside the scope of ISO 17025 accreditation.

Should this report require incorporation into client reports, it must be used in its entirety and not simply with the data sections alone.

Chemical testing (unless subcontracted) performed at ALS Life Sciences Ltd Hawarden (Method codes TM) or ALS Life Sciences Ltd Aberdeen (Method codes S).

All sample data is provided by the customer. The reported results relate to the sample supplied, and on the basis that this data is correct.
Incorrect sampling dates and/or sample information will affect the validity of results.
The customer is not permitted to reproduce this report except in full without the approval of the laboratory.

Approved By:



Sonia McWhan

Operations Manager

CERTIFICATE OF ANALYSIS

SDG:	201212-66	**Client Reference:**	LD10162	**Report Number:**	581010
Location:	Ten Acres Lane	**Order Number:**	LD1734	**Superseded Report:**	

Received Sample Overview

Lab Sample No(s)	Customer Sample Ref.	AGS Ref.	Depth (m)	Sampled Date
23423227	CP101/RH109		0.00 - 0.00	10/12/2020
23423223	RH106		0.00 - 0.00	10/12/2020

Only received samples which have had analysis scheduled will be shown on the following pages.

Validated

CERTIFICATE OF ANALYSIS

SDG:	201212-66	**Client Reference:**	LD10162	**Report Number:**	581010
Location:	Ten Acres Lane	**Order Number:**	LD1734	**Superseded Report:**	

Results Legend

X Test

N No Determination Possible

Sample Types -

S - Soil/Solid
UNS - Unspecified Solid
GW - Ground Water
SW - Surface Water
LE - Land Leachate
PL - Prepared Leachate
PR - Process Water
SA - Saline Water
TE - Trade Effluent
TS - Treated Sewage
US - Untreated Sewage
RE - Recreational Water
DW - Drinking Water Non-regulatory
UNL - Unspecified Liquid
SL - Sludge
G - Gas
OTH - Other

			Lab Sample No(s)								
										23423227	23423223
			Customer Sample Reference							CP101/RH1109	RH106
			AGS Reference								
			Depth (m)							0.00 - 0.00	0.00 - 0.00
			Container	0.5l glass bottle (ALE227)	500ml Plastic (ALE208)	HNO3 Filtered (ALE204)	NaOH (ALE245)	Vial (ALE297)	ZnAc (ALE246)	0.5l glass bottle (ALE227)	500ml Plastic (ALE208)
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW
Alkalinity as CaCO3	All	NDPs: 0 Tests: 2			X						X
Anions by Kone (w)	All	NDPs: 0 Tests: 2			X						X
Cyanide Comp/Free/Total/Thiocyanate	All	NDPs: 0 Tests: 2					X				X
Dissolved Metals by ICP-MS	All	NDPs: 0 Tests: 2				X					X
Dissolved Organic/Inorganic Carbon	All	NDPs: 0 Tests: 2		X						X	
EPH CWG (Aliphatic) Aqueous GC (W)	All	NDPs: 0 Tests: 2		X						X	
EPH CWG (Aromatic) Aqueous GC (W)	All	NDPs: 0 Tests: 2		X						X	
GRO by GC-FID (W)	All	NDPs: 0 Tests: 2						X		X	
Hexavalent Chromium (w)	All	NDPs: 0 Tests: 2			X						X
Mercury Dissolved	All	NDPs: 0 Tests: 2				X					X
PAH Spec MS - Aqueous (W)	All	NDPs: 0 Tests: 2		X						X	
Redox Potential	All	NDPs: 0 Tests: 2		X						X	
Sulphide	All	NDPs: 0 Tests: 2							X		X
SVOC MS (W) - Aqueous	All	NDPs: 0 Tests: 2		X						X	
TPH CWG (W)	All	NDPs: 0 Tests: 2		X						X	

Validated

CERTIFICATE OF ANALYSIS

SDG:	201212-66	**Client Reference:**	LD10162	**Report Number:**	581010
Location:	Ten Acres Lane	**Order Number:**	LD1734	**Superseded Report:**	

Results Legend

X **Test**

N **No Determination Possible**

Sample Types -
S - Soil/Solid
UNS - Unspecified Solid
GW - Ground Water
SW - Surface Water
LE - Land Leachate
PL - Prepared Leachate
PR - Process Water
SA - Saline Water
TE - Trade Effluent
TS - Treated Sewage
US - Untreated Sewage
RE - Recreational Water
DW - Drinking Water Non-regulatory
UNL - Unspecified Liquid
SL - Sludge
G - Gas
OTH - Other

Lab Sample No(s)									23423227	23423223
Customer Sample Reference									CP101/RH109	RH106
AGS Reference										
Depth (m)									0.00 - 0.00	0.00 - 0.00
Container									0.5l glass bottle (ALE227)	500ml Plastic (ALE208)
									HNO3 Filtered (ALE204)	NaOH (ALE245)
									Vial (ALE297)	ZnAc (ALE246)
Sample Type									GW	GW
VOC MS (W)	All	NDPs: 0 Tests: 2							X	X

CERTIFICATE OF ANALYSIS

SDG:	201212-66	**Client Reference:**	LD10162	**Report Number:**	581010
Location:	Ten Acres Lane	**Order Number:**	LD1734	**Superseded Report:**	

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	CP101/RH109	RH106				
			Depth (m)	0.00 - 0.00	0.00 - 0.00				
			Sample Type	Ground Water (GW)	Ground Water (GW)				
			Date Sampled	10/12/2020	10/12/2020				
			Sample Time	-	-				
			Date Received	12/12/2020	12/12/2020				
			SDG Ref	201212-66	201212-66				
			Lab Sample No.(s)	23423227	23423223				
			AGS Reference						
Alkalinity, Total as CaCO3	<2 mg/l	TM043		570 #	533 #				
Carbon, Organic (diss.filt)	<3 mg/l	TM090		6.62	7.22				
Sulphide	<0.01 mg/l	TM101		<0.01 #	<0.01 2 #				
Redox potential	mV	TM110		161	142				
Arsenic (diss.filt)	<0.5 µg/l	TM152		1.13 2 #	4.3 2 #				
Boron (diss.filt)	<10 µg/l	TM152		631 2 #	634 2 #				
Cadmium (diss.filt)	<0.08 µg/l	TM152		<0.08 2 #	<0.08 2 #				
Chromium (diss.filt)	<1 µg/l	TM152		<1 2 #	<1 2 #				
Copper (diss.filt)	<0.3 µg/l	TM152		4.48 2 #	0.757 2 #				
Lead (diss.filt)	<0.2 µg/l	TM152		1.73 2 #	<0.2 2 #				
Manganese (diss.filt)	<3 µg/l	TM152		408 2 #	37.2 2 #				
Nickel (diss.filt)	<0.4 µg/l	TM152		3.99 2 #	3.94 2 #				
Selenium (diss.filt)	<1 µg/l	TM152		3.22 2 #	11.8 2 #				
Calcium (Dis.Filt)	<0.2 mg/l	TM152		194 2 #	64.7 2 #				
Iron (Dis.Filt)	<0.019 mg/l	TM152		0.183 2 #	<0.019 2 #				
Mercury (diss.filt)	<0.01 µg/l	TM183		<0.01 2 #	<0.01 2 #				
Sulphate	<2 mg/l	TM184		364 #	187 #				
Cyanide, Total	<0.05 mg/l	TM227		<0.05 #	<0.05 2 #				
Cyanide, Free	<0.05 mg/l	TM227		<0.05 #	<0.05 2 #				
Cyanide, Complex	<0.05 mg/l	TM227		<0.05	<0.05 2				
Thiocyanate	<0.05 mg/l	TM227		<0.05 #	<0.05 2 #				
Chromium, Hexavalent	<0.03 mg/l	TM241		<0.03 #	<0.03 #				

Validated

CERTIFICATE OF ANALYSIS

SDG:	201212-66	**Client Reference:**	LD10162	**Report Number:**	581010
Location:	Ten Acres Lane	**Order Number:**	LD1734	**Superseded Report:**	

PAH Spec MS - Aqueous (W)

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	CP101/RH109	RH106				
			Depth (m)	0.00 - 0.00	0.00 - 0.00				
			Sample Type	Ground Water (GW)	Ground Water (GW)				
			Date Sampled	10/12/2020	10/12/2020				
			Sample Time	-	-				
			Date Received	12/12/2020	12/12/2020				
			SDG Ref	201212-66	201212-66				
			Lab Sample No.(s)	23423227	23423223				
			AGS Reference						
Naphthalene (aq)	<0.01 µg/l	TM178		0.0219 #	<0.01 #				
Acenaphthene (aq)	<0.005 µg/l	TM178		0.0116 #	0.00719 #				
Acenaphthylene (aq)	<0.005 µg/l	TM178		<0.005 #	<0.005 #				
Fluoranthene (aq)	<0.005 µg/l	TM178		0.151 #	0.122 #				
Anthracene (aq)	<0.005 µg/l	TM178		0.018 #	0.011 #				
Phenanthrene (aq)	<0.005 µg/l	TM178		0.108 #	0.0528 #				
Fluorene (aq)	<0.005 µg/l	TM178		0.0159 #	0.00663 #				
Chrysene (aq)	<0.005 µg/l	TM178		0.0928 #	0.0581 #				
Pyrene (aq)	<0.005 µg/l	TM178		0.161 #	0.106 #				
Benzo(a)anthracene (aq)	<0.005 µg/l	TM178		0.0682 #	0.0407 #				
Benzo(b)fluoranthene (aq)	<0.005 µg/l	TM178		0.144 #	0.0959 #				
Benzo(k)fluoranthene (aq)	<0.005 µg/l	TM178		0.0567 #	0.0364 #				
Benzo(a)pyrene (aq)	<0.002 µg/l	TM178		0.0916 #	0.0564 #				
Dibenzo(a,h)anthracene (aq)	<0.005 µg/l	TM178		0.0188 #	<0.005 #				
Benzo(g,h,i)perylene (aq)	<0.005 µg/l	TM178		0.0912 #	0.0335 #				
Indeno(1,2,3-cd)pyrene (aq)	<0.005 µg/l	TM178		0.0699 #	0.0328 #				
PAH, Total Detected USEPA 16 (aq)	<0.082 µg/l	TM178		1.12 #	0.66 #				

CERTIFICATE OF ANALYSIS

SDG:	201212-66	**Client Reference:**	LD10162	**Report Number:**	581010
Location:	Ten Acres Lane	**Order Number:**	LD1734	**Superseded Report:**	

SVOC MS (W) - Aqueous

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	CP101/RH109	RH106				
			Depth (m)	0.00 - 0.00	0.00 - 0.00				
			Sample Type	Ground Water (GW)	Ground Water (GW)				
			Date Sampled	10/12/2020	10/12/2020				
			Sample Time	-	-				
			Date Received	12/12/2020	12/12/2020				
			SDG Ref	201212-66	201212-66				
			Lab Sample No.(s)	23423227	23423223				
			AGS Reference						
1,2,4-Trichlorobenzene (aq)	<1 µg/l	TM176		<10 #	<4 #				
1,2-Dichlorobenzene (aq)	<1 µg/l	TM176		<10 #	<4 #				
1,3-Dichlorobenzene (aq)	<1 µg/l	TM176		<10 #	<4 #				
1,4-Dichlorobenzene (aq)	<1 µg/l	TM176		<10 #	<4 #				
2,4,5-Trichlorophenol (aq)	<1 µg/l	TM176		<10 #	<4 #				
2,4,6-Trichlorophenol (aq)	<1 µg/l	TM176		<10 #	<4 #				
2,4-Dichlorophenol (aq)	<1 µg/l	TM176		<10 #	<4 #				
2,4-Dimethylphenol (aq)	<1 µg/l	TM176		<10 #	<4 #				
2,4-Dinitrotoluene (aq)	<1 µg/l	TM176		<10 #	<4 #				
2,6-Dinitrotoluene (aq)	<1 µg/l	TM176		<10 #	<4 #				
2-Chloronaphthalene (aq)	<1 µg/l	TM176		<10 #	<4 #				
2-Chlorophenol (aq)	<1 µg/l	TM176		<10 #	<4 #				
2-Methylnaphthalene (aq)	<1 µg/l	TM176		<10 #	<4 #				
2-Methylphenol (aq)	<1 µg/l	TM176		<10 #	<4 #				
2-Nitroaniline (aq)	<1 µg/l	TM176		<10 #	<4 #				
2-Nitrophenol (aq)	<1 µg/l	TM176		<10 #	<4 #				
3-Nitroaniline (aq)	<1 µg/l	TM176		<10 #	<4 #				
4-Bromophenylphenylether (aq)	<1 µg/l	TM176		<10 #	<4 #				
4-Chloro-3-methylphenol (aq)	<1 µg/l	TM176		<10 #	<4 #				
4-Chloroaniline (aq)	<1 µg/l	TM176		<10	<4				
4-Chlorophenylphenylether (aq)	<1 µg/l	TM176		<10 #	<4 #				
4-Methylphenol (aq)	<1 µg/l	TM176		<10 #	<4 #				
4-Nitroaniline (aq)	<1 µg/l	TM176		<10 #	<4 #				
4-Nitrophenol (aq)	<1 µg/l	TM176		<10	<4				
Azobenzene (aq)	<1 µg/l	TM176		<10 #	<4 #				
bis(2-Chloroethyl)ether (aq)	<1 µg/l	TM176		<10 #	<4 #				
bis(2-Chloroethoxy)methane (aq)	<1 µg/l	TM176		<10 #	<4 #				
bis(2-Ethylhexyl) phthalate (aq)	<2 µg/l	TM176		<20 #	<8 #				
Butylbenzyl phthalate (aq)	<1 µg/l	TM176		<10 #	<4 #				
Carbazole (aq)	<1 µg/l	TM176		<10 #	<4 #				
Dibenzofuran (aq)	<1 µg/l	TM176		<10 #	<4 #				
n-Dibutyl phthalate (aq)	<1 µg/l	TM176		<10 #	<4 #				
Diethyl phthalate (aq)	<1 µg/l	TM176		<10 #	<4 #				

Validated

CERTIFICATE OF ANALYSIS

SDG:	201212-66	**Client Reference:**	LD10162	**Report Number:**	581010
Location:	Ten Acres Lane	**Order Number:**	LD1734	**Superseded Report:**	

SVOC MS (W) - Aqueous

Results Legend	
#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	CP101/RH109	RH106				
			Depth (m)	0.00 - 0.00	0.00 - 0.00				
			Sample Type	Ground Water (GW)	Ground Water (GW)				
			Date Sampled	10/12/2020	10/12/2020				
			Sample Time	.	.				
			Date Received	12/12/2020	12/12/2020				
			SDG Ref	201212-66	201212-66				
			Lab Sample No.(s)	23423227	23423223				
			AGS Reference						
Dimethyl phthalate (aq)	<1 µg/l	TM176		<10 #	<4 #				
n-Dioctyl phthalate (aq)	<5 µg/l	TM176		<50 #	<20 #				
Hexachlorobenzene (aq)	<1 µg/l	TM176		<10 #	<4 #				
Hexachlorobutadiene (aq)	<1 µg/l	TM176		<10 #	<4 #				
Pentachlorophenol (aq)	<1 µg/l	TM176		<10	<4				
Phenol (aq)	<1 µg/l	TM176		<10	<4				
n-Nitroso-n-dipropylamine (aq)	<1 µg/l	TM176		<10 #	<4 #				
Hexachloroethane (aq)	<1 µg/l	TM176		<10 #	<4 #				
Nitrobenzene (aq)	<1 µg/l	TM176		<10 #	<4 #				
Isophorone (aq)	<1 µg/l	TM176		<10 #	<4 #				
Hexachlorocyclopentadiene (aq)	<1 µg/l	TM176		<10	<4				

Validated

CERTIFICATE OF ANALYSIS

SDG:	201212-66	**Client Reference:**	LD10162	**Report Number:**	581010
Location:	Ten Acres Lane	**Order Number:**	LD1734	**Superseded Report:**	

TPH CWG (W)

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	CP101/RH109	RH106				
			Depth (m)	0.00 - 0.00	0.00 - 0.00				
			Sample Type	Ground Water (GW)	Ground Water (GW)				
			Date Sampled	10/12/2020	10/12/2020				
			Sample Time	-	-				
			Date Received	12/12/2020	12/12/2020				
			SDG Ref	201212-66	201212-66				
			Lab Sample No.(s)	23423227	23423223				
			AGS Reference						
GRO Surrogate % recovery**	%	TM245		92	95 2				
GRO >C5-C12	<50 µg/l	TM245		<50 #	<50 2 #				
Methyl tertiary butyl ether (MTBE)	<3 µg/l	TM245		<3 #	<3 2 #				
Benzene	<7 µg/l	TM245		<7 #	<7 2 #				
Toluene	<4 µg/l	TM245		<4 #	<4 2 #				
Ethylbenzene	<5 µg/l	TM245		<5 #	<5 2 #				
m,p-Xylene	<8 µg/l	TM245		<8 #	<8 2 #				
o-Xylene	<3 µg/l	TM245		<3 #	<3 2 #				
Sum of detected Xylenes	<11 µg/l	TM245		<11	<11 2				
Sum of detected BTEX	<28 µg/l	TM245		<28	<28 2				
Aliphatics >C5-C6	<10 µg/l	TM245		<10	<10 2				
Aliphatics >C6-C8	<10 µg/l	TM245		<10	<10 2				
Aliphatics >C8-C10	<10 µg/l	TM245		<10	<10 2				
Aliphatics >C10-C12	<10 µg/l	TM245		<10	<10 2				
Aliphatics >C12-C16 (aq)	<10 µg/l	TM174		<10	<10				
Aliphatics >C16-C21 (aq)	<10 µg/l	TM174		<10	<10				
Aliphatics >C21-C35 (aq)	<10 µg/l	TM174		172	128				
Total Aliphatics >C12-C35 (aq)	<10 µg/l	TM174		172	128				
Aromatics >EC5-EC7	<10 µg/l	TM245		<10	<10 2				
Aromatics >EC7-EC8	<10 µg/l	TM245		<10	<10 2				
Aromatics >EC8-EC10	<10 µg/l	TM245		<10	<10 2				
Aromatics >EC10-EC12	<10 µg/l	TM245		<10	<10 2				
Aromatics >EC12-EC16 (aq)	<10 µg/l	TM174		<10	<10				
Aromatics >EC16-EC21 (aq)	<10 µg/l	TM174		<10	<10				
Aromatics >EC21-EC35 (aq)	<10 µg/l	TM174		<10	<10				
Total Aromatics >EC12-EC35 (aq)	<10 µg/l	TM174		<10	<10				
Total Aliphatics & Aromatics >C5-35 (aq)	<10 µg/l	TM174		172	128				
Aliphatics >C16-C35 Aqueous	<10 µg/l	TM174		172	128				

CERTIFICATE OF ANALYSIS

SDG:	201212-66	**Client Reference:**	LD10162	**Report Number:**	581010
Location:	Ten Acres Lane	**Order Number:**	LD1734	**Superseded Report:**	

VOC MS (W)

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	CP101/RH109	RH106				
			Depth (m)	0.00 - 0.00	0.00 - 0.00				
			Sample Type	Ground Water (GW)	Ground Water (GW)				
			Date Sampled	10/12/2020	10/12/2020				
			Sample Time	-	-				
			Date Received	12/12/2020	12/12/2020				
			SDG Ref	201212-66	201212-66				
			Lab Sample No.(s)	23423227	23423223				
			AGS Reference						
Dibromofluoromethane**	%	TM208		124	122 2				
Toluene-d8**	%	TM208		100	101 2				
4-Bromofluorobenzene**	%	TM208		93.5	98.9 2				
Dichlorodifluoromethane	<1 µg/l	TM208		<1 #	<1 2 #				
Chloromethane	<1 µg/l	TM208		<1 #	<1 2 #				
Vinyl chloride	<1 µg/l	TM208		<1 #	<1 2 #				
Bromomethane	<1 µg/l	TM208		<1 #	<1 2 #				
Chloroethane	<1 µg/l	TM208		<1 #	<1 2 #				
Trichlorofluoromethane	<1 µg/l	TM208		<1 #	<1 2 #				
1,1-Dichloroethene	<1 µg/l	TM208		<1 #	<1 2 #				
Carbon disulphide	<1 µg/l	TM208		<1 #	<1 2 #				
Dichloromethane	<3 µg/l	TM208		<3 #	<3 2 #				
Methyl tertiary butyl ether (MTBE)	<1 µg/l	TM208		<1 #	<1 2 #				
trans-1,2-Dichloroethene	<1 µg/l	TM208		<1 #	<1 2 #				
1,1-Dichloroethane	<1 µg/l	TM208		<1 #	<1 2 #				
cis-1,2-Dichloroethene	<1 µg/l	TM208		<1 #	<1 2 #				
2,2-Dichloropropane	<1 µg/l	TM208		<1	<1 2				
Bromochloromethane	<1 µg/l	TM208		<1 #	<1 2 #				
Chloroform	<1 µg/l	TM208		<1 #	1.27 2 #				
1,1,1-Trichloroethane	<1 µg/l	TM208		<1 #	<1 2 #				
1,1-Dichloropropene	<1 µg/l	TM208		<1 #	<1 2 #				
Carbontetrachloride	<1 µg/l	TM208		<1 #	<1 2 #				
1,2-Dichloroethane	<1 µg/l	TM208		<1 #	<1 2 #				
Benzene	<1 µg/l	TM208		<1 #	<1 2 #				
Trichloroethene	<1 µg/l	TM208		<1 #	<1 2 #				
1,2-Dichloropropane	<1 µg/l	TM208		<1 #	<1 2 #				
Dibromomethane	<1 µg/l	TM208		<1 #	<1 2 #				
Bromodichloromethane	<1 µg/l	TM208		<1 #	<1 2 #				
cis-1,3-Dichloropropene	<1 µg/l	TM208		<1 #	<1 2 #				
Toluene	<1 µg/l	TM208		<1 #	<1 2 #				
trans-1,3-Dichloropropene	<1 µg/l	TM208		<1 #	<1 2 #				
1,1,2-Trichloroethane	<1 µg/l	TM208		<1 #	<1 2 #				
1,3-Dichloropropane	<1 µg/l	TM208		<1 #	<1 2 #				

Validated

CERTIFICATE OF ANALYSIS

SDG:	201212-66	**Client Reference:**	LD10162	**Report Number:**	581010
Location:	Ten Acres Lane	**Order Number:**	LD1734	**Superseded Report:**	

VOC MS (W)

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	CP101/RH109	RH106
			Depth (m)	0.00 - 0.00	0.00 - 0.00
			Sample Type	Ground Water (GW)	Ground Water (GW)
			Date Sampled	10/12/2020	10/12/2020
			Sample Time	.	.
			Date Received	12/12/2020	12/12/2020
			SDG Ref	201212-66	201212-66
			Lab Sample No.(s)	23423227	23423223
			AGS Reference		
Tetrachloroethene	<1 µg/l	TM208		<1 #	<1 2 #
Dibromochloromethane	<1 µg/l	TM208		<1 #	<1 2 #
1,2-Dibromoethane	<1 µg/l	TM208		<1 #	<1 2 #
Chlorobenzene	<1 µg/l	TM208		<1 #	<1 2 #
1,1,1,2-Tetrachloroethane	<1 µg/l	TM208		<1 #	<1 2 #
Ethylbenzene	<1 µg/l	TM208		<1 #	<1 2 #
m,p-Xylene	<1 µg/l	TM208		<1 #	<1 2 #
o-Xylene	<1 µg/l	TM208		<1 #	<1 2 #
Styrene	<1 µg/l	TM208		<1 #	<1 2 #
Bromoform	<1 µg/l	TM208		<1 #	<1 2 #
Isopropylbenzene	<1 µg/l	TM208		<1 #	<1 2 #
1,1,2,2-Tetrachloroethane	<1 µg/l	TM208		<1 #	<1 2 #
1,2,3-Trichloropropane	<1 µg/l	TM208		<1 #	<1 2 #
Bromobenzene	<1 µg/l	TM208		<1 #	<1 2 #
Propylbenzene	<1 µg/l	TM208		<1 #	<1 2 #
2-Chlorotoluene	<1 µg/l	TM208		<1 #	<1 2 #
1,3,5-Trimethylbenzene	<1 µg/l	TM208		<1 #	<1 2 #
4-Chlorotoluene	<1 µg/l	TM208		<1 #	<1 2 #
tert-Butylbenzene	<1 µg/l	TM208		<1 #	<1 2 #
1,2,4-Trimethylbenzene	<1 µg/l	TM208		<1 #	<1 2 #
sec-Butylbenzene	<1 µg/l	TM208		<1 #	<1 2 #
4-iso-Propyltoluene	<1 µg/l	TM208		<1 #	<1 2 #
1,3-Dichlorobenzene	<1 µg/l	TM208		<1 #	<1 2 #
1,4-Dichlorobenzene	<1 µg/l	TM208		<1 #	<1 2 #
n-Butylbenzene	<1 µg/l	TM208		<1 #	<1 2 #
1,2-Dichlorobenzene	<1 µg/l	TM208		<1 #	<1 2 #
1,2-Dibromo-3-chloropropane	<1 µg/l	TM208		<1	<1 2
1,2,4-Trichlorobenzene	<1 µg/l	TM208		<1 #	<1 2 #
Hexachlorobutadiene	<1 µg/l	TM208		<1 #	<1 2 #
tert-Amyl methyl ether (TAME)	<1 µg/l	TM208		<1 #	<1 2 #
Naphthalene	<1 µg/l	TM208		<1 #	<1 2 #
1,2,3-Trichlorobenzene	<1 µg/l	TM208		<1 #	<1 2 #
1,3,5-Trichlorobenzene	<1 µg/l	TM208		<1	<1 2

CERTIFICATE OF ANALYSIS

SDG:	201212-66	**Client Reference:**	LD10162	**Report Number:**	581010
Location:	Ten Acres Lane	**Order Number:**	LD1734	**Superseded Report:**	

Table of Results - Appendix

Method No	Reference	Description
TM043	Method 2320B, AWWA/APHA, 20th Ed., 1999 / BS 2690: Part109 1984	Determination of alkalinity in aqueous samples
TM090	Method 5310, AWWA/APHA, 20th Ed., 1999 / Modified: US EPA Method 415.1 & 9060	Determination of Total Organic Carbon/Total Inorganic Carbon in Water and Waste Water
TM101	Method 4500B & C, AWWA/APHA, 20th Ed., 1999	Determination of Sulphide in soil and water samples using the Kone Analyser
TM110	BS 1377: Part 3 1990	Redox Potential
TM152	Method 3125B, AWWA/APHA, 20th Ed., 1999	Analysis of Aqueous Samples by ICP-MS
TM174	Analysis of Petroleum Hydrocarbons in Environmental Media – Total Petroleum Hydrocarbon Criteria	Determination of Speciated Extractable Petroleum Hydrocarbons in Waters by GC-FID
TM176	EPA 8270D Semi-Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)	Determination of SVOCs in Water by GCMS
TM178	Modified: US EPA Method 8100	Determination of Polynuclear Aromatic Hydrocarbons (PAH) by GC-MS in Waters
TM183	BS EN 23506:2002, (BS 6068-2.74:2002) ISBN 0 580 38924 3	Determination of Trace Level Mercury in Waters and Leachates by PSA Cold Vapour Atomic Fluorescence Spectrometry
TM184	EPA Methods 325.1 & 325.2,	The Determination of Anions in Aqueous Matrices using the Kone Spectrophotometric Analysers
TM208	Modified: US EPA Method 8260b & 624	Determination of Volatile Organic Compounds by Headspace / GC-MS in Waters
TM227	Standard methods for the examination of waters and wastewaters 20th Edition, AWWA/APHA Method 4500.	Determination of Total Cyanide, Free (Easily Liberatable) Cyanide and Thiocyanate
TM241	Methods for the Examination of Waters and Associated Materials; Chromium in Raw and Potable Waters and Sewage Effluents 1980.	The Determination of Hexavalent Chromium in Waters and Leachates using the Kone Analyser
TM245	By GC-FID	Determination of GRO by Headspace in waters

NA = not applicable.

Chemical testing (unless subcontracted) performed at ALS Life Sciences Ltd Hawarden (Method codes TM) or ALS Life Sciences Ltd Aberdeen (Method codes S).

CERTIFICATE OF ANALYSIS

SDG:	201212-66	**Client Reference:**	LD10162	**Report Number:**	581010
Location:	Ten Acres Lane	**Order Number:**	LD1734	**Superseded Report:**	

Test Completion Dates

Lab Sample No(s)	23423227	23423223
Customer Sample Ref.	CP101/RH109	RH106
AGS Ref.		
Depth	0.00 - 0.00	0.00 - 0.00
Type	Ground Water	Ground Water
Alkalinity as CaCO3	19-Dec-2020	19-Dec-2020
Anions by Kone (w)	18-Dec-2020	18-Dec-2020
Cyanide Comp/Free/Total/Thiocyanate	16-Dec-2020	16-Dec-2020
Dissolved Metals by ICP-MS	21-Dec-2020	21-Dec-2020
Dissolved Organic/Inorganic Carbon	15-Dec-2020	18-Dec-2020
EPH CWG (Aliphatic) Aqueous GC (W)	18-Dec-2020	18-Dec-2020
EPH CWG (Aromatic) Aqueous GC (W)	18-Dec-2020	18-Dec-2020
GRO by GC-FID (W)	17-Dec-2020	17-Dec-2020
Hexavalent Chromium (w)	15-Dec-2020	15-Dec-2020
Mercury Dissolved	15-Dec-2020	15-Dec-2020
PAH Spec MS - Aqueous (W)	18-Dec-2020	18-Dec-2020
Redox Potential	16-Dec-2020	16-Dec-2020
Sulphide	21-Dec-2020	21-Dec-2020
SVOC MS (W) - Aqueous	21-Dec-2020	21-Dec-2020
TPH CWG (W)	18-Dec-2020	18-Dec-2020
VOC MS (W)	16-Dec-2020	16-Dec-2020

Appendix General

1. Results are expressed on a dry weight basis (dried at 35ºC) for all soil analyses except for the following: NRA and CEN Leach tests, flash point LOI, pH, ammonium as NH4 by the BRE method, VOC TICs and SVOC TICs.

2. If sufficient sample is received a sub sample will be retained free of charge for 30 days after analysis is completed (e-mailed) for all sample types unless the sample is destroyed on testing. The prepared soil sub sample that is analysed for asbestos will be retained for a period of 6 months after the analysis date. All bulk samples will be retained for a period of 6 months after the analysis date. All samples received and not scheduled will be disposed of one month after the date of receipt unless we are instructed to the contrary. Once the initial period has expired, a storage charge will be applied for each month or part thereof until the client cancels the request for sample storage. ALS reserve the right to charge for samples received and stored but not analysed.

3. With respect to turnaround, we will always endeavour to meet client requirements wherever possible, but turnaround times cannot be absolutely guaranteed due to so many variables beyond our control.

4. We take responsibility for any test performed by sub-contractors (marked with an asterisk). We endeavour to use UKAS/MCERTS Accredited Laboratories, who either complete a quality questionnaire or are audited by ourselves. For some determinands there are no UKAS/MCERTS Accredited Laboratories, in this instance a laboratory with a known track record will be utilised.

5. If no separate volatile sample is supplied by the client, or if a headspace or sediment is present in the volatile sample, the integrity of the data may be compromised. This will be flagged up as an invalid VOC on the test schedule and the result marked as deviating on the test certificate.

6. NDP - No determination possible due to insufficient/unsuitable sample.

7. Results relate only to the items tested.

8. LoDs (Limit of Detection) for wet tests reported on a dry weight basis are not corrected for moisture content.

9. **Surrogate recoveries** - Surrogates are added to your sample to monitor recovery of the test requested. A % recovery is reported, results are not corrected for the recovery measured. Typical recoveries for organics tests are 70-130%. Recoveries in soils are affected by organic rich or clay rich matrices. Waters can be affected by remediation fluids or high amounts of sediment. Test results are only ever reported if all of the associated quality checks pass; it is assumed that all recoveries outside of the values above are due to matrix affect.

10. Stones/debris are not routinely removed. We always endeavour to take a representative sub sample from the received sample.

11. In certain circumstances the method detection limit may be elevated due to the sample being outside the calibration range. Other factors that may contribute to this include possible interferences. In both cases the sample would be diluted which would cause the method detection limit to be raised.

12. Mercury results quoted on soils will not include volatile mercury as the analysis is performed on a dried and crushed sample.

13. For leachate preparations other than Zero Headspace Extraction (ZHE) volatile loss may occur.

14. For the BSEN 12457-3 two batch process to allow the cumulative release to be calculated, the volume of the leachate produced is measured and filtered for all tests. We therefore cannot carry out any unfiltered analysis. The tests affected include volatiles GCFID/GCMS and all subcontracted analysis.

15. Analysis and identification of specific compounds using GCFID is by retention time only, and we routinely calibrate and quantify for benzene, toluene, ethylbenzenes and xylenes (BTEX). For total volatiles in the C5-C12 range, the total area of the chromatogram is integrated and expressed as ug/kg or ug/l. Although this analysis is commonly used for the quantification of gasoline range organics (GRO), the system will also detect other compounds such as chlorinated solvents, and this may lead to a falsely high result with respect to hydrocarbons only. It is not possible to specifically identify these non-hydrocarbons, as standards are not routinely run for any other compounds, and for more definitive identification, volatiles by GCMS should be utilised.

16. We are accredited to MCERTS for sand, clay and loam/topsoil, or any of these materials - whether these are derived from naturally occurring soil profiles, or from fill/made ground, as long as these materials constitute the major part of the sample. Other coarse granular material such as concrete, gravel and brick are not accredited if they comprise the major part of the sample.

17. **Tentatively Identified Compounds (TICs)** are non-target peaks in VOC and SVOC analysis. All non-target peaks detected with a concentration above the LoD are subjected to a mass spectral library search. Non-target peaks with a library search confidence of >75% are reported based on the best mass spectral library match. When a non-target peak with a library search confidence of <75% is detected it is reported as "mixed hydrocarbons". Non-target compounds identified from the scan data are semi-quantified relative to one of the deuterated internal standards, under the same chromatographic conditions as the target compounds. This result is reported as a semi-quantitative value and reported as Tentatively Identified Compounds (TICs). TICs are outside the scope of UKAS accreditation and are not moisture corrected.

18. **Sample Deviations**

If a sample is classed as deviated then the associated results may be compromised.

1	**Container with Headspace provided for volatiles analysis**
2	**Incorrect container received**
3	**Deviation from method**
4	**Matrix interference**
♦	**Sample holding time exceeded in laboratory**
@	**Sample holding time exceeded due to late arrival of instructions or samples**
§	**Sampled on date not provided**

19. **Asbestos**

When requested, the individual sub sample scheduled will be analysed in house for the presence of asbestos fibres and asbestos containing material by our documented in house method TM048 based on HSG 248 (2005), which is accredited to ISO17025. If a specific asbestos fibre type is not found this will be reported as "Not detected". If no asbestos fibre types are found all will be reported as "Not detected" and the sub sample analysed deemed to be clear of asbestos. If an asbestos fibre type is found it will be reported as detected (for each fibre type found). Testing can be carried out on asbestos positive samples, but, due to Health and Safety considerations, may be replaced by alternative tests or reported as No Determination Possible (NDP). The quantity of asbestos present is not determined unless specifically requested.

Identification of Asbestos in Bulk Materials & Soils

The results for identification of asbestos in bulk materials are obtained from supplied bulk materials which have been examined to determine the presence of asbestos fibres using ALS (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining, based on HSG 248 (2005).

The results for identification of asbestos in soils are obtained from a homogenised sub sample which has been examined to determine the presence of asbestos fibres using ALS (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining, based on HSG 248 (2005).

Asbestos Type	Common Name
Chrysotile	White Asbestos
Amosite	Brown Asbestos
Crocidolite	Blue Asbestos
Fibrous Actinolite	-
Fibrous Anthophyllite	-
Fibrous Tremolite	-

Visual Estimation Of Fibre Content

Estimation of fibre content is not permitted as part of our UKAS accredited test other than: - Trace - Where only one or two asbestos fibres were identified.

Respirable Fibres

Respirable fibres are defined as fibres of <3 µm diameter, longer than 5 µm and with aspect ratios of at least 3:1 that can be inhaled into the lower regions of the lung and are generally acknowledged to be most important predictor of hazard and risk for cancers of the lung.
Standing Committee of Analysts, *The Quantification of Asbestos in Soil (2017).*

Further guidance on typical asbestos fibre content of manufactured products can be found in HSG 264.

The identification of asbestos containing materials and soils falls within our schedule of tests for which we hold UKAS accreditation, however opinions, interpretations and all other information contained in the report are outside the scope of UKAS accreditation.

Unit 7-8 Hawarden Business Park
Manor Road (off Manor Lane)
Hawarden
Deeside
CH5 3US
Tel: (01244) 528700
Fax: (01244) 528701
email: hawardencustomerservices@alsglobal.com
Website: www.alsenvironmental.co.uk

Wardell Armstrong LLP
36 Park Row
Leeds
LS1 5JL

Attention: Jonathan Currie

CERTIFICATE OF ANALYSIS

Date of report Generation:	13 January 2021
Customer:	Wardell Armstrong LLP
Sample Delivery Group (SDG):	210108-54
Your Reference:	LD10162
Location:	Ten Acres Lane
Report No:	582920

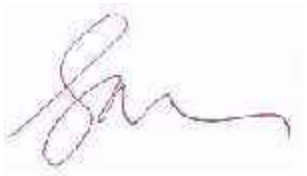
We received 3 samples on Friday January 08, 2021 and 3 of these samples were scheduled for analysis which was completed on Wednesday January 13, 2021. Accredited laboratory tests are defined within the report, but opinions, interpretations and on-site data expressed herein are outside the scope of ISO 17025 accreditation.

Should this report require incorporation into client reports, it must be used in its entirety and not simply with the data sections alone.

Chemical testing (unless subcontracted) performed at ALS Life Sciences Ltd Hawarden (Method codes TM) or ALS Life Sciences Ltd Aberdeen (Method codes S).

All sample data is provided by the customer. The reported results relate to the sample supplied, and on the basis that this data is correct.
Incorrect sampling dates and/or sample information will affect the validity of results.
The customer is not permitted to reproduce this report except in full without the approval of the laboratory.

Approved By:



Sonia McWhan

Operations Manager

CERTIFICATE OF ANALYSIS

SDG:	210108-54	**Client Reference:**	LD10162	**Report Number:**	582920
Location:	Ten Acres Lane	**Order Number:**	LD1734	**Superseded Report:**	

Received Sample Overview

Lab Sample No(s)	Customer Sample Ref.	AGS Ref.	Depth (m)	Sampled Date
23513591	RH103		0.00 - 0.00	07/01/2021
23513554	RH106		0.00 - 0.00	07/01/2021
23513622	RH108		0.00 - 0.00	07/01/2021

Only received samples which have had analysis scheduled will be shown on the following pages.

Validated

CERTIFICATE OF ANALYSIS

SDG:	210108-54	**Client Reference:**	LD10162	**Report Number:**	582920
Location:	Ten Acres Lane	**Order Number:**	LD1734	**Superseded Report:**	

Results Legend

X Test

N No Determination Possible

Sample Types -
S - Soil/Solid
UNS - Unspecified Solid
GW - Ground Water
SW - Surface Water
LE - Land Leachate
PL - Prepared Leachate
PR - Process Water
SA - Saline Water
TE - Trade Effluent
TS - Treated Sewage
US - Untreated Sewage
RE - Recreational Water
DW - Drinking Water Non-regulatory
UNL - Unspecified Liquid
SL - Sludge
G - Gas
OTH - Other

Lab Sample No(s)									23513591							23513554					23513622
Customer Sample Reference									RH103							RH106					RH108
AGS Reference																					
Depth (m)									0.00 - 0.00							0.00 - 0.00					0.00 - 0.00
Container									0.5l glass bottle (ALE227)	250ml Amber Gl. PTFE/PE (ALE219)	500ml Plastic (ALE208)	HNO3 Filtered (ALE204)	NaOH (ALE245)	Vial (ALE297)	ZnAc (ALE246)	0.5l glass bottle (ALE227)	250ml Amber Gl. PTFE/PE (ALE219)	500ml Plastic (ALE208)	HNO3 Filtered (ALE204)	NaOH (ALE245)	
Sample Type									GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	
Alkalinity as CaCO3	All	NDPs: 0 Tests: 3																			
					X						X							X			
Anions by Kone (w)	All	NDPs: 0 Tests: 3																			
					X						X							X			
Cyanide Comp/Free/Total/Thiocyanate	All	NDPs: 0 Tests: 3																			
							X						X								X
Dissolved Metals by ICP-MS	All	NDPs: 0 Tests: 3																			
						X						X								X	
Dissolved Organic/Inorganic Carbon	All	NDPs: 0 Tests: 3																			
			X							X						X					
EPH CWG (Aliphatic) Aqueous GC (W)	All	NDPs: 0 Tests: 3																			
				X							X						X				
EPH CWG (Aromatic) Aqueous GC (W)	All	NDPs: 0 Tests: 3																			
				X							X						X				
GRO by GC-FID (W)	All	NDPs: 0 Tests: 3																			
								X						X							
Hexavalent Chromium (w)	All	NDPs: 0 Tests: 3																			
					X						X							X			
Mercury Dissolved	All	NDPs: 0 Tests: 3																			
						X						X								X	
PAH Spec MS - Aqueous (W)	All	NDPs: 0 Tests: 3																			
				X							X						X				
Redox Potential	All	NDPs: 0 Tests: 3																			
			X							X						X					
Sulphide	All	NDPs: 0 Tests: 3																			
								X							X						
SVOC MS (W) - Aqueous	All	NDPs: 0 Tests: 3																			
			X							X						X					
TPH CWG (W)	All	NDPs: 0 Tests: 3																			
			X							X						X					

235136222	RH108		0.00 - 0.00	ZnAc (ALE246)	Vial (ALE297)
				GW	GW
					X
					X

CERTIFICATE OF ANALYSIS

SDG:	210108-54	**Client Reference:**	LD10162	**Report Number:**	582920
Location:	Ten Acres Lane	**Order Number:**	LD1734	**Superseded Report:**	

Results Legend

- X — Test
- N — No Determination Possible

Sample Types -

S - Soil/Solid
UNS - Unspecified Solid
GW - Ground Water
SW - Surface Water
LE - Land Leachate
PL - Prepared Leachate
PR - Process Water
SA - Saline Water
TE - Trade Effluent
TS - Treated Sewage
US - Untreated Sewage
RE - Recreational Water
DW - Drinking Water Non-regulatory
UNL - Unspecified Liquid
SL - Sludge
G - Gas
OTH - Other

Lab Sample No(s)			23513591							23513554							23513622				
Customer Sample Reference			RH103							RH106							RH108				
AGS Reference																					
Depth (m)			0.00 - 0.00							0.00 - 0.00							0.00 - 0.00				
Container			0.5l glass bottle (ALE227)	250ml Amber Gl. PTFE/PE (ALE219)	500ml Plastic (ALE208)	HNO3 Filtered (ALE204)	NaOH (ALE245)	Vial (ALE297)	ZnAc (ALE246)	0.5l glass bottle (ALE227)	250ml Amber Gl. PTFE/PE (ALE219)	500ml Plastic (ALE208)	HNO3 Filtered (ALE204)	NaOH (ALE245)	Vial (ALE297)	ZnAc (ALE246)	0.5l glass bottle (ALE227)	250ml Amber Gl. PTFE/PE (ALE219)	500ml Plastic (ALE208)	HNO3 Filtered (ALE204)	NaOH (ALE245)
Sample Type			GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
VOC MS (W)	All	NDPs: 0 Tests: 3						X							X						

12:13:52 13/01/2021

23513622	RH108		0.00 - 0.00	ZnAc (ALE246)	GW		
				Vial (ALE297)	GW		X

Validated

CERTIFICATE OF ANALYSIS

SDG:	210108-54	**Client Reference:**	LD10162	**Report Number:**	582920
Location:	Ten Acres Lane	**Order Number:**	LD1734	**Superseded Report:**	

Results Legend	
#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	RH103	RH106	RH108			
			Depth (m)	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00			
			Sample Type	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)			
			Date Sampled	07/01/2021	07/01/2021	07/01/2021			
			Sample Time	.	.	.			
			Date Received	08/01/2021	08/01/2021	08/01/2021			
			SDG Ref	210108-54	210108-54	210108-54			
			Lab Sample No.(s)	23513591	23513554	23513622			
			AGS Reference						
Alkalinity, Total as CaCO3	<2 mg/l	TM043		1020 #	395 #	555 #			
Carbon, Organic (diss.filt)	<3 mg/l	TM090		20.1	6.3	7.89			
Sulphide	<0.01 mg/l	TM101		<0.01 #	<0.01 #	<0.01 #			
Redox potential	mV	TM110		143	143	160			
Arsenic (diss.filt)	<0.5 µg/l	TM152		35.6 #	2.66 #	3.13 #			
Boron (diss.filt)	<10 µg/l	TM152		54800 #	583 #	313 #			
Cadmium (diss.filt)	<0.08 µg/l	TM152		<0.08 #	<0.08 #	<0.08 #			
Chromium (diss.filt)	<1 µg/l	TM152		<1 #	<1 #	<1 #			
Copper (diss.filt)	<0.3 µg/l	TM152		0.955 #	2.18 #	<0.3 #			
Lead (diss.filt)	<0.2 µg/l	TM152		0.912 #	0.282 #	0.433 #			
Manganese (diss.filt)	<3 µg/l	TM152		544 #	471 #	3880 #			
Nickel (diss.filt)	<0.4 µg/l	TM152		3.09 #	2.61 #	7.88 #			
Selenium (diss.filt)	<1 µg/l	TM152		<1 #	2.86 #	<1 #			
Calcium (Dis.Filt)	<0.2 mg/l	TM152		135 #	97.7 #	255 #			
Iron (Dis.Filt)	<0.019 mg/l	TM152		1.79 #	0.0444 #	0.726 #			
Mercury (diss.filt)	<0.01 µg/l	TM183		<0.01 #	<0.01 #	<0.01 #			
Sulphate	<2 mg/l	TM184		53.3 #	83.5 #	588 #			
Cyanide, Total	<0.05 mg/l	TM227		<0.05 #	<0.05 #	<0.05 #			
Cyanide, Free	<0.05 mg/l	TM227		<0.05 #	<0.05 #	<0.05 #			
Cyanide, Complex	<0.05 mg/l	TM227		<0.05	<0.05	<0.05			
Thiocyanate	<0.05 mg/l	TM227		<0.05 #	<0.05 #	<0.05 #			
Chromium, Hexavalent	<0.03 mg/l	TM241		<0.03 #	<0.03 #	<0.03 #			

Validated

CERTIFICATE OF ANALYSIS

SDG:	210108-54	**Client Reference:**	LD10162	**Report Number:**	582920
Location:	Ten Acres Lane	**Order Number:**	LD1734	**Superseded Report:**	

PAH Spec MS - Aqueous (W)

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	RH103	RH106	RH108			
			Depth (m)	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00			
			Sample Type	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)			
			Date Sampled	07/01/2021	07/01/2021	07/01/2021			
			Sample Time	.	.	.			
			Date Received	08/01/2021	08/01/2021	08/01/2021			
			SDG Ref	210108-54	210108-54	210108-54			
			Lab Sample No.(s)	23513591	23513554	23513622			
			AGS Reference						
Naphthalene (aq)	<0.01 µg/l	TM178		0.026 #	0.0188 #	0.0492 #			
Acenaphthene (aq)	<0.005 µg/l	TM178		0.149 #	0.0357 #	0.0322 #			
Acenaphthylene (aq)	<0.005 µg/l	TM178		0.151 #	0.0347 #	0.0257 #			
Fluoranthene (aq)	<0.005 µg/l	TM178		1.25 #	0.48 #	0.31 #			
Anthracene (aq)	<0.005 µg/l	TM178		0.135 #	0.0613 #	0.0379 #			
Phenanthrene (aq)	<0.005 µg/l	TM178		0.608 #	0.3 #	0.206 #			
Fluorene (aq)	<0.005 µg/l	TM178		0.0831 #	0.029 #	0.0267 #			
Chrysene (aq)	<0.005 µg/l	TM178		0.755 #	0.323 #	0.23 #			
Pyrene (aq)	<0.005 µg/l	TM178		1.19 #	0.454 #	0.322 #			
Benzo(a)anthracene (aq)	<0.005 µg/l	TM178		0.685 #	0.295 #	0.219 #			
Benzo(b)fluoranthene (aq)	<0.005 µg/l	TM178		1.27 #	0.637 #	0.418 #			
Benzo(k)fluoranthene (aq)	<0.005 µg/l	TM178		0.484 #	0.23 #	0.146 #			
Benzo(a)pyrene (aq)	<0.002 µg/l	TM178		0.9 #	0.399 #	0.278 #			
Dibenzo(a,h)anthracene (aq)	<0.005 µg/l	TM178		0.127 #	0.0596 #	0.0497 #			
Benzo(g,h,i)perylene (aq)	<0.005 µg/l	TM178		0.719 #	0.296 #	0.225 #			
Indeno(1,2,3-cd)pyrene (aq)	<0.005 µg/l	TM178		0.652 #	0.285 #	0.176 #			
PAH, Total Detected USEPA 16 (aq)	<0.082 µg/l	TM178		9.19 #	3.94 #	2.75 #			

CERTIFICATE OF ANALYSIS

SDG:	210108-54	**Client Reference:**	LD10162	**Report Number:**	582920
Location:	Ten Acres Lane	**Order Number:**	LD1734	**Superseded Report:**	

SVOC MS (W) - Aqueous

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	RH103	RH106	RH108			
			Depth (m)	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00			
			Sample Type	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)			
			Date Sampled	07/01/2021	07/01/2021	07/01/2021			
			Sample Time	.	.	.			
			Date Received	08/01/2021	08/01/2021	08/01/2021			
			SDG Ref	210108-54	210108-54	210108-54			
			Lab Sample No.(s)	23513591	23513554	23513622			
			AGS Reference						
1,2,4-Trichlorobenzene (aq)	<1 µg/l	TM176		<8 #	<4 #	<20 #			
1,2-Dichlorobenzene (aq)	<1 µg/l	TM176		<8 #	<4 #	<20 #			
1,3-Dichlorobenzene (aq)	<1 µg/l	TM176		<8 #	<4 #	<20 #			
1,4-Dichlorobenzene (aq)	<1 µg/l	TM176		<8 #	<4 #	<20 #			
2,4,5-Trichlorophenol (aq)	<1 µg/l	TM176		<8 #	<4 #	<20 #			
2,4,6-Trichlorophenol (aq)	<1 µg/l	TM176		<8 #	<4 #	<20 #			
2,4-Dichlorophenol (aq)	<1 µg/l	TM176		<8 #	<4 #	<20 #			
2,4-Dimethylphenol (aq)	<1 µg/l	TM176		<8 #	<4 #	<20 #			
2,4-Dinitrotoluene (aq)	<1 µg/l	TM176		<8 #	<4 #	<20 #			
2,6-Dinitrotoluene (aq)	<1 µg/l	TM176		<8 #	<4 #	<20 #			
2-Chloronaphthalene (aq)	<1 µg/l	TM176		<8 #	<4 #	<20 #			
2-Chlorophenol (aq)	<1 µg/l	TM176		<8 #	<4 #	<20 #			
2-Methylnaphthalene (aq)	<1 µg/l	TM176		<8 #	<4 #	<20 #			
2-Methylphenol (aq)	<1 µg/l	TM176		<8 #	<4 #	<20 #			
2-Nitroaniline (aq)	<1 µg/l	TM176		<8 #	<4 #	<20 #			
2-Nitrophenol (aq)	<1 µg/l	TM176		<8 #	<4 #	<20 #			
3-Nitroaniline (aq)	<1 µg/l	TM176		<8 #	<4 #	<20 #			
4-Bromophenylphenylether (aq)	<1 µg/l	TM176		<8 #	<4 #	<20 #			
4-Chloro-3-methylphenol (aq)	<1 µg/l	TM176		<8 #	<4 #	<20 #			
4-Chloroaniline (aq)	<1 µg/l	TM176		<8	<4	<20			
4-Chlorophenylphenylether (aq)	<1 µg/l	TM176		<8 #	<4 #	<20 #			
4-Methylphenol (aq)	<1 µg/l	TM176		<8 #	<4 #	<20 #			
4-Nitroaniline (aq)	<1 µg/l	TM176		<8 #	<4 #	<20 #			
4-Nitrophenol (aq)	<1 µg/l	TM176		<8	<4	<20			
Azobenzene (aq)	<1 µg/l	TM176		<8 #	<4 #	<20 #			
bis(2-Chloroethyl)ether (aq)	<1 µg/l	TM176		<8 #	<4 #	<20 #			
bis(2-Chloroethoxy)methane (aq)	<1 µg/l	TM176		<8 #	<4 #	<20 #			
bis(2-Ethylhexyl) phthalate (aq)	<2 µg/l	TM176		<16 #	<8 #	<40 #			
Butylbenzyl phthalate (aq)	<1 µg/l	TM176		<8 #	<4 #	<20 #			
Carbazole (aq)	<1 µg/l	TM176		<8 #	<4 #	<20 #			
Dibenzofuran (aq)	<1 µg/l	TM176		<8 #	<4 #	<20 #			
n-Dibutyl phthalate (aq)	<1 µg/l	TM176		<8 #	<4 #	<20 #			
Diethyl phthalate (aq)	<1 µg/l	TM176		<8 #	<4 #	<20 #			

Validated

CERTIFICATE OF ANALYSIS

SDG:	210108-54	**Client Reference:**	LD10162	**Report Number:**	582920
Location:	Ten Acres Lane	**Order Number:**	LD1734	**Superseded Report:**	

SVOC MS (W) - Aqueous

Results Legend	
#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	RH103	RH106	RH108			
			Depth (m)	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00			
			Sample Type	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)			
			Date Sampled	07/01/2021	07/01/2021	07/01/2021			
			Sample Time	.	.	.			
			Date Received	08/01/2021	08/01/2021	08/01/2021			
			SDG Ref	210108-54	210108-54	210108-54			
			Lab Sample No.(s)	23513591	23513554	23513622			
			AGS Reference						
Dimethyl phthalate (aq)	<1 µg/l	TM176		<8 #	<4 #	<20 #			
n-Dioctyl phthalate (aq)	<5 µg/l	TM176		<40 #	<20 #	<100 #			
Hexachlorobenzene (aq)	<1 µg/l	TM176		<8 #	<4 #	<20 #			
Hexachlorobutadiene (aq)	<1 µg/l	TM176		<8 #	<4 #	<20 #			
Pentachlorophenol (aq)	<1 µg/l	TM176		<8	<4	<20			
Phenol (aq)	<1 µg/l	TM176		<8	<4	<20			
n-Nitroso-n-dipropylamine (aq)	<1 µg/l	TM176		<8 #	<4 #	<20 #			
Hexachloroethane (aq)	<1 µg/l	TM176		<8 #	<4 #	<20 #			
Nitrobenzene (aq)	<1 µg/l	TM176		<8 #	<4 #	<20 #			
Isophorone (aq)	<1 µg/l	TM176		<8 #	<4 #	<20 #			
Hexachlorocyclopentadiene (aq)	<1 µg/l	TM176		<8	<4	<20			

Validated

CERTIFICATE OF ANALYSIS

SDG: 210108-54 **Client Reference:** LD10162 **Report Number:** 582920
Location: Ten Acres Lane **Order Number:** LD1734 **Superseded Report:**

TPH CWG (W)

Results Legend	
#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	RH103	RH106	RH108			
			Depth (m)	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00			
			Sample Type	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)			
			Date Sampled	07/01/2021	07/01/2021	07/01/2021			
			Sample Time	.	.	.			
			Date Received	08/01/2021	08/01/2021	08/01/2021			
			SDG Ref	210108-54	210108-54	210108-54			
			Lab Sample No.(s)	23513591	23513554	23513622			
			AGS Reference						
GRO Surrogate % recovery**	%	TM245		88	95	94			
GRO >C5-C12	<50 µg/l	TM245		<50 #	<50 #	<50 #			
Methyl tertiary butyl ether (MTBE)	<3 µg/l	TM245		<3 #	<3 #	<3 #			
Benzene	<7 µg/l	TM245		<7 #	<7 #	<7 #			
Toluene	<4 µg/l	TM245		<4 #	<4 #	<4 #			
Ethylbenzene	<5 µg/l	TM245		<5 #	<5 #	<5 #			
m,p-Xylene	<8 µg/l	TM245		<8 #	<8 #	<8 #			
o-Xylene	<3 µg/l	TM245		<3 #	<3 #	<3 #			
Sum of detected Xylenes	<11 µg/l	TM245		<11	<11	<11			
Sum of detected BTEX	<28 µg/l	TM245		<28	<28	<28			
Aliphatics >C5-C6	<10 µg/l	TM245		<10	<10	<10			
Aliphatics >C6-C8	<10 µg/l	TM245		<10	<10	<10			
Aliphatics >C8-C10	<10 µg/l	TM245		<10	<10	<10			
Aliphatics >C10-C12	<10 µg/l	TM245		<10	<10	<10			
Aliphatics >C12-C16 (aq)	<10 µg/l	TM174		<10	<10	<10			
Aliphatics >C16-C21 (aq)	<10 µg/l	TM174		<10	<10	<10			
Aliphatics >C21-C35 (aq)	<10 µg/l	TM174		<10	<10	<10			
Total Aliphatics >C12-C35 (aq)	<10 µg/l	TM174		<10	<10	<10			
Aromatics >EC5-EC7	<10 µg/l	TM245		<10	<10	<10			
Aromatics >EC7-EC8	<10 µg/l	TM245		<10	<10	<10			
Aromatics >EC8-EC10	<10 µg/l	TM245		<10	<10	<10			
Aromatics >EC10-EC12	<10 µg/l	TM245		<10	<10	<10			
Aromatics >EC12-EC16 (aq)	<10 µg/l	TM174		<10	<10	<10			
Aromatics >EC16-EC21 (aq)	<10 µg/l	TM174		<10	<10	<10			
Aromatics >EC21-EC35 (aq)	<10 µg/l	TM174		<10	<10	<10			
Total Aromatics >EC12-EC35 (aq)	<10 µg/l	TM174		<10	<10	<10			
Total Aliphatics & Aromatics >C5-35 (aq)	<10 µg/l	TM174		<10	<10	<10			
Aliphatics >C16-C35 Aqueous	<10 µg/l	TM174		<10	<10	<10			

CERTIFICATE OF ANALYSIS

SDG:	210108-54	**Client Reference:**	LD10162	**Report Number:**	582920
Location:	Ten Acres Lane	**Order Number:**	LD1734	**Superseded Report:**	

VOC MS (W)

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	RH103	RH106	RH108			
Customer Sample Ref.								
Depth (m)			0.00 - 0.00	0.00 - 0.00	0.00 - 0.00			
Sample Type			Ground Water (GW)	Ground Water (GW)	Ground Water (GW)			
Date Sampled			07/01/2021	07/01/2021	07/01/2021			
Sample Time			-	-	-			
Date Received			08/01/2021	08/01/2021	08/01/2021			
SDG Ref			210108-54	210108-54	210108-54			
Lab Sample No.(s)			23513591	23513554	23513622			
AGS Reference								
Dibromofluoromethane**	%	TM208	109	114	112			
Toluene-d8**	%	TM208	98.8	97.5	96.8			
4-Bromofluorobenzene**	%	TM208	96.9	95.9	92			
Dichlorodifluoromethane	<1 µg/l	TM208	<1 #	<1 #	<1 #			
Chloromethane	<1 µg/l	TM208	<1 #	<1 #	<1 #			
Vinyl chloride	<1 µg/l	TM208	<1 #	<1 #	<1 #			
Bromomethane	<1 µg/l	TM208	<1 #	<1 #	<1 #			
Chloroethane	<1 µg/l	TM208	<1 #	<1 #	<1 #			
Trichlorofluoromethane	<1 µg/l	TM208	<1 #	<1 #	<1 #			
1,1-Dichloroethene	<1 µg/l	TM208	<1 #	<1 #	<1 #			
Carbon disulphide	<1 µg/l	TM208	<1 #	<1 #	<1 #			
Dichloromethane	<3 µg/l	TM208	<3 #	<3 #	<3 #			
Methyl tertiary butyl ether (MTBE)	<1 µg/l	TM208	<1 #	<1 #	<1 #			
trans-1,2-Dichloroethene	<1 µg/l	TM208	<1 #	<1 #	<1 #			
1,1-Dichloroethane	<1 µg/l	TM208	<1 #	<1 #	<1 #			
cis-1,2-Dichloroethene	<1 µg/l	TM208	<1 #	<1 #	<1 #			
2,2-Dichloropropane	<1 µg/l	TM208	<1	<1	<1			
Bromochloromethane	<1 µg/l	TM208	<1 #	<1 #	<1 #			
Chloroform	<1 µg/l	TM208	<1 #	<1 #	<1 #			
1,1,1-Trichloroethane	<1 µg/l	TM208	<1 #	<1 #	<1 #			
1,1-Dichloropropene	<1 µg/l	TM208	<1 #	<1 #	<1 #			
Carbontetrachloride	<1 µg/l	TM208	<1 #	<1 #	<1 #			
1,2-Dichloroethane	<1 µg/l	TM208	<1 #	<1 #	<1 #			
Benzene	<1 µg/l	TM208	<1 #	<1 #	<1 #			
Trichloroethene	<1 µg/l	TM208	<1 #	<1 #	<1 #			
1,2-Dichloropropane	<1 µg/l	TM208	<1 #	<1 #	<1 #			
Dibromomethane	<1 µg/l	TM208	<1 #	<1 #	<1 #			
Bromodichloromethane	<1 µg/l	TM208	<1 #	<1 #	<1 #			
cis-1,3-Dichloropropene	<1 µg/l	TM208	<1 #	<1 #	<1 #			
Toluene	<1 µg/l	TM208	<1 #	<1 #	<1 #			
trans-1,3-Dichloropropene	<1 µg/l	TM208	<1 #	<1 #	<1 #			
1,1,2-Trichloroethane	<1 µg/l	TM208	<1 #	<1 #	<1 #			
1,3-Dichloropropane	<1 µg/l	TM208	<1 #	<1 #	<1 #			

CERTIFICATE OF ANALYSIS

SDG:	210108-54	**Client Reference:**	LD10162	**Report Number:**	582920
Location:	Ten Acres Lane	**Order Number:**	LD1734	**Superseded Report:**	

VOC MS (W)

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	RH103	RH106	RH108			
			Depth (m)	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00			
			Sample Type	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)			
			Date Sampled	07/01/2021	07/01/2021	07/01/2021			
			Sample Time	.	.	.			
			Date Received	08/01/2021	08/01/2021	08/01/2021			
			SDG Ref	210108-54	210108-54	210108-54			
			Lab Sample No.(s)	23513591	23513554	23513622			
			AGS Reference						
Tetrachloroethene	<1 µg/l	TM208		<1 #	<1 #	<1 #			
Dibromochloromethane	<1 µg/l	TM208		<1 #	<1 #	<1 #			
1,2-Dibromoethane	<1 µg/l	TM208		<1 #	<1 #	<1 #			
Chlorobenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #			
1,1,1,2-Tetrachloroethane	<1 µg/l	TM208		<1 #	<1 #	<1 #			
Ethylbenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #			
m,p-Xylene	<1 µg/l	TM208		<1 #	<1 #	<1 #			
o-Xylene	<1 µg/l	TM208		<1 #	<1 #	<1 #			
Styrene	<1 µg/l	TM208		<1 #	<1 #	<1 #			
Bromoform	<1 µg/l	TM208		<1 #	<1 #	<1 #			
Isopropylbenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #			
1,1,2,2-Tetrachloroethane	<1 µg/l	TM208		<1 #	<1 #	<1 #			
1,2,3-Trichloropropane	<1 µg/l	TM208		<1 #	<1 #	<1 #			
Bromobenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #			
Propylbenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #			
2-Chlorotoluene	<1 µg/l	TM208		<1 #	<1 #	<1 #			
1,3,5-Trimethylbenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #			
4-Chlorotoluene	<1 µg/l	TM208		<1 #	<1 #	<1 #			
tert-Butylbenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #			
1,2,4-Trimethylbenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #			
sec-Butylbenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #			
4-iso-Propyltoluene	<1 µg/l	TM208		<1 #	<1 #	<1 #			
1,3-Dichlorobenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #			
1,4-Dichlorobenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #			
n-Butylbenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #			
1,2-Dichlorobenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #			
1,2-Dibromo-3-chloropropane	<1 µg/l	TM208		<1	<1	<1			
1,2,4-Trichlorobenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #			
Hexachlorobutadiene	<1 µg/l	TM208		<1 #	<1 #	<1 #			
tert-Amyl methyl ether (TAME)	<1 µg/l	TM208		<1 #	<1 #	<1 #			
Naphthalene	<1 µg/l	TM208		<1 #	<1 #	<1 #			
1,2,3-Trichlorobenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #			
1,3,5-Trichlorobenzene	<1 µg/l	TM208		<1	<1	<1			

Table of Results - Appendix

Method No	Reference	Description
TM043	Method 2320B, AWWA/APHA, 20th Ed., 1999 / BS 2690: Part109 1984	Determination of alkalinity in aqueous samples
TM090	Method 5310, AWWA/APHA, 20th Ed., 1999 / Modified: US EPA Method 415.1 & 9060	Determination of Total Organic Carbon/Total Inorganic Carbon in Water and Waste Water
TM101	Method 4500B & C, AWWA/APHA, 20th Ed., 1999	Determination of Sulphide in soil and water samples using the Kone Analyser
TM110	BS 1377: Part 3 1990	Redox Potential
TM152	Method 3125B, AWWA/APHA, 20th Ed., 1999	Analysis of Aqueous Samples by ICP-MS
TM174	Analysis of Petroleum Hydrocarbons in Environmental Media – Total Petroleum Hydrocarbon Criteria	Determination of Speciated Extractable Petroleum Hydrocarbons in Waters by GC-FID
TM176	EPA 8270D Semi-Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)	Determination of SVOCs in Water by GCMS
TM178	Modified: US EPA Method 8100	Determination of Polynuclear Aromatic Hydrocarbons (PAH) by GC-MS in Waters
TM183	BS EN 23506:2002, (BS 6068-2.74:2002) ISBN 0 580 38924 3	Determination of Trace Level Mercury in Waters and Leachates by PSA Cold Vapour Atomic Fluorescence Spectrometry
TM184	EPA Methods 325.1 & 325.2,	The Determination of Anions in Aqueous Matrices using the Kone Spectrophotometric Analysers
TM208	Modified: US EPA Method 8260b & 624	Determination of Volatile Organic Compounds by Headspace / GC-MS in Waters
TM227	Standard methods for the examination of waters and wastewaters 20th Edition, AWWA/APHA Method 4500.	Determination of Total Cyanide, Free (Easily Liberatable) Cyanide and Thiocyanate
TM241	Methods for the Examination of Waters and Associated Materials; Chromium in Raw and Potable Waters and Sewage Effluents 1980.	The Determination of Hexavalent Chromium in Waters and Leachates using the Kone Analyser
TM245	By GC-FID	Determination of GRO by Headspace in waters

NA = not applicable.

Chemical testing (unless subcontracted) performed at ALS Life Sciences Ltd Hawarden (Method codes TM) or ALS Life Sciences Ltd Aberdeen (Method codes S).

CERTIFICATE OF ANALYSIS

SDG:	210108-54	**Client Reference:**	LD10162	**Report Number:**	582920
Location:	Ten Acres Lane	**Order Number:**	LD1734	**Superseded Report:**	

Test Completion Dates

Lab Sample No(s)	23513591	23513554	23513622
Customer Sample Ref.	RH103	RH106	RH108
AGS Ref.			
Depth	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Type	Ground Water	Ground Water	Ground Water
Alkalinity as CaCO3	11-Jan-2021	11-Jan-2021	11-Jan-2021
Anions by Kone (w)	11-Jan-2021	11-Jan-2021	11-Jan-2021
Cyanide Comp/Free/Total/Thiocyanate	13-Jan-2021	12-Jan-2021	13-Jan-2021
Dissolved Metals by ICP-MS	12-Jan-2021	12-Jan-2021	12-Jan-2021
Dissolved Organic/Inorganic Carbon	09-Jan-2021	09-Jan-2021	09-Jan-2021
EPH CWG (Aliphatic) Aqueous GC (W)	11-Jan-2021	11-Jan-2021	11-Jan-2021
EPH CWG (Aromatic) Aqueous GC (W)	11-Jan-2021	11-Jan-2021	11-Jan-2021
GRO by GC-FID (W)	12-Jan-2021	12-Jan-2021	12-Jan-2021
Hexavalent Chromium (w)	11-Jan-2021	11-Jan-2021	11-Jan-2021
Mercury Dissolved	11-Jan-2021	12-Jan-2021	11-Jan-2021
PAH Spec MS - Aqueous (W)	12-Jan-2021	12-Jan-2021	12-Jan-2021
Redox Potential	11-Jan-2021	11-Jan-2021	11-Jan-2021
Sulphide	13-Jan-2021	13-Jan-2021	13-Jan-2021
SVOC MS (W) - Aqueous	12-Jan-2021	12-Jan-2021	12-Jan-2021
TPH CWG (W)	12-Jan-2021	12-Jan-2021	12-Jan-2021
VOC MS (W)	11-Jan-2021	11-Jan-2021	11-Jan-2021

Appendix General

1. Results are expressed on a dry weight basis (dried at 35ºC) for all soil analyses except for the following: NRA and CEN Leach tests, flash point LOI, pH, ammonium as NH4 by the BRE method, VOC TICs and SVOC TICs.

2. If sufficient sample is received a sub sample will be retained free of charge for 30 days after analysis is completed (e-mailed) for all sample types unless the sample is destroyed on testing. The prepared soil sub sample that is analysed for asbestos will be retained for a period of 6 months after the analysis date. All bulk samples will be retained for a period of 6 months after the analysis date. All samples received and not scheduled will be disposed of one month after the date of receipt unless we are instructed to the contrary. Once the initial period has expired, a storage charge will be applied for each month or part thereof until the client cancels the request for sample storage. ALS reserve the right to charge for samples received and stored but not analysed.

3. With respect to turnaround, we will always endeavour to meet client requirements wherever possible, but turnaround times cannot be absolutely guaranteed due to so many variables beyond our control.

4. We take responsibility for any test performed by sub-contractors (marked with an asterisk). We endeavour to use UKAS/MCERTS Accredited Laboratories, who either complete a quality questionnaire or are audited by ourselves. For some determinands there are no UKAS/MCERTS Accredited Laboratories, in this instance a laboratory with a known track record will be utilised.

5. If no separate volatile sample is supplied by the client, or if a headspace or sediment is present in the volatile sample, the integrity of the data may be compromised. This will be flagged up as an invalid VOC on the test schedule and the result marked as deviating on the test certificate.

6. NDP - No determination possible due to insufficient/unsuitable sample.

7. Results relate only to the items tested.

8. LoDs (Limit of Detection) for wet tests reported on a dry weight basis are not corrected for moisture content.

9. **Surrogate recoveries** - Surrogates are added to your sample to monitor recovery of the test requested. A % recovery is reported, results are not corrected for the recovery measured. Typical recoveries for organics tests are 70-130%. Recoveries in soils are affected by organic rich or clay rich matrices. Waters can be affected by remediation fluids or high amounts of sediment. Test results are only ever reported if all of the associated quality checks pass; it is assumed that all recoveries outside of the values above are due to matrix affect.

10. Stones/debris are not routinely removed. We always endeavour to take a representative sub sample from the received sample.

11. In certain circumstances the method detection limit may be elevated due to the sample being outside the calibration range. Other factors that may contribute to this include possible interferences. In both cases the sample would be diluted which would cause the method detection limit to be raised.

12. Mercury results quoted on soils will not include volatile mercury as the analysis is performed on a dried and crushed sample.

13. For leachate preparations other than Zero Headspace Extraction (ZHE) volatile loss may occur.

14. For the BSEN 12457-3 two batch process to allow the cumulative release to be calculated, the volume of the leachate produced is measured and filtered for all tests. We therefore cannot carry out any unfiltered analysis. The tests affected include volatiles GCFID/GCMS and all subcontracted analysis.

15. Analysis and identification of specific compounds using GCFID is by retention time only, and we routinely calibrate and quantify for benzene, toluene, ethylbenzenes and xylenes (BTEX). For total volatiles in the C5-C12 range, the total area of the chromatogram is integrated and expressed as ug/kg or ug/l. Although this analysis is commonly used for the quantification of gasoline range organics (GRO), the system will also detect other compounds such as chlorinated solvents, and this may lead to a falsely high result with respect to hydrocarbons only. It is not possible to specifically identify these non-hydrocarbons, as standards are not routinely run for any other compounds, and for more definitive identification, volatiles by GCMS should be utilised.

16. We are accredited to MCERTS for sand, clay and loam/topsoil, or any of these materials - whether these are derived from naturally occurring soil profiles, or from fill/made ground, as long as these materials constitute the major part of the sample. Other coarse granular material such as concrete, gravel and brick are not accredited if they comprise the major part of the sample.

17. **Tentatively Identified Compounds (TICs)** are non-target peaks in VOC and SVOC analysis. All non-target peaks detected with a concentration above the LoD are subjected to a mass spectral library search. Non-target peaks with a library search confidence of >75% are reported based on the best mass spectral library match. When a non-target peak with a library search confidence of <75% is detected it is reported as "mixed hydrocarbons". Non-target compounds identified from the scan data are semi-quantified relative to one of the deuterated internal standards, under the same chromatographic conditions as the target compounds. This result is reported as a semi-quantitative value and reported as Tentatively Identified Compounds (TICs). TICs are outside the scope of UKAS accreditation and are not moisture corrected.

18. **Sample Deviations**

If a sample is classed as deviated then the associated results may be compromised.

1	**Container with Headspace provided for volatiles analysis**
2	**Incorrect container received**
3	**Deviation from method**
4	**Matrix interference**
♦	**Sample holding time exceeded in laboratory**
@	**Sample holding time exceeded due to late arrival of instructions or samples**
§	**Sampled on date not provided**

19. **Asbestos**

When requested, the individual sub sample scheduled will be analysed in house for the presence of asbestos fibres and asbestos containing material by our documented in house method TM048 based on HSG 248 (2005), which is accredited to ISO17025. If a specific asbestos fibre type is not found this will be reported as "Not detected". If no asbestos fibre types are found all will be reported as "Not detected" and the sub sample analysed deemed to be clear of asbestos. If an asbestos fibre type is found it will be reported as detected (for each fibre type found). Testing can be carried out on asbestos positive samples, but, due to Health and Safety considerations, may be replaced by alternative tests or reported as No Determination Possible (NDP). The quantity of asbestos present is not determined unless specifically requested.

Identification of Asbestos in Bulk Materials & Soils

The results for identification of asbestos in bulk materials are obtained from supplied bulk materials which have been examined to determine the presence of asbestos fibres using ALS (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining, based on HSG 248 (2005).

The results for identification of asbestos in soils are obtained from a homogenised sub sample which has been examined to determine the presence of asbestos fibres using ALS (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining, based on HSG 248 (2005).

Asbestos Type	Common Name
Chrysotile	White Asbestos
Amosite	Brown Asbestos
Crocidolite	Blue Asbestos
Fibrous Actinolite	-
Fibrous Anthophyllite	-
Fibrous Tremolite	-

Visual Estimation Of Fibre Content

Estimation of fibre content is not permitted as part of our UKAS accredited test other than: - Trace - Where only one or two asbestos fibres were identified.

Respirable Fibres

Respirable fibres are defined as fibres of <3 µm diameter, longer than 5 µm and with aspect ratios of at least 3:1 that can be inhaled into the lower regions of the lung and are generally acknowledged to be most important predictor of hazard and risk for cancers of the lung.
Standing Committee of Analysts, *The Quantification of Asbestos in Soil (2017).*

Further guidance on typical asbestos fibre content of manufactured products can be found in HSG 264.

The identification of asbestos containing materials and soils falls within our schedule of tests for which we hold UKAS accreditation, however opinions, interpretations and all other information contained in the report are outside the scope of UKAS accreditation.

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Manor Road (off Manor Lane)
Hawarden
Deeside
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Website: www.alsenvironmental.co.uk

Wardell Armstrong LLP
36 Park Row
Leeds
LS1 5JL

Attention: Jonathan Currie

CERTIFICATE OF ANALYSIS

Date of report Generation:	02 June 2021
Customer:	Wardell Armstrong LLP
Sample Delivery Group (SDG):	210126-33
Your Reference:	LD10162
Location:	Ten Acres Lane
Report No:	600239

This report has been revised and directly supersedes 600234 in its entirety.

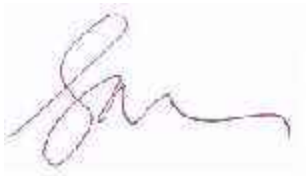
We received 1 sample on Tuesday January 26, 2021 and 1 of these samples were scheduled for analysis which was completed on Wednesday June 02, 2021. Accredited laboratory tests are defined within the report, but opinions, interpretations and on-site data expressed herein are outside the scope of ISO 17025 accreditation.

Should this report require incorporation into client reports, it must be used in its entirety and not simply with the data sections alone.

Chemical testing (unless subcontracted) performed at ALS Life Sciences Ltd Hawarden (Method codes TM) or ALS Life Sciences Ltd Aberdeen (Method codes S).

All sample data is provided by the customer. The reported results relate to the sample supplied, and on the basis that this data is correct.
Incorrect sampling dates and/or sample information will affect the validity of results.
The customer is not permitted to reproduce this report except in full without the approval of the laboratory.

Approved By:



Sonia McWhan

Operations Manager

ALS Life Sciences Limited. Registered Office: Units 7 & 8 Hawarden Business Park, Manor Road, Hawarden, Deeside, CH5 3US. Registered in England and Wales No. 4057291.

Version: 2.8 Version Issued: 02/06/2021

CERTIFICATE OF ANALYSIS

SDG:	210126-33	**Client Reference:**	LD10162	**Report Number:**	600239
Location:	Ten Acres Lane	**Order Number:**	LD1778	**Superseded Report:**	600234

Received Sample Overview

Lab Sample No(s)	Customer Sample Ref.	AGS Ref.	Depth (m)	Sampled Date
23607405	Seepage Sample 01		0.00 - 0.00	25/01/2021

Only received samples which have had analysis scheduled will be shown on the following pages.

Validated

CERTIFICATE OF ANALYSIS

SDG:	210126-33	**Client Reference:**	LD10162	**Report Number:**	600239
Location:	Ten Acres Lane	**Order Number:**	LD1778	**Superseded Report:**	600234

Results Legend

X Test

N No Determination Possible

Sample Types -

S - Soil/Solid
UNS - Uns9ecified Solid
GW - Ground Water
SW - Surface Water
LE - Land Leachate
PL - Pre9ared Leachate
PR - Process Water
SA - Saline Water
TE - Trade Effluent
TS - Treated Sewage
US - Untreated Sewage
RE - Recreational Water
DW - Drinking Water Non-regulatory
UNL - Unspecified Liquid
SL - Sludge
G - Gas
OTH - Other

Lab Sample No(s)			23607405					
Customer Sample Reference			Seepage Sample 01					
AGS Reference								
Depth (m)			0.00 - 0.00					
Container			0.5l glass bottle (ALE227)	500ml Plastic (ALE208)	HNO3 Filtered (ALE204)	NaOH (ALE245)	Vial (ALE297)	ZnAc (ALE246)
Sample Type			GW	GW	GW	GW	GW	GW
Alkalinity as CaCO3	All	NDPs: 0 Tests: 1		X				
Anions by Kone (w)	All	NDPs: 0 Tests: 1		X				
Chlorine	All	NDPs: 0 Tests: 1		X				
Conductivity (at 20 deg.C)	All	NDPs: 0 Tests: 1		X				
Cyanide Comp/Free/Total/Thiocyanate	All	NDPs: 0 Tests: 1				X		
Dissolved Metals by ICP-MS	All	NDPs: 0 Tests: 1			X			
Dissolved Organic/Inorganic Carbon	All	NDPs: 0 Tests: 1	X					
Dissolved Oxygen by Probe	All	NDPs: 0 Tests: 1		X				
EPH CWG (Aliphatic) Aqueous GC (W)	All	NDPs: 0 Tests: 1	X					
EPH CWG (Aromatic) Aqueous GC (W)	All	NDPs: 0 Tests: 1	X					
Fluoride	All	NDPs: 0 Tests: 1		X				
GRO by GC-FID (W)	All	NDPs: 0 Tests: 1					X	
Hexavalent Chromium (w)	All	NDPs: 0 Tests: 1		X				
Mercury Dissolved	All	NDPs: 0 Tests: 1			X			
PAH Spec MS - Aqueous (W)	All	NDPs: 0 Tests: 1	X					

Validated

CERTIFICATE OF ANALYSIS

SDG:	210126-33	**Client Reference:**	LD10162	**Report Number:**	600239
Location:	Ten Acres Lane	**Order Number:**	LD1778	**Superseded Report:**	600234

Results Legend

X Test

N No Determination Possible

Sample Types -
S - Soil/Solid
UNS - Uns9ecified Solid
GW - Ground Water
SW - Surface Water
LE - Land Leachate
PL - Pre9ared Leachate
PR - Process Water
SA - Saline Water
TE - Trade Effluent
TS - Treated Sewage
US - Untreated Sewage
RE - Recreational Water
DW - Drinking Water Non-regulatory
UNL - Unspecified Liquid
SL - Sludge
G - Gas
OTH - Other

Lab Sample No(s)			23607405						
Customer Sample Reference			Seepage Sample 01						
AGS Reference									
Depth (m)			0.00 - 0.00						
Container			0.5l glass bottle (ALE227)	500ml Plastic (ALE208)	HNO3 Filtered (ALE204)	NaOH (ALE245)	Vial (ALE297)	ZnAc (ALE246)
Sample Type			GW	GW	GW	GW	GW	GW
pH Value	All	NDPs: 0 Tests: 1		X				
Redox Potential	All	NDPs: 0 Tests: 1	X					
Sulphide	All	NDPs: 0 Tests: 1						X
SVOC MS (W) - Aqueous	All	NDPs: 0 Tests: 1	X					
Total Dissolved Solids	All	NDPs: 0 Tests: 1		X				
TPH CWG (W)	All	NDPs: 0 Tests: 1	X					
VOC MS (W)	All	NDPs: 0 Tests: 1					X	

CERTIFICATE OF ANALYSIS

SDG:	210126-33	**Client Reference:**	LD10162	**Report Number:**	600239
Location:	Ten Acres Lane	**Order Number:**	LD1778	**Superseded Report:**	600234

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+§@	Sample deviation (see appendix)

Customer Sample Ref.	Seepage Sample 01
Depth (m)	0.00 - 0.00
Sample Type	Ground Water (GW)
Date Sampled	25/01/2021
Sample Time	.
Date Received	26/01/2021
SDG Ref	210126-33
Lab Sample No.(s)	23607405
AGS Reference	

Component	LOD/Units	Method	
Chlorine, Free (Residual)	<0.01 mg/l	TM037	<0.01
Chlorine, Total (Residual)	<0.01 mg/l	TM037	<0.01
Alkalinity, Total as CaCO3	<2 mg/l	TM043	897 #
Oxygen, dissolved	<0.3 mg/l	TM046	3.44
Carbon, Organic (diss.filt)	<3 mg/l	TM090	17.4
Sulphide	<0.01 mg/l	TM101	0.613 #
Fluoride	<0.5 mg/l	TM104	0.679 #
Redox potential	mV	TM110	173
Conductivity @ 20 deg.C	<0.02 mS/cm	TM120	1.61 #
Dissolved solids, Total (meter)	<5 mg/l	TM123	1300 #
Arsenic (diss.filt)	<0.5 µg/l	TM152	1.5 #
Boron (diss.filt)	<10 µg/l	TM152	15700 #
Cadmium (diss.filt)	<0.08 µg/l	TM152	<0.08 #
Chromium (diss.filt)	<1 µg/l	TM152	7.22 #
Copper (diss.filt)	<0.3 µg/l	TM152	<0.3 #
Lead (diss.filt)	<0.2 µg/l	TM152	<0.2 #
Manganese (diss.filt)	<3 µg/l	TM152	533 #
Nickel (diss.filt)	<0.4 µg/l	TM152	3.49 #
Selenium (diss.filt)	<1 µg/l	TM152	<1 #
Zinc (diss.filt)	<1 µg/l	TM152	<1 #
Calcium (Dis.Filt)	<0.2 mg/l	TM152	379 #
Iron (Dis.Filt)	<0.019 mg/l	TM152	1.89 #
Mercury (diss.filt)	<0.01 µg/l	TM183	<0.01 #
Sulphate	<2 mg/l	TM184	236 #
Cyanide, Total	<0.05 mg/l	TM227	<0.05 #
Cyanide, Free	<0.05 mg/l	TM227	<0.05 #
Cyanide, Complex	<0.05 mg/l	TM227	<0.05
Thiocyanate	<0.05 mg/l	TM227	<0.05 #
Chromium, Hexavalent	<0.03 mg/l	TM241	<0.03 #
pH	<1 pH Units	TM256	7.25 #

CERTIFICATE OF ANALYSIS

SDG:	210126-33	**Client Reference:**	LD10162	**Report Number:**	600239
Location:	Ten Acres Lane	**Order Number:**	LD1778	**Superseded Report:**	600234

PAH Spec MS - Aqueous (W)

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+§@	Sample deviation (see appendix)

Customer Sample Ref.	Seepage Sample 01
Depth (m)	0.00 - 0.00
Sample Type	Ground Water (GW)
Date Sampled	25/01/2021
Sample Time	.
Date Received	26/01/2021
SDG Ref	210126-33
Lab Sample No.(s)	23607405
AGS Reference	

Component	LOD/Units	Method	
Naphthalene (aq)	<0.01 µg/l	TM178	0.127 #
Acenaphthene (aq)	<0.005 µg/l	TM178	2.38 #
Acenaphthylene (aq)	<0.005 µg/l	TM178	0.0152 #
Fluoranthene (aq)	<0.005 µg/l	TM178	0.268 #
Anthracene (aq)	<0.005 µg/l	TM178	0.057 #
Phenanthrene (aq)	<0.005 µg/l	TM178	0.0479 #
Fluorene (aq)	<0.005 µg/l	TM178	0.167 #
Chrysene (aq)	<0.005 µg/l	TM178	0.0146 #
Pyrene (aq)	<0.005 µg/l	TM178	0.171 #
Benzo(a)anthracene (aq)	<0.005 µg/l	TM178	<0.005 #
Benzo(b)fluoranthene (aq)	<0.005 µg/l	TM178	<0.005 #
Benzo(k)fluoranthene (aq)	<0.005 µg/l	TM178	<0.005 #
Benzo(a)pyrene (aq)	<0.002 µg/l	TM178	<0.002 #
Dibenzo(a,h)anthracene (aq)	<0.005 µg/l	TM178	<0.005 #
Benzo(g,h,i)perylene (aq)	<0.005 µg/l	TM178	<0.005 #
Indeno(1,2,3-cd)pyrene (aq)	<0.005 µg/l	TM178	<0.005 #
PAH, Total Detected USEPA 16 (aq)	<0.082 µg/l	TM178	3.25 #

CERTIFICATE OF ANALYSIS

SDG:	210126-33	**Client Reference:**	LD10162	**Report Number:**	600239
Location:	Ten Acres Lane	**Order Number:**	LD1778	**Superseded Report:**	600234

SVOC MS (W) - Aqueous

Results Legend	
#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+§@	Sample deviation (see appendix)

Customer Sample Ref.	Seepage Sample 01
Depth (m)	0.00 - 0.00
Sample Type	Ground Water (GW)
Date Sampled	25/01/2021
Sample Time	.
Date Received	26/01/2021
SDG Ref	210126-33
Lab Sample No.(s)	23607405
AGS Reference	

Component	LOD/Units	Method	
1,2,4-Trichlorobenzene (aq)	<1 µg/l	TM176	<1 #
1,2-Dichlorobenzene (aq)	<1 µg/l	TM176	<1 #
1,3-Dichlorobenzene (aq)	<1 µg/l	TM176	<1 #
1,4-Dichlorobenzene (aq)	<1 µg/l	TM176	1.15 #
2,4,5-Trichlorophenol (aq)	<1 µg/l	TM176	<1 #
2,4,6-Trichlorophenol (aq)	<1 µg/l	TM176	<1 #
2,4-Dichlorophenol (aq)	<1 µg/l	TM176	<1 #
2,4-Dimethylphenol (aq)	<1 µg/l	TM176	<1 #
2,4-Dinitrotoluene (aq)	<1 µg/l	TM176	<1 #
2,6-Dinitrotoluene (aq)	<1 µg/l	TM176	<1 #
2-Chloronaphthalene (aq)	<1 µg/l	TM176	<1 #
2-Chlorophenol (aq)	<1 µg/l	TM176	<1 #
2-Methylnaphthalene (aq)	<1 µg/l	TM176	<1 #
2-Methylphenol (aq)	<1 µg/l	TM176	<1 #
2-Nitroaniline (aq)	<1 µg/l	TM176	<1 #
2-Nitrophenol (aq)	<1 µg/l	TM176	<1 #
3-Nitroaniline (aq)	<1 µg/l	TM176	<1 #
4-Bromophenylphenylether (aq)	<1 µg/l	TM176	<1 #
4-Chloro-3-methylphenol (aq)	<1 µg/l	TM176	<1 #
4-Chloroaniline (aq)	<1 µg/l	TM176	<1
4-Chlorophenylphenylether (aq)	<1 µg/l	TM176	<1 #
4-Methylphenol (aq)	<1 µg/l	TM176	<1 #
4-Nitroaniline (aq)	<1 µg/l	TM176	<1 #
4-Nitrophenol (aq)	<1 µg/l	TM176	<1
Azobenzene (aq)	<1 µg/l	TM176	<1 #
bis(2-Chloroethyl)ether (aq)	<1 µg/l	TM176	<1 #
bis(2-Chloroethoxy)methane (aq)	<1 µg/l	TM176	<1 #
bis(2-Ethylhexyl) phthalate (aq)	<2 µg/l	TM176	<2 #
Butylbenzyl phthalate (aq)	<1 µg/l	TM176	<1 #
Carbazole (aq)	<1 µg/l	TM176	<1 #
Dibenzofuran (aq)	<1 µg/l	TM176	<1 #
n-Dibutyl phthalate (aq)	<1 µg/l	TM176	<1 #
Diethyl phthalate (aq)	<1 µg/l	TM176	<1 #

CERTIFICATE OF ANALYSIS

SDG:	210126-33	**Client Reference:**	LD10162	**Report Number:**	600239
Location:	Ten Acres Lane	**Order Number:**	LD1778	**Superseded Report:**	600234

SVOC MS (W) - Aqueous

Results Legend	
#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+§@	Sample deviation (see appendix)

Customer Sample Ref.	Seepage Sample 01
Depth (m)	0.00 - 0.00
Sample Type	Ground Water (GW)
Date Sampled	25/01/2021
Sample Time	.
Date Received	26/01/2021
SDG Ref	210126-33
Lab Sample No.(s)	23607405
AGS Reference	

Component	LOD/Units	Method	
Dimethyl phthalate (aq)	<1 µg/l	TM176	<1 #
n-Dioctyl phthalate (aq)	<5 µg/l	TM176	<5 #
Hexachlorobenzene (aq)	<1 µg/l	TM176	<1 #
Hexachlorobutadiene (aq)	<1 µg/l	TM176	<1 #
Pentachlorophenol (aq)	<1 µg/l	TM176	<1
Phenol (aq)	<1 µg/l	TM176	<1
n-Nitroso-n-dipropylamine (aq)	<1 µg/l	TM176	<1 #
Hexachloroethane (aq)	<1 µg/l	TM176	<1 #
Nitrobenzene (aq)	<1 µg/l	TM176	<1 #
Isophorone (aq)	<1 µg/l	TM176	<1 #
Hexachlorocyclopentadiene (aq)	<1 µg/l	TM176	<1

CERTIFICATE OF ANALYSIS

SDG:	210126-33	**Client Reference:**	LD10162	**Report Number:**	600239
Location:	Ten Acres Lane	**Order Number:**	LD1778	**Superseded Report:**	600234

TPH CWG (W)

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	Seepage Sample 01
			Depth (m)	0.00 - 0.00
			Sample Type	Ground Water (GW)
			Date Sampled	25/01/2021
			Sample Time	.
			Date Received	26/01/2021
			SDG Ref	210126-33
			Lab Sample No.(s)	23607405
			AGS Reference	
GRO Surrogate % recovery**	%	TM245		101
GRO >C5-C12	<50 µg/l	TM245		<50 #
Methyl tertiary butyl ether (MTBE)	<3 µg/l	TM245		<3 #
Benzene	<7 µg/l	TM245		<7 #
Toluene	<4 µg/l	TM245		<4 #
Ethylbenzene	<5 µg/l	TM245		<5 #
m,p-Xylene	<8 µg/l	TM245		<8 #
o-Xylene	<3 µg/l	TM245		<3 #
Sum of detected Xylenes	<11 µg/l	TM245		<11
Sum of detected BTEX	<28 µg/l	TM245		<28
Aliphatics >C5-C6	<10 µg/l	TM245		<10
Aliphatics >C6-C8	<10 µg/l	TM245		<10
Aliphatics >C8-C10	<10 µg/l	TM245		<10
Aliphatics >C10-C12	<10 µg/l	TM245		<10
Aliphatics >C12-C16 (aq)	<10 µg/l	TM174		<10
Aliphatics >C16-C21 (aq)	<10 µg/l	TM174		<10
Aliphatics >C21-C35 (aq)	<10 µg/l	TM174		<10
Total Aliphatics >C12-C35 (aq)	<10 µg/l	TM174		<10
Aromatics >EC5-EC7	<10 µg/l	TM245		<10
Aromatics >EC7-EC8	<10 µg/l	TM245		<10
Aromatics >EC8-EC10	<10 µg/l	TM245		<10
Aromatics >EC10-EC12	<10 µg/l	TM245		<10
Aromatics >EC12-EC16 (aq)	<10 µg/l	TM174		<10
Aromatics >EC16-EC21 (aq)	<10 µg/l	TM174		<10
Aromatics >EC21-EC35 (aq)	<10 µg/l	TM174		<10
Total Aromatics >EC12-EC35 (aq)	<10 µg/l	TM174		<10
Total Aliphatics & Aromatics >C5-35 (aq)	<10 µg/l	TM174		<10
Aliphatics >C16-C35 Aqueous	<10 µg/l	TM174		<10

CERTIFICATE OF ANALYSIS

SDG:	210126-33	**Client Reference:**	LD10162	**Report Number:**	600239
Location:	Ten Acres Lane	**Order Number:**	LD1778	**Superseded Report:**	600234

VOC MS (W)

Results Legend	
#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+§@	Sample deviation (see appendix)

Customer Sample Ref.	Seepage Sample 01
Depth (m)	0.00 - 0.00
Sample Type	Ground Water (GW)
Date Sampled	25/01/2021
Sample Time	.
Date Received	26/01/2021
SDG Ref	210126-33
Lab Sample No.(s)	23607405
AGS Reference	

Component	LOD/Units	Method	
Dibromofluoromethane**	%	TM208	111
Toluene-d8**	%	TM208	96.9
4-Bromofluorobenzene**	%	TM208	96.1
Dichlorodifluoromethane	<1 µg/l	TM208	<1 #
Chloromethane	<1 µg/l	TM208	<1 #
Vinyl chloride	<1 µg/l	TM208	<1 #
Bromomethane	<1 µg/l	TM208	<1 #
Chloroethane	<1 µg/l	TM208	<1 #
Trichlorofluoromethane	<1 µg/l	TM208	<1 #
1,1-Dichloroethene	<1 µg/l	TM208	<1 #
Carbon disulphide	<1 µg/l	TM208	<1 #
Dichloromethane	<3 µg/l	TM208	<3 #
Methyl tertiary butyl ether (MTBE)	<1 µg/l	TM208	<1 #
trans-1,2-Dichloroethene	<1 µg/l	TM208	<1 #
1,1-Dichloroethane	<1 µg/l	TM208	<1 #
cis-1,2-Dichloroethene	<1 µg/l	TM208	<1 #
2,2-Dichloropropane	<1 µg/l	TM208	<1
Bromochloromethane	<1 µg/l	TM208	<1 #
Chloroform	<1 µg/l	TM208	<1 #
1,1,1-Trichloroethane	<1 µg/l	TM208	<1 #
1,1-Dichloropropene	<1 µg/l	TM208	<1 #
Carbontetrachloride	<1 µg/l	TM208	<1 #
1,2-Dichloroethane	<1 µg/l	TM208	<1 #
Benzene	<1 µg/l	TM208	<1 #
Trichloroethene	<1 µg/l	TM208	<1 #
1,2-Dichloropropane	<1 µg/l	TM208	<1 #
Dibromomethane	<1 µg/l	TM208	<1 #
Bromodichloromethane	<1 µg/l	TM208	<1 #
cis-1,3-Dichloropropene	<1 µg/l	TM208	<1 #
Toluene	<1 µg/l	TM208	<1 #
trans-1,3-Dichloropropene	<1 µg/l	TM208	<1 #
1,1,2-Trichloroethane	<1 µg/l	TM208	<1 #
1,3-Dichloropropane	<1 µg/l	TM208	<1 #

CERTIFICATE OF ANALYSIS

SDG:	210126-33	**Client Reference:**	LD10162	**Report Number:**	600239
Location:	Ten Acres Lane	**Order Number:**	LD1778	**Superseded Report:**	600234

VOC MS (W)

Results Legend	
#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+§@	Sample deviation (see appendix)

		Customer Sample Ref.	Seepage Sample 01
		Depth (m)	0.00 - 0.00
		Sample Type	Ground Water (GW)
		Date Sampled	25/01/2021
		Sample Time	.
		Date Received	26/01/2021
		SDG Ref	210126-33
		Lab Sample No.(s)	23607405
		AGS Reference	
Component	**LOD/Units**	**Method**	
Tetrachloroethene	<1 µg/l	TM208	<1 #
Dibromochloromethane	<1 µg/l	TM208	<1 #
1,2-Dibromoethane	<1 µg/l	TM208	<1 #
Chlorobenzene	<1 µg/l	TM208	8.7 #
1,1,1,2-Tetrachloroethane	<1 µg/l	TM208	<1 #
Ethylbenzene	<1 µg/l	TM208	<1 #
m,p-Xylene	<1 µg/l	TM208	<1 #
o-Xylene	<1 µg/l	TM208	<1 #
Styrene	<1 µg/l	TM208	<1 #
Bromoform	<1 µg/l	TM208	<1 #
Isopropylbenzene	<1 µg/l	TM208	<1 #
1,1,2,2-Tetrachloroethane	<1 µg/l	TM208	<1 #
1,2,3-Trichloropropane	<1 µg/l	TM208	<1 #
Bromobenzene	<1 µg/l	TM208	<1 #
Propylbenzene	<1 µg/l	TM208	<1 #
2-Chlorotoluene	<1 µg/l	TM208	<1 #
1,3,5-Trimethylbenzene	<1 µg/l	TM208	<1 #
4-Chlorotoluene	<1 µg/l	TM208	<1 #
tert-Butylbenzene	<1 µg/l	TM208	<1 #
1,2,4-Trimethylbenzene	<1 µg/l	TM208	<1 #
sec-Butylbenzene	<1 µg/l	TM208	<1 #
4-iso-Propyltoluene	<1 µg/l	TM208	<1 #
1,3-Dichlorobenzene	<1 µg/l	TM208	<1 #
1,4-Dichlorobenzene	<1 µg/l	TM208	1.57 #
n-Butylbenzene	<1 µg/l	TM208	<1 #
1,2-Dichlorobenzene	<1 µg/l	TM208	1.15 #
1,2-Dibromo-3-chloropropane	<1 µg/l	TM208	<1
1,2,4-Trichlorobenzene	<1 µg/l	TM208	<1 #
Hexachlorobutadiene	<1 µg/l	TM208	<1 #
tert-Amyl methyl ether (TAME)	<1 µg/l	TM208	<1 #
Naphthalene	<1 µg/l	TM208	<1 #
1,2,3-Trichlorobenzene	<1 µg/l	TM208	<1 #
1,3,5-Trichlorobenzene	<1 µg/l	TM208	<1

Table of Results - Appendix

Method No	Reference	Description
TM037	MEWAM Chlorine demand HMSO 1988	Determination of Free, Combined and Total Chlorine in Waters and Wastewaters using Colourimetry
TM043	Method 2320B, AWWA/APHA, 20th Ed., 1999 / BS 2690: Part109 1984	Determination of alkalinity in aqueous samples
TM046	Method 4500G, AWWA/APHA, 20th Ed., 1999	Measurement of Dissolved Oxygen by Oxygen Meter
TM090	Method 5310, AWWA/APHA, 20th Ed., 1999 / Modified: US EPA Method 415.1 & 9060	Determination of Total Organic Carbon/Total Inorganic Carbon in Water and Waste Water
TM101	Method 4500B & C, AWWA/APHA, 20th Ed., 1999	Determination of Sulphide in soil and water samples using the Kone Analyser
TM104	Method 4500F, AWWA/APHA, 20th Ed., 1999	Determination of Fluoride using the Kone Analyser
TM110	BS 1377: Part 3 1990	Redox Potential
TM120	Method 2510B, AWWA/APHA, 20th Ed., 1999 / BS 2690: Part 9:1970	Determination of Electrical Conductivity using a Conductivity Meter
TM123	BS 2690: Part 121:1981	The Determination of Total Dissolved Solids in Water
TM152	Method 3125B, AWWA/APHA, 20th Ed., 1999	Analysis of Aqueous Samples by ICP-MS
TM174	Analysis of Petroleum Hydrocarbons in Environmental Media – Total Petroleum Hydrocarbon Criteria	Determination of Speciated Extractable Petroleum Hydrocarbons in Waters by GC-FID
TM176	EPA 8270D Semi-Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)	Determination of SVOCs in Water by GCMS
TM178	Modified: US EPA Method 8100	Determination of Polynuclear Aromatic Hydrocarbons (PAH) by GC-MS in Waters
TM183	BS EN 23506:2002, (BS 6068-2.74:2002) ISBN 0 580 38924 3	Determination of Trace Level Mercury in Waters and Leachates by PSA Cold Vapour Atomic Fluorescence Spectrometry
TM184	EPA Methods 325.1 & 325.2,	The Determination of Anions in Aqueous Matrices using the Kone Spectrophotometric Analysers
TM208	Modified: US EPA Method 8260b & 624	Determination of Volatile Organic Compounds by Headspace / GC-MS in Waters
TM227	Standard methods for the examination of waters and wastewaters 20th Edition, AWWA/APHA Method 4500.	Determination of Total Cyanide, Free (Easily Liberatable) Cyanide and Thiocyanate
TM241	Methods for the Examination of Waters and Associated Materials; Chromium in Raw and Potable Waters and Sewage Effluents 1980.	The Determination of Hexavalent Chromium in Waters and Leachates using the Kone Analyser
TM245	By GC-FID	Determination of GRO by Headspace in waters
TM256	The measurement of Electrical Conductivity and the Laboratory determination of pH Value of Natural, Treated and Wastewaters. HMSO, 1978. ISBN 011 751428 4.	Determination of pH in Water and Leachate using the GLpH pH Meter

NA = not applicable.

Chemical testing (unless subcontracted) performed at ALS Life Sciences Ltd Hawarden (Method codes TM) or ALS Life Sciences Ltd Aberdeen (Method codes S).

CERTIFICATE OF ANALYSIS

SDG:	210126-33	**Client Reference:**	LD10162	**Report Number:**	600239
Location:	Ten Acres Lane	**Order Number:**	LD1778	**Superseded Report:**	600234

Test Completion Dates

Lab Sample No(s)	23607405
Customer Sample Ref.	Seepage Sample 01
AGS Ref.	
Depth	0.00 - 0.00
Type	Ground Water
Alkalinity as CaCO3	27-Jan-2021
Anions by Kone (w)	27-Jan-2021
Chlorine	29-Jan-2021
Conductivity (at 20 deg.C)	26-Jan-2021
Cyanide Comp/Free/Total/Thiocyanate	27-Jan-2021
Dissolved Metals by ICP-MS	26-Jan-2021
Dissolved Organic/Inorganic Carbon	27-Jan-2021
Dissolved Oxygen by Probe	26-Jan-2021
EPH CWG (Aliphatic) Aqueous GC (W)	29-Jan-2021
EPH CWG (Aromatic) Aqueous GC (W)	29-Jan-2021
Fluoride	29-Jan-2021
GRO by GC-FID (W)	02-Feb-2021
Hexavalent Chromium (w)	27-Jan-2021
Mercury Dissolved	27-Jan-2021
PAH Spec MS - Aqueous (W)	02-Jun-2021
pH Value	27-Jan-2021
Redox Potential	27-Jan-2021
Sulphide	27-Jan-2021
SVOC MS (W) - Aqueous	29-Jan-2021
Total Dissolved Solids	27-Jan-2021
TPH CWG (W)	02-Feb-2021
VOC MS (W)	02-Feb-2021

Appendix General

1. Results are expressed on a dry weight basis (dried at 35ºC) for all soil analyses except for the following: NRA and CEN Leach tests, flash point LOI, pH, ammonium as NH4 by the BRE method, VOC TICs and SVOC TICs.

2. If sufficient sample is received a sub sample will be retained free of charge for 30 days after analysis is completed (e-mailed) for all sample types unless the sample is destroyed on testing. The prepared soil sub sample that is analysed for asbestos will be retained for a period of 6 months after the analysis date. All bulk samples will be retained for a period of 6 months after the analysis date. All samples received and not scheduled will be disposed of one month after the date of receipt unless we are instructed to the contrary. Once the initial period has expired, a storage charge will be applied for each month or part thereof until the client cancels the request for sample storage. ALS reserve the right to charge for samples received and stored but not analysed.

3. With respect to turnaround, we will always endeavour to meet client requirements wherever possible, but turnaround times cannot be absolutely guaranteed due to so many variables beyond our control.

4. We take responsibility for any test performed by sub-contractors (marked with an asterisk). We endeavour to use UKAS/MCERTS Accredited Laboratories, who either complete a quality questionnaire or are audited by ourselves. For some determinands there are no UKAS/MCERTS Accredited Laboratories, in this instance a laboratory with a known track record will be utilised.

5. If no separate volatile sample is supplied by the client, or if a headspace or sediment is present in the volatile sample, the integrity of the data may be compromised. This will be flagged up as an invalid VOC on the test schedule and the result marked as deviating on the test certificate.

6. NDP - No determination possible due to insufficient/unsuitable sample.

7. Results relate only to the items tested.

8. LoDs (Limit of Detection) for wet tests reported on a dry weight basis are not corrected for moisture content.

9. **Surrogate recoveries** - Surrogates are added to your sample to monitor recovery of the test requested. A % recovery is reported, results are not corrected for the recovery measured. Typical recoveries for organics tests are 70-130%. Recoveries in soils are affected by organic rich or clay rich matrices. Waters can be affected by remediation fluids or high amounts of sediment. Test results are only ever reported if all of the associated quality checks pass; it is assumed that all recoveries outside of the values above are due to matrix affect.

10. Stones/debris are not routinely removed. We always endeavour to take a representative sub sample from the received sample.

11. In certain circumstances the method detection limit may be elevated due to the sample being outside the calibration range. Other factors that may contribute to this include possible interferences. In both cases the sample would be diluted which would cause the method detection limit to be raised.

12. Mercury results quoted on soils will not include volatile mercury as the analysis is performed on a dried and crushed sample.

13. For leachate preparations other than Zero Headspace Extraction (ZHE) volatile loss may occur.

14. For the BSEN 12457-3 two batch process to allow the cumulative release to be calculated, the volume of the leachate produced is measured and filtered for all tests. We therefore cannot carry out any unfiltered analysis. The tests affected include volatiles GCFID/GCMS and all subcontracted analysis.

15. Analysis and identification of specific compounds using GCFID is by retention time only, and we routinely calibrate and quantify for benzene, toluene, ethylbenzenes and xylenes (BTEX). For total volatiles in the C5-C12 range, the total area of the chromatogram is integrated and expressed as ug/kg or ug/l. Although this analysis is commonly used for the quantification of gasoline range organics (GRO), the system will also detect other compounds such as chlorinated solvents, and this may lead to a falsely high result with respect to hydrocarbons only. It is not possible to specifically identify these non-hydrocarbons, as standards are not routinely run for any other compounds, and for more definitive identification, volatiles by GCMS should be utilised.

16. We are accredited to MCERTS for sand, clay and loam/topsoil, or any of these materials - whether these are derived from naturally occurring soil profiles, or from fill/made ground, as long as these materials constitute the major part of the sample. Other coarse granular material such as concrete, gravel and brick are not accredited if they comprise the major part of the sample.

17. **Tentatively Identified Compounds (TICs)** are non-target peaks in VOC and SVOC analysis. All non-target peaks detected with a concentration above the LoD are subjected to a mass spectral library search. Non-target peaks with a library search confidence of >75% are reported based on the best mass spectral library match. When a non-target peak with a library search confidence of <75% is detected it is reported as "mixed hydrocarbons". Non-target compounds identified from the scan data are semi-quantified relative to one of the deuterated internal standards, under the same chromatographic conditions as the target compounds. This result is reported as a semi-quantitative value and reported as Tentatively Identified Compounds (TICs). TICs are outside the scope of UKAS accreditation and are not moisture corrected.

18. **Sample Deviations**

If a sample is classed as deviated then the associated results may be compromised.

1	**Container with Headspace provided for volatiles analysis**
2	**Incorrect container received**
3	**Deviation from method**
4	**Matrix interference**
♦	**Sample holding time exceeded in laboratory**
@	**Sample holding time exceeded due to late arrival of instructions or samples**
§	**Sampled on date not provided**

19. **Asbestos**

When requested, the individual sub sample scheduled will be analysed in house for the presence of asbestos fibres and asbestos containing material by our documented in house method TM048 based on HSG 248 (2005), which is accredited to ISO17025. If a specific asbestos fibre type is not found this will be reported as "Not detected". If no asbestos fibre types are found all will be reported as "Not detected" and the sub sample analysed deemed to be clear of asbestos. If an asbestos fibre type is found it will be reported as detected (for each fibre type found). Testing can be carried out on asbestos positive samples, but, due to Health and Safety considerations, may be replaced by alternative tests or reported as No Determination Possible (NDP). The quantity of asbestos present is not determined unless specifically requested.

Identification of Asbestos in Bulk Materials & Soils

The results for identification of asbestos in bulk materials are obtained from supplied bulk materials which have been examined to determine the presence of asbestos fibres using ALS (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining, based on HSG 248 (2005).

The results for identification of asbestos in soils are obtained from a homogenised sub sample which has been examined to determine the presence of asbestos fibres using ALS (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining, based on HSG 248 (2005).

Asbestos Type	Common Name
Chrysotile	White Asbestos
Amosite	Brown Asbestos
Crocidolite	Blue Asbestos
Fibrous Actinolite	-
Fibrous Anthophyllite	-
Fibrous Tremolite	-

Visual Estimation Of Fibre Content

Estimation of fibre content is not permitted as part of our UKAS accredited test other than: - Trace - Where only one or two asbestos fibres were identified.

Respirable Fibres

Respirable fibres are defined as fibres of <3 µm diameter, longer than 5 µm and with aspect ratios of at least 3:1 that can be inhaled into the lower regions of the lung and are generally acknowledged to be most important predictor of hazard and risk for cancers of the lung.
Standing Committee of Analysts, *The Quantification of Asbestos in Soil (2017).*

Further guidance on typical asbestos fibre content of manufactured products can be found in HSG 264.

The identification of asbestos containing materials and soils falls within our schedule of tests for which we hold UKAS accreditation, however opinions, interpretations and all other information contained in the report are outside the scope of UKAS accreditation.

Unit 7-8 Hawarden Business Park
Manor Road (off Manor Lane)
Hawarden
Deeside
CH5 3US
Tel: (01244) 528700
Fax: (01244) 528701
email: hawardencustomerservices@alsglobal.com
Website: www.alsenvironmental.co.uk

Wardell Armstrong LLP
36 Park Row
Leeds
LS1 5JL

Attention: Jonathan Currie

CERTIFICATE OF ANALYSIS

Date of report Generation:	08 April 2022
Customer:	Wardell Armstrong LLP
Sample Delivery Group (SDG):	220331-99
Your Reference:	LD10385
Location:	Ten Acres Lane
Report No:	641470
Order Number:	LD2665

This report has been revised and directly supersedes 641022 in its entirety.

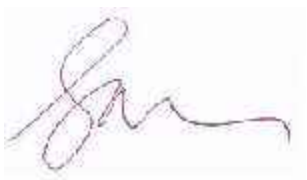
We received 8 samples on Thursday March 24, 2022 and 2 of these samples were scheduled for analysis which was completed on Friday April 08, 2022. Accredited laboratory tests are defined within the report, but opinions, interpretations and on-site data expressed herein are outside the scope of ISO 17025 accreditation.

Should this report require incorporation into client reports, it must be used in its entirety and not simply with the data sections alone.

Chemical testing (unless subcontracted) performed at ALS Life Sciences Ltd Hawarden.

All sample data is provided by the customer. The reported results relate to the sample supplied, and on the basis that this data is correct.
Incorrect sampling dates and/or sample information will affect the validity of results.
The customer is not permitted to reproduce this report except in full without the approval of the laboratory.

Approved By:



Sonia McWhan
Operations Manager

CERTIFICATE OF ANALYSIS

SDG: 220331-99 **Report Number:** 641470 **Superseded Report:** 641022
Client Ref.: LD10385 **Location:** Ten Acres Lane

Received Sample Overview

Lab Sample No(s)	Customer Sample Ref.	AGS Ref.	Depth (m)	Sampled Date
26057327	CP201		3.00 - 4.00	21/03/2022
26057302	CP201		4.00 - 6.00	21/03/2022
26057308	CP209		3.00 - 4.00	21/03/2022
26057334	CP201 ES1	ES1		
26057341	CP204 ES1	ES1		
26057316	TP218		0.20 - 0.70	22/03/2022
26057322	TP218		1.60 - 1.90	22/03/2022
26057337	TP218 ES2	ES2		

Only received samples which have had analysis scheduled will be shown on the following pages.

CERTIFICATE OF ANALYSIS

SDG: 220331-99 **Report Number:** 641470 **Superseded Report:** 641022
Client Ref.: LD10385 **Location:** Ten Acres Lane

Results Legend

X Test

N No Determination Possible

Sample Types -
S - Soil/Solid
UNS - Unspecified Solid
GW - Ground Water
SW - Surface Water
LE - Land Leachate
PL - Prepared Leachate
PR - Process Water
SA - Saline Water
TE - Trade Effluent
TS - Treated Sewage
US - Untreated Sewage
RE - Recreational Water
DW - Drinking Water
Non-regulatory
UNL - Unspecified Liquid
SL - Sludge
G - Gas
OTH - Other

			Lab Sample No(s)					
			26057302			26057322		
			Customer Sample Reference					
			CP201			TP218		
			AGS Reference					
			Depth (m)					
			4.00 - 6.00			1.60 - 1.90		
			Container					
			1kg TUB with Handle (ALE260)	250g Amber Jar (ALE210)	60g VOC (ALE215)	1kg TUB with Handle (ALE260)	250g Amber Jar (ALE210)	60g VOC (ALE215)
			Sample Type					
			S	S	S	S	S	S
Anions by Kone (soil)	All	NDPs: 0 Tests: 2		X			X	
Asbestos ID in Solid Samples	All	NDPs: 0 Tests: 2	X			X		
Boron Water Soluble	All	NDPs: 0 Tests: 2		X			X	
Cyanide Comp/Free/Total/Thiocyanate	All	NDPs: 0 Tests: 2		X			X	
EPH CWG GC (S)	All	NDPs: 0 Tests: 2		X			X	
GRO by GC-FID (S)	All	NDPs: 0 Tests: 2			X			X
Hexavalent Chromium (s)	All	NDPs: 0 Tests: 2		X			X	
Metals in solid samples by OES	All	NDPs: 0 Tests: 2		X			X	
PAH by GCMS	All	NDPs: 0 Tests: 2		X			X	
PCBs by GCMS	All	NDPs: 0 Tests: 2		X			X	
pH	All	NDPs: 0 Tests: 2		X			X	
Phenols by HPLC (S)	All	NDPs: 0 Tests: 2		X			X	
Sample description	All	NDPs: 0 Tests: 2		X			X	
Semi Volatile Organic Compounds	All	NDPs: 0 Tests: 2		X			X	
Total Organic Carbon	All	NDPs: 0 Tests: 2		X			X	

Validated

CERTIFICATE OF ANALYSIS

SDG: 220331-99 **Report Number:** 641470 **Superseded Report:** 641022
Client Ref.: LD10385 **Location:** Ten Acres Lane

Results Legend

X Test

N No Determination Possible

Sample Types -
S - Soil/Solid
UNS - Unspecified Solid
GW - Ground Water
SW - Surface Water
LE - Land Leachate
PL - Prepared Leachate
PR - Process Water
SA - Saline Water
TE - Trade Effluent
TS - Treated Sewage
US - Untreated Sewage
RE - Recreational Water
DW - Drinking Water
Non-regulatory
UNL - Unspecified Liquid
SL - Sludge
G - Gas
OTH - Other

Lab Sample No(s)			26057302					26057322			
Customer Sample Reference			CP201					TP218			
AGS Reference											
Depth (m)			4.00 - 6.00					1.60 - 1.90			
Container			1kg TUB with Handle (ALE260)	250g Amber Jar (ALE210)	60g VOC (ALE215)	1kg TUB with Handle (ALE260)	250g Amber Jar (ALE210)	60g VOC (ALE215)			
Sample Type			S	S	S	S	S	S			
Total Sulphate	All	NDPs: 0 Tests: 2		X			X				
TPH CWG GC (S)	All	NDPs: 0 Tests: 2		X			X				
VOC MS (S)	All	NDPs: 0 Tests: 2			X			X			

Sample Descriptions

Grain Sizes

very fine	<0.063mm	fine	0.063mm - 0.1mm	medium	0.1mm - 2mm	coarse	2mm - 10mm	very coarse	>10mm

Lab Sample No(s)	Customer Sample Ref.	Depth (m)	Colour	Description	Inclusions	Inclusions 2
26057302	CP201	4.00 - 6.00	Dark Brown	Loamy Sand	Stones	Brick
26057322	TP218	1.60 - 1.90	Light Brown	Sand	None	None

These descriptions are only intended to act as a cross check if sample identities are questioned, and to provide a log of sample matrices with respect to MCERTS validation. They are not intended as full geological descriptions.

We are accredited to MCERTS for sand, clay and loam/topsoil, or any of these materials - whether these are derived from naturally ocurring soil profiles, or from fill/made ground, as long as these materials constitute the major part of the sample.

Other coarse granular materials such as concrete, gravel and brick are not accredited if they comprise the major part of the sample.

CERTIFICATE OF ANALYSIS

SDG: 220331-99 **Report Number:** 641470 **Superseded Report:** 641022
Client Ref.: LD10385 **Location:** Ten Acres Lane

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4+$@ Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	CP201	TP218				
			Depth (m)	4.00 - 6.00	1.60 - 1.90				
			Sample Type	Soil/Solid (S)	Soil/Solid (S)				
			Date Sampled	21/03/2022	22/03/2022				
			Sample Time	12:00	14:30				
			Date Received	24/03/2022	24/03/2022				
			SDG Ref	220331-99	220331-99				
			Lab Sample No.(s)	26057302	26057322				
			AGS Reference						
Moisture Content Ratio (% of as received sample)	%	PM024		12	9.3				
Phenol	<0.01 mg/kg	TM062 (S)		0.0114 M	<0.01 M				
Cresols	<0.01 mg/kg	TM062 (S)		0.0228 M	<0.01 M				
Xylenols	<0.015 mg/kg	TM062 (S)		<0.015 M	<0.015 M				
Phenols, Total Detected monohydric	<0.035 mg/kg	TM062 (S)		<0.035 M	<0.035 M				
Soil Organic Matter (SOM)	<0.35 %	TM132		2.21 #	0.434 #				
pH	1 pH Units	TM133		11.4 M	8.84 M				
Chromium, Hexavalent	<0.6 mg/kg	TM151		<0.6 #	<0.6 #				
Cyanide, Total	<1 mg/kg	TM153		<1 @ M	<1 M				
PCB congener 28	<3 µg/kg	TM168		47.1 M	<3 M				
PCB congener 52	<3 µg/kg	TM168		<15 M	<3 M				
PCB congener 101	<3 µg/kg	TM168		<15 M	<3 M				
PCB congener 118	<3 µg/kg	TM168		<15 M	<3 M				
PCB congener 138	<3 µg/kg	TM168		<15 M	<3 M				
PCB congener 153	<3 µg/kg	TM168		<15 M	<3 M				
PCB congener 180	<3 µg/kg	TM168		<15 M	<3 M				
Sum of detected PCB 7 Congeners	<21 µg/kg	TM168		<105	<21				
Arsenic	<0.6 mg/kg	TM181		9.69 M	2.16 M				
Beryllium	<0.01 mg/kg	TM181		0.57 M	0.295 M				
Cadmium	<0.02 mg/kg	TM181		0.517 M	0.0828 M				
Chromium	<0.9 mg/kg	TM181		76.8 M	4.4 M				
Copper	<1.4 mg/kg	TM181		106 M	7.56 M				
Lead	<0.7 mg/kg	TM181		50 M	15.9 M				
Mercury	<0.1 mg/kg	TM181		<0.1 M	<0.1 M				
Nickel	<0.2 mg/kg	TM181		153 M	7.15 M				
Selenium	<1 mg/kg	TM181		<1 #	<1 #				
Vanadium	<0.2 mg/kg	TM181		18.9 #	6.99 #				
Zinc	<1.9 mg/kg	TM181		88.8 M	20.6 M				
Sulphate, Total	<48 mg/kg	TM221		5930 M	<48 M				
Boron, water soluble	<1 mg/kg	TM222		1.42 M	<1 M				
Water Soluble Sulphate as SO4 2:1 Extract	<0.004 g/l	TM243		0.0536 M	0.0135 M				

CERTIFICATE OF ANALYSIS

SDG: 220331-99 **Report Number:** 641470 **Superseded Report:** 641022
Client Ref.: LD10385 **Location:** Ten Acres Lane

PAH by GCMS

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	CP201	TP218				
			Depth (m)	4.00 - 6.00	1.60 - 1.90				
			Sample Type	Soil/Solid (S)	Soil/Solid (S)				
			Date Sampled	21/03/2022	22/03/2022				
			Sample Time	12:00	14:30				
			Date Received	24/03/2022	24/03/2022				
			SDG Ref	220331-99	220331-99				
			Lab Sample No.(s)	26057302	26057322				
			AGS Reference						
Naphthalene-d8 % recovery**	%	TM218		101	94.1				
Acenaphthene-d10 % recovery**	%	TM218		105	98.4				
Phenanthrene-d10 % recovery**	%	TM218		108	99.3				
Chrysene-d12 % recovery**	%	TM218		112	99.5				
Perylene-d12 % recovery**	%	TM218		119	101				
Naphthalene	<9 µg/kg	TM218		3760 M	35.4 M				
Acenaphthylene	<12 µg/kg	TM218		178 M	<12 M				
Acenaphthene	<8 µg/kg	TM218		3920 M	37.3 M				
Fluorene	<10 µg/kg	TM218		2960 M	35.8 M				
Phenanthrene	<15 µg/kg	TM218		16600 M	448 M				
Anthracene	<16 µg/kg	TM218		4500 M	139 M				
Fluoranthene	<17 µg/kg	TM218		15500 M	769 M				
Pyrene	<15 µg/kg	TM218		12600 M	681 M				
Benz(a)anthracene	<14 µg/kg	TM218		5610 M	452 M				
Chrysene	<10 µg/kg	TM218		5250 M	419 M				
Benzo(b)fluoranthene	<15 µg/kg	TM218		6430 M	578 M				
Benzo(k)fluoranthene	<14 µg/kg	TM218		1940 M	229 M				
Benzo(a)pyrene	<15 µg/kg	TM218		5120 M	509 M				
Indeno(1,2,3-cd)pyrene	<18 µg/kg	TM218		3490 M	349 M				
Dibenzo(a,h)anthracene	<23 µg/kg	TM218		510 M	65.9 M				
Benzo(g,h,i)perylene	<24 µg/kg	TM218		2960 M	301 M				
PAH, Total Detected USEPA 16	<118 µg/kg	TM218		91300	5050				

CERTIFICATE OF ANALYSIS

SDG: 220331-99 **Report Number:** 641470 **Superseded Report:** 641022
Client Ref.: LD10385 **Location:** Ten Acres Lane

Semi Volatile Organic Compounds

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4+$@ Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	CP201	TP218				
			Depth (m)	4.00 - 6.00	1.60 - 1.90				
			Sample Type	Soil/Solid (S)	Soil/Solid (S)				
			Date Sampled	21/03/2022	22/03/2022				
			Sample Time	12:00	14:30				
			Date Received	24/03/2022	24/03/2022				
			SDG Ref	220331-99	220331-99				
			Lab Sample No.(s)	26057302	26057322				
			AGS Reference						
Phenol	<100 µg/kg	TM157		<200	<100				
Pentachlorophenol	<100 µg/kg	TM157		<200	<100				
n-Nitroso-n-dipropylamine	<100 µg/kg	TM157		<200	<100				
Nitrobenzene	<100 µg/kg	TM157		<200	<100				
Isophorone	<100 µg/kg	TM157		<200	<100				
Hexachloroethane	<100 µg/kg	TM157		<200	<100				
Hexachlorocyclopentadiene	<100 µg/kg	TM157		<200	<100				
Hexachlorobutadiene	<100 µg/kg	TM157		<200	<100				
Hexachlorobenzene	<100 µg/kg	TM157		<200	<100				
n-Dioctyl phthalate	<100 µg/kg	TM157		<200	<100				
Dimethyl phthalate	<100 µg/kg	TM157		<200	<100				
Diethyl phthalate	<100 µg/kg	TM157		<200	<100				
n-Dibutyl phthalate	<100 µg/kg	TM157		<200	<100				
Dibenzofuran	<100 µg/kg	TM157		1760	<100				
Carbazole	<100 µg/kg	TM157		889	<100				
Butylbenzyl phthalate	<100 µg/kg	TM157		<200	<100				
bis(2-Ethylhexyl) phthalate	<100 µg/kg	TM157		228	<100				
bis(2-Chloroethoxy)methane	<100 µg/kg	TM157		<200	<100				
bis(2-Chloroethyl)ether	<100 µg/kg	TM157		<200	<100				
Azobenzene	<100 µg/kg	TM157		<200	<100				
4-Nitrophenol	<100 µg/kg	TM157		<1000	<100				
4-Nitroaniline	<100 µg/kg	TM157		<1000	<100				
4-Methylphenol	<100 µg/kg	TM157		<200	<100				
4-Chlorophenylphenylether	<100 µg/kg	TM157		<200	<100				
4-Chloroaniline	<100 µg/kg	TM157		<200	<100				
4-Chloro-3-methylphenol	<100 µg/kg	TM157		<200	<100				
4-Bromophenylphenylether	<100 µg/kg	TM157		<200	<100				
3-Nitroaniline	<100 µg/kg	TM157		<1000	<100				
2-Nitrophenol	<100 µg/kg	TM157		<200	<100				
2-Nitroaniline	<100 µg/kg	TM157		<200	<100				
2-Methylphenol	<100 µg/kg	TM157		<200	<100				
1,2,4-Trichlorobenzene	<100 µg/kg	TM157		<200	<100				
2-Chlorophenol	<100 µg/kg	TM157		<200	<100				

CERTIFICATE OF ANALYSIS

SDG: 220331-99 **Report Number:** 641470 **Superseded Report:** 641022
Client Ref.: LD10385 **Location:** Ten Acres Lane

Semi Volatile Organic Compounds

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4+§@ Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	CP201	TP218				
			Depth (m)	4.00 - 6.00	1.60 - 1.90				
			Sample Type	Soil/Solid (S)	Soil/Solid (S)				
			Date Sampled	21/03/2022	22/03/2022				
			Sample Time	12:00	14:30				
			Date Received	24/03/2022	24/03/2022				
			SDG Ref	220331-99	220331-99				
			Lab Sample No.(s)	26057302	26057322				
			AGS Reference						
2,6-Dinitrotoluene	<100 µg/kg	TM157		<200	<100				
2,4-Dinitrotoluene	<100 µg/kg	TM157		<200	<100				
2,4-Dimethylphenol	<100 µg/kg	TM157		<200	<100				
2,4-Dichlorophenol	<100 µg/kg	TM157		<200	<100				
2,4,6-Trichlorophenol	<100 µg/kg	TM157		<200	<100				
2,4,5-Trichlorophenol	<100 µg/kg	TM157		<200	<100				
1,4-Dichlorobenzene	<100 µg/kg	TM157		<200	<100				
1,3-Dichlorobenzene	<100 µg/kg	TM157		<200	<100				
1,2-Dichlorobenzene	<100 µg/kg	TM157		<200	<100				
2-Chloronaphthalene	<100 µg/kg	TM157		<200	<100				
2-Methylnaphthalene	<100 µg/kg	TM157		1600	<100				
Acenaphthylene	<100 µg/kg	TM157		<200	<100				
Acenaphthene	<100 µg/kg	TM157		3100	<100				
Anthracene	<100 µg/kg	TM157		3040	143				
Benzo(a)anthracene	<100 µg/kg	TM157		3820	488				
Benzo(b)fluoranthene	<100 µg/kg	TM157		3430	421				
Benzo(k)fluoranthene	<100 µg/kg	TM157		1350	386				
Benzo(a)pyrene	<100 µg/kg	TM157		2680	362				
Benzo(g,h,i)perylene	<100 µg/kg	TM157		1890	271				
Chrysene	<100 µg/kg	TM157		3510	461				
Fluoranthene	<100 µg/kg	TM157		11000	865				
Fluorene	<100 µg/kg	TM157		2220	<100				
Indeno(1,2,3-cd)pyrene	<100 µg/kg	TM157		2280	770				
Phenanthrene	<100 µg/kg	TM157		11600	507				
Pyrene	<100 µg/kg	TM157		9090	776				
Naphthalene	<100 µg/kg	TM157		2910	<100				
Dibenzo(a,h)anthracene	<100 µg/kg	TM157		422	<100				
Bis(2-chloroisopropyl) ether	<100 µg/kg	TM157		<200	<100				

CERTIFICATE OF ANALYSIS

SDG: 220331-99 **Report Number:** 641470 **Superseded Report:** 641022
Client Ref.: LD10385 **Location:** Ten Acres Lane

TPH CWG (S)

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4+$@ Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	CP201	TP218				
			Depth (m)	4.00 - 6.00	1.60 - 1.90				
			Sample Type	Soil/Solid (S)	Soil/Solid (S)				
			Date Sampled	21/03/2022	22/03/2022				
			Sample Time	12:00	14:30				
			Date Received	24/03/2022	24/03/2022				
			SDG Ref	220331-99	220331-99				
			Lab Sample No.(s)	26057302	26057322				
			AGS Reference						
GRO Surrogate % recovery**	%	TM089		98.5 @	95				
Aliphatics >C5-C6 (HS_1D_AL)	<10 µg/kg	TM089		25.1 @	<10				
Aliphatics >C6-C8 (HS_1D_AL)	<10 µg/kg	TM089		37.6 @	<10				
Aliphatics >C8-C10 (HS_1D_AL)	<10 µg/kg	TM089		303 @	<10				
Aliphatics >C10-C12 (EH_2D_AL_#1)	<1000 µg/kg	TM414		1290 #	<1000 #				
Aliphatics >C12-C16 (EH_2D_AL_#1)	<1000 µg/kg	TM414		15400 #	<1000 #				
Aliphatics >C16-C21 (EH_2D_AL_#1)	<1000 µg/kg	TM414		33600 #	<1000 #				
Aliphatics >C21-C35 (EH_2D_AL_#1)	<1000 µg/kg	TM414		138000 #	<1000 #				
Aliphatics >C35-C44 (EH_2D_AL_#1)	<1000 µg/kg	TM414		76300	<1000				
Total Aliphatics >C10-C44 (EH_2D_AR_#1)	<5000 µg/kg	TM414		265000	<5000				
Total Aliphatics & Aromatics >C10-C44 (EH_2D_Total_#1)	<10000 µg/kg	TM414		515000	19200				
Aromatics >EC5-EC7 (HS_1D_AR)	<10 µg/kg	TM089		<10 @	<10				
Aromatics >EC7-EC8 (HS_1D_AR)	<10 µg/kg	TM089		<10 @	<10				
Aromatics >EC8-EC10 (HS_1D_AR)	<10 µg/kg	TM089		202 @	<10				
Aromatics > EC10-EC12 (EH_2D_AR_#1)	<1000 µg/kg	TM414		3420 #	<1000 #				
Aromatics > EC12-EC16 (EH_2D_AR_#1)	<1000 µg/kg	TM414		31600 #	<1000 #				
Aromatics > EC16-EC21 (EH_2D_AR_#1)	<1000 µg/kg	TM414		73200 #	4970 #				
Aromatics > EC21-EC35 (EH_2D_AR_#1)	<1000 µg/kg	TM414		130000 #	12700 #				
Aromatics >EC35-EC44 (EH_2D_AR_#1)	<1000 µg/kg	TM414		12300	1000				
Aromatics > EC40-EC44 (EH_2D_AR_#1)	<1000 µg/kg	TM414		6200	<1000				
Total Aromatics > EC10-EC44 (EH_2D_AR_#1)	<5000 µg/kg	TM414		251000	18800				
Total Aliphatics & Aromatics >C5-C44 (EH_2D_Total_#1+HS_1D_Total)	<10000 µg/kg	TM414		516000	18800				
Total Aliphatics >C5-C10 (HS_1D_AL_TOTAL)	<50 µg/kg	TM089		366 @	<50				
Total Aromatics >EC5-EC10 (HS_1D_AR_TOTAL)	<50 µg/kg	TM089		202 @	<50				
GRO >C5-C10 (HS_1D_TOTAL)	<20 µg/kg	TM089		568 @	<20				

CERTIFICATE OF ANALYSIS

SDG: 220331-99 **Report Number:** 641470 **Superseded Report:** 641022
Client Ref.: LD10385 **Location:** Ten Acres Lane

VOC MS (S)

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4+$@ Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	CP201	TP218				
			Depth (m)	4.00 - 6.00	1.60 - 1.90				
			Sample Type	Soil/Solid (S)	Soil/Solid (S)				
			Date Sampled	21/03/2022	22/03/2022				
			Sample Time	12:00	14:30				
			Date Received	24/03/2022	24/03/2022				
			SDG Ref	220331-99	220331-99				
			Lab Sample No.(s)	26057302	26057322				
			AGS Reference						
Dibromofluoromethane**	%	TM116		95	117				
Toluene-d8**	%	TM116		93.3	96.2				
4-Bromofluorobenzene**	%	TM116		82.9	95.2				
Dichlorodifluoromethane	<6 µg/kg	TM116		<6 #	<6 #				
Chloromethane	<7 µg/kg	TM116		<7 #	<7 #				
Bromomethane	<10 µg/kg	TM116		<10 M	<10 M				
Chloroethane	<10 µg/kg	TM116		<10 M	<10 M				
Trichlorofluorormethane	<6 µg/kg	TM116		<6 M	<6 M				
1,1-Dichloroethene	<10 µg/kg	TM116		<10 #	<10 #				
Carbon Disulphide	<7 µg/kg	TM116		21.5 M	<7 M				
Dichloromethane	<10 µg/kg	TM116		24.2 #	13.4 #				
Methyl Tertiary Butyl Ether	<10 µg/kg	TM116		<10 M	<10 M				
trans-1,2-Dichloroethene	<10 µg/kg	TM116		<10 M	<10 M				
1,1-Dichloroethane	<8 µg/kg	TM116		<8 M	<8 M				
cis-1,2-Dichloroethene	<6 µg/kg	TM116		<6 M	<6 M				
2,2-Dichloropropane	<10 µg/kg	TM116		<10	<10				
Bromochloromethane	<10 µg/kg	TM116		<10 M	<10 M				
Chloroform	<8 µg/kg	TM116		<8 M	<8 M				
1,1,1-Trichloroethane	<7 µg/kg	TM116		<7 M	<7 M				
1,1-Dichloropropene	<10 µg/kg	TM116		<10 M	<10 M				
Carbontetrachloride	<10 µg/kg	TM116		<10 M	<10 M				
1,2-Dichloroethane	<5 µg/kg	TM116		<5 M	<5 M				
Benzene	<9 µg/kg	TM116		<9 M	<9 M				
Trichloroethene	<9 µg/kg	TM116		<9 #	<9 #				
1,2-Dichloropropane	<10 µg/kg	TM116		<10 M	<10 M				
Dibromomethane	<9 µg/kg	TM116		<9 M	<9 M				
Bromodichloromethane	<7 µg/kg	TM116		<7 M	<7 M				
cis-1,3-Dichloropropene	<10 µg/kg	TM116		<10 M	<10 M				
Toluene	<7 µg/kg	TM116		<7 M	<7 M				
trans-1,3-Dichloropropene	<10 µg/kg	TM116		<10	<10				
1,1,2-Trichloroethane	<10 µg/kg	TM116		<10 M	<10 M				
1,3-Dichloropropane	<7 µg/kg	TM116		<7 M	<7 M				
Tetrachloroethene	<5 µg/kg	TM116		<5 M	<5 M				

CERTIFICATE OF ANALYSIS

SDG: 220331-99 **Report Number:** 641470 **Superseded Report:** 641022
Client Ref.: LD10385 **Location:** Ten Acres Lane

VOC MS (S)

Results Legend
- # ISO17025 accredited.
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- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4+§@ Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	CP201	TP218				
			Depth (m)	4.00 - 6.00	1.60 - 1.90				
			Sample Type	Soil/Solid (S)	Soil/Solid (S)				
			Date Sampled	21/03/2022	22/03/2022				
			Sample Time	12:00	14:30				
			Date Received	24/03/2022	24/03/2022				
			SDG Ref	220331-99	220331-99				
			Lab Sample No.(s)	26057302	26057322				
			AGS Reference						
Dibromochloromethane	<10 µg/kg	TM116		<10 M	<10 M				
1,2-Dibromoethane	<10 µg/kg	TM116		<10 M	<10 M				
Chlorobenzene	<5 µg/kg	TM116		<5 M	<5 M				
1,1,1,2-Tetrachloroethane	<10 µg/kg	TM116		<10 M	<10 M				
Ethylbenzene	<4 µg/kg	TM116		<4 M	<4 M				
p/m-Xylene	<10 µg/kg	TM116		<10 #	<10 #				
o-Xylene	<10 µg/kg	TM116		<10 M	<10 M				
Bromoform	<10 µg/kg	TM116		<10 M	<10 M				
Isopropylbenzene	<5 µg/kg	TM116		<5 #	<5 #				
1,1,2,2-Tetrachloroethane	<10 µg/kg	TM116		<10 #	<10 #				
1,2,3-Trichloropropane	<16 µg/kg	TM116		<16 M	<16 M				
Bromobenzene	<10 µg/kg	TM116		<10 M	<10 M				
Propylbenzene	<10 µg/kg	TM116		<10 M	<10 M				
2-Chlorotoluene	<9 µg/kg	TM116		<9 M	<9 M				
1,3,5-Trimethylbenzene	<8 µg/kg	TM116		<8 M	<8 M				
4-Chlorotoluene	<10 µg/kg	TM116		<10 M	<10 M				
tert-Butylbenzene	<14 µg/kg	TM116		<14 #	<14 #				
1,2,4-Trimethylbenzene	<9 µg/kg	TM116		16.6 #	<9 #				
sec-Butylbenzene	<10 µg/kg	TM116		<10	<10				
4-Isopropyltoluene	<10 µg/kg	TM116		<10	<10				
1,3-Dichlorobenzene	<8 µg/kg	TM116		<8 M	<8 M				
1,4-Dichlorobenzene	<5 µg/kg	TM116		<5 M	<5 M				
n-Butylbenzene	<11 µg/kg	TM116		<11	<11				
1,2-Dichlorobenzene	<10 µg/kg	TM116		<10 M	<10 M				
1,2-Dibromo-3-chloropropane	<14 µg/kg	TM116		<14 M	<14 M				
Tert-amyl methyl ether	<10 µg/kg	TM116		<10 #	<10 #				
1,2,4-Trichlorobenzene	<20 µg/kg	TM116		<20	<20				
Hexachlorobutadiene	<20 µg/kg	TM116		<20	<20				
Naphthalene	<13 µg/kg	TM116		412 M	<13 M				
1,2,3-Trichlorobenzene	<20 µg/kg	TM116		<20 #	<20 #				
1,3,5-Trichlorobenzene	<20 µg/kg	TM116		<20	<20				
Sum of Detected Xylenes	<0.02 mg/kg	TM116		<0.02	<0.02				
Sum of BTEX	<40 µg/kg	TM116		<40	<40				

CERTIFICATE OF ANALYSIS

SDG: 220331-99 **Report Number:** 641470 **Superseded Report:** 641022
Client Ref.: LD10385 **Location:** Ten Acres Lane

Asbestos Identification - Solid Samples

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
*	Subcontracted test.
(F)	Trigger breach confirmed
1-5&♦$@	Sample deviation (see appendix)

		Date of Analysis	Analysed By	Comments	Amosite (Brown) Asbestos	Asbestos Actinolite	Asbestos Anthophyllite	Asbestos Tremolite	Chrysotile (White) Asbestos	Crocidolite (Blue) Asbestos	Non-Asbestos Fibre
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Receieved SDG Original Sample Method Number	CP201 4.00 - 6.00 SOLID 21/03/2022 00:00:00 24/03/2022 05:00:00 220331-99 26057302 TM048	04/04/2022	Paul Poynton	N/A	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Receieved SDG Original Sample Method Number	TP218 1.60 - 1.90 SOLID 22/03/2022 00:00:00 24/03/2022 05:00:00 220331-99 26057322 TM048	04/04/2022	Paul Poynton	N/A	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected

Table of Results - Appendix

Method No	Reference	Description
PM024	Modified BS 1377	Soil preparation including homogenisation, moisture screens of soils for Asbestos Containing Material
TM048	HSG 248, Asbestos: The analysts' guide for sampling, analysis and clearance procedures	Identification of Asbestos in Bulk Material
TM062 (S)	National Grid Property Holdings Methods for the Collection & Analysis of Samples from National Grid Sites version 1 Sec 3.9	Determination of Phenols in Soils by HPLC
TM089	Modified: US EPA Methods 8020 & 602	Determination of Gasoline Range Hydrocarbons (GRO) by Headspace GC-FID (C4-C12)
TM116	Modified: US EPA Method 8260, 8120, 8020, 624, 610 & 602	Determination of Volatile Organic Compounds by Headspace / GC-MS
TM132	In - house Method	ELTRA CS800 Operators Guide
TM133	BS 1377: Part 3 1990;BS 6068-2.5	Determination of pH in Soil and Water using the GLpH pH Meter
TM151	Method 3500D, AWWA/APHA, 20th Ed., 1999	Determination of Hexavalent Chromium using Kone analyser
TM153	Method 4500A,B,C, I, M AWWA/APHA, 20th Ed., 1999	Determination of Total Cyanide, Free (Easily Liberatable) Cyanide and Thiocyanate using the Skalar SANS+ System Segmented Flow Analyser
TM157	HP 6890 Gas Chromatograph (GC) system and HP 5973 Mass Selective Detector (MSD).	Determination of SVOC in Soils by GC-MS extracted by sonication in DCM/Acetone
TM168	EPA Method 8082, Polychlorinated Biphenyls by Gas Chromatography	Determination of WHO12 and EC7 Polychlorinated Biphenyl Congeners by GC-MS in Soils
TM181	US EPA Method 6010B	Determination of Routine Metals in Soil by iCap 6500 Duo ICP-OES
TM218	Shaker extraction - EPA method 3546.	The determination of PAH in soil samples by GC-MS
TM221	Inductively Coupled Plasma - Atomic Emission Spectroscopy. An Atlas of Spectral Information: Winge, Fassel, Peterson and Floyd	Determination of Acid Extractable Sulphate in Soils by ICP OES
TM222	In-House Method	Determination of Hot Water Soluble Boron in Soils (10:1 Water:Soil) by ICP OES.
TM243		Mixed Anions In Soils By Kone
TM414	Analysis of Petroleum Hydrocarbons in Environmental Media – Total Petroleum Hydrocarbon Criteria	Determination of Speciated Extractable Petroleum Hydrocarbons in Soils by GCxGC-FID

NA = not applicable.
Chemical testing (unless subcontracted) performed at ALS Life Sciences Ltd Hawarden.

Test Completion Dates

Lab Sample No(s)	26057302	26057322
Customer Sample Ref.	CP201	TP218
AGS Ref.		
Depth	4.00 - 6.00	1.60 - 1.90
Type	Soil/Solid (S)	Soil/Solid (S)
Anions by Kone (soil)	04-Apr-2022	04-Apr-2022
Asbestos ID in Solid Samples	04-Apr-2022	04-Apr-2022
Boron Water Soluble	04-Apr-2022	04-Apr-2022
Cyanide Comp/Free/Total/Thiocyanate	05-Apr-2022	05-Apr-2022
EPH CWG GC (S)	04-Apr-2022	04-Apr-2022
GRO by GC-FID (S)	05-Apr-2022	03-Apr-2022
Hexavalent Chromium (s)	04-Apr-2022	04-Apr-2022
Metals in solid samples by OES	05-Apr-2022	04-Apr-2022
PAH by GCMS	08-Apr-2022	08-Apr-2022
PCBs by GCMS	04-Apr-2022	04-Apr-2022
pH	05-Apr-2022	05-Apr-2022
Phenols by HPLC (S)	04-Apr-2022	04-Apr-2022
Sample description	31-Mar-2022	31-Mar-2022
Semi Volatile Organic Compounds	05-Apr-2022	01-Apr-2022
Total Organic Carbon	04-Apr-2022	04-Apr-2022
Total Sulphate	04-Apr-2022	04-Apr-2022
TPH CWG GC (S)	05-Apr-2022	04-Apr-2022
VOC MS (S)	01-Apr-2022	01-Apr-2022

ALS Environmental, Land	QF.7.5.1 Data Amendments Form (Issue No. 4)
	Date: 03/03/2020
	Issued and Authorised by Quality Manager

SDG	Sample Event	Sample ID	Date Amended	Amendment Reason	Previous Reference	New Reference	Supersedes Report
220331-99	All	All	08/04/2022	Other	missing TPH Components	Components authorised	641022

Appendix General

1. Results are expressed on a dry weight basis (dried at 35ºC) for all soil analyses except for the following: NRA and CEN Leach tests, flash point LOI, pH, ammonium as NH4 by the BRE method, VOC TICs and SVOC TICs.

2. If sufficient sample is received a sub sample will be retained free of charge for 30 days after analysis is completed (e-mailed) for all sample types unless the sample is destroyed on testing. The prepared soil sub sample that is analysed for asbestos will be retained for a period of 6 months after the analysis date. All bulk samples will be retained for a period of 6 months after the analysis date. All samples received and not scheduled will be disposed of one month after the date of receipt unless we are instructed to the contrary. Once the initial period has expired, a storage charge will be applied for each month or part thereof until the client cancels the request for sample storage. ALS reserve the right to charge for samples received and stored but not analysed.

3. With respect to turnaround, we will always endeavour to meet client requirements wherever possible, but turnaround times cannot be absolutely guaranteed due to so many variables beyond our control.

4. We take responsibility for any test performed by sub-contractors (marked with an asterisk). We endeavour to use UKAS/MCERTS Accredited Laboratories, who either complete a quality questionnaire or are audited by ourselves. For some determinands there are no UKAS/MCERTS Accredited Laboratories, in this instance a laboratory with a known track record will be utilised.

5. If no separate volatile sample is supplied by the client, or if a headspace or sediment is present in the volatile sample, the integrity of the data may be compromised. This will be flagged up as an invalid VOC on the test schedule and the result marked as deviating on the test certificate.

6. NDP - No determination possible due to insufficient/unsuitable sample.

7. Results relate only to the items tested.

8. LoDs (Limit of Detection) for wet tests reported on a dry weight basis are not corrected for moisture content.

9. **Surrogate recoveries** - Surrogates are added to your sample to monitor recovery of the test requested. A % recovery is reported, results are not corrected for the recovery measured. Typical recoveries for organics tests are 70-130%. Recoveries in soils are affected by organic rich or clay rich matrices. Waters can be affected by remediation fluids or high amounts of sediment. Test results are only ever reported if all of the associated quality checks pass; it is assumed that all recoveries outside of the values above are due to matrix affect.

10. Stones/debris are not routinely removed. We always endeavour to take a representative sub sample from the received sample.

11. In certain circumstances the method detection limit may be elevated due to the sample being outside the calibration range. Other factors that may contribute to this include possible interferences. In both cases the sample would be diluted which would cause the method detection limit to be raised.

12. For dried and crushed preparations of soils volatile loss may occur e.g volatile mercury

13. For leachate preparations other than Zero Headspace Extraction (ZHE) volatile loss may occur.

14. For the BSEN 12457-3 two batch process to allow the cumulative release to be calculated, the volume of the leachate produced is measured and filtered for all tests. We therefore cannot carry out any unfiltered analysis. The tests affected include volatiles GCFID/GCMS and all subcontracted analysis.

15. Analysis and identification of specific compounds using GCFID is by retention time only, and we routinely calibrate and quantify for benzene, toluene, ethylbenzenes and xylenes (BTEX). For total volatiles in the C5-C12 range, the total area of the chromatogram is integrated and expressed as ug/kg or ug/l. Although this analysis is commonly used for the quantification of gasoline range organics (GRO), the system will also detect other compounds such as chlorinated solvents, and this may lead to a falsely high result with respect to hydrocarbons only. It is not possible to specifically identify these non-hydrocarbons, as standards are not routinely run for any other compounds, and for more definitive identification, volatiles by GCMS should be utilised.

16. We are accredited to MCERTS for sand, clay and loam/topsoil, or any of these materials - whether these are derived from naturally occurring soil profiles, or from fill/made ground, as long as these materials constitute the major part of the sample. Other coarse granular material such as concrete, gravel and brick are not accredited if they comprise the major part of the sample.

17 Data retention. All records, communications and reports pertaining to the analysis are archived for seven years from the date of issue of the final report.

18. **Tentatively Identified Compounds (TICs)** are non-target peaks in VOC and SVOC analysis. All non-target peaks detected with a concentration above the LoD are subjected to a mass spectral library search. Non-target peaks with a library search confidence of >75% are reported based on the best mass spectral library match. When a non-target peak with a library search confidence of <75% is detected it is reported as “mixed hydrocarbons”. Non-target compounds identified from the scan data are semi-quantified relative to one of the deuterated internal standards, under the same chromatographic conditions as the target compounds. This result is reported as a semi-quantitative value and reported as Tentatively Identified Compounds (TICs). TICs are outside the scope of UKAS accreditation and are not moisture corrected.

19. **Sample Deviations**

If a sample is classed as deviated then the associated results may be compromised.

1	**Container with Headspace provided for volatiles analysis**
2	**Incorrect container received**
3	**Deviation from method**
4	**Matrix interference**
♦	**Sample holding time exceeded in laboratory**
@	**Sample holding time exceeded due to late arrival of instructions or samples**
§	**Sampled on date not provided**

20. **Asbestos**

When requested, the individual sub sample scheduled will be analysed in house for the presence of asbestos fibres and asbestos containing material by our documented in house method TM048 based on HSG 248 (2021), which is accredited to ISO17025. If a specific asbestos fibre type is not found this will be reported as “Not detected”. If no asbestos fibre types are found all will be reported as “Not detected” and the sub sample analysed deemed to be clear of asbestos. If an asbestos fibre type is found it will be reported as detected (for each fibre type found). Testing can be carried out on asbestos positive samples, but, due to Health and Safety considerations, may be replaced by alternative tests or reported as No Determination Possible (NDP). The quantity of asbestos present is not determined unless specifically requested.

Identification of Asbestos in Bulk Materials & Soils

The results for identification of asbestos in bulk materials and soils are obtained from supplied bulk materials andd soils which have been examined to determine the presence of asbestos fibres using ALS (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining, based on HSG 248 (2021).

The results for identification of asbestos in soils are obtained from a homogenised sub sample which has been examined to determine the presence of asbestos fibres using ALS (Hawarden) in-house method of transmitted/polarised light microscopy and central

Asbestos Type	Common Name
Chrysotile	White Asbestos
Amosite	Brown Asbestos
Crocidolite	Blue Asbestos
Fibrous Actinolite	-
Fibrous Anthophyllite	-
Fibrous Tremolite	-

Visual Estimation Of Fibre Content

Estimation of fibre content is not permitted as part of our UKAS accredited test other than: - Trace - Where only one or two asbestos fibres were identified.

Respirable Fibres

Respirable fibres are defined as fibres of <3 µm diameter, longer than 5 µm and with aspect ratios of at least 3:1 that can be inhaled into the lower regions of the lung and are generally acknowledged to be most important predictor of hazard and risk for cancers of the lung.

Further guidance on typical asbestos fibre content of manufactured products can be found in HSG 264.

The identification of asbestos containing materials and soils falls within our schedule of tests for which we hold UKAS accreditation, however opinions, interpretations and all other information contained in the report are outside the scope of UKAS accreditation.

Unit 7-8 Hawarden Business Park
Manor Road (off Manor Lane)
Hawarden
Deeside
CH5 3US
Tel: (01244) 528700
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email: hawardencustomerservices@alsglobal.com
Website: www.alsenvironmental.co.uk

Wardell Armstrong LLP
36 Park Row
Leeds
LS1 5JL

Attention: Jonathan Currie

CERTIFICATE OF ANALYSIS

Date of report Generation:	19 April 2022
Customer:	Wardell Armstrong LLP
Sample Delivery Group (SDG):	220402-95
Your Reference:	LD10385
Location:	Ten Acres Lane
Report No:	642653
Order Number:	LD2667

This report has been revised and directly supersedes 641921 in its entirety.

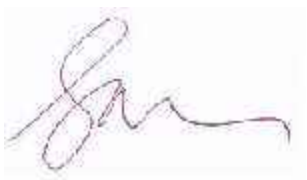
We received 6 samples on Friday April 01, 2022 and 6 of these samples were scheduled for analysis which was completed on Tuesday April 19, 2022. Accredited laboratory tests are defined within the report, but opinions, interpretations and on-site data expressed herein are outside the scope of ISO 17025 accreditation.

Should this report require incorporation into client reports, it must be used in its entirety and not simply with the data sections alone.

Chemical testing (unless subcontracted) performed at ALS Life Sciences Ltd Hawarden.

All sample data is provided by the customer. The reported results relate to the sample supplied, and on the basis that this data is correct.
Incorrect sampling dates and/or sample information will affect the validity of results.
The customer is not permitted to reproduce this report except in full without the approval of the laboratory.

Approved By:



Sonia McWhan

Operations Manager

CERTIFICATE OF ANALYSIS

SDG: 220402-95 **Report Number:** 642653 **Superseded Report:** 641921
Client Ref.: LD10385 **Location:** Ten Acres Lane

Received Sample Overview

Lab Sample No(s)	Customer Sample Ref.	AGS Ref.	Depth (m)	Sampled Date
26074682	CP207		10.00 - 11.00	25/03/2022
26074723	CP207		12.00 - 13.00	25/03/2022
26074691	CP210		5.50 - 6.00	23/03/2022
26074715	RH203		4.00 - 5.00	30/03/2022
26074709	TP236		1.50 - 1.70	30/03/2022
26074698	TP255		0.20 - 1.00	28/03/2022

Only received samples which have had analysis scheduled will be shown on the following pages.

Validated

CERTIFICATE OF ANALYSIS

SDG: 220402-95 **Report Number:** 642653 **Superseded Report:** 641921

Client Ref.: LD10385 **Location:** Ten Acres Lane

Results Legend

X Test

N No Determination Possible

Sample Types -

S - Soil/Solid
UNS - Unspecified Solid
GW - Ground Water
SW - Surface Water
LE - Land Leachate
PL - Prepared Leachate
PR - Process Water
SA - Saline Water
TE - Trade Effluent
TS - Treated Sewage
US - Untreated Sewage
RE - Recreational Water
DW - Drinking Water Non-regulatory
UNL - Unspecified Liquid
SL - Sludge
G - Gas
OTH - Other

			Lab Sample No(s)	26074682			26074723			26074691			26074715			26074709			26074698		
			Customer Sample Reference	CP207			CP207			CP210			RH203			TP236			TP255		
			AGS Reference																		
			Depth (m)	10.00 - 11.00			12.00 - 13.00			5.50 - 6.00			4.00 - 5.00			1.50 - 1.70			0.20 - 1.00		
			Container	1kg TUB with Handle (ALE260)	250g Amber Jar (ALE210)	60g VOC (ALE215)	1kg TUB with Handle (ALE260)	250g Amber Jar (ALE210)	60g VOC (ALE215)	1kg TUB with Handle (ALE260)	250g Amber Jar (ALE210)	60g VOC (ALE215)	1kg TUB with Handle (ALE260)	250g Amber Jar (ALE210)	60g VOC (ALE215)	1kg TUB with Handle (ALE260)	250g Amber Jar (ALE210)	60g VOC (ALE215)	1kg TUB with Handle (ALE260)	250g Amber Jar (ALE210)	60g VOC (ALE215)
			Sample Type	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S
Anions by Kone (soil)	All	NDPs: 0 Tests: 6			X			X			X			X			X			X	
Asbestos ID in Solid Samples	All	NDPs: 0 Tests: 6		X			X			X			X			X			X		
Asbestos Quantification - Full	All	NDPs: 0 Tests: 1											X								
Boron Water Soluble	All	NDPs: 0 Tests: 6			X			X			X			X			X			X	
Cyanide Comp/Free/Total/Thiocyanate	All	NDPs: 0 Tests: 6			X			X			X			X			X			X	
Easily Liberated Sulphide	All	NDPs: 0 Tests: 6			X			X			X			X			X			X	
EPH CWG GC (S)	All	NDPs: 0 Tests: 6			X			X			X			X			X			X	
GRO by GC-FID (S)	All	NDPs: 0 Tests: 6				X			X			X			X			X			X
Hexavalent Chromium (s)	All	NDPs: 0 Tests: 6			X			X			X			X			X			X	
Metals in solid samples by OES	All	NDPs: 0 Tests: 6			X			X			X			X			X			X	
PAH by GCMS	All	NDPs: 0 Tests: 6			X			X			X			X			X			X	
PCBs by GCMS	All	NDPs: 0 Tests: 6			X			X			X			X			X			X	
pH	All	NDPs: 0 Tests: 6			X			X			X			X			X			X	
Phenols by HPLC (S)	All	NDPs: 0 Tests: 6			X			X			X			X			X			X	
Sample description	All	NDPs: 0 Tests: 6			X			X			X			X			X			X	

Validated

CERTIFICATE OF ANALYSIS

SDG: 220402-95 **Report Number:** 642653 **Superseded Report:** 641921

Client Ref.: LD10385 **Location:** Ten Acres Lane

Results Legend

X Test

N No Determination Possible

Sample Types -

S - Soil/Solid
UNS - Unspecified Solid
GW - Ground Water
SW - Surface Water
LE - Land Leachate
PL - Prepared Leachate
PR - Process Water
SA - Saline Water
TE - Trade Effluent
TS - Treated Sewage
US - Untreated Sewage
RE - Recreational Water
DW - Drinking Water Non-regulatory
UNL - Unspecified Liquid
SL - Sludge
G - Gas
OTH - Other

			Lab Sample No(s)	Customer Sample Reference	AGS Reference	Depth (m)	Container	Sample Type
			26074682	CP207		10.00 - 11.00	1kg TUB with Handle (ALE260)	S
							250g Amber Jar (ALE210)	S
							60g VOC (ALE215)	S
			26074723	CP207		12.00 - 13.00	1kg TUB with Handle (ALE260)	S
							250g Amber Jar (ALE210)	S
							60g VOC (ALE215)	S
			26074691	CP210		5.50 - 6.00	1kg TUB with Handle (ALE260)	S
							250g Amber Jar (ALE210)	S
							60g VOC (ALE215)	S
			26074715	RH203		4.00 - 5.00	1kg TUB with Handle (ALE260)	S
							250g Amber Jar (ALE210)	S
							60g VOC (ALE215)	S
			26074709	TP236		1.50 - 1.70	1kg TUB with Handle (ALE260)	S
							250g Amber Jar (ALE210)	S
							60g VOC (ALE215)	S
			26074698	TP255		0.20 - 1.00	1kg TUB with Handle (ALE260)	S
							250g Amber Jar (ALE210)	S
							60g VOC (ALE215)	S
Semi Volatile Organic Compounds	All	NDPs: 0 Tests: 6						
			X					
			X					
			X					
Total Organic Carbon	All	NDPs: 0 Tests: 6						
			X					
			X					
			X					
Total Sulphate	All	NDPs: 0 Tests: 6						
			X					
			X					
			X					
TPH CWG GC (S)	All	NDPs: 0 Tests: 6						
			X					
			X					
			X					
VOC MS (S)	All	NDPs: 0 Tests: 6						
				X				
				X				
				X				

CERTIFICATE OF ANALYSIS

SDG: 220402-95 **Report Number:** 642653 **Superseded Report:** 641921
Client Ref.: LD10385 **Location:** Ten Acres Lane

Sample Descriptions

Grain Sizes

very fine	<0.063mm	fine	0.063mm - 0.1mm	medium	0.1mm - 2mm	coarse	2mm - 10mm	very coarse	>10mm

Lab Sample No(s)	Customer Sample Ref.	Depth (m)	Colour	Description	Inclusions	Inclusions 2
26074682	CP207	10.00 - 11.00	Light Brown	Sandy Loam	Stones	None
26074723	CP207	12.00 - 13.00	Light Brown	Sandy Clay Loam	Stones	None
26074691	CP210	5.50 - 6.00	Light Brown	Sandy Clay Loam	Stones	None
26074715	RH203	4.00 - 5.00	Light Brown	Sandy Clay Loam	Stones	None
26074709	TP236	1.50 - 1.70	Light Brown	Sandy Clay	None	None
26074698	TP255	0.20 - 1.00	Dark Brown	Sandy Loam	Stones	Brick

These descriptions are only intended to act as a cross check if sample identities are questioned, and to provide a log of sample matrices with respect to MCERTS validation. They are not intended as full geological descriptions.

We are accredited to MCERTS for sand, clay and loam/topsoil, or any of these materials - whether these are derived from naturally ocurring soil profiles, or from fill/made ground, as long as these materials constitute the major part of the sample.

Other coarse granular materials such as concrete, gravel and brick are not accredited if they comprise the major part of the sample.

Validated

CERTIFICATE OF ANALYSIS

SDG: 220402-95 **Report Number:** 642653 **Superseded Report:** 641921

Client Ref.: LD10385 **Location:** Ten Acres Lane

Results Legend

- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4+§@ Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	CP207	CP207	CP210	RH203	TP236	TP255
			Depth (m)	10.00 - 11.00	12.00 - 13.00	5.50 - 6.00	4.00 - 5.00	1.50 - 1.70	0.20 - 1.00
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	25/03/2022	25/03/2022	23/03/2022	30/03/2022	30/03/2022	28/03/2022
			Sample Time	12:00	12:00	12:00	12:00	12:00	12:00
			Date Received	01/04/2022	01/04/2022	01/04/2022	01/04/2022	01/04/2022	01/04/2022
			SDG Ref	220402-95	220402-95	220402-95	220402-95	220402-95	220402-95
			Lab Sample No.(s)	26074682	26074723	26074691	26074715	26074709	26074698
			AGS Reference						
Moisture Content Ratio (% of as received sample)	%	PM024		12	8.4	13	13	12	11
Phenol	<0.01 mg/kg	TM062 (S)		<0.01 M	<0.01 M	<0.01 M	<0.01 M	<0.01 M	<0.01 M
Cresols	<0.01 mg/kg	TM062 (S)		0.0114 M	<0.01 M	<0.01 M	<0.01 M	<0.01 M	<0.01 M
Xylenols	<0.015 mg/kg	TM062 (S)		0.057 M	<0.015 M	<0.015 M	<0.015 M	<0.015 M	<0.015 M
Phenols, Total Detected monohydric	<0.035 mg/kg	TM062 (S)		0.0684 M	<0.035 M	<0.035 M	<0.035 M	<0.035 M	<0.035 M
Soil Organic Matter (SOM)	<0.35 %	TM132		4.52 #	2.24 #	3.33 #	4.67 #	0.491 #	2.45 #
pH	1 pH Units	TM133		8.99 M	8.69 M	8.09 M	7.78 M	7.16 M	8.49 M
Chromium, Hexavalent	<0.6 mg/kg	TM151		<0.6 #	<0.6 #	<0.6 #	<0.6 #	<0.6 #	6.43 #
Cyanide, Total	<1 mg/kg	TM153		<1 M	<1 M	<1 M	3.12 M	<1 M	1.32 M
PCB congener 28	<3 µg/kg	TM168		<30 M	<3 M	<3 M	<3 M	<3 M	<15 M
PCB congener 52	<3 µg/kg	TM168		<30 M	<3 M	<3 M	<3 M	<3 M	<15 M
PCB congener 101	<3 µg/kg	TM168		<30 M	<3 M	<3 M	<3 M	<3 M	<15 M
PCB congener 118	<3 µg/kg	TM168		<30 M	<3 M	<3 M	<3 M	<3 M	<15 M
PCB congener 138	<3 µg/kg	TM168		<30 M	<3 M	<3 M	<3 M	<3 M	<15 M
PCB congener 153	<3 µg/kg	TM168		<30 M	<3 M	<3 M	<3 M	<3 M	<15 M
PCB congener 180	<3 µg/kg	TM168		<30 M	<3 M	<3 M	<3 M	<3 M	<15 M
Sum of detected PCB 7 Congeners	<21 µg/kg	TM168		<210	<21	<21	<21	<21	<105
Sulphide, Easily liberated	<15 mg/kg	TM180		44.4 @ M	17.1 @ M	20.9 @ M	<15 ♦ M	<15 ♦ M	19.2 @ M
Arsenic	<0.6 mg/kg	TM181		14.1 M	17.2 M	18.7 M	16.3 M	7.93 M	15.2 M
Beryllium	<0.01 mg/kg	TM181		1.06 M	0.906 M	0.908 M	0.904 M	0.632 M	0.605 M
Cadmium	<0.02 mg/kg	TM181		0.416 M	0.355 M	0.491 M	0.814 M	0.0654 M	0.918 M
Chromium	<0.9 mg/kg	TM181		6.55 M	24.1 M	19.1 M	7.72 M	8.91 M	23.2 M
Copper	<1.4 mg/kg	TM181		32 M	737 M	253 M	58.2 M	17.8 M	138 M
Lead	<0.7 mg/kg	TM181		601 M	148 M	135 M	82.3 M	13.9 M	317 M
Mercury	<0.1 mg/kg	TM181		<0.1 M	<0.1 M	<0.1 M	<0.1 M	<0.1 M	<0.1 M
Nickel	<0.2 mg/kg	TM181		18.2 M	41.6 M	23.1 M	27.1 M	13.9 M	28.9 M
Selenium	<1 mg/kg	TM181		1.05 #	<1 #	<1 #	<1 #	<1 #	1.19 #
Vanadium	<0.2 mg/kg	TM181		21.3 #	22.9 #	23.8 #	22.8 #	25.2 #	20.3 #
Zinc	<1.9 mg/kg	TM181		86.7 M	210 M	361 M	331 M	30.4 M	351 M
Sulphate, Total	<48 mg/kg	TM221		1030 M	358 M	580 M	1140 M	161 M	904 M
Boron, water soluble	<1 mg/kg	TM222		40.8 M	4.05 M	2.24 M	2.16 M	<1 M	<1 M
Water Soluble Sulphate as SO4 2:1 Extract	<0.004 g/l	TM243		0.0602 M	0.0823 M	0.173 M	0.192 M	0.0807 M	0.105 M
Asbestos Quantification - Gravimetric - %	<0.001 %	TM304					<0.001 #		

Validated

CERTIFICATE OF ANALYSIS

SDG: 220402-95 **Report Number:** 642653 **Superseded Report:** 641921

Client Ref.: LD10385 **Location:** Ten Acres Lane

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	CP207	CP207	CP210	RH203	TP236	TP255
			Depth (m)	10.00 - 11.00	12.00 - 13.00	5.50 - 6.00	4.00 - 5.00	1.50 - 1.70	0.20 - 1.00
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	25/03/2022	25/03/2022	23/03/2022	30/03/2022	30/03/2022	28/03/2022
			Sample Time	12:00	12:00	12:00	12:00	12:00	12:00
			Date Received	01/04/2022	01/04/2022	01/04/2022	01/04/2022	01/04/2022	01/04/2022
			SDG Ref	220402-95	220402-95	220402-95	220402-95	220402-95	220402-95
			Lab Sample No.(s)	26074682	26074723	26074691	26074715	26074709	26074698
			AGS Reference						
Asbestos Quantification - PCOM Evaluation - %	<0.001 %	TM304					<0.001 #		
Additional Asbestos Components (Using TM048)		TM304					None #		
Analysts Comments		TM304					0		
Asbestos Quantification - Total - %	<0.001 %	TM304					<0.001 #		

CERTIFICATE OF ANALYSIS

SDG: 220402-95 **Report Number:** 642653 **Superseded Report:** 641921

Client Ref.: LD10385 **Location:** Ten Acres Lane

PAH by GCMS

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	CP207	CP207	CP210	RH203	TP236	TP255
			Depth (m)	10.00 - 11.00	12.00 - 13.00	5.50 - 6.00	4.00 - 5.00	1.50 - 1.70	0.20 - 1.00
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	25/03/2022	25/03/2022	23/03/2022	30/03/2022	30/03/2022	28/03/2022
			Sample Time	12:00	12:00	12:00	12:00	12:00	12:00
			Date Received	01/04/2022	01/04/2022	01/04/2022	01/04/2022	01/04/2022	01/04/2022
			SDG Ref	220402-95	220402-95	220402-95	220402-95	220402-95	220402-95
			Lab Sample No.(s)	26074682	26074723	26074691	26074715	26074709	26074698
			AGS Reference						
Naphthalene-d8 % recovery**	%	TM218		91.3	105	103	103	90.1	111
Acenaphthene-d10 % recovery**	%	TM218		93.8	103	104	105	92.3	109
Phenanthrene-d10 % recovery**	%	TM218		94.4	102	104	106	94.7	112
Chrysene-d12 % recovery**	%	TM218		90.1	99.7	102	105	89.6	110
Perylene-d12 % recovery**	%	TM218		89.8	94.9	92.9	97.1	89.3	97.1
Naphthalene	<9 µg/kg	TM218		2350 M	20.9 M	76.2 M	95.8 M	<9 M	396 M
Acenaphthylene	<12 µg/kg	TM218		<120 M	<12 M	40 M	<12 M	<12 M	<60 M
Acenaphthene	<8 µg/kg	TM218		2950 M	<8 M	120 M	310 M	<8 M	270 M
Fluorene	<10 µg/kg	TM218		3060 M	<10 M	121 M	383 M	<10 M	204 M
Phenanthrene	<15 µg/kg	TM218		15300 M	31.1 M	1040 M	1010 M	<15 M	2140 M
Anthracene	<16 µg/kg	TM218		4240 M	<16 M	260 M	367 M	<16 M	505 M
Fluoranthene	<17 µg/kg	TM218		14000 M	<17 M	1220 M	954 M	<17 M	3340 M
Pyrene	<15 µg/kg	TM218		11400 M	<15 M	1210 M	840 M	<15 M	3040 M
Benz(a)anthracene	<14 µg/kg	TM218		4740 M	<14 M	536 M	320 M	<14 M	1420 M
Chrysene	<10 µg/kg	TM218		4100 M	<10 M	570 M	335 M	<10 M	1440 M
Benzo(b)fluoranthene	<15 µg/kg	TM218		4030 M	<15 M	613 M	397 M	<15 M	2090 M
Benzo(k)fluoranthene	<14 µg/kg	TM218		1810 M	<14 M	193 M	138 M	<14 M	638 M
Benzo(a)pyrene	<15 µg/kg	TM218		3840 M	<15 M	470 M	275 M	<15 M	1400 M
Indeno(1,2,3-cd)pyrene	<18 µg/kg	TM218		2430 M	<18 M	297 M	195 M	<18 M	1080 M
Dibenzo(a,h)anthracene	<23 µg/kg	TM218		435 M	<23 M	54.1 M	31.3 M	<23 M	155 M
Benzo(g,h,i)perylene	<24 µg/kg	TM218		2230 M	<24 M	268 M	171 M	<24 M	896 M
PAH, Total Detected USEPA 16	<118 µg/kg	TM218		76900	<118	7090	5820	<118	19000

CERTIFICATE OF ANALYSIS

SDG: 220402-95 **Report Number:** 642653 **Superseded Report:** 641921

Client Ref.: LD10385 **Location:** Ten Acres Lane

Semi Volatile Organic Compounds

Results Legend

- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4+§@ Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	CP207	CP207	CP210	RH203	TP236	TP255
			Depth (m)	10.00 - 11.00	12.00 - 13.00	5.50 - 6.00	4.00 - 5.00	1.50 - 1.70	0.20 - 1.00
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	25/03/2022	25/03/2022	23/03/2022	30/03/2022	30/03/2022	28/03/2022
			Sample Time	12:00	12:00	12:00	12:00	12:00	12:00
			Date Received	01/04/2022	01/04/2022	01/04/2022	01/04/2022	01/04/2022	01/04/2022
			SDG Ref	220402-95	220402-95	220402-95	220402-95	220402-95	220402-95
			Lab Sample No.(s)	26074682	26074723	26074691	26074715	26074709	26074698
			AGS Reference						
Phenol	<100 µg/kg	TM157		<100	<100	<100	<100	<100	<500
Pentachlorophenol	<100 µg/kg	TM157		<100	<100	<100	<100	<100	<500
n-Nitroso-n-dipropylamine	<100 µg/kg	TM157		<100	<100	<100	<100	<100	<500
Nitrobenzene	<100 µg/kg	TM157		<100	<100	<100	<100	<100	<500
Isophorone	<100 µg/kg	TM157		<100	<100	<100	<100	<100	<500
Hexachloroethane	<100 µg/kg	TM157		<100	<100	<100	<100	<100	<500
Hexachlorocyclopentadiene	<100 µg/kg	TM157		<100	<100	<100	<100	<100	<500
Hexachlorobutadiene	<100 µg/kg	TM157		<100	<100	<100	<100	<100	<500
Hexachlorobenzene	<100 µg/kg	TM157		<100	<100	<100	<100	<100	<500
n-Dioctyl phthalate	<100 µg/kg	TM157		<100	<100	<100	<100	<100	<500
Dimethyl phthalate	<100 µg/kg	TM157		<100	<100	<100	<100	<100	<500
Diethyl phthalate	<100 µg/kg	TM157		<100	<100	<100	<100	<100	<500
n-Dibutyl phthalate	<100 µg/kg	TM157		<100	<100	<100	<100	<100	<500
Dibenzofuran	<100 µg/kg	TM157		228	<100	<100	<100	<100	<500
Carbazole	<100 µg/kg	TM157		<100	<100	<100	<100	<100	<500
Butylbenzyl phthalate	<100 µg/kg	TM157		<100	<100	<100	<100	<100	<500
bis(2-Ethylhexyl) phthalate	<100 µg/kg	TM157		<100	<100	<100	<100	<100	<500
bis(2-Chloroethoxy)methane	<100 µg/kg	TM157		<100	<100	<100	<100	<100	<500
bis(2-Chloroethyl)ether	<100 µg/kg	TM157		<100	<100	<100	<100	<100	<500
Azobenzene	<100 µg/kg	TM157		<100	<100	<100	<100	<100	<500
4-Nitrophenol	<100 µg/kg	TM157		<500	<500	<500	<500	<500	<2500
4-Nitroaniline	<100 µg/kg	TM157		<500	<500	<500	<500	<500	<2500
4-Methylphenol	<100 µg/kg	TM157		<100	<100	<100	<100	<100	<500
4-Chlorophenylphenylether	<100 µg/kg	TM157		<100	<100	<100	<100	<100	<500
4-Chloroaniline	<100 µg/kg	TM157		<100	<100	<100	<100	<100	<500
4-Chloro-3-methylphenol	<100 µg/kg	TM157		<100	<100	<100	<100	<100	<500
4-Bromophenylphenylether	<100 µg/kg	TM157		<100	<100	<100	<100	<100	<500
3-Nitroaniline	<100 µg/kg	TM157		<500	<500	<500	<500	<500	<2500
2-Nitrophenol	<100 µg/kg	TM157		<100	<100	<100	<100	<100	<500
2-Nitroaniline	<100 µg/kg	TM157		<100	<100	<100	<100	<100	<500
2-Methylphenol	<100 µg/kg	TM157		<100	<100	<100	<100	<100	<500
1,2,4-Trichlorobenzene	<100 µg/kg	TM157		<100	<100	<100	<100	<100	<500
2-Chlorophenol	<100 µg/kg	TM157		<100	<100	<100	<100	<100	<500

CERTIFICATE OF ANALYSIS

SDG: 220402-95 **Report Number:** 642653 **Superseded Report:** 641921
Client Ref.: LD10385 **Location:** Ten Acres Lane

Semi Volatile Organic Compounds

Results Legend			Customer Sample Ref.	CP207	CP207	CP210	RH203	TP236	TP255
#	ISO17025 accredited.								
M	mCERTS accredited.								
aq	Aqueous / settled sample.								
diss.filt	Dissolved / filtered sample.		Depth (m)	10.00 - 11.00	12.00 - 13.00	5.50 - 6.00	4.00 - 5.00	1.50 - 1.70	0.20 - 1.00
tot.unfilt	Total / unfiltered sample.		Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
*	Subcontracted - refer to subcontractor report for accreditation status.		Date Sampled	25/03/2022	25/03/2022	23/03/2022	30/03/2022	30/03/2022	28/03/2022
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery		Sample Time	12:00	12:00	12:00	12:00	12:00	12:00
			Date Received	01/04/2022	01/04/2022	01/04/2022	01/04/2022	01/04/2022	01/04/2022
(F)	Trigger breach confirmed		SDG Ref	220402-95	220402-95	220402-95	220402-95	220402-95	220402-95
1-4+§@	Sample deviation (see appendix)		Lab Sample No.(s)	26074682	26074723	26074691	26074715	26074709	26074698
			AGS Reference						
Component	**LOD/Units**	**Method**							
2,6-Dinitrotoluene	<100 µg/kg	TM157		<100	<100	<100	<100	<100	<500
2,4-Dinitrotoluene	<100 µg/kg	TM157		<100	<100	<100	<100	<100	<500
2,4-Dimethylphenol	<100 µg/kg	TM157		<100	<100	<100	<100	<100	<500
2,4-Dichlorophenol	<100 µg/kg	TM157		<100	<100	<100	<100	<100	<500
2,4,6-Trichlorophenol	<100 µg/kg	TM157		<100	<100	<100	<100	<100	<500
2,4,5-Trichlorophenol	<100 µg/kg	TM157		<100	<100	<100	<100	<100	<500
1,4-Dichlorobenzene	<100 µg/kg	TM157		<100	<100	<100	<100	<100	<500
1,3-Dichlorobenzene	<100 µg/kg	TM157		<100	<100	<100	<100	<100	<500
1,2-Dichlorobenzene	<100 µg/kg	TM157		<100	<100	<100	<100	<100	<500
2-Chloronaphthalene	<100 µg/kg	TM157		<100	<100	<100	<100	<100	<500
2-Methylnaphthalene	<100 µg/kg	TM157		137	<100	<100	<100	<100	<500
Acenaphthylene	<100 µg/kg	TM157		<100	<100	116	<100	<100	<500
Acenaphthene	<100 µg/kg	TM157		285	<100	128	<100	<100	<500
Anthracene	<100 µg/kg	TM157		445	<100	267	<100	<100	<500
Benzo(a)anthracene	<100 µg/kg	TM157		616	<100	963	115	<100	1700
Benzo(b)fluoranthene	<100 µg/kg	TM157		490	<100	928	<100	<100	1910
Benzo(k)fluoranthene	<100 µg/kg	TM157		228	<100	464	<100	<100	870
Benzo(a)pyrene	<100 µg/kg	TM157		388	<100	696	<100	<100	1300
Benzo(g,h,i)perylene	<100 µg/kg	TM157		205	<100	383	<100	<100	825
Chrysene	<100 µg/kg	TM157		513	<100	800	115	<100	1810
Fluoranthene	<100 µg/kg	TM157		1790	<100	1860	219	<100	3410
Fluorene	<100 µg/kg	TM157		296	<100	116	<100	<100	<500
Indeno(1,2,3-cd)pyrene	<100 µg/kg	TM157		274	<100	452	<100	<100	994
Phenanthrene	<100 µg/kg	TM157		1630	<100	1210	219	<100	2580
Pyrene	<100 µg/kg	TM157		1470	<100	1810	219	<100	3320
Naphthalene	<100 µg/kg	TM157		308	<100	116	<100	<100	<500
Dibenzo(a,h)anthracene	<100 µg/kg	TM157		<100	<100	<100	<100	<100	<500
Bis(2-chloroisopropyl) ether	<100 µg/kg	TM157		<100	<100	<100	<100	<100	<500

CERTIFICATE OF ANALYSIS

SDG: 220402-95 **Report Number:** 642653 **Superseded Report:** 641921

Client Ref.: LD10385 **Location:** Ten Acres Lane

TPH CWG (S)

Results Legend

- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4+§@ Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	CP207	CP207	CP210	RH203	TP236	TP255
			Depth (m)	10.00 - 11.00	12.00 - 13.00	5.50 - 6.00	4.00 - 5.00	1.50 - 1.70	0.20 - 1.00
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	25/03/2022	25/03/2022	23/03/2022	30/03/2022	30/03/2022	28/03/2022
			Sample Time	12:00	12:00	12:00	12:00	12:00	12:00
			Date Received	01/04/2022	01/04/2022	01/04/2022	01/04/2022	01/04/2022	01/04/2022
			SDG Ref	220402-95	220402-95	220402-95	220402-95	220402-95	220402-95
			Lab Sample No.(s)	26074682	26074723	26074691	26074715	26074709	26074698
			AGS Reference						
GRO Surrogate % recovery**	%	TM089		85.5	76.2	89.3 @	84.7	110	83.8
Aliphatics >C5-C6 (HS_1D_AL)	<10 µg/kg	TM089		20.5	25.1	<10 @	26.5	<10	<10
Aliphatics >C6-C8 (HS_1D_AL)	<10 µg/kg	TM089		77.5	66.6	<10 @	58.7	<10	<10
Aliphatics >C8-C10 (HS_1D_AL)	<10 µg/kg	TM089		800	99.4	<10 @	191	<10	<10
Aliphatics >C10-C12 (EH_2D_AL_#1)	<1000 µg/kg	TM414		<1000 #	<1000 #	<1000 #	<1000 #	<1000 #	<1000 #
Aliphatics >C12-C16 (EH_2D_AL_#1)	<1000 µg/kg	TM414		<1000 #	<1000 #	<1000 #	<1000 #	<1000 #	<1000 #
Aliphatics >C16-C21 (EH_2D_AL_#1)	<1000 µg/kg	TM414		1050 #	<1000 #	1900 #	<1000 #	<1000 #	1740 #
Aliphatics >C21-C35 (EH_2D_AL_#1)	<1000 µg/kg	TM414		11400 #	<1000 #	23500 #	21000 #	<1000 #	17500 #
Aliphatics >C35-C44 (EH_2D_AL_#1)	<1000 µg/kg	TM414		19900	<1000	6220	11700	<1000	1100
Total Aliphatics >C10-C44 (EH_2D_AR_#1)	<5000 µg/kg	TM414		32700	<5000	32600	33600	<5000	21000
Total Aliphatics & Aromatics >C10-C44 (EH_2D_Total_#1)	<10000 µg/kg	TM414		214000	<10000	64400	90300	<10000	142000
Aromatics >EC5-EC7 (HS_1D_AR)	<10 µg/kg	TM089		10.3	<10	<10 @	<10	<10	<10
Aromatics >EC7-EC8 (HS_1D_AR)	<10 µg/kg	TM089		<10	<10	<10 @	<10	<10	<10
Aromatics >EC8-EC10 (HS_1D_AR)	<10 µg/kg	TM089		534	66.6	<10 @	128	<10	<10
Aromatics > EC10-EC12 (EH_2D_AR_#1)	<1000 µg/kg	TM414		1580 #	<1000 #	<1000 #	1310 #	<1000 #	<1000 #
Aromatics > EC12-EC16 (EH_2D_AR_#1)	<1000 µg/kg	TM414		17300 #	<1000 #	<1000 #	7060 #	<1000 #	<1000 #
Aromatics > EC16-EC21 (EH_2D_AR_#1)	<1000 µg/kg	TM414		64900 #	<1000 #	5540 #	24200 #	<1000 #	16000 #
Aromatics > EC21-EC35 (EH_2D_AR_#1)	<1000 µg/kg	TM414		79900 #	<1000 #	22400 #	22600 #	<1000 #	73700 #
Aromatics >EC35-EC44 (EH_2D_AR_#1)	<1000 µg/kg	TM414		17900	<1000	3220	1540	<1000	30700
Aromatics > EC40-EC44 (EH_2D_AR_#1)	<1000 µg/kg	TM414		6770	<1000	<1000	<1000	<1000	13900
Total Aromatics > EC10-EC44 (EH_2D_AR_#1)	<5000 µg/kg	TM414		182000	<5000	31800	56700	<5000	121000
Total Aliphatics & Aromatics >C5-C44 (EH_2D_Total_#1+HS_1D_Total)	<10000 µg/kg	TM414		216000	<10000	64400	90700	<10000	142000
Total Aliphatics >C5-C10 (HS_1D_AL_TOTAL)	<50 µg/kg	TM089		898	191	<50 @	276	<50	<50
Total Aromatics >EC5-EC10 (HS_1D_AR_TOTAL)	<50 µg/kg	TM089		544	66.6	<50 @	128	<50	<50
GRO >C5-C10 (HS_1D_TOTAL)	<20 µg/kg	TM089		1440	258	<20 @	404	<20	<20

CERTIFICATE OF ANALYSIS

SDG: 220402-95 **Report Number:** 642653 **Superseded Report:** 641921

Client Ref.: LD10385 **Location:** Ten Acres Lane

VOC MS (S)

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	CP207	CP207	CP210	RH203	TP236	TP255
			Depth (m)	10.00 - 11.00	12.00 - 13.00	5.50 - 6.00	4.00 - 5.00	1.50 - 1.70	0.20 - 1.00
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	25/03/2022	25/03/2022	23/03/2022	30/03/2022	30/03/2022	28/03/2022
			Sample Time	12:00	12:00	12:00	12:00	12:00	12:00
			Date Received	01/04/2022	01/04/2022	01/04/2022	01/04/2022	01/04/2022	01/04/2022
			SDG Ref	220402-95	220402-95	220402-95	220402-95	220402-95	220402-95
			Lab Sample No.(s)	26074682	26074723	26074691	26074715	26074709	26074698
			AGS Reference						
Dibromofluoromethane**	%	TM116		101	101	99.9 @	102	122	103
Toluene-d8**	%	TM116		92.3	97.1	97.3 @	94.3	99.2	96.1
4-Bromofluorobenzene**	%	TM116		83.2	94.7	91.8 @	88.9	93.2	91.5
Dichlorodifluoromethane	<6 µg/kg	TM116		<6 #	<120 #	<60 @ #	<60 #	<6 #	<60 #
Chloromethane	<7 µg/kg	TM116		<7 #	<140 #	<70 @ #	<70 #	<7 #	<70 #
Vinyl Chloride	<6 µg/kg	TM116		<6 @ M	<120 @ M	<60 @ M	<60 ♦ M	<6 ♦ M	<60 @ M
Bromomethane	<10 µg/kg	TM116		<10 M	<200 M	<100 @ M	<100 M	<10 M	<100 M
Chloroethane	<10 µg/kg	TM116		<10 M	<200 M	<100 @ M	<100 M	<10 M	<100 M
Trichlorofluorormethane	<6 µg/kg	TM116		<6 M	<120 M	<60 @ M	<60 M	<6 M	<60 M
1,1-Dichloroethene	<10 µg/kg	TM116		<10 #	<200 #	<100 @ #	<100 #	<10 #	<100 #
Carbon Disulphide	<7 µg/kg	TM116		<7 M	<140 M	<70 @ M	<70 M	<7 M	<70 M
Dichloromethane	<10 µg/kg	TM116		<10 #	<200 #	<100 @ #	<100 #	<10 #	<100 #
Methyl Tertiary Butyl Ether	<10 µg/kg	TM116		<10 M	<200 M	<100 @ M	<100 M	<10 M	<100 M
trans-1,2-Dichloroethene	<10 µg/kg	TM116		<10 M	<200 M	<100 @ M	<100 M	<10 M	<100 M
1,1-Dichloroethane	<8 µg/kg	TM116		<8 M	<160 M	<80 @ M	<80 M	<8 M	<80 M
cis-1,2-Dichloroethene	<6 µg/kg	TM116		<6 M	<120 M	<60 @ M	<60 M	<6 M	<60 M
2,2-Dichloropropane	<10 µg/kg	TM116		<10	<200	<100 @	<100	<10	<100
Bromochloromethane	<10 µg/kg	TM116		<10 M	<200 M	<100 @ M	<100 M	<10 M	<100 M
Chloroform	<8 µg/kg	TM116		<8 M	<160 M	<80 @ M	<80 M	<8 M	<80 M
1,1,1-Trichloroethane	<7 µg/kg	TM116		<7 M	<140 M	<70 @ M	<70 M	<7 M	<70 M
1,1-Dichloropropene	<10 µg/kg	TM116		<10 M	<200 M	<100 @ M	<100 M	<10 M	<100 M
Carbontetrachloride	<10 µg/kg	TM116		<10 M	<200 M	<100 @ M	<100 M	<10 M	<100 M
1,2-Dichloroethane	<5 µg/kg	TM116		<5 M	<100 M	<50 @ M	<50 M	<5 M	<50 M
Benzene	<9 µg/kg	TM116		<9 M	<180 M	<90 @ M	<90 M	<9 M	<90 M
Trichloroethene	<9 µg/kg	TM116		<9 #	<180 #	<90 @ #	<90 #	<9 #	<90 #
1,2-Dichloropropane	<10 µg/kg	TM116		<10 M	<200 M	<100 @ M	<100 M	<10 M	<100 M
Dibromomethane	<9 µg/kg	TM116		<9 M	<180 M	<90 @ M	<90 M	<9 M	<90 M
Bromodichloromethane	<7 µg/kg	TM116		<7 M	<140 M	<70 @ M	<70 M	<7 M	<70 M
cis-1,3-Dichloropropene	<10 µg/kg	TM116		<10 M	<200 M	<100 @ M	<100 M	<10 M	<100 M
Toluene	<7 µg/kg	TM116		<7 M	<140 M	<70 @ M	<70 M	<7 M	<70 M
trans-1,3-Dichloropropene	<10 µg/kg	TM116		<10	<200	<100 @	<100	<10	<100
1,1,2-Trichloroethane	<10 µg/kg	TM116		<10 M	<200 M	<100 @ M	<100 M	<10 M	<100 M
1,3-Dichloropropane	<7 µg/kg	TM116		<7 M	<140 M	<70 @ M	<70 M	<7 M	<70 M

CERTIFICATE OF ANALYSIS

SDG: 220402-95 **Report Number:** 642653 **Superseded Report:** 641921

Client Ref.: LD10385 **Location:** Ten Acres Lane

VOC MS (S)

Results Legend

- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4+§@ Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	CP207	CP207	CP210	RH203	TP236	TP255
			Depth (m)	10.00 - 11.00	12.00 - 13.00	5.50 - 6.00	4.00 - 5.00	1.50 - 1.70	0.20 - 1.00
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	25/03/2022	25/03/2022	23/03/2022	30/03/2022	30/03/2022	28/03/2022
			Sample Time	12:00	12:00	12:00	12:00	12:00	12:00
			Date Received	01/04/2022	01/04/2022	01/04/2022	01/04/2022	01/04/2022	01/04/2022
			SDG Ref	220402-95	220402-95	220402-95	220402-95	220402-95	220402-95
			Lab Sample No.(s)	26074682	26074723	26074691	26074715	26074709	26074698
			AGS Reference						
Tetrachloroethene	<5 µg/kg	TM116		<5 M	<100 M	<50 @ M	<50 M	<5 M	<50 M
Dibromochloromethane	<10 µg/kg	TM116		<10 M	<200 M	<100 @ M	<100 M	<10 M	<100 M
1,2-Dibromoethane	<10 µg/kg	TM116		<10 M	<200 M	<100 @ M	<100 M	<10 M	<100 M
Chlorobenzene	<5 µg/kg	TM116		<5 M	<100 M	<50 @ M	<50 M	<5 M	<50 M
1,1,1,2-Tetrachloroethane	<10 µg/kg	TM116		<10 M	<200 M	<100 @ M	<100 M	<10 M	<100 M
Ethylbenzene	<4 µg/kg	TM116		<4 M	<80 M	<40 @ M	<40 M	<4 M	<40 M
p/m-Xylene	<10 µg/kg	TM116		<10 #	<200 #	<100 @ #	<100 #	<10 #	<100 #
o-Xylene	<10 µg/kg	TM116		<10 M	<200 M	<100 @ M	<100 M	<10 M	<100 M
Styrene	<10 µg/kg	TM116		<10 @ #	<200 @ #	<100 @ #	<100 ♦ #	<10 ♦ #	<100 @ #
Bromoform	<10 µg/kg	TM116		<10 M	<200 M	<100 @ M	<100 M	<10 M	<100 M
Isopropylbenzene	<5 µg/kg	TM116		<5 3 #	<100 3 #	<50 3 @ #	<50 3 #	<5 #	<50 3 #
1,1,2,2-Tetrachloroethane	<10 µg/kg	TM116		<10 #	<200 #	<100 @ #	<100 #	<10 #	<100 #
1,2,3-Trichloropropane	<16 µg/kg	TM116		<16 M	<320 M	<160 @ M	<160 M	<16 M	<160 M
Bromobenzene	<10 µg/kg	TM116		<10 M	<200 M	<100 @ M	<100 M	<10 M	<100 M
Propylbenzene	<10 µg/kg	TM116		<10 M	<200 M	<100 @ M	<100 M	<10 M	<100 M
2-Chlorotoluene	<9 µg/kg	TM116		<9 M	<180 M	<90 @ M	<90 M	<9 M	<90 M
1,3,5-Trimethylbenzene	<8 µg/kg	TM116		<8 M	<160 M	<80 @ M	<80 M	<8 M	<80 M
4-Chlorotoluene	<10 µg/kg	TM116		<10 M	<200 M	<100 @ M	<100 M	<10 M	<100 M
tert-Butylbenzene	<14 µg/kg	TM116		<14 #	<280 #	<140 @ #	<140 #	<14 #	<140 #
1,2,4-Trimethylbenzene	<9 µg/kg	TM116		<9 #	<180 #	<90 @ #	<90 #	<9 #	<90 #
sec-Butylbenzene	<10 µg/kg	TM116		<10 3	<200 3	<100 3 @	<100 3	<10	<100 3
4-Isopropyltoluene	<10 µg/kg	TM116		29.7	<200	<100 @	<100	<10	<100
1,3-Dichlorobenzene	<8 µg/kg	TM116		<8 M	<160 M	<80 @ M	<80 M	<8 M	<80 M
1,4-Dichlorobenzene	<5 µg/kg	TM116		<5 M	<100 M	<50 @ M	<50 M	<5 M	<50 M
n-Butylbenzene	<11 µg/kg	TM116		<11	<220	<110 @	<110	<11	<110
1,2-Dichlorobenzene	<10 µg/kg	TM116		<10 M	<200 M	<100 @ M	<100 M	<10 M	<100 M
1,2-Dibromo-3-chloropropane	<14 µg/kg	TM116		<14 M	<280 M	<140 @ M	<140 M	<14 M	<140 M
Tert-amyl methyl ether	<10 µg/kg	TM116		<10 #	<200 #	<100 @ #	<100 #	<10 #	<100 #
1,2,4-Trichlorobenzene	<20 µg/kg	TM116		<20	<400	<200 @	<200	<20	<200
Hexachlorobutadiene	<20 µg/kg	TM116		<20	<400	<200 @	<200	<20	<200
Naphthalene	<13 µg/kg	TM116		377 M	<260 M	<130 @ M	<130 M	<13 M	<130 M
1,2,3-Trichlorobenzene	<20 µg/kg	TM116		<20 #	<400 #	<200 @ #	<200 #	<20 #	<200 #
1,3,5-Trichlorobenzene	<20 µg/kg	TM116		<20	<400	<200	<200	<20	<200

Validated

CERTIFICATE OF ANALYSIS

SDG: 220402-95 **Report Number:** 642653 **Superseded Report:** 641921

Client Ref.: LD10385 **Location:** Ten Acres Lane

VOC MS (S)

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	CP207	CP207	CP210	RH203	TP236	TP255
			Depth (m)	10.00 - 11.00	12.00 - 13.00	5.50 - 6.00	4.00 - 5.00	1.50 - 1.70	0.20 - 1.00
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	25/03/2022	25/03/2022	23/03/2022	30/03/2022	30/03/2022	28/03/2022
			Sample Time	12:00	12:00	12:00	12:00	12:00	12:00
			Date Received	01/04/2022	01/04/2022	01/04/2022	01/04/2022	01/04/2022	01/04/2022
			SDG Ref	220402-95	220402-95	220402-95	220402-95	220402-95	220402-95
			Lab Sample No.(s)	26074682	26074723	26074691	26074715	26074709	26074698
			AGS Reference						
Sum of Detected Xylenes	<0.02 mg/kg	TM116		<0.02	<0.4	<0.2 @	<0.2	<0.02	<0.2
Sum of BTEX	<40 µg/kg	TM116		<40	<800	<400 @	<400	<40	<400

CERTIFICATE OF ANALYSIS

SDG: 220402-95 **Report Number:** 642653 **Superseded Report:** 641921
Client Ref.: LD10385 **Location:** Ten Acres Lane

Asbestos Identification - Solid Samples

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
*	Subcontracted test.
(F)	Trigger breach confirmed
1-5&♦$@	Sample deviation (see appendix)

		Date of Analysis	Analysed By	Comments	Amosite (Brown) Asbestos	Asbestos Actinolite	Asbestos Anthophyllite	Asbestos Tremolite	Chrysotile (White) Asbestos	Crocidolite (Blue) Asbestos	Non-Asbestos Fibre
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	CP207 10.00 - 11.00 SOLID 25/03/2022 00:00:00 01/04/2022 05:00:00 220402-95 26074682 TM048	08/04/2022	Emily Anderton	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	CP207 12.00 - 13.00 SOLID 25/03/2022 00:00:00 01/04/2022 05:00:00 220402-95 26074723 TM048	08/04/2022	Emily Anderton	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	CP210 5.50 - 6.00 SOLID 23/03/2022 00:00:00 01/04/2022 05:00:00 220402-95 26074691 TM048	08/04/2022	Emily Anderton	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	RH203 4.00 - 5.00 SOLID 30/03/2022 00:00:00 01/04/2022 05:00:00 220402-95 26074715 TM048	08/04/2022	Emily Anderton	Fibre bundle in soil	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	TP236 1.50 - 1.70 SOLID 30/03/2022 00:00:00 01/04/2022 05:00:00 220402-95 26074709 TM048	08/04/2022	Emily Anderton	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	TP255 0.20 - 1.00 SOLID 28/03/2022 00:00:00 01/04/2022 05:00:00 220402-95 26074698 TM048	08/04/2022	Emily Anderton	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected

CERTIFICATE OF ANALYSIS

SDG: 220402-95 **Report Number:** 642653 **Superseded Report:** 641921
Client Ref.: LD10385 **Location:** Ten Acres Lane

Asbestos Quantification - Full

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
*	Subcontracted test.
(F)	Trigger breach confirmed
1-5&♦§@	Sample deviation (see appendix)

		Additional Asbestos Components	Analysts Comments	Asbestos Quantification - Gravimetric - %	Asbestos Quantification - PCOM	Asbestos Quantification - Total - %
Cust. Sample Ref.	RH203	None (#)	-	<0.001 (#)	<0.001 (#)	<0.001 (#)
Depth (m)	4.00 - 5.00					
Sample Type	SOLID					
Date Sampled	30/03/2022 00:00:00					
Date Receieved	01/04/2022 05:00:00					
SDG	220402-95					
Original Sample	26074715					
Method Number	TM304					

Table of Results - Appendix

Method No	Reference	Description
PM024	Modified BS 1377	Soil preparation including homogenisation, moisture screens of soils for Asbestos Containing Material
TM048	HSG 248, Asbestos: The analysts' guide for sampling, analysis and clearance procedures	Identification of Asbestos in Bulk Material
TM062 (S)	National Grid Property Holdings Methods for the Collection & Analysis of Samples from National Grid Sites version 1 Sec 3.9	Determination of Phenols in Soils by HPLC
TM089	Modified: US EPA Methods 8020 & 602	Determination of Gasoline Range Hydrocarbons (GRO) by Headspace GC-FID (C4-C12)
TM116	Modified: US EPA Method 8260, 8120, 8020, 624, 610 & 602	Determination of Volatile Organic Compounds by Headspace / GC-MS
TM132	In - house Method	ELTRA CS800 Operators Guide
TM133	BS 1377: Part 3 1990;BS 6068-2.5	Determination of pH in Soil and Water using the GLpH pH Meter
TM151	Method 3500D, AWWA/APHA, 20th Ed., 1999	Determination of Hexavalent Chromium using Kone analyser
TM153	Method 4500A,B,C, I, M AWWA/APHA, 20th Ed., 1999	Determination of Total Cyanide, Free (Easily Liberatable) Cyanide and Thiocyanate using the Skalar SANS+ System Segmented Flow Analyser
TM157	HP 6890 Gas Chromatograph (GC) system and HP 5973 Mass Selective Detector (MSD).	Determination of SVOC in Soils by GC-MS extracted by sonication in DCM/Acetone
TM168	EPA Method 8082, Polychlorinated Biphenyls by Gas Chromatography	Determination of WHO12 and EC7 Polychlorinated Biphenyl Congeners by GC-MS in Soils
TM180	Sulphide in waters and waste waters 1991 ISBN 01 175 7186 SCA rec. 2007 (unpublished)'	The Determination Of Easily Liberated Sulphide In Soil Samples by Ion Selective Electrode Technique
TM181	US EPA Method 6010B	Determination of Routine Metals in Soil by iCap 6500 Duo ICP-OES
TM218	Shaker extraction - EPA method 3546.	The determination of PAH in soil samples by GC-MS
TM221	Inductively Coupled Plasma - Atomic Emission Spectroscopy. An Atlas of Spectral Information: Winge, Fassel, Peterson and Floyd	Determination of Acid Extractable Sulphate in Soils by ICP OES
TM222	In-House Method	Determination of Hot Water Soluble Boron in Soils (10:1 Water:Soil) by ICP OES.
TM243		Mixed Anions In Soils By Kone
TM304	HSE Contract research Report no 83/1996	Asbestos Quantification in Soil: Fibres identified by morphology only
TM414	Analysis of Petroleum Hydrocarbons in Environmental Media – Total Petroleum Hydrocarbon Criteria	Determination of Speciated Extractable Petroleum Hydrocarbons in Soils by GCxGC-FID

NA = not applicable.

Chemical testing (unless subcontracted) performed at ALS Life Sciences Ltd Hawarden.

CERTIFICATE OF ANALYSIS

SDG: 220402-95 **Report Number:** 642653 **Superseded Report:** 641921
Client Ref.: LD10385 **Location:** Ten Acres Lane

Test Completion Dates

Lab Sample No(s)	26074682	26074723	26074691	26074715	26074709	26074698
Customer Sample Ref.	CP207	CP207	CP210	RH203	TP236	TP255
AGS Ref.						
Depth	10.00 - 11.00	12.00 - 13.00	5.50 - 6.00	4.00 - 5.00	1.50 - 1.70	0.20 - 1.00
Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
Anions by Kone (soil)	07-Apr-2022	07-Apr-2022	07-Apr-2022	07-Apr-2022	07-Apr-2022	07-Apr-2022
Asbestos ID in Solid Samples	08-Apr-2022	08-Apr-2022	08-Apr-2022	08-Apr-2022	08-Apr-2022	08-Apr-2022
Asbestos Quantification - Full				19-Apr-2022		
Boron Water Soluble	06-Apr-2022	06-Apr-2022	06-Apr-2022	06-Apr-2022	06-Apr-2022	07-Apr-2022
Cyanide Comp/Free/Total/Thiocyanate	07-Apr-2022	07-Apr-2022	06-Apr-2022	07-Apr-2022	07-Apr-2022	07-Apr-2022
Easily Liberated Sulphide	06-Apr-2022	06-Apr-2022	06-Apr-2022	06-Apr-2022	06-Apr-2022	06-Apr-2022
EPH CWG GC (S)	06-Apr-2022	06-Apr-2022	06-Apr-2022	06-Apr-2022	06-Apr-2022	06-Apr-2022
GRO by GC-FID (S)	07-Apr-2022	07-Apr-2022	07-Apr-2022	07-Apr-2022	07-Apr-2022	07-Apr-2022
Hexavalent Chromium (s)	08-Apr-2022	08-Apr-2022	08-Apr-2022	07-Apr-2022	08-Apr-2022	08-Apr-2022
Metals in solid samples by OES	07-Apr-2022	07-Apr-2022	07-Apr-2022	07-Apr-2022	07-Apr-2022	07-Apr-2022
PAH by GCMS	07-Apr-2022	06-Apr-2022	06-Apr-2022	06-Apr-2022	07-Apr-2022	06-Apr-2022
PCBs by GCMS	07-Apr-2022	07-Apr-2022	07-Apr-2022	07-Apr-2022	07-Apr-2022	07-Apr-2022
pH	07-Apr-2022	07-Apr-2022	07-Apr-2022	07-Apr-2022	07-Apr-2022	07-Apr-2022
Phenols by HPLC (S)	06-Apr-2022	06-Apr-2022	06-Apr-2022	06-Apr-2022	07-Apr-2022	06-Apr-2022
Sample description	04-Apr-2022	04-Apr-2022	04-Apr-2022	04-Apr-2022	04-Apr-2022	04-Apr-2022
Semi Volatile Organic Compounds	06-Apr-2022	06-Apr-2022	06-Apr-2022	06-Apr-2022	06-Apr-2022	06-Apr-2022
Total Organic Carbon	06-Apr-2022	11-Apr-2022	11-Apr-2022	11-Apr-2022	11-Apr-2022	11-Apr-2022
Total Sulphate	06-Apr-2022	06-Apr-2022	06-Apr-2022	06-Apr-2022	06-Apr-2022	06-Apr-2022
TPH CWG GC (S)	07-Apr-2022	07-Apr-2022	07-Apr-2022	07-Apr-2022	07-Apr-2022	07-Apr-2022
VOC MS (S)	07-Apr-2022	07-Apr-2022	07-Apr-2022	07-Apr-2022	07-Apr-2022	07-Apr-2022

Appendix

1. Results are expressed on a dry weight basis (dried at 35ºC) for all soil analyses except for the following: NRA and CEN Leach tests, flash point LOI, pH, ammonium as NH4 by the BRE method, VOC TICs and SVOC TICs.

2. If sufficient sample is received a sub sample will be retained free of charge for 30 days after analysis is completed (e-mailed) for all sample types unless the sample is destroyed on testing. The prepared soil sub sample that is analysed for asbestos will be retained for a period of 6 months after the analysis date. All bulk samples will be retained for a period of 6 months after the analysis date. All samples received and not scheduled will be disposed of one month after the date of receipt unless we are instructed to the contrary. Once the initial period has expired, a storage charge will be applied for each month or part thereof until the client cancels the request for sample storage. ALS reserve the right to charge for samples received and stored but not analysed.

3. With respect to turnaround, we will always endeavour to meet client requirements wherever possible, but turnaround times cannot be absolutely guaranteed due to so many variables beyond our control.

4. We take responsibility for any test performed by sub-contractors (marked with an asterisk). We endeavour to use UKAS/MCERTS Accredited Laboratories, who either complete a quality questionnaire or are audited by ourselves. For some determinands there are no UKAS/MCERTS Accredited Laboratories, in this instance a laboratory with a known track record will be utilised.

5. If no separate volatile sample is supplied by the client, or if a headspace or sediment is present in the volatile sample, the integrity of the data may be compromised. This will be flagged up as an invalid VOC on the test schedule and the result marked as deviating on the test certificate.

6. NDP - No determination possible due to insufficient/unsuitable sample.

7. Results relate only to the items tested.

8. LoDs (Limit of Detection) for wet tests reported on a dry weight basis are not corrected for moisture content.

9. **Surrogate recoveries** - Surrogates are added to your sample to monitor recovery of the test requested. A % recovery is reported, results are not corrected for the recovery measured. Typical recoveries for organics tests are 70-130%. Recoveries in soils are affected by organic rich or clay rich matrices. Waters can be affected by remediation fluids or high amounts of sediment. Test results are only ever reported if all of the associated quality checks pass; it is assumed that all recoveries outside of the values above are due to matrix affect.

10. Stones/debris are not routinely removed. We always endeavour to take a representative sub sample from the received sample.

11. In certain circumstances the method detection limit may be elevated due to the sample being outside the calibration range. Other factors that may contribute to this include possible interferences. In both cases the sample would be diluted which would cause the method detection limit to be raised.

12. For dried and crushed preparations of soils volatile loss may occur e.g volatile mercury.

13. For leachate preparations other than Zero Headspace Extraction (ZHE) volatile loss may occur.

14. For the BSEN 12457-3 two batch process to allow the cumulative release to be calculated, the volume of the leachate produced is measured and filtered for all tests. We therefore cannot carry out any unfiltered analysis. The tests affected include volatiles GCFID/GCMS and all subcontracted analysis.

15. Analysis and identification of specific compounds using GCFID is by retention time only, and we routinely calibrate and quantify for benzene, toluene, ethylbenzenes and xylenes (BTEX). For total volatiles in the C5-C12 range, the total area of the chromatogram is integrated and expressed as ug/kg or ug/l. Although this analysis is commonly used for the quantification of gasoline range organics (GRO), the system will also detect other compounds such as chlorinated solvents, and this may lead to a falsely high result with respect to hydrocarbons only. It is not possible to specifically identify these non-hydrocarbons, as standards are not routinely run for any other compounds, and for more definitive identification, volatiles by GCMS should be utilised.

16. We are accredited to MCERTS for sand, clay and loam/topsoil, or any of these materials - whether these are derived from naturally occurring soil profiles, or from fill/made ground, as long as these materials constitute the major part of the sample. Other coarse granular material such as concrete, gravel and brick are not accredited if they comprise the major part of the sample.

17 Data retention. All records, communications and reports pertaining to the analysis are archived for seven years from the date of issue of the final report.

General

18. **Tentatively Identified Compounds (TICs)** are non-target peaks in VOC and SVOC analysis. All non-target peaks detected with a concentration above the LoD are subjected to a mass spectral library search. Non-target peaks with a library search confidence of >75% are reported based on the best mass spectral library match. When a non-target peak with a library search confidence of <75% is detected it is reported as “mixed hydrocarbons”. Non-target compounds identified from the scan data are semi-quantified relative to one of the deuterated internal standards, under the same chromatographic conditions as the target compounds. This result is reported as a semi-quantitative value and reported as Tentatively Identified Compounds (TICs). TICs are outside the scope of UKAS accreditation and are not moisture corrected.

19. **Sample Deviations**

If a sample is classed as deviated then the associated results may be compromised.

1	**Container with Headspace provided for volatiles analysis**
2	**Incorrect container received**
3	**Deviation from method**
4	**Matrix interference**
♦	**Sample holding time exceeded in laboratory**
@	**Sample holding time exceeded due to late arrival of instructions or samples**
§	**Sampled on date not provided**

20. **Asbestos**

When requested, the individual sub sample scheduled will be analysed in house for the presence of asbestos fibres and asbestos containing material by our documented in house method TM048 based on HSG 248 (2021), which is accredited to ISO17025. If a specific asbestos fibre type is not found this will be reported as “Not detected”. If no asbestos fibre types are found all will be reported as “Not detected” and the sub sample analysed deemed to be clear of asbestos. If an asbestos fibre type is found it will be reported as detected (for each fibre type found). Testing can be carried out on asbestos positive samples, but, due to Health and Safety considerations, may be replaced by alternative tests or reported as No Determination Possible (NDP). The quantity of asbestos present is not determined unless specifically requested.

Identification of Asbestos in Bulk Materials & Soils

The results for identification of asbestos in bulk materials and soils are obtained from supplied bulk materials andd soils which have been examined to determine the presence of asbestos fibres using ALS (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining, based on HSG 248 (2021).

The results for identification of asbestos in soils are obtained from a homogenised sub sample which has been examined to determine the presence of asbestos fibres using ALS (Hawarden) in-house method of transmitted/polarised light microscopy and central

Asbestos Type	Common Name
Chrysotile	White Asbestos
Amosite	Brown Asbestos
Crocidolite	Blue Asbestos
Fibrous Actinolite	-
Fibrous Anthophyllite	-
Fibrous Tremolite	-

Visual Estimation Of Fibre Content

Estimation of fibre content is not permitted as part of our UKAS accredited test other than: - Trace - Where only one or two asbestos fibres were identified.

Respirable Fibres

Respirable fibres are defined as fibres of <3 µm diameter, longer than 5 µm and with aspect ratios of at least 3:1 that can be inhaled into the lower regions of the lung and are generally acknowledged to be most important predictor of hazard and risk for cancers of the lung.

Further guidance on typical asbestos fibre content of manufactured products can be found in HSG 264.

The identification of asbestos containing materials and soils falls within our schedule of tests for which we hold UKAS accreditation, however opinions, interpretations and all other information contained in the report are outside the scope of UKAS accreditation.

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Wardell Armstrong LLP
36 Park Row
Leeds
LS1 5JL

Attention: Jonathan Currie

CERTIFICATE OF ANALYSIS

Date of report Generation:	22 April 2022
Customer:	Wardell Armstrong LLP
Sample Delivery Group (SDG):	220407-145
Your Reference:	LD10385
Location:	Ten Acres Lane
Report No:	643361
Order Number:	LD2685

This report has been revised and directly supersedes 642835 in its entirety.

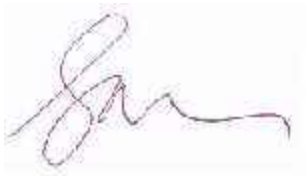
We received 8 samples on Thursday April 07, 2022 and 7 of these samples were scheduled for analysis which was completed on Friday April 22, 2022. Accredited laboratory tests are defined within the report, but opinions, interpretations and on-site data expressed herein are outside the scope of ISO 17025 accreditation.

Should this report require incorporation into client reports, it must be used in its entirety and not simply with the data sections alone.

Chemical testing (unless subcontracted) performed at ALS Life Sciences Ltd Hawarden.

All sample data is provided by the customer. The reported results relate to the sample supplied, and on the basis that this data is correct.
Incorrect sampling dates and/or sample information will affect the validity of results.
The customer is not permitted to reproduce this report except in full without the approval of the laboratory.

Approved By:



Sonia McWhan

Operations Manager

CERTIFICATE OF ANALYSIS

SDG: 220407-145 **Report Number:** 643361 **Superseded Report:** 642835
Client Ref.: LD10385 **Location:** Ten Acres Lane

Received Sample Overview

Lab Sample No(s)	Customer Sample Ref.	AGS Ref.	Depth (m)	Sampled Date
26101289	RH205		11.00 - 12.00	31/03/2022
26101281	RH205		9.00 - 9.00	31/03/2022
26101325	TP215		1.00 - 1.00	01/04/2022
26101333	TP224		0.00 - 0.00	31/03/2022
26101302	TP224		1.40 - 1.40	31/03/2022
26101296	TP229		3.00 - 3.00	31/03/2022
26101314	TP244		0.70 - 1.00	01/04/2022
26101308	TP249		1.50 - 1.50	01/04/2022

Only received samples which have had analysis scheduled will be shown on the following pages.

Validated

CERTIFICATE OF ANALYSIS

SDG: 220407-145 **Report Number:** 643361 **Superseded Report:** 642835

Client Ref.: LD10385 **Location:** Ten Acres Lane

Results Legend

X Test

N No Determination Possible

Sample Types -

S - Soil/Solid
UNS - Unspecified Solid
GW - Ground Water
SW - Surface Water
LE - Land Leachate
PL - Prepared Leachate
PR - Process Water
SA - Saline Water
TE - Trade Effluent
TS - Treated Sewage
US - Untreated Sewage
RE - Recreational Water
DW - Drinking Water Non-regulatory
UNL - Unspecified Liquid
SL - Sludge
G - Gas
OTH - Other

			Lab Sample No(s)	Customer Sample Reference	AGS Reference	Depth (m)	Container	Sample Type
			26101289	RH205		11.00 - 12.00	1kg TUB with Handle (ALE260)	S
							250g Amber Jar (ALE210)	S
							60g VOC (ALE215)	S
			26101281	RH205		9.00 - 9.00	1kg TUB with Handle (ALE260)	S
							250g Amber Jar (ALE210)	S
							60g VOC (ALE215)	S
			26101325	TP215		1.00 - 1.00	1kg TUB with Handle (ALE260)	S
							250g Amber Jar (ALE210)	S
							60g VOC (ALE215)	S
			26101302	TP224		1.40 - 1.40	1kg TUB with Handle (ALE260)	S
							250g Amber Jar (ALE210)	S
							60g VOC (ALE215)	S
			26101296	TP229		3.00 - 3.00	1kg TUB with Handle (ALE260)	S
							250g Amber Jar (ALE210)	S
							60g VOC (ALE215)	S
			26101314	TP244		0.70 - 1.00	1kg TUB with Handle (ALE260)	S
							250g Amber Jar (ALE210)	S
							60g VOC (ALE215)	S
			26101308	TP249		1.50 - 1.50	1kg TUB with Handle (ALE260)	S
Anions by Kone (soil)	All	NDPs: 0 Tests: 7		X				
				X				
				X				
Asbestos ID in Solid Samples	All	NDPs: 0 Tests: 7	X			X		
Asbestos Quantification - Full	All	NDPs: 0 Tests: 3						
								X
Boron Water Soluble	All	NDPs: 0 Tests: 7		X				
				X				
				X				
Cyanide Comp/Free/Total/Thiocyanate	All	NDPs: 0 Tests: 7		X				
				X				
				X				
EPH CWG GC (S)	All	NDPs: 0 Tests: 7		X				
				X				
				X				
GRO by GC-FID (S)	All	NDPs: 0 Tests: 7			X			
					X			
					X			
Hexavalent Chromium (s)	All	NDPs: 0 Tests: 7		X				
				X				
				X				
Metals in solid samples by OES	All	NDPs: 0 Tests: 7		X				
				X				
				X				
PAH by GCMS	All	NDPs: 0 Tests: 7		X				
				X				
				X				
PCBs by GCMS	All	NDPs: 0 Tests: 7		X				
				X				
				X				
pH	All	NDPs: 0 Tests: 7		X				
				X				
				X				
Phenols by HPLC (S)	All	NDPs: 0 Tests: 7		X				
				X				
				X				
Sample description	All	NDPs: 0 Tests: 7		X				
				X				
				X				
Semi Volatile Organic Compounds	All	NDPs: 0 Tests: 7		X				
				X				
				X				

26101308					
	TP249				
			1.50 - 1.50		
				60g VOC (ALE215)	250g Amber Jar (ALE210)
				S	S
					X
					X
					X
					X
				X	
					X
					X
					X
					X
					X
					X
					X
					X

Validated

CERTIFICATE OF ANALYSIS

SDG: 220407-145 **Report Number:** 643361 **Superseded Report:** 642835

Client Ref.: LD10385 **Location:** Ten Acres Lane

Results Legend

X Test

N No Determination Possible

Sample Types -

S - Soil/Solid
UNS - Unspecified Solid
GW - Ground Water
SW - Surface Water
LE - Land Leachate
PL - Prepared Leachate
PR - Process Water
SA - Saline Water
TE - Trade Effluent
TS - Treated Sewage
US - Untreated Sewage
RE - Recreational Water
DW - Drinking Water Non-regulatory
UNL - Unspecified Liquid
SL - Sludge
G - Gas
OTH - Other

			Lab Sample No(s)	Customer Sample Reference	AGS Reference	Depth (m)	Container	Sample Type
			26101289	RH205		11.00 - 12.00	1kg TUB with Handle (ALE260)	S
							250g Amber Jar (ALE210)	S
							60g VOC (ALE215)	S
			26101281	RH205		9.00 - 9.00	1kg TUB with Handle (ALE260)	S
							250g Amber Jar (ALE210)	S
							60g VOC (ALE215)	S
			26101325	TP215		1.00 - 1.00	1kg TUB with Handle (ALE260)	S
							250g Amber Jar (ALE210)	S
							60g VOC (ALE215)	S
			26101302	TP224		1.40 - 1.40	1kg TUB with Handle (ALE260)	S
							250g Amber Jar (ALE210)	S
							60g VOC (ALE215)	S
			26101296	TP229		3.00 - 3.00	1kg TUB with Handle (ALE260)	S
							250g Amber Jar (ALE210)	S
							60g VOC (ALE215)	S
			26101314	TP244		0.70 - 1.00	1kg TUB with Handle (ALE260)	S
							250g Amber Jar (ALE210)	S
							60g VOC (ALE215)	S
			26101308	TP249		1.50 - 1.50	1kg TUB with Handle (ALE260)	S
Total Organic Carbon	All	NDPs: 0 Tests: 7						
				X				
				X				
				X				
				X				
Total Sulphate	All	NDPs: 0 Tests: 7						
				X				
				X				
				X				
				X				
TPH CWG GC (S)	All	NDPs: 0 Tests: 7						
				X				
				X				
				X				
				X				
VOC MS (S)	All	NDPs: 0 Tests: 7						
					X			
					X			
					X			
					X			

26101308	TP249		1.50 - 1.50	60g VOC (ALE215)	250g Amber Jar (ALE210)
				S	S
					X
					X
					X
				X	

Sample Descriptions

Grain Sizes

very fine	<0.063mm	fine	0.063mm - 0.1mm	medium	0.1mm - 2mm	coarse	2mm - 10mm	very coarse	>10mm

Lab Sample No(s)	Customer Sample Ref.	Depth (m)	Colour	Description	Inclusions	Inclusions 2
26101281	RH205	9.00 - 9.00	Dark Brown	Loamy Sand	Stones	None
26101289	RH205	11.00 - 12.00	Dark Brown	Silty Clay Loam	Vegetation	None
26101325	TP215	1.00 - 1.00	Dark Brown	Loamy Sand	Stones	Vegetation
26101302	TP224	1.40 - 1.40	Dark Brown	Sandy Loam	Crushed Brick	Plastic
26101296	TP229	3.00 - 3.00	Dark Brown	Sandy Loam	Stones	Vegetation
26101314	TP244	0.70 - 1.00	Dark Brown	Loamy Sand	Stones	Vegetation
26101308	TP249	1.50 - 1.50	Dark Brown	Sandy Silt Loam	Stones	Vegetation

These descriptions are only intended to act as a cross check if sample identities are questioned, and to provide a log of sample matrices with respect to MCERTS validation. They are not intended as full geological descriptions.

We are accredited to MCERTS for sand, clay and loam/topsoil, or any of these materials - whether these are derived from naturally ocurring soil profiles, or from fill/made ground, as long as these materials constitute the major part of the sample.

Other coarse granular materials such as concrete, gravel and brick are not accredited if they comprise the major part of the sample.

CERTIFICATE OF ANALYSIS

SDG: 220407-145 **Report Number:** 643361 **Superseded Report:** 642835

Client Ref.: LD10385 **Location:** Ten Acres Lane

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	RH205	RH205	TP215	TP224	TP229	TP244
			Depth (m)	11.00 - 12.00	9.00 - 9.00	1.00 - 1.00	1.40 - 1.40	3.00 - 3.00	0.70 - 1.00
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	31/03/2022	31/03/2022	01/04/2022	31/03/2022	31/03/2022	01/04/2022
			Sample Time	13:00	12:00	12:30	11:30	14:00	12:00
			Date Received	07/04/2022	07/04/2022	07/04/2022	07/04/2022	07/04/2022	07/04/2022
			SDG Ref	220407-145	220407-145	220407-145	220407-145	220407-145	220407-145
			Lab Sample No.(s)	26101289	26101281	26101325	26101302	26101296	26101314
			AGS Reference						
Moisture Content Ratio (% of as received sample)	%	PM024		13	11	13	20	24	17
Phenol	<0.01 mg/kg	TM062 (S)		<0.01 M	<0.01 M	0.0114 M	<0.01 M	<0.01 M	<0.01 M
Cresols	<0.01 mg/kg	TM062 (S)		<0.01 M	<0.01 M	0.0114 M	<0.01 M	<0.01 M	<0.01 M
Xylenols	<0.015 mg/kg	TM062 (S)		<0.015 M	<0.015 M	0.0228 M	<0.015 M	<0.015 M	<0.015 M
Phenols, Total Detected monohydric	<0.035 mg/kg	TM062 (S)		<0.035 M	<0.035 M	0.0456 M	<0.035 M	<0.035 M	<0.035 M
Soil Organic Matter (SOM)	<0.35 %	TM132		1.43 #	1.69 #	3.76 #	10.3 #	4.62 #	5.09 #
pH	1 pH Units	TM133		8.93 M	8.7 M	8.02 M	8.11 M	7.64 M	7.88 M
Chromium, Hexavalent	<0.6 mg/kg	TM151		<0.6 #	<0.6 #	<0.6 #	2.46 #	<0.6 #	<0.6 #
Cyanide, Total	<1 mg/kg	TM153		<1 M	<1 M	<1 M	1.35 M	2.6 M	<1 M
PCB congener 28	<3 µg/kg	TM168		<3 M	<30 M	<3 M	<30 M	388 M	<15 M
PCB congener 52	<3 µg/kg	TM168		<3 M	<30 M	<3 M	<30 M	492 M	<15 M
PCB congener 101	<3 µg/kg	TM168		<3 M	<30 M	<3 M	<30 M	523 M	<15 M
PCB congener 118	<3 µg/kg	TM168		<3 M	<30 M	<3 M	<30 M	275 M	<15 M
PCB congener 138	<3 µg/kg	TM168		<3 M	<30 M	<3 M	<30 M	298 M	<15 M
PCB congener 153	<3 µg/kg	TM168		<3 M	<30 M	<3 M	<30 M	224 M	<15 M
PCB congener 180	<3 µg/kg	TM168		<3 M	<30 M	<3 M	<30 M	73.9 M	<15 M
Sum of detected PCB 7 Congeners	<21 µg/kg	TM168		<21	<210	<21	<210	2270	<105
Arsenic	<0.6 mg/kg	TM181		5.76 M	4.85 M	12 M	29.1 M	26.2 M	35.3 M
Beryllium	<0.01 mg/kg	TM181		0.734 M	0.58 M	1.02 M	0.949 M	0.369 M	1.41 M
Cadmium	<0.02 mg/kg	TM181		0.26 M	0.279 M	0.661 M	1.41 M	7.17 M	0.753 M
Chromium	<0.9 mg/kg	TM181		7.36 M	9.82 M	9.74 M	14.6 M	139 M	33.5 M
Copper	<1.4 mg/kg	TM181		15.6 M	22.4 M	66.6 M	164 M	3600 M	107 M
Lead	<0.7 mg/kg	TM181		10.4 M	119 M	611 M	340 M	2520 M	670 M
Mercury	<0.1 mg/kg	TM181		<0.1 M	<0.1 M	<0.1 M	<0.1 M	1.07 M	0.702 M
Nickel	<0.2 mg/kg	TM181		22.3 M	12.8 M	26.4 M	45.2 M	180 M	32.7 M
Selenium	<1 mg/kg	TM181		<1 #	<1 #	1.24 #	1.03 #	1.73 #	<1 #
Vanadium	<0.2 mg/kg	TM181		18.1 #	24.4 #	84.5 #	39.5 #	27.3 #	37 #
Zinc	<1.9 mg/kg	TM181		41.5 M	60.9 M	307 M	375 M	5610 M	392 M
Sulphate, Total	<48 mg/kg	TM221		250 M	3850 M	11000 M	809 M	16300 M	2890 M
Boron, water soluble	<1 mg/kg	TM222		2.3 M	7.75 M	1.09 M	1.4 M	7.46 M	<1 M
Water Soluble Sulphate as SO4 2:1 Extract	<0.004 g/l	TM243		0.0142 M	0.172 M	1.47 M	0.0643 M	1.46 M	0.638 M
Asbestos Quantification - Gravimetric - %	<0.001 %	TM304					0.0049 #	0.0449 #	
Asbestos Quantification - PCOM Evaluation - %	<0.001 %	TM304					<0.001 #	0.004 #	

CERTIFICATE OF ANALYSIS

SDG: 220407-145 **Report Number:** 643361 **Superseded Report:** 642835

Client Ref.: LD10385 **Location:** Ten Acres Lane

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	RH205	RH205	TP215	TP224	TP229	TP244
			Depth (m)	11.00 - 12.00	9.00 - 9.00	1.00 - 1.00	1.40 - 1.40	3.00 - 3.00	0.70 - 1.00
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	31/03/2022	31/03/2022	01/04/2022	31/03/2022	31/03/2022	01/04/2022
			Sample Time	13:00	12:00	12:30	11:30	14:00	12:00
			Date Received	07/04/2022	07/04/2022	07/04/2022	07/04/2022	07/04/2022	07/04/2022
			SDG Ref	220407-145	220407-145	220407-145	220407-145	220407-145	220407-145
			Lab Sample No.(s)	26101289	26101281	26101325	26101302	26101296	26101314
			AGS Reference						
Additional Asbestos Components (Using TM048)		TM304					Chrysotile #	Amosite #	
Analysts Comments		TM304					Fibre bundles in soil	Loose fibres in soil	
Asbestos Quantification - Total - %	<0.001 %	TM304					0.0053 #	0.0489 #	

CERTIFICATE OF ANALYSIS

SDG: 220407-145 **Report Number:** 643361 **Superseded Report:** 642835
Client Ref.: LD10385 **Location:** Ten Acres Lane

Results Legend	
#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+§@	Sample deviation (see appendix)

Customer Sample Ref.	TP249
Depth (m)	1.50 - 1.50
Sample Type	Soil/Solid (S)
Date Sampled	01/04/2022
Sample Time	14:30
Date Received	07/04/2022
SDG Ref	220407-145
Lab Sample No.(s)	26101308
AGS Reference	

Component	LOD/Units	Method					
Moisture Content Ratio (% of as received sample)	%	PM024	25				
Phenol	<0.01 mg/kg	TM062 (S)	0.0134 M				
Cresols	<0.01 mg/kg	TM062 (S)	0.0134 M				
Xylenols	<0.015 mg/kg	TM062 (S)	0.0268 M				
Phenols, Total Detected monohydric	<0.035 mg/kg	TM062 (S)	0.0536 M				
Soil Organic Matter (SOM)	<0.35 %	TM132	3.26 #				
pH	1 pH Units	TM133	8.02 M				
Chromium, Hexavalent	<0.6 mg/kg	TM151	<0.6 #				
Cyanide, Total	<1 mg/kg	TM153	<1 M				
PCB congener 28	<3 µg/kg	TM168	<30 M				
PCB congener 52	<3 µg/kg	TM168	<30 M				
PCB congener 101	<3 µg/kg	TM168	<30 M				
PCB congener 118	<3 µg/kg	TM168	<30 M				
PCB congener 138	<3 µg/kg	TM168	<30 M				
PCB congener 153	<3 µg/kg	TM168	<30 M				
PCB congener 180	<3 µg/kg	TM168	<30 M				
Sum of detected PCB 7 Congeners	<21 µg/kg	TM168	<210				
Arsenic	<0.6 mg/kg	TM181	13.4 M				
Beryllium	<0.01 mg/kg	TM181	0.603 M				
Cadmium	<0.02 mg/kg	TM181	0.442 M				
Chromium	<0.9 mg/kg	TM181	9.41 M				
Copper	<1.4 mg/kg	TM181	31.8 M				
Lead	<0.7 mg/kg	TM181	178 M				
Mercury	<0.1 mg/kg	TM181	<0.1 M				
Nickel	<0.2 mg/kg	TM181	14.8 M				
Selenium	<1 mg/kg	TM181	<1 #				
Vanadium	<0.2 mg/kg	TM181	17.9 #				
Zinc	<1.9 mg/kg	TM181	197 M				
Sulphate, Total	<48 mg/kg	TM221	1030 M				
Boron, water soluble	<1 mg/kg	TM222	4.99 M				
Water Soluble Sulphate as SO4 2:1 Extract	<0.004 g/l	TM243	0.184 M				
Asbestos Quantification - Gravimetric - %	<0.001 %	TM304	0.0018 #				
Asbestos Quantification - PCOM Evaluation - %	<0.001 %	TM304	<0.001 #				

CERTIFICATE OF ANALYSIS

SDG: 220407-145 **Report Number:** 643361 **Superseded Report:** 642835

Client Ref.: LD10385 **Location:** Ten Acres Lane

Results Legend	
#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+§@	Sample deviation (see appendix)

			Customer Sample Ref.	TP249				
			Depth (m)	1.50 - 1.50				
			Sample Type	Soil/Solid (S)				
			Date Sampled	01/04/2022				
			Sample Time	14:30				
			Date Received	07/04/2022				
			SDG Ref	220407-145				
			Lab Sample No.(s)	26101308				
			AGS Reference					
Component	**LOD/Units**	**Method**						
Additional Asbestos Components (Using TM048)		TM304		None #				
Analysts Comments		TM304		0				
Asbestos Quantification - Total - %	<0.001 %	TM304		0.0019 #				

Validated

CERTIFICATE OF ANALYSIS

SDG: 220407-145 **Report Number:** 643361 **Superseded Report:** 642835

Client Ref.: LD10385 **Location:** Ten Acres Lane

PAH by GCMS

Results Legend

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M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	RH205	RH205	TP215	TP224	TP229	TP244
			Depth (m)	11.00 - 12.00	9.00 - 9.00	1.00 - 1.00	1.40 - 1.40	3.00 - 3.00	0.70 - 1.00
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	31/03/2022	31/03/2022	01/04/2022	31/03/2022	31/03/2022	01/04/2022
			Sample Time	13:00	12:00	12:30	11:30	14:00	12:00
			Date Received	07/04/2022	07/04/2022	07/04/2022	07/04/2022	07/04/2022	07/04/2022
			SDG Ref	220407-145	220407-145	220407-145	220407-145	220407-145	220407-145
			Lab Sample No.(s)	26101289	26101281	26101325	26101302	26101296	26101314
			AGS Reference						
Naphthalene-d8 % recovery**	%	TM218		104	107	101	107	101	99.2
Acenaphthene-d10 % recovery**	%	TM218		98.6	106	98.3	103	95.7	95.3
Phenanthrene-d10 % recovery**	%	TM218		99.2	111	103	108	101	101
Chrysene-d12 % recovery**	%	TM218		88.6	100	96.6	98.7	92.1	92.2
Perylene-d12 % recovery**	%	TM218		85.2	96.9	91.7	102	87.5	87.9
Naphthalene	<9 µg/kg	TM218		25.3 M	558 M	65.7 M	932 M	130 M	159 M
Acenaphthylene	<12 µg/kg	TM218		<12 M	<120 M	89.4 M	549 M	<60 M	90.1 M
Acenaphthene	<8 µg/kg	TM218		12.8 M	2210 M	128 M	2720 M	182 M	211 M
Fluorene	<10 µg/kg	TM218		16.7 M	1580 M	102 M	1890 M	137 M	214 M
Phenanthrene	<15 µg/kg	TM218		87.1 M	4920 M	1520 M	22600 M	1470 M	2520 M
Anthracene	<16 µg/kg	TM218		<16 M	1640 M	388 M	5980 M	334 M	919 M
Fluoranthene	<17 µg/kg	TM218		84.7 M	4460 M	3340 M	34800 M	2810 M	4630 M
Pyrene	<15 µg/kg	TM218		80.3 M	3590 M	3150 M	33600 M	2540 M	4300 M
Benz(a)anthracene	<14 µg/kg	TM218		33.2 M	1250 M	1440 M	12900 M	1040 M	1880 M
Chrysene	<10 µg/kg	TM218		36.8 M	1170 M	1430 M	13100 M	1150 M	1910 M
Benzo(b)fluoranthene	<15 µg/kg	TM218		45 M	1330 M	1970 M	15200 M	1700 M	2420 M
Benzo(k)fluoranthene	<14 µg/kg	TM218		<14 M	448 M	588 M	4930 M	533 M	754 M
Benzo(a)pyrene	<15 µg/kg	TM218		28.4 M	985 M	1360 M	12600 M	1190 M	1670 M
Indeno(1,2,3-cd)pyrene	<18 µg/kg	TM218		22.7 M	675 M	983 M	8540 M	1080 M	1180 M
Dibenzo(a,h)anthracene	<23 µg/kg	TM218		<23 M	<230 M	180 M	1460 M	257 M	245 M
Benzo(g,h,i)perylene	<24 µg/kg	TM218		28.5 M	554 M	876 M	7880 M	992 M	1090 M
PAH, Total Detected USEPA 16	<118 µg/kg	TM218		502	25400	17600	180000	15500	24200

CERTIFICATE OF ANALYSIS

SDG: 220407-145 **Report Number:** 643361 **Superseded Report:** 642835
Client Ref.: LD10385 **Location:** Ten Acres Lane

PAH by GCMS

Results Legend	
#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+§@	Sample deviation (see appendix)

Customer Sample Ref.	TP249
Depth (m)	1.50 - 1.50
Sample Type	Soil/Solid (S)
Date Sampled	01/04/2022
Sample Time	14:30
Date Received	07/04/2022
SDG Ref	220407-145
Lab Sample No.(s)	26101308
AGS Reference	

Component	LOD/Units	Method		
Naphthalene-d8 % recovery**	%	TM218	101	
Acenaphthene-d10 % recovery**	%	TM218	97.2	
Phenanthrene-d10 % recovery**	%	TM218	104	
Chrysene-d12 % recovery**	%	TM218	93.7	
Perylene-d12 % recovery**	%	TM218	93.9	
Naphthalene	<9 µg/kg	TM218	142 M	
Acenaphthylene	<12 µg/kg	TM218	<120 M	
Acenaphthene	<8 µg/kg	TM218	623 M	
Fluorene	<10 µg/kg	TM218	533 M	
Phenanthrene	<15 µg/kg	TM218	3350 M	
Anthracene	<16 µg/kg	TM218	1220 M	
Fluoranthene	<17 µg/kg	TM218	4710 M	
Pyrene	<15 µg/kg	TM218	4240 M	
Benz(a)anthracene	<14 µg/kg	TM218	1620 M	
Chrysene	<10 µg/kg	TM218	1690 M	
Benzo(b)fluoranthene	<15 µg/kg	TM218	1990 M	
Benzo(k)fluoranthene	<14 µg/kg	TM218	587 M	
Benzo(a)pyrene	<15 µg/kg	TM218	1400 M	
Indeno(1,2,3-cd)pyrene	<18 µg/kg	TM218	960 M	
Dibenzo(a,h)anthracene	<23 µg/kg	TM218	<230 M	
Benzo(g,h,i)perylene	<24 µg/kg	TM218	927 M	
PAH, Total Detected USEPA 16	<118 µg/kg	TM218	24000	

CERTIFICATE OF ANALYSIS

SDG: 220407-145 **Report Number:** 643361 **Superseded Report:** 642835

Client Ref.: LD10385 **Location:** Ten Acres Lane

Semi Volatile Organic Compounds

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	RH205	RH205	TP215	TP224	TP229	TP244
			Depth (m)	11.00 - 12.00	9.00 - 9.00	1.00 - 1.00	1.40 - 1.40	3.00 - 3.00	0.70 - 1.00
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	31/03/2022	31/03/2022	01/04/2022	31/03/2022	31/03/2022	01/04/2022
			Sample Time	13:00	12:00	12:30	11:30	14:00	12:00
			Date Received	07/04/2022	07/04/2022	07/04/2022	07/04/2022	07/04/2022	07/04/2022
			SDG Ref	220407-145	220407-145	220407-145	220407-145	220407-145	220407-145
			Lab Sample No.(s)	26101289	26101281	26101325	26101302	26101296	26101314
			AGS Reference						
Phenol	<100 µg/kg	TM157		<100	<500	<200	<1000	<500	<200
Pentachlorophenol	<100 µg/kg	TM157		<100	<500	<200	<1000	<500	<200
n-Nitroso-n-dipropylamine	<100 µg/kg	TM157		<100	<500	<200	<1000	<500	<200
Nitrobenzene	<100 µg/kg	TM157		<100	<500	<200	<1000	<500	<200
Isophorone	<100 µg/kg	TM157		<100	<500	<200	<1000	<500	<200
Hexachloroethane	<100 µg/kg	TM157		<100	<500	<200	<1000	<500	<200
Hexachlorocyclopentadiene	<100 µg/kg	TM157		<200	<1000	<200	<2000	<500	<400
Hexachlorobutadiene	<100 µg/kg	TM157		<100	<500	<200	<1000	<500	<200
Hexachlorobenzene	<100 µg/kg	TM157		<100	<500	<200	<1000	<500	<200
n-Dioctyl phthalate	<100 µg/kg	TM157		<100	<500	<200	<1000	<500	<200
Dimethyl phthalate	<100 µg/kg	TM157		<100	<500	<200	<1000	<500	<200
Diethyl phthalate	<100 µg/kg	TM157		<100	<500	<200	<1000	<500	<200
n-Dibutyl phthalate	<100 µg/kg	TM157		<100	<500	<200	<1000	<500	<200
Dibenzofuran	<100 µg/kg	TM157		<100	1200	<200	3720	<500	<200
Carbazole	<100 µg/kg	TM157		<100	<500	<200	3170	<500	<200
Butylbenzyl phthalate	<100 µg/kg	TM157		<100	<500	<200	<1000	<500	<200
bis(2-Ethylhexyl) phthalate	<100 µg/kg	TM157		<100	<500	<200	<1000	<500	<200
bis(2-Chloroethoxy)methane	<100 µg/kg	TM157		<100	<500	<200	<1000	<500	<200
bis(2-Chloroethyl)ether	<100 µg/kg	TM157		<100	<500	<200	<1000	<500	<200
Azobenzene	<100 µg/kg	TM157		<100	<500	<200	<1000	<500	<200
4-Nitrophenol	<100 µg/kg	TM157		<100	<500	<200	<1000	<500	<200
4-Nitroaniline	<100 µg/kg	TM157		<100	<500	<200	<1000	<500	<200
4-Methylphenol	<100 µg/kg	TM157		<100	<500	<200	<1000	<500	<200
4-Chlorophenylphenylether	<100 µg/kg	TM157		<100	<500	<200	<1000	<500	<200
4-Chloroaniline	<100 µg/kg	TM157		<100	<500	<200	<1000	<500	<200
4-Chloro-3-methylphenol	<100 µg/kg	TM157		<100	<500	<200	<1000	<500	<200
4-Bromophenylphenylether	<100 µg/kg	TM157		<100	<500	<200	<1000	<500	<200
3-Nitroaniline	<100 µg/kg	TM157		<100	<500	<200	<1000	<500	<200
2-Nitrophenol	<100 µg/kg	TM157		<100	<500	<200	<1000	<500	<200
2-Nitroaniline	<100 µg/kg	TM157		<100	<500	<200	<1000	<500	<200
2-Methylphenol	<100 µg/kg	TM157		<100	<500	<200	<1000	<500	<200
1,2,4-Trichlorobenzene	<100 µg/kg	TM157		<100	<500	<200	<1000	<500	<200
2-Chlorophenol	<100 µg/kg	TM157		<100	<500	<200	<1000	<500	<200

CERTIFICATE OF ANALYSIS

SDG: 220407-145 **Report Number:** 643361 **Superseded Report:** 642835
Client Ref.: LD10385 **Location:** Ten Acres Lane

Semi Volatile Organic Compounds

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4+§@ Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	RH205	RH205	TP215	TP224	TP229	TP244
			Depth (m)	11.00 - 12.00	9.00 - 9.00	1.00 - 1.00	1.40 - 1.40	3.00 - 3.00	0.70 - 1.00
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	31/03/2022	31/03/2022	01/04/2022	31/03/2022	31/03/2022	01/04/2022
			Sample Time	13:00	12:00	12:30	11:30	14:00	12:00
			Date Received	07/04/2022	07/04/2022	07/04/2022	07/04/2022	07/04/2022	07/04/2022
			SDG Ref	220407-145	220407-145	220407-145	220407-145	220407-145	220407-145
			Lab Sample No.(s)	26101289	26101281	26101325	26101302	26101296	26101314
			AGS Reference						
2,6-Dinitrotoluene	<100 µg/kg	TM157		<100	<500	<200	<1000	<500	<200
2,4-Dinitrotoluene	<100 µg/kg	TM157		<100	<500	<200	<1000	<500	<200
2,4-Dimethylphenol	<100 µg/kg	TM157		<100	<500	<200	<1000	<500	<200
2,4-Dichlorophenol	<100 µg/kg	TM157		<100	<500	<200	<1000	<500	<200
2,4,6-Trichlorophenol	<100 µg/kg	TM157		<100	<500	<200	<1000	<500	<200
2,4,5-Trichlorophenol	<100 µg/kg	TM157		<100	<500	<200	<1000	<500	<200
1,4-Dichlorobenzene	<100 µg/kg	TM157		<100	<500	<200	<1000	<500	<200
1,3-Dichlorobenzene	<100 µg/kg	TM157		<100	<500	<200	<1000	<500	<200
1,2-Dichlorobenzene	<100 µg/kg	TM157		<100	<500	<200	<1000	<500	<200
2-Chloronaphthalene	<100 µg/kg	TM157		<100	<500	<200	<1000	<500	<200
2-Methylnaphthalene	<100 µg/kg	TM157		<100	<500	<200	2680	<500	<200
Acenaphthylene	<100 µg/kg	TM157		<100	<500	<200	<1000	<500	<200
Acenaphthene	<100 µg/kg	TM157		<100	3790	422	8660	<500	<200
Anthracene	<100 µg/kg	TM157		184	2020	946	16800	1240	327
Benzo(a)anthracene	<100 µg/kg	TM157		291	1230	2860	37700	3130	1590
Benzo(b)fluoranthene	<100 µg/kg	TM157		191	703	1530	24900	2170	1390
Benzo(k)fluoranthene	<100 µg/kg	TM157		192	642	2440	25900	2480	1300
Benzo(a)pyrene	<100 µg/kg	TM157		205	614	2240	36800	2500	1440
Benzo(g,h,i)perylene	<100 µg/kg	TM157		127	<500	1560	23400	1880	947
Chrysene	<100 µg/kg	TM157		290	1320	2770	37200	3250	1520
Fluoranthene	<100 µg/kg	TM157		661	5850	6080	94100	7190	2630
Fluorene	<100 µg/kg	TM157		<100	1740	302	5230	<500	<200
Indeno(1,2,3-cd)pyrene	<100 µg/kg	TM157		223	631	2280	34000	3160	1730
Phenanthrene	<100 µg/kg	TM157		654	4340	3540	71600	5000	1220
Pyrene	<100 µg/kg	TM157		675	4690	5630	88600	6260	2570
Naphthalene	<100 µg/kg	TM157		<100	<500	<200	2440	<500	<200
Dibenzo(a,h)anthracene	<100 µg/kg	TM157		<100	<500	<200	3110	<500	<200
Bis(2-chloroisopropyl) ether	<100 µg/kg	TM157		<100	<500	<200	<1000	<500	<200

CERTIFICATE OF ANALYSIS

SDG: 220407-145 **Report Number:** 643361 **Superseded Report:** 642835
Client Ref.: LD10385 **Location:** Ten Acres Lane

Semi Volatile Organic Compounds

Results Legend	
#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+§@	Sample deviation (see appendix)

Customer Sample Ref.		TP249					
Depth (m)		1.50 - 1.50					
Sample Type		Soil/Solid (S)					
Date Sampled		01/04/2022					
Sample Time		14:30					
Date Received		07/04/2022					
SDG Ref		220407-145					
Lab Sample No.(s)		26101308					
AGS Reference							
Component	**LOD/Units**	**Method**					
Phenol	<100 µg/kg	TM157	<200				
Pentachlorophenol	<100 µg/kg	TM157	<200				
n-Nitroso-n-dipropylamine	<100 µg/kg	TM157	<200				
Nitrobenzene	<100 µg/kg	TM157	<200				
Isophorone	<100 µg/kg	TM157	<200				
Hexachloroethane	<100 µg/kg	TM157	<200				
Hexachlorocyclopentadiene	<100 µg/kg	TM157	<200				
Hexachlorobutadiene	<100 µg/kg	TM157	<200				
Hexachlorobenzene	<100 µg/kg	TM157	<200				
n-Dioctyl phthalate	<100 µg/kg	TM157	<200				
Dimethyl phthalate	<100 µg/kg	TM157	<200				
Diethyl phthalate	<100 µg/kg	TM157	<200				
n-Dibutyl phthalate	<100 µg/kg	TM157	<200				
Dibenzofuran	<100 µg/kg	TM157	497				
Carbazole	<100 µg/kg	TM157	312				
Butylbenzyl phthalate	<100 µg/kg	TM157	<200				
bis(2-Ethylhexyl) phthalate	<100 µg/kg	TM157	<200				
bis(2-Chloroethoxy)methane	<100 µg/kg	TM157	<200				
bis(2-Chloroethyl)ether	<100 µg/kg	TM157	<200				
Azobenzene	<100 µg/kg	TM157	<200				
4-Nitrophenol	<100 µg/kg	TM157	<200				
4-Nitroaniline	<100 µg/kg	TM157	<200				
4-Methylphenol	<100 µg/kg	TM157	<200				
4-Chlorophenylphenylether	<100 µg/kg	TM157	<200				
4-Chloroaniline	<100 µg/kg	TM157	<200				
4-Chloro-3-methylphenol	<100 µg/kg	TM157	<200				
4-Bromophenylphenylether	<100 µg/kg	TM157	<200				
3-Nitroaniline	<100 µg/kg	TM157	<200				
2-Nitrophenol	<100 µg/kg	TM157	<200				
2-Nitroaniline	<100 µg/kg	TM157	<200				
2-Methylphenol	<100 µg/kg	TM157	<200				
1,2,4-Trichlorobenzene	<100 µg/kg	TM157	<200				
2-Chlorophenol	<100 µg/kg	TM157	<200				

CERTIFICATE OF ANALYSIS

SDG: 220407-145 **Report Number:** 643361 **Superseded Report:** 642835
Client Ref.: LD10385 **Location:** Ten Acres Lane

Semi Volatile Organic Compounds

Results Legend		
#	ISO17025 accredited.	
M	mCERTS accredited.	
aq	Aqueous / settled sample.	
diss.filt	Dissolved / filtered sample.	
tot.unfilt	Total / unfiltered sample.	
*	Subcontracted - refer to subcontractor report for accreditation status.	
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery	
(F)	Trigger breach confirmed	
1-4+§@	Sample deviation (see appendix)	

		Customer Sample Ref.	TP249
		Depth (m)	1.50 - 1.50
		Sample Type	Soil/Solid (S)
		Date Sampled	01/04/2022
		Sample Time	14:30
		Date Received	07/04/2022
		SDG Ref	220407-145
		Lab Sample No.(s)	26101308
		AGS Reference	
Component	LOD/Units	Method	
2,6-Dinitrotoluene	<100 µg/kg	TM157	<200
2,4-Dinitrotoluene	<100 µg/kg	TM157	<200
2,4-Dimethylphenol	<100 µg/kg	TM157	<200
2,4-Dichlorophenol	<100 µg/kg	TM157	<200
2,4,6-Trichlorophenol	<100 µg/kg	TM157	<200
2,4,5-Trichlorophenol	<100 µg/kg	TM157	<200
1,4-Dichlorobenzene	<100 µg/kg	TM157	<200
1,3-Dichlorobenzene	<100 µg/kg	TM157	<200
1,2-Dichlorobenzene	<100 µg/kg	TM157	<200
2-Chloronaphthalene	<100 µg/kg	TM157	<200
2-Methylnaphthalene	<100 µg/kg	TM157	<200
Acenaphthylene	<100 µg/kg	TM157	<200
Acenaphthene	<100 µg/kg	TM157	1230
Anthracene	<100 µg/kg	TM157	1430
Benzo(a)anthracene	<100 µg/kg	TM157	3080
Benzo(b)fluoranthene	<100 µg/kg	TM157	1870
Benzo(k)fluoranthene	<100 µg/kg	TM157	1910
Benzo(a)pyrene	<100 µg/kg	TM157	2080
Benzo(g,h,i)perylene	<100 µg/kg	TM157	1330
Chrysene	<100 µg/kg	TM157	3030
Fluoranthene	<100 µg/kg	TM157	7310
Fluorene	<100 µg/kg	TM157	804
Indeno(1,2,3-cd)pyrene	<100 µg/kg	TM157	2060
Phenanthrene	<100 µg/kg	TM157	5520
Pyrene	<100 µg/kg	TM157	6430
Naphthalene	<100 µg/kg	TM157	<200
Dibenzo(a,h)anthracene	<100 µg/kg	TM157	<200
Bis(2-chloroisopropyl) ether	<100 µg/kg	TM157	<200

Validated

CERTIFICATE OF ANALYSIS

SDG: 220407-145 **Report Number:** 643361 **Superseded Report:** 642835

Client Ref.: LD10385 **Location:** Ten Acres Lane

TPH CWG (S)

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	RH205	RH205	TP215	TP224	TP229	TP244
			Depth (m)	11.00 - 12.00	9.00 - 9.00	1.00 - 1.00	1.40 - 1.40	3.00 - 3.00	0.70 - 1.00
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	31/03/2022	31/03/2022	01/04/2022	31/03/2022	31/03/2022	01/04/2022
			Sample Time	13:00	12:00	12:30	11:30	14:00	12:00
			Date Received	07/04/2022	07/04/2022	07/04/2022	07/04/2022	07/04/2022	07/04/2022
			SDG Ref	220407-145	220407-145	220407-145	220407-145	220407-145	220407-145
			Lab Sample No.(s)	26101289	26101281	26101325	26101302	26101296	26101314
			AGS Reference						
GRO Surrogate % recovery**	%	TM089		93.4	71.9	103	84.2	73.3	89.9
Aliphatics >C5-C6 (HS_1D_AL)	<10 µg/kg	TM089		<10	53.8	<10	<10	<10	<10
Aliphatics >C6-C8 (HS_1D_AL)	<10 µg/kg	TM089		32.2	315	<10	<10	<10	<10
Aliphatics >C8-C10 (HS_1D_AL)	<10 µg/kg	TM089		18.4	747	<10	<10	<10	<10
Aliphatics >C10-C12 (EH_2D_AL_#1)	<1000 µg/kg	TM414		<1000 #	11900 #	<1000 #	<1000 #	<1000 #	<1000 #
Aliphatics >C12-C16 (EH_2D_AL_#1)	<1000 µg/kg	TM414		<1000 #	30100 #	1050 #	1760 #	9160 #	<1000 #
Aliphatics >C16-C21 (EH_2D_AL_#1)	<1000 µg/kg	TM414		<1000 #	16300 #	1220 #	8340 #	130000 #	1300 #
Aliphatics >C21-C35 (EH_2D_AL_#1)	<1000 µg/kg	TM414		<1000 #	54100 #	11000 #	46000 #	187000 #	11100 #
Aliphatics >C35-C44 (EH_2D_AL_#1)	<1000 µg/kg	TM414		<1000	15700	<1000	2740	25800	<1000
Total Aliphatics >C10-C44 (EH_2D_AR_#1)	<5000 µg/kg	TM414		<5000	128000	14300	58800	353000	13500
Total Aliphatics & Aromatics >C10-C44 (EH_2D_Total_#1)	<10000 µg/kg	TM414		<10000	439000	80900	536000	852000	207000
Aromatics >EC5-EC7 (HS_1D_AR)	<10 µg/kg	TM089		<10	<10	<10	<10	<10	<10
Aromatics >EC7-EC8 (HS_1D_AR)	<10 µg/kg	TM089		<10	<10	<10	<10	<10	<10
Aromatics >EC8-EC10 (HS_1D_AR)	<10 µg/kg	TM089		11.5	498	<10	<10	<10	<10
Aromatics > EC10-EC12 (EH_2D_AR_#1)	<1000 µg/kg	TM414		<1000 #	5920 #	<1000 #	<1000 #	<1000 #	<1000 #
Aromatics > EC12-EC16 (EH_2D_AR_#1)	<1000 µg/kg	TM414		<1000 #	59500 #	<1000 #	13700 #	3480 #	4270 #
Aromatics > EC16-EC21 (EH_2D_AR_#1)	<1000 µg/kg	TM414		<1000 #	45200 #	13300 #	114000 #	24200 #	66700 #
Aromatics > EC21-EC35 (EH_2D_AR_#1)	<1000 µg/kg	TM414		<1000 #	146000 #	46500 #	294000 #	365000 #	103000 #
Aromatics >EC35-EC44 (EH_2D_AR_#1)	<1000 µg/kg	TM414		<1000	54200	6240	55300	106000	20000
Aromatics > EC40-EC44 (EH_2D_AR_#1)	<1000 µg/kg	TM414		<1000	17900	1710	13500	25500	5310
Total Aromatics > EC10-EC44 (EH_2D_AR_#1)	<5000 µg/kg	TM414		<5000	311000	66600	478000	499000	194000
Total Aliphatics & Aromatics >C5-C44 (EH_2D_Total_#1+HS_1D_Total)	<10000 µg/kg	TM414		<10000	440000	80900	536000	852000	207000
Total Aliphatics >C5-C10 (HS_1D_AL_TOTAL)	<50 µg/kg	TM089		50.6	1120	<50	<50	<50	<50
Total Aromatics >EC5-EC10 (HS_1D_AR_TOTAL)	<50 µg/kg	TM089		<50	498	<50	<50	<50	<50
GRO >C5-C10 (HS_1D_TOTAL)	<20 µg/kg	TM089		50.6	1610	<20	<20	<20	<20

CERTIFICATE OF ANALYSIS

SDG: 220407-145 **Report Number:** 643361 **Superseded Report:** 642835
Client Ref.: LD10385 **Location:** Ten Acres Lane

TPH CWG (S)

Results Legend	
#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+§@	Sample deviation (see appendix)

Customer Sample Ref.	TP249
Depth (m)	1.50 - 1.50
Sample Type	Soil/Solid (S)
Date Sampled	01/04/2022
Sample Time	14:30
Date Received	07/04/2022
SDG Ref	220407-145
Lab Sample No.(s)	26101308
AGS Reference	

Component	LOD/Units	Method	
GRO Surrogate % recovery**	%	TM089	99.3
Aliphatics >C5-C6 (HS_1D_AL)	<10 µg/kg	TM089	20.1
Aliphatics >C6-C8 (HS_1D_AL)	<10 µg/kg	TM089	32.2
Aliphatics >C8-C10 (HS_1D_AL)	<10 µg/kg	TM089	56.3
Aliphatics >C10-C12 (EH_2D_AL_#1)	<1000 µg/kg	TM414	<1000 #
Aliphatics >C12-C16 (EH_2D_AL_#1)	<1000 µg/kg	TM414	<1000 #
Aliphatics >C16-C21 (EH_2D_AL_#1)	<1000 µg/kg	TM414	1310 #
Aliphatics >C21-C35 (EH_2D_AL_#1)	<1000 µg/kg	TM414	43500 #
Aliphatics >C35-C44 (EH_2D_AL_#1)	<1000 µg/kg	TM414	19600
Total Aliphatics >C10-C44 (EH_2D_AR_#1)	<5000 µg/kg	TM414	64400
Total Aliphatics & Aromatics >C10-C44 (EH_2D_Total_#1)	<10000 µg/kg	TM414	116000
Aromatics >EC5-EC7 (HS_1D_AR)	<10 µg/kg	TM089	<10
Aromatics >EC7-EC8 (HS_1D_AR)	<10 µg/kg	TM089	<10
Aromatics >EC8-EC10 (HS_1D_AR)	<10 µg/kg	TM089	37.5
Aromatics > EC10-EC12 (EH_2D_AR_#1)	<1000 µg/kg	TM414	<1000 #
Aromatics > EC12-EC16 (EH_2D_AR_#1)	<1000 µg/kg	TM414	<1000 #
Aromatics > EC16-EC21 (EH_2D_AR_#1)	<1000 µg/kg	TM414	9010 #
Aromatics > EC21-EC35 (EH_2D_AR_#1)	<1000 µg/kg	TM414	35600 #
Aromatics >EC35-EC44 (EH_2D_AR_#1)	<1000 µg/kg	TM414	6040
Aromatics > EC40-EC44 (EH_2D_AR_#1)	<1000 µg/kg	TM414	1940
Total Aromatics > EC10-EC44 (EH_2D_AR_#1)	<5000 µg/kg	TM414	51300
Total Aliphatics & Aromatics >C5-C44 (EH_2D_Total_#1+HS_1D_Total)	<10000 µg/kg	TM414	116000
Total Aliphatics >C5-C10 (HS_1D_AL_TOTAL)	<50 µg/kg	TM089	109
Total Aromatics >EC5-EC10 (HS_1D_AR_TOTAL)	<50 µg/kg	TM089	<50
GRO >C5-C10 (HS_1D_TOTAL)	<20 µg/kg	TM089	109

CERTIFICATE OF ANALYSIS

SDG: 220407-145 **Report Number:** 643361 **Superseded Report:** 642835

Client Ref.: LD10385 **Location:** Ten Acres Lane

VOC MS (S)

Results Legend

- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4+§@ Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	RH205	RH205	TP215	TP224	TP229	TP244
			Depth (m)	11.00 - 12.00	9.00 - 9.00	1.00 - 1.00	1.40 - 1.40	3.00 - 3.00	0.70 - 1.00
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	31/03/2022	31/03/2022	01/04/2022	31/03/2022	31/03/2022	01/04/2022
			Sample Time	13:00	12:00	12:30	11:30	14:00	12:00
			Date Received	07/04/2022	07/04/2022	07/04/2022	07/04/2022	07/04/2022	07/04/2022
			SDG Ref	220407-145	220407-145	220407-145	220407-145	220407-145	220407-145
			Lab Sample No.(s)	26101289	26101281	26101325	26101302	26101296	26101314
			AGS Reference						
Dibromofluoromethane**	%	TM116		106	124	109	111	113	109
Toluene-d8**	%	TM116		100	97.4	96.4	106	107	103
4-Bromofluorobenzene**	%	TM116		81.6	95	85.6	73.3	78.1	82.1
Dichlorodifluoromethane	<6 µg/kg	TM116		<120 #	<120 #	<60 #	<120 #	<120 #	<120 #
Chloromethane	<7 µg/kg	TM116		<140 #	<140 #	<70 #	<140 #	<140 #	<140 #
Bromomethane	<10 µg/kg	TM116		<200 M	<200 M	<100 M	<200 M	<200 M	<200 M
Chloroethane	<10 µg/kg	TM116		<200 M	<200 M	<100 M	<200 M	<200 M	<200 M
Trichlorofluoromethane	<6 µg/kg	TM116		<120 M	<120 M	<60 M	<120 M	<120 M	<120 M
1,1-Dichloroethene	<10 µg/kg	TM116		<200 #	<200 #	<100 #	<200 #	<200 #	<200 #
Carbon Disulphide	<7 µg/kg	TM116		<140 M	<140 M	<70 M	<140 M	<140 M	<140 M
Dichloromethane	<10 µg/kg	TM116		<200 #	<200 #	<100 #	<200 #	<200 #	<200 #
Methyl Tertiary Butyl Ether	<10 µg/kg	TM116		<200 M	<200 M	<100 M	<200 M	<200 M	<200 M
trans-1,2-Dichloroethene	<10 µg/kg	TM116		<200 M	<200 M	<100 M	<200 M	<200 M	<200 M
1,1-Dichloroethane	<8 µg/kg	TM116		<160 M	<160 M	<80 M	<160 M	<160 M	<160 M
cis-1,2-Dichloroethene	<6 µg/kg	TM116		<120 M	<120 M	<60 M	<120 M	<120 M	<120 M
2,2-Dichloropropane	<10 µg/kg	TM116		<200	<200	<100	<200	<200	<200
Bromochloromethane	<10 µg/kg	TM116		<200 M	<200 M	<100 M	<200 M	<200 M	<200 M
Chloroform	<8 µg/kg	TM116		<160 M	<160 M	<80 M	<160 M	<160 M	<160 M
1,1,1-Trichloroethane	<7 µg/kg	TM116		<140 M	<140 M	<70 M	<140 M	<140 M	<140 M
1,1-Dichloropropene	<10 µg/kg	TM116		<200 M	<200 M	<100 M	<200 M	<200 M	<200 M
Carbontetrachloride	<10 µg/kg	TM116		<200 M	<200 M	<100 M	<200 M	<200 M	<200 M
1,2-Dichloroethane	<5 µg/kg	TM116		<100 M	<100 M	<50 M	<100 M	<100 M	<100 M
Benzene	<9 µg/kg	TM116		<180 M	<180 M	<90 M	<180 M	<180 M	<180 M
Trichloroethene	<9 µg/kg	TM116		<180 #	<180 #	<90 #	<180 #	<180 #	<180 #
1,2-Dichloropropane	<10 µg/kg	TM116		<200 M	<200 M	<100 M	<200 M	<200 M	<200 M
Dibromomethane	<9 µg/kg	TM116		<180 M	<180 M	<90 M	<180 M	<180 M	<180 M
Bromodichloromethane	<7 µg/kg	TM116		<140 M	<140 M	<70 M	<140 M	<140 M	<140 M
cis-1,3-Dichloropropene	<10 µg/kg	TM116		<200 M	<200 M	<100 M	<200 M	<200 M	<200 M
Toluene	<7 µg/kg	TM116		<140 M	<140 M	<70 M	<140 M	<140 M	<140 M
trans-1,3-Dichloropropene	<10 µg/kg	TM116		<200	<200	<100	<200	<200	<200
1,1,2-Trichloroethane	<10 µg/kg	TM116		<200 M	<200 M	<100 M	<200 M	<200 M	<200 M
1,3-Dichloropropane	<7 µg/kg	TM116		<140 M	<140 M	<70 M	<140 M	<140 M	<140 M
Tetrachloroethene	<5 µg/kg	TM116		<100 M	<100 M	<50 M	<100 M	<100 M	<100 M

CERTIFICATE OF ANALYSIS

SDG: 220407-145 **Report Number:** 643361 **Superseded Report:** 642835

Client Ref.: LD10385 **Location:** Ten Acres Lane

VOC MS (S)

Results Legend

- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4+§@ Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	RH205	RH205	TP215	TP224	TP229	TP244
			Depth (m)	11.00 - 12.00	9.00 - 9.00	1.00 - 1.00	1.40 - 1.40	3.00 - 3.00	0.70 - 1.00
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	31/03/2022	31/03/2022	01/04/2022	31/03/2022	31/03/2022	01/04/2022
			Sample Time	13:00	12:00	12:30	11:30	14:00	12:00
			Date Received	07/04/2022	07/04/2022	07/04/2022	07/04/2022	07/04/2022	07/04/2022
			SDG Ref	220407-145	220407-145	220407-145	220407-145	220407-145	220407-145
			Lab Sample No.(s)	26101289	26101281	26101325	26101302	26101296	26101314
			AGS Reference						
Dibromochloromethane	<10 µg/kg	TM116		<200 M	<200 M	<100 M	<200 M	<200 M	<200 M
1,2-Dibromoethane	<10 µg/kg	TM116		<200 M	<200 M	<100 M	<200 M	<200 M	<200 M
Chlorobenzene	<5 µg/kg	TM116		<100 M	<100 M	<50 M	<100 M	<100 M	<100 M
1,1,1,2-Tetrachloroethane	<10 µg/kg	TM116		<200 M	<200 M	<100 M	<200 M	<200 M	<200 M
Ethylbenzene	<4 µg/kg	TM116		<80 M	<80 M	<40 M	<80 M	<80 M	<80 M
p/m-Xylene	<10 µg/kg	TM116		<200 #	<200 #	<100 #	<200 #	<200 #	<200 #
o-Xylene	<10 µg/kg	TM116		<200 M	<200 M	<100 M	<200 M	<200 M	<200 M
Bromoform	<10 µg/kg	TM116		<200 M	<200 M	<100 M	<200 M	<200 M	<200 M
Isopropylbenzene	<5 µg/kg	TM116		<100 #	<100 #	<50 #	<100 #	<100 #	<100 #
1,1,2,2-Tetrachloroethane	<10 µg/kg	TM116		<200 #	<200 #	<100 #	<200 #	<200 #	<200 #
1,2,3-Trichloropropane	<16 µg/kg	TM116		<320 M	<320 M	<160 M	<320 M	<320 M	<320 M
Bromobenzene	<10 µg/kg	TM116		<200 M	<200 M	<100 M	<200 M	<200 M	<200 M
Propylbenzene	<10 µg/kg	TM116		<200 M	<200 M	<100 M	<200 M	<200 M	<200 M
2-Chlorotoluene	<9 µg/kg	TM116		<180 M	<180 M	<90 M	<180 M	<180 M	<180 M
1,3,5-Trimethylbenzene	<8 µg/kg	TM116		<160 M	<160 M	<80 M	<160 M	<160 M	<160 M
4-Chlorotoluene	<10 µg/kg	TM116		<200 M	<200 M	<100 M	<200 M	<200 M	<200 M
tert-Butylbenzene	<14 µg/kg	TM116		<280 #	<280 #	<140 #	<280 #	<280 #	<280 #
1,2,4-Trimethylbenzene	<9 µg/kg	TM116		<180 #	<180 #	<90 #	<180 #	<180 #	<180 #
sec-Butylbenzene	<10 µg/kg	TM116		<200	<200	<100	<200	<200	<200
4-Isopropyltoluene	<10 µg/kg	TM116		<200	<200	<100	<200	<200	<200
1,3-Dichlorobenzene	<8 µg/kg	TM116		<160 M	<160 M	<80 M	<160 M	<160 M	<160 M
1,4-Dichlorobenzene	<5 µg/kg	TM116		<100 M	<100 M	<50 M	<100 M	<100 M	<100 M
n-Butylbenzene	<11 µg/kg	TM116		<220	<220	<110	<220	<220	<220
1,2-Dichlorobenzene	<10 µg/kg	TM116		<200 M	<200 M	<100 M	<200 M	<200 M	<200 M
1,2-Dibromo-3-chloropropane	<14 µg/kg	TM116		<280 3 M	<280 M	<140 3 M	<280 3 M	<280 3 M	<280 3 M
Tert-amyl methyl ether	<10 µg/kg	TM116		<200 #	<200 #	<100 #	<200 #	<200 #	<200 #
1,2,4-Trichlorobenzene	<20 µg/kg	TM116		<400	<400	<200	<400	<400	<400
Hexachlorobutadiene	<20 µg/kg	TM116		<400	<400	<200	<400	<400	<400
Naphthalene	<13 µg/kg	TM116		<260 M	<260 M	<130 M	<260 M	<260 M	<260 M
1,2,3-Trichlorobenzene	<20 µg/kg	TM116		<400 3 #	<400 #	<200 3 #	<400 3 #	<400 3 #	<400 3 #
1,3,5-Trichlorobenzene	<20 µg/kg	TM116		<400	<400	<200	<400	<400	<400
Sum of Detected Xylenes	<0.02 mg/kg	TM116		<0.4	<0.4	<0.2	<0.4	<0.4	<0.4
Sum of BTEX	<40 µg/kg	TM116		<800	<800	<400	<800	<800	<800

CERTIFICATE OF ANALYSIS

SDG: 220407-145 **Report Number:** 643361 **Superseded Report:** 642835
Client Ref.: LD10385 **Location:** Ten Acres Lane

VOC MS (S)

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4+§@ Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref. TP249				
			Depth (m) 1.50 - 1.50				
			Sample Type Soil/Solid (S)				
			Date Sampled 01/04/2022				
			Sample Time 14:30				
			Date Received 07/04/2022				
			SDG Ref 220407-145				
			Lab Sample No.(s) 26101308				
			AGS Reference				
Dibromofluoromethane**	%	TM116	108				
Toluene-d8**	%	TM116	101				
4-Bromofluorobenzene**	%	TM116	75.5				
Dichlorodifluoromethane	<6 µg/kg	TM116	<60 #				
Chloromethane	<7 µg/kg	TM116	<70 #				
Bromomethane	<10 µg/kg	TM116	<100 M				
Chloroethane	<10 µg/kg	TM116	<100 M				
Trichlorofluorormethane	<6 µg/kg	TM116	<60 M				
1,1-Dichloroethene	<10 µg/kg	TM116	<100 #				
Carbon Disulphide	<7 µg/kg	TM116	<70 M				
Dichloromethane	<10 µg/kg	TM116	<100 #				
Methyl Tertiary Butyl Ether	<10 µg/kg	TM116	<100 M				
trans-1,2-Dichloroethene	<10 µg/kg	TM116	<100 M				
1,1-Dichloroethane	<8 µg/kg	TM116	<80 M				
cis-1,2-Dichloroethene	<6 µg/kg	TM116	<60 M				
2,2-Dichloropropane	<10 µg/kg	TM116	<100				
Bromochloromethane	<10 µg/kg	TM116	<100 M				
Chloroform	<8 µg/kg	TM116	<80 M				
1,1,1-Trichloroethane	<7 µg/kg	TM116	<70 M				
1,1-Dichloropropene	<10 µg/kg	TM116	<100 M				
Carbontetrachloride	<10 µg/kg	TM116	<100 M				
1,2-Dichloroethane	<5 µg/kg	TM116	<50 M				
Benzene	<9 µg/kg	TM116	<90 M				
Trichloroethene	<9 µg/kg	TM116	<90 #				
1,2-Dichloropropane	<10 µg/kg	TM116	<100 M				
Dibromomethane	<9 µg/kg	TM116	<90 M				
Bromodichloromethane	<7 µg/kg	TM116	<70 M				
cis-1,3-Dichloropropene	<10 µg/kg	TM116	<100 M				
Toluene	<7 µg/kg	TM116	<70 M				
trans-1,3-Dichloropropene	<10 µg/kg	TM116	<100				
1,1,2-Trichloroethane	<10 µg/kg	TM116	<100 M				
1,3-Dichloropropane	<7 µg/kg	TM116	<70 M				
Tetrachloroethene	<5 µg/kg	TM116	<50 M				

CERTIFICATE OF ANALYSIS

SDG: 220407-145 **Report Number:** 643361 **Superseded Report:** 642835
Client Ref.: LD10385 **Location:** Ten Acres Lane

VOC MS (S)

Results Legend		Customer Sample Ref.	TP249
#	ISO17025 accredited.		
M	mCERTS accredited.		
aq	Aqueous / settled sample.		
diss.filt	Dissolved / filtered sample.	Depth (m)	1.50 - 1.50
tot.unfilt	Total / unfiltered sample.	Sample Type	Soil/Solid (S)
*	Subcontracted - refer to subcontractor report for accreditation status.	Date Sampled	01/04/2022
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery	Sample Time	14:30
		Date Received	07/04/2022
		SDG Ref	220407-145
(F)	Trigger breach confirmed	Lab Sample No.(s)	26101308
1-4+§@	Sample deviation (see appendix)	AGS Reference	

Component	LOD/Units	Method	
Dibromochloromethane	<10 µg/kg	TM116	<100 M
1,2-Dibromoethane	<10 µg/kg	TM116	<100 M
Chlorobenzene	<5 µg/kg	TM116	<50 M
1,1,1,2-Tetrachloroethane	<10 µg/kg	TM116	<100 M
Ethylbenzene	<4 µg/kg	TM116	<40 M
p/m-Xylene	<10 µg/kg	TM116	<100 #
o-Xylene	<10 µg/kg	TM116	<100 M
Bromoform	<10 µg/kg	TM116	<100 M
Isopropylbenzene	<5 µg/kg	TM116	<50 #
1,1,2,2-Tetrachloroethane	<10 µg/kg	TM116	<100 #
1,2,3-Trichloropropane	<16 µg/kg	TM116	<160 M
Bromobenzene	<10 µg/kg	TM116	<100 M
Propylbenzene	<10 µg/kg	TM116	<100 M
2-Chlorotoluene	<9 µg/kg	TM116	<90 M
1,3,5-Trimethylbenzene	<8 µg/kg	TM116	<80 M
4-Chlorotoluene	<10 µg/kg	TM116	<100 M
tert-Butylbenzene	<14 µg/kg	TM116	<140 #
1,2,4-Trimethylbenzene	<9 µg/kg	TM116	<90 #
sec-Butylbenzene	<10 µg/kg	TM116	<100
4-Isopropyltoluene	<10 µg/kg	TM116	<100
1,3-Dichlorobenzene	<8 µg/kg	TM116	<80 M
1,4-Dichlorobenzene	<5 µg/kg	TM116	<50 M
n-Butylbenzene	<11 µg/kg	TM116	<110
1,2-Dichlorobenzene	<10 µg/kg	TM116	<100 M
1,2-Dibromo-3-chloropropane	<14 µg/kg	TM116	<140 3 M
Tert-amyl methyl ether	<10 µg/kg	TM116	<100 #
1,2,4-Trichlorobenzene	<20 µg/kg	TM116	<200
Hexachlorobutadiene	<20 µg/kg	TM116	<200
Naphthalene	<13 µg/kg	TM116	<130 M
1,2,3-Trichlorobenzene	<20 µg/kg	TM116	<200 3 #
1,3,5-Trichlorobenzene	<20 µg/kg	TM116	<200
Sum of Detected Xylenes	<0.02 mg/kg	TM116	<0.2
Sum of BTEX	<40 µg/kg	TM116	<400

CERTIFICATE OF ANALYSIS

SDG: 220407-145 **Report Number:** 643361 **Superseded Report:** 642835
Client Ref.: LD10385 **Location:** Ten Acres Lane

Asbestos Identification - Solid Samples

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
*	Subcontracted test.
(F)	Trigger breach confirmed
1-5&♦$@	Sample deviation (see appendix)

		Date of Analysis	Analysed By	Comments	Amosite (Brown) Asbestos	Asbestos Actinolite	Asbestos Anthophyllite	Asbestos Tremolite	Chrysotile (White) Asbestos	Crocidolite (Blue) Asbestos	Non-Asbestos Fibre
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	RH205 11.00 - 12.00 SOLID 31/03/2022 00:00:00 07/04/2022 05:00:00 220407-145 26101289 TM048	12/04/2022	Paul Poynton	N/A	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	RH205 9.00 - 9.00 SOLID 31/03/2022 00:00:00 07/04/2022 05:00:00 220407-145 26101281 TM048	12/04/2022	Paul Poynton	N/A	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	TP215 1.00 - 1.00 SOLID 01/04/2022 00:00:00 07/04/2022 05:00:00 220407-145 26101325 TM048	12/04/2022	Paul Poynton	N/A	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	TP224 1.40 - 1.40 SOLID 31/03/2022 00:00:00 07/04/2022 05:00:00 220407-145 26101302 TM048	12/04/2022	Emily Anderton	Loose fibre in soil	Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	TP229 3.00 - 3.00 SOLID 31/03/2022 00:00:00 07/04/2022 05:00:00 220407-145 26101296 TM048	12/04/2022	Emily Anderton	Fibre bundles in soil	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Detected (#)	Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	TP244 0.70 - 1.00 SOLID 01/04/2022 00:00:00 07/04/2022 05:00:00 220407-145 26101314 TM048	13/04/2022	Paul Poynton	N/A	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	TP249 1.50 - 1.50 SOLID 01/04/2022 00:00:00 07/04/2022 05:00:00 220407-145 26101308 TM048	12/04/2022	James Richards	Fibre bundles in soil	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Detected (#)	Detected (#)	Not Detected

CERTIFICATE OF ANALYSIS

SDG: 220407-145 **Report Number:** 643361 **Superseded Report:** 642835
Client Ref.: LD10385 **Location:** Ten Acres Lane

Asbestos Quantification - Full

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
*	Subcontracted test.
(F)	Trigger breach confirmed
1-5&♦$@	Sample deviation (see appendix)

		Additional Asbestos Components	Analysts Comments	Asbestos Quantification - Gravimetric - %	Asbestos Quantification - PCOM	Asbestos Quantification - Total - %
Cust. Sample Ref.	TP224	Chrysotile (#)	Fibre bundles in soil	0.0049 (#)	<0.001 (#)	0.0053 (#)
Depth (m)	1.40 - 1.40					
Sample Type	SOLID					
Date Sampled	31/03/2022 00:00:00					
Date Received	07/04/2022 05:00:00					
SDG	220407-145					
Original Sample	26101302					
Method Number	TM304					
Cust. Sample Ref.	TP229	Amosite (#)	Loose fibres in soil	0.0449 (#)	0.0040 (#)	0.0489 (#)
Depth (m)	3.00 - 3.00					
Sample Type	SOLID					
Date Sampled	31/03/2022 00:00:00					
Date Received	07/04/2022 05:00:00					
SDG	220407-145					
Original Sample	26101296					
Method Number	TM304					
Cust. Sample Ref.	TP249	None (#)	-	0.0018 (#)	<0.001 (#)	0.0019 (#)
Depth (m)	1.50 - 1.50					
Sample Type	SOLID					
Date Sampled	01/04/2022 00:00:00					
Date Received	07/04/2022 05:00:00					
SDG	220407-145					
Original Sample	26101308					
Method Number	TM304					

Table of Results - Appendix

Method No	Reference	Description
PM024	Modified BS 1377	Soil preparation including homogenisation, moisture screens of soils for Asbestos Containing Material
TM048	HSG 248, Asbestos: The analysts' guide for sampling, analysis and clearance procedures	Identification of Asbestos in Bulk Material
TM062 (S)	National Grid Property Holdings Methods for the Collection & Analysis of Samples from National Grid Sites version 1 Sec 3.9	Determination of Phenols in Soils by HPLC
TM089	Modified: US EPA Methods 8020 & 602	Determination of Gasoline Range Hydrocarbons (GRO) by Headspace GC-FID (C4-C12)
TM116	Modified: US EPA Method 8260, 8120, 8020, 624, 610 & 602	Determination of Volatile Organic Compounds by Headspace / GC-MS
TM132	In - house Method	ELTRA CS800 Operators Guide
TM133	BS 1377: Part 3 1990;BS 6068-2.5	Determination of pH in Soil and Water using the GLpH pH Meter
TM151	Method 3500D, AWWA/APHA, 20th Ed., 1999	Determination of Hexavalent Chromium using Kone analyser
TM153	Method 4500A,B,C, I, M AWWA/APHA, 20th Ed., 1999	Determination of Total Cyanide, Free (Easily Liberatable) Cyanide and Thiocyanate using the Skalar SANS+ System Segmented Flow Analyser
TM157	HP 6890 Gas Chromatograph (GC) system and HP 5973 Mass Selective Detector (MSD).	Determination of SVOC in Soils by GC-MS extracted by sonication in DCM/Acetone
TM168	EPA Method 8082, Polychlorinated Biphenyls by Gas Chromatography	Determination of WHO12 and EC7 Polychlorinated Biphenyl Congeners by GC-MS in Soils
TM181	US EPA Method 6010B	Determination of Routine Metals in Soil by iCap 6500 Duo ICP-OES
TM218	Shaker extraction - EPA method 3546.	The determination of PAH in soil samples by GC-MS
TM221	Inductively Coupled Plasma - Atomic Emission Spectroscopy. An Atlas of Spectral Information: Winge, Fassel, Peterson and Floyd	Determination of Acid Extractable Sulphate in Soils by ICP OES
TM222	In-House Method	Determination of Hot Water Soluble Boron in Soils (10:1 Water:Soil) by ICP OES.
TM243		Mixed Anions In Soils By Kone
TM304	HSE Contract research Report no 83/1996	Asbestos Quantification in Soil: Fibres identified by morphology only
TM414	Analysis of Petroleum Hydrocarbons in Environmental Media – Total Petroleum Hydrocarbon Criteria	Determination of Speciated Extractable Petroleum Hydrocarbons in Soils by GCxGC-FID

NA = not applicable.

Chemical testing (unless subcontracted) performed at ALS Life Sciences Ltd Hawarden.

CERTIFICATE OF ANALYSIS

SDG: 220407-145 **Report Number:** 643361 **Superseded Report:** 642835
Client Ref.: LD10385 **Location:** Ten Acres Lane

Test Completion Dates

Lab Sample No(s)	26101281	26101289	26101325	26101302	26101296	26101314	26101308
Customer Sample Ref.	RH205	RH205	TP215	TP224	TP229	TP244	TP249
AGS Ref.							
Depth	9.00 - 9.00	11.00 - 12.00	1.00 - 1.00	1.40 - 1.40	3.00 - 3.00	0.70 - 1.00	1.50 - 1.50
Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
Anions by Kone (soil)	12-Apr-2022	13-Apr-2022	12-Apr-2022	12-Apr-2022	12-Apr-2022	13-Apr-2022	13-Apr-2022
Asbestos ID in Solid Samples	12-Apr-2022	12-Apr-2022	12-Apr-2022	12-Apr-2022	12-Apr-2022	13-Apr-2022	12-Apr-2022
Asbestos Quantification - Full				22-Apr-2022	22-Apr-2022		22-Apr-2022
Boron Water Soluble	12-Apr-2022	12-Apr-2022	12-Apr-2022	12-Apr-2022	12-Apr-2022	12-Apr-2022	12-Apr-2022
Cyanide Comp/Free/Total/Thiocyanate	13-Apr-2022	13-Apr-2022	13-Apr-2022	13-Apr-2022	13-Apr-2022	13-Apr-2022	13-Apr-2022
EPH CWG GC (S)	12-Apr-2022	12-Apr-2022	12-Apr-2022	12-Apr-2022	12-Apr-2022	12-Apr-2022	12-Apr-2022
GRO by GC-FID (S)	12-Apr-2022	12-Apr-2022	12-Apr-2022	12-Apr-2022	13-Apr-2022	12-Apr-2022	13-Apr-2022
Hexavalent Chromium (s)	13-Apr-2022	13-Apr-2022	13-Apr-2022	13-Apr-2022	13-Apr-2022	13-Apr-2022	19-Apr-2022
Metals in solid samples by OES	12-Apr-2022	12-Apr-2022	12-Apr-2022	12-Apr-2022	12-Apr-2022	12-Apr-2022	12-Apr-2022
PAH by GCMS	11-Apr-2022	11-Apr-2022	11-Apr-2022	11-Apr-2022	11-Apr-2022	11-Apr-2022	11-Apr-2022
PCBs by GCMS	12-Apr-2022	12-Apr-2022	12-Apr-2022	12-Apr-2022	12-Apr-2022	12-Apr-2022	12-Apr-2022
pH	11-Apr-2022	11-Apr-2022	11-Apr-2022	13-Apr-2022	11-Apr-2022	11-Apr-2022	11-Apr-2022
Phenols by HPLC (S)	11-Apr-2022	11-Apr-2022	12-Apr-2022	12-Apr-2022	12-Apr-2022	12-Apr-2022	11-Apr-2022
Sample description	08-Apr-2022	08-Apr-2022	08-Apr-2022	08-Apr-2022	08-Apr-2022	08-Apr-2022	08-Apr-2022
Semi Volatile Organic Compounds	13-Apr-2022	13-Apr-2022	13-Apr-2022	13-Apr-2022	13-Apr-2022	13-Apr-2022	13-Apr-2022
Total Organic Carbon	14-Apr-2022	14-Apr-2022	14-Apr-2022	12-Apr-2022	14-Apr-2022	14-Apr-2022	14-Apr-2022
Total Sulphate	12-Apr-2022	12-Apr-2022	12-Apr-2022	12-Apr-2022	12-Apr-2022	12-Apr-2022	12-Apr-2022
TPH CWG GC (S)	13-Apr-2022	13-Apr-2022	12-Apr-2022	12-Apr-2022	13-Apr-2022	12-Apr-2022	13-Apr-2022
VOC MS (S)	13-Apr-2022	13-Apr-2022	13-Apr-2022	13-Apr-2022	13-Apr-2022	13-Apr-2022	13-Apr-2022

Appendix

1. Results are expressed on a dry weight basis (dried at 35ºC) for all soil analyses except for the following: NRA and CEN Leach tests, flash point LOI, pH, ammonium as NH4 by the BRE method, VOC TICs and SVOC TICs.

2. If sufficient sample is received a sub sample will be retained free of charge for 30 days after analysis is completed (e-mailed) for all sample types unless the sample is destroyed on testing. The prepared soil sub sample that is analysed for asbestos will be retained for a period of 6 months after the analysis date. All bulk samples will be retained for a period of 6 months after the analysis date. All samples received and not scheduled will be disposed of one month after the date of receipt unless we are instructed to the contrary. Once the initial period has expired, a storage charge will be applied for each month or part thereof until the client cancels the request for sample storage. ALS reserve the right to charge for samples received and stored but not analysed.

3. With respect to turnaround, we will always endeavour to meet client requirements wherever possible, but turnaround times cannot be absolutely guaranteed due to so many variables beyond our control.

4. We take responsibility for any test performed by sub-contractors (marked with an asterisk). We endeavour to use UKAS/MCERTS Accredited Laboratories, who either complete a quality questionnaire or are audited by ourselves. For some determinands there are no UKAS/MCERTS Accredited Laboratories, in this instance a laboratory with a known track record will be utilised.

5. If no separate volatile sample is supplied by the client, or if a headspace or sediment is present in the volatile sample, the integrity of the data may be compromised. This will be flagged up as an invalid VOC on the test schedule and the result marked as deviating on the test certificate.

6. NDP - No determination possible due to insufficient/unsuitable sample.

7. Results relate only to the items tested.

8. LoDs (Limit of Detection) for wet tests reported on a dry weight basis are not corrected for moisture content.

9. **Surrogate recoveries** - Surrogates are added to your sample to monitor recovery of the test requested. A % recovery is reported, results are not corrected for the recovery measured. Typical recoveries for organics tests are 70-130%. Recoveries in soils are affected by organic rich or clay rich matrices. Waters can be affected by remediation fluids or high amounts of sediment. Test results are only ever reported if all of the associated quality checks pass; it is assumed that all recoveries outside of the values above are due to matrix affect.

10. Stones/debris are not routinely removed. We always endeavour to take a representative sub sample from the received sample.

11. In certain circumstances the method detection limit may be elevated due to the sample being outside the calibration range. Other factors that may contribute to this include possible interferences. In both cases the sample would be diluted which would cause the method detection limit to be raised.

12. For dried and crushed preparations of soils volatile loss may occur e.g volatile mercury.

13. For leachate preparations other than Zero Headspace Extraction (ZHE) volatile loss may occur.

14. For the BSEN 12457-3 two batch process to allow the cumulative release to be calculated, the volume of the leachate produced is measured and filtered for all tests. We therefore cannot carry out any unfiltered analysis. The tests affected include volatiles GCFID/GCMS and all subcontracted analysis.

15. Analysis and identification of specific compounds using GCFID is by retention time only, and we routinely calibrate and quantify for benzene, toluene, ethylbenzenes and xylenes (BTEX). For total volatiles in the C5-C12 range, the total area of the chromatogram is integrated and expressed as ug/kg or ug/l. Although this analysis is commonly used for the quantification of gasoline range organics (GRO), the system will also detect other compounds such as chlorinated solvents, and this may lead to a falsely high result with respect to hydrocarbons only. It is not possible to specifically identify these non-hydrocarbons, as standards are not routinely run for any other compounds, and for more definitive identification, volatiles by GCMS should be utilised.

16. We are accredited to MCERTS for sand, clay and loam/topsoil, or any of these materials - whether these are derived from naturally occurring soil profiles, or from fill/made ground, as long as these materials constitute the major part of the sample. Other coarse granular material such as concrete, gravel and brick are not accredited if they comprise the major part of the sample.

17 Data retention. All records, communications and reports pertaining to the analysis are archived for seven years from the date of issue of the final report.

General

18. **Tentatively Identified Compounds (TICs)** are non-target peaks in VOC and SVOC analysis. All non-target peaks detected with a concentration above the LoD are subjected to a mass spectral library search. Non-target peaks with a library search confidence of >75% are reported based on the best mass spectral library match. When a non-target peak with a library search confidence of <75% is detected it is reported as “mixed hydrocarbons”. Non-target compounds identified from the scan data are semi-quantified relative to one of the deuterated internal standards, under the same chromatographic conditions as the target compounds. This result is reported as a semi-quantitative value and reported as Tentatively Identified Compounds (TICs). TICs are outside the scope of UKAS accreditation and are not moisture corrected.

19. **Sample Deviations**

If a sample is classed as deviated then the associated results may be compromised.

1	**Container with Headspace provided for volatiles analysis**
2	**Incorrect container received**
3	**Deviation from method**
4	**Matrix interference**
♦	**Sample holding time exceeded in laboratory**
@	**Sample holding time exceeded due to late arrival of instructions or samples**
§	**Sampled on date not provided**

20. **Asbestos**

When requested, the individual sub sample scheduled will be analysed in house for the presence of asbestos fibres and asbestos containing material by our documented in house method TM048 based on HSG 248 (2021), which is accredited to ISO17025. If a specific asbestos fibre type is not found this will be reported as “Not detected”. If no asbestos fibre types are found all will be reported as “Not detected” and the sub sample analysed deemed to be clear of asbestos. If an asbestos fibre type is found it will be reported as detected (for each fibre type found). Testing can be carried out on asbestos positive samples, but, due to Health and Safety considerations, may be replaced by alternative tests or reported as No Determination Possible (NDP). The quantity of asbestos present is not determined unless specifically requested.

Identification of Asbestos in Bulk Materials & Soils

The results for identification of asbestos in bulk materials and soils are obtained from supplied bulk materials andd soils which have been examined to determine the presence of asbestos fibres using ALS (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining, based on HSG 248 (2021).

The results for identification of asbestos in soils are obtained from a homogenised sub sample which has been examined to determine the presence of asbestos fibres using ALS (Hawarden) in-house method of transmitted/polarised light microscopy and central

Asbestos Type	Common Name
Chrysotile	White Asbestos
Amosite	Brown Asbestos
Crocidolite	Blue Asbestos
Fibrous Actinolite	-
Fibrous Anthophyllite	-
Fibrous Tremolite	-

Visual Estimation Of Fibre Content

Estimation of fibre content is not permitted as part of our UKAS accredited test other than: - Trace - Where only one or two asbestos fibres were identified.

Respirable Fibres

Respirable fibres are defined as fibres of <3 µm diameter, longer than 5 µm and with aspect ratios of at least 3:1 that can be inhaled into the lower regions of the lung and are generally acknowledged to be most important predictor of hazard and risk for cancers of the lung.

Further guidance on typical asbestos fibre content of manufactured products can be found in HSG 264.

The identification of asbestos containing materials and soils falls within our schedule of tests for which we hold UKAS accreditation, however opinions, interpretations and all other information contained in the report are outside the scope of UKAS accreditation.

Unit 7-8 Hawarden Business Park
Manor Road (off Manor Lane)
Hawarden
Deeside
CH5 3US
Tel: (01244) 528700
Fax: (01244) 528701
email: hawardencustomerservices@alsglobal.com
Website: www.alsenvironmental.co.uk

Wardell Armstrong LLP
36 Park Row
Leeds
LS1 5JL

Attention: Jonathan Currie

CERTIFICATE OF ANALYSIS

Date of report Generation:	03 May 2022
Customer:	Wardell Armstrong LLP
Sample Delivery Group (SDG):	220408-73
Your Reference:	LD10385
Location:	Ten Acres Lane
Report No:	644581
Order Number:	LD2685, LD2725

This report has been revised and directly supersedes 643139 in its entirety.

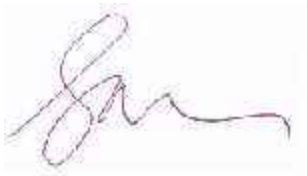
We received 3 samples on Friday April 08, 2022 and 3 of these samples were scheduled for analysis which was completed on Tuesday May 03, 2022. Accredited laboratory tests are defined within the report, but opinions, interpretations and on-site data expressed herein are outside the scope of ISO 17025 accreditation.

Should this report require incorporation into client reports, it must be used in its entirety and not simply with the data sections alone.

Chemical testing (unless subcontracted) performed at ALS Life Sciences Ltd Hawarden.

All sample data is provided by the customer. The reported results relate to the sample supplied, and on the basis that this data is correct.
Incorrect sampling dates and/or sample information will affect the validity of results.
The customer is not permitted to reproduce this report except in full without the approval of the laboratory.

Approved By:



Sonia McWhan

Operations Manager

CERTIFICATE OF ANALYSIS

SDG: 220408-73 **Report Number:** 644581 **Superseded Report:** 643139
Client Ref.: LD10385 **Location:** Ten Acres Lane

Received Sample Overview

Lab Sample No(s)	Customer Sample Ref.	AGS Ref.	Depth (m)	Sampled Date
26104098	TP205		4.90 - 4.90	06/04/2022
26104093	TP235		1.40 - 1.40	04/04/2022
26108843	TP239		2.40 - 2.40	06/04/2022

Only received samples which have had analysis scheduled will be shown on the following pages.

Validated

CERTIFICATE OF ANALYSIS

SDG: 220408-73 **Report Number:** 644581 **Superseded Report:** 643139

Client Ref.: LD10385 **Location:** Ten Acres Lane

Results Legend

X **Test**

N **No Determination Possible**

Sample Types -

S - Soil/Solid
UNS - Unspecified Solid
GW - Ground Water
SW - Surface Water
LE - Land Leachate
PL - Prepared Leachate
PR - Process Water
SA - Saline Water
TE - Trade Effluent
TS - Treated Sewage
US - Untreated Sewage
RE - Recreational Water
DW - Drinking Water Non-regulatory
UNL - Unspecified Liquid
SL - Sludge
G - Gas
OTH - Other

Lab Sample No(s)			26104098		26104093				26108843			
Customer Sample Reference			TP205		TP235				TP239			
AGS Reference												
Depth (m)			4.90 - 4.90		1.40 - 1.40				2.40 - 2.40			
Container			1kg TUB with Handle (ALE260)	250g Amber Jar (ALE210)	1kg TUB with Handle (ALE260)	250g Amber Jar (ALE210)			1kg TUB with Handle (ALE260)	250g Amber Jar (ALE210)		
Sample Type			S	S	S	S			S	S		
Asbestos ID in Solid Samples	All	NDPs: 0 Tests: 2			X				X			
PFAS (Post Ox.) Solids	All	NDPs: 0 Tests: 1			X							
PFAS Solids	All	NDPs: 0 Tests: 3	X		X				X			
Sample description	All	NDPs: 0 Tests: 3		X		X				X		

CERTIFICATE OF ANALYSIS

SDG: 220408-73 **Report Number:** 644581 **Superseded Report:** 643139
Client Ref.: LD10385 **Location:** Ten Acres Lane

Sample Descriptions

Grain Sizes

very fine	<0.063mm	fine	0.063mm - 0.1mm	medium	0.1mm - 2mm	coarse	2mm - 10mm	very coarse	>10mm

Lab Sample No(s)	Customer Sample Ref.	Depth (m)	Colour	Description	Inclusions	Inclusions 2
26104098	TP205	4.90 - 4.90	Dark Brown	Loamy Sand	Stones	Vegetation
26104093	TP235	1.40 - 1.40	Dark Brown	Sand	Brick	Stones
26108843	TP239	2.40 - 2.40	Dark Brown	Sand	Brick	Stones

These descriptions are only intended to act as a cross check if sample identities are questioned, and to provide a log of sample matrices with respect to MCERTS validation. They are not intended as full geological descriptions.

We are accredited to MCERTS for sand, clay and loam/topsoil, or any of these materials - whether these are derived from naturally ocurring soil profiles, or from fill/made ground, as long as these materials constitute the major part of the sample.

Other coarse granular materials such as concrete, gravel and brick are not accredited if they comprise the major part of the sample.

CERTIFICATE OF ANALYSIS

SDG: 220408-73 **Report Number:** 644581 **Superseded Report:** 643139
Client Ref.: LD10385 **Location:** Ten Acres Lane

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4+§@ Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	TP205	TP235	TP239			
			Depth (m)	4.90 - 4.90	1.40 - 1.40	2.40 - 2.40			
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)			
			Date Sampled	06/04/2022	04/04/2022	06/04/2022			
			Sample Time	12:00	12:00	12:00:00			
			Date Received	08/04/2022	08/04/2022	08/04/2022			
			SDG Ref	220408-73	220408-73	220408-73			
			Lab Sample No.(s)	26104098	26104093	26108843			
			AGS Reference						
Moisture Content Ratio (% of as received sample)	%	PM024		12	0	0.82			
PFBA (375-22-4) Perfluoro-n-butanoic acid	<3 µg/kg	TM338		<3	<3	<3			
PFPA (2706-90-3) Perfluoro-n-pentanoic acid	<3 µg/kg	TM338		<3	<3	<3			
PFHxA (307-24-4) Perfluoro-n-hexanoic acid	<2 µg/kg	TM338		<2	<2	<2			
PFBS (375-73-5) Perfluoro-1-butanesulfonate	<1 µg/kg	TM338		<1	<1	<1			
PFHpA (375-85-9) Perfluoro-n-heptanoic acid	<1 µg/kg	TM338		<1	<1	<1			
PFOA (335-67-1) Perfluoro-n-octanoic acid	<1 µg/kg	TM338		<1	<1	<1			
PFHxS (355-46-4) Perfluoro-1-hexanesulfonate	<1 µg/kg	TM338		<1	<1	<1			
PFNA (375-95-1) Perfluoro-n-nonanoic acid	<1 µg/kg	TM338		<1	<1	<1			
PFHpS (375-92-8) Perfluoro-1-heptanesulfonate	<1 µg/kg	TM338		<1	<1	<1			
PFDA (335-76-2) Perfluoro-n-decanoic acid	<1 µg/kg	TM338		<1	<1	<1			
Linear PFOS(1763-23-1) Perfluoro-1-octanesulfonate	<1 µg/kg	TM338		<1	1.48	<1			
Branched PFOS	<1 µg/kg	TM338		<1	<1	<1			
PFUnA (2058-94-8) Perfluoro-n-undecanoic acid	<1 µg/kg	TM338		<1	<1	<1			
PFDoA (307-55-1) Perfluoro-n-dodecanoic acid	<1 µg/kg	TM338		<1	<1	<1			
PFOSA (754-91-6) Perfluoro-octanesulfonamide	<1 µg/kg	TM338		<1	<1	<1			
6:2-FTS (27619-97-2)	<1 µg/kg	TM338		<1	<1	<1			
PFDS (335-73-3) Perfluoro-1-decanesulfonate	<1 µg/kg	TM338		<1	<1	<1			
PFPeS (2706-91-4) Perfluoro-1-pentanesulfonate	<1 µg/kg	TM338		<1	<1	<1			
Total PFOS	<1 µg/kg	TM338		<1	1.48	<1			
PFBA (Post Ox.) Perfluoro-n-butanoic acid	<3 µg/kg	TM428			<3				
PFPA (Post Ox.) Perfluoro-n-pentanoic acid	<3 µg/kg	TM428			<3				
PFHxA (Post Ox.) Perfluoro-n-hexanoic acid	<2 µg/kg	TM428			<2				
PFBS (Post Ox.) Perfluoro-1-butanesulfonate	<1 µg/kg	TM428			<1				
PFHpA (Post Ox.) Perfluoro-n-heptanoic acid	<1 µg/kg	TM428			<1				
6:2 PTS (Post Ox.) Perfluoro-octane sulfonate 6:2	<1 µg/kg	TM428			<1				
PFOA (Post Ox.) Perfluoro-n-octanoic acid	<1 µg/kg	TM428			<1				
PFHxS (Post Ox.) Perfluoro-1-hexanesulfonate	<1 µg/kg	TM428			<1				
PFNA (Post Ox.) Perfluoro-n-nonanoic acid	<1 µg/kg	TM428			<1				
PFHpS (Post Ox.) Perfluoro-1-heptanesulfonate	<1 µg/kg	TM428			<1				
PFDA (Post Ox.) Perfluoro-n-decanoic acid	<1 µg/kg	TM428			<1				
Linear PFOS (Post Ox.) Perfluoro-1-octanesulfonate	<1 µg/kg	TM428			1.9				
Branched PFOS (Post Ox.)	<1 µg/kg	TM428			<1				

CERTIFICATE OF ANALYSIS

SDG: 220408-73 **Report Number:** 644581 **Superseded Report:** 643139
Client Ref.: LD10385 **Location:** Ten Acres Lane

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	TP205	TP235	TP239			
			Depth (m)	4.90 - 4.90	1.40 - 1.40	2.40 - 2.40			
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)			
			Date Sampled	06/04/2022	04/04/2022	06/04/2022			
			Sample Time	12:00	12:00	12:00:00			
			Date Received	08/04/2022	08/04/2022	08/04/2022			
			SDG Ref	220408-73	220408-73	220408-73			
			Lab Sample No.(s)	26104098	26104093	26108843			
			AGS Reference						
PFUnA (Post Ox.) Perfluoro-n-undecanoic acid	<1 µg/kg	TM428			<1				
PFDoA (Post Ox.) Perfluoro-n-dodecanoic acid	<1 µg/kg	TM428			<1				
PFOSA (Post Ox.) Perfluoro-octanesulfonamide	<1 µg/kg	TM428			<1				
PFDS (Post Ox.) Perfluoro-1-decanesulfonate	<1 µg/kg	TM428			<1				
PFPeS (Post Ox.) Perfluoro-1-pentanesulfonate	<1 µg/kg	TM428			<1				
Total PFOS (Post Ox.)	<2 µg/kg	TM428			<2				

CERTIFICATE OF ANALYSIS

SDG: 220408-73 **Report Number:** 644581 **Superseded Report:** 643139

Client Ref.: LD10385 **Location:** Ten Acres Lane

Asbestos Identification - Solid Samples

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
*	Subcontracted test.
(F)	Trigger breach confirmed
1-5&♦$@	Sample deviation (see appendix)

		Date of Analysis	Analysed By	Comments	Amosite (Brown) Asbestos	Asbestos Actinolite	Asbestos Anthophyllite	Asbestos Tremolite	Chrysotile (White) Asbestos	Crocidolite (Blue) Asbestos	Non-Asbestos Fibre
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	TP235 1.40 - 1.40 SOLID 04/04/2022 00:00:00 08/04/2022 05:00:00 220408-73 26104093 TM048	21/04/2022	James Richards	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	TP239 2.40 - 2.40 SOLID 06/04/2022 00:00:00 08/04/2022 05:00:00 220408-73 26108843 TM048	21/04/2022	Emily Anderton	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected

Table of Results - Appendix

Method No	Reference	Description
PM024	Modified BS 1377	Soil preparation including homogenisation, moisture screens of soils for Asbestos Containing Material
TM048	HSG 248, Asbestos: The analysts' guide for sampling, analysis and clearance procedures	Identification of Asbestos in Bulk Material
TM338	PFAS In Solids	Analysis of perfluoroalkylsulfonates and perfluorocarboxylic acids in Solids
TM428	PFAS (TOP Assay)	Analysis of perfluoroalkylsulfonates and perfluorocarboxylic acids - Total Oxidizable Precursor Assay

NA = not applicable.
Chemical testing (unless subcontracted) performed at ALS Life Sciences Ltd Hawarden.

CERTIFICATE OF ANALYSIS

SDG: 220408-73 **Report Number:** 644581 **Superseded Report:** 643139
Client Ref.: LD10385 **Location:** Ten Acres Lane

Test Completion Dates

Lab Sample No(s)	26104098	26104093	26108843
Customer Sample Ref.	TP205	TP235	TP239
AGS Ref.			
Depth	4.90 - 4.90	1.40 - 1.40	2.40 - 2.40
Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
Asbestos ID in Solid Samples		21-Apr-2022	21-Apr-2022
PFAS (Post Ox.) Solids		03-May-2022	
PFAS Solids	20-Apr-2022	20-Apr-2022	20-Apr-2022
Sample description	10-Apr-2022	10-Apr-2022	10-Apr-2022

Appendix

1. Results are expressed on a dry weight basis (dried at 35ºC) for all soil analyses except for the following: NRA and CEN Leach tests, flash point LOI, pH, ammonium as NH4 by the BRE method, VOC TICs and SVOC TICs.

2. If sufficient sample is received a sub sample will be retained free of charge for 30 days after analysis is completed (e-mailed) for all sample types unless the sample is destroyed on testing. The prepared soil sub sample that is analysed for asbestos will be retained for a period of 6 months after the analysis date. All bulk samples will be retained for a period of 6 months after the analysis date. All samples received and not scheduled will be disposed of one month after the date of receipt unless we are instructed to the contrary. Once the initial period has expired, a storage charge will be applied for each month or part thereof until the client cancels the request for sample storage. ALS reserve the right to charge for samples received and stored but not analysed.

3. With respect to turnaround, we will always endeavour to meet client requirements wherever possible, but turnaround times cannot be absolutely guaranteed due to so many variables beyond our control.

4. We take responsibility for any test performed by sub-contractors (marked with an asterisk). We endeavour to use UKAS/MCERTS Accredited Laboratories, who either complete a quality questionnaire or are audited by ourselves. For some determinands there are no UKAS/MCERTS Accredited Laboratories, in this instance a laboratory with a known track record will be utilised.

5. If no separate volatile sample is supplied by the client, or if a headspace or sediment is present in the volatile sample, the integrity of the data may be compromised. This will be flagged up as an invalid VOC on the test schedule and the result marked as deviating on the test certificate.

6. NDP - No determination possible due to insufficient/unsuitable sample.

7. Results relate only to the items tested.

8. LoDs (Limit of Detection) for wet tests reported on a dry weight basis are not corrected for moisture content.

9. **Surrogate recoveries** - Surrogates are added to your sample to monitor recovery of the test requested. A % recovery is reported, results are not corrected for the recovery measured. Typical recoveries for organics tests are 70-130%. Recoveries in soils are affected by organic rich or clay rich matrices. Waters can be affected by remediation fluids or high amounts of sediment. Test results are only ever reported if all of the associated quality checks pass; it is assumed that all recoveries outside of the values above are due to matrix affect.

10. Stones/debris are not routinely removed. We always endeavour to take a representative sub sample from the received sample.

11. In certain circumstances the method detection limit may be elevated due to the sample being outside the calibration range. Other factors that may contribute to this include possible interferences. In both cases the sample would be diluted which would cause the method detection limit to be raised.

12. For dried and crushed preparations of soils volatile loss may occur e.g volatile mercury.

13. For leachate preparations other than Zero Headspace Extraction (ZHE) volatile loss may occur.

14. For the BSEN 12457-3 two batch process to allow the cumulative release to be calculated, the volume of the leachate produced is measured and filtered for all tests. We therefore cannot carry out any unfiltered analysis. The tests affected include volatiles GCFID/GCMS and all subcontracted analysis.

15. Analysis and identification of specific compounds using GCFID is by retention time only, and we routinely calibrate and quantify for benzene, toluene, ethylbenzenes and xylenes (BTEX). For total volatiles in the C5-C12 range, the total area of the chromatogram is integrated and expressed as ug/kg or ug/l. Although this analysis is commonly used for the quantification of gasoline range organics (GRO), the system will also detect other compounds such as chlorinated solvents, and this may lead to a falsely high result with respect to hydrocarbons only. It is not possible to specifically identify these non-hydrocarbons, as standards are not routinely run for any other compounds, and for more definitive identification, volatiles by GCMS should be utilised.

16. We are accredited to MCERTS for sand, clay and loam/topsoil, or any of these materials - whether these are derived from naturally occurring soil profiles, or from fill/made ground, as long as these materials constitute the major part of the sample. Other coarse granular material such as concrete, gravel and brick are not accredited if they comprise the major part of the sample.

17 Data retention. All records, communications and reports pertaining to the analysis are archived for seven years from the date of issue of the final report.

General

18. **Tentatively Identified Compounds (TICs)** are non-target peaks in VOC and SVOC analysis. All non-target peaks detected with a concentration above the LoD are subjected to a mass spectral library search. Non-target peaks with a library search confidence of >75% are reported based on the best mass spectral library match. When a non-target peak with a library search confidence of <75% is detected it is reported as “mixed hydrocarbons”. Non-target compounds identified from the scan data are semi-quantified relative to one of the deuterated internal standards, under the same chromatographic conditions as the target compounds. This result is reported as a semi-quantitative value and reported as Tentatively Identified Compounds (TICs). TICs are outside the scope of UKAS accreditation and are not moisture corrected.

19. **Sample Deviations**

If a sample is classed as deviated then the associated results may be compromised.

1	**Container with Headspace provided for volatiles analysis**
2	**Incorrect container received**
3	**Deviation from method**
4	**Matrix interference**
♦	**Sample holding time exceeded in laboratory**
@	**Sample holding time exceeded due to late arrival of instructions or samples**
§	**Sampled on date not provided**

20. **Asbestos**

When requested, the individual sub sample scheduled will be analysed in house for the presence of asbestos fibres and asbestos containing material by our documented in house method TM048 based on HSG 248 (2021), which is accredited to ISO17025. If a specific asbestos fibre type is not found this will be reported as “Not detected”. If no asbestos fibre types are found all will be reported as “Not detected” and the sub sample analysed deemed to be clear of asbestos. If an asbestos fibre type is found it will be reported as detected (for each fibre type found). Testing can be carried out on asbestos positive samples, but, due to Health and Safety considerations, may be replaced by alternative tests or reported as No Determination Possible (NDP). The quantity of asbestos present is not determined unless specifically requested.

Identification of Asbestos in Bulk Materials & Soils

The results for identification of asbestos in bulk materials and soils are obtained from supplied bulk materials andd soils which have been examined to determine the presence of asbestos fibres using ALS (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining, based on HSG 248 (2021).

The results for identification of asbestos in soils are obtained from a homogenised sub sample which has been examined to determine the presence of asbestos fibres using ALS (Hawarden) in-house method of transmitted/polarised light microscopy and central

Asbestos Type	Common Name
Chrysotile	White Asbestos
Amosite	Brown Asbestos
Crocidolite	Blue Asbestos
Fibrous Actinolite	-
Fibrous Anthophyllite	-
Fibrous Tremolite	-

Visual Estimation Of Fibre Content

Estimation of fibre content is not permitted as part of our UKAS accredited test other than: - Trace - Where only one or two asbestos fibres were identified.

Respirable Fibres

Respirable fibres are defined as fibres of <3 µm diameter, longer than 5 µm and with aspect ratios of at least 3:1 that can be inhaled into the lower regions of the lung and are generally acknowledged to be most important predictor of hazard and risk for cancers of the lung.

Further guidance on typical asbestos fibre content of manufactured products can be found in HSG 264.

The identification of asbestos containing materials and soils falls within our schedule of tests for which we hold UKAS accreditation, however opinions, interpretations and all other information contained in the report are outside the scope of UKAS accreditation.

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Manor Road (off Manor Lane)
Hawarden
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Website: www.alsenvironmental.co.uk

Wardell Armstrong LLP
36 Park Row
Leeds
LS1 5JL

Attention: Jonathan Currie

CERTIFICATE OF ANALYSIS

Date of report Generation:	26 April 2022
Customer:	Wardell Armstrong LLP
Sample Delivery Group (SDG):	220408-74
Your Reference:	LD10385
Location:	Ten Acres Lane
Report No:	643719
Order Number:	LD2685

This report has been revised and directly supersedes 643031 in its entirety.

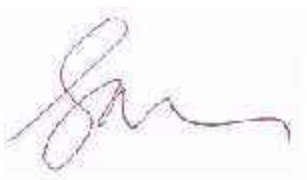
We received 8 samples on Friday April 08, 2022 and 7 of these samples were scheduled for analysis which was completed on Tuesday April 26, 2022. Accredited laboratory tests are defined within the report, but opinions, interpretations and on-site data expressed herein are outside the scope of ISO 17025 accreditation.

Should this report require incorporation into client reports, it must be used in its entirety and not simply with the data sections alone.

Chemical testing (unless subcontracted) performed at ALS Life Sciences Ltd Hawarden.

All sample data is provided by the customer. The reported results relate to the sample supplied, and on the basis that this data is correct.
Incorrect sampling dates and/or sample information will affect the validity of results.
The customer is not permitted to reproduce this report except in full without the approval of the laboratory.

Approved By:



Sonia McWhan

Operations Manager

CERTIFICATE OF ANALYSIS

SDG: 220408-74 **Report Number:** 643719 **Superseded Report:** 643031
Client Ref.: LD10385 **Location:** Ten Acres Lane

Received Sample Overview

Lab Sample No(s)	Customer Sample Ref.	AGS Ref.	Depth (m)	Sampled Date
26104180	CP203		3.00 - 3.00	05/04/2022
26104187	CP203		5.00 - 5.00	05/04/2022
26104153	TP203		1.00 - 1.00	05/04/2022
26104159	TP203		2.90 - 2.90	05/04/2022
26104125	TP235		2.20 - 2.20	04/04/2022
26104166	TP239		1.40 - 1.40	06/04/2022
26104120	TP253	ES1	1.40 - 1.40	04/04/2022
26104142	TP253		3.80 - 3.80	04/04/2022

Only received samples which have had analysis scheduled will be shown on the following pages.

Validated

CERTIFICATE OF ANALYSIS

SDG: 220408-74 **Report Number:** 643719 **Superseded Report:** 643031

Client Ref.: LD10385 **Location:** Ten Acres Lane

Results Legend

X Test

N No Determination Possible

Sample Types -

S - Soil/Solid
UNS - Uns9ecified Solid
GW - Ground Water
SW - Surface Water
LE - Land Leachate
PL - Pre9ared Leachate
PR - Process Water
SA - Saline Water
TE - Trade Effluent
TS - Treated Sewage
US - Untreated Sewage
RE - Recreational Water
DW - Drinking Water Non-regulatory
UNL - Unspecified Liquid
SL - Sludge
G - Gas
OTH - Other

			Lab Sample No(s)	26104180			26104187			26104153			26104159			26104125			26104166			26104142
			Customer Sample Reference	CP203			CP203			TP203			TP203			TP235			TP239			TP253
			AGS Reference																			
			Depth (m)	3.00 - 3.00			5.00 - 5.00			1.00 - 1.00			2.90 - 2.90			2.20 - 2.20			1.40 - 1.40			3.80 - 3.80
			Container	1kg TUB with Handle (ALE260)	250g Amber Jar (ALE210)	60g VOC (ALE215)	1kg TUB with Handle (ALE260)	250g Amber Jar (ALE210)	60g VOC (ALE215)	1kg TUB with Handle (ALE260)	250g Amber Jar (ALE210)	60g VOC (ALE215)	1kg TUB with Handle (ALE260)	250g Amber Jar (ALE210)	60g VOC (ALE215)	1kg TUB with Handle (ALE260)	250g Amber Jar (ALE210)	60g VOC (ALE215)	1kg TUB with Handle (ALE260)	250g Amber Jar (ALE210)	60g VOC (ALE215)	1kg TUB with Handle (ALE260)
			Sample Type	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S
Anions by Kone (soil)	All	NDPs: 0 Tests: 7			X			X			X			X			X			X		
Asbestos ID in Solid Samples	All	NDPs: 0 Tests: 7		X			X			X			X			X			X			X
Asbestos Quantification - Full	All	NDPs: 0 Tests: 3								X			X						X			
Boron Water Soluble	All	NDPs: 0 Tests: 7			X			X			X			X			X			X		
Cyanide Comp/Free/Total/Thiocyanate	All	NDPs: 0 Tests: 7			X			X			X			X			X			X		
Easily Liberated Sulphide	All	NDPs: 0 Tests: 7			X			X			X			X			X			X		
EPH CWG GC (S)	All	NDPs: 0 Tests: 7			X			X			X			X			X			X		
GRO by GC-FID (S)	All	NDPs: 0 Tests: 7				X			X			X			X			X			X		
Hexavalent Chromium (s)	All	NDPs: 0 Tests: 7			X			X			X			X			X			X		
Metals in solid samples by OES	All	NDPs: 0 Tests: 7			X			X			X			X			X			X		
PAH by GCMS	All	NDPs: 0 Tests: 7			X			X			X			X			X			X		
PCBs by GCMS	All	NDPs: 0 Tests: 7			X			X			X			X			X			X		
pH	All	NDPs: 0 Tests: 7			X			X			X			X			X			X		
Phenols by HPLC (S)	All	NDPs: 0 Tests: 7			X			X			X			X			X			X		
Sample description	All	NDPs: 0 Tests: 7			X			X			X			X			X			X		

26104142					
	TP253				
			3.80 - 3.80		
				60g VOC (ALE215)	250g Amber Jar (ALE210)
				S	S
					X
					X
					X
					X
					X
					X
				X	
					X
					X
					X
					X
					X
					X

Validated

CERTIFICATE OF ANALYSIS

SDG: 220408-74 **Report Number:** 643719 **Superseded Report:** 643031

Client Ref.: LD10385 **Location:** Ten Acres Lane

Results Legend

X Test

N No Determination Possible

Sample Types -

S - Soil/Solid
UNS - Uns9ecified Solid
GW - Ground Water
SW - Surface Water
LE - Land Leachate
PL - Pre9ared Leachate
PR - Process Water
SA - Saline Water
TE - Trade Effluent
TS - Treated Sewage
US - Untreated Sewage
RE - Recreational Water
DW - Drinking Water Non-regulatory
UNL - Unspecified Liquid
SL - Sludge
G - Gas
OTH - Other

Lab Sample No(s)			26104180			26104187			26104153			26104159			26104125			26104166			26104142	
Customer Sample Reference			CP203			CP203			TP203			TP203			TP235			TP239			TP253	
AGS Reference																						
Depth (m)			3.00 - 3.00			5.00 - 5.00			1.00 - 1.00			2.90 - 2.90			2.20 - 2.20			1.40 - 1.40			3.80 - 3.80	
Container			1kg TUB with Handle (ALE260)	250g Amber Jar (ALE210)	60g VOC (ALE215)	1kg TUB with Handle (ALE260)	250g Amber Jar (ALE210)	60g VOC (ALE215)	1kg TUB with Handle (ALE260)	250g Amber Jar (ALE210)	60g VOC (ALE215)	1kg TUB with Handle (ALE260)	250g Amber Jar (ALE210)	60g VOC (ALE215)	1kg TUB with Handle (ALE260)	250g Amber Jar (ALE210)	60g VOC (ALE215)	1kg TUB with Handle (ALE260)	250g Amber Jar (ALE210)	60g VOC (ALE215)	1kg TUB with Handle (ALE260)	
Sample Type			S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S
Semi Volatile Organic Compounds	All	NDPs: 0 Tests: 6		X						X			X			X			X			
Total Organic Carbon	All	NDPs: 0 Tests: 7		X			X			X			X			X			X			
Total Sulphate	All	NDPs: 0 Tests: 7		X			X			X			X			X			X			
TPH CWG GC (S)	All	NDPs: 0 Tests: 7		X			X			X			X			X			X			
VOC MS (S)	All	NDPs: 0 Tests: 7			X			X			X			X			X			X		

26104142	TP253		3.80 - 3.80	60g VOC (ALE215)	250g Amber Jar (ALE210)
				S	S
					X
					X
					X
					X
				X	

Sample Descriptions

Grain Sizes

very fine	<0.063mm	fine	0.063mm - 0.1mm	medium	0.1mm - 2mm	coarse	2mm - 10mm	very coarse	>10mm

Lab Sample No(s)	Customer Sample Ref.	Depth (m)	Colour	Description	Inclusions	Inclusions 2
26104180	CP203	3.00 - 3.00	Dark Brown	Loamy Sand	Stones	Vegetation
26104187	CP203	5.00 - 5.00	Dark Brown	Sand	None	None
26104153	TP203	1.00 - 1.00	Dark Brown	Sand	Brick	Stones
26104159	TP203	2.90 - 2.90	Dark Brown	Loamy Sand	Brick	Stones
26104125	TP235	2.20 - 2.20	Dark Brown	Sand	Stones	Vegetation
26104166	TP239	1.40 - 1.40	Dark Brown	Sand	Brick	Stones
26104142	TP253	3.80 - 3.80	Dark Brown	Sandy Silt Loam	Stones	None

These descriptions are only intended to act as a cross check if sample identities are questioned, and to provide a log of sample matrices with respect to MCERTS validation. They are not intended as full geological descriptions.

We are accredited to MCERTS for sand, clay and loam/topsoil, or any of these materials - whether these are derived from naturally ocurring soil profiles, or from fill/made ground, as long as these materials constitute the major part of the sample.

Other coarse granular materials such as concrete, gravel and brick are not accredited if they comprise the major part of the sample.

CERTIFICATE OF ANALYSIS

SDG: 220408-74 **Report Number:** 643719 **Superseded Report:** 643031

Client Ref.: LD10385 **Location:** Ten Acres Lane

Results Legend

- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4+§@ Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	CP203	CP203	TP203	TP203	TP235	TP239
			Depth (m)	3.00 - 3.00	5.00 - 5.00	1.00 - 1.00	2.90 - 2.90	2.20 - 2.20	1.40 - 1.40
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	05/04/2022	05/04/2022	05/04/2022	05/04/2022	04/04/2022	06/04/2022
			Sample Time	12:00	13:00	12:00	13:00	12:00	12:00
			Date Received	08/04/2022	08/04/2022	08/04/2022	08/04/2022	08/04/2022	08/04/2022
			SDG Ref	220408-74	220408-74	220408-74	220408-74	220408-74	220408-74
			Lab Sample No.(s)	26104180	26104187	26104153	26104159	26104125	26104166
			AGS Reference						
Moisture Content Ratio (% of as received sample)	%	PM024		13	12	9.3	14	7.7	8.8
Phenol	<0.01 mg/kg	TM062 (S)		<0.01 M	<0.01 M	<0.01 M	0.0116 M	<0.01 M	<0.01 M
Cresols	<0.01 mg/kg	TM062 (S)		<0.01 M	<0.01 M	0.022 M	0.0232 M	<0.01 M	<0.01 M
Xylenols	<0.015 mg/kg	TM062 (S)		<0.015 M	<0.015 M	<0.015 M	<0.015 M	<0.015 M	<0.015 M
Phenols, Total Detected monohydric	<0.035 mg/kg	TM062 (S)		<0.035 M	<0.035 M	<0.035 M	<0.035 M	<0.035 M	<0.035 M
Soil Organic Matter (SOM)	<0.35 %	TM132		2.29 #	0.769 #	7.5 #	7.72 #	0.957 #	4.91 #
pH	1 pH Units	TM133		8.17 M	8.41 M	7.54 M	9.43 M	8.21 M	8.05 M
Chromium, Hexavalent	<0.6 mg/kg	TM151		<0.6 #	<0.6 #	<0.6 #	<0.6 #	<0.6 #	<0.6 #
Cyanide, Total	<1 mg/kg	TM153		<1 M	<1 M	1.94 M	<1 M	<1 M	<1 M
PCB congener 28	<3 µg/kg	TM168		<3 M	<3 M	<6 M	<15 M	<3 M	<3 M
PCB congener 52	<3 µg/kg	TM168		<3 M	<3 M	<6 M	<15 M	<3 M	<3 M
PCB congener 101	<3 µg/kg	TM168		<3 M	<3 M	<6 M	<15 M	<3 M	<3 M
PCB congener 118	<3 µg/kg	TM168		<3 M	<3 M	<6 M	<15 M	<3 M	<3 M
PCB congener 138	<3 µg/kg	TM168		<3 M	<3 M	<6 M	<15 M	<3 M	<3 M
PCB congener 153	<3 µg/kg	TM168		<3 M	<3 M	<6 M	<15 M	<3 M	<3 M
PCB congener 180	<3 µg/kg	TM168		<3 M	<3 M	<6 M	<15 M	<3 M	<3 M
Sum of detected PCB 7 Congeners	<21 µg/kg	TM168		<21	<21	<42	<105	<21	<21
Sulphide, Easily liberated	<15 mg/kg	TM180		<15 @ M	<15 @ M	99.2 @ M	163 @ M	<15 @ M	<15 M
Arsenic	<0.6 mg/kg	TM181		9.98 M	3.64 M	36.7 M	20 M	4.5 M	19.8 M
Beryllium	<0.01 mg/kg	TM181		0.977 M	0.221 M	0.804 M	0.964 M	0.439 M	0.918 M
Cadmium	<0.02 mg/kg	TM181		0.0232 M	0.0332 M	0.761 M	0.681 M	<0.02 M	1.12 M
Chromium	<0.9 mg/kg	TM181		11.1 M	0.914 M	15.4 M	13.2 M	7.75 M	20.9 M
Copper	<1.4 mg/kg	TM181		26.4 M	7.31 M	405 M	105 M	10.3 M	89.6 M
Lead	<0.7 mg/kg	TM181		160 M	13.5 M	695 M	191 M	11.7 M	231 M
Mercury	<0.1 mg/kg	TM181		<0.1 M	<0.1 M	0.138 M	<0.1 M	<0.1 M	<0.1 M
Nickel	<0.2 mg/kg	TM181		29.1 M	7.31 M	23 M	22.5 M	16.4 M	40.5 M
Selenium	<1 mg/kg	TM181		<1 #	<1 #	<1 #	1.21 #	<1 #	1.05 #
Vanadium	<0.2 mg/kg	TM181		24.9 #	5.52 #	19.6 #	30.6 #	12.1 #	26.9 #
Zinc	<1.9 mg/kg	TM181		66.9 M	18.6 M	258 M	257 M	27.4 M	399 M
Sulphate, Total	<48 mg/kg	TM221		298 M	55.2 M	4030 M	2750 M	137 M	849 M
Boron, water soluble	<1 mg/kg	TM222		3.22 M	1.41 M	2.23 M	4.31 M	<1 M	1.03 M
Water Soluble Sulphate as SO4 2:1 Extract	<0.004 g/l	TM243		0.104 M	0.0771 M	1.09 M	0.292 M	0.138 M	0.107 M
Asbestos Quantification - Gravimetric - %	<0.001 %	TM304				0.0603 #	<0.001 #		<0.001 #

Validated

CERTIFICATE OF ANALYSIS

SDG: 220408-74 **Report Number:** 643719 **Superseded Report:** 643031

Client Ref.: LD10385 **Location:** Ten Acres Lane

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	CP203	CP203	TP203	TP203	TP235	TP239
			Depth (m)	3.00 - 3.00	5.00 - 5.00	1.00 - 1.00	2.90 - 2.90	2.20 - 2.20	1.40 - 1.40
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	05/04/2022	05/04/2022	05/04/2022	05/04/2022	04/04/2022	06/04/2022
			Sample Time	12:00	13:00	12:00	13:00	12:00	12:00
			Date Received	08/04/2022	08/04/2022	08/04/2022	08/04/2022	08/04/2022	08/04/2022
			SDG Ref	220408-74	220408-74	220408-74	220408-74	220408-74	220408-74
			Lab Sample No.(s)	26104180	26104187	26104153	26104159	26104125	26104166
			AGS Reference						
Asbestos Quantification - PCOM Evaluation - %	<0.001 %	TM304				<0.001 #	<0.001 #		<0.001 #
Additional Asbestos Components (Using TM048)		TM304				None #	None #		None #
Analysts Comments		TM304				0	0		0
Asbestos Quantification - Total - %	<0.001 %	TM304				0.0607 #	<0.001 #		<0.001 #

CERTIFICATE OF ANALYSIS

SDG: 220408-74 **Report Number:** 643719 **Superseded Report:** 643031
Client Ref.: LD10385 **Location:** Ten Acres Lane

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4+§@ Sample deviation (see appendix)

		Customer Sample Ref.	TP253
		Depth (m)	3.80 - 3.80
		Sample Type	Soil/Solid (S)
		Date Sampled	04/04/2022
		Sample Time	13:00
		Date Received	08/04/2022
		SDG Ref	220408-74
		Lab Sample No.(s)	26104142
		AGS Reference	
Component	**LOD/Units**	**Method**	
Moisture Content Ratio (% of as received sample)	%	PM024	20
Phenol	<0.01 mg/kg	TM062 (S)	<0.01 M
Cresols	<0.01 mg/kg	TM062 (S)	0.0248 M
Xylenols	<0.015 mg/kg	TM062 (S)	<0.015 M
Phenols, Total Detected monohydric	<0.035 mg/kg	TM062 (S)	<0.035 M
Soil Organic Matter (SOM)	<0.35 %	TM132	5 #
pH	1 pH Units	TM133	7.57 M
Chromium, Hexavalent	<0.6 mg/kg	TM151	<0.6 #
Cyanide, Total	<1 mg/kg	TM153	53.4 M
PCB congener 28	<3 µg/kg	TM168	29.6 M
PCB congener 52	<3 µg/kg	TM168	17.2 M
PCB congener 101	<3 µg/kg	TM168	<15 M
PCB congener 118	<3 µg/kg	TM168	<15 M
PCB congener 138	<3 µg/kg	TM168	<15 M
PCB congener 153	<3 µg/kg	TM168	<15 M
PCB congener 180	<3 µg/kg	TM168	<15 M
Sum of detected PCB 7 Congeners	<21 µg/kg	TM168	<105
Sulphide, Easily liberated	<15 mg/kg	TM180	1340 @ M
Arsenic	<0.6 mg/kg	TM181	14.2 M
Beryllium	<0.01 mg/kg	TM181	0.677 M
Cadmium	<0.02 mg/kg	TM181	2.61 M
Chromium	<0.9 mg/kg	TM181	13.1 M
Copper	<1.4 mg/kg	TM181	144 M
Lead	<0.7 mg/kg	TM181	373 M
Mercury	<0.1 mg/kg	TM181	0.13 M
Nickel	<0.2 mg/kg	TM181	29.9 M
Selenium	<1 mg/kg	TM181	<1 #
Vanadium	<0.2 mg/kg	TM181	18.3 #
Zinc	<1.9 mg/kg	TM181	578 M
Sulphate, Total	<48 mg/kg	TM221	1680 M
Boron, water soluble	<1 mg/kg	TM222	1.78 M
Water Soluble Sulphate as SO4 2:1 Extract	<0.004 g/l	TM243	0.265 M

CERTIFICATE OF ANALYSIS

SDG: 220408-74 **Report Number:** 643719 **Superseded Report:** 643031

Client Ref.: LD10385 **Location:** Ten Acres Lane

PAH by GCMS

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	CP203	CP203	TP203	TP203	TP235	TP239
			Depth (m)	3.00 - 3.00	5.00 - 5.00	1.00 - 1.00	2.90 - 2.90	2.20 - 2.20	1.40 - 1.40
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	05/04/2022	05/04/2022	05/04/2022	05/04/2022	04/04/2022	06/04/2022
			Sample Time	12:00	13:00	12:00	13:00	12:00	12:00
			Date Received	08/04/2022	08/04/2022	08/04/2022	08/04/2022	08/04/2022	08/04/2022
			SDG Ref	220408-74	220408-74	220408-74	220408-74	220408-74	220408-74
			Lab Sample No.(s)	26104180	26104187	26104153	26104159	26104125	26104166
			AGS Reference						
Naphthalene-d8 % recovery**	%	TM218		75.8	92.1	85.4	88.7	91	87.7
Acenaphthene-d10 % recovery**	%	TM218		75.4	91.5	91.7	91.7	90.5	89.4
Phenanthrene-d10 % recovery**	%	TM218		77	93.4	93.5	92.8	90.9	92
Chrysene-d12 % recovery**	%	TM218		73.1	87.8	81.2	86.5	85.4	83.2
Perylene-d12 % recovery**	%	TM218		75.6	89.4	83.1	89.7	88.7	83.8
Naphthalene	<9 µg/kg	TM218		13.7 M	<9 M	374 M	376 M	<9 M	30.4 M
Acenaphthylene	<12 µg/kg	TM218		<12 M	<12 M	71.9 M	73.8 M	<12 M	21.1 M
Acenaphthene	<8 µg/kg	TM218		12.8 M	<8 M	807 M	444 M	<8 M	94.3 M
Fluorene	<10 µg/kg	TM218		13 M	<10 M	747 M	473 M	<10 M	66 M
Phenanthrene	<15 µg/kg	TM218		74.5 M	18.5 M	3820 M	2230 M	<15 M	831 M
Anthracene	<16 µg/kg	TM218		<16 M	<16 M	1390 M	1120 M	<16 M	225 M
Fluoranthene	<17 µg/kg	TM218		73.9 M	<17 M	5590 M	2060 M	21.8 M	1510 M
Pyrene	<15 µg/kg	TM218		71.7 M	19.8 M	5090 M	1820 M	20.5 M	1360 M
Benz(a)anthracene	<14 µg/kg	TM218		32.2 M	<14 M	2370 M	721 M	<14 M	651 M
Chrysene	<10 µg/kg	TM218		33.7 M	<10 M	2290 M	733 M	13.3 M	633 M
Benzo(b)fluoranthene	<15 µg/kg	TM218		36.9 M	<15 M	3030 M	879 M	18.4 M	801 M
Benzo(k)fluoranthene	<14 µg/kg	TM218		<14 M	<14 M	1000 M	294 M	<14 M	278 M
Benzo(a)pyrene	<15 µg/kg	TM218		25.8 M	<15 M	2230 M	636 M	<15 M	566 M
Indeno(1,2,3-cd)pyrene	<18 µg/kg	TM218		<18 M	<18 M	1420 M	433 M	<18 M	382 M
Dibenzo(a,h)anthracene	<23 µg/kg	TM218		<23 M	<23 M	265 M	<115 M	<23 M	67.2 M
Benzo(g,h,i)perylene	<24 µg/kg	TM218		<24 M	<24 M	1380 M	420 M	<24 M	354 M
PAH, Total Detected USEPA 16	<118 µg/kg	TM218		388	<118	31900	12700	<118	7870

CERTIFICATE OF ANALYSIS

SDG: 220408-74 **Report Number:** 643719 **Superseded Report:** 643031
Client Ref.: LD10385 **Location:** Ten Acres Lane

PAH by GCMS

Results Legend	
#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+§@	Sample deviation (see appendix)

Customer Sample Ref.	TP253
Depth (m)	3.80 - 3.80
Sample Type	Soil/Solid (S)
Date Sampled	04/04/2022
Sample Time	13:00
Date Received	08/04/2022
SDG Ref	220408-74
Lab Sample No.(s)	26104142
AGS Reference	

Component	LOD/Units	Method	
Naphthalene-d8 % recovery**	%	TM218	88.8
Acenaphthene-d10 % recovery**	%	TM218	90.1
Phenanthrene-d10 % recovery**	%	TM218	89.7
Chrysene-d12 % recovery**	%	TM218	76.9
Perylene-d12 % recovery**	%	TM218	74.7
Naphthalene	<9 µg/kg	TM218	285 M
Acenaphthylene	<12 µg/kg	TM218	6610 M
Acenaphthene	<8 µg/kg	TM218	1700 M
Fluorene	<10 µg/kg	TM218	6290 M
Phenanthrene	<15 µg/kg	TM218	55000 M
Anthracene	<16 µg/kg	TM218	16900 M
Fluoranthene	<17 µg/kg	TM218	61200 M
Pyrene	<15 µg/kg	TM218	46400 M
Benz(a)anthracene	<14 µg/kg	TM218	21600 M
Chrysene	<10 µg/kg	TM218	19200 M
Benzo(b)fluoranthene	<15 µg/kg	TM218	21900 M
Benzo(k)fluoranthene	<14 µg/kg	TM218	7990 M
Benzo(a)pyrene	<15 µg/kg	TM218	17100 M
Indeno(1,2,3-cd)pyrene	<18 µg/kg	TM218	10500 M
Dibenzo(a,h)anthracene	<23 µg/kg	TM218	1770 M
Benzo(g,h,i)perylene	<24 µg/kg	TM218	9060 M
PAH, Total Detected USEPA 16	<118 µg/kg	TM218	303000

CERTIFICATE OF ANALYSIS

SDG: 220408-74 **Report Number:** 643719 **Superseded Report:** 643031

Client Ref.: LD10385 **Location:** Ten Acres Lane

Semi Volatile Organic Compounds

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	CP203	TP203	TP203	TP235	TP239	TP253
			Depth (m)	3.00 - 3.00	1.00 - 1.00	2.90 - 2.90	2.20 - 2.20	1.40 - 1.40	3.80 - 3.80
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	05/04/2022	05/04/2022	05/04/2022	04/04/2022	06/04/2022	04/04/2022
			Sample Time	12:00	12:00	13:00	12:00	12:00	13:00
			Date Received	08/04/2022	08/04/2022	08/04/2022	08/04/2022	08/04/2022	08/04/2022
			SDG Ref	220408-74	220408-74	220408-74	220408-74	220408-74	220408-74
			Lab Sample No.(s)	26104180	26104153	26104159	26104125	26104166	26104142
			AGS Reference						
Phenol	<100 µg/kg	TM157		<100	<200	<500	<100	<200	<200
Pentachlorophenol	<100 µg/kg	TM157		<100	<200	<500	<100	<200	<200
n-Nitroso-n-dipropylamine	<100 µg/kg	TM157		<100	<200	<500	<100	<200	<200
Nitrobenzene	<100 µg/kg	TM157		<100	<200	<500	<100	<200	<200
Isophorone	<100 µg/kg	TM157		<100	<200	<500	<100	<200	<200
Hexachloroethane	<100 µg/kg	TM157		<100	<200	<500	<100	<200	<200
Hexachlorocyclopentadiene	<100 µg/kg	TM157		<200	<400	<1000	<200	<400	<400
Hexachlorobutadiene	<100 µg/kg	TM157		<100	<200	<500	<100	<200	<200
Hexachlorobenzene	<100 µg/kg	TM157		<100	<200	<500	<100	<200	<200
n-Dioctyl phthalate	<100 µg/kg	TM157		<100	<200	<500	<100	<200	<200
Dimethyl phthalate	<100 µg/kg	TM157		<100	<200	<500	<100	<200	<200
Diethyl phthalate	<100 µg/kg	TM157		<100	<200	<500	<100	<200	<200
n-Dibutyl phthalate	<100 µg/kg	TM157		<100	<200	<500	<100	<200	<200
Dibenzofuran	<100 µg/kg	TM157		<100	487	<500	<100	<200	<200
Carbazole	<100 µg/kg	TM157		<100	449	<500	<100	<200	<200
Butylbenzyl phthalate	<100 µg/kg	TM157		<100	<200	<500	<100	<200	<200
bis(2-Ethylhexyl) phthalate	<100 µg/kg	TM157		<100	<200	<500	<100	<200	<200
bis(2-Chloroethoxy)methane	<100 µg/kg	TM157		<100	<200	<500	<100	<200	<200
bis(2-Chloroethyl)ether	<100 µg/kg	TM157		<100	<200	<500	<100	<200	<200
Azobenzene	<100 µg/kg	TM157		<100	<200	<500	<100	<200	<200
4-Nitrophenol	<100 µg/kg	TM157		<100	<200	<500	<100	<200	<200
4-Nitroaniline	<100 µg/kg	TM157		<100	<200	<500	<100	<200	<200
4-Methylphenol	<100 µg/kg	TM157		<100	<200	<500	<100	<200	<200
4-Chlorophenylphenylether	<100 µg/kg	TM157		<100	<200	<500	<100	<200	<200
4-Chloroaniline	<100 µg/kg	TM157		<100	<200	<500	<100	<200	<200
4-Chloro-3-methylphenol	<100 µg/kg	TM157		<100	<200	<500	<100	<200	<200
4-Bromophenylphenylether	<100 µg/kg	TM157		<100	<200	<500	<100	<200	<200
3-Nitroaniline	<100 µg/kg	TM157		<100	<200	<500	<100	<200	<200
2-Nitrophenol	<100 µg/kg	TM157		<100	<200	<500	<100	<200	<200
2-Nitroaniline	<100 µg/kg	TM157		<100	<200	<500	<100	<200	<200
2-Methylphenol	<100 µg/kg	TM157		<100	<200	<500	<100	<200	<200
1,2,4-Trichlorobenzene	<100 µg/kg	TM157		<100	<200	<500	<100	<200	<200
2-Chlorophenol	<100 µg/kg	TM157		<100	<200	<500	<100	<200	<200

CERTIFICATE OF ANALYSIS

SDG: 220408-74 **Report Number:** 643719 **Superseded Report:** 643031
Client Ref.: LD10385 **Location:** Ten Acres Lane

Semi Volatile Organic Compounds

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4+§@ Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	CP203	TP203	TP203	TP235	TP239	TP253
			Depth (m)	3.00 - 3.00	1.00 - 1.00	2.90 - 2.90	2.20 - 2.20	1.40 - 1.40	3.80 - 3.80
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	05/04/2022	05/04/2022	05/04/2022	04/04/2022	06/04/2022	04/04/2022
			Sample Time	12:00	12:00	13:00	12:00	12:00	13:00
			Date Received	08/04/2022	08/04/2022	08/04/2022	08/04/2022	08/04/2022	08/04/2022
			SDG Ref	220408-74	220408-74	220408-74	220408-74	220408-74	220408-74
			Lab Sample No.(s)	26104180	26104153	26104159	26104125	26104166	26104142
			AGS Reference						
2,6-Dinitrotoluene	<100 µg/kg	TM157		<100	<200	<500	<100	<200	<200
2,4-Dinitrotoluene	<100 µg/kg	TM157		<100	<200	<500	<100	<200	<200
2,4-Dimethylphenol	<100 µg/kg	TM157		<100	<200	<500	<100	<200	<200
2,4-Dichlorophenol	<100 µg/kg	TM157		<100	<200	<500	<100	<200	<200
2,4,6-Trichlorophenol	<100 µg/kg	TM157		<100	<200	<500	<100	<200	<200
2,4,5-Trichlorophenol	<100 µg/kg	TM157		<100	<200	<500	<100	<200	<200
1,4-Dichlorobenzene	<100 µg/kg	TM157		<100	<200	<500	<100	<200	<200
1,3-Dichlorobenzene	<100 µg/kg	TM157		<100	<200	<500	<100	<200	<200
1,2-Dichlorobenzene	<100 µg/kg	TM157		<100	<200	<500	<100	<200	<200
2-Chloronaphthalene	<100 µg/kg	TM157		<100	<200	<500	<100	<200	<200
2-Methylnaphthalene	<100 µg/kg	TM157		<100	352	686	<100	<200	<200
Acenaphthylene	<100 µg/kg	TM157		<100	<200	<500	<100	<200	<200
Acenaphthene	<100 µg/kg	TM157		<100	782	818	<100	<200	494
Anthracene	<100 µg/kg	TM157		<100	1320	1080	<100	<200	403
Benzo(a)anthracene	<100 µg/kg	TM157		<100	2360	1480	<100	712	1370
Benzo(b)fluoranthene	<100 µg/kg	TM157		<100	1890	900	<100	504	1040
Benzo(k)fluoranthene	<100 µg/kg	TM157		<100	1680	1110	<100	521	937
Benzo(a)pyrene	<100 µg/kg	TM157		<100	2050	1110	<100	620	1160
Benzo(g,h,i)perylene	<100 µg/kg	TM157		<100	1400	775	<100	459	689
Chrysene	<100 µg/kg	TM157		<100	2190	1490	<100	682	1220
Fluoranthene	<100 µg/kg	TM157		<100	5250	3690	<100	1330	3190
Fluorene	<100 µg/kg	TM157		<100	724	826	<100	<200	<200
Indeno(1,2,3-cd)pyrene	<100 µg/kg	TM157		<100	2610	1410	<100	869	1280
Phenanthrene	<100 µg/kg	TM157		<100	4130	4190	<100	741	1390
Pyrene	<100 µg/kg	TM157		<100	4740	3240	<100	1190	2900
Naphthalene	<100 µg/kg	TM157		<100	450	715	<100	<200	<200
Dibenzo(a,h)anthracene	<100 µg/kg	TM157		<100	229	<500	<100	<200	<200
Bis(2-chloroisopropyl) ether	<100 µg/kg	TM157		<100	<200	<500	<100	<200	<200

Validated

CERTIFICATE OF ANALYSIS

SDG: 220408-74 **Report Number:** 643719 **Superseded Report:** 643031

Client Ref.: LD10385 **Location:** Ten Acres Lane

TPH CWG (S)

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	CP203	CP203	TP203	TP203	TP235	TP239
			Depth (m)	3.00 - 3.00	5.00 - 5.00	1.00 - 1.00	2.90 - 2.90	2.20 - 2.20	1.40 - 1.40
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	05/04/2022	05/04/2022	05/04/2022	05/04/2022	04/04/2022	06/04/2022
			Sample Time	12:00	13:00	12:00	13:00	12:00	12:00
			Date Received	08/04/2022	08/04/2022	08/04/2022	08/04/2022	08/04/2022	08/04/2022
			SDG Ref	220408-74	220408-74	220408-74	220408-74	220408-74	220408-74
			Lab Sample No.(s)	26104180	26104187	26104153	26104159	26104125	26104166
			AGS Reference						
GRO Surrogate % recovery**	%	TM089		96.4	109	93.1	97.4	111	95.7
Aliphatics >C5-C6 (HS_1D_AL)	<10 µg/kg	TM089		<10	<10	<10	25.5	<10	<10
Aliphatics >C6-C8 (HS_1D_AL)	<10 µg/kg	TM089		<10	<10	23.1	174	<10	<10
Aliphatics >C8-C10 (HS_1D_AL)	<10 µg/kg	TM089		<10	<10	48.4	1040	<10	<10
Aliphatics >C10-C12 (EH_2D_AL_#1)	<1000 µg/kg	TM414		<1000 #	<1000 #	5030 #	46300 #	<1000 #	<1000 #
Aliphatics >C12-C16 (EH_2D_AL_#1)	<1000 µg/kg	TM414		<1000 #	<1000 #	33200 #	179000 #	<1000 #	2120 #
Aliphatics >C16-C21 (EH_2D_AL_#1)	<1000 µg/kg	TM414		<1000 #	<1000 #	77900 #	209000 #	<1000 #	11400 #
Aliphatics >C21-C35 (EH_2D_AL_#1)	<1000 µg/kg	TM414		<1000 #	<1000 #	270000 #	701000 #	<1000 #	101000 #
Aliphatics >C35-C44 (EH_2D_AL_#1)	<1000 µg/kg	TM414		<1000	<1000	49600	356000	<1000	11300
Total Aliphatics >C10-C44 (EH_2D_AR_#1)	<5000 µg/kg	TM414		<5000	<5000	435000	1490000	<5000	126000
Total Aliphatics & Aromatics >C10-C44 (EH_2D_Total_#1)	<10000 µg/kg	TM414		<10000	<10000	670000	2430000	<10000	303000
Aromatics >EC5-EC7 (HS_1D_AR)	<10 µg/kg	TM089		<10	<10	<10	<10	<10	<10
Aromatics >EC7-EC8 (HS_1D_AR)	<10 µg/kg	TM089		<10	<10	<10	<10	<10	<10
Aromatics >EC8-EC10 (HS_1D_AR)	<10 µg/kg	TM089		<10	<10	31.9	693	<10	<10
Aromatics > EC10-EC12 (EH_2D_AR_#1)	<1000 µg/kg	TM414		<1000 #	<1000 #	4360 #	9880 #	<1000 #	<1000 #
Aromatics > EC12-EC16 (EH_2D_AR_#1)	<1000 µg/kg	TM414		<1000 #	<1000 #	15400 #	88000 #	<1000 #	4970 #
Aromatics > EC16-EC21 (EH_2D_AR_#1)	<1000 µg/kg	TM414		1080 #	<1000 #	43700 #	110000 #	<1000 #	50200 #
Aromatics > EC21-EC35 (EH_2D_AR_#1)	<1000 µg/kg	TM414		<1000 #	<1000 #	168000 #	667000 #	<1000 #	111000 #
Aromatics >EC35-EC44 (EH_2D_AR_#1)	<1000 µg/kg	TM414		<1000	<1000	3340	62100	<1000	11300
Aromatics > EC40-EC44 (EH_2D_AR_#1)	<1000 µg/kg	TM414		<1000	<1000	1550	44400	<1000	2540
Total Aromatics > EC10-EC44 (EH_2D_AR_#1)	<5000 µg/kg	TM414		<5000	<5000	235000	937000	<5000	178000
Total Aliphatics & Aromatics >C5-C44 (EH_2D_Total_#1+HS_1D_Total)	<10000 µg/kg	TM414		<10000	<10000	670000	2430000	<10000	303000
Total Aliphatics >C5-C10 (HS_1D_AL_TOTAL)	<50 µg/kg	TM089		<50	<50	71.5	1240	<50	<50
Total Aromatics >EC5-EC10 (HS_1D_AR_TOTAL)	<50 µg/kg	TM089		<50	<50	<50	693	<50	<50
GRO >C5-C10 (HS_1D_TOTAL)	<20 µg/kg	TM089		<20	<20	71.5	1930	<20	<20

CERTIFICATE OF ANALYSIS

SDG: 220408-74 **Report Number:** 643719 **Superseded Report:** 643031
Client Ref.: LD10385 **Location:** Ten Acres Lane

TPH CWG (S)

Results Legend	
#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+§@	Sample deviation (see appendix)

Customer Sample Ref.	TP253
Depth (m)	3.80 - 3.80
Sample Type	Soil/Solid (S)
Date Sampled	04/04/2022
Sample Time	13:00
Date Received	08/04/2022
SDG Ref	220408-74
Lab Sample No.(s)	26104142
AGS Reference	

Component	LOD/Units	Method	
GRO Surrogate % recovery**	%	TM089	85.2
Aliphatics >C5-C6 (HS_1D_AL)	<10 µg/kg	TM089	13.6
Aliphatics >C6-C8 (HS_1D_AL)	<10 µg/kg	TM089	57
Aliphatics >C8-C10 (HS_1D_AL)	<10 µg/kg	TM089	109
Aliphatics >C10-C12 (EH_2D_AL_#1)	<1000 µg/kg	TM414	1540 #
Aliphatics >C12-C16 (EH_2D_AL_#1)	<1000 µg/kg	TM414	3180 #
Aliphatics >C16-C21 (EH_2D_AL_#1)	<1000 µg/kg	TM414	12800 #
Aliphatics >C21-C35 (EH_2D_AL_#1)	<1000 µg/kg	TM414	111000 #
Aliphatics >C35-C44 (EH_2D_AL_#1)	<1000 µg/kg	TM414	25700
Total Aliphatics >C10-C44 (EH_2D_AR_#1)	<5000 µg/kg	TM414	154000
Total Aliphatics & Aromatics >C10-C44 (EH_2D_Total_#1)	<10000 µg/kg	TM414	218000
Aromatics >EC5-EC7 (HS_1D_AR)	<10 µg/kg	TM089	<10
Aromatics >EC7-EC8 (HS_1D_AR)	<10 µg/kg	TM089	<10
Aromatics >EC8-EC10 (HS_1D_AR)	<10 µg/kg	TM089	73.2
Aromatics > EC10-EC12 (EH_2D_AR_#1)	<1000 µg/kg	TM414	<1000 #
Aromatics > EC12-EC16 (EH_2D_AR_#1)	<1000 µg/kg	TM414	4310 #
Aromatics > EC16-EC21 (EH_2D_AR_#1)	<1000 µg/kg	TM414	16300 #
Aromatics > EC21-EC35 (EH_2D_AR_#1)	<1000 µg/kg	TM414	39700 #
Aromatics >EC35-EC44 (EH_2D_AR_#1)	<1000 µg/kg	TM414	3200
Aromatics > EC40-EC44 (EH_2D_AR_#1)	<1000 µg/kg	TM414	1440
Total Aromatics > EC10-EC44 (EH_2D_AR_#1)	<5000 µg/kg	TM414	64000
Total Aliphatics & Aromatics >C5-C44 (EH_2D_Total_#1+HS_1D_Total)	<10000 µg/kg	TM414	218000
Total Aliphatics >C5-C10 (HS_1D_AL_TOTAL)	<50 µg/kg	TM089	180
Total Aromatics >EC5-EC10 (HS_1D_AR_TOTAL)	<50 µg/kg	TM089	73.2
GRO >C5-C10 (HS_1D_TOTAL)	<20 µg/kg	TM089	253

CERTIFICATE OF ANALYSIS

SDG: 220408-74 **Report Number:** 643719 **Superseded Report:** 643031

Client Ref.: LD10385 **Location:** Ten Acres Lane

VOC MS (S)

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	CP203	CP203	TP203	TP203	TP235	TP239
			Depth (m)	3.00 - 3.00	5.00 - 5.00	1.00 - 1.00	2.90 - 2.90	2.20 - 2.20	1.40 - 1.40
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	05/04/2022	05/04/2022	05/04/2022	05/04/2022	04/04/2022	06/04/2022
			Sample Time	12:00	13:00	12:00	13:00	12:00	12:00
			Date Received	08/04/2022	08/04/2022	08/04/2022	08/04/2022	08/04/2022	08/04/2022
			SDG Ref	220408-74	220408-74	220408-74	220408-74	220408-74	220408-74
			Lab Sample No.(s)	26104180	26104187	26104153	26104159	26104125	26104166
			AGS Reference						
Dibromofluoromethane**	%	TM116		116	118	111	110	109	111
Toluene-d8**	%	TM116		98.2	90.6	101	103	95.5	104
4-Bromofluorobenzene**	%	TM116		94.8	72.8	74.3	76.7	79.2	76
Dichlorodifluoromethane	<6 µg/kg	TM116		<1200 #		<120 #	<60 #	<6 #	<60 #
Chloromethane	<7 µg/kg	TM116		<1400 #		<140 #	<70 #	<7 #	<70 #
Vinyl Chloride	<6 µg/kg	TM116		<1200 @ M		<120 @ M	<60 @ M	<6 M	<60 M
Bromomethane	<10 µg/kg	TM116		<2000 M		<200 M	<100 M	<10 M	<100 M
Chloroethane	<10 µg/kg	TM116		<2000 M		<200 M	<100 M	<10 M	<100 M
Trichlorofluorormethane	<6 µg/kg	TM116		<1200 M		<120 M	<60 M	<6 M	<60 M
1,1-Dichloroethene	<10 µg/kg	TM116		<2000 #		<200 #	<100 #	<10 #	<100 #
Carbon Disulphide	<7 µg/kg	TM116		<1400 M		<140 M	<70 M	<7 M	<70 M
Dichloromethane	<10 µg/kg	TM116		<2000 #		<200 #	<100 #	<10 #	<100 #
Methyl Tertiary Butyl Ether	<10 µg/kg	TM116		<2000 M	<10 M	<200 M	<100 M	<10 M	<100 M
trans-1,2-Dichloroethene	<10 µg/kg	TM116		<2000 M		<200 M	<100 M	<10 M	<100 M
1,1-Dichloroethane	<8 µg/kg	TM116		<1600 M		<160 M	<80 M	<8 M	<80 M
cis-1,2-Dichloroethene	<6 µg/kg	TM116		<1200 M		<120 M	<60 M	<6 M	<60 M
2,2-Dichloropropane	<10 µg/kg	TM116		<2000		<200	<100	<10	<100
Bromochloromethane	<10 µg/kg	TM116		<2000 M		<200 M	<100 M	<10 M	<100 M
Chloroform	<8 µg/kg	TM116		<1600 M		<160 M	<80 M	<8 M	<80 M
1,1,1-Trichloroethane	<7 µg/kg	TM116		<1400 M		<140 M	<70 M	<7 M	<70 M
1,1-Dichloropropene	<10 µg/kg	TM116		<2000 M		<200 M	<100 M	<10 M	<100 M
Carbontetrachloride	<10 µg/kg	TM116		<2000 M		<200 M	<100 M	<10 M	<100 M
1,2-Dichloroethane	<5 µg/kg	TM116		<1000 M		<100 M	<50 M	<5 M	<50 M
Benzene	<9 µg/kg	TM116		<1800 M	41.5 M	<180 M	<90 M	<9 M	<90 M
Trichloroethene	<9 µg/kg	TM116		<1800 #		<180 #	<90 #	<9 #	<90 #
1,2-Dichloropropane	<10 µg/kg	TM116		<2000 M		<200 M	<100 M	<10 M	<100 M
Dibromomethane	<9 µg/kg	TM116		<1800 M		<180 M	<90 M	<9 M	<90 M
Bromodichloromethane	<7 µg/kg	TM116		<1400 M		<140 M	<70 M	<7 M	<70 M
cis-1,3-Dichloropropene	<10 µg/kg	TM116		<2000 M		<200 M	<100 M	<10 M	<100 M
Toluene	<7 µg/kg	TM116		<1400 M	50.7 M	<140 M	<70 M	<7 M	<70 M
trans-1,3-Dichloropropene	<10 µg/kg	TM116		<2000		<200	<100	<10	<100
1,1,2-Trichloroethane	<10 µg/kg	TM116		<2000 M		<200 M	<100 M	<10 M	<100 M
1,3-Dichloropropane	<7 µg/kg	TM116		<1400 M		<140 M	<70 M	<7 M	<70 M

CERTIFICATE OF ANALYSIS

SDG: 220408-74 **Report Number:** 643719 **Superseded Report:** 643031

Client Ref.: LD10385 **Location:** Ten Acres Lane

VOC MS (S)

Results Legend

- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4+§@ Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	CP203	CP203	TP203	TP203	TP235	TP239
			Depth (m)	3.00 - 3.00	5.00 - 5.00	1.00 - 1.00	2.90 - 2.90	2.20 - 2.20	1.40 - 1.40
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	05/04/2022	05/04/2022	05/04/2022	05/04/2022	04/04/2022	06/04/2022
			Sample Time	12:00	13:00	12:00	13:00	12:00	12:00
			Date Received	08/04/2022	08/04/2022	08/04/2022	08/04/2022	08/04/2022	08/04/2022
			SDG Ref	220408-74	220408-74	220408-74	220408-74	220408-74	220408-74
			Lab Sample No.(s)	26104180	26104187	26104153	26104159	26104125	26104166
			AGS Reference						
Tetrachloroethene	<5 µg/kg	TM116		<1000 M		<100 M	<50 M	<5 M	<50 M
Dibromochloromethane	<10 µg/kg	TM116		<2000 M		<200 M	<100 M	<10 M	<100 M
1,2-Dibromoethane	<10 µg/kg	TM116		<2000 M		<200 M	<100 M	<10 M	<100 M
Chlorobenzene	<5 µg/kg	TM116		<1000 M		<100 M	<50 M	<5 M	<50 M
1,1,1,2-Tetrachloroethane	<10 µg/kg	TM116		<2000 M		<200 M	<100 M	<10 M	<100 M
Ethylbenzene	<4 µg/kg	TM116		<800 M	<4 M	<80 M	<40 M	<4 M	<40 M
p/m-Xylene	<10 µg/kg	TM116		<2000 #	<10 #	<200 #	<100 #	<10 #	<100 #
o-Xylene	<10 µg/kg	TM116		<2000 M	<10 M	<200 M	<100 M	<10 M	<100 M
Styrene	<10 µg/kg	TM116		<2000 @ #		<200 @ #	<100 @ #	<10 #	<100 #
Bromoform	<10 µg/kg	TM116		<2000 M		<200 M	<100 M	<10 M	<100 M
Isopropylbenzene	<5 µg/kg	TM116		<1000 #		<100 #	<50 #	<5 #	<50 #
1,1,2,2-Tetrachloroethane	<10 µg/kg	TM116		<2000 #		<200 #	<100 #	<10 #	<100 #
1,2,3-Trichloropropane	<16 µg/kg	TM116		<3200 M		<320 M	<160 M	<16 M	<160 M
Bromobenzene	<10 µg/kg	TM116		<2000 M		<200 M	<100 M	<10 M	<100 M
Propylbenzene	<10 µg/kg	TM116		<2000 M		<200 M	<100 M	<10 M	<100 M
2-Chlorotoluene	<9 µg/kg	TM116		<1800 M		<180 M	<90 M	<9 M	<90 M
1,3,5-Trimethylbenzene	<8 µg/kg	TM116		<1600 M		<160 M	<80 M	<8 M	<80 M
4-Chlorotoluene	<10 µg/kg	TM116		<2000 M		<200 M	<100 M	<10 M	<100 M
tert-Butylbenzene	<14 µg/kg	TM116		<2800 #		<280 #	<140 #	<14 #	<140 #
1,2,4-Trimethylbenzene	<9 µg/kg	TM116		<1800 #		<180 #	<90 #	<9 #	<90 #
sec-Butylbenzene	<10 µg/kg	TM116		<2000		<200	<100	<10	<100
4-Isopropyltoluene	<10 µg/kg	TM116		<2000		<200	<100	<10	<100
1,3-Dichlorobenzene	<8 µg/kg	TM116		<1600 M		<160 M	<80 M	<8 M	<80 M
1,4-Dichlorobenzene	<5 µg/kg	TM116		<1000 M		<100 M	<50 M	<5 M	<50 M
n-Butylbenzene	<11 µg/kg	TM116		<2200		<220	<110	<11	<110
1,2-Dichlorobenzene	<10 µg/kg	TM116		<2000 M		<200 M	<100 M	<10 M	<100 M
1,2-Dibromo-3-chloropropane	<14 µg/kg	TM116		<2800 M		<280 3 M	<140 3 M	<14 M	<140 3 M
Tert-amyl methyl ether	<10 µg/kg	TM116		<2000 #		<200 #	<100 #	<10 #	<100 #
1,2,4-Trichlorobenzene	<20 µg/kg	TM116		<4000		<400	<200	<20	<200
Hexachlorobutadiene	<20 µg/kg	TM116		<4000		<400	<200	<20	<200
Naphthalene	<13 µg/kg	TM116		<2600 M		<260 M	533 M	<13 M	<130 M
1,2,3-Trichlorobenzene	<20 µg/kg	TM116		<4000 #		<400 3 #	<200 3 #	<20 #	<200 3 #
1,3,5-Trichlorobenzene	<20 µg/kg	TM116		<4000		<400	<200	<20	<200

Validated

CERTIFICATE OF ANALYSIS

SDG: 220408-74 **Report Number:** 643719 **Superseded Report:** 643031

Client Ref.: LD10385 **Location:** Ten Acres Lane

VOC MS (S)

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+§@	Sample deviation (see appendix)

Customer Sample Ref.	CP203	CP203	TP203	TP203	TP235	TP239
Depth (m)	3.00 - 3.00	5.00 - 5.00	1.00 - 1.00	2.90 - 2.90	2.20 - 2.20	1.40 - 1.40
Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
Date Sampled	05/04/2022	05/04/2022	05/04/2022	05/04/2022	04/04/2022	06/04/2022
Sample Time	12:00	13:00	12:00	13:00	12:00	12:00
Date Received	08/04/2022	08/04/2022	08/04/2022	08/04/2022	08/04/2022	08/04/2022
SDG Ref	220408-74	220408-74	220408-74	220408-74	220408-74	220408-74
Lab Sample No.(s)	26104180	26104187	26104153	26104159	26104125	26104166
AGS Reference						

Component	LOD/Units	Method						
Sum of Detected Xylenes	<0.02 mg/kg	TM116	<4	<0.02	<0.4	<0.2	<0.02	<0.2
Sum of BTEX	<40 µg/kg	TM116	<8000	92.1	<800	<400	<40	<400

CERTIFICATE OF ANALYSIS

SDG: 220408-74 **Report Number:** 643719 **Superseded Report:** 643031
Client Ref.: LD10385 **Location:** Ten Acres Lane

VOC MS (S)

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4+§@ Sample deviation (see appendix)

Customer Sample Ref.	TP253
Depth (m)	3.80 - 3.80
Sample Type	Soil/Solid (S)
Date Sampled	04/04/2022
Sample Time	13:00
Date Received	08/04/2022
SDG Ref	220408-74
Lab Sample No.(s)	26104142
AGS Reference	

Component	LOD/Units	Method	
Dibromofluoromethane**	%	TM116	114
Toluene-d8**	%	TM116	97.8
4-Bromofluorobenzene**	%	TM116	89.1
Dichlorodifluoromethane	<6 µg/kg	TM116	<60 #
Chloromethane	<7 µg/kg	TM116	<70 #
Vinyl Chloride	<6 µg/kg	TM116	<60 @ M
Bromomethane	<10 µg/kg	TM116	<100 M
Chloroethane	<10 µg/kg	TM116	<100 M
Trichlorofluorormethane	<6 µg/kg	TM116	<60 M
1,1-Dichloroethene	<10 µg/kg	TM116	<100 #
Carbon Disulphide	<7 µg/kg	TM116	<70 M
Dichloromethane	<10 µg/kg	TM116	<100 #
Methyl Tertiary Butyl Ether	<10 µg/kg	TM116	<100 M
trans-1,2-Dichloroethene	<10 µg/kg	TM116	<100 M
1,1-Dichloroethane	<8 µg/kg	TM116	<80 M
cis-1,2-Dichloroethene	<6 µg/kg	TM116	<60 M
2,2-Dichloropropane	<10 µg/kg	TM116	<100
Bromochloromethane	<10 µg/kg	TM116	<100 M
Chloroform	<8 µg/kg	TM116	<80 M
1,1,1-Trichloroethane	<7 µg/kg	TM116	<70 M
1,1-Dichloropropene	<10 µg/kg	TM116	<100 M
Carbontetrachloride	<10 µg/kg	TM116	<100 M
1,2-Dichloroethane	<5 µg/kg	TM116	<50 M
Benzene	<9 µg/kg	TM116	<90 M
Trichloroethene	<9 µg/kg	TM116	<90 #
1,2-Dichloropropane	<10 µg/kg	TM116	<100 M
Dibromomethane	<9 µg/kg	TM116	<90 M
Bromodichloromethane	<7 µg/kg	TM116	<70 M
cis-1,3-Dichloropropene	<10 µg/kg	TM116	<100 M
Toluene	<7 µg/kg	TM116	<70 M
trans-1,3-Dichloropropene	<10 µg/kg	TM116	<100
1,1,2-Trichloroethane	<10 µg/kg	TM116	<100 M
1,3-Dichloropropane	<7 µg/kg	TM116	<70 M

CERTIFICATE OF ANALYSIS

SDG: 220408-74 **Report Number:** 643719 **Superseded Report:** 643031
Client Ref.: LD10385 **Location:** Ten Acres Lane

VOC MS (S)

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+§@	Sample deviation (see appendix)

Customer Sample Ref.	TP253
Depth (m)	3.80 - 3.80
Sample Type	Soil/Solid (S)
Date Sampled	04/04/2022
Sample Time	13:00
Date Received	08/04/2022
SDG Ref	220408-74
Lab Sample No.(s)	26104142
AGS Reference	

Component	LOD/Units	Method	
Tetrachloroethene	<5 µg/kg	TM116	<50 M
Dibromochloromethane	<10 µg/kg	TM116	<100 M
1,2-Dibromoethane	<10 µg/kg	TM116	<100 M
Chlorobenzene	<5 µg/kg	TM116	<50 M
1,1,1,2-Tetrachloroethane	<10 µg/kg	TM116	<100 M
Ethylbenzene	<4 µg/kg	TM116	<40 M
p/m-Xylene	<10 µg/kg	TM116	<100 #
o-Xylene	<10 µg/kg	TM116	<100 M
Styrene	<10 µg/kg	TM116	<100 @ #
Bromoform	<10 µg/kg	TM116	<100 M
Isopropylbenzene	<5 µg/kg	TM116	<50 #
1,1,2,2-Tetrachloroethane	<10 µg/kg	TM116	<100 #
1,2,3-Trichloropropane	<16 µg/kg	TM116	<160 M
Bromobenzene	<10 µg/kg	TM116	<100 M
Propylbenzene	<10 µg/kg	TM116	<100 M
2-Chlorotoluene	<9 µg/kg	TM116	<90 M
1,3,5-Trimethylbenzene	<8 µg/kg	TM116	<80 M
4-Chlorotoluene	<10 µg/kg	TM116	<100 M
tert-Butylbenzene	<14 µg/kg	TM116	<140 #
1,2,4-Trimethylbenzene	<9 µg/kg	TM116	<90 #
sec-Butylbenzene	<10 µg/kg	TM116	<100
4-Isopropyltoluene	<10 µg/kg	TM116	<100
1,3-Dichlorobenzene	<8 µg/kg	TM116	<80 M
1,4-Dichlorobenzene	<5 µg/kg	TM116	<50 M
n-Butylbenzene	<11 µg/kg	TM116	<110
1,2-Dichlorobenzene	<10 µg/kg	TM116	<100 M
1,2-Dibromo-3-chloropropane	<14 µg/kg	TM116	<140 M
Tert-amyl methyl ether	<10 µg/kg	TM116	<100 #
1,2,4-Trichlorobenzene	<20 µg/kg	TM116	<200
Hexachlorobutadiene	<20 µg/kg	TM116	<200
Naphthalene	<13 µg/kg	TM116	<130 M
1,2,3-Trichlorobenzene	<20 µg/kg	TM116	<200 #
1,3,5-Trichlorobenzene	<20 µg/kg	TM116	<200

CERTIFICATE OF ANALYSIS

SDG: 220408-74 **Report Number:** 643719 **Superseded Report:** 643031
Client Ref.: LD10385 **Location:** Ten Acres Lane

VOC MS (S)

Results Legend	
#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+§@	Sample deviation (see appendix)

Customer Sample Ref.	TP253
Depth (m)	3.80 - 3.80
Sample Type	Soil/Solid (S)
Date Sampled	04/04/2022
Sample Time	13:00
Date Received	08/04/2022
SDG Ref	220408-74
Lab Sample No.(s)	26104142
AGS Reference	

Component	LOD/Units	Method	
Sum of Detected Xylenes	<0.02 mg/kg	TM116	<0.2
Sum of BTEX	<40 µg/kg	TM116	<400

CERTIFICATE OF ANALYSIS

SDG: 220408-74 **Report Number:** 643719 **Superseded Report:** 643031
Client Ref.: LD10385 **Location:** Ten Acres Lane

Asbestos Identification - Solid Samples

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
*	Subcontracted test.
(F)	Trigger breach confirmed
1-5&♦$@	Sample deviation (see appendix)

		Date of Analysis	Analysed By	Comments	Amosite (Brown) Asbestos	Asbestos Actinolite	Asbestos Anthophyllite	Asbestos Tremolite	Chrysotile (White) Asbestos	Crocidolite (Blue) Asbestos	Non-Asbestos Fibre
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	CP203 3.00 - 3.00 SOLID 05/04/2022 00:00:00 08/04/2022 05:00:00 220408-74 26104180 TM048	14/04/2022	Paul Poynton	N/A	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	CP203 5.00 - 5.00 SOLID 05/04/2022 00:00:00 08/04/2022 05:00:00 220408-74 26104187 TM048	14/04/2022	Paul Poynton	N/A	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	TP203 1.00 - 1.00 SOLID 05/04/2022 00:00:00 08/04/2022 05:00:00 220408-74 26104153 TM048	14/04/2022	Emily Anderton	Fibre bundle in soil	Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	TP203 2.90 - 2.90 SOLID 05/04/2022 00:00:00 08/04/2022 05:00:00 220408-74 26104159 TM048	14/04/2022	Emily Anderton	ACM debris in soil	Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	TP235 2.20 - 2.20 SOLID 04/04/2022 00:00:00 08/04/2022 05:00:00 220408-74 26104125 TM048	14/04/2022	Emily Anderton	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	TP239 1.40 - 1.40 SOLID 06/04/2022 00:00:00 08/04/2022 05:00:00 220408-74 26104166 TM048	14/04/2022	Emily Anderton	Fibre bundle in soil	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	TP253 3.80 - 3.80 SOLID 04/04/2022 00:00:00 08/04/2022 05:00:00 220408-74 26104142 TM048	14/04/2022	Emily Anderton	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected

CERTIFICATE OF ANALYSIS

SDG: 220408-74 **Report Number:** 643719 **Superseded Report:** 643031
Client Ref.: LD10385 **Location:** Ten Acres Lane

Asbestos Quantification - Full

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
*	Subcontracted test.
(F)	Trigger breach confirmed
1-5&♦$@	Sample deviation (see appendix)

		Additional Asbestos Components	Analysts Comments	Asbestos Quantification - Gravimetric - %	Asbestos Quantification - PCOM	Asbestos Quantification - Total - %
Cust. Sample Ref.	TP203	None (#)	-	0.0603 (#)	<0.001 (#)	0.0607 (#)
Depth (m)	1.00 - 1.00					
Sample Type	SOLID					
Date Sampled	05/04/2022 00:00:00					
Date Received	08/04/2022 05:00:00					
SDG	220408-74					
Original Sample	26104153					
Method Number	TM304					
Cust. Sample Ref.	TP203	None (#)	-	<0.001 (#)	<0.001 (#)	<0.001 (#)
Depth (m)	2.90 - 2.90					
Sample Type	SOLID					
Date Sampled	05/04/2022 00:00:00					
Date Received	08/04/2022 05:00:00					
SDG	220408-74					
Original Sample	26104159					
Method Number	TM304					
Cust. Sample Ref.	TP239	None (#)	-	<0.001 (#)	<0.001 (#)	<0.001 (#)
Depth (m)	1.40 - 1.40					
Sample Type	SOLID					
Date Sampled	06/04/2022 00:00:00					
Date Received	08/04/2022 05:00:00					
SDG	220408-74					
Original Sample	26104166					
Method Number	TM304					

Table of Results - Appendix

Method No	Reference	Description
PM024	Modified BS 1377	Soil preparation including homogenisation, moisture screens of soils for Asbestos Containing Material
TM048	HSG 248, Asbestos: The analysts' guide for sampling, analysis and clearance procedures	Identification of Asbestos in Bulk Material
TM062 (S)	National Grid Property Holdings Methods for the Collection & Analysis of Samples from National Grid Sites version 1 Sec 3.9	Determination of Phenols in Soils by HPLC
TM089	Modified: US EPA Methods 8020 & 602	Determination of Gasoline Range Hydrocarbons (GRO) by Headspace GC-FID (C4-C12)
TM116	Modified: US EPA Method 8260, 8120, 8020, 624, 610 & 602	Determination of Volatile Organic Compounds by Headspace / GC-MS
TM132	In - house Method	ELTRA CS800 Operators Guide
TM133	BS 1377: Part 3 1990;BS 6068-2.5	Determination of pH in Soil and Water using the GLpH pH Meter
TM151	Method 3500D, AWWA/APHA, 20th Ed., 1999	Determination of Hexavalent Chromium using Kone analyser
TM153	Method 4500A,B,C, I, M AWWA/APHA, 20th Ed., 1999	Determination of Total Cyanide, Free (Easily Liberatable) Cyanide and Thiocyanate using the Skalar SANS+ System Segmented Flow Analyser
TM157	HP 6890 Gas Chromatograph (GC) system and HP 5973 Mass Selective Detector (MSD).	Determination of SVOC in Soils by GC-MS extracted by sonication in DCM/Acetone
TM168	EPA Method 8082, Polychlorinated Biphenyls by Gas Chromatography	Determination of WHO12 and EC7 Polychlorinated Biphenyl Congeners by GC-MS in Soils
TM180	Sulphide in waters and waste waters 1991 ISBN 01 175 7186 SCA rec. 2007 (unpublished)'	The Determination Of Easily Liberated Sulphide In Soil Samples by Ion Selective Electrode Technique
TM181	US EPA Method 6010B	Determination of Routine Metals in Soil by iCap 6500 Duo ICP-OES
TM218	Shaker extraction - EPA method 3546.	The determination of PAH in soil samples by GC-MS
TM221	Inductively Coupled Plasma - Atomic Emission Spectroscopy. An Atlas of Spectral Information: Winge, Fassel, Peterson and Floyd	Determination of Acid Extractable Sulphate in Soils by ICP OES
TM222	In-House Method	Determination of Hot Water Soluble Boron in Soils (10:1 Water:Soil) by ICP OES.
TM243		Mixed Anions In Soils By Kone
TM304	HSE Contract research Report no 83/1996	Asbestos Quantification in Soil: Fibres identified by morphology only
TM414	Analysis of Petroleum Hydrocarbons in Environmental Media – Total Petroleum Hydrocarbon Criteria	Determination of Speciated Extractable Petroleum Hydrocarbons in Soils by GCxGC-FID

NA = not applicable.

Chemical testing (unless subcontracted) performed at ALS Life Sciences Ltd Hawarden.

CERTIFICATE OF ANALYSIS

SDG: 220408-74 **Report Number:** 643719 **Superseded Report:** 643031
Client Ref.: LD10385 **Location:** Ten Acres Lane

Test Completion Dates

Lab Sample No(s)	26104180	26104187	26104153	26104159	26104125	26104166	26104142
Customer Sample Ref.	CP203	CP203	TP203	TP203	TP235	TP239	TP253
AGS Ref.							
Depth	3.00 - 3.00	5.00 - 5.00	1.00 - 1.00	2.90 - 2.90	2.20 - 2.20	1.40 - 1.40	3.80 - 3.80
Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
Anions by Kone (soil)	14-Apr-2022	14-Apr-2022	14-Apr-2022	14-Apr-2022	14-Apr-2022	14-Apr-2022	19-Apr-2022
Asbestos ID in Solid Samples	14-Apr-2022	14-Apr-2022	14-Apr-2022	14-Apr-2022	14-Apr-2022	14-Apr-2022	14-Apr-2022
Asbestos Quantification - Full			26-Apr-2022	25-Apr-2022		25-Apr-2022	
Boron Water Soluble	14-Apr-2022	14-Apr-2022	14-Apr-2022	14-Apr-2022	14-Apr-2022	14-Apr-2022	14-Apr-2022
Cyanide Comp/Free/Total/Thiocyanate	14-Apr-2022	20-Apr-2022	14-Apr-2022	20-Apr-2022	20-Apr-2022	20-Apr-2022	20-Apr-2022
Easily Liberated Sulphide	12-Apr-2022	12-Apr-2022	12-Apr-2022	12-Apr-2022	12-Apr-2022	12-Apr-2022	12-Apr-2022
EPH CWG GC (S)	13-Apr-2022	13-Apr-2022	13-Apr-2022	13-Apr-2022	13-Apr-2022	13-Apr-2022	13-Apr-2022
GRO by GC-FID (S)	19-Apr-2022	19-Apr-2022	12-Apr-2022	12-Apr-2022	19-Apr-2022	12-Apr-2022	12-Apr-2022
Hexavalent Chromium (s)	20-Apr-2022	19-Apr-2022	20-Apr-2022	20-Apr-2022	20-Apr-2022	20-Apr-2022	20-Apr-2022
Metals in solid samples by OES	19-Apr-2022	20-Apr-2022	20-Apr-2022	19-Apr-2022	20-Apr-2022	19-Apr-2022	13-Apr-2022
PAH by GCMS	13-Apr-2022	13-Apr-2022	13-Apr-2022	13-Apr-2022	13-Apr-2022	13-Apr-2022	13-Apr-2022
PCBs by GCMS	13-Apr-2022	13-Apr-2022	13-Apr-2022	13-Apr-2022	19-Apr-2022	13-Apr-2022	13-Apr-2022
pH	19-Apr-2022	19-Apr-2022	19-Apr-2022	19-Apr-2022	19-Apr-2022	19-Apr-2022	19-Apr-2022
Phenols by HPLC (S)	14-Apr-2022	14-Apr-2022	14-Apr-2022	14-Apr-2022	13-Apr-2022	19-Apr-2022	13-Apr-2022
Sample description	10-Apr-2022	10-Apr-2022	10-Apr-2022	10-Apr-2022	10-Apr-2022	10-Apr-2022	09-Apr-2022
Semi Volatile Organic Compounds	13-Apr-2022		13-Apr-2022	13-Apr-2022	13-Apr-2022	13-Apr-2022	13-Apr-2022
Total Organic Carbon	19-Apr-2022	19-Apr-2022	19-Apr-2022	19-Apr-2022	19-Apr-2022	19-Apr-2022	19-Apr-2022
Total Sulphate	19-Apr-2022	19-Apr-2022	13-Apr-2022	19-Apr-2022	19-Apr-2022	19-Apr-2022	13-Apr-2022
TPH CWG GC (S)	19-Apr-2022	19-Apr-2022	13-Apr-2022	13-Apr-2022	19-Apr-2022	13-Apr-2022	13-Apr-2022
VOC MS (S)	13-Apr-2022	19-Apr-2022	13-Apr-2022	13-Apr-2022	19-Apr-2022	13-Apr-2022	14-Apr-2022

Appendix

General

1. Results are expressed on a dry weight basis (dried at 35ºC) for all soil analyses except for the following: NRA and CEN Leach tests, flash point LOI, pH, ammonium as NH4 by the BRE method, VOC TICs and SVOC TICs.

2. If sufficient sample is received a sub sample will be retained free of charge for 30 days after analysis is completed (e-mailed) for all sample types unless the sample is destroyed on testing. The prepared soil sub sample that is analysed for asbestos will be retained for a period of 6 months after the analysis date. All bulk samples will be retained for a period of 6 months after the analysis date. All samples received and not scheduled will be disposed of one month after the date of receipt unless we are instructed to the contrary. Once the initial period has expired, a storage charge will be applied for each month or part thereof until the client cancels the request for sample storage. ALS reserve the right to charge for samples received and stored but not analysed.

3. With respect to turnaround, we will always endeavour to meet client requirements wherever possible, but turnaround times cannot be absolutely guaranteed due to so many variables beyond our control.

4. We take responsibility for any test performed by sub-contractors (marked with an asterisk). We endeavour to use UKAS/MCERTS Accredited Laboratories, who either complete a quality questionnaire or are audited by ourselves. For some determinands there are no UKAS/MCERTS Accredited Laboratories, in this instance a laboratory with a known track record will be utilised.

5. If no separate volatile sample is supplied by the client, or if a headspace or sediment is present in the volatile sample, the integrity of the data may be compromised. This will be flagged up as an invalid VOC on the test schedule and the result marked as deviating on the test certificate.

6. NDP - No determination possible due to insufficient/unsuitable sample.

7. Results relate only to the items tested.

8. LoDs (Limit of Detection) for wet tests reported on a dry weight basis are not corrected for moisture content.

9. **Surrogate recoveries** - Surrogates are added to your sample to monitor recovery of the test requested. A % recovery is reported, results are not corrected for the recovery measured. Typical recoveries for organics tests are 70-130%. Recoveries in soils are affected by organic rich or clay rich matrices. Waters can be affected by remediation fluids or high amounts of sediment. Test results are only ever reported if all of the associated quality checks pass; it is assumed that all recoveries outside of the values above are due to matrix affect.

10. Stones/debris are not routinely removed. We always endeavour to take a representative sub sample from the received sample.

11. In certain circumstances the method detection limit may be elevated due to the sample being outside the calibration range. Other factors that may contribute to this include possible interferences. In both cases the sample would be diluted which would cause the method detection limit to be raised.

12. For dried and crushed preparations of soils volatile loss may occur e.g volatile mercury.

13. For leachate preparations other than Zero Headspace Extraction (ZHE) volatile loss may occur.

14. For the BSEN 12457-3 two batch process to allow the cumulative release to be calculated, the volume of the leachate produced is measured and filtered for all tests. We therefore cannot carry out any unfiltered analysis. The tests affected include volatiles GCFID/GCMS and all subcontracted analysis.

15. Analysis and identification of specific compounds using GCFID is by retention time only, and we routinely calibrate and quantify for benzene, toluene, ethylbenzenes and xylenes (BTEX). For total volatiles in the C5-C12 range, the total area of the chromatogram is integrated and expressed as ug/kg or ug/l. Although this analysis is commonly used for the quantification of gasoline range organics (GRO), the system will also detect other compounds such as chlorinated solvents, and this may lead to a falsely high result with respect to hydrocarbons only. It is not possible to specifically identify these non-hydrocarbons, as standards are not routinely run for any other compounds, and for more definitive identification, volatiles by GCMS should be utilised.

16. We are accredited to MCERTS for sand, clay and loam/topsoil, or any of these materials - whether these are derived from naturally occurring soil profiles, or from fill/made ground, as long as these materials constitute the major part of the sample. Other coarse granular material such as concrete, gravel and brick are not accredited if they comprise the major part of the sample.

17 Data retention. All records, communications and reports pertaining to the analysis are archived for seven years from the date of issue of the final report.

18. **Tentatively Identified Compounds (TICs)** are non-target peaks in VOC and SVOC analysis. All non-target peaks detected with a concentration above the LoD are subjected to a mass spectral library search. Non-target peaks with a library search confidence of >75% are reported based on the best mass spectral library match. When a non-target peak with a library search confidence of <75% is detected it is reported as “mixed hydrocarbons”. Non-target compounds identified from the scan data are semi-quantified relative to one of the deuterated internal standards, under the same chromatographic conditions as the target compounds. This result is reported as a semi-quantitative value and reported as Tentatively Identified Compounds (TICs). TICs are outside the scope of UKAS accreditation and are not moisture corrected.

19. **Sample Deviations**

If a sample is classed as deviated then the associated results may be compromised.

1	**Container with Headspace provided for volatiles analysis**
2	**Incorrect container received**
3	**Deviation from method**
4	**Matrix interference**
♦	**Sample holding time exceeded in laboratory**
@	**Sample holding time exceeded due to late arrival of instructions or samples**
§	**Sampled on date not provided**

20. **Asbestos**

When requested, the individual sub sample scheduled will be analysed in house for the presence of asbestos fibres and asbestos containing material by our documented in house method TM048 based on HSG 248 (2021), which is accredited to ISO17025. If a specific asbestos fibre type is not found this will be reported as “Not detected”. If no asbestos fibre types are found all will be reported as “Not detected” and the sub sample analysed deemed to be clear of asbestos. If an asbestos fibre type is found it will be reported as detected (for each fibre type found). Testing can be carried out on asbestos positive samples, but, due to Health and Safety considerations, may be replaced by alternative tests or reported as No Determination Possible (NDP). The quantity of asbestos present is not determined unless specifically requested.

Identification of Asbestos in Bulk Materials & Soils

The results for identification of asbestos in bulk materials and soils are obtained from supplied bulk materials andd soils which have been examined to determine the presence of asbestos fibres using ALS (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining, based on HSG 248 (2021).

The results for identification of asbestos in soils are obtained from a homogenised sub sample which has been examined to determine the presence of asbestos fibres using ALS (Hawarden) in-house method of transmitted/polarised light microscopy and central

Asbestos Type	Common Name
Chrysotile	White Asbestos
Amosite	Brown Asbestos
Crocidolite	Blue Asbestos
Fibrous Actinolite	-
Fibrous Anthophyllite	-
Fibrous Tremolite	-

Visual Estimation Of Fibre Content

Estimation of fibre content is not permitted as part of our UKAS accredited test other than: - Trace - Where only one or two asbestos fibres were identified.

Respirable Fibres

Respirable fibres are defined as fibres of <3 µm diameter, longer than 5 µm and with aspect ratios of at least 3:1 that can be inhaled into the lower regions of the lung and are generally acknowledged to be most important predictor of hazard and risk for cancers of the lung.

Further guidance on typical asbestos fibre content of manufactured products can be found in HSG 264.

The identification of asbestos containing materials and soils falls within our schedule of tests for which we hold UKAS accreditation, however opinions, interpretations and all other information contained in the report are outside the scope of UKAS accreditation.

Unit 7-8 Hawarden Business Park
Manor Road (off Manor Lane)
Hawarden
Deeside
CH5 3US
Tel: (01244) 528700
Fax: (01244) 528701
email: hawardencustomerservices@alsglobal.com
Website: www.alsenvironmental.co.uk

Wardell Armstrong LLP
36 Park Row
Leeds
LS1 5JL

Attention: Jonathan Currie

CERTIFICATE OF ANALYSIS

Date of report Generation:	03 May 2022
Customer:	Wardell Armstrong LLP
Sample Delivery Group (SDG):	220414-86
Your Reference:	LD10385
Location:	Ten Acres Lane
Report No:	644453
Order Number:	LD2707

This report has been revised and directly supersedes 643868 in its entirety.

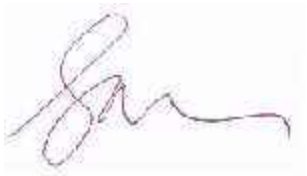
We received 5 samples on Wednesday April 13, 2022 and 5 of these samples were scheduled for analysis which was completed on Tuesday May 03, 2022. Accredited laboratory tests are defined within the report, but opinions, interpretations and on-site data expressed herein are outside the scope of ISO 17025 accreditation.

Should this report require incorporation into client reports, it must be used in its entirety and not simply with the data sections alone.

Chemical testing (unless subcontracted) performed at ALS Life Sciences Ltd Hawarden.

All sample data is provided by the customer. The reported results relate to the sample supplied, and on the basis that this data is correct.
Incorrect sampling dates and/or sample information will affect the validity of results.
The customer is not permitted to reproduce this report except in full without the approval of the laboratory.

Approved By:



Sonia McWhan

Operations Manager

CERTIFICATE OF ANALYSIS

SDG: 220414-86 **Report Number:** 644453 **Superseded Report:** 643868
Client Ref.: LD10385 **Location:** Ten Acres Lane

Received Sample Overview

Lab Sample No(s)	Customer Sample Ref.	AGS Ref.	Depth (m)	Sampled Date
26139138	CP202		6.70 - 6.70	11/04/2022
26139152	WS305		1.50 - 1.50	11/04/2022
26139146	WS316		2.00 - 2.00	11/04/2022
26139129	WS316		4.00 - 4.00	11/04/2022
26139123	WS317		2.50 - 2.50	11/04/2022

Only received samples which have had analysis scheduled will be shown on the following pages.

Validated

CERTIFICATE OF ANALYSIS

SDG: 220414-86 **Report Number:** 644453 **Superseded Report:** 643868
Client Ref.: LD10385 **Location:** Ten Acres Lane

Results Legend

X Test

N No Determination Possible

Sample Types -
S - Soil/Solid
UNS - Unspecified Solid
GW - Ground Water
SW - Surface Water
LE - Land Leachate
PL - Prepared Leachate
PR - Process Water
SA - Saline Water
TE - Trade Effluent
TS - Treated Sewage
US - Untreated Sewage
RE - Recreational Water
DW - Drinking Water Non-regulatory
UNL - Unspecified Liquid
SL - Sludge
G - Gas
OTH - Other

			Lab Sample No(s)	26139138	26139152	26139146	26139129	26139123
			Customer Sample Reference	CP202	WS305	WS316	WS316	WS317
			AGS Reference					
			Depth (m)	6.70 - 6.70	1.50 - 1.50	2.00 - 2.00	4.00 - 4.00	2.50 - 2.50
			Container	1kg TUB with Handle (ALE260)	250g Amber Jar (ALE210)	60g VOC (ALE215)	250g Amber Jar (ALE210)	60g VOC (ALE215)	1kg TUB with Handle (ALE260)	250g Amber Jar (ALE210)	250g Amber Jar (ALE210)	60g VOC (ALE215)	250g Amber Jar (ALE210)	60g VOC (ALE215)
			Sample Type	S	S	S	S	S	S	S	S	S	S	S
Anions by Kone (soil)	All	NDPs: 0 Tests: 1			X									
Asbestos ID in Solid Samples	All	NDPs: 0 Tests: 1	X											
Asbestos Quantification - Full	All	NDPs: 0 Tests: 1	X											
Boron Water Soluble	All	NDPs: 0 Tests: 1		X										
Cyanide Comp/Free/Total/Thiocyanate	All	NDPs: 0 Tests: 1		X										
Easily Liberated Sulphide	All	NDPs: 0 Tests: 1		X										
EPH CWG GC (S)	All	NDPs: 0 Tests: 4		X		X				X		X		
GRO by GC-FID (S)	All	NDPs: 0 Tests: 4			X		X				X		X	
Hexavalent Chromium (s)	All	NDPs: 0 Tests: 1		X										
Metals in solid samples by OES	All	NDPs: 0 Tests: 1		X										
PAH by GCMS	All	NDPs: 0 Tests: 1		X										
PCBs by GCMS	All	NDPs: 0 Tests: 1		X										
PFAS Solids	All	NDPs: 0 Tests: 1							X					
pH	All	NDPs: 0 Tests: 1		X										
Phenols by HPLC (S)	All	NDPs: 0 Tests: 1		X										

Validated

CERTIFICATE OF ANALYSIS

SDG: 220414-86 **Report Number:** 644453 **Superseded Report:** 643868
Client Ref.: LD10385 **Location:** Ten Acres Lane

Results Legend

X Test

N No Determination Possible

Sample Types -
S - Soil/Solid
UNS - Unspecified Solid
GW - Ground Water
SW - Surface Water
LE - Land Leachate
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Lab Sample No(s)			26139138	26139152	26139146	26139129	26139123				
Customer Sample Reference			CP202	WS305	WS316	WS316	WS317				
AGS Reference											
Depth (m)			6.70 - 6.70	1.50 - 1.50	2.00 - 2.00	4.00 - 4.00	2.50 - 2.50				
Container			1kg TUB with Handle (ALE260)	250g Amber Jar (ALE210)	60g VOC (ALE215)	250g Amber Jar (ALE210)	60g VOC (ALE215)	1kg TUB with Handle (ALE260)	250g Amber Jar (ALE210)	250g Amber Jar (ALE210)	60g VOC (ALE215)	250g Amber Jar (ALE210)	60g VOC (ALE215)
Sample Type			S	S	S	S	S	S	S	S	S	S	S
Sample description	All	NDPs: 0 Tests: 5		X		X			X	X		X	
Semi Volatile Organic Compounds	All	NDPs: 0 Tests: 4		X		X				X		X	
Total Organic Carbon	All	NDPs: 0 Tests: 1		X									
Total Sulphate	All	NDPs: 0 Tests: 1		X									
TPH CWG GC (S)	All	NDPs: 0 Tests: 4		X		X				X		X	
VOC MS (S)	All	NDPs: 0 Tests: 4			X		X				X		X

CERTIFICATE OF ANALYSIS

SDG: 220414-86 **Report Number:** 644453 **Superseded Report:** 643868
Client Ref.: LD10385 **Location:** Ten Acres Lane

Sample Descriptions

Grain Sizes

very fine	<0.063mm	fine	0.063mm - 0.1mm	medium	0.1mm - 2mm	coarse	2mm - 10mm	very coarse	>10mm

Lab Sample No(s)	Customer Sample Ref.	Depth (m)	Colour	Description	Inclusions	Inclusions 2
26139138	CP202	6.70 - 6.70	Dark Brown	Sandy Silt Loam	Stones	Brick
26139152	WS305	1.50 - 1.50	Dark Brown	Silty Sand	Stones	None
26139129	WS316	4.00 - 4.00	Dark Brown	Sand	Stones	None
26139146	WS316	2.00 - 2.00	Dark Brown	Loamy Sand	Stones	Vegetation
26139123	WS317	2.50 - 2.50	Dark Brown	Silty Sand	Stones	Vegetation

These descriptions are only intended to act as a cross check if sample identities are questioned, and to provide a log of sample matrices with respect to MCERTS validation. They are not intended as full geological descriptions.

We are accredited to MCERTS for sand, clay and loam/topsoil, or any of these materials - whether these are derived from naturally ocurring soil profiles, or from fill/made ground, as long as these materials constitute the major part of the sample.

Other coarse granular materials such as concrete, gravel and brick are not accredited if they comprise the major part of the sample.

CERTIFICATE OF ANALYSIS

SDG: 220414-86 **Report Number:** 644453 **Superseded Report:** 643868

Client Ref.: LD10385 **Location:** Ten Acres Lane

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	CP202	WS305	WS316	WS316	WS317
			Depth (m)	6.70 - 6.70	1.50 - 1.50	2.00 - 2.00	4.00 - 4.00	2.50 - 2.50
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	11/04/2022	11/04/2022	11/04/2022	11/04/2022	11/04/2022
			Sample Time	11:00	12:00	11:30	10:30	10:00
			Date Received	13/04/2022	13/04/2022	13/04/2022	13/04/2022	13/04/2022
			SDG Ref	220414-86	220414-86	220414-86	220414-86	220414-86
			Lab Sample No.(s)	26139138	26139152	26139146	26139129	26139123
			AGS Reference					
Moisture Content Ratio (% of as received sample)	%	PM024		10	30	15	25	30
Phenol	<0.01 mg/kg	TM062 (S)		<0.01 M				
Cresols	<0.01 mg/kg	TM062 (S)		<0.01 M				
Xylenols	<0.015 mg/kg	TM062 (S)		<0.015 M				
Phenols, Total Detected monohydric	<0.035 mg/kg	TM062 (S)		<0.035 M				
Soil Organic Matter (SOM)	<0.35 %	TM132		1.61 #				
pH	1 pH Units	TM133		10.6 M				
Chromium, Hexavalent	<0.6 mg/kg	TM151		<0.6 #				
Cyanide, Total	<1 mg/kg	TM153		<1 M				
PCB congener 28	<3 µg/kg	TM168		<15 M				
PCB congener 52	<3 µg/kg	TM168		<15 M				
PCB congener 101	<3 µg/kg	TM168		<15 M				
PCB congener 118	<3 µg/kg	TM168		<15 M				
PCB congener 138	<3 µg/kg	TM168		<15 M				
PCB congener 153	<3 µg/kg	TM168		<15 M				
PCB congener 180	<3 µg/kg	TM168		<15 M				
Sum of detected PCB 7 Congeners	<21 µg/kg	TM168		<105				
Sulphide, Easily liberated	<15 mg/kg	TM180		107 @ M				
Arsenic	<0.6 mg/kg	TM181		6.61 M				
Beryllium	<0.01 mg/kg	TM181		0.574 M				
Cadmium	<0.02 mg/kg	TM181		0.126 M				
Chromium	<0.9 mg/kg	TM181		12.1 M				
Copper	<1.4 mg/kg	TM181		18.5 M				
Lead	<0.7 mg/kg	TM181		102 M				
Mercury	<0.1 mg/kg	TM181		<0.1 M				
Nickel	<0.2 mg/kg	TM181		16.4 M				
Selenium	<1 mg/kg	TM181		<1 #				
Vanadium	<0.2 mg/kg	TM181		27.1 #				
Zinc	<1.9 mg/kg	TM181		254 M				
Sulphate, Total	<48 mg/kg	TM221		2400 M				
Boron, water soluble	<1 mg/kg	TM222		2.4 M				
Water Soluble Sulphate as SO4 2:1 Extract	<0.004 g/l	TM243		0.0473 M				
Asbestos Quantification - Gravimetric - %	<0.001 %	TM304		<0.001 #				

CERTIFICATE OF ANALYSIS

SDG: 220414-86 **Report Number:** 644453 **Superseded Report:** 643868
Client Ref.: LD10385 **Location:** Ten Acres Lane

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4+§@ Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	CP202	WS305	WS316	WS316	WS317	
			Depth (m)	6.70 - 6.70	1.50 - 1.50	2.00 - 2.00	4.00 - 4.00	2.50 - 2.50	
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	
			Date Sampled	11/04/2022	11/04/2022	11/04/2022	11/04/2022	11/04/2022	
			Sample Time	11:00	12:00	11:30	10:30	10:00	
			Date Received	13/04/2022	13/04/2022	13/04/2022	13/04/2022	13/04/2022	
			SDG Ref	220414-86	220414-86	220414-86	220414-86	220414-86	
			Lab Sample No.(s)	26139138	26139152	26139146	26139129	26139123	
			AGS Reference						
Asbestos Quantification - PCOM Evaluation - %	<0.001 %	TM304		<0.001 #					
Additional Asbestos Components (Using TM048)		TM304		None #					
Analysts Comments		TM304		0					
Asbestos Quantification - Total - %	<0.001 %	TM304		<0.001 #					
PFBA (375-22-4) Perfluoro-n-butanoic acid	<3 µg/kg	TM338				<3			
PFPA (2706-90-3) Perfluoro-n-pentanoic acid	<3 µg/kg	TM338				<3			
PFHxA (307-24-4) Perfluoro-n-hexanoic acid	<2 µg/kg	TM338				<2			
PFBS (375-73-5) Perfluoro-1-butanesulfonate	<1 µg/kg	TM338				<1			
PFHpA (375-85-9) Perfluoro-n-heptanoic acid	<1 µg/kg	TM338				<1			
PFOA (335-67-1) Perfluoro-n-octanoic acid	<1 µg/kg	TM338				<1			
PFHxS (355-46-4) Perfluoro-1-hexanesulfonate	<1 µg/kg	TM338				<1			
PFNA (375-95-1) Perfluoro-n-nonanoic acid	<1 µg/kg	TM338				<1			
PFHpS (375-92-8) Perfluoro-1-heptanesulfonate	<1 µg/kg	TM338				<1			
PFDA (335-76-2) Perfluoro-n-decanoic acid	<1 µg/kg	TM338				<1			
Linear PFOS(1763-23-1) Perfluoro-1-octanesulfonate	<1 µg/kg	TM338				<1			
Branched PFOS	<1 µg/kg	TM338				<1			
PFUnA (2058-94-8) Perfluoro-n-undecanoic acid	<1 µg/kg	TM338				<1			
PFDoA (307-55-1) Perfluoro-n-dodecanoic acid	<1 µg/kg	TM338				<1			
PFOSA (754-91-6) Perfluoro-octanesulfonamide	<1 µg/kg	TM338				<1			
6:2-FTS (27619-97-2)	<1 µg/kg	TM338				<1			
PFDS (335-73-3) Perfluoro-1-decanesulfonate	<1 µg/kg	TM338				<1			
PFPeS (2706-91-4) Perfluoro-1-pentanesulfonate	<1 µg/kg	TM338				<1			
Total PFOS	<1 µg/kg	TM338				<1			

CERTIFICATE OF ANALYSIS

SDG: 220414-86 **Report Number:** 644453 **Superseded Report:** 643868
Client Ref.: LD10385 **Location:** Ten Acres Lane

PAH by GCMS

Results Legend		Customer Sample Ref.	CP202
#	ISO17025 accredited.		
M	mCERTS accredited.		
aq	Aqueous / settled sample.		
diss.filt	Dissolved / filtered sample.	Depth (m)	6.70 - 6.70
tot.unfilt	Total / unfiltered sample.	Sample Type	Soil/Solid (S)
*	Subcontracted - refer to subcontractor report for accreditation status.	Date Sampled	11/04/2022
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery	Sample Time	11:00
		Date Received	13/04/2022
		SDG Ref	220414-86
(F)	Trigger breach confirmed	Lab Sample No.(s)	26139138
1-4+§@	Sample deviation (see appendix)	AGS Reference	

Component	LOD/Units	Method	
Naphthalene-d8 % recovery**	%	TM218	95.1
Acenaphthene-d10 % recovery**	%	TM218	98.9
Phenanthrene-d10 % recovery**	%	TM218	107
Chrysene-d12 % recovery**	%	TM218	93
Perylene-d12 % recovery**	%	TM218	88.1
Naphthalene	<9 µg/kg	TM218	1080 M
Acenaphthylene	<12 µg/kg	TM218	83.4 M
Acenaphthene	<8 µg/kg	TM218	5370 M
Fluorene	<10 µg/kg	TM218	4170 M
Phenanthrene	<15 µg/kg	TM218	25400 M
Anthracene	<16 µg/kg	TM218	7850 M
Fluoranthene	<17 µg/kg	TM218	23300 M
Pyrene	<15 µg/kg	TM218	21000 M
Benz(a)anthracene	<14 µg/kg	TM218	9590 M
Chrysene	<10 µg/kg	TM218	9290 M
Benzo(b)fluoranthene	<15 µg/kg	TM218	8420 M
Benzo(k)fluoranthene	<14 µg/kg	TM218	3240 M
Benzo(a)pyrene	<15 µg/kg	TM218	7550 M
Indeno(1,2,3-cd)pyrene	<18 µg/kg	TM218	4330 M
Dibenzo(a,h)anthracene	<23 µg/kg	TM218	848 M
Benzo(g,h,i)perylene	<24 µg/kg	TM218	4060 M
PAH, Total Detected USEPA 16	<118 µg/kg	TM218	136000

CERTIFICATE OF ANALYSIS

SDG: 220414-86 **Report Number:** 644453 **Superseded Report:** 643868

Client Ref.: LD10385 **Location:** Ten Acres Lane

Semi Volatile Organic Compounds

Results Legend

- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
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- (F) Trigger breach confirmed
- 1-4+§@ Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	CP202	WS305	WS316	WS317		
			Depth (m)	6.70 - 6.70	1.50 - 1.50	4.00 - 4.00	2.50 - 2.50		
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)		
			Date Sampled	11/04/2022	11/04/2022	11/04/2022	11/04/2022		
			Sample Time	11:00	12:00	10:30	10:00		
			Date Received	13/04/2022	13/04/2022	13/04/2022	13/04/2022		
			SDG Ref	220414-86	220414-86	220414-86	220414-86		
			Lab Sample No.(s)	26139138	26139152	26139129	26139123		
			AGS Reference						
Phenol	<100 µg/kg	TM157		<500	<200	<100	<100		
Pentachlorophenol	<100 µg/kg	TM157		<500	<200	<100	<100		
n-Nitroso-n-dipropylamine	<100 µg/kg	TM157		<500	<200	<100	<100		
Nitrobenzene	<100 µg/kg	TM157		<500	<200	<100	<100		
Isophorone	<100 µg/kg	TM157		<500	<200	<100	<100		
Hexachloroethane	<100 µg/kg	TM157		<500	<200	<100	<100		
Hexachlorocyclopentadiene	<100 µg/kg	TM157		<500	<200	<100	<100		
Hexachlorobutadiene	<100 µg/kg	TM157		<500	<200	<100	<100		
Hexachlorobenzene	<100 µg/kg	TM157		<500	<200	<100	<100		
n-Dioctyl phthalate	<100 µg/kg	TM157		<500	<200	<100	<100		
Dimethyl phthalate	<100 µg/kg	TM157		<500	<200	<100	<100		
Diethyl phthalate	<100 µg/kg	TM157		<500	<200	<100	<100		
n-Dibutyl phthalate	<100 µg/kg	TM157		<500	<200	<100	<100		
Dibenzofuran	<100 µg/kg	TM157		560	<200	<100	185		
Carbazole	<100 µg/kg	TM157		<500	<200	<100	383		
Butylbenzyl phthalate	<100 µg/kg	TM157		<500	<200	<100	<100		
bis(2-Ethylhexyl) phthalate	<100 µg/kg	TM157		<500	<200	<100	<100		
bis(2-Chloroethoxy)methane	<100 µg/kg	TM157		<500	<200	<100	<100		
bis(2-Chloroethyl)ether	<100 µg/kg	TM157		<500	<200	<100	<100		
Azobenzene	<100 µg/kg	TM157		<500	<200	<100	<100		
4-Nitrophenol	<100 µg/kg	TM157		<500	<200	<100	<100		
4-Nitroaniline	<100 µg/kg	TM157		<500	<200	<100	<100		
4-Methylphenol	<100 µg/kg	TM157		<500	<200	<100	<100		
4-Chlorophenylphenylether	<100 µg/kg	TM157		<500	<200	<100	<100		
4-Chloroaniline	<100 µg/kg	TM157		<500	<200	<100	<100		
4-Chloro-3-methylphenol	<100 µg/kg	TM157		<500	<200	<100	<100		
4-Bromophenylphenylether	<100 µg/kg	TM157		<500	<200	<100	<100		
3-Nitroaniline	<100 µg/kg	TM157		<500	<200	<100	<100		
2-Nitrophenol	<100 µg/kg	TM157		<500	<200	<100	<100		
2-Nitroaniline	<100 µg/kg	TM157		<500	<200	<100	<100		
2-Methylphenol	<100 µg/kg	TM157		<500	<200	<100	<100		
1,2,4-Trichlorobenzene	<100 µg/kg	TM157		<500	<200	<100	<100		
2-Chlorophenol	<100 µg/kg	TM157		<500	<200	<100	<100		

CERTIFICATE OF ANALYSIS

SDG: 220414-86 **Report Number:** 644453 **Superseded Report:** 643868
Client Ref.: LD10385 **Location:** Ten Acres Lane

Semi Volatile Organic Compounds

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4+§@ Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	CP202	WS305	WS316	WS317		
			Depth (m)	6.70 - 6.70	1.50 - 1.50	4.00 - 4.00	2.50 - 2.50		
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)		
			Date Sampled	11/04/2022	11/04/2022	11/04/2022	11/04/2022		
			Sample Time	11:00	12:00	10:30	10:00		
			Date Received	13/04/2022	13/04/2022	13/04/2022	13/04/2022		
			SDG Ref	220414-86	220414-86	220414-86	220414-86		
			Lab Sample No.(s)	26139138	26139152	26139129	26139123		
			AGS Reference						
2,6-Dinitrotoluene	<100 µg/kg	TM157		<500	<200	<100	<100		
2,4-Dinitrotoluene	<100 µg/kg	TM157		<500	<200	<100	<100		
2,4-Dimethylphenol	<100 µg/kg	TM157		<500	<200	<100	<100		
2,4-Dichlorophenol	<100 µg/kg	TM157		<500	<200	<100	<100		
2,4,6-Trichlorophenol	<100 µg/kg	TM157		<500	<200	<100	<100		
2,4,5-Trichlorophenol	<100 µg/kg	TM157		<500	<200	<100	<100		
1,4-Dichlorobenzene	<100 µg/kg	TM157		<500	<200	<100	<100		
1,3-Dichlorobenzene	<100 µg/kg	TM157		<500	<200	<100	<100		
1,2-Dichlorobenzene	<100 µg/kg	TM157		<500	<200	<100	<100		
2-Chloronaphthalene	<100 µg/kg	TM157		<500	<200	<100	<100		
2-Methylnaphthalene	<100 µg/kg	TM157		<500	<200	<100	156		
Acenaphthylene	<100 µg/kg	TM157		<500	<200	<100	<100		
Acenaphthene	<100 µg/kg	TM157		1160	<200	<100	355		
Anthracene	<100 µg/kg	TM157		1240	<200	<100	909		
Benzo(a)anthracene	<100 µg/kg	TM157		2480	1400	239	2940		
Benzo(b)fluoranthene	<100 µg/kg	TM157		1190	901	186	2240		
Benzo(k)fluoranthene	<100 µg/kg	TM157		1620	1240	226	2170		
Benzo(a)pyrene	<100 µg/kg	TM157		1960	1230	226	2290		
Benzo(g,h,i)perylene	<100 µg/kg	TM157		941	758	160	1430		
Chrysene	<100 µg/kg	TM157		2320	1600	239	3050		
Fluoranthene	<100 µg/kg	TM157		5540	1670	412	7060		
Fluorene	<100 µg/kg	TM157		840	<200	<100	355		
Indeno(1,2,3-cd)pyrene	<100 µg/kg	TM157		1430	1170	253	2170		
Phenanthrene	<100 µg/kg	TM157		4790	529	200	4440		
Pyrene	<100 µg/kg	TM157		5060	1720	412	6300		
Naphthalene	<100 µg/kg	TM157		683	<200	<100	<100		
Dibenzo(a,h)anthracene	<100 µg/kg	TM157		<500	<200	<100	227		
Bis(2-chloroisopropyl) ether	<100 µg/kg	TM157		<500	<200	<100	<100		

Validated

CERTIFICATE OF ANALYSIS

SDG: 220414-86 **Report Number:** 644453 **Superseded Report:** 643868

Client Ref.: LD10385 **Location:** Ten Acres Lane

TPH CWG (S)

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
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**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
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Component	LOD/Units	Method	Customer Sample Ref.	CP202	WS305	WS316	WS317		
			Depth (m)	6.70 - 6.70	1.50 - 1.50	4.00 - 4.00	2.50 - 2.50		
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)		
			Date Sampled	11/04/2022	11/04/2022	11/04/2022	11/04/2022		
			Sample Time	11:00	12:00	10:30	10:00		
			Date Received	13/04/2022	13/04/2022	13/04/2022	13/04/2022		
			SDG Ref	220414-86	220414-86	220414-86	220414-86		
			Lab Sample No.(s)	26139138	26139152	26139129	26139123		
			AGS Reference						
GRO Surrogate % recovery**	%	TM089		95.7	77	86.9	70.4		
Aliphatics >C5-C6 (HS_1D_AL)	<10 µg/kg	TM089		14.6	<10	<10	35.5		
Aliphatics >C6-C8 (HS_1D_AL)	<10 µg/kg	TM089		52.6	<10	<10	132		
Aliphatics >C8-C10 (HS_1D_AL)	<10 µg/kg	TM089		4970	<10	<10	216		
Aliphatics >C10-C12 (EH_2D_AL_#1)	<1000 µg/kg	TM414		<1000 #	<1000 #	<1000 #	<1000 #		
Aliphatics >C12-C16 (EH_2D_AL_#1)	<1000 µg/kg	TM414		<1000 #	<1000 #	<1000 #	<1000 #		
Aliphatics >C16-C21 (EH_2D_AL_#1)	<1000 µg/kg	TM414		2890 #	<1000 #	<1000 #	<1000 #		
Aliphatics >C21-C35 (EH_2D_AL_#1)	<1000 µg/kg	TM414		21400 #	7900 #	38600 #	5140 #		
Aliphatics >C35-C44 (EH_2D_AL_#1)	<1000 µg/kg	TM414		9700	<1000	7760	<1000		
Total Aliphatics >C10-C44 (EH_2D_AR_#1)	<5000 µg/kg	TM414		34600	8240	47100	5970		
Total Aliphatics & Aromatics >C10-C44 (EH_2D_Total_#1)	<10000 µg/kg	TM414		111000	33000	72300	12200		
Aromatics >EC5-EC7 (HS_1D_AR)	<10 µg/kg	TM089		97.4	<10	<10	<10		
Aromatics >EC7-EC8 (HS_1D_AR)	<10 µg/kg	TM089		14.6	<10	<10	<10		
Aromatics >EC8-EC10 (HS_1D_AR)	<10 µg/kg	TM089		3310	<10	<10	143		
Aromatics > EC10-EC12 (EH_2D_AR_#1)	<1000 µg/kg	TM414		<1000 #	<1000 #	<1000 #	<1000 #		
Aromatics > EC12-EC16 (EH_2D_AR_#1)	<1000 µg/kg	TM414		4730 #	<1000 #	<1000 #	<1000 #		
Aromatics > EC16-EC21 (EH_2D_AR_#1)	<1000 µg/kg	TM414		22800 #	1750 #	1680 #	1750 #		
Aromatics > EC21-EC35 (EH_2D_AR_#1)	<1000 µg/kg	TM414		44300 #	21600 #	22500 #	3520 #		
Aromatics >EC35-EC44 (EH_2D_AR_#1)	<1000 µg/kg	TM414		4720	1420	<1000	<1000		
Aromatics > EC40-EC44 (EH_2D_AR_#1)	<1000 µg/kg	TM414		<1000	<1000	<1000	<1000		
Total Aromatics > EC10-EC44 (EH_2D_AR_#1)	<5000 µg/kg	TM414		76700	24700	25300	6270		
Total Aliphatics & Aromatics >C5-C44 (EH_2D_Total_#1+HS_1D_Total)	<10000 µg/kg	TM414		120000	33000	72300	12800		
Total Aliphatics >C5-C10 (HS_1D_AL_TOTAL)	<50 µg/kg	TM089		5040	<50	<50	383		
Total Aromatics >EC5-EC10 (HS_1D_AR_TOTAL)	<50 µg/kg	TM089		3420	<50	<50	143		
GRO >C5-C10 (HS_1D_TOTAL)	<20 µg/kg	TM089		8460	<20	<20	527		

CERTIFICATE OF ANALYSIS

SDG: 220414-86 **Report Number:** 644453 **Superseded Report:** 643868

Client Ref.: LD10385 **Location:** Ten Acres Lane

VOC MS (S)

Results Legend

- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4+§@ Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	CP202	WS305	WS316	WS317		
			Depth (m)	6.70 - 6.70	1.50 - 1.50	4.00 - 4.00	2.50 - 2.50		
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)		
			Date Sampled	11/04/2022	11/04/2022	11/04/2022	11/04/2022		
			Sample Time	11:00	12:00	10:30	10:00		
			Date Received	13/04/2022	13/04/2022	13/04/2022	13/04/2022		
			SDG Ref	220414-86	220414-86	220414-86	220414-86		
			Lab Sample No.(s)	26139138	26139152	26139129	26139123		
			AGS Reference						
Dibromofluoromethane**	%	TM116		139	111 @	109 @	109 @		
Toluene-d8**	%	TM116		85.4	100 @	98.5 @	99.7 @		
4-Bromofluorobenzene**	%	TM116		80.4	95 @	95.2 @	98.8 @		
Dichlorodifluoromethane	<6 µg/kg	TM116		<6 #	<120 @ #	<120 @ #	<120 @ #		
Chloromethane	<7 µg/kg	TM116		<7 #	<140 @ #	<140 @ #	<140 @ #		
Vinyl Chloride	<6 µg/kg	TM116		<6 @ M	<120 @ M	<120 @ M	<120 @ M		
Bromomethane	<10 µg/kg	TM116		<10 M	<200 @ M	<200 @ M	<200 @ M		
Chloroethane	<10 µg/kg	TM116		<10 M	<200 @ M	<200 @ M	<200 @ M		
Trichlorofluorormethane	<6 µg/kg	TM116		<6 M	<120 @ M	<120 @ M	<120 @ M		
1,1-Dichloroethene	<10 µg/kg	TM116		<10 #	<200 @ #	<200 @ #	<200 @ #		
Carbon Disulphide	<7 µg/kg	TM116		9.58 M	<140 @ M	<140 @ M	<140 @ M		
Dichloromethane	<10 µg/kg	TM116		<10 #	<200 @ #	<200 @ #	<200 @ #		
Methyl Tertiary Butyl Ether	<10 µg/kg	TM116		<10 M	<200 @ M	<200 @ M	<200 @ M		
trans-1,2-Dichloroethene	<10 µg/kg	TM116		<10 M	<200 @ M	<200 @ M	<200 @ M		
1,1-Dichloroethane	<8 µg/kg	TM116		<8 M	<160 @ M	<160 @ M	<160 @ M		
cis-1,2-Dichloroethene	<6 µg/kg	TM116		<6 M	<120 @ M	<120 @ M	<120 @ M		
2,2-Dichloropropane	<10 µg/kg	TM116		<10	<200 @	<200 @	<200 @		
Bromochloromethane	<10 µg/kg	TM116		<10 M	<200 @ M	<200 @ M	<200 @ M		
Chloroform	<8 µg/kg	TM116		<8 M	<160 @ M	<160 @ M	<160 @ M		
1,1,1-Trichloroethane	<7 µg/kg	TM116		<7 M	<140 @ M	<140 @ M	<140 @ M		
1,1-Dichloropropene	<10 µg/kg	TM116		<10 M	<200 @ M	<200 @ M	<200 @ M		
Carbontetrachloride	<10 µg/kg	TM116		<10 M	<200 @ M	<200 @ M	<200 @ M		
1,2-Dichloroethane	<5 µg/kg	TM116		<5 M	<100 @ M	<100 @ M	<100 @ M		
Benzene	<9 µg/kg	TM116		15.4 M	<180 @ M	<180 @ M	<180 @ M		
Trichloroethene	<9 µg/kg	TM116		<9 #	<180 @ #	<180 @ #	<180 @ #		
1,2-Dichloropropane	<10 µg/kg	TM116		<10 M	<200 @ M	<200 @ M	<200 @ M		
Dibromomethane	<9 µg/kg	TM116		<9 M	<180 @ M	<180 @ M	<180 @ M		
Bromodichloromethane	<7 µg/kg	TM116		<7 M	<140 @ M	<140 @ M	<140 @ M		
cis-1,3-Dichloropropene	<10 µg/kg	TM116		<10 M	<200 @ M	<200 @ M	<200 @ M		
Toluene	<7 µg/kg	TM116		<7 M	<140 @ M	<140 @ M	<140 @ M		
trans-1,3-Dichloropropene	<10 µg/kg	TM116		<10	<200 @	<200 @	<200 @		
1,1,2-Trichloroethane	<10 µg/kg	TM116		<10 M	<200 @ M	<200 @ M	<200 @ M		
1,3-Dichloropropane	<7 µg/kg	TM116		<7 M	<140 @ M	<140 @ M	<140 @ M		

CERTIFICATE OF ANALYSIS

SDG: 220414-86 **Report Number:** 644453 **Superseded Report:** 643868
Client Ref.: LD10385 **Location:** Ten Acres Lane

VOC MS (S)

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4+§@ Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	CP202	WS305	WS316	WS317		
			Depth (m)	6.70 - 6.70	1.50 - 1.50	4.00 - 4.00	2.50 - 2.50		
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)		
			Date Sampled	11/04/2022	11/04/2022	11/04/2022	11/04/2022		
			Sample Time	11:00	12:00	10:30	10:00		
			Date Received	13/04/2022	13/04/2022	13/04/2022	13/04/2022		
			SDG Ref	220414-86	220414-86	220414-86	220414-86		
			Lab Sample No.(s)	26139138	26139152	26139129	26139123		
			AGS Reference						
Tetrachloroethene	<5 µg/kg	TM116		<5 M	<100 @ M	<100 @ M	<100 @ M		
Dibromochloromethane	<10 µg/kg	TM116		<10 M	<200 @ M	<200 @ M	<200 @ M		
1,2-Dibromoethane	<10 µg/kg	TM116		<10 M	<200 @ M	<200 @ M	<200 @ M		
Chlorobenzene	<5 µg/kg	TM116		<5 M	<100 @ M	<100 @ M	<100 @ M		
1,1,1,2-Tetrachloroethane	<10 µg/kg	TM116		<10 M	<200 @ M	<200 @ M	<200 @ M		
Ethylbenzene	<4 µg/kg	TM116		<4 M	<80 @ M	<80 @ M	<80 @ M		
p/m-Xylene	<10 µg/kg	TM116		<10 #	<200 @ #	<200 @ #	<200 @ #		
o-Xylene	<10 µg/kg	TM116		<10 M	<200 @ M	<200 @ M	<200 @ M		
Styrene	<10 µg/kg	TM116		<10 @ #	<200 @ #	<200 @ #	<200 @ #		
Bromoform	<10 µg/kg	TM116		<10 M	<200 @ M	<200 @ M	<200 @ M		
Isopropylbenzene	<5 µg/kg	TM116		9.18 #	<100 @ #	<100 @ #	<100 @ #		
1,1,2,2-Tetrachloroethane	<10 µg/kg	TM116		<10 #	<200 @ #	<200 @ #	<200 @ #		
1,2,3-Trichloropropane	<16 µg/kg	TM116		<16 M	<320 @ M	<320 @ M	<320 @ M		
Bromobenzene	<10 µg/kg	TM116		<10 M	<200 @ M	<200 @ M	<200 @ M		
Propylbenzene	<10 µg/kg	TM116		<10 M	<200 @ M	<200 @ M	<200 @ M		
2-Chlorotoluene	<9 µg/kg	TM116		<9 M	<180 @ M	<180 @ M	<180 @ M		
1,3,5-Trimethylbenzene	<8 µg/kg	TM116		<8 M	<160 @ M	<160 @ M	<160 @ M		
4-Chlorotoluene	<10 µg/kg	TM116		<10 M	<200 @ M	<200 @ M	<200 @ M		
tert-Butylbenzene	<14 µg/kg	TM116		<14 #	<280 @ #	<280 @ #	<280 @ #		
1,2,4-Trimethylbenzene	<9 µg/kg	TM116		<9 #	<180 @ #	<180 @ #	<180 @ #		
sec-Butylbenzene	<10 µg/kg	TM116		<10	<200 @	<200 @	<200 @		
4-Isopropyltoluene	<10 µg/kg	TM116		91	<200 @	<200 @	<200 @		
1,3-Dichlorobenzene	<8 µg/kg	TM116		<8 M	<160 @ M	<160 @ M	<160 @ M		
1,4-Dichlorobenzene	<5 µg/kg	TM116		<5 M	<100 @ M	<100 @ M	<100 @ M		
n-Butylbenzene	<11 µg/kg	TM116		<11	<220 @	<220 @	<220 @		
1,2-Dichlorobenzene	<10 µg/kg	TM116		<10 M	<200 @ M	<200 @ M	<200 @ M		
1,2-Dibromo-3-chloropropane	<14 µg/kg	TM116		<14 M	<280 @ M	<280 @ M	<280 @ M		
Tert-amyl methyl ether	<10 µg/kg	TM116		<10 #	<200 @ #	<200 @ #	<200 @ #		
1,2,4-Trichlorobenzene	<20 µg/kg	TM116		<20	<400 @	<400 @	<400 @		
Hexachlorobutadiene	<20 µg/kg	TM116		<20	<400 @	<400 @	<400 @		
Naphthalene	<13 µg/kg	TM116		96.9 M	<260 @ M	<260 @ M	<260 @ M		
1,2,3-Trichlorobenzene	<20 µg/kg	TM116		<20 #	<400 @ #	<400 @ #	<400 @ #		
1,3,5-Trichlorobenzene	<20 µg/kg	TM116		<20	<400	<400	<400		

CERTIFICATE OF ANALYSIS

SDG: 220414-86 **Report Number:** 644453 **Superseded Report:** 643868

Client Ref.: LD10385 **Location:** Ten Acres Lane

VOC MS (S)

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	CP202	WS305	WS316	WS317		
			Depth (m)	6.70 - 6.70	1.50 - 1.50	4.00 - 4.00	2.50 - 2.50		
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)		
			Date Sampled	11/04/2022	11/04/2022	11/04/2022	11/04/2022		
			Sample Time	11:00	12:00	10:30	10:00		
			Date Received	13/04/2022	13/04/2022	13/04/2022	13/04/2022		
			SDG Ref	220414-86	220414-86	220414-86	220414-86		
			Lab Sample No.(s)	26139138	26139152	26139129	26139123		
			AGS Reference						
Sum of Detected Xylenes	<0.02 mg/kg	TM116		<0.02	<0.4 @	<0.4 @	<0.4 @		
Sum of BTEX	<40 µg/kg	TM116		<40	<800 @	<800 @	<800 @		

CERTIFICATE OF ANALYSIS

SDG: 220414-86 **Report Number:** 644453 **Superseded Report:** 643868
Client Ref.: LD10385 **Location:** Ten Acres Lane

Asbestos Identification - Solid Samples

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
*	Subcontracted test.
(F)	Trigger breach confirmed
1-5&♦$@	Sample deviation (see appendix)

		Date of Analysis	Analysed By	Comments	Amosite (Brown) Asbestos	Asbestos Actinolite	Asbestos Anthophyllite	Asbestos Tremolite	Chrysotile (White) Asbestos	Crocidolite (Blue) Asbestos	Non-Asbestos Fibre
Cust. Sample Ref.	CP202	22/04/2022	Emily Anderton	Fibre bundle in soil	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Detected (#)	Not Detected (#)	Not Detected
Depth (m)	6.70 - 6.70										
Sample Type	SOLID										
Date Sampled	11/04/2022 00:00:00										
Date Receieved	13/04/2022 05:00:00										
SDG	220414-86										
Original Sample	26139138										
Method Number	TM048										

CERTIFICATE OF ANALYSIS

SDG: 220414-86 **Report Number:** 644453 **Superseded Report:** 643868
Client Ref.: LD10385 **Location:** Ten Acres Lane

Asbestos Quantification - Full

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
*	Subcontracted test.
(F)	Trigger breach confirmed
1-5&♦$@	Sample deviation (see appendix)

		Additional Asbestos Components	Analysts Comments	Asbestos Quantification - Gravimetric - %	Asbestos Quantification - PCOM	Asbestos Quantification - Total - %
Cust. Sample Ref.	CP202	None (#)	-	<0.001 (#)	<0.001 (#)	<0.001 (#)
Depth (m)	6.70 - 6.70					
Sample Type	SOLID					
Date Sampled	11/04/2022 00:00:00					
Date Receieved	13/04/2022 05:00:00					
SDG	220414-86					
Original Sample	26139138					
Method Number	TM304					

Table of Results - Appendix

Method No	Reference	Description
PM024	Modified BS 1377	Soil preparation including homogenisation, moisture screens of soils for Asbestos Containing Material
TM048	HSG 248, Asbestos: The analysts' guide for sampling, analysis and clearance procedures	Identification of Asbestos in Bulk Material
TM062 (S)	National Grid Property Holdings Methods for the Collection & Analysis of Samples from National Grid Sites version 1 Sec 3.9	Determination of Phenols in Soils by HPLC
TM089	Modified: US EPA Methods 8020 & 602	Determination of Gasoline Range Hydrocarbons (GRO) by Headspace GC-FID (C4-C12)
TM116	Modified: US EPA Method 8260, 8120, 8020, 624, 610 & 602	Determination of Volatile Organic Compounds by Headspace / GC-MS
TM132	In - house Method	ELTRA CS800 Operators Guide
TM133	BS 1377: Part 3 1990;BS 6068-2.5	Determination of pH in Soil and Water using the GLpH pH Meter
TM151	Method 3500D, AWWA/APHA, 20th Ed., 1999	Determination of Hexavalent Chromium using Kone analyser
TM153	Method 4500A,B,C, I, M AWWA/APHA, 20th Ed., 1999	Determination of Total Cyanide, Free (Easily Liberatable) Cyanide and Thiocyanate using the Skalar SANS+ System Segmented Flow Analyser
TM157	HP 6890 Gas Chromatograph (GC) system and HP 5973 Mass Selective Detector (MSD).	Determination of SVOC in Soils by GC-MS extracted by sonication in DCM/Acetone
TM168	EPA Method 8082, Polychlorinated Biphenyls by Gas Chromatography	Determination of WHO12 and EC7 Polychlorinated Biphenyl Congeners by GC-MS in Soils
TM180	Sulphide in waters and waste waters 1991 ISBN 01 175 7186 SCA rec. 2007 (unpublished)'	The Determination Of Easily Liberated Sulphide In Soil Samples by Ion Selective Electrode Technique
TM181	US EPA Method 6010B	Determination of Routine Metals in Soil by iCap 6500 Duo ICP-OES
TM218	Shaker extraction - EPA method 3546.	The determination of PAH in soil samples by GC-MS
TM221	Inductively Coupled Plasma - Atomic Emission Spectroscopy. An Atlas of Spectral Information: Winge, Fassel, Peterson and Floyd	Determination of Acid Extractable Sulphate in Soils by ICP OES
TM222	In-House Method	Determination of Hot Water Soluble Boron in Soils (10:1 Water:Soil) by ICP OES.
TM243		Mixed Anions In Soils By Kone
TM304	HSE Contract research Report no 83/1996	Asbestos Quantification in Soil: Fibres identified by morphology only
TM338	PFAS In Solids	Analysis of perfluoroalkylsulfonates and perfluorocarboxylic acids in Solids
TM414	Analysis of Petroleum Hydrocarbons in Environmental Media – Total Petroleum Hydrocarbon Criteria	Determination of Speciated Extractable Petroleum Hydrocarbons in Soils by GCxGC-FID

NA = not applicable.

Chemical testing (unless subcontracted) performed at ALS Life Sciences Ltd Hawarden.

CERTIFICATE OF ANALYSIS

SDG: 220414-86 **Report Number:** 644453 **Superseded Report:** 643868
Client Ref.: LD10385 **Location:** Ten Acres Lane

Test Completion Dates

Lab Sample No(s)	26139138	26139152	26139129	26139146	26139123
Customer Sample Ref.	CP202	WS305	WS316	WS316	WS317
AGS Ref.					
Depth	6.70 - 6.70	1.50 - 1.50	4.00 - 4.00	2.00 - 2.00	2.50 - 2.50
Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
Anions by Kone (soil)	22-Apr-2022				
Asbestos ID in Solid Samples	22-Apr-2022				
Asbestos Quantification - Full	03-May-2022				
Boron Water Soluble	27-Apr-2022				
Cyanide Comp/Free/Total/Thiocyanate	25-Apr-2022				
Easily Liberated Sulphide	26-Apr-2022				
EPH CWG GC (S)	21-Apr-2022	21-Apr-2022	21-Apr-2022		21-Apr-2022
GRO by GC-FID (S)	25-Apr-2022	25-Apr-2022	25-Apr-2022		25-Apr-2022
Hexavalent Chromium (s)	25-Apr-2022				
Metals in solid samples by OES	22-Apr-2022				
PAH by GCMS	21-Apr-2022				
PCBs by GCMS	22-Apr-2022				
PFAS Solids				22-Apr-2022	
pH	22-Apr-2022				
Phenols by HPLC (S)	22-Apr-2022				
Sample description	15-Apr-2022	15-Apr-2022	15-Apr-2022	15-Apr-2022	15-Apr-2022
Semi Volatile Organic Compounds	22-Apr-2022	20-Apr-2022	20-Apr-2022		20-Apr-2022
Total Organic Carbon	22-Apr-2022				
Total Sulphate	25-Apr-2022				
TPH CWG GC (S)	25-Apr-2022	25-Apr-2022	25-Apr-2022		25-Apr-2022
VOC MS (S)	22-Apr-2022	26-Apr-2022	26-Apr-2022		26-Apr-2022

Appendix

1. Results are expressed on a dry weight basis (dried at 35ºC) for all soil analyses except for the following: NRA and CEN Leach tests, flash point LOI, pH, ammonium as NH4 by the BRE method, VOC TICs and SVOC TICs.

2. If sufficient sample is received a sub sample will be retained free of charge for 30 days after analysis is completed (e-mailed) for all sample types unless the sample is destroyed on testing. The prepared soil sub sample that is analysed for asbestos will be retained for a period of 6 months after the analysis date. All bulk samples will be retained for a period of 6 months after the analysis date. All samples received and not scheduled will be disposed of one month after the date of receipt unless we are instructed to the contrary. Once the initial period has expired, a storage charge will be applied for each month or part thereof until the client cancels the request for sample storage. ALS reserve the right to charge for samples received and stored but not analysed.

3. With respect to turnaround, we will always endeavour to meet client requirements wherever possible, but turnaround times cannot be absolutely guaranteed due to so many variables beyond our control.

4. We take responsibility for any test performed by sub-contractors (marked with an asterisk). We endeavour to use UKAS/MCERTS Accredited Laboratories, who either complete a quality questionnaire or are audited by ourselves. For some determinands there are no UKAS/MCERTS Accredited Laboratories, in this instance a laboratory with a known track record will be utilised.

5. If no separate volatile sample is supplied by the client, or if a headspace or sediment is present in the volatile sample, the integrity of the data may be compromised. This will be flagged up as an invalid VOC on the test schedule and the result marked as deviating on the test certificate.

6. NDP - No determination possible due to insufficient/unsuitable sample.

7. Results relate only to the items tested.

8. LoDs (Limit of Detection) for wet tests reported on a dry weight basis are not corrected for moisture content.

9. **Surrogate recoveries** - Surrogates are added to your sample to monitor recovery of the test requested. A % recovery is reported, results are not corrected for the recovery measured. Typical recoveries for organics tests are 70-130%. Recoveries in soils are affected by organic rich or clay rich matrices. Waters can be affected by remediation fluids or high amounts of sediment. Test results are only ever reported if all of the associated quality checks pass; it is assumed that all recoveries outside of the values above are due to matrix affect.

10. Stones/debris are not routinely removed. We always endeavour to take a representative sub sample from the received sample.

11. In certain circumstances the method detection limit may be elevated due to the sample being outside the calibration range. Other factors that may contribute to this include possible interferences. In both cases the sample would be diluted which would cause the method detection limit to be raised.

12. For dried and crushed preparations of soils volatile loss may occur e.g volatile mercury.

13. For leachate preparations other than Zero Headspace Extraction (ZHE) volatile loss may occur.

14. For the BSEN 12457-3 two batch process to allow the cumulative release to be calculated, the volume of the leachate produced is measured and filtered for all tests. We therefore cannot carry out any unfiltered analysis. The tests affected include volatiles GCFID/GCMS and all subcontracted analysis.

15. Analysis and identification of specific compounds using GCFID is by retention time only, and we routinely calibrate and quantify for benzene, toluene, ethylbenzenes and xylenes (BTEX). For total volatiles in the C5-C12 range, the total area of the chromatogram is integrated and expressed as ug/kg or ug/l. Although this analysis is commonly used for the quantification of gasoline range organics (GRO), the system will also detect other compounds such as chlorinated solvents, and this may lead to a falsely high result with respect to hydrocarbons only. It is not possible to specifically identify these non-hydrocarbons, as standards are not routinely run for any other compounds, and for more definitive identification, volatiles by GCMS should be utilised.

16. We are accredited to MCERTS for sand, clay and loam/topsoil, or any of these materials - whether these are derived from naturally occurring soil profiles, or from fill/made ground, as long as these materials constitute the major part of the sample. Other coarse granular material such as concrete, gravel and brick are not accredited if they comprise the major part of the sample.

17 Data retention. All records, communications and reports pertaining to the analysis are archived for seven years from the date of issue of the final report.

General

18. **Tentatively Identified Compounds (TICs)** are non-target peaks in VOC and SVOC analysis. All non-target peaks detected with a concentration above the LoD are subjected to a mass spectral library search. Non-target peaks with a library search confidence of >75% are reported based on the best mass spectral library match. When a non-target peak with a library search confidence of <75% is detected it is reported as “mixed hydrocarbons”. Non-target compounds identified from the scan data are semi-quantified relative to one of the deuterated internal standards, under the same chromatographic conditions as the target compounds. This result is reported as a semi-quantitative value and reported as Tentatively Identified Compounds (TICs). TICs are outside the scope of UKAS accreditation and are not moisture corrected.

19. **Sample Deviations**

If a sample is classed as deviated then the associated results may be compromised.

1	**Container with Headspace provided for volatiles analysis**
2	**Incorrect container received**
3	**Deviation from method**
4	**Matrix interference**
♦	**Sample holding time exceeded in laboratory**
@	**Sample holding time exceeded due to late arrival of instructions or samples**
§	**Sampled on date not provided**

20. **Asbestos**

When requested, the individual sub sample scheduled will be analysed in house for the presence of asbestos fibres and asbestos containing material by our documented in house method TM048 based on HSG 248 (2021), which is accredited to ISO17025. If a specific asbestos fibre type is not found this will be reported as “Not detected”. If no asbestos fibre types are found all will be reported as “Not detected” and the sub sample analysed deemed to be clear of asbestos. If an asbestos fibre type is found it will be reported as detected (for each fibre type found). Testing can be carried out on asbestos positive samples, but, due to Health and Safety considerations, may be replaced by alternative tests or reported as No Determination Possible (NDP). The quantity of asbestos present is not determined unless specifically requested.

Identification of Asbestos in Bulk Materials & Soils

The results for identification of asbestos in bulk materials and soils are obtained from supplied bulk materials andd soils which have been examined to determine the presence of asbestos fibres using ALS (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining, based on HSG 248 (2021).

The results for identification of asbestos in soils are obtained from a homogenised sub sample which has been examined to determine the presence of asbestos fibres using ALS (Hawarden) in-house method of transmitted/polarised light microscopy and central

Asbestos Type	Common Name
Chrysotile	White Asbestos
Amosite	Brown Asbestos
Crocidolite	Blue Asbestos
Fibrous Actinolite	-
Fibrous Anthophyllite	-
Fibrous Tremolite	-

Visual Estimation Of Fibre Content

Estimation of fibre content is not permitted as part of our UKAS accredited test other than: - Trace - Where only one or two asbestos fibres were identified.

Respirable Fibres

Respirable fibres are defined as fibres of <3 µm diameter, longer than 5 µm and with aspect ratios of at least 3:1 that can be inhaled into the lower regions of the lung and are generally acknowledged to be most important predictor of hazard and risk for cancers of the lung.

Further guidance on typical asbestos fibre content of manufactured products can be found in HSG 264.

The identification of asbestos containing materials and soils falls within our schedule of tests for which we hold UKAS accreditation, however opinions, interpretations and all other information contained in the report are outside the scope of UKAS accreditation.

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Hawarden
Deeside
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email: hawardencustomerservices@alsglobal.com
Website: www.alsenvironmental.co.uk

Wardell Armstrong LLP
36 Park Row
Leeds
LS1 5JL

Attention: Jonathan Currie

CERTIFICATE OF ANALYSIS

Date of report Generation:	27 April 2022
Customer:	Wardell Armstrong LLP
Sample Delivery Group (SDG):	220415-70
Your Reference:	LD10385
Location:	Ten Acres Lane
Report No:	644004
Order Number:	LD2711

This report has been revised and directly supersedes 643798 in its entirety.

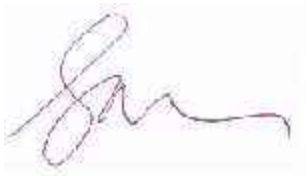
We received 6 samples on Friday April 15, 2022 and 6 of these samples were scheduled for analysis which was completed on Wednesday April 27, 2022. Accredited laboratory tests are defined within the report, but opinions, interpretations and on-site data expressed herein are outside the scope of ISO 17025 accreditation.

Should this report require incorporation into client reports, it must be used in its entirety and not simply with the data sections alone.

Chemical testing (unless subcontracted) performed at ALS Life Sciences Ltd Hawarden.

All sample data is provided by the customer. The reported results relate to the sample supplied, and on the basis that this data is correct.
Incorrect sampling dates and/or sample information will affect the validity of results.
The customer is not permitted to reproduce this report except in full without the approval of the laboratory.

Approved By:



Sonia McWhan

Operations Manager

CERTIFICATE OF ANALYSIS

SDG: 220415-70 **Report Number:** 644004 **Superseded Report:** 643798
Client Ref.: LD10385 **Location:** Ten Acres Lane

Received Sample Overview

Lab Sample No(s)	Customer Sample Ref.	AGS Ref.	Depth (m)	Sampled Date
26144316	WS306		1.30 - 1.30	12/04/2022
26144306	WS307		2.60 - 2.60	12/04/2022
26144292	WS309		3.20 - 3.20	12/04/2022
26144325	WS310		2.80 - 2.80	12/04/2022
26144332	WS311		1.40 - 1.40	12/04/2022
26144299	WS318		3.50 - 3.50	12/04/2022

Only received samples which have had analysis scheduled will be shown on the following pages.

Validated

CERTIFICATE OF ANALYSIS

SDG: 220415-70 **Report Number:** 644004 **Superseded Report:** 643798

Client Ref.: LD10385 **Location:** Ten Acres Lane

Results Legend

X Test

N No Determination Possible

Sample Types -

S - Soil/Solid
UNS - Unspecified Solid
GW - Ground Water
SW - Surface Water
LE - Land Leachate
PL - Prepared Leachate
PR - Process Water
SA - Saline Water
TE - Trade Effluent
TS - Treated Sewage
US - Untreated Sewage
RE - Recreational Water
DW - Drinking Water Non-regulatory
UNL - Unspecified Liquid
SL - Sludge
G - Gas
OTH - Other

			Lab Sample No(s)	Customer Sample Reference	AGS Reference	Depth (m)	Container	Sample Type
			26144316	WS306		1.30 - 1.30	1kg TUB with Handle (ALE260)	S
							250g Amber Jar (ALE210)	S
							60g VOC (ALE215)	S
			26144306	WS307		2.60 - 2.60	1kg TUB with Handle (ALE260)	S
							250g Amber Jar (ALE210)	S
							60g VOC (ALE215)	S
			26144292	WS309		3.20 - 3.20	250g Amber Jar (ALE210)	S
							60g VOC (ALE215)	S
			26144325	WS310		2.80 - 2.80	1kg TUB with Handle (ALE260)	S
							250g Amber Jar (ALE210)	S
							60g VOC (ALE215)	S
			26144332	WS311		1.40 - 1.40	1kg TUB with Handle (ALE260)	S
							250g Amber Jar (ALE210)	S
							60g VOC (ALE215)	S
			26144299	WS318		3.50 - 3.50	250g Amber Jar (ALE210)	S
							60g VOC (ALE215)	S
Asbestos ID in Solid Samples	All	NDPs: 0 Tests: 3						
				X				
			X					
				X				
Asbestos Quantification - Full	All	NDPs: 0 Tests: 2						
			X					
				X				
EPH CWG GC (S)	All	NDPs: 0 Tests: 5						
			X					
				X				
GRO by GC-FID (S)	All	NDPs: 0 Tests: 5						
				X				
PFAS Solids	All	NDPs: 0 Tests: 2						
			X					
Sample description	All	NDPs: 0 Tests: 5						
			X					
				X				
Semi Volatile Organic Compounds	All	NDPs: 0 Tests: 6						
			X					
				X				
TPH CWG GC (S)	All	NDPs: 0 Tests: 5						
			X					
				X				
VOC MS (S)	All	NDPs: 0 Tests: 6						
			X					
				X				

CERTIFICATE OF ANALYSIS

SDG: 220415-70 **Report Number:** 644004 **Superseded Report:** 643798
Client Ref.: LD10385 **Location:** Ten Acres Lane

Sample Descriptions

Grain Sizes

very fine	<0.063mm	fine	0.063mm - 0.1mm	medium	0.1mm - 2mm	coarse	2mm - 10mm	very coarse	>10mm

Lab Sample No(s)	Customer Sample Ref.	Depth (m)	Colour	Description	Inclusions	Inclusions 2
26144316	WS306	1.30 - 1.30	Dark Brown	Sandy Clay Loam	Stones	Plastic
26144306	WS307	2.60 - 2.60	Dark Brown	Sandy Clay Loam	Stones	Brick
26144292	WS309	3.20 - 3.20	Dark Brown	Clay Loam	Stones	None
26144325	WS310	2.80 - 2.80	Dark Brown	Loamy Sand	Vegetation	Brick
26144332	WS311	1.40 - 1.40	Dark Brown	Clay Loam	Stones	Brick
26144299	WS318	3.50 - 3.50	Dark Brown	Sandy Clay Loam	Stones	Oil/Petroleum

These descriptions are only intended to act as a cross check if sample identities are questioned, and to provide a log of sample matrices with respect to MCERTS validation. They are not intended as full geological descriptions.

We are accredited to MCERTS for sand, clay and loam/topsoil, or any of these materials - whether these are derived from naturally ocurring soil profiles, or from fill/made ground, as long as these materials constitute the major part of the sample.

Other coarse granular materials such as concrete, gravel and brick are not accredited if they comprise the major part of the sample.

Validated

CERTIFICATE OF ANALYSIS

SDG: 220415-70 **Report Number:** 644004 **Superseded Report:** 643798

Client Ref.: LD10385 **Location:** Ten Acres Lane

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	WS306	WS307	WS309	WS310	WS311	WS318
			Depth (m)	1.30 - 1.30	2.60 - 2.60	3.20 - 3.20	2.80 - 2.80	1.40 - 1.40	3.50 - 3.50
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	12/04/2022	12/04/2022	12/04/2022	12/04/2022	12/04/2022	12/04/2022
			Sample Time	12:00	11:00	09:00	12:30	13:00	10:00
			Date Received	15/04/2022	15/04/2022	15/04/2022	15/04/2022	15/04/2022	15/04/2022
			SDG Ref	220415-70	220415-70	220415-70	220415-70	220415-70	220415-70
			Lab Sample No.(s)	26144316	26144306	26144292	26144325	26144332	26144299
			AGS Reference						
Moisture Content Ratio (% of as received sample)	%	PM024		24	21	56	22	25	24
Asbestos Quantification - Gravimetric - %	<0.001 %	TM304					<0.001 #	0.0184 #	
Asbestos Quantification - PCOM Evaluation - %	<0.001 %	TM304					<0.001 #	0.0015 #	
Additional Asbestos Components (Using TM048)		TM304					None #	Chrysotile #	
Analysts Comments		TM304					0	Loose fibres in soil	
Asbestos Quantification - Total - %	<0.001 %	TM304					<0.001 #	0.0199 #	
PFBA (375-22-4) Perfluoro-n-butanoic acid	<3 µg/kg	TM338		<3			<3		
PFPA (2706-90-3) Perfluoro-n-pentanoic acid	<3 µg/kg	TM338		<3			<3		
PFHxA (307-24-4) Perfluoro-n-hexanoic acid	<2 µg/kg	TM338		<2			<2		
PFBS (375-73-5) Perfluoro-1-butanesulfonate	<1 µg/kg	TM338		<1			<1		
PFHpA (375-85-9) Perfluoro-n-heptanoic acid	<1 µg/kg	TM338		<1			<1		
PFOA (335-67-1) Perfluoro-n-octanoic acid	<1 µg/kg	TM338		<1			<1		
PFHxS (355-46-4) Perfluoro-1-hexanesulfonate	<1 µg/kg	TM338		<1			<1		
PFNA (375-95-1) Perfluoro-n-nonanoic acid	<1 µg/kg	TM338		<1			<1		
PFHpS (375-92-8) Perfluoro-1-heptanesulfonate	<1 µg/kg	TM338		<1			<1		
PFDA (335-76-2) Perfluoro-n-decanoic acid	<1 µg/kg	TM338		<1			<1		
Linear PFOS(1763-23-1) Perfluoro-1-octanesulfonate	<1 µg/kg	TM338		<1			<1		
Branched PFOS	<1 µg/kg	TM338		<1			<1		
PFUnA (2058-94-8) Perfluoro-n-undecanoic acid	<1 µg/kg	TM338		<1			<1		
PFDoA (307-55-1) Perfluoro-n-dodecanoic acid	<1 µg/kg	TM338		<1			<1		
PFOSA (754-91-6) Perfluoro-octanesulfonamide	<1 µg/kg	TM338		<1			<1		
6:2-FTS (27619-97-2)	<1 µg/kg	TM338		<1			<1		
PFDS (335-73-3) Perfluoro-1-decanesulfonate	<1 µg/kg	TM338		<1			<1		
PFPeS (2706-91-4) Perfluoro-1-pentanesulfonate	<1 µg/kg	TM338		<1			<1		
Total PFOS	<1 µg/kg	TM338		<1			<1		

CERTIFICATE OF ANALYSIS

SDG: 220415-70 **Report Number:** 644004 **Superseded Report:** 643798
Client Ref.: LD10385 **Location:** Ten Acres Lane

Semi Volatile Organic Compounds

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4+§@ Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	WS306	WS307	WS309	WS310	WS311	WS318
			Depth (m)	1.30 - 1.30	2.60 - 2.60	3.20 - 3.20	2.80 - 2.80	1.40 - 1.40	3.50 - 3.50
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	12/04/2022	12/04/2022	12/04/2022	12/04/2022	12/04/2022	12/04/2022
			Sample Time	12:00	11:00	09:00	12:30	13:00	10:00
			Date Received	15/04/2022	15/04/2022	15/04/2022	15/04/2022	15/04/2022	15/04/2022
			SDG Ref	220415-70	220415-70	220415-70	220415-70	220415-70	220415-70
			Lab Sample No.(s)	26144316	26144306	26144292	26144325	26144332	26144299
			AGS Reference						
Phenol	<100 µg/kg	TM157		<2000	<100	<5000	<1000	<200	<100
Pentachlorophenol	<100 µg/kg	TM157		<2000	<100	<5000	<1000	<200	<100
n-Nitroso-n-dipropylamine	<100 µg/kg	TM157		<2000	<100	<5000	<1000	<200	<100
Nitrobenzene	<100 µg/kg	TM157		<2000	<100	<5000	<1000	<200	<100
Isophorone	<100 µg/kg	TM157		<2000	<100	<5000	<1000	<200	<100
Hexachloroethane	<100 µg/kg	TM157		<2000	<100	<5000	<1000	<200	<100
Hexachlorocyclopentadiene	<100 µg/kg	TM157		<2000	<100	<5000	<1000	<200	<100
Hexachlorobutadiene	<100 µg/kg	TM157		<2000	<100	<5000	<1000	<200	<100
Hexachlorobenzene	<100 µg/kg	TM157		<2000	<100	<5000	<1000	<200	<100
n-Dioctyl phthalate	<100 µg/kg	TM157		<2000	<100	<5000	<1000	<200	<100
Dimethyl phthalate	<100 µg/kg	TM157		<2000	<100	<5000	<1000	<200	<100
Diethyl phthalate	<100 µg/kg	TM157		<2000	<100	<5000	<1000	<200	<100
n-Dibutyl phthalate	<100 µg/kg	TM157		<2000	<100	<5000	<1000	<200	<100
Dibenzofuran	<100 µg/kg	TM157		3180	<100	<5000	<1000	335	<100
Carbazole	<100 µg/kg	TM157		<2000	<100	64800	<1000	<200	<100
Butylbenzyl phthalate	<100 µg/kg	TM157		<2000	<100	<5000	<1000	<200	<100
bis(2-Ethylhexyl) phthalate	<100 µg/kg	TM157		<2000	<100	<5000	<1000	<200	<100
bis(2-Chloroethoxy)methane	<100 µg/kg	TM157		<2000	<100	<5000	<1000	1070	<100
bis(2-Chloroethyl)ether	<100 µg/kg	TM157		<2000	<100	<5000	<1000	<200	<100
Azobenzene	<100 µg/kg	TM157		<2000	<100	<5000	<1000	<200	<100
4-Nitrophenol	<100 µg/kg	TM157		<2000	<100	<5000	<1000	<200	<100
4-Nitroaniline	<100 µg/kg	TM157		<2000	<100	<5000	<1000	<200	<100
4-Methylphenol	<100 µg/kg	TM157		<2000	<100	<5000	<1000	<200	<100
4-Chlorophenylphenylether	<100 µg/kg	TM157		<2000	<100	<5000	<1000	<200	<100
4-Chloroaniline	<100 µg/kg	TM157		<2000	<100	<5000	<1000	<200	<100
4-Chloro-3-methylphenol	<100 µg/kg	TM157		<2000	<100	<5000	<1000	<200	<100
4-Bromophenylphenylether	<100 µg/kg	TM157		<2000	<100	<5000	<1000	<200	<100
3-Nitroaniline	<100 µg/kg	TM157		<2000	<100	<5000	<1000	<200	<100
2-Nitrophenol	<100 µg/kg	TM157		<2000	<100	<5000	<1000	<200	<100
2-Nitroaniline	<100 µg/kg	TM157		<2000	<100	<5000	<1000	<200	<100
2-Methylphenol	<100 µg/kg	TM157		<2000	<100	<5000	<1000	<200	<100
1,2,4-Trichlorobenzene	<100 µg/kg	TM157		<2000	<100	<5000	<1000	<200	<100
2-Chlorophenol	<100 µg/kg	TM157		<2000	<100	<5000	<1000	<200	<100

CERTIFICATE OF ANALYSIS

SDG: 220415-70 **Report Number:** 644004 **Superseded Report:** 643798
Client Ref.: LD10385 **Location:** Ten Acres Lane

Semi Volatile Organic Compounds

Results Legend			Customer Sample Ref.	WS306	WS307	WS309	WS310	WS311	WS318
#	ISO17025 accredited.								
M	mCERTS accredited.								
aq	Aqueous / settled sample.								
diss.filt	Dissolved / filtered sample.		Depth (m)	1.30 - 1.30	2.60 - 2.60	3.20 - 3.20	2.80 - 2.80	1.40 - 1.40	3.50 - 3.50
tot.unfilt	Total / unfiltered sample.		Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
*	Subcontracted - refer to subcontractor report for accreditation status.		Date Sampled	12/04/2022	12/04/2022	12/04/2022	12/04/2022	12/04/2022	12/04/2022
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery		Sample Time	12:00	11:00	09:00	12:30	13:00	10:00
			Date Received	15/04/2022	15/04/2022	15/04/2022	15/04/2022	15/04/2022	15/04/2022
			SDG Ref	220415-70	220415-70	220415-70	220415-70	220415-70	220415-70
(F)	Trigger breach confirmed		Lab Sample No.(s)	26144316	26144306	26144292	26144325	26144332	26144299
1-4+§@	Sample deviation (see appendix)		AGS Reference						
Component		**LOD/Units**	**Method**						
2,6-Dinitrotoluene		<100 µg/kg	TM157	<2000	<100	<5000	<1000	<200	<100
2,4-Dinitrotoluene		<100 µg/kg	TM157	<2000	<100	<5000	<1000	<200	<100
2,4-Dimethylphenol		<100 µg/kg	TM157	<2000	<100	<5000	<1000	<200	<100
2,4-Dichlorophenol		<100 µg/kg	TM157	<2000	<100	<5000	<1000	<200	<100
2,4,6-Trichlorophenol		<100 µg/kg	TM157	<2000	<100	<5000	<1000	<200	<100
2,4,5-Trichlorophenol		<100 µg/kg	TM157	<2000	<100	<5000	<1000	<200	<100
1,4-Dichlorobenzene		<100 µg/kg	TM157	<2000	<100	<5000	<1000	<200	<100
1,3-Dichlorobenzene		<100 µg/kg	TM157	<2000	<100	<5000	<1000	<200	<100
1,2-Dichlorobenzene		<100 µg/kg	TM157	<2000	<100	<5000	<1000	<200	<100
2-Chloronaphthalene		<100 µg/kg	TM157	<2000	<100	<5000	<1000	<200	<100
2-Methylnaphthalene		<100 µg/kg	TM157	<2000	<100	<5000	<1000	<200	<100
Acenaphthylene		<100 µg/kg	TM157	<2000	<100	51500	<1000	<200	<100
Acenaphthene		<100 µg/kg	TM157	3500	<100	<5000	2070	657	145
Anthracene		<100 µg/kg	TM157	8280	<100	192000	2020	643	238
Benzo(a)anthracene		<100 µg/kg	TM157	16600	191	311000	3300	2010	792
Benzo(b)fluoranthene		<100 µg/kg	TM157	9700	<100	117000	2180	1030	436
Benzo(k)fluoranthene		<100 µg/kg	TM157	10100	127	149000	2230	1250	554
Benzo(a)pyrene		<100 µg/kg	TM157	12100	140	194000	2100	1410	528
Benzo(g,h,i)perylene		<100 µg/kg	TM157	6300	<100	68400	<1000	710	277
Chrysene		<100 µg/kg	TM157	16900	178	237000	3470	1540	766
Fluoranthene		<100 µg/kg	TM157	36700	343	572000	8860	4570	1700
Fluorene		<100 µg/kg	TM157	5610	<100	38100	<1000	549	<100
Indeno(1,2,3-cd)pyrene		<100 µg/kg	TM157	10600	<100	114000	1550	938	449
Phenanthrene		<100 µg/kg	TM157	38500	203	518000	8930	3640	726
Pyrene		<100 µg/kg	TM157	36800	318	497000	6980	4070	1520
Naphthalene		<100 µg/kg	TM157	5060	<100	12000	<1000	<200	<100
Dibenzo(a,h)anthracene		<100 µg/kg	TM157	<2000	<100	14400	<1000	<200	<100
Bis(2-chloroisopropyl) ether		<100 µg/kg	TM157	<2000	<100	<5000	<1000	<200	<100

Validated

CERTIFICATE OF ANALYSIS

SDG: 220415-70 **Report Number:** 644004 **Superseded Report:** 643798

Client Ref.: LD10385 **Location:** Ten Acres Lane

TPH CWG (S)

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	WS306	WS307	WS309	WS311	WS318
			Depth (m)	1.30 - 1.30	2.60 - 2.60	3.20 - 3.20	1.40 - 1.40	3.50 - 3.50
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	12/04/2022	12/04/2022	12/04/2022	12/04/2022	12/04/2022
			Sample Time	12:00	11:00	09:00	13:00	10:00
			Date Received	15/04/2022	15/04/2022	15/04/2022	15/04/2022	15/04/2022
			SDG Ref	220415-70	220415-70	220415-70	220415-70	220415-70
			Lab Sample No.(s)	26144316	26144306	26144292	26144332	26144299
			AGS Reference					
GRO Surrogate % recovery**	%	TM089		103	100	45.5 4	87.4	94.7
Aliphatics >C5-C6 (HS_1D_AL)	<10 µg/kg	TM089		172	<10	92 4	22.8	<10
Aliphatics >C6-C8 (HS_1D_AL)	<10 µg/kg	TM089		372	31.8	311 4	67	31.7
Aliphatics >C8-C10 (HS_1D_AL)	<10 µg/kg	TM089		593	25.4	1370 4	201	73.9
Aliphatics >C10-C12 (EH_2D_AL_#1)	<1000 µg/kg	TM414		3590 #	<1000 #	<10000	<1000 #	<1000 #
Aliphatics >C12-C16 (EH_2D_AL_#1)	<1000 µg/kg	TM414		19900 #	<1000 #	<10000	63900 #	<1000 #
Aliphatics >C16-C21 (EH_2D_AL_#1)	<1000 µg/kg	TM414		37300 #	<1000 #	126000	208000 #	<1000 #
Aliphatics >C21-C35 (EH_2D_AL_#1)	<1000 µg/kg	TM414		208000 #	<1000 #	557000	693000 #	8570 #
Aliphatics >C35-C44 (EH_2D_AL_#1)	<1000 µg/kg	TM414		156000	<1000	96900	245000	<1000
Total Aliphatics >C10-C44 (EH_2D_AR_#1)	<5000 µg/kg	TM414		425000	<5000	788000	1210000	8570
Total Aliphatics & Aromatics >C10-C44 (EH_2D_Total_#1)	<10000 µg/kg	TM414		2470000	<10000	32300000	1390000	28700
Aromatics >EC5-EC7 (HS_1D_AR)	<10 µg/kg	TM089		40.9	<10	432 4	<10	<10
Aromatics >EC7-EC8 (HS_1D_AR)	<10 µg/kg	TM089		37	<10	702 4	<10	<10
Aromatics >EC8-EC10 (HS_1D_AR)	<10 µg/kg	TM089		396	16.5	911 4	134	48.8
Aromatics > EC10-EC12 (EH_2D_AR_#1)	<1000 µg/kg	TM414		16800 #	<1000 #	81100	<1000 #	<1000 #
Aromatics > EC12-EC16 (EH_2D_AR_#1)	<1000 µg/kg	TM414		108000 #	<1000 #	994000	25100 #	<1000 #
Aromatics > EC16-EC21 (EH_2D_AR_#1)	<1000 µg/kg	TM414		550000 #	1830 #	10900000	48100 #	8770 #
Aromatics > EC21-EC35 (EH_2D_AR_#1)	<1000 µg/kg	TM414		1140000 #	2500 #	17800000	104000 #	9780 #
Aromatics >EC35-EC44 (EH_2D_AR_#1)	<1000 µg/kg	TM414		227000	<1000	1680000	5560	<1000
Aromatics > EC40-EC44 (EH_2D_AR_#1)	<1000 µg/kg	TM414		57500	<1000	249000	<1000	<1000
Total Aromatics > EC10-EC44 (EH_2D_AR_#1)	<5000 µg/kg	TM414		2040000	5330	31500000	183000	20100
Total Aliphatics & Aromatics >C5-C44 (EH_2D_Total_#1+HS_1D_Total)	<10000 µg/kg	TM414		2470000	<10000	32300000	1390000	28900
Total Aliphatics >C5-C10 (HS_1D_AL_TOTAL)	<50 µg/kg	TM089		1140	57.2	1770 4	291	106
Total Aromatics >EC5-EC10 (HS_1D_AR_TOTAL)	<50 µg/kg	TM089		474	<50	2040 4	134	<50
GRO >C5-C10 (HS_1D_TOTAL)	<20 µg/kg	TM089		1610	57.2	3810 4	425	106

CERTIFICATE OF ANALYSIS

SDG: 220415-70 **Report Number:** 644004 **Superseded Report:** 643798
Client Ref.: LD10385 **Location:** Ten Acres Lane

VOC MS (S)

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4+§@ Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	WS306	WS307	WS309	WS310	WS311	WS318
			Depth (m)	1.30 - 1.30	2.60 - 2.60	3.20 - 3.20	2.80 - 2.80	1.40 - 1.40	3.50 - 3.50
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	12/04/2022	12/04/2022	12/04/2022	12/04/2022	12/04/2022	12/04/2022
			Sample Time	12:00	11:00	09:00	12:30	13:00	10:00
			Date Received	15/04/2022	15/04/2022	15/04/2022	15/04/2022	15/04/2022	15/04/2022
			SDG Ref	220415-70	220415-70	220415-70	220415-70	220415-70	220415-70
			Lab Sample No.(s)	26144316	26144306	26144292	26144325	26144332	26144299
			AGS Reference						
Dibromofluoromethane**	%	TM116		110 @	112 @	113 @	111 @	115 @	111 @
Toluene-d8**	%	TM116		96.8 @	99.4 @	101 @	98.4 @	98.6 @	99.5 @
4-Bromofluorobenzene**	%	TM116		90.3 @	97.2 @	98 @	91.2 @	92.7 @	97 @
Dichlorodifluoromethane	<6 µg/kg	TM116		<120 @ #	<120 @ #	<1200 @ #	<120 @ #	<120 @ #	<120 @ #
Chloromethane	<7 µg/kg	TM116		<140 @ #	<140 @ #	<1400 @ #	<140 @ #	<140 @ #	<140 @ #
Vinyl Chloride	<6 µg/kg	TM116		<120 @ M	<120 @ M	<1200 @ M	<120 @ M	<120 @ M	<120 @ M
Bromomethane	<10 µg/kg	TM116		<200 @ M	<200 @ M	<2000 @ M	<200 @ M	<200 @ M	<200 @ M
Chloroethane	<10 µg/kg	TM116		<200 @ M	<200 @ M	<2000 @ M	<200 @ M	<200 @ M	<200 @ M
Trichlorofluorormethane	<6 µg/kg	TM116		<120 @ M	<120 @ M	<1200 @ M	<120 @ M	<120 @ M	<120 @ M
1,1-Dichloroethene	<10 µg/kg	TM116		<200 @ #	<200 @ #	<2000 @ #	<200 @ #	<200 @ #	<200 @ #
Carbon Disulphide	<7 µg/kg	TM116		<140 @ M	<140 @ M	<1400 @ M	<140 @ M	<140 @ M	<140 @ M
Dichloromethane	<10 µg/kg	TM116		<200 @ #	<200 @ #	<2000 @ #	<200 @ #	<200 @ #	<200 @ #
Methyl Tertiary Butyl Ether	<10 µg/kg	TM116		<200 @ M	<200 @ M	<2000 @ M	<200 @ M	<200 @ M	<200 @ M
trans-1,2-Dichloroethene	<10 µg/kg	TM116		<200 @ M	<200 @ M	<2000 @ M	<200 @ M	<200 @ M	<200 @ M
1,1-Dichloroethane	<8 µg/kg	TM116		<160 @ M	<160 @ M	<1600 @ M	<160 @ M	<160 @ M	<160 @ M
cis-1,2-Dichloroethene	<6 µg/kg	TM116		<120 @ M	<120 @ M	<1200 @ M	<120 @ M	<120 @ M	<120 @ M
2,2-Dichloropropane	<10 µg/kg	TM116		<200 @	<200 @	<2000 @	<200 @	<200 @	<200 @
Bromochloromethane	<10 µg/kg	TM116		<200 @ M	<200 @ M	<2000 @ M	<200 @ M	<200 @ M	<200 @ M
Chloroform	<8 µg/kg	TM116		<160 @ M	<160 @ M	<1600 @ M	<160 @ M	<160 @ M	<160 @ M
1,1,1-Trichloroethane	<7 µg/kg	TM116		<140 @ M	<140 @ M	<1400 @ M	<140 @ M	<140 @ M	<140 @ M
1,1-Dichloropropene	<10 µg/kg	TM116		<200 @ M	<200 @ M	<2000 @ M	<200 @ M	<200 @ M	<200 @ M
Carbontetrachloride	<10 µg/kg	TM116		<200 @ M	<200 @ M	<2000 @ M	<200 @ M	<200 @ M	<200 @ M
1,2-Dichloroethane	<5 µg/kg	TM116		<100 @ M	<100 @ M	<1000 @ M	<100 @ M	<100 @ M	<100 @ M
Benzene	<9 µg/kg	TM116		<180 @ M	<180 @ M	<1800 @ M	<180 @ M	<180 @ M	<180 @ M
Trichloroethene	<9 µg/kg	TM116		<180 @ #	<180 @ #	<1800 @ #	<180 @ #	<180 @ #	<180 @ #
1,2-Dichloropropane	<10 µg/kg	TM116		<200 @ M	<200 @ M	<2000 @ M	<200 @ M	<200 @ M	<200 @ M
Dibromomethane	<9 µg/kg	TM116		<180 @ M	<180 @ M	<1800 @ M	<180 @ M	<180 @ M	<180 @ M
Bromodichloromethane	<7 µg/kg	TM116		<140 @ M	<140 @ M	<1400 @ M	<140 @ M	<140 @ M	<140 @ M
cis-1,3-Dichloropropene	<10 µg/kg	TM116		<200 @ M	<200 @ M	<2000 @ M	<200 @ M	<200 @ M	<200 @ M
Toluene	<7 µg/kg	TM116		<140 @ M	<140 @ M	<1400 @ M	<140 @ M	<140 @ M	<140 @ M
trans-1,3-Dichloropropene	<10 µg/kg	TM116		<200 @	<200 @	<2000 @	<200 @	<200 @	<200 @
1,1,2-Trichloroethane	<10 µg/kg	TM116		<200 @ M	<200 @ M	<2000 @ M	<200 @ M	<200 @ M	<200 @ M
1,3-Dichloropropane	<7 µg/kg	TM116		<140 @ M	<140 @ M	<1400 @ M	<140 @ M	<140 @ M	<140 @ M

CERTIFICATE OF ANALYSIS

SDG: 220415-70 **Report Number:** 644004 **Superseded Report:** 643798
Client Ref.: LD10385 **Location:** Ten Acres Lane

VOC MS (S)

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4+§@ Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	WS306	WS307	WS309	WS310	WS311	WS318
			Depth (m)	1.30 - 1.30	2.60 - 2.60	3.20 - 3.20	2.80 - 2.80	1.40 - 1.40	3.50 - 3.50
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	12/04/2022	12/04/2022	12/04/2022	12/04/2022	12/04/2022	12/04/2022
			Sample Time	12:00	11:00	09:00	12:30	13:00	10:00
			Date Received	15/04/2022	15/04/2022	15/04/2022	15/04/2022	15/04/2022	15/04/2022
			SDG Ref	220415-70	220415-70	220415-70	220415-70	220415-70	220415-70
			Lab Sample No.(s)	26144316	26144306	26144292	26144325	26144332	26144299
			AGS Reference						
Tetrachloroethene	<5 µg/kg	TM116		<100 @ M	<100 @ M	<1000 @ M	<100 @ M	<100 @ M	<100 @ M
Dibromochloromethane	<10 µg/kg	TM116		<200 @ M	<200 @ M	<2000 @ M	<200 @ M	<200 @ M	<200 @ M
1,2-Dibromoethane	<10 µg/kg	TM116		<200 @ M	<200 @ M	<2000 @ M	<200 @ M	<200 @ M	<200 @ M
Chlorobenzene	<5 µg/kg	TM116		<100 @ M	<100 @ M	<1000 @ M	<100 @ M	<100 @ M	<100 @ M
1,1,1,2-Tetrachloroethane	<10 µg/kg	TM116		<200 @ M	<200 @ M	<2000 @ M	<200 @ M	<200 @ M	<200 @ M
Ethylbenzene	<4 µg/kg	TM116		<80 @ M	<80 @ M	<800 @ M	<80 @ M	<80 @ M	<80 @ M
p/m-Xylene	<10 µg/kg	TM116		<200 @ #	<200 @ #	<2000 @ #	<200 @ #	<200 @ #	<200 @ #
o-Xylene	<10 µg/kg	TM116		<200 @ M	<200 @ M	<2000 @ M	<200 @ M	<200 @ M	<200 @ M
Styrene	<10 µg/kg	TM116		<200 @ #	<200 @ #	<2000 @ #	<200 @ #	<200 @ #	<200 @ #
Bromoform	<10 µg/kg	TM116		<200 @ M	<200 @ M	<2000 @ M	<200 @ M	<200 @ M	<200 @ M
Isopropylbenzene	<5 µg/kg	TM116		<100 @ #	<100 @ #	<1000 @ #	<100 @ #	<100 @ #	<100 @ #
1,1,2,2-Tetrachloroethane	<10 µg/kg	TM116		<200 @ #	<200 @ #	<2000 @ #	<200 @ #	<200 @ #	<200 @ #
1,2,3-Trichloropropane	<16 µg/kg	TM116		<320 @ M	<320 @ M	<3200 @ M	<320 @ M	<320 @ M	<320 @ M
Bromobenzene	<10 µg/kg	TM116		<200 @ M	<200 @ M	<2000 @ M	<200 @ M	<200 @ M	<200 @ M
Propylbenzene	<10 µg/kg	TM116		<200 @ M	<200 @ M	<2000 @ M	<200 @ M	<200 @ M	<200 @ M
2-Chlorotoluene	<9 µg/kg	TM116		<180 @ M	<180 @ M	<1800 @ M	<180 @ M	<180 @ M	<180 @ M
1,3,5-Trimethylbenzene	<8 µg/kg	TM116		<160 @ M	<160 @ M	<1600 @ M	<160 @ M	<160 @ M	<160 @ M
4-Chlorotoluene	<10 µg/kg	TM116		<200 @ M	<200 @ M	<2000 @ M	<200 @ M	<200 @ M	<200 @ M
tert-Butylbenzene	<14 µg/kg	TM116		<280 @ #	<280 @ #	<2800 @ #	<280 @ #	<280 @ #	<280 @ #
1,2,4-Trimethylbenzene	<9 µg/kg	TM116		<180 @ #	<180 @ #	<1800 @ #	<180 @ #	<180 @ #	<180 @ #
sec-Butylbenzene	<10 µg/kg	TM116		<200 @	<200 @	<2000 @	<200 @	<200 @	<200 @
4-Isopropyltoluene	<10 µg/kg	TM116		<200 @	<200 @	<2000 @	<200 @	<200 @	<200 @
1,3-Dichlorobenzene	<8 µg/kg	TM116		<160 @ M	<160 @ M	<1600 @ M	<160 @ M	<160 @ M	<160 @ M
1,4-Dichlorobenzene	<5 µg/kg	TM116		<100 @ M	<100 @ M	<1000 @ M	<100 @ M	<100 @ M	<100 @ M
n-Butylbenzene	<11 µg/kg	TM116		<220 @	<220 @	<2200 @	<220 @	<220 @	<220 @
1,2-Dichlorobenzene	<10 µg/kg	TM116		<200 @ M	<200 @ M	<2000 @ M	<200 @ M	<200 @ M	<200 @ M
1,2-Dibromo-3-chloropropane	<14 µg/kg	TM116		<280 @ M	<280 @ M	<2800 @ M	<280 @ M	<280 @ M	<280 @ M
Tert-amyl methyl ether	<10 µg/kg	TM116		<200 @ #	<200 @ #	<2000 @ #	<200 @ #	<200 @ #	<200 @ #
1,2,4-Trichlorobenzene	<20 µg/kg	TM116		<400 @	<400 @	<4000 @	<400 @	<400 @	<400 @
Hexachlorobutadiene	<20 µg/kg	TM116		<400 @	<400 @	<4000 @	<400 @	<400 @	<400 @
Naphthalene	<13 µg/kg	TM116		1230 @ M	<260 @ M	12300 @ M	<260 @ M	<260 @ M	<260 @ M
1,2,3-Trichlorobenzene	<20 µg/kg	TM116		<400 @ #	<400 @ #	<4000 @ #	<400 @ #	<400 @ #	<400 @ #
1,3,5-Trichlorobenzene	<20 µg/kg	TM116		<400	<400	<4000	<400	<400	<400

Validated

CERTIFICATE OF ANALYSIS

SDG: 220415-70 **Report Number:** 644004 **Superseded Report:** 643798

Client Ref.: LD10385 **Location:** Ten Acres Lane

VOC MS (S)

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	WS306	WS307	WS309	WS310	WS311	WS318
			Depth (m)	1.30 - 1.30	2.60 - 2.60	3.20 - 3.20	2.80 - 2.80	1.40 - 1.40	3.50 - 3.50
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	12/04/2022	12/04/2022	12/04/2022	12/04/2022	12/04/2022	12/04/2022
			Sample Time	12:00	11:00	09:00	12:30	13:00	10:00
			Date Received	15/04/2022	15/04/2022	15/04/2022	15/04/2022	15/04/2022	15/04/2022
			SDG Ref	220415-70	220415-70	220415-70	220415-70	220415-70	220415-70
			Lab Sample No.(s)	26144316	26144306	26144292	26144325	26144332	26144299
			AGS Reference						
Sum of Detected Xylenes	<0.02 mg/kg	TM116		<0.4 @	<0.4 @	<4 @		<0.4 @	<0.4 @
Sum of BTEX	<40 µg/kg	TM116		<800 @	<800 @	<8000 @		<800 @	<800 @

CERTIFICATE OF ANALYSIS

SDG: 220415-70 **Report Number:** 644004 **Superseded Report:** 643798
Client Ref.: LD10385 **Location:** Ten Acres Lane

Asbestos Identification - Solid Samples

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
*	Subcontracted test.
(F)	Trigger breach confirmed
1-5&♦$@	Sample deviation (see appendix)

		Date of Analysis	Analysed By	Comments	Amosite (Brown) Asbestos	Asbestos Actinolite	Asbestos Anthophyllite	Asbestos Tremolite	Chrysotile (White) Asbestos	Crocidolite (Blue) Asbestos	Non-Asbestos Fibre
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	WS307 2.60 - 2.60 SOLID 12/04/2022 00:00:00 15/04/2022 05:00:00 220415-70 26144306 TM048	26/04/2022	James Richards	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	WS310 2.80 - 2.80 SOLID 12/04/2022 00:00:00 15/04/2022 05:00:00 220415-70 26144325 TM048	26/04/2022	James Richards	Fibre bundle in soil	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	WS311 1.40 - 1.40 SOLID 12/04/2022 00:00:00 15/04/2022 05:00:00 220415-70 26144332 TM048	26/04/2022	James Richards	fibre bundles in soil	Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected

CERTIFICATE OF ANALYSIS

SDG: 220415-70 **Report Number:** 644004 **Superseded Report:** 643798
Client Ref.: LD10385 **Location:** Ten Acres Lane

Asbestos Quantification - Full

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
*	Subcontracted test.
(F)	Trigger breach confirmed
1-5&♦$@	Sample deviation (see appendix)

		Additional Asbestos Components	Analysts Comments	Asbestos Quantification - Gravimetric - %	Asbestos Quantification - PCOM	Asbestos Quantification - Total - %
Cust. Sample Ref.	WS310	None (#)	-	<0.001 (#)	<0.001 (#)	<0.001 (#)
Depth (m)	2.80 - 2.80					
Sample Type	SOLID					
Date Sampled	12/04/2022 00:00:00					
Date Receieved	15/04/2022 05:00:00					
SDG	220415-70					
Original Sample	26144325					
Method Number	TM304					
Cust. Sample Ref.	WS311	Chrysotile (#)	Loose fibres in soil	0.0184 (#)	0.0015 (#)	0.0199 (#)
Depth (m)	1.40 - 1.40					
Sample Type	SOLID					
Date Sampled	12/04/2022 00:00:00					
Date Receieved	15/04/2022 05:00:00					
SDG	220415-70					
Original Sample	26144332					
Method Number	TM304					

Table of Results - Appendix

Method No	Reference	Description
PM024	Modified BS 1377	Soil preparation including homogenisation, moisture screens of soils for Asbestos Containing Material
TM048	HSG 248, Asbestos: The analysts' guide for sampling, analysis and clearance procedures	Identification of Asbestos in Bulk Material
TM089	Modified: US EPA Methods 8020 & 602	Determination of Gasoline Range Hydrocarbons (GRO) by Headspace GC-FID (C4-C12)
TM116	Modified: US EPA Method 8260, 8120, 8020, 624, 610 & 602	Determination of Volatile Organic Compounds by Headspace / GC-MS
TM157	HP 6890 Gas Chromatograph (GC) system and HP 5973 Mass Selective Detector (MSD).	Determination of SVOC in Soils by GC-MS extracted by sonication in DCM/Acetone
TM304	HSE Contract research Report no 83/1996	Asbestos Quantification in Soil: Fibres identified by morphology only
TM338	PFAS In Solids	Analysis of perfluoroalkylsulfonates and perfluorocarboxylic acids in Solids
TM414	Analysis of Petroleum Hydrocarbons in Environmental Media – Total Petroleum Hydrocarbon Criteria	Determination of Speciated Extractable Petroleum Hydrocarbons in Soils by GCxGC-FID

NA = not applicable.

Chemical testing (unless subcontracted) performed at ALS Life Sciences Ltd Hawarden.

CERTIFICATE OF ANALYSIS

SDG: 220415-70 **Report Number:** 644004 **Superseded Report:** 643798
Client Ref.: LD10385 **Location:** Ten Acres Lane

Test Completion Dates

Lab Sample No(s)	26144316	26144306	26144292	26144325	26144332	26144299
Customer Sample Ref.	WS306	WS307	WS309	WS310	WS311	WS318
AGS Ref.						
Depth	1.30 - 1.30	2.60 - 2.60	3.20 - 3.20	2.80 - 2.80	1.40 - 1.40	3.50 - 3.50
Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
Asbestos ID in Solid Samples		26-Apr-2022		26-Apr-2022	26-Apr-2022	
Asbestos Quantification - Full				26-Apr-2022	27-Apr-2022	
EPH CWG GC (S)	21-Apr-2022	20-Apr-2022	21-Apr-2022		20-Apr-2022	21-Apr-2022
GRO by GC-FID (S)	25-Apr-2022	25-Apr-2022	26-Apr-2022		26-Apr-2022	26-Apr-2022
PFAS Solids	22-Apr-2022			22-Apr-2022		
Sample description	15-Apr-2022	15-Apr-2022	15-Apr-2022	15-Apr-2022	15-Apr-2022	15-Apr-2022
Semi Volatile Organic Compounds	20-Apr-2022	22-Apr-2022	22-Apr-2022	20-Apr-2022	22-Apr-2022	20-Apr-2022
TPH CWG GC (S)	25-Apr-2022	25-Apr-2022	26-Apr-2022		26-Apr-2022	26-Apr-2022
VOC MS (S)	26-Apr-2022	26-Apr-2022	26-Apr-2022	26-Apr-2022	26-Apr-2022	26-Apr-2022

Appendix

1. Results are expressed on a dry weight basis (dried at 35ºC) for all soil analyses except for the following: NRA and CEN Leach tests, flash point LOI, pH, ammonium as NH4 by the BRE method, VOC TICs and SVOC TICs.

2. If sufficient sample is received a sub sample will be retained free of charge for 30 days after analysis is completed (e-mailed) for all sample types unless the sample is destroyed on testing. The prepared soil sub sample that is analysed for asbestos will be retained for a period of 6 months after the analysis date. All bulk samples will be retained for a period of 6 months after the analysis date. All samples received and not scheduled will be disposed of one month after the date of receipt unless we are instructed to the contrary. Once the initial period has expired, a storage charge will be applied for each month or part thereof until the client cancels the request for sample storage. ALS reserve the right to charge for samples received and stored but not analysed.

3. With respect to turnaround, we will always endeavour to meet client requirements wherever possible, but turnaround times cannot be absolutely guaranteed due to so many variables beyond our control.

4. We take responsibility for any test performed by sub-contractors (marked with an asterisk). We endeavour to use UKAS/MCERTS Accredited Laboratories, who either complete a quality questionnaire or are audited by ourselves. For some determinands there are no UKAS/MCERTS Accredited Laboratories, in this instance a laboratory with a known track record will be utilised.

5. If no separate volatile sample is supplied by the client, or if a headspace or sediment is present in the volatile sample, the integrity of the data may be compromised. This will be flagged up as an invalid VOC on the test schedule and the result marked as deviating on the test certificate.

6. NDP - No determination possible due to insufficient/unsuitable sample.

7. Results relate only to the items tested.

8. LoDs (Limit of Detection) for wet tests reported on a dry weight basis are not corrected for moisture content.

9. **Surrogate recoveries** - Surrogates are added to your sample to monitor recovery of the test requested. A % recovery is reported, results are not corrected for the recovery measured. Typical recoveries for organics tests are 70-130%. Recoveries in soils are affected by organic rich or clay rich matrices. Waters can be affected by remediation fluids or high amounts of sediment. Test results are only ever reported if all of the associated quality checks pass; it is assumed that all recoveries outside of the values above are due to matrix affect.

10. Stones/debris are not routinely removed. We always endeavour to take a representative sub sample from the received sample.

11. In certain circumstances the method detection limit may be elevated due to the sample being outside the calibration range. Other factors that may contribute to this include possible interferences. In both cases the sample would be diluted which would cause the method detection limit to be raised.

12. For dried and crushed preparations of soils volatile loss may occur e.g volatile mercury.

13. For leachate preparations other than Zero Headspace Extraction (ZHE) volatile loss may occur.

14. For the BSEN 12457-3 two batch process to allow the cumulative release to be calculated, the volume of the leachate produced is measured and filtered for all tests. We therefore cannot carry out any unfiltered analysis. The tests affected include volatiles GCFID/GCMS and all subcontracted analysis.

15. Analysis and identification of specific compounds using GCFID is by retention time only, and we routinely calibrate and quantify for benzene, toluene, ethylbenzenes and xylenes (BTEX). For total volatiles in the C5-C12 range, the total area of the chromatogram is integrated and expressed as ug/kg or ug/l. Although this analysis is commonly used for the quantification of gasoline range organics (GRO), the system will also detect other compounds such as chlorinated solvents, and this may lead to a falsely high result with respect to hydrocarbons only. It is not possible to specifically identify these non-hydrocarbons, as standards are not routinely run for any other compounds, and for more definitive identification, volatiles by GCMS should be utilised.

16. We are accredited to MCERTS for sand, clay and loam/topsoil, or any of these materials - whether these are derived from naturally occurring soil profiles, or from fill/made ground, as long as these materials constitute the major part of the sample. Other coarse granular material such as concrete, gravel and brick are not accredited if they comprise the major part of the sample.

17 Data retention. All records, communications and reports pertaining to the analysis are archived for seven years from the date of issue of the final report.

General

18. **Tentatively Identified Compounds (TICs)** are non-target peaks in VOC and SVOC analysis. All non-target peaks detected with a concentration above the LoD are subjected to a mass spectral library search. Non-target peaks with a library search confidence of >75% are reported based on the best mass spectral library match. When a non-target peak with a library search confidence of <75% is detected it is reported as “mixed hydrocarbons”. Non-target compounds identified from the scan data are semi-quantified relative to one of the deuterated internal standards, under the same chromatographic conditions as the target compounds. This result is reported as a semi-quantitative value and reported as Tentatively Identified Compounds (TICs). TICs are outside the scope of UKAS accreditation and are not moisture corrected.

19. **Sample Deviations**

If a sample is classed as deviated then the associated results may be compromised.

1	**Container with Headspace provided for volatiles analysis**
2	**Incorrect container received**
3	**Deviation from method**
4	**Matrix interference**
♦	**Sample holding time exceeded in laboratory**
@	**Sample holding time exceeded due to late arrival of instructions or samples**
§	**Sampled on date not provided**

20. **Asbestos**

When requested, the individual sub sample scheduled will be analysed in house for the presence of asbestos fibres and asbestos containing material by our documented in house method TM048 based on HSG 248 (2021), which is accredited to ISO17025. If a specific asbestos fibre type is not found this will be reported as “Not detected”. If no asbestos fibre types are found all will be reported as “Not detected” and the sub sample analysed deemed to be clear of asbestos. If an asbestos fibre type is found it will be reported as detected (for each fibre type found). Testing can be carried out on asbestos positive samples, but, due to Health and Safety considerations, may be replaced by alternative tests or reported as No Determination Possible (NDP). The quantity of asbestos present is not determined unless specifically requested.

Identification of Asbestos in Bulk Materials & Soils

The results for identification of asbestos in bulk materials and soils are obtained from supplied bulk materials andd soils which have been examined to determine the presence of asbestos fibres using ALS (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining, based on HSG 248 (2021).

The results for identification of asbestos in soils are obtained from a homogenised sub sample which has been examined to determine the presence of asbestos fibres using ALS (Hawarden) in-house method of transmitted/polarised light microscopy and central

Asbestos Type	Common Name
Chrysotile	White Asbestos
Amosite	Brown Asbestos
Crocidolite	Blue Asbestos
Fibrous Actinolite	-
Fibrous Anthophyllite	-
Fibrous Tremolite	-

Visual Estimation Of Fibre Content

Estimation of fibre content is not permitted as part of our UKAS accredited test other than: - Trace - Where only one or two asbestos fibres were identified.

Respirable Fibres

Respirable fibres are defined as fibres of <3 µm diameter, longer than 5 µm and with aspect ratios of at least 3:1 that can be inhaled into the lower regions of the lung and are generally acknowledged to be most important predictor of hazard and risk for cancers of the lung.

Further guidance on typical asbestos fibre content of manufactured products can be found in HSG 264.

The identification of asbestos containing materials and soils falls within our schedule of tests for which we hold UKAS accreditation, however opinions, interpretations and all other information contained in the report are outside the scope of UKAS accreditation.

Unit 7-8 Hawarden Business Park
Manor Road (off Manor Lane)
Hawarden
Deeside
CH5 3US
Tel: (01244) 528700
Fax: (01244) 528701
email: hawardencustomerservices@alsglobal.com
Website: www.alsenvironmental.co.uk

Wardell Armstrong LLP
36 Park Row
Leeds
LS1 5JL

Attention: Jonathan Currie

CERTIFICATE OF ANALYSIS

Date of report Generation:	03 May 2022
Customer:	Wardell Armstrong LLP
Sample Delivery Group (SDG):	220421-119
Your Reference:	LD10385
Location:	Ten Acres Lane
Report No:	644481
Order Number:	LD2726

This report has been revised and directly supersedes 644465 in its entirety.

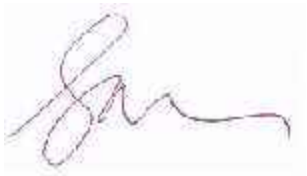
We received 7 samples on Thursday April 21, 2022 and 7 of these samples were scheduled for analysis which was completed on Tuesday May 03, 2022. Accredited laboratory tests are defined within the report, but opinions, interpretations and on-site data expressed herein are outside the scope of ISO 17025 accreditation.

Should this report require incorporation into client reports, it must be used in its entirety and not simply with the data sections alone.

Chemical testing (unless subcontracted) performed at ALS Life Sciences Ltd Hawarden.

All sample data is provided by the customer. The reported results relate to the sample supplied, and on the basis that this data is correct.
Incorrect sampling dates and/or sample information will affect the validity of results.
The customer is not permitted to reproduce this report except in full without the approval of the laboratory.

Approved By:



Sonia McWhan

Operations Manager

CERTIFICATE OF ANALYSIS

SDG: 220421-119 **Report Number:** 644481 **Superseded Report:** 644465
Client Ref.: LD10385 **Location:** Ten Acres Lane

Receiveh Sample Overview

Lab Sample No(s)	Customer Sample Ref.	AGS Ref.	Depth (m)	Sampleh Date
26162140	CP202		13.00 - 14.00	14/04/2022
26162151	CP202		8.00 - 9.00	14/04/2022
26162117	TP230		1.50 - 1.50	14/04/2022
26162126	TP233		1.70 - 1.70	14/04/2022
26162107	WS302		0.50 - 0.50	14/04/2022
26162088	WS303		4.50 - 4.50	14/04/2022
26162100	WS312		4.00 - 4.00	14/04/2022

Only received samples which have had analysis scheduled will be shown on the following pages.

Validated

CERTIFICATE OF ANALYSIS

SDG: 220421-119 **Report Number:** 644481 **Superseded Report:** 644465

Client Ref.: LD10385 **Location:** Ten Acres Lane

Results Legend

X Test

N No Determination Possible

Sample Types -

S - Soil/Solid
UNS - Unspecified Solid
GW - Ground Water
SW - Surface Water
LE - Land Leachate
PL - Prepared Leachate
PR - Process Water
SA - Saline Water
TE - Trade Effluent
TS - Treated Sewage
US - Untreated Sewage
RE - Recreational Water
DW - Drinking Water Non-regulatory
UNL - Unspecified Liquid
SL - Sludge
G - Gas
OTH - Other

			Lab Sample No(s)	26162140	26162151	26162117	26162126	26162107	26162088	26162100
			Customer Sample Reference	CP202	CP202	TP230	TP233	WS302	WS303	WS312
			AGS Reference							
			Depth (m)	13.00 - 14.00	8.00 - 9.00	1.50 - 1.50	1.70 - 1.70	0.50 - 0.50	4.50 - 4.50	4.00 - 4.00
			Container	1kg TUB with Handle (ALE260)	250g Amber Jar (ALE210)	60g VOC (ALE215)	250g Amber Jar (ALE210)	60g VOC (ALE215)	1kg TUB with Handle (ALE260)	250g Amber Jar (ALE210)	60g VOC (ALE215)	250g Amber Jar (ALE210)	1kg TUB with Handle (ALE260)	1kg TUB with Handle (ALE260)	250g Amber Jar (ALE210)	60g VOC (ALE215)	1kg TUB with Handle (ALE260)	250g Amber Jar (ALE210)	60g VOC (ALE215)
			Sample Type	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S
Anions by Kone (soil)	All	NDPs: 0 Tests: 4			X		X			X								X	
Asbestos ID in Solid Samples	All	NDPs: 0 Tests: 6		X			X		X					X	X			X		
Boron Water Soluble	All	NDPs: 0 Tests: 4			X		X			X								X	
Cyanide Comp/Free/Total/Thiocyanate	All	NDPs: 0 Tests: 4			X		X			X								X	
Easily Liberated Sulphide	All	NDPs: 0 Tests: 4			X		X			X								X	
EPH CWG GC (S)	All	NDPs: 0 Tests: 5			X		X			X						X		X	
GRO by GC-FID (S)	All	NDPs: 0 Tests: 5				X		X			X						X			X
Hexavalent Chromium (s)	All	NDPs: 1 Tests: 3			X		X			N								X	
Metals in solid samples by OES	All	NDPs: 0 Tests: 4			X		X			X								X	
PAH by GCMS	All	NDPs: 0 Tests: 4			X		X			X								X	
PCBs by GCMS	All	NDPs: 0 Tests: 4			X		X			X								X	
PFAS Solids	All	NDPs: 0 Tests: 2							X		X									
pH	All	NDPs: 0 Tests: 4			X		X			X								X	
Phenols by HPLC (S)	All	NDPs: 0 Tests: 4			X		X			X								X	
Sample description	All	NDPs: 0 Tests: 5			X		X			X			X	X						

Validated

CERTIFICATE OF ANALYSIS

SDG: 220421-119 **Report Number:** 644481 **Superseded Report:** 644465

Client Ref.: LD10385 **Location:** Ten Acres Lane

Results Legend

X Test

N No Determination Possible

Sample Types -

S - Soil/Solid
UNS - Unspecified Solid
GW - Ground Water
SW - Surface Water
LE - Land Leachate
PL - Prepared Leachate
PR - Process Water
SA - Saline Water
TE - Trade Effluent
TS - Treated Sewage
US - Untreated Sewage
RE - Recreational Water
DW - Drinking Water Non-regulatory
UNL - Unspecified Liquid
SL - Sludge
G - Gas
OTH - Other

			Lab Sample No(s)	Customer Sample Reference	AGS Reference	Depth (m)	Container	Sample Type
Semi Volatile Organic Compounds	All	NDPs: 0 Tests: 4	26162140	CP202		13.00 - 14.00	1kg TUB with Handle (ALE260)	S
							250g Amber Jar (ALE210)	S
							60g VOC (ALE215)	S
							250g Amber Jar (ALE210)	S X
							60g VOC (ALE215)	S
			26162151	CP202		8.00 - 9.00	1kg TUB with Handle (ALE260)	S
							250g Amber Jar (ALE210)	S X
							60g VOC (ALE215)	S
			26162117	TP230		1.50 - 1.50	1kg TUB with Handle (ALE260)	S
							250g Amber Jar (ALE210)	S X
							60g VOC (ALE215)	S
			26162126	TP233		1.70 - 1.70	1kg TUB with Handle (ALE260)	S
							250g Amber Jar (ALE210)	S
			26162107	WS302		0.50 - 0.50	1kg TUB with Handle (ALE260)	S
			26162088	WS303		4.50 - 4.50	1kg TUB with Handle (ALE260)	S
							250g Amber Jar (ALE210)	S X
							60g VOC (ALE215)	S
			26162100	WS312		4.00 - 4.00	1kg TUB with Handle (ALE260)	S
							250g Amber Jar (ALE210)	S X
							60g VOC (ALE215)	S
Total Organic Carbon	All	NDPs: 0 Tests: 4					1kg TUB with Handle (ALE260)	S
							250g Amber Jar (ALE210)	S X
							60g VOC (ALE215)	S
							250g Amber Jar (ALE210)	S X
							60g VOC (ALE215)	S
							1kg TUB with Handle (ALE260)	S
							250g Amber Jar (ALE210)	S
							1kg TUB with Handle (ALE260)	S
							1kg TUB with Handle (ALE260)	S
							250g Amber Jar (ALE210)	S X
							60g VOC (ALE215)	S
							1kg TUB with Handle (ALE260)	S
							250g Amber Jar (ALE210)	S X
							60g VOC (ALE215)	S
Total Sulphate	All	NDPs: 0 Tests: 4					1kg TUB with Handle (ALE260)	S
							250g Amber Jar (ALE210)	S X
							60g VOC (ALE215)	S
							250g Amber Jar (ALE210)	S X
							60g VOC (ALE215)	S
							1kg TUB with Handle (ALE260)	S
							250g Amber Jar (ALE210)	S
							1kg TUB with Handle (ALE260)	S
							1kg TUB with Handle (ALE260)	S
							250g Amber Jar (ALE210)	S X
							60g VOC (ALE215)	S
							1kg TUB with Handle (ALE260)	S
							250g Amber Jar (ALE210)	S X
							60g VOC (ALE215)	S
TPH CWG GC (S)	All	NDPs: 0 Tests: 5					1kg TUB with Handle (ALE260)	S
							250g Amber Jar (ALE210)	S X
							60g VOC (ALE215)	S
							250g Amber Jar (ALE210)	S X
							60g VOC (ALE215)	S
							1kg TUB with Handle (ALE260)	S
							250g Amber Jar (ALE210)	S
							1kg TUB with Handle (ALE260)	S
							1kg TUB with Handle (ALE260)	S
							250g Amber Jar (ALE210)	S X
							60g VOC (ALE215)	S
							1kg TUB with Handle (ALE260)	S
							250g Amber Jar (ALE210)	S X
							60g VOC (ALE215)	S
VOC MS (S)	All	NDPs: 0 Tests: 5					1kg TUB with Handle (ALE260)	S
							250g Amber Jar (ALE210)	S
							60g VOC (ALE215)	S X
							250g Amber Jar (ALE210)	S
							60g VOC (ALE215)	S X
							1kg TUB with Handle (ALE260)	S
							250g Amber Jar (ALE210)	S
							1kg TUB with Handle (ALE260)	S
							1kg TUB with Handle (ALE260)	S
							250g Amber Jar (ALE210)	S X
							60g VOC (ALE215)	S
							1kg TUB with Handle (ALE260)	S
							250g Amber Jar (ALE210)	S X
							60g VOC (ALE215)	S

CERTIFICATE OF ANALYSIS

SDG: 220421-119 **Report Number:** 644481 **Superseded Report:** 644465
Client Ref.: LD10385 **Location:** Ten Acres Lane

Sample Descriptions

Grain Sizes

very fine	<0.063mm	fine	0.063mm - 0.1mm	medium	0.1mm - 2mm	coarse	2mm - 10mm	very coarse	>10mm

Lab Sample No(s)	Customer Sample Ref.	Depth (m)	Colour	Description	Inclusions	Inclusions 2
26162140	CP202	13.00 - 14.00	Dark Brown	Silty Clay Loam	None	Stones
26162151	CP202	8.00 - 9.00	Dark Brown	Sand	Stones	Brick
26162117	TP230	1.50 - 1.50	Dark Brown	Sandy Loam	Crushed Brick	Stones
26162126	TP233	1.70 - 1.70	Dark Brown	Sandy Clay	Vegetation	Stones
26162107	WS302	0.50 - 0.50	Dark Brown	Sandy Clay Loam	Crushed Brick	Stones
26162088	WS303	4.50 - 4.50	Dark Brown	Sandy Loam	Crushed Brick	Oil/Petroleum
26162100	WS312	4.00 - 4.00	Dark Brown	Sandy Clay Loam	Crushed Brick	Stones

These descriptions are only intended to act as a cross check if sample identities are questioned, and to provide a log of sample matrices with respect to MCERTS validation. They are not intended as full geological descriptions.

We are accredited to MCERTS for sand, clay and loam/topsoil, or any of these materials - whether these are derived from naturally ocurring soil profiles, or from fill/made ground, as long as these materials constitute the major part of the sample.

Other coarse granular materials such as concrete, gravel and brick are not accredited if they comprise the major part of the sample.

CERTIFICATE OF ANALYSIS

SDG: 220421-119 **Report Number:** 644481 **Superseded Report:** 644465

Client Ref.: LD10385 **Location:** Ten Acres Lane

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	CP202	CP202	TP230	TP233	WS302	WS303
			Depth (m)	13.00 - 14.00	8.00 - 9.00	1.50 - 1.50	1.70 - 1.70	0.50 - 0.50	4.50 - 4.50
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	14/04/2022	14/04/2022	14/04/2022	14/04/2022	14/04/2022	14/04/2022
			Sample Time	13:00	12:00:00	11:00	11:30	13:00	12:00
			Date Received	21/04/2022	21/04/2022	21/04/2022	21/04/2022	21/04/2022	21/04/2022
			SDG Ref	220421-119	220421-119	220421-119	220421-119	220421-119	220421-119
			Lab Sample No.(s)	26162140	26162151	26162117	26162126	26162107	26162088
			AGS Reference						
Moisture Content Ratio (% of as received sample)	%	PM024		15	15	27	25	17	19
Phenol	<0.01 mg/kg	TM062 (S)		<0.01 M	<0.01 M	<0.01 M			
Cresols	<0.01 mg/kg	TM062 (S)		<0.01 M	0.0118 M	<0.01 M			
Xylenols	<0.015 mg/kg	TM062 (S)		<0.015 M	<0.015 M	<0.015 M			
Phenols, Total Detected monohydric	<0.035 mg/kg	TM062 (S)		<0.035 M	<0.035 M	<0.035 M			
Soil Organic Matter (SOM)	<0.35 %	TM132		1.19 #	1.04 #	27.6 #			
pH	1 pH Units	TM133		8.75 M	8.03 M	8.08 M			
Chromium, Hexavalent	<0.6 mg/kg	TM151		<0.6 #	<0.6 #				
Cyanide, Total	<1 mg/kg	TM153		<1 M	11.5 M	38 M			
PCB congener 28	<3 µg/kg	TM168		<3 M	143 M	<3 M			
PCB congener 52	<3 µg/kg	TM168		<3 M	44.3 M	<3 M			
PCB congener 101	<3 µg/kg	TM168		<3 M	32.8 M	<3 M			
PCB congener 118	<3 µg/kg	TM168		<3 M	21.9 M	<3 M			
PCB congener 138	<3 µg/kg	TM168		<3 M	17 M	<3 M			
PCB congener 153	<3 µg/kg	TM168		<3 M	15.3 M	<3 M			
PCB congener 180	<3 µg/kg	TM168		<3 M	7.96 M	<3 M			
Sum of detected PCB 7 Congeners	<21 µg/kg	TM168		<21	282	<21			
Sulphide, Easily liberated	<15 mg/kg	TM180		<15 @ M	331 @ M	<15 @ M			
Arsenic	<0.6 mg/kg	TM181		6.91 M	7.01 M	37.5 M			
Beryllium	<0.01 mg/kg	TM181		0.936 M	0.309 M	2.88 M			
Cadmium	<0.02 mg/kg	TM181		<0.02 M	4.59 M	0.344 M			
Chromium	<0.9 mg/kg	TM181		9.13 M	23 M	15 M			
Copper	<1.4 mg/kg	TM181		17.8 M	61 M	154 M			
Lead	<0.7 mg/kg	TM181		10.8 M	576 M	193 M			
Mercury	<0.1 mg/kg	TM181		<0.1 M	<0.1 M	<0.1 M			
Nickel	<0.2 mg/kg	TM181		26 M	26.7 M	56 M			
Selenium	<1 mg/kg	TM181		<1 #	<1 #	1.63 #			
Vanadium	<0.2 mg/kg	TM181		20.5 #	10.9 #	57.6 #			
Zinc	<1.9 mg/kg	TM181		47.4 M	438 M	219 M			
Sulphate, Total	<48 mg/kg	TM221		<480 M	2590 M	578 M			
Boron, water soluble	<1 mg/kg	TM222		1.8 M	7.17 M	1.88 M			
Water Soluble Sulphate as SO4 2:1 Extract	<0.004 g/l	TM243		0.0409 M	0.497 M	0.0653 M			
PFBA (375-22-4) Perfluoro-n-butanoic acid	<3 µg/kg	TM338					<3	<3	

Validated

CERTIFICATE OF ANALYSIS

SDG: 220421-119 **Report Number:** 644481 **Superseded Report:** 644465
Client Ref.: LD10385 **Location:** Ten Acres Lane

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4♦§@	Sample deviation (see appendix)

Customer Sample Ref.	CP202	CP202	TP230	TP233	WS302	WS303
Depth (m)	13.00 - 14.00	8.00 - 9.00	1.50 - 1.50	1.70 - 1.70	0.50 - 0.50	4.50 - 4.50
Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
Date Sampled	14/04/2022	14/04/2022	14/04/2022	14/04/2022	14/04/2022	14/04/2022
Sample Time	13:00	12:00:00	11:00	11:30	13:00	12:00
Date Received	21/04/2022	21/04/2022	21/04/2022	21/04/2022	21/04/2022	21/04/2022
SDG Ref	220421-119	220421-119	220421-119	220421-119	220421-119	220421-119
Lab Sample No.(s)	26162140	26162151	26162117	26162126	26162107	26162088
AGS Reference						

Component	LOD/Units	Method						
PFPA (2706-90-3) Perfluoro-n-pentanoic acid	<3 µg/kg	TM338				<3	<3	
PFHxA (307-24-4) Perfluoro-n-hexanoic acid	<2 µg/kg	TM338				<2	<2	
PFBS (375-73-5) Perfluoro-1-butanesulfonate	<1 µg/kg	TM338				<1	<1	
PFHpA (375-85-9) Perfluoro-n-heptanoic acid	<1 µg/kg	TM338				<1	<1	
PFOA (335-67-1) Perfluoro-n-octanoic acid	<1 µg/kg	TM338				<1	<1	
PFHxS (355-46-4) Perfluoro-1-hexanesulfonate	<1 µg/kg	TM338				<1	<1	
PFNA (375-95-1) Perfluoro-n-nonanoic acid	<1 µg/kg	TM338				<1	<1	
PFHpS (375-92-8) Perfluoro-1-heptanesulfonate	<1 µg/kg	TM338				<1	<1	
PFDA (335-76-2) Perfluoro-n-decanoic acid	<1 µg/kg	TM338				<1	<1	
Linear PFOS(1763-23-1) Perfluoro-1-octanesulfonate	<1 µg/kg	TM338				<1	<1	
Branched PFOS	<1 µg/kg	TM338				<1	<1	
PFUnA (2058-94-8) Perfluoro-n-undecanoic acid	<1 µg/kg	TM338				<1	<1	
PFDoA (307-55-1) Perfluoro-n-dodecanoic acid	<1 µg/kg	TM338				<1	<1	
PFOSA (754-91-6) Perfluoro-octanesulfonamide	<1 µg/kg	TM338				<1	<1	
6:2-FTS (27619-97-2)	<1 µg/kg	TM338				<1	<1	
PFDS (335-73-3) Perfluoro-1-decanesulfonate	<1 µg/kg	TM338				<1	<1	
PFPeS (2706-91-4) Perfluoro-1-pentanesulfonate	<1 µg/kg	TM338				<1	<1	
Total PFOS	<1 µg/kg	TM338				<1	<1	

CERTIFICATE OF ANALYSIS

SDG: 220421-119 **Report Number:** 644481 **Superseded Report:** 644465
Client Ref.: LD10385 **Location:** Ten Acres Lane

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4+$@ Sample deviation (see appendix)

		Customer Sample Ref.	WS312
		Depth (m)	4.00 - 4.00
		Sample Type	Soil/Solid (S)
		Date Sampled	14/04/2022
		Sample Time	12:30
		Date Received	21/04/2022
		SDG Ref	220421-119
		Lab Sample No.(s)	26162100
		AGS Reference	
Component	**LOD/Units**	**Method**	
Moisture Content Ratio (% of as received sample)	%	PM024	15
Phenol	<0.01 mg/kg	TM062 (S)	<0.01 M
Cresols	<0.01 mg/kg	TM062 (S)	<0.01 M
Xylenols	<0.015 mg/kg	TM062 (S)	<0.015 M
Phenols, Total Detected monohydric	<0.035 mg/kg	TM062 (S)	<0.035 M
Soil Organic Matter (SOM)	<0.35 %	TM132	4.6 #
pH	1 pH Units	TM133	8.41 M
Chromium, Hexavalent	<0.6 mg/kg	TM151	<0.6 #
Cyanide, Total	<1 mg/kg	TM153	<1 M
PCB congener 28	<3 µg/kg	TM168	<3 M
PCB congener 52	<3 µg/kg	TM168	<3 M
PCB congener 101	<3 µg/kg	TM168	<3 M
PCB congener 118	<3 µg/kg	TM168	<3 M
PCB congener 138	<3 µg/kg	TM168	<3 M
PCB congener 153	<3 µg/kg	TM168	<3 M
PCB congener 180	<3 µg/kg	TM168	<3 M
Sum of detected PCB 7 Congeners	<21 µg/kg	TM168	<21
Sulphide, Easily liberated	<15 mg/kg	TM180	<15 @ M
Arsenic	<0.6 mg/kg	TM181	13.2 M
Beryllium	<0.01 mg/kg	TM181	1.03 M
Cadmium	<0.02 mg/kg	TM181	0.0676 M
Chromium	<0.9 mg/kg	TM181	8.58 M
Copper	<1.4 mg/kg	TM181	36.7 M
Lead	<0.7 mg/kg	TM181	33.5 M
Mercury	<0.1 mg/kg	TM181	<0.1 M
Nickel	<0.2 mg/kg	TM181	24.1 M
Selenium	<1 mg/kg	TM181	<1 #
Vanadium	<0.2 mg/kg	TM181	24 #
Zinc	<1.9 mg/kg	TM181	70.5 M
Sulphate, Total	<48 mg/kg	TM221	158 M
Boron, water soluble	<1 mg/kg	TM222	2.18 M
Water Soluble Sulphate as SO4 2:1 Extract	<0.004 g/l	TM243	0.0583 M

Validated

CERTIFICATE OF ANALYSIS

SDG: 220421-119 **Report Number:** 644481 **Superseded Report:** 644465

Client Ref.: LD10385 **Location:** Ten Acres Lane

PAH by GCMS

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	CP202	CP202	TP230	WS312		
			Depth (m)	13.00 - 14.00	8.00 - 9.00	1.50 - 1.50	4.00 - 4.00		
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)		
			Date Sampled	14/04/2022	14/04/2022	14/04/2022	14/04/2022		
			Sample Time	13:00	12:00:00	11:00	12:30		
			Date Received	21/04/2022	21/04/2022	21/04/2022	21/04/2022		
			SDG Ref	220421-119	220421-119	220421-119	220421-119		
			Lab Sample No.(s)	26162140	26162151	26162117	26162100		
			AGS Reference						
Naphthalene-d8 % recovery**	%	TM218		97.3	85	92.4	96.4		
Acenaphthene-d10 % recovery**	%	TM218		94.6	82.4	89.8	92.3		
Phenanthrene-d10 % recovery**	%	TM218		91.4	78.7	83.8	87.9		
Chrysene-d12 % recovery**	%	TM218		89.1	80.6	77.9	82.7		
Perylene-d12 % recovery**	%	TM218		94.7	88.4	75	85		
Naphthalene	<9 µg/kg	TM218		<9 M	140 M	71.9 M	<9 M		
Acenaphthylene	<12 µg/kg	TM218		<12 M	<60 M	<12 M	<12 M		
Acenaphthene	<8 µg/kg	TM218		<8 M	413 M	28.2 M	<8 M		
Fluorene	<10 µg/kg	TM218		<10 M	210 M	18.5 M	<10 M		
Phenanthrene	<15 µg/kg	TM218		22.3 M	1090 M	282 M	81.3 M		
Anthracene	<16 µg/kg	TM218		<16 M	391 M	64.6 M	20.2 M		
Fluoranthene	<17 µg/kg	TM218		<17 M	2760 M	461 M	150 M		
Pyrene	<15 µg/kg	TM218		<15 M	2350 M	456 M	140 M		
Benz(a)anthracene	<14 µg/kg	TM218		<14 M	871 M	255 M	69.9 M		
Chrysene	<10 µg/kg	TM218		<10 M	874 M	275 M	76.6 M		
Benzo(b)fluoranthene	<15 µg/kg	TM218		<15 M	1020 M	429 M	98.4 M		
Benzo(k)fluoranthene	<14 µg/kg	TM218		<14 M	382 M	153 M	31 M		
Benzo(a)pyrene	<15 µg/kg	TM218		<15 M	735 M	351 M	63.8 M		
Indeno(1,2,3-cd)pyrene	<18 µg/kg	TM218		<18 M	454 M	299 M	46.4 M		
Dibenzo(a,h)anthracene	<23 µg/kg	TM218		<23 M	<115 M	44.7 M	<23 M		
Benzo(g,h,i)perylene	<24 µg/kg	TM218		<24 M	448 M	298 M	45.4 M		
PAH, Total Detected USEPA 16	<118 µg/kg	TM218		<118	12100	3490	823		

CERTIFICATE OF ANALYSIS

SDG: 220421-119 **Report Number:** 644481 **Superseded Report:** 644465
Client Ref.: LD10385 **Location:** Ten Acres Lane

Semi Volatile Organic Compounds

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
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- 1-4+§@ Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	CP202	TP230	WS303	WS312		
			Depth (m)	8.00 - 9.00	1.50 - 1.50	4.50 - 4.50	4.00 - 4.00		
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)		
			Date Sampled	14/04/2022	14/04/2022	14/04/2022	14/04/2022		
			Sample Time	12:00:00	11:00	12:00	12:30		
			Date Received	21/04/2022	21/04/2022	21/04/2022	21/04/2022		
			SDG Ref	220421-119	220421-119	220421-119	220421-119		
			Lab Sample No.(s)	26162151	26162117	26162088	26162100		
			AGS Reference						
Phenol	<100 µg/kg	TM157		<200	<100	<1000	<100		
Pentachlorophenol	<100 µg/kg	TM157		<200	<100	<1000	<100		
n-Nitroso-n-dipropylamine	<100 µg/kg	TM157		<200	<100	<1000	<100		
Nitrobenzene	<100 µg/kg	TM157		<200	<100	<1000	<100		
Isophorone	<100 µg/kg	TM157		<200	<100	<1000	<100		
Hexachloroethane	<100 µg/kg	TM157		<200	<100	<1000	<100		
Hexachlorocyclopentadiene	<100 µg/kg	TM157		<400	<100	<2000	<200		
Hexachlorobutadiene	<100 µg/kg	TM157		<200	<100	<1000	<100		
Hexachlorobenzene	<100 µg/kg	TM157		<200	<100	<1000	<100		
n-Dioctyl phthalate	<100 µg/kg	TM157		<200	<100	<1000	<100		
Dimethyl phthalate	<100 µg/kg	TM157		<200	<100	<1000	<100		
Diethyl phthalate	<100 µg/kg	TM157		<200	<100	<1000	<100		
n-Dibutyl phthalate	<100 µg/kg	TM157		<200	<100	<1000	<100		
Dibenzofuran	<100 µg/kg	TM157		976	<100	<1000	<100		
Carbazole	<100 µg/kg	TM157		1000	<100	<1000	<100		
Butylbenzyl phthalate	<100 µg/kg	TM157		<200	<100	<1000	<100		
bis(2-Ethylhexyl) phthalate	<100 µg/kg	TM157		1560	<100	<1000	<100		
bis(2-Chloroethoxy)methane	<100 µg/kg	TM157		<200	<100	<1000	<100		
bis(2-Chloroethyl)ether	<100 µg/kg	TM157		<200	<100	<1000	<100		
Azobenzene	<100 µg/kg	TM157		<200	<100	<1000	<100		
4-Nitrophenol	<100 µg/kg	TM157		<200	<100	<1000	<100		
4-Nitroaniline	<100 µg/kg	TM157		<200	<100	<1000	<100		
4-Methylphenol	<100 µg/kg	TM157		<200	<100	<1000	<100		
4-Chlorophenylphenylether	<100 µg/kg	TM157		<200	<100	<1000	<100		
4-Chloroaniline	<100 µg/kg	TM157		<200	<100	<1000	<100		
4-Chloro-3-methylphenol	<100 µg/kg	TM157		<200	<100	<1000	<100		
4-Bromophenylphenylether	<100 µg/kg	TM157		<200	<100	<1000	<100		
3-Nitroaniline	<100 µg/kg	TM157		<200	<100	<1000	<100		
2-Nitrophenol	<100 µg/kg	TM157		<200	<100	<1000	<100		
2-Nitroaniline	<100 µg/kg	TM157		<200	<100	<1000	<100		
2-Methylphenol	<100 µg/kg	TM157		<200	<100	<1000	<100		
1,2,4-Trichlorobenzene	<100 µg/kg	TM157		<200	<100	<1000	<100		
2-Chlorophenol	<100 µg/kg	TM157		<200	<100	<1000	<100		

CERTIFICATE OF ANALYSIS

SDG: 220421-119 **Report Number:** 644481 **Superseded Report:** 644465
Client Ref.: LD10385 **Location:** Ten Acres Lane

Semi Volatile Organic Compounds

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4+§@ Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	CP202	TP230	WS303	WS312		
			Depth (m)	8.00 - 9.00	1.50 - 1.50	4.50 - 4.50	4.00 - 4.00		
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)		
			Date Sampled	14/04/2022	14/04/2022	14/04/2022	14/04/2022		
			Sample Time	12:00:00	11:00	12:00	12:30		
			Date Received	21/04/2022	21/04/2022	21/04/2022	21/04/2022		
			SDG Ref	220421-119	220421-119	220421-119	220421-119		
			Lab Sample No.(s)	26162151	26162117	26162088	26162100		
			AGS Reference						
2,6-Dinitrotoluene	<100 µg/kg	TM157		<200	<100	<1000	<100		
2,4-Dinitrotoluene	<100 µg/kg	TM157		<200	<100	<1000	<100		
2,4-Dimethylphenol	<100 µg/kg	TM157		<200	<100	<1000	<100		
2,4-Dichlorophenol	<100 µg/kg	TM157		<200	<100	<1000	<100		
2,4,6-Trichlorophenol	<100 µg/kg	TM157		<200	<100	<1000	<100		
2,4,5-Trichlorophenol	<100 µg/kg	TM157		<200	<100	<1000	<100		
1,4-Dichlorobenzene	<100 µg/kg	TM157		<200	<100	<1000	<100		
1,3-Dichlorobenzene	<100 µg/kg	TM157		<200	<100	<1000	<100		
1,2-Dichlorobenzene	<100 µg/kg	TM157		<200	<100	<1000	<100		
2-Chloronaphthalene	<100 µg/kg	TM157		<200	<100	<1000	<100		
2-Methylnaphthalene	<100 µg/kg	TM157		512	<100	<1000	<100		
Acenaphthylene	<100 µg/kg	TM157		<200	<100	<1000	<100		
Acenaphthene	<100 µg/kg	TM157		1550	<100	1450	<100		
Anthracene	<100 µg/kg	TM157		4620	<100	1330	<100		
Benzo(a)anthracene	<100 µg/kg	TM157		5660	225	2310	<100		
Benzo(b)fluoranthene	<100 µg/kg	TM157		2260	144	<1000	<100		
Benzo(k)fluoranthene	<100 µg/kg	TM157		3640	269	1710	<100		
Benzo(a)pyrene	<100 µg/kg	TM157		3260	318	1310	<100		
Benzo(g,h,i)perylene	<100 µg/kg	TM157		1890	222	<1000	<100		
Chrysene	<100 µg/kg	TM157		5740	306	2660	<100		
Fluoranthene	<100 µg/kg	TM157		16500	330	6890	<100		
Fluorene	<100 µg/kg	TM157		1340	<100	1310	<100		
Indeno(1,2,3-cd)pyrene	<100 µg/kg	TM157		4270	336	1740	<100		
Phenanthrene	<100 µg/kg	TM157		11200	264	7240	<100		
Pyrene	<100 µg/kg	TM157		14200	408	5880	<100		
Naphthalene	<100 µg/kg	TM157		716	<100	<1000	<100		
Dibenzo(a,h)anthracene	<100 µg/kg	TM157		283	<100	<1000	<100		
Bis(2-chloroisopropyl) ether	<100 µg/kg	TM157		<200	<100	<1000	<100		

Validated

CERTIFICATE OF ANALYSIS

SDG: 220421-119 **Report Number:** 644481 **Superseded Report:** 644465

Client Ref.: LD10385 **Location:** Ten Acres Lane

TPH CWG (S)

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	CP202	CP202	TP230	WS303	WS312
			Depth (m)	13.00 - 14.00	8.00 - 9.00	1.50 - 1.50	4.50 - 4.50	4.00 - 4.00
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	14/04/2022	14/04/2022	14/04/2022	14/04/2022	14/04/2022
			Sample Time	13:00	12:00:00	11:00	12:00	12:30
			Date Received	21/04/2022	21/04/2022	21/04/2022	21/04/2022	21/04/2022
			SDG Ref	220421-119	220421-119	220421-119	220421-119	220421-119
			Lab Sample No.(s)	26162140	26162151	26162117	26162088	26162100
			AGS Reference					
GRO Surrogate % recovery**	%	TM089		78.3	93.7	92.3	82.1	79.9
Aliphatics >C5-C6 (HS_1D_AL)	<10 µg/kg	TM089		<10	16.5	<10	54.6	<10
Aliphatics >C6-C8 (HS_1D_AL)	<10 µg/kg	TM089		17.6	69.6	<10	122	<10
Aliphatics >C8-C10 (HS_1D_AL)	<10 µg/kg	TM089		15.2	278	<10	268	<10
Aliphatics >C10-C12 (EH_2D_AL_#1)	<1000 µg/kg	TM414		<1000 #	13700 #	<1000 #	4060 #	<1000 #
Aliphatics >C12-C16 (EH_2D_AL_#1)	<1000 µg/kg	TM414		<1000 #	25200 #	<1000 #	62900 #	<1000 #
Aliphatics >C16-C21 (EH_2D_AL_#1)	<1000 µg/kg	TM414		<1000 #	70100 #	<1000 #	70000 #	<1000 #
Aliphatics >C21-C35 (EH_2D_AL_#1)	<1000 µg/kg	TM414		<1000 #	483000 #	<1000 #	108000 #	<1000 #
Aliphatics >C35-C44 (EH_2D_AL_#1)	<1000 µg/kg	TM414		<1000	79000	<1000	17600	<1000
Total Aliphatics >C10-C44 (EH_2D_AR_#1)	<5000 µg/kg	TM414		<5000	671000	<5000	263000	<5000
Total Aliphatics & Aromatics >C10-C44 (EH_2D_Total_#1)	<10000 µg/kg	TM414		<10000	898000	<10000	1250000	<10000
Aromatics >EC5-EC7 (HS_1D_AR)	<10 µg/kg	TM089		<10	<10	<10	<10	<10
Aromatics >EC7-EC8 (HS_1D_AR)	<10 µg/kg	TM089		<10	10.6	<10	<10	<10
Aromatics >EC8-EC10 (HS_1D_AR)	<10 µg/kg	TM089		10.5	185	<10	179	<10
Aromatics > EC10-EC12 (EH_2D_AR_#1)	<1000 µg/kg	TM414		<1000 #	4560 #	<1000 #	1350 #	<1000 #
Aromatics > EC12-EC16 (EH_2D_AR_#1)	<1000 µg/kg	TM414		<1000 #	27100 #	<1000 #	32800 #	<1000 #
Aromatics > EC16-EC21 (EH_2D_AR_#1)	<1000 µg/kg	TM414		<1000 #	69300 #	<1000 #	82700 #	<1000 #
Aromatics > EC21-EC35 (EH_2D_AR_#1)	<1000 µg/kg	TM414		<1000 #	118000 #	2320 #	641000 #	<1000 #
Aromatics >EC35-EC44 (EH_2D_AR_#1)	<1000 µg/kg	TM414		<1000	8650	<1000	231000	<1000
Aromatics > EC40-EC44 (EH_2D_AR_#1)	<1000 µg/kg	TM414		<1000	3630	<1000	59100	<1000
Total Aromatics > EC10-EC44 (EH_2D_AR_#1)	<5000 µg/kg	TM414		<5000	228000	<5000	989000	<5000
Total Aliphatics & Aromatics >C5-C44 (EH_2D_Total_#1+HS_1D_Total)	<10000 µg/kg	TM414		<10000	899000	<10000	1250000	<10000
Total Aliphatics >C5-C10 (HS_1D_AL_TOTAL)	<50 µg/kg	TM089		<50	365	<50	444	<50
Total Aromatics >EC5-EC10 (HS_1D_AR_TOTAL)	<50 µg/kg	TM089		<50	196	<50	179	<50
GRO >C5-C10 (HS_1D_TOTAL)	<20 µg/kg	TM089		<20	561	<20	622	<20

CERTIFICATE OF ANALYSIS

SDG: 220421-119 **Report Number:** 644481 **Superseded Report:** 644465

Client Ref.: LD10385 **Location:** Ten Acres Lane

VOC MS (S)

Results Legend

- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
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Component	LOD/Units	Method	Customer Sample Ref.	CP202	CP202	TP230	WS303	WS312
			Depth (m)	13.00 - 14.00	8.00 - 9.00	1.50 - 1.50	4.50 - 4.50	4.00 - 4.00
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	14/04/2022	14/04/2022	14/04/2022	14/04/2022	14/04/2022
			Sample Time	13:00	12:00:00	11:00	12:00	12:30
			Date Received	21/04/2022	21/04/2022	21/04/2022	21/04/2022	21/04/2022
			SDG Ref	220421-119	220421-119	220421-119	220421-119	220421-119
			Lab Sample No.(s)	26162140	26162151	26162117	26162088	26162100
			AGS Reference					
Dibromofluoromethane**	%	TM116		125 @	123	128 @	120 @	123 @
Toluene-d8**	%	TM116		99.4 @	91	100 @	100 @	99.7 @
4-Bromofluorobenzene**	%	TM116		93.4 @	72.6	90.6 @	94.1 @	93.3 @
Dichlorodifluoromethane	<6 µg/kg	TM116			<6 #	<120 @ #	<120 @ #	<120 @ #
Chloromethane	<7 µg/kg	TM116			<7 #	<140 @ #	<140 @ #	<140 @ #
Vinyl Chloride	<6 µg/kg	TM116			<6 @ M	<120 @ M	<120 @ M	<120 @ M
Bromomethane	<10 µg/kg	TM116			<10 M	<200 @ M	<200 @ M	<200 @ M
Chloroethane	<10 µg/kg	TM116			<10 M	<200 @ M	<200 @ M	<200 @ M
Trichlorofluorormethane	<6 µg/kg	TM116			<6 M	<120 @ M	<120 @ M	<120 @ M
1,1-Dichloroethene	<10 µg/kg	TM116			<10 #	<200 @ #	<200 @ #	<200 @ #
Carbon Disulphide	<7 µg/kg	TM116			11.9 M	<140 @ M	<140 @ M	<140 @ M
Dichloromethane	<10 µg/kg	TM116			<10 #	<200 @ #	<200 @ #	<200 @ #
Methyl Tertiary Butyl Ether	<10 µg/kg	TM116		<200 @ M	<10 M	<200 @ M	<200 @ M	<200 @ M
trans-1,2-Dichloroethene	<10 µg/kg	TM116			<10 M	<200 @ M	<200 @ M	<200 @ M
1,1-Dichloroethane	<8 µg/kg	TM116			<8 M	<160 @ M	<160 @ M	<160 @ M
cis-1,2-Dichloroethene	<6 µg/kg	TM116			<6 M	<120 @ M	<120 @ M	<120 @ M
2,2-Dichloropropane	<10 µg/kg	TM116			<10	<200 @	<200 @	<200 @
Bromochloromethane	<10 µg/kg	TM116			<10 M	<200 @ M	<200 @ M	<200 @ M
Chloroform	<8 µg/kg	TM116			<8 M	<160 @ M	<160 @ M	<160 @ M
1,1,1-Trichloroethane	<7 µg/kg	TM116			<7 M	<140 @ M	<140 @ M	<140 @ M
1,1-Dichloropropene	<10 µg/kg	TM116			<10 M	<200 @ M	<200 @ M	<200 @ M
Carbontetrachloride	<10 µg/kg	TM116			<10 M	<200 @ M	<200 @ M	<200 @ M
1,2-Dichloroethane	<5 µg/kg	TM116			<5 M	<100 @ M	<100 @ M	<100 @ M
Benzene	<9 µg/kg	TM116		<180 @ M	<9 M	<180 @ M	<180 @ M	<180 @ M
Trichloroethene	<9 µg/kg	TM116			<9 #	<180 @ #	<180 @ #	<180 @ #
1,2-Dichloropropane	<10 µg/kg	TM116			<10 M	<200 @ M	<200 @ M	<200 @ M
Dibromomethane	<9 µg/kg	TM116			<9 M	<180 @ M	<180 @ M	<180 @ M
Bromodichloromethane	<7 µg/kg	TM116			<7 M	<140 @ M	<140 @ M	<140 @ M
cis-1,3-Dichloropropene	<10 µg/kg	TM116			<10 M	<200 @ M	<200 @ M	<200 @ M
Toluene	<7 µg/kg	TM116		<140 @ M	<7 M	<140 @ M	<140 @ M	<140 @ M
trans-1,3-Dichloropropene	<10 µg/kg	TM116			<10	<200 @	<200 @	<200 @
1,1,2-Trichloroethane	<10 µg/kg	TM116			<10 M	<200 @ M	<200 @ M	<200 @ M
1,3-Dichloropropane	<7 µg/kg	TM116			<7 M	<140 @ M	<140 @ M	<140 @ M

CERTIFICATE OF ANALYSIS

SDG: 220421-119 **Report Number:** 644481 **Superseded Report:** 644465

Client Ref.: LD10385 **Location:** Ten Acres Lane

VOC MS (S)

Results Legend	
#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	CP202	CP202	TP230	WS303	WS312
			Depth (m)	13.00 - 14.00	8.00 - 9.00	1.50 - 1.50	4.50 - 4.50	4.00 - 4.00
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	14/04/2022	14/04/2022	14/04/2022	14/04/2022	14/04/2022
			Sample Time	13:00	12:00:00	11:00	12:00	12:30
			Date Received	21/04/2022	21/04/2022	21/04/2022	21/04/2022	21/04/2022
			SDG Ref	220421-119	220421-119	220421-119	220421-119	220421-119
			Lab Sample No.(s)	26162140	26162151	26162117	26162088	26162100
			AGS Reference					
Tetrachloroethene	<5 µg/kg	TM116			<5 M	<100 @ M	<100 @ M	<100 @ M
Dibromochloromethane	<10 µg/kg	TM116			<10 M	<200 @ M	<200 @ M	<200 @ M
1,2-Dibromoethane	<10 µg/kg	TM116			<10 M	<200 @ M	<200 @ M	<200 @ M
Chlorobenzene	<5 µg/kg	TM116			<5 M	<100 @ M	<100 @ M	<100 @ M
1,1,1,2-Tetrachloroethane	<10 µg/kg	TM116			<10 M	<200 @ M	<200 @ M	<200 @ M
Ethylbenzene	<4 µg/kg	TM116		<80 @ M	5.7 M	<80 @ M	<80 @ M	<80 @ M
p/m-Xylene	<10 µg/kg	TM116		<200 @ #	<10 #	<200 @ #	<200 @ #	<200 @ #
o-Xylene	<10 µg/kg	TM116		<200 @ M	<10 M	<200 @ M	<200 @ M	<200 @ M
Styrene	<10 µg/kg	TM116			<10 @ #	<200 @ #	<200 @ #	<200 @ #
Bromoform	<10 µg/kg	TM116			<10 M	<200 @ M	<200 @ M	<200 @ M
Isopropylbenzene	<5 µg/kg	TM116			<5 #	<100 @ #	<100 @ #	<100 @ #
1,1,2,2-Tetrachloroethane	<10 µg/kg	TM116			<10 #	<200 @ #	<200 @ #	<200 @ #
1,2,3-Trichloropropane	<16 µg/kg	TM116			<16 M	<320 @ M	<320 @ M	<320 @ M
Bromobenzene	<10 µg/kg	TM116			<10 M	<200 @ M	<200 @ M	<200 @ M
Propylbenzene	<10 µg/kg	TM116			<10 M	<200 @ M	<200 @ M	<200 @ M
2-Chlorotoluene	<9 µg/kg	TM116			<9 M	<180 @ M	<180 @ M	<180 @ M
1,3,5-Trimethylbenzene	<8 µg/kg	TM116			<8 M	<160 @ M	<160 @ M	<160 @ M
4-Chlorotoluene	<10 µg/kg	TM116			<10 M	<200 @ M	<200 @ M	<200 @ M
tert-Butylbenzene	<14 µg/kg	TM116			<14 #	<280 @ #	<280 @ #	<280 @ #
1,2,4-Trimethylbenzene	<9 µg/kg	TM116			<9 #	<180 @ #	<180 @ #	<180 @ #
sec-Butylbenzene	<10 µg/kg	TM116			<10	<200 @	<200 @	<200 @
4-Isopropyltoluene	<10 µg/kg	TM116			<10	<200 @	<200 @	<200 @
1,3-Dichlorobenzene	<8 µg/kg	TM116			<8 M	<160 @ M	<160 @ M	<160 @ M
1,4-Dichlorobenzene	<5 µg/kg	TM116			<5 M	<100 @ M	<100 @ M	<100 @ M
n-Butylbenzene	<11 µg/kg	TM116			<11	<220 @	<220 @	<220 @
1,2-Dichlorobenzene	<10 µg/kg	TM116			<10 M	<200 @ M	<200 @ M	<200 @ M
1,2-Dibromo-3-chloropropane	<14 µg/kg	TM116			<14 M	<280 @ M	<280 @ M	<280 @ M
Tert-amyl methyl ether	<10 µg/kg	TM116			<10 #	<200 @ #	<200 @ #	<200 @ #
1,2,4-Trichlorobenzene	<20 µg/kg	TM116			<20	<400 @	<400 @	<400 @
Hexachlorobutadiene	<20 µg/kg	TM116			<20	<400 @	<400 @	<400 @
Naphthalene	<13 µg/kg	TM116			<13 M	<260 @ M	<260 @ M	<260 @ M
1,2,3-Trichlorobenzene	<20 µg/kg	TM116			<20 #	<400 @ #	<400 @ #	<400 @ #
1,3,5-Trichlorobenzene	<20 µg/kg	TM116			<20	<400	<400	<400

Validated

CERTIFICATE OF ANALYSIS

SDG: 220421-119 **Report Number:** 644481 **Superseded Report:** 644465

Client Ref.: LD10385 **Location:** Ten Acres Lane

VOC MS (S)

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	CP202	CP202	TP230	WS303	WS312
			Depth (m)	13.00 - 14.00	8.00 - 9.00	1.50 - 1.50	4.50 - 4.50	4.00 - 4.00
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	14/04/2022	14/04/2022	14/04/2022	14/04/2022	14/04/2022
			Sample Time	13:00	12:00:00	11:00	12:00	12:30
			Date Received	21/04/2022	21/04/2022	21/04/2022	21/04/2022	21/04/2022
			SDG Ref	220421-119	220421-119	220421-119	220421-119	220421-119
			Lab Sample No.(s)	26162140	26162151	26162117	26162088	26162100
			AGS Reference					
Sum of Detected Xylenes	<0.02 mg/kg	TM116		<0.4 @	<0.02	<0.4 @	<0.4 @	<0.4 @
Sum of BTEX	<40 µg/kg	TM116		<800 @	<40	<800 @	<800 @	<800 @

CERTIFICATE OF ANALYSIS

SDG: 220421-119 **Report Number:** 644481 **Superseded Report:** 644465
Client Ref.: LD10385 **Location:** Ten Acres Lane

Asbestos Identification - Solid Samples

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
*	Subcontracted test.
(F)	Trigger breach confirmed
1-5&♦$@	Sample deviation (see appendix)

		Date of Analysis	Analysed By	Comments	Amosite (Brown) Asbestos	Asbestos Actinolite	Asbestos Anthophyllite	Asbestos Tremolite	Chrysotile (White) Asbestos	Crocidolite (Blue) Asbestos	Non-Asbestos Fibre
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	CP202 13.00 - 14.00 SOLID 14/04/2022 00:00:00 21/04/2022 05:00:00 220421-119 26162140 TM048	28/04/2022	Paul Poynton	N/A	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	CP202 8.00 - 9.00 SOLID 14/04/2022 00:00:00 21/04/2022 05:00:00 220421-119 26162151 TM048	27/04/2022	Paul Poynton	N/A	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	TP230 1.50 - 1.50 SOLID 14/04/2022 00:00:00 21/04/2022 05:00:00 220421-119 26162117 TM048	28/04/2022	Paul Poynton	N/A	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	WS302 0.50 - 0.50 SOLID 14/04/2022 00:00:00 21/04/2022 05:00:00 220421-119 26162107 TM048	03/05/2022	Emily Anderton	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	WS303 4.50 - 4.50 SOLID 14/04/2022 00:00:00 21/04/2022 05:00:00 220421-119 26162088 TM048	03/05/2022	Emily Anderton	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	WS312 4.00 - 4.00 SOLID 14/04/2022 00:00:00 21/04/2022 05:00:00 220421-119 26162100 TM048	28/04/2022	Paul Poynton	N/A	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected

CERTIFICATE OF ANALYSIS

SDG: 220421-119 **Report Number:** 644481 **Superseded Report:** 644465
Client Ref.: LD10385 **Location:** Ten Acres Lane

Notification of NDPs (No determination possible)

Date Received : 21/04/2022 11:44:22

Sample No	Customer Sample Ref.	Depth (m)	Test	Comment
26162117	TP230	1.50 - 1.50	Hexavalent Chromium (s)	Sample too coloured

Table of Results - Appendix

Method No	Reference	Description
PM024	Modified BS 1377	Soil preparation including homogenisation, moisture screens of soils for Asbestos Containing Material
TM048	HSG 248, Asbestos: The analysts' guide for sampling, analysis and clearance procedures	Identification of Asbestos in Bulk Material
TM062 (S)	National Grid Property Holdings Methods for the Collection & Analysis of Samples from National Grid Sites version 1 Sec 3.9	Determination of Phenols in Soils by HPLC
TM089	Modified: US EPA Methods 8020 & 602	Determination of Gasoline Range Hydrocarbons (GRO) by Headspace GC-FID (C4-C12)
TM116	Modified: US EPA Method 8260, 8120, 8020, 624, 610 & 602	Determination of Volatile Organic Compounds by Headspace / GC-MS
TM132	In - house Method	ELTRA CS800 Operators Guide
TM133	BS 1377: Part 3 1990;BS 6068-2.5	Determination of pH in Soil and Water using the GLpH pH Meter
TM151	Method 3500D, AWWA/APHA, 20th Ed., 1999	Determination of Hexavalent Chromium using Kone analyser
TM153	Method 4500A,B,C, I, M AWWA/APHA, 20th Ed., 1999	Determination of Total Cyanide, Free (Easily Liberatable) Cyanide and Thiocyanate using the Skalar SANS+ System Segmented Flow Analyser
TM157	HP 6890 Gas Chromatograph (GC) system and HP 5973 Mass Selective Detector (MSD).	Determination of SVOC in Soils by GC-MS extracted by sonication in DCM/Acetone
TM168	EPA Method 8082, Polychlorinated Biphenyls by Gas Chromatography	Determination of WHO12 and EC7 Polychlorinated Biphenyl Congeners by GC-MS in Soils
TM180	Sulphide in waters and waste waters 1991 ISBN 01 175 7186 SCA rec. 2007 (unpublished)'	The Determination Of Easily Liberated Sulphide In Soil Samples by Ion Selective Electrode Technique
TM181	US EPA Method 6010B	Determination of Routine Metals in Soil by iCap 6500 Duo ICP-OES
TM218	Shaker extraction - EPA method 3546.	The determination of PAH in soil samples by GC-MS
TM221	Inductively Coupled Plasma - Atomic Emission Spectroscopy. An Atlas of Spectral Information: Winge, Fassel, Peterson and Floyd	Determination of Acid Extractable Sulphate in Soils by ICP OES
TM222	In-House Method	Determination of Hot Water Soluble Boron in Soils (10:1 Water:Soil) by ICP OES.
TM243		Mixed Anions In Soils By Kone
TM338	PFAS In Solids	Analysis of perfluoroalkylsulfonates and perfluorocarboxylic acids in Solids
TM414	Analysis of Petroleum Hydrocarbons in Environmental Media – Total Petroleum Hydrocarbon Criteria	Determination of Speciated Extractable Petroleum Hydrocarbons in Soils by GCxGC-FID

NA = not applicable.

Chemical testing (unless subcontracted) performed at ALS Life Sciences Ltd Hawarden.

CERTIFICATE OF ANALYSIS

SDG: 220421-119 **Report Number:** 644481 **Superseded Report:** 644465
Client Ref.: LD10385 **Location:** Ten Acres Lane

Test Completion Dates

Lab Sample No(s)	26162140	26162151	26162117	26162126	26162107	26162088	26162100
Customer Sample Ref.	CP202	CP202	TP230	TP233	WS302	WS303	WS312
AGS Ref.							
Depth	13.00 - 14.00	8.00 - 9.00	1.50 - 1.50	1.70 - 1.70	0.50 - 0.50	4.50 - 4.50	4.00 - 4.00
Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
Anions by Kone (soil)	26-Apr-2022	26-Apr-2022	26-Apr-2022				26-Apr-2022
Asbestos ID in Solid Samples	28-Apr-2022	27-Apr-2022	28-Apr-2022		03-May-2022	03-May-2022	28-Apr-2022
Boron Water Soluble	28-Apr-2022	28-Apr-2022	28-Apr-2022				28-Apr-2022
Cyanide Comp/Free/Total/Thiocyanate	26-Apr-2022	26-Apr-2022	28-Apr-2022				26-Apr-2022
Easily Liberated Sulphide	27-Apr-2022	26-Apr-2022	26-Apr-2022				27-Apr-2022
EPH CWG GC (S)	26-Apr-2022	26-Apr-2022	28-Apr-2022			26-Apr-2022	26-Apr-2022
GRO by GC-FID (S)	28-Apr-2022	28-Apr-2022	28-Apr-2022			28-Apr-2022	28-Apr-2022
Hexavalent Chromium (s)	27-Apr-2022	28-Apr-2022					27-Apr-2022
Metals in solid samples by OES	26-Apr-2022	26-Apr-2022	26-Apr-2022				26-Apr-2022
PAH by GCMS	27-Apr-2022	27-Apr-2022	27-Apr-2022				27-Apr-2022
PCBs by GCMS	28-Apr-2022	27-Apr-2022	28-Apr-2022				28-Apr-2022
PFAS Solids				27-Apr-2022	27-Apr-2022		
pH	26-Apr-2022	26-Apr-2022	26-Apr-2022				26-Apr-2022
Phenols by HPLC (S)	26-Apr-2022	26-Apr-2022	26-Apr-2022				27-Apr-2022
Sample description	22-Apr-2022	22-Apr-2022	22-Apr-2022	22-Apr-2022	22-Apr-2022	22-Apr-2022	22-Apr-2022
Semi Volatile Organic Compounds		26-Apr-2022	28-Apr-2022			26-Apr-2022	26-Apr-2022
Total Organic Carbon	28-Apr-2022	28-Apr-2022	28-Apr-2022				28-Apr-2022
Total Sulphate	26-Apr-2022	26-Apr-2022	26-Apr-2022				26-Apr-2022
TPH CWG GC (S)	28-Apr-2022	28-Apr-2022	28-Apr-2022			28-Apr-2022	28-Apr-2022
VOC MS (S)	28-Apr-2022	28-Apr-2022	28-Apr-2022			28-Apr-2022	28-Apr-2022

Appendix

1. Results are expressed on a dry weight basis (dried at 35ºC) for all soil analyses except for the following: NRA and CEN Leach tests, flash point LOI, pH, ammonium as NH4 by the BRE method, VOC TICs and SVOC TICs.

2. If sufficient sample is received a sub sample will be retained free of charge for 30 days after analysis is completed (e-mailed) for all sample types unless the sample is destroyed on testing. The prepared soil sub sample that is analysed for asbestos will be retained for a period of 6 months after the analysis date. All bulk samples will be retained for a period of 6 months after the analysis date. All samples received and not scheduled will be disposed of one month after the date of receipt unless we are instructed to the contrary. Once the initial period has expired, a storage charge will be applied for each month or part thereof until the client cancels the request for sample storage. ALS reserve the right to charge for samples received and stored but not analysed.

3. With respect to turnaround, we will always endeavour to meet client requirements wherever possible, but turnaround times cannot be absolutely guaranteed due to so many variables beyond our control.

4. We take responsibility for any test performed by sub-contractors (marked with an asterisk). We endeavour to use UKAS/MCERTS Accredited Laboratories, who either complete a quality questionnaire or are audited by ourselves. For some determinands there are no UKAS/MCERTS Accredited Laboratories, in this instance a laboratory with a known track record will be utilised.

5. If no separate volatile sample is supplied by the client, or if a headspace or sediment is present in the volatile sample, the integrity of the data may be compromised. This will be flagged up as an invalid VOC on the test schedule and the result marked as deviating on the test certificate.

6. NDP - No determination possible due to insufficient/unsuitable sample.

7. Results relate only to the items tested.

8. LoDs (Limit of Detection) for wet tests reported on a dry weight basis are not corrected for moisture content.

9. **Surrogate recoveries** - Surrogates are added to your sample to monitor recovery of the test requested. A % recovery is reported, results are not corrected for the recovery measured. Typical recoveries for organics tests are 70-130%. Recoveries in soils are affected by organic rich or clay rich matrices. Waters can be affected by remediation fluids or high amounts of sediment. Test results are only ever reported if all of the associated quality checks pass; it is assumed that all recoveries outside of the values above are due to matrix affect.

10. Stones/debris are not routinely removed. We always endeavour to take a representative sub sample from the received sample.

11. In certain circumstances the method detection limit may be elevated due to the sample being outside the calibration range. Other factors that may contribute to this include possible interferences. In both cases the sample would be diluted which would cause the method detection limit to be raised.

12. For dried and crushed preparations of soils volatile loss may occur e.g volatile mercury.

13. For leachate preparations other than Zero Headspace Extraction (ZHE) volatile loss may occur.

14. For the BSEN 12457-3 two batch process to allow the cumulative release to be calculated, the volume of the leachate produced is measured and filtered for all tests. We therefore cannot carry out any unfiltered analysis. The tests affected include volatiles GCFID/GCMS and all subcontracted analysis.

15. Analysis and identification of specific compounds using GCFID is by retention time only, and we routinely calibrate and quantify for benzene, toluene, ethylbenzenes and xylenes (BTEX). For total volatiles in the C5-C12 range, the total area of the chromatogram is integrated and expressed as ug/kg or ug/l. Although this analysis is commonly used for the quantification of gasoline range organics (GRO), the system will also detect other compounds such as chlorinated solvents, and this may lead to a falsely high result with respect to hydrocarbons only. It is not possible to specifically identify these non-hydrocarbons, as standards are not routinely run for any other compounds, and for more definitive identification, volatiles by GCMS should be utilised.

16. We are accredited to MCERTS for sand, clay and loam/topsoil, or any of these materials - whether these are derived from naturally occurring soil profiles, or from fill/made ground, as long as these materials constitute the major part of the sample. Other coarse granular material such as concrete, gravel and brick are not accredited if they comprise the major part of the sample.

17 Data retention. All records, communications and reports pertaining to the analysis are archived for seven years from the date of issue of the final report.

General

18. **Tentatively Identified Compounds (TICs)** are non-target peaks in VOC and SVOC analysis. All non-target peaks detected with a concentration above the LoD are subjected to a mass spectral library search. Non-target peaks with a library search confidence of >75% are reported based on the best mass spectral library match. When a non-target peak with a library search confidence of <75% is detected it is reported as “mixed hydrocarbons”. Non-target compounds identified from the scan data are semi-quantified relative to one of the deuterated internal standards, under the same chromatographic conditions as the target compounds. This result is reported as a semi-quantitative value and reported as Tentatively Identified Compounds (TICs). TICs are outside the scope of UKAS accreditation and are not moisture corrected.

19. **Sample Deviations**

If a sample is classed as deviated then the associated results may be compromised.

1	**Container with Headspace provided for volatiles analysis**
2	**Incorrect container received**
3	**Deviation from method**
4	**Matrix interference**
♦	**Sample holding time exceeded in laboratory**
@	**Sample holding time exceeded due to late arrival of instructions or samples**
§	**Sampled on date not provided**

20. **Asbestos**

When requested, the individual sub sample scheduled will be analysed in house for the presence of asbestos fibres and asbestos containing material by our documented in house method TM048 based on HSG 248 (2021), which is accredited to ISO17025. If a specific asbestos fibre type is not found this will be reported as “Not detected”. If no asbestos fibre types are found all will be reported as “Not detected” and the sub sample analysed deemed to be clear of asbestos. If an asbestos fibre type is found it will be reported as detected (for each fibre type found). Testing can be carried out on asbestos positive samples, but, due to Health and Safety considerations, may be replaced by alternative tests or reported as No Determination Possible (NDP). The quantity of asbestos present is not determined unless specifically requested.

Identification of Asbestos in Bulk Materials & Soils

The results for identification of asbestos in bulk materials and soils are obtained from supplied bulk materials andd soils which have been examined to determine the presence of asbestos fibres using ALS (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining, based on HSG 248 (2021).

The results for identification of asbestos in soils are obtained from a homogenised sub sample which has been examined to determine the presence of asbestos fibres using ALS (Hawarden) in-house method of transmitted/polarised light microscopy and central

Asbestos Type	Common Name
Chrysotile	White Asbestos
Amosite	Brown Asbestos
Crocidolite	Blue Asbestos
Fibrous Actinolite	-
Fibrous Anthophyllite	-
Fibrous Tremolite	-

Visual Estimation Of Fibre Content

Estimation of fibre content is not permitted as part of our UKAS accredited test other than: - Trace - Where only one or two asbestos fibres were identified.

Respirable Fibres

Respirable fibres are defined as fibres of <3 µm diameter, longer than 5 µm and with aspect ratios of at least 3:1 that can be inhaled into the lower regions of the lung and are generally acknowledged to be most important predictor of hazard and risk for cancers of the lung.

Further guidance on typical asbestos fibre content of manufactured products can be found in HSG 264.

The identification of asbestos containing materials and soils falls within our schedule of tests for which we hold UKAS accreditation, however opinions, interpretations and all other information contained in the report are outside the scope of UKAS accreditation.

Unit 7-8 Hawarden Business Park
Manor Road (off Manor Lane)
Hawarden
Deeside
CH5 3US
Tel: (01244) 528700
Fax: (01244) 528701
email: hawardencustomerservices@alsglobal.com
Website: www.alsenvironmental.co.uk

Wardell Armstrong LLP
36 Park Row
Leeds
LS1 5JL

Attention: Jonathan Currie

CERTIFICATE OF ANALYSIS

Date of report Generation:	05 May 2022
Customer:	Wardell Armstrong LLP
Sample Delivery Group (SDG):	220425-5
Your Reference:	LD10385
Location:	Ten Acres Lane
Report No:	644903
Order Number:	LD2729

This report has been revised and directly supersedes 644698 in its entirety.

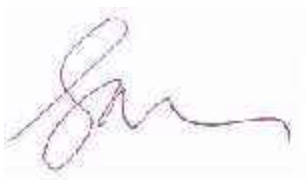
We received 6 samples on Thursday April 21, 2022 and 6 of these samples were scheduled for analysis which was completed on Thursday May 05, 2022. Accredited laboratory tests are defined within the report, but opinions, interpretations and on-site data expressed herein are outside the scope of ISO 17025 accreditation.

Should this report require incorporation into client reports, it must be used in its entirety and not simply with the data sections alone.

Chemical testing (unless subcontracted) performed at ALS Life Sciences Ltd Hawarden.

All sample data is provided by the customer. The reported results relate to the sample supplied, and on the basis that this data is correct.
Incorrect sampling dates and/or sample information will affect the validity of results.
The customer is not permitted to reproduce this report except in full without the approval of the laboratory.

Approved By:



Sonia McWhan

Operations Manager

CERTIFICATE OF ANALYSIS

SDG: 220425-5 **Report Number:** 644903 **Superseded Report:** 644698
Client Ref.: LD10385 **Location:** Ten Acres Lane

Received Sample Overview

Lab Sample No(s)	Customer Sample Ref.	AGS Ref.	Depth (m)	Sampled Date
26178980	TP230		1.60 - 1.60	1&/04/2022
26178&75	TP231		0.60 - 0.60	1&/04/2022
26178&6&	TP232		1.00 - 1.00	1&/04/2022
2617&001	TP234		3.50 - 3.50	1&/04/2022
26178&85	TP247		1.60 - 1.60	1&/04/2022
26178&&6	TP247		2.00 - 2.00	1&/04/2022

Only received samples which have had analysis scheduled will be shown on the following pages.

Validated

CERTIFICATE OF ANALYSIS

SDG: 220425-5 **Report Number:** 644903 **Superseded Report:** 644698

Client Ref.: LD10385 **Location:** Ten Acres Lane

Results Legend

X Test

N No Determination Possible

Sample Ty9es -

S - Soil/Solid
UNS - Unspecified Solid
GW - Ground Water
SW - Surface Water
LE - Land Leachate
PL - Prepared Leachate
PR - Process Water
SA - Saline Water
TE - Trade Effluent
TS - Treated Sewage
US - Untreated Sewage
RE - Recreational Water
DW - Drinking Water Non-regulatory
UNL - Unspecified Liquid
SL - Sludge
G - Gas
OTH - Other

			Lab Sample No(s)	26178980			26178975			26178969		26179001			26178985			26178996	
			Customer Sample Reference	TP230			TP231			TP232		TP234			TP247			TP247	
			AGS Reference																
			Depth (m)	1.60 - 1.60			0.60 - 0.60			1.00 - 1.00		3.50 - 3.50			1.60 - 1.60			2.00 - 2.00	
			Container	1kg TUB with Handle (ALE260)	250g Amber Jar (ALE210)	60g VOC (ALE215)	1kg TUB with Handle (ALE260)	250g Amber Jar (ALE210)	60g VOC (ALE215)	1kg TUB with Handle (ALE260)	250g Amber Jar (ALE210)	1kg TUB with Handle (ALE260)	250g Amber Jar (ALE210)	60g VOC (ALE215)	1kg TUB with Handle (ALE260)	250g Amber Jar (ALE210)	60g VOC (ALE215)	1kg TUB with Handle (ALE260)	250g Amber Jar (ALE210)
			Sample Type	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S
Anions by Kone (soil)	All	NDPs: 0 Tests: 4			X			X					X			X			
Asbestos ID in Solid Samples	All	NDPs: 0 Tests: 4		X			X					X			X				
Boron Water Soluble	All	NDPs: 0 Tests: 4			X			X					X			X			
Cyanide Comp/Free/Total/Thiocyanate	All	NDPs: 0 Tests: 4			X			X					X			X			
Easily Liberated Sulphide	All	NDPs: 0 Tests: 4			X			X					X			X			
EPH CWG GC (S)	All	NDPs: 0 Tests: 4			X			X					X			X			
GRO by GC-FID (S)	All	NDPs: 0 Tests: 4				X			X					X			X		
Hexavalent Chromium (s)	All	NDPs: 0 Tests: 4			X			X					X			X			
Metals in solid samples by OES	All	NDPs: 0 Tests: 4			X			X					X			X			
PAH by GCMS	All	NDPs: 0 Tests: 4			X			X					X			X			
PCBs by GCMS	All	NDPs: 0 Tests: 4			X			X					X			X			
PFAS Solids	All	NDPs: 0 Tests: 2								X								X	
pH	All	NDPs: 0 Tests: 4			X			X					X			X			
Phenols by HPLC (S)	All	NDPs: 0 Tests: 4			X			X					X			X			
Sample description	All	NDPs: 0 Tests: 5			X						X		X			X			X

Validated

CERTIFICATE OF ANALYSIS

SDG: 220425-5 **Report Number:** 644903 **Superseded Report:** 644698
Client Ref.: LD10385 **Location:** Ten Acres Lane

Results Legend

X Test

N No Determination Possible

Sample Ty9es -
S - Soil/Solid
UNS - Unspecified Solid
GW - Ground Water
SW - Surface Water
LE - Land Leachate
PL - Prepared Leachate
PR - Process Water
SA - Saline Water
TE - Trade Effluent
TS - Treated Sewage
US - Untreated Sewage
RE - Recreational Water
DW - Drinking Water Non-regulatory
UNL - Unspecified Liquid
SL - Sludge
G - Gas
OTH - Other

Lab Sample No(s)			26178980			26178975			26178969			26179001			26178985			26178996
Customer Sample Reference			TP230			TP231			TP232			TP234			TP247			TP247
AGS Reference																		
Depth (m)			1.60 - 1.60			0.60 - 0.60			1.00 - 1.00			3.50 - 3.50			1.60 - 1.60			2.00 - 2.00
Container			1kg TUB with Handle (ALE260)	250g Amber Jar (ALE210)	60g VOC (ALE215)	1kg TUB with Handle (ALE260)	250g Amber Jar (ALE210)	60g VOC (ALE215)	1kg TUB with Handle (ALE260)	250g Amber Jar (ALE210)	1kg TUB with Handle (ALE260)	250g Amber Jar (ALE210)	60g VOC (ALE215)	1kg TUB with Handle (ALE260)	250g Amber Jar (ALE210)	60g VOC (ALE215)	1kg TUB with Handle (ALE260)	250g Amber Jar (ALE210)
Sample Type			S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S
Semi Volatile Organic Compounds	All	NDPs: 0 Tests: 4		X			X					X			X			
Total Organic Carbon	All	NDPs: 0 Tests: 4		X			X					X			X			
Total Sulphate	All	NDPs: 0 Tests: 4		X			X					X			X			
TPH CWG GC (S)	All	NDPs: 0 Tests: 4		X			X					X			X			
VOC MS (S)	All	NDPs: 0 Tests: 4			X			X					X			X		

CERTIFICATE OF ANALYSIS

SDG: 220425-5 **Report Number:** 644903 **Superseded Report:** 644698
Client Ref.: LD10385 **Location:** Ten Acres Lane

Sample Descriptions

Grain Sizes

very fine	<0.063mm	fine	0.063mm - 0.1mm	medium	0.1mm - 2mm	coarse	2mm - 10mm	very coarse	>10mm

Lab Sample No(s)	Customer Sample Ref.	Depth (m)	Colour	Description	Inclusions	Inclusions 2
26178980	TP230	1.60 - 1.60	Dark Brown	Stone/Soil	Stones	N/A
26178975	TP231	0.60 - 0.60	Dark Brown	Loamy Sand	N/A	N/A
26178969	TP232	1.00 - 1.00	Dark Brown	Sand	Stones	None
26179001	TP234	3.50 - 3.50	Dark Brown	Loamy Sand	Stones	Brick
26178985	TP247	1.60 - 1.60	Dark Brown	Sand	Stones	N/A
26178996	TP247	2.00 - 2.00	Dark Brown	Sandy Clay Loam	Stones	None

These descriptions are only intended to act as a cross check if sample identities are questioned, and to provide a log of sample matrices with respect to MCERTS validation. They are not intended as full geological descriptions.

We are accredited to MCERTS for sand, clay and loam/topsoil, or any of these materials - whether these are derived from naturally ocurring soil profiles, or from fill/made ground, as long as these materials constitute the major part of the sample.

Other coarse granular materials such as concrete, gravel and brick are not accredited if they comprise the major part of the sample.

Validated

CERTIFICATE OF ANALYSIS

SDG: 220425-5 **Report Number:** 644903 **Superseded Report:** 644698

Client Ref.: LD10385 **Location:** Ten Acres Lane

Results Legend

- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4+§@ Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	TP230	TP231	TP232	TP234	TP247	TP247
			Depth (m)	1.60 - 1.60	0.60 - 0.60	1.00 - 1.00	3.50 - 3.50	1.60 - 1.60	2.00 - 2.00
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	19/04/2022	19/04/2022	19/04/2022	19/04/2022	19/04/2022	19/04/2022
			Sample Time	12:00	12:00	12:00	12:00	12:00	12:00
			Date Received	21/04/2022	21/04/2022	21/04/2022	21/04/2022	21/04/2022	21/04/2022
			SDG Ref	220425-5	220425-5	220425-5	220425-5	220425-5	220425-5
			Lab Sample No.(s)	26178980	26178975	26178969	26179001	26178985	26178996
			AGS Reference						
Moisture Content Ratio (% of as received sample)	%	PM024		27	42	27	24	22	25
Phenol	<0.01 mg/kg	TM062 (S)		<0.01 #	<0.01 M		<0.01 M	<0.01 M	
Cresols	<0.01 mg/kg	TM062 (S)		<0.01 #	<0.01 M		<0.01 M	<0.01 M	
Xylenols	<0.015 mg/kg	TM062 (S)		<0.015 #	<0.015 M		<0.015 M	<0.015 M	
Phenols, Total Detected monohydric	<0.035 mg/kg	TM062 (S)		<0.035 #	<0.035 M		<0.035 M	<0.035 M	
Soil Organic Matter (SOM)	<0.35 %	TM132		20.9 #	7.62 #		12.8 #	32.8 #	
pH	1 pH Units	TM133		7.83 #	7.17 M		10.6 M	8.28 M	
Chromium, Hexavalent	<0.6 mg/kg	TM151		<0.6 #	<0.6 #		<0.6 #	<0.6 #	
Cyanide, Total	<1 mg/kg	TM153		5.33 #	20.1 M		4.2 M	18.9 M	
PCB congener 28	<3 µg/kg	TM168		<3 #	<3 M		<3 M	<3 M	
PCB congener 52	<3 µg/kg	TM168		<3 #	<3 M		<3 M	<3 M	
PCB congener 101	<3 µg/kg	TM168		<3 #	<3 M		<3 M	<3 M	
PCB congener 118	<3 µg/kg	TM168		<3 #	<3 M		<3 M	<3 M	
PCB congener 138	<3 µg/kg	TM168		<3 #	<3 M		<3 M	<3 M	
PCB congener 153	<3 µg/kg	TM168		<3 #	<3 M		<3 M	<3 M	
PCB congener 180	<3 µg/kg	TM168		<3 #	<3 M		<3 M	<3 M	
Sum of detected PCB 7 Congeners	<21 µg/kg	TM168		<21	<21		<21	<21	
Sulphide, Easily liberated	<15 mg/kg	TM180		101 @ #	153 @ M		<15 @ M	<15 @ M	
Arsenic	<0.6 mg/kg	TM181		64.5 #	95.9 M		40 M	<6 M	
Beryllium	<0.01 mg/kg	TM181		1.64 #	2.05 M		1.72 M	3 M	
Cadmium	<0.02 mg/kg	TM181		0.283 #	37.4 M		0.162 M	0.862 M	
Chromium	<0.9 mg/kg	TM181		29.7 #	168 M		21.2 M	27.5 M	
Copper	<1.4 mg/kg	TM181		169 #	850 M		84.7 M	4440 M	
Lead	<0.7 mg/kg	TM181		223 #	342 M		108 M	923 M	
Mercury	<0.1 mg/kg	TM181		<0.1 #	<1 M		<0.1 M	<0.1 M	
Nickel	<0.2 mg/kg	TM181		54.7 #	183 M		30.7 M	<2 M	
Selenium	<1 mg/kg	TM181		2.29 #	<1 #		1.48 #	<10 #	
Vanadium	<0.2 mg/kg	TM181		66.6 #	332 #		45.2 #	2.04 #	
Zinc	<1.9 mg/kg	TM181		242 #	2090 M		85.6 M	889 M	
Sulphate, Total	<48 mg/kg	TM221		1480 #	2000 M		1050 M	1140 M	
Boron, water soluble	<1 mg/kg	TM222		2.62 #	1.61 M		1.21 M	1.2 M	
Water Soluble Sulphate as SO4 2:1 Extract	<0.004 g/l	TM243		0.186 #	0.238 M		0.0799 M	0.0885 M	
PFBA (375-22-4) Perfluoro-n-butanoic acid	<3 µg/kg	TM338				<3			<3

CERTIFICATE OF ANALYSIS

SDG: 220425-5 **Report Number:** 644903 **Superseded Report:** 644698
Client Ref.: LD10385 **Location:** Ten Acres Lane

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4+§@ Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	TP230	TP231	TP232	TP234	TP247	TP247
			Depth (m)	1.60 - 1.60	0.60 - 0.60	1.00 - 1.00	3.50 - 3.50	1.60 - 1.60	2.00 - 2.00
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	19/04/2022	19/04/2022	19/04/2022	19/04/2022	19/04/2022	19/04/2022
			Sample Time	12:00	12:00	12:00	12:00	12:00	12:00
			Date Received	21/04/2022	21/04/2022	21/04/2022	21/04/2022	21/04/2022	21/04/2022
			SDG Ref	220425-5	220425-5	220425-5	220425-5	220425-5	220425-5
			Lab Sample No.(s)	26178980	26178975	26178969	26179001	26178985	26178996
			AGS Reference						
PFPA (2706-90-3) Perfluoro-n-pentanoic acid	<3 µg/kg	TM338				<3			<3
PFHxA (307-24-4) Perfluoro-n-hexanoic acid	<2 µg/kg	TM338				<2			<2
PFBS (375-73-5) Perfluoro-1-butanesulfonate	<1 µg/kg	TM338				<1			<1
PFHpA (375-85-9) Perfluoro-n-heptanoic acid	<1 µg/kg	TM338				<1			<1
PFOA (335-67-1) Perfluoro-n-octanoic acid	<1 µg/kg	TM338				<1			<1
PFHxS (355-46-4) Perfluoro-1-hexanesulfonate	<1 µg/kg	TM338				<1			<1
PFNA (375-95-1) Perfluoro-n-nonanoic acid	<1 µg/kg	TM338				<1			<1
PFHpS (375-92-8) Perfluoro-1-heptanesulfonate	<1 µg/kg	TM338				<1			<1
PFDA (335-76-2) Perfluoro-n-decanoic acid	<1 µg/kg	TM338				<1			<1
Linear PFOS(1763-23-1) Perfluoro-1-octanesulfonate	<1 µg/kg	TM338				<1			<1
Branched PFOS	<1 µg/kg	TM338				<1			<1
PFUnA (2058-94-8) Perfluoro-n-undecanoic acid	<1 µg/kg	TM338				<1			<1
PFDoA (307-55-1) Perfluoro-n-dodecanoic acid	<1 µg/kg	TM338				<1			<1
PFOSA (754-91-6) Perfluoro-octanesulfonamide	<1 µg/kg	TM338				<1			<1
6:2-FTS (27619-97-2)	<1 µg/kg	TM338				<1			<1
PFDS (335-73-3) Perfluoro-1-decanesulfonate	<1 µg/kg	TM338				<1			<1
PFPeS (2706-91-4) Perfluoro-1-pentanesulfonate	<1 µg/kg	TM338				<1			<1
Total PFOS	<1 µg/kg	TM338				<1			<1

Validated

CERTIFICATE OF ANALYSIS

SDG: 220425-5 **Report Number:** 644903 **Superseded Report:** 644698

Client Ref.: LD10385 **Location:** Ten Acres Lane

PAH by GCMS

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	TP230	TP231	TP234	TP247		
			Depth (m)	1.60 - 1.60	0.60 - 0.60	3.50 - 3.50	1.60 - 1.60		
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)		
			Date Sampled	19/04/2022	19/04/2022	19/04/2022	19/04/2022		
			Sample Time	12:00	12:00	12:00	12:00		
			Date Received	21/04/2022	21/04/2022	21/04/2022	21/04/2022		
			SDG Ref	220425-5	220425-5	220425-5	220425-5		
			Lab Sample No.(s)	26178980	26178975	26179001	26178985		
			AGS Reference						
Naphthalene-d8 % recovery**	%	TM218		94.1	94	93.9	86.3		
Acenaphthene-d10 % recovery**	%	TM218		91.9	92.2	91.4	88.9		
Phenanthrene-d10 % recovery**	%	TM218		87.6	87.3	88	89.9		
Chrysene-d12 % recovery**	%	TM218		89.5	91.5	93.1	82.2		
Perylene-d12 % recovery**	%	TM218		90.8	94.1	89.5	73.6		
Naphthalene	<9 µg/kg	TM218		25.7 #	45.8 M	26 M	69.8 M		
Acenaphthylene	<12 µg/kg	TM218		29.2 #	148 M	26.5 M	132 M		
Acenaphthene	<8 µg/kg	TM218		20.4 #	33.1 M	39 M	47.2 M		
Fluorene	<10 µg/kg	TM218		22.3 #	51.2 M	30.4 M	49.6 M		
Phenanthrene	<15 µg/kg	TM218		194 #	301 M	312 M	623 M		
Anthracene	<16 µg/kg	TM218		45.9 #	117 M	78 M	169 M		
Fluoranthene	<17 µg/kg	TM218		472 #	776 M	556 M	1140 M		
Pyrene	<15 µg/kg	TM218		449 #	892 M	534 M	1200 M		
Benz(a)anthracene	<14 µg/kg	TM218		229 #	616 M	278 M	807 M		
Chrysene	<10 µg/kg	TM218		235 #	561 M	276 M	808 M		
Benzo(b)fluoranthene	<15 µg/kg	TM218		277 #	716 M	330 M	928 M		
Benzo(k)fluoranthene	<14 µg/kg	TM218		122 #	333 M	118 M	407 M		
Benzo(a)pyrene	<15 µg/kg	TM218		219 #	744 M	278 M	908 M		
Indeno(1,2,3-cd)pyrene	<18 µg/kg	TM218		194 #	484 M	231 M	738 M		
Dibenzo(a,h)anthracene	<23 µg/kg	TM218		37.7 #	98 M	44.7 M	146 M		
Benzo(g,h,i)perylene	<24 µg/kg	TM218		180 #	403 M	214 M	641 M		
PAH, Total Detected USEPA 16	<118 µg/kg	TM218		2750	6320	3370	8820		

CERTIFICATE OF ANALYSIS

SDG: 220425-5 **Report Number:** 644903 **Superseded Report:** 644698
Client Ref.: LD10385 **Location:** Ten Acres Lane

Semi Volatile Organic Compounds

Results Legend
- # ISO17025 accredited.
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- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4+§@ Sample deviation (see appendix)

Customer Sample Ref.	TP230	TP231	TP234	TP247		
Depth (m)	1.60 - 1.60	0.60 - 0.60	3.50 - 3.50	1.60 - 1.60		
Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)		
Date Sampled	19/04/2022	19/04/2022	19/04/2022	19/04/2022		
Sample Time	12:00	12:00	12:00	12:00		
Date Received	21/04/2022	21/04/2022	21/04/2022	21/04/2022		
SDG Ref	220425-5	220425-5	220425-5	220425-5		
Lab Sample No.(s)	26178980	26178975	26179001	26178985		
AGS Reference						

Component	LOD/Units	Method						
Phenol	<100 µg/kg	TM157	<100	<100	<100	<200		
Pentachlorophenol	<100 µg/kg	TM157	<100	<100	<100	<200		
n-Nitroso-n-dipropylamine	<100 µg/kg	TM157	<100	<100	<100	<200		
Nitrobenzene	<100 µg/kg	TM157	<100	<100	<100	<200		
Isophorone	<100 µg/kg	TM157	<100	<100	<100	<200		
Hexachloroethane	<100 µg/kg	TM157	<100	<100	<100	<200		
Hexachlorocyclopentadiene	<100 µg/kg	TM157	<100	<100	<100	<200		
Hexachlorobutadiene	<100 µg/kg	TM157	<100	<100	<100	<200		
Hexachlorobenzene	<100 µg/kg	TM157	<100	<100	<100	<200		
n-Dioctyl phthalate	<100 µg/kg	TM157	<100	<100	<100	<200		
Dimethyl phthalate	<100 µg/kg	TM157	<100	<100	<100	<200		
Diethyl phthalate	<100 µg/kg	TM157	<100	<100	<100	<200		
n-Dibutyl phthalate	<100 µg/kg	TM157	<100	<100	<100	<200		
Dibenzofuran	<100 µg/kg	TM157	<100	<100	<100	<200		
Carbazole	<100 µg/kg	TM157	<100	<100	<100	<200		
Butylbenzyl phthalate	<100 µg/kg	TM157	<100	<100	<100	<200		
bis(2-Ethylhexyl) phthalate	<100 µg/kg	TM157	<100	<100	<100	<200		
bis(2-Chloroethoxy)methane	<100 µg/kg	TM157	<100	<100	<100	<200		
bis(2-Chloroethyl)ether	<100 µg/kg	TM157	<100	<100	<100	<200		
Azobenzene	<100 µg/kg	TM157	<100	<100	<100	<200		
4-Nitrophenol	<100 µg/kg	TM157	<100	<100	<100	<200		
4-Nitroaniline	<100 µg/kg	TM157	<100	<100	<100	<200		
4-Methylphenol	<100 µg/kg	TM157	<100	<100	<100	<200		
4-Chlorophenylphenylether	<100 µg/kg	TM157	<100	<100	<100	<200		
4-Chloroaniline	<100 µg/kg	TM157	<100	<100	<100	<200		
4-Chloro-3-methylphenol	<100 µg/kg	TM157	<100	<100	<100	<200		
4-Bromophenylphenylether	<100 µg/kg	TM157	<100	<100	<100	<200		
3-Nitroaniline	<100 µg/kg	TM157	<100	<100	<100	<200		
2-Nitrophenol	<100 µg/kg	TM157	<100	<100	<100	<200		
2-Nitroaniline	<100 µg/kg	TM157	<100	<100	<100	<200		
2-Methylphenol	<100 µg/kg	TM157	<100	<100	<100	<200		
1,2,4-Trichlorobenzene	<100 µg/kg	TM157	<100	<100	<100	<200		
2-Chlorophenol	<100 µg/kg	TM157	<100	<100	<100	<200		

CERTIFICATE OF ANALYSIS

SDG: 220425-5 **Report Number:** 644903 **Superseded Report:** 644698
Client Ref.: LD10385 **Location:** Ten Acres Lane

Semi Volatile Organic Compounds

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4+§@ Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	TP230	TP231	TP234	TP247		
			Depth (m)	1.60 - 1.60	0.60 - 0.60	3.50 - 3.50	1.60 - 1.60		
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)		
			Date Sampled	19/04/2022	19/04/2022	19/04/2022	19/04/2022		
			Sample Time	12:00	12:00	12:00	12:00		
			Date Received	21/04/2022	21/04/2022	21/04/2022	21/04/2022		
			SDG Ref	220425-5	220425-5	220425-5	220425-5		
			Lab Sample No.(s)	26178980	26178975	26179001	26178985		
			AGS Reference						
2,6-Dinitrotoluene	<100 µg/kg	TM157		<100	<100	<100	<200		
2,4-Dinitrotoluene	<100 µg/kg	TM157		<100	<100	<100	<200		
2,4-Dimethylphenol	<100 µg/kg	TM157		<100	<100	<100	<200		
2,4-Dichlorophenol	<100 µg/kg	TM157		<100	<100	<100	<200		
2,4,6-Trichlorophenol	<100 µg/kg	TM157		<100	<100	<100	<200		
2,4,5-Trichlorophenol	<100 µg/kg	TM157		<100	<100	<100	<200		
1,4-Dichlorobenzene	<100 µg/kg	TM157		<100	<100	<100	<200		
1,3-Dichlorobenzene	<100 µg/kg	TM157		<100	<100	<100	<200		
1,2-Dichlorobenzene	<100 µg/kg	TM157		<100	<100	<100	<200		
2-Chloronaphthalene	<100 µg/kg	TM157		<100	<100	<100	<200		
2-Methylnaphthalene	<100 µg/kg	TM157		<100	<100	<100	<200		
Acenaphthylene	<100 µg/kg	TM157		<100	<100	<100	<200		
Acenaphthene	<100 µg/kg	TM157		<100	<100	<100	<200		
Anthracene	<100 µg/kg	TM157		<100	<100	<100	334		
Benzo(a)anthracene	<100 µg/kg	TM157		383	<100	158	1160		
Benzo(b)fluoranthene	<100 µg/kg	TM157		273	<100	<100	800		
Benzo(k)fluoranthene	<100 µg/kg	TM157		308	<100	160	1070		
Benzo(a)pyrene	<100 µg/kg	TM157		280	<100	152	1150		
Benzo(g,h,i)perylene	<100 µg/kg	TM157		229	<100	<100	801		
Chrysene	<100 µg/kg	TM157		460	<100	236	1280		
Fluoranthene	<100 µg/kg	TM157		1050	<100	496	1770		
Fluorene	<100 µg/kg	TM157		<100	<100	<100	<200		
Indeno(1,2,3-cd)pyrene	<100 µg/kg	TM157		217	<100	<100	968		
Phenanthrene	<100 µg/kg	TM157		257	<100	497	1520		
Pyrene	<100 µg/kg	TM157		913	<100	513	1730		
Naphthalene	<100 µg/kg	TM157		<100	<100	<100	<200		
Dibenzo(a,h)anthracene	<100 µg/kg	TM157		<100	<100	<100	<200		
Bis(2-chloroisopropyl) ether	<100 µg/kg	TM157		<100	<100	<100	<200		

Validated

CERTIFICATE OF ANALYSIS

SDG: 220425-5 **Report Number:** 644903 **Superseded Report:** 644698

Client Ref.: LD10385 **Location:** Ten Acres Lane

TPH CWG (S)

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	TP230	TP231	TP234	TP247		
			Depth (m)	1.60 - 1.60	0.60 - 0.60	3.50 - 3.50	1.60 - 1.60		
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)		
			Date Sampled	19/04/2022	19/04/2022	19/04/2022	19/04/2022		
			Sample Time	12:00	12:00	12:00	12:00		
			Date Received	21/04/2022	21/04/2022	21/04/2022	21/04/2022		
			SDG Ref	220425-5	220425-5	220425-5	220425-5		
			Lab Sample No.(s)	26178980	26178975	26179001	26178985		
			AGS Reference						
GRO Surrogate % recovery**	%	TM089		99.2 @	79.1 @	107 @	77.6 @		
Aliphatics >C5-C6 (HS_1D_AL)	<10 µg/kg	TM089		15.1 @	<10 @	<10 @	<10 @		
Aliphatics >C6-C8 (HS_1D_AL)	<10 µg/kg	TM089		71.2 @	<10 @	<10 @	31.8 @		
Aliphatics >C8-C10 (HS_1D_AL)	<10 µg/kg	TM089		121 @	<10 @	<10 @	25.4 @		
Aliphatics >C10-C12 (EH_2D_AL_#1)	<1000 µg/kg	TM414		<1000 #	<1000 #	<1000 #	<1000 #		
Aliphatics >C12-C16 (EH_2D_AL_#1)	<1000 µg/kg	TM414		<1000 #	<1000 #	<1000 #	5350 #		
Aliphatics >C16-C21 (EH_2D_AL_#1)	<1000 µg/kg	TM414		<1000 #	<1000 #	<1000 #	8760 #		
Aliphatics >C21-C35 (EH_2D_AL_#1)	<1000 µg/kg	TM414		<1000 #	<1000 #	<1000 #	26800 #		
Aliphatics >C35-C44 (EH_2D_AL_#1)	<1000 µg/kg	TM414		<1000	<1000	<1000	<1000		
Total Aliphatics >C10-C44 (EH_2D_AR_#1)	<5000 µg/kg	TM414		<5000	<5000	<5000	41300		
Total Aliphatics & Aromatics >C10-C44 (EH_2D_Total_#1)	<10000 µg/kg	TM414		16700	<10000	<10000	163000		
Aromatics >EC5-EC7 (HS_1D_AR)	<10 µg/kg	TM089		<10 @	<10 @	<10 @	<10 @		
Aromatics >EC7-EC8 (HS_1D_AR)	<10 µg/kg	TM089		<10 @	<10 @	<10 @	<10 @		
Aromatics >EC8-EC10 (HS_1D_AR)	<10 µg/kg	TM089		80.8 @	<10 @	<10 @	16.5 @		
Aromatics > EC10-EC12 (EH_2D_AR_#1)	<1000 µg/kg	TM414		<1000 #	<1000 #	<1000 #	<1000 #		
Aromatics > EC12-EC16 (EH_2D_AR_#1)	<1000 µg/kg	TM414		<1000 #	<1000 #	<1000 #	1260 #		
Aromatics > EC16-EC21 (EH_2D_AR_#1)	<1000 µg/kg	TM414		4830 #	<1000 #	<1000 #	15900 #		
Aromatics > EC21-EC35 (EH_2D_AR_#1)	<1000 µg/kg	TM414		9930 #	<1000 #	<1000 #	92200 #		
Aromatics >EC35-EC44 (EH_2D_AR_#1)	<1000 µg/kg	TM414		<1000	<1000	<1000	12300		
Aromatics > EC40-EC44 (EH_2D_AR_#1)	<1000 µg/kg	TM414		<1000	<1000	<1000	1450		
Total Aromatics > EC10-EC44 (EH_2D_AR_#1)	<5000 µg/kg	TM414		15800	<5000	<5000	122000		
Total Aliphatics & Aromatics >C5-C44 (EH_2D_Total_#1+HS_1D_Total)	<10000 µg/kg	TM414		15800	<10000	<10000	163000		
Total Aliphatics >C5-C10 (HS_1D_AL_TOTAL)	<50 µg/kg	TM089		207 @	<50 @	<50 @	57.2 @		
Total Aromatics >EC5-EC10 (HS_1D_AR_TOTAL)	<50 µg/kg	TM089		80.8 @	<50 @	<50 @	<50 @		
GRO >C5-C10 (HS_1D_TOTAL)	<20 µg/kg	TM089		288 @	<20 @	<20 @	57.2 @		

CERTIFICATE OF ANALYSIS

SDG: 220425-5 **Report Number:** 644903 **Superseded Report:** 644698

Client Ref.: LD10385 **Location:** Ten Acres Lane

VOC MS (S)

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	TP230	TP231	TP234	TP247		
			Depth (m)	1.60 - 1.60	0.60 - 0.60	3.50 - 3.50	1.60 - 1.60		
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)		
			Date Sampled	19/04/2022	19/04/2022	19/04/2022	19/04/2022		
			Sample Time	12:00	12:00	12:00	12:00		
			Date Received	21/04/2022	21/04/2022	21/04/2022	21/04/2022		
			SDG Ref	220425-5	220425-5	220425-5	220425-5		
			Lab Sample No.(s)	26178980	26178975	26179001	26178985		
			AGS Reference						
Dibromofluoromethane**	%	TM116		114 @	96.1	108	114 @		
Toluene-d8**	%	TM116		99.6 @	97.2	101	98.9 @		
4-Bromofluorobenzene**	%	TM116		98.1 @	71.6	77	95.2 @		
Dichlorodifluoromethane	<6 µg/kg	TM116		<120 @ #	<6 #	<6 #	<120 @ #		
Chloromethane	<7 µg/kg	TM116		<140 @ #	<7 #	<7 #	<140 @ #		
Vinyl Chloride	<6 µg/kg	TM116		<120 @ #	<6 @ M	<6 @ M	<120 @ M		
Bromomethane	<10 µg/kg	TM116		<200 @ #	<10 M	<10 M	<200 @ M		
Chloroethane	<10 µg/kg	TM116		<200 @ #	<10 M	<10 M	<200 @ M		
Trichlorofluorormethane	<6 µg/kg	TM116		<120 @ #	<6 M	<6 M	<120 @ M		
1,1-Dichloroethene	<10 µg/kg	TM116		<200 @ #	<10 #	<10 #	<200 @ #		
Carbon Disulphide	<7 µg/kg	TM116		<140 @ #	31.3 M	<7 M	<140 @ M		
Dichloromethane	<10 µg/kg	TM116		<200 @ #	<10 #	<10 #	<200 @ #		
Methyl Tertiary Butyl Ether	<10 µg/kg	TM116		<200 @ #	<10 M	<10 M	<200 @ M		
trans-1,2-Dichloroethene	<10 µg/kg	TM116		<200 @ #	<10 M	<10 M	<200 @ M		
1,1-Dichloroethane	<8 µg/kg	TM116		<160 @ #	<8 M	<8 M	<160 @ M		
cis-1,2-Dichloroethene	<6 µg/kg	TM116		<120 @ #	<6 M	<6 M	<120 @ M		
2,2-Dichloropropane	<10 µg/kg	TM116		<200 @	<10	<10	<200 @		
Bromochloromethane	<10 µg/kg	TM116		<200 @ #	<10 M	<10 M	<200 @ M		
Chloroform	<8 µg/kg	TM116		<160 @ #	<8 M	<8 M	<160 @ M		
1,1,1-Trichloroethane	<7 µg/kg	TM116		<140 @ #	<7 M	<7 M	<140 @ M		
1,1-Dichloropropene	<10 µg/kg	TM116		<200 @ #	<10 M	<10 M	<200 @ M		
Carbontetrachloride	<10 µg/kg	TM116		<200 @ #	<10 M	<10 M	<200 @ M		
1,2-Dichloroethane	<5 µg/kg	TM116		<100 @ #	<5 M	<5 M	<100 @ M		
Benzene	<9 µg/kg	TM116		<180 @ #	<9 M	<9 M	<180 @ M		
Trichloroethene	<9 µg/kg	TM116		<180 @ #	<9 #	<9 #	<180 @ #		
1,2-Dichloropropane	<10 µg/kg	TM116		<200 @ #	<10 M	<10 M	<200 @ M		
Dibromomethane	<9 µg/kg	TM116		<180 @ #	<9 M	<9 M	<180 @ M		
Bromodichloromethane	<7 µg/kg	TM116		<140 @ #	<7 M	<7 M	<140 @ M		
cis-1,3-Dichloropropene	<10 µg/kg	TM116		<200 @ #	<10 M	<10 M	<200 @ M		
Toluene	<7 µg/kg	TM116		<140 @ #	<7 M	<7 M	<140 @ M		
trans-1,3-Dichloropropene	<10 µg/kg	TM116		<200 @	<10	<10	<200 @		
1,1,2-Trichloroethane	<10 µg/kg	TM116		<200 @ #	<10 M	<10 M	<200 @ M		
1,3-Dichloropropane	<7 µg/kg	TM116		<140 @ #	<7 M	<7 M	<140 @ M		

CERTIFICATE OF ANALYSIS

SDG: 220425-5 **Report Number:** 644903 **Superseded Report:** 644698
Client Ref.: LD10385 **Location:** Ten Acres Lane

VOC MS (S)

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4+§@ Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	TP230	TP231	TP234	TP247		
			Depth (m)	1.60 - 1.60	0.60 - 0.60	3.50 - 3.50	1.60 - 1.60		
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)		
			Date Sampled	19/04/2022	19/04/2022	19/04/2022	19/04/2022		
			Sample Time	12:00	12:00	12:00	12:00		
			Date Received	21/04/2022	21/04/2022	21/04/2022	21/04/2022		
			SDG Ref	220425-5	220425-5	220425-5	220425-5		
			Lab Sample No.(s)	26178980	26178975	26179001	26178985		
			AGS Reference						
Tetrachloroethene	<5 µg/kg	TM116		<100 @ #	<5 M	<5 M	<100 @ M		
Dibromochloromethane	<10 µg/kg	TM116		<200 @ #	<10 M	<10 M	<200 @ M		
1,2-Dibromoethane	<10 µg/kg	TM116		<200 @ #	<10 M	<10 M	<200 @ M		
Chlorobenzene	<5 µg/kg	TM116		<100 @ #	<5 M	<5 M	<100 @ M		
1,1,1,2-Tetrachloroethane	<10 µg/kg	TM116		<200 @ #	<10 M	<10 M	<200 @ M		
Ethylbenzene	<4 µg/kg	TM116		<80 @ #	<4 M	<4 M	<80 @ M		
p/m-Xylene	<10 µg/kg	TM116		<200 @ #	<10 #	<10 #	<200 @ #		
o-Xylene	<10 µg/kg	TM116		<200 @ #	<10 M	<10 M	<200 @ M		
Styrene	<10 µg/kg	TM116		<200 @ #	<10 @ #	<10 @ #	<200 @ #		
Bromoform	<10 µg/kg	TM116		<200 @ #	<10 M	<10 M	<200 @ M		
Isopropylbenzene	<5 µg/kg	TM116		<100 @ #	<5 #	<5 #	<100 @ #		
1,1,2,2-Tetrachloroethane	<10 µg/kg	TM116		<200 @ #	<10 #	<10 #	<200 @ #		
1,2,3-Trichloropropane	<16 µg/kg	TM116		<320 @ #	<16 M	<16 M	<320 @ M		
Bromobenzene	<10 µg/kg	TM116		<200 @ #	<10 M	<10 M	<200 @ M		
Propylbenzene	<10 µg/kg	TM116		<200 @ #	<10 M	<10 M	<200 @ M		
2-Chlorotoluene	<9 µg/kg	TM116		<180 @ #	<9 M	<9 M	<180 @ M		
1,3,5-Trimethylbenzene	<8 µg/kg	TM116		<160 @ #	<8 M	<8 M	<160 @ M		
4-Chlorotoluene	<10 µg/kg	TM116		<200 @ #	<10 M	<10 M	<200 @ M		
tert-Butylbenzene	<14 µg/kg	TM116		<280 @ #	<14 #	<14 #	<280 @ #		
1,2,4-Trimethylbenzene	<9 µg/kg	TM116		<180 @ #	<9 #	<9 #	<180 @ #		
sec-Butylbenzene	<10 µg/kg	TM116		<200 @	<10	<10	<200 @		
4-Isopropyltoluene	<10 µg/kg	TM116		<200 @	<10	<10	<200 @		
1,3-Dichlorobenzene	<8 µg/kg	TM116		<160 @ #	<8 M	<8 M	<160 @ M		
1,4-Dichlorobenzene	<5 µg/kg	TM116		<100 @ #	<5 M	<5 M	<100 @ M		
n-Butylbenzene	<11 µg/kg	TM116		<220 @	<11	<11	<220 @		
1,2-Dichlorobenzene	<10 µg/kg	TM116		<200 @ #	<10 M	<10 M	<200 @ M		
1,2-Dibromo-3-chloropropane	<14 µg/kg	TM116		<280 @ #	<14 M	<14 M	<280 @ M		
Tert-amyl methyl ether	<10 µg/kg	TM116		<200 @ #	<10 #	<10 #	<200 @ #		
1,2,4-Trichlorobenzene	<20 µg/kg	TM116		<400 @	<20	<20	<400 @		
Hexachlorobutadiene	<20 µg/kg	TM116		<400 @	<20	<20	<400 @		
Naphthalene	<13 µg/kg	TM116		<260 @ #	<13 M	<13 M	<260 @ M		
1,2,3-Trichlorobenzene	<20 µg/kg	TM116		<400 @ #	<20 #	<20 #	<400 @ #		
1,3,5-Trichlorobenzene	<20 µg/kg	TM116		<400	<20	<20	<400		

CERTIFICATE OF ANALYSIS

SDG: 220425-5 **Report Number:** 644903 **Superseded Report:** 644698
Client Ref.: LD10385 **Location:** Ten Acres Lane

VOC MS (S)

Results Legend								
#	ISO17025 accredited.	Customer Sample Ref.	TP230	TP231	TP234	TP247		
M	mCERTS accredited.							
aq	Aqueous / settled sample.	Depth (m)	1.60 - 1.60	0.60 - 0.60	3.50 - 3.50	1.60 - 1.60		
diss.filt	Dissolved / filtered sample.	Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)		
tot.unfilt	Total / unfiltered sample.	Date Sampled	19/04/2022	19/04/2022	19/04/2022	19/04/2022		
*	Subcontracted - refer to subcontractor report for accreditation status.	Sample Time	12:00	12:00	12:00	12:00		
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery	Date Received	21/04/2022	21/04/2022	21/04/2022	21/04/2022		
		SDG Ref	220425-5	220425-5	220425-5	220425-5		
(F)	Trigger breach confirmed	Lab Sample No.(s)	26178980	26178975	26179001	26178985		
1-4+§@	Sample deviation (see appendix)	AGS Reference						

Component	LOD/Units	Method						
Sum of Detected Xylenes	<0.02 mg/kg	TM116	<0.4 @	<0.02	<0.02	<0.4 @		
Sum of BTEX	<40 µg/kg	TM116	<800 @	<40	<40	<800 @		

CERTIFICATE OF ANALYSIS

SDG: 220425-5 **Report Number:** 644903 **Superseded Report:** 644698
Client Ref.: LD10385 **Location:** Ten Acres Lane

Asbestos Identification - Solid Samples

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
*	Subcontracted test.
(F)	Trigger breach confirmed
1-5&♦$@	Sample deviation (see appendix)

		Date of Analysis	Analysed By	Comments	Amosite (Brown) Asbestos	Asbestos Actinolite	Asbestos Anthophyllite	Asbestos Tremolite	Chrysotile (White) Asbestos	Crocidolite (Blue) Asbestos	Non-Asbestos Fibre
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	TP230 1.60 - 1.60 SOLID 19/04/2022 00:00:00 21/04/2022 05:00:00 220425-5 26178980 TM048	29/04/2022	Emily Anderton	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	TP231 0.60 - 0.60 SOLID 19/04/2022 00:00:00 21/04/2022 05:00:00 220425-5 26178975 TM048	03/05/2022	James Richards	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	TP234 3.50 - 3.50 SOLID 19/04/2022 00:00:00 21/04/2022 05:00:00 220425-5 26179001 TM048	29/04/2022	Paul Poynton	N/A	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	TP247 1.60 - 1.60 SOLID 19/04/2022 00:00:00 21/04/2022 05:00:00 220425-5 26178985 TM048	29/04/2022	Emily Anderton	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected

Table of Results - Appendix

Method No	Reference	Description
PM024	Modified BS 1377	Soil preparation including homogenisation, moisture screens of soils for Asbestos Containing Material
TM048	HSG 248, Asbestos: The analysts' guide for sampling, analysis and clearance procedures	Identification of Asbestos in Bulk Material
TM062 (S)	National Grid Property Holdings Methods for the Collection & Analysis of Samples from National Grid Sites version 1 Sec 3.9	Determination of Phenols in Soils by HPLC
TM089	Modified: US EPA Methods 8020 & 602	Determination of Gasoline Range Hydrocarbons (GRO) by Headspace GC-FID (C4-C12)
TM116	Modified: US EPA Method 8260, 8120, 8020, 624, 610 & 602	Determination of Volatile Organic Compounds by Headspace / GC-MS
TM132	In - house Method	ELTRA CS800 Operators Guide
TM133	BS 1377: Part 3 1990;BS 6068-2.5	Determination of pH in Soil and Water using the GLpH pH Meter
TM151	Method 3500D, AWWA/APHA, 20th Ed., 1999	Determination of Hexavalent Chromium using Kone analyser
TM153	Method 4500A,B,C, I, M AWWA/APHA, 20th Ed., 1999	Determination of Total Cyanide, Free (Easily Liberatable) Cyanide and Thiocyanate using the Skalar SANS+ System Segmented Flow Analyser
TM157	HP 6890 Gas Chromatograph (GC) system and HP 5973 Mass Selective Detector (MSD).	Determination of SVOC in Soils by GC-MS extracted by sonication in DCM/Acetone
TM168	EPA Method 8082, Polychlorinated Biphenyls by Gas Chromatography	Determination of WHO12 and EC7 Polychlorinated Biphenyl Congeners by GC-MS in Soils
TM180	Sulphide in waters and waste waters 1991 ISBN 01 175 7186 SCA rec. 2007 (unpublished)'	The Determination Of Easily Liberated Sulphide In Soil Samples by Ion Selective Electrode Technique
TM181	US EPA Method 6010B	Determination of Routine Metals in Soil by iCap 6500 Duo ICP-OES
TM218	Shaker extraction - EPA method 3546.	The determination of PAH in soil samples by GC-MS
TM221	Inductively Coupled Plasma - Atomic Emission Spectroscopy. An Atlas of Spectral Information: Winge, Fassel, Peterson and Floyd	Determination of Acid Extractable Sulphate in Soils by ICP OES
TM222	In-House Method	Determination of Hot Water Soluble Boron in Soils (10:1 Water:Soil) by ICP OES.
TM243		Mixed Anions In Soils By Kone
TM338	PFAS In Solids	Analysis of perfluoroalkylsulfonates and perfluorocarboxylic acids in Solids
TM414	Analysis of Petroleum Hydrocarbons in Environmental Media – Total Petroleum Hydrocarbon Criteria	Determination of Speciated Extractable Petroleum Hydrocarbons in Soils by GCxGC-FID

NA = not applicable.

Chemical testing (unless subcontracted) performed at ALS Life Sciences Ltd Hawarden.

CERTIFICATE OF ANALYSIS

SDG: 220425-5 **Report Number:** 644903 **Superseded Report:** 644698
Client Ref.: LD10385 **Location:** Ten Acres Lane

Test Completion Dates

Lab Sample No(s)	26178980	26178975	26178969	26179001	26178985	26178996
Customer Sample Ref.	TP230	TP231	TP232	TP234	TP247	TP247
AGS Ref.						
Depth	1.60 - 1.60	0.60 - 0.60	1.00 - 1.00	3.50 - 3.50	1.60 - 1.60	2.00 - 2.00
Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
Anions by Kone (soil)	29-Apr-2022	29-Apr-2022		29-Apr-2022	29-Apr-2022	
Asbestos ID in Solid Samples	29-Apr-2022	03-May-2022		29-Apr-2022	29-Apr-2022	
Boron Water Soluble	28-Apr-2022	28-Apr-2022		28-Apr-2022	28-Apr-2022	
Cyanide Comp/Free/Total/Thiocyanate	28-Apr-2022	28-Apr-2022		28-Apr-2022	28-Apr-2022	
Easily Liberated Sulphide	29-Apr-2022	29-Apr-2022		29-Apr-2022	29-Apr-2022	
EPH CWG GC (S)	28-Apr-2022	28-Apr-2022		28-Apr-2022	28-Apr-2022	
GRO by GC-FID (S)	03-May-2022	03-May-2022		03-May-2022	03-May-2022	
Hexavalent Chromium (s)	26-Apr-2022	29-Apr-2022		26-Apr-2022	26-Apr-2022	
Metals in solid samples by OES	29-Apr-2022	03-May-2022		29-Apr-2022	29-Apr-2022	
PAH by GCMS	29-Apr-2022	29-Apr-2022		29-Apr-2022	29-Apr-2022	
PCBs by GCMS	28-Apr-2022	28-Apr-2022		28-Apr-2022	28-Apr-2022	
PFAS Solids			27-Apr-2022			27-Apr-2022
pH	28-Apr-2022	03-May-2022		03-May-2022	28-Apr-2022	
Phenols by HPLC (S)	28-Apr-2022	27-Apr-2022		28-Apr-2022	28-Apr-2022	
Sample description	25-Apr-2022	25-Apr-2022	25-Apr-2022	25-Apr-2022	25-Apr-2022	25-Apr-2022
Semi Volatile Organic Compounds	27-Apr-2022	27-Apr-2022		28-Apr-2022	27-Apr-2022	
Total Organic Carbon	05-May-2022	04-May-2022		04-May-2022	04-May-2022	
Total Sulphate	28-Apr-2022	28-Apr-2022		28-Apr-2022	28-Apr-2022	
TPH CWG GC (S)	03-May-2022	03-May-2022		03-May-2022	03-May-2022	
VOC MS (S)	03-May-2022	29-Apr-2022		29-Apr-2022	03-May-2022	

Appendix

General

1. Results are expressed on a dry weight basis (dried at 35ºC) for all soil analyses except for the following: NRA and CEN Leach tests, flash point LOI, pH, ammonium as NH4 by the BRE method, VOC TICs and SVOC TICs.

2. If sufficient sample is received a sub sample will be retained free of charge for 30 days after analysis is completed (e-mailed) for all sample types unless the sample is destroyed on testing. The prepared soil sub sample that is analysed for asbestos will be retained for a period of 6 months after the analysis date. All bulk samples will be retained for a period of 6 months after the analysis date. All samples received and not scheduled will be disposed of one month after the date of receipt unless we are instructed to the contrary. Once the initial period has expired, a storage charge will be applied for each month or part thereof until the client cancels the request for sample storage. ALS reserve the right to charge for samples received and stored but not analysed.

3. With respect to turnaround, we will always endeavour to meet client requirements wherever possible, but turnaround times cannot be absolutely guaranteed due to so many variables beyond our control.

4. We take responsibility for any test performed by sub-contractors (marked with an asterisk). We endeavour to use UKAS/MCERTS Accredited Laboratories, who either complete a quality questionnaire or are audited by ourselves. For some determinands there are no UKAS/MCERTS Accredited Laboratories, in this instance a laboratory with a known track record will be utilised.

5. If no separate volatile sample is supplied by the client, or if a headspace or sediment is present in the volatile sample, the integrity of the data may be compromised. This will be flagged up as an invalid VOC on the test schedule and the result marked as deviating on the test certificate.

6. NDP - No determination possible due to insufficient/unsuitable sample.

7. Results relate only to the items tested.

8. LoDs (Limit of Detection) for wet tests reported on a dry weight basis are not corrected for moisture content.

9. **Surrogate recoveries** - Surrogates are added to your sample to monitor recovery of the test requested. A % recovery is reported, results are not corrected for the recovery measured. Typical recoveries for organics tests are 70-130%. Recoveries in soils are affected by organic rich or clay rich matrices. Waters can be affected by remediation fluids or high amounts of sediment. Test results are only ever reported if all of the associated quality checks pass; it is assumed that all recoveries outside of the values above are due to matrix affect.

10. Stones/debris are not routinely removed. We always endeavour to take a representative sub sample from the received sample.

11. In certain circumstances the method detection limit may be elevated due to the sample being outside the calibration range. Other factors that may contribute to this include possible interferences. In both cases the sample would be diluted which would cause the method detection limit to be raised.

12. For dried and crushed preparations of soils volatile loss may occur e.g volatile mercury.

13. For leachate preparations other than Zero Headspace Extraction (ZHE) volatile loss may occur.

14. For the BSEN 12457-3 two batch process to allow the cumulative release to be calculated, the volume of the leachate produced is measured and filtered for all tests. We therefore cannot carry out any unfiltered analysis. The tests affected include volatiles GCFID/GCMS and all subcontracted analysis.

15. Analysis and identification of specific compounds using GCFID is by retention time only, and we routinely calibrate and quantify for benzene, toluene, ethylbenzenes and xylenes (BTEX). For total volatiles in the C5-C12 range, the total area of the chromatogram is integrated and expressed as ug/kg or ug/l. Although this analysis is commonly used for the quantification of gasoline range organics (GRO), the system will also detect other compounds such as chlorinated solvents, and this may lead to a falsely high result with respect to hydrocarbons only. It is not possible to specifically identify these non-hydrocarbons, as standards are not routinely run for any other compounds, and for more definitive identification, volatiles by GCMS should be utilised.

16. We are accredited to MCERTS for sand, clay and loam/topsoil, or any of these materials - whether these are derived from naturally occurring soil profiles, or from fill/made ground, as long as these materials constitute the major part of the sample. Other coarse granular material such as concrete, gravel and brick are not accredited if they comprise the major part of the sample.

17 Data retention. All records, communications and reports pertaining to the analysis are archived for seven years from the date of issue of the final report.

18. **Tentatively Identified Compounds (TICs)** are non-target peaks in VOC and SVOC analysis. All non-target peaks detected with a concentration above the LoD are subjected to a mass spectral library search. Non-target peaks with a library search confidence of >75% are reported based on the best mass spectral library match. When a non-target peak with a library search confidence of <75% is detected it is reported as “mixed hydrocarbons”. Non-target compounds identified from the scan data are semi-quantified relative to one of the deuterated internal standards, under the same chromatographic conditions as the target compounds. This result is reported as a semi-quantitative value and reported as Tentatively Identified Compounds (TICs). TICs are outside the scope of UKAS accreditation and are not moisture corrected.

19. **Sample Deviations**

If a sample is classed as deviated then the associated results may be compromised.

1	**Container with Headspace provided for volatiles analysis**
2	**Incorrect container received**
3	**Deviation from method**
4	**Matrix interference**
♦	**Sample holding time exceeded in laboratory**
@	**Sample holding time exceeded due to late arrival of instructions or samples**
§	**Sampled on date not provided**

20. **Asbestos**

When requested, the individual sub sample scheduled will be analysed in house for the presence of asbestos fibres and asbestos containing material by our documented in house method TM048 based on HSG 248 (2021), which is accredited to ISO17025. If a specific asbestos fibre type is not found this will be reported as “Not detected”. If no asbestos fibre types are found all will be reported as “Not detected” and the sub sample analysed deemed to be clear of asbestos. If an asbestos fibre type is found it will be reported as detected (for each fibre type found). Testing can be carried out on asbestos positive samples, but, due to Health and Safety considerations, may be replaced by alternative tests or reported as No Determination Possible (NDP). The quantity of asbestos present is not determined unless specifically requested.

Identification of Asbestos in Bulk Materials & Soils

The results for identification of asbestos in bulk materials and soils are obtained from supplied bulk materials andd soils which have been examined to determine the presence of asbestos fibres using ALS (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining, based on HSG 248 (2021).

The results for identification of asbestos in soils are obtained from a homogenised sub sample which has been examined to determine the presence of asbestos fibres using ALS (Hawarden) in-house method of transmitted/polarised light microscopy and central

Asbestos Type	Common Name
Chrysotile	White Asbestos
Amosite	Brown Asbestos
Crocidolite	Blue Asbestos
Fibrous Actinolite	-
Fibrous Anthophyllite	-
Fibrous Tremolite	-

Visual Estimation Of Fibre Content

Estimation of fibre content is not permitted as part of our UKAS accredited test other than: - Trace - Where only one or two asbestos fibres were identified.

Respirable Fibres

Respirable fibres are defined as fibres of <3 µm diameter, longer than 5 µm and with aspect ratios of at least 3:1 that can be inhaled into the lower regions of the lung and are generally acknowledged to be most important predictor of hazard and risk for cancers of the lung.

Further guidance on typical asbestos fibre content of manufactured products can be found in HSG 264.

The identification of asbestos containing materials and soils falls within our schedule of tests for which we hold UKAS accreditation, however opinions, interpretations and all other information contained in the report are outside the scope of UKAS accreditation.

Unit 7-8 Hawarden Business Park
Manor Road (off Manor Lane)
Hawarden
Deeside
CH5 3US
Tel: (01244) 528700
Fax: (01244) 528701
email: hawardencustomerservices@alsglobal.com
Website: www.alsenvironmental.co.uk

Wardell Armstrong LLP
36 Park Row
Leeds
LS1 5JL

Attention: Jonathan Currie

CERTIFICATE OF ANALYSIS

Date of report Generation:	25 May 2022
Customer:	Wardell Armstrong LLP
Sample Delivery Group (SDG):	220426-111
Your Reference:	LD10385
Location:	Ten Acres Lane
Report No:	648036
Order Number:	LD2733

This report has been revised and directly supersedes 646228 in its entirety.

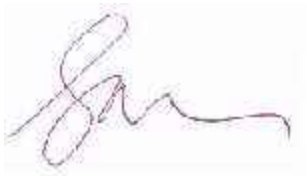
We received 15 samples on Saturday April 23, 2022 and 15 of these samples were scheduled for analysis which was completed on Wednesday May 25, 2022. Accredited laboratory tests are defined within the report, but opinions, interpretations and on-site data expressed herein are outside the scope of ISO 17025 accreditation.

Should this report require incorporation into client reports, it must be used in its entirety and not simply with the data sections alone.

Chemical testing (unless subcontracted) performed at ALS Life Sciences Ltd Hawarden.

All sample data is provided by the customer. The reported results relate to the sample supplied, and on the basis that this data is correct.
Incorrect sampling dates and/or sample information will affect the validity of results.
The customer is not permitted to reproduce this report except in full without the approval of the laboratory.

Approved By:



Sonia McWhan

Operations Manager

CERTIFICATE OF ANALYSIS

SDG: 220426-111 **Report Number:** 648036 **Superseded Report:** 646228
Client Ref.: LD10385 **Location:** Ten Acres Lane

Received Sample Overview

Lab Sample No(s)	Customer Sample Ref.	AGS Ref.	Depth (m)	Sampled Date
26186820	TP212		1.50 - 1.50	21/04/2022
26186827	TP213		0.60 - 0.60	21/04/2022
26186814	TP214		2.00 - 2.00	21/04/2022
26186871	TP216		0.60 - 0.60	20/04/2022
26186866	TP217		4.00 - 4.00	20/04/2022
26186854	TP237		2.00 - 2.00	20/04/2022
26186860	TP237		4.00 - 4.00	20/04/2022
26186849	TP238		4.00 - 4.00	20/04/2022
26186833	TP240		2.00 - 2.00	21/04/2022
26186876	TP245		2.00 - 2.00	20/04/2022
26186808	TP248		1.00 - 1.00	20/04/2022
26186882	TP248		4.50 - 4.50	20/04/2022
26186887	TP250		1.00 - 1.00	21/04/2022
26186844	WS308		3.50 - 4.00	21/04/2022
26186839	WS313		3.50 - 4.00	21/04/2022

Only received samples which have had analysis scheduled will be shown on the following pages.

Validated

CERTIFICATE OF ANALYSIS

SDG: 220426-111 **Report Number:** 648036 **Superseded Report:** 646228

Client Ref.: LD10385 **Location:** Ten Acres Lane

Results Legend

X Test

N No Determination Possible

Sample Ty9es -

S - Soil/Solid
UNS - Unspecified Solid
GW - Ground Water
SW - Surface Water
LE - Land Leachate
PL - Prepared Leachate
PR - Process Water
SA - Saline Water
TE - Trade Effluent
TS - Treated Sewage
US - Untreated Sewage
RE - Recreational Water
DW - Drinking Water Non-regulatory
UNL - Unspecified Liquid
SL - Sludge
G - Gas
OTH - Other

			Lab Sample No(s)	Customer Sample Reference	AGS Reference	Depth (m)	Container	Sample Type
			26186820	TP212		1.50 - 1.50	1kg TUB with Handle (ALE260)	S
			26186820	TP212		1.50 - 1.50	250g Amber Jar (ALE210)	S
			26186820	TP212		1.50 - 1.50	60g VOC (ALE215)	S
			26186827	TP213		0.60 - 0.60	1kg TUB with Handle (ALE260)	S
			26186827	TP213		0.60 - 0.60	250g Amber Jar (ALE210)	S
			26186814	TP214		2.00 - 2.00	1kg TUB with Handle (ALE260)	S
			26186814	TP214		2.00 - 2.00	250g Amber Jar (ALE210)	S
			26186871	TP216		0.60 - 0.60	1kg TUB with Handle (ALE260)	S
			26186871	TP216		0.60 - 0.60	250g Amber Jar (ALE210)	S
			26186871	TP216		0.60 - 0.60	60g VOC (ALE215)	S
			26186866	TP217		4.00 - 4.00	1kg TUB with Handle (ALE260)	S
			26186866	TP217		4.00 - 4.00	250g Amber Jar (ALE210)	S
			26186854	TP237		2.00 - 2.00	1kg TUB with Handle (ALE260)	S
			26186854	TP237		2.00 - 2.00	250g Amber Jar (ALE210)	S
			26186854	TP237		2.00 - 2.00	60g VOC (ALE215)	S
			26186860	TP237		4.00 - 4.00	1kg TUB with Handle (ALE260)	S
			26186860	TP237		4.00 - 4.00	250g Amber Jar (ALE210)	S
			26186860	TP237		4.00 - 4.00	60g VOC (ALE215)	S
			26186849	TP238		4.00 - 4.00	1kg TUB with Handle (ALE260)	S
Anions by Kone (soil)	All	NDPs: 0 Tests: 8		X						X				X			X		
Asbestos ID in Solid Samples	All	NDPs: 0 Tests: 8	X						X					X			X		
Asbestos Quantification - Full	All	NDPs: 0 Tests: 2	X																
Boron Water Soluble	All	NDPs: 0 Tests: 8		X						X				X			X		
Cyanide Comp/Free/Total/Thiocyanate	All	NDPs: 0 Tests: 8		X						X				X			X		
Easily Liberated Sulphide	All	NDPs: 0 Tests: 8		X						X				X			X		
EPH CWG GC (S)	All	NDPs: 0 Tests: 10		X						X				X			X		
GRO by GC-FID (S)	All	NDPs: 0 Tests: 10			X						X				X			X	
Hexavalent Chromium (s)	All	NDPs: 0 Tests: 8		X						X				X			X		
Metals in solid samples by OES	All	NDPs: 0 Tests: 8		X						X				X			X		
PAH by GCMS	All	NDPs: 0 Tests: 8		X						X				X			X		
PCBs by GCMS	All	NDPs: 0 Tests: 8		X						X				X			X		
PFAS (Post Ox.) Solids	All	NDPs: 0 Tests: 2				X		X											
PFAS Solids	All	NDPs: 0 Tests: 5				X		X				X							X
pH	All	NDPs: 0 Tests: 8		X						X				X			X		

26186839	WS313		3.50 - 4.00	60g VOC (ALE215)	S									x									
				250g Amber Jar (ALE210)	S								x											
26186844	WS308		3.50 - 4.00	60g VOC (ALE215)	S									x									
				250g Amber Jar (ALE210)	S								x											
26186887	TP250		1.00 - 1.00	250g Amber Jar (ALE210)	S																		
				1kg TUB with Handle (ALE260)	S																	x	
26186882	TP248		4.50 - 4.50	60g VOC (ALE215)	S									x									
				250g Amber Jar (ALE210)	S	x				x	x	x	x		x	x	x	x					x
				1kg TUB with Handle (ALE260)	S		x																
26186808	TP248		1.00 - 1.00	60g VOC (ALE215)	S									x									
				250g Amber Jar (ALE210)	S	x				x	x	x	x		x	x	x	x					x
				1kg TUB with Handle (ALE260)	S		x																
26186876	TP245		2.00 - 2.00	60g VOC (ALE215)	S									x									
				250g Amber Jar (ALE210)	S	x				x	x	x	x		x	x	x	x					x
				1kg TUB with Handle (ALE260)	S		x	x															
26186833	TP240		2.00 - 2.00	60g VOC (ALE215)	S									x									
				250g Amber Jar (ALE210)	S	x				x	x	x	x		x	x	x	x					x
				1kg TUB with Handle (ALE260)	S		x																
26186849	TP238		4.00 - 4.00	250g Amber Jar (ALE210)	S																		

Validated

CERTIFICATE OF ANALYSIS

SDG: 220426-111 **Report Number:** 648036 **Superseded Report:** 646228

Client Ref.: LD10385 **Location:** Ten Acres Lane

Results Legend

X Test

N No Determination Possible

Sample Ty9es -

S - Soil/Solid
UNS - Unspecified Solid
GW - Ground Water
SW - Surface Water
LE - Land Leachate
PL - Prepared Leachate
PR - Process Water
SA - Saline Water
TE - Trade Effluent
TS - Treated Sewage
US - Untreated Sewage
RE - Recreational Water
DW - Drinking Water Non-regulatory
UNL - Unspecified Liquid
SL - Sludge
G - Gas
OTH - Other

Lab Sample No(s)			26186820	26186827	26186814	26186871	26186866	26186854	26186860	26186849										
Customer Sample Reference			TP212	TP213	TP214	TP216	TP217	TP237	TP237	TP238										
AGS Reference																				
Depth (m)			1.50 - 1.50	0.60 - 0.60	2.00 - 2.00	0.60 - 0.60	4.00 - 4.00	2.00 - 2.00	4.00 - 4.00	4.00 - 4.00										
Container			1kg TUB with Handle (ALE260)	250g Amber Jar (ALE210)	60g VOC (ALE215)	1kg TUB with Handle (ALE260)	250g Amber Jar (ALE210)	1kg TUB with Handle (ALE260)	250g Amber Jar (ALE210)	1kg TUB with Handle (ALE260)	250g Amber Jar (ALE210)	60g VOC (ALE215)	1kg TUB with Handle (ALE260)	250g Amber Jar (ALE210)	1kg TUB with Handle (ALE260)	250g Amber Jar (ALE210)	60g VOC (ALE215)	1kg TUB with Handle (ALE260)	250g Amber Jar (ALE210)	60g VOC (ALE215)	1kg TUB with Handle (ALE260)
Sample Type			S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S
Phenols by HPLC (S)	All	NDPs: 0 Tests: 8		X							X				X			X		
Sample description	All	NDPs: 0 Tests: 15		X			X		X		X			X		X			X	
Semi Volatile Organic Compounds	All	NDPs: 0 Tests: 10		X							X				X			X		
Total Organic Carbon	All	NDPs: 0 Tests: 8		X							X				X			X		
Total Sulphate	All	NDPs: 0 Tests: 8		X							X				X			X		
TPH CWG GC (S)	All	NDPs: 0 Tests: 10		X							X				X			X		
VOC MS (S)	All	NDPs: 0 Tests: 10			X							X				X			X	

26186839	WS313		3.50 - 4.00	60g VOC (ALE215)	S														X
				250g Amber Jar (ALE210)	S				X		X						X		
26186844	WS308		3.50 - 4.00	60g VOC (ALE215)	S														X
				250g Amber Jar (ALE210)	S				X		X						X		
26186887	TP250		1.00 - 1.00	250g Amber Jar (ALE210)	S				X										
				1kg TUB with Handle (ALE260)	S														
26186882	TP248		4.50 - 4.50	60g VOC (ALE215)	S														X
				250g Amber Jar (ALE210)	S		X		X		X		X		X		X		
				1kg TUB with Handle (ALE260)	S														
26186808	TP248		1.00 - 1.00	60g VOC (ALE215)	S														X
				250g Amber Jar (ALE210)	S		X		X		X		X		X		X		
				1kg TUB with Handle (ALE260)	S														
26186876	TP245		2.00 - 2.00	60g VOC (ALE215)	S														X
				250g Amber Jar (ALE210)	S		X		X		X		X		X		X		
				1kg TUB with Handle (ALE260)	S														
26186833	TP240		2.00 - 2.00	60g VOC (ALE215)	S														X
				250g Amber Jar (ALE210)	S		X		X		X		X		X		X		
				1kg TUB with Handle (ALE260)	S														
26186849	TP238		4.00 - 4.00	250g Amber Jar (ALE210)	S				X										

CERTIFICATE OF ANALYSIS

SDG: 220426-111 **Report Number:** 648036 **Superseded Report:** 646228
Client Ref.: LD10385 **Location:** Ten Acres Lane

Sample Descriptions

Grain Sizes

very fine	<0.063mm	fine	0.063mm - 0.1mm	medium	0.1mm - 2mm	coarse	2mm - 10mm	very coarse	>10mm

Lab Sample No(s)	Customer Sample Ref.	Depth (m)	Colour	Description	Inclusions	Inclusions 2
26186820	TP212	1.50 - 1.50	Dark Brown	Sandy Loam	Vegetation	Stones
26186827	TP213	0.60 - 0.60	Dark Brown	Sandy Silt Loam	Vegetation	Stones
26186814	TP214	2.00 - 2.00	Light Brown	Loamy Sand	Stones	Vegetation
26186871	TP216	0.60 - 0.60	Dark Brown	Sand	Vegetation	Stones
26186866	TP217	4.00 - 4.00	Dark Brown	Clay Loam	None	Stones
26186854	TP237	2.00 - 2.00	Dark Brown	Sand	Vegetation	Stones
26186860	TP237	4.00 - 4.00	Dark Brown	Silty Clay Loam	Stones	None
26186849	TP238	4.00 - 4.00	Grey	Sandy Silt Loam	Stones	N/A
26186833	TP240	2.00 - 2.00	Light Brown	Sandy Loam	Vegetation	Brick
26186876	TP245	2.00 - 2.00	Black	Sand	Stones	N/A
26186808	TP248	1.00 - 1.00	Black	Sand	Stones	N/A
26186882	TP248	4.50 - 4.50	Dark Brown	Sand	None	Stones
26186887	TP250	1.00 - 1.00	Dark Brown	Sandy Loam	Stones	Vegetation
26186844	WS308	3.50 - 4.00	Light Brown	Loamy Sand	Stones	None
26186839	WS313	3.50 - 4.00	Black	Sand	Stones	N/A

These descriptions are only intended to act as a cross check if sample identities are questioned, and to provide a log of sample matrices with respect to MCERTS validation. They are not intended as full geological descriptions.

We are accredited to MCERTS for sand, clay and loam/topsoil, or any of these materials - whether these are derived from naturally ocurring soil profiles, or from fill/made ground, as long as these materials constitute the major part of the sample.

Other coarse granular materials such as concrete, gravel and brick are not accredited if they comprise the major part of the sample.

Validated

CERTIFICATE OF ANALYSIS

SDG: 220426-111 **Report Number:** 648036 **Superseded Report:** 646228

Client Ref.: LD10385 **Location:** Ten Acres Lane

Results Legend

- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4+§@ Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	TP212	TP213	TP214	TP216	TP217	TP237
			Depth (m)	1.50 - 1.50	0.60 - 0.60	2.00 - 2.00	0.60 - 0.60	4.00 - 4.00	2.00 - 2.00
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	21/04/2022	21/04/2022	21/04/2022	20/04/2022	20/04/2022	20/04/2022
			Sample Time	12:00	12:00	12:00	12:00	12:00	12:00
			Date Received	23/04/2022	23/04/2022	23/04/2022	23/04/2022	23/04/2022	23/04/2022
			SDG Ref	220426-111	220426-111	220426-111	220426-111	220426-111	220426-111
			Lab Sample No.(s)	26186820	26186827	26186814	26186871	26186866	26186854
			AGS Reference						
Moisture Content Ratio (% of as received sample)	%	PM024		15	19	19	21	12	19
Phenol	<0.01 mg/kg	TM062 (S)		<0.01 M			<0.01 M		<0.01 M
Cresols	<0.01 mg/kg	TM062 (S)		<0.01 M			<0.01 M		<0.01 M
Xylenols	<0.015 mg/kg	TM062 (S)		<0.015 M			<0.015 M		<0.015 M
Phenols, Total Detected monohydric	<0.035 mg/kg	TM062 (S)		<0.035 M			<0.035 M		<0.035 M
Soil Organic Matter (SOM)	<0.35 %	TM132		2.55 #			5.52 #		23.1 #
pH	1 pH Units	TM133		8.6 M			8 M		8.52 M
Chromium, Hexavalent	<0.6 mg/kg	TM151		<0.6 #			<0.6 #		<0.6 #
Cyanide, Total	<1 mg/kg	TM153		<1 M			<1 M		<1 M
PCB congener 28	<3 µg/kg	TM168		<15 M			<15 M		<3 M
PCB congener 52	<3 µg/kg	TM168		<15 M			16 M		<3 M
PCB congener 101	<3 µg/kg	TM168		<15 M			<15 M		<3 M
PCB congener 118	<3 µg/kg	TM168		<15 M			<15 M		<3 M
PCB congener 138	<3 µg/kg	TM168		<15 M			<15 M		<3 M
PCB congener 153	<3 µg/kg	TM168		<15 M			<15 M		<3 M
PCB congener 180	<3 µg/kg	TM168		<15 M			<15 M		<3 M
Sum of detected PCB 7 Congeners	<21 µg/kg	TM168		<105			<105		<21
Sulphide, Easily liberated	<15 mg/kg	TM180		<15 @ M			84.1 @ M		<15 @ M
Arsenic	<0.6 mg/kg	TM181		11.3 M			30.5 M		16.7 M
Beryllium	<0.01 mg/kg	TM181		0.537 M			0.696 M		4.87 M
Cadmium	<0.02 mg/kg	TM181		4.59 M			2.73 M		<0.02 M
Chromium	<0.9 mg/kg	TM181		12.5 M			7.93 M		6.48 M
Copper	<1.4 mg/kg	TM181		59.4 M			174 M		135 M
Lead	<0.7 mg/kg	TM181		195 M			1410 M		47.4 M
Mercury	<0.1 mg/kg	TM181		<0.1 M			1.85 M		<0.1 M
Nickel	<0.2 mg/kg	TM181		52 M			14.5 M		54.3 M
Selenium	<1 mg/kg	TM181		<1 #			1.22 #		<1 #
Vanadium	<0.2 mg/kg	TM181		18.7 #			18.8 #		88.1 #
Zinc	<1.9 mg/kg	TM181		289 M			3950 M		117 M
Sulphate, Total	<48 mg/kg	TM221		1120 M			28000 M		1220 M
Boron, water soluble	<1 mg/kg	TM222		1.05 M			1.49 M		<1 M
Water Soluble Sulphate as SO4 2:1 Extract	<0.004 g/l	TM243		0.0863 M			1.55 M		0.0952 M
Asbestos Quantification - Gravimetric - %	<0.001 %	TM304		0.0031 #					

CERTIFICATE OF ANALYSIS

SDG: 220426-111 **Report Number:** 648036 **Superseded Report:** 646228
Client Ref.: LD10385 **Location:** Ten Acres Lane

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4+§@ Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	TP212	TP213	TP214	TP216	TP217	TP237
			Depth (m)	1.50 - 1.50	0.60 - 0.60	2.00 - 2.00	0.60 - 0.60	4.00 - 4.00	2.00 - 2.00
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	21/04/2022	21/04/2022	21/04/2022	20/04/2022	20/04/2022	20/04/2022
			Sample Time	12:00	12:00	12:00	12:00	12:00	12:00
			Date Received	23/04/2022	23/04/2022	23/04/2022	23/04/2022	23/04/2022	23/04/2022
			SDG Ref	220426-111	220426-111	220426-111	220426-111	220426-111	220426-111
			Lab Sample No.(s)	26186820	26186827	26186814	26186871	26186866	26186854
			AGS Reference						
Asbestos Quantification - PCOM Evaluation - %	<0.001 %	TM304		<0.001 #					
Additional Asbestos Components (Using TM048)		TM304		Chrysotile #					
Analysts Comments		TM304		Fibre bundles in soil					
Asbestos Quantification - Total - %	<0.001 %	TM304		0.0031 #					
PFBA (375-22-4) Perfluoro-n-butanoic acid	<3 µg/kg	TM338			<3	<3		<3	
PFPA (2706-90-3) Perfluoro-n-pentanoic acid	<3 µg/kg	TM338			<3	<3		<3	
PFHxA (307-24-4) Perfluoro-n-hexanoic acid	<2 µg/kg	TM338			<2	<2		<2	
PFBS (375-73-5) Perfluoro-1-butanesulfonate	<1 µg/kg	TM338			<1	<1		<1	
PFHpA (375-85-9) Perfluoro-n-heptanoic acid	<1 µg/kg	TM338			<1	<1		<1	
PFOA (335-67-1) Perfluoro-n-octanoic acid	<1 µg/kg	TM338			1.09	<1		<1	
PFHxS (355-46-4) Perfluoro-1-hexanesulfonate	<1 µg/kg	TM338			<1	<1		<1	
PFNA (375-95-1) Perfluoro-n-nonanoic acid	<1 µg/kg	TM338			<1	<1		<1	
PFHpS (375-92-8) Perfluoro-1-heptanesulfonate	<1 µg/kg	TM338			<1	<1		<1	
PFDA (335-76-2) Perfluoro-n-decanoic acid	<1 µg/kg	TM338			<1	<1		<1	
Linear PFOS(1763-23-1) Perfluoro-1-octanesulfonate	<1 µg/kg	TM338			2.99	3.05		<1	
Branched PFOS	<1 µg/kg	TM338			<1	<1		<1	
PFUnA (2058-94-8) Perfluoro-n-undecanoic acid	<1 µg/kg	TM338			<1	<1		<1	
PFDoA (307-55-1) Perfluoro-n-dodecanoic acid	<1 µg/kg	TM338			<1	<1		<1	
PFOSA (754-91-6) Perfluoro-octanesulfonamide	<1 µg/kg	TM338			<1	<1		<1	
6:2-FTS (27619-97-2)	<1 µg/kg	TM338			<1	<1		<1	
PFDS (335-73-3) Perfluoro-1-decanesulfonate	<1 µg/kg	TM338			<1	<1		<1	
PFPeS (2706-91-4) Perfluoro-1-pentanesulfonate	<1 µg/kg	TM338			<1	<1		<1	
Total PFOS	<1 µg/kg	TM338			2.99	3.05		<1	
PFBA (Post Ox.) Perfluoro-n-butanoic acid	<3 µg/kg	TM428			<3	<3			
PFPA (Post Ox.) Perfluoro-n-pentanoic acid	<3 µg/kg	TM428			<3	<3			
PFHxA (Post Ox.) Perfluoro-n-hexanoic acid	<2 µg/kg	TM428			<2	<2			
PFBS (Post Ox.) Perfluoro-1-butanesulfonate	<1 µg/kg	TM428			<1	<1			
PFHpA (Post Ox.) Perfluoro-n-heptanoic acid	<1 µg/kg	TM428			<1	<1			
6:2 PTS (Post Ox.) Perfluoro-octane sulfonate 6:2	<1 µg/kg	TM428			<1	<1			
PFOA (Post Ox.) Perfluoro-n-octanoic acid	<1 µg/kg	TM428			1.49	1.3			
PFHxS (Post Ox.) Perfluoro-1-hexanesulfonate	<1 µg/kg	TM428			<1	<1			
PFNA (Post Ox.) Perfluoro-n-nonanoic acid	<1 µg/kg	TM428			<1	<1			
PFHpS (Post Ox.) Perfluoro-1-heptanesulfonate	<1 µg/kg	TM428			<1	<1			

CERTIFICATE OF ANALYSIS

SDG: 220426-111 **Report Number:** 648036 **Superseded Report:** 646228
Client Ref.: LD10385 **Location:** Ten Acres Lane

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	TP212	TP213	TP214	TP216	TP217	TP237
			Depth (m)	1.50 - 1.50	0.60 - 0.60	2.00 - 2.00	0.60 - 0.60	4.00 - 4.00	2.00 - 2.00
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	21/04/2022	21/04/2022	21/04/2022	20/04/2022	20/04/2022	20/04/2022
			Sample Time	12:00	12:00	12:00	12:00	12:00	12:00
			Date Received	23/04/2022	23/04/2022	23/04/2022	23/04/2022	23/04/2022	23/04/2022
			SDG Ref	220426-111	220426-111	220426-111	220426-111	220426-111	220426-111
			Lab Sample No.(s)	26186820	26186827	26186814	26186871	26186866	26186854
			AGS Reference						
PFDA (Post Ox.) Perfluoro-n-decanoic acid	<1 µg/kg	TM428			<1	<1			
Linear PFOS (Post Ox.) Perfluoro-1-octanesulfonate	<1 µg/kg	TM428			2.84	3.25			
Branched PFOS (Post Ox.)	<1 µg/kg	TM428			<1	<1			
PFUnA (Post Ox.) Perfluoro-n-undecanoic acid	<1 µg/kg	TM428			<1	<1			
PFDoA (Post Ox.) Perfluoro-n-dodecanoic acid	<1 µg/kg	TM428			<1	<1			
PFOSA (Post Ox.) Perfluoro-octanesulfonamide	<1 µg/kg	TM428			<1	<1			
PFDS (Post Ox.) Perfluoro-1-decanesulfonate	<1 µg/kg	TM428			<1	<1			
PFPeS (Post Ox.) Perfluoro-1-pentanesulfonate	<1 µg/kg	TM428			<1	<1			
Total PFOS (Post Ox.)	<2 µg/kg	TM428			2.84	3.25			

Validated

CERTIFICATE OF ANALYSIS

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Client Ref.: LD10385 **Location:** Ten Acres Lane

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	TP237	TP238	TP240	TP245	TP248	TP248
			Depth (m)	4.00 - 4.00	4.00 - 4.00	2.00 - 2.00	2.00 - 2.00	1.00 - 1.00	4.50 - 4.50
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	20/04/2022	20/04/2022	21/04/2022	20/04/2022	20/04/2022	20/04/2022
			Sample Time	12:00	12:00	12:00	12:00	12:00	12:00
			Date Received	23/04/2022	23/04/2022	23/04/2022	23/04/2022	23/04/2022	23/04/2022
			SDG Ref	220426-111	220426-111	220426-111	220426-111	220426-111	220426-111
			Lab Sample No.(s)	26186860	26186849	26186833	26186876	26186808	26186882
			AGS Reference						
Moisture Content Ratio (% of as received sample)	%	PM024		15	23	28	29	13	25
Phenol	<0.01 mg/kg	TM062 (S)		<0.01 M		<0.01 M	<0.01 M	<0.01 M	<0.01 M
Cresols	<0.01 mg/kg	TM062 (S)		<0.01 M		<0.01 M	<0.01 M	<0.01 M	<0.01 M
Xylenols	<0.015 mg/kg	TM062 (S)		<0.015 M		<0.015 M	<0.015 M	<0.015 M	<0.015 M
Phenols, Total Detected monohydric	<0.035 mg/kg	TM062 (S)		<0.035 M		<0.035 M	<0.035 M	<0.035 M	<0.035 M
Soil Organic Matter (SOM)	<0.35 %	TM132		1.65 #		5.59 #	18.1 #	24.1 #	20.7 #
pH	1 pH Units	TM133		8.85 M		7.25 M	7.48 M	7.41 M	10.6 M
Chromium, Hexavalent	<0.6 mg/kg	TM151		<0.6 #		1.73 #	0.94 #	5.1 #	<0.6 #
Cyanide, Total	<1 mg/kg	TM153		<1 M		<1 M	<1 M	<1 M	<1 M
PCB congener 28	<3 µg/kg	TM168		<3 M		<15 M	<15 M	<15 M	<3 M
PCB congener 52	<3 µg/kg	TM168		<3 M		<15 M	<15 M	<15 M	<3 M
PCB congener 101	<3 µg/kg	TM168		<3 M		<15 M	<15 M	<15 M	<3 M
PCB congener 118	<3 µg/kg	TM168		<3 M		<15 M	<15 M	<15 M	<3 M
PCB congener 138	<3 µg/kg	TM168		<3 M		<15 M	<15 M	<15 M	<3 M
PCB congener 153	<3 µg/kg	TM168		<3 M		<15 M	<15 M	<15 M	<3 M
PCB congener 180	<3 µg/kg	TM168		<3 M		<15 M	<15 M	<15 M	<3 M
Sum of detected PCB 7 Congeners	<21 µg/kg	TM168		<21		<105	<105	<105	<21
Sulphide, Easily liberated	<15 mg/kg	TM180		<15 @ M		632 @ M	1220 @ M	<15 @ M	235 @ M
Arsenic	<0.6 mg/kg	TM181		17.3 M		15 M	19.7 M	31.2 M	29.6 M
Beryllium	<0.01 mg/kg	TM181		1.11 M		0.575 M	3.46 M	1.54 M	1.77 M
Cadmium	<0.02 mg/kg	TM181		0.0243 M		2.53 M	1.78 M	0.489 M	0.164 M
Chromium	<0.9 mg/kg	TM181		13.9 M		460 M	60.8 M	62.8 M	59.9 M
Copper	<1.4 mg/kg	TM181		24.5 M		152 M	166 M	1040 M	214 M
Lead	<0.7 mg/kg	TM181		20.6 M		850 M	1120 M	277 M	350 M
Mercury	<0.1 mg/kg	TM181		<0.1 M		0.922 M	<0.1 M	<0.1 M	<0.1 M
Nickel	<0.2 mg/kg	TM181		32 M		309 M	189 M	48.6 M	37.1 M
Selenium	<1 mg/kg	TM181		<1 #		<1 #	2.3 #	2.48 #	1.76 #
Vanadium	<0.2 mg/kg	TM181		28.1 #		22.2 #	49.3 #	58.2 #	43.8 #
Zinc	<1.9 mg/kg	TM181		68.3 M		466 M	995 M	620 M	153 M
Sulphate, Total	<48 mg/kg	TM221		363 M		15200 M	2920 M	1200 M	2430 M
Boron, water soluble	<1 mg/kg	TM222		1.53 M		1.35 M	3.44 M	<1 M	1.4 M
Water Soluble Sulphate as SO4 2:1 Extract	<0.004 g/l	TM243		0.0731 M		1.55 M	0.467 M	0.106 M	0.137 M
Asbestos Quantification - Gravimetric - %	<0.001 %	TM304					0.0645 #		

CERTIFICATE OF ANALYSIS

SDG: 220426-111 **Report Number:** 648036 **Superseded Report:** 646228
Client Ref.: LD10385 **Location:** Ten Acres Lane

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4+§@ Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	TP237	TP238	TP240	TP245	TP248	TP248
			Depth (m)	4.00 - 4.00	4.00 - 4.00	2.00 - 2.00	2.00 - 2.00	1.00 - 1.00	4.50 - 4.50
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	20/04/2022	20/04/2022	21/04/2022	20/04/2022	20/04/2022	20/04/2022
			Sample Time	12:00	12:00	12:00	12:00	12:00	12:00
			Date Received	23/04/2022	23/04/2022	23/04/2022	23/04/2022	23/04/2022	23/04/2022
			SDG Ref	220426-111	220426-111	220426-111	220426-111	220426-111	220426-111
			Lab Sample No.(s)	26186860	26186849	26186833	26186876	26186808	26186882
			AGS Reference						
Asbestos Quantification - PCOM Evaluation - %	<0.001 %	TM304					<0.001 #		
Additional Asbestos Components (Using TM048)		TM304					None #		
Analysts Comments		TM304					ACM debris in soil		
Asbestos Quantification - Total - %	<0.001 %	TM304					0.0647 #		
PFBA (375-22-4) Perfluoro-n-butanoic acid	<3 µg/kg	TM338		<3					
PFPA (2706-90-3) Perfluoro-n-pentanoic acid	<3 µg/kg	TM338		<3					
PFHxA (307-24-4) Perfluoro-n-hexanoic acid	<2 µg/kg	TM338		<2					
PFBS (375-73-5) Perfluoro-1-butanesulfonate	<1 µg/kg	TM338		<1					
PFHpA (375-85-9) Perfluoro-n-heptanoic acid	<1 µg/kg	TM338		<1					
PFOA (335-67-1) Perfluoro-n-octanoic acid	<1 µg/kg	TM338		<1					
PFHxS (355-46-4) Perfluoro-1-hexanesulfonate	<1 µg/kg	TM338		<1					
PFNA (375-95-1) Perfluoro-n-nonanoic acid	<1 µg/kg	TM338		<1					
PFHpS (375-92-8) Perfluoro-1-heptanesulfonate	<1 µg/kg	TM338		<1					
PFDA (335-76-2) Perfluoro-n-decanoic acid	<1 µg/kg	TM338		<1					
Linear PFOS(1763-23-1) Perfluoro-1-octanesulfonate	<1 µg/kg	TM338		<1					
Branched PFOS	<1 µg/kg	TM338		<1					
PFUnA (2058-94-8) Perfluoro-n-undecanoic acid	<1 µg/kg	TM338		<1					
PFDoA (307-55-1) Perfluoro-n-dodecanoic acid	<1 µg/kg	TM338		<1					
PFOSA (754-91-6) Perfluoro-octanesulfonamide	<1 µg/kg	TM338		<1					
6:2-FTS (27619-97-2)	<1 µg/kg	TM338		<1					
PFDS (335-73-3) Perfluoro-1-decanesulfonate	<1 µg/kg	TM338		<1					
PFPeS (2706-91-4) Perfluoro-1-pentanesulfonate	<1 µg/kg	TM338		<1					
Total PFOS	<1 µg/kg	TM338		<1					

CERTIFICATE OF ANALYSIS

SDG: 220426-111 **Report Number:** 648036 **Superseded Report:** 646228
Client Ref.: LD10385 **Location:** Ten Acres Lane

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4+§@ Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	TP250	WS308	WS313			
			Depth (m)	1.00 - 1.00	3.50 - 4.00	3.50 - 4.00			
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)			
			Date Sampled	21/04/2022	21/04/2022	21/04/2022			
			Sample Time	12:00	12:00	12:00			
			Date Received	23/04/2022	23/04/2022	23/04/2022			
			SDG Ref	220426-111	220426-111	220426-111			
			Lab Sample No.(s)	26186887	26186844	26186839			
			AGS Reference						
Moisture Content Ratio (% of as received sample)	%	PM024		17	14	7.1			
PFBA (375-22-4) Perfluoro-n-butanoic acid	<3 µg/kg	TM338		<3					
PFPA (2706-90-3) Perfluoro-n-pentanoic acid	<3 µg/kg	TM338		<3					
PFHxA (307-24-4) Perfluoro-n-hexanoic acid	<2 µg/kg	TM338		<2					
PFBS (375-73-5) Perfluoro-1-butanesulfonate	<1 µg/kg	TM338		<1					
PFHpA (375-85-9) Perfluoro-n-heptanoic acid	<1 µg/kg	TM338		<1					
PFOA (335-67-1) Perfluoro-n-octanoic acid	<1 µg/kg	TM338		<1					
PFHxS (355-46-4) Perfluoro-1-hexanesulfonate	<1 µg/kg	TM338		<1					
PFNA (375-95-1) Perfluoro-n-nonanoic acid	<1 µg/kg	TM338		<1					
PFHpS (375-92-8) Perfluoro-1-heptanesulfonate	<1 µg/kg	TM338		<1					
PFDA (335-76-2) Perfluoro-n-decanoic acid	<1 µg/kg	TM338		<1					
Linear PFOS(1763-23-1) Perfluoro-1-octanesulfonate	<1 µg/kg	TM338		<1					
Branched PFOS	<1 µg/kg	TM338		<1					
PFUnA (2058-94-8) Perfluoro-n-undecanoic acid	<1 µg/kg	TM338		<1					
PFDoA (307-55-1) Perfluoro-n-dodecanoic acid	<1 µg/kg	TM338		<1					
PFOSA (754-91-6) Perfluoro-octanesulfonamide	<1 µg/kg	TM338		<1					
6:2-FTS (27619-97-2)	<1 µg/kg	TM338		<1					
PFDS (335-73-3) Perfluoro-1-decanesulfonate	<1 µg/kg	TM338		<1					
PFPeS (2706-91-4) Perfluoro-1-pentanesulfonate	<1 µg/kg	TM338		<1					
Total PFOS	<1 µg/kg	TM338		<1					

Validated

CERTIFICATE OF ANALYSIS

SDG: 220426-111 **Report Number:** 648036 **Superseded Report:** 646228

Client Ref.: LD10385 **Location:** Ten Acres Lane

PAH by GCMS

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	TP212	TP216	TP237	TP237	TP240	TP245
			Depth (m)	1.50 - 1.50	0.60 - 0.60	2.00 - 2.00	4.00 - 4.00	2.00 - 2.00	2.00 - 2.00
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	21/04/2022	20/04/2022	20/04/2022	20/04/2022	21/04/2022	20/04/2022
			Sample Time	12:00	12:00	12:00	12:00	12:00	12:00
			Date Received	23/04/2022	23/04/2022	23/04/2022	23/04/2022	23/04/2022	23/04/2022
			SDG Ref	220426-111	220426-111	220426-111	220426-111	220426-111	220426-111
			Lab Sample No.(s)	26186820	26186871	26186854	26186860	26186833	26186876
			AGS Reference						
Naphthalene-d8 % recovery**	%	TM218		94.7	89.6	87.2	106	96.4	103
Acenaphthene-d10 % recovery**	%	TM218		97.9	91.4	91.9	104	96.6	105
Phenanthrene-d10 % recovery**	%	TM218		102	97.9	87.5	106	97.9	110
Chrysene-d12 % recovery**	%	TM218		104	94.4	73.6	94.4	102	104
Perylene-d12 % recovery**	%	TM218		97.7	87.4	52.1	84.2	99.7	88.6
Naphthalene	<9 µg/kg	TM218		53.2 M	<45 M	32.5 @ M	<9 M	<18 M	174 M
Acenaphthylene	<12 µg/kg	TM218		178 M	<60 M	<12 @ M	<12 M	<24 M	<60 M
Acenaphthene	<8 µg/kg	TM218		293 M	<40 M	<8 @ M	<8 M	<16 M	192 M
Fluorene	<10 µg/kg	TM218		291 M	<50 M	<10 @ M	<10 M	<20 M	178 M
Phenanthrene	<15 µg/kg	TM218		3380 M	2300 M	78.3 @ M	137 M	<30 M	1500 M
Anthracene	<16 µg/kg	TM218		896 M	<80 M	<16 @ M	24.9 M	<32 M	396 M
Fluoranthene	<17 µg/kg	TM218		5870 M	4110 M	64.6 @ M	205 M	<34 M	3620 M
Pyrene	<15 µg/kg	TM218		5480 M	4270 M	64.4 @ M	195 M	<30 M	3240 M
Benz(a)anthracene	<14 µg/kg	TM218		2880 M	1600 M	30 @ M	80.1 M	<28 M	1530 M
Chrysene	<10 µg/kg	TM218		2710 M	1580 M	32.4 @ M	87.6 M	<20 M	1750 M
Benzo(b)fluoranthene	<15 µg/kg	TM218		3130 M	2530 M	35 @ M	80.8 M	<30 M	2580 M
Benzo(k)fluoranthene	<14 µg/kg	TM218		1240 M	<70 M	<14 @ M	25.7 M	<28 M	859 M
Benzo(a)pyrene	<15 µg/kg	TM218		2560 M	1880 M	21.8 @ M	44.3 M	<30 M	1660 M
Indeno(1,2,3-cd)pyrene	<18 µg/kg	TM218		1730 M	2020 M	<18 @ M	29.1 M	<36 M	1500 M
Dibenzo(a,h)anthracene	<23 µg/kg	TM218		304 M	326 M	<23 @ M	<23 M	<46 M	240 M
Benzo(g,h,i)perylene	<24 µg/kg	TM218		1440 M	1790 M	<24 @ M	<24 M	<48 M	1280 M
PAH, Total Detected USEPA 16	<118 µg/kg	TM218		32400	22400	359	909	<118	20700

CERTIFICATE OF ANALYSIS

SDG: 220426-111 **Report Number:** 648036 **Superseded Report:** 646228
Client Ref.: LD10385 **Location:** Ten Acres Lane

PAH by GCMS

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4+§@ Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	TP248	TP248				
			Depth (m)	1.00 - 1.00	4.50 - 4.50				
			Sample Type	Soil/Solid (S)	Soil/Solid (S)				
			Date Sampled	20/04/2022	20/04/2022				
			Sample Time	12:00	12:00				
			Date Received	23/04/2022	23/04/2022				
			SDG Ref	220426-111	220426-111				
			Lab Sample No.(s)	26186808	26186882				
			AGS Reference						
Naphthalene-d8 % recovery**	%	TM218		94.8	92.5				
Acenaphthene-d10 % recovery**	%	TM218		97.3	89.7				
Phenanthrene-d10 % recovery**	%	TM218		102	87.1				
Chrysene-d12 % recovery**	%	TM218		93.2	78.5				
Perylene-d12 % recovery**	%	TM218		79.1	80.5				
Naphthalene	<9 µg/kg	TM218		211 M	79.9 M				
Acenaphthylene	<12 µg/kg	TM218		230 M	75.1 M				
Acenaphthene	<8 µg/kg	TM218		828 M	228 M				
Fluorene	<10 µg/kg	TM218		634 M	174 M				
Phenanthrene	<15 µg/kg	TM218		8360 M	1700 M				
Anthracene	<16 µg/kg	TM218		2180 M	491 M				
Fluoranthene	<17 µg/kg	TM218		13100 M	2310 M				
Pyrene	<15 µg/kg	TM218		12900 M	2220 M				
Benz(a)anthracene	<14 µg/kg	TM218		6020 M	1190 M				
Chrysene	<10 µg/kg	TM218		6120 M	1140 M				
Benzo(b)fluoranthene	<15 µg/kg	TM218		7010 M	1390 M				
Benzo(k)fluoranthene	<14 µg/kg	TM218		2310 M	553 M				
Benzo(a)pyrene	<15 µg/kg	TM218		5520 M	1120 M				
Indeno(1,2,3-cd)pyrene	<18 µg/kg	TM218		3620 M	781 M				
Dibenzo(a,h)anthracene	<23 µg/kg	TM218		635 M	131 M				
Benzo(g,h,i)perylene	<24 µg/kg	TM218		3190 M	683 M				
PAH, Total Detected USEPA 16	<118 µg/kg	TM218		72900	14300				

CERTIFICATE OF ANALYSIS

SDG: 220426-111 **Report Number:** 648036 **Superseded Report:** 646228

Client Ref.: LD10385 **Location:** Ten Acres Lane

Semi Volatile Organic Compounds

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	TP212	TP216	TP237	TP237	TP240	TP245
			Depth (m)	1.50 - 1.50	0.60 - 0.60	2.00 - 2.00	4.00 - 4.00	2.00 - 2.00	2.00 - 2.00
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	21/04/2022	20/04/2022	20/04/2022	20/04/2022	21/04/2022	20/04/2022
			Sample Time	12:00	12:00	12:00	12:00	12:00	12:00
			Date Received	23/04/2022	23/04/2022	23/04/2022	23/04/2022	23/04/2022	23/04/2022
			SDG Ref	220426-111	220426-111	220426-111	220426-111	220426-111	220426-111
			Lab Sample No.(s)	26186820	26186871	26186854	26186860	26186833	26186876
			AGS Reference						
Phenol	<100 µg/kg	TM157		<500	<500	<100	<100	<500	<200
Pentachlorophenol	<100 µg/kg	TM157		<500	<500	<100	<100	<500	<200
n-Nitroso-n-dipropylamine	<100 µg/kg	TM157		<500	<500	<100	<100	<500	<200
Nitrobenzene	<100 µg/kg	TM157		<500	<500	<100	<100	<500	<200
Isophorone	<100 µg/kg	TM157		<500	<500	<100	<100	<500	<200
Hexachloroethane	<100 µg/kg	TM157		<500	<500	<100	<100	<500	<200
Hexachlorocyclopentadiene	<100 µg/kg	TM157		<500	<500	<100	<100	<500	<200
Hexachlorobutadiene	<100 µg/kg	TM157		<500	<500	<100	<100	<500	<200
Hexachlorobenzene	<100 µg/kg	TM157		<500	<500	<100	<100	<500	<200
n-Dioctyl phthalate	<100 µg/kg	TM157		<500	<500	<100	<100	<500	<200
Dimethyl phthalate	<100 µg/kg	TM157		<500	<500	<100	<100	<500	<200
Diethyl phthalate	<100 µg/kg	TM157		<500	<500	<100	<100	<500	<200
n-Dibutyl phthalate	<100 µg/kg	TM157		<500	<500	<100	<100	<500	<200
Dibenzofuran	<100 µg/kg	TM157		971	<500	<100	<100	<500	<200
Carbazole	<100 µg/kg	TM157		636	<500	<100	<100	<500	<200
Butylbenzyl phthalate	<100 µg/kg	TM157		<500	<500	<100	<100	<500	<200
bis(2-Ethylhexyl) phthalate	<100 µg/kg	TM157		<500	<500	<100	<100	885	398
bis(2-Chloroethoxy)methane	<100 µg/kg	TM157		<500	<500	<100	<100	<500	<200
bis(2-Chloroethyl)ether	<100 µg/kg	TM157		<500	<500	<100	<100	<500	<200
Azobenzene	<100 µg/kg	TM157		<500	<500	<100	<100	<500	<200
4-Nitrophenol	<100 µg/kg	TM157		<500	<500	<100	<100	<500	<200
4-Nitroaniline	<100 µg/kg	TM157		<500	<500	<100	<100	<500	<200
4-Methylphenol	<100 µg/kg	TM157		<500	<500	<100	<100	<500	<200
4-Chlorophenylphenylether	<100 µg/kg	TM157		<500	<500	<100	<100	<500	<200
4-Chloroaniline	<100 µg/kg	TM157		<500	<500	<100	<100	<500	<200
4-Chloro-3-methylphenol	<100 µg/kg	TM157		<500	<500	<100	<100	<500	<200
4-Bromophenylphenylether	<100 µg/kg	TM157		<500	<500	<100	<100	<500	<200
3-Nitroaniline	<100 µg/kg	TM157		<500	<500	<100	<100	<500	<200
2-Nitrophenol	<100 µg/kg	TM157		<500	<500	<100	<100	<500	<200
2-Nitroaniline	<100 µg/kg	TM157		<500	<500	<100	<100	<500	<200
2-Methylphenol	<100 µg/kg	TM157		<500	<500	<100	<100	<500	<200
1,2,4-Trichlorobenzene	<100 µg/kg	TM157		<500	<500	<100	<100	<500	<200
2-Chlorophenol	<100 µg/kg	TM157		<500	<500	<100	<100	<500	<200

CERTIFICATE OF ANALYSIS

SDG: 220426-111 **Report Number:** 648036 **Superseded Report:** 646228
Client Ref.: LD10385 **Location:** Ten Acres Lane

Semi Volatile Organic Compounds

Results Legend			Customer Sample Ref.	TP212	TP216	TP237	TP237	TP240	TP245
#	ISO17025 accredited.								
M	mCERTS accredited.								
aq	Aqueous / settled sample.								
diss.filt	Dissolved / filtered sample.								
tot.unfilt	Total / unfiltered sample.								
*	Subcontracted - refer to subcontractor report for accreditation status.								
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery		Depth (m)	1.50 - 1.50	0.60 - 0.60	2.00 - 2.00	4.00 - 4.00	2.00 - 2.00	2.00 - 2.00
(F)	Trigger breach confirmed		Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
1-4+§@	Sample deviation (see appendix)		Date Sampled	21/04/2022	20/04/2022	20/04/2022	20/04/2022	21/04/2022	20/04/2022
			Sample Time	12:00	12:00	12:00	12:00	12:00	12:00
			Date Received	23/04/2022	23/04/2022	23/04/2022	23/04/2022	23/04/2022	23/04/2022
			SDG Ref	220426-111	220426-111	220426-111	220426-111	220426-111	220426-111
			Lab Sample No.(s)	26186820	26186871	26186854	26186860	26186833	26186876
			AGS Reference						
Component	**LOD/Units**	**Method**							
2,6-Dinitrotoluene	<100 µg/kg	TM157		<500	<500	<100	<100	<500	<200
2,4-Dinitrotoluene	<100 µg/kg	TM157		<500	<500	<100	<100	<500	<200
2,4-Dimethylphenol	<100 µg/kg	TM157		<500	<500	<100	<100	<500	<200
2,4-Dichlorophenol	<100 µg/kg	TM157		<500	<500	<100	<100	<500	<200
2,4,6-Trichlorophenol	<100 µg/kg	TM157		<500	<500	<100	<100	<500	<200
2,4,5-Trichlorophenol	<100 µg/kg	TM157		<500	<500	<100	<100	<500	<200
1,4-Dichlorobenzene	<100 µg/kg	TM157		<500	<500	<100	<100	<500	<200
1,3-Dichlorobenzene	<100 µg/kg	TM157		<500	<500	<100	<100	<500	<200
1,2-Dichlorobenzene	<100 µg/kg	TM157		<500	<500	<100	<100	<500	<200
2-Chloronaphthalene	<100 µg/kg	TM157		<500	<500	<100	<100	<500	<200
2-Methylnaphthalene	<100 µg/kg	TM157		<500	<500	<100	<100	<500	<200
Acenaphthylene	<100 µg/kg	TM157		<500	<500	<100	<100	<500	<200
Acenaphthene	<100 µg/kg	TM157		2720	<500	<100	<100	<500	<200
Anthracene	<100 µg/kg	TM157		3420	<500	<100	<100	<500	<200
Benzo(a)anthracene	<100 µg/kg	TM157		7320	1620	<100	<100	2160	961
Benzo(b)fluoranthene	<100 µg/kg	TM157		3690	996	<100	<100	1240	737
Benzo(k)fluoranthene	<100 µg/kg	TM157		4830	1330	<100	<100	1510	953
Benzo(a)pyrene	<100 µg/kg	TM157		6020	1350	<100	<100	1700	978
Benzo(g,h,i)perylene	<100 µg/kg	TM157		3110	1060	<100	<100	968	812
Chrysene	<100 µg/kg	TM157		7270	1630	<100	<100	2030	1110
Fluoranthene	<100 µg/kg	TM157		19500	3180	<100	<100	4170	1750
Fluorene	<100 µg/kg	TM157		1500	<500	<100	<100	<500	<200
Indeno(1,2,3-cd)pyrene	<100 µg/kg	TM157		6140	1530	<100	<100	2350	1410
Phenanthrene	<100 µg/kg	TM157		16100	2090	<100	<100	2470	805
Pyrene	<100 µg/kg	TM157		18000	3710	<100	<100	3710	1620
Naphthalene	<100 µg/kg	TM157		<500	<500	<100	<100	<500	<200
Dibenzo(a,h)anthracene	<100 µg/kg	TM157		<500	<500	<100	<100	<500	<200
Bis(2-chloroisopropyl) ether	<100 µg/kg	TM157		<500	<500	<100	<100	<500	<200

CERTIFICATE OF ANALYSIS

SDG: 220426-111 **Report Number:** 648036 **Superseded Report:** 646228
Client Ref.: LD10385 **Location:** Ten Acres Lane

Semi Volatile Organic Compounds

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4+§@ Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	TP248	TP248	WS308	WS313		
			Depth (m)	1.00 - 1.00	4.50 - 4.50	3.50 - 4.00	3.50 - 4.00		
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)		
			Date Sampled	20/04/2022	20/04/2022	21/04/2022	21/04/2022		
			Sample Time	12:00	12:00	12:00	12:00		
			Date Received	23/04/2022	23/04/2022	23/04/2022	23/04/2022		
			SDG Ref	220426-111	220426-111	220426-111	220426-111		
			Lab Sample No.(s)	26186808	26186882	26186844	26186839		
			AGS Reference						
Phenol	<100 µg/kg	TM157		<200	<100	<100	<100		
Pentachlorophenol	<100 µg/kg	TM157		<200	<100	<100	<100		
n-Nitroso-n-dipropylamine	<100 µg/kg	TM157		<200	<100	<100	<100		
Nitrobenzene	<100 µg/kg	TM157		<200	<100	<100	<100		
Isophorone	<100 µg/kg	TM157		<200	<100	<100	<100		
Hexachloroethane	<100 µg/kg	TM157		<200	<100	<100	<100		
Hexachlorocyclopentadiene	<100 µg/kg	TM157		<200	<100	<100	<100		
Hexachlorobutadiene	<100 µg/kg	TM157		<200	<100	<100	<100		
Hexachlorobenzene	<100 µg/kg	TM157		<200	<100	<100	<100		
n-Dioctyl phthalate	<100 µg/kg	TM157		<200	<100	<100	<100		
Dimethyl phthalate	<100 µg/kg	TM157		<200	<100	<100	<100		
Diethyl phthalate	<100 µg/kg	TM157		<200	<100	<100	<100		
n-Dibutyl phthalate	<100 µg/kg	TM157		<200	<100	<100	<100		
Dibenzofuran	<100 µg/kg	TM157		<200	<100	<100	<100		
Carbazole	<100 µg/kg	TM157		<200	<100	<100	<100		
Butylbenzyl phthalate	<100 µg/kg	TM157		<200	<100	<100	<100		
bis(2-Ethylhexyl) phthalate	<100 µg/kg	TM157		<200	<100	<100	<100		
bis(2-Chloroethoxy)methane	<100 µg/kg	TM157		<200	<100	<100	<100		
bis(2-Chloroethyl)ether	<100 µg/kg	TM157		<200	<100	<100	<100		
Azobenzene	<100 µg/kg	TM157		<200	<100	<100	<100		
4-Nitrophenol	<100 µg/kg	TM157		<200	<100	<100	<100		
4-Nitroaniline	<100 µg/kg	TM157		<200	<100	<100	<100		
4-Methylphenol	<100 µg/kg	TM157		<200	<100	<100	<100		
4-Chlorophenylphenylether	<100 µg/kg	TM157		<200	<100	<100	<100		
4-Chloroaniline	<100 µg/kg	TM157		<200	<100	<100	<100		
4-Chloro-3-methylphenol	<100 µg/kg	TM157		<200	<100	<100	<100		
4-Bromophenylphenylether	<100 µg/kg	TM157		<200	<100	<100	<100		
3-Nitroaniline	<100 µg/kg	TM157		<200	<100	<100	<100		
2-Nitrophenol	<100 µg/kg	TM157		<200	<100	<100	<100		
2-Nitroaniline	<100 µg/kg	TM157		<200	<100	<100	<100		
2-Methylphenol	<100 µg/kg	TM157		<200	<100	<100	<100		
1,2,4-Trichlorobenzene	<100 µg/kg	TM157		<200	<100	<100	<100		
2-Chlorophenol	<100 µg/kg	TM157		<200	<100	<100	<100		

CERTIFICATE OF ANALYSIS

SDG: 220426-111 **Report Number:** 648036 **Superseded Report:** 646228
Client Ref.: LD10385 **Location:** Ten Acres Lane

Semi Volatile Organic Compounds

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4+§@ Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	TP248	TP248	WS308	WS313		
			Depth (m)	1.00 - 1.00	4.50 - 4.50	3.50 - 4.00	3.50 - 4.00		
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)		
			Date Sampled	20/04/2022	20/04/2022	21/04/2022	21/04/2022		
			Sample Time	12:00	12:00	12:00	12:00		
			Date Received	23/04/2022	23/04/2022	23/04/2022	23/04/2022		
			SDG Ref	220426-111	220426-111	220426-111	220426-111		
			Lab Sample No.(s)	26186808	26186882	26186844	26186839		
			AGS Reference						
2,6-Dinitrotoluene	<100 µg/kg	TM157		<200	<100	<100	<100		
2,4-Dinitrotoluene	<100 µg/kg	TM157		<200	<100	<100	<100		
2,4-Dimethylphenol	<100 µg/kg	TM157		<200	<100	<100	<100		
2,4-Dichlorophenol	<100 µg/kg	TM157		<200	<100	<100	<100		
2,4,6-Trichlorophenol	<100 µg/kg	TM157		<200	<100	<100	<100		
2,4,5-Trichlorophenol	<100 µg/kg	TM157		<200	<100	<100	<100		
1,4-Dichlorobenzene	<100 µg/kg	TM157		<200	<100	<100	<100		
1,3-Dichlorobenzene	<100 µg/kg	TM157		<200	<100	<100	<100		
1,2-Dichlorobenzene	<100 µg/kg	TM157		<200	<100	<100	<100		
2-Chloronaphthalene	<100 µg/kg	TM157		<200	<100	<100	<100		
2-Methylnaphthalene	<100 µg/kg	TM157		<200	<100	<100	169		
Acenaphthylene	<100 µg/kg	TM157		<200	<100	<100	<100		
Acenaphthene	<100 µg/kg	TM157		287	160	<100	<100		
Anthracene	<100 µg/kg	TM157		749	239	<100	<100		
Benzo(a)anthracene	<100 µg/kg	TM157		2770	829	<100	<100		
Benzo(b)fluoranthene	<100 µg/kg	TM157		2140	481	<100	<100		
Benzo(k)fluoranthene	<100 µg/kg	TM157		2210	691	<100	<100		
Benzo(a)pyrene	<100 µg/kg	TM157		2920	745	<100	<100		
Benzo(g,h,i)perylene	<100 µg/kg	TM157		1850	409	<100	<100		
Chrysene	<100 µg/kg	TM157		2590	817	<100	<100		
Fluoranthene	<100 µg/kg	TM157		5300	1480	<100	<100		
Fluorene	<100 µg/kg	TM157		238	<100	<100	<100		
Indeno(1,2,3-cd)pyrene	<100 µg/kg	TM157		3730	631	<100	<100		
Phenanthrene	<100 µg/kg	TM157		3270	972	<100	118		
Pyrene	<100 µg/kg	TM157		5420	1580	<100	<100		
Naphthalene	<100 µg/kg	TM157		<200	<100	<100	153		
Dibenzo(a,h)anthracene	<100 µg/kg	TM157		<200	<100	<100	<100		
Bis(2-chloroisopropyl) ether	<100 µg/kg	TM157		<200	<100	<100	<100		

Validated

CERTIFICATE OF ANALYSIS

SDG: 220426-111 **Report Number:** 648036 **Superseded Report:** 646228

Client Ref.: LD10385 **Location:** Ten Acres Lane

TPH CWG (S)

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	TP212	TP216	TP237	TP237	TP240	TP245
			Depth (m)	1.50 - 1.50	0.60 - 0.60	2.00 - 2.00	4.00 - 4.00	2.00 - 2.00	2.00 - 2.00
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	21/04/2022	20/04/2022	20/04/2022	20/04/2022	21/04/2022	20/04/2022
			Sample Time	12:00	12:00	12:00	12:00	12:00	12:00
			Date Received	23/04/2022	23/04/2022	23/04/2022	23/04/2022	23/04/2022	23/04/2022
			SDG Ref	220426-111	220426-111	220426-111	220426-111	220426-111	220426-111
			Lab Sample No.(s)	26186820	26186871	26186854	26186860	26186833	26186876
			AGS Reference						
GRO Surrogate % recovery**	%	TM089		89.2	101 @	96.3 @	98.7 @	75.7	102 @
Aliphatics >C5-C6 (HS_1D_AL)	<10 µg/kg	TM089		<10	<10 @	<10 @	<10 @	<10	44.8 @
Aliphatics >C6-C8 (HS_1D_AL)	<10 µg/kg	TM089		<10	<10 @	<10 @	<10 @	<10	63 @
Aliphatics >C8-C10 (HS_1D_AL)	<10 µg/kg	TM089		<10	<10 @	<10 @	<10 @	<10	195 @
Aliphatics >C10-C12 (EH_2D_AL_#1)	<1000 µg/kg	TM414		<1000 #	4170 #	<1000 #	<1000 #	<1000 #	11700 #
Aliphatics >C12-C16 (EH_2D_AL_#1)	<1000 µg/kg	TM414		<1000 #	<1000 #	<1000 #	<1000 #	<1000 #	35800 #
Aliphatics >C16-C21 (EH_2D_AL_#1)	<1000 µg/kg	TM414		4460 #	8290 #	<1000 #	<1000 #	19700 #	113000 #
Aliphatics >C21-C35 (EH_2D_AL_#1)	<1000 µg/kg	TM414		22500 #	57800 #	1310 #	<1000 #	416000 #	1260000 #
Aliphatics >C35-C44 (EH_2D_AL_#1)	<1000 µg/kg	TM414		2430	13500	<1000	<1000	113000	320000
Total Aliphatics >C10-C44 (EH_2D_AR_#1)	<5000 µg/kg	TM414		29500	84700	<5000	<5000	549000	1750000
Total Aliphatics & Aromatics >C10-C44 (EH_2D_Total_#1)	<10000 µg/kg	TM414		105000	358000	22500	<10000	785000	2090000
Aromatics >EC5-EC7 (HS_1D_AR)	<10 µg/kg	TM089		<10	<10 @	<10 @	<10 @	<10	<10 @
Aromatics >EC7-EC8 (HS_1D_AR)	<10 µg/kg	TM089		<10	<10 @	<10 @	<10 @	<10	<10 @
Aromatics >EC8-EC10 (HS_1D_AR)	<10 µg/kg	TM089		<10	<10 @	<10 @	<10 @	<10	130 @
Aromatics > EC10-EC12 (EH_2D_AR_#1)	<1000 µg/kg	TM414		<1000 #	<1000 #	<1000 #	<1000 #	<1000 #	1190 #
Aromatics > EC12-EC16 (EH_2D_AR_#1)	<1000 µg/kg	TM414		<1000 #	4950 #	2080 #	<1000 #	2930 #	13000 #
Aromatics > EC16-EC21 (EH_2D_AR_#1)	<1000 µg/kg	TM414		12900 #	75100 #	7460 #	<1000 #	17300 #	35400 #
Aromatics > EC21-EC35 (EH_2D_AR_#1)	<1000 µg/kg	TM414		54700 #	164000 #	9770 #	2240 #	199000 #	287000 #
Aromatics >EC35-EC44 (EH_2D_AR_#1)	<1000 µg/kg	TM414		7250	28100	<1000	<1000	16200	12700
Aromatics > EC40-EC44 (EH_2D_AR_#1)	<1000 µg/kg	TM414		1250	6160	<1000	<1000	11300	3280
Total Aromatics > EC10-EC44 (EH_2D_AR_#1)	<5000 µg/kg	TM414		75700	273000	20500	<5000	236000	349000
Total Aliphatics & Aromatics >C5-C44 (EH_2D_Total_#1+HS_1D_Total)	<10000 µg/kg	TM414		105000	358000	20500	<10000	785000	2100000
Total Aliphatics >C5-C10 (HS_1D_AL_TOTAL)	<50 µg/kg	TM089		<50	<50 @	<50 @	<50 @	<50	302 @
Total Aromatics >EC5-EC10 (HS_1D_AR_TOTAL)	<50 µg/kg	TM089		<50	<50 @	<50 @	<50 @	<50	130 @
GRO >C5-C10 (HS_1D_TOTAL)	<20 µg/kg	TM089		<20	<20 @	<20 @	<20 @	<20	433 @

CERTIFICATE OF ANALYSIS

SDG: 220426-111 **Report Number:** 648036 **Superseded Report:** 646228

Client Ref.: LD10385 **Location:** Ten Acres Lane

TPH CWG (S)

Results Legend

- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4+$@ Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	TP248	TP248	WS308	WS313		
			Depth (m)	1.00 - 1.00	4.50 - 4.50	3.50 - 4.00	3.50 - 4.00		
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)		
			Date Sampled	20/04/2022	20/04/2022	21/04/2022	21/04/2022		
			Sample Time	12:00	12:00	12:00	12:00		
			Date Received	23/04/2022	23/04/2022	23/04/2022	23/04/2022		
			SDG Ref	220426-111	220426-111	220426-111	220426-111		
			Lab Sample No.(s)	26186808	26186882	26186844	26186839		
			AGS Reference						
GRO Surrogate % recovery**	%	TM089		103 @	86.1 @	142 4 @	90.7 @		
Aliphatics >C5-C6 (HS_1D_AL)	<10 µg/kg	TM089		69 @	<10 @	41.8 4 @	11.8 @		
Aliphatics >C6-C8 (HS_1D_AL)	<10 µg/kg	TM089		306 @	<10 @	324 4 @	12.9 @		
Aliphatics >C8-C10 (HS_1D_AL)	<10 µg/kg	TM089		321 @	<10 @	631 4 @	10.8 @		
Aliphatics >C10-C12 (EH_2D_AL_#1)	<1000 µg/kg	TM414		3480 #	<1000 #	<1000 #	<1000 #		
Aliphatics >C12-C16 (EH_2D_AL_#1)	<1000 µg/kg	TM414		5070 #	<1000 #	1110 #	<1000 #		
Aliphatics >C16-C21 (EH_2D_AL_#1)	<1000 µg/kg	TM414		8310 #	4630 #	5330 #	1780 #		
Aliphatics >C21-C35 (EH_2D_AL_#1)	<1000 µg/kg	TM414		117000 #	36100 #	10100 #	3490 #		
Aliphatics >C35-C44 (EH_2D_AL_#1)	<1000 µg/kg	TM414		16000	3210	3090	<1000		
Total Aliphatics >C10-C44 (EH_2D_AR_#1)	<5000 µg/kg	TM414		149000	44100	19700	6300		
Total Aliphatics & Aromatics >C10-C44 (EH_2D_Total_#1)	<10000 µg/kg	TM414		395000	123000	24200	12000		
Aromatics >EC5-EC7 (HS_1D_AR)	<10 µg/kg	TM089		<10 @	<10 @	<10 4 @	<10 @		
Aromatics >EC7-EC8 (HS_1D_AR)	<10 µg/kg	TM089		<10 @	<10 @	<10 4 @	<10 @		
Aromatics >EC8-EC10 (HS_1D_AR)	<10 µg/kg	TM089		214 @	<10 @	421 4 @	<10 @		
Aromatics > EC10-EC12 (EH_2D_AR_#1)	<1000 µg/kg	TM414		<1000 #	<1000 #	<1000 #	<1000 #		
Aromatics > EC12-EC16 (EH_2D_AR_#1)	<1000 µg/kg	TM414		4750 #	2370 #	<1000 #	<1000 #		
Aromatics > EC16-EC21 (EH_2D_AR_#1)	<1000 µg/kg	TM414		45200 #	15500 #	<1000 #	<1000 #		
Aromatics > EC21-EC35 (EH_2D_AR_#1)	<1000 µg/kg	TM414		161000 #	60200 #	2830 #	2450 #		
Aromatics >EC35-EC44 (EH_2D_AR_#1)	<1000 µg/kg	TM414		33800	<1000	<1000	1130		
Aromatics > EC40-EC44 (EH_2D_AR_#1)	<1000 µg/kg	TM414		8230	<1000	<1000	<1000		
Total Aromatics > EC10-EC44 (EH_2D_AR_#1)	<5000 µg/kg	TM414		245000	79100	<5000	5720		
Total Aliphatics & Aromatics >C5-C44 (EH_2D_Total_#1+HS_1D_Total)	<10000 µg/kg	TM414		396000	123000	20600	12100		
Total Aliphatics >C5-C10 (HS_1D_AL_TOTAL)	<50 µg/kg	TM089		696 @	<50 @	996 4 @	<50 @		
Total Aromatics >EC5-EC10 (HS_1D_AR_TOTAL)	<50 µg/kg	TM089		214 @	<50 @	421 4 @	<50 @		
GRO >C5-C10 (HS_1D_TOTAL)	<20 µg/kg	TM089		910 @	<20 @	1420 4 @	<20 @		

CERTIFICATE OF ANALYSIS

SDG: 220426-111 **Report Number:** 648036 **Superseded Report:** 646228

Client Ref.: LD10385 **Location:** Ten Acres Lane

VOC MS (S)

Results Legend

- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4+§@ Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	TP212	TP216	TP237	TP237	TP240	TP245
			Depth (m)	1.50 - 1.50	0.60 - 0.60	2.00 - 2.00	4.00 - 4.00	2.00 - 2.00	2.00 - 2.00
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	21/04/2022	20/04/2022	20/04/2022	20/04/2022	21/04/2022	20/04/2022
			Sample Time	12:00	12:00	12:00	12:00	12:00	12:00
			Date Received	23/04/2022	23/04/2022	23/04/2022	23/04/2022	23/04/2022	23/04/2022
			SDG Ref	220426-111	220426-111	220426-111	220426-111	220426-111	220426-111
			Lab Sample No.(s)	26186820	26186871	26186854	26186860	26186833	26186876
			AGS Reference						
Dibromofluoromethane**	%	TM116		112 @	110 @	111 @	105 @	110 @	111 @
Toluene-d8**	%	TM116		102 @	105 @	100 @	98.8 @	101 @	99.4 @
4-Bromofluorobenzene**	%	TM116		90.9 @	90.2 @	91.3 @	92 @	88.4 @	106 @
Dichlorodifluoromethane	<6 µg/kg	TM116		<120 @ #	<120 @ #	<120 @ #	<120 @ #	<120 @ #	<120 @ #
Chloromethane	<7 µg/kg	TM116		<140 @ #	<140 @ #	<140 @ #	<140 @ #	<140 @ #	<140 @ #
Vinyl Chloride	<6 µg/kg	TM116		<120 @ M	<120 @ M	<120 @ M	<120 @ M	<120 @ M	<120 @ M
Bromomethane	<10 µg/kg	TM116		<200 @ M	<200 @ M	<200 @ M	<200 @ M	<200 @ M	<200 @ M
Chloroethane	<10 µg/kg	TM116		<200 @ M	<200 @ M	<200 @ M	<200 @ M	<200 @ M	<200 @ M
Trichlorofluorormethane	<6 µg/kg	TM116		<120 @ M	<120 @ M	<120 @ M	<120 @ M	<120 @ M	<120 @ M
1,1-Dichloroethene	<10 µg/kg	TM116		<200 @ #	<200 @ #	<200 @ #	<200 @ #	<200 @ #	<200 @ #
Carbon Disulphide	<7 µg/kg	TM116		<140 @ M	<140 @ M	<140 @ M	<140 @ M	<140 @ M	<140 @ M
Dichloromethane	<10 µg/kg	TM116		<200 @ #	<200 @ #	<200 @ #	<200 @ #	<200 @ #	<200 @ #
Methyl Tertiary Butyl Ether	<10 µg/kg	TM116		<200 @ M	<200 @ M	<200 @ M	<200 @ M	<200 @ M	<200 @ M
trans-1,2-Dichloroethene	<10 µg/kg	TM116		<200 @ M	<200 @ M	<200 @ M	<200 @ M	<200 @ M	<200 @ M
1,1-Dichloroethane	<8 µg/kg	TM116		<160 @ M	<160 @ M	<160 @ M	<160 @ M	<160 @ M	<160 @ M
cis-1,2-Dichloroethene	<6 µg/kg	TM116		<120 @ M	<120 @ M	<120 @ M	<120 @ M	<120 @ M	<120 @ M
2,2-Dichloropropane	<10 µg/kg	TM116		<200 @	<200 @	<200 @	<200 @	<200 @	<200 @
Bromochloromethane	<10 µg/kg	TM116		<200 @ M	<200 @ M	<200 @ M	<200 @ M	<200 @ M	<200 @ M
Chloroform	<8 µg/kg	TM116		<160 @ M	<160 @ M	<160 @ M	<160 @ M	<160 @ M	<160 @ M
1,1,1-Trichloroethane	<7 µg/kg	TM116		<140 @ M	<140 @ M	<140 @ M	<140 @ M	<140 @ M	<140 @ M
1,1-Dichloropropene	<10 µg/kg	TM116		<200 @ M	<200 @ M	<200 @ M	<200 @ M	<200 @ M	<200 @ M
Carbontetrachloride	<10 µg/kg	TM116		<200 @ M	<200 @ M	<200 @ M	<200 @ M	<200 @ M	<200 @ M
1,2-Dichloroethane	<5 µg/kg	TM116		<100 @ M	<100 @ M	<100 @ M	<100 @ M	<100 @ M	<100 @ M
Benzene	<9 µg/kg	TM116		<180 @ M	<180 @ M	<180 @ M	<180 @ M	<180 @ M	<180 @ M
Trichloroethene	<9 µg/kg	TM116		<180 @ #	<180 @ #	<180 @ #	<180 @ #	<180 @ #	<180 @ #
1,2-Dichloropropane	<10 µg/kg	TM116		<200 @ M	<200 @ M	<200 @ M	<200 @ M	<200 @ M	<200 @ M
Dibromomethane	<9 µg/kg	TM116		<180 @ M	<180 @ M	<180 @ M	<180 @ M	<180 @ M	<180 @ M
Bromodichloromethane	<7 µg/kg	TM116		<140 @ M	<140 @ M	<140 @ M	<140 @ M	<140 @ M	<140 @ M
cis-1,3-Dichloropropene	<10 µg/kg	TM116		<200 @ M	<200 @ M	<200 @ M	<200 @ M	<200 @ M	<200 @ M
Toluene	<7 µg/kg	TM116		211 @ M	<140 @ M	<140 @ M	<140 @ M	<140 @ M	<140 @ M
trans-1,3-Dichloropropene	<10 µg/kg	TM116		<200 @	<200 @	<200 @	<200 @	<200 @	<200 @
1,1,2-Trichloroethane	<10 µg/kg	TM116		<200 @ M	<200 @ M	<200 @ M	<200 @ M	<200 @ M	<200 @ M
1,3-Dichloropropane	<7 µg/kg	TM116		<140 @ M	<140 @ M	<140 @ M	<140 @ M	<140 @ M	<140 @ M

CERTIFICATE OF ANALYSIS

SDG: 220426-111 **Report Number:** 648036 **Superseded Report:** 646228

Client Ref.: LD10385 **Location:** Ten Acres Lane

VOC MS (S)

Results Legend

- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4+§@ Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	TP212	TP216	TP237	TP237	TP240	TP245
			Depth (m)	1.50 - 1.50	0.60 - 0.60	2.00 - 2.00	4.00 - 4.00	2.00 - 2.00	2.00 - 2.00
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	21/04/2022	20/04/2022	20/04/2022	20/04/2022	21/04/2022	20/04/2022
			Sample Time	12:00	12:00	12:00	12:00	12:00	12:00
			Date Received	23/04/2022	23/04/2022	23/04/2022	23/04/2022	23/04/2022	23/04/2022
			SDG Ref	220426-111	220426-111	220426-111	220426-111	220426-111	220426-111
			Lab Sample No.(s)	26186820	26186871	26186854	26186860	26186833	26186876
			AGS Reference						
Tetrachloroethene	<5 µg/kg	TM116		<100 @ M	<100 @ M	<100 @ M	<100 @ M	<100 @ M	<100 @ M
Dibromochloromethane	<10 µg/kg	TM116		<200 @ M	<200 @ M	<200 @ M	<200 @ M	<200 @ M	<200 @ M
1,2-Dibromoethane	<10 µg/kg	TM116		<200 @ M	<200 @ M	<200 @ M	<200 @ M	<200 @ M	<200 @ M
Chlorobenzene	<5 µg/kg	TM116		<100 @ M	<100 @ M	<100 @ M	<100 @ M	<100 @ M	<100 @ M
1,1,1,2-Tetrachloroethane	<10 µg/kg	TM116		<200 @ M	<200 @ M	<200 @ M	<200 @ M	<200 @ M	<200 @ M
Ethylbenzene	<4 µg/kg	TM116		<80 @ M	<80 @ M	<80 @ M	<80 @ M	<80 @ M	<80 @ M
p/m-Xylene	<10 µg/kg	TM116		<200 @ #	<200 @ #	<200 @ #	<200 @ #	<200 @ #	<200 @ #
o-Xylene	<10 µg/kg	TM116		<200 @ M	<200 @ M	<200 @ M	<200 @ M	<200 @ M	<200 @ M
Styrene	<10 µg/kg	TM116		<200 @ #	<200 @ #	<200 @ #	<200 @ #	<200 @ #	<200 @ #
Bromoform	<10 µg/kg	TM116		<200 @ M	<200 @ M	<200 @ M	<200 @ M	<200 @ M	<200 @ M
Isopropylbenzene	<5 µg/kg	TM116		<100 @ #	<100 @ #	<100 @ #	<100 @ #	<100 @ #	<100 @ #
1,1,2,2-Tetrachloroethane	<10 µg/kg	TM116		<200 @ #	<200 @ #	<200 @ #	<200 @ #	<200 @ #	<200 @ #
1,2,3-Trichloropropane	<16 µg/kg	TM116		<320 @ M	<320 @ M	<320 @ M	<320 @ M	<320 @ M	<320 @ M
Bromobenzene	<10 µg/kg	TM116		<200 @ M	<200 @ M	<200 @ M	<200 @ M	<200 @ M	<200 @ M
Propylbenzene	<10 µg/kg	TM116		<200 @ M	<200 @ M	<200 @ M	<200 @ M	<200 @ M	<200 @ M
2-Chlorotoluene	<9 µg/kg	TM116		<180 @ M	<180 @ M	<180 @ M	<180 @ M	<180 @ M	<180 @ M
1,3,5-Trimethylbenzene	<8 µg/kg	TM116		<160 @ M	<160 @ M	<160 @ M	<160 @ M	<160 @ M	<160 @ M
4-Chlorotoluene	<10 µg/kg	TM116		<200 @ M	<200 @ M	<200 @ M	<200 @ M	<200 @ M	<200 @ M
tert-Butylbenzene	<14 µg/kg	TM116		<280 @ #	<280 @ #	<280 @ #	<280 @ #	<280 @ #	<280 @ #
1,2,4-Trimethylbenzene	<9 µg/kg	TM116		<180 @ #	<180 @ #	<180 @ #	<180 @ #	<180 @ #	<180 @ #
sec-Butylbenzene	<10 µg/kg	TM116		<200 @	<200 @	<200 @	<200 @	<200 @	<200 @
4-Isopropyltoluene	<10 µg/kg	TM116		<200 @	<200 @	<200 @	<200 @	<200 @	<200 @
1,3-Dichlorobenzene	<8 µg/kg	TM116		<160 @ M	<160 @ M	<160 @ M	<160 @ M	<160 @ M	<160 @ M
1,4-Dichlorobenzene	<5 µg/kg	TM116		<100 @ M	<100 @ M	<100 @ M	<100 @ M	<100 @ M	<100 @ M
n-Butylbenzene	<11 µg/kg	TM116		<220 @	<220 @	<220 @	<220 @	<220 @	<220 @
1,2-Dichlorobenzene	<10 µg/kg	TM116		<200 @ M	<200 @ M	<200 @ M	<200 @ M	<200 @ M	<200 @ M
1,2-Dibromo-3-chloropropane	<14 µg/kg	TM116		<280 @ M	<280 @ M	<280 @ M	<280 @ M	<280 @ M	<280 @ M
Tert-amyl methyl ether	<10 µg/kg	TM116		<200 @ #	<200 @ #	<200 @ #	<200 @ #	<200 @ #	<200 @ #
1,2,4-Trichlorobenzene	<20 µg/kg	TM116		<400 @	<400 @	<400 @	<400 @	<400 @	<400 @
Hexachlorobutadiene	<20 µg/kg	TM116		<400 @	<400 @	<400 @	<400 @	<400 @	<400 @
Naphthalene	<13 µg/kg	TM116		<260 @ M	<260 @ M	<260 @ M	<260 @ M	<260 @ M	<260 @ M
1,2,3-Trichlorobenzene	<20 µg/kg	TM116		<400 @ #	<400 @ #	<400 @ #	<400 @ #	<400 @ #	<400 @ #
1,3,5-Trichlorobenzene	<20 µg/kg	TM116		<400	<400	<400	<400	<400	<400

CERTIFICATE OF ANALYSIS

SDG: 220426-111 **Report Number:** 648036 **Superseded Report:** 646228

Client Ref.: LD10385 **Location:** Ten Acres Lane

VOC MS (S)

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	TP212	TP216	TP237	TP237	TP240	TP245
			Depth (m)	1.50 - 1.50	0.60 - 0.60	2.00 - 2.00	4.00 - 4.00	2.00 - 2.00	2.00 - 2.00
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	21/04/2022	20/04/2022	20/04/2022	20/04/2022	21/04/2022	20/04/2022
			Sample Time	12:00	12:00	12:00	12:00	12:00	12:00
			Date Received	23/04/2022	23/04/2022	23/04/2022	23/04/2022	23/04/2022	23/04/2022
			SDG Ref	220426-111	220426-111	220426-111	220426-111	220426-111	220426-111
			Lab Sample No.(s)	26186820	26186871	26186854	26186860	26186833	26186876
			AGS Reference						
Sum of Detected Xylenes	<0.02 mg/kg	TM116		<0.4 @	<0.4 @	<0.4 @	<0.4 @	<0.4 @	<0.4 @
Sum of BTEX	<40 µg/kg	TM116		<800 @	<800 @	<800 @	<800 @	<800 @	<800 @

CERTIFICATE OF ANALYSIS

SDG: 220426-111 **Report Number:** 648036 **Superseded Report:** 646228
Client Ref.: LD10385 **Location:** Ten Acres Lane

VOC MS (S)

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4+§@ Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	TP248	TP248	WS308	WS313		
			Depth (m)	1.00 - 1.00	4.50 - 4.50	3.50 - 4.00	3.50 - 4.00		
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)		
			Date Sampled	20/04/2022	20/04/2022	21/04/2022	21/04/2022		
			Sample Time	12:00	12:00	12:00	12:00		
			Date Received	23/04/2022	23/04/2022	23/04/2022	23/04/2022		
			SDG Ref	220426-111	220426-111	220426-111	220426-111		
			Lab Sample No.(s)	26186808	26186882	26186844	26186839		
			AGS Reference						
Dibromofluoromethane**	%	TM116		106 @	110 @	114 @	104 @		
Toluene-d8**	%	TM116		97.8 @	101 @	103 @	97.5 @		
4-Bromofluorobenzene**	%	TM116		99.2 @	85.9 @	96.4 @	86 @		
Dichlorodifluoromethane	<6 µg/kg	TM116		<120 @ #	<120 @ #	<120 @ #	<120 @ #		
Chloromethane	<7 µg/kg	TM116		<140 @ #	<140 @ #	<140 @ #	<140 @ #		
Vinyl Chloride	<6 µg/kg	TM116		<120 @ M	<120 @ M	<120 @ M	<120 @ M		
Bromomethane	<10 µg/kg	TM116		<200 @ M	<200 @ M	<200 @ M	<200 @ M		
Chloroethane	<10 µg/kg	TM116		<200 @ M	<200 @ M	<200 @ M	<200 @ M		
Trichlorofluorormethane	<6 µg/kg	TM116		<120 @ M	<120 @ M	<120 @ M	<120 @ M		
1,1-Dichloroethene	<10 µg/kg	TM116		<200 @ #	<200 @ #	<200 @ #	<200 @ #		
Carbon Disulphide	<7 µg/kg	TM116		<140 @ M	<140 @ M	<140 @ M	<140 @ M		
Dichloromethane	<10 µg/kg	TM116		<200 @ #	<200 @ #	<200 @ #	<200 @ #		
Methyl Tertiary Butyl Ether	<10 µg/kg	TM116		<200 @ M	<200 @ M	<200 @ M	<200 @ M		
trans-1,2-Dichloroethene	<10 µg/kg	TM116		<200 @ M	<200 @ M	<200 @ M	<200 @ M		
1,1-Dichloroethane	<8 µg/kg	TM116		<160 @ M	<160 @ M	<160 @ M	<160 @ M		
cis-1,2-Dichloroethene	<6 µg/kg	TM116		<120 @ M	<120 @ M	<120 @ M	<120 @ M		
2,2-Dichloropropane	<10 µg/kg	TM116		<200 @	<200 @	<200 @	<200 @		
Bromochloromethane	<10 µg/kg	TM116		<200 @ M	<200 @ M	<200 @ M	<200 @ M		
Chloroform	<8 µg/kg	TM116		<160 @ M	<160 @ M	<160 @ M	<160 @ M		
1,1,1-Trichloroethane	<7 µg/kg	TM116		<140 @ M	<140 @ M	<140 @ M	<140 @ M		
1,1-Dichloropropene	<10 µg/kg	TM116		<200 @ M	<200 @ M	<200 @ M	<200 @ M		
Carbontetrachloride	<10 µg/kg	TM116		<200 @ M	<200 @ M	<200 @ M	<200 @ M		
1,2-Dichloroethane	<5 µg/kg	TM116		<100 @ M	<100 @ M	<100 @ M	<100 @ M		
Benzene	<9 µg/kg	TM116		<180 @ M	<180 @ M	<180 @ M	<180 @ M		
Trichloroethene	<9 µg/kg	TM116		<180 @ #	<180 @ #	<180 @ #	<180 @ #		
1,2-Dichloropropane	<10 µg/kg	TM116		<200 @ M	<200 @ M	<200 @ M	<200 @ M		
Dibromomethane	<9 µg/kg	TM116		<180 @ M	<180 @ M	<180 @ M	<180 @ M		
Bromodichloromethane	<7 µg/kg	TM116		<140 @ M	<140 @ M	<140 @ M	<140 @ M		
cis-1,3-Dichloropropene	<10 µg/kg	TM116		<200 @ M	<200 @ M	<200 @ M	<200 @ M		
Toluene	<7 µg/kg	TM116		<140 @ M	<140 @ M	<140 @ M	<140 @ M		
trans-1,3-Dichloropropene	<10 µg/kg	TM116		<200 @	<200 @	<200 @	<200 @		
1,1,2-Trichloroethane	<10 µg/kg	TM116		<200 @ M	<200 @ M	<200 @ M	<200 @ M		
1,3-Dichloropropane	<7 µg/kg	TM116		<140 @ M	<140 @ M	<140 @ M	<140 @ M		

CERTIFICATE OF ANALYSIS

SDG: 220426-111 **Report Number:** 648036 **Superseded Report:** 646228
Client Ref.: LD10385 **Location:** Ten Acres Lane

VOC MS (S)

Results Legend	Customer Sample Ref.	TP248	TP248	WS308	WS313		
# ISO17025 accredited.	Depth (m)	1.00 - 1.00	4.50 - 4.50	3.50 - 4.00	3.50 - 4.00		
M mCERTS accredited.	Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)		
aq Aqueous / settled sample.	Date Sampled	20/04/2022	20/04/2022	21/04/2022	21/04/2022		
diss.filt Dissolved / filtered sample.	Sample Time	12:00	12:00	12:00	12:00		
tot.unfilt Total / unfiltered sample.	Date Received	23/04/2022	23/04/2022	23/04/2022	23/04/2022		
* Subcontracted - refer to subcontractor report for accreditation status.	SDG Ref	220426-111	220426-111	220426-111	220426-111		
** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery	Lab Sample No.(s)	26186808	26186882	26186844	26186839		
(F) Trigger breach confirmed	AGS Reference						
1-4+§@ Sample deviation (see appendix)							

Component	LOD/Units	Method					
Tetrachloroethene	<5 µg/kg	TM116	<100 @ M	<100 @ M	<100 @ M	<100 @ M	
Dibromochloromethane	<10 µg/kg	TM116	<200 @ M	<200 @ M	<200 @ M	<200 @ M	
1,2-Dibromoethane	<10 µg/kg	TM116	<200 @ M	<200 @ M	<200 @ M	<200 @ M	
Chlorobenzene	<5 µg/kg	TM116	<100 @ M	<100 @ M	<100 @ M	<100 @ M	
1,1,1,2-Tetrachloroethane	<10 µg/kg	TM116	<200 @ M	<200 @ M	<200 @ M	<200 @ M	
Ethylbenzene	<4 µg/kg	TM116	<80 @ M	<80 @ M	<80 @ M	<80 @ M	
p/m-Xylene	<10 µg/kg	TM116	<200 @ #	<200 @ #	<200 @ #	<200 @ #	
o-Xylene	<10 µg/kg	TM116	<200 @ M	<200 @ M	<200 @ M	<200 @ M	
Styrene	<10 µg/kg	TM116	<200 @ #	<200 @ #	<200 @ #	<200 @ #	
Bromoform	<10 µg/kg	TM116	<200 @ M	<200 @ M	<200 @ M	<200 @ M	
Isopropylbenzene	<5 µg/kg	TM116	<100 @ #	<100 @ #	<100 @ #	<100 @ #	
1,1,2,2-Tetrachloroethane	<10 µg/kg	TM116	<200 @ #	<200 @ #	<200 @ #	<200 @ #	
1,2,3-Trichloropropane	<16 µg/kg	TM116	<320 @ M	<320 @ M	<320 @ M	<320 @ M	
Bromobenzene	<10 µg/kg	TM116	<200 @ M	<200 @ M	<200 @ M	<200 @ M	
Propylbenzene	<10 µg/kg	TM116	<200 @ M	<200 @ M	<200 @ M	<200 @ M	
2-Chlorotoluene	<9 µg/kg	TM116	<180 @ M	<180 @ M	<180 @ M	<180 @ M	
1,3,5-Trimethylbenzene	<8 µg/kg	TM116	<160 @ M	<160 @ M	<160 @ M	<160 @ M	
4-Chlorotoluene	<10 µg/kg	TM116	<200 @ M	<200 @ M	<200 @ M	<200 @ M	
tert-Butylbenzene	<14 µg/kg	TM116	<280 @ #	<280 @ #	<280 @ #	<280 @ #	
1,2,4-Trimethylbenzene	<9 µg/kg	TM116	<180 @ #	<180 @ #	<180 @ #	<180 @ #	
sec-Butylbenzene	<10 µg/kg	TM116	<200 @	<200 @	<200 @	<200 @	
4-Isopropyltoluene	<10 µg/kg	TM116	<200 @	<200 @	<200 @	<200 @	
1,3-Dichlorobenzene	<8 µg/kg	TM116	<160 @ M	<160 @ M	<160 @ M	<160 @ M	
1,4-Dichlorobenzene	<5 µg/kg	TM116	<100 @ M	<100 @ M	<100 @ M	<100 @ M	
n-Butylbenzene	<11 µg/kg	TM116	<220 @	<220 @	<220 @	<220 @	
1,2-Dichlorobenzene	<10 µg/kg	TM116	<200 @ M	<200 @ M	<200 @ M	<200 @ M	
1,2-Dibromo-3-chloropropane	<14 µg/kg	TM116	<280 @ M	<280 @ M	<280 @ M	<280 @ M	
Tert-amyl methyl ether	<10 µg/kg	TM116	<200 @ #	<200 @ #	<200 @ #	<200 @ #	
1,2,4-Trichlorobenzene	<20 µg/kg	TM116	<400 @	<400 @	<400 @	<400 @	
Hexachlorobutadiene	<20 µg/kg	TM116	<400 @	<400 @	<400 @	<400 @	
Naphthalene	<13 µg/kg	TM116	<260 @ M	<260 @ M	<260 @ M	<260 @ M	
1,2,3-Trichlorobenzene	<20 µg/kg	TM116	<400 @ #	<400 @ #	<400 @ #	<400 @ #	
1,3,5-Trichlorobenzene	<20 µg/kg	TM116	<400	<400	<400	<400	

CERTIFICATE OF ANALYSIS

SDG: 220426-111 **Report Number:** 648036 **Superseded Report:** 646228
Client Ref.: LD10385 **Location:** Ten Acres Lane

VOC MS (S)

Results Legend	Customer Sample Ref.	TP248	TP248	WS308	WS313		
# ISO17025 accredited.							
M mCERTS accredited.							
aq Aqueous / settled sample.							
diss.filt Dissolved / filtered sample.	Depth (m)	1.00 - 1.00	4.50 - 4.50	3.50 - 4.00	3.50 - 4.00		
tot.unfilt Total / unfiltered sample.	Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)		
* Subcontracted - refer to subcontractor report for accreditation status.	Date Sampled	20/04/2022	20/04/2022	21/04/2022	21/04/2022		
** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery	Sample Time	12:00	12:00	12:00	12:00		
	Date Received	23/04/2022	23/04/2022	23/04/2022	23/04/2022		
	SDG Ref	220426-111	220426-111	220426-111	220426-111		
(F) Trigger breach confirmed	Lab Sample No.(s)	26186808	26186882	26186844	26186839		
1-4+§@ Sample deviation (see appendix)	AGS Reference						

Component	LOD/Units	Method						
Sum of Detected Xylenes	<0.02 mg/kg	TM116	<0.4 @	<0.4 @	<0.4 @	<0.4 @		
Sum of BTEX	<40 µg/kg	TM116	<800 @	<800 @	<800 @	<800 @		

CERTIFICATE OF ANALYSIS

SDG: 220426-111 **Report Number:** 648036 **Superseded Report:** 646228
Client Ref.: LD10385 **Location:** Ten Acres Lane

Asbestos Identification - Solid Samples

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
*	Subcontracted test.
(F)	Trigger breach confirmed
1-5&♦$@	Sample deviation (see appendix)

		Date of Analysis	Analysed By	Comments	Amosite (Brown) Asbestos	Asbestos Actinolite	Asbestos Anthophyllite	Asbestos Tremolite	Chrysotile (White) Asbestos	Crocidolite (Blue) Asbestos	Non-Asbestos Fibre
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	TP212 1.50 - 1.50 SOLID 21/04/2022 00:00:00 23/04/2022 05:00:00 220426-111 26186820 TM048	04/05/2022	Emily Anderton	Loose fibres in soil	Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	TP216 0.60 - 0.60 SOLID 20/04/2022 00:00:00 23/04/2022 05:00:00 220426-111 26186871 TM048	04/05/2022	Emily Anderton	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	TP237 2.00 - 2.00 SOLID 20/04/2022 00:00:00 23/04/2022 05:00:00 220426-111 26186854 TM048	03/05/2022	Emily Anderton	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	TP237 4.00 - 4.00 SOLID 20/04/2022 00:00:00 23/04/2022 05:00:00 220426-111 26186860 TM048	03/05/2022	Paul Poynton	N/A	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	TP240 2.00 - 2.00 SOLID 21/04/2022 00:00:00 23/04/2022 05:00:00 220426-111 26186833 TM048	03/05/2022	James Richards	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	TP245 2.00 - 2.00 SOLID 20/04/2022 00:00:00 23/04/2022 05:00:00 220426-111 26186876 TM048	03/05/2022	Emily Anderton	Fibre bundle in soil	Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	TP248 1.00 - 1.00 SOLID 20/04/2022 00:00:00 23/04/2022 05:00:00 220426-111 26186808 TM048	04/05/2022	James Richards	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	TP248 4.50 - 4.50 SOLID 20/04/2022 00:00:00 23/04/2022 05:00:00 220426-111 26186882 TM048	04/05/2022	James Richards	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected

CERTIFICATE OF ANALYSIS

SDG: 220426-111 **Report Number:** 648036 **Superseded Report:** 646228
Client Ref.: LD10385 **Location:** Ten Acres Lane

Asbestos Quantification - Full

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
*	Subcontracted test.
(F)	Trigger breach confirmed
1-5&♦$@	Sample deviation (see appendix)

		Additional Asbestos Components	Analysts Comments	Asbestos Quantification - Gravimetric - %	Asbestos Quantification - PCOM	Asbestos Quantification - Total - %
Cust. Sample Ref.	TP212	Chrysotile (#)	Fibre bundles in soil	0.0031 (#)	<0.001 (#)	0.0031 (#)
Depth (m)	1.50 - 1.50					
Sample Type	SOLID					
Date Sampled	21/04/2022 00:00:00					
Date Received	23/04/2022 05:00:00					
SDG	220426-111					
Original Sample	26186820					
Method Number	TM304					
Cust. Sample Ref.	TP245	None (#)	ACM debris in soil	0.0645 (#)	<0.001 (#)	0.0647 (#)
Depth (m)	2.00 - 2.00					
Sample Type	SOLID					
Date Sampled	20/04/2022 00:00:00					
Date Received	23/04/2022 05:00:00					
SDG	220426-111					
Original Sample	26186876					
Method Number	TM304					

Table of Results - Appendix

Method No	Reference	Description
PM024	Modified BS 1377	Soil preparation including homogenisation, moisture screens of soils for Asbestos Containing Material
TM048	HSG 248, Asbestos: The analysts' guide for sampling, analysis and clearance procedures	Identification of Asbestos in Bulk Material
TM062 (S)	National Grid Property Holdings Methods for the Collection & Analysis of Samples from National Grid Sites version 1 Sec 3.9	Determination of Phenols in Soils by HPLC
TM089	Modified: US EPA Methods 8020 & 602	Determination of Gasoline Range Hydrocarbons (GRO) by Headspace GC-FID (C4-C12)
TM116	Modified: US EPA Method 8260, 8120, 8020, 624, 610 & 602	Determination of Volatile Organic Compounds by Headspace / GC-MS
TM132	In - house Method	ELTRA CS800 Operators Guide
TM133	BS 1377: Part 3 1990;BS 6068-2.5	Determination of pH in Soil and Water using the GLpH pH Meter
TM151	Method 3500D, AWWA/APHA, 20th Ed., 1999	Determination of Hexavalent Chromium using Kone analyser
TM153	Method 4500A,B,C, I, M AWWA/APHA, 20th Ed., 1999	Determination of Total Cyanide, Free (Easily Liberatable) Cyanide and Thiocyanate using the Skalar SANS+ System Segmented Flow Analyser
TM157	HP 6890 Gas Chromatograph (GC) system and HP 5973 Mass Selective Detector (MSD).	Determination of SVOC in Soils by GC-MS extracted by sonication in DCM/Acetone
TM168	EPA Method 8082, Polychlorinated Biphenyls by Gas Chromatography	Determination of WHO12 and EC7 Polychlorinated Biphenyl Congeners by GC-MS in Soils
TM180	Sulphide in waters and waste waters 1991 ISBN 01 175 7186 SCA rec. 2007 (unpublished)'	The Determination Of Easily Liberated Sulphide In Soil Samples by Ion Selective Electrode Technique
TM181	US EPA Method 6010B	Determination of Routine Metals in Soil by iCap 6500 Duo ICP-OES
TM218	Shaker extraction - EPA method 3546.	The determination of PAH in soil samples by GC-MS
TM221	Inductively Coupled Plasma - Atomic Emission Spectroscopy. An Atlas of Spectral Information: Winge, Fassel, Peterson and Floyd	Determination of Acid Extractable Sulphate in Soils by ICP OES
TM222	In-House Method	Determination of Hot Water Soluble Boron in Soils (10:1 Water:Soil) by ICP OES.
TM243		Mixed Anions In Soils By Kone
TM304	HSE Contract research Report no 83/1996	Asbestos Quantification in Soil: Fibres identified by morphology only
TM338	PFAS In Solids	Analysis of perfluoroalkylsulfonates and perfluorocarboxylic acids in Solids
TM414	Analysis of Petroleum Hydrocarbons in Environmental Media – Total Petroleum Hydrocarbon Criteria	Determination of Speciated Extractable Petroleum Hydrocarbons in Soils by GCxGC-FID
TM428	PFAS (TOP Assay)	Analysis of perfluoroalkylsulfonates and perfluorocarboxylic acids - Total Oxidizable Precursor Assay

NA = not applicable.

Chemical testing (unless subcontracted) performed at ALS Life Sciences Ltd Hawarden.

CERTIFICATE OF ANALYSIS

SDG: 220426-111 **Report Number:** 648036 **Superseded Report:** 646228
Client Ref.: LD10385 **Location:** Ten Acres Lane

Test Completion Dates

Lab Sample No(s)	26186820	26186827	26186814	26186871	26186866	26186854	26186860	26186849	26186833	26186876
Customer Sample Ref.	TP212	TP213	TP214	TP216	TP217	TP237	TP237	TP238	TP240	TP245
AGS Ref.										
Depth	1.50 - 1.50	0.60 - 0.60	2.00 - 2.00	0.60 - 0.60	4.00 - 4.00	2.00 - 2.00	4.00 - 4.00	4.00 - 4.00	2.00 - 2.00	2.00 - 2.00
Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
Anions by Kone (soil)	03-May-2022			03-May-2022		03-May-2022	03-May-2022		03-May-2022	03-May-2022
Asbestos ID in Solid Samples	04-May-2022			04-May-2022		03-May-2022	03-May-2022		03-May-2022	03-May-2022
Asbestos Quantification - Full	13-May-2022									14-May-2022
Boron Water Soluble	04-May-2022			04-May-2022		04-May-2022	29-Apr-2022		04-May-2022	04-May-2022
Cyanide Comp/Free/Total/Thiocyanate	04-May-2022			04-May-2022		04-May-2022	04-May-2022		04-May-2022	04-May-2022
Easily Liberated Sulphide	29-Apr-2022			29-Apr-2022		29-Apr-2022	29-Apr-2022		03-May-2022	29-Apr-2022
EPH CWG GC (S)	03-May-2022			03-May-2022		03-May-2022	29-Apr-2022		03-May-2022	03-May-2022
GRO by GC-FID (S)	04-May-2022			04-May-2022		06-May-2022	04-May-2022		04-May-2022	06-May-2022
Hexavalent Chromium (s)	29-Apr-2022			29-Apr-2022		29-Apr-2022	29-Apr-2022		04-May-2022	29-Apr-2022
Metals in solid samples by OES	03-May-2022			03-May-2022		03-May-2022	29-Apr-2022		04-May-2022	03-May-2022
PAH by GCMS	29-Apr-2022			29-Apr-2022		04-May-2022	28-Apr-2022		03-May-2022	03-May-2022
PCBs by GCMS	04-May-2022			04-May-2022		04-May-2022	04-May-2022		04-May-2022	04-May-2022
PFAS (Post Ox.) Solids		25-May-2022	25-May-2022							
PFAS Solids		06-May-2022	06-May-2022		05-May-2022			05-May-2022		
pH	03-May-2022			03-May-2022		03-May-2022	03-May-2022		03-May-2022	03-May-2022
Phenols by HPLC (S)	29-Apr-2022			03-May-2022		29-Apr-2022	29-Apr-2022		03-May-2022	29-Apr-2022
Sample description	28-Apr-2022	27-Apr-2022	28-Apr-2022	28-Apr-2022	27-Apr-2022	28-Apr-2022	27-Apr-2022	27-Apr-2022	28-Apr-2022	27-Apr-2022
Semi Volatile Organic Compounds	29-Apr-2022			29-Apr-2022		29-Apr-2022	29-Apr-2022		03-May-2022	29-Apr-2022
Total Organic Carbon	04-May-2022			04-May-2022		04-May-2022	04-May-2022		04-May-2022	04-May-2022
Total Sulphate	04-May-2022			04-May-2022		04-May-2022	28-Apr-2022		04-May-2022	04-May-2022
TPH CWG GC (S)	05-May-2022			05-May-2022		06-May-2022	05-May-2022		05-May-2022	06-May-2022
VOC MS (S)	05-May-2022			05-May-2022		05-May-2022	05-May-2022		05-May-2022	05-May-2022

Lab Sample No(s)	26186808	26186882	26186887	26186844	26186839
Customer Sample Ref.	TP248	TP248	TP250	WS308	WS313
AGS Ref.					
Depth	1.00 - 1.00	4.50 - 4.50	1.00 - 1.00	3.50 - 4.00	3.50 - 4.00
Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
Anions by Kone (soil)	03-May-2022	03-May-2022			
Asbestos ID in Solid Samples	04-May-2022	04-May-2022			
Boron Water Soluble	29-Apr-2022	29-Apr-2022			
Cyanide Comp/Free/Total/Thiocyanate	04-May-2022	04-May-2022			
Easily Liberated Sulphide	29-Apr-2022	29-Apr-2022			
EPH CWG GC (S)	03-May-2022	29-Apr-2022		03-May-2022	03-May-2022
GRO by GC-FID (S)	06-May-2022	04-May-2022		06-May-2022	06-May-2022
Hexavalent Chromium (s)	29-Apr-2022	29-Apr-2022			
Metals in solid samples by OES	03-May-2022	29-Apr-2022			
PAH by GCMS	28-Apr-2022	28-Apr-2022			
PCBs by GCMS	04-May-2022	28-Apr-2022			
PFAS Solids			06-May-2022		
pH	03-May-2022	03-May-2022			
Phenols by HPLC (S)	29-Apr-2022	29-Apr-2022			
Sample description	27-Apr-2022	27-Apr-2022	27-Apr-2022	28-Apr-2022	27-Apr-2022
Semi Volatile Organic Compounds	29-Apr-2022	29-Apr-2022		03-May-2022	29-Apr-2022
Total Organic Carbon	04-May-2022	05-May-2022			
Total Sulphate	28-Apr-2022	28-Apr-2022			
TPH CWG GC (S)	06-May-2022	05-May-2022		06-May-2022	06-May-2022
VOC MS (S)	05-May-2022	05-May-2022		05-May-2022	05-May-2022

Appendix

1. Results are expressed on a dry weight basis (dried at 35ºC) for all soil analyses except for the following: NRA and CEN Leach tests, flash point LOI, pH, ammonium as NH4 by the BRE method, VOC TICs and SVOC TICs.

2. If sufficient sample is received a sub sample will be retained free of charge for 30 days after analysis is completed (e-mailed) for all sample types unless the sample is destroyed on testing. The prepared soil sub sample that is analysed for asbestos will be retained for a period of 6 months after the analysis date. All bulk samples will be retained for a period of 6 months after the analysis date. All samples received and not scheduled will be disposed of one month after the date of receipt unless we are instructed to the contrary. Once the initial period has expired, a storage charge will be applied for each month or part thereof until the client cancels the request for sample storage. ALS reserve the right to charge for samples received and stored but not analysed.

3. With respect to turnaround, we will always endeavour to meet client requirements wherever possible, but turnaround times cannot be absolutely guaranteed due to so many variables beyond our control.

4. We take responsibility for any test performed by sub-contractors (marked with an asterisk). We endeavour to use UKAS/MCERTS Accredited Laboratories, who either complete a quality questionnaire or are audited by ourselves. For some determinands there are no UKAS/MCERTS Accredited Laboratories, in this instance a laboratory with a known track record will be utilised.

5. If no separate volatile sample is supplied by the client, or if a headspace or sediment is present in the volatile sample, the integrity of the data may be compromised. This will be flagged up as an invalid VOC on the test schedule and the result marked as deviating on the test certificate.

6. NDP - No determination possible due to insufficient/unsuitable sample.

7. Results relate only to the items tested.

8. LoDs (Limit of Detection) for wet tests reported on a dry weight basis are not corrected for moisture content.

9. **Surrogate recoveries** - Surrogates are added to your sample to monitor recovery of the test requested. A % recovery is reported, results are not corrected for the recovery measured. Typical recoveries for organics tests are 70-130%. Recoveries in soils are affected by organic rich or clay rich matrices. Waters can be affected by remediation fluids or high amounts of sediment. Test results are only ever reported if all of the associated quality checks pass; it is assumed that all recoveries outside of the values above are due to matrix affect.

10. Stones/debris are not routinely removed. We always endeavour to take a representative sub sample from the received sample.

11. In certain circumstances the method detection limit may be elevated due to the sample being outside the calibration range. Other factors that may contribute to this include possible interferences. In both cases the sample would be diluted which would cause the method detection limit to be raised.

12. For dried and crushed preparations of soils volatile loss may occur e.g volatile mercury.

13. For leachate preparations other than Zero Headspace Extraction (ZHE) volatile loss may occur.

14. For the BSEN 12457-3 two batch process to allow the cumulative release to be calculated, the volume of the leachate produced is measured and filtered for all tests. We therefore cannot carry out any unfiltered analysis. The tests affected include volatiles GCFID/GCMS and all subcontracted analysis.

15. Analysis and identification of specific compounds using GCFID is by retention time only, and we routinely calibrate and quantify for benzene, toluene, ethylbenzenes and xylenes (BTEX). For total volatiles in the C5-C12 range, the total area of the chromatogram is integrated and expressed as ug/kg or ug/l. Although this analysis is commonly used for the quantification of gasoline range organics (GRO), the system will also detect other compounds such as chlorinated solvents, and this may lead to a falsely high result with respect to hydrocarbons only. It is not possible to specifically identify these non-hydrocarbons, as standards are not routinely run for any other compounds, and for more definitive identification, volatiles by GCMS should be utilised.

16. We are accredited to MCERTS for sand, clay and loam/topsoil, or any of these materials - whether these are derived from naturally occurring soil profiles, or from fill/made ground, as long as these materials constitute the major part of the sample. Other coarse granular material such as concrete, gravel and brick are not accredited if they comprise the major part of the sample.

17 Data retention. All records, communications and reports pertaining to the analysis are archived for seven years from the date of issue of the final report.

General

18. **Tentatively Identified Compounds (TICs)** are non-target peaks in VOC and SVOC analysis. All non-target peaks detected with a concentration above the LoD are subjected to a mass spectral library search. Non-target peaks with a library search confidence of >75% are reported based on the best mass spectral library match. When a non-target peak with a library search confidence of <75% is detected it is reported as “mixed hydrocarbons”. Non-target compounds identified from the scan data are semi-quantified relative to one of the deuterated internal standards, under the same chromatographic conditions as the target compounds. This result is reported as a semi-quantitative value and reported as Tentatively Identified Compounds (TICs). TICs are outside the scope of UKAS accreditation and are not moisture corrected.

19. **Sample Deviations**

If a sample is classed as deviated then the associated results may be compromised.

1	**Container with Headspace provided for volatiles analysis**
2	**Incorrect container received**
3	**Deviation from method**
4	**Matrix interference**
♦	**Sample holding time exceeded in laboratory**
@	**Sample holding time exceeded due to late arrival of instructions or samples**
§	**Sampled on date not provided**

20. **Asbestos**

When requested, the individual sub sample scheduled will be analysed in house for the presence of asbestos fibres and asbestos containing material by our documented in house method TM048 based on HSG 248 (2021), which is accredited to ISO17025. If a specific asbestos fibre type is not found this will be reported as “Not detected”. If no asbestos fibre types are found all will be reported as “Not detected” and the sub sample analysed deemed to be clear of asbestos. If an asbestos fibre type is found it will be reported as detected (for each fibre type found). Testing can be carried out on asbestos positive samples, but, due to Health and Safety considerations, may be replaced by alternative tests or reported as No Determination Possible (NDP). The quantity of asbestos present is not determined unless specifically requested.

Identification of Asbestos in Bulk Materials & Soils

The results for identification of asbestos in bulk materials and soils are obtained from supplied bulk materials andd soils which have been examined to determine the presence of asbestos fibres using ALS (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining, based on HSG 248 (2021).

The results for identification of asbestos in soils are obtained from a homogenised sub sample which has been examined to determine the presence of asbestos fibres using ALS (Hawarden) in-house method of transmitted/polarised light microscopy and central

Asbestos Type	Common Name
Chrysotile	White Asbestos
Amosite	Brown Asbestos
Crocidolite	Blue Asbestos
Fibrous Actinolite	-
Fibrous Anthophyllite	-
Fibrous Tremolite	-

Visual Estimation Of Fibre Content

Estimation of fibre content is not permitted as part of our UKAS accredited test other than: - Trace - Where only one or two asbestos fibres were identified.

Respirable Fibres

Respirable fibres are defined as fibres of <3 µm diameter, longer than 5 µm and with aspect ratios of at least 3:1 that can be inhaled into the lower regions of the lung and are generally acknowledged to be most important predictor of hazard and risk for cancers of the lung.

Further guidance on typical asbestos fibre content of manufactured products can be found in HSG 264.

The identification of asbestos containing materials and soils falls within our schedule of tests for which we hold UKAS accreditation, however opinions, interpretations and all other information contained in the report are outside the scope of UKAS accreditation.

Unit 7-8 Hawarden Business Park
Manor Road (off Manor Lane)
Hawarden
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Tel: (01244) 528700
Fax: (01244) 528701
email: hawardencustomerservices@alsglobal.com
Website: www.alsenvironmental.co.uk

Wardell Armstrong LLP
36 Park Row
Leeds
LS1 5JL

Attention: Jonathan Currie

CERTIFICATE OF ANALYSIS

Date of report Generation:	06 May 2022
Customer:	Wardell Armstrong LLP
Sample Delivery Group (SDG):	220427-30
Your Reference:	LD10385
Location:	Ten Acres Lane
Report No:	645150
Order Number:	LD2734

This report has been revised and directly supersedes 645125 in its entirety.

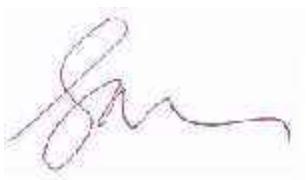
We received 5 samples on Tuesday April 26, 2022 and 5 of these samples were scheduled for analysis which was completed on Friday May 06, 2022. Accredited laboratory tests are defined within the report, but opinions, interpretations and on-site data expressed herein are outside the scope of ISO 17025 accreditation.

Should this report require incorporation into client reports, it must be used in its entirety and not simply with the data sections alone.

Chemical testing (unless subcontracted) performed at ALS Life Sciences Ltd Hawarden.

All sample data is provided by the customer. The reported results relate to the sample supplied, and on the basis that this data is correct.
Incorrect sampling dates and/or sample information will affect the validity of results.
The customer is not permitted to reproduce this report except in full without the approval of the laboratory.

Approved By:



Sonia McWhan

Operations Manager

CERTIFICATE OF ANALYSIS

SDG: 220427-30 **Report Number:** 645150 **Superseded Report:** 645125
Client Ref.: LD10385 **Location:** Ten Acres Lane

Received Sample Overview

Lab Sample No(s)	Customer Sample Ref.	AGS Ref.	Depth (m)	Sampled Date
26189232	CP205		5.00 - 6.00	22/04/2022
26189241	CP205		7.00 - 8.00	22/04/2022
26189247	WS301		2.80 - 3.00	22/04/2022
26189254	WS304		1.50 - 2.00	22/04/2022
26189262	WS314		0.50 - 0.50	22/04/2022

Only received samples which have had analysis scheduled will be shown on the following pages.

Validated

CERTIFICATE OF ANALYSIS

SDG: 220427-30 **Report Number:** 645150 **Superseded Report:** 645125

Client Ref.: LD10385 **Location:** Ten Acres Lane

Results Legend

X Test

N No Determination Possible

Sample Ty9es -

S - Soil/Solid
UNS - Unspecified Solid
GW - Ground Water
SW - Surface Water
LE - Land Leachate
PL - Prepared Leachate
PR - Process Water
SA - Saline Water
TE - Trade Effluent
TS - Treated Sewage
US - Untreated Sewage
RE - Recreational Water
DW - Drinking Water Non-regulatory
UNL - Unspecified Liquid
SL - Sludge
G - Gas
OTH - Other

			Lab Sample No(s)	26189232			26189241			26189247			26189254			26189262	
			Customer Sample Reference	CP205			CP205			WS301			WS304			WS314	
			AGS Reference														
			Depth (m)	5.00 - 6.00			7.00 - 8.00			2.80 - 3.00			1.50 - 2.00			0.50 - 0.50	
			Container	1kg TUB with Handle (ALE260)	250g Amber Jar (ALE210)	60g VOC (ALE215)	1kg TUB with Handle (ALE260)	250g Amber Jar (ALE210)	60g VOC (ALE215)	1kg TUB with Handle (ALE260)	250g Amber Jar (ALE210)	60g VOC (ALE215)	250g Amber Jar (ALE210)	60g VOC (ALE215)	1kg TUB with Handle (ALE260)	250g Amber Jar (ALE210)	60g VOC (ALE215)
			Sample Type	S	S	S	S	S	S	S	S	S	S	S	S	S	S
Anions by Kone (soil)	All	NDPs: 0 Tests: 3			X			X								X	
Asbestos ID in Solid Samples	All	NDPs: 0 Tests: 4		X			X			X					X		
Boron Water Soluble	All	NDPs: 0 Tests: 3			X			X								X	
Cyanide Comp/Free/Total/Thiocyanate	All	NDPs: 0 Tests: 3			X			X								X	
Easily Liberated Sulphide	All	NDPs: 0 Tests: 3			X			X								X	
EPH CWG GC (S)	All	NDPs: 0 Tests: 5			X			X			X		X			X	
GRO by GC-FID (S)	All	NDPs: 0 Tests: 5				X			X			X		X			X
Hexavalent Chromium (s)	All	NDPs: 0 Tests: 3			X			X								X	
Metals in solid samples by OES	All	NDPs: 0 Tests: 3			X			X								X	
PAH by GCMS	All	NDPs: 0 Tests: 3			X			X								X	
PCBs by GCMS	All	NDPs: 0 Tests: 3			X			X								X	
pH	All	NDPs: 0 Tests: 3			X			X								X	
Phenols by HPLC (S)	All	NDPs: 0 Tests: 3			X			X								X	
Sample description	All	NDPs: 0 Tests: 5			X			X			X		X			X	
Semi Volatile Organic Compounds	All	NDPs: 0 Tests: 5			X			X			X		X			X	

Validated

CERTIFICATE OF ANALYSIS

SDG: 220427-30 **Report Number:** 645150 **Superseded Report:** 645125
Client Ref.: LD10385 **Location:** Ten Acres Lane

Results Legend

X Test

N No Determination Possible

Sample Ty9es -
S - Soil/Solid
UNS - Unspecified Solid
GW - Ground Water
SW - Surface Water
LE - Land Leachate
PL - Prepared Leachate
PR - Process Water
SA - Saline Water
TE - Trade Effluent
TS - Treated Sewage
US - Untreated Sewage
RE - Recreational Water
DW - Drinking Water Non-regulatory
UNL - Unspecified Liquid
SL - Sludge
G - Gas
OTH - Other

			Lab Sample No(s)	Customer Sample Reference	AGS Reference	Depth (m)	Container	Sample Type
			26189232	CP205		5.00 - 6.00	1kg TUB with Handle (ALE260)	S
							250g Amber Jar (ALE210)	S
							60g VOC (ALE215)	S
			26189241	CP205		7.00 - 8.00	1kg TUB with Handle (ALE260)	S
							250g Amber Jar (ALE210)	S
							60g VOC (ALE215)	S
			26189247	WS301		2.80 - 3.00	1kg TUB with Handle (ALE260)	S
							250g Amber Jar (ALE210)	S
							60g VOC (ALE215)	S
			26189254	WS304		1.50 - 2.00	250g Amber Jar (ALE210)	S
							60g VOC (ALE215)	S
			26189262	WS314		0.50 - 0.50	1kg TUB with Handle (ALE260)	S
							250g Amber Jar (ALE210)	S
							60g VOC (ALE215)	S
Total Organic Carbon	All	NDPs: 0 Tests: 3		X				X						X				X	
Total Sulphate	All	NDPs: 0 Tests: 3		X				X						X				X	
TPH CWG GC (S)	All	NDPs: 0 Tests: 5		X				X			X		X					X	
VOC MS (S)	All	NDPs: 0 Tests: 5			X				X			X			X				X

CERTIFICATE OF ANALYSIS

SDG: 220427-30 **Report Number:** 645150 **Superseded Report:** 645125
Client Ref.: LD10385 **Location:** Ten Acres Lane

Sample Descriptions

Grain Sizes

very fine	<0.063mm	fine	0.063mm - 0.1mm	medium	0.1mm - 2mm	coarse	2mm - 10mm	very coarse	>10mm

Lab Sample No(s)	Customer Sample Ref.	Depth (m)	Colour	Description	Inclusions	Inclusions 2
26189232	CP205	5.00 - 6.00	Dark Brown	Clay	Stones	None
26189241	CP205	7.00 - 8.00	Dark Brown	Sand	Stones	None
26189247	WS301	2.80 - 3.00	Grey	Loamy Sand	Stones	Brick
26189254	WS304	1.50 - 2.00	Black	Sandy Silt Loam	Stones	Vegetation
26189262	WS314	0.50 - 0.50	Dark Brown	Sandy Loam	Stones	Crushed Brick

These descriptions are only intended to act as a cross check if sample identities are questioned, and to provide a log of sample matrices with respect to MCERTS validation. They are not intended as full geological descriptions.

We are accredited to MCERTS for sand, clay and loam/topsoil, or any of these materials - whether these are derived from naturally ocurring soil profiles, or from fill/made ground, as long as these materials constitute the major part of the sample.

Other coarse granular materials such as concrete, gravel and brick are not accredited if they comprise the major part of the sample.

CERTIFICATE OF ANALYSIS

SDG: 220427-30 **Report Number:** 645150 **Superseded Report:** 645125
Client Ref.: LD10385 **Location:** Ten Acres Lane

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4+§@ Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	CP205	CP205	WS301	WS304	WS314	
			Depth (m)	5.00 - 6.00	7.00 - 8.00	2.80 - 3.00	1.50 - 2.00	0.50 - 0.50	
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	
			Date Sampled	22/04/2022	22/04/2022	22/04/2022	22/04/2022	22/04/2022	
			Sample Time	12:00	12:00	12:00	12:00	12:00	
			Date Received	26/04/2022	26/04/2022	26/04/2022	26/04/2022	26/04/2022	
			SDG Ref	220427-30	220427-30	220427-30	220427-30	220427-30	
			Lab Sample No.(s)	26189232	26189241	26189247	26189254	26189262	
			AGS Reference						
Moisture Content Ratio (% of as received sample)	%	PM024		25	15	14	11	7.5	
Phenol	<0.01 mg/kg	TM062 (S)		<0.01 M	<0.01 M			<0.01 M	
Cresols	<0.01 mg/kg	TM062 (S)		0.0134 M	<0.01 M			0.0108 M	
Xylenols	<0.015 mg/kg	TM062 (S)		<0.015 M	<0.015 M			<0.015 M	
Phenols, Total Detected monohydric	<0.035 mg/kg	TM062 (S)		<0.035 M	<0.035 M			<0.035 M	
Soil Organic Matter (SOM)	<0.35 %	TM132		5.93 #	1.52 #			5.64 #	
pH	1 pH Units	TM133		7.76 M	8.13 M			8.18 M	
Chromium, Hexavalent	<0.6 mg/kg	TM151		<0.6 #	<0.6 #			<0.6 #	
Cyanide, Total	<1 mg/kg	TM153		<1 M	<1 M			<1 M	
PCB congener 28	<3 µg/kg	TM168		<3 M	<3 M			<150 M	
PCB congener 52	<3 µg/kg	TM168		<3 M	<3 M			<150 M	
PCB congener 101	<3 µg/kg	TM168		<3 M	<3 M			<150 M	
PCB congener 118	<3 µg/kg	TM168		<3 M	<3 M			<150 M	
PCB congener 138	<3 µg/kg	TM168		<3 M	<3 M			<150 M	
PCB congener 153	<3 µg/kg	TM168		<3 M	<3 M			<150 M	
PCB congener 180	<3 µg/kg	TM168		<3 M	<3 M			<150 M	
Sum of detected PCB 7 Congeners	<21 µg/kg	TM168		<21	<21			<1050	
Sulphide, Easily liberated	<15 mg/kg	TM180		23.8 @ M	78.5 @ M			190 @ M	
Arsenic	<0.6 mg/kg	TM181		19.1 M	21.1 M			4.83 M	
Beryllium	<0.01 mg/kg	TM181		1.25 M	0.367 M			4.71 M	
Cadmium	<0.02 mg/kg	TM181		0.115 M	0.0318 M			<0.02 M	
Chromium	<0.9 mg/kg	TM181		16.2 M	6.05 M			54.4 M	
Copper	<1.4 mg/kg	TM181		73.9 M	16 M			94.6 M	
Lead	<0.7 mg/kg	TM181		245 M	29.9 M			75.5 M	
Mercury	<0.1 mg/kg	TM181		0.35 M	<0.1 M			<0.1 M	
Nickel	<0.2 mg/kg	TM181		31.2 M	12.9 M			40.8 M	
Selenium	<1 mg/kg	TM181		<1 #	<1 #			3.95 #	
Vanadium	<0.2 mg/kg	TM181		34.9 #	11.9 #			60.7 #	
Zinc	<1.9 mg/kg	TM181		108 M	34.1 M			499 M	
Sulphate, Total	<48 mg/kg	TM221		599 M	323 M			3270 M	
Boron, water soluble	<1 mg/kg	TM222		2.15 M	1.83 M			1.16 M	
Water Soluble Sulphate as SO4 2:1 Extract	<0.004 g/l	TM243		0.0863 M	0.0997 M			0.0816 M	

CERTIFICATE OF ANALYSIS

SDG: 220427-30 **Report Number:** 645150 **Superseded Report:** 645125

Client Ref.: LD10385 **Location:** Ten Acres Lane

PAH by GCMS

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	CP205	CP205	WS314			
			Depth (m)	5.00 - 6.00	7.00 - 8.00	0.50 - 0.50			
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)			
			Date Sampled	22/04/2022	22/04/2022	22/04/2022			
			Sample Time	12:00	12:00	12:00			
			Date Received	26/04/2022	26/04/2022	26/04/2022			
			SDG Ref	220427-30	220427-30	220427-30			
			Lab Sample No.(s)	26189232	26189241	26189262			
			AGS Reference						
Naphthalene-d8 % recovery**	%	TM218		92.3	94.4	89			
Acenaphthene-d10 % recovery**	%	TM218		95.9	96.9	94.4			
Phenanthrene-d10 % recovery**	%	TM218		99	104	100			
Chrysene-d12 % recovery**	%	TM218		94.1	107	92.2			
Perylene-d12 % recovery**	%	TM218		88.4	98.7	85.6			
Naphthalene	<9 µg/kg	TM218		1220 M	349 M	<180 M			
Acenaphthylene	<12 µg/kg	TM218		<12 M	<12 M	<240 M			
Acenaphthene	<8 µg/kg	TM218		590 M	305 M	<160 M			
Fluorene	<10 µg/kg	TM218		367 M	200 M	<200 M			
Phenanthrene	<15 µg/kg	TM218		1180 M	906 M	<300 M			
Anthracene	<16 µg/kg	TM218		296 M	246 M	<320 M			
Fluoranthene	<17 µg/kg	TM218		871 M	1150 M	585 M			
Pyrene	<15 µg/kg	TM218		693 M	925 M	609 M			
Benz(a)anthracene	<14 µg/kg	TM218		280 M	477 M	<280 M			
Chrysene	<10 µg/kg	TM218		270 M	424 M	349 M			
Benzo(b)fluoranthene	<15 µg/kg	TM218		316 M	516 M	520 M			
Benzo(k)fluoranthene	<14 µg/kg	TM218		108 M	185 M	<280 M			
Benzo(a)pyrene	<15 µg/kg	TM218		229 M	389 M	404 M			
Indeno(1,2,3-cd)pyrene	<18 µg/kg	TM218		165 M	277 M	390 M			
Dibenzo(a,h)anthracene	<23 µg/kg	TM218		<23 M	45.7 M	<460 M			
Benzo(g,h,i)perylene	<24 µg/kg	TM218		144 M	226 M	<480 M			
PAH, Total Detected USEPA 16	<118 µg/kg	TM218		6720	6620	2860			

CERTIFICATE OF ANALYSIS

SDG: 220427-30 **Report Number:** 645150 **Superseded Report:** 645125

Client Ref.: LD10385 **Location:** Ten Acres Lane

Semi Volatile Organic Compounds

Results Legend

- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4+§@ Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	CP205	CP205	WS301	WS304	WS314	
			Depth (m)	5.00 - 6.00	7.00 - 8.00	2.80 - 3.00	1.50 - 2.00	0.50 - 0.50	
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	
			Date Sampled	22/04/2022	22/04/2022	22/04/2022	22/04/2022	22/04/2022	
			Sample Time	12:00	12:00	12:00	12:00	12:00	
			Date Received	26/04/2022	26/04/2022	26/04/2022	26/04/2022	26/04/2022	
			SDG Ref	220427-30	220427-30	220427-30	220427-30	220427-30	
			Lab Sample No.(s)	26189232	26189241	26189247	26189254	26189262	
			AGS Reference						
Phenol	<100 µg/kg	TM157		<100	<100	<1000	650	<1000	
Pentachlorophenol	<100 µg/kg	TM157		<100	<100	<1000	<100	<1000	
n-Nitroso-n-dipropylamine	<100 µg/kg	TM157		<100	<100	<1000	<100	<1000	
Nitrobenzene	<100 µg/kg	TM157		<100	<100	<1000	<100	<1000	
Isophorone	<100 µg/kg	TM157		<100	<100	<1000	<100	<1000	
Hexachloroethane	<100 µg/kg	TM157		<100	<100	<1000	<100	<1000	
Hexachlorocyclopentadiene	<100 µg/kg	TM157		<100	<100	<1000	<100	<1000	
Hexachlorobutadiene	<100 µg/kg	TM157		<100	<100	<1000	<100	<1000	
Hexachlorobenzene	<100 µg/kg	TM157		<100	<100	<1000	<100	<1000	
n-Dioctyl phthalate	<100 µg/kg	TM157		<100	<100	<1000	<100	<1000	
Dimethyl phthalate	<100 µg/kg	TM157		<100	<100	<1000	<100	<1000	
Diethyl phthalate	<100 µg/kg	TM157		<100	<100	<1000	<100	<1000	
n-Dibutyl phthalate	<100 µg/kg	TM157		<100	<100	<1000	274	<1000	
Dibenzofuran	<100 µg/kg	TM157		<100	<100	<1000	141	<1000	
Carbazole	<100 µg/kg	TM157		<100	<100	<1000	<100	<1000	
Butylbenzyl phthalate	<100 µg/kg	TM157		<100	<100	<1000	<100	<1000	
bis(2-Ethylhexyl) phthalate	<100 µg/kg	TM157		<100	<100	<1000	<100	<1000	
bis(2-Chloroethoxy)methane	<100 µg/kg	TM157		<100	<100	<1000	<100	<1000	
bis(2-Chloroethyl)ether	<100 µg/kg	TM157		<100	<100	<1000	<100	<1000	
Azobenzene	<100 µg/kg	TM157		<100	<100	<1000	<100	<1000	
4-Nitrophenol	<100 µg/kg	TM157		<100	<100	<1000	<100	<1000	
4-Nitroaniline	<100 µg/kg	TM157		<100	<100	<1000	<100	<1000	
4-Methylphenol	<100 µg/kg	TM157		<100	<100	<1000	185	<1000	
4-Chlorophenylphenylether	<100 µg/kg	TM157		<100	<100	<1000	<100	<1000	
4-Chloroaniline	<100 µg/kg	TM157		<100	<100	<1000	<100	<1000	
4-Chloro-3-methylphenol	<100 µg/kg	TM157		<100	<100	<1000	124	<1000	
4-Bromophenylphenylether	<100 µg/kg	TM157		<100	<100	<1000	<100	<1000	
3-Nitroaniline	<100 µg/kg	TM157		<100	<100	<1000	<100	<1000	
2-Nitrophenol	<100 µg/kg	TM157		<100	<100	<1000	<100	<1000	
2-Nitroaniline	<100 µg/kg	TM157		<100	<100	<1000	<100	<1000	
2-Methylphenol	<100 µg/kg	TM157		<100	<100	<1000	<100	<1000	
1,2,4-Trichlorobenzene	<100 µg/kg	TM157		<100	<100	<1000	<100	<1000	
2-Chlorophenol	<100 µg/kg	TM157		<100	<100	<1000	<100	<1000	

CERTIFICATE OF ANALYSIS

SDG: 220427-30 **Report Number:** 645150 **Superseded Report:** 645125
Client Ref.: LD10385 **Location:** Ten Acres Lane

Semi Volatile Organic Compounds

Results Legend	Customer Sample Ref.	CP205	CP205	WS301	WS304	WS314	
# ISO17025 accredited.							
M mCERTS accredited.							
aq Aqueous / settled sample.							
diss.filt Dissolved / filtered sample.	Depth (m)	5.00 - 6.00	7.00 - 8.00	2.80 - 3.00	1.50 - 2.00	0.50 - 0.50	
tot.unfilt Total / unfiltered sample.	Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	
* Subcontracted - refer to subcontractor report for accreditation status.	Date Sampled	22/04/2022	22/04/2022	22/04/2022	22/04/2022	22/04/2022	
** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery	Sample Time	12:00	12:00	12:00	12:00	12:00	
	Date Received	26/04/2022	26/04/2022	26/04/2022	26/04/2022	26/04/2022	
	SDG Ref	220427-30	220427-30	220427-30	220427-30	220427-30	
(F) Trigger breach confirmed	Lab Sample No.(s)	26189232	26189241	26189247	26189254	26189262	
1-4+§@ Sample deviation (see appendix)	AGS Reference						

Component	LOD/Units	Method						
2,6-Dinitrotoluene	<100 µg/kg	TM157	<100	<100	<1000	<100	<1000	
2,4-Dinitrotoluene	<100 µg/kg	TM157	<100	<100	<1000	<100	<1000	
2,4-Dimethylphenol	<100 µg/kg	TM157	<100	<100	<1000	<100	<1000	
2,4-Dichlorophenol	<100 µg/kg	TM157	<100	<100	<1000	<100	<1000	
2,4,6-Trichlorophenol	<100 µg/kg	TM157	<100	<100	<1000	<100	<1000	
2,4,5-Trichlorophenol	<100 µg/kg	TM157	<100	<100	<1000	<100	<1000	
1,4-Dichlorobenzene	<100 µg/kg	TM157	<100	<100	<1000	<100	<1000	
1,3-Dichlorobenzene	<100 µg/kg	TM157	<100	<100	<1000	<100	<1000	
1,2-Dichlorobenzene	<100 µg/kg	TM157	<100	<100	<1000	<100	<1000	
2-Chloronaphthalene	<100 µg/kg	TM157	<100	<100	<1000	<100	<1000	
2-Methylnaphthalene	<100 µg/kg	TM157	<100	<100	<1000	417	<1000	
Acenaphthylene	<100 µg/kg	TM157	<100	<100	<1000	<100	<1000	
Acenaphthene	<100 µg/kg	TM157	271	<100	1950	<100	<1000	
Anthracene	<100 µg/kg	TM157	188	<100	1860	<100	<1000	
Benzo(a)anthracene	<100 µg/kg	TM157	367	121	3860	245	<1000	
Benzo(b)fluoranthene	<100 µg/kg	TM157	232	<100	1920	246	<1000	
Benzo(k)fluoranthene	<100 µg/kg	TM157	267	<100	2650	185	<1000	
Benzo(a)pyrene	<100 µg/kg	TM157	286	<100	3010	141	<1000	
Benzo(g,h,i)perylene	<100 µg/kg	TM157	143	<100	1460	<100	<1000	
Chrysene	<100 µg/kg	TM157	349	126	3340	216	<1000	
Fluoranthene	<100 µg/kg	TM157	788	272	9900	460	<1000	
Fluorene	<100 µg/kg	TM157	157	<100	1700	<100	<1000	
Indeno(1,2,3-cd)pyrene	<100 µg/kg	TM157	268	<100	2640	141	<1000	
Phenanthrene	<100 µg/kg	TM157	808	260	2710	448	<1000	
Pyrene	<100 µg/kg	TM157	724	251	9030	479	<1000	
Naphthalene	<100 µg/kg	TM157	351	<100	<1000	308	<1000	
Dibenzo(a,h)anthracene	<100 µg/kg	TM157	<100	<100	<1000	<100	<1000	
Bis(2-chloroisopropyl) ether	<100 µg/kg	TM157	<100	<100	<1000	<100	<1000	

CERTIFICATE OF ANALYSIS

SDG: 220427-30 **Report Number:** 645150 **Superseded Report:** 645125
Client Ref.: LD10385 **Location:** Ten Acres Lane

TPH CWG (S)

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4+$@ Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	CP205	CP205	WS301	WS304	WS314
			Depth (m)	5.00 - 6.00	7.00 - 8.00	2.80 - 3.00	1.50 - 2.00	0.50 - 0.50
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	22/04/2022	22/04/2022	22/04/2022	22/04/2022	22/04/2022
			Sample Time	12:00	12:00	12:00	12:00	12:00
			Date Received	26/04/2022	26/04/2022	26/04/2022	26/04/2022	26/04/2022
			SDG Ref	220427-30	220427-30	220427-30	220427-30	220427-30
			Lab Sample No.(s)	26189232	26189241	26189247	26189254	26189262
			AGS Reference					
GRO Surrogate % recovery**	%	TM089		74.2	74.7	106	89.1 @	72
Aliphatics >C5-C6 (HS_1D_AL)	<10 µg/kg	TM089		<10	<10	12.9	58.8 @	<10
Aliphatics >C6-C8 (HS_1D_AL)	<10 µg/kg	TM089		40.2	17.7	53.8	120 @	17.3
Aliphatics >C8-C10 (HS_1D_AL)	<10 µg/kg	TM089		68.3	14.2	179	269 @	15.1
Aliphatics >C10-C12 (EH_2D_AL_#1)	<1000 µg/kg	TM414		<1000 #	<1000 #	<1000 #	15700 #	<1000 #
Aliphatics >C12-C16 (EH_2D_AL_#1)	<1000 µg/kg	TM414		<1000 #	<1000 #	23900 #	82900 #	2650 #
Aliphatics >C16-C21 (EH_2D_AL_#1)	<1000 µg/kg	TM414		<1000 #	<1000 #	104000 #	73300 #	8540 #
Aliphatics >C21-C35 (EH_2D_AL_#1)	<1000 µg/kg	TM414		1440 #	1160 #	109000 #	191000 #	25600 #
Aliphatics >C35-C44 (EH_2D_AL_#1)	<1000 µg/kg	TM414		<1000	<1000	26900	36400	<1000
Total Aliphatics >C10-C44 (EH_2D_AR_#1)	<5000 µg/kg	TM414		<5000	<5000	264000	399000	36900
Total Aliphatics & Aromatics >C10-C44 (EH_2D_Total_#1)	<10000 µg/kg	TM414		32000	<10000	445000	683000	621000
Aromatics >EC5-EC7 (HS_1D_AR)	<10 µg/kg	TM089		<10	<10	<10	22.6 @	<10
Aromatics >EC7-EC8 (HS_1D_AR)	<10 µg/kg	TM089		<10	<10	<10	10.2 @	<10
Aromatics >EC8-EC10 (HS_1D_AR)	<10 µg/kg	TM089		45.6	<10	119	180 @	<10
Aromatics > EC10-EC12 (EH_2D_AR_#1)	<1000 µg/kg	TM414		<1000 #	<1000 #	<1000 #	38600 #	<1000 #
Aromatics > EC12-EC16 (EH_2D_AR_#1)	<1000 µg/kg	TM414		2870 #	<1000 #	11700 #	60600 #	<1000 #
Aromatics > EC16-EC21 (EH_2D_AR_#1)	<1000 µg/kg	TM414		9150 #	2600 #	40000 #	18200 #	11200 #
Aromatics > EC21-EC35 (EH_2D_AR_#1)	<1000 µg/kg	TM414		15800 #	2080 #	84700 #	165000 #	288000 #
Aromatics >EC35-EC44 (EH_2D_AR_#1)	<1000 µg/kg	TM414		<1000	<1000	43900	<1000	284000
Aromatics > EC40-EC44 (EH_2D_AR_#1)	<1000 µg/kg	TM414		<1000	<1000	16100	<1000	90500
Total Aromatics > EC10-EC44 (EH_2D_AR_#1)	<5000 µg/kg	TM414		29800	6560	180000	284000	584000
Total Aliphatics & Aromatics >C5-C44 (EH_2D_Total_#1+HS_1D_Total)	<10000 µg/kg	TM414		29800	<10000	445000	684000	621000
Total Aliphatics >C5-C10 (HS_1D_AL_TOTAL)	<50 µg/kg	TM089		109	<50	246	447 @	<50
Total Aromatics >EC5-EC10 (HS_1D_AR_TOTAL)	<50 µg/kg	TM089		<50	<50	119	212 @	<50
GRO >C5-C10 (HS_1D_TOTAL)	<20 µg/kg	TM089		109	<20	365	660 @	<20

CERTIFICATE OF ANALYSIS

SDG: 220427-30 **Report Number:** 645150 **Superseded Report:** 645125

Client Ref.: LD10385 **Location:** Ten Acres Lane

VOC MS (S)

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	CP205	CP205	WS301	WS304	WS314
			Depth (m)	5.00 - 6.00	7.00 - 8.00	2.80 - 3.00	1.50 - 2.00	0.50 - 0.50
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	22/04/2022	22/04/2022	22/04/2022	22/04/2022	22/04/2022
			Sample Time	12:00	12:00	12:00	12:00	12:00
			Date Received	26/04/2022	26/04/2022	26/04/2022	26/04/2022	26/04/2022
			SDG Ref	220427-30	220427-30	220427-30	220427-30	220427-30
			Lab Sample No.(s)	26189232	26189241	26189247	26189254	26189262
			AGS Reference					
Dibromofluoromethane**	%	TM116		104 @	115	106 @	104 @	112 @
Toluene-d8**	%	TM116		95.5 @	91.2	95.2 @	95.6 @	90.9 @
4-Bromofluorobenzene**	%	TM116		95.8 @	74.1	97.9 @	91.2 @	92.4 @
Dichlorodifluoromethane	<6 µg/kg	TM116		<60 @ #	<6 #	<120 @ #	<120 @ #	<120 @ #
Chloromethane	<7 µg/kg	TM116		<70 @ #	<7 #	<140 @ #	<140 @ #	<140 @ #
Vinyl Chloride	<6 µg/kg	TM116		<60 @ M	<6 @ M	<120 @ M	<120 @ M	<120 @ M
Bromomethane	<10 µg/kg	TM116		<100 @ M	<10 M	<200 @ M	<200 @ M	<200 @ M
Chloroethane	<10 µg/kg	TM116		<100 @ M	<10 M	<200 @ M	<200 @ M	<200 @ M
Trichlorofluorormethane	<6 µg/kg	TM116		<60 @ M	<6 M	<120 @ M	<120 @ M	<120 @ M
1,1-Dichloroethene	<10 µg/kg	TM116		<100 @ #	<10 #	<200 @ #	<200 @ #	<200 @ #
Carbon Disulphide	<7 µg/kg	TM116		<70 @ M	<7 M	<140 @ M	<140 @ M	<140 @ M
Dichloromethane	<10 µg/kg	TM116		<100 @ #	<10 #	<200 @ #	<200 @ #	<200 @ #
Methyl Tertiary Butyl Ether	<10 µg/kg	TM116		<100 @ M	<10 M	<200 @ M	<200 @ M	<200 @ M
trans-1,2-Dichloroethene	<10 µg/kg	TM116		<100 @ M	<10 M	<200 @ M	<200 @ M	<200 @ M
1,1-Dichloroethane	<8 µg/kg	TM116		<80 @ M	<8 M	<160 @ M	<160 @ M	<160 @ M
cis-1,2-Dichloroethene	<6 µg/kg	TM116		<60 @ M	<6 M	<120 @ M	<120 @ M	<120 @ M
2,2-Dichloropropane	<10 µg/kg	TM116		<100 @	<10	<200 @	<200 @	<200 @
Bromochloromethane	<10 µg/kg	TM116		<100 @ M	<10 M	<200 @ M	<200 @ M	<200 @ M
Chloroform	<8 µg/kg	TM116		<80 @ M	<8 M	<160 @ M	<160 @ M	<160 @ M
1,1,1-Trichloroethane	<7 µg/kg	TM116		<70 @ M	<7 M	<140 @ M	<140 @ M	<140 @ M
1,1-Dichloropropene	<10 µg/kg	TM116		<100 @ M	<10 M	<200 @ M	<200 @ M	<200 @ M
Carbontetrachloride	<10 µg/kg	TM116		<100 @ M	<10 M	<200 @ M	<200 @ M	<200 @ M
1,2-Dichloroethane	<5 µg/kg	TM116		<50 @ M	<5 M	<100 @ M	<100 @ M	<100 @ M
Benzene	<9 µg/kg	TM116		<90 @ M	<9 M	<180 @ M	<180 @ M	<180 @ M
Trichloroethene	<9 µg/kg	TM116		<90 @ #	<9 #	<180 @ #	<180 @ #	<180 @ #
1,2-Dichloropropane	<10 µg/kg	TM116		<100 @ M	<10 M	<200 @ M	<200 @ M	<200 @ M
Dibromomethane	<9 µg/kg	TM116		<90 @ M	<9 M	<180 @ M	<180 @ M	<180 @ M
Bromodichloromethane	<7 µg/kg	TM116		<70 @ M	<7 M	<140 @ M	<140 @ M	<140 @ M
cis-1,3-Dichloropropene	<10 µg/kg	TM116		<100 @ M	<10 M	<200 @ M	<200 @ M	<200 @ M
Toluene	<7 µg/kg	TM116		<70 @ M	<7 M	<140 @ M	<140 @ M	<140 @ M
trans-1,3-Dichloropropene	<10 µg/kg	TM116		<100 @	<10	<200 @	<200 @	<200 @
1,1,2-Trichloroethane	<10 µg/kg	TM116		<100 @ M	<10 M	<200 @ M	<200 @ M	<200 @ M
1,3-Dichloropropane	<7 µg/kg	TM116		<70 @ M	<7 M	<140 @ M	<140 @ M	<140 @ M

CERTIFICATE OF ANALYSIS

SDG: 220427-30 **Report Number:** 645150 **Superseded Report:** 645125
Client Ref.: LD10385 **Location:** Ten Acres Lane

VOC MS (S)

Results Legend
ISO17025 accredited.
M mCERTS accredited.
aq Aqueous / settled sample.
diss.filt Dissolved / filtered sample.
tot.unfilt Total / unfiltered sample.
* Subcontracted - refer to subcontractor report for accreditation status.
** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F) Trigger breach confirmed
1-4+§@ Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	CP205	CP205	WS301	WS304	WS314
			Depth (m)	5.00 - 6.00	7.00 - 8.00	2.80 - 3.00	1.50 - 2.00	0.50 - 0.50
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	22/04/2022	22/04/2022	22/04/2022	22/04/2022	22/04/2022
			Sample Time	12:00	12:00	12:00	12:00	12:00
			Date Received	26/04/2022	26/04/2022	26/04/2022	26/04/2022	26/04/2022
			SDG Ref	220427-30	220427-30	220427-30	220427-30	220427-30
			Lab Sample No.(s)	26189232	26189241	26189247	26189254	26189262
			AGS Reference					
Tetrachloroethene	<5 µg/kg	TM116		<50 @ M	<5 M	<100 @ M	<100 @ M	<100 @ M
Dibromochloromethane	<10 µg/kg	TM116		<100 @ M	<10 M	<200 @ M	<200 @ M	<200 @ M
1,2-Dibromoethane	<10 µg/kg	TM116		<100 @ M	<10 M	<200 @ M	<200 @ M	<200 @ M
Chlorobenzene	<5 µg/kg	TM116		<50 @ M	<5 M	<100 @ M	<100 @ M	<100 @ M
1,1,1,2-Tetrachloroethane	<10 µg/kg	TM116		<100 3 @ M	<10 M	<200 3 @ M	<200 3 @ M	<200 3 @ M
Ethylbenzene	<4 µg/kg	TM116		<40 @ M	<4 M	<80 @ M	<80 @ M	<80 @ M
p/m-Xylene	<10 µg/kg	TM116		<100 @ #	<10 #	<200 @ #	<200 @ #	<200 @ #
o-Xylene	<10 µg/kg	TM116		<100 @ M	<10 M	<200 @ M	<200 @ M	<200 @ M
Styrene	<10 µg/kg	TM116		<100 @ #	<10 @ #	<200 @ #	<200 @ #	<200 @ #
Bromoform	<10 µg/kg	TM116		<100 @ M	<10 M	<200 @ M	<200 @ M	<200 @ M
Isopropylbenzene	<5 µg/kg	TM116		<50 @ #	<5 #	<100 @ #	<100 @ #	<100 @ #
1,1,2,2-Tetrachloroethane	<10 µg/kg	TM116		<100 @ #	<10 #	<200 @ #	<200 @ #	<200 @ #
1,2,3-Trichloropropane	<16 µg/kg	TM116		<160 @ M	<16 M	<320 @ M	<320 @ M	<320 @ M
Bromobenzene	<10 µg/kg	TM116		<100 @ M	<10 M	<200 @ M	<200 @ M	<200 @ M
Propylbenzene	<10 µg/kg	TM116		<100 @ M	<10 M	<200 @ M	<200 @ M	<200 @ M
2-Chlorotoluene	<9 µg/kg	TM116		<90 @ M	<9 M	<180 @ M	<180 @ M	<180 @ M
1,3,5-Trimethylbenzene	<8 µg/kg	TM116		<80 @ M	<8 M	<160 @ M	<160 @ M	<160 @ M
4-Chlorotoluene	<10 µg/kg	TM116		<100 @ M	<10 M	<200 @ M	<200 @ M	<200 @ M
tert-Butylbenzene	<14 µg/kg	TM116		<140 @ #	<14 #	<280 @ #	<280 @ #	<280 @ #
1,2,4-Trimethylbenzene	<9 µg/kg	TM116		<90 @ #	<9 #	<180 @ #	<180 @ #	<180 @ #
sec-Butylbenzene	<10 µg/kg	TM116		<100 @	<10	<200 @	<200 @	<200 @
4-Isopropyltoluene	<10 µg/kg	TM116		<100 @	<10	<200 @	<200 @	<200 @
1,3-Dichlorobenzene	<8 µg/kg	TM116		<80 @ M	<8 M	<160 @ M	<160 @ M	<160 @ M
1,4-Dichlorobenzene	<5 µg/kg	TM116		<50 @ M	<5 M	<100 @ M	<100 @ M	<100 @ M
n-Butylbenzene	<11 µg/kg	TM116		<110 @	<11	<220 @	<220 @	<220 @
1,2-Dichlorobenzene	<10 µg/kg	TM116		<100 @ M	<10 M	<200 @ M	<200 @ M	<200 @ M
1,2-Dibromo-3-chloropropane	<14 µg/kg	TM116		<140 @ M	<14 M	<280 @ M	<280 @ M	<280 @ M
Tert-amyl methyl ether	<10 µg/kg	TM116		<100 @ #	<10 #	<200 @ #	<200 @ #	<200 @ #
1,2,4-Trichlorobenzene	<20 µg/kg	TM116		<200 @	<20	<400 @	<400 @	<400 @
Hexachlorobutadiene	<20 µg/kg	TM116		<200 @	<20	<400 @	<400 @	<400 @
Naphthalene	<13 µg/kg	TM116		1520 @ M	26.8 M	<260 @ M	<260 @ M	<260 @ M
1,2,3-Trichlorobenzene	<20 µg/kg	TM116		<200 @ #	<20 #	<400 @ #	<400 @ #	<400 @ #
1,3,5-Trichlorobenzene	<20 µg/kg	TM116		<200	<20	<400	<400	<400

Validated

CERTIFICATE OF ANALYSIS

SDG: 220427-30 **Report Number:** 645150 **Superseded Report:** 645125

Client Ref.: LD10385 **Location:** Ten Acres Lane

VOC MS (S)

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	CP205	CP205	WS301	WS304	WS314
			Depth (m)	5.00 - 6.00	7.00 - 8.00	2.80 - 3.00	1.50 - 2.00	0.50 - 0.50
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	22/04/2022	22/04/2022	22/04/2022	22/04/2022	22/04/2022
			Sample Time	12:00	12:00	12:00	12:00	12:00
			Date Received	26/04/2022	26/04/2022	26/04/2022	26/04/2022	26/04/2022
			SDG Ref	220427-30	220427-30	220427-30	220427-30	220427-30
			Lab Sample No.(s)	26189232	26189241	26189247	26189254	26189262
			AGS Reference					
Sum of Detected Xylenes	<0.02 mg/kg	TM116		<0.2 @	<0.02	<0.4 @	<0.4 @	<0.4 @
Sum of BTEX	<40 µg/kg	TM116		<400 @	<40	<800 @	<800 @	<800 @

17:13:02 06/05/2022

CERTIFICATE OF ANALYSIS

SDG: 220427-30 **Report Number:** 645150 **Superseded Report:** 645125
Client Ref.: LD10385 **Location:** Ten Acres Lane

Asbestos Identification - Solid Samples

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
*	Subcontracted test.
(F)	Trigger breach confirmed
1-5&♦$@	Sample deviation (see appendix)

		Date of Analysis	Analysed By	Comments	Amosite (Brown) Asbestos	Asbestos Actinolite	Asbestos Anthophyllite	Asbestos Tremolite	Chrysotile (White) Asbestos	Crocidolite (Blue) Asbestos	Non-Asbestos Fibre
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	CP205 5.00 - 6.00 SOLID 22/04/2022 00:00:00 26/04/2022 05:00:00 220427-30 26189232 TM048	04/05/2022	Paul Poynton	N/A	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	CP205 7.00 - 8.00 SOLID 22/04/2022 00:00:00 26/04/2022 05:00:00 220427-30 26189241 TM048	04/05/2022	James Richards	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	WS301 2.80 - 3.00 SOLID 22/04/2022 00:00:00 26/04/2022 05:00:00 220427-30 26189247 TM048	06/05/2022	James Richards	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	WS314 0.50 - 0.50 SOLID 22/04/2022 00:00:00 26/04/2022 05:00:00 220427-30 26189262 TM048	04/05/2022	Emily Anderton	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected

Table of Results - Appendix

Method No	Reference	Description
PM024	Modified BS 1377	Soil preparation including homogenisation, moisture screens of soils for Asbestos Containing Material
TM048	HSG 248, Asbestos: The analysts' guide for sampling, analysis and clearance procedures	Identification of Asbestos in Bulk Material
TM062 (S)	National Grid Property Holdings Methods for the Collection & Analysis of Samples from National Grid Sites version 1 Sec 3.9	Determination of Phenols in Soils by HPLC
TM089	Modified: US EPA Methods 8020 & 602	Determination of Gasoline Range Hydrocarbons (GRO) by Headspace GC-FID (C4-C12)
TM116	Modified: US EPA Method 8260, 8120, 8020, 624, 610 & 602	Determination of Volatile Organic Compounds by Headspace / GC-MS
TM132	In - house Method	ELTRA CS800 Operators Guide
TM133	BS 1377: Part 3 1990;BS 6068-2.5	Determination of pH in Soil and Water using the GLpH pH Meter
TM151	Method 3500D, AWWA/APHA, 20th Ed., 1999	Determination of Hexavalent Chromium using Kone analyser
TM153	Method 4500A,B,C, I, M AWWA/APHA, 20th Ed., 1999	Determination of Total Cyanide, Free (Easily Liberatable) Cyanide and Thiocyanate using the Skalar SANS+ System Segmented Flow Analyser
TM157	HP 6890 Gas Chromatograph (GC) system and HP 5973 Mass Selective Detector (MSD).	Determination of SVOC in Soils by GC-MS extracted by sonication in DCM/Acetone
TM168	EPA Method 8082, Polychlorinated Biphenyls by Gas Chromatography	Determination of WHO12 and EC7 Polychlorinated Biphenyl Congeners by GC-MS in Soils
TM180	Sulphide in waters and waste waters 1991 ISBN 01 175 7186 SCA rec. 2007 (unpublished)'	The Determination Of Easily Liberated Sulphide In Soil Samples by Ion Selective Electrode Technique
TM181	US EPA Method 6010B	Determination of Routine Metals in Soil by iCap 6500 Duo ICP-OES
TM218	Shaker extraction - EPA method 3546.	The determination of PAH in soil samples by GC-MS
TM221	Inductively Coupled Plasma - Atomic Emission Spectroscopy. An Atlas of Spectral Information: Winge, Fassel, Peterson and Floyd	Determination of Acid Extractable Sulphate in Soils by ICP OES
TM222	In-House Method	Determination of Hot Water Soluble Boron in Soils (10:1 Water:Soil) by ICP OES.
TM243		Mixed Anions In Soils By Kone
TM414	Analysis of Petroleum Hydrocarbons in Environmental Media – Total Petroleum Hydrocarbon Criteria	Determination of Speciated Extractable Petroleum Hydrocarbons in Soils by GCxGC-FID

NA = not applicable.
Chemical testing (unless subcontracted) performed at ALS Life Sciences Ltd Hawarden.

CERTIFICATE OF ANALYSIS

SDG: 220427-30 **Report Number:** 645150 **Superseded Report:** 645125
Client Ref.: LD10385 **Location:** Ten Acres Lane

Test Completion Dates

Lab Sample No(s)	26189232	26189241	26189247	26189254	26189262
Customer Sample Ref.	CP205	CP205	WS301	WS304	WS314
AGS Ref.					
Depth	5.00 - 6.00	7.00 - 8.00	2.80 - 3.00	1.50 - 2.00	0.50 - 0.50
Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
Anions by Kone (soil)	03-May-2022	03-May-2022			03-May-2022
Asbestos ID in Solid Samples	04-May-2022	04-May-2022	06-May-2022		04-May-2022
Boron Water Soluble	04-May-2022	04-May-2022			04-May-2022
Cyanide Comp/Free/Total/Thiocyanate	04-May-2022	04-May-2022			04-May-2022
Easily Liberated Sulphide	03-May-2022	03-May-2022			03-May-2022
EPH CWG GC (S)	03-May-2022	03-May-2022	03-May-2022	03-May-2022	03-May-2022
GRO by GC-FID (S)	06-May-2022	06-May-2022	06-May-2022	06-May-2022	06-May-2022
Hexavalent Chromium (s)	04-May-2022	04-May-2022			04-May-2022
Metals in solid samples by OES	04-May-2022	04-May-2022			04-May-2022
PAH by GCMS	03-May-2022	03-May-2022			03-May-2022
PCBs by GCMS	04-May-2022	04-May-2022			04-May-2022
pH	03-May-2022	03-May-2022			03-May-2022
Phenols by HPLC (S)	03-May-2022	03-May-2022			03-May-2022
Sample description	28-Apr-2022	28-Apr-2022	28-Apr-2022	28-Apr-2022	28-Apr-2022
Semi Volatile Organic Compounds	03-May-2022	03-May-2022	03-May-2022	29-Apr-2022	03-May-2022
Total Organic Carbon	05-May-2022	05-May-2022			05-May-2022
Total Sulphate	04-May-2022	04-May-2022			04-May-2022
TPH CWG GC (S)	06-May-2022	06-May-2022	06-May-2022	06-May-2022	06-May-2022
VOC MS (S)	06-May-2022	05-May-2022	06-May-2022	06-May-2022	06-May-2022

Appendix

General

1. Results are expressed on a dry weight basis (dried at 35ºC) for all soil analyses except for the following: NRA and CEN Leach tests, flash point LOI, pH, ammonium as NH4 by the BRE method, VOC TICs and SVOC TICs.

2. If sufficient sample is received a sub sample will be retained free of charge for 30 days after analysis is completed (e-mailed) for all sample types unless the sample is destroyed on testing. The prepared soil sub sample that is analysed for asbestos will be retained for a period of 6 months after the analysis date. All bulk samples will be retained for a period of 6 months after the analysis date. All samples received and not scheduled will be disposed of one month after the date of receipt unless we are instructed to the contrary. Once the initial period has expired, a storage charge will be applied for each month or part thereof until the client cancels the request for sample storage. ALS reserve the right to charge for samples received and stored but not analysed.

3. With respect to turnaround, we will always endeavour to meet client requirements wherever possible, but turnaround times cannot be absolutely guaranteed due to so many variables beyond our control.

4. We take responsibility for any test performed by sub-contractors (marked with an asterisk). We endeavour to use UKAS/MCERTS Accredited Laboratories, who either complete a quality questionnaire or are audited by ourselves. For some determinands there are no UKAS/MCERTS Accredited Laboratories, in this instance a laboratory with a known track record will be utilised.

5. If no separate volatile sample is supplied by the client, or if a headspace or sediment is present in the volatile sample, the integrity of the data may be compromised. This will be flagged up as an invalid VOC on the test schedule and the result marked as deviating on the test certificate.

6. NDP - No determination possible due to insufficient/unsuitable sample.

7. Results relate only to the items tested.

8. LoDs (Limit of Detection) for wet tests reported on a dry weight basis are not corrected for moisture content.

9. **Surrogate recoveries** - Surrogates are added to your sample to monitor recovery of the test requested. A % recovery is reported, results are not corrected for the recovery measured. Typical recoveries for organics tests are 70-130%. Recoveries in soils are affected by organic rich or clay rich matrices. Waters can be affected by remediation fluids or high amounts of sediment. Test results are only ever reported if all of the associated quality checks pass; it is assumed that all recoveries outside of the values above are due to matrix affect.

10. Stones/debris are not routinely removed. We always endeavour to take a representative sub sample from the received sample.

11. In certain circumstances the method detection limit may be elevated due to the sample being outside the calibration range. Other factors that may contribute to this include possible interferences. In both cases the sample would be diluted which would cause the method detection limit to be raised.

12. For dried and crushed preparations of soils volatile loss may occur e.g volatile mercury.

13. For leachate preparations other than Zero Headspace Extraction (ZHE) volatile loss may occur.

14. For the BSEN 12457-3 two batch process to allow the cumulative release to be calculated, the volume of the leachate produced is measured and filtered for all tests. We therefore cannot carry out any unfiltered analysis. The tests affected include volatiles GCFID/GCMS and all subcontracted analysis.

15. Analysis and identification of specific compounds using GCFID is by retention time only, and we routinely calibrate and quantify for benzene, toluene, ethylbenzenes and xylenes (BTEX). For total volatiles in the C5-C12 range, the total area of the chromatogram is integrated and expressed as ug/kg or ug/l. Although this analysis is commonly used for the quantification of gasoline range organics (GRO), the system will also detect other compounds such as chlorinated solvents, and this may lead to a falsely high result with respect to hydrocarbons only. It is not possible to specifically identify these non-hydrocarbons, as standards are not routinely run for any other compounds, and for more definitive identification, volatiles by GCMS should be utilised.

16. We are accredited to MCERTS for sand, clay and loam/topsoil, or any of these materials - whether these are derived from naturally occurring soil profiles, or from fill/made ground, as long as these materials constitute the major part of the sample. Other coarse granular material such as concrete, gravel and brick are not accredited if they comprise the major part of the sample.

17 Data retention. All records, communications and reports pertaining to the analysis are archived for seven years from the date of issue of the final report.

18. **Tentatively Identified Compounds (TICs)** are non-target peaks in VOC and SVOC analysis. All non-target peaks detected with a concentration above the LoD are subjected to a mass spectral library search. Non-target peaks with a library search confidence of >75% are reported based on the best mass spectral library match. When a non-target peak with a library search confidence of <75% is detected it is reported as “mixed hydrocarbons”. Non-target compounds identified from the scan data are semi-quantified relative to one of the deuterated internal standards, under the same chromatographic conditions as the target compounds. This result is reported as a semi-quantitative value and reported as Tentatively Identified Compounds (TICs). TICs are outside the scope of UKAS accreditation and are not moisture corrected.

19. **Sample Deviations**

If a sample is classed as deviated then the associated results may be compromised.

1	**Container with Headspace provided for volatiles analysis**
2	**Incorrect container received**
3	**Deviation from method**
4	**Matrix interference**
♦	**Sample holding time exceeded in laboratory**
@	**Sample holding time exceeded due to late arrival of instructions or samples**
§	**Sampled on date not provided**

20. **Asbestos**

When requested, the individual sub sample scheduled will be analysed in house for the presence of asbestos fibres and asbestos containing material by our documented in house method TM048 based on HSG 248 (2021), which is accredited to ISO17025. If a specific asbestos fibre type is not found this will be reported as “Not detected”. If no asbestos fibre types are found all will be reported as “Not detected” and the sub sample analysed deemed to be clear of asbestos. If an asbestos fibre type is found it will be reported as detected (for each fibre type found). Testing can be carried out on asbestos positive samples, but, due to Health and Safety considerations, may be replaced by alternative tests or reported as No Determination Possible (NDP). The quantity of asbestos present is not determined unless specifically requested.

Identification of Asbestos in Bulk Materials & Soils

The results for identification of asbestos in bulk materials and soils are obtained from supplied bulk materials andd soils which have been examined to determine the presence of asbestos fibres using ALS (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining, based on HSG 248 (2021).

The results for identification of asbestos in soils are obtained from a homogenised sub sample which has been examined to determine the presence of asbestos fibres using ALS (Hawarden) in-house method of transmitted/polarised light microscopy and central

Asbestos Type	Common Name
Chrysotile	White Asbestos
Amosite	Brown Asbestos
Crocidolite	Blue Asbestos
Fibrous Actinolite	-
Fibrous Anthophyllite	-
Fibrous Tremolite	-

Visual Estimation Of Fibre Content

Estimation of fibre content is not permitted as part of our UKAS accredited test other than: - Trace - Where only one or two asbestos fibres were identified.

Respirable Fibres

Respirable fibres are defined as fibres of <3 µm diameter, longer than 5 µm and with aspect ratios of at least 3:1 that can be inhaled into the lower regions of the lung and are generally acknowledged to be most important predictor of hazard and risk for cancers of the lung.

Further guidance on typical asbestos fibre content of manufactured products can be found in HSG 264.

The identification of asbestos containing materials and soils falls within our schedule of tests for which we hold UKAS accreditation, however opinions, interpretations and all other information contained in the report are outside the scope of UKAS accreditation.

Unit 7-8 Hawarden Business Park
Manor Road (off Manor Lane)
Hawarden
Deeside
CH5 3US
Tel: (01244) 528700
Fax: (01244) 528701
email: hawardencustomerservices@alsglobal.com
Website: www.alsenvironmental.co.uk

Wardell Armstrong LLP
36 Park Row
Leeds
LS1 5JL

Attention: Jonathan Currie

CERTIFICATE OF ANALYSIS

Date of report Generation:	25 May 2022
Customer:	Wardell Armstrong LLP
Sample Delivery Group (SDG):	220429-150
Your Reference:	LD10385
Location:	Ten Acres Lane
Report No:	648031
Order Number:	LD2744

This report has been revised and directly supersedes 646596 in its entirety.

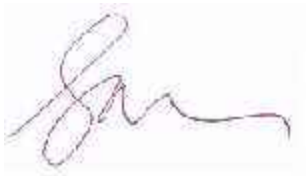
We received 12 samples on Friday April 29, 2022 and 12 of these samples were scheduled for analysis which was completed on Wednesday May 25, 2022. Accredited laboratory tests are defined within the report, but opinions, interpretations and on-site data expressed herein are outside the scope of ISO 17025 accreditation.

Should this report require incorporation into client reports, it must be used in its entirety and not simply with the data sections alone.

Chemical testing (unless subcontracted) performed at ALS Life Sciences Ltd Hawarden.

All sample data is provided by the customer. The reported results relate to the sample supplied, and on the basis that this data is correct.
Incorrect sampling dates and/or sample information will affect the validity of results.
The customer is not permitted to reproduce this report except in full without the approval of the laboratory.

Approved By:



Sonia McWhan

Operations Manager

CERTIFICATE OF ANALYSIS

SDG: 220429-150 **Report Number:** 648031 **Superseded Report:** 646596
Client Ref.: LD10385 **Location:** Ten Acres Lane

Received Sample Overview

Lab Sample No(s)	Customer Sample Ref.	AGS Ref.	Depth (m)	Sampled Date
26209459	TP201		0.80 - 0.80	26/04/2022
26209466	TP202		1.30 - 1.30	26/04/2022
26209449	TP210		0.90 - 0.90	26/04/2022
26209454	TP210		2.10 - 2.10	26/04/2022
26209441	TP211		1.80 - 1.80	26/04/2022
26209413	TP219		1.50 - 1.50	25/04/2022
26209436	TP222		2.00 - 2.00	26/04/2022
26209427	TP223		1.00 - 1.00	26/04/2022
26209391	TP225		0.40 - 0.40	26/04/2022
26209421	TP227		1.10 - 1.10	26/04/2022
26209404	TP251		2.00 - 2.00	25/04/2022
26209398	TP256		0.35 - 0.35	26/04/2022

Only received samples which have had analysis scheduled will be shown on the following pages.

Validated

CERTIFICATE OF ANALYSIS

SDG: 220429-150 **Report Number:** 648031 **Superseded Report:** 646596

Client Ref.: LD10385 **Location:** Ten Acres Lane

Results Legend

X Test

N No Determination Possible

Sample Types -

S - Soil/Solid
UNS - Unspecified Solid
GW - Ground Water
SW - Surface Water
LE - Land Leachate
PL - Prepared Leachate
PR - Process Water
SA - Saline Water
TE - Trade Effluent
TS - Treated Sewage
US - Untreated Sewage
RE - Recreational Water
DW - Drinking Water Non-regulatory
UNL - Unspecified Liquid
SL - Sludge
G - Gas
OTH - Other

			Lab Sample No(s)	26209459			26209466			26209449			26209454			26209441			26209413			26209436	
			Customer Sample Reference	TP201			TP202			TP210			TP210			TP211			TP219			TP222	
			AGS Reference																				
			Depth (m)	0.80 - 0.80			1.30 - 1.30			0.90 - 0.90			2.10 - 2.10			1.80 - 1.80			1.50 - 1.50			2.00 - 2.00	
			Container	1kg TUB with Handle (ALE260)	250g Amber Jar (ALE210)	60g VOC (ALE215)	1kg TUB with Handle (ALE260)	250g Amber Jar (ALE210)	60g VOC (ALE215)	1kg TUB with Handle (ALE260)	250g Amber Jar (ALE210)	60g VOC (ALE215)	1kg TUB with Handle (ALE260)	1kg TUB with Handle (ALE260)	250g Amber Jar (ALE210)	60g VOC (ALE215)	1kg TUB with Handle (ALE260)	250g Amber Jar (ALE210)	60g VOC (ALE215)	1kg TUB with Handle (ALE260)	250g Amber Jar (ALE210)	60g VOC (ALE215)	1kg TUB with Handle (ALE260)	250g Amber Jar (ALE210)
			Sample Type	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S
Anions by Kone (soil)	All	NDPs: 0 Tests: 12			X			X			X			X			X			X			X
Asbestos ID in Solid Samples	All	NDPs: 0 Tests: 12		X			X			X			X			X			X			X		
Asbestos Quantification - Full	All	NDPs: 0 Tests: 2													X									
Boron Water Soluble	All	NDPs: 0 Tests: 12			X			X			X			X			X			X			X	
Cyanide Comp/Free/Total/Thiocyanate	All	NDPs: 0 Tests: 12			X			X			X			X			X			X			X	
Easily Liberated Sulphide	All	NDPs: 0 Tests: 12			X			X			X			X			X			X			X	
EPH CWG GC (S)	All	NDPs: 0 Tests: 12			X			X			X			X			X			X			X	
GRO by GC-FID (S)	All	NDPs: 0 Tests: 12				X			X			X			X			X			X			
Hexavalent Chromium (s)	All	NDPs: 0 Tests: 12			X			X			X			X			X			X			X	
Metals in solid samples by OES	All	NDPs: 0 Tests: 12			X			X			X			X			X			X			X	
PAH by GCMS	All	NDPs: 0 Tests: 12			X			X			X			X			X			X			X	
PCBs by GCMS	All	NDPs: 0 Tests: 12			X			X			X			X			X			X			X	
PFAS (Post Ox.) Solids	All	NDPs: 0 Tests: 1								X														
PFAS Solids	All	NDPs: 0 Tests: 2								X														
pH	All	NDPs: 0 Tests: 12			X			X			X			X			X			X			X	

26209398	TP256		0.35 - 0.35	60g VOC (ALE215)	S										X								
				250g Amber Jar (ALE210)	S	X				X	X	X	X			X	X	X	X				X
				1kg TUB with Handle (ALE260)	S		X																
26209404	TP251		2.00 - 2.00	60g VOC (ALE215)	S										X								
				250g Amber Jar (ALE210)	S	X				X	X	X	X			X	X	X	X				X
				1kg TUB with Handle (ALE260)	S		X	X															
26209421	TP227		1.10 - 1.10	60g VOC (ALE215)	S										X								
				250g Amber Jar (ALE210)	S	X				X	X	X	X			X	X	X	X				X
				1kg TUB with Handle (ALE260)	S		X																
26209391	TP225		0.40 - 0.40	60g VOC (ALE215)	S										X								
				250g Amber Jar (ALE210)	S	X				X	X	X	X			X	X	X	X				X
				1kg TUB with Handle (ALE260)	S		X															X	
26209427	TP223		1.00 - 1.00	60g VOC (ALE215)	S										X								
				250g Amber Jar (ALE210)	S	X				X	X	X	X			X	X	X	X				X
				1kg TUB with Handle (ALE260)	S		X																
26209436	TP222		2.00 - 2.00	60g VOC (ALE215)	S										X								

Validated

CERTIFICATE OF ANALYSIS

SDG: 220429-150 **Report Number:** 648031 **Superseded Report:** 646596

Client Ref.: LD10385 **Location:** Ten Acres Lane

Results Legend

X Test

N No Determination Possible

Sample Types -

S - Soil/Solid
UNS - Unspecified Solid
GW - Ground Water
SW - Surface Water
LE - Land Leachate
PL - Prepared Leachate
PR - Process Water
SA - Saline Water
TE - Trade Effluent
TS - Treated Sewage
US - Untreated Sewage
RE - Recreational Water
DW - Drinking Water Non-regulatory
UNL - Unspecified Liquid
SL - Sludge
G - Gas
OTH - Other

			Lab Sample No(s)	Customer Sample Reference	AGS Reference	Depth (m)	Container	Sample Type
			26209459	TP201		0.80 - 0.80	1kg TUB with Handle (ALE260)	S
							250g Amber Jar (ALE210)	S
							60g VOC (ALE215)	S
			26209466	TP202		1.30 - 1.30	1kg TUB with Handle (ALE260)	S
							250g Amber Jar (ALE210)	S
							60g VOC (ALE215)	S
			26209449	TP210		0.90 - 0.90	1kg TUB with Handle (ALE260)	S
							250g Amber Jar (ALE210)	S
							60g VOC (ALE215)	S
			26209454	TP210		2.10 - 2.10	1kg TUB with Handle (ALE260)	S
							60g VOC (ALE215)	S
			26209441	TP211		1.80 - 1.80	1kg TUB with Handle (ALE260)	S
							250g Amber Jar (ALE210)	S
							60g VOC (ALE215)	S
			26209413	TP219		1.50 - 1.50	1kg TUB with Handle (ALE260)	S
							250g Amber Jar (ALE210)	S
							60g VOC (ALE215)	S
			26209436	TP222		2.00 - 2.00	1kg TUB with Handle (ALE260)	S
							250g Amber Jar (ALE210)	S
Phenols by HPLC (S)	All	NDPs: 0 Tests: 12		X				
Sample description	All	NDPs: 0 Tests: 12		X				
Semi Volatile Organic Compounds	All	NDPs: 0 Tests: 12		X				
Total Organic Carbon	All	NDPs: 0 Tests: 12		X				
Total Sulphate	All	NDPs: 0 Tests: 12		X				
TPH CWG GC (S)	All	NDPs: 0 Tests: 12		X				
VOC MS (S)	All	NDPs: 0 Tests: 12			X			

26209398	TP256		0.35 - 0.35	60g VOC (ALE215)	S								X
				250g Amber Jar (ALE210)	S	X	X	X	X	X	X		
				1kg TUB with Handle (ALE260)	S								
26209404	TP251		2.00 - 2.00	60g VOC (ALE215)	S								X
				250g Amber Jar (ALE210)	S	X	X	X	X	X	X		
				1kg TUB with Handle (ALE260)	S								
26209421	TP227		1.10 - 1.10	60g VOC (ALE215)	S								X
				250g Amber Jar (ALE210)	S	X	X	X	X	X	X		
				1kg TUB with Handle (ALE260)	S								
26209391	TP225		0.40 - 0.40	60g VOC (ALE215)	S								X
				250g Amber Jar (ALE210)	S	X	X	X	X	X	X		
				1kg TUB with Handle (ALE260)	S								
26209427	TP223		1.00 - 1.00	60g VOC (ALE215)	S								X
				250g Amber Jar (ALE210)	S	X	X	X	X	X	X		
				1kg TUB with Handle (ALE260)	S								
26209436	TP222		2.00 - 2.00	60g VOC (ALE215)	S								X

CERTIFICATE OF ANALYSIS

SDG: 220429-150 **Report Number:** 648031 **Superseded Report:** 646596
Client Ref.: LD10385 **Location:** Ten Acres Lane

Sample Descriptions

Grain Sizes

very fine	<0.063mm	fine	0.063mm - 0.1mm	medium	0.1mm - 2mm	coarse	2mm - 10mm	very coarse	>10mm

Lab Sample No(s)	Customer Sample Ref.	Depth (m)	Colour	Description	Inclusions	Inclusions 2
26209459	TP201	0.80 - 0.80	Dark Brown	Sandy Clay Loam	Stones	Brick
26209466	TP202	1.30 - 1.30	Dark Brown	Silty Clay Loam	Stones	None
26209449	TP210	0.90 - 0.90	Dark Brown	Sandy Silt Loam	Glass & Stones	Brick
26209454	TP210	2.10 - 2.10	Dark Brown	Sandy Loam	Brick	Stones
26209441	TP211	1.80 - 1.80	Dark Brown	Loamy Sand	Brick	Stones
26209413	TP219	1.50 - 1.50	Light Brown	Sandy Loam	Stones	Brick
26209436	TP222	2.00 - 2.00	Dark Brown	Sandy Loam	Stones	Vegetation
26209427	TP223	1.00 - 1.00	Dark Brown	Sandy Loam	Brick	Stones
26209391	TP225	0.40 - 0.40	Dark Brown	Sand	Brick	Stones
26209421	TP227	1.10 - 1.10	Dark Brown	Sandy Silt Loam	Stones	Brick
26209404	TP251	2.00 - 2.00	Dark Brown	Silty Clay Loam	Stones	None
26209398	TP256	0.35 - 0.35	Dark Brown	Loamy Sand	Stones	Brick

These descriptions are only intended to act as a cross check if sample identities are questioned, and to provide a log of sample matrices with respect to MCERTS validation. They are not intended as full geological descriptions.

We are accredited to MCERTS for sand, clay and loam/topsoil, or any of these materials - whether these are derived from naturally ocurring soil profiles, or from fill/made ground, as long as these materials constitute the major part of the sample.

Other coarse granular materials such as concrete, gravel and brick are not accredited if they comprise the major part of the sample.

CERTIFICATE OF ANALYSIS

SDG: 220429-150 **Report Number:** 648031 **Superseded Report:** 646596

Client Ref.: LD10385 **Location:** Ten Acres Lane

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	TP201	TP202	TP210	TP210	TP211	TP219
			Depth (m)	0.80 - 0.80	1.30 - 1.30	0.90 - 0.90	2.10 - 2.10	1.80 - 1.80	1.50 - 1.50
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	26/04/2022	26/04/2022	26/04/2022	26/04/2022	26/04/2022	25/04/2022
			Sample Time	12:00	12:00	12:00	12:00	12:00	12:00
			Date Received	29/04/2022	29/04/2022	29/04/2022	29/04/2022	29/04/2022	29/04/2022
			SDG Ref	220429-150	220429-150	220429-150	220429-150	220429-150	220429-150
			Lab Sample No.(s)	26209459	26209466	26209449	26209454	26209441	26209413
			AGS Reference						
Moisture Content Ratio (% of as received sample)	%	PM024		14	25	19	12	14	15
Phenol	<0.01 mg/kg	TM062 (S)		<0.01 M	<0.01 M	<0.01 M	<0.01 M	<0.01 M	0.0118 M
Cresols	<0.01 mg/kg	TM062 (S)		<0.01 M	<0.01 M	<0.01 M	<0.01 M	0.0468 M	<0.01 M
Xylenols	<0.015 mg/kg	TM062 (S)		<0.015 M	<0.015 M	<0.015 M	<0.015 M	0.62 M	<0.015 M
Phenols, Total Detected monohydric	<0.035 mg/kg	TM062 (S)		<0.035 M	<0.035 M	<0.035 M	<0.035 M	0.667 M	<0.035 M
Soil Organic Matter (SOM)	<0.35 %	TM132		8.48 #	4.69 #	3.03 #	3.93 #	11.1 #	4.09 #
pH	1 pH Units	TM133		7.68 M	5.9 M	7.89 M	8.16 M	7.77 M	10.1 M
Chromium, Hexavalent	<0.6 mg/kg	TM151		<0.6 #	<0.6 #	<0.6 #	<0.6 #	<0.6 #	<0.6 #
Cyanide, Total	<1 mg/kg	TM153		<1 M	<1 M	<1 M	<1 M	<1 M	1.05 M
PCB congener 28	<3 µg/kg	TM168		<3 M	<3 M	<3 M	<3 M	<3 M	<3 M
PCB congener 52	<3 µg/kg	TM168		<3 M	<3 M	<3 M	<3 M	<3 M	<3 M
PCB congener 101	<3 µg/kg	TM168		<3 M	<3 M	<3 M	<3 M	<3 M	<3 M
PCB congener 118	<3 µg/kg	TM168		<3 M	<3 M	<3 M	<3 M	<3 M	<3 M
PCB congener 138	<3 µg/kg	TM168		<3 M	<3 M	<3 M	<3 M	<3 M	<3 M
PCB congener 153	<3 µg/kg	TM168		<3 M	<3 M	<3 M	<3 M	<3 M	<3 M
PCB congener 180	<3 µg/kg	TM168		<3 M	<3 M	<3 M	<3 M	<3 M	<3 M
Sum of detected PCB 7 Congeners	<21 µg/kg	TM168		<21	<21	<21	<21	<21	<21
Sulphide, Easily liberated	<15 mg/kg	TM180		<15 @ M	<15 @ M	<15 @ M	<15 @ M	24.7 @ M	<15 @ M
Arsenic	<0.6 mg/kg	TM181		19.8 M	12.1 M	21.5 M	20.6 M	26.7 M	16.4 M
Beryllium	<0.01 mg/kg	TM181		1.22 M	1.11 M	1.19 M	1.45 M	1.32 M	0.717 M
Cadmium	<0.02 mg/kg	TM181		0.302 M	0.0705 M	0.468 M	0.111 M	0.276 M	0.633 M
Chromium	<0.9 mg/kg	TM181		6.56 M	16.3 M	17.1 M	12.9 M	172 M	26.9 M
Copper	<1.4 mg/kg	TM181		47.8 M	31.8 M	74.1 M	37.7 M	162 M	79.9 M
Lead	<0.7 mg/kg	TM181		87.3 M	41.2 M	97.1 M	34.1 M	379 M	246 M
Mercury	<0.1 mg/kg	TM181		<0.1 M	<0.1 M	<0.1 M	<0.1 M	0.785 M	<0.1 M
Nickel	<0.2 mg/kg	TM181		32.6 M	19.5 M	24.6 M	34.2 M	40.2 M	15.8 M
Selenium	<1 mg/kg	TM181		1.53 #	1.1 #	1.59 #	1.15 #	1.8 #	3.11 #
Vanadium	<0.2 mg/kg	TM181		22.6 #	33.3 #	37 #	34.1 #	31.6 #	48.7 #
Zinc	<1.9 mg/kg	TM181		131 M	54.8 M	230 M	108 M	253 M	266 M
Sulphate, Total	<48 mg/kg	TM221		2440 M	533 M	2890 M	327 M	1830 M	9190 M
Boron, water soluble	<1 mg/kg	TM222		<1 M	1.42 M	<1 M	3.72 M	1.21 M	<1 M
Water Soluble Sulphate as SO4 2:1 Extract	<0.004 g/l	TM243		0.288 M	0.0923 M	0.499 M	0.122 M	0.564 M	1.26 M
Asbestos Quantification - Gravimetric - %	<0.001 %	TM304						<0.001 #	

CERTIFICATE OF ANALYSIS

SDG: 220429-150 **Report Number:** 648031 **Superseded Report:** 646596
Client Ref.: LD10385 **Location:** Ten Acres Lane

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4+§@ Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	TP201	TP202	TP210	TP210	TP211	TP219
			Depth (m)	0.80 - 0.80	1.30 - 1.30	0.90 - 0.90	2.10 - 2.10	1.80 - 1.80	1.50 - 1.50
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	26/04/2022	26/04/2022	26/04/2022	26/04/2022	26/04/2022	25/04/2022
			Sample Time	12:00	12:00	12:00	12:00	12:00	12:00
			Date Received	29/04/2022	29/04/2022	29/04/2022	29/04/2022	29/04/2022	29/04/2022
			SDG Ref	220429-150	220429-150	220429-150	220429-150	220429-150	220429-150
			Lab Sample No.(s)	26209459	26209466	26209449	26209454	26209441	26209413
			AGS Reference						
Asbestos Quantification - PCOM Evaluation - %	<0.001 %	TM304						<0.001 #	
Additional Asbestos Components (Using TM048)		TM304						None #	
Analysts Comments		TM304						0	
Asbestos Quantification - Total - %	<0.001 %	TM304						<0.001 #	
PFBA (375-22-4) Perfluoro-n-butanoic acid	<3 µg/kg	TM338				<3			
PFPA (2706-90-3) Perfluoro-n-pentanoic acid	<3 µg/kg	TM338				<3			
PFHxA (307-24-4) Perfluoro-n-hexanoic acid	<2 µg/kg	TM338				<2			
PFBS (375-73-5) Perfluoro-1-butanesulfonate	<1 µg/kg	TM338				<1			
PFHpA (375-85-9) Perfluoro-n-heptanoic acid	<1 µg/kg	TM338				<1			
PFOA (335-67-1) Perfluoro-n-octanoic acid	<1 µg/kg	TM338				1.01			
PFHxS (355-46-4) Perfluoro-1-hexanesulfonate	<1 µg/kg	TM338				<1			
PFNA (375-95-1) Perfluoro-n-nonanoic acid	<1 µg/kg	TM338				<1			
PFHpS (375-92-8) Perfluoro-1-heptanesulfonate	<1 µg/kg	TM338				<1			
PFDA (335-76-2) Perfluoro-n-decanoic acid	<1 µg/kg	TM338				<1			
Linear PFOS(1763-23-1) Perfluoro-1-octanesulfonate	<1 µg/kg	TM338				2.73			
Branched PFOS	<1 µg/kg	TM338				1.62			
PFUnA (2058-94-8) Perfluoro-n-undecanoic acid	<1 µg/kg	TM338				<1			
PFDoA (307-55-1) Perfluoro-n-dodecanoic acid	<1 µg/kg	TM338				<1			
PFOSA (754-91-6) Perfluoro-octanesulfonamide	<1 µg/kg	TM338				<1			
6:2-FTS (27619-97-2)	<1 µg/kg	TM338				<1			
PFDS (335-73-3) Perfluoro-1-decanesulfonate	<1 µg/kg	TM338				<1			
PFPeS (2706-91-4) Perfluoro-1-pentanesulfonate	<1 µg/kg	TM338				<1			
Total PFOS	<1 µg/kg	TM338				4.35			
PFBA (Post Ox.) Perfluoro-n-butanoic acid	<3 µg/kg	TM428				<3			
PFPA (Post Ox.) Perfluoro-n-pentanoic acid	<3 µg/kg	TM428				<3			
PFHxA (Post Ox.) Perfluoro-n-hexanoic acid	<2 µg/kg	TM428				<2			
PFBS (Post Ox.) Perfluoro-1-butanesulfonate	<1 µg/kg	TM428				<1			
PFHpA (Post Ox.) Perfluoro-n-heptanoic acid	<1 µg/kg	TM428				<1			
6:2 PTS (Post Ox.) Perfluoro-octane sulfonate 6:2	<1 µg/kg	TM428				<1			
PFOA (Post Ox.) Perfluoro-n-octanoic acid	<1 µg/kg	TM428				2.44			
PFHxS (Post Ox.) Perfluoro-1-hexanesulfonate	<1 µg/kg	TM428				<1			
PFNA (Post Ox.) Perfluoro-n-nonanoic acid	<1 µg/kg	TM428				<1			
PFHpS (Post Ox.) Perfluoro-1-heptanesulfonate	<1 µg/kg	TM428				<1			

CERTIFICATE OF ANALYSIS

SDG: 220429-150 **Report Number:** 648031 **Superseded Report:** 646596
Client Ref.: LD10385 **Location:** Ten Acres Lane

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
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diss.filt	Dissolved / filtered sample.
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*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	TP201	TP202	TP210	TP210	TP211	TP219
			Depth (m)	0.80 - 0.80	1.30 - 1.30	0.90 - 0.90	2.10 - 2.10	1.80 - 1.80	1.50 - 1.50
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	26/04/2022	26/04/2022	26/04/2022	26/04/2022	26/04/2022	25/04/2022
			Sample Time	12:00	12:00	12:00	12:00	12:00	12:00
			Date Received	29/04/2022	29/04/2022	29/04/2022	29/04/2022	29/04/2022	29/04/2022
			SDG Ref	220429-150	220429-150	220429-150	220429-150	220429-150	220429-150
			Lab Sample No.(s)	26209459	26209466	26209449	26209454	26209441	26209413
			AGS Reference						
PFDA (Post Ox.) Perfluoro-n-decanoic acid	<1 µg/kg	TM428				<1			
Linear PFOS (Post Ox.) Perfluoro-1-octanesulfonate	<1 µg/kg	TM428				4.54			
Branched PFOS (Post Ox.)	<1 µg/kg	TM428				1.24			
PFUnA (Post Ox.) Perfluoro-n-undecanoic acid	<1 µg/kg	TM428				<1			
PFDoA (Post Ox.) Perfluoro-n-dodecanoic acid	<1 µg/kg	TM428				<1			
PFOSA (Post Ox.) Perfluoro-octanesulfonamide	<1 µg/kg	TM428				<1			
PFDS (Post Ox.) Perfluoro-1-decanesulfonate	<1 µg/kg	TM428				<1			
PFPeS (Post Ox.) Perfluoro-1-pentanesulfonate	<1 µg/kg	TM428				<1			
Total PFOS (Post Ox.)	<2 µg/kg	TM428				5.79			

CERTIFICATE OF ANALYSIS

SDG: 220429-150 **Report Number:** 648031 **Superseded Report:** 646596

Client Ref.: LD10385 **Location:** Ten Acres Lane

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	TP222	TP223	TP225	TP227	TP251	TP256
			Depth (m)	2.00 - 2.00	1.00 - 1.00	0.40 - 0.40	1.10 - 1.10	2.00 - 2.00	0.35 - 0.35
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	26/04/2022	26/04/2022	26/04/2022	26/04/2022	25/04/2022	26/04/2022
			Sample Time	12:00	12:00	12:00	12:00	12:00	12:00
			Date Received	29/04/2022	29/04/2022	29/04/2022	29/04/2022	29/04/2022	29/04/2022
			SDG Ref	220429-150	220429-150	220429-150	220429-150	220429-150	220429-150
			Lab Sample No.(s)	26209436	26209427	26209391	26209421	26209404	26209398
			AGS Reference						
Moisture Content Ratio (% of as received sample)	%	PM024		12	10	6.2	8.4	22	20
Phenol	<0.01 mg/kg	TM062 (S)		<0.01 M	0.0336 M	<0.01 M	<0.01 M	<0.01 M	<0.01 M
Cresols	<0.01 mg/kg	TM062 (S)		<0.01 M	0.0896 M	0.032 M	<0.01 M	<0.01 M	<0.01 M
Xylenols	<0.015 mg/kg	TM062 (S)		<0.015 M	0.0896 M	<0.015 M	<0.015 M	<0.015 M	<0.015 M
Phenols, Total Detected monohydric	<0.035 mg/kg	TM062 (S)		<0.035 M	0.213 M	<0.035 M	<0.035 M	<0.035 M	<0.035 M
Soil Organic Matter (SOM)	<0.35 %	TM132		3.17 #	5.33 #	1.21 #	33.3 #	9.76 #	5.21 #
pH	1 pH Units	TM133		8.05 M	8.23 M	8.42 M	5.43 M	6.51 @ M	7.45 M
Chromium, Hexavalent	<0.6 mg/kg	TM151		<0.6 #	<0.6 #	<0.6 #	<0.6 #	<0.6 #	<0.6 #
Cyanide, Total	<1 mg/kg	TM153		<1 M	<1 M	<1 M	<1 M	<1 M	<1 M
PCB congener 28	<3 µg/kg	TM168		<3 M	<15 M	<3 M	<3 M	<3 M	<3 M
PCB congener 52	<3 µg/kg	TM168		<3 M	<15 M	<3 M	<3 M	<3 M	<3 M
PCB congener 101	<3 µg/kg	TM168		<3 M	<15 M	<3 M	<3 M	<3 M	<3 M
PCB congener 118	<3 µg/kg	TM168		<3 M	<15 M	<3 M	<3 M	<3 M	<3 M
PCB congener 138	<3 µg/kg	TM168		<3 M	<15 M	<3 M	<3 M	<3 M	<3 M
PCB congener 153	<3 µg/kg	TM168		<3 M	<15 M	<3 M	<3 M	<3 M	<3 M
PCB congener 180	<3 µg/kg	TM168		<3 M	<15 M	<3 M	<3 M	<3 M	<3 M
Sum of detected PCB 7 Congeners	<21 µg/kg	TM168		<21	<105	<21	<21	<21	<21
Sulphide, Easily liberated	<15 mg/kg	TM180		<15 @ M	<15 @ M	<15 @ M	<15 @ M	281 @ M	<15 @ M
Arsenic	<0.6 mg/kg	TM181		6.16 M	12.9 M	3.27 M	21.4 M	25.4 M	65.5 M
Beryllium	<0.01 mg/kg	TM181		1.04 M	1.16 M	0.213 M	1.05 M	1.53 M	2.43 M
Cadmium	<0.02 mg/kg	TM181		0.0707 M	0.0708 M	0.0858 M	0.0817 M	0.287 M	0.181 M
Chromium	<0.9 mg/kg	TM181		15 M	12.5 M	45.4 M	3.3 M	11.5 M	20.7 M
Copper	<1.4 mg/kg	TM181		25.2 M	53.3 M	18.3 M	50.5 M	57.8 M	111 M
Lead	<0.7 mg/kg	TM181		13.6 M	22.4 M	32.2 M	40.9 M	120 M	103 M
Mercury	<0.1 mg/kg	TM181		<0.1 M	<0.1 M	<0.1 M	<0.1 M	<0.1 M	<0.1 M
Nickel	<0.2 mg/kg	TM181		36.9 M	32.1 M	33.3 M	31.9 M	30.6 M	43.9 M
Selenium	<1 mg/kg	TM181		<1 #	1.2 #	<1 #	1.49 #	1.66 #	1.76 #
Vanadium	<0.2 mg/kg	TM181		25 #	28.5 #	7.16 #	13.6 #	40.1 #	55.6 #
Zinc	<1.9 mg/kg	TM181		63.1 M	63.1 M	29.4 M	56.6 M	140 M	156 M
Sulphate, Total	<48 mg/kg	TM221		151 M	344 M	159 M	2000 M	421 M	513 M
Boron, water soluble	<1 mg/kg	TM222		1.31 M	1.36 M	<1 M	<1 M	1.31 M	<1 M
Water Soluble Sulphate as SO4 2:1 Extract	<0.004 g/l	TM243		0.0616 M	0.0722 M	0.0187 M	0.0997 M	0.0347 M	0.0426 M
Asbestos Quantification - Gravimetric - %	<0.001 %	TM304						<0.001 #	

CERTIFICATE OF ANALYSIS

SDG: 220429-150 **Report Number:** 648031 **Superseded Report:** 646596
Client Ref.: LD10385 **Location:** Ten Acres Lane

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4+§@ Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	TP222	TP223	TP225	TP227	TP251	TP256
			Depth (m)	2.00 - 2.00	1.00 - 1.00	0.40 - 0.40	1.10 - 1.10	2.00 - 2.00	0.35 - 0.35
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	26/04/2022	26/04/2022	26/04/2022	26/04/2022	25/04/2022	26/04/2022
			Sample Time	12:00	12:00	12:00	12:00	12:00	12:00
			Date Received	29/04/2022	29/04/2022	29/04/2022	29/04/2022	29/04/2022	29/04/2022
			SDG Ref	220429-150	220429-150	220429-150	220429-150	220429-150	220429-150
			Lab Sample No.(s)	26209436	26209427	26209391	26209421	26209404	26209398
			AGS Reference						
Asbestos Quantification - PCOM Evaluation - %	<0.001 %	TM304						<0.001 #	
Additional Asbestos Components (Using TM048)		TM304						None #	
Analysts Comments		TM304						0	
Asbestos Quantification - Total - %	<0.001 %	TM304						<0.001 #	
PFBA (375-22-4) Perfluoro-n-butanoic acid	<3 µg/kg	TM338				<3			
PFPA (2706-90-3) Perfluoro-n-pentanoic acid	<3 µg/kg	TM338				<3			
PFHxA (307-24-4) Perfluoro-n-hexanoic acid	<2 µg/kg	TM338				<2			
PFBS (375-73-5) Perfluoro-1-butanesulfonate	<1 µg/kg	TM338				<1			
PFHpA (375-85-9) Perfluoro-n-heptanoic acid	<1 µg/kg	TM338				<1			
PFOA (335-67-1) Perfluoro-n-octanoic acid	<1 µg/kg	TM338				<1			
PFHxS (355-46-4) Perfluoro-1-hexanesulfonate	<1 µg/kg	TM338				<1			
PFNA (375-95-1) Perfluoro-n-nonanoic acid	<1 µg/kg	TM338				<1			
PFHpS (375-92-8) Perfluoro-1-heptanesulfonate	<1 µg/kg	TM338				<1			
PFDA (335-76-2) Perfluoro-n-decanoic acid	<1 µg/kg	TM338				<1			
Linear PFOS(1763-23-1) Perfluoro-1-octanesulfonate	<1 µg/kg	TM338				<1			
Branched PFOS	<1 µg/kg	TM338				<1			
PFUnA (2058-94-8) Perfluoro-n-undecanoic acid	<1 µg/kg	TM338				<1			
PFDoA (307-55-1) Perfluoro-n-dodecanoic acid	<1 µg/kg	TM338				<1			
PFOSA (754-91-6) Perfluoro-octanesulfonamide	<1 µg/kg	TM338				<1			
6:2-FTS (27619-97-2)	<1 µg/kg	TM338				<1			
PFDS (335-73-3) Perfluoro-1-decanesulfonate	<1 µg/kg	TM338				<1			
PFPeS (2706-91-4) Perfluoro-1-pentanesulfonate	<1 µg/kg	TM338				<1			
Total PFOS	<1 µg/kg	TM338				<1			

Validated

CERTIFICATE OF ANALYSIS

SDG: 220429-150 **Report Number:** 648031 **Superseded Report:** 646596

Client Ref.: LD10385 **Location:** Ten Acres Lane

PAH by GCMS

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	TP201	TP202	TP210	TP210	TP211	TP219
			Depth (m)	0.80 - 0.80	1.30 - 1.30	0.90 - 0.90	2.10 - 2.10	1.80 - 1.80	1.50 - 1.50
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	26/04/2022	26/04/2022	26/04/2022	26/04/2022	26/04/2022	25/04/2022
			Sample Time	12:00	12:00	12:00	12:00	12:00	12:00
			Date Received	29/04/2022	29/04/2022	29/04/2022	29/04/2022	29/04/2022	29/04/2022
			SDG Ref	220429-150	220429-150	220429-150	220429-150	220429-150	220429-150
			Lab Sample No.(s)	26209459	26209466	26209449	26209454	26209441	26209413
			AGS Reference						
Naphthalene-d8 % recovery**	%	TM218		92.1	93.2	90.7	90.3	86.2	91.2
Acenaphthene-d10 % recovery**	%	TM218		90.5	92.2	92.4	90.1	87	93.9
Phenanthrene-d10 % recovery**	%	TM218		87.9	93.8	92.8	89.4	89.4	95
Chrysene-d12 % recovery**	%	TM218		84.3	86.4	83.4	78.5	82.2	88.3
Perylene-d12 % recovery**	%	TM218		84	87	84.3	76.8	82	92.1
Naphthalene	<9 µg/kg	TM218		122 M	<9 M	55 M	80.9 M	281 M	108 M
Acenaphthylene	<12 µg/kg	TM218		18.7 M	<12 M	33 M	28 M	43.3 M	71.4 M
Acenaphthene	<8 µg/kg	TM218		70.3 M	13.9 M	637 M	83.5 M	184 M	193 M
Fluorene	<10 µg/kg	TM218		51.6 M	<10 M	385 M	80.1 M	140 M	195 M
Phenanthrene	<15 µg/kg	TM218		662 M	110 M	4390 M	793 M	1560 M	1600 M
Anthracene	<16 µg/kg	TM218		118 M	32.6 M	1020 M	189 M	339 M	328 M
Fluoranthene	<17 µg/kg	TM218		832 M	136 M	6440 M	1180 M	2050 M	2050 M
Pyrene	<15 µg/kg	TM218		735 M	124 M	5670 M	1100 M	1910 M	2000 M
Benz(a)anthracene	<14 µg/kg	TM218		390 M	63.3 M	2700 M	560 M	826 M	1020 M
Chrysene	<10 µg/kg	TM218		408 M	64.6 M	2560 M	526 M	820 M	1000 M
Benzo(b)fluoranthene	<15 µg/kg	TM218		495 M	66.3 M	2860 M	590 M	960 M	1250 M
Benzo(k)fluoranthene	<14 µg/kg	TM218		180 M	21.7 M	1060 M	203 M	363 M	451 M
Benzo(a)pyrene	<15 µg/kg	TM218		391 M	50.9 M	2280 M	458 M	731 M	1030 M
Indeno(1,2,3-cd)pyrene	<18 µg/kg	TM218		289 M	31.3 M	1590 M	302 M	526 M	759 M
Dibenzo(a,h)anthracene	<23 µg/kg	TM218		53.6 M	<23 M	277 M	59.7 M	89.9 M	131 M
Benzo(g,h,i)perylene	<24 µg/kg	TM218		274 M	34.4 M	1400 M	286 M	463 M	733 M
PAH, Total Detected USEPA 16	<118 µg/kg	TM218		5090	750	33400	6520	11300	12900

CERTIFICATE OF ANALYSIS

SDG: 220429-150 **Report Number:** 648031 **Superseded Report:** 646596

Client Ref.: LD10385 **Location:** Ten Acres Lane

PAH by GCMS

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
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**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
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1-4+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	TP222	TP223	TP225	TP227	TP251	TP256
			Depth (m)	2.00 - 2.00	1.00 - 1.00	0.40 - 0.40	1.10 - 1.10	2.00 - 2.00	0.35 - 0.35
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	26/04/2022	26/04/2022	26/04/2022	26/04/2022	25/04/2022	26/04/2022
			Sample Time	12:00	12:00	12:00	12:00	12:00	12:00
			Date Received	29/04/2022	29/04/2022	29/04/2022	29/04/2022	29/04/2022	29/04/2022
			SDG Ref	220429-150	220429-150	220429-150	220429-150	220429-150	220429-150
			Lab Sample No.(s)	26209436	26209427	26209391	26209421	26209404	26209398
			AGS Reference						
Naphthalene-d8 % recovery**	%	TM218		93.9	90.8	95.3	90.8	91.4	89.9
Acenaphthene-d10 % recovery**	%	TM218		92.4	96.7	94.6	93.1	91.4	90.1
Phenanthrene-d10 % recovery**	%	TM218		91.2	99.2	91.2	92.1	90	88.6
Chrysene-d12 % recovery**	%	TM218		84.4	93.1	78.7	76.4	83.3	77.4
Perylene-d12 % recovery**	%	TM218		84.1	92.1	76.4	70.7	82.8	74.5
Naphthalene	<9 µg/kg	TM218		<9 M	4730 M	12 M	817 M	19.3 M	94.4 M
Acenaphthylene	<12 µg/kg	TM218		<12 M	495 M	<12 M	<12 M	<12 M	<24 M
Acenaphthene	<8 µg/kg	TM218		<8 M	32400 M	8.77 M	9.6 M	70.4 M	1000 M
Fluorene	<10 µg/kg	TM218		<10 M	12000 M	<10 M	22 M	53.5 M	701 M
Phenanthrene	<15 µg/kg	TM218		<15 M	29600 M	62.4 M	403 M	424 M	6760 M
Anthracene	<16 µg/kg	TM218		<16 M	11200 M	<16 M	35.2 M	97.3 M	1680 M
Fluoranthene	<17 µg/kg	TM218		<17 M	50400 M	128 M	116 M	652 M	10200 M
Pyrene	<15 µg/kg	TM218		<15 M	39500 M	121 M	113 M	563 M	9050 M
Benz(a)anthracene	<14 µg/kg	TM218		<14 M	7000 M	64 M	78.9 M	278 M	4120 M
Chrysene	<10 µg/kg	TM218		<10 M	7520 M	64 M	87.4 M	270 M	4060 M
Benzo(b)fluoranthene	<15 µg/kg	TM218		<15 M	3970 M	88.5 M	70.4 M	330 M	4830 M
Benzo(k)fluoranthene	<14 µg/kg	TM218		<14 M	1360 M	31 M	19.9 M	106 M	1870 M
Benzo(a)pyrene	<15 µg/kg	TM218		<15 M	2360 M	67.7 M	40.8 M	239 M	4080 M
Indeno(1,2,3-cd)pyrene	<18 µg/kg	TM218		<18 M	916 M	57.1 M	25.8 M	189 M	2920 M
Dibenzo(a,h)anthracene	<23 µg/kg	TM218		<23 M	<230 M	<23 M	<23 M	33.6 M	509 M
Benzo(g,h,i)perylene	<24 µg/kg	TM218		<24 M	718 M	53.8 M	41.1 M	166 M	2610 M
PAH, Total Detected USEPA 16	<118 µg/kg	TM218		<118	204000	758	1880	3490	54500

CERTIFICATE OF ANALYSIS

SDG: 220429-150 **Report Number:** 648031 **Superseded Report:** 646596

Client Ref.: LD10385 **Location:** Ten Acres Lane

Semi Volatile Organic Compounds

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	TP201	TP202	TP210	TP210	TP211	TP219
			Depth (m)	0.80 - 0.80	1.30 - 1.30	0.90 - 0.90	2.10 - 2.10	1.80 - 1.80	1.50 - 1.50
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	26/04/2022	26/04/2022	26/04/2022	26/04/2022	26/04/2022	25/04/2022
			Sample Time	12:00	12:00	12:00	12:00	12:00	12:00
			Date Received	29/04/2022	29/04/2022	29/04/2022	29/04/2022	29/04/2022	29/04/2022
			SDG Ref	220429-150	220429-150	220429-150	220429-150	220429-150	220429-150
			Lab Sample No.(s)	26209459	26209466	26209449	26209454	26209441	26209413
			AGS Reference						
Phenol	<100 µg/kg	TM157		<200	<100	<1000	<100	269	<500
Pentachlorophenol	<100 µg/kg	TM157		<200	<100	<1000	<200	<100	<900
n-Nitroso-n-dipropylamine	<100 µg/kg	TM157		<200	<100	<1000	<100	<100	<500
Nitrobenzene	<100 µg/kg	TM157		<200	<100	<1000	<100	<100	<500
Isophorone	<100 µg/kg	TM157		<200	<100	<1000	<100	<100	<500
Hexachloroethane	<100 µg/kg	TM157		<200	<100	<1000	<100	<100	<500
Hexachlorocyclopentadiene	<100 µg/kg	TM157		<200	<100	<1000	<100	<100	<500
Hexachlorobutadiene	<100 µg/kg	TM157		<200	<100	<1000	<100	<100	<500
Hexachlorobenzene	<100 µg/kg	TM157		<200	<100	<1000	<100	<100	<500
n-Dioctyl phthalate	<100 µg/kg	TM157		<200	<100	<1000	<100	<100	1510
Dimethyl phthalate	<100 µg/kg	TM157		<200	<100	<1000	<100	<100	652
Diethyl phthalate	<100 µg/kg	TM157		<200	<100	<1000	<100	<100	<500
n-Dibutyl phthalate	<100 µg/kg	TM157		<200	<100	<1000	<100	<100	<500
Dibenzofuran	<100 µg/kg	TM157		234	<100	<1000	804	239	<500
Carbazole	<100 µg/kg	TM157		<200	<100	<1000	548	<100	<500
Butylbenzyl phthalate	<100 µg/kg	TM157		<200	<100	<1000	<100	<100	<500
bis(2-Ethylhexyl) phthalate	<100 µg/kg	TM157		<200	<100	13700	<100	<100	790
bis(2-Chloroethoxy)methane	<100 µg/kg	TM157		<200	<100	<1000	<100	<100	<500
bis(2-Chloroethyl)ether	<100 µg/kg	TM157		<200	<100	<1000	<100	<100	<500
Azobenzene	<100 µg/kg	TM157		<200	<100	<1000	<100	<100	<500
4-Nitrophenol	<100 µg/kg	TM157		<1000	<500	<5000	<500	<500	<2500
4-Nitroaniline	<100 µg/kg	TM157		<200	<100	<1000	<100	<100	<500
4-Methylphenol	<100 µg/kg	TM157		<200	<100	<1000	<100	1240	<500
4-Chlorophenylphenylether	<100 µg/kg	TM157		<200	<100	<1000	<100	<100	<500
4-Chloroaniline	<100 µg/kg	TM157		<200	<100	<1000	<100	<100	<500
4-Chloro-3-methylphenol	<100 µg/kg	TM157		<200	<100	<1000	<100	<100	<500
4-Bromophenylphenylether	<100 µg/kg	TM157		<200	<100	<1000	<100	<100	<500
3-Nitroaniline	<100 µg/kg	TM157		<200	<100	<1000	<100	<100	<500
2-Nitrophenol	<100 µg/kg	TM157		<200	<100	<1000	<100	<100	<500
2-Nitroaniline	<100 µg/kg	TM157		<200	<100	<1000	<100	<100	<500
2-Methylphenol	<100 µg/kg	TM157		<200	<100	<1000	<100	254	<500
1,2,4-Trichlorobenzene	<100 µg/kg	TM157		<200	<100	<1000	<100	<100	<500
2-Chlorophenol	<100 µg/kg	TM157		<200	<100	<1000	<100	<100	<500

CERTIFICATE OF ANALYSIS

SDG: 220429-150 **Report Number:** 648031 **Superseded Report:** 646596
Client Ref.: LD10385 **Location:** Ten Acres Lane

Semi Volatile Organic Compounds

Results Legend	Customer Sample Ref.	TP201	TP202	TP210	TP210	TP211	TP219
# ISO17025 accredited.							
M mCERTS accredited.							
aq Aqueous / settled sample.							
diss.filt Dissolved / filtered sample.	Depth (m)	0.80 - 0.80	1.30 - 1.30	0.90 - 0.90	2.10 - 2.10	1.80 - 1.80	1.50 - 1.50
tot.unfilt Total / unfiltered sample.	Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
* Subcontracted - refer to subcontractor report for accreditation status.	Date Sampled	26/04/2022	26/04/2022	26/04/2022	26/04/2022	26/04/2022	25/04/2022
** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery	Sample Time	12:00	12:00	12:00	12:00	12:00	12:00
	Date Received	29/04/2022	29/04/2022	29/04/2022	29/04/2022	29/04/2022	29/04/2022
	SDG Ref	220429-150	220429-150	220429-150	220429-150	220429-150	220429-150
(F) Trigger breach confirmed	Lab Sample No.(s)	26209459	26209466	26209449	26209454	26209441	26209413
1-4+§@ Sample deviation (see appendix)	AGS Reference						

Component	LOD/Units	Method						
2,6-Dinitrotoluene	<100 µg/kg	TM157	<200	<100	<1000	<100	<100	<500
2,4-Dinitrotoluene	<100 µg/kg	TM157	<200	<100	<1000	<100	<100	<500
2,4-Dimethylphenol	<100 µg/kg	TM157	<200	<100	<1000	<100	482	<500
2,4-Dichlorophenol	<100 µg/kg	TM157	<200	<100	<1000	<100	<100	<500
2,4,6-Trichlorophenol	<100 µg/kg	TM157	<200	<100	<1000	<100	<100	<500
2,4,5-Trichlorophenol	<100 µg/kg	TM157	<200	<100	<1000	<100	<100	<500
1,4-Dichlorobenzene	<100 µg/kg	TM157	<200	<100	<1000	<100	<100	<500
1,3-Dichlorobenzene	<100 µg/kg	TM157	<200	<100	<1000	<100	<100	<500
1,2-Dichlorobenzene	<100 µg/kg	TM157	<200	<100	<1000	<100	<100	<500
2-Chloronaphthalene	<100 µg/kg	TM157	<200	<100	<1000	<100	<100	<500
2-Methylnaphthalene	<100 µg/kg	TM157	535	<100	<1000	622	229	<500
Acenaphthylene	<100 µg/kg	TM157	<200	<100	<1000	<100	<100	<500
Acenaphthene	<100 µg/kg	TM157	<200	<100	<1000	1560	185	<500
Anthracene	<100 µg/kg	TM157	240	<100	<1000	1980	268	684
Benzo(a)anthracene	<100 µg/kg	TM157	792	<100	2980	2860	655	1880
Benzo(b)fluoranthene	<100 µg/kg	TM157	692	<100	2440	1850	559	1140
Benzo(k)fluoranthene	<100 µg/kg	TM157	677	<100	2070	2000	557	1520
Benzo(a)pyrene	<100 µg/kg	TM157	601	<100	1750	2120	625	1150
Benzo(g,h,i)perylene	<100 µg/kg	TM157	437	<100	<1000	1050	404	725
Chrysene	<100 µg/kg	TM157	876	<100	3210	3140	690	2100
Fluoranthene	<100 µg/kg	TM157	1610	<100	5750	7700	1320	3970
Fluorene	<100 µg/kg	TM157	<200	<100	<1000	1090	<100	<500
Indeno(1,2,3-cd)pyrene	<100 µg/kg	TM157	854	<100	2650	2110	868	2110
Phenanthrene	<100 µg/kg	TM157	1230	<100	3950	8050	1100	3050
Pyrene	<100 µg/kg	TM157	1410	<100	5520	6830	1230	3690
Naphthalene	<100 µg/kg	TM157	481	<100	<1000	481	394	<500
Dibenzo(a,h)anthracene	<100 µg/kg	TM157	<200	<100	<1000	197	<100	<500
Bis(2-chloroisopropyl) ether	<100 µg/kg	TM157	<200	<100	<1000	<100	<100	<500

CERTIFICATE OF ANALYSIS

SDG: 220429-150 **Report Number:** 648031 **Superseded Report:** 646596

Client Ref.: LD10385 **Location:** Ten Acres Lane

Semi Volatile Organic Compounds

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	TP222	TP223	TP225	TP227	TP251	TP256
			Depth (m)	2.00 - 2.00	1.00 - 1.00	0.40 - 0.40	1.10 - 1.10	2.00 - 2.00	0.35 - 0.35
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	26/04/2022	26/04/2022	26/04/2022	26/04/2022	25/04/2022	26/04/2022
			Sample Time	12:00	12:00	12:00	12:00	12:00	12:00
			Date Received	29/04/2022	29/04/2022	29/04/2022	29/04/2022	29/04/2022	29/04/2022
			SDG Ref	220429-150	220429-150	220429-150	220429-150	220429-150	220429-150
			Lab Sample No.(s)	26209436	26209427	26209391	26209421	26209404	26209398
			AGS Reference						
Phenol	<100 µg/kg	TM157		<100	<500	257	<100	<100	<100
Pentachlorophenol	<100 µg/kg	TM157		<100	<500	<100	<150	<100	<300
n-Nitroso-n-dipropylamine	<100 µg/kg	TM157		<100	<500	<100	<100	<100	<100
Nitrobenzene	<100 µg/kg	TM157		<100	<500	<100	<100	<100	<100
Isophorone	<100 µg/kg	TM157		<100	<500	<100	<100	<100	<100
Hexachloroethane	<100 µg/kg	TM157		<100	<500	<100	<100	<100	<100
Hexachlorocyclopentadiene	<100 µg/kg	TM157		<100	<500	<100	<100	<100	<100
Hexachlorobutadiene	<100 µg/kg	TM157		<100	<500	<100	<100	<100	<100
Hexachlorobenzene	<100 µg/kg	TM157		<100	<500	<100	<100	<100	<100
n-Dioctyl phthalate	<100 µg/kg	TM157		<100	<500	<100	<100	<100	<100
Dimethyl phthalate	<100 µg/kg	TM157		<100	<500	<100	<100	<100	<100
Diethyl phthalate	<100 µg/kg	TM157		<100	<500	<100	<100	<100	<100
n-Dibutyl phthalate	<100 µg/kg	TM157		<100	<500	<100	<100	<100	<100
Dibenzofuran	<100 µg/kg	TM157		<100	5830	<100	703	<100	201
Carbazole	<100 µg/kg	TM157		<100	1200	<100	<100	<100	189
Butylbenzyl phthalate	<100 µg/kg	TM157		<100	<500	<100	<100	<100	<100
bis(2-Ethylhexyl) phthalate	<100 µg/kg	TM157		<100	<500	<100	<100	<100	<100
bis(2-Chloroethoxy)methane	<100 µg/kg	TM157		<100	<500	<100	<100	<100	<100
bis(2-Chloroethyl)ether	<100 µg/kg	TM157		<100	<500	<100	<100	<100	<100
Azobenzene	<100 µg/kg	TM157		<100	<500	<100	<100	<100	<100
4-Nitrophenol	<100 µg/kg	TM157		<500	<2500	<500	<500	<500	<500
4-Nitroaniline	<100 µg/kg	TM157		<100	<500	<100	<100	<100	<100
4-Methylphenol	<100 µg/kg	TM157		<100	<500	<100	<100	<100	<100
4-Chlorophenylphenylether	<100 µg/kg	TM157		<100	<500	<100	<100	<100	<100
4-Chloroaniline	<100 µg/kg	TM157		<100	<500	<100	<100	<100	<100
4-Chloro-3-methylphenol	<100 µg/kg	TM157		<100	<500	<100	<100	<100	<100
4-Bromophenylphenylether	<100 µg/kg	TM157		<100	<500	<100	<100	<100	<100
3-Nitroaniline	<100 µg/kg	TM157		<100	<500	<100	<100	<100	<100
2-Nitrophenol	<100 µg/kg	TM157		<100	<500	<100	<100	<100	<100
2-Nitroaniline	<100 µg/kg	TM157		<100	<500	<100	<100	<100	<100
2-Methylphenol	<100 µg/kg	TM157		<100	<500	<100	112	<100	<100
1,2,4-Trichlorobenzene	<100 µg/kg	TM157		<100	<500	<100	<100	<100	<100
2-Chlorophenol	<100 µg/kg	TM157		<100	<500	<100	<100	<100	<100

CERTIFICATE OF ANALYSIS

SDG: 220429-150 **Report Number:** 648031 **Superseded Report:** 646596
Client Ref.: LD10385 **Location:** Ten Acres Lane

Semi Volatile Organic Compounds

Results Legend			Customer Sample Ref.	TP222	TP223	TP225	TP227	TP251	TP256
#	ISO17025 accredited.								
M	mCERTS accredited.								
aq	Aqueous / settled sample.								
diss.filt	Dissolved / filtered sample.		Depth (m)	2.00 - 2.00	1.00 - 1.00	0.40 - 0.40	1.10 - 1.10	2.00 - 2.00	0.35 - 0.35
tot.unfilt	Total / unfiltered sample.		Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
*	Subcontracted - refer to subcontractor report for accreditation status.		Date Sampled	26/04/2022	26/04/2022	26/04/2022	26/04/2022	25/04/2022	26/04/2022
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery		Sample Time	12:00	12:00	12:00	12:00	12:00	12:00
			Date Received	29/04/2022	29/04/2022	29/04/2022	29/04/2022	29/04/2022	29/04/2022
			SDG Ref	220429-150	220429-150	220429-150	220429-150	220429-150	220429-150
(F)	Trigger breach confirmed		Lab Sample No.(s)	26209436	26209427	26209391	26209421	26209404	26209398
1-4+§@	Sample deviation (see appendix)		AGS Reference						
Component	**LOD/Units**	**Method**							
2,6-Dinitrotoluene	<100 µg/kg	TM157		<100	<500	<100	<100	<100	<100
2,4-Dinitrotoluene	<100 µg/kg	TM157		<100	<500	<100	<100	<100	<100
2,4-Dimethylphenol	<100 µg/kg	TM157		<100	<500	<100	<100	<100	<100
2,4-Dichlorophenol	<100 µg/kg	TM157		<100	<500	<100	<100	<100	<100
2,4,6-Trichlorophenol	<100 µg/kg	TM157		<100	<500	<100	<100	<100	<100
2,4,5-Trichlorophenol	<100 µg/kg	TM157		<100	<500	<100	<100	<100	<100
1,4-Dichlorobenzene	<100 µg/kg	TM157		<100	<500	<100	<100	<100	<100
1,3-Dichlorobenzene	<100 µg/kg	TM157		<100	<500	<100	<100	<100	<100
1,2-Dichlorobenzene	<100 µg/kg	TM157		<100	<500	<100	<100	<100	<100
2-Chloronaphthalene	<100 µg/kg	TM157		<100	<500	<100	<100	<100	<100
2-Methylnaphthalene	<100 µg/kg	TM157		<100	3010	<100	3230	<100	137
Acenaphthylene	<100 µg/kg	TM157		<100	<500	<100	<100	<100	<100
Acenaphthene	<100 µg/kg	TM157		<100	21100	<100	<100	<100	706
Anthracene	<100 µg/kg	TM157		<100	8250	<100	<100	175	1140
Benzo(a)anthracene	<100 µg/kg	TM157		<100	4730	<100	157	601	3620
Benzo(b)fluoranthene	<100 µg/kg	TM157		<100	2240	<100	<100	433	2380
Benzo(k)fluoranthene	<100 µg/kg	TM157		<100	1830	<100	<100	443	2900
Benzo(a)pyrene	<100 µg/kg	TM157		<100	1270	<100	<100	452	2980
Benzo(g,h,i)perylene	<100 µg/kg	TM157		<100	<500	<100	<100	246	1790
Chrysene	<100 µg/kg	TM157		<100	5100	<100	164	628	4030
Fluoranthene	<100 µg/kg	TM157		<100	33200	<100	156	1220	8560
Fluorene	<100 µg/kg	TM157		<100	7980	<100	<100	<100	445
Indeno(1,2,3-cd)pyrene	<100 µg/kg	TM157		<100	1180	<100	<100	529	4010
Phenanthrene	<100 µg/kg	TM157		<100	22300	<100	861	805	5060
Pyrene	<100 µg/kg	TM157		<100	26200	<100	161	1090	8230
Naphthalene	<100 µg/kg	TM157		<100	3770	<100	2360	<100	162
Dibenzo(a,h)anthracene	<100 µg/kg	TM157		<100	<500	<100	<100	<100	327
Bis(2-chloroisopropyl) ether	<100 µg/kg	TM157		<100	<500	<100	<100	<100	<100

CERTIFICATE OF ANALYSIS

SDG: 220429-150 **Report Number:** 648031 **Superseded Report:** 646596

Client Ref.: LD10385 **Location:** Ten Acres Lane

TPH CWG (S)

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	TP201	TP202	TP210	TP210	TP211	TP219
			Depth (m)	0.80 - 0.80	1.30 - 1.30	0.90 - 0.90	2.10 - 2.10	1.80 - 1.80	1.50 - 1.50
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	26/04/2022	26/04/2022	26/04/2022	26/04/2022	26/04/2022	25/04/2022
			Sample Time	12:00	12:00	12:00	12:00	12:00	12:00
			Date Received	29/04/2022	29/04/2022	29/04/2022	29/04/2022	29/04/2022	29/04/2022
			SDG Ref	220429-150	220429-150	220429-150	220429-150	220429-150	220429-150
			Lab Sample No.(s)	26209459	26209466	26209449	26209454	26209441	26209413
			AGS Reference						
GRO Surrogate % recovery**	%	TM089		90.1 @	130 @	80.3 @	72.2 @	84.5 @	92.5 @
Aliphatics >C5-C6 (HS_1D_AL)	<10 µg/kg	TM089		<10 @	<10 @	<10 @	<10 @	<10 @	36.6 @
Aliphatics >C6-C8 (HS_1D_AL)	<10 µg/kg	TM089		<10 @	<10 @	<10 @	<10 @	19.9 @	54.3 @
Aliphatics >C8-C10 (HS_1D_AL)	<10 µg/kg	TM089		<10 @	<10 @	<10 @	<10 @	15.2 @	60.2 @
Aliphatics >C10-C12 (EH_2D_AL_#1)	<1000 µg/kg	TM414		<1000 #	<1000 #	<1000 #	<1000 #	<1000 #	5710 #
Aliphatics >C12-C16 (EH_2D_AL_#1)	<1000 µg/kg	TM414		1860 #	<1000 #	<1000 #	<1000 #	<1000 #	144000 #
Aliphatics >C16-C21 (EH_2D_AL_#1)	<1000 µg/kg	TM414		3780 #	<1000 #	<1000 #	1700 #	<1000 #	396000 #
Aliphatics >C21-C35 (EH_2D_AL_#1)	<1000 µg/kg	TM414		10800 #	7160 #	6640 #	4190 #	11100 #	816000 #
Aliphatics >C35-C44 (EH_2D_AL_#1)	<1000 µg/kg	TM414		1590	<1000	2980	<1000	<1000	24700
Total Aliphatics >C10-C44 (EH_2D_AR_#1)	<5000 µg/kg	TM414		18600	7620	10500	6490	12400	1390000
Total Aliphatics & Aromatics >C10-C44 (EH_2D_Total_#1)	<10000 µg/kg	TM414		450000	10900	95800	26900	37800	1610000
Aromatics >EC5-EC7 (HS_1D_AR)	<10 µg/kg	TM089		<10 @	<10 @	<10 @	<10 @	<10 @	<10 @
Aromatics >EC7-EC8 (HS_1D_AR)	<10 µg/kg	TM089		<10 @	<10 @	<10 @	<10 @	<10 @	<10 @
Aromatics >EC8-EC10 (HS_1D_AR)	<10 µg/kg	TM089		<10 @	<10 @	<10 @	<10 @	10.5 @	40.1 @
Aromatics > EC10-EC12 (EH_2D_AR_#1)	<1000 µg/kg	TM414		5980 #	<1000 #	<1000 #	<1000 #	<1000 #	1180 #
Aromatics > EC12-EC16 (EH_2D_AR_#1)	<1000 µg/kg	TM414		56300 #	<1000 #	2670 #	2150 #	2130 #	25700 #
Aromatics > EC16-EC21 (EH_2D_AR_#1)	<1000 µg/kg	TM414		163000 #	<1000 #	26600 #	6830 #	9280 #	46500 #
Aromatics > EC21-EC35 (EH_2D_AR_#1)	<1000 µg/kg	TM414		186000 #	1200 #	51200 #	10500 #	12900 #	128000 #
Aromatics >EC35-EC44 (EH_2D_AR_#1)	<1000 µg/kg	TM414		20400	1920	4490	<1000	<1000	18300
Aromatics > EC40-EC44 (EH_2D_AR_#1)	<1000 µg/kg	TM414		2610	<1000	<1000	<1000	<1000	9550
Total Aromatics > EC10-EC44 (EH_2D_AR_#1)	<5000 µg/kg	TM414		432000	<5000	85200	20500	25400	220000
Total Aliphatics & Aromatics >C5-C44 (EH_2D_Total_#1+HS_1D_Total)	<10000 µg/kg	TM414		450000	<10000	95800	26900	37800	1610000
Total Aliphatics >C5-C10 (HS_1D_AL_TOTAL)	<50 µg/kg	TM089		<50 @	<50 @	<50 @	<50 @	<50 @	151 @
Total Aromatics >EC5-EC10 (HS_1D_AR_TOTAL)	<50 µg/kg	TM089		<50 @	<50 @	<50 @	<50 @	<50 @	<50 @
GRO >C5-C10 (HS_1D_TOTAL)	<20 µg/kg	TM089		<20 @	<20 @	<20 @	<20 @	<20 @	151 @

Validated

CERTIFICATE OF ANALYSIS

SDG: 220429-150 **Report Number:** 648031 **Superseded Report:** 646596

Client Ref.: LD10385 **Location:** Ten Acres Lane

TPH CWG (S)

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	TP222	TP223	TP225	TP227	TP251	TP256
			Depth (m)	2.00 - 2.00	1.00 - 1.00	0.40 - 0.40	1.10 - 1.10	2.00 - 2.00	0.35 - 0.35
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	26/04/2022	26/04/2022	26/04/2022	26/04/2022	25/04/2022	26/04/2022
			Sample Time	12:00	12:00	12:00	12:00	12:00	12:00
			Date Received	29/04/2022	29/04/2022	29/04/2022	29/04/2022	29/04/2022	29/04/2022
			SDG Ref	220429-150	220429-150	220429-150	220429-150	220429-150	220429-150
			Lab Sample No.(s)	26209436	26209427	26209391	26209421	26209404	26209398
			AGS Reference						
GRO Surrogate % recovery**	%	TM089		74.2 @	84.2 @	107 @	85.3 @	117 @	111 @
Aliphatics >C5-C6 (HS_1D_AL)	<10 µg/kg	TM089		<10 @	30.2 @	19.2 @	12 @	63.2 @	<10 @
Aliphatics >C6-C8 (HS_1D_AL)	<10 µg/kg	TM089		<10 @	121 @	25.6 @	75.3 @	101 @	52.5 @
Aliphatics >C8-C10 (HS_1D_AL)	<10 µg/kg	TM089		<10 @	388 @	24.5 @	52.4 @	91.6 @	63.8 @
Aliphatics >C10-C12 (EH_2D_AL_#1)	<1000 µg/kg	TM414		<1000 #	24300 #	<1000 #	9440 #	<1000 #	<1000 #
Aliphatics >C12-C16 (EH_2D_AL_#1)	<1000 µg/kg	TM414		<1000 #	276000 #	<1000 #	12000 #	<1000 #	1380 #
Aliphatics >C16-C21 (EH_2D_AL_#1)	<1000 µg/kg	TM414		<1000 #	460000 #	<1000 #	6450 #	<1000 #	1450 #
Aliphatics >C21-C35 (EH_2D_AL_#1)	<1000 µg/kg	TM414		<1000 #	1990000 #	5780 #	7160 #	15800 #	5120 #
Aliphatics >C35-C44 (EH_2D_AL_#1)	<1000 µg/kg	TM414		<1000	453000	<1000	5120	4900	<1000
Total Aliphatics >C10-C44 (EH_2D_AR_#1)	<5000 µg/kg	TM414		<5000	3210000	5990	40200	21700	8780
Total Aliphatics & Aromatics >C10-C44 (EH_2D_Total_#1)	<10000 µg/kg	TM414		<10000	5320000	14800	162000	79100	483000
Aromatics >EC5-EC7 (HS_1D_AR)	<10 µg/kg	TM089		<10 @	<10 @	<10 @	<10 @	<10 @	<10 @
Aromatics >EC7-EC8 (HS_1D_AR)	<10 µg/kg	TM089		<10 @	<10 @	<10 @	<10 @	<10 @	<10 @
Aromatics >EC8-EC10 (HS_1D_AR)	<10 µg/kg	TM089		<10 @	258 @	16 @	34.9 @	61.9 @	42.5 @
Aromatics > EC10-EC12 (EH_2D_AR_#1)	<1000 µg/kg	TM414		<1000 #	42100 #	<1000 #	3970 #	<1000 #	<1000 #
Aromatics > EC12-EC16 (EH_2D_AR_#1)	<1000 µg/kg	TM414		<1000 #	661000 #	<1000 #	21900 #	2710 #	20300 #
Aromatics > EC16-EC21 (EH_2D_AR_#1)	<1000 µg/kg	TM414		<1000 #	671000 #	1020 #	12200 #	17400 #	149000 #
Aromatics > EC21-EC35 (EH_2D_AR_#1)	<1000 µg/kg	TM414		<1000 #	734000 #	6800 #	39800 #	30700 #	262000 #
Aromatics >EC35-EC44 (EH_2D_AR_#1)	<1000 µg/kg	TM414		<1000	<1000	<1000	43800	6680	43300
Aromatics > EC40-EC44 (EH_2D_AR_#1)	<1000 µg/kg	TM414		<1000	<1000	<1000	18400	2120	7320
Total Aromatics > EC10-EC44 (EH_2D_AR_#1)	<5000 µg/kg	TM414		<5000	2110000	8830	122000	57500	475000
Total Aliphatics & Aromatics >C5-C44 (EH_2D_Total_#1+HS_1D_Total)	<10000 µg/kg	TM414		<10000	5320000	14900	162000	79400	484000
Total Aliphatics >C5-C10 (HS_1D_AL_TOTAL)	<50 µg/kg	TM089		<50 @	539 @	69.3 @	140 @	255 @	116 @
Total Aromatics >EC5-EC10 (HS_1D_AR_TOTAL)	<50 µg/kg	TM089		<50 @	258 @	<50 @	<50 @	61.9 @	<50 @
GRO >C5-C10 (HS_1D_TOTAL)	<20 µg/kg	TM089		<20 @	796 @	69.3 @	140 @	317 @	116 @

CERTIFICATE OF ANALYSIS

SDG: 220429-150 **Report Number:** 648031 **Superseded Report:** 646596

Client Ref.: LD10385 **Location:** Ten Acres Lane

VOC MS (S)

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	TP201	TP202	TP210	TP210	TP211	TP219
			Depth (m)	0.80 - 0.80	1.30 - 1.30	0.90 - 0.90	2.10 - 2.10	1.80 - 1.80	1.50 - 1.50
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	26/04/2022	26/04/2022	26/04/2022	26/04/2022	26/04/2022	25/04/2022
			Sample Time	12:00	12:00	12:00	12:00	12:00	12:00
			Date Received	29/04/2022	29/04/2022	29/04/2022	29/04/2022	29/04/2022	29/04/2022
			SDG Ref	220429-150	220429-150	220429-150	220429-150	220429-150	220429-150
			Lab Sample No.(s)	26209459	26209466	26209449	26209454	26209441	26209413
			AGS Reference						
Dibromofluoromethane**	%	TM116		111 @	110 @	110 @	111 @	114 @	111 @
Toluene-d8**	%	TM116		97.8 @	98 @	97.6 @	98.2 @	98.5 @	97.2 @
4-Bromofluorobenzene**	%	TM116		89.2 @	92.3 @	86.9 @	86.2 @	88.4 @	92.3 @
Dichlorodifluoromethane	<6 µg/kg	TM116		<120 @ #	<120 @ #	<60 @ #	<60 @ #	<120 @ #	<120 @ #
Chloromethane	<7 µg/kg	TM116		<140 @ #	<140 @ #	<70 @ #	<70 @ #	<140 @ #	<140 @ #
Vinyl Chloride	<6 µg/kg	TM116		<120 @ M	<120 @ M	<60 @ M	<60 @ M	<120 @ M	<120 @ M
Bromomethane	<10 µg/kg	TM116		<200 @ M	<200 @ M	<100 @ M	<100 @ M	<200 @ M	<200 @ M
Chloroethane	<10 µg/kg	TM116		<200 @ M	<200 @ M	<100 @ M	<100 @ M	<200 @ M	<200 @ M
Trichlorofluorormethane	<6 µg/kg	TM116		<120 @ M	<120 @ M	<60 @ M	<60 @ M	<120 @ M	<120 @ M
1,1-Dichloroethene	<10 µg/kg	TM116		<200 @ #	<200 @ #	<100 @ #	<100 @ #	<200 @ #	<200 @ #
Carbon Disulphide	<7 µg/kg	TM116		<140 @ M	<140 @ M	<70 @ M	<70 @ M	<140 @ M	<140 @ M
Dichloromethane	<10 µg/kg	TM116		<200 @ #	<200 @ #	<100 @ #	<100 @ #	<200 @ #	<200 @ #
Methyl Tertiary Butyl Ether	<10 µg/kg	TM116		<200 @ M	<200 @ M	<100 @ M	<100 @ M	<200 @ M	<200 @ M
trans-1,2-Dichloroethene	<10 µg/kg	TM116		<200 @ M	<200 @ M	<100 @ M	<100 @ M	<200 @ M	<200 @ M
1,1-Dichloroethane	<8 µg/kg	TM116		<160 @ M	<160 @ M	<80 @ M	<80 @ M	<160 @ M	<160 @ M
cis-1,2-Dichloroethene	<6 µg/kg	TM116		<120 @ M	<120 @ M	<60 @ M	<60 @ M	<120 @ M	<120 @ M
2,2-Dichloropropane	<10 µg/kg	TM116		<200 @	<200 @	<100 @	<100 @	<200 @	<200 @
Bromochloromethane	<10 µg/kg	TM116		<200 @ M	<200 @ M	<100 @ M	<100 @ M	<200 @ M	<200 @ M
Chloroform	<8 µg/kg	TM116		<160 @ M	<160 @ M	<80 @ M	<80 @ M	<160 @ M	<160 @ M
1,1,1-Trichloroethane	<7 µg/kg	TM116		<140 @ M	<140 @ M	<70 @ M	<70 @ M	<140 @ M	<140 @ M
1,1-Dichloropropene	<10 µg/kg	TM116		<200 @ M	<200 @ M	<100 @ M	<100 @ M	<200 @ M	<200 @ M
Carbontetrachloride	<10 µg/kg	TM116		<200 @ M	<200 @ M	<100 @ M	<100 @ M	<200 @ M	<200 @ M
1,2-Dichloroethane	<5 µg/kg	TM116		<100 @ M	<100 @ M	<50 @ M	<50 @ M	<100 @ M	<100 @ M
Benzene	<9 µg/kg	TM116		<180 @ M	<180 @ M	<90 @ M	<90 @ M	<180 @ M	<180 @ M
Trichloroethene	<9 µg/kg	TM116		<180 @ #	<180 @ #	<90 @ #	<90 @ #	<180 @ #	<180 @ #
1,2-Dichloropropane	<10 µg/kg	TM116		<200 @ M	<200 @ M	<100 @ M	<100 @ M	<200 @ M	<200 @ M
Dibromomethane	<9 µg/kg	TM116		<180 @ M	<180 @ M	<90 @ M	<90 @ M	<180 @ M	<180 @ M
Bromodichloromethane	<7 µg/kg	TM116		<140 @ M	<140 @ M	<70 @ M	<70 @ M	<140 @ M	<140 @ M
cis-1,3-Dichloropropene	<10 µg/kg	TM116		<200 @ M	<200 @ M	<100 @ M	<100 @ M	<200 @ M	<200 @ M
Toluene	<7 µg/kg	TM116		<140 @ M	<140 @ M	<70 @ M	<70 @ M	<140 @ M	<140 @ M
trans-1,3-Dichloropropene	<10 µg/kg	TM116		<200 @	<200 @	<100 @	<100 @	<200 @	<200 @
1,1,2-Trichloroethane	<10 µg/kg	TM116		<200 @ M	<200 @ M	<100 @ M	<100 @ M	<200 @ M	<200 @ M
1,3-Dichloropropane	<7 µg/kg	TM116		<140 @ M	<140 @ M	<70 @ M	<70 @ M	<140 @ M	<140 @ M

CERTIFICATE OF ANALYSIS

SDG: 220429-150 **Report Number:** 648031 **Superseded Report:** 646596

Client Ref.: LD10385 **Location:** Ten Acres Lane

VOC MS (S)

Results Legend
ISO17025 accredited.
M mCERTS accredited.
aq Aqueous / settled sample.
diss.filt Dissolved / filtered sample.
tot.unfilt Total / unfiltered sample.
* Subcontracted - refer to subcontractor report for accreditation status.
** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F) Trigger breach confirmed
1-4+§@ Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	TP201	TP202	TP210	TP210	TP211	TP219
			Depth (m)	0.80 - 0.80	1.30 - 1.30	0.90 - 0.90	2.10 - 2.10	1.80 - 1.80	1.50 - 1.50
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	26/04/2022	26/04/2022	26/04/2022	26/04/2022	26/04/2022	25/04/2022
			Sample Time	12:00	12:00	12:00	12:00	12:00	12:00
			Date Received	29/04/2022	29/04/2022	29/04/2022	29/04/2022	29/04/2022	29/04/2022
			SDG Ref	220429-150	220429-150	220429-150	220429-150	220429-150	220429-150
			Lab Sample No.(s)	26209459	26209466	26209449	26209454	26209441	26209413
			AGS Reference						
Tetrachloroethene	<5 µg/kg	TM116		<100 @ M	<100 @ M	<50 @ M	<50 @ M	<100 @ M	<100 @ M
Dibromochloromethane	<10 µg/kg	TM116		<200 @ M	<200 @ M	<100 @ M	<100 @ M	<200 @ M	<200 @ M
1,2-Dibromoethane	<10 µg/kg	TM116		<200 @ M	<200 @ M	<100 @ M	<100 @ M	<200 @ M	<200 @ M
Chlorobenzene	<5 µg/kg	TM116		<100 @ M	<100 @ M	<50 @ M	<50 @ M	<100 @ M	<100 @ M
1,1,1,2-Tetrachloroethane	<10 µg/kg	TM116		<200 @ M	<200 @ M	<100 @ M	<100 @ M	<200 @ M	<200 @ M
Ethylbenzene	<4 µg/kg	TM116		<80 @ M	<80 @ M	<40 @ M	<40 @ M	<80 @ M	<80 @ M
p/m-Xylene	<10 µg/kg	TM116		<200 @ #	<200 @ #	<100 @ #	<100 @ #	<200 @ #	<200 @ #
o-Xylene	<10 µg/kg	TM116		<200 @ M	<200 @ M	<100 @ M	<100 @ M	<200 @ M	<200 @ M
Styrene	<10 µg/kg	TM116		<200 @ #	<200 @ #	<100 @ #	<100 @ #	<200 @ #	<200 @ #
Bromoform	<10 µg/kg	TM116		<200 @ M	<200 @ M	<100 @ M	<100 @ M	<200 @ M	<200 @ M
Isopropylbenzene	<5 µg/kg	TM116		<100 @ #	<100 @ #	<50 @ #	<50 @ #	<100 @ #	<100 @ #
1,1,2,2-Tetrachloroethane	<10 µg/kg	TM116		<200 @ #	<200 @ #	<100 @ #	<100 @ #	<200 @ #	<200 @ #
1,2,3-Trichloropropane	<16 µg/kg	TM116		<320 @ M	<320 @ M	<160 @ M	<160 @ M	<320 @ M	<320 @ M
Bromobenzene	<10 µg/kg	TM116		<200 @ M	<200 @ M	<100 @ M	<100 @ M	<200 @ M	<200 @ M
Propylbenzene	<10 µg/kg	TM116		<200 @ M	<200 @ M	<100 @ M	<100 @ M	<200 @ M	<200 @ M
2-Chlorotoluene	<9 µg/kg	TM116		<180 @ M	<180 @ M	<90 @ M	<90 @ M	<180 @ M	<180 @ M
1,3,5-Trimethylbenzene	<8 µg/kg	TM116		<160 @ M	<160 @ M	<80 @ M	<80 @ M	<160 @ M	<160 @ M
4-Chlorotoluene	<10 µg/kg	TM116		<200 @ M	<200 @ M	<100 @ M	<100 @ M	<200 @ M	<200 @ M
tert-Butylbenzene	<14 µg/kg	TM116		<280 @ #	<280 @ #	<140 @ #	<140 @ #	<280 @ #	<280 @ #
1,2,4-Trimethylbenzene	<9 µg/kg	TM116		<180 @ #	<180 @ #	<90 @ #	<90 @ #	<180 @ #	<180 @ #
sec-Butylbenzene	<10 µg/kg	TM116		<200 @	<200 @	<100 @	<100 @	<200 @	<200 @
4-Isopropyltoluene	<10 µg/kg	TM116		<200 @	<200 @	<100 @	<100 @	<200 @	<200 @
1,3-Dichlorobenzene	<8 µg/kg	TM116		<160 @ M	<160 @ M	<80 @ M	<80 @ M	<160 @ M	<160 @ M
1,4-Dichlorobenzene	<5 µg/kg	TM116		<100 @ M	<100 @ M	<50 @ M	<50 @ M	<100 @ M	<100 @ M
n-Butylbenzene	<11 µg/kg	TM116		<220 @	<220 @	<110 @	<110 @	<220 @	<220 @
1,2-Dichlorobenzene	<10 µg/kg	TM116		<200 @ M	<200 @ M	<100 @ M	<100 @ M	<200 @ M	<200 @ M
1,2-Dibromo-3-chloropropane	<14 µg/kg	TM116		<280 @ M	<280 @ M	<140 @ M	<140 @ M	<280 @ M	<280 @ M
Tert-amyl methyl ether	<10 µg/kg	TM116		<200 @ #	<200 @ #	<100 @ #	<100 @ #	<200 @ #	<200 @ #
1,2,4-Trichlorobenzene	<20 µg/kg	TM116		<400 @	<400 @	<200 @	<200 @	<400 @	<400 @
Hexachlorobutadiene	<20 µg/kg	TM116		<400 @	<400 @	<200 @	<200 @	<400 @	<400 @
Naphthalene	<13 µg/kg	TM116		<260 @ M	<260 @ M	<130 @ M	<130 @ M	<260 @ M	<260 @ M
1,2,3-Trichlorobenzene	<20 µg/kg	TM116		<400 @ #	<400 @ #	<200 @ #	<200 @ #	<400 @ #	<400 @ #
1,3,5-Trichlorobenzene	<20 µg/kg	TM116		<400	<400	<200	<200	<400	<400

CERTIFICATE OF ANALYSIS

SDG: 220429-150 **Report Number:** 648031 **Superseded Report:** 646596

Client Ref.: LD10385 **Location:** Ten Acres Lane

VOC MS (S)

Results Legend		Customer Sample Ref.	TP201	TP202	TP210	TP210	TP211	TP219
#	ISO17025 accredited.							
M	mCERTS accredited.							
aq	Aqueous / settled sample.							
diss.filt	Dissolved / filtered sample.	Depth (m)	0.80 - 0.80	1.30 - 1.30	0.90 - 0.90	2.10 - 2.10	1.80 - 1.80	1.50 - 1.50
tot.unfilt	Total / unfiltered sample.	Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
*	Subcontracted - refer to subcontractor report for accreditation status.	Date Sampled	26/04/2022	26/04/2022	26/04/2022	26/04/2022	26/04/2022	25/04/2022
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery	Sample Time	12:00	12:00	12:00	12:00	12:00	12:00
		Date Received	29/04/2022	29/04/2022	29/04/2022	29/04/2022	29/04/2022	29/04/2022
		SDG Ref	220429-150	220429-150	220429-150	220429-150	220429-150	220429-150
(F)	Trigger breach confirmed	Lab Sample No.(s)	26209459	26209466	26209449	26209454	26209441	26209413
1-4+§@	Sample deviation (see appendix)	AGS Reference						

Component	LOD/Units	Method						
Sum of Detected Xylenes	<0.02 mg/kg	TM116	<0.4 @	<0.4 @	<0.2 @	<0.2 @	<0.4 @	<0.4 @
Sum of BTEX	<40 µg/kg	TM116	<800 @	<800 @	<400 @	<400 @	<800 @	<800 @

CERTIFICATE OF ANALYSIS

SDG: 220429-150 **Report Number:** 648031 **Superseded Report:** 646596

Client Ref.: LD10385 **Location:** Ten Acres Lane

VOC MS (S)

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	TP222	TP223	TP225	TP227	TP251	TP256
			Depth (m)	2.00 - 2.00	1.00 - 1.00	0.40 - 0.40	1.10 - 1.10	2.00 - 2.00	0.35 - 0.35
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	26/04/2022	26/04/2022	26/04/2022	26/04/2022	25/04/2022	26/04/2022
			Sample Time	12:00	12:00	12:00	12:00	12:00	12:00
			Date Received	29/04/2022	29/04/2022	29/04/2022	29/04/2022	29/04/2022	29/04/2022
			SDG Ref	220429-150	220429-150	220429-150	220429-150	220429-150	220429-150
			Lab Sample No.(s)	26209436	26209427	26209391	26209421	26209404	26209398
			AGS Reference						
Dibromofluoromethane**	%	TM116		109 @	116 @	109 @	104 @	112 @	109 @
Toluene-d8**	%	TM116		96.7 @	91.3 @	97.6 @	96 @	98.2 @	98.2 @
4-Bromofluorobenzene**	%	TM116		85.4 @	72.8 @	93 @	80.3 @	88.8 @	93 @
Dichlorodifluoromethane	<6 µg/kg	TM116		<120 @ #	<120 @ #	<120 @ #	<120 @ #	<120 @ #	<120 @ #
Chloromethane	<7 µg/kg	TM116		<140 @ #	<140 @ #	<140 @ #	<140 @ #	<140 @ #	<140 @ #
Vinyl Chloride	<6 µg/kg	TM116		<120 @ M	<120 @ M	<120 @ M	<120 @ M	<120 @ M	<120 @ M
Bromomethane	<10 µg/kg	TM116		<200 @ M	<200 @ M	<200 @ M	<200 @ M	<200 @ M	<200 @ M
Chloroethane	<10 µg/kg	TM116		<200 @ M	<200 @ M	<200 @ M	<200 @ M	<200 @ M	<200 @ M
Trichlorofluorormethane	<6 µg/kg	TM116		<120 @ M	<120 @ M	<120 @ M	<120 @ M	<120 @ M	<120 @ M
1,1-Dichloroethene	<10 µg/kg	TM116		<200 @ #	<200 @ #	<200 @ #	<200 @ #	<200 @ #	<200 @ #
Carbon Disulphide	<7 µg/kg	TM116		<140 @ M	<140 @ M	<140 @ M	<140 @ M	<140 @ M	<140 @ M
Dichloromethane	<10 µg/kg	TM116		<200 @ #	<200 @ #	<200 @ #	<200 @ #	<200 @ #	<200 @ #
Methyl Tertiary Butyl Ether	<10 µg/kg	TM116		<200 @ M	<200 @ M	<200 @ M	<200 @ M	<200 @ M	<200 @ M
trans-1,2-Dichloroethene	<10 µg/kg	TM116		<200 @ M	<200 @ M	<200 @ M	<200 @ M	<200 @ M	<200 @ M
1,1-Dichloroethane	<8 µg/kg	TM116		<160 @ M	<160 @ M	<160 @ M	<160 @ M	<160 @ M	<160 @ M
cis-1,2-Dichloroethene	<6 µg/kg	TM116		<120 @ M	<120 @ M	<120 @ M	<120 @ M	<120 @ M	<120 @ M
2,2-Dichloropropane	<10 µg/kg	TM116		<200 @	<200 @	<200 @	<200 @	<200 @	<200 @
Bromochloromethane	<10 µg/kg	TM116		<200 @ M	<200 @ M	<200 @ M	<200 @ M	<200 @ M	<200 @ M
Chloroform	<8 µg/kg	TM116		<160 @ M	<160 @ M	<160 @ M	<160 @ M	<160 @ M	<160 @ M
1,1,1-Trichloroethane	<7 µg/kg	TM116		<140 @ M	<140 @ M	<140 @ M	<140 @ M	<140 @ M	<140 @ M
1,1-Dichloropropene	<10 µg/kg	TM116		<200 @ M	<200 @ M	<200 @ M	<200 @ M	<200 @ M	<200 @ M
Carbontetrachloride	<10 µg/kg	TM116		<200 @ M	<200 @ M	<200 @ M	<200 @ M	<200 @ M	<200 @ M
1,2-Dichloroethane	<5 µg/kg	TM116		<100 @ M	<100 @ M	<100 @ M	<100 @ M	<100 @ M	<100 @ M
Benzene	<9 µg/kg	TM116		<180 @ M	<180 @ M	<180 @ M	<180 @ M	<180 @ M	<180 @ M
Trichloroethene	<9 µg/kg	TM116		<180 @ #	<180 @ #	<180 @ #	<180 @ #	<180 @ #	<180 @ #
1,2-Dichloropropane	<10 µg/kg	TM116		<200 @ M	<200 @ M	<200 @ M	<200 @ M	<200 @ M	<200 @ M
Dibromomethane	<9 µg/kg	TM116		<180 @ M	<180 @ M	<180 @ M	<180 @ M	<180 @ M	<180 @ M
Bromodichloromethane	<7 µg/kg	TM116		<140 @ M	<140 @ M	<140 @ M	<140 @ M	<140 @ M	<140 @ M
cis-1,3-Dichloropropene	<10 µg/kg	TM116		<200 @ M	<200 @ M	<200 @ M	<200 @ M	<200 @ M	<200 @ M
Toluene	<7 µg/kg	TM116		<140 @ M	<140 @ M	<140 @ M	<140 @ M	<140 @ M	<140 @ M
trans-1,3-Dichloropropene	<10 µg/kg	TM116		<200 @	<200 @	<200 @	<200 @	<200 @	<200 @
1,1,2-Trichloroethane	<10 µg/kg	TM116		<200 @ M	<200 @ M	<200 @ M	<200 @ M	<200 @ M	<200 @ M
1,3-Dichloropropane	<7 µg/kg	TM116		<140 @ M	<140 @ M	<140 @ M	<140 @ M	<140 @ M	<140 @ M

CERTIFICATE OF ANALYSIS

SDG: 220429-150 **Report Number:** 648031 **Superseded Report:** 646596

Client Ref.: LD10385 **Location:** Ten Acres Lane

VOC MS (S)

Results Legend	Customer Sample Ref.	TP222	TP223	TP225	TP227	TP251	TP256
# ISO17025 accredited.							
M mCERTS accredited.							
aq Aqueous / settled sample.							
diss.filt Dissolved / filtered sample.	Depth (m)	2.00 - 2.00	1.00 - 1.00	0.40 - 0.40	1.10 - 1.10	2.00 - 2.00	0.35 - 0.35
tot.unfilt Total / unfiltered sample.	Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
* Subcontracted - refer to subcontractor report for accreditation status.	Date Sampled	26/04/2022	26/04/2022	26/04/2022	26/04/2022	25/04/2022	26/04/2022
** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery	Sample Time	12:00	12:00	12:00	12:00	12:00	12:00
	Date Received	29/04/2022	29/04/2022	29/04/2022	29/04/2022	29/04/2022	29/04/2022
	SDG Ref	220429-150	220429-150	220429-150	220429-150	220429-150	220429-150
(F) Trigger breach confirmed	Lab Sample No.(s)	26209436	26209427	26209391	26209421	26209404	26209398
1-4+§@ Sample deviation (see appendix)	AGS Reference						

Component	LOD/Units	Method						
Tetrachloroethene	<5 µg/kg	TM116	<100	@ M	<100	@ M	<100 @ M	<100 @ M	<100 @ M	<100 @ M
Dibromochloromethane	<10 µg/kg	TM116	<200	@ M	<200	@ M	<200 @ M	<200 @ M	<200 @ M	<200 @ M
1,2-Dibromoethane	<10 µg/kg	TM116	<200	@ M	<200	@ M	<200 @ M	<200 @ M	<200 @ M	<200 @ M
Chlorobenzene	<5 µg/kg	TM116	<100	@ M	<100	@ M	<100 @ M	<100 @ M	<100 @ M	<100 @ M
1,1,1,2-Tetrachloroethane	<10 µg/kg	TM116	<200	@ M	<200	@ M	<200 @ M	<200 @ M	<200 @ M	<200 @ M
Ethylbenzene	<4 µg/kg	TM116	<80	@ M	<80	@ M	<80 @ M	<80 @ M	<80 @ M	<80 @ M
p/m-Xylene	<10 µg/kg	TM116	<200	@ #	<200	@ #	<200 @ #	<200 @ #	<200 @ #	<200 @ #
o-Xylene	<10 µg/kg	TM116	<200	@ M	<200	@ M	<200 @ M	<200 @ M	<200 @ M	<200 @ M
Styrene	<10 µg/kg	TM116	<200	@ #	<200	@ #	<200 @ #	<200 @ #	<200 @ #	<200 @ #
Bromoform	<10 µg/kg	TM116	<200	@ M	<200	@ M	<200 @ M	<200 @ M	<200 @ M	<200 @ M
Isopropylbenzene	<5 µg/kg	TM116	<100	@ #	<100	@ #	<100 @ #	<100 @ #	<100 @ #	<100 @ #
1,1,2,2-Tetrachloroethane	<10 µg/kg	TM116	<200	@ #	<200	@ #	<200 @ #	<200 @ #	<200 @ #	<200 @ #
1,2,3-Trichloropropane	<16 µg/kg	TM116	<320	@ M	<320	@ M	<320 @ M	<320 @ M	<320 @ M	<320 @ M
Bromobenzene	<10 µg/kg	TM116	<200	@ M	<200	@ M	<200 @ M	<200 @ M	<200 @ M	<200 @ M
Propylbenzene	<10 µg/kg	TM116	<200	@ M	<200	@ M	<200 @ M	<200 @ M	<200 @ M	<200 @ M
2-Chlorotoluene	<9 µg/kg	TM116	<180	@ M	<180	@ M	<180 @ M	<180 @ M	<180 @ M	<180 @ M
1,3,5-Trimethylbenzene	<8 µg/kg	TM116	<160	@ M	<160	@ M	<160 @ M	<160 @ M	<160 @ M	<160 @ M
4-Chlorotoluene	<10 µg/kg	TM116	<200	@ M	<200	@ M	<200 @ M	<200 @ M	<200 @ M	<200 @ M
tert-Butylbenzene	<14 µg/kg	TM116	<280	@ #	<280	@ #	<280 @ #	<280 @ #	<280 @ #	<280 @ #
1,2,4-Trimethylbenzene	<9 µg/kg	TM116	<180	@ #	305	@ #	<180 @ #	<180 @ #	<180 @ #	<180 @ #
sec-Butylbenzene	<10 µg/kg	TM116	<200	@	<200	@	<200 @	<200 @	<200 @	<200 @
4-Isopropyltoluene	<10 µg/kg	TM116	<200	@	<200	@	<200 @	<200 @	<200 @	<200 @
1,3-Dichlorobenzene	<8 µg/kg	TM116	<160	@ M	<160	@ M	<160 @ M	<160 @ M	<160 @ M	<160 @ M
1,4-Dichlorobenzene	<5 µg/kg	TM116	<100	@ M	<100	@ M	<100 @ M	<100 @ M	<100 @ M	<100 @ M
n-Butylbenzene	<11 µg/kg	TM116	<220	@	<220	@	<220 @	<220 @	<220 @	<220 @
1,2-Dichlorobenzene	<10 µg/kg	TM116	<200	@ M	<200	@ M	<200 @ M	<200 @ M	<200 @ M	<200 @ M
1,2-Dibromo-3-chloropropane	<14 µg/kg	TM116	<280	@ M	<280	@ M	<280 @ M	<280 @ M	<280 @ M	<280 @ M
Tert-amyl methyl ether	<10 µg/kg	TM116	<200	@ #	<200	@ #	<200 @ #	<200 @ #	<200 @ #	<200 @ #
1,2,4-Trichlorobenzene	<20 µg/kg	TM116	<400	@	<400	@	<400 @	<400 @	<400 @	<400 @
Hexachlorobutadiene	<20 µg/kg	TM116	<400	@	<400	@	<400 @	<400 @	<400 @	<400 @
Naphthalene	<13 µg/kg	TM116	<260	@ M	16500	@ M	<260 @ M	<260 @ M	<260 @ M	<260 @ M
1,2,3-Trichlorobenzene	<20 µg/kg	TM116	<400	@ #	<400	@ #	<400 @ #	<400 @ #	<400 @ #	<400 @ #
1,3,5-Trichlorobenzene	<20 µg/kg	TM116	<400		<400		<400	<400	<400	<400

CERTIFICATE OF ANALYSIS

SDG: 220429-150 **Report Number:** 648031 **Superseded Report:** 646596

Client Ref.: LD10385 **Location:** Ten Acres Lane

VOC MS (S)

Results Legend		Customer Sample Ref.	TP222	TP223	TP225	TP227	TP251	TP256
#	ISO17025 accredited.							
M	mCERTS accredited.							
aq	Aqueous / settled sample.							
diss.filt	Dissolved / filtered sample.	Depth (m)	2.00 - 2.00	1.00 - 1.00	0.40 - 0.40	1.10 - 1.10	2.00 - 2.00	0.35 - 0.35
tot.unfilt	Total / unfiltered sample.	Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
*	Subcontracted - refer to subcontractor report for accreditation status.	Date Sampled	26/04/2022	26/04/2022	26/04/2022	26/04/2022	25/04/2022	26/04/2022
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery	Sample Time	12:00	12:00	12:00	12:00	12:00	12:00
		Date Received	29/04/2022	29/04/2022	29/04/2022	29/04/2022	29/04/2022	29/04/2022
		SDG Ref	220429-150	220429-150	220429-150	220429-150	220429-150	220429-150
(F)	Trigger breach confirmed	Lab Sample No.(s)	26209436	26209427	26209391	26209421	26209404	26209398
1-4+§@	Sample deviation (see appendix)	AGS Reference						

Component	LOD/Units	Method						
Sum of Detected Xylenes	<0.02 mg/kg	TM116	<0.4 @	<0.4 @	<0.4 @	<0.4 @	<0.4 @	<0.4 @
Sum of BTEX	<40 µg/kg	TM116	<800 @	<800 @	<800 @	<800 @	<800 @	<800 @

CERTIFICATE OF ANALYSIS

SDG: 220429-150 **Report Number:** 648031 **Superseded Report:** 646596
Client Ref.: LD10385 **Location:** Ten Acres Lane

Asbestos Identification - Solid Samples

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
*	Subcontracted test.
(F)	Trigger breach confirmed
1-5&♦$@	Sample deviation (see appendix)

		Date of Analysis	Analysed By	Comments	Amosite (Brown) Asbestos	Asbestos Actinolite	Asbestos Anthophyllite	Asbestos Tremolite	Chrysotile (White) Asbestos	Crocidolite (Blue) Asbestos	Non-Asbestos Fibre
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	TP201 0.80 - 0.80 SOLID 26/04/2022 00:00:00 29/04/2022 05:00:00 220429-150 26209459 TM048	05/05/2022	Paul Poynton	N/A	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	TP202 1.30 - 1.30 SOLID 26/04/2022 00:00:00 29/04/2022 05:00:00 220429-150 26209466 TM048	05/05/2022	Emily Anderton	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	TP210 0.90 - 0.90 SOLID 26/04/2022 00:00:00 29/04/2022 05:00:00 220429-150 26209449 TM048	06/05/2022	James Richards	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	TP210 2.10 - 2.10 SOLID 26/04/2022 00:00:00 29/04/2022 05:00:00 220429-150 26209454 TM048	05/05/2022	Emily Anderton	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	TP211 1.80 - 1.80 SOLID 26/04/2022 00:00:00 29/04/2022 05:00:00 220429-150 26209441 TM048	06/05/2022	James Richards	Fibre bundles in soil	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	TP219 1.50 - 1.50 SOLID 25/04/2022 00:00:00 29/04/2022 05:00:00 220429-150 26209413 TM048	05/05/2022	Paul Poynton	N/A	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	TP222 2.00 - 2.00 SOLID 26/04/2022 00:00:00 29/04/2022 05:00:00 220429-150 26209436 TM048	05/05/2022	Paul Poynton	N/A	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	TP223 1.00 - 1.00 SOLID 26/04/2022 00:00:00 29/04/2022 05:00:00 220429-150 26209427 TM048	05/05/2022	Emily Anderton	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected

CERTIFICATE OF ANALYSIS

SDG: 220429-150 **Report Number:** 648031 **Superseded Report:** 646596

Client Ref.: LD10385 **Location:** Ten Acres Lane

		Date of Analysis	Analysed By	Comments	Amosite (Brown) Asbestos	Asbestos Actinolite	Asbestos Anthophyllite	Asbestos Tremolite	Chrysotile (White) Asbestos	Crocidolite (Blue) Asbestos	Non-Asbestos Fibre
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Receieved SDG Original Sample Method Number	TP225 0.40 - 0.40 SOLID 26/04/2022 00:00:00 29/04/2022 05:00:00 220429-150 26209391 TM048	06/05/2022	Paul Poynton	N/A	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Receieved SDG Original Sample Method Number	TP227 1.10 - 1.10 SOLID 26/04/2022 00:00:00 29/04/2022 05:00:00 220429-150 26209421 TM048	05/05/2022	Emily Anderton	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Receieved SDG Original Sample Method Number	TP251 2.00 - 2.00 SOLID 25/04/2022 00:00:00 29/04/2022 05:00:00 220429-150 26209404 TM048	06/05/2022	James Richards	ACM debris in soil	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Receieved SDG Original Sample Method Number	TP256 0.35 - 0.35 SOLID 26/04/2022 00:00:00 29/04/2022 05:00:00 220429-150 26209398 TM048	06/05/2022	James Richards	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected

CERTIFICATE OF ANALYSIS

SDG: 220429-150 **Report Number:** 648031 **Superseded Report:** 646596
Client Ref.: LD10385 **Location:** Ten Acres Lane

Asbestos Quantification - Full

Results Legend	
#	ISO17025 accredited.
M	*m*CERTS accredited.
*	Subcontracted test.
(F)	Trigger breach confirmed
1-5&♦$@	Sample deviation (see appendix)

		Additional Asbestos Components	Analysts Comments	Asbestos Quantification - Gravimetric - %	Asbestos Quantification - PCOM	Asbestos Quantification - Total - %
Cust. Sample Ref.	TP211	None (#)	-	<0.001 (#)	<0.001 (#)	<0.001 (#)
Depth (m)	1.80 - 1.80					
Sample Type	SOLID					
Date Sampled	26/04/2022 00:00:00					
Date Received	29/04/2022 05:00:00					
SDG	220429-150					
Original Sample	26209441					
Method Number	TM304					
Cust. Sample Ref.	TP251	None (#)	-	<0.001 (#)	<0.001 (#)	<0.001 (#)
Depth (m)	2.00 - 2.00					
Sample Type	SOLID					
Date Sampled	25/04/2022 00:00:00					
Date Received	29/04/2022 05:00:00					
SDG	220429-150					
Original Sample	26209404					
Method Number	TM304					

Table of Results - Appendix

Method No	Reference	Description
PM024	Modified BS 1377	Soil preparation including homogenisation, moisture screens of soils for Asbestos Containing Material
TM048	HSG 248, Asbestos: The analysts' guide for sampling, analysis and clearance procedures	Identification of Asbestos in Bulk Material
TM062 (S)	National Grid Property Holdings Methods for the Collection & Analysis of Samples from National Grid Sites version 1 Sec 3.9	Determination of Phenols in Soils by HPLC
TM089	Modified: US EPA Methods 8020 & 602	Determination of Gasoline Range Hydrocarbons (GRO) by Headspace GC-FID (C4-C12)
TM116	Modified: US EPA Method 8260, 8120, 8020, 624, 610 & 602	Determination of Volatile Organic Compounds by Headspace / GC-MS
TM132	In - house Method	ELTRA CS800 Operators Guide
TM133	BS 1377: Part 3 1990;BS 6068-2.5	Determination of pH in Soil and Water using the GLpH pH Meter
TM151	Method 3500D, AWWA/APHA, 20th Ed., 1999	Determination of Hexavalent Chromium using Kone analyser
TM153	Method 4500A,B,C, I, M AWWA/APHA, 20th Ed., 1999	Determination of Total Cyanide, Free (Easily Liberatable) Cyanide and Thiocyanate using the Skalar SANS+ System Segmented Flow Analyser
TM157	HP 6890 Gas Chromatograph (GC) system and HP 5973 Mass Selective Detector (MSD).	Determination of SVOC in Soils by GC-MS extracted by sonication in DCM/Acetone
TM168	EPA Method 8082, Polychlorinated Biphenyls by Gas Chromatography	Determination of WHO12 and EC7 Polychlorinated Biphenyl Congeners by GC-MS in Soils
TM180	Sulphide in waters and waste waters 1991 ISBN 01 175 7186 SCA rec. 2007 (unpublished)'	The Determination Of Easily Liberated Sulphide In Soil Samples by Ion Selective Electrode Technique
TM181	US EPA Method 6010B	Determination of Routine Metals in Soil by iCap 6500 Duo ICP-OES
TM218	Shaker extraction - EPA method 3546.	The determination of PAH in soil samples by GC-MS
TM221	Inductively Coupled Plasma - Atomic Emission Spectroscopy. An Atlas of Spectral Information: Winge, Fassel, Peterson and Floyd	Determination of Acid Extractable Sulphate in Soils by ICP OES
TM222	In-House Method	Determination of Hot Water Soluble Boron in Soils (10:1 Water:Soil) by ICP OES.
TM243		Mixed Anions In Soils By Kone
TM304	HSE Contract research Report no 83/1996	Asbestos Quantification in Soil: Fibres identified by morphology only
TM338	PFAS In Solids	Analysis of perfluoroalkylsulfonates and perfluorocarboxylic acids in Solids
TM414	Analysis of Petroleum Hydrocarbons in Environmental Media – Total Petroleum Hydrocarbon Criteria	Determination of Speciated Extractable Petroleum Hydrocarbons in Soils by GCxGC-FID
TM428	PFAS (TOP Assay)	Analysis of perfluoroalkylsulfonates and perfluorocarboxylic acids - Total Oxidizable Precursor Assay

NA = not applicable.

Chemical testing (unless subcontracted) performed at ALS Life Sciences Ltd Hawarden.

CERTIFICATE OF ANALYSIS

SDG: 220429-150 **Report Number:** 648031 **Superseded Report:** 646596
Client Ref.: LD10385 **Location:** Ten Acres Lane

Test Completion Dates

Lab Sample No(s)	26209459	26209466	26209449	26209454	26209441	26209413	26209436	26209427	26209391	26209421
Customer Sample Ref.	TP201	TP202	TP210	TP210	TP211	TP219	TP222	TP223	TP225	TP227
AGS Ref.										
Depth	0.80 - 0.80	1.30 - 1.30	0.90 - 0.90	2.10 - 2.10	1.80 - 1.80	1.50 - 1.50	2.00 - 2.00	1.00 - 1.00	0.40 - 0.40	1.10 - 1.10
Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
Anions by Kone (soil)	05-May-2022	05-May-2022	05-May-2022	05-May-2022	05-May-2022	05-May-2022	05-May-2022	05-May-2022	05-May-2022	05-May-2022
Asbestos ID in Solid Samples	05-May-2022	05-May-2022	06-May-2022	05-May-2022	06-May-2022	05-May-2022	05-May-2022	05-May-2022	06-May-2022	05-May-2022
Asbestos Quantification - Full					12-May-2022					
Boron Water Soluble	05-May-2022	05-May-2022	05-May-2022	05-May-2022	05-May-2022	05-May-2022	05-May-2022	05-May-2022	05-May-2022	05-May-2022
Cyanide Comp/Free/Total/Thiocyanate	09-May-2022	09-May-2022	09-May-2022	09-May-2022	09-May-2022	09-May-2022	09-May-2022	09-May-2022	06-May-2022	09-May-2022
Easily Liberated Sulphide	06-May-2022	06-May-2022	06-May-2022	06-May-2022	06-May-2022	06-May-2022	06-May-2022	06-May-2022	06-May-2022	06-May-2022
EPH CWG GC (S)	06-May-2022	05-May-2022	06-May-2022	05-May-2022	05-May-2022	05-May-2022	05-May-2022	05-May-2022	05-May-2022	05-May-2022
GRO by GC-FID (S)	10-May-2022	10-May-2022	11-May-2022	11-May-2022	11-May-2022	10-May-2022	11-May-2022	11-May-2022	10-May-2022	11-May-2022
Hexavalent Chromium (s)	05-May-2022	05-May-2022	05-May-2022	05-May-2022	05-May-2022	05-May-2022	05-May-2022	05-May-2022	05-May-2022	05-May-2022
Metals in solid samples by OES	06-May-2022	06-May-2022	06-May-2022	06-May-2022	06-May-2022	06-May-2022	06-May-2022	06-May-2022	06-May-2022	06-May-2022
PAH by GCMS	04-May-2022	05-May-2022	04-May-2022	04-May-2022	06-May-2022	04-May-2022	04-May-2022	04-May-2022	04-May-2022	04-May-2022
PCBs by GCMS	06-May-2022	06-May-2022	06-May-2022	06-May-2022	09-May-2022	06-May-2022	06-May-2022	06-May-2022	06-May-2022	06-May-2022
PFAS (Post Ox.) Solids			25-May-2022							
PFAS Solids			05-May-2022						05-May-2022	
pH	06-May-2022	06-May-2022	09-May-2022	09-May-2022	09-May-2022	06-May-2022	09-May-2022	09-May-2022	09-May-2022	06-May-2022
Phenols by HPLC (S)	09-May-2022	05-May-2022	05-May-2022	06-May-2022	05-May-2022	05-May-2022	06-May-2022	09-May-2022	06-May-2022	05-May-2022
Sample description	30-Apr-2022	30-Apr-2022	30-Apr-2022	30-Apr-2022	30-Apr-2022	30-Apr-2022	30-Apr-2022	30-Apr-2022	30-Apr-2022	30-Apr-2022
Semi Volatile Organic Compounds	05-May-2022	05-May-2022	05-May-2022	06-May-2022	05-May-2022	05-May-2022	05-May-2022	05-May-2022	05-May-2022	05-May-2022
Total Organic Carbon	09-May-2022	09-May-2022	09-May-2022	09-May-2022	09-May-2022	09-May-2022	09-May-2022	09-May-2022	09-May-2022	09-May-2022
Total Sulphate	05-May-2022	05-May-2022	05-May-2022	06-May-2022	06-May-2022	05-May-2022	09-May-2022	06-May-2022	06-May-2022	05-May-2022
TPH CWG GC (S)	11-May-2022	11-May-2022	11-May-2022	11-May-2022	11-May-2022	11-May-2022	11-May-2022	12-May-2022	11-May-2022	12-May-2022
VOC MS (S)	11-May-2022	11-May-2022	11-May-2022	11-May-2022	12-May-2022	11-May-2022	11-May-2022	12-May-2022	11-May-2022	11-May-2022

Lab Sample No(s)	26209404	26209398
Customer Sample Ref.	TP251	TP256
AGS Ref.		
Depth	2.00 - 2.00	0.35 - 0.35
Type	Soil/Solid (S)	Soil/Solid (S)
Anions by Kone (soil)	05-May-2022	05-May-2022
Asbestos ID in Solid Samples	06-May-2022	06-May-2022
Asbestos Quantification - Full	12-May-2022	
Boron Water Soluble	05-May-2022	05-May-2022
Cyanide Comp/Free/Total/Thiocyanate	09-May-2022	09-May-2022
Easily Liberated Sulphide	06-May-2022	06-May-2022
EPH CWG GC (S)	05-May-2022	06-May-2022
GRO by GC-FID (S)	10-May-2022	11-May-2022
Hexavalent Chromium (s)	09-May-2022	05-May-2022
Metals in solid samples by OES	06-May-2022	06-May-2022
PAH by GCMS	04-May-2022	04-May-2022
PCBs by GCMS	06-May-2022	06-May-2022
pH	09-May-2022	09-May-2022
Phenols by HPLC (S)	06-May-2022	05-May-2022
Sample description	30-Apr-2022	30-Apr-2022
Semi Volatile Organic Compounds	06-May-2022	05-May-2022
Total Organic Carbon	09-May-2022	09-May-2022
Total Sulphate	05-May-2022	05-May-2022
TPH CWG GC (S)	11-May-2022	11-May-2022
VOC MS (S)	12-May-2022	11-May-2022

Appendix

1. Results are expressed on a dry weight basis (dried at 35ºC) for all soil analyses except for the following: NRA and CEN Leach tests, flash point LOI, pH, ammonium as NH4 by the BRE method, VOC TICs and SVOC TICs.

2. If sufficient sample is received a sub sample will be retained free of charge for 30 days after analysis is completed (e-mailed) for all sample types unless the sample is destroyed on testing. The prepared soil sub sample that is analysed for asbestos will be retained for a period of 6 months after the analysis date. All bulk samples will be retained for a period of 6 months after the analysis date. All samples received and not scheduled will be disposed of one month after the date of receipt unless we are instructed to the contrary. Once the initial period has expired, a storage charge will be applied for each month or part thereof until the client cancels the request for sample storage. ALS reserve the right to charge for samples received and stored but not analysed.

3. With respect to turnaround, we will always endeavour to meet client requirements wherever possible, but turnaround times cannot be absolutely guaranteed due to so many variables beyond our control.

4. We take responsibility for any test performed by sub-contractors (marked with an asterisk). We endeavour to use UKAS/MCERTS Accredited Laboratories, who either complete a quality questionnaire or are audited by ourselves. For some determinands there are no UKAS/MCERTS Accredited Laboratories, in this instance a laboratory with a known track record will be utilised.

5. If no separate volatile sample is supplied by the client, or if a headspace or sediment is present in the volatile sample, the integrity of the data may be compromised. This will be flagged up as an invalid VOC on the test schedule and the result marked as deviating on the test certificate.

6. NDP - No determination possible due to insufficient/unsuitable sample.

7. Results relate only to the items tested.

8. LoDs (Limit of Detection) for wet tests reported on a dry weight basis are not corrected for moisture content.

9. **Surrogate recoveries** - Surrogates are added to your sample to monitor recovery of the test requested. A % recovery is reported, results are not corrected for the recovery measured. Typical recoveries for organics tests are 70-130%. Recoveries in soils are affected by organic rich or clay rich matrices. Waters can be affected by remediation fluids or high amounts of sediment. Test results are only ever reported if all of the associated quality checks pass; it is assumed that all recoveries outside of the values above are due to matrix affect.

10. Stones/debris are not routinely removed. We always endeavour to take a representative sub sample from the received sample.

11. In certain circumstances the method detection limit may be elevated due to the sample being outside the calibration range. Other factors that may contribute to this include possible interferences. In both cases the sample would be diluted which would cause the method detection limit to be raised.

12. For dried and crushed preparations of soils volatile loss may occur e.g volatile mercury.

13. For leachate preparations other than Zero Headspace Extraction (ZHE) volatile loss may occur.

14. For the BSEN 12457-3 two batch process to allow the cumulative release to be calculated, the volume of the leachate produced is measured and filtered for all tests. We therefore cannot carry out any unfiltered analysis. The tests affected include volatiles GCFID/GCMS and all subcontracted analysis.

15. Analysis and identification of specific compounds using GCFID is by retention time only, and we routinely calibrate and quantify for benzene, toluene, ethylbenzenes and xylenes (BTEX). For total volatiles in the C5-C12 range, the total area of the chromatogram is integrated and expressed as ug/kg or ug/l. Although this analysis is commonly used for the quantification of gasoline range organics (GRO), the system will also detect other compounds such as chlorinated solvents, and this may lead to a falsely high result with respect to hydrocarbons only. It is not possible to specifically identify these non-hydrocarbons, as standards are not routinely run for any other compounds, and for more definitive identification, volatiles by GCMS should be utilised.

16. We are accredited to MCERTS for sand, clay and loam/topsoil, or any of these materials - whether these are derived from naturally occurring soil profiles, or from fill/made ground, as long as these materials constitute the major part of the sample. Other coarse granular material such as concrete, gravel and brick are not accredited if they comprise the major part of the sample.

17 Data retention. All records, communications and reports pertaining to the analysis are archived for seven years from the date of issue of the final report.

General

18. **Tentatively Identified Compounds (TICs)** are non-target peaks in VOC and SVOC analysis. All non-target peaks detected with a concentration above the LoD are subjected to a mass spectral library search. Non-target peaks with a library search confidence of >75% are reported based on the best mass spectral library match. When a non-target peak with a library search confidence of <75% is detected it is reported as “mixed hydrocarbons”. Non-target compounds identified from the scan data are semi-quantified relative to one of the deuterated internal standards, under the same chromatographic conditions as the target compounds. This result is reported as a semi-quantitative value and reported as Tentatively Identified Compounds (TICs). TICs are outside the scope of UKAS accreditation and are not moisture corrected.

19. **Sample Deviations**

If a sample is classed as deviated then the associated results may be compromised.

1	**Container with Headspace provided for volatiles analysis**
2	**Incorrect container received**
3	**Deviation from method**
4	**Matrix interference**
♦	**Sample holding time exceeded in laboratory**
@	**Sample holding time exceeded due to late arrival of instructions or samples**
§	**Sampled on date not provided**

20. **Asbestos**

When requested, the individual sub sample scheduled will be analysed in house for the presence of asbestos fibres and asbestos containing material by our documented in house method TM048 based on HSG 248 (2021), which is accredited to ISO17025. If a specific asbestos fibre type is not found this will be reported as “Not detected”. If no asbestos fibre types are found all will be reported as “Not detected” and the sub sample analysed deemed to be clear of asbestos. If an asbestos fibre type is found it will be reported as detected (for each fibre type found). Testing can be carried out on asbestos positive samples, but, due to Health and Safety considerations, may be replaced by alternative tests or reported as No Determination Possible (NDP). The quantity of asbestos present is not determined unless specifically requested.

Identification of Asbestos in Bulk Materials & Soils

The results for identification of asbestos in bulk materials and soils are obtained from supplied bulk materials andd soils which have been examined to determine the presence of asbestos fibres using ALS (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining, based on HSG 248 (2021).

The results for identification of asbestos in soils are obtained from a homogenised sub sample which has been examined to determine the presence of asbestos fibres using ALS (Hawarden) in-house method of transmitted/polarised light microscopy and central

Asbestos Type	Common Name
Chrysotile	White Asbestos
Amosite	Brown Asbestos
Crocidolite	Blue Asbestos
Fibrous Actinolite	-
Fibrous Anthophyllite	-
Fibrous Tremolite	-

Visual Estimation Of Fibre Content

Estimation of fibre content is not permitted as part of our UKAS accredited test other than: - Trace - Where only one or two asbestos fibres were identified.

Respirable Fibres

Respirable fibres are defined as fibres of <3 µm diameter, longer than 5 µm and with aspect ratios of at least 3:1 that can be inhaled into the lower regions of the lung and are generally acknowledged to be most important predictor of hazard and risk for cancers of the lung.

Further guidance on typical asbestos fibre content of manufactured products can be found in HSG 264.

The identification of asbestos containing materials and soils falls within our schedule of tests for which we hold UKAS accreditation, however opinions, interpretations and all other information contained in the report are outside the scope of UKAS accreditation.

Unit 7-8 Hawarden Business Park
Manor Road (off Manor Lane)
Hawarden
Deeside
CH5 3US
Tel: (01244) 528700
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Website: www.alsenvironmental.co.uk

Wardell Armstrong LLP
36 Park Row
Leeds
LS1 5JL

Attention: Jonathan Currie

CERTIFICATE OF ANALYSIS

Date of report Generation:	26 May 2022
Customer:	Wardell Armstrong LLP
Sample Delivery Group (SDG):	220511-75
Your Reference:	LD10385
Location:	Ten Acres Lane
Report No:	648262
Order Number:	LD2783

This report has been revised and directly supersedes 647850 in its entirety.

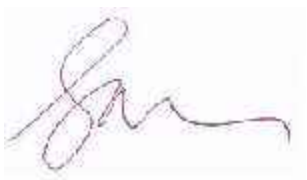
We received 11 samples on Wednesday May 11, 2022 and 11 of these samples were scheduled for analysis which was completed on Thursday May 26, 2022. Accredited laboratory tests are defined within the report, but opinions, interpretations and on-site data expressed herein are outside the scope of ISO 17025 accreditation.

Should this report require incorporation into client reports, it must be used in its entirety and not simply with the data sections alone.

Chemical testing (unless subcontracted) performed at ALS Life Sciences Ltd Hawarden.

All sample data is provided by the customer. The reported results relate to the sample supplied, and on the basis that this data is correct.
Incorrect sampling dates and/or sample information will affect the validity of results.
The customer is not permitted to reproduce this report except in full without the approval of the laboratory.

Approved By:



Sonia McWhan

Operations Manager

CERTIFICATE OF ANALYSIS

SDG: 220511-75 **Report Number:** 648262 **Superseded Report:** 647850
Client Ref.: LD10385 **Location:** Ten Acres Lane

Received Sample Overview

Lab Sample No(s)	Customer Sample Ref.	AGS Ref.	Depth (m)	Sampled Date
26260215	TP204		0.90 - 0.90	09/05/2022
26260224	TP204		2.50 - 2.50	09/05/2022
26260241	TP206		1.00 - 1.00	09/05/2022
26260235	TP207		3.00 - 3.00	09/05/2022
26260229	TP208		2.50 - 2.50	09/05/2022
26260248	TP226		1.50 - 1.50	09/05/2022
26260187	TP226		4.00 - 4.00	09/05/2022
26260202	TP242		2.50 - 2.50	09/05/2022
26260207	TP254		1.30 - 1.30	09/05/2022
26260181	TP258		2.50 - 2.50	09/05/2022
26260195	TP217A		1.60 - 1.60	09/05/2022

Only received samples which have had analysis scheduled will be shown on the following pages.

Validated

CERTIFICATE OF ANALYSIS

SDG: 220511-75 **Report Number:** 648262 **Superseded Report:** 647850

Client Ref.: LD10385 **Location:** Ten Acres Lane

Results Legend

X Test

N No Determination Possible

Sample Ty9es -

S - Soil/Solid
UNS - Unspecified Solid
GW - Ground Water
SW - Surface Water
LE - Land Leachate
PL - Prepared Leachate
PR - Process Water
SA - Saline Water
TE - Trade Effluent
TS - Treated Sewage
US - Untreated Sewage
RE - Recreational Water
DW - Drinking Water Non-regulatory
UNL - Unspecified Liquid
SL - Sludge
G - Gas
OTH - Other

			Lab Sample No(s)	26260215			26260224			26260241			26260235			26260229			26260248			26260187
			Customer Sample Reference	TP204			TP204			TP206			TP207			TP208			TP226			TP226
			AGS Reference																			
			Depth (m)	0.90 - 0.90			2.50 - 2.50			1.00 - 1.00			3.00 - 3.00			2.50 - 2.50			1.50 - 1.50			4.00 - 4.00
			Container	1kg TUB with Handle (ALE260)	250g Amber Jar (ALE210)	60g VOC (ALE215)	1kg TUB with Handle (ALE260)	250g Amber Jar (ALE210)	60g VOC (ALE215)	1kg TUB with Handle (ALE260)	250g Amber Jar (ALE210)	60g VOC (ALE215)	1kg TUB with Handle (ALE260)	250g Amber Jar (ALE210)	60g VOC (ALE215)	1kg TUB with Handle (ALE260)	250g Amber Jar (ALE210)	60g VOC (ALE215)	1kg TUB with Handle (ALE260)	250g Amber Jar (ALE210)	60g VOC (ALE215)	1kg TUB with Handle (ALE260)
			Sample Type	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S
Anions by Kone (soil)	All	NDPs: 0 Tests: 11			X			X			X			X			X			X		
Asbestos ID in Solid Samples	All	NDPs: 0 Tests: 11		X			X			X			X			X			X			X
Asbestos Quantification - Full	All	NDPs: 0 Tests: 3					X						X									
Boron Water Soluble	All	NDPs: 0 Tests: 11			X			X			X			X			X			X		
Cyanide Comp/Free/Total/Thiocyanate	All	NDPs: 0 Tests: 11			X			X			X			X			X			X		
Easily Liberated Sulphide	All	NDPs: 0 Tests: 11			X			X			X			X			X			X		
EPH CWG GC (S)	All	NDPs: 0 Tests: 11			X			X			X			X			X			X		
GRO by GC-FID (S)	All	NDPs: 0 Tests: 11				X			X			X			X			X			X		
Hexavalent Chromium (s)	All	NDPs: 0 Tests: 11			X			X			X			X			X			X		
Metals in solid samples by OES	All	NDPs: 0 Tests: 11			X			X			X			X			X			X		
PAH by GCMS	All	NDPs: 0 Tests: 11			X			X			X			X			X			X		
PCBs by GCMS	All	NDPs: 0 Tests: 11			X			X			X			X			X			X		
PFAS Solids	All	NDPs: 0 Tests: 2											X									X
pH	All	NDPs: 0 Tests: 11			X			X			X			X			X			X		
Phenols by HPLC (S)	All	NDPs: 0 Tests: 11			X			X			X			X			X			X		

26260195		TP217A		1.60 - 1.60		60g VOC (ALE215)	S
						250g Amber Jar (ALE210)	S
26260181		TP258		2.50 - 2.50		1kg TUB with Handle (ALE260)	S
						60g VOC (ALE215)	S
						250g Amber Jar (ALE210)	S
26260207		TP254		1.30 - 1.30		60g VOC (ALE215)	S
						250g Amber Jar (ALE210)	S
26260202		TP242		2.50 - 2.50		60g VOC (ALE215)	S
						250g Amber Jar (ALE210)	S
26260187		TP226		4.00 - 4.00		60g VOC (ALE215)	S
						250g Amber Jar (ALE210)	S

CERTIFICATE OF ANALYSIS

SDG: 220511-75 **Report Number:** 648262 **Superseded Report:** 647850
Client Ref.: LD10385 **Location:** Ten Acres Lane

Results Legend

- X Test
- N No Determination Possible

Sample Ty9es -

S - Soil/Solid
UNS - Unspecified Solid
GW - Ground Water
SW - Surface Water
LE - Land Leachate
PL - Prepared Leachate
PR - Process Water
SA - Saline Water
TE - Trade Effluent
TS - Treated Sewage
US - Untreated Sewage
RE - Recreational Water
DW - Drinking Water Non-regulatory
UNL - Unspecified Liquid
SL - Sludge
G - Gas
OTH - Other

Lab Sample No(s)			26260215			26260224			26260241			26260235			26260229			26260248			26260187
Customer Sample Reference			TP204			TP204			TP206			TP207			TP208			TP226			TP226
AGS Reference																					
Depth (m)			0.90 - 0.90			2.50 - 2.50			1.00 - 1.00			3.00 - 3.00			2.50 - 2.50			1.50 - 1.50			4.00 - 4.00
Container			1kg TUB with Handle (ALE260)	250g Amber Jar (ALE210)	60g VOC (ALE215)	1kg TUB with Handle (ALE260)	250g Amber Jar (ALE210)	60g VOC (ALE215)	1kg TUB with Handle (ALE260)	250g Amber Jar (ALE210)	60g VOC (ALE215)	1kg TUB with Handle (ALE260)	250g Amber Jar (ALE210)	60g VOC (ALE215)	1kg TUB with Handle (ALE260)	250g Amber Jar (ALE210)	60g VOC (ALE215)	1kg TUB with Handle (ALE260)	250g Amber Jar (ALE210)	60g VOC (ALE215)	1kg TUB with Handle (ALE260)
Sample Type			S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S
Sample description	All	NDPs: 0 Tests: 11		X			X			X			X			X			X		
Semi Volatile Organic Compounds	All	NDPs: 0 Tests: 11		X			X			X			X			X			X		
Total Organic Carbon	All	NDPs: 0 Tests: 11		X			X			X			X			X			X		
Total Sulphate	All	NDPs: 0 Tests: 11		X			X			X			X			X			X		
TPH CWG GC (S)	All	NDPs: 0 Tests: 11		X			X			X			X			X			X		
VOC MS (S)	All	NDPs: 0 Tests: 11			X			X			X			X			X			X	

26260195	TP217A		1.60 - 1.60	60g VOC (ALE215)	S		
				250g Amber Jar (ALE210)	S	X	
				1kg TUB with Handle (ALE260)	S		
26260181	TP258		2.50 - 2.50	60g VOC (ALE215)	S		
				250g Amber Jar (ALE210)	S	X	
26260207	TP254		1.30 - 1.30	60g VOC (ALE215)	S		X
				250g Amber Jar (ALE210)	S	X	
26260202	TP242		2.50 - 2.50	60g VOC (ALE215)	S		X
				250g Amber Jar (ALE210)	S	X	
26260187	TP226		4.00 - 4.00	60g VOC (ALE215)	S	X	
				250g Amber Jar (ALE210)	S	X	

CERTIFICATE OF ANALYSIS

SDG: 220511-75 **Report Number:** 648262 **Superseded Report:** 647850
Client Ref.: LD10385 **Location:** Ten Acres Lane

Sample Descriptions

Grain Sizes

very fine	<0.063mm	fine	0.063mm - 0.1mm	medium	0.1mm - 2mm	coarse	2mm - 10mm	very coarse	>10mm

Lab Sample No(s)	Customer Sample Ref.	Depth (m)	Colour	Description	Inclusions	Inclusions 2
26260215	TP204	0.90 - 0.90	Dark Brown	Sandy Clay	Stones	Brick
26260224	TP204	2.50 - 2.50	Dark Brown	Sandy Clay Loam	Stones	Brick
26260241	TP206	1.00 - 1.00	Dark Brown	Sandy Loam	Stones	Brick
26260235	TP207	3.00 - 3.00	Dark Brown	Loamy Sand	Stones	Brick
26260229	TP208	2.50 - 2.50	Dark Brown	Sandy Silt Loam	Stones	Vegetation
26260187	TP226	4.00 - 4.00	Dark Brown	Sandy Clay Loam	Stones	None
26260248	TP226	1.50 - 1.50	Dark Brown	Sandy Loam	Stones	Brick
26260202	TP242	2.50 - 2.50	Dark Brown	Loamy Sand	Stones	Brick
26260207	TP254	1.30 - 1.30	Dark Brown	Sand	Stones	Brick
26260181	TP258	2.50 - 2.50	Dark Brown	Sandy Loam	Brick	Glass & Stones
26260195	TP217A	1.60 - 1.60	Grey	Silty Clay	Stones	None

These descriptions are only intended to act as a cross check if sample identities are questioned, and to provide a log of sample matrices with respect to MCERTS validation. They are not intended as full geological descriptions.

We are accredited to MCERTS for sand, clay and loam/topsoil, or any of these materials - whether these are derived from naturally ocurring soil profiles, or from fill/made ground, as long as these materials constitute the major part of the sample.

Other coarse granular materials such as concrete, gravel and brick are not accredited if they comprise the major part of the sample.

CERTIFICATE OF ANALYSIS

SDG: 220511-75 **Report Number:** 648262 **Superseded Report:** 647850

Client Ref.: LD10385 **Location:** Ten Acres Lane

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	TP204	TP204	TP206	TP207	TP208	TP226
			Depth (m)	0.90 - 0.90	2.50 - 2.50	1.00 - 1.00	3.00 - 3.00	2.50 - 2.50	1.50 - 1.50
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	09/05/2022	09/05/2022	09/05/2022	09/05/2022	09/05/2022	09/05/2022
			Sample Time	12:00	12:00	12:00	12:00	12:00	12:00
			Date Received	11/05/2022	11/05/2022	11/05/2022	11/05/2022	11/05/2022	11/05/2022
			SDG Ref	220511-75	220511-75	220511-75	220511-75	220511-75	220511-75
			Lab Sample No.(s)	26260215	26260224	26260241	26260235	26260229	26260248
			AGS Reference						
Moisture Content Ratio (% of as received sample)	%	PM024		17	22	9	14	19	16
Phenol	<0.01 mg/kg	TM062 (S)		<0.01 M	<0.01 M	0.0329 M	<0.01 M	<0.01 M	<0.01 M
Cresols	<0.01 mg/kg	TM062 (S)		<0.01 M	<0.01 M	0.242 M	<0.01 M	0.0124 M	<0.01 M
Xylenols	<0.015 mg/kg	TM062 (S)		<0.015 M	<0.015 M	0.802 M	<0.015 M	<0.015 M	<0.015 M
Phenols, Total Detected monohydric	<0.035 mg/kg	TM062 (S)		<0.035 M	<0.035 M	1.08 M	<0.035 M	<0.035 M	<0.035 M
Soil Organic Matter (SOM)	<0.35 %	TM132		8.45 #	6.36 #	11.6 #	5.71 #	5.52 #	5.97 #
pH	1 pH Units	TM133		7.8 M	8.06 M	8 M	7.7 M	7.65 M	8.34 M
Chromium, Hexavalent	<0.6 mg/kg	TM151		<0.6 #	<0.6 #	1.52 #	<0.6 #	<0.6 #	<0.6 #
Cyanide, Total	<1 mg/kg	TM153		1.7 M	4.49 M	2.98 M	1.6 M	<1 M	2.18 M
PCB congener 28	<3 µg/kg	TM168		<30 M	<3 M	<15 M	<15 M	<30 M	<30 M
PCB congener 52	<3 µg/kg	TM168		<30 M	<3 M	<15 M	<15 M	<30 M	<30 M
PCB congener 101	<3 µg/kg	TM168		<30 M	<3 M	<15 M	<15 M	<30 M	<30 M
PCB congener 118	<3 µg/kg	TM168		<30 M	<3 M	<15 M	<15 M	<30 M	<30 M
PCB congener 138	<3 µg/kg	TM168		<30 M	<3 M	<15 M	<15 M	<30 M	<30 M
PCB congener 153	<3 µg/kg	TM168		<30 M	<3 M	<15 M	<15 M	<30 M	<30 M
PCB congener 180	<3 µg/kg	TM168		<30 M	<3 M	<15 M	<15 M	<30 M	<30 M
Sum of detected PCB 7 Congeners	<21 µg/kg	TM168		<210	<21	<105	<105	<210	<210
Sulphide, Easily liberated	<15 mg/kg	TM180		95.6 M	168 M	<15 M	<15 M	<15 M	<15 M
Arsenic	<0.6 mg/kg	TM181		26.8 M	26.9 M	41.9 M	16 M	22.4 M	23.4 M
Beryllium	<0.01 mg/kg	TM181		1.31 M	1.29 M	1.79 M	0.73 M	0.937 M	1.33 M
Cadmium	<0.02 mg/kg	TM181		2.89 M	1.11 M	0.248 M	0.424 M	0.653 M	1.05 M
Chromium	<0.9 mg/kg	TM181		9.44 M	17.7 M	497 M	10.1 M	10.9 M	46.1 M
Copper	<1.4 mg/kg	TM181		99.7 M	117 M	213 M	66.4 M	126 M	142 M
Lead	<0.7 mg/kg	TM181		901 M	194 M	1170 M	272 M	237 M	753 M
Mercury	<0.1 mg/kg	TM181		<0.1 M	<0.1 M	5.38 M	<0.1 M	<0.1 M	0.571 M
Nickel	<0.2 mg/kg	TM181		36 M	55.6 M	54.5 M	16.3 M	28.5 M	41.8 M
Selenium	<1 mg/kg	TM181		1.12 #	1.26 #	1.59 #	<1 #	1.62 #	1.49 #
Vanadium	<0.2 mg/kg	TM181		31.4 #	27.8 #	46.9 #	19.9 #	30.7 #	32.7 #
Zinc	<1.9 mg/kg	TM181		1280 M	566 M	826 M	203 M	347 M	345 M
Sulphate, Total	<48 mg/kg	TM221		1040 M	887 M	1200 M	15600 M	5930 M	663 M
Boron, water soluble	<1 mg/kg	TM222		2.63 M	2.11 M	2.34 M	1.34 M	1.25 M	1.18 M
Water Soluble Sulphate as SO4 2:1 Extract	<0.004 g/l	TM243		0.119 M	0.0497 M	0.127 M	1.52 M	1.44 M	0.0385 M
Asbestos Quantification - Gravimetric - %	<0.001 %	TM304			<0.001 #		0.0173 #		

CERTIFICATE OF ANALYSIS

SDG: 220511-75 **Report Number:** 648262 **Superseded Report:** 647850
Client Ref.: LD10385 **Location:** Ten Acres Lane

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4+§@ Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	TP204	TP204	TP206	TP207	TP208	TP226
			Depth (m)	0.90 - 0.90	2.50 - 2.50	1.00 - 1.00	3.00 - 3.00	2.50 - 2.50	1.50 - 1.50
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	09/05/2022	09/05/2022	09/05/2022	09/05/2022	09/05/2022	09/05/2022
			Sample Time	12:00	12:00	12:00	12:00	12:00	12:00
			Date Received	11/05/2022	11/05/2022	11/05/2022	11/05/2022	11/05/2022	11/05/2022
			SDG Ref	220511-75	220511-75	220511-75	220511-75	220511-75	220511-75
			Lab Sample No.(s)	26260215	26260224	26260241	26260235	26260229	26260248
			AGS Reference						
Asbestos Quantification - PCOM Evaluation - %	<0.001 %	TM304			<0.001 #		<0.001 #		
Additional Asbestos Components (Using TM048)		TM304			None #		None #		
Analysts Comments		TM304			N/A		N/A		
Asbestos Quantification - Total - %	<0.001 %	TM304			<0.001 #		0.0173 #		
PFBA (375-22-4) Perfluoro-n-butanoic acid	<3 µg/kg	TM338					<3		
PFPA (2706-90-3) Perfluoro-n-pentanoic acid	<3 µg/kg	TM338					<3		
PFHxA (307-24-4) Perfluoro-n-hexanoic acid	<2 µg/kg	TM338					<2		
PFBS (375-73-5) Perfluoro-1-butanesulfonate	<1 µg/kg	TM338					<1		
PFHpA (375-85-9) Perfluoro-n-heptanoic acid	<1 µg/kg	TM338					<1		
PFOA (335-67-1) Perfluoro-n-octanoic acid	<1 µg/kg	TM338					<1		
PFHxS (355-46-4) Perfluoro-1-hexanesulfonate	<1 µg/kg	TM338					<1		
PFNA (375-95-1) Perfluoro-n-nonanoic acid	<1 µg/kg	TM338					<1		
PFHpS (375-92-8) Perfluoro-1-heptanesulfonate	<1 µg/kg	TM338					<1		
PFDA (335-76-2) Perfluoro-n-decanoic acid	<1 µg/kg	TM338					<1		
Linear PFOS(1763-23-1) Perfluoro-1-octanesulfonate	<1 µg/kg	TM338					<1		
Branched PFOS	<1 µg/kg	TM338					<1		
PFUnA (2058-94-8) Perfluoro-n-undecanoic acid	<1 µg/kg	TM338					<1		
PFDoA (307-55-1) Perfluoro-n-dodecanoic acid	<1 µg/kg	TM338					<1		
PFOSA (754-91-6) Perfluoro-octanesulfonamide	<1 µg/kg	TM338					<1		
6:2-FTS (27619-97-2)	<1 µg/kg	TM338					<1		
PFDS (335-73-3) Perfluoro-1-decanesulfonate	<1 µg/kg	TM338					<1		
PFPeS (2706-91-4) Perfluoro-1-pentanesulfonate	<1 µg/kg	TM338					<1		
Total PFOS	<1 µg/kg	TM338					<1		

CERTIFICATE OF ANALYSIS

SDG: 220511-75 **Report Number:** 648262 **Superseded Report:** 647850

Client Ref.: LD10385 **Location:** Ten Acres Lane

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	TP226	TP242	TP254	TP258	TP217A
			Depth (m)	4.00 - 4.00	2.50 - 2.50	1.30 - 1.30	2.50 - 2.50	1.60 - 1.60
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	09/05/2022	09/05/2022	09/05/2022	09/05/2022	09/05/2022
			Sample Time	12:00	12:00	12:00	12:00	12:00
			Date Received	11/05/2022	11/05/2022	11/05/2022	11/05/2022	11/05/2022
			SDG Ref	220511-75	220511-75	220511-75	220511-75	220511-75
			Lab Sample No.(s)	26260187	26260202	26260207	26260181	26260195
			AGS Reference					
Moisture Content Ratio (% of as received sample)	%	PM024		16	13	9.5	15	8.1
Phenol	<0.01 mg/kg	TM062 (S)		<0.01 M	<0.01 M	<0.01 M	<0.01 M	<0.01 M
Cresols	<0.01 mg/kg	TM062 (S)		<0.01 M	<0.01 M	0.0111 M	<0.01 M	<0.01 M
Xylenols	<0.015 mg/kg	TM062 (S)		<0.015 M	<0.015 M	<0.015 M	<0.015 M	<0.015 M
Phenols, Total Detected monohydric	<0.035 mg/kg	TM062 (S)		<0.035 M	<0.035 M	<0.035 M	<0.035 M	<0.035 M
Soil Organic Matter (SOM)	<0.35 %	TM132		6.29 #	10 #	4.88 #	4.22 #	5.45 #
pH	1 pH Units	TM133		8.11 M	8.19 M	8.31 M	7.57 M	8.36 M
Chromium, Hexavalent	<0.6 mg/kg	TM151		<0.6 #	<0.6 #	<0.6 #	<0.6 #	<0.6 #
Cyanide, Total	<1 mg/kg	TM153		40.6 M	2.69 M	<1 M	<1 M	<1 M
PCB congener 28	<3 µg/kg	TM168		<3 M	<30 M	<30 M	<30 M	<3 M
PCB congener 52	<3 µg/kg	TM168		<3 M	<30 M	<30 M	<30 M	<3 M
PCB congener 101	<3 µg/kg	TM168		<3 M	<30 M	<30 M	<30 M	<3 M
PCB congener 118	<3 µg/kg	TM168		<3 M	<30 M	<30 M	<30 M	<3 M
PCB congener 138	<3 µg/kg	TM168		<3 M	<30 M	<30 M	<30 M	<3 M
PCB congener 153	<3 µg/kg	TM168		<3 M	<30 M	<30 M	<30 M	<3 M
PCB congener 180	<3 µg/kg	TM168		<3 M	42.6 M	<30 M	<30 M	<3 M
Sum of detected PCB 7 Congeners	<21 µg/kg	TM168		<21	<210	<210	<210	<21
Sulphide, Easily liberated	<15 mg/kg	TM180		<15 M	<15 M	<15 M	237 M	<15 M
Arsenic	<0.6 mg/kg	TM181		16.8 M	27.1 M	10.4 M	9.25 M	17.8 M
Beryllium	<0.01 mg/kg	TM181		1.01 M	1.5 M	0.582 M	0.958 M	0.413 M
Cadmium	<0.02 mg/kg	TM181		0.0936 M	0.656 M	5.42 M	0.404 M	0.223 M
Chromium	<0.9 mg/kg	TM181		12.4 M	20.7 M	18.6 M	10.7 M	5.43 M
Copper	<1.4 mg/kg	TM181		78.3 M	146 M	50.6 M	52.5 M	12.7 M
Lead	<0.7 mg/kg	TM181		198 M	10400 M	135 M	98.6 M	22.9 M
Mercury	<0.1 mg/kg	TM181		<0.1 M	<0.1 M	<0.1 M	<0.1 M	1.07 M
Nickel	<0.2 mg/kg	TM181		29.4 M	30.1 M	35.8 M	18.9 M	5.55 M
Selenium	<1 mg/kg	TM181		<1 #	1.17 #	<1 #	<1 #	1.07 #
Vanadium	<0.2 mg/kg	TM181		23.8 #	38.3 #	22.3 #	23.1 #	12.5 #
Zinc	<1.9 mg/kg	TM181		283 M	353 M	190 M	217 M	22.4 M
Sulphate, Total	<48 mg/kg	TM221		681 M	2400 M	8200 M	6850 M	1350 M
Boron, water soluble	<1 mg/kg	TM222		1.24 M	3.19 M	1.67 M	1.24 M	<1 M
Water Soluble Sulphate as SO4 2:1 Extract	<0.004 g/l	TM243		0.0803 M	0.261 M	1.38 M	1.44 M	0.037 M
Asbestos Quantification - Gravimetric - %	<0.001 %	TM304			<0.001 #			

CERTIFICATE OF ANALYSIS

SDG: 220511-75 **Report Number:** 648262 **Superseded Report:** 647850
Client Ref.: LD10385 **Location:** Ten Acres Lane

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4+§@ Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	TP226	TP242	TP254	TP258	TP217A	
			Depth (m)	4.00 - 4.00	2.50 - 2.50	1.30 - 1.30	2.50 - 2.50	1.60 - 1.60	
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	
			Date Sampled	09/05/2022	09/05/2022	09/05/2022	09/05/2022	09/05/2022	
			Sample Time	12:00	12:00	12:00	12:00	12:00	
			Date Received	11/05/2022	11/05/2022	11/05/2022	11/05/2022	11/05/2022	
			SDG Ref	220511-75	220511-75	220511-75	220511-75	220511-75	
			Lab Sample No.(s)	26260187	26260202	26260207	26260181	26260195	
			AGS Reference						
Asbestos Quantification - PCOM Evaluation - %	<0.001 %	TM304			<0.001 #				
Additional Asbestos Components (Using TM048)		TM304			None #				
Analysts Comments		TM304			N/A				
Asbestos Quantification - Total - %	<0.001 %	TM304			<0.001 #				
PFBA (375-22-4) Perfluoro-n-butanoic acid	<3 µg/kg	TM338		<3					
PFPA (2706-90-3) Perfluoro-n-pentanoic acid	<3 µg/kg	TM338		<3					
PFHxA (307-24-4) Perfluoro-n-hexanoic acid	<2 µg/kg	TM338		<2					
PFBS (375-73-5) Perfluoro-1-butanesulfonate	<1 µg/kg	TM338		<1					
PFHpA (375-85-9) Perfluoro-n-heptanoic acid	<1 µg/kg	TM338		<1					
PFOA (335-67-1) Perfluoro-n-octanoic acid	<1 µg/kg	TM338		<1					
PFHxS (355-46-4) Perfluoro-1-hexanesulfonate	<1 µg/kg	TM338		<1					
PFNA (375-95-1) Perfluoro-n-nonanoic acid	<1 µg/kg	TM338		<1					
PFHpS (375-92-8) Perfluoro-1-heptanesulfonate	<1 µg/kg	TM338		<1					
PFDA (335-76-2) Perfluoro-n-decanoic acid	<1 µg/kg	TM338		<1					
Linear PFOS(1763-23-1) Perfluoro-1-octanesulfonate	<1 µg/kg	TM338		<1					
Branched PFOS	<1 µg/kg	TM338		<1					
PFUnA (2058-94-8) Perfluoro-n-undecanoic acid	<1 µg/kg	TM338		<1					
PFDoA (307-55-1) Perfluoro-n-dodecanoic acid	<1 µg/kg	TM338		<1					
PFOSA (754-91-6) Perfluoro-octanesulfonamide	<1 µg/kg	TM338		<1					
6:2-FTS (27619-97-2)	<1 µg/kg	TM338		<1					
PFDS (335-73-3) Perfluoro-1-decanesulfonate	<1 µg/kg	TM338		<1					
PFPeS (2706-91-4) Perfluoro-1-pentanesulfonate	<1 µg/kg	TM338		<1					
Total PFOS	<1 µg/kg	TM338		<1					

CERTIFICATE OF ANALYSIS

SDG: 220511-75 **Report Number:** 648262 **Superseded Report:** 647850

Client Ref.: LD10385 **Location:** Ten Acres Lane

PAH by GCMS

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	TP204	TP204	TP206	TP207	TP208	TP226
			Depth (m)	0.90 - 0.90	2.50 - 2.50	1.00 - 1.00	3.00 - 3.00	2.50 - 2.50	1.50 - 1.50
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	09/05/2022	09/05/2022	09/05/2022	09/05/2022	09/05/2022	09/05/2022
			Sample Time	12:00	12:00	12:00	12:00	12:00	12:00
			Date Received	11/05/2022	11/05/2022	11/05/2022	11/05/2022	11/05/2022	11/05/2022
			SDG Ref	220511-75	220511-75	220511-75	220511-75	220511-75	220511-75
			Lab Sample No.(s)	26260215	26260224	26260241	26260235	26260229	26260248
			AGS Reference						
Naphthalene-d8 % recovery**	%	TM218		97.1	98.5	102	102	101	101
Acenaphthene-d10 % recovery**	%	TM218		97.2	99.3	98.4	102	99.2	100
Phenanthrene-d10 % recovery**	%	TM218		96.4	101	104	103	103	103
Chrysene-d12 % recovery**	%	TM218		81.3	95.9	93	95.1	95.3	91.6
Perylene-d12 % recovery**	%	TM218		84.5	92.2	85.5	92.6	92.4	89.6
Naphthalene	<9 µg/kg	TM218		250 M	39.1 M	1240 M	260 M	590 M	207 M
Acenaphthylene	<12 µg/kg	TM218		261 M	22.4 M	190 M	<60 M	<60 M	409 M
Acenaphthene	<8 µg/kg	TM218		7130 M	161 M	4430 M	684 M	1370 M	829 M
Fluorene	<10 µg/kg	TM218		6060 M	113 M	2930 M	499 M	1170 M	1050 M
Phenanthrene	<15 µg/kg	TM218		47100 M	535 M	6120 M	4450 M	8280 M	7750 M
Anthracene	<16 µg/kg	TM218		9410 M	169 M	1510 M	1070 M	2170 M	2850 M
Fluoranthene	<17 µg/kg	TM218		43000 M	950 M	7220 M	5670 M	7670 M	12100 M
Pyrene	<15 µg/kg	TM218		38800 M	897 M	6290 M	5190 M	7500 M	10200 M
Benz(a)anthracene	<14 µg/kg	TM218		13800 M	379 M	2350 M	2490 M	3310 M	5430 M
Chrysene	<10 µg/kg	TM218		12600 M	347 M	2390 M	2330 M	3160 M	5060 M
Benzo(b)fluoranthene	<15 µg/kg	TM218		<75 M	384 M	2230 M	1850 M	1990 M	5770 M
Benzo(k)fluoranthene	<14 µg/kg	TM218		5050 M	153 M	936 M	1010 M	1230 M	2370 M
Benzo(a)pyrene	<15 µg/kg	TM218		12200 M	359 M	2000 M	2190 M	2920 M	5040 M
Indeno(1,2,3-cd)pyrene	<18 µg/kg	TM218		7710 M	239 M	1270 M	1410 M	1770 M	3250 M
Dibenzo(a,h)anthracene	<23 µg/kg	TM218		1320 M	46.9 M	254 M	283 M	351 M	596 M
Benzo(g,h,i)perylene	<24 µg/kg	TM218		7330 M	226 M	1200 M	1270 M	1700 M	2850 M
PAH, Total Detected USEPA 16	<118 µg/kg	TM218		212000	5020	42600	30700	45200	65800

CERTIFICATE OF ANALYSIS

SDG: 220511-75 **Report Number:** 648262 **Superseded Report:** 647850

Client Ref.: LD10385 **Location:** Ten Acres Lane

PAH by GCMS

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	TP226	TP242	TP254	TP258	TP217A
			Depth (m)	4.00 - 4.00	2.50 - 2.50	1.30 - 1.30	2.50 - 2.50	1.60 - 1.60
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	09/05/2022	09/05/2022	09/05/2022	09/05/2022	09/05/2022
			Sample Time	12:00	12:00	12:00	12:00	12:00
			Date Received	11/05/2022	11/05/2022	11/05/2022	11/05/2022	11/05/2022
			SDG Ref	220511-75	220511-75	220511-75	220511-75	220511-75
			Lab Sample No.(s)	26260187	26260202	26260207	26260181	26260195
			AGS Reference					
Naphthalene-d8 % recovery**	%	TM218		99.1	104	105	99.1	98.1
Acenaphthene-d10 % recovery**	%	TM218		97.3	103	104	97.4	98.2
Phenanthrene-d10 % recovery**	%	TM218		99.2	109	106	103	97.1
Chrysene-d12 % recovery**	%	TM218		94	95.9	98.1	93.6	93
Perylene-d12 % recovery**	%	TM218		89.9	91.5	94.8	91.8	88.7
Naphthalene	<9 µg/kg	TM218		84.9 M	8580 M	131 M	134 M	<9 M
Acenaphthylene	<12 µg/kg	TM218		18.3 M	<120 M	<120 M	73.6 M	<12 M
Acenaphthene	<8 µg/kg	TM218		403 M	2730 M	391 M	910 M	12.5 M
Fluorene	<10 µg/kg	TM218		338 M	2100 M	287 M	995 M	12.1 M
Phenanthrene	<15 µg/kg	TM218		2140 M	15600 M	4390 M	7230 M	107 M
Anthracene	<16 µg/kg	TM218		474 M	3760 M	1160 M	2330 M	25.5 M
Fluoranthene	<17 µg/kg	TM218		2140 M	15100 M	7350 M	9770 M	167 M
Pyrene	<15 µg/kg	TM218		1890 M	13900 M	6650 M	8280 M	171 M
Benz(a)anthracene	<14 µg/kg	TM218		785 M	6350 M	2800 M	4280 M	80.7 M
Chrysene	<10 µg/kg	TM218		750 M	6070 M	2540 M	3950 M	80.3 M
Benzo(b)fluoranthene	<15 µg/kg	TM218		756 M	5830 M	2560 M	3610 M	61.8 M
Benzo(k)fluoranthene	<14 µg/kg	TM218		304 M	2220 M	897 M	1950 M	27 M
Benzo(a)pyrene	<15 µg/kg	TM218		703 M	5370 M	2180 M	3950 M	76.6 M
Indeno(1,2,3-cd)pyrene	<18 µg/kg	TM218		457 M	3440 M	1410 M	2670 M	51.5 M
Dibenzo(a,h)anthracene	<23 µg/kg	TM218		86.6 M	668 M	<230 M	494 M	<23 M
Benzo(g,h,i)perylene	<24 µg/kg	TM218		423 M	3080 M	1270 M	2190 M	52.6 M
PAH, Total Detected USEPA 16	<118 µg/kg	TM218		11800	94800	34000	52800	926

CERTIFICATE OF ANALYSIS

SDG: 220511-75 **Report Number:** 648262 **Superseded Report:** 647850
Client Ref.: LD10385 **Location:** Ten Acres Lane

Semi Volatile Organic Compounds

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4+§@ Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	TP204	TP204	TP206	TP207	TP208	TP226
			Depth (m)	0.90 - 0.90	2.50 - 2.50	1.00 - 1.00	3.00 - 3.00	2.50 - 2.50	1.50 - 1.50
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	09/05/2022	09/05/2022	09/05/2022	09/05/2022	09/05/2022	09/05/2022
			Sample Time	12:00	12:00	12:00	12:00	12:00	12:00
			Date Received	11/05/2022	11/05/2022	11/05/2022	11/05/2022	11/05/2022	11/05/2022
			SDG Ref	220511-75	220511-75	220511-75	220511-75	220511-75	220511-75
			Lab Sample No.(s)	26260215	26260224	26260241	26260235	26260229	26260248
			AGS Reference						
Phenol	<100 µg/kg	TM157		<100	<100	703	<500	<200	<1000
Pentachlorophenol	<100 µg/kg	TM157		<100	<100	<500	3350	<200	<1000
n-Nitroso-n-dipropylamine	<100 µg/kg	TM157		<100	<100	<500	<500	<200	<1000
Nitrobenzene	<100 µg/kg	TM157		<100	<100	<500	<500	<200	<1000
Isophorone	<100 µg/kg	TM157		<100	<100	<500	<500	<200	<1000
Hexachloroethane	<100 µg/kg	TM157		<100	<100	<500	<500	<200	<1000
Hexachlorocyclopentadiene	<100 µg/kg	TM157		<100	<100	<5000	<500	<200	<1000
Hexachlorobutadiene	<100 µg/kg	TM157		<100	<100	<500	<500	<200	<1000
Hexachlorobenzene	<100 µg/kg	TM157		<100	<100	<500	<500	<200	<1000
n-Dioctyl phthalate	<100 µg/kg	TM157		<100	<100	<500	<500	<200	<1000
Dimethyl phthalate	<100 µg/kg	TM157		<100	<100	<500	<500	<200	<1000
Diethyl phthalate	<100 µg/kg	TM157		<100	<100	<500	<500	<200	<1000
n-Dibutyl phthalate	<100 µg/kg	TM157		<100	<100	<500	<500	<200	<1000
Dibenzofuran	<100 µg/kg	TM157		135	<100	2120	<500	<200	1990
Carbazole	<100 µg/kg	TM157		<100	<100	1980	<500	<200	1450
Butylbenzyl phthalate	<100 µg/kg	TM157		<100	<100	<500	<500	<200	<1000
bis(2-Ethylhexyl) phthalate	<100 µg/kg	TM157		<100	<100	<500	<500	<200	<1000
bis(2-Chloroethoxy)methane	<100 µg/kg	TM157		<100	<100	<500	<500	<200	<1000
bis(2-Chloroethyl)ether	<100 µg/kg	TM157		<100	<100	<500	<500	<200	<1000
Azobenzene	<100 µg/kg	TM157		<100	<100	<500	<500	<200	<1000
4-Nitrophenol	<100 µg/kg	TM157		<100	<100	<5000	<500	<200	<1000
4-Nitroaniline	<100 µg/kg	TM157		<100	<100	<500	<500	<200	<1000
4-Methylphenol	<100 µg/kg	TM157		<100	<100	2330	<500	<200	<1000
4-Chlorophenylphenylether	<100 µg/kg	TM157		<100	<100	<500	<500	<200	<1000
4-Chloroaniline	<100 µg/kg	TM157		<100	<100	<500	<500	<200	<1000
4-Chloro-3-methylphenol	<100 µg/kg	TM157		<100	<100	<500	<500	<200	<1000
4-Bromophenylphenylether	<100 µg/kg	TM157		<100	<100	<500	<500	<200	<1000
3-Nitroaniline	<100 µg/kg	TM157		<100	<100	<500	<500	<200	<1000
2-Nitrophenol	<100 µg/kg	TM157		<100	<100	<500	<500	<200	<1000
2-Nitroaniline	<100 µg/kg	TM157		<100	<100	<500	<500	<200	<1000
2-Methylphenol	<100 µg/kg	TM157		<100	<100	564	<500	<200	<1000
1,2,4-Trichlorobenzene	<100 µg/kg	TM157		<100	<100	<500	<500	<200	<1000
2-Chlorophenol	<100 µg/kg	TM157		<100	<100	<500	<500	<200	<1000

CERTIFICATE OF ANALYSIS

SDG: 220511-75 **Report Number:** 648262 **Superseded Report:** 647850
Client Ref.: LD10385 **Location:** Ten Acres Lane

Semi Volatile Organic Compounds

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4+§@ Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	TP204	TP204	TP206	TP207	TP208	TP226
			Depth (m)	0.90 - 0.90	2.50 - 2.50	1.00 - 1.00	3.00 - 3.00	2.50 - 2.50	1.50 - 1.50
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	09/05/2022	09/05/2022	09/05/2022	09/05/2022	09/05/2022	09/05/2022
			Sample Time	12:00	12:00	12:00	12:00	12:00	12:00
			Date Received	11/05/2022	11/05/2022	11/05/2022	11/05/2022	11/05/2022	11/05/2022
			SDG Ref	220511-75	220511-75	220511-75	220511-75	220511-75	220511-75
			Lab Sample No.(s)	26260215	26260224	26260241	26260235	26260229	26260248
			AGS Reference						
2,6-Dinitrotoluene	<100 µg/kg	TM157		<100	<100	<500	<500	<200	<1000
2,4-Dinitrotoluene	<100 µg/kg	TM157		<100	<100	<500	<500	<200	<1000
2,4-Dimethylphenol	<100 µg/kg	TM157		<100	<100	<500	<500	<200	<1000
2,4-Dichlorophenol	<100 µg/kg	TM157		<100	<100	<500	<500	<200	<1000
2,4,6-Trichlorophenol	<100 µg/kg	TM157		<100	<100	<500	<500	<200	<1000
2,4,5-Trichlorophenol	<100 µg/kg	TM157		<100	<100	<500	<500	<200	<1000
1,4-Dichlorobenzene	<100 µg/kg	TM157		<100	<100	<500	<500	<200	<1000
1,3-Dichlorobenzene	<100 µg/kg	TM157		<100	<100	<500	<500	<200	<1000
1,2-Dichlorobenzene	<100 µg/kg	TM157		<100	<100	<500	<500	<200	<1000
2-Chloronaphthalene	<100 µg/kg	TM157		<100	<100	<500	<500	<200	<1000
2-Methylnaphthalene	<100 µg/kg	TM157		<100	<100	1380	<500	<200	2440
Acenaphthylene	<100 µg/kg	TM157		<100	<100	<500	<500	<200	<1000
Acenaphthene	<100 µg/kg	TM157		219	<100	6320	<500	282	3420
Anthracene	<100 µg/kg	TM157		355	<100	3970	778	503	4800
Benzo(a)anthracene	<100 µg/kg	TM157		1060	413	8300	2250	1800	10300
Benzo(b)fluoranthene	<100 µg/kg	TM157		1020	366	5580	1560	1620	8860
Benzo(k)fluoranthene	<100 µg/kg	TM157		889	338	6020	1680	1280	6000
Benzo(a)pyrene	<100 µg/kg	TM157		1060	376	5800	2060	1560	8560
Benzo(g,h,i)perylene	<100 µg/kg	TM157		652	233	3120	1130	886	4230
Chrysene	<100 µg/kg	TM157		997	363	9040	1970	1600	9090
Fluoranthene	<100 µg/kg	TM157		2130	779	17900	4450	3670	22900
Fluorene	<100 µg/kg	TM157		170	<100	3710	<500	<200	2380
Indeno(1,2,3-cd)pyrene	<100 µg/kg	TM157		1150	473	3360	2850	2220	9450
Phenanthrene	<100 µg/kg	TM157		1130	432	17900	3360	2130	19300
Pyrene	<100 µg/kg	TM157		2050	791	20000	4220	3700	19200
Naphthalene	<100 µg/kg	TM157		159	<100	2460	586	<200	6840
Dibenzo(a,h)anthracene	<100 µg/kg	TM157		<100	<100	<500	<500	<200	<1000
Bis(2-chloroisopropyl) ether	<100 µg/kg	TM157		<100	<100	<500	<500	<200	<1000

CERTIFICATE OF ANALYSIS

SDG: 220511-75 **Report Number:** 648262 **Superseded Report:** 647850
Client Ref.: LD10385 **Location:** Ten Acres Lane

Semi Volatile Organic Compounds

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4+§@ Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	TP226	TP242	TP254	TP258	TP217A
			Depth (m)	4.00 - 4.00	2.50 - 2.50	1.30 - 1.30	2.50 - 2.50	1.60 - 1.60
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	09/05/2022	09/05/2022	09/05/2022	09/05/2022	09/05/2022
			Sample Time	12:00	12:00	12:00	12:00	12:00
			Date Received	11/05/2022	11/05/2022	11/05/2022	11/05/2022	11/05/2022
			SDG Ref	220511-75	220511-75	220511-75	220511-75	220511-75
			Lab Sample No.(s)	26260187	26260202	26260207	26260181	26260195
			AGS Reference					
Phenol	<100 µg/kg	TM157		<100	<1000	<500	<1000	<100
Pentachlorophenol	<100 µg/kg	TM157		<100	<1000	<500	<1000	<100
n-Nitroso-n-dipropylamine	<100 µg/kg	TM157		<100	<1000	<500	<1000	<100
Nitrobenzene	<100 µg/kg	TM157		<100	<1000	<500	<1000	<100
Isophorone	<100 µg/kg	TM157		<100	<1000	<500	<1000	<100
Hexachloroethane	<100 µg/kg	TM157		<100	<1000	<500	<1000	<100
Hexachlorocyclopentadiene	<100 µg/kg	TM157		<100	<1000	<500	<1000	<100
Hexachlorobutadiene	<100 µg/kg	TM157		<100	<1000	<500	<1000	<100
Hexachlorobenzene	<100 µg/kg	TM157		<100	<1000	<500	<1000	<100
n-Dioctyl phthalate	<100 µg/kg	TM157		<100	<1000	<500	<1000	<100
Dimethyl phthalate	<100 µg/kg	TM157		<100	<1000	<500	<1000	<100
Diethyl phthalate	<100 µg/kg	TM157		<100	<1000	<500	<1000	<100
n-Dibutyl phthalate	<100 µg/kg	TM157		<100	<1000	<500	<1000	<100
Dibenzofuran	<100 µg/kg	TM157		261	<1000	<500	2020	<100
Carbazole	<100 µg/kg	TM157		188	<1000	<500	2500	<100
Butylbenzyl phthalate	<100 µg/kg	TM157		<100	<1000	<500	<1000	<100
bis(2-Ethylhexyl) phthalate	<100 µg/kg	TM157		<100	<1000	<500	<1000	<100
bis(2-Chloroethoxy)methane	<100 µg/kg	TM157		<100	<1000	<500	<1000	<100
bis(2-Chloroethyl)ether	<100 µg/kg	TM157		<100	<1000	<500	<1000	<100
Azobenzene	<100 µg/kg	TM157		<100	<1000	<500	<1000	<100
4-Nitrophenol	<100 µg/kg	TM157		<100	<1000	<500	<1000	<100
4-Nitroaniline	<100 µg/kg	TM157		<100	<1000	<500	<1000	<100
4-Methylphenol	<100 µg/kg	TM157		<100	<1000	<500	<1000	<100
4-Chlorophenylphenylether	<100 µg/kg	TM157		<100	<1000	<500	<1000	<100
4-Chloroaniline	<100 µg/kg	TM157		<100	<1000	<500	<1000	<100
4-Chloro-3-methylphenol	<100 µg/kg	TM157		<100	<1000	<500	<1000	<100
4-Bromophenylphenylether	<100 µg/kg	TM157		<100	<1000	<500	<1000	<100
3-Nitroaniline	<100 µg/kg	TM157		<100	<1000	<500	<1000	<100
2-Nitrophenol	<100 µg/kg	TM157		<100	<1000	<500	<1000	<100
2-Nitroaniline	<100 µg/kg	TM157		<100	<1000	<500	<1000	<100
2-Methylphenol	<100 µg/kg	TM157		<100	<1000	<500	<1000	<100
1,2,4-Trichlorobenzene	<100 µg/kg	TM157		<100	<1000	<500	<1000	<100
2-Chlorophenol	<100 µg/kg	TM157		<100	<1000	<500	<1000	<100

CERTIFICATE OF ANALYSIS

SDG: 220511-75 **Report Number:** 648262 **Superseded Report:** 647850
Client Ref.: LD10385 **Location:** Ten Acres Lane

Semi Volatile Organic Compounds

Results Legend								
#	ISO17025 accredited.		Customer Sample Ref.	TP226	TP242	TP254	TP258	TP217A
M	mCERTS accredited.							
aq	Aqueous / settled sample.							
diss.filt	Dissolved / filtered sample.		Depth (m)	4.00 - 4.00	2.50 - 2.50	1.30 - 1.30	2.50 - 2.50	1.60 - 1.60
tot.unfilt	Total / unfiltered sample.		Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
*	Subcontracted - refer to subcontractor report for accreditation status.		Date Sampled	09/05/2022	09/05/2022	09/05/2022	09/05/2022	09/05/2022
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery		Sample Time	12:00	12:00	12:00	12:00	12:00
			Date Received	11/05/2022	11/05/2022	11/05/2022	11/05/2022	11/05/2022
			SDG Ref	220511-75	220511-75	220511-75	220511-75	220511-75
(F)	Trigger breach confirmed		Lab Sample No.(s)	26260187	26260202	26260207	26260181	26260195
1-4+§@	Sample deviation (see appendix)		AGS Reference					

Component	LOD/Units	Method						
2,6-Dinitrotoluene	<100 µg/kg	TM157	<100	<1000	<500	<1000	<100	
2,4-Dinitrotoluene	<100 µg/kg	TM157	<100	<1000	<500	<1000	<100	
2,4-Dimethylphenol	<100 µg/kg	TM157	<100	<1000	<500	<1000	<100	
2,4-Dichlorophenol	<100 µg/kg	TM157	<100	<1000	<500	<1000	<100	
2,4,6-Trichlorophenol	<100 µg/kg	TM157	<100	<1000	<500	<1000	<100	
2,4,5-Trichlorophenol	<100 µg/kg	TM157	<100	<1000	<500	<1000	<100	
1,4-Dichlorobenzene	<100 µg/kg	TM157	<100	<1000	<500	<1000	<100	
1,3-Dichlorobenzene	<100 µg/kg	TM157	<100	<1000	<500	<1000	<100	
1,2-Dichlorobenzene	<100 µg/kg	TM157	<100	<1000	<500	<1000	<100	
2-Chloronaphthalene	<100 µg/kg	TM157	<100	<1000	<500	<1000	<100	
2-Methylnaphthalene	<100 µg/kg	TM157	<100	<1000	<500	<1000	<100	
Acenaphthylene	<100 µg/kg	TM157	<100	<1000	<500	<1000	<100	
Acenaphthene	<100 µg/kg	TM157	791	1370	<500	3560	<100	
Anthracene	<100 µg/kg	TM157	1080	3140	885	7840	<100	
Benzo(a)anthracene	<100 µg/kg	TM157	2040	7710	2820	11000	<100	
Benzo(b)fluoranthene	<100 µg/kg	TM157	1560	5830	2260	8640	<100	
Benzo(k)fluoranthene	<100 µg/kg	TM157	1440	5770	2040	7950	<100	
Benzo(a)pyrene	<100 µg/kg	TM157	1740	6880	2540	9300	<100	
Benzo(g,h,i)perylene	<100 µg/kg	TM157	867	4300	1450	4600	<100	
Chrysene	<100 µg/kg	TM157	1730	6550	2490	9010	<100	
Fluoranthene	<100 µg/kg	TM157	5710	16400	5890	31600	<100	
Fluorene	<100 µg/kg	TM157	514	<1000	<500	3370	<100	
Indeno(1,2,3-cd)pyrene	<100 µg/kg	TM157	1870	9570	3540	8840	<100	
Phenanthrene	<100 µg/kg	TM157	5010	11700	3480	28400	<100	
Pyrene	<100 µg/kg	TM157	5060	13900	5210	24900	<100	
Naphthalene	<100 µg/kg	TM157	<100	<1000	<500	<1000	<100	
Dibenzo(a,h)anthracene	<100 µg/kg	TM157	137	<1000	<500	<1000	<100	
Bis(2-chloroisopropyl) ether	<100 µg/kg	TM157	<100	<1000	<500	<1000	<100	

CERTIFICATE OF ANALYSIS

SDG: 220511-75 **Report Number:** 648262 **Superseded Report:** 647850

Client Ref.: LD10385 **Location:** Ten Acres Lane

TPH CWG (S)

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	TP204	TP204	TP206	TP207	TP208	TP226
			Depth (m)	0.90 - 0.90	2.50 - 2.50	1.00 - 1.00	3.00 - 3.00	2.50 - 2.50	1.50 - 1.50
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	09/05/2022	09/05/2022	09/05/2022	09/05/2022	09/05/2022	09/05/2022
			Sample Time	12:00	12:00	12:00	12:00	12:00	12:00
			Date Received	11/05/2022	11/05/2022	11/05/2022	11/05/2022	11/05/2022	11/05/2022
			SDG Ref	220511-75	220511-75	220511-75	220511-75	220511-75	220511-75
			Lab Sample No.(s)	26260215	26260224	26260241	26260235	26260229	26260248
			AGS Reference						
GRO Surrogate % recovery**	%	TM089		114	88.1	78.9	76.4	89.1	112
Aliphatics >C5-C6 (HS_1D_AL)	<10 µg/kg	TM089		63.6	93.4	<10	<10	<10	<10
Aliphatics >C6-C8 (HS_1D_AL)	<10 µg/kg	TM089		132	221	34	86.6	33.5	102
Aliphatics >C8-C10 (HS_1D_AL)	<10 µg/kg	TM089		344	1180	34	77.2	31	48.8
Aliphatics >C10-C12 (EH_2D_AL_#1)	<1000 µg/kg	TM414		<1000 #	<1000 #	<1000 #	<1000 #	<1000 #	<1000 #
Aliphatics >C12-C16 (EH_2D_AL_#1)	<1000 µg/kg	TM414		5520 #	<1000 #	<1000 #	<1000 #	<1000 #	14400 #
Aliphatics >C16-C21 (EH_2D_AL_#1)	<1000 µg/kg	TM414		7360 #	2840 #	1370 #	2340 #	1540 #	38300 #
Aliphatics >C21-C35 (EH_2D_AL_#1)	<1000 µg/kg	TM414		34800 #	40700 #	4250 #	14800 #	14700 #	77800 #
Aliphatics >C35-C44 (EH_2D_AL_#1)	<1000 µg/kg	TM414		52300	71400	<1000	2120	1720	1310
Total Aliphatics >C10-C44 (EH_2D_AR_#1)	<5000 µg/kg	TM414		100000	115000	6630	20200	18300	132000
Total Aliphatics & Aromatics >C10-C44 (EH_2D_Total_#1)	<10000 µg/kg	TM414		132000	145000	125000	217000	152000	518000
Aromatics >EC5-EC7 (HS_1D_AR)	<10 µg/kg	TM089		<10	<10	<10	<10	<10	<10
Aromatics >EC7-EC8 (HS_1D_AR)	<10 µg/kg	TM089		<10	<10	<10	<10	<10	<10
Aromatics >EC8-EC10 (HS_1D_AR)	<10 µg/kg	TM089		229	787	23.1	51.5	21.1	33.3
Aromatics > EC10-EC12 (EH_2D_AR_#1)	<1000 µg/kg	TM414		<1000 #	<1000 #	3770 #	<1000 #	<1000 #	<1000 #
Aromatics > EC12-EC16 (EH_2D_AR_#1)	<1000 µg/kg	TM414		1430 #	1860 #	24400 #	7380 #	3410 #	10700 #
Aromatics > EC16-EC21 (EH_2D_AR_#1)	<1000 µg/kg	TM414		7230 #	6860 #	37500 #	47600 #	31700 #	83500 #
Aromatics > EC21-EC35 (EH_2D_AR_#1)	<1000 µg/kg	TM414		21900 #	19900 #	51100 #	111000 #	76100 #	250000 #
Aromatics >EC35-EC44 (EH_2D_AR_#1)	<1000 µg/kg	TM414		<1000	1040	1430	30600	22000	40800
Aromatics > EC40-EC44 (EH_2D_AR_#1)	<1000 µg/kg	TM414		<1000	<1000	<1000	9040	5970	7890
Total Aromatics > EC10-EC44 (EH_2D_AR_#1)	<5000 µg/kg	TM414		31600	29700	118000	197000	133000	385000
Total Aliphatics & Aromatics >C5-C44 (EH_2D_Total_#1+HS_1D_Total)	<10000 µg/kg	TM414		133000	147000	125000	218000	152000	518000
Total Aliphatics >C5-C10 (HS_1D_AL_TOTAL)	<50 µg/kg	TM089		540	1500	68.1	164	64.5	151
Total Aromatics >EC5-EC10 (HS_1D_AR_TOTAL)	<50 µg/kg	TM089		229	787	<50	51.5	<50	<50
GRO >C5-C10 (HS_1D_TOTAL)	<20 µg/kg	TM089		769	2280	68.1	215	64.5	151

Validated

CERTIFICATE OF ANALYSIS

SDG: 220511-75 **Report Number:** 648262 **Superseded Report:** 647850

Client Ref.: LD10385 **Location:** Ten Acres Lane

TPH CWG (S)

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	TP226	TP242	TP254	TP258	TP217A
			Depth (m)	4.00 - 4.00	2.50 - 2.50	1.30 - 1.30	2.50 - 2.50	1.60 - 1.60
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	09/05/2022	09/05/2022	09/05/2022	09/05/2022	09/05/2022
			Sample Time	12:00	12:00	12:00	12:00	12:00
			Date Received	11/05/2022	11/05/2022	11/05/2022	11/05/2022	11/05/2022
			SDG Ref	220511-75	220511-75	220511-75	220511-75	220511-75
			Lab Sample No.(s)	26260187	26260202	26260207	26260181	26260195
			AGS Reference					
GRO Surrogate % recovery**	%	TM089		118	83.6	86.6	85.1	95.8
Aliphatics >C5-C6 (HS_1D_AL)	<10 µg/kg	TM089		<10	12.7	<10	16.5	<10
Aliphatics >C6-C8 (HS_1D_AL)	<10 µg/kg	TM089		13.2	19.6	<10	27.1	<10
Aliphatics >C8-C10 (HS_1D_AL)	<10 µg/kg	TM089		10.8	31.1	<10	64.9	<10
Aliphatics >C10-C12 (EH_2D_AL_#1)	<1000 µg/kg	TM414		<1000 #	<1000 #	<1000 #	<1000 #	<1000 #
Aliphatics >C12-C16 (EH_2D_AL_#1)	<1000 µg/kg	TM414		<1000 #	2090 #	<1000 #	4710 #	<1000 #
Aliphatics >C16-C21 (EH_2D_AL_#1)	<1000 µg/kg	TM414		<1000 #	14700 #	<1000 #	18600 #	<1000 #
Aliphatics >C21-C35 (EH_2D_AL_#1)	<1000 µg/kg	TM414		1990 #	67300 #	12700 #	31200 #	<1000 #
Aliphatics >C35-C44 (EH_2D_AL_#1)	<1000 µg/kg	TM414		<1000	14000	2720	15300	<1000
Total Aliphatics >C10-C44 (EH_2D_AR_#1)	<5000 µg/kg	TM414		<5000	98300	16100	69800	<5000
Total Aliphatics & Aromatics >C10-C44 (EH_2D_Total_#1)	<10000 µg/kg	TM414		28900	261000	99800	380000	<10000
Aromatics >EC5-EC7 (HS_1D_AR)	<10 µg/kg	TM089		<10	<10	<10	<10	<10
Aromatics >EC7-EC8 (HS_1D_AR)	<10 µg/kg	TM089		<10	<10	<10	<10	<10
Aromatics >EC8-EC10 (HS_1D_AR)	<10 µg/kg	TM089		<10	20.7	<10	43.7	<10
Aromatics > EC10-EC12 (EH_2D_AR_#1)	<1000 µg/kg	TM414		<1000 #	<1000 #	<1000 #	<1000 #	<1000 #
Aromatics > EC12-EC16 (EH_2D_AR_#1)	<1000 µg/kg	TM414		<1000 #	3610 #	1570 #	8260 #	<1000 #
Aromatics > EC16-EC21 (EH_2D_AR_#1)	<1000 µg/kg	TM414		8690 #	33400 #	16100 #	61700 #	<1000 #
Aromatics > EC21-EC35 (EH_2D_AR_#1)	<1000 µg/kg	TM414		15800 #	109000 #	54000 #	195000 #	<1000 #
Aromatics >EC35-EC44 (EH_2D_AR_#1)	<1000 µg/kg	TM414		<1000	16300	11800	45800	<1000
Aromatics > EC40-EC44 (EH_2D_AR_#1)	<1000 µg/kg	TM414		<1000	5020	2570	14800	<1000
Total Aromatics > EC10-EC44 (EH_2D_AR_#1)	<5000 µg/kg	TM414		26200	162000	83700	311000	<5000
Total Aliphatics & Aromatics >C5-C44 (EH_2D_Total_#1+HS_1D_Total)	<10000 µg/kg	TM414		26200	261000	99800	381000	<10000
Total Aliphatics >C5-C10 (HS_1D_AL_TOTAL)	<50 µg/kg	TM089		<50	63.3	<50	109	<50
Total Aromatics >EC5-EC10 (HS_1D_AR_TOTAL)	<50 µg/kg	TM089		<50	<50	<50	<50	<50
GRO >C5-C10 (HS_1D_TOTAL)	<20 µg/kg	TM089		<20	63.3	<20	109	<20

CERTIFICATE OF ANALYSIS

SDG: 220511-75 **Report Number:** 648262 **Superseded Report:** 647850
Client Ref.: LD10385 **Location:** Ten Acres Lane

VOC MS (S)

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4+§@ Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	TP204	TP204	TP206	TP207	TP208	TP226
			Depth (m)	0.90 - 0.90	2.50 - 2.50	1.00 - 1.00	3.00 - 3.00	2.50 - 2.50	1.50 - 1.50
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	09/05/2022	09/05/2022	09/05/2022	09/05/2022	09/05/2022	09/05/2022
			Sample Time	12:00	12:00	12:00	12:00	12:00	12:00
			Date Received	11/05/2022	11/05/2022	11/05/2022	11/05/2022	11/05/2022	11/05/2022
			SDG Ref	220511-75	220511-75	220511-75	220511-75	220511-75	220511-75
			Lab Sample No.(s)	26260215	26260224	26260241	26260235	26260229	26260248
			AGS Reference						
Dibromofluoromethane**	%	TM116		111	108	107	111	109	108
Toluene-d8**	%	TM116		96.1	103	93.7	99.6	103	95.4
4-Bromofluorobenzene**	%	TM116		83.3	88	85.1	92.1	88.1	89.3
Dichlorodifluoromethane	<6 µg/kg	TM116		<120 #	<120 #	<120 #	<120 #	<120 #	<120 #
Chloromethane	<7 µg/kg	TM116		<140 #	<140 #	<140 #	<140 #	<140 #	<140 #
Vinyl Chloride	<6 µg/kg	TM116		<120 ♦ M	<120 ♦ M	<120 ♦ M	<120 ♦ M	<120 ♦ M	<120 ♦ M
Bromomethane	<10 µg/kg	TM116		<200 M	<200 M	<200 M	<200 M	<200 M	<200 M
Chloroethane	<10 µg/kg	TM116		<200 M	<200 M	<200 M	<200 M	<200 M	<200 M
Trichlorofluorormethane	<6 µg/kg	TM116		<120 M	<120 M	<120 M	<120 M	<120 M	<120 M
1,1-Dichloroethene	<10 µg/kg	TM116		<200 #	<200 #	<200 #	<200 #	<200 #	<200 #
Carbon Disulphide	<7 µg/kg	TM116		<140 M	<140 M	<140 M	<140 M	<140 M	<140 M
Dichloromethane	<10 µg/kg	TM116		<200 #	<200 #	<200 #	<200 #	<200 #	<200 #
Methyl Tertiary Butyl Ether	<10 µg/kg	TM116		<200 M	<200 M	<200 M	<200 M	<200 M	<200 M
trans-1,2-Dichloroethene	<10 µg/kg	TM116		<200 M	<200 M	<200 M	<200 M	<200 M	<200 M
1,1-Dichloroethane	<8 µg/kg	TM116		<160 M	<160 M	<160 M	<160 M	<160 M	<160 M
cis-1,2-Dichloroethene	<6 µg/kg	TM116		<120 M	<120 M	<120 M	<120 M	<120 M	<120 M
2,2-Dichloropropane	<10 µg/kg	TM116		<200	<200	<200	<200	<200	<200
Bromochloromethane	<10 µg/kg	TM116		<200 M	<200 M	<200 M	<200 M	<200 M	<200 M
Chloroform	<8 µg/kg	TM116		<160 M	<160 M	<160 M	<160 M	<160 M	<160 M
1,1,1-Trichloroethane	<7 µg/kg	TM116		<140 M	<140 M	<140 M	<140 M	<140 M	<140 M
1,1-Dichloropropene	<10 µg/kg	TM116		<200 M	<200 M	<200 M	<200 M	<200 M	<200 M
Carbontetrachloride	<10 µg/kg	TM116		<200 M	<200 M	<200 M	<200 M	<200 M	<200 M
1,2-Dichloroethane	<5 µg/kg	TM116		<100 M	<100 M	<100 M	<100 M	<100 M	<100 M
Benzene	<9 µg/kg	TM116		<180 M	<180 M	<180 M	<180 M	<180 M	<180 M
Trichloroethene	<9 µg/kg	TM116		<180 #	<180 #	<180 #	<180 #	<180 #	409 #
1,2-Dichloropropane	<10 µg/kg	TM116		<200 M	<200 M	<200 M	<200 M	<200 M	<200 M
Dibromomethane	<9 µg/kg	TM116		<180 M	<180 M	<180 M	<180 M	<180 M	<180 M
Bromodichloromethane	<7 µg/kg	TM116		<140 M	<140 M	<140 M	<140 M	<140 M	<140 M
cis-1,3-Dichloropropene	<10 µg/kg	TM116		<200 M	<200 M	<200 M	<200 M	<200 M	<200 M
Toluene	<7 µg/kg	TM116		<140 M	<140 M	<140 M	<140 M	<140 M	<140 M
trans-1,3-Dichloropropene	<10 µg/kg	TM116		<200	<200	<200	<200	<200	<200
1,1,2-Trichloroethane	<10 µg/kg	TM116		<200 M	<200 M	<200 M	<200 M	<200 M	<200 M
1,3-Dichloropropane	<7 µg/kg	TM116		<140 M	<140 M	<140 M	<140 M	<140 M	<140 M

CERTIFICATE OF ANALYSIS

SDG: 220511-75 **Report Number:** 648262 **Superseded Report:** 647850

Client Ref.: LD10385 **Location:** Ten Acres Lane

VOC MS (S)

Results Legend

- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4+§@ Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	TP204	TP204	TP206	TP207	TP208	TP226
			Depth (m)	0.90 - 0.90	2.50 - 2.50	1.00 - 1.00	3.00 - 3.00	2.50 - 2.50	1.50 - 1.50
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	09/05/2022	09/05/2022	09/05/2022	09/05/2022	09/05/2022	09/05/2022
			Sample Time	12:00	12:00	12:00	12:00	12:00	12:00
			Date Received	11/05/2022	11/05/2022	11/05/2022	11/05/2022	11/05/2022	11/05/2022
			SDG Ref	220511-75	220511-75	220511-75	220511-75	220511-75	220511-75
			Lab Sample No.(s)	26260215	26260224	26260241	26260235	26260229	26260248
			AGS Reference						
Tetrachloroethene	<5 µg/kg	TM116		<100 M	<100 M	<100 M	<100 M	<100 M	<100 M
Dibromochloromethane	<10 µg/kg	TM116		<200 M	<200 M	<200 M	<200 M	<200 M	<200 M
1,2-Dibromoethane	<10 µg/kg	TM116		<200 M	<200 M	<200 M	<200 M	<200 M	<200 M
Chlorobenzene	<5 µg/kg	TM116		<100 M	<100 M	<100 M	<100 M	<100 M	<100 M
1,1,1,2-Tetrachloroethane	<10 µg/kg	TM116		<200 M	<200 M	<200 M	<200 M	<200 M	<200 M
Ethylbenzene	<4 µg/kg	TM116		<80 M	<80 M	<80 M	<80 M	<80 M	<80 M
p/m-Xylene	<10 µg/kg	TM116		<200 #	<200 #	<200 #	<200 #	<200 #	<200 #
o-Xylene	<10 µg/kg	TM116		<200 M	<200 M	<200 M	<200 M	<200 M	<200 M
Styrene	<10 µg/kg	TM116		<200 ♦ #	<200 ♦ #	<200 ♦ #	<200 ♦ #	<200 ♦ #	<200 ♦ #
Bromoform	<10 µg/kg	TM116		<200 M	<200 M	<200 M	<200 M	<200 M	<200 M
Isopropylbenzene	<5 µg/kg	TM116		<100 #	<100 #	<100 #	<100 #	<100 #	<100 #
1,1,2,2-Tetrachloroethane	<10 µg/kg	TM116		<200 #	<200 #	<200 #	<200 #	<200 #	<200 #
1,2,3-Trichloropropane	<16 µg/kg	TM116		<320 M	<320 M	<320 M	<320 M	<320 M	<320 M
Bromobenzene	<10 µg/kg	TM116		<200 M	<200 M	<200 M	<200 M	<200 M	<200 M
Propylbenzene	<10 µg/kg	TM116		<200 M	<200 M	<200 M	<200 M	<200 M	<200 M
2-Chlorotoluene	<9 µg/kg	TM116		<180 M	<180 M	<180 M	<180 M	<180 M	<180 M
1,3,5-Trimethylbenzene	<8 µg/kg	TM116		<160 M	<160 M	<160 M	<160 M	<160 M	<160 M
4-Chlorotoluene	<10 µg/kg	TM116		<200 M	<200 M	<200 M	<200 M	<200 M	<200 M
tert-Butylbenzene	<14 µg/kg	TM116		<280 #	<280 #	<280 #	<280 #	<280 #	<280 #
1,2,4-Trimethylbenzene	<9 µg/kg	TM116		<180 #	<180 #	<180 #	<180 #	<180 #	<180 #
sec-Butylbenzene	<10 µg/kg	TM116		<200	<200	<200	<200	<200	<200
4-Isopropyltoluene	<10 µg/kg	TM116		<200	<200	<200	<200	<200	<200
1,3-Dichlorobenzene	<8 µg/kg	TM116		<160 M	<160 M	<160 M	<160 M	<160 M	<160 M
1,4-Dichlorobenzene	<5 µg/kg	TM116		<100 M	<100 M	<100 M	<100 M	<100 M	<100 M
n-Butylbenzene	<11 µg/kg	TM116		<220	<220	<220	<220	<220	<220
1,2-Dichlorobenzene	<10 µg/kg	TM116		<200 M	<200 M	<200 M	<200 M	<200 M	<200 M
1,2-Dibromo-3-chloropropane	<14 µg/kg	TM116		<280 M	<280 M	<280 M	<280 M	<280 M	<280 M
Tert-amyl methyl ether	<10 µg/kg	TM116		<200 #	<200 #	<200 #	<200 #	<200 #	<200 #
1,2,4-Trichlorobenzene	<20 µg/kg	TM116		<400	<400	<400	<400	<400	<400
Hexachlorobutadiene	<20 µg/kg	TM116		<400	<400	<400	<400	<400	<400
Naphthalene	<13 µg/kg	TM116		<260 M	<260 M	<260 M	<260 M	<260 M	<260 M
1,2,3-Trichlorobenzene	<20 µg/kg	TM116		<400 #	<400 #	<400 #	<400 #	<400 #	<400 #
1,3,5-Trichlorobenzene	<20 µg/kg	TM116		<400	<400	<400	<400	<400	<400

CERTIFICATE OF ANALYSIS

SDG: 220511-75 **Report Number:** 648262 **Superseded Report:** 647850
Client Ref.: LD10385 **Location:** Ten Acres Lane

VOC MS (S)

Results Legend		Customer Sample Ref.	TP204	TP204	TP206	TP207	TP208	TP226
#	ISO17025 accredited.							
M	mCERTS accredited.							
aq	Aqueous / settled sample.							
diss.filt	Dissolved / filtered sample.	Depth (m)	0.90 - 0.90	2.50 - 2.50	1.00 - 1.00	3.00 - 3.00	2.50 - 2.50	1.50 - 1.50
tot.unfilt	Total / unfiltered sample.	Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
*	Subcontracted - refer to subcontractor report for accreditation status.	Date Sampled	09/05/2022	09/05/2022	09/05/2022	09/05/2022	09/05/2022	09/05/2022
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery	Sample Time	12:00	12:00	12:00	12:00	12:00	12:00
		Date Received	11/05/2022	11/05/2022	11/05/2022	11/05/2022	11/05/2022	11/05/2022
		SDG Ref	220511-75	220511-75	220511-75	220511-75	220511-75	220511-75
(F)	Trigger breach confirmed	Lab Sample No.(s)	26260215	26260224	26260241	26260235	26260229	26260248
1-4+§@	Sample deviation (see appendix)	AGS Reference						

Component	LOD/Units	Method						
Sum of Detected Xylenes	<0.02 mg/kg	TM116	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
Sum of BTEX	<40 µg/kg	TM116	<800	<800	<800	<800	<800	<800

CERTIFICATE OF ANALYSIS

SDG: 220511-75 **Report Number:** 648262 **Superseded Report:** 647850

Client Ref.: LD10385 **Location:** Ten Acres Lane

VOC MS (S)

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	TP226	TP242	TP254	TP258	TP217A
			Depth (m)	4.00 - 4.00	2.50 - 2.50	1.30 - 1.30	2.50 - 2.50	1.60 - 1.60
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	09/05/2022	09/05/2022	09/05/2022	09/05/2022	09/05/2022
			Sample Time	12:00	12:00	12:00	12:00	12:00
			Date Received	11/05/2022	11/05/2022	11/05/2022	11/05/2022	11/05/2022
			SDG Ref	220511-75	220511-75	220511-75	220511-75	220511-75
			Lab Sample No.(s)	26260187	26260202	26260207	26260181	26260195
			AGS Reference					
Dibromofluoromethane**	%	TM116		106	108	110	108	102
Toluene-d8**	%	TM116		94.8	98.7	95.7	103	107
4-Bromofluorobenzene**	%	TM116		87	89.9	88.4	82.7	81.9
Dichlorodifluoromethane	<6 µg/kg	TM116		<120 #	<120 #	<120 #	<120 #	<6 #
Chloromethane	<7 µg/kg	TM116		<140 #	<140 #	<140 #	<140 #	<7 #
Vinyl Chloride	<6 µg/kg	TM116		<120 ♦ M	<120 ♦ M	<120 ♦ M	<120 ♦ M	<6 ♦ M
Bromomethane	<10 µg/kg	TM116		<200 M	<200 M	<200 M	<200 M	<10 M
Chloroethane	<10 µg/kg	TM116		<200 M	<200 M	<200 M	<200 M	<10 M
Trichlorofluorormethane	<6 µg/kg	TM116		<120 M	<120 M	<120 M	<120 M	<6 M
1,1-Dichloroethene	<10 µg/kg	TM116		<200 #	<200 #	<200 #	<200 #	<10 #
Carbon Disulphide	<7 µg/kg	TM116		<140 M	<140 M	<140 M	<140 M	<7 M
Dichloromethane	<10 µg/kg	TM116		<200 #	<200 #	<200 #	<200 #	<10 #
Methyl Tertiary Butyl Ether	<10 µg/kg	TM116		<200 M	<200 M	<200 M	<200 M	<10 M
trans-1,2-Dichloroethene	<10 µg/kg	TM116		<200 M	<200 M	<200 M	<200 M	<10 M
1,1-Dichloroethane	<8 µg/kg	TM116		<160 M	<160 M	<160 M	<160 M	<8 M
cis-1,2-Dichloroethene	<6 µg/kg	TM116		<120 M	<120 M	<120 M	<120 M	<6 M
2,2-Dichloropropane	<10 µg/kg	TM116		<200	<200	<200	<200	<10
Bromochloromethane	<10 µg/kg	TM116		<200 M	<200 M	<200 M	<200 M	<10 M
Chloroform	<8 µg/kg	TM116		<160 M	<160 M	<160 M	<160 M	<8 M
1,1,1-Trichloroethane	<7 µg/kg	TM116		<140 M	<140 M	<140 M	<140 M	<7 M
1,1-Dichloropropene	<10 µg/kg	TM116		<200 M	<200 M	<200 M	<200 M	<10 M
Carbontetrachloride	<10 µg/kg	TM116		<200 M	<200 M	<200 M	<200 M	<10 M
1,2-Dichloroethane	<5 µg/kg	TM116		<100 M	<100 M	<100 M	<100 M	<5 M
Benzene	<9 µg/kg	TM116		<180 M	<180 M	<180 M	<180 M	<9 M
Trichloroethene	<9 µg/kg	TM116		<180 #	<180 #	<180 #	<180 #	<9 #
1,2-Dichloropropane	<10 µg/kg	TM116		<200 M	<200 M	<200 M	<200 M	<10 M
Dibromomethane	<9 µg/kg	TM116		<180 M	<180 M	<180 M	<180 M	<9 M
Bromodichloromethane	<7 µg/kg	TM116		<140 M	<140 M	<140 M	<140 M	<7 M
cis-1,3-Dichloropropene	<10 µg/kg	TM116		<200 M	<200 M	<200 M	<200 M	<10 M
Toluene	<7 µg/kg	TM116		<140 M	<140 M	<140 M	<140 M	<7 M
trans-1,3-Dichloropropene	<10 µg/kg	TM116		<200	<200	<200	<200	<10
1,1,2-Trichloroethane	<10 µg/kg	TM116		<200 M	<200 M	<200 M	<200 M	<10 M
1,3-Dichloropropane	<7 µg/kg	TM116		<140 M	<140 M	<140 M	<140 M	<7 M

CERTIFICATE OF ANALYSIS

SDG: 220511-75 **Report Number:** 648262 **Superseded Report:** 647850
Client Ref.: LD10385 **Location:** Ten Acres Lane

VOC MS (S)

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4+§@ Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	TP226	TP242	TP254	TP258	TP217A
			Depth (m)	4.00 - 4.00	2.50 - 2.50	1.30 - 1.30	2.50 - 2.50	1.60 - 1.60
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	09/05/2022	09/05/2022	09/05/2022	09/05/2022	09/05/2022
			Sample Time	12:00	12:00	12:00	12:00	12:00
			Date Received	11/05/2022	11/05/2022	11/05/2022	11/05/2022	11/05/2022
			SDG Ref	220511-75	220511-75	220511-75	220511-75	220511-75
			Lab Sample No.(s)	26260187	26260202	26260207	26260181	26260195
			AGS Reference					
Tetrachloroethene	<5 µg/kg	TM116		<100 M	<100 M	<100 M	<100 M	<5 M
Dibromochloromethane	<10 µg/kg	TM116		<200 M	<200 M	<200 M	<200 M	<10 M
1,2-Dibromoethane	<10 µg/kg	TM116		<200 M	<200 M	<200 M	<200 M	<10 M
Chlorobenzene	<5 µg/kg	TM116		<100 M	<100 M	<100 M	<100 M	<5 M
1,1,1,2-Tetrachloroethane	<10 µg/kg	TM116		<200 M	<200 M	<200 M	<200 M	<10 M
Ethylbenzene	<4 µg/kg	TM116		<80 M	<80 M	<80 M	<80 M	<4 M
p/m-Xylene	<10 µg/kg	TM116		<200 #	<200 #	<200 #	<200 #	<10 #
o-Xylene	<10 µg/kg	TM116		<200 M	<200 M	<200 M	<200 M	<10 M
Styrene	<10 µg/kg	TM116		<200 ♦ #	<200 ♦ #	<200 ♦ #	<200 ♦ #	<10 ♦ #
Bromoform	<10 µg/kg	TM116		<200 M	<200 M	<200 M	<200 M	<10 M
Isopropylbenzene	<5 µg/kg	TM116		<100 #	<100 #	<100 #	<100 #	<5 #
1,1,2,2-Tetrachloroethane	<10 µg/kg	TM116		<200 #	<200 #	<200 #	<200 #	<10 #
1,2,3-Trichloropropane	<16 µg/kg	TM116		<320 M	<320 M	<320 M	<320 M	<16 M
Bromobenzene	<10 µg/kg	TM116		<200 M	<200 M	<200 M	<200 M	<10 M
Propylbenzene	<10 µg/kg	TM116		<200 M	<200 M	<200 M	<200 M	<10 M
2-Chlorotoluene	<9 µg/kg	TM116		<180 M	<180 M	<180 M	<180 M	<9 M
1,3,5-Trimethylbenzene	<8 µg/kg	TM116		<160 M	<160 M	<160 M	<160 M	<8 M
4-Chlorotoluene	<10 µg/kg	TM116		<200 M	<200 M	<200 M	<200 M	<10 M
tert-Butylbenzene	<14 µg/kg	TM116		<280 #	<280 #	<280 #	<280 #	<14 #
1,2,4-Trimethylbenzene	<9 µg/kg	TM116		<180 #	<180 #	<180 #	<180 #	<9 #
sec-Butylbenzene	<10 µg/kg	TM116		<200	<200	<200	<200	<10
4-Isopropyltoluene	<10 µg/kg	TM116		<200	<200	<200	<200	<10
1,3-Dichlorobenzene	<8 µg/kg	TM116		<160 M	<160 M	<160 M	<160 M	<8 M
1,4-Dichlorobenzene	<5 µg/kg	TM116		<100 M	<100 M	<100 M	<100 M	<5 M
n-Butylbenzene	<11 µg/kg	TM116		<220	<220	<220	<220	<11
1,2-Dichlorobenzene	<10 µg/kg	TM116		<200 M	<200 M	<200 M	<200 M	<10 M
1,2-Dibromo-3-chloropropane	<14 µg/kg	TM116		<280 M	<280 M	<280 M	<280 M	<14 M
Tert-amyl methyl ether	<10 µg/kg	TM116		<200 #	<200 #	<200 #	<200 #	<10 #
1,2,4-Trichlorobenzene	<20 µg/kg	TM116		<400	<400	<400	<400	<20
Hexachlorobutadiene	<20 µg/kg	TM116		<400	<400	<400	<400	<20
Naphthalene	<13 µg/kg	TM116		<260 M	<260 M	<260 M	<260 M	<13 M
1,2,3-Trichlorobenzene	<20 µg/kg	TM116		<400 #	<400 #	<400 #	<400 #	<20 #
1,3,5-Trichlorobenzene	<20 µg/kg	TM116		<400	<400	<400	<400	<20

CERTIFICATE OF ANALYSIS

SDG: 220511-75 **Report Number:** 648262 **Superseded Report:** 647850
Client Ref.: LD10385 **Location:** Ten Acres Lane

VOC MS (S)

Results Legend		Customer Sample Ref.	TP226	TP242	TP254	TP258	TP217A	
#	ISO17025 accredited.							
M	mCERTS accredited.							
aq	Aqueous / settled sample.							
diss.filt	Dissolved / filtered sample.	Depth (m)	4.00 - 4.00	2.50 - 2.50	1.30 - 1.30	2.50 - 2.50	1.60 - 1.60	
tot.unfilt	Total / unfiltered sample.	Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	
*	Subcontracted - refer to subcontractor report for accreditation status.	Date Sampled	09/05/2022	09/05/2022	09/05/2022	09/05/2022	09/05/2022	
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery	Sample Time	12:00	12:00	12:00	12:00	12:00	
		Date Received	11/05/2022	11/05/2022	11/05/2022	11/05/2022	11/05/2022	
		SDG Ref	220511-75	220511-75	220511-75	220511-75	220511-75	
(F)	Trigger breach confirmed	Lab Sample No.(s)	26260187	26260202	26260207	26260181	26260195	
1-4+§@	Sample deviation (see appendix)	AGS Reference						
Component		**LOD/Units**	**Method**					
Sum of Detected Xylenes		<0.02 mg/kg	TM116	<0.4	<0.4	<0.4	<0.4	<0.02
Sum of BTEX		<40 µg/kg	TM116	<800	<800	<800	<800	<40

CERTIFICATE OF ANALYSIS

SDG: 220511-75 **Report Number:** 648262 **Superseded Report:** 647850
Client Ref.: LD10385 **Location:** Ten Acres Lane

Asbestos Identification - Solid Samples

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
*	Subcontracted test.
(F)	Trigger breach confirmed
1-5&♦$@	Sample deviation (see appendix)

		Date of Analysis	Analysed By	Comments	Amosite (Brown) Asbestos	Asbestos Actinolite	Asbestos Anthophyllite	Asbestos Tremolite	Chrysotile (White) Asbestos	Crocidolite (Blue) Asbestos	Non-Asbestos Fibre
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	TP204 0.90 - 0.90 SOLID 09/05/2022 00:00:00 11/05/2022 05:00:00 220511-75 26260215 TM048	18/05/2022	Paul Poynton	N/A	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	TP204 2.50 - 2.50 SOLID 09/05/2022 00:00:00 11/05/2022 05:00:00 220511-75 26260224 TM048	17/05/2022	Paul Poynton	Loose fibres in soil	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	TP206 1.00 - 1.00 SOLID 09/05/2022 00:00:00 11/05/2022 05:00:00 220511-75 26260241 TM048	17/05/2022	Emily Anderton	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	TP207 3.00 - 3.00 SOLID 09/05/2022 00:00:00 11/05/2022 05:00:00 220511-75 26260235 TM048	18/05/2022	James Richards	ACM debris in soil	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	TP208 2.50 - 2.50 SOLID 09/05/2022 00:00:00 11/05/2022 05:00:00 220511-75 26260229 TM048	18/05/2022	Paul Poynton	N/A	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	TP226 1.50 - 1.50 SOLID 09/05/2022 00:00:00 11/05/2022 05:00:00 220511-75 26260248 TM048	18/05/2022	James Richards	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	TP226 4.00 - 4.00 SOLID 09/05/2022 00:00:00 11/05/2022 05:00:00 220511-75 26260187 TM048	17/05/2022	Emily Anderton	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	TP242 2.50 - 2.50 SOLID 09/05/2022 00:00:00 11/05/2022 05:00:00 220511-75 26260202 TM048	17/05/2022	Emily Anderton	ACM fragment in soil	Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected

CERTIFICATE OF ANALYSIS

SDG: 220511-75 **Report Number:** 648262 **Superseded Report:** 647850

Client Ref.: LD10385 **Location:** Ten Acres Lane

		Date of Analysis	Analysed By	Comments	Amosite (Brown) Asbestos	Asbestos Actinolite	Asbestos Anthophyllite	Asbestos Tremolite	Chrysotile (White) Asbestos	Crocidolite (Blue) Asbestos	Non-Asbestos Fibre
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Receieved SDG Original Sample Method Number	TP254 1.30 - 1.30 SOLID 09/05/2022 00:00:00 11/05/2022 05:00:00 220511-75 26260207 TM048	17/05/22	Eva Guerra	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Receieved SDG Original Sample Method Number	TP258 2.50 - 2.50 SOLID 09/05/2022 00:00:00 11/05/2022 05:00:00 220511-75 26260181 TM048	17/05/2022	Emily Anderton	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Receieved SDG Original Sample Method Number	TP217A 1.60 - 1.60 SOLID 09/05/2022 00:00:00 11/05/2022 05:00:00 220511-75 26260195 TM048	18/05/2022	Paul Poynton	N/A	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected

Asbestos Quantification - Full

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
*	Subcontracted test.
(F)	Trigger breach confirmed
1-5&♦$@	Sample deviation (see appendix)

		Additional Asbestos Components	Analysts Comments	Asbestos Quantification - Gravimetric - %	Asbestos Quantification - PCOM	Asbestos Quantification - Total - %
Cust. Sample Ref.	TP204	None (#)	N/A	<0.001 (#)	<0.001 (#)	<0.001 (#)
Depth (m)	2.50 - 2.50					
Sample Type	SOLID					
Date Sampled	09/05/2022 00:00:00					
Date Received	11/05/2022 05:00:00					
SDG	220511-75					
Original Sample	26260224					
Method Number	TM304					
Cust. Sample Ref.	TP207	None (#)	N/A	0.0173 (#)	<0.001 (#)	0.0173 (#)
Depth (m)	3.00 - 3.00					
Sample Type	SOLID					
Date Sampled	09/05/2022 00:00:00					
Date Received	11/05/2022 05:00:00					
SDG	220511-75					
Original Sample	26260235					
Method Number	TM304					
Cust. Sample Ref.	TP242	None (#)	N/A	<0.001 (#)	<0.001 (#)	<0.001 (#)
Depth (m)	2.50 - 2.50					
Sample Type	SOLID					
Date Sampled	09/05/2022 00:00:00					
Date Received	11/05/2022 05:00:00					
SDG	220511-75					
Original Sample	26260202					
Method Number	TM304					

Table of Results - Appendix

Method No	Reference	Description
PM024	Modified BS 1377	Soil preparation including homogenisation, moisture screens of soils for Asbestos Containing Material
TM048	HSG 248, Asbestos: The analysts' guide for sampling, analysis and clearance procedures	Identification of Asbestos in Bulk Material
TM062 (S)	National Grid Property Holdings Methods for the Collection & Analysis of Samples from National Grid Sites version 1 Sec 3.9	Determination of Phenols in Soils by HPLC
TM089	Modified: US EPA Methods 8020 & 602	Determination of Gasoline Range Hydrocarbons (GRO) by Headspace GC-FID (C4-C12)
TM116	Modified: US EPA Method 8260, 8120, 8020, 624, 610 & 602	Determination of Volatile Organic Compounds by Headspace / GC-MS
TM132	In - house Method	ELTRA CS800 Operators Guide
TM133	BS 1377: Part 3 1990;BS 6068-2.5	Determination of pH in Soil and Water using the GLpH pH Meter
TM151	Method 3500D, AWWA/APHA, 20th Ed., 1999	Determination of Hexavalent Chromium using Kone analyser
TM153	Method 4500A,B,C, I, M AWWA/APHA, 20th Ed., 1999	Determination of Total Cyanide, Free (Easily Liberatable) Cyanide and Thiocyanate using the Skalar SANS+ System Segmented Flow Analyser
TM157	HP 6890 Gas Chromatograph (GC) system and HP 5973 Mass Selective Detector (MSD).	Determination of SVOC in Soils by GC-MS extracted by sonication in DCM/Acetone
TM168	EPA Method 8082, Polychlorinated Biphenyls by Gas Chromatography	Determination of WHO12 and EC7 Polychlorinated Biphenyl Congeners by GC-MS in Soils
TM180	Sulphide in waters and waste waters 1991 ISBN 01 175 7186 SCA rec. 2007 (unpublished)'	The Determination Of Easily Liberated Sulphide In Soil Samples by Ion Selective Electrode Technique
TM181	US EPA Method 6010B	Determination of Routine Metals in Soil by iCap 6500 Duo ICP-OES
TM218	Shaker extraction - EPA method 3546.	The determination of PAH in soil samples by GC-MS
TM221	Inductively Coupled Plasma - Atomic Emission Spectroscopy. An Atlas of Spectral Information: Winge, Fassel, Peterson and Floyd	Determination of Acid Extractable Sulphate in Soils by ICP OES
TM222	In-House Method	Determination of Hot Water Soluble Boron in Soils (10:1 Water:Soil) by ICP OES.
TM243		Mixed Anions In Soils By Kone
TM304	HSE Contract research Report no 83/1996	Asbestos Quantification in Soil: Fibres identified by morphology only
TM338	PFAS In Solids	Analysis of perfluoroalkylsulfonates and perfluorocarboxylic acids in Solids
TM414	Analysis of Petroleum Hydrocarbons in Environmental Media – Total Petroleum Hydrocarbon Criteria	Determination of Speciated Extractable Petroleum Hydrocarbons in Soils by GCxGC-FID

NA = not applicable.

Chemical testing (unless subcontracted) performed at ALS Life Sciences Ltd Hawarden.

CERTIFICATE OF ANALYSIS

SDG: 220511-75 **Report Number:** 648262 **Superseded Report:** 647850
Client Ref.: LD10385 **Location:** Ten Acres Lane

Test Completion Dates

Lab Sample No(s)	26260215	26260224	26260241	26260235	26260229	26260187	26260248	26260202	26260207	26260181
Customer Sample Ref.	TP204	TP204	TP206	TP207	TP208	TP226	TP226	TP242	TP254	TP258
AGS Ref.										
Depth	0.90 - 0.90	2.50 - 2.50	1.00 - 1.00	3.00 - 3.00	2.50 - 2.50	4.00 - 4.00	1.50 - 1.50	2.50 - 2.50	1.30 - 1.30	2.50 - 2.50
Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
Anions by Kone (soil)	17-May-2022	16-May-2022	17-May-2022	17-May-2022	17-May-2022	17-May-2022	16-May-2022	16-May-2022	17-May-2022	16-May-2022
Asbestos ID in Solid Samples	18-May-2022	17-May-2022	17-May-2022	18-May-2022	18-May-2022	17-May-2022	18-May-2022	17-May-2022	17-May-2022	17-May-2022
Asbestos Quantification - Full		24-May-2022		26-May-2022				23-May-2022		
Boron Water Soluble	17-May-2022	16-May-2022	17-May-2022	17-May-2022	17-May-2022	17-May-2022	17-May-2022	16-May-2022	17-May-2022	17-May-2022
Cyanide Comp/Free/Total/Thiocyanate	18-May-2022	18-May-2022	18-May-2022	18-May-2022	17-May-2022	19-May-2022	18-May-2022	18-May-2022	18-May-2022	18-May-2022
Easily Liberated Sulphide	16-May-2022	16-May-2022	16-May-2022	13-May-2022	17-May-2022	17-May-2022	16-May-2022	16-May-2022	13-May-2022	16-May-2022
EPH CWG GC (S)	17-May-2022	17-May-2022	20-May-2022	20-May-2022	20-May-2022	20-May-2022	20-May-2022	17-May-2022	20-May-2022	17-May-2022
GRO by GC-FID (S)	19-May-2022	19-May-2022	20-May-2022	20-May-2022	20-May-2022	19-May-2022	20-May-2022	19-May-2022	19-May-2022	19-May-2022
Hexavalent Chromium (s)	14-May-2022	14-May-2022	17-May-2022	17-May-2022	17-May-2022	17-May-2022	14-May-2022	14-May-2022	14-May-2022	14-May-2022
Metals in solid samples by OES	18-May-2022	16-May-2022	18-May-2022	18-May-2022	18-May-2022	18-May-2022	17-May-2022	17-May-2022	18-May-2022	17-May-2022
PAH by GCMS	17-May-2022	17-May-2022	17-May-2022	17-May-2022	17-May-2022	17-May-2022	17-May-2022	17-May-2022	17-May-2022	17-May-2022
PCBs by GCMS	20-May-2022	20-May-2022	20-May-2022	20-May-2022	20-May-2022	20-May-2022	20-May-2022	20-May-2022	20-May-2022	20-May-2022
PFAS Solids				18-May-2022		18-May-2022				
pH	13-May-2022	13-May-2022	13-May-2022	13-May-2022	13-May-2022	13-May-2022	13-May-2022	13-May-2022	13-May-2022	13-May-2022
Phenols by HPLC (S)	16-May-2022	16-May-2022	16-May-2022	16-May-2022	17-May-2022	17-May-2022	16-May-2022	16-May-2022	16-May-2022	16-May-2022
Sample description	12-May-2022	12-May-2022	12-May-2022	12-May-2022	12-May-2022	12-May-2022	12-May-2022	12-May-2022	12-May-2022	12-May-2022
Semi Volatile Organic Compounds	17-May-2022	17-May-2022	17-May-2022	13-May-2022	17-May-2022	17-May-2022	17-May-2022	17-May-2022	13-May-2022	17-May-2022
Total Organic Carbon	19-May-2022	19-May-2022	19-May-2022	19-May-2022	19-May-2022	19-May-2022	19-May-2022	19-May-2022	19-May-2022	19-May-2022
Total Sulphate	19-May-2022	19-May-2022	19-May-2022	19-May-2022	19-May-2022	19-May-2022	16-May-2022	16-May-2022	19-May-2022	19-May-2022
TPH CWG GC (S)	19-May-2022	19-May-2022	20-May-2022	20-May-2022	20-May-2022	20-May-2022	20-May-2022	19-May-2022	20-May-2022	19-May-2022
VOC MS (S)	19-May-2022	19-May-2022	19-May-2022	19-May-2022	19-May-2022	19-May-2022	19-May-2022	19-May-2022	19-May-2022	19-May-2022

Lab Sample No(s)	26260195
Customer Sample Ref.	TP217A
AGS Ref.	
Depth	1.60 - 1.60
Type	Soil/Solid (S)
Anions by Kone (soil)	17-May-2022
Asbestos ID in Solid Samples	18-May-2022
Boron Water Soluble	17-May-2022
Cyanide Comp/Free/Total/Thiocyanate	18-May-2022
Easily Liberated Sulphide	16-May-2022
EPH CWG GC (S)	20-May-2022
GRO by GC-FID (S)	19-May-2022
Hexavalent Chromium (s)	17-May-2022
Metals in solid samples by OES	18-May-2022
PAH by GCMS	17-May-2022
PCBs by GCMS	20-May-2022
pH	13-May-2022
Phenols by HPLC (S)	16-May-2022
Sample description	12-May-2022
Semi Volatile Organic Compounds	17-May-2022
Total Organic Carbon	19-May-2022
Total Sulphate	19-May-2022
TPH CWG GC (S)	20-May-2022
VOC MS (S)	18-May-2022

Appendix

1. Results are expressed on a dry weight basis (dried at 35ºC) for all soil analyses except for the following: NRA and CEN Leach tests, flash point LOI, pH, ammonium as NH4 by the BRE method, VOC TICs and SVOC TICs.

2. If sufficient sample is received a sub sample will be retained free of charge for 30 days after analysis is completed (e-mailed) for all sample types unless the sample is destroyed on testing. The prepared soil sub sample that is analysed for asbestos will be retained for a period of 6 months after the analysis date. All bulk samples will be retained for a period of 6 months after the analysis date. All samples received and not scheduled will be disposed of one month after the date of receipt unless we are instructed to the contrary. Once the initial period has expired, a storage charge will be applied for each month or part thereof until the client cancels the request for sample storage. ALS reserve the right to charge for samples received and stored but not analysed.

3. With respect to turnaround, we will always endeavour to meet client requirements wherever possible, but turnaround times cannot be absolutely guaranteed due to so many variables beyond our control.

4. We take responsibility for any test performed by sub-contractors (marked with an asterisk). We endeavour to use UKAS/MCERTS Accredited Laboratories, who either complete a quality questionnaire or are audited by ourselves. For some determinands there are no UKAS/MCERTS Accredited Laboratories, in this instance a laboratory with a known track record will be utilised.

5. If no separate volatile sample is supplied by the client, or if a headspace or sediment is present in the volatile sample, the integrity of the data may be compromised. This will be flagged up as an invalid VOC on the test schedule and the result marked as deviating on the test certificate.

6. NDP - No determination possible due to insufficient/unsuitable sample.

7. Results relate only to the items tested.

8. LoDs (Limit of Detection) for wet tests reported on a dry weight basis are not corrected for moisture content.

9. **Surrogate recoveries** - Surrogates are added to your sample to monitor recovery of the test requested. A % recovery is reported, results are not corrected for the recovery measured. Typical recoveries for organics tests are 70-130%. Recoveries in soils are affected by organic rich or clay rich matrices. Waters can be affected by remediation fluids or high amounts of sediment. Test results are only ever reported if all of the associated quality checks pass; it is assumed that all recoveries outside of the values above are due to matrix affect.

10. Stones/debris are not routinely removed. We always endeavour to take a representative sub sample from the received sample.

11. In certain circumstances the method detection limit may be elevated due to the sample being outside the calibration range. Other factors that may contribute to this include possible interferences. In both cases the sample would be diluted which would cause the method detection limit to be raised.

12. For dried and crushed preparations of soils volatile loss may occur e.g volatile mercury.

13. For leachate preparations other than Zero Headspace Extraction (ZHE) volatile loss may occur.

14. For the BSEN 12457-3 two batch process to allow the cumulative release to be calculated, the volume of the leachate produced is measured and filtered for all tests. We therefore cannot carry out any unfiltered analysis. The tests affected include volatiles GCFID/GCMS and all subcontracted analysis.

15. Analysis and identification of specific compounds using GCFID is by retention time only, and we routinely calibrate and quantify for benzene, toluene, ethylbenzenes and xylenes (BTEX). For total volatiles in the C5-C12 range, the total area of the chromatogram is integrated and expressed as ug/kg or ug/l. Although this analysis is commonly used for the quantification of gasoline range organics (GRO), the system will also detect other compounds such as chlorinated solvents, and this may lead to a falsely high result with respect to hydrocarbons only. It is not possible to specifically identify these non-hydrocarbons, as standards are not routinely run for any other compounds, and for more definitive identification, volatiles by GCMS should be utilised.

16. We are accredited to MCERTS for sand, clay and loam/topsoil, or any of these materials - whether these are derived from naturally occurring soil profiles, or from fill/made ground, as long as these materials constitute the major part of the sample. Other coarse granular material such as concrete, gravel and brick are not accredited if they comprise the major part of the sample.

17 Data retention. All records, communications and reports pertaining to the analysis are archived for seven years from the date of issue of the final report.

General

18. **Tentatively Identified Compounds (TICs)** are non-target peaks in VOC and SVOC analysis. All non-target peaks detected with a concentration above the LoD are subjected to a mass spectral library search. Non-target peaks with a library search confidence of >75% are reported based on the best mass spectral library match. When a non-target peak with a library search confidence of <75% is detected it is reported as “mixed hydrocarbons”. Non-target compounds identified from the scan data are semi-quantified relative to one of the deuterated internal standards, under the same chromatographic conditions as the target compounds. This result is reported as a semi-quantitative value and reported as Tentatively Identified Compounds (TICs). TICs are outside the scope of UKAS accreditation and are not moisture corrected.

19. **Sample Deviations**

If a sample is classed as deviated then the associated results may be compromised.

1	**Container with Headspace provided for volatiles analysis**
2	**Incorrect container received**
3	**Deviation from method**
4	**Matrix interference**
♦	**Sample holding time exceeded in laboratory**
@	**Sample holding time exceeded due to late arrival of instructions or samples**
§	**Sampled on date not provided**

20. **Asbestos**

When requested, the individual sub sample scheduled will be analysed in house for the presence of asbestos fibres and asbestos containing material by our documented in house method TM048 based on HSG 248 (2021), which is accredited to ISO17025. If a specific asbestos fibre type is not found this will be reported as “Not detected”. If no asbestos fibre types are found all will be reported as “Not detected” and the sub sample analysed deemed to be clear of asbestos. If an asbestos fibre type is found it will be reported as detected (for each fibre type found). Testing can be carried out on asbestos positive samples, but, due to Health and Safety considerations, may be replaced by alternative tests or reported as No Determination Possible (NDP). The quantity of asbestos present is not determined unless specifically requested.

Identification of Asbestos in Bulk Materials & Soils

The results for identification of asbestos in bulk materials and soils are obtained from supplied bulk materials andd soils which have been examined to determine the presence of asbestos fibres using ALS (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining, based on HSG 248 (2021).

The results for identification of asbestos in soils are obtained from a homogenised sub sample which has been examined to determine the presence of asbestos fibres using ALS (Hawarden) in-house method of transmitted/polarised light microscopy and central

Asbestos Type	Common Name
Chrysotile	White Asbestos
Amosite	Brown Asbestos
Crocidolite	Blue Asbestos
Fibrous Actinolite	-
Fibrous Anthophyllite	-
Fibrous Tremolite	-

Visual Estimation Of Fibre Content

Estimation of fibre content is not permitted as part of our UKAS accredited test other than: - Trace - Where only one or two asbestos fibres were identified.

Respirable Fibres

Respirable fibres are defined as fibres of <3 µm diameter, longer than 5 µm and with aspect ratios of at least 3:1 that can be inhaled into the lower regions of the lung and are generally acknowledged to be most important predictor of hazard and risk for cancers of the lung.

Further guidance on typical asbestos fibre content of manufactured products can be found in HSG 264.

The identification of asbestos containing materials and soils falls within our schedule of tests for which we hold UKAS accreditation, however opinions, interpretations and all other information contained in the report are outside the scope of UKAS accreditation.

Unit 7-8 Hawarden Business Park
Manor Road (off Manor Lane)
Hawarden
Deeside
CH5 3US
Tel: (01244) 528700
Fax: (01244) 528701
email: hawardencustomerservices@alsglobal.com
Website: www.alsenvironmental.co.uk

Wardell Armstrong LLP
36 Park Row
Leeds
LS1 5JL

Attention: Jonathan Currie

CERTIFICATE OF ANALYSIS

Date of report Generation:	31 May 2022
Customer:	Wardell Armstrong LLP
Sample Delivery Group (SDG):	220523-8
Your Reference:	LD10385
Location:	Ten Acres Lane
Report No:	648714
Order Number:	LD2817

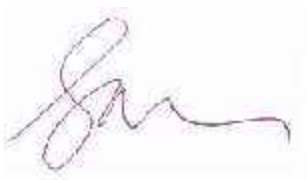
We received 5 samples on Sunday May 22, 2022 and 5 of these samples were scheduled for analysis which was completed on Tuesday May 31, 2022. Accredited laboratory tests are defined within the report, but opinions, interpretations and on-site data expressed herein are outside the scope of ISO 17025 accreditation.

Should this report require incorporation into client reports, it must be used in its entirety and not simply with the data sections alone.

Chemical testing (unless subcontracted) performed at ALS Life Sciences Ltd Hawarden.

All sample data is provided by the customer. The reported results relate to the sample supplied, and on the basis that this data is correct.
Incorrect sampling dates and/or sample information will affect the validity of results.
The customer is not permitted to reproduce this report except in full without the approval of the laboratory.

Approved By:



Sonia McWhan

Operations Manager

CERTIFICATE OF ANALYSIS

SDG: 220523-8 **Report Number:** 648714 **Superseded Report:**
Client Ref.: LD10385 **Location:** Ten Acres Lane

Received Sample Overview

Lab Sample No(s)	Customer Sample Ref.	AGS Ref.	Depth (m)	Sampled Date
26326767	CP209		0.00 - 0.00	19/05/2022
26326810	RH202		0.00 - 0.00	19/05/2022
26326797	RH204		0.00 - 0.00	19/05/2022
26326754	RH206		0.00 - 0.00	19/05/2022
26326784	WS318		0.00 - 0.00	19/05/2022

Only received samples which have had analysis scheduled will be shown on the following pages.

Validated

CERTIFICATE OF ANALYSIS

SDG: 220523-8 **Report Number:** 648714 **Superseded Report:**
Client Ref.: LD10385 **Location:** Ten Acres Lane

Results Legend

X Test

N No Determination Possible

Sample Ty9es -

S - Soil/Solid
UNS - Unspecified Solid
GW - Ground Water
SW - Surface Water
LE - Land Leachate
PL - Prepared Leachate
PR - Process Water
SA - Saline Water
TE - Trade Effluent
TS - Treated Sewage
US - Untreated Sewage
RE - Recreational Water
DW - Drinking Water Non-regulatory
UNL - Unspecified Liquid
SL - Sludge
G - Gas
OTH - Other

			Lab Sample No(s)	26326767								26326810								26326797							
			Customer Sample Reference	CP209								RH202								RH204							
			AGS Reference																								
			Depth (m)	0.00 - 0.00								0.00 - 0.00								0.00 - 0.00							
			Container	0.5l glass bottle (ALE227)	1lplastic (ALE221)	250ml Amber Gl. PTFE/PE (ALE219)	H2SO4 (ALE244)	HNO3 Filtered (ALE204)	NaOH (ALE245)	Vial (ALE297)	ZnAc (ALE246)	0.5l glass bottle (ALE227)	250ml Amber Gl. PTFE/PE (ALE219)	500ml Plastic (ALE208)	H2SO4 (ALE244)	HNO3 Filtered (ALE204)	NaOH (ALE245)	Vial (ALE297)	ZnAc (ALE246)	0.5l glass bottle (ALE227)	250ml Amber Gl. PTFE/PE (ALE219)	500ml Plastic (ALE208)							
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW							
Alkalinity as CaCO3	All	NDPs: 0 Tests: 5			X									X								X						
Anions by Kone (w)	All	NDPs: 0 Tests: 5			X									X								X						
Cyanide Comp/Free/Total/Thiocyanate	All	NDPs: 0 Tests: 5							X								X											
Dissolved Metals by ICP-MS	All	NDPs: 0 Tests: 5						X								X												
Dissolved Organic/Inorganic Carbon	All	NDPs: 0 Tests: 5	X									X								X								
EPH CWG (Aliphatic) Aqueous GC (W)	All	NDPs: 0 Tests: 5			X								X								X							
EPH CWG (Aromatic) Aqueous GC (W)	All	NDPs: 0 Tests: 5			X								X								X							
GRO by GC-FID (W)	All	NDPs: 0 Tests: 5								X								X										
Low Level Hexavalent Chromium (w)	All	NDPs: 0 Tests: 5			X									X								X						
Mercury Dissolved	All	NDPs: 0 Tests: 5						X								X												
PAH Spec MS - Aqueous (W)	All	NDPs: 0 Tests: 5			X								X								X							
PFAS Liquids	All	NDPs: 0 Tests: 2		X																								
pH Value	All	NDPs: 0 Tests: 5			X									X								X						
Phenols by HPLC (W)	All	NDPs: 0 Tests: 5					X								X													
Redox Potential	All	NDPs: 0 Tests: 5	X									X								X								

26326784	WS318		0.00 - 0.00	ZnAc (ALE246)	GW															
				Vial (ALE297)	GW								X							
				NaOH (ALE245)	GW			X												
				HNO3 Filtered (ALE204)	GW				X						X					
				H2SO4 (ALE244)	GW														X	
				500ml Plastic (ALE208)	GW	X	X							X			X	X		
				250ml Amber Gl. PTFE/PE (ALE219)	GW						X	X				X				
				0.5l glass bottle (ALE227)	GW					X										X
26326754	RH206		0.00 - 0.00	ZnAc (ALE246)	GW															
				Vial (ALE297)	GW								X							
				NaOH (ALE245)	GW			X												
				HNO3 Filtered (ALE204)	GW				X						X					
				H2SO4 (ALE244)	GW														X	
				500ml Plastic (ALE208)	GW	X	X							X				X		
				250ml Amber Gl. PTFE/PE (ALE219)	GW						X	X				X				
				0.5l glass bottle (ALE227)	GW					X										X
26326797	RH204		0.00 - 0.00	ZnAc (ALE246)	GW															
				Vial (ALE297)	GW								X							
				NaOH (ALE245)	GW			X												
				HNO3 Filtered (ALE204)	GW				X						X					
				H2SO4 (ALE244)	GW														X	

Validated

CERTIFICATE OF ANALYSIS

SDG: 220523-8 **Report Number:** 648714 **Superseded Report:**
Client Ref.: LD10385 **Location:** Ten Acres Lane

Results Legend

X Test

N No Determination Possible

Sample Ty9es -
S - Soil/Solid
UNS - Unspecified Solid
GW - Ground Water
SW - Surface Water
LE - Land Leachate
PL - Prepared Leachate
PR - Process Water
SA - Saline Water
TE - Trade Effluent
TS - Treated Sewage
US - Untreated Sewage
RE - Recreational Water
DW - Drinking Water Non-regulatory
UNL - Unspecified Liquid
SL - Sludge
G - Gas
OTH - Other

			Lab Sample No(s)	Customer Sample Reference	AGS Reference	Depth (m)	Container	Sample Type
			26326767	CP209		0.00 - 0.00	0.5l glass bottle (ALE227)	GW
							1lplastic (ALE221)	GW
							250ml Amber Gl. PTFE/PE (ALE219)	GW
							H2SO4 (ALE244)	GW
							HNO3 Filtered (ALE204)	GW
							NaOH (ALE245)	GW
							Vial (ALE297)	GW
							ZnAc (ALE246)	GW
			26326810	RH202		0.00 - 0.00	0.5l glass bottle (ALE227)	GW
							250ml Amber Gl. PTFE/PE (ALE219)	GW
							500ml Plastic (ALE208)	GW
							H2SO4 (ALE244)	GW
							HNO3 Filtered (ALE204)	GW
							NaOH (ALE245)	GW
							Vial (ALE297)	GW
							ZnAc (ALE246)	GW
			26326797	RH204		0.00 - 0.00	0.5l glass bottle (ALE227)	GW
							250ml Amber Gl. PTFE/PE (ALE219)	GW
							500ml Plastic (ALE208)	GW
Sulphide	All	NDPs: 0 Tests: 5						
							ZnAc (ALE246)	X
							ZnAc (ALE246)	X
SVOC MS (W) - Aqueous	All	NDPs: 0 Tests: 5						
							0.5l glass bottle (ALE227)	X
							0.5l glass bottle (ALE227)	X
							0.5l glass bottle (ALE227)	X
TPH CWG (W)	All	NDPs: 0 Tests: 5						
							0.5l glass bottle (ALE227)	X
							0.5l glass bottle (ALE227)	X
							0.5l glass bottle (ALE227)	X
VOC MS (W)	All	NDPs: 0 Tests: 5						
							Vial (ALE297)	X
							Vial (ALE297)	X

26326784	WS318		0.00 - 0.00	ZnAc (ALE246)	GW		X						
				Vial (ALE297)	GW								X
				NaOH (ALE245)	GW								
				HNO3 Filtered (ALE204)	GW								
				H2SO4 (ALE244)	GW								
				500ml Plastic (ALE208)	GW								
				250ml Amber Gl. PTFE/PE (ALE219)	GW								
				0.5l glass bottle (ALE227)	GW				X		X		
26326754	RH206		0.00 - 0.00	ZnAc (ALE246)	GW		X						
				Vial (ALE297)	GW								X
				NaOH (ALE245)	GW								
				HNO3 Filtered (ALE204)	GW								
				H2SO4 (ALE244)	GW								
				500ml Plastic (ALE208)	GW								
				250ml Amber Gl. PTFE/PE (ALE219)	GW								
				0.5l glass bottle (ALE227)	GW				X		X		
26326797	RH204		0.00 - 0.00	ZnAc (ALE246)	GW		X						
				Vial (ALE297)	GW								X
				NaOH (ALE245)	GW								
				HNO3 Filtered (ALE204)	GW								
				H2SO4 (ALE244)	GW								

CERTIFICATE OF ANALYSIS

SDG: 220523-8 **Report Number:** 648714 **Superseded Report:**
Client Ref.: LD10385 **Location:** Ten Acres Lane

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4+§@ Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	CP209	RH202	RH204	RH206	WS318	
			Depth (m)	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	
			Sample Type	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	
			Date Sampled	19/05/2022	19/05/2022	19/05/2022	19/05/2022	19/05/2022	
			Sample Time	12:00	12:00	12:00	12:00	12:00	
			Date Received	22/05/2022	22/05/2022	22/05/2022	22/05/2022	22/05/2022	
			SDG Ref	220523-8	220523-8	220523-8	220523-8	220523-8	
			Lab Sample No.(s)	26326767	26326810	26326797	26326754	26326784	
			AGS Reference						
Alkalinity, Total as CaCO3	<2 mg/l	TM043		580 #	356 #	319 #	413 #	470 #	
Carbon, Organic (diss.filt)	<3 mg/l	TM090		<6	3.11	<3	3.11	6.8	
Sulphide	<0.01 mg/l	TM101		<0.01 #	<0.01 #	<0.01 #	<0.01 #	<0.01 #	
Redox potential	mV	TM110		138	139	132	140	137	
Arsenic (diss.filt)	<0.5 µg/l	TM152		3.86 #	2.11 #	12.5 #	6.25 #	2.91 #	
Boron (diss.filt)	<10 µg/l	TM152		134 #	111 #	42.6 #	48.1 #	739 #	
Cadmium (diss.filt)	<0.08 µg/l	TM152		<0.08 #	<0.08 #	<0.08 #	<0.08 #	<0.08 #	
Chromium (diss.filt)	<1 µg/l	TM152		<1 #	<1 #	<1 #	<1 #	<1 #	
Copper (diss.filt)	<0.3 µg/l	TM152		1.59 #	<0.3 #	<0.3 #	0.715 #	0.885 #	
Lead (diss.filt)	<0.2 µg/l	TM152		6.95 #	<0.2 #	<0.2 #	0.987 #	1.82 #	
Manganese (diss.filt)	<3 µg/l	TM152		936 #	253 #	318 #	360 #	264 #	
Nickel (diss.filt)	<0.4 µg/l	TM152		3.73 #	3.76 #	2.77 #	0.728 #	1.49 #	
Selenium (diss.filt)	<1 µg/l	TM152		<1 #	<1 #	<1 #	<1 #	<1 #	
Zinc (diss.filt)	<1 µg/l	TM152		12.2 #	1.14 #	5.12 #	2.57 #	54.5 #	
Calcium (Dis.Filt)	<0.2 mg/l	TM152		182 #	58.3 #	85.7 #	91.9 #	207 #	
Mercury (diss.filt)	<0.01 µg/l	TM183		<0.01 #	<0.01 #	<0.01 #	<0.01 #	<0.01 #	
Sulphate	<2 mg/l	TM184		807 #	52.3 #	36.4 #	30.9 #	126 #	
Cyanide, Total	<0.05 mg/l	TM227		<0.05 @ #	<0.05 @ #	<0.05 @ #	<0.05 @ #	<0.05 @ #	
Cyanide, Free	<0.05 mg/l	TM227		<0.05 @ #	<0.05 @ #	<0.05 @ #	<0.05 @ #	<0.05 @ #	
Thiocyanate	<0.05 mg/l	TM227		<0.05 @ #	<0.05 @ #	<0.05 @ #	<0.05 @ #	<0.05 @ #	
pH	<1 pH Units	TM256		7.41 #	7.95 #	7.73 #	7.68 #	7.2 #	
Phenol	<0.002 mg/l	TM259		<0.002 #	<0.002 #	<0.002 #	<0.002 #	<0.002 #	
Cresols	<0.006 mg/l	TM259		<0.006 #	<0.006 #	<0.006 #	<0.006 #	<0.006 #	
Xylenols	<0.008 mg/l	TM259		<0.008 #	<0.008 #	<0.008 #	<0.008 #	<0.008 #	
Phenols, Total Detected monohydric	<0.016 mg/l	TM259		<0.016 #	<0.016 #	<0.016 #	<0.016 #	<0.016 #	
Low Level Hexavalent Chromium	<0.003 mg/l	TM331		<0.003	<0.003	<0.003	<0.003	<0.003	
PFBA (375-22-4)	<2 ng/l	TM337		<2 #				<2 #	
PFPA (2706-90-3)	<1 ng/l	TM337		<1 #				<1 #	
PFHxA (307-24-4)	<1 ng/l	TM337		<1 #				1.53 #	
PFBS (375-73-5)	<1 ng/l	TM337		<1 #				2.1 #	
PFHpA (375-85-9)	<1 ng/l	TM337		<1 #				<1 #	
6:2 FTS (27619-97-2)	<1 ng/l	TM337		<1 #				<1 #	
PFOA (335-67-1)	<0.65 ng/l	TM337		<1.9 #				8.81 #	

Validated

CERTIFICATE OF ANALYSIS

SDG: 220523-8 **Report Number:** 648714 **Superseded Report:**
Client Ref.: LD10385 **Location:** Ten Acres Lane

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	CP209	RH202	RH204	RH206	WS318	
			Depth (m)	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	
			Sample Type	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	
			Date Sampled	19/05/2022	19/05/2022	19/05/2022	19/05/2022	19/05/2022	
			Sample Time	12:00	12:00	12:00	12:00	12:00	
			Date Received	22/05/2022	22/05/2022	22/05/2022	22/05/2022	22/05/2022	
			SDG Ref	220523-8	220523-8	220523-8	220523-8	220523-8	
			Lab Sample No.(s)	26326767	26326810	26326797	26326754	26326784	
			AGS Reference						
PFHxS (355-46-4)	<1 ng/l	TM337		<1 #				3.27 #	
PFNA (375-95-1)	<1 ng/l	TM337		<1 #				<1 #	
PFHpS (375-92-8)	<1 ng/l	TM337		<1 #				<1 #	
PFDA (335-76-2)	<1 ng/l	TM337		<1 #				<1 #	
Linear PFOS (1763-23-1)	<0.65 ng/l	TM337		<0.65 #				1.65 #	
Branched PFOS	<0.65 ng/l	TM337		<0.65 #				3.41 #	
PFUnA (2058-94-8)	<1 ng/l	TM337		<1 #				<1 #	
PFDoA (307-55-1)	<1 ng/l	TM337		<1 #				<1 #	
PFOSA (754-91-6)	<2 ng/l	TM337		<2 #				<2 #	
PFDS (335-77-3)	<1 ng/l	TM337		<1				<1	
PFPeS (2706-91-4)	<1 ng/l	TM337		<1 #				<1 #	
Total PFOS	<0.65 ng/l	TM337		<0.65 #				5.06 #	

Validated

CERTIFICATE OF ANALYSIS

SDG: 220523-8 **Report Number:** 648714 **Superseded Report:**
Client Ref.: LD10385 **Location:** Ten Acres Lane

PAH Spec MS - Aqueous (W)

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	CP209	RH202	RH204	RH206	WS318
			Depth (m)	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
			Sample Type	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)
			Date Sampled	19/05/2022	19/05/2022	19/05/2022	19/05/2022	19/05/2022
			Sample Time	12:00	12:00	12:00	12:00	12:00
			Date Received	22/05/2022	22/05/2022	22/05/2022	22/05/2022	22/05/2022
			SDG Ref	220523-8	220523-8	220523-8	220523-8	220523-8
			Lab Sample No.(s)	26326767	26326810	26326797	26326754	26326784
			AGS Reference					
Naphthalene (aq)	<0.01 µg/l	TM178		<0.01 #	0.505 #	0.0131 #	<0.1 #	0.0663 #
Acenaphthene (aq)	<0.005 µg/l	TM178		<0.005 #	0.0093 #	<0.005 #	<0.05 #	0.114 #
Acenaphthylene (aq)	<0.005 µg/l	TM178		<0.005 #	<0.005 #	<0.005 #	<0.05 #	0.0064 #
Fluoranthene (aq)	<0.005 µg/l	TM178		0.0101 #	0.0862 #	0.01 #	0.195 #	0.544 #
Anthracene (aq)	<0.005 µg/l	TM178		<0.005 #	0.0119 #	<0.005 #	<0.05 #	0.105 #
Phenanthrene (aq)	<0.005 µg/l	TM178		0.0059 #	0.111 #	0.0088 #	0.116 #	0.38 #
Fluorene (aq)	<0.005 µg/l	TM178		<0.005 #	0.0236 #	<0.005 #	<0.05 #	0.062 #
Chrysene (aq)	<0.005 µg/l	TM178		<0.005 #	0.0701 #	<0.005 #	0.177 #	0.235 #
Pyrene (aq)	<0.005 µg/l	TM178		0.0112 #	0.0937 #	0.0092 #	0.211 #	0.517 #
Benzo(a)anthracene (aq)	<0.005 µg/l	TM178		<0.005 #	0.0304 #	<0.005 #	<0.05 #	0.207 #
Benzo(b)fluoranthene (aq)	<0.005 µg/l	TM178		<0.005 #	0.0669 #	<0.005 #	0.195 #	0.262 #
Benzo(k)fluoranthene (aq)	<0.005 µg/l	TM178		<0.005 #	0.0226 #	<0.005 #	<0.05 #	0.111 #
Benzo(a)pyrene (aq)	<0.002 µg/l	TM178		<0.002 #	0.0386 #	<0.002 #	<0.02 #	0.22 #
Dibenzo(a,h)anthracene (aq)	<0.005 µg/l	TM178		<0.005 #	<0.005 #	<0.005 #	<0.05 #	0.0269 #
Benzo(g,h,i)perylene (aq)	<0.005 µg/l	TM178		<0.005 #	0.0398 #	<0.005 #	0.0856 #	0.154 #
Indeno(1,2,3-cd)pyrene (aq)	<0.005 µg/l	TM178		<0.005 #	0.0296 #	<0.005 #	<0.05 #	0.143 #
PAH, Total Detected USEPA 16 (aq)	<0.082 µg/l	TM178		<0.082 #	1.14 #	<0.082 #	0.979 #	3.15 #

CERTIFICATE OF ANALYSIS

SDG: 220523-8 **Report Number:** 648714 **Superseded Report:**
Client Ref.: LD10385 **Location:** Ten Acres Lane

SVOC MS (W) - Aqueous

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4+§@ Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	CP209	RH202	RH204	RH206	WS318
			Depth (m)	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
			Sample Type	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)
			Date Sampled	19/05/2022	19/05/2022	19/05/2022	19/05/2022	19/05/2022
			Sample Time	12:00	12:00	12:00	12:00	12:00
			Date Received	22/05/2022	22/05/2022	22/05/2022	22/05/2022	22/05/2022
			SDG Ref	220523-8	220523-8	220523-8	220523-8	220523-8
			Lab Sample No.(s)	26326767	26326810	26326797	26326754	26326784
			AGS Reference					
1,2,4-Trichlorobenzene (aq)	<1 µg/l	TM176		<2 #	<10 #	<4 #	<10 #	<1 #
1,2-Dichlorobenzene (aq)	<1 µg/l	TM176		<2 #	<10 #	<4 #	<10 #	<1 #
1,3-Dichlorobenzene (aq)	<1 µg/l	TM176		<2 #	<10 #	<4 #	<10 #	<1 #
1,4-Dichlorobenzene (aq)	<1 µg/l	TM176		<2 #	<10 #	<4 #	<10 #	<1 #
2,4,5-Trichlorophenol (aq)	<1 µg/l	TM176		<2 #	<10 #	<4 #	<10 #	<1 #
2,4,6-Trichlorophenol (aq)	<1 µg/l	TM176		<2 #	<10 #	<4 #	<10 #	<1 #
2,4-Dichlorophenol (aq)	<1 µg/l	TM176		<2 #	<10 #	<4 #	<10 #	<1 #
2,4-Dimethylphenol (aq)	<1 µg/l	TM176		<2 #	<10 #	<4 #	<10 #	<1 #
2,4-Dinitrotoluene (aq)	<1 µg/l	TM176		<2 #	<10 #	<4 #	<10 #	<1 #
2,6-Dinitrotoluene (aq)	<1 µg/l	TM176		<2 #	<10 #	<4 #	<10 #	<1 #
2-Chloronaphthalene (aq)	<1 µg/l	TM176		<2 #	<10 #	<4 #	<10 #	<1 #
2-Chlorophenol (aq)	<1 µg/l	TM176		<2 #	<10 #	<4 #	<10 #	<1 #
2-Methylnaphthalene (aq)	<1 µg/l	TM176		<2 #	<10 #	<4 #	<10 #	<1 #
2-Methylphenol (aq)	<1 µg/l	TM176		<2 #	<10 #	<4 #	<10 #	<1 #
2-Nitroaniline (aq)	<1 µg/l	TM176		<2 #	<10 #	<4 #	<10 #	<1 #
2-Nitrophenol (aq)	<1 µg/l	TM176		<2 #	<10 #	<4 #	<10 #	<1 #
3-Nitroaniline (aq)	<1 µg/l	TM176		<2	<10	<4	<10	<1
4-Bromophenylphenylether (aq)	<1 µg/l	TM176		<2 #	<10 #	<4 #	<10 #	<1 #
4-Chloro-3-methylphenol (aq)	<1 µg/l	TM176		<2 #	<10 #	<4 #	<10 #	<1 #
4-Chloroaniline (aq)	<1 µg/l	TM176		<2	<10	<4	<10	<1
4-Chlorophenylphenylether (aq)	<1 µg/l	TM176		<2 #	<10 #	<4 #	<10 #	<1 #
4-Methylphenol (aq)	<1 µg/l	TM176		<2 #	<10 #	<4 #	<10 #	<1 #
4-Nitroaniline (aq)	<1 µg/l	TM176		<2 #	<10 #	<4 #	<10 #	<1 #
4-Nitrophenol (aq)	<1 µg/l	TM176		<2	<10	<4	<10	<1
Azobenzene (aq)	<1 µg/l	TM176		<2 #	<10 #	<4 #	<10 #	<1 #
Acenaphthylene (aq)	<1 µg/l	TM176		<2 #	<10 #	<4 #	<10 #	<1 #
Acenaphthene (aq)	<1 µg/l	TM176		<2 #	<10 #	<4 #	<10 #	<1 #
Anthracene (aq)	<1 µg/l	TM176		<2 #	<10 #	<4 #	<10 #	<1 #
bis(2-Chloroethyl)ether (aq)	<1 µg/l	TM176		<2 #	<10 #	<4 #	<10 #	<1 #
bis(2-Chloroethoxy)methane (aq)	<1 µg/l	TM176		<2 #	<10 #	<4 #	<10 #	<1 #
bis(2-Ethylhexyl) phthalate (aq)	<2 µg/l	TM176		<4 #	<20 #	104 #	<20 #	<2 #
Butylbenzyl phthalate (aq)	<1 µg/l	TM176		<2 #	<10 #	<4 #	<10 #	<1 #
Benzo(a)anthracene (aq)	<1 µg/l	TM176		<2 #	<10 #	<4 #	<10 #	1.01 #

Validated

CERTIFICATE OF ANALYSIS

SDG: 220523-8 **Report Number:** 648714 **Superseded Report:**
Client Ref.: LD10385 **Location:** Ten Acres Lane

SVOC MS (W) - Aqueous

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	CP209	RH202	RH204	RH206	WS318	
			Depth (m)	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	
			Sample Type	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	
			Date Sampled	19/05/2022	19/05/2022	19/05/2022	19/05/2022	19/05/2022	
			Sample Time	12:00	12:00	12:00	12:00	12:00	
			Date Received	22/05/2022	22/05/2022	22/05/2022	22/05/2022	22/05/2022	
			SDG Ref	220523-8	220523-8	220523-8	220523-8	220523-8	
			Lab Sample No.(s)	26326767	26326810	26326797	26326754	26326784	
			AGS Reference						
Benzo(b)fluoranthene (aq)	<1 µg/l	TM176		<2 #	<10 #	<4 #	<10 #	1.06 #	
Benzo(k)fluoranthene (aq)	<1 µg/l	TM176		<2 #	<10 #	<4 #	<10 #	<1 #	
Benzo(a)pyrene (aq)	<1 µg/l	TM176		<2 #	<10 #	<4 #	<10 #	<1 #	
Benzo(g,h,i)perylene (aq)	<1 µg/l	TM176		<2 #	<10 #	<4 #	<10 #	<1 #	
Carbazole (aq)	<1 µg/l	TM176		<2 #	<10 #	<4 #	<10 #	<1 #	
Chrysene (aq)	<1 µg/l	TM176		<2 #	<10 #	<4 #	<10 #	1.03 #	
Dibenzofuran (aq)	<1 µg/l	TM176		<2 #	<10 #	<4 #	<10 #	<1 #	
n-Dibutyl phthalate (aq)	<1 µg/l	TM176		<2 #	<10 #	<4 #	<10 #	<1 #	
Diethyl phthalate (aq)	<1 µg/l	TM176		<2 #	<10 #	<4 #	<10 #	<1 #	
Dibenzo(a,h)anthracene (aq)	<1 µg/l	TM176		<2 #	<10 #	<4 #	<10 #	<1 #	
Dimethyl phthalate (aq)	<1 µg/l	TM176		<2 #	<10 #	<4 #	<10 #	<1 #	
n-Dioctyl phthalate (aq)	<5 µg/l	TM176		<10 #	<50 #	<20 #	<50 #	<5 #	
Fluoranthene (aq)	<1 µg/l	TM176		<2 #	<10 #	<4 #	<10 #	2.1 #	
Fluorene (aq)	<1 µg/l	TM176		<2 #	<10 #	<4 #	<10 #	<1 #	
Hexachlorobenzene (aq)	<1 µg/l	TM176		<2 #	<10 #	<4 #	<10 #	<1 #	
Hexachlorobutadiene (aq)	<1 µg/l	TM176		<2 #	<10 #	<4 #	<10 #	<1 #	
Pentachlorophenol (aq)	<1 µg/l	TM176		<2	<10	<4	<10	<1	
Phenol (aq)	<1 µg/l	TM176		<2	<10	<4	<10	<1	
n-Nitroso-n-dipropylamine (aq)	<1 µg/l	TM176		<2 #	<10 #	<4 #	<10 #	<1 #	
Hexachloroethane (aq)	<1 µg/l	TM176		<2 #	<10 #	<4 #	<10 #	<1 #	
Nitrobenzene (aq)	<1 µg/l	TM176		<2 #	<10 #	<4 #	<10 #	<1 #	
Naphthalene (aq)	<1 µg/l	TM176		<2 #	<10 #	<4 #	<10 #	<1 #	
Isophorone (aq)	<1 µg/l	TM176		<2 #	<10 #	<4 #	<10 #	<1 #	
Hexachlorocyclopentadiene (aq)	<1 µg/l	TM176		<2	<10	<4	<10	<1	
Phenanthrene (aq)	<1 µg/l	TM176		<2 #	<10 #	<4 #	<10 #	1.29 #	
Indeno(1,2,3-cd)pyrene (aq)	<1 µg/l	TM176		<2 #	<10 #	<4 #	<10 #	<1 #	
Pyrene (aq)	<1 µg/l	TM176		<2 #	<10 #	<4 #	<10 #	2.06 #	

CERTIFICATE OF ANALYSIS

SDG: 220523-8 **Report Number:** 648714 **Superseded Report:**
Client Ref.: LD10385 **Location:** Ten Acres Lane

TPH CWG (W)

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	CP209	RH202	RH204	RH206	WS318
			Depth (m)	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
			Sample Type	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)
			Date Sampled	19/05/2022	19/05/2022	19/05/2022	19/05/2022	19/05/2022
			Sample Time	12:00	12:00	12:00	12:00	12:00
			Date Received	22/05/2022	22/05/2022	22/05/2022	22/05/2022	22/05/2022
			SDG Ref	220523-8	220523-8	220523-8	220523-8	220523-8
			Lab Sample No.(s)	26326767	26326810	26326797	26326754	26326784
			AGS Reference					
GRO Surrogate % recovery**	%	TM245		98	97	95	71	94
GRO >C5-C12	<50 µg/l	TM245		<50 #	<50 #	<50 #	<50 #	<50 #
Aliphatics >C5-C6	<10 µg/l	TM245		<10	<10	<10	<10	<10
Aliphatics >C6-C8	<10 µg/l	TM245		<10	<10	<10	<10	<10
Aliphatics >C8-C10	<10 µg/l	TM245		<10	<10	<10	<10	<10
Aliphatics >C10-C12	<10 µg/l	TM245		<10	<10	<10	<10	<10
Aliphatics >C12-C16 (aq)	<10 µg/l	TM174		<10	<10	<10	<100	<10
Aliphatics >C16-C21 (aq)	<10 µg/l	TM174		<10	<10	<10	<100	<10
Aliphatics >C21-C35 (aq)	<10 µg/l	TM174		<10	<10	<10	<100	<10
Total Aliphatics >C12-C35 (aq)	<10 µg/l	TM174		<10	<10	<10	<100	<10
Aromatics >EC5-EC7	<10 µg/l	TM245		<10	<10	<10	<10	<10
Aromatics >EC7-EC8	<10 µg/l	TM245		<10	<10	<10	<10	<10
Aromatics >EC8-EC10	<10 µg/l	TM245		<10	<10	<10	<10	<10
Aromatics >EC10-EC12	<10 µg/l	TM245		<10	<10	<10	<10	<10
Aromatics >EC12-EC16 (aq)	<10 µg/l	TM174		<10	<10	<10	<100	<10
Aromatics >EC16-EC21 (aq)	<10 µg/l	TM174		<10	<10	<10	<100	<10
Aromatics >EC21-EC35 (aq)	<10 µg/l	TM174		<10	<10	<10	<100	<10
Total Aromatics >EC12-EC35 (aq)	<10 µg/l	TM174		<10	<10	<10	<100	<10
Total Aliphatics & Aromatics >C5-35 (aq)	<10 µg/l	TM174		<10	<10	<10	<100	<10
Aliphatics >C16-C35 Aqueous	<10 µg/l	TM174		<10	<10	<10	<100	<10

CERTIFICATE OF ANALYSIS

SDG: 220523-8 **Report Number:** 648714 **Superseded Report:**
Client Ref.: LD10385 **Location:** Ten Acres Lane

VOC MS (W)

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4+$@ Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	CP209	RH202	RH204	RH206	WS318	
			Depth (m)	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	
			Sample Type	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	
			Date Sampled	19/05/2022	19/05/2022	19/05/2022	19/05/2022	19/05/2022	
			Sample Time	12:00	12:00	12:00	12:00	12:00	
			Date Received	22/05/2022	22/05/2022	22/05/2022	22/05/2022	22/05/2022	
			SDG Ref	220523-8	220523-8	220523-8	220523-8	220523-8	
			Lab Sample No.(s)	26326767	26326810	26326797	26326754	26326784	
			AGS Reference						
Dibromofluoromethane**	%	TM208		114	113	109	98.1	108	
Toluene-d8**	%	TM208		99.9	99.2	97.4	89.2	97.8	
4-Bromofluorobenzene**	%	TM208		99.5	94.7	94.1	71	95.4	
Dichlorodifluoromethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	
Chloromethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	
Vinyl chloride	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	
Bromomethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	
Chloroethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	
Trichlorofluoromethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	
1,1-Dichloroethene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	
Carbon disulphide	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	
Dichloromethane	<3 µg/l	TM208		<3 #	<3 #	<3 #	<3 #	<3 #	
Methyl tertiary butyl ether (MTBE)	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	
trans-1,2-Dichloroethene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	
1,1-Dichloroethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	
cis-1,2-Dichloroethene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	
2,2-Dichloropropane	<1 µg/l	TM208		<1	<1	<1	<1	<1	
Bromochloromethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	
Chloroform	<1 µg/l	TM208		<1 #	2.47 #	2.96 #	<1 #	<1 #	
1,1,1-Trichloroethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	
1,1-Dichloropropene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	
Carbontetrachloride	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	
1,2-Dichloroethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	
Benzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	
Trichloroethene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	
1,2-Dichloropropane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	
Dibromomethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	
Bromodichloromethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	
cis-1,3-Dichloropropene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	
Toluene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	
trans-1,3-Dichloropropene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	
1,1,2-Trichloroethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	
1,3-Dichloropropane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	

CERTIFICATE OF ANALYSIS

SDG: 220523-8 **Report Number:** 648714 **Superseded Report:**
Client Ref.: LD10385 **Location:** Ten Acres Lane

VOC MS (W)

Results Legend		Customer Sample Ref.	CP209	RH202	RH204	RH206	WS318	
#	ISO17025 accredited.							
M	mCERTS accredited.							
aq	Aqueous / settled sample.							
diss.filt	Dissolved / filtered sample.	Depth (m)	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	
tot.unfilt	Total / unfiltered sample.	Sample Type	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	
*	Subcontracted - refer to subcontractor report for accreditation status.	Date Sampled	19/05/2022	19/05/2022	19/05/2022	19/05/2022	19/05/2022	
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery	Sample Time	12:00	12:00	12:00	12:00	12:00	
		Date Received	22/05/2022	22/05/2022	22/05/2022	22/05/2022	22/05/2022	
		SDG Ref	220523-8	220523-8	220523-8	220523-8	220523-8	
(F)	Trigger breach confirmed	Lab Sample No.(s)	26326767	26326810	26326797	26326754	26326784	
1-4+§@	Sample deviation (see appendix)	AGS Reference						

Component	LOD/Units	Method						
Tetrachloroethene	<1 µg/l	TM208	<1 #	<1 #	<1 #	<1 #	<1 #	
Dibromochloromethane	<1 µg/l	TM208	<1 #	<1 #	<1 #	<1 #	<1 #	
1,2-Dibromoethane	<1 µg/l	TM208	<1 #	<1 #	<1 #	<1 #	<1 #	
Chlorobenzene	<1 µg/l	TM208	<1 #	<1 #	<1 #	<1 #	<1 #	
1,1,1,2-Tetrachloroethane	<1 µg/l	TM208	<1 #	<1 #	<1 #	<1 #	<1 #	
Ethylbenzene	<1 µg/l	TM208	<1 #	<1 #	<1 #	<1 #	<1 #	
m,p-Xylene	<1 µg/l	TM208	<1 #	<1 #	<1 #	<1 #	<1 #	
o-Xylene	<1 µg/l	TM208	<1 #	<1 #	<1 #	<1 #	<1 #	
Styrene	<1 µg/l	TM208	<1 #	<1 #	<1 #	<1 #	<1 #	
Bromoform	<1 µg/l	TM208	<1 #	<1 #	<1 #	<1 #	<1 #	
Isopropylbenzene	<1 µg/l	TM208	<1 #	<1 #	<1 #	<1 #	<1 #	
1,1,2,2-Tetrachloroethane	<1 µg/l	TM208	<1 #	<1 #	<1 #	<1 #	<1 #	
1,2,3-Trichloropropane	<1 µg/l	TM208	<1 #	<1 #	<1 #	<1 #	<1 #	
Bromobenzene	<1 µg/l	TM208	<1 #	<1 #	<1 #	<1 #	<1 #	
Propylbenzene	<1 µg/l	TM208	<1 #	<1 #	<1 #	<1 #	<1 #	
2-Chlorotoluene	<1 µg/l	TM208	<1 #	<1 #	<1 #	<1 #	<1 #	
1,3,5-Trimethylbenzene	<1 µg/l	TM208	<1 #	<1 #	<1 #	<1 #	<1 #	
4-Chlorotoluene	<1 µg/l	TM208	<1 #	<1 #	<1 #	<1 #	<1 #	
tert-Butylbenzene	<1 µg/l	TM208	<1 #	<1 #	<1 #	<1 #	<1 #	
1,2,4-Trimethylbenzene	<1 µg/l	TM208	<1 #	<1 #	<1 #	<1 #	<1 #	
sec-Butylbenzene	<1 µg/l	TM208	<1 #	<1 #	<1 #	<1 #	<1 #	
4-iso-Propyltoluene	<1 µg/l	TM208	<1 #	<1 #	<1 #	<1 #	<1 #	
1,3-Dichlorobenzene	<1 µg/l	TM208	<1 #	<1 #	<1 #	<1 #	<1 #	
1,4-Dichlorobenzene	<1 µg/l	TM208	<1 #	<1 #	<1 #	<1 #	<1 #	
n-Butylbenzene	<1 µg/l	TM208	<1 #	<1 #	<1 #	<1 #	<1 #	
1,2-Dichlorobenzene	<1 µg/l	TM208	<1 #	<1 #	<1 #	<1 #	<1 #	
1,2-Dibromo-3-chloropropane	<1 µg/l	TM208	<1	<1	<1	<1	<1	
1,2,4-Trichlorobenzene	<1 µg/l	TM208	<1 #	<1 #	<1 #	<1 #	<1 #	
Hexachlorobutadiene	<1 µg/l	TM208	<1 #	<1 #	<1 #	<1 #	<1 #	
tert-Amyl methyl ether (TAME)	<1 µg/l	TM208	<1 #	<1 #	<1 #	<1 #	<1 #	
Naphthalene	<1 µg/l	TM208	<1 #	<1 #	<1 #	<1 #	<1 #	
1,2,3-Trichlorobenzene	<1 µg/l	TM208	<1 #	<1 #	<1 #	<1 #	<1 #	
1,3,5-Trichlorobenzene	<1 µg/l	TM208	<1	<1	<1	<1	<1	

Validated

CERTIFICATE OF ANALYSIS

SDG: 220523-8 **Report Number:** 648714 **Superseded Report:**
Client Ref.: LD10385 **Location:** Ten Acres Lane

VOC MS (W)

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	CP209	RH202	RH204	RH206	WS318
			Depth (m)	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
			Sample Type	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)
			Date Sampled	19/05/2022	19/05/2022	19/05/2022	19/05/2022	19/05/2022
			Sample Time	12:00	12:00	12:00	12:00	12:00
			Date Received	22/05/2022	22/05/2022	22/05/2022	22/05/2022	22/05/2022
			SDG Ref	220523-8	220523-8	220523-8	220523-8	220523-8
			Lab Sample No.(s)	26326767	26326810	26326797	26326754	26326784
			AGS Reference					
Sum of detected Xylenes	<2 µg/l	TM208		<2	<2	<2	<2	<2
Sum of BTEX	<5 µg/l	TM208		<5	<5	<5	<5	<5

Table of Results - Appendix

Method No	Reference	Description
TM043	Method 2320B, AWWA/APHA, 20th Ed., 1999 / BS 2690: Part109 1984	Determination of alkalinity in aqueous samples
TM090	Method 5310, AWWA/APHA, 20th Ed., 1999 / Modified: US EPA Method 415.1 & 9060	Determination of Total Organic Carbon/Total Inorganic Carbon in Water and Waste Water
TM101	Method 4500B & C, AWWA/APHA, 20th Ed., 1999	Determination of Sulphide in soil and water samples using the Kone Analyser
TM110	BS 1377: Part 3 1990	Redox Potential
TM152	ISO 17294-2:2016 Water quality - Application of inductively coupled plasma mass spectrometry (ICP-MS)	Analysis of Aqueous Samples by ICP-MS
TM174	Analysis of Petroleum Hydrocarbons in Environmental Media – Total Petroleum Hydrocarbon Criteria	Determination of Speciated Extractable Petroleum Hydrocarbons in Waters by GC-FID
TM176	EPA 8270D Semi-Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)	Determination of SVOCs in Water by GCMS
TM178	Modified: US EPA Method 8100	Determination of Polynuclear Aromatic Hydrocarbons (PAH) by GC-MS in Waters
TM183	BS EN 23506:2002, (BS 6068-2.74:2002) ISBN 0 580 38924 3	Determination of Trace Level Mercury in Waters and Leachates by PSA Cold Vapour Atomic Fluorescence Spectrometry
TM184	EPA Methods 325.1 & 325.2,	The Determination of Anions in Aqueous Matrices using the Kone Spectrophotometric Analysers
TM208	Modified: US EPA Method 8260b & 624	Determination of Volatile Organic Compounds by Headspace / GC-MS in Waters
TM227	Standard methods for the examination of waters and wastewaters 20th Edition, AWWA/APHA Method 4500.	Determination of Total Cyanide, Free (Easily Liberatable) Cyanide and Thiocyanate
TM245	By GC-FID	Determination of GRO by Headspace in waters
TM256	The measurement of Electrical Conductivity and the Laboratory determination of pH Value of Natural, Treated and Wastewaters. HMSO, 1978. ISBN 011 751428 4, Standard Methods for the examination of waters and wastewaters 20th Edition, PHA, Washington DC, USA. ISBN 0-87553-235-7 and The Determination of Alkalinity and Acidity in water HMSO, 1981, ISBN 0 11 751601 5.	Determination of pH, EC, TDS and Alkalinity in Aqueous samples
TM259	by HPLC	Determination of Phenols in Waters and Leachates by HPLC
TM331		Low Level Hexavalent Chromium
TM337	PFAS in Environmental Water Matrices	Analysis of PFAS

NA = not applicable.

Chemical testing (unless subcontracted) performed at ALS Life Sciences Ltd Hawarden.

CERTIFICATE OF ANALYSIS

SDG: 220523-8 **Report Number:** 648714 **Superseded Report:**
Client Ref.: LD10385 **Location:** Ten Acres Lane

Test Completion Dates

Lab Sample No(s)	26326767	26326810	26326797	26326754	26326784
Customer Sample Ref.	CP209	RH202	RH204	RH206	WS318
AGS Ref.					
Depth	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Type	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water
Alkalinity as CaCO3	30-May-2022	30-May-2022	30-May-2022	30-May-2022	30-May-2022
Anions by Kone (w)	24-May-2022	24-May-2022	24-May-2022	24-May-2022	24-May-2022
Cyanide Comp/Free/Total/Thiocyanate	31-May-2022	31-May-2022	31-May-2022	31-May-2022	31-May-2022
Dissolved Metals by ICP-MS	27-May-2022	25-May-2022	25-May-2022	27-May-2022	25-May-2022
Dissolved Organic/Inorganic Carbon	27-May-2022	26-May-2022	25-May-2022	26-May-2022	27-May-2022
EPH CWG (Aliphatic) Aqueous GC (W)	30-May-2022	30-May-2022	30-May-2022	30-May-2022	30-May-2022
EPH CWG (Aromatic) Aqueous GC (W)	30-May-2022	30-May-2022	30-May-2022	30-May-2022	30-May-2022
GRO by GC-FID (W)	30-May-2022	30-May-2022	30-May-2022	30-May-2022	30-May-2022
Low Level Hexavalent Chromium (w)	30-May-2022	30-May-2022	30-May-2022	30-May-2022	30-May-2022
Mercury Dissolved	27-May-2022	30-May-2022	30-May-2022	27-May-2022	30-May-2022
PAH Spec MS - Aqueous (W)	30-May-2022	30-May-2022	30-May-2022	30-May-2022	30-May-2022
PFAS Liquids	31-May-2022				31-May-2022
pH Value	25-May-2022	25-May-2022	25-May-2022	25-May-2022	25-May-2022
Phenols by HPLC (W)	27-May-2022	27-May-2022	26-May-2022	27-May-2022	27-May-2022
Redox Potential	30-May-2022	30-May-2022	30-May-2022	30-May-2022	30-May-2022
Sulphide	30-May-2022	30-May-2022	30-May-2022	30-May-2022	30-May-2022
SVOC MS (W) - Aqueous	30-May-2022	30-May-2022	30-May-2022	30-May-2022	30-May-2022
TPH CWG (W)	30-May-2022	30-May-2022	30-May-2022	30-May-2022	30-May-2022
VOC MS (W)	30-May-2022	30-May-2022	30-May-2022	30-May-2022	30-May-2022

Appendix

1. Results are expressed on a dry weight basis (dried at 35ºC) for all soil analyses except for the following: NRA and CEN Leach tests, flash point LOI, pH, ammonium as NH4 by the BRE method, VOC TICs and SVOC TICs.

2. If sufficient sample is received a sub sample will be retained free of charge for 30 days after analysis is completed (e-mailed) for all sample types unless the sample is destroyed on testing. The prepared soil sub sample that is analysed for asbestos will be retained for a period of 6 months after the analysis date. All bulk samples will be retained for a period of 6 months after the analysis date. All samples received and not scheduled will be disposed of one month after the date of receipt unless we are instructed to the contrary. Once the initial period has expired, a storage charge will be applied for each month or part thereof until the client cancels the request for sample storage. ALS reserve the right to charge for samples received and stored but not analysed.

3. With respect to turnaround, we will always endeavour to meet client requirements wherever possible, but turnaround times cannot be absolutely guaranteed due to so many variables beyond our control.

4. We take responsibility for any test performed by sub-contractors (marked with an asterisk). We endeavour to use UKAS/MCERTS Accredited Laboratories, who either complete a quality questionnaire or are audited by ourselves. For some determinands there are no UKAS/MCERTS Accredited Laboratories, in this instance a laboratory with a known track record will be utilised.

5. If no separate volatile sample is supplied by the client, or if a headspace or sediment is present in the volatile sample, the integrity of the data may be compromised. This will be flagged up as an invalid VOC on the test schedule and the result marked as deviating on the test certificate.

6. NDP - No determination possible due to insufficient/unsuitable sample.

7. Results relate only to the items tested.

8. LoDs (Limit of Detection) for wet tests reported on a dry weight basis are not corrected for moisture content.

9. **Surrogate recoveries** - Surrogates are added to your sample to monitor recovery of the test requested. A % recovery is reported, results are not corrected for the recovery measured. Typical recoveries for organics tests are 70-130%. Recoveries in soils are affected by organic rich or clay rich matrices. Waters can be affected by remediation fluids or high amounts of sediment. Test results are only ever reported if all of the associated quality checks pass; it is assumed that all recoveries outside of the values above are due to matrix affect.

10. Stones/debris are not routinely removed. We always endeavour to take a representative sub sample from the received sample.

11. In certain circumstances the method detection limit may be elevated due to the sample being outside the calibration range. Other factors that may contribute to this include possible interferences. In both cases the sample would be diluted which would cause the method detection limit to be raised.

12. For dried and crushed preparations of soils volatile loss may occur e.g volatile mercury.

13. For leachate preparations other than Zero Headspace Extraction (ZHE) volatile loss may occur.

14. For the BSEN 12457-3 two batch process to allow the cumulative release to be calculated, the volume of the leachate produced is measured and filtered for all tests. We therefore cannot carry out any unfiltered analysis. The tests affected include volatiles GCFID/GCMS and all subcontracted analysis.

15. Analysis and identification of specific compounds using GCFID is by retention time only, and we routinely calibrate and quantify for benzene, toluene, ethylbenzenes and xylenes (BTEX). For total volatiles in the C5-C12 range, the total area of the chromatogram is integrated and expressed as ug/kg or ug/l. Although this analysis is commonly used for the quantification of gasoline range organics (GRO), the system will also detect other compounds such as chlorinated solvents, and this may lead to a falsely high result with respect to hydrocarbons only. It is not possible to specifically identify these non-hydrocarbons, as standards are not routinely run for any other compounds, and for more definitive identification, volatiles by GCMS should be utilised.

16. We are accredited to MCERTS for sand, clay and loam/topsoil, or any of these materials - whether these are derived from naturally occurring soil profiles, or from fill/made ground, as long as these materials constitute the major part of the sample. Other coarse granular material such as concrete, gravel and brick are not accredited if they comprise the major part of the sample.

17 Data retention. All records, communications and reports pertaining to the analysis are archived for seven years from the date of issue of the final report.

General

18. **Tentatively Identified Compounds (TICs)** are non-target peaks in VOC and SVOC analysis. All non-target peaks detected with a concentration above the LoD are subjected to a mass spectral library search. Non-target peaks with a library search confidence of >75% are reported based on the best mass spectral library match. When a non-target peak with a library search confidence of <75% is detected it is reported as “mixed hydrocarbons”. Non-target compounds identified from the scan data are semi-quantified relative to one of the deuterated internal standards, under the same chromatographic conditions as the target compounds. This result is reported as a semi-quantitative value and reported as Tentatively Identified Compounds (TICs). TICs are outside the scope of UKAS accreditation and are not moisture corrected.

19. **Sample Deviations**

If a sample is classed as deviated then the associated results may be compromised.

1	**Container with Headspace provided for volatiles analysis**
2	**Incorrect container received**
3	**Deviation from method**
4	**Matrix interference**
♦	**Sample holding time exceeded in laboratory**
@	**Sample holding time exceeded due to late arrival of instructions or samples**
§	**Sampled on date not provided**

20. **Asbestos**

When requested, the individual sub sample scheduled will be analysed in house for the presence of asbestos fibres and asbestos containing material by our documented in house method TM048 based on HSG 248 (2021), which is accredited to ISO17025. If a specific asbestos fibre type is not found this will be reported as “Not detected”. If no asbestos fibre types are found all will be reported as “Not detected” and the sub sample analysed deemed to be clear of asbestos. If an asbestos fibre type is found it will be reported as detected (for each fibre type found). Testing can be carried out on asbestos positive samples, but, due to Health and Safety considerations, may be replaced by alternative tests or reported as No Determination Possible (NDP). The quantity of asbestos present is not determined unless specifically requested.

Identification of Asbestos in Bulk Materials & Soils

The results for identification of asbestos in bulk materials and soils are obtained from supplied bulk materials andd soils which have been examined to determine the presence of asbestos fibres using ALS (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining, based on HSG 248 (2021).

The results for identification of asbestos in soils are obtained from a homogenised sub sample which has been examined to determine the presence of asbestos fibres using ALS (Hawarden) in-house method of transmitted/polarised light microscopy and central

Asbestos Type	Common Name
Chrysotile	White Asbestos
Amosite	Brown Asbestos
Crocidolite	Blue Asbestos
Fibrous Actinolite	-
Fibrous Anthophyllite	-
Fibrous Tremolite	-

Visual Estimation Of Fibre Content

Estimation of fibre content is not permitted as part of our UKAS accredited test other than: - Trace - Where only one or two asbestos fibres were identified.

Respirable Fibres

Respirable fibres are defined as fibres of <3 µm diameter, longer than 5 µm and with aspect ratios of at least 3:1 that can be inhaled into the lower regions of the lung and are generally acknowledged to be most important predictor of hazard and risk for cancers of the lung.

Further guidance on typical asbestos fibre content of manufactured products can be found in HSG 264.

The identification of asbestos containing materials and soils falls within our schedule of tests for which we hold UKAS accreditation, however opinions, interpretations and all other information contained in the report are outside the scope of UKAS accreditation.

Unit 7-8 Hawarden Business Park
Manor Road (off Manor Lane)
Hawarden
Deeside
CH5 3US
Tel: (01244) 528777
email: hawardencustomerservices@alsglobal.com
Website: www.alsenvironmental.co.uk

Wardell Armstrong LLP
36 Park Row
Leeds
LS1 5JL

Attention: Jonathan Currie

CERTIFICATE OF ANALYSIS

Date of report Generation:	24 June 2022
Customer:	Wardell Armstrong LLP
Sample Delivery Group (SDG):	220620-6
Your Reference:	LD10385
Location:	Ten Acres Lane
Report No:	651985
Order Number:	LD2897

This report has been revised and directly supersedes 651819 in its entirety.

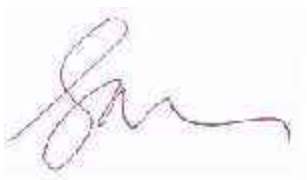
We received 7 samples on Sunday June 19, 2022 and 7 of these samples were scheduled for analysis which was completed on Friday June 24, 2022. Accredited laboratory tests are defined within the report, but opinions, interpretations and on-site data expressed herein are outside the scope of ISO 17025 accreditation.

Should this report require incorporation into client reports, it must be used in its entirety and not simply with the data sections alone.

Chemical testing (unless subcontracted) performed at ALS Life Sciences Ltd Hawarden.

All sample data is provided by the customer. The reported results relate to the sample supplied, and on the basis that this data is correct.
Incorrect sampling dates and/or sample information will affect the validity of results.
The customer is not permitted to reproduce this report except in full without the approval of the laboratory.

Approved By:



Sonia McWhan

Operations Manager

1291

CERTIFICATE OF ANALYSIS

SDG: 220620-6 **Report Number:** 651985 **Superseded Report:** 651819
Client Ref.: LD10385 **Location:** Ten Acres Lane

Received Sample Overview

Lab Sample No(s)	Customer Sample Ref.	AGS Ref.	Depth (m)	Sampled Date
26455734	CP202		0.00 - 0.00	15/06/2022
26455752	CP207		0.00 - 0.00	15/06/2022
26455672	Downstream		0.00 - 0.00	16/06/2022
26455708	Midstream		0.00 - 0.00	16/06/2022
26455786	RH203		0.00 - 0.00	16/06/2022
26455767	RH205		0.00 - 0.00	15/06/2022
26455689	Upstream		0.00 - 0.00	16/06/2022

Only received samples which have had analysis scheduled will be shown on the following pages.

Validated

CERTIFICATE OF ANALYSIS

SDG: 220620-6 **Report Number:** 651985 **Superseded Report:** 651819

Client Ref.: LD10385 **Location:** Ten Acres Lane

Results Legend

X Test

N No Determination Possible

Sample Types -
S - Soil/Solid
UNS - Unspecified Solid
GW - Ground Water
SW - Surface Water
LE - Land Leachate
PL - Prepared Leachate
PR - Process Water
SA - Saline Water
TE - Trade Effluent
TS - Treated Sewage
US - Untreated Sewage
RE - Recreational Water
DW - Drinking Water Non-regulatory
UNL - Unspecified Liquid
SL - Sludge
G - Gas
OTH - Other

			Lab Sample No(s)	Customer Sample Reference	AGS Reference	Depth (m)	Container	Sample Type
			26455734	CP202		0.00 - 0.00	0.5l glass bottle (ALE227)	GW
							250ml Amber Gl. PTFE/PE (ALE219)	GW
							500ml Plastic (ALE208)	GW
							H2SO4 (ALE244)	GW
							HNO3 Filtered (ALE204)	GW
							NaOH (ALE245)	GW
							Vial (ALE297)	GW
							ZnAc (ALE246)	GW
			26455752	CP207		0.00 - 0.00	0.5l glass bottle (ALE227)	GW
							250ml Amber Gl. PTFE/PE (ALE219)	GW
							500ml Plastic (ALE208)	GW
							H2SO4 (ALE244)	GW
							HNO3 Filtered (ALE204)	GW
							NaOH (ALE245)	GW
							Vial (ALE297)	GW
							ZnAc (ALE246)	GW
			26455672	Downstream		0.00 - 0.00	0.5l glass bottle (ALE227)	SW
							1lplastic (ALE221)	SW
							250ml Amber Gl. PTFE/PE (ALE219)	SW
Alkalinity as CaCO3	All	NDPs: 0 Tests: 7						
							X	
							X	
Anions by Kone (w)	All	NDPs: 0 Tests: 7						
							X	
							X	
Cyanide Comp/Free/Total/Thiocyanate	All	NDPs: 0 Tests: 7						
							X	
							X	
Dissolved Metals by ICP-MS	All	NDPs: 0 Tests: 7						
							X	
							X	
Dissolved Organic/Inorganic Carbon	All	NDPs: 0 Tests: 7						
X								
							X	
							X	
EPH CWG (Aliphatic) Aqueous GC (W)	All	NDPs: 0 Tests: 7						
	X							
							X	
								X
EPH CWG (Aromatic) Aqueous GC (W)	All	NDPs: 0 Tests: 7						
	X							
							X	
								X
GRO by GC-FID (W)	All	NDPs: 0 Tests: 7						
							X	
							X	
Low Level Hexavalent Chromium (w)	All	NDPs: 0 Tests: 7						
							X	
							X	
Mercury Dissolved	All	NDPs: 0 Tests: 7						
							X	
							X	
PAH Spec MS - Aqueous (W)	All	NDPs: 0 Tests: 7						
	X							
							X	
								X
PFAS (Post Ox.) Liquids	All	NDPs: 0 Tests: 3						
								X
PFAS Liquids	All	NDPs: 0 Tests: 3						
								X
pH Value	All	NDPs: 0 Tests: 7						
							X	
							X	
Phenols by HPLC (W)	All	NDPs: 0 Tests: 7						
							X	
							X	

26455786	RH203		0.00 - 0.00	NaOH (ALE245)	GW				X													
				HNO3 Filtered (ALE204)	GW					X								X					
				H2SO4 (ALE244)	GW																		X	
				500ml Plastic (ALE208)	GW		X		X								X					X		
				250ml Amber Gl. PTFE/PE (ALE219)	GW								X		X					X				
				0.5l glass bottle (ALE227)	GW							X												
26455708	Midstream		0.00 - 0.00	ZnAc (ALE246)	SW																			
				Vial (ALE297)	SW											X								
				NaOH (ALE245)	SW				X															
				HNO3 Filtered (ALE204)	SW					X								X						
				H2SO4 (ALE244)	SW																		X	
				500ml Plastic (ALE208)	SW		X		X								X					X		
				250ml Amber Gl. PTFE/PE (ALE219)	SW								X		X					X				
				1lplastic (ALE221)	SW																X		X	
				0.5l glass bottle (ALE227)	SW							X												
26455672	Downstream		0.00 - 0.00	ZnAc (ALE246)	SW																			
				Vial (ALE297)	SW											X								
				NaOH (ALE245)	SW				X															
				HNO3 Filtered (ALE204)	SW					X								X						
				H2SO4 (ALE244)	SW																		X	
				500ml Plastic (ALE208)	SW		X		X								X					X		

Validated

CERTIFICATE OF ANALYSIS

SDG: 220620-6 **Report Number:** 651985 **Superseded Report:** 651819

Client Ref.: LD10385 **Location:** Ten Acres Lane

Results Legend

X Test

N No Determination Possible

Sample Types -

S - Soil/Solid
UNS - Unspecified Solid
GW - Ground Water
SW - Surface Water
LE - Land Leachate
PL - Prepared Leachate
PR - Process Water
SA - Saline Water
TE - Trade Effluent
TS - Treated Sewage
US - Untreated Sewage
RE - Recreational Water
DW - Drinking Water Non-regulatory
UNL - Unspecified Liquid
SL - Sludge
G - Gas
OTH - Other

Lab Sample No(s)										26455734								26455752				26455672	
Customer Sample Reference										CP202								CP207				Downstream	
AGS Reference																							
Depth (m)										0.00 - 0.00								0.00 - 0.00				0.00 - 0.00	
Container										0.5l glass bottle (ALE227)	250ml Amber Gl. PTFE/PE (ALE219)	500ml Plastic (ALE208)	H2SO4 (ALE244)	HNO3 Filtered (ALE204)	NaOH (ALE245)	Vial (ALE297)	ZnAc (ALE246)	0.5l glass bottle (ALE227)	250ml Amber Gl. PTFE/PE (ALE219)	500ml Plastic (ALE208)	H2SO4 (ALE244)	HNO3 Filtered (ALE204)	NaOH (ALE245)	Vial (ALE297)	ZnAc (ALE246)	0.5l glass bottle (ALE227)	1lplastic (ALE221)	250ml Amber Gl. PTFE/PE (ALE219)
Sample Type										GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	SW	SW	SW
Redox Potential	All	NDPs: 0 Tests: 7								X								X								X		
Sulphide	All	NDPs: 0 Tests: 7															X								X			
SVOC MS (W) - Aqueous	All	NDPs: 0 Tests: 7								X								X								X		
TPH CWG (W)	All	NDPs: 0 Tests: 7								X								X								X		
VOC MS (W)	All	NDPs: 0 Tests: 7							X															X				

26455786	RH203		0.00 - 0.00	NaOH (ALE245)	GW						
				HNO3 Filtered (ALE204)	GW						
				H2SO4 (ALE244)	GW						
				500ml Plastic (ALE208)	GW						
				250ml Amber Gl. PTFE/PE (ALE219)	GW						
				0.5l glass bottle (ALE227)	GW	X		X	X		
26455708	Midstream		0.00 - 0.00	ZnAc (ALE246)	SW		X				
				Vial (ALE297)	SW						X
				NaOH (ALE245)	SW						
				HNO3 Filtered (ALE204)	SW						
				H2SO4 (ALE244)	SW						
				500ml Plastic (ALE208)	SW						
				250ml Amber Gl. PTFE/PE (ALE219)	SW						
				1lplastic (ALE221)	SW						
				0.5l glass bottle (ALE227)	SW	X		X	X		
26455672	Downstream		0.00 - 0.00	ZnAc (ALE246)	SW		X				
				Vial (ALE297)	SW						X
				NaOH (ALE245)	SW						
				HNO3 Filtered (ALE204)	SW						
				H2SO4 (ALE244)	SW						
				500ml Plastic (ALE208)	SW						

Validated

CERTIFICATE OF ANALYSIS

SDG: 220620-6 **Report Number:** 651985 **Superseded Report:** 651819
Client Ref.: LD10385 **Location:** Ten Acres Lane

Results Legend

X Test

N No Determination Possible

Sample Types -
S - Soil/Solid
UNS - Unspecified Solid
GW - Ground Water
SW - Surface Water
LE - Land Leachate
PL - Prepared Leachate
PR - Process Water
SA - Saline Water
TE - Trade Effluent
TS - Treated Sewage
US - Untreated Sewage
RE - Recreational Water
DW - Drinking Water Non-regulatory
UNL - Unspecified Liquid
SL - Sludge
G - Gas
OTH - Other

Lab Sample No(s)				26455786								26455767									26455689
Customer Sample Reference				RH203								RH205									Upstream
AGS Reference																					
Depth (m)				0.00 - 0.00								0.00 - 0.00									0.00 - 0.00
Container			Vial (ALE297)	ZnAc (ALE246)	0.5l glass bottle (ALE227)	250ml Amber Gl. PTFE/PE (ALE219)	500ml Plastic (ALE208)	H2SO4 (ALE244)	HNO3 Filtered (ALE204)	NaOH (ALE245)	Vial (ALE297)	ZnAc (ALE246)	0.5l glass bottle (ALE227)	1lplastic (ALE221)	250ml Amber Gl. PTFE/PE (ALE219)	500ml Plastic (ALE208)	H2SO4 (ALE244)	HNO3 Filtered (ALE204)	NaOH (ALE245)	Vial (ALE297)	ZnAc (ALE246)
Sample Type			GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	SW	SW	SW	SW	SW	SW	SW	SW	SW
Alkalinity as CaCO3	All	NDPs: 0 Tests: 7					X									X					
Anions by Kone (w)	All	NDPs: 0 Tests: 7					X									X					
Cyanide Comp/Free/Total/Thiocyanate	All	NDPs: 0 Tests: 7								X									X		
Dissolved Metals by ICP-MS	All	NDPs: 0 Tests: 7							X									X			
Dissolved Organic/Inorganic Carbon	All	NDPs: 0 Tests: 7			X								X								
EPH CWG (Aliphatic) Aqueous GC (W)	All	NDPs: 0 Tests: 7				X									X						
EPH CWG (Aromatic) Aqueous GC (W)	All	NDPs: 0 Tests: 7				X									X						
GRO by GC-FID (W)	All	NDPs: 0 Tests: 7	X								X									X	
Low Level Hexavalent Chromium (w)	All	NDPs: 0 Tests: 7					X									X					
Mercury Dissolved	All	NDPs: 0 Tests: 7							X									X			
PAH Spec MS - Aqueous (W)	All	NDPs: 0 Tests: 7				X									X						
PFAS (Post Ox.) Liquids	All	NDPs: 0 Tests: 3												X							
PFAS Liquids	All	NDPs: 0 Tests: 3												X							
pH Value	All	NDPs: 0 Tests: 7					X									X					
Phenols by HPLC (W)	All	NDPs: 0 Tests: 7						X									X				

14:36:34 24/06/2022

Validated

CERTIFICATE OF ANALYSIS

SDG: 220620-6 **Report Number:** 651985 **Superseded Report:** 651819
Client Ref.: LD10385 **Location:** Ten Acres Lane

Results Legend

X Test

N No Determination Possible

Sample Types -
S - Soil/Solid
UNS - Unspecified Solid
GW - Ground Water
SW - Surface Water
LE - Land Leachate
PL - Prepared Leachate
PR - Process Water
SA - Saline Water
TE - Trade Effluent
TS - Treated Sewage
US - Untreated Sewage
RE - Recreational Water
DW - Drinking Water Non-regulatory
UNL - Unspecified Liquid
SL - Sludge
G - Gas
OTH - Other

Lab Sample No(s)				26455786								26455767									26455689
Customer Sample Reference				RH203								RH205									Upstream
AGS Reference																					
Depth (m)				0.00 - 0.00								0.00 - 0.00									0.00 - 0.00
Container			Vial (ALE297)	ZnAc (ALE246)	0.5l glass bottle (ALE227)	250ml Amber Gl. PTFE/PE (ALE219)	500ml Plastic (ALE208)	H2SO4 (ALE244)	HNO3 Filtered (ALE204)	NaOH (ALE245)	Vial (ALE297)	ZnAc (ALE246)	0.5l glass bottle (ALE227)	1lplastic (ALE221)	250ml Amber Gl. PTFE/PE (ALE219)	500ml Plastic (ALE208)	H2SO4 (ALE244)	HNO3 Filtered (ALE204)	NaOH (ALE245)	Vial (ALE297)	ZnAc (ALE246)
Sample Type			GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	SW	SW	SW	SW	SW	SW	SW	SW	SW
Redox Potential	All	NDPs: 0 Tests: 7			X								X								
Sulphide	All	NDPs: 0 Tests: 7		X								X									X
SVOC MS (W) - Aqueous	All	NDPs: 0 Tests: 7			X								X								
TPH CWG (W)	All	NDPs: 0 Tests: 7			X								X								
VOC MS (W)	All	NDPs: 0 Tests: 7	X								X									X	

CERTIFICATE OF ANALYSIS

SDG: 220620-6 **Report Number:** 651985 **Superseded Report:** 651819
Client Ref.: LD10385 **Location:** Ten Acres Lane

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4+§@ Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	CP202	CP207	Downstream	Midstream	RH203	RH205
			Depth (m)	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
			Sample Type	Ground Water (GW)	Ground Water (GW)	Surface Water (SW)	Surface Water (SW)	Ground Water (GW)	Ground Water (GW)
			Date Sampled	15/06/2022	15/06/2022	16/06/2022	16/06/2022	16/06/2022	15/06/2022
			Sample Time	00:00	00:00	00:00	00:00	00:00	00:00
			Date Received	19/06/2022	19/06/2022	19/06/2022	19/06/2022	19/06/2022	19/06/2022
			SDG Ref	220620-6	220620-6	220620-6	220620-6	220620-6	220620-6
			Lab Sample No.(s)	26455734	26455752	26455672	26455708	26455786	26455767
			AGS Reference						
Alkalinity, Total as CaCO3	<2 mg/l	TM043		1840 #	801 #	45.7 #	37.3 #	835 #	364 #
Carbon, Organic (diss.filt)	<3 mg/l	TM090		178	13.3	5.37	6.03	8.47	<3
Sulphide	<0.01 mg/l	TM101		<0.05 #	<0.05 #	<0.01	<0.01	<0.01 #	<0.01 #
Redox potential	mV	TM110		78	69	74	50	126	64
Arsenic (diss.filt)	<0.5 µg/l	TM152		4.82 2 #	9.7 2 #	2.04 #	2.25 2 #	5.51 #	4.56 2 #
Boron (diss.filt)	<10 µg/l	TM152		17500 2 #	8520 2 #	22.1 #	13.6 2 #	314 #	691 2 #
Cadmium (diss.filt)	<0.08 µg/l	TM152		<0.08 2 #	<0.08 2 #	<0.08 #	<0.08 2 #	<0.08 #	<0.08 2 #
Chromium (diss.filt)	<1 µg/l	TM152		4.19 2 #	<1 2 #	<1 #	<1 2 #	<1 #	<1 2 #
Copper (diss.filt)	<0.3 µg/l	TM152		3.9 2 #	0.623 2 #	3.57 #	3.45 2 #	0.725 #	0.301 2 #
Lead (diss.filt)	<0.2 µg/l	TM152		13.9 2 #	1.53 2 #	4.89 #	5.57 2 #	1.1 #	0.583 2 #
Manganese (diss.filt)	<3 µg/l	TM152		408 2 #	487 2 #	33.8 #	41.8 2 #	807 #	332 2 #
Nickel (diss.filt)	<0.4 µg/l	TM152		7.74 2 #	2.52 2 #	1.98 #	2 2 #	6.54 #	0.684 2 #
Selenium (diss.filt)	<1 µg/l	TM152		<1 2 #	<1 2 #	<1 #	<1 2 #	<1 #	<1 2 #
Zinc (diss.filt)	<1 µg/l	TM152		15.3 2 #	18.9 2 #	7.45 #	13.5 2 #	6.26 #	2.55 2 #
Calcium (Dis.Filt)	<0.2 mg/l	TM152		149 2 #	93.2 2 #	16.2 #	14.2 2 #	212 #	83.7 2 #
Mercury (diss.filt)	<0.01 µg/l	TM183		<0.01 2 #	<0.01 2 #	<0.01	<0.01 2	<0.01 #	<0.01 2 #
Sulphate	<2 mg/l	TM184		73.3 #	169 #	15.8 #	13.2 #	344 #	30.2 #
Cyanide, Total	<0.05 mg/l	TM227		0.06 #	<0.05 #	<0.05	<0.05	<0.05 #	<0.05 #
Cyanide, Free	<0.05 mg/l	TM227		<0.05 #	<0.05 #	<0.05	<0.05	<0.05 #	<0.05 #
Thiocyanate	<0.05 mg/l	TM227		<0.05 #	<0.05 #	<0.05	<0.05	<0.05 #	<0.05 #
pH	<1 pH Units	TM256		7.69 #	7.43 #	7.95 #	7.74 #	7.26 #	7.67 #
Phenol	<0.002 mg/l	TM259		<0.002 #	<0.002 #	<0.002	<0.002	<0.002 #	<0.002 #
Cresols	<0.006 mg/l	TM259		0.02 #	<0.006 #	<0.006	<0.006	<0.006 #	<0.006 #
Xylenols	<0.008 mg/l	TM259		<0.008 #	<0.008 #	<0.008	<0.008	<0.008 #	<0.008 #
Phenols, Total Detected monohydric	<0.016 mg/l	TM259		0.02 #	<0.016 #	<0.016	<0.016	<0.016 #	<0.016 #
Low Level Hexavalent Chromium	<0.003 mg/l	TM331		<0.015	<0.003	<0.003	<0.003	<0.003	<0.003
PFBA (375-22-4)	<2 ng/l	TM337				<20 #	<5 #		
PFPA (2706-90-3)	<1 ng/l	TM337				<10 #	<2 #		
PFHxA (307-24-4)	<1 ng/l	TM337				<10 #	<2 #		
PFBS (375-73-5)	<1 ng/l	TM337				<10 #	<2 #		
PFHpA (375-85-9)	<1 ng/l	TM337				<10 #	3.59 #		
6:2 FTS (27619-97-2)	<1 ng/l	TM337				<10 #	<2 #		
PFOA (335-67-1)	<0.65 ng/l	TM337				30.6 #	29.5 #		

CERTIFICATE OF ANALYSIS

SDG: 220620-6 **Report Number:** 651985 **Superseded Report:** 651819
Client Ref.: LD10385 **Location:** Ten Acres Lane

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4+§@ Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	CP202	CP207	Downstream	Midstream	RH203	RH205
			Depth (m)	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
			Sample Type	Ground Water (GW)	Ground Water (GW)	Surface Water (SW)	Surface Water (SW)	Ground Water (GW)	Ground Water (GW)
			Date Sampled	15/06/2022	15/06/2022	16/06/2022	16/06/2022	16/06/2022	15/06/2022
			Sample Time	00:00	00:00	00:00	00:00	00:00	00:00
			Date Received	19/06/2022	19/06/2022	19/06/2022	19/06/2022	19/06/2022	19/06/2022
			SDG Ref	220620-6	220620-6	220620-6	220620-6	220620-6	220620-6
			Lab Sample No.(s)	26455734	26455752	26455672	26455708	26455786	26455767
			AGS Reference						
PFHxS (355-46-4)	<1 ng/l	TM337				<10 #	<2 #		
PFNA (375-95-1)	<1 ng/l	TM337				<10 #	<2 #		
PFHpS (375-92-8)	<1 ng/l	TM337				<10 #	<2 #		
PFDA (335-76-2)	<1 ng/l	TM337				<10 #	<2 #		
Linear PFOS (1763-23-1)	<0.65 ng/l	TM337				<6.5 #	1.87 #		
Branched PFOS	<0.65 ng/l	TM337				<6.5 #	<1.3 #		
PFUnA (2058-94-8)	<1 ng/l	TM337				<10 #	<2 #		
PFDoA (307-55-1)	<1 ng/l	TM337				<10 #	<2 #		
PFOSA (754-91-6)	<2 ng/l	TM337				<20 #	<4 #		
PFDS (335-77-3)	<1 ng/l	TM337				<10	<2		
PFPeS (2706-91-4)	<1 ng/l	TM337				<10 #	<2 #		
Total PFOS	<0.65 ng/l	TM337				<6.5 #	1.87 #		
PFBA (Post Ox.) (375-22-4)	<4 ng/l	TM405				<20	4.16		
PFPA (Post Ox.) (2706-90-3)	<2 ng/l	TM405				<10	3.43		
PFHxA (Post Ox.) (307-24-4)	<2 ng/l	TM405				<10	4.04		
PFBS (Post Ox.) (375-73-5)	<2 ng/l	TM405				<10	<2		
PFHpA (Post Ox.) (375-85-9)	<2 ng/l	TM405				<10	5.49		
6:2 FTS (Post Ox.) (27619-97-2)	<2 ng/l	TM405				<10	<2		
PFOA (Post Ox.) (335-67-1)	<2 ng/l	TM405				35.2	31.7		
PFHxS (Post Ox.) (355-46-4)	<2 ng/l	TM405				<10	<2		
PFNA (Post Ox.) (375-95-1)	<2 ng/l	TM405				<10	<2		
PFHpS (Post Ox.) (375-92-8)	<2 ng/l	TM405				<10	<2		
PFDA (Post Ox.) (335-76-2)	<2 ng/l	TM405				<10	<2		
Linear PFOS (Post Ox.) (1763-23-1)	<2 ng/l	TM405				<10	2.19		
Branched PFOS (Post Ox.)	<2 ng/l	TM405				<10	<2		
PFUnA (Post Ox.) (2058-94-8)	<2 ng/l	TM405				<10	<2		
PFDoA (Post Ox.) (307-55-1)	<2 ng/l	TM405				<10	<2		
PFOSA (Post Ox.) (754-91-6)	<4 ng/l	TM405				<20	<4		
PFDS (Post Ox.) (335-77-3)	<2 ng/l	TM405				<10	<2		
PFPeS (Post Ox.) (2706-91-4)	<2 ng/l	TM405				<10	<2		
Total PFOS (Post Ox.)	<2 ng/l	TM405				<10	2.19		

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Client Ref.: LD10385 **Location:** Ten Acres Lane

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4+§@ Sample deviation (see appendix)

			Customer Sample Ref.					
				Upstream				
			Depth (m)	0.00 - 0.00				
			Sample Type	Surface Water (SW)				
			Date Sampled	16/06/2022				
			Sample Time	00:00				
			Date Received	19/06/2022				
			SDG Ref	220620-6				
			Lab Sample No.(s)	26455689				
			AGS Reference					
Component	**LOD/Units**	**Method**						
Alkalinity, Total as CaCO3	<2 mg/l	TM043	42.4 #					
Carbon, Organic (diss.filt)	<3 mg/l	TM090	5.44					
Sulphide	<0.01 mg/l	TM101	<0.01					
Redox potential	mV	TM110	206					
Arsenic (diss.filt)	<0.5 µg/l	TM152	2.22 #					
Boron (diss.filt)	<10 µg/l	TM152	17.1 #					
Cadmium (diss.filt)	<0.08 µg/l	TM152	<0.08 #					
Chromium (diss.filt)	<1 µg/l	TM152	<1 #					
Copper (diss.filt)	<0.3 µg/l	TM152	3.55 #					
Lead (diss.filt)	<0.2 µg/l	TM152	3.96 #					
Manganese (diss.filt)	<3 µg/l	TM152	60.7 #					
Nickel (diss.filt)	<0.4 µg/l	TM152	2.21 #					
Selenium (diss.filt)	<1 µg/l	TM152	<1 #					
Zinc (diss.filt)	<1 µg/l	TM152	5.01 #					
Calcium (Dis.Filt)	<0.2 mg/l	TM152	14.4 #					
Mercury (diss.filt)	<0.01 µg/l	TM183	<0.01					
Sulphate	<2 mg/l	TM184	13.7 #					
Cyanide, Total	<0.05 mg/l	TM227	<0.05					
Cyanide, Free	<0.05 mg/l	TM227	<0.05					
Thiocyanate	<0.05 mg/l	TM227	<0.05					
pH	<1 pH Units	TM256	8.01 #					
Phenol	<0.002 mg/l	TM259	<0.002					
Cresols	<0.006 mg/l	TM259	<0.006					
Xylenols	<0.008 mg/l	TM259	<0.008					
Phenols, Total Detected monohydric	<0.016 mg/l	TM259	<0.016					
Low Level Hexavalent Chromium	<0.003 mg/l	TM331	<0.003					
PFBA (375-22-4)	<2 ng/l	TM337	<20 #					
PFPA (2706-90-3)	<1 ng/l	TM337	<10 #					
PFHxA (307-24-4)	<1 ng/l	TM337	<10 #					
PFBS (375-73-5)	<1 ng/l	TM337	<10 #					
PFHpA (375-85-9)	<1 ng/l	TM337	<10 #					
6:2 FTS (27619-97-2)	<1 ng/l	TM337	<10 #					
PFOA (335-67-1)	<0.65 ng/l	TM337	31.6 #					

CERTIFICATE OF ANALYSIS

SDG: 220620-6 **Report Number:** 651985 **Superseded Report:** 651819
Client Ref.: LD10385 **Location:** Ten Acres Lane

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4+§@ Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	
			Depth (m)	0.00 - 0.00
			Sample Type	Surface Water (SW)
			Date Sampled	16/06/2022
			Sample Time	00:00
			Date Received	19/06/2022
			SDG Ref	220620-6
			Lab Sample No.(s)	26455689
			AGS Reference	Upstream
PFHxS (355-46-4)	<1 ng/l	TM337	<10	#
PFNA (375-95-1)	<1 ng/l	TM337	<10	#
PFHpS (375-92-8)	<1 ng/l	TM337	<10	#
PFDA (335-76-2)	<1 ng/l	TM337	<10	#
Linear PFOS (1763-23-1)	<0.65 ng/l	TM337	<6.5	#
Branched PFOS	<0.65 ng/l	TM337	<6.5	#
PFUnA (2058-94-8)	<1 ng/l	TM337	<10	#
PFDoA (307-55-1)	<1 ng/l	TM337	<10	#
PFOSA (754-91-6)	<2 ng/l	TM337	<20	#
PFDS (335-77-3)	<1 ng/l	TM337	<10	
PFPeS (2706-91-4)	<1 ng/l	TM337	<10	#
Total PFOS	<0.65 ng/l	TM337	<6.5	#
PFBA (Post Ox.) (375-22-4)	<4 ng/l	TM405	<20	
PFPA (Post Ox.) (2706-90-3)	<2 ng/l	TM405	<10	
PFHxA (Post Ox.) (307-24-4)	<2 ng/l	TM405	<10	
PFBS (Post Ox.) (375-73-5)	<2 ng/l	TM405	<10	
PFHpA (Post Ox.) (375-85-9)	<2 ng/l	TM405	<10	
6:2 FTS (Post Ox.) (27619-97-2)	<2 ng/l	TM405	<10	
PFOA (Post Ox.) (335-67-1)	<2 ng/l	TM405	37	
PFHxS (Post Ox.) (355-46-4)	<2 ng/l	TM405	<10	
PFNA (Post Ox.) (375-95-1)	<2 ng/l	TM405	<10	
PFHpS (Post Ox.) (375-92-8)	<2 ng/l	TM405	<10	
PFDA (Post Ox.) (335-76-2)	<2 ng/l	TM405	<10	
Linear PFOS (Post Ox.) (1763-23-1)	<2 ng/l	TM405	<10	
Branched PFOS (Post Ox.)	<2 ng/l	TM405	<10	
PFUnA (Post Ox.) (2058-94-8)	<2 ng/l	TM405	<10	
PFDoA (Post Ox.) (307-55-1)	<2 ng/l	TM405	<10	
PFOSA (Post Ox.) (754-91-6)	<4 ng/l	TM405	<20	
PFDS (Post Ox.) (335-77-3)	<2 ng/l	TM405	<10	
PFPeS (Post Ox.) (2706-91-4)	<2 ng/l	TM405	<10	
Total PFOS (Post Ox.)	<2 ng/l	TM405	<10	

CERTIFICATE OF ANALYSIS

SDG: 220620-6 **Report Number:** 651985 **Superseded Report:** 651819

Client Ref.: LD10385 **Location:** Ten Acres Lane

PAH Spec MS - Aqueous (W)

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	CP202	CP207	Downstream	Midstream	RH203	RH205
			Depth (m)	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
			Sample Type	Ground Water (GW)	Ground Water (GW)	Surface Water (SW)	Surface Water (SW)	Ground Water (GW)	Ground Water (GW)
			Date Sampled	15/06/2022	15/06/2022	16/06/2022	16/06/2022	16/06/2022	15/06/2022
			Sample Time	00:00	00:00	00:00	00:00	00:00	00:00
			Date Received	19/06/2022	19/06/2022	19/06/2022	19/06/2022	19/06/2022	19/06/2022
			SDG Ref	220620-6	220620-6	220620-6	220620-6	220620-6	220620-6
			Lab Sample No.(s)	26455734	26455752	26455672	26455708	26455786	26455767
			AGS Reference						
Naphthalene (aq)	<0.01 µg/l	TM178		1.13 #	0.53 #	0.0176 #	<0.01 #	0.812 #	<0.01 #
Acenaphthene (aq)	<0.005 µg/l	TM178		4.13 #	0.396 #	0.0117 #	<0.005 #	1.76 #	<0.005 #
Acenaphthylene (aq)	<0.005 µg/l	TM178		<0.1 #	<0.1 #	<0.005 #	<0.005 #	<0.1 #	<0.005 #
Fluoranthene (aq)	<0.005 µg/l	TM178		9.51 #	1.22 #	0.0918 #	0.0413 #	8.55 #	0.00938 #
Anthracene (aq)	<0.005 µg/l	TM178		2.46 #	0.293 #	0.0115 #	<0.005 #	1.83 #	<0.005 #
Phenanthrene (aq)	<0.005 µg/l	TM178		6.71 #	1.27 #	0.0457 #	0.0162 #	6.09 #	0.00797 #
Fluorene (aq)	<0.005 µg/l	TM178		1.71 #	0.318 #	0.0221 #	<0.005 #	1.32 #	<0.005 #
Chrysene (aq)	<0.005 µg/l	TM178		3.8 #	0.478 #	0.0352 #	0.0168 #	4.07 #	<0.005 #
Pyrene (aq)	<0.005 µg/l	TM178		8.8 #	1.09 #	0.0841 #	0.0402 #	7.93 #	0.00977 #
Benzo(a)anthracene (aq)	<0.005 µg/l	TM178		3.32 #	0.279 #	0.0351 #	0.0249 #	3.23 #	<0.005 #
Benzo(b)fluoranthene (aq)	<0.005 µg/l	TM178		4.68 #	0.626 #	0.0514 #	0.0239 #	5.7 #	<0.005 #
Benzo(k)fluoranthene (aq)	<0.005 µg/l	TM178		1.83 #	0.275 #	0.021 #	0.0115 #	2.07 #	<0.005 #
Benzo(a)pyrene (aq)	<0.002 µg/l	TM178		3.58 #	0.432 #	0.0307 #	0.0127 #	4.02 #	<0.002 #
Dibenzo(a,h)anthracene (aq)	<0.005 µg/l	TM178		<0.1 #	<0.1 #	<0.005 #	<0.005 #	0.513 #	<0.005 #
Benzo(g,h,i)perylene (aq)	<0.005 µg/l	TM178		2.74 #	0.256 #	0.0184 #	0.00682 #	3.56 #	<0.005 #
Indeno(1,2,3-cd)pyrene (aq)	<0.005 µg/l	TM178		<0.1 #	<0.1 #	0.0256 #	<0.005 #	3.26 #	<0.005 #
PAH, Total Detected USEPA 16 (aq)	<0.082 µg/l	TM178		54.4 #	7.47 #	0.502 #	0.194 #	54.7 #	<0.082 #

CERTIFICATE OF ANALYSIS

SDG: 220620-6 **Report Number:** 651985 **Superseded Report:** 651819
Client Ref.: LD10385 **Location:** Ten Acres Lane

PAH Spec MS - Aqueous (W)

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+§@	Sample deviation (see appendix)

Customer Sample Ref.	Upstream
Depth (m)	0.00 - 0.00
Sample Type	Surface Water (SW)
Date Sampled	16/06/2022
Sample Time	00:00
Date Received	19/06/2022
SDG Ref	220620-6
Lab Sample No.(s)	26455689
AGS Reference	

Component	LOD/Units	Method	
Naphthalene (aq)	<0.01 µg/l	TM178	0.018 #
Acenaphthene (aq)	<0.005 µg/l	TM178	0.015 #
Acenaphthylene (aq)	<0.005 µg/l	TM178	<0.005 #
Fluoranthene (aq)	<0.005 µg/l	TM178	0.123 #
Anthracene (aq)	<0.005 µg/l	TM178	0.0157 #
Phenanthrene (aq)	<0.005 µg/l	TM178	0.0701 #
Fluorene (aq)	<0.005 µg/l	TM178	0.0191 #
Chrysene (aq)	<0.005 µg/l	TM178	0.0539 #
Pyrene (aq)	<0.005 µg/l	TM178	0.117 #
Benzo(a)anthracene (aq)	<0.005 µg/l	TM178	0.0567 #
Benzo(b)fluoranthene (aq)	<0.005 µg/l	TM178	0.0737 #
Benzo(k)fluoranthene (aq)	<0.005 µg/l	TM178	0.0319 #
Benzo(a)pyrene (aq)	<0.002 µg/l	TM178	<0.002 #
Dibenzo(a,h)anthracene (aq)	<0.005 µg/l	TM178	<0.005 #
Benzo(g,h,i)perylene (aq)	<0.005 µg/l	TM178	0.0263 #
Indeno(1,2,3-cd)pyrene (aq)	<0.005 µg/l	TM178	<0.005 #
PAH, Total Detected USEPA 16 (aq)	<0.082 µg/l	TM178	0.62 #

CERTIFICATE OF ANALYSIS

SDG: 220620-6 **Report Number:** 651985 **Superseded Report:** 651819
Client Ref.: LD10385 **Location:** Ten Acres Lane

SVOC MS (W) - Aqueous

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4+§@ Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	CP202	CP207	Downstream	Midstream	RH203	RH205
			Depth (m)	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
			Sample Type	Ground Water (GW)	Ground Water (GW)	Surface Water (SW)	Surface Water (SW)	Ground Water (GW)	Ground Water (GW)
			Date Sampled	15/06/2022	15/06/2022	16/06/2022	16/06/2022	16/06/2022	15/06/2022
			Sample Time	00:00	00:00	00:00	00:00	00:00	00:00
			Date Received	19/06/2022	19/06/2022	19/06/2022	19/06/2022	19/06/2022	19/06/2022
			SDG Ref	220620-6	220620-6	220620-6	220620-6	220620-6	220620-6
			Lab Sample No.(s)	26455734	26455752	26455672	26455708	26455786	26455767
			AGS Reference						
1,2,4-Trichlorobenzene (aq)	<1 µg/l	TM176		<10 #	<4 #	<1 #	<1 #	<10 #	<2 #
1,2-Dichlorobenzene (aq)	<1 µg/l	TM176		<10 #	<4 #	<1 #	<1 #	<10 #	<2 #
1,3-Dichlorobenzene (aq)	<1 µg/l	TM176		<10 #	<4 #	<1 #	<1 #	<10 #	<2 #
1,4-Dichlorobenzene (aq)	<1 µg/l	TM176		<10 #	<4 #	<1 #	<1 #	<10 #	<2 #
2,4,5-Trichlorophenol (aq)	<1 µg/l	TM176		<10 #	<4 #	<1 #	<1 #	<10 #	<2 #
2,4,6-Trichlorophenol (aq)	<1 µg/l	TM176		<10 #	<4 #	<1 #	<1 #	<10 #	<2 #
2,4-Dichlorophenol (aq)	<1 µg/l	TM176		<10 #	<4 #	<1 #	<1 #	<10 #	<2 #
2,4-Dimethylphenol (aq)	<1 µg/l	TM176		<10 #	<4 #	<1 #	<1 #	<10 #	<2 #
2,4-Dinitrotoluene (aq)	<1 µg/l	TM176		<10 #	<4 #	<1 #	<1 #	<10 #	<2 #
2,6-Dinitrotoluene (aq)	<1 µg/l	TM176		<10 #	<4 #	<1 #	<1 #	<10 #	<2 #
2-Chloronaphthalene (aq)	<1 µg/l	TM176		<10 #	<4 #	<1 #	<1 #	<10 #	<2 #
2-Chlorophenol (aq)	<1 µg/l	TM176		<10 #	<4 #	<1 #	<1 #	<10 #	<2 #
2-Methylnaphthalene (aq)	<1 µg/l	TM176		<10 #	<4 #	<1 #	<1 #	<10 #	<2 #
2-Methylphenol (aq)	<1 µg/l	TM176		<10 #	<4 #	<1 #	<1 #	<10 #	<2 #
2-Nitroaniline (aq)	<1 µg/l	TM176		<10 #	<4 #	<1 #	<1 #	<10 #	<2 #
2-Nitrophenol (aq)	<1 µg/l	TM176		<10 #	<4 #	<1 #	<1 #	<10 #	<2 #
3-Nitroaniline (aq)	<1 µg/l	TM176		<10	<4	<1	<1	<10	<2
4-Bromophenylphenylether (aq)	<1 µg/l	TM176		<10 #	<4 #	<1 #	<1 #	<10 #	<2 #
4-Chloro-3-methylphenol (aq)	<1 µg/l	TM176		<10 #	<4 #	<1 #	<1 #	<10 #	<2 #
4-Chloroaniline (aq)	<1 µg/l	TM176		<10	<4	<1	<1	<10	<2
4-Chlorophenylphenylether (aq)	<1 µg/l	TM176		<10 #	<4 #	<1 #	<1 #	<10 #	<2 #
4-Methylphenol (aq)	<1 µg/l	TM176		<10 #	<4 #	<1 #	<1 #	<10 #	<2 #
4-Nitroaniline (aq)	<1 µg/l	TM176		<10 #	<4 #	<1 #	<1 #	<10 #	<2 #
4-Nitrophenol (aq)	<1 µg/l	TM176		<10	<4	<1	<1	<10	<2
Azobenzene (aq)	<1 µg/l	TM176		<10 #	<4 #	<1 #	<1 #	<10 #	<2 #
Acenaphthylene (aq)	<1 µg/l	TM176		<10 #	<4 #	<1 #	<1 #	<10 #	<2 #
Acenaphthene (aq)	<1 µg/l	TM176		<10 #	<4 #	<1 #	<1 #	<10 #	<2 #
Anthracene (aq)	<1 µg/l	TM176		<10 #	<4 #	<1 #	<1 #	<10 #	<2 #
bis(2-Chloroethyl)ether (aq)	<1 µg/l	TM176		<10 #	<4 #	<1 #	<1 #	<10 #	<2 #
bis(2-Chloroethoxy)methane (aq)	<1 µg/l	TM176		<10 #	<4 #	<1 #	<1 #	<10 #	<2 #
bis(2-Ethylhexyl) phthalate (aq)	<2 µg/l	TM176		<20 #	<8 #	<2 #	<2 #	<20 #	<4 #
Butylbenzyl phthalate (aq)	<1 µg/l	TM176		<10 #	<4 #	<1 #	<1 #	<10 #	<2 #
Benzo(a)anthracene (aq)	<1 µg/l	TM176		<10 #	<4 #	<1 #	<1 #	<10 #	<2 #

CERTIFICATE OF ANALYSIS

SDG: 220620-6 **Report Number:** 651985 **Superseded Report:** 651819
Client Ref.: LD10385 **Location:** Ten Acres Lane

SVOC MS (W) - Aqueous

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4+§@ Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	CP202	CP207	Downstream	Midstream	RH203	RH205
			Depth (m)	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
			Sample Type	Ground Water (GW)	Ground Water (GW)	Surface Water (SW)	Surface Water (SW)	Ground Water (GW)	Ground Water (GW)
			Date Sampled	15/06/2022	15/06/2022	16/06/2022	16/06/2022	16/06/2022	15/06/2022
			Sample Time	00:00	00:00	00:00	00:00	00:00	00:00
			Date Received	19/06/2022	19/06/2022	19/06/2022	19/06/2022	19/06/2022	19/06/2022
			SDG Ref	220620-6	220620-6	220620-6	220620-6	220620-6	220620-6
			Lab Sample No.(s)	26455734	26455752	26455672	26455708	26455786	26455767
			AGS Reference						
Benzo(b)fluoranthene (aq)	<1 µg/l	TM176		<10 #	<4 #	<1 #	<1 #	<10 #	<2 #
Benzo(k)fluoranthene (aq)	<1 µg/l	TM176		<10 #	<4 #	<1 #	<1 #	<10 #	<2 #
Benzo(a)pyrene (aq)	<1 µg/l	TM176		<10 #	<4 #	<1 #	<1 #	<10 #	<2 #
Benzo(g,h,i)perylene (aq)	<1 µg/l	TM176		<10 #	<4 #	<1 #	<1 #	<10 #	<2 #
Carbazole (aq)	<1 µg/l	TM176		<10 #	<4 #	<1 #	<1 #	<10 #	<2 #
Chrysene (aq)	<1 µg/l	TM176		<10 #	<4 #	<1 #	<1 #	<10 #	<2 #
Dibenzofuran (aq)	<1 µg/l	TM176		<10 #	<4 #	<1 #	<1 #	<10 #	<2 #
n-Dibutyl phthalate (aq)	<1 µg/l	TM176		<10 #	<4 #	<1 #	<1 #	<10 #	<2 #
Diethyl phthalate (aq)	<1 µg/l	TM176		<10 #	<4 #	<1 #	<1 #	<10 #	<2 #
Dibenzo(a,h)anthracene (aq)	<1 µg/l	TM176		<10 #	<4 #	<1 #	<1 #	<10 #	<2 #
Dimethyl phthalate (aq)	<1 µg/l	TM176		<10 #	<4 #	<1 #	<1 #	<10 #	<2 #
n-Dioctyl phthalate (aq)	<5 µg/l	TM176		<50 #	<20 #	<5 #	<5 #	<50 #	<10 #
Fluoranthene (aq)	<1 µg/l	TM176		<10 #	<4 #	<1 #	<1 #	<10 #	<2 #
Fluorene (aq)	<1 µg/l	TM176		<10 #	<4 #	<1 #	<1 #	<10 #	<2 #
Hexachlorobenzene (aq)	<1 µg/l	TM176		<10 #	<4 #	<1 #	<1 #	<10 #	<2 #
Hexachlorobutadiene (aq)	<1 µg/l	TM176		<10 #	<4 #	<1 #	<1 #	<10 #	<2 #
Pentachlorophenol (aq)	<1 µg/l	TM176		<10	<4	<1	<1	<10	<2
Phenol (aq)	<1 µg/l	TM176		<10	<4	<1	<1	<10	<2
n-Nitroso-n-dipropylamine (aq)	<1 µg/l	TM176		<10 #	<4 #	<1 #	<1 #	<10 #	<2 #
Hexachloroethane (aq)	<1 µg/l	TM176		<10 #	<4 #	<1 #	<1 #	<10 #	<2 #
Nitrobenzene (aq)	<1 µg/l	TM176		<10 #	<4 #	<1 #	<1 #	<10 #	<2 #
Naphthalene (aq)	<1 µg/l	TM176		<10 #	<4 #	<1 #	<1 #	<10 #	<2 #
Isophorone (aq)	<1 µg/l	TM176		<10 #	<4 #	<1 #	<1 #	<10 #	<2 #
Hexachlorocyclopentadiene (aq)	<1 µg/l	TM176		<10	<4	<1	<1	<10	<2
Phenanthrene (aq)	<1 µg/l	TM176		<10 #	<4 #	<1 #	<1 #	<10 #	<2 #
Indeno(1,2,3-cd)pyrene (aq)	<1 µg/l	TM176		<10 #	<4 #	<1 #	<1 #	<10 #	<2 #
Pyrene (aq)	<1 µg/l	TM176		<10 #	<4 #	<1 #	<1 #	<10 #	<2 #

CERTIFICATE OF ANALYSIS

SDG: 220620-6 **Report Number:** 651985 **Superseded Report:** 651819
Client Ref.: LD10385 **Location:** Ten Acres Lane

SVOC MS (W) - Aqueous

Results Legend	
#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+§@	Sample deviation (see appendix)

Customer Sample Ref.			Upstream
Depth (m)			0.00 - 0.00
Sample Type			Surface Water (SW)
Date Sampled			16/06/2022
Sample Time			00:00
Date Received			19/06/2022
SDG Ref			220620-6
Lab Sample No.(s)			26455689
AGS Reference			
Component	**LOD/Units**	**Method**	
1,2,4-Trichlorobenzene (aq)	<1 µg/l	TM176	<2 #
1,2-Dichlorobenzene (aq)	<1 µg/l	TM176	<2 #
1,3-Dichlorobenzene (aq)	<1 µg/l	TM176	<2 #
1,4-Dichlorobenzene (aq)	<1 µg/l	TM176	<2 #
2,4,5-Trichlorophenol (aq)	<1 µg/l	TM176	<2 #
2,4,6-Trichlorophenol (aq)	<1 µg/l	TM176	<2 #
2,4-Dichlorophenol (aq)	<1 µg/l	TM176	<2 #
2,4-Dimethylphenol (aq)	<1 µg/l	TM176	<2 #
2,4-Dinitrotoluene (aq)	<1 µg/l	TM176	<2 #
2,6-Dinitrotoluene (aq)	<1 µg/l	TM176	<2 #
2-Chloronaphthalene (aq)	<1 µg/l	TM176	<2 #
2-Chlorophenol (aq)	<1 µg/l	TM176	<2 #
2-Methylnaphthalene (aq)	<1 µg/l	TM176	<2 #
2-Methylphenol (aq)	<1 µg/l	TM176	<2 #
2-Nitroaniline (aq)	<1 µg/l	TM176	<2 #
2-Nitrophenol (aq)	<1 µg/l	TM176	<2 #
3-Nitroaniline (aq)	<1 µg/l	TM176	<2
4-Bromophenylphenylether (aq)	<1 µg/l	TM176	<2 #
4-Chloro-3-methylphenol (aq)	<1 µg/l	TM176	<2 #
4-Chloroaniline (aq)	<1 µg/l	TM176	<2
4-Chlorophenylphenylether (aq)	<1 µg/l	TM176	<2 #
4-Methylphenol (aq)	<1 µg/l	TM176	<2 #
4-Nitroaniline (aq)	<1 µg/l	TM176	<2 #
4-Nitrophenol (aq)	<1 µg/l	TM176	<2
Azobenzene (aq)	<1 µg/l	TM176	<2 #
Acenaphthylene (aq)	<1 µg/l	TM176	<2 #
Acenaphthene (aq)	<1 µg/l	TM176	<2 #
Anthracene (aq)	<1 µg/l	TM176	<2 #
bis(2-Chloroethyl)ether (aq)	<1 µg/l	TM176	<2 #
bis(2-Chloroethoxy)methane (aq)	<1 µg/l	TM176	<2 #
bis(2-Ethylhexyl) phthalate (aq)	<2 µg/l	TM176	<4 #
Butylbenzyl phthalate (aq)	<1 µg/l	TM176	<2 #
Benzo(a)anthracene (aq)	<1 µg/l	TM176	<2 #

CERTIFICATE OF ANALYSIS

SDG: 220620-6 **Report Number:** 651985 **Superseded Report:** 651819
Client Ref.: LD10385 **Location:** Ten Acres Lane

SVOC MS (W) - Aqueous

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	Depth (m)	Sample Type	Date Sampled	Sample Time	Date Received	SDG Ref	Lab Sample No.(s)	AGS Reference
			Upstream	0.00 - 0.00	Surface Water (SW)	16/06/2022	00:00	19/06/2022	220620-6	26455689	
Benzo(b)fluoranthene (aq)	<1 µg/l	TM176	<2 #								
Benzo(k)fluoranthene (aq)	<1 µg/l	TM176	<2 #								
Benzo(a)pyrene (aq)	<1 µg/l	TM176	<2 #								
Benzo(g,h,i)perylene (aq)	<1 µg/l	TM176	<2 #								
Carbazole (aq)	<1 µg/l	TM176	<2 #								
Chrysene (aq)	<1 µg/l	TM176	<2 #								
Dibenzofuran (aq)	<1 µg/l	TM176	<2 #								
n-Dibutyl phthalate (aq)	<1 µg/l	TM176	<2 #								
Diethyl phthalate (aq)	<1 µg/l	TM176	<2 #								
Dibenzo(a,h)anthracene (aq)	<1 µg/l	TM176	<2 #								
Dimethyl phthalate (aq)	<1 µg/l	TM176	<2 #								
n-Dioctyl phthalate (aq)	<5 µg/l	TM176	<10 #								
Fluoranthene (aq)	<1 µg/l	TM176	<2 #								
Fluorene (aq)	<1 µg/l	TM176	<2 #								
Hexachlorobenzene (aq)	<1 µg/l	TM176	<2 #								
Hexachlorobutadiene (aq)	<1 µg/l	TM176	<2 #								
Pentachlorophenol (aq)	<1 µg/l	TM176	<2								
Phenol (aq)	<1 µg/l	TM176	<2								
n-Nitroso-n-dipropylamine (aq)	<1 µg/l	TM176	<2 #								
Hexachloroethane (aq)	<1 µg/l	TM176	<2 #								
Nitrobenzene (aq)	<1 µg/l	TM176	<2 #								
Naphthalene (aq)	<1 µg/l	TM176	<2 #								
Isophorone (aq)	<1 µg/l	TM176	<2 #								
Hexachlorocyclopentadiene (aq)	<1 µg/l	TM176	<2								
Phenanthrene (aq)	<1 µg/l	TM176	<2 #								
Indeno(1,2,3-cd)pyrene (aq)	<1 µg/l	TM176	<2 #								
Pyrene (aq)	<1 µg/l	TM176	<2 #								

CERTIFICATE OF ANALYSIS

SDG: 220620-6 **Report Number:** 651985 **Superseded Report:** 651819

Client Ref.: LD10385 **Location:** Ten Acres Lane

TPH CWG (W)

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	CP202	CP207	Downstream	Midstream	RH203	RH205
			Depth (m)	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
			Sample Type	Ground Water (GW)	Ground Water (GW)	Surface Water (SW)	Surface Water (SW)	Ground Water (GW)	Ground Water (GW)
			Date Sampled	15/06/2022	15/06/2022	16/06/2022	16/06/2022	16/06/2022	15/06/2022
			Sample Time	00:00	00:00	00:00	00:00	00:00	00:00
			Date Received	19/06/2022	19/06/2022	19/06/2022	19/06/2022	19/06/2022	19/06/2022
			SDG Ref	220620-6	220620-6	220620-6	220620-6	220620-6	220620-6
			Lab Sample No.(s)	26455734	26455752	26455672	26455708	26455786	26455767
			AGS Reference						
GRO Surrogate % recovery**	%	TM245		91	94	94	101	72	104
GRO >C5-C12	<50 µg/l	TM245		<50 #	<50 #	<50 #	<50 #	<50 #	<50 #
Aliphatics >C5-C6	<10 µg/l	TM245		<10	<10	<10	<10	<10	<10
Aliphatics >C6-C8	<10 µg/l	TM245		<10	<10	<10	<10	<10	<10
Aliphatics >C8-C10	<10 µg/l	TM245		<10	<10	<10	<10	<10	<10
Aliphatics >C10-C12	<10 µg/l	TM245		<10	<10	<10	<10	<10	<10
Aliphatics >C12-C16 (aq)	<10 µg/l	TM174		30	<10	<10	<10	106	<10
Aliphatics >C16-C21 (aq)	<10 µg/l	TM174		55	<10	<10	13	87	<10
Aliphatics >C21-C35 (aq)	<10 µg/l	TM174		336	<10	<10	<10	689	<10
Total Aliphatics >C12-C35 (aq)	<10 µg/l	TM174		421	<10	<10	13	882	<10
Aromatics >EC5-EC7	<10 µg/l	TM245		<10	<10	<10	<10	<10	<10
Aromatics >EC7-EC8	<10 µg/l	TM245		<10	<10	<10	<10	<10	<10
Aromatics >EC8-EC10	<10 µg/l	TM245		<10	<10	<10	<10	<10	<10
Aromatics >EC10-EC12	<10 µg/l	TM245		<10	<10	<10	<10	<10	<10
Aromatics >EC12-EC16 (aq)	<10 µg/l	TM174		62	<10	<10	<10	57	<10
Aromatics >EC16-EC21 (aq)	<10 µg/l	TM174		67	<10	<10	13	105	<10
Aromatics >EC21-EC35 (aq)	<10 µg/l	TM174		198	<10	25	57	365	<10
Total Aromatics >EC12-EC35 (aq)	<10 µg/l	TM174		327	<10	25	70	527	<10
Total Aliphatics & Aromatics >C5-35 (aq)	<10 µg/l	TM174		788	<10	25	83	1410	<10
Aliphatics >C16-C35 Aqueous	<10 µg/l	TM174		391	<10	<10	13	776	<10

CERTIFICATE OF ANALYSIS

SDG: 220620-6 **Report Number:** 651985 **Superseded Report:** 651819
Client Ref.: LD10385 **Location:** Ten Acres Lane

TPH CWG (W)

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	Upstream
			Depth (m)	0.00 - 0.00
			Sample Type	Surface Water (SW)
			Date Sampled	16/06/2022
			Sample Time	00:00
			Date Received	19/06/2022
			SDG Ref	220620-6
			Lab Sample No.(s)	26455689
			AGS Reference	
GRO Surrogate % recovery**	%	TM245		101
GRO >C5-C12	<50 µg/l	TM245		<50 #
Aliphatics >C5-C6	<10 µg/l	TM245		<10
Aliphatics >C6-C8	<10 µg/l	TM245		<10
Aliphatics >C8-C10	<10 µg/l	TM245		<10
Aliphatics >C10-C12	<10 µg/l	TM245		<10
Aliphatics >C12-C16 (aq)	<10 µg/l	TM174		<10
Aliphatics >C16-C21 (aq)	<10 µg/l	TM174		<10
Aliphatics >C21-C35 (aq)	<10 µg/l	TM174		<10
Total Aliphatics >C12-C35 (aq)	<10 µg/l	TM174		<10
Aromatics >EC5-EC7	<10 µg/l	TM245		<10
Aromatics >EC7-EC8	<10 µg/l	TM245		<10
Aromatics >EC8-EC10	<10 µg/l	TM245		<10
Aromatics >EC10-EC12	<10 µg/l	TM245		<10
Aromatics >EC12-EC16 (aq)	<10 µg/l	TM174		<10
Aromatics >EC16-EC21 (aq)	<10 µg/l	TM174		<10
Aromatics >EC21-EC35 (aq)	<10 µg/l	TM174		<10
Total Aromatics >EC12-EC35 (aq)	<10 µg/l	TM174		<10
Total Aliphatics & Aromatics >C5-35 (aq)	<10 µg/l	TM174		<10
Aliphatics >C16-C35 Aqueous	<10 µg/l	TM174		<10

CERTIFICATE OF ANALYSIS

SDG: 220620-6 **Report Number:** 651985 **Superseded Report:** 651819

Client Ref.: LD10385 **Location:** Ten Acres Lane

VOC MS (W)

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	CP202	CP207	Downstream	Midstream	RH203	RH205
			Depth (m)	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
			Sample Type	Ground Water (GW)	Ground Water (GW)	Surface Water (SW)	Surface Water (SW)	Ground Water (GW)	Ground Water (GW)
			Date Sampled	15/06/2022	15/06/2022	16/06/2022	16/06/2022	16/06/2022	15/06/2022
			Sample Time	00:00	00:00	00:00	00:00	00:00	00:00
			Date Received	19/06/2022	19/06/2022	19/06/2022	19/06/2022	19/06/2022	19/06/2022
			SDG Ref	220620-6	220620-6	220620-6	220620-6	220620-6	220620-6
			Lab Sample No.(s)	26455734	26455752	26455672	26455708	26455786	26455767
			AGS Reference						
Dibromofluoromethane**	%	TM208		110	111	114	110	110	114
Toluene-d8**	%	TM208		98.5	98.2	99.5	99.9	97.2	99.9
4-Bromofluorobenzene**	%	TM208		92.7	93.2	99.6	99.7	93.5	97.9
Dichlorodifluoromethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Chloromethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Vinyl chloride	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Bromomethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Chloroethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Trichlorofluoromethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,1-Dichloroethene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Carbon disulphide	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Dichloromethane	<3 µg/l	TM208		<6 #	<6 #	<6 #	<6 #	<6 #	<6 #
Methyl tertiary butyl ether (MTBE)	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
trans-1,2-Dichloroethene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,1-Dichloroethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
cis-1,2-Dichloroethene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
2,2-Dichloropropane	<1 µg/l	TM208		<1	<1	<1	<1	<1	<1
Bromochloromethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Chloroform	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	1.32 #
1,1,1-Trichloroethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,1-Dichloropropene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Carbontetrachloride	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,2-Dichloroethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Benzene	<1 µg/l	TM208		2.38 #	<1 #	<1 #	<1 #	<1 #	<1 #
Trichloroethene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,2-Dichloropropane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Dibromomethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Bromodichloromethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
cis-1,3-Dichloropropene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Toluene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
trans-1,3-Dichloropropene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,1,2-Trichloroethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,3-Dichloropropane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #

CERTIFICATE OF ANALYSIS

SDG: 220620-6 **Report Number:** 651985 **Superseded Report:** 651819

Client Ref.: LD10385 **Location:** Ten Acres Lane

VOC MS (W)

Results Legend		Customer Sample Ref.	CP202	CP207	Downstream	Midstream	RH203	RH205
#	ISO17025 accredited.							
M	mCERTS accredited.							
aq	Aqueous / settled sample.							
diss.filt	Dissolved / filtered sample.	Depth (m)	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
tot.unfilt	Total / unfiltered sample.	Sample Type	Ground Water (GW)	Ground Water (GW)	Surface Water (SW)	Surface Water (SW)	Ground Water (GW)	Ground Water (GW)
*	Subcontracted - refer to subcontractor report for accreditation status.	Date Sampled	15/06/2022	15/06/2022	16/06/2022	16/06/2022	16/06/2022	15/06/2022
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery	Sample Time	00:00	00:00	00:00	00:00	00:00	00:00
		Date Received	19/06/2022	19/06/2022	19/06/2022	19/06/2022	19/06/2022	19/06/2022
		SDG Ref	220620-6	220620-6	220620-6	220620-6	220620-6	220620-6
(F)	Trigger breach confirmed	Lab Sample No.(s)	26455734	26455752	26455672	26455708	26455786	26455767
1-4+§@	Sample deviation (see appendix)	AGS Reference						

Component	LOD/Units	Method						
Tetrachloroethene	<1 µg/l	TM208	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Dibromochloromethane	<1 µg/l	TM208	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,2-Dibromoethane	<1 µg/l	TM208	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Chlorobenzene	<1 µg/l	TM208	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,1,1,2-Tetrachloroethane	<1 µg/l	TM208	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Ethylbenzene	<1 µg/l	TM208	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
m,p-Xylene	<1 µg/l	TM208	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
o-Xylene	<1 µg/l	TM208	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Styrene	<1 µg/l	TM208	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Bromoform	<1 µg/l	TM208	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Isopropylbenzene	<1 µg/l	TM208	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,1,2,2-Tetrachloroethane	<1 µg/l	TM208	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,2,3-Trichloropropane	<1 µg/l	TM208	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Bromobenzene	<1 µg/l	TM208	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Propylbenzene	<1 µg/l	TM208	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
2-Chlorotoluene	<1 µg/l	TM208	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,3,5-Trimethylbenzene	<1 µg/l	TM208	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
4-Chlorotoluene	<1 µg/l	TM208	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
tert-Butylbenzene	<1 µg/l	TM208	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,2,4-Trimethylbenzene	<1 µg/l	TM208	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
sec-Butylbenzene	<1 µg/l	TM208	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
4-iso-Propyltoluene	<1 µg/l	TM208	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,3-Dichlorobenzene	<1 µg/l	TM208	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,4-Dichlorobenzene	<1 µg/l	TM208	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
n-Butylbenzene	<1 µg/l	TM208	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,2-Dichlorobenzene	<1 µg/l	TM208	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,2-Dibromo-3-chloropropane	<1 µg/l	TM208	<1	<1	<1	<1	<1	<1
1,2,4-Trichlorobenzene	<1 µg/l	TM208	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Hexachlorobutadiene	<1 µg/l	TM208	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
tert-Amyl methyl ether (TAME)	<1 µg/l	TM208	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Naphthalene	<1 µg/l	TM208	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,2,3-Trichlorobenzene	<1 µg/l	TM208	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,3,5-Trichlorobenzene	<1 µg/l	TM208	<1	<1	<1	<1	<1	<1

CERTIFICATE OF ANALYSIS

SDG: 220620-6 **Report Number:** 651985 **Superseded Report:** 651819
Client Ref.: LD10385 **Location:** Ten Acres Lane

VOC MS (W)

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	CP202	CP207	Downstream	Midstream	RH203	RH205
			Depth (m)	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
			Sample Type	Ground Water (GW)	Ground Water (GW)	Surface Water (SW)	Surface Water (SW)	Ground Water (GW)	Ground Water (GW)
			Date Sampled	15/06/2022	15/06/2022	16/06/2022	16/06/2022	16/06/2022	15/06/2022
			Sample Time	00:00	00:00	00:00	00:00	00:00	00:00
			Date Received	19/06/2022	19/06/2022	19/06/2022	19/06/2022	19/06/2022	19/06/2022
			SDG Ref	220620-6	220620-6	220620-6	220620-6	220620-6	220620-6
			Lab Sample No.(s)	26455734	26455752	26455672	26455708	26455786	26455767
			AGS Reference						
Sum of detected Xylenes	<2 µg/l	TM208		<2	<2	<2	<2	<2	<2
Sum of BTEX	<5 µg/l	TM208		<5	<5	<5	<5	<5	<5

CERTIFICATE OF ANALYSIS

SDG: 220620-6 **Report Number:** 651985 **Superseded Report:** 651819
Client Ref.: LD10385 **Location:** Ten Acres Lane

VOC MS (W)

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Customer Sample Ref.	Upstream
Depth (m)	0.00 - 0.00
Sample Type	Surface Water (SW)
Date Sampled	16/06/2022
Sample Time	00:00
Date Received	19/06/2022
SDG Ref	220620-6
Lab Sample No.(s)	26455689
AGS Reference	

Component	LOD/Units	Method	
Dibromofluoromethane**	%	TM208	113
Toluene-d8**	%	TM208	99.2
4-Bromofluorobenzene**	%	TM208	98.7
Dichlorodifluoromethane	<1 µg/l	TM208	<1 #
Chloromethane	<1 µg/l	TM208	<1 #
Vinyl chloride	<1 µg/l	TM208	<1 #
Bromomethane	<1 µg/l	TM208	<1 #
Chloroethane	<1 µg/l	TM208	<1 #
Trichlorofluoromethane	<1 µg/l	TM208	<1 #
1,1-Dichloroethene	<1 µg/l	TM208	<1 #
Carbon disulphide	<1 µg/l	TM208	<1 #
Dichloromethane	<3 µg/l	TM208	<6 #
Methyl tertiary butyl ether (MTBE)	<1 µg/l	TM208	<1 #
trans-1,2-Dichloroethene	<1 µg/l	TM208	<1 #
1,1-Dichloroethane	<1 µg/l	TM208	<1 #
cis-1,2-Dichloroethene	<1 µg/l	TM208	<1 #
2,2-Dichloropropane	<1 µg/l	TM208	<1
Bromochloromethane	<1 µg/l	TM208	<1 #
Chloroform	<1 µg/l	TM208	<1 #
1,1,1-Trichloroethane	<1 µg/l	TM208	<1 #
1,1-Dichloropropene	<1 µg/l	TM208	<1 #
Carbontetrachloride	<1 µg/l	TM208	<1 #
1,2-Dichloroethane	<1 µg/l	TM208	<1 #
Benzene	<1 µg/l	TM208	<1 #
Trichloroethene	<1 µg/l	TM208	<1 #
1,2-Dichloropropane	<1 µg/l	TM208	<1 #
Dibromomethane	<1 µg/l	TM208	<1 #
Bromodichloromethane	<1 µg/l	TM208	<1 #
cis-1,3-Dichloropropene	<1 µg/l	TM208	<1 #
Toluene	<1 µg/l	TM208	<1 #
trans-1,3-Dichloropropene	<1 µg/l	TM208	<1 #
1,1,2-Trichloroethane	<1 µg/l	TM208	<1 #
1,3-Dichloropropane	<1 µg/l	TM208	<1 #

CERTIFICATE OF ANALYSIS

SDG: 220620-6 **Report Number:** 651985 **Superseded Report:** 651819
Client Ref.: LD10385 **Location:** Ten Acres Lane

VOC MS (W)

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4+§@ Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	Upstream
			Depth (m)	0.00 - 0.00
			Sample Type	Surface Water (SW)
			Date Sampled	16/06/2022
			Sample Time	00:00
			Date Received	19/06/2022
			SDG Ref	220620-6
			Lab Sample No.(s)	26455689
			AGS Reference	
Tetrachloroethene	<1 µg/l	TM208	<1	#
Dibromochloromethane	<1 µg/l	TM208	<1	#
1,2-Dibromoethane	<1 µg/l	TM208	<1	#
Chlorobenzene	<1 µg/l	TM208	<1	#
1,1,1,2-Tetrachloroethane	<1 µg/l	TM208	<1	#
Ethylbenzene	<1 µg/l	TM208	<1	#
m,p-Xylene	<1 µg/l	TM208	<1	#
o-Xylene	<1 µg/l	TM208	<1	#
Styrene	<1 µg/l	TM208	<1	#
Bromoform	<1 µg/l	TM208	<1	#
Isopropylbenzene	<1 µg/l	TM208	<1	#
1,1,2,2-Tetrachloroethane	<1 µg/l	TM208	<1	#
1,2,3-Trichloropropane	<1 µg/l	TM208	<1	#
Bromobenzene	<1 µg/l	TM208	<1	#
Propylbenzene	<1 µg/l	TM208	<1	#
2-Chlorotoluene	<1 µg/l	TM208	<1	#
1,3,5-Trimethylbenzene	<1 µg/l	TM208	<1	#
4-Chlorotoluene	<1 µg/l	TM208	<1	#
tert-Butylbenzene	<1 µg/l	TM208	<1	#
1,2,4-Trimethylbenzene	<1 µg/l	TM208	<1	#
sec-Butylbenzene	<1 µg/l	TM208	<1	#
4-iso-Propyltoluene	<1 µg/l	TM208	<1	#
1,3-Dichlorobenzene	<1 µg/l	TM208	<1	#
1,4-Dichlorobenzene	<1 µg/l	TM208	<1	#
n-Butylbenzene	<1 µg/l	TM208	<1	#
1,2-Dichlorobenzene	<1 µg/l	TM208	<1	#
1,2-Dibromo-3-chloropropane	<1 µg/l	TM208	<1	
1,2,4-Trichlorobenzene	<1 µg/l	TM208	<1	#
Hexachlorobutadiene	<1 µg/l	TM208	<1	#
tert-Amyl methyl ether (TAME)	<1 µg/l	TM208	<1	#
Naphthalene	<1 µg/l	TM208	<1	#
1,2,3-Trichlorobenzene	<1 µg/l	TM208	<1	#
1,3,5-Trichlorobenzene	<1 µg/l	TM208	<1	

CERTIFICATE OF ANALYSIS

SDG: 220620-6 **Report Number:** 651985 **Superseded Report:** 651819
Client Ref.: LD10385 **Location:** Ten Acres Lane

VOC MS (W)

Results Legend			
#	ISO17025 accredited.	Customer Sample Ref.	Upstream
M	mCERTS accredited.		
aq	Aqueous / settled sample.	Depth (m)	0.00 - 0.00
diss.filt	Dissolved / filtered sample.	Sample Type	Surface Water (SW)
tot.unfilt	Total / unfiltered sample.	Date Sampled	16/06/2022
*	Subcontracted - refer to subcontractor report for accreditation status.	Sample Time	00:00
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery	Date Received	19/06/2022
		SDG Ref	220620-6
(F)	Trigger breach confirmed	Lab Sample No.(s)	26455689
1-4+§@	Sample deviation (see appendix)	AGS Reference	

Component	LOD/Units	Method	
Sum of detected Xylenes	<2 µg/l	TM208	<2
Sum of BTEX	<5 µg/l	TM208	<5

Table of Results - Appendix

Method No	Reference	Description
TM043	Method 2320B, AWWA/APHA, 20th Ed., 1999 / BS 2690: Part109 1984	Determination of alkalinity in aqueous samples
TM090	Method 5310, AWWA/APHA, 20th Ed., 1999 / Modified: US EPA Method 415.1 & 9060	Determination of Total Organic Carbon/Total Inorganic Carbon in Water and Waste Water
TM101	Method 4500B & C, AWWA/APHA, 20th Ed., 1999	Determination of Sulphide in soil and water samples using the Kone Analyser
TM110	BS 1377: Part 3 1990	Redox Potential
TM152	ISO 17294-2:2016 Water quality - Application of inductively coupled plasma mass spectrometry (ICP-MS)	Analysis of Aqueous Samples by ICP-MS
TM174	Analysis of Petroleum Hydrocarbons in Environmental Media – Total Petroleum Hydrocarbon Criteria	Determination of Speciated Extractable Petroleum Hydrocarbons in Waters by GC-FID
TM176	EPA 8270D Semi-Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)	Determination of SVOCs in Water by GCMS
TM178	Modified: US EPA Method 8100	Determination of Polynuclear Aromatic Hydrocarbons (PAH) by GC-MS in Waters
TM183	BS EN 23506:2002, (BS 6068-2.74:2002) ISBN 0 580 38924 3	Determination of Trace Level Mercury in Waters and Leachates by PSA Cold Vapour Atomic Fluorescence Spectrometry
TM184	EPA Methods 325.1 & 325.2,	The Determination of Anions in Aqueous Matrices using the Kone Spectrophotometric Analysers
TM208	Modified: US EPA Method 8260b & 624	Determination of Volatile Organic Compounds by Headspace / GC-MS in Waters
TM227	Standard methods for the examination of waters and wastewaters 20th Edition, AWWA/APHA Method 4500.	Determination of Total Cyanide, Free (Easily Liberatable) Cyanide and Thiocyanate
TM245	By GC-FID	Determination of GRO by Headspace in waters
TM256	The measurement of Electrical Conductivity and the Laboratory determination of pH Value of Natural, Treated and Wastewaters. HMSO, 1978. ISBN 011 751428 4, Standard Methods for the examination of waters and wastewaters 20th Edition, PHA, Washington DC, USA. ISBN 0-87553-235-7 and The Determination of Alkalinity and Acidity in water HMSO, 1981, ISBN 0 11 751601 5.	Determination of pH, EC, TDS and Alkalinity in Aqueous samples
TM259	by HPLC	Determination of Phenols in Waters and Leachates by HPLC
TM331		Low Level Hexavalent Chromium
TM337	PFAS in Environmental Water Matrices	Analysis of PFAS
TM405	PFAS (TOP Assay)	Analysis of perfluoroalkylsulfonates and perfluorocarboxylic acids - Total Oxidizable Precursor Assay

NA = not applicable.

Chemical testing (unless subcontracted) performed at ALS Life Sciences Ltd Hawarden (Method codes TM).

CERTIFICATE OF ANALYSIS

SDG: 220620-6 **Report Number:** 651985 **Superseded Report:** 651819
Client Ref.: LD10385 **Location:** Ten Acres Lane

Test Completion Dates

Lab Sample No(s)	26455734	26455752	26455672	26455708	26455786	26455767	26455689
Customer Sample Ref.	CP202	CP207	Downstream	Midstream	RH203	RH205	Upstream
AGS Ref.							
Depth	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Type	Ground Water	Ground Water	Surface Water	Surface Water	Ground Water	Ground Water	Surface Water
Alkalinity as CaCO3	21-Jun-2022	21-Jun-2022	21-Jun-2022	21-Jun-2022	21-Jun-2022	21-Jun-2022	21-Jun-2022
Anions by Kone (w)	21-Jun-2022	21-Jun-2022	21-Jun-2022	21-Jun-2022	21-Jun-2022	21-Jun-2022	21-Jun-2022
Cyanide Comp/Free/Total/Thiocyanate	22-Jun-2022	22-Jun-2022	22-Jun-2022	22-Jun-2022	22-Jun-2022	22-Jun-2022	22-Jun-2022
Dissolved Metals by ICP-MS	21-Jun-2022	21-Jun-2022	21-Jun-2022	21-Jun-2022	21-Jun-2022	21-Jun-2022	21-Jun-2022
Dissolved Organic/Inorganic Carbon	23-Jun-2022	23-Jun-2022	22-Jun-2022	22-Jun-2022	23-Jun-2022	22-Jun-2022	23-Jun-2022
EPH CWG (Aliphatic) Aqueous GC (W)	22-Jun-2022	22-Jun-2022	22-Jun-2022	22-Jun-2022	22-Jun-2022	22-Jun-2022	22-Jun-2022
EPH CWG (Aromatic) Aqueous GC (W)	22-Jun-2022	22-Jun-2022	22-Jun-2022	22-Jun-2022	22-Jun-2022	22-Jun-2022	22-Jun-2022
GRO by GC-FID (W)	21-Jun-2022	21-Jun-2022	21-Jun-2022	21-Jun-2022	21-Jun-2022	21-Jun-2022	21-Jun-2022
Low Level Hexavalent Chromium (w)	21-Jun-2022	21-Jun-2022	21-Jun-2022	21-Jun-2022	21-Jun-2022	21-Jun-2022	21-Jun-2022
Mercury Dissolved	22-Jun-2022	22-Jun-2022	22-Jun-2022	22-Jun-2022	22-Jun-2022	22-Jun-2022	22-Jun-2022
PAH Spec MS - Aqueous (W)	22-Jun-2022	22-Jun-2022	22-Jun-2022	22-Jun-2022	22-Jun-2022	22-Jun-2022	22-Jun-2022
PFAS (Post Ox.) Liquids			24-Jun-2022	24-Jun-2022			24-Jun-2022
PFAS Liquids			22-Jun-2022	22-Jun-2022			22-Jun-2022
pH Value	22-Jun-2022	22-Jun-2022	22-Jun-2022	22-Jun-2022	22-Jun-2022	22-Jun-2022	22-Jun-2022
Phenols by HPLC (W)	22-Jun-2022	22-Jun-2022	22-Jun-2022	22-Jun-2022	22-Jun-2022	22-Jun-2022	22-Jun-2022
Redox Potential	21-Jun-2022	21-Jun-2022	21-Jun-2022	21-Jun-2022	21-Jun-2022	21-Jun-2022	21-Jun-2022
Sulphide	21-Jun-2022	21-Jun-2022	21-Jun-2022	21-Jun-2022	21-Jun-2022	21-Jun-2022	21-Jun-2022
SVOC MS (W) - Aqueous	22-Jun-2022	22-Jun-2022	22-Jun-2022	22-Jun-2022	22-Jun-2022	22-Jun-2022	22-Jun-2022
TPH CWG (W)	22-Jun-2022	22-Jun-2022	22-Jun-2022	22-Jun-2022	22-Jun-2022	22-Jun-2022	22-Jun-2022
VOC MS (W)	20-Jun-2022	20-Jun-2022	20-Jun-2022	20-Jun-2022	20-Jun-2022	20-Jun-2022	20-Jun-2022

Appendix

General

1. Results are expressed on a dry weight basis (dried at 35ºC) for all soil analyses except for the following: NRA and CEN Leach tests, flash point LOI, pH, ammonium as NH4 by the BRE method, VOC TICs and SVOC TICs.

2. If sufficient sample is received a sub sample will be retained free of charge for 30 days after analysis is completed (e-mailed) for all sample types unless the sample is destroyed on testing. The prepared soil sub sample that is analysed for asbestos will be retained for a period of 6 months after the analysis date. All bulk samples will be retained for a period of 6 months after the analysis date. All samples received and not scheduled will be disposed of one month after the date of receipt unless we are instructed to the contrary. Once the initial period has expired, a storage charge will be applied for each month or part thereof until the client cancels the request for sample storage. ALS reserve the right to charge for samples received and stored but not analysed.

3. With respect to turnaround, we will always endeavour to meet client requirements wherever possible, but turnaround times cannot be absolutely guaranteed due to so many variables beyond our control.

4. We take responsibility for any test performed by sub-contractors (marked with an asterisk). We endeavour to use UKAS/MCERTS Accredited Laboratories, who either complete a quality questionnaire or are audited by ourselves. For some determinands there are no UKAS/MCERTS Accredited Laboratories, in this instance a laboratory with a known track record will be utilised.

5. If no separate volatile sample is supplied by the client, or if a headspace or sediment is present in the volatile sample, the integrity of the data may be compromised. This will be flagged up as an invalid VOC on the test schedule and the result marked as deviating on the test certificate.

6. NDP - No determination possible due to insufficient/unsuitable sample.

7. Results relate only to the items tested.

8. LoDs (Limit of Detection) for wet tests reported on a dry weight basis are not corrected for moisture content.

9. **Surrogate recoveries** - Surrogates are added to your sample to monitor recovery of the test requested. A % recovery is reported, results are not corrected for the recovery measured. Typical recoveries for organics tests are 70-130%. Recoveries in soils are affected by organic rich or clay rich matrices. Waters can be affected by remediation fluids or high amounts of sediment. Test results are only ever reported if all of the associated quality checks pass; it is assumed that all recoveries outside of the values above are due to matrix affect.

10. Stones/debris are not routinely removed. We always endeavour to take a representative sub sample from the received sample.

11. In certain circumstances the method detection limit may be elevated due to the sample being outside the calibration range. Other factors that may contribute to this include possible interferences. In both cases the sample would be diluted which would cause the method detection limit to be raised.

12. For dried and crushed preparations of soils volatile loss may occur e.g volatile mercury.

13. For leachate preparations other than Zero Headspace Extraction (ZHE) volatile loss may occur.

14. For the BSEN 12457-3 two batch process to allow the cumulative release to be calculated, the volume of the leachate produced is measured and filtered for all tests. We therefore cannot carry out any unfiltered analysis. The tests affected include volatiles GCFID/GCMS and all subcontracted analysis.

15. Analysis and identification of specific compounds using GCFID is by retention time only, and we routinely calibrate and quantify for benzene, toluene, ethylbenzenes and xylenes (BTEX). For total volatiles in the C5-C12 range, the total area of the chromatogram is integrated and expressed as ug/kg or ug/l. Although this analysis is commonly used for the quantification of gasoline range organics (GRO), the system will also detect other compounds such as chlorinated solvents, and this may lead to a falsely high result with respect to hydrocarbons only. It is not possible to specifically identify these non-hydrocarbons, as standards are not routinely run for any other compounds, and for more definitive identification, volatiles by GCMS should be utilised.

16. We are accredited to MCERTS for sand, clay and loam/topsoil, or any of these materials - whether these are derived from naturally occurring soil profiles, or from fill/made ground, as long as these materials constitute the major part of the sample. Other coarse granular material such as concrete, gravel and brick are not accredited if they comprise the major part of the sample.

17 Data retention. All records, communications and reports pertaining to the analysis are archived for seven years from the date of issue of the final report.

18. **Tentatively Identified Compounds (TICs)** are non-target peaks in VOC and SVOC analysis. All non-target peaks detected with a concentration above the LoD are subjected to a mass spectral library search. Non-target peaks with a library search confidence of >75% are reported based on the best mass spectral library match. When a non-target peak with a library search confidence of <75% is detected it is reported as “mixed hydrocarbons”. Non-target compounds identified from the scan data are semi-quantified relative to one of the deuterated internal standards, under the same chromatographic conditions as the target compounds. This result is reported as a semi-quantitative value and reported as Tentatively Identified Compounds (TICs). TICs are outside the scope of UKAS accreditation and are not moisture corrected.

19. **Sample Deviations**

If a sample is classed as deviated then the associated results may be compromised.

1	**Container with Headspace provided for volatiles analysis**
2	**Incorrect container received**
3	**Deviation from method**
4	**Matrix interference**
♦	**Sample holding time exceeded in laboratory**
@	**Sample holding time exceeded due to late arrival of instructions or samples**
§	**Sampled on date not provided**

20. **Asbestos**

When requested, the individual sub sample scheduled will be analysed in house for the presence of asbestos fibres and asbestos containing material by our documented in house method TM048 based on HSG 248 (2021), which is accredited to ISO17025. If a specific asbestos fibre type is not found this will be reported as “Not detected”. If no asbestos fibre types are found all will be reported as “Not detected” and the sub sample analysed deemed to be clear of asbestos. If an asbestos fibre type is found it will be reported as detected (for each fibre type found). Testing can be carried out on asbestos positive samples, but, due to Health and Safety considerations, may be replaced by alternative tests or reported as No Determination Possible (NDP). The quantity of asbestos present is not determined unless specifically requested.

Identification of Asbestos in Bulk Materials & Soils

The results for identification of asbestos in bulk materials and soils are obtained from supplied bulk materials andd soils which have been examined to determine the presence of asbestos fibres using ALS (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining, based on HSG 248 (2021).

The results for identification of asbestos in soils are obtained from a homogenised sub sample which has been examined to determine the presence of asbestos fibres using ALS (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining.

Asbestos Type	Common Name
Chrysotile	White Asbestos
Amosite	Brown Asbestos
Crocidolite	Blue Asbestos
Fibrous Actinolite	-
Fibrous Anthophyllite	-
Fibrous Tremolite	-

Visual Estimation Of Fibre Content

Estimation of fibre content is not permitted as part of our UKAS accredited test other than: - Trace - Where only one or two asbestos fibres were identified.

Respirable Fibres

Respirable fibres are defined as fibres of <3 µm diameter, longer than 5 µm and with aspect ratios of at least 3:1 that can be inhaled into the lower regions of the lung and are generally acknowledged to be most important predictor of hazard and risk for cancers of the lung.

Further guidance on typical asbestos fibre content of manufactured products can be found in HSG 264.

The identification of asbestos containing materials and soils falls within our schedule of tests for which we hold UKAS accreditation, however opinions, interpretations and all other information contained in the report are outside the scope of UKAS accreditation.

Unit 7-8 Hawarden Business Park
Manor Road (off Manor Lane)
Hawarden
Deeside
CH5 3US
Tel: (01244) 528777
email: hawardencustomerservices@alsglobal.com
Website: www.alsenvironmental.co.uk

Wardell Armstrong LLP
36 Park Row
Leeds
LS1 5JL

Attention: Jonathan Currie

CERTIFICATE OF ANALYSIS

Date of report Generation:	24 June 2022
Customer:	Wardell Armstrong LLP
Sample Delivery Group (SDG):	220620-8
Your Reference:	LD10385
Location:	Ten Acres Lane
Report No:	652003
Order Number:	LD2898

This report has been revised and directly supersedes 651820 in its entirety.

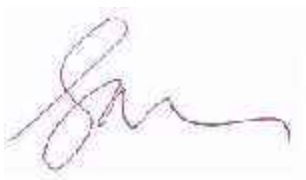
We received 5 samples on Sunday June 19, 2022 and 5 of these samples were scheduled for analysis which was completed on Friday June 24, 2022. Accredited laboratory tests are defined within the report, but opinions, interpretations and on-site data expressed herein are outside the scope of ISO 17025 accreditation.

Should this report require incorporation into client reports, it must be used in its entirety and not simply with the data sections alone.

Chemical testing (unless subcontracted) performed at ALS Life Sciences Ltd Hawarden.

All sample data is provided by the customer. The reported results relate to the sample supplied, and on the basis that this data is correct.
Incorrect sampling dates and/or sample information will affect the validity of results.
The customer is not permitted to reproduce this report except in full without the approval of the laboratory.

Approved By:



Sonia McWhan

Operations Manager

1291

CERTIFICATE OF ANALYSIS

SDG: 220620-8 **Report Number:** 652003 **Superseded Report:** 651820
Client Ref.: LD10385 **Location:** Ten Acres Lane

Received Sample Overview

Lab Sample No(s)	Customer Sample Ref.	AGS Ref.	Depth (m)	Sampled Date
26455986	CP109		0.00 - 0.00	17/06/2022
26455932	CP201		0.00 - 0.00	17/06/2022
26456053	WS306		0.00 - 0.00	17/06/2022
26456035	WS310		0.00 - 0.00	17/06/2022
26455957	WS315		0.00 - 0.00	17/06/2022

Only received samples which have had analysis scheduled will be shown on the following pages.

Validated

CERTIFICATE OF ANALYSIS

SDG: 220620-8 **Report Number:** 652003 **Superseded Report:** 651820
Client Ref.: LD10385 **Location:** Ten Acres Lane

Results Legend

X Test

N No Determination Possible

Sample Types -
S - Soil/Solid
UNS - Unspecified Solid
GW - Ground Water
SW - Surface Water
LE - Land Leachate
PL - Prepared Leachate
PR - Process Water
SA - Saline Water
TE - Trade Effluent
TS - Treated Sewage
US - Untreated Sewage
RE - Recreational Water
DW - Drinking Water Non-regulatory
UNL - Unspecified Liquid
SL - Sludge
G - Gas
OTH - Other

			Lab Sample No(s)	Customer Sample Reference	AGS Reference	Depth (m)	Container	Sample Type
			26455986	CP109		0.00 - 0.00	0.5l glass bottle (ALE227)	GW
							1lplastic (ALE221)	GW
							250ml Amber Gl. PTFE/PE (ALE219)	GW
							500ml Plastic (ALE208)	GW
							H2SO4 (ALE244)	GW
							HNO3 Filtered (ALE204)	GW
							NaOH (ALE245)	GW
							Vial (ALE297)	GW
							ZnAc (ALE246)	GW
			26455932	CP201		0.00 - 0.00	0.5l glass bottle (ALE227)	GW
							1lplastic (ALE221)	GW
							250ml Amber Gl. PTFE/PE (ALE219)	GW
							500ml Plastic (ALE208)	GW
							H2SO4 (ALE244)	GW
							HNO3 Filtered (ALE204)	GW
							NaOH (ALE245)	GW
							Vial (ALE297)	GW
							ZnAc (ALE246)	GW
			26456053	WS306		0.00 - 0.00	0.5l glass bottle (ALE227)	GW
Alkalinity as CaCO3	All	NDPs: 0 Tests: 5						
				X				
								X
Anions by Kone (w)	All	NDPs: 0 Tests: 5						
				X				
								X
Cyanide Comp/Free/Total/Thiocyanate	All	NDPs: 0 Tests: 5						
							X	
Dissolved Metals by ICP-MS	All	NDPs: 0 Tests: 5						
							X	
Dissolved Organic/Inorganic Carbon	All	NDPs: 0 Tests: 5						
			X				X	X
EPH CWG (Aliphatic) Aqueous GC (W)	All	NDPs: 0 Tests: 5						
				X				
EPH CWG (Aromatic) Aqueous GC (W)	All	NDPs: 0 Tests: 5						
				X				
GRO by GC-FID (W)	All	NDPs: 0 Tests: 5						
							X	
Low Level Hexavalent Chromium (w)	All	NDPs: 1 Tests: 4						
				N				
							X	
Mercury Dissolved	All	NDPs: 0 Tests: 5						
							X	
PAH Spec MS - Aqueous (W)	All	NDPs: 0 Tests: 5						
				X				
PFAS (Post Ox.) Liquids	All	NDPs: 0 Tests: 5						
				X				
PFAS Liquids	All	NDPs: 0 Tests: 5						
				X				
pH Value	All	NDPs: 0 Tests: 5						
				X				
Phenols by HPLC (W)	All	NDPs: 0 Tests: 5						
					X			

26455957	WS315		0.00 - 0.00	500ml Plastic (ALE208)	GW		X		X								X						X	
				250ml Amber Gl. PTFE/PE (ALE219)	GW								X		X				X					
				1lplastic (ALE221)	GW																X		X		
				0.5l glass bottle (ALE227)	GW							X													
26456035	WS310		0.00 - 0.00	ZnAc (ALE246)	GW																				
				Vial (ALE297)	GW										X										
				NaOH (ALE245)	GW					X															
				HNO3 Filtered (ALE204)	GW						X							X							
				H2SO4 (ALE244)	GW																				X
				500ml Plastic (ALE208)	GW		X		X								X						X		
				250ml Amber Gl. PTFE/PE (ALE219)	GW								X		X				X						
				1lplastic (ALE221)	GW																X		X		
				0.5l glass bottle (ALE227)	GW							X													
26456053	WS306		0.00 - 0.00	ZnAc (ALE246)	GW																				
				Vial (ALE297)	GW										X										
				NaOH (ALE245)	GW					X															
				HNO3 Filtered (ALE204)	GW						X							X							
				H2SO4 (ALE244)	GW																				X
				500ml Plastic (ALE208)	GW		X		X								X						X		
				250ml Amber Gl. PTFE/PE (ALE219)	GW								X		X				X						
				1lplastic (ALE221)	GW																X		X		

Validated

CERTIFICATE OF ANALYSIS

SDG: 220620-8 **Report Number:** 652003 **Superseded Report:** 651820

Client Ref.: LD10385 **Location:** Ten Acres Lane

Results Legend

X Test

N No Determination Possible

Sample Types -

S - Soil/Solid
UNS - Unspecified Solid
GW - Ground Water
SW - Surface Water
LE - Land Leachate
PL - Prepared Leachate
PR - Process Water
SA - Saline Water
TE - Trade Effluent
TS - Treated Sewage
US - Untreated Sewage
RE - Recreational Water
DW - Drinking Water Non-regulatory
UNL - Unspecified Liquid
SL - Sludge
G - Gas
OTH - Other

Lab Sample No(s)										26455986									26455932			26456053
Customer Sample Reference										CP109									CP201			WS306
AGS Reference																						
Depth (m)										0.00 - 0.00									0.00 - 0.00			0.00 - 0.00
Container										0.5l glass bottle (ALE227)	1lplastic (ALE221)	250ml Amber Gl. PTFE/PE (ALE219)	500ml Plastic (ALE208)	H2SO4 (ALE244)	HNO3 Filtered (ALE204)	NaOH (ALE245)	Vial (ALE297)	ZnAc (ALE246)	0.5l glass bottle (ALE227)	1lplastic (ALE221)	250ml Amber Gl. PTFE/PE (ALE219)	500ml Plastic (ALE208)	H2SO4 (ALE244)	HNO3 Filtered (ALE204)	NaOH (ALE245)	Vial (ALE297)	ZnAc (ALE246)	0.5l glass bottle (ALE227)
Sample Type										GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
Redox Potential	All	NDPs: 0 Tests: 5																										
										X									X									X
Sulphide	All	NDPs: 0 Tests: 5																										
																		X									X	
SVOC MS (W) - Aqueous	All	NDPs: 0 Tests: 5																										
										X									X									X
TPH CWG (W)	All	NDPs: 0 Tests: 5																										
										X									X									X
VOC MS (W)	All	NDPs: 0 Tests: 5																										
																	X									X		

26455957	WS315		0.00 - 0.00	500ml Plastic (ALE208)	GW						
				250ml Amber Gl. PTFE/PE (ALE219)	GW						
				1lplastic (ALE221)	GW						
				0.5l glass bottle (ALE227)	GW	X		X	X		
26456035	WS310		0.00 - 0.00	ZnAc (ALE246)	GW		X				
				Vial (ALE297)	GW						X
				NaOH (ALE245)	GW						
				HNO3 Filtered (ALE204)	GW						
				H2SO4 (ALE244)	GW						
				500ml Plastic (ALE208)	GW						
				250ml Amber Gl. PTFE/PE (ALE219)	GW						
				1lplastic (ALE221)	GW						
				0.5l glass bottle (ALE227)	GW	X		X	X		
26456053	WS306		0.00 - 0.00	ZnAc (ALE246)	GW		X				
				Vial (ALE297)	GW						X
				NaOH (ALE245)	GW						
				HNO3 Filtered (ALE204)	GW						
				H2SO4 (ALE244)	GW						
				500ml Plastic (ALE208)	GW						
				250ml Amber Gl. PTFE/PE (ALE219)	GW						
				1lplastic (ALE221)	GW						

CERTIFICATE OF ANALYSIS

SDG: 220620-8 **Report Number:** 652003 **Superseded Report:** 651820
Client Ref.: LD10385 **Location:** Ten Acres Lane

Results Legend

X Test

N No Determination Possible

Sample Types -
S - Soil/Solid
UNS - Unspecified Solid
GW - Ground Water
SW - Surface Water
LE - Land Leachate
PL - Prepared Leachate
PR - Process Water
SA - Saline Water
TE - Trade Effluent
TS - Treated Sewage
US - Untreated Sewage
RE - Recreational Water
DW - Drinking Water Non-regulatory
UNL - Unspecified Liquid
SL - Sludge
G - Gas
OTH - Other

Lab Sample No(s)			26455957					
Customer Sample Reference			WS315					
AGS Reference								
Depth (m)			0.00 - 0.00					
Container			H2SO4 (ALE244)	HNO3 Filtered (ALE204)	NaOH (ALE245)	Vial (ALE297)	ZnAc (ALE246)
Sample Type			GW	GW	GW	GW	GW
Cyanide Comp/Free/Total/Thiocyanate	All	NDPs: 0 Tests: 5			X		
Dissolved Metals by ICP-MS	All	NDPs: 0 Tests: 5		X			
GRO by GC-FID (W)	All	NDPs: 0 Tests: 5				X	
Mercury Dissolved	All	NDPs: 0 Tests: 5		X			
Phenols by HPLC (W)	All	NDPs: 0 Tests: 5	X				
Sulphide	All	NDPs: 0 Tests: 5					X
VOC MS (W)	All	NDPs: 0 Tests: 5				X	

CERTIFICATE OF ANALYSIS

SDG: 220620-8 **Report Number:** 652003 **Superseded Report:** 651820
Client Ref.: LD10385 **Location:** Ten Acres Lane

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4+§@ Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	CP109	CP201	WS306	WS310	WS315
			Depth (m)	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
			Sample Type	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)
			Date Sampled	17/06/2022	17/06/2022	17/06/2022	17/06/2022	17/06/2022
			Sample Time	13:00	11:00	15:30	14:30	12:00
			Date Received	19/06/2022	19/06/2022	19/06/2022	19/06/2022	19/06/2022
			SDG Ref	220620-8	220620-8	220620-8	220620-8	220620-8
			Lab Sample No.(s)	26455986	26455932	26456053	26456035	26455957
			AGS Reference					
Alkalinity, Total as CaCO3	<2 mg/l	TM043		1460 #	782 #	856 #	969 #	737 #
Carbon, Organic (diss.filt)	<3 mg/l	TM090		294	32.3	17.5	26.6	14.8
Sulphide	<0.01 mg/l	TM101		0.556 #	1.74 #	5.11 #	3.11 #	0.0735 #
Redox potential	mV	TM110		75	103	73	52	160
Arsenic (diss.filt)	<0.5 µg/l	TM152		25.8 2 #	3.46 2 #	2.53 2 #	2.5 2 #	3.35 2 #
Boron (diss.filt)	<10 µg/l	TM152		11300 2 #	1280 2 #	1760 2 #	3110 2 #	1200 2 #
Cadmium (diss.filt)	<0.08 µg/l	TM152		<0.08 2 #	<0.08 2 #	<0.08 2 #	<0.08 2 #	<0.08 2 #
Chromium (diss.filt)	<1 µg/l	TM152		9.51 2 #	1.27 2 #	<1 2 #	<1 2 #	<1 2 #
Copper (diss.filt)	<0.3 µg/l	TM152		0.448 2 #	<0.3 2 #	<0.3 2 #	1.26 2 #	<0.3 2 #
Lead (diss.filt)	<0.2 µg/l	TM152		3.56 2 #	<0.2 2 #	<0.2 2 #	2.36 2 #	0.388 2 #
Manganese (diss.filt)	<3 µg/l	TM152		78.3 2 #	482 2 #	417 2 #	397 2 #	1340 2 #
Nickel (diss.filt)	<0.4 µg/l	TM152		10.5 2 #	0.997 2 #	1.33 2 #	3.52 2 #	130 2 #
Selenium (diss.filt)	<1 µg/l	TM152		1.88 2 #	<1 2 #	<1 2 #	<1 2 #	<1 2 #
Zinc (diss.filt)	<1 µg/l	TM152		5.36 2 #	<1 2 #	1.46 2 #	2.85 2 #	6.95 2 #
Calcium (Dis.Filt)	<0.2 mg/l	TM152		35.1 2 #	156 2 #	300 2 #	278 2 #	511 2 #
Mercury (diss.filt)	<0.01 µg/l	TM183		<0.01 2 #	<0.01 2 #	<0.01 2 #	<0.01 2 #	<0.01 2 #
Sulphate	<2 mg/l	TM184		<2 #	<2 #	69 #	39 #	654 #
Cyanide, Total	<0.05 mg/l	TM227		0.17 #	0.1 #	<0.05 #	<0.05 #	<0.05 #
Cyanide, Free	<0.05 mg/l	TM227		<0.05 #	<0.05 #	<0.05 #	<0.05 #	<0.05 #
Thiocyanate	<0.05 mg/l	TM227		0.09 #	<0.05 #	<0.05 #	<0.05 #	<0.05 #
pH	<1 pH Units	TM256		8.59 #	7.77 #	7.34 #	7.54 #	6.94 #
Phenol	<0.002 mg/l	TM259		<0.002 #	<0.002 #	<0.002 #	<0.002 #	<0.002 #
Cresols	<0.006 mg/l	TM259		<0.006 #	0.01 #	<0.006 #	<0.006 #	<0.006 #
Xylenols	<0.008 mg/l	TM259		0.11 #	<0.008 #	<0.008 #	0.01 #	<0.008 #
Phenols, Total Detected monohydric	<0.016 mg/l	TM259		0.11 #	<0.016 #	<0.016 #	<0.016 #	<0.016 #
Low Level Hexavalent Chromium	<0.003 mg/l	TM331			<0.006	<0.006	<0.003	<0.006
PFBA (375-22-4)	<2 ng/l	TM337		<45 #	<20 #	<10 #	<10 #	<20 #
PFPA (2706-90-3)	<1 ng/l	TM337		<13 #	<10 #	<6 #	<5 #	<10 #
PFHxA (307-24-4)	<1 ng/l	TM337		<20 #	<10 #	<5 #	<5 #	<10 #
PFBS (375-73-5)	<1 ng/l	TM337		<10 #	<10 #	<5 #	<5 #	<10 #
PFHpA (375-85-9)	<1 ng/l	TM337		<22 #	10.7 #	<7 #	<8 #	<10 #
6:2 FTS (27619-97-2)	<1 ng/l	TM337		<10 #	<10 #	<5 #	<5 #	<10 #
PFOA (335-67-1)	<0.65 ng/l	TM337		126 #	39.4 #	36.4 #	30.3 #	36.1 #

CERTIFICATE OF ANALYSIS

SDG: 220620-8 **Report Number:** 652003 **Superseded Report:** 651820
Client Ref.: LD10385 **Location:** Ten Acres Lane

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4+§@ Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	CP109	CP201	WS306	WS310	WS315	
			Depth (m)	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	
			Sample Type	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	
			Date Sampled	17/06/2022	17/06/2022	17/06/2022	17/06/2022	17/06/2022	
			Sample Time	13:00	11:00	15:30	14:30	12:00	
			Date Received	19/06/2022	19/06/2022	19/06/2022	19/06/2022	19/06/2022	
			SDG Ref	220620-8	220620-8	220620-8	220620-8	220620-8	
			Lab Sample No.(s)	26455986	26455932	26456053	26456035	26455957	
			AGS Reference						
PFHxS (355-46-4)	<1 ng/l	TM337		<10 #	<10 #	9.47 #	7.99 #	10.9 #	
PFNA (375-95-1)	<1 ng/l	TM337		107 #	<10 #	<5 #	<5 #	<10 #	
PFHpS (375-92-8)	<1 ng/l	TM337		<10 #	<10 #	<5 #	<5 #	<10 #	
PFDA (335-76-2)	<1 ng/l	TM337		<10 #	<10 #	<5 #	<5 #	<10 #	
Linear PFOS (1763-23-1)	<0.65 ng/l	TM337		62.2 #	22.7 #	48.8 #	40.4 #	59.3 #	
Branched PFOS	<0.65 ng/l	TM337		35.5 #	14.1 #	35.2 #	27.8 #	43 #	
PFUnA (2058-94-8)	<1 ng/l	TM337		<10 #	<10 #	<5 #	<5 #	<10 #	
PFDoA (307-55-1)	<1 ng/l	TM337		<10 #	<10 #	<5 #	<5 #	<10 #	
PFOSA (754-91-6)	<2 ng/l	TM337		<20 #	<20 #	<10 #	<10 #	<20 #	
PFDS (335-77-3)	<1 ng/l	TM337		<10	<10	<5	<5	<10	
PFPeS (2706-91-4)	<1 ng/l	TM337		<10 #	<10 #	<5 #	<5 #	<10 #	
Total PFOS	<0.65 ng/l	TM337		97.7 #	36.8 #	84 #	68.2 #	102 #	
PFBA (Post Ox.) (375-22-4)	<4 ng/l	TM405		248	81	12.6	16.2	<20	
PFPA (Post Ox.) (2706-90-3)	<2 ng/l	TM405		176	<10	5.92	6.79	<10	
PFHxA (Post Ox.) (307-24-4)	<2 ng/l	TM405		273	16	12.2	12.8	<10	
PFBS (Post Ox.) (375-73-5)	<2 ng/l	TM405		<10	<10	<5	<5	<10	
PFHpA (Post Ox.) (375-85-9)	<2 ng/l	TM405		162	<10	9.23	8.73	<10	
6:2 FTS (Post Ox.) (27619-97-2)	<2 ng/l	TM405		<10	<10	<5	<5	<10	
PFOA (Post Ox.) (335-67-1)	<2 ng/l	TM405		492	41.1	58.8	42.5	42.8	
PFHxS (Post Ox.) (355-46-4)	<2 ng/l	TM405		<20	<10	9.32	9.93	13.9	
PFNA (Post Ox.) (375-95-1)	<2 ng/l	TM405		131	<10	<5	<5	<10	
PFHpS (Post Ox.) (375-92-8)	<2 ng/l	TM405		<10	<10	<5	<5	<10	
PFDA (Post Ox.) (335-76-2)	<2 ng/l	TM405		<10	<10	<5	<5	<10	
Linear PFOS (Post Ox.) (1763-23-1)	<2 ng/l	TM405		80.2	23.8	58.7	47.6	62.3	
Branched PFOS (Post Ox.)	<2 ng/l	TM405		49	18.4	50	32	49.7	
PFUnA (Post Ox.) (2058-94-8)	<2 ng/l	TM405		<10	<10	<5	<5	<10	
PFDoA (Post Ox.) (307-55-1)	<2 ng/l	TM405		<10	<10	<5	<5	<10	
PFOSA (Post Ox.) (754-91-6)	<4 ng/l	TM405		<20	<20	<10	<10	<20	
PFDS (Post Ox.) (335-77-3)	<2 ng/l	TM405		<10	<10	<5	<5	<10	
PFPeS (Post Ox.) (2706-91-4)	<2 ng/l	TM405		<10	<10	<5	<5	<10	
Total PFOS (Post Ox.)	<2 ng/l	TM405		129	42.2	109	79.6	112	

CERTIFICATE OF ANALYSIS

SDG: 220620-8 **Report Number:** 652003 **Superseded Report:** 651820

Client Ref.: LD10385 **Location:** Ten Acres Lane

PAH Spec MS - Aqueous (W)

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	CP109	CP201	WS306	WS310	WS315
			Depth (m)	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
			Sample Type	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)
			Date Sampled	17/06/2022	17/06/2022	17/06/2022	17/06/2022	17/06/2022
			Sample Time	13:00	11:00	15:30	14:30	12:00
			Date Received	19/06/2022	19/06/2022	19/06/2022	19/06/2022	19/06/2022
			SDG Ref	220620-8	220620-8	220620-8	220620-8	220620-8
			Lab Sample No.(s)	26455986	26455932	26456053	26456035	26455957
			AGS Reference					
Naphthalene (aq)	<0.01 µg/l	TM178		0.471 #	0.237 #	0.317 #	0.422 #	<0.01 #
Acenaphthene (aq)	<0.005 µg/l	TM178		1.12 #	1.69 #	2.32 #	3.7 #	0.0462 #
Acenaphthylene (aq)	<0.005 µg/l	TM178		0.131 #	0.0241 #	<0.005 #	<0.005 #	<0.005 #
Fluoranthene (aq)	<0.005 µg/l	TM178		1.58 #	0.407 #	0.397 #	0.412 #	0.0193 #
Anthracene (aq)	<0.005 µg/l	TM178		0.2 #	0.159 #	0.131 #	0.199 #	0.00507 #
Phenanthrene (aq)	<0.005 µg/l	TM178		1.1 #	0.76 #	0.58 #	0.478 #	0.0113 #
Fluorene (aq)	<0.005 µg/l	TM178		0.632 #	0.696 #	0.222 #	0.769 #	0.00818 #
Chrysene (aq)	<0.005 µg/l	TM178		0.577 #	0.0386 #	0.135 #	0.0623 #	<0.005 #
Pyrene (aq)	<0.005 µg/l	TM178		1.64 #	0.254 #	0.349 #	0.303 #	0.0143 #
Benzo(a)anthracene (aq)	<0.005 µg/l	TM178		0.395 #	0.0221 #	0.124 #	0.0528 #	<0.005 #
Benzo(b)fluoranthene (aq)	<0.005 µg/l	TM178		0.752 #	0.0413 #	0.199 #	0.117 #	<0.005 #
Benzo(k)fluoranthene (aq)	<0.005 µg/l	TM178		0.381 #	0.0163 #	0.0899 #	0.0381 #	<0.005 #
Benzo(a)pyrene (aq)	<0.002 µg/l	TM178		0.491 #	0.0277 #	0.16 #	0.0802 #	<0.002 #
Dibenzo(a,h)anthracene (aq)	<0.005 µg/l	TM178		<0.1 #	<0.005 #	<0.005 #	<0.005 #	<0.005 #
Benzo(g,h,i)perylene (aq)	<0.005 µg/l	TM178		0.396 #	0.0126 #	0.066 #	0.067 #	<0.005 #
Indeno(1,2,3-cd)pyrene (aq)	<0.005 µg/l	TM178		<0.1 #	<0.005 #	0.0825 #	<0.005 #	<0.005 #
PAH, Total Detected USEPA 16 (aq)	<0.082 µg/l	TM178		9.86 #	4.39 #	5.17 #	6.7 #	0.104 #

CERTIFICATE OF ANALYSIS

SDG: 220620-8 **Report Number:** 652003 **Superseded Report:** 651820

Client Ref.: LD10385 **Location:** Ten Acres Lane

SVOC MS (W) - Aqueous

Results Legend

- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4+§@ Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	CP109	CP201	WS306	WS310	WS315	
			Depth (m)	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	
			Sample Type	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	
			Date Sampled	17/06/2022	17/06/2022	17/06/2022	17/06/2022	17/06/2022	
			Sample Time	13:00	11:00	15:30	14:30	12:00	
			Date Received	19/06/2022	19/06/2022	19/06/2022	19/06/2022	19/06/2022	
			SDG Ref	220620-8	220620-8	220620-8	220620-8	220620-8	
			Lab Sample No.(s)	26455986	26455932	26456053	26456035	26455957	
			AGS Reference						
1,2,4-Trichlorobenzene (aq)	<1 µg/l	TM176		<20 #	<4 #	<2 #	<4 #	<2 #	
1,2-Dichlorobenzene (aq)	<1 µg/l	TM176		<20 #	<4 #	<2 #	<4 #	<2 #	
1,3-Dichlorobenzene (aq)	<1 µg/l	TM176		<20 #	<4 #	<2 #	<4 #	<2 #	
1,4-Dichlorobenzene (aq)	<1 µg/l	TM176		<20 #	<4 #	<2 #	<4 #	<2 #	
2,4,5-Trichlorophenol (aq)	<1 µg/l	TM176		<20 #	<4 #	<2 #	<4 #	<2 #	
2,4,6-Trichlorophenol (aq)	<1 µg/l	TM176		<20 #	<4 #	<2 #	<4 #	<2 #	
2,4-Dichlorophenol (aq)	<1 µg/l	TM176		<20 #	<4 #	<2 #	<4 #	<2 #	
2,4-Dimethylphenol (aq)	<1 µg/l	TM176		<20 #	<4 #	<2 #	<4 #	<2 #	
2,4-Dinitrotoluene (aq)	<1 µg/l	TM176		<20 #	<4 #	<2 #	<4 #	<2 #	
2,6-Dinitrotoluene (aq)	<1 µg/l	TM176		<20 #	<4 #	<2 #	<4 #	<2 #	
2-Chloronaphthalene (aq)	<1 µg/l	TM176		<20 #	<4 #	<2 #	<4 #	<2 #	
2-Chlorophenol (aq)	<1 µg/l	TM176		<20 #	<4 #	<2 #	<4 #	<2 #	
2-Methylnaphthalene (aq)	<1 µg/l	TM176		<20 #	<4 #	<2 #	<4 #	<2 #	
2-Methylphenol (aq)	<1 µg/l	TM176		<20 #	<4 #	<2 #	<4 #	<2 #	
2-Nitroaniline (aq)	<1 µg/l	TM176		<20 #	<4 #	<2 #	<4 #	<2 #	
2-Nitrophenol (aq)	<1 µg/l	TM176		<20 #	<4 #	<2 #	<4 #	<2 #	
3-Nitroaniline (aq)	<1 µg/l	TM176		<20	<4	<2	<4	<2	
4-Bromophenylphenylether (aq)	<1 µg/l	TM176		<20 #	<4 #	<2 #	<4 #	<2 #	
4-Chloro-3-methylphenol (aq)	<1 µg/l	TM176		<20 #	<4 #	<2 #	<4 #	<2 #	
4-Chloroaniline (aq)	<1 µg/l	TM176		<20	<4	<2	<4	<2	
4-Chlorophenylphenylether (aq)	<1 µg/l	TM176		<20 #	<4 #	<2 #	<4 #	<2 #	
4-Methylphenol (aq)	<1 µg/l	TM176		<20 #	<4 #	<2 #	4.83 #	<2 #	
4-Nitroaniline (aq)	<1 µg/l	TM176		<20 #	<4 #	<2 #	<4 #	<2 #	
4-Nitrophenol (aq)	<1 µg/l	TM176		<20	<4	<2	<4	<2	
Azobenzene (aq)	<1 µg/l	TM176		<20 #	<4 #	<2 #	<4 #	<2 #	
Acenaphthylene (aq)	<1 µg/l	TM176		<20 #	<4 #	<2 #	<4 #	<2 #	
Acenaphthene (aq)	<1 µg/l	TM176		<20 #	<4 #	<2 #	<4 #	<2 #	
Anthracene (aq)	<1 µg/l	TM176		<20 #	<4 #	<2 #	<4 #	<2 #	
bis(2-Chloroethyl)ether (aq)	<1 µg/l	TM176		<20 #	<4 #	<2 #	<4 #	<2 #	
bis(2-Chloroethoxy)methane (aq)	<1 µg/l	TM176		<20 #	<4 #	<2 #	<4 #	<2 #	
bis(2-Ethylhexyl) phthalate (aq)	<2 µg/l	TM176		<40 #	<8 #	<4 #	<8 #	<4 #	
Butylbenzyl phthalate (aq)	<1 µg/l	TM176		<20 #	<4 #	<2 #	<4 #	<2 #	
Benzo(a)anthracene (aq)	<1 µg/l	TM176		<20 #	<4 #	<2 #	<4 #	<2 #	

CERTIFICATE OF ANALYSIS

SDG: 220620-8 **Report Number:** 652003 **Superseded Report:** 651820
Client Ref.: LD10385 **Location:** Ten Acres Lane

SVOC MS (W) - Aqueous

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4+§@ Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	CP109	CP201	WS306	WS310	WS315	
			Depth (m)	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	
			Sample Type	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	
			Date Sampled	17/06/2022	17/06/2022	17/06/2022	17/06/2022	17/06/2022	
			Sample Time	13:00	11:00	15:30	14:30	12:00	
			Date Received	19/06/2022	19/06/2022	19/06/2022	19/06/2022	19/06/2022	
			SDG Ref	220620-8	220620-8	220620-8	220620-8	220620-8	
			Lab Sample No.(s)	26455986	26455932	26456053	26456035	26455957	
			AGS Reference						
Benzo(b)fluoranthene (aq)	<1 µg/l	TM176		<20 #	<4 #	<2 #	<4 #	<2 #	
Benzo(k)fluoranthene (aq)	<1 µg/l	TM176		<20 #	<4 #	<2 #	<4 #	<2 #	
Benzo(a)pyrene (aq)	<1 µg/l	TM176		<20 #	<4 #	<2 #	<4 #	<2 #	
Benzo(g,h,i)perylene (aq)	<1 µg/l	TM176		<20 #	<4 #	<2 #	<4 #	<2 #	
Carbazole (aq)	<1 µg/l	TM176		<20 #	<4 #	<2 #	<4 #	<2 #	
Chrysene (aq)	<1 µg/l	TM176		<20 #	<4 #	<2 #	<4 #	<2 #	
Dibenzofuran (aq)	<1 µg/l	TM176		<20 #	<4 #	<2 #	<4 #	<2 #	
n-Dibutyl phthalate (aq)	<1 µg/l	TM176		<20 #	<4 #	<2 #	<4 #	<2 #	
Diethyl phthalate (aq)	<1 µg/l	TM176		<20 #	<4 #	<2 #	<4 #	<2 #	
Dibenzo(a,h)anthracene (aq)	<1 µg/l	TM176		<20 #	<4 #	<2 #	<4 #	<2 #	
Dimethyl phthalate (aq)	<1 µg/l	TM176		<20 #	<4 #	<2 #	<4 #	<2 #	
n-Dioctyl phthalate (aq)	<5 µg/l	TM176		<100 #	<20 #	<10 #	<20 #	<10 #	
Fluoranthene (aq)	<1 µg/l	TM176		<20 #	<4 #	<2 #	<4 #	<2 #	
Fluorene (aq)	<1 µg/l	TM176		<20 #	<4 #	<2 #	<4 #	<2 #	
Hexachlorobenzene (aq)	<1 µg/l	TM176		<20 #	<4 #	<2 #	<4 #	<2 #	
Hexachlorobutadiene (aq)	<1 µg/l	TM176		<20 #	<4 #	<2 #	<4 #	<2 #	
Pentachlorophenol (aq)	<1 µg/l	TM176		<20	<4	<2	<4	<2	
Phenol (aq)	<1 µg/l	TM176		<20	<4	<2	<4	<2	
n-Nitroso-n-dipropylamine (aq)	<1 µg/l	TM176		<20 #	<4 #	<2 #	<4 #	<2 #	
Hexachloroethane (aq)	<1 µg/l	TM176		<20 #	<4 #	<2 #	<4 #	<2 #	
Nitrobenzene (aq)	<1 µg/l	TM176		<20 #	<4 #	<2 #	<4 #	<2 #	
Naphthalene (aq)	<1 µg/l	TM176		<20 #	<4 #	<2 #	<4 #	<2 #	
Isophorone (aq)	<1 µg/l	TM176		<20 #	<4 #	<2 #	<4 #	<2 #	
Hexachlorocyclopentadiene (aq)	<1 µg/l	TM176		<20	<4	<2	<4	<2	
Phenanthrene (aq)	<1 µg/l	TM176		<20 #	<4 #	<2 #	<4 #	<2 #	
Indeno(1,2,3-cd)pyrene (aq)	<1 µg/l	TM176		<20 #	<4 #	<2 #	<4 #	<2 #	
Pyrene (aq)	<1 µg/l	TM176		<20 #	<4 #	<2 #	<4 #	<2 #	

CERTIFICATE OF ANALYSIS

SDG: 220620-8 **Report Number:** 652003 **Superseded Report:** 651820
Client Ref.: LD10385 **Location:** Ten Acres Lane

TPH CWG (W)

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4+$@ Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	CP109	CP201	WS306	WS310	WS315
			Depth (m)	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
			Sample Type	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)
			Date Sampled	17/06/2022	17/06/2022	17/06/2022	17/06/2022	17/06/2022
			Sample Time	13:00	11:00	15:30	14:30	12:00
			Date Received	19/06/2022	19/06/2022	19/06/2022	19/06/2022	19/06/2022
			SDG Ref	220620-8	220620-8	220620-8	220620-8	220620-8
			Lab Sample No.(s)	26455986	26455932	26456053	26456035	26455957
			AGS Reference					
GRO Surrogate % recovery**	%	TM245		104	98	87	87	93
GRO >C5-C12	<50 µg/l	TM245		227 #	<50 #	<50 #	<50 #	<50 #
Aliphatics >C5-C6	<10 µg/l	TM245		13	<10	<10	<10	<10
Aliphatics >C6-C8	<10 µg/l	TM245		30	<10	<10	<10	<10
Aliphatics >C8-C10	<10 µg/l	TM245		21	<10	<10	<10	<10
Aliphatics >C10-C12	<10 µg/l	TM245		81	<10	<10	<10	<10
Aliphatics >C12-C16 (aq)	<10 µg/l	TM174		<10	<10	<10	<10	<10
Aliphatics >C16-C21 (aq)	<10 µg/l	TM174		20	<10	<10	<10	<10
Aliphatics >C21-C35 (aq)	<10 µg/l	TM174		145	<10	<10	<10	<10
Total Aliphatics >C12-C35 (aq)	<10 µg/l	TM174		165	<10	<10	<10	<10
Aromatics >EC5-EC7	<10 µg/l	TM245		<10	<10	<10	<10	<10
Aromatics >EC7-EC8	<10 µg/l	TM245		<10	<10	<10	<10	<10
Aromatics >EC8-EC10	<10 µg/l	TM245		23	<10	<10	<10	<10
Aromatics >EC10-EC12	<10 µg/l	TM245		54	<10	<10	<10	<10
Aromatics >EC12-EC16 (aq)	<10 µg/l	TM174		28	16	<10	20	<10
Aromatics >EC16-EC21 (aq)	<10 µg/l	TM174		<10	<10	<10	12	<10
Aromatics >EC21-EC35 (aq)	<10 µg/l	TM174		<10	<10	<10	<10	<10
Total Aromatics >EC12-EC35 (aq)	<10 µg/l	TM174		28	16	<10	32	<10
Total Aliphatics & Aromatics >C5-35 (aq)	<10 µg/l	TM174		420	16	<10	32	<10
Aliphatics >C16-C35 Aqueous	<10 µg/l	TM174		165	<10	<10	<10	<10

CERTIFICATE OF ANALYSIS

SDG: 220620-8 **Report Number:** 652003 **Superseded Report:** 651820
Client Ref.: LD10385 **Location:** Ten Acres Lane

VOC MS (W)

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4+§@ Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	CP109	CP201	WS306	WS310	WS315
			Depth (m)	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
			Sample Type	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)
			Date Sampled	17/06/2022	17/06/2022	17/06/2022	17/06/2022	17/06/2022
			Sample Time	13:00	11:00	15:30	14:30	12:00
			Date Received	19/06/2022	19/06/2022	19/06/2022	19/06/2022	19/06/2022
			SDG Ref	220620-8	220620-8	220620-8	220620-8	220620-8
			Lab Sample No.(s)	26455986	26455932	26456053	26456035	26455957
			AGS Reference					
Dibromofluoromethane**	%	TM208		106	114	114	111	113
Toluene-d8**	%	TM208		100	99.3	100	99.6	100
4-Bromofluorobenzene**	%	TM208		97.9	98.2	97.9	99.9	99.2
Dichlorodifluoromethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
Chloromethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
Vinyl chloride	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
Bromomethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
Chloroethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
Trichlorofluoromethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
1,1-Dichloroethene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
Carbon disulphide	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
Dichloromethane	<3 µg/l	TM208		<6 #	<6 #	<6 #	<6 #	<6 #
Methyl tertiary butyl ether (MTBE)	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
trans-1,2-Dichloroethene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
1,1-Dichloroethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
cis-1,2-Dichloroethene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
2,2-Dichloropropane	<1 µg/l	TM208		<1	<1	<1	<1	<1
Bromochloromethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
Chloroform	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
1,1,1-Trichloroethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
1,1-Dichloropropene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
Carbontetrachloride	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
1,2-Dichloroethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
Benzene	<1 µg/l	TM208		3.57 #	<1 #	<1 #	<1 #	<1 #
Trichloroethene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
1,2-Dichloropropane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
Dibromomethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
Bromodichloromethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
cis-1,3-Dichloropropene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
Toluene	<1 µg/l	TM208		2.83 #	<1 #	<1 #	<1 #	<1 #
trans-1,3-Dichloropropene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
1,1,2-Trichloroethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
1,3-Dichloropropane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #

CERTIFICATE OF ANALYSIS

SDG: 220620-8 **Report Number:** 652003 **Superseded Report:** 651820
Client Ref.: LD10385 **Location:** Ten Acres Lane

VOC MS (W)

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4+§@ Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	CP109	CP201	WS306	WS310	WS315
			Depth (m)	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
			Sample Type	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)
			Date Sampled	17/06/2022	17/06/2022	17/06/2022	17/06/2022	17/06/2022
			Sample Time	13:00	11:00	15:30	14:30	12:00
			Date Received	19/06/2022	19/06/2022	19/06/2022	19/06/2022	19/06/2022
			SDG Ref	220620-8	220620-8	220620-8	220620-8	220620-8
			Lab Sample No.(s)	26455986	26455932	26456053	26456035	26455957
			AGS Reference					
Tetrachloroethene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
Dibromochloromethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
1,2-Dibromoethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
Chlorobenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	1.11 #	<1 #
1,1,1,2-Tetrachloroethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
Ethylbenzene	<1 µg/l	TM208		3.37 #	<1 #	<1 #	<1 #	<1 #
m,p-Xylene	<1 µg/l	TM208		1.98 #	<1 #	<1 #	<1 #	<1 #
o-Xylene	<1 µg/l	TM208		1.93 #	<1 #	<1 #	<1 #	<1 #
Styrene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
Bromoform	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
Isopropylbenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
1,1,2,2-Tetrachloroethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
1,2,3-Trichloropropane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
Bromobenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
Propylbenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
2-Chlorotoluene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
1,3,5-Trimethylbenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
4-Chlorotoluene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
tert-Butylbenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
1,2,4-Trimethylbenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
sec-Butylbenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
4-iso-Propyltoluene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
1,3-Dichlorobenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
1,4-Dichlorobenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
n-Butylbenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
1,2-Dichlorobenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
1,2-Dibromo-3-chloropropane	<1 µg/l	TM208		<1	<1	<1	<1	<1
1,2,4-Trichlorobenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
Hexachlorobutadiene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
tert-Amyl methyl ether (TAME)	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
Naphthalene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
1,2,3-Trichlorobenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
1,3,5-Trichlorobenzene	<1 µg/l	TM208		<1	<1	<1	<1	<1

Validated

CERTIFICATE OF ANALYSIS

SDG: 220620-8 **Report Number:** 652003 **Superseded Report:** 651820

Client Ref.: LD10385 **Location:** Ten Acres Lane

VOC MS (W)

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	CP109	CP201	WS306	WS310	WS315
			Depth (m)	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
			Sample Type	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)
			Date Sampled	17/06/2022	17/06/2022	17/06/2022	17/06/2022	17/06/2022
			Sample Time	13:00	11:00	15:30	14:30	12:00
			Date Received	19/06/2022	19/06/2022	19/06/2022	19/06/2022	19/06/2022
			SDG Ref	220620-8	220620-8	220620-8	220620-8	220620-8
			Lab Sample No.(s)	26455986	26455932	26456053	26456035	26455957
			AGS Reference					
Sum of detected Xylenes	<2 µg/l	TM208		3.91	<2	<2	<2	<2
Sum of BTEX	<5 µg/l	TM208		13.7	<5	<5	<5	<5

15:28:28 24/06/2022

CERTIFICATE OF ANALYSIS

SDG: 220620-8 **Report Number:** 652003 **Superseded Report:** 651820
Client Ref.: LD10385 **Location:** Ten Acres Lane

Notification of NDPs (No determination possible)

Date Received : 20/06/2022 08:58:38

Sample No	Customer Sample Ref.	Depth (m)	Test	Comment
26455986	CP109	0.00 - 0.00	Low Level Hexavalent Chromium (w)	Sample too coloured

Table of Results - Appendix

Method No	Reference	Description
TM043	Method 2320B, AWWA/APHA, 20th Ed., 1999 / BS 2690: Part109 1984	Determination of alkalinity in aqueous samples
TM090	Method 5310, AWWA/APHA, 20th Ed., 1999 / Modified: US EPA Method 415.1 & 9060	Determination of Total Organic Carbon/Total Inorganic Carbon in Water and Waste Water
TM101	Method 4500B & C, AWWA/APHA, 20th Ed., 1999	Determination of Sulphide in soil and water samples using the Kone Analyser
TM110	BS 1377: Part 3 1990	Redox Potential
TM152	ISO 17294-2:2016 Water quality - Application of inductively coupled plasma mass spectrometry (ICP-MS)	Analysis of Aqueous Samples by ICP-MS
TM174	Analysis of Petroleum Hydrocarbons in Environmental Media – Total Petroleum Hydrocarbon Criteria	Determination of Speciated Extractable Petroleum Hydrocarbons in Waters by GC-FID
TM176	EPA 8270D Semi-Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)	Determination of SVOCs in Water by GCMS
TM178	Modified: US EPA Method 8100	Determination of Polynuclear Aromatic Hydrocarbons (PAH) by GC-MS in Waters
TM183	BS EN 23506:2002, (BS 6068-2.74:2002) ISBN 0 580 38924 3	Determination of Trace Level Mercury in Waters and Leachates by PSA Cold Vapour Atomic Fluorescence Spectrometry
TM184	EPA Methods 325.1 & 325.2,	The Determination of Anions in Aqueous Matrices using the Kone Spectrophotometric Analysers
TM208	Modified: US EPA Method 8260b & 624	Determination of Volatile Organic Compounds by Headspace / GC-MS in Waters
TM227	Standard methods for the examination of waters and wastewaters 20th Edition, AWWA/APHA Method 4500.	Determination of Total Cyanide, Free (Easily Liberatable) Cyanide and Thiocyanate
TM245	By GC-FID	Determination of GRO by Headspace in waters
TM256	The measurement of Electrical Conductivity and the Laboratory determination of pH Value of Natural, Treated and Wastewaters. HMSO, 1978. ISBN 011 751428 4, Standard Methods for the examination of waters and wastewaters 20th Edition, PHA, Washington DC, USA. ISBN 0-87553-235-7 and The Determination of Alkalinity and Acidity in water HMSO, 1981, ISBN 0 11 751601 5.	Determination of pH, EC, TDS and Alkalinity in Aqueous samples
TM259	by HPLC	Determination of Phenols in Waters and Leachates by HPLC
TM331		Low Level Hexavalent Chromium
TM337	PFAS in Environmental Water Matrices	Analysis of PFAS
TM405	PFAS (TOP Assay)	Analysis of perfluoroalkylsulfonates and perfluorocarboxylic acids - Total Oxidizable Precursor Assay

NA = not applicable.

Chemical testing (unless subcontracted) performed at ALS Life Sciences Ltd Hawarden (Method codes TM).

CERTIFICATE OF ANALYSIS

SDG: 220620-8 **Report Number:** 652003 **Superseded Report:** 651820
Client Ref.: LD10385 **Location:** Ten Acres Lane

Test Completion Dates

Lab Sample No(s)	26455986	26455932	26456053	26456035	26455957
Customer Sample Ref.	CP109	CP201	WS306	WS310	WS315
AGS Ref.					
Depth	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Type	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water
Alkalinity as CaCO3	21-Jun-2022	21-Jun-2022	21-Jun-2022	21-Jun-2022	21-Jun-2022
Anions by Kone (w)	21-Jun-2022	21-Jun-2022	21-Jun-2022	21-Jun-2022	21-Jun-2022
Cyanide Comp/Free/Total/Thiocyanate	22-Jun-2022	22-Jun-2022	22-Jun-2022	22-Jun-2022	22-Jun-2022
Dissolved Metals by ICP-MS	21-Jun-2022	21-Jun-2022	21-Jun-2022	21-Jun-2022	21-Jun-2022
Dissolved Organic/Inorganic Carbon	23-Jun-2022	23-Jun-2022	23-Jun-2022	23-Jun-2022	22-Jun-2022
EPH CWG (Aliphatic) Aqueous GC (W)	22-Jun-2022	22-Jun-2022	22-Jun-2022	22-Jun-2022	22-Jun-2022
EPH CWG (Aromatic) Aqueous GC (W)	22-Jun-2022	22-Jun-2022	22-Jun-2022	22-Jun-2022	22-Jun-2022
GRO by GC-FID (W)	21-Jun-2022	21-Jun-2022	21-Jun-2022	21-Jun-2022	21-Jun-2022
Low Level Hexavalent Chromium (w)		21-Jun-2022	21-Jun-2022	21-Jun-2022	21-Jun-2022
Mercury Dissolved	22-Jun-2022	22-Jun-2022	22-Jun-2022	22-Jun-2022	22-Jun-2022
PAH Spec MS - Aqueous (W)	22-Jun-2022	22-Jun-2022	22-Jun-2022	22-Jun-2022	22-Jun-2022
PFAS (Post Ox.) Liquids	24-Jun-2022	24-Jun-2022	24-Jun-2022	24-Jun-2022	24-Jun-2022
PFAS Liquids	22-Jun-2022	22-Jun-2022	22-Jun-2022	22-Jun-2022	22-Jun-2022
pH Value	22-Jun-2022	22-Jun-2022	21-Jun-2022	22-Jun-2022	21-Jun-2022
Phenols by HPLC (W)	22-Jun-2022	22-Jun-2022	22-Jun-2022	22-Jun-2022	22-Jun-2022
Redox Potential	21-Jun-2022	21-Jun-2022	21-Jun-2022	21-Jun-2022	21-Jun-2022
Sulphide	21-Jun-2022	21-Jun-2022	21-Jun-2022	21-Jun-2022	21-Jun-2022
SVOC MS (W) - Aqueous	22-Jun-2022	22-Jun-2022	22-Jun-2022	22-Jun-2022	22-Jun-2022
TPH CWG (W)	22-Jun-2022	22-Jun-2022	22-Jun-2022	22-Jun-2022	22-Jun-2022
VOC MS (W)	20-Jun-2022	20-Jun-2022	20-Jun-2022	20-Jun-2022	20-Jun-2022

Appendix

General

1. Results are expressed on a dry weight basis (dried at 35ºC) for all soil analyses except for the following: NRA and CEN Leach tests, flash point LOI, pH, ammonium as NH4 by the BRE method, VOC TICs and SVOC TICs.

2. If sufficient sample is received a sub sample will be retained free of charge for 30 days after analysis is completed (e-mailed) for all sample types unless the sample is destroyed on testing. The prepared soil sub sample that is analysed for asbestos will be retained for a period of 6 months after the analysis date. All bulk samples will be retained for a period of 6 months after the analysis date. All samples received and not scheduled will be disposed of one month after the date of receipt unless we are instructed to the contrary. Once the initial period has expired, a storage charge will be applied for each month or part thereof until the client cancels the request for sample storage. ALS reserve the right to charge for samples received and stored but not analysed.

3. With respect to turnaround, we will always endeavour to meet client requirements wherever possible, but turnaround times cannot be absolutely guaranteed due to so many variables beyond our control.

4. We take responsibility for any test performed by sub-contractors (marked with an asterisk). We endeavour to use UKAS/MCERTS Accredited Laboratories, who either complete a quality questionnaire or are audited by ourselves. For some determinands there are no UKAS/MCERTS Accredited Laboratories, in this instance a laboratory with a known track record will be utilised.

5. If no separate volatile sample is supplied by the client, or if a headspace or sediment is present in the volatile sample, the integrity of the data may be compromised. This will be flagged up as an invalid VOC on the test schedule and the result marked as deviating on the test certificate.

6. NDP - No determination possible due to insufficient/unsuitable sample.

7. Results relate only to the items tested.

8. LoDs (Limit of Detection) for wet tests reported on a dry weight basis are not corrected for moisture content.

9. **Surrogate recoveries** - Surrogates are added to your sample to monitor recovery of the test requested. A % recovery is reported, results are not corrected for the recovery measured. Typical recoveries for organics tests are 70-130%. Recoveries in soils are affected by organic rich or clay rich matrices. Waters can be affected by remediation fluids or high amounts of sediment. Test results are only ever reported if all of the associated quality checks pass; it is assumed that all recoveries outside of the values above are due to matrix affect.

10. Stones/debris are not routinely removed. We always endeavour to take a representative sub sample from the received sample.

11. In certain circumstances the method detection limit may be elevated due to the sample being outside the calibration range. Other factors that may contribute to this include possible interferences. In both cases the sample would be diluted which would cause the method detection limit to be raised.

12. For dried and crushed preparations of soils volatile loss may occur e.g volatile mercury.

13. For leachate preparations other than Zero Headspace Extraction (ZHE) volatile loss may occur.

14. For the BSEN 12457-3 two batch process to allow the cumulative release to be calculated, the volume of the leachate produced is measured and filtered for all tests. We therefore cannot carry out any unfiltered analysis. The tests affected include volatiles GCFID/GCMS and all subcontracted analysis.

15. Analysis and identification of specific compounds using GCFID is by retention time only, and we routinely calibrate and quantify for benzene, toluene, ethylbenzenes and xylenes (BTEX). For total volatiles in the C5-C12 range, the total area of the chromatogram is integrated and expressed as ug/kg or ug/l. Although this analysis is commonly used for the quantification of gasoline range organics (GRO), the system will also detect other compounds such as chlorinated solvents, and this may lead to a falsely high result with respect to hydrocarbons only. It is not possible to specifically identify these non-hydrocarbons, as standards are not routinely run for any other compounds, and for more definitive identification, volatiles by GCMS should be utilised.

16. We are accredited to MCERTS for sand, clay and loam/topsoil, or any of these materials - whether these are derived from naturally occurring soil profiles, or from fill/made ground, as long as these materials constitute the major part of the sample. Other coarse granular material such as concrete, gravel and brick are not accredited if they comprise the major part of the sample.

17 Data retention. All records, communications and reports pertaining to the analysis are archived for seven years from the date of issue of the final report.

18. **Tentatively Identified Compounds (TICs)** are non-target peaks in VOC and SVOC analysis. All non-target peaks detected with a concentration above the LoD are subjected to a mass spectral library search. Non-target peaks with a library search confidence of >75% are reported based on the best mass spectral library match. When a non-target peak with a library search confidence of <75% is detected it is reported as “mixed hydrocarbons”. Non-target compounds identified from the scan data are semi-quantified relative to one of the deuterated internal standards, under the same chromatographic conditions as the target compounds. This result is reported as a semi-quantitative value and reported as Tentatively Identified Compounds (TICs). TICs are outside the scope of UKAS accreditation and are not moisture corrected.

19. **Sample Deviations**

If a sample is classed as deviated then the associated results may be compromised.

1	**Container with Headspace provided for volatiles analysis**
2	**Incorrect container received**
3	**Deviation from method**
4	**Matrix interference**
♦	**Sample holding time exceeded in laboratory**
@	**Sample holding time exceeded due to late arrival of instructions or samples**
§	**Sampled on date not provided**

20. **Asbestos**

When requested, the individual sub sample scheduled will be analysed in house for the presence of asbestos fibres and asbestos containing material by our documented in house method TM048 based on HSG 248 (2021), which is accredited to ISO17025. If a specific asbestos fibre type is not found this will be reported as “Not detected”. If no asbestos fibre types are found all will be reported as “Not detected” and the sub sample analysed deemed to be clear of asbestos. If an asbestos fibre type is found it will be reported as detected (for each fibre type found). Testing can be carried out on asbestos positive samples, but, due to Health and Safety considerations, may be replaced by alternative tests or reported as No Determination Possible (NDP). The quantity of asbestos present is not determined unless specifically requested.

Identification of Asbestos in Bulk Materials & Soils

The results for identification of asbestos in bulk materials and soils are obtained from supplied bulk materials andd soils which have been examined to determine the presence of asbestos fibres using ALS (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining, based on HSG 248 (2021).

The results for identification of asbestos in soils are obtained from a homogenised sub sample which has been examined to determine the presence of asbestos fibres using ALS (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining.

Asbestos Type	Common Name
Chrysotile	White Asbestos
Amosite	Brown Asbestos
Crocidolite	Blue Asbestos
Fibrous Actinolite	-
Fibrous Anthophyllite	-
Fibrous Tremolite	-

Visual Estimation Of Fibre Content

Estimation of fibre content is not permitted as part of our UKAS accredited test other than: - Trace - Where only one or two asbestos fibres were identified.

Respirable Fibres

Respirable fibres are defined as fibres of <3 µm diameter, longer than 5 µm and with aspect ratios of at least 3:1 that can be inhaled into the lower regions of the lung and are generally acknowledged to be most important predictor of hazard and risk for cancers of the lung.

Further guidance on typical asbestos fibre content of manufactured products can be found in HSG 264.

The identification of asbestos containing materials and soils falls within our schedule of tests for which we hold UKAS accreditation, however opinions, interpretations and all other information contained in the report are outside the scope of UKAS accreditation.

Unit 7-8 Hawarden Business Park
Manor Road (off Manor Lane)
Hawarden
Deeside
CH5 3US
Tel: (01244) 528777
email: hawardencustomerservices@alsglobal.com
Website: www.alsenvironmental.co.uk

Wardell Armstrong LLP
36 Park Row
Leeds
LS1 5JL

Attention: Jonathan Currie

CERTIFICATE OF ANALYSIS

Date of report Generation:	30 June 2022
Customer:	Wardell Armstrong LLP
Sample Delivery Group (SDG):	220621-68
Your Reference:	LD10385
Location:	Ten Acres Lane
Report No:	652587
Order Number:	LD2899

This report has been revised and directly supersedes 651999 in its entirety.

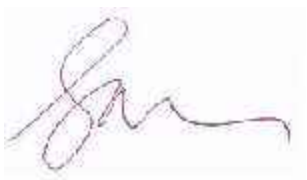
We received 5 samples on Tuesday June 21, 2022 and 5 of these samples were scheduled for analysis which was completed on Thursday June 30, 2022. Accredited laboratory tests are defined within the report, but opinions, interpretations and on-site data expressed herein are outside the scope of ISO 17025 accreditation.

Should this report require incorporation into client reports, it must be used in its entirety and not simply with the data sections alone.

Chemical testing (unless subcontracted) performed at ALS Life Sciences Ltd Hawarden.

All sample data is provided by the customer. The reported results relate to the sample supplied, and on the basis that this data is correct.
Incorrect sampling dates and/or sample information will affect the validity of results.
The customer is not permitted to reproduce this report except in full without the approval of the laboratory.

Approved By:



Sonia McWhan

Operations Manager

1291

CERTIFICATE OF ANALYSIS

SDG: 220621-68 **Report Number:** 652587 **Superseded Report:** 651999
Client Ref.: LD10385 **Location:** Ten Acres Lane

Received Sample Overview

Lab Sample No(s)	Customer Sample Ref.	AGS Ref.	Depth (m)	Sampled Date
26462773	CP108		0.00 - 0.00	20/06/2022
26462709	CP208		0.00 - 0.00	20/06/2022
26462792	WS305		0.00 - 0.00	20/06/2022
26462756	WS309		0.00 - 0.00	20/06/2022
26462739	WS316		0.00 - 0.00	20/06/2022

Only received samples which have had analysis scheduled will be shown on the following pages.

CERTIFICATE OF ANALYSIS

SDG: 220621-68 **Report Number:** 652587 **Superseded Report:** 651999
Client Ref.: LD10385 **Location:** Ten Acres Lane

Results Legend

X Test

N No Determination Possible

Sample Types -

S - Soil/Solid
UNS - Unspecified Solid
GW - Ground Water
SW - Surface Water
LE - Land Leachate
PL - Prepared Leachate
PR - Process Water
SA - Saline Water
TE - Trade Effluent
TS - Treated Sewage
US - Untreated Sewage
RE - Recreational Water
DW - Drinking Water Non-regulatory
UNL - Unspecified Liquid
SL - Sludge
G - Gas
OTH - Other

Lab Sample No(s)			26462773								26462709								26462792		
Customer Sample Reference			CP108								CP208								WS305		
AGS Reference																					
Depth (m)			0.00 - 0.00								0.00 - 0.00								0.00 - 0.00		
Container			0.5l glass bottle (ALE227)	1lplastic (ALE221)	250ml Amber Gl. PTFE/PE (ALE219)	500ml Plastic (ALE208)	H2SO4 (ALE244)	HNO3 Filtered (ALE204)	Vial (ALE297)	ZnAc (ALE246)	0.5l glass bottle (ALE227)	250ml Amber Gl. PTFE/PE (ALE219)	500ml Plastic (ALE208)	H2SO4 (ALE244)	HNO3 Filtered (ALE204)	NaOH (ALE245)	Vial (ALE297)	ZnAc (ALE246)	0.5l glass bottle (ALE227)	1lplastic (ALE221)	250ml Amber Gl. PTFE/PE (ALE219)
Sample Type			GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
Alkalinity as CaCO3	All	NDPs: 0 Tests: 5				X							X								
Anions by Kone (w)	All	NDPs: 0 Tests: 5				X							X								
Cyanide Comp/Free/Total/Thiocyanate	All	NDPs: 0 Tests: 5				X										X					
Dissolved Metals by ICP-MS	All	NDPs: 0 Tests: 5						X							X						
Dissolved Organic/Inorganic Carbon	All	NDPs: 0 Tests: 5	X								X								X		
EPH CWG (Aliphatic) Aqueous GC (W)	All	NDPs: 0 Tests: 5	X								X								X		
EPH CWG (Aromatic) Aqueous GC (W)	All	NDPs: 0 Tests: 5	X								X								X		
GRO by GC-FID (W)	All	NDPs: 0 Tests: 5							X								X				
Low Level Hexavalent Chromium (w)	All	NDPs: 0 Tests: 5				X							X								
Mercury Dissolved	All	NDPs: 0 Tests: 5						X							X						
PAH Spec MS - Aqueous (W)	All	NDPs: 0 Tests: 5			X							X									X
Pr Ag wPbst O1.dViuRms	All	NDPs: 0 Tests: 3		X																X	
Pr Ag ViuRms	All	NDPs: 0 Tests: 3		X																X	
pH Value	All	NDPs: 0 Tests: 5				X							X								
Phenols by HPLC (W)	All	NDPs: 0 Tests: 5					X							X							

26462739	WS316		0.00 - 0.00	NaOH (ALE245)	GW				X												
				HNO3 Filtered (ALE204)	GW					X							X					
				H2SO4 (ALE244)	GW																	X
				500ml Plastic (ALE208)	GW	X		X								X					X	
				250ml Amber Gl. PTFE/PE (ALE219)	GW													X				
				1lplastic (ALE221)	GW														X	X		
				0.5l glass bottle (ALE227)	GW						X	X	X									
26462756	WS309		0.00 - 0.00	ZnAc (ALE246)	GW																	
				Vial (ALE297)	GW									X								
				NaOH (ALE245)	GW				X													
				HNO3 Filtered (ALE204)	GW					X							X					
				H2SO4 (ALE244)	GW																	X
				500ml Plastic (ALE208)	GW	X		X								X					X	
				250ml Amber Gl. PTFE/PE (ALE219)	GW													X				
				0.5l glass bottle (ALE227)	GW						X	X	X									
26462792	WS305		0.00 - 0.00	ZnAc (ALE246)	GW																	
				Vial (ALE297)	GW									X								
				NaOH (ALE245)	GW				X													
				HNO3 Filtered (ALE204)	GW					X							X					
				H2SO4 (ALE244)	GW																	X
				500ml Plastic (ALE208)	GW	X		X								X					X	

Validated

CERTIFICATE OF ANALYSIS

SDG: 220621-68 **Report Number:** 652587 **Superseded Report:** 651999
Client Ref.: LD10385 **Location:** Ten Acres Lane

Results Legend

X Test

N No Determination Possible

Sample Types -
S - Soil/Solid
UNS - Unspecified Solid
GW - Ground Water
SW - Surface Water
LE - Land Leachate
PL - Prepared Leachate
PR - Process Water
SA - Saline Water
TE - Trade Effluent
TS - Treated Sewage
US - Untreated Sewage
RE - Recreational Water
DW - Drinking Water Non-regulatory
UNL - Unspecified Liquid
SL - Sludge
G - Gas
OTH - Other

Lab Sample No(s)										26462773								26462709					26462792
Customer Sample Reference										CP108								CP208					WS305
AGS Reference																							
Depth (m)										0.00 - 0.00								0.00 - 0.00					0.00 - 0.00
Container										0.5l glass bottle (ALE227)	1lplastic (ALE221)	250ml Amber Gl. PTFE/PE (ALE219)	500ml Plastic (ALE208)	H2SO4 (ALE244)	HNO3 Filtered (ALE204)	Vial (ALE297)	ZnAc (ALE246)	0.5l glass bottle (ALE227)	250ml Amber Gl. PTFE/PE (ALE219)	500ml Plastic (ALE208)	H2SO4 (ALE244)	HNO3 Filtered (ALE204)	NaOH (ALE245)	Vial (ALE297)	ZnAc (ALE246)	0.5l glass bottle (ALE227)	1lplastic (ALE221)	250ml Amber Gl. PTFE/PE (ALE219)
Sample Type										GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
Redox Potential	All	NDPs: 0 Tests: 5								X								X								X		
Sulphide	All	NDPs: 0 Tests: 5															X								X			
SVOC MS (W) - Aqueous	All	NDPs: 0 Tests: 5								X								X								X		
TPH CWG (W)	All	NDPs: 0 Tests: 5								X								X								X		
VOC MS (W)	All	NDPs: 0 Tests: 5														X								X				

26462739	WS316		0.00 - 0.00	NaOH (ALE245)	GW						
				HNO3 Filtered (ALE204)	GW						
				H2SO4 (ALE244)	GW						
				500ml Plastic (ALE208)	GW						
				250ml Amber Gl. PTFE/PE (ALE219)	GW						
				1lplastic (ALE221)	GW						
				0.5l glass bottle (ALE227)	GW	X		X	X		
26462756	WS309		0.00 - 0.00	ZnAc (ALE246)	GW		X				
				Vial (ALE297)	GW						X
				NaOH (ALE245)	GW						
				HNO3 Filtered (ALE204)	GW						
				H2SO4 (ALE244)	GW						
				500ml Plastic (ALE208)	GW						
				250ml Amber Gl. PTFE/PE (ALE219)	GW						
				0.5l glass bottle (ALE227)	GW	X		X	X		
26462792	WS305		0.00 - 0.00	ZnAc (ALE246)	GW		X				
				Vial (ALE297)	GW						X
				NaOH (ALE245)	GW						
				HNO3 Filtered (ALE204)	GW						
				H2SO4 (ALE244)	GW						
				500ml Plastic (ALE208)	GW						

CERTIFICATE OF ANALYSIS

SDG: 220621-68 **Report Number:** 652587 **Superseded Report:** 651999
Client Ref.: LD10385 **Location:** Ten Acres Lane

Results Legend

X **Test**

N **No Determination Possible**

Sample Types -
S - Soil/Solid
UNS - Unspecified Solid
GW - Ground Water
SW - Surface Water
LE - Land Leachate
PL - Prepared Leachate
PR - Process Water
SA - Saline Water
TE - Trade Effluent
TS - Treated Sewage
US - Untreated Sewage
RE - Recreational Water
DW - Drinking Water Non-regulatory
UNL - Unspecified Liquid
SL - Sludge
G - Gas
OTH - Other

Lab Sample No(s)			26462739	
Customer Sample Reference			WS316	
AGS Reference				
Depth (m)			0.00 - 0.00	
Container			Vial (ALE297)	ZnAc (ALE246)
Sample Type			GW	GW
GRO by GC-FID (W)	All	NDPs: 0 Tests: 5	X	
Sulphide	All	NDPs: 0 Tests: 5		X
VOC MS (W)	All	NDPs: 0 Tests: 5	X	

CERTIFICATE OF ANALYSIS

SDG: 220621-68 **Report Number:** 652587 **Superseded Report:** 651999

Client Ref.: LD10385 **Location:** Ten Acres Lane

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	CP108	CP208	WS305	WS309	WS316
			Depth (m)	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
			Sample Type	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)
			Date Sampled	20/06/2022	20/06/2022	20/06/2022	20/06/2022	20/06/2022
			Sample Time	12:30	14:00	09:30	10:00	11:00
			Date Received	21/06/2022	21/06/2022	21/06/2022	21/06/2022	21/06/2022
			SDG Ref	220621-68	220621-68	220621-68	220621-68	220621-68
			Lab Sample No.(s)	26462773	26462709	26462792	26462756	26462739
			AGS Reference					
Alkalinity, Total as CaCO3	<2 mg/l	TM043		398 #	453 #	909 #	804 #	407 #
Carbon, Organic (diss.filt)	<3 mg/l	TM090		3.55	3.86	10.3	15.4	3.14
Sulphide	<0.01 mg/l	TM101		<0.01 #	<0.01 #	1.05 #	0.0371 #	<0.01 #
Redox potential	mV	TM110		146	157	144	147	154
Arsenic (diss.filt)	<0.5 µg/l	TM152		3.75 2 #	8.9 2 #	2.49 2 #	8.27 2 #	2.04 2 #
Boron (diss.filt)	<10 µg/l	TM152		201 2 #	127 2 #	1370 2 #	1530 2 #	176 2 #
Cadmium (diss.filt)	<0.08 µg/l	TM152		<0.08 2 #	<0.08 2 #	<0.08 2 #	<0.08 2 #	<0.08 2 #
Chromium (diss.filt)	<1 µg/l	TM152		<1 2 #	<1 2 #	<1 2 #	<1 2 #	<1 2 #
Copper (diss.filt)	<0.3 µg/l	TM152		<0.3 2 #	<0.3 2 #	<0.3 2 #	0.502 2 #	<0.3 2 #
Lead (diss.filt)	<0.2 µg/l	TM152		<0.2 2 #	<0.2 2 #	<0.2 2 #	0.3 2 #	<0.2 2 #
Manganese (diss.filt)	<3 µg/l	TM152		207 2 #	299 2 #	132 2 #	365 2 #	997 2 #
Nickel (diss.filt)	<0.4 µg/l	TM152		<0.4 2 #	1.61 2 #	1.62 2 #	1.6 2 #	7.6 2 #
Selenium (diss.filt)	<1 µg/l	TM152		<1 2 #	<1 2 #	<1 2 #	<1 2 #	<1 2 #
Zinc (diss.filt)	<1 µg/l	TM152		2.41 2 #	3 2 #	34.4 2 #	45.8 2 #	21.5 2 #
Calcium (Dis.Filt)	<0.2 mg/l	TM152		202 2 #	97.2 2 #	291 2 #	202 2 #	226 2 #
Mercury (diss.filt)	<0.01 µg/l	TM183		<0.01 2 #	<0.01 2 #	<0.01 2 #	<0.01 2 #	<0.01 2 #
Sulphate	<2 mg/l	TM184		178 #	94.5 #	222 #	8.4 #	242 #
Cyanide, Total	<0.05 mg/l	TM227		<0.05 2 #	<0.05 #	<0.05 #	<0.05 #	<0.05 #
Cyanide, Free	<0.05 mg/l	TM227		<0.05 2 #	<0.05 #	<0.05 #	<0.05 #	<0.05 #
Thiocyanate	<0.05 mg/l	TM227		<0.05 2 #	<0.05 #	<0.05 #	<0.05 #	<0.05 #
pH	<1 pH Units	TM256		7.45 #	7.42 #	7.22 #	7.27 #	7.24 #
Phenol	<0.002 mg/l	TM259		<0.002 #	<0.002 #	<0.002 #	<0.002 #	<0.002 #
Cresols	<0.006 mg/l	TM259		<0.006 #	<0.006 #	<0.006 #	<0.006 #	<0.006 #
Xylenols	<0.008 mg/l	TM259		<0.008 #	<0.008 #	<0.008 #	0.37 #	<0.008 #
Phenols, Total Detected monohydric	<0.016 mg/l	TM259		<0.016 #	<0.016 #	<0.016 #	0.37 #	<0.016 #
Low Level Hexavalent Chromium	<0.003 mg/l	TM331		<0.003	<0.003	<0.003	<0.003	<0.003
PFBA (375-22-4)	<2 ng/l	TM337		<7.3 #		7.59 #		<7.5 #
PFPA (2706-90-3)	<1 ng/l	TM337		<2 #		<2 #		<2 #
PFHxA (307-24-4)	<1 ng/l	TM337		<2 #		3.06 #		<2 #
PFBS (375-73-5)	<1 ng/l	TM337		<2 #		3 #		<2 #
PFHpA (375-85-9)	<1 ng/l	TM337		<2 #		3.11 #		<2 #
6:2 FTS (27619-97-2)	<1 ng/l	TM337		<2 #		<2 #		<2 #
PFOA (335-67-1)	<0.65 ng/l	TM337		<5.8 #		19 #		<4.5 #

CERTIFICATE OF ANALYSIS

SDG: 220621-68 **Report Number:** 652587 **Superseded Report:** 651999
Client Ref.: LD10385 **Location:** Ten Acres Lane

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4+§@ Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	CP108	CP208	WS305	WS309	WS316	
			Depth (m)	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	
			Sample Type	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	
			Date Sampled	20/06/2022	20/06/2022	20/06/2022	20/06/2022	20/06/2022	
			Sample Time	12:30	14:00	09:30	10:00	11:00	
			Date Received	21/06/2022	21/06/2022	21/06/2022	21/06/2022	21/06/2022	
			SDG Ref	220621-68	220621-68	220621-68	220621-68	220621-68	
			Lab Sample No.(s)	26462773	26462709	26462792	26462756	26462739	
			AGS Reference						
PFHxS (355-46-4)	<1 ng/l	TM337		<2 #		8.71 #		<2 #	
PFNA (375-95-1)	<1 ng/l	TM337		<2 #		<2 #		<2 #	
PFHpS (375-92-8)	<1 ng/l	TM337		<2 #		<2 #		<2 #	
PFDA (335-76-2)	<1 ng/l	TM337		<2 #		<2 #		<2 #	
Linear PFOS (1763-23-1)	<0.65 ng/l	TM337		<1.3 #		12.7 #		<1.3 #	
Branched PFOS	<0.65 ng/l	TM337		<1.3 #		14.9 #		<1.3 #	
PFUnA (2058-94-8)	<1 ng/l	TM337		<2 #		<2 #		<2 #	
PFDoA (307-55-1)	<1 ng/l	TM337		<2 #		<2 #		<2 #	
PFOSA (754-91-6)	<2 ng/l	TM337		<4 #		<4 #		<4 #	
PFDS (335-77-3)	<1 ng/l	TM337		<2		<2		<2	
PFPeS (2706-91-4)	<1 ng/l	TM337		<2 #		3.07 #		<2 #	
Total PFOS	<0.65 ng/l	TM337		<1.3 #		27.6 #		<1.3 #	
PFBA (Post Ox.) (375-22-4)	<4 ng/l	TM405		<10		8.82		12.2	
PFPA (Post Ox.) (2706-90-3)	<2 ng/l	TM405		<2		<2		<2	
PFHxA (Post Ox.) (307-24-4)	<2 ng/l	TM405		<2		3.84		2.37	
PFBS (Post Ox.) (375-73-5)	<2 ng/l	TM405		<2		4.25		<2	
PFHpA (Post Ox.) (375-85-9)	<2 ng/l	TM405		2.07		3.9		2.05	
6:2 FTS (Post Ox.) (27619-97-2)	<2 ng/l	TM405		<2		<2		<2	
PFOA (Post Ox.) (335-67-1)	<2 ng/l	TM405		4.25		16.3		4.5	
PFHxS (Post Ox.) (355-46-4)	<2 ng/l	TM405		<2		8.51		<2	
PFNA (Post Ox.) (375-95-1)	<2 ng/l	TM405		<2		<2		<2	
PFHpS (Post Ox.) (375-92-8)	<2 ng/l	TM405		<2		<2		<2	
PFDA (Post Ox.) (335-76-2)	<2 ng/l	TM405		<2		<2		<2	
Linear PFOS (Post Ox.) (1763-23-1)	<2 ng/l	TM405		<2		10.9		<2	
Branched PFOS (Post Ox.)	<2 ng/l	TM405		<2		14.5		<2	
PFUnA (Post Ox.) (2058-94-8)	<2 ng/l	TM405		<2		<2		<2	
PFDoA (Post Ox.) (307-55-1)	<2 ng/l	TM405		<2		<2		<2	
PFOSA (Post Ox.) (754-91-6)	<4 ng/l	TM405		<4		<4		<4	
PFDS (Post Ox.) (335-77-3)	<2 ng/l	TM405		<2		<2		<2	
PFPeS (Post Ox.) (2706-91-4)	<2 ng/l	TM405		<2		<2		<2	
Total PFOS (Post Ox.)	<2 ng/l	TM405		<2		25.4		<2	

CERTIFICATE OF ANALYSIS

SDG: 220621-68 **Report Number:** 652587 **Superseded Report:** 651999

Client Ref.: LD10385 **Location:** Ten Acres Lane

PAH Spec MS - Aqueous (W)

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	CP108	CP208	WS305	WS309	WS316
			Depth (m)	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
			Sample Type	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)
			Date Sampled	20/06/2022	20/06/2022	20/06/2022	20/06/2022	20/06/2022
			Sample Time	12:30	14:00	09:30	10:00	11:00
			Date Received	21/06/2022	21/06/2022	21/06/2022	21/06/2022	21/06/2022
			SDG Ref	220621-68	220621-68	220621-68	220621-68	220621-68
			Lab Sample No.(s)	26462773	26462709	26462792	26462756	26462739
			AGS Reference					
Naphthalene (aq)	<0.01 µg/l	TM178		<0.01 #	<0.01 #	0.649 #	1.42 #	0.0119 #
Acenaphthene (aq)	<0.005 µg/l	TM178		0.0348 #	<0.005 #	0.796 #	0.365 #	0.0673 #
Acenaphthylene (aq)	<0.005 µg/l	TM178		<0.005 #	<0.005 #	1.87 #	0.13 #	<0.005 #
Fluoranthene (aq)	<0.005 µg/l	TM178		0.0341 #	0.0481 #	16.8 #	1.82 #	0.103 #
Anthracene (aq)	<0.005 µg/l	TM178		<0.005 #	<0.005 #	5.21 #	1.03 #	0.0246 #
Phenanthrene (aq)	<0.005 µg/l	TM178		0.0131 #	0.0208 #	15.8 #	3.67 #	0.0489 #
Fluorene (aq)	<0.005 µg/l	TM178		0.0115 #	<0.005 #	2.46 #	0.509 #	0.0201 #
Chrysene (aq)	<0.005 µg/l	TM178		<0.005 #	<0.005 #	9.1 #	0.253 #	0.0293 #
Pyrene (aq)	<0.005 µg/l	TM178		0.0313 #	0.0453 #	16.1 #	1.5 #	0.151 #
Benzo(a)anthracene (aq)	<0.005 µg/l	TM178		<0.005 #	<0.005 #	9.35 #	0.281 #	0.0239 #
Benzo(b)fluoranthene (aq)	<0.005 µg/l	TM178		<0.005 #	<0.005 #	9.86 #	0.161 #	0.0332 #
Benzo(k)fluoranthene (aq)	<0.005 µg/l	TM178		<0.005 #	<0.005 #	5.33 #	0.0704 #	0.0138 #
Benzo(a)pyrene (aq)	<0.002 µg/l	TM178		<0.002 #	<0.002 #	8.83 #	<0.002 #	<0.002 #
Dibenzo(a,h)anthracene (aq)	<0.005 µg/l	TM178		<0.005 #	<0.005 #	0.618 #	<0.005 #	<0.005 #
Benzo(g,h,i)perylene (aq)	<0.005 µg/l	TM178		<0.005 #	<0.005 #	<0.005 #	0.0435 #	0.0166 #
Indeno(1,2,3-cd)pyrene (aq)	<0.005 µg/l	TM178		<0.005 #	<0.005 #	5.42 #	<0.005 #	<0.005 #
PAH, Total Detected USEPA 16 (aq)	<0.082 µg/l	TM178		0.125 #	0.114 #	108 #	11.2 #	0.543 #

CERTIFICATE OF ANALYSIS

SDG: 220621-68 **Report Number:** 652587 **Superseded Report:** 651999
Client Ref.: LD10385 **Location:** Ten Acres Lane

SVOC MS (W) - Aqueous

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4+§@ Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	CP108	CP208	WS305	WS309	WS316
			Depth (m)	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
			Sample Type	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)
			Date Sampled	20/06/2022	20/06/2022	20/06/2022	20/06/2022	20/06/2022
			Sample Time	12:30	14:00	09:30	10:00	11:00
			Date Received	21/06/2022	21/06/2022	21/06/2022	21/06/2022	21/06/2022
			SDG Ref	220621-68	220621-68	220621-68	220621-68	220621-68
			Lab Sample No.(s)	26462773	26462709	26462792	26462756	26462739
			AGS Reference					
1,2,4-Trichlorobenzene (aq)	<1 µg/l	TM176		<1 #	<1 #	<4 #	<2 #	<1 #
1,2-Dichlorobenzene (aq)	<1 µg/l	TM176		<1 #	<1 #	<4 #	<2 #	<1 #
1,3-Dichlorobenzene (aq)	<1 µg/l	TM176		<1 #	<1 #	<4 #	<2 #	<1 #
1,4-Dichlorobenzene (aq)	<1 µg/l	TM176		<1 #	<1 #	<4 #	<2 #	<1 #
2,4,5-Trichlorophenol (aq)	<1 µg/l	TM176		<1 #	<1 #	<4 #	<2 #	<1 #
2,4,6-Trichlorophenol (aq)	<1 µg/l	TM176		<1 #	<1 #	<4 #	<2 #	<1 #
2,4-Dichlorophenol (aq)	<1 µg/l	TM176		<1 #	<1 #	<4 #	<2 #	<1 #
2,4-Dimethylphenol (aq)	<1 µg/l	TM176		<1 #	<1 #	<4 #	<2 #	<1 #
2,4-Dinitrotoluene (aq)	<1 µg/l	TM176		<1 #	<1 #	<4 #	<2 #	<1 #
2,6-Dinitrotoluene (aq)	<1 µg/l	TM176		<1 #	<1 #	<4 #	<2 #	<1 #
2-Chloronaphthalene (aq)	<1 µg/l	TM176		<1 #	<1 #	<4 #	<2 #	<1 #
2-Chlorophenol (aq)	<1 µg/l	TM176		<1 #	<1 #	<4 #	<2 #	<1 #
2-Methylnaphthalene (aq)	<1 µg/l	TM176		<1 #	<1 #	<4 #	<2 #	<1 #
2-Methylphenol (aq)	<1 µg/l	TM176		<1 #	<1 #	<4 #	<2 #	<1 #
2-Nitroaniline (aq)	<1 µg/l	TM176		<1 #	<1 #	<4 #	<2 #	<1 #
2-Nitrophenol (aq)	<1 µg/l	TM176		<1 #	<1 #	<4 #	<2 #	<1 #
3-Nitroaniline (aq)	<1 µg/l	TM176		<1	<1	<4	<2	<1
4-Bromophenylphenylether (aq)	<1 µg/l	TM176		<1 #	<1 #	<4 #	<2 #	<1 #
4-Chloro-3-methylphenol (aq)	<1 µg/l	TM176		<1 #	<1 #	<4 #	<2 #	<1 #
4-Chloroaniline (aq)	<1 µg/l	TM176		<1	<1	<4	<2	<1
4-Chlorophenylphenylether (aq)	<1 µg/l	TM176		<1 #	<1 #	<4 #	<2 #	<1 #
4-Methylphenol (aq)	<1 µg/l	TM176		<1 #	<1 #	<4 #	<2 #	<1 #
4-Nitroaniline (aq)	<1 µg/l	TM176		<1 #	<1 #	<4 #	<2 #	<1 #
4-Nitrophenol (aq)	<1 µg/l	TM176		<1	<1	<4	<2	<1
Azobenzene (aq)	<1 µg/l	TM176		<1 #	<1 #	<4 #	<2 #	<1 #
Acenaphthylene (aq)	<1 µg/l	TM176		<1 #	<1 #	<4 #	<2 #	<1 #
Acenaphthene (aq)	<1 µg/l	TM176		<1 #	<1 #	<4 #	<2 #	<1 #
Anthracene (aq)	<1 µg/l	TM176		<1 #	<1 #	<4 #	<2 #	<1 #
bis(2-Chloroethyl)ether (aq)	<1 µg/l	TM176		<1 #	<1 #	<4 #	<2 #	<1 #
bis(2-Chloroethoxy)methane (aq)	<1 µg/l	TM176		<1 #	<1 #	<4 #	<2 #	<1 #
bis(2-Ethylhexyl) phthalate (aq)	<2 µg/l	TM176		<2 #	<2 #	<8 #	<4 #	<2 #
Butylbenzyl phthalate (aq)	<1 µg/l	TM176		<1 #	<1 #	<4 #	<2 #	<1 #
Benzo(a)anthracene (aq)	<1 µg/l	TM176		<1 #	<1 #	6.16 #	<2 #	<1 #

CERTIFICATE OF ANALYSIS

SDG: 220621-68 **Report Number:** 652587 **Superseded Report:** 651999
Client Ref.: LD10385 **Location:** Ten Acres Lane

SVOC MS (W) - Aqueous

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4+§@ Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	CP108	CP208	WS305	WS309	WS316	
			Depth (m)	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	
			Sample Type	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	
			Date Sampled	20/06/2022	20/06/2022	20/06/2022	20/06/2022	20/06/2022	
			Sample Time	12:30	14:00	09:30	10:00	11:00	
			Date Received	21/06/2022	21/06/2022	21/06/2022	21/06/2022	21/06/2022	
			SDG Ref	220621-68	220621-68	220621-68	220621-68	220621-68	
			Lab Sample No.(s)	26462773	26462709	26462792	26462756	26462739	
			AGS Reference						
Benzo(b)fluoranthene (aq)	<1 µg/l	TM176		<1 #	<1 #	5.28 #	<2 #	<1 #	
Benzo(k)fluoranthene (aq)	<1 µg/l	TM176		<1 #	<1 #	<4 #	<2 #	<1 #	
Benzo(a)pyrene (aq)	<1 µg/l	TM176		<1 #	<1 #	4.4 #	<2 #	<1 #	
Benzo(g,h,i)perylene (aq)	<1 µg/l	TM176		<1 #	<1 #	<4 #	<2 #	<1 #	
Carbazole (aq)	<1 µg/l	TM176		<1 #	<1 #	<4 #	<2 #	<1 #	
Chrysene (aq)	<1 µg/l	TM176		<1 #	<1 #	5.97 #	<2 #	<1 #	
Dibenzofuran (aq)	<1 µg/l	TM176		<1 #	<1 #	<4 #	<2 #	<1 #	
n-Dibutyl phthalate (aq)	<1 µg/l	TM176		<1 #	<1 #	<4 #	<2 #	<1 #	
Diethyl phthalate (aq)	<1 µg/l	TM176		<1 #	<1 #	<4 #	<2 #	<1 #	
Dibenzo(a,h)anthracene (aq)	<1 µg/l	TM176		<1 #	<1 #	<4 #	<2 #	<1 #	
Dimethyl phthalate (aq)	<1 µg/l	TM176		<1 #	<1 #	<4 #	<2 #	<1 #	
n-Dioctyl phthalate (aq)	<5 µg/l	TM176		<5 #	<5 #	<20 #	<10 #	<5 #	
Fluoranthene (aq)	<1 µg/l	TM176		<1 #	<1 #	10.8 #	<2 #	<1 #	
Fluorene (aq)	<1 µg/l	TM176		<1 #	<1 #	<4 #	<2 #	<1 #	
Hexachlorobenzene (aq)	<1 µg/l	TM176		<1 #	<1 #	<4 #	<2 #	<1 #	
Hexachlorobutadiene (aq)	<1 µg/l	TM176		<1 #	<1 #	<4 #	<2 #	<1 #	
Pentachlorophenol (aq)	<1 µg/l	TM176		<1	<1	<4	<2	<1	
Phenol (aq)	<1 µg/l	TM176		<1	<1	<4	<2	<1	
n-Nitroso-n-dipropylamine (aq)	<1 µg/l	TM176		<1 #	<1 #	<4 #	<2 #	<1 #	
Hexachloroethane (aq)	<1 µg/l	TM176		<1 #	<1 #	<4 #	<2 #	<1 #	
Nitrobenzene (aq)	<1 µg/l	TM176		<1 #	<1 #	<4 #	<2 #	<1 #	
Naphthalene (aq)	<1 µg/l	TM176		<1 #	<1 #	<4 #	<2 #	<1 #	
Isophorone (aq)	<1 µg/l	TM176		<1 #	<1 #	<4 #	<2 #	<1 #	
Hexachlorocyclopentadiene (aq)	<1 µg/l	TM176		<1	<1	<4	<2	<1	
Phenanthrene (aq)	<1 µg/l	TM176		<1 #	<1 #	10.6 #	2.87 #	<1 #	
Indeno(1,2,3-cd)pyrene (aq)	<1 µg/l	TM176		<1 #	<1 #	<4 #	<2 #	<1 #	
Pyrene (aq)	<1 µg/l	TM176		<1 #	<1 #	9.91 #	<2 #	<1 #	

CERTIFICATE OF ANALYSIS

SDG: 220621-68 **Report Number:** 652587 **Superseded Report:** 651999

Client Ref.: LD10385 **Location:** Ten Acres Lane

TPH CWG (W)

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	CP108	CP208	WS305	WS309	WS316
			Depth (m)	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
			Sample Type	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)
			Date Sampled	20/06/2022	20/06/2022	20/06/2022	20/06/2022	20/06/2022
			Sample Time	12:30	14:00	09:30	10:00	11:00
			Date Received	21/06/2022	21/06/2022	21/06/2022	21/06/2022	21/06/2022
			SDG Ref	220621-68	220621-68	220621-68	220621-68	220621-68
			Lab Sample No.(s)	26462773	26462709	26462792	26462756	26462739
			AGS Reference					
GRO Surrogate % recovery**	%	TM245		102	108	96	98	104
GRO >C5-C12	<50 µg/l	TM245		<50 #	<50 #	<50 #	<50 #	<50 #
Aliphatics >C5-C6	<10 µg/l	TM245		<10	<10	<10	<10	<10
Aliphatics >C6-C8	<10 µg/l	TM245		<10	<10	<10	<10	<10
Aliphatics >C8-C10	<10 µg/l	TM245		<10	<10	<10	<10	<10
Aliphatics >C10-C12	<10 µg/l	TM245		<10	<10	<10	<10	<10
Aliphatics >C12-C16 (aq)	<10 µg/l	TM174		<10	<10	<10	<10	<10
Aliphatics >C16-C21 (aq)	<10 µg/l	TM174		<10	<10	81	<10	<10
Aliphatics >C21-C35 (aq)	<10 µg/l	TM174		<10	<10	782	<10	<10
Total Aliphatics >C12-C35 (aq)	<10 µg/l	TM174		<10	<10	863	<10	<10
Aromatics >EC5-EC7	<10 µg/l	TM245		<10	<10	<10	<10	<10
Aromatics >EC7-EC8	<10 µg/l	TM245		<10	<10	<10	<10	<10
Aromatics >EC8-EC10	<10 µg/l	TM245		<10	<10	<10	<10	<10
Aromatics >EC10-EC12	<10 µg/l	TM245		<10	<10	<10	<10	<10
Aromatics >EC12-EC16 (aq)	<10 µg/l	TM174		<10	<10	49	<10	<10
Aromatics >EC16-EC21 (aq)	<10 µg/l	TM174		<10	<10	107	<10	<10
Aromatics >EC21-EC35 (aq)	<10 µg/l	TM174		<10	<10	362	<10	<10
Total Aromatics >EC12-EC35 (aq)	<10 µg/l	TM174		<10	<10	518	<10	<10
Total Aliphatics & Aromatics >C5-35 (aq)	<10 µg/l	TM174		<10	<10	1380	<10	<10
Aliphatics >C16-C35 Aqueous	<10 µg/l	TM174		<10	<10	863	<10	<10

CERTIFICATE OF ANALYSIS

SDG: 220621-68 **Report Number:** 652587 **Superseded Report:** 651999

Client Ref.: LD10385 **Location:** Ten Acres Lane

VOC MS (W)

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
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**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
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1-4+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	CP108	CP208	WS305	WS309	WS316
			Depth (m)	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
			Sample Type	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)
			Date Sampled	20/06/2022	20/06/2022	20/06/2022	20/06/2022	20/06/2022
			Sample Time	12:30	14:00	09:30	10:00	11:00
			Date Received	21/06/2022	21/06/2022	21/06/2022	21/06/2022	21/06/2022
			SDG Ref	220621-68	220621-68	220621-68	220621-68	220621-68
			Lab Sample No.(s)	26462773	26462709	26462792	26462756	26462739
			AGS Reference					
Dibromofluoromethane**	%	TM208		110	108	112	109	110
Toluene-d8**	%	TM208		99.6	100	101	100	99.7
4-Bromofluorobenzene**	%	TM208		96.1	94.6	96.7	95.6	96.7
Dichlorodifluoromethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
Chloromethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
Vinyl chloride	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
Bromomethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
Chloroethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
Trichlorofluoromethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
1,1-Dichloroethene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
Carbon disulphide	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
Dichloromethane	<3 µg/l	TM208		<6 #	<6 #	<6 #	<6 #	<6 #
Methyl tertiary butyl ether (MTBE)	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
trans-1,2-Dichloroethene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
1,1-Dichloroethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
cis-1,2-Dichloroethene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
2,2-Dichloropropane	<1 µg/l	TM208		<1	<1	<1	<1	<1
Bromochloromethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
Chloroform	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
1,1,1-Trichloroethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
1,1-Dichloropropene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
Carbontetrachloride	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
1,2-Dichloroethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
Benzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
Trichloroethene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
1,2-Dichloropropane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
Dibromomethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
Bromodichloromethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
cis-1,3-Dichloropropene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
Toluene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
trans-1,3-Dichloropropene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
1,1,2-Trichloroethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
1,3-Dichloropropane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #

CERTIFICATE OF ANALYSIS

SDG: 220621-68 **Report Number:** 652587 **Superseded Report:** 651999
Client Ref.: LD10385 **Location:** Ten Acres Lane

VOC MS (W)

Results Legend
- # ISO17025 accredited.
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- aq Aqueous / settled sample.
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- 1-4+§@ Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	CP108	CP208	WS305	WS309	WS316
			Depth (m)	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
			Sample Type	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)
			Date Sampled	20/06/2022	20/06/2022	20/06/2022	20/06/2022	20/06/2022
			Sample Time	12:30	14:00	09:30	10:00	11:00
			Date Received	21/06/2022	21/06/2022	21/06/2022	21/06/2022	21/06/2022
			SDG Ref	220621-68	220621-68	220621-68	220621-68	220621-68
			Lab Sample No.(s)	26462773	26462709	26462792	26462756	26462739
			AGS Reference					
Tetrachloroethene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
Dibromochloromethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
1,2-Dibromoethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
Chlorobenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
1,1,1,2-Tetrachloroethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
Ethylbenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
m,p-Xylene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
o-Xylene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
Styrene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
Bromoform	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
Isopropylbenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
1,1,2,2-Tetrachloroethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
1,2,3-Trichloropropane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
Bromobenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
Propylbenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
2-Chlorotoluene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
1,3,5-Trimethylbenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
4-Chlorotoluene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
tert-Butylbenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
1,2,4-Trimethylbenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
sec-Butylbenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
4-iso-Propyltoluene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
1,3-Dichlorobenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
1,4-Dichlorobenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
n-Butylbenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
1,2-Dichlorobenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
1,2-Dibromo-3-chloropropane	<1 µg/l	TM208		<1	<1	<1	<1	<1
1,2,4-Trichlorobenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
Hexachlorobutadiene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
tert-Amyl methyl ether (TAME)	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
Naphthalene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
1,2,3-Trichlorobenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
1,3,5-Trichlorobenzene	<1 µg/l	TM208		<1	<1	<1	<1	<1

Validated

CERTIFICATE OF ANALYSIS

SDG: 220621-68 **Report Number:** 652587 **Superseded Report:** 651999

Client Ref.: LD10385 **Location:** Ten Acres Lane

VOC MS (W)

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	CP108	CP208	WS305	WS309	WS316
			Depth (m)	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
			Sample Type	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)
			Date Sampled	20/06/2022	20/06/2022	20/06/2022	20/06/2022	20/06/2022
			Sample Time	12:30	14:00	09:30	10:00	11:00
			Date Received	21/06/2022	21/06/2022	21/06/2022	21/06/2022	21/06/2022
			SDG Ref	220621-68	220621-68	220621-68	220621-68	220621-68
			Lab Sample No.(s)	26462773	26462709	26462792	26462756	26462739
			AGS Reference					
Sum of detected Xylenes	<2 µg/l	TM208		<2	<2	<2	<2	<2
Sum of BTEX	<5 µg/l	TM208		<5	<5	<5	<5	<5

Table of Results - Appendix

Method No	Reference	Description
TM043	Method 2320B, AWWA/APHA, 20th Ed., 1999 / BS 2690: Part109 1984	Determination of alkalinity in aqueous samples
TM090	Method 5310, AWWA/APHA, 20th Ed., 1999 / Modified: US EPA Method 415.1 & 9060	Determination of Total Organic Carbon/Total Inorganic Carbon in Water and Waste Water
TM101	Method 4500B & C, AWWA/APHA, 20th Ed., 1999	Determination of Sulphide in soil and water samples using the Kone Analyser
TM110	BS 1377: Part 3 1990	Redox Potential
TM152	ISO 17294-2:2016 Water quality - Application of inductively coupled plasma mass spectrometry (ICP-MS)	Analysis of Aqueous Samples by ICP-MS
TM174	Analysis of Petroleum Hydrocarbons in Environmental Media – Total Petroleum Hydrocarbon Criteria	Determination of Speciated Extractable Petroleum Hydrocarbons in Waters by GC-FID
TM176	EPA 8270D Semi-Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)	Determination of SVOCs in Water by GCMS
TM178	Modified: US EPA Method 8100	Determination of Polynuclear Aromatic Hydrocarbons (PAH) by GC-MS in Waters
TM183	BS EN 23506:2002, (BS 6068-2.74:2002) ISBN 0 580 38924 3	Determination of Trace Level Mercury in Waters and Leachates by PSA Cold Vapour Atomic Fluorescence Spectrometry
TM184	EPA Methods 325.1 & 325.2,	The Determination of Anions in Aqueous Matrices using the Kone Spectrophotometric Analysers
TM208	Modified: US EPA Method 8260b & 624	Determination of Volatile Organic Compounds by Headspace / GC-MS in Waters
TM227	Standard methods for the examination of waters and wastewaters 20th Edition, AWWA/APHA Method 4500.	Determination of Total Cyanide, Free (Easily Liberatable) Cyanide and Thiocyanate
TM245	By GC-FID	Determination of GRO by Headspace in waters
TM256	The measurement of Electrical Conductivity and the Laboratory determination of pH Value of Natural, Treated and Wastewaters. HMSO, 1978. ISBN 011 751428 4, Standard Methods for the examination of waters and wastewaters 20th Edition, PHA, Washington DC, USA. ISBN 0-87553-235-7 and The Determination of Alkalinity and Acidity in water HMSO, 1981, ISBN 0 11 751601 5.	Determination of pH, EC, TDS and Alkalinity in Aqueous samples
TM259	by HPLC	Determination of Phenols in Waters and Leachates by HPLC
TM331		Low Level Hexavalent Chromium
TM337	PFAS in Environmental Water Matrices	Analysis of PFAS
TM405	PFAS (TOP Assay)	Analysis of perfluoroalkylsulfonates and perfluorocarboxylic acids - Total Oxidizable Precursor Assay

NA = not applicable.

Chemical testing (unless subcontracted) performed at ALS Life Sciences Ltd Hawarden (Method codes TM).

CERTIFICATE OF ANALYSIS

SDG: 220621-68 **Report Number:** 652587 **Superseded Report:** 651999
Client Ref.: LD10385 **Location:** Ten Acres Lane

Test Completion Dates

Lab Sample No(s)	26462773	26462709	26462792	26462756	26462739
Customer Sample Ref.	CP108	CP208	WS305	WS309	WS316
AGS Ref.					
Depth	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Type	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water
Alkalinity as CaCO3	22-Jun-2022	22-Jun-2022	22-Jun-2022	22-Jun-2022	22-Jun-2022
Anions by Kone (w)	22-Jun-2022	22-Jun-2022	22-Jun-2022	22-Jun-2022	22-Jun-2022
Cyanide Comp/Free/Total/Thiocyanate	23-Jun-2022	22-Jun-2022	22-Jun-2022	22-Jun-2022	22-Jun-2022
Dissolved Metals by ICP-MS	22-Jun-2022	22-Jun-2022	22-Jun-2022	22-Jun-2022	22-Jun-2022
Dissolved Organic/Inorganic Carbon	23-Jun-2022	23-Jun-2022	23-Jun-2022	23-Jun-2022	23-Jun-2022
EPH CWG (Aliphatic) Aqueous GC (W)	24-Jun-2022	24-Jun-2022	24-Jun-2022	24-Jun-2022	24-Jun-2022
EPH CWG (Aromatic) Aqueous GC (W)	24-Jun-2022	24-Jun-2022	24-Jun-2022	24-Jun-2022	24-Jun-2022
GRO by GC-FID (W)	22-Jun-2022	22-Jun-2022	22-Jun-2022	22-Jun-2022	22-Jun-2022
Low Level Hexavalent Chromium (w)	23-Jun-2022	23-Jun-2022	23-Jun-2022	23-Jun-2022	23-Jun-2022
Mercury Dissolved	23-Jun-2022	23-Jun-2022	23-Jun-2022	23-Jun-2022	23-Jun-2022
PAH Spec MS - Aqueous (W)	23-Jun-2022	23-Jun-2022	23-Jun-2022	23-Jun-2022	23-Jun-2022
PFAS (Post Ox.) Liquids	30-Jun-2022		30-Jun-2022		30-Jun-2022
PFAS Liquids	27-Jun-2022		27-Jun-2022		27-Jun-2022
pH Value	22-Jun-2022	22-Jun-2022	22-Jun-2022	22-Jun-2022	22-Jun-2022
Phenols by HPLC (W)	22-Jun-2022	22-Jun-2022	22-Jun-2022	22-Jun-2022	22-Jun-2022
Redox Potential	22-Jun-2022	22-Jun-2022	22-Jun-2022	22-Jun-2022	22-Jun-2022
Sulphide	23-Jun-2022	23-Jun-2022	23-Jun-2022	23-Jun-2022	23-Jun-2022
SVOC MS (W) - Aqueous	23-Jun-2022	23-Jun-2022	23-Jun-2022	23-Jun-2022	23-Jun-2022
TPH CWG (W)	24-Jun-2022	24-Jun-2022	24-Jun-2022	24-Jun-2022	24-Jun-2022
VOC MS (W)	22-Jun-2022	22-Jun-2022	22-Jun-2022	22-Jun-2022	22-Jun-2022

Appendix

General

1. Results are expressed on a dry weight basis (dried at 35ºC) for all soil analyses except for the following: NRA and CEN Leach tests, flash point LOI, pH, ammonium as NH4 by the BRE method, VOC TICs and SVOC TICs.

2. If sufficient sample is received a sub sample will be retained free of charge for 30 days after analysis is completed (e-mailed) for all sample types unless the sample is destroyed on testing. The prepared soil sub sample that is analysed for asbestos will be retained for a period of 6 months after the analysis date. All bulk samples will be retained for a period of 6 months after the analysis date. All samples received and not scheduled will be disposed of one month after the date of receipt unless we are instructed to the contrary. Once the initial period has expired, a storage charge will be applied for each month or part thereof until the client cancels the request for sample storage. ALS reserve the right to charge for samples received and stored but not analysed.

3. With respect to turnaround, we will always endeavour to meet client requirements wherever possible, but turnaround times cannot be absolutely guaranteed due to so many variables beyond our control.

4. We take responsibility for any test performed by sub-contractors (marked with an asterisk). We endeavour to use UKAS/MCERTS Accredited Laboratories, who either complete a quality questionnaire or are audited by ourselves. For some determinands there are no UKAS/MCERTS Accredited Laboratories, in this instance a laboratory with a known track record will be utilised.

5. If no separate volatile sample is supplied by the client, or if a headspace or sediment is present in the volatile sample, the integrity of the data may be compromised. This will be flagged up as an invalid VOC on the test schedule and the result marked as deviating on the test certificate.

6. NDP - No determination possible due to insufficient/unsuitable sample.

7. Results relate only to the items tested.

8. LoDs (Limit of Detection) for wet tests reported on a dry weight basis are not corrected for moisture content.

9. **Surrogate recoveries** - Surrogates are added to your sample to monitor recovery of the test requested. A % recovery is reported, results are not corrected for the recovery measured. Typical recoveries for organics tests are 70-130%. Recoveries in soils are affected by organic rich or clay rich matrices. Waters can be affected by remediation fluids or high amounts of sediment. Test results are only ever reported if all of the associated quality checks pass; it is assumed that all recoveries outside of the values above are due to matrix affect.

10. Stones/debris are not routinely removed. We always endeavour to take a representative sub sample from the received sample.

11. In certain circumstances the method detection limit may be elevated due to the sample being outside the calibration range. Other factors that may contribute to this include possible interferences. In both cases the sample would be diluted which would cause the method detection limit to be raised.

12. For dried and crushed preparations of soils volatile loss may occur e.g volatile mercury.

13. For leachate preparations other than Zero Headspace Extraction (ZHE) volatile loss may occur.

14. For the BSEN 12457-3 two batch process to allow the cumulative release to be calculated, the volume of the leachate produced is measured and filtered for all tests. We therefore cannot carry out any unfiltered analysis. The tests affected include volatiles GCFID/GCMS and all subcontracted analysis.

15. Analysis and identification of specific compounds using GCFID is by retention time only, and we routinely calibrate and quantify for benzene, toluene, ethylbenzenes and xylenes (BTEX). For total volatiles in the C5-C12 range, the total area of the chromatogram is integrated and expressed as ug/kg or ug/l. Although this analysis is commonly used for the quantification of gasoline range organics (GRO), the system will also detect other compounds such as chlorinated solvents, and this may lead to a falsely high result with respect to hydrocarbons only. It is not possible to specifically identify these non-hydrocarbons, as standards are not routinely run for any other compounds, and for more definitive identification, volatiles by GCMS should be utilised.

16. We are accredited to MCERTS for sand, clay and loam/topsoil, or any of these materials - whether these are derived from naturally occurring soil profiles, or from fill/made ground, as long as these materials constitute the major part of the sample. Other coarse granular material such as concrete, gravel and brick are not accredited if they comprise the major part of the sample.

17 Data retention. All records, communications and reports pertaining to the analysis are archived for seven years from the date of issue of the final report.

18. **Tentatively Identified Compounds (TICs)** are non-target peaks in VOC and SVOC analysis. All non-target peaks detected with a concentration above the LoD are subjected to a mass spectral library search. Non-target peaks with a library search confidence of >75% are reported based on the best mass spectral library match. When a non-target peak with a library search confidence of <75% is detected it is reported as “mixed hydrocarbons”. Non-target compounds identified from the scan data are semi-quantified relative to one of the deuterated internal standards, under the same chromatographic conditions as the target compounds. This result is reported as a semi-quantitative value and reported as Tentatively Identified Compounds (TICs). TICs are outside the scope of UKAS accreditation and are not moisture corrected.

19. **Sample Deviations**

If a sample is classed as deviated then the associated results may be compromised.

1	**Container with Headspace provided for volatiles analysis**
2	**Incorrect container received**
3	**Deviation from method**
4	**Matrix interference**
♦	**Sample holding time exceeded in laboratory**
@	**Sample holding time exceeded due to late arrival of instructions or samples**
§	**Sampled on date not provided**

20. **Asbestos**

When requested, the individual sub sample scheduled will be analysed in house for the presence of asbestos fibres and asbestos containing material by our documented in house method TM048 based on HSG 248 (2021), which is accredited to ISO17025. If a specific asbestos fibre type is not found this will be reported as “Not detected”. If no asbestos fibre types are found all will be reported as “Not detected” and the sub sample analysed deemed to be clear of asbestos. If an asbestos fibre type is found it will be reported as detected (for each fibre type found). Testing can be carried out on asbestos positive samples, but, due to Health and Safety considerations, may be replaced by alternative tests or reported as No Determination Possible (NDP). The quantity of asbestos present is not determined unless specifically requested.

Identification of Asbestos in Bulk Materials & Soils

The results for identification of asbestos in bulk materials and soils are obtained from supplied bulk materials andd soils which have been examined to determine the presence of asbestos fibres using ALS (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining, based on HSG 248 (2021).

The results for identification of asbestos in soils are obtained from a homogenised sub sample which has been examined to determine the presence of asbestos fibres using ALS (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining.

Asbestos Type	Common Name
Chrysotile	White Asbestos
Amosite	Brown Asbestos
Crocidolite	Blue Asbestos
Fibrous Actinolite	-
Fibrous Anthophyllite	-
Fibrous Tremolite	-

Visual Estimation Of Fibre Content

Estimation of fibre content is not permitted as part of our UKAS accredited test other than: - Trace - Where only one or two asbestos fibres were identified.

Respirable Fibres

Respirable fibres are defined as fibres of <3 µm diameter, longer than 5 µm and with aspect ratios of at least 3:1 that can be inhaled into the lower regions of the lung and are generally acknowledged to be most important predictor of hazard and risk for cancers of the lung.

Further guidance on typical asbestos fibre content of manufactured products can be found in HSG 264.

The identification of asbestos containing materials and soils falls within our schedule of tests for which we hold UKAS accreditation, however opinions, interpretations and all other information contained in the report are outside the scope of UKAS accreditation.

Unit 7-8 Hawarden Business Park
Manor Road (off Manor Lane)
Hawarden
Deeside
CH5 3US
Tel: (01244) 528777
email: hawardencustomerservices@alsglobal.com
Website: www.alsenvironmental.co.uk

Wardell Armstrong LLP
36 Park Row
Leeds
LS1 5JL

Attention: Jonathan Currie

CERTIFICATE OF ANALYSIS

Date of report Generation:	30 June 2022
Customer:	Wardell Armstrong LLP
Sample Delivery Group (SDG):	220623-96
Your Reference:	LD10385
Location:	Ten Acres Lane
Report No:	652588
Order Number:	LD2907

This report has been revised and directly supersedes 652101 in its entirety.

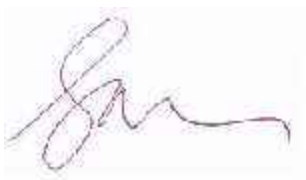
We received 2 samples on Thursday June 23, 2022 and 2 of these samples were scheduled for analysis which was completed on Thursday June 30, 2022. Accredited laboratory tests are defined within the report, but opinions, interpretations and on-site data expressed herein are outside the scope of ISO 17025 accreditation.

Should this report require incorporation into client reports, it must be used in its entirety and not simply with the data sections alone.

Chemical testing (unless subcontracted) performed at ALS Life Sciences Ltd Hawarden.

All sample data is provided by the customer. The reported results relate to the sample supplied, and on the basis that this data is correct.
Incorrect sampling dates and/or sample information will affect the validity of results.
The customer is not permitted to reproduce this report except in full without the approval of the laboratory.

Approved By:



Sonia McWhan

Operations Manager

1291

CERTIFICATE OF ANALYSIS

SDG: 220623-96 **Report Number:** 652588 **Superseded Report:** 652101
Client Ref.: LD10385 **Location:** Ten Acres Lane

Received Sample Overview

Lab Sample No(s)	Customer Sample Ref.	AGS Ref.	Depth (m)	Sampled Date
26477244	CP206		0.00 - 0.00	22/06/2022
26477226	RH201		0.00 - 0.00	22/06/2022

Only received samples which have had analysis scheduled will be shown on the following pages.

Validated

CERTIFICATE OF ANALYSIS

SDG: 220623-96 **Report Number:** 652588 **Superseded Report:** 652101

Client Ref.: LD10385 **Location:** Ten Acres Lane

Results Legend

X Test

N No Determination Possible

Sample Types -

S - Soil/Solid
UNS - Unspecified Solid
GW - Ground Water
SW - Surface Water
LE - Land Leachate
PL - Prepared Leachate
PR - Process Water
SA - Saline Water
TE - Trade Effluent
TS - Treated Sewage
US - Untreated Sewage
RE - Recreational Water
DW - Drinking Water Non-regulatory
UNL - Unspecified Liquid
SL - Sludge
G - Gas
OTH - Other

			Lab Sample No(s)	Customer Sample Reference	AGS Reference	Depth (m)	Container	Sample Type
			26477244	CP206		0.00 - 0.00	0.5l glass bottle (ALE227)	GW
							250ml Amber Gl. PTFE/PE (ALE219)	GW
							500ml Plastic (ALE208)	GW
							H2SO4 (ALE244)	GW
							HNO3 Filtered (ALE204)	GW
							NaOH (ALE245)	GW
							Vial (ALE297)	GW
			26477226	RH201		0.00 - 0.00	0.5l glass bottle (ALE227)	GW
							1lplastic (ALE221)	GW
							250ml Amber Gl. PTFE/PE (ALE219)	GW
							500ml Plastic (ALE208)	GW
							H2SO4 (ALE244)	GW
							HNO3 Filtered (ALE204)	GW
							NaOH (ALE245)	GW
							Vial (ALE297)	GW
							ZnAc (ALE246)	GW
Alkalinity as CaCO3	All	NDPs: 0 Tests: 2						
							X	
							X	
Anions by Kone (w)	All	NDPs: 0 Tests: 2						
							X	
							X	
Cyanide Comp/Free/Total/Thiocyanate	All	NDPs: 0 Tests: 2						
							X	
								X
Dissolved Metals by ICP-MS	All	NDPs: 0 Tests: 2						
							X	
								X
Dissolved Organic/Inorganic Carbon	All	NDPs: 0 Tests: 2						
			X					
							X	
EPH CWG (Aliphatic) Aqueous GC (W)	All	NDPs: 0 Tests: 2						
				X				
							X	
EPH CWG (Aromatic) Aqueous GC (W)	All	NDPs: 0 Tests: 2						
				X				
							X	
GRO by GC-FID (W)	All	NDPs: 0 Tests: 2						
							X	
								X
Low Level Hexavalent Chromium (w)	All	NDPs: 0 Tests: 2						
				X				
							X	
Mercury Dissolved	All	NDPs: 0 Tests: 2						
							X	
								X
PAH Spec MS - Aqueous (W)	All	NDPs: 0 Tests: 2						
				X				
							X	
PFAS (Post Ox.) Liquids	All	NDPs: 0 Tests: 1						
							X	
PFAS Liquids	All	NDPs: 0 Tests: 1						
							X	
pH Value	All	NDPs: 0 Tests: 2						
							X	
								X
Phenols by HPLC (W)	All	NDPs: 0 Tests: 2						
					X			
								X

CERTIFICATE OF ANALYSIS

SDG: 220623-96 **Report Number:** 652588 **Superseded Report:** 652101
Client Ref.: LD10385 **Location:** Ten Acres Lane

Results Legend

X Test

N No Determination Possible

Sample Types -
S - Soil/Solid
UNS - Unspecified Solid
GW - Ground Water
SW - Surface Water
LE - Land Leachate
PL - Prepared Leachate
PR - Process Water
SA - Saline Water
TE - Trade Effluent
TS - Treated Sewage
US - Untreated Sewage
RE - Recreational Water
DW - Drinking Water Non-regulatory
UNL - Unspecified Liquid
SL - Sludge
G - Gas
OTH - Other

Lab Sample No(s)										26477244										26477226
Customer Sample Reference										CP206										RH201
AGS Reference																				
Depth (m)										0.00 - 0.00										0.00 - 0.00
Container										0.5l glass bottle (ALE227)	250ml Amber Gl. PTFE/PE (ALE219)	500ml Plastic (ALE208)	H2SO4 (ALE244)	HNO3 Filtered (ALE204)	NaOH (ALE245)	Vial (ALE297)	0.5l glass bottle (ALE227)	1lplastic (ALE221)	250ml Amber Gl. PTFE/PE (ALE219)	500ml Plastic (ALE208)	H2SO4 (ALE244)	HNO3 Filtered (ALE204)	NaOH (ALE245)	Vial (ALE297)	ZnAc (ALE246)
Sample Type										GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
Redox Potential	All	NDPs: 0 Tests: 2								X							X								
Sulphide	All	NDPs: 0 Tests: 2										X													X
SVOC MS (W) - Aqueous	All	NDPs: 0 Tests: 2								X							X								
TPH CWG (W)	All	NDPs: 0 Tests: 2								X							X								
VOC MS (W)	All	NDPs: 0 Tests: 2														X								X	

CERTIFICATE OF ANALYSIS

SDG: 220623-96 **Report Number:** 652588 **Superseded Report:** 652101
Client Ref.: LD10385 **Location:** Ten Acres Lane

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4+§@ Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	CP206	RH201				
			Depth (m)	0.00 - 0.00	0.00 - 0.00				
			Sample Type	Ground Water (GW)	Ground Water (GW)				
			Date Sampled	22/06/2022	22/06/2022				
			Sample Time	12:00	14:00				
			Date Received	23/06/2022	23/06/2022				
			SDG Ref	220623-96	220623-96				
			Lab Sample No.(s)	26477244	26477226				
			AGS Reference						
Alkalinity, Total as CaCO3	<2 mg/l	TM043		860 #	540 #				
Carbon, Organic (diss.filt)	<3 mg/l	TM090		8.9	<6				
Sulphide	<0.01 mg/l	TM101		<0.01 2 #	<0.01 #				
Redox potential	mV	TM110		-2	-24				
Arsenic (diss.filt)	<0.5 µg/l	TM152		11.9 2 #	1.63 2 #				
Boron (diss.filt)	<10 µg/l	TM152		1250 2 #	103 2 #				
Cadmium (diss.filt)	<0.08 µg/l	TM152		<0.08 2 #	<0.08 2 #				
Chromium (diss.filt)	<1 µg/l	TM152		<1 2 #	<1 2 #				
Copper (diss.filt)	<0.3 µg/l	TM152		0.989 2 #	0.914 2 #				
Lead (diss.filt)	<0.2 µg/l	TM152		0.668 2 #	0.588 2 #				
Manganese (diss.filt)	<3 µg/l	TM152		940 2 #	993 2 #				
Nickel (diss.filt)	<0.4 µg/l	TM152		3.24 2 #	6.18 2 #				
Selenium (diss.filt)	<1 µg/l	TM152		<1 2 #	<1 2 #				
Zinc (diss.filt)	<1 µg/l	TM152		9.13 2 #	3.85 2 #				
Calcium (Dis.Filt)	<0.2 mg/l	TM152		231 2 #	159 2 #				
Mercury (diss.filt)	<0.01 µg/l	TM183		<0.01 2 #	<0.01 2 #				
Sulphate	<2 mg/l	TM184		333 #	276 #				
Cyanide, Total	<0.05 mg/l	TM227		<0.05 #	<0.05 #				
Cyanide, Free	<0.05 mg/l	TM227		<0.05 #	<0.05 #				
Thiocyanate	<0.05 mg/l	TM227		<0.05 #	<0.05 #				
pH	<1 pH Units	TM256		7.16 #	7.33 #				
Phenol	<0.002 mg/l	TM259		<0.002 #	<0.002 #				
Cresols	<0.006 mg/l	TM259		<0.006 #	<0.006 #				
Xylenols	<0.008 mg/l	TM259		<0.008 #	<0.008 #				
Phenols, Total Detected monohydric	<0.016 mg/l	TM259		<0.016 #	<0.016 #				
Low Level Hexavalent Chromium	<0.003 mg/l	TM331		<0.003	<0.003				
PFBA (375-22-4)	<2 ng/l	TM337			<11 #				
PFPA (2706-90-3)	<1 ng/l	TM337			<5 #				
PFHxA (307-24-4)	<1 ng/l	TM337			<5 #				
PFBS (375-73-5)	<1 ng/l	TM337			<5 #				
PFHpA (375-85-9)	<1 ng/l	TM337			<5 #				
6:2 FTS (27619-97-2)	<1 ng/l	TM337			<5 #				
PFOA (335-67-1)	<0.65 ng/l	TM337			<5.3 #				

CERTIFICATE OF ANALYSIS

SDG: 220623-96 **Report Number:** 652588 **Superseded Report:** 652101
Client Ref.: LD10385 **Location:** Ten Acres Lane

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4+§@ Sample deviation (see appendix)

Customer Sample Ref.			CP206	RH201				
Depth (m)			0.00 - 0.00	0.00 - 0.00				
Sample Type			Ground Water (GW)	Ground Water (GW)				
Date Sampled			22/06/2022	22/06/2022				
Sample Time			12:00	14:00				
Date Received			23/06/2022	23/06/2022				
SDG Ref			220623-96	220623-96				
Lab Sample No.(s)			26477244	26477226				
AGS Reference								
Component	**LOD/Units**	**Method**						
PFHxS (355-46-4)	<1 ng/l	TM337		<5 #				
PFNA (375-95-1)	<1 ng/l	TM337		<5 #				
PFHpS (375-92-8)	<1 ng/l	TM337		<5 #				
PFDA (335-76-2)	<1 ng/l	TM337		<5 #				
Linear PFOS (1763-23-1)	<0.65 ng/l	TM337		<3.25 #				
Branched PFOS	<0.65 ng/l	TM337		<3.25 #				
PFUnA (2058-94-8)	<1 ng/l	TM337		<5 #				
PFDoA (307-55-1)	<1 ng/l	TM337		<5 #				
PFOSA (754-91-6)	<2 ng/l	TM337		<10 #				
PFDS (335-77-3)	<1 ng/l	TM337		<5				
PFPeS (2706-91-4)	<1 ng/l	TM337		<5 #				
Total PFOS	<0.65 ng/l	TM337		<3.25 #				
PFBA (Post Ox.) (375-22-4)	<4 ng/l	TM405		<10				
PFPA (Post Ox.) (2706-90-3)	<2 ng/l	TM405		<5				
PFHxA (Post Ox.) (307-24-4)	<2 ng/l	TM405		<5				
PFBS (Post Ox.) (375-73-5)	<2 ng/l	TM405		<5				
PFHpA (Post Ox.) (375-85-9)	<2 ng/l	TM405		<5				
6:2 FTS (Post Ox.) (27619-97-2)	<2 ng/l	TM405		<5				
PFOA (Post Ox.) (335-67-1)	<2 ng/l	TM405		<5				
PFHxS (Post Ox.) (355-46-4)	<2 ng/l	TM405		<5				
PFNA (Post Ox.) (375-95-1)	<2 ng/l	TM405		<5				
PFHpS (Post Ox.) (375-92-8)	<2 ng/l	TM405		<5				
PFDA (Post Ox.) (335-76-2)	<2 ng/l	TM405		<5				
Linear PFOS (Post Ox.) (1763-23-1)	<2 ng/l	TM405		<5				
Branched PFOS (Post Ox.)	<2 ng/l	TM405		<5				
PFUnA (Post Ox.) (2058-94-8)	<2 ng/l	TM405		<5				
PFDoA (Post Ox.) (307-55-1)	<2 ng/l	TM405		<5				
PFOSA (Post Ox.) (754-91-6)	<4 ng/l	TM405		<10				
PFDS (Post Ox.) (335-77-3)	<2 ng/l	TM405		<5				
PFPeS (Post Ox.) (2706-91-4)	<2 ng/l	TM405		<5				
Total PFOS (Post Ox.)	<2 ng/l	TM405		<5				

CERTIFICATE OF ANALYSIS

SDG: 220623-96 **Report Number:** 652588 **Superseded Report:** 652101
Client Ref.: LD10385 **Location:** Ten Acres Lane

PAH Spec MS - Aqueous (W)

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	CP206	RH201				
			Depth (m)	0.00 - 0.00	0.00 - 0.00				
			Sample Type	Ground Water (GW)	Ground Water (GW)				
			Date Sampled	22/06/2022	22/06/2022				
			Sample Time	12:00	14:00				
			Date Received	23/06/2022	23/06/2022				
			SDG Ref	220623-96	220623-96				
			Lab Sample No.(s)	26477244	26477226				
			AGS Reference						
Naphthalene (aq)	<0.01 µg/l	TM178		0.122 #	0.0492 #				
Acenaphthene (aq)	<0.005 µg/l	TM178		0.0643 #	0.0143 #				
Acenaphthylene (aq)	<0.005 µg/l	TM178		0.01 #	0.012 #				
Fluoranthene (aq)	<0.005 µg/l	TM178		0.655 #	0.523 #				
Anthracene (aq)	<0.005 µg/l	TM178		0.0988 #	0.0678 #				
Phenanthrene (aq)	<0.005 µg/l	TM178		0.6 #	0.274 #				
Fluorene (aq)	<0.005 µg/l	TM178		0.0821 #	0.0259 #				
Chrysene (aq)	<0.005 µg/l	TM178		0.546 #	0.425 #				
Pyrene (aq)	<0.005 µg/l	TM178		0.633 #	0.498 #				
Benzo(a)anthracene (aq)	<0.005 µg/l	TM178		0.441 #	0.348 #				
Benzo(b)fluoranthene (aq)	<0.005 µg/l	TM178		0.832 #	0.861 #				
Benzo(k)fluoranthene (aq)	<0.005 µg/l	TM178		0.344 #	0.331 #				
Benzo(a)pyrene (aq)	<0.002 µg/l	TM178		0.631 #	0.673 #				
Dibenzo(a,h)anthracene (aq)	<0.005 µg/l	TM178		0.12 #	0.128 #				
Benzo(g,h,i)perylene (aq)	<0.005 µg/l	TM178		0.516 #	0.587 #				
Indeno(1,2,3-cd)pyrene (aq)	<0.005 µg/l	TM178		0.463 #	0.54 #				
PAH, Total Detected USEPA 16 (aq)	<0.082 µg/l	TM178		6.16 #	5.36 #				

CERTIFICATE OF ANALYSIS

SDG: 220623-96 **Report Number:** 652588 **Superseded Report:** 652101
Client Ref.: LD10385 **Location:** Ten Acres Lane

SVOC MS (W) - Aqueous

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4+§@ Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	CP206	RH201				
			Depth (m)	0.00 - 0.00	0.00 - 0.00				
			Sample Type	Ground Water (GW)	Ground Water (GW)				
			Date Sampled	22/06/2022	22/06/2022				
			Sample Time	12:00	14:00				
			Date Received	23/06/2022	23/06/2022				
			SDG Ref	220623-96	220623-96				
			Lab Sample No.(s)	26477244	26477226				
			AGS Reference						
1,2,4-Trichlorobenzene (aq)	<1 µg/l	TM176		<10 #	<10 #				
1,2-Dichlorobenzene (aq)	<1 µg/l	TM176		<10 #	<10 #				
1,3-Dichlorobenzene (aq)	<1 µg/l	TM176		<10 #	<10 #				
1,4-Dichlorobenzene (aq)	<1 µg/l	TM176		<10 #	<10 #				
2,4,5-Trichlorophenol (aq)	<1 µg/l	TM176		<10 #	<10 #				
2,4,6-Trichlorophenol (aq)	<1 µg/l	TM176		<10 #	<10 #				
2,4-Dichlorophenol (aq)	<1 µg/l	TM176		<10 #	<10 #				
2,4-Dimethylphenol (aq)	<1 µg/l	TM176		<10 #	<10 #				
2,4-Dinitrotoluene (aq)	<1 µg/l	TM176		<10 #	<10 #				
2,6-Dinitrotoluene (aq)	<1 µg/l	TM176		<10 #	<10 #				
2-Chloronaphthalene (aq)	<1 µg/l	TM176		<10 #	<10 #				
2-Chlorophenol (aq)	<1 µg/l	TM176		<10 #	<10 #				
2-Methylnaphthalene (aq)	<1 µg/l	TM176		<10 #	<10 #				
2-Methylphenol (aq)	<1 µg/l	TM176		<10 #	<10 #				
2-Nitroaniline (aq)	<1 µg/l	TM176		<10 #	<10 #				
2-Nitrophenol (aq)	<1 µg/l	TM176		<10 #	<10 #				
3-Nitroaniline (aq)	<1 µg/l	TM176		<10	<10				
4-Bromophenylphenylether (aq)	<1 µg/l	TM176		<10 #	<10 #				
4-Chloro-3-methylphenol (aq)	<1 µg/l	TM176		<10 #	<10 #				
4-Chloroaniline (aq)	<1 µg/l	TM176		<10	<10				
4-Chlorophenylphenylether (aq)	<1 µg/l	TM176		<10 #	<10 #				
4-Methylphenol (aq)	<1 µg/l	TM176		<10 #	<10 #				
4-Nitroaniline (aq)	<1 µg/l	TM176		<10 #	<10 #				
4-Nitrophenol (aq)	<1 µg/l	TM176		<10	<10				
Azobenzene (aq)	<1 µg/l	TM176		<10 #	<10 #				
Acenaphthylene (aq)	<1 µg/l	TM176		<10 #	<10 #				
Acenaphthene (aq)	<1 µg/l	TM176		<10 #	<10 #				
Anthracene (aq)	<1 µg/l	TM176		<10 #	<10 #				
bis(2-Chloroethyl)ether (aq)	<1 µg/l	TM176		<10 #	<10 #				
bis(2-Chloroethoxy)methane (aq)	<1 µg/l	TM176		<10 #	<10 #				
bis(2-Ethylhexyl) phthalate (aq)	<2 µg/l	TM176		<20 #	<20 #				
Butylbenzyl phthalate (aq)	<1 µg/l	TM176		<10 #	<10 #				
Benzo(a)anthracene (aq)	<1 µg/l	TM176		<10 #	<10 #				

CERTIFICATE OF ANALYSIS

SDG: 220623-96 **Report Number:** 652588 **Superseded Report:** 652101
Client Ref.: LD10385 **Location:** Ten Acres Lane

SVOC MS (W) - Aqueous

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4+§@ Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	CP206	RH201				
			Depth (m)	0.00 - 0.00	0.00 - 0.00				
			Sample Type	Ground Water (GW)	Ground Water (GW)				
			Date Sampled	22/06/2022	22/06/2022				
			Sample Time	12:00	14:00				
			Date Received	23/06/2022	23/06/2022				
			SDG Ref	220623-96	220623-96				
			Lab Sample No.(s)	26477244	26477226				
			AGS Reference						
Benzo(b)fluoranthene (aq)	<1 µg/l	TM176		<10 #	<10 #				
Benzo(k)fluoranthene (aq)	<1 µg/l	TM176		<10 #	<10 #				
Benzo(a)pyrene (aq)	<1 µg/l	TM176		<10 #	<10 #				
Benzo(g,h,i)perylene (aq)	<1 µg/l	TM176		<10 #	<10 #				
Carbazole (aq)	<1 µg/l	TM176		<10 #	<10 #				
Chrysene (aq)	<1 µg/l	TM176		<10 #	<10 #				
Dibenzofuran (aq)	<1 µg/l	TM176		<10 #	<10 #				
n-Dibutyl phthalate (aq)	<1 µg/l	TM176		<10 #	<10 #				
Diethyl phthalate (aq)	<1 µg/l	TM176		<10 #	<10 #				
Dibenzo(a,h)anthracene (aq)	<1 µg/l	TM176		<10 #	<10 #				
Dimethyl phthalate (aq)	<1 µg/l	TM176		<10 #	<10 #				
n-Dioctyl phthalate (aq)	<5 µg/l	TM176		<50 #	<50 #				
Fluoranthene (aq)	<1 µg/l	TM176		<10 #	<10 #				
Fluorene (aq)	<1 µg/l	TM176		<10 #	<10 #				
Hexachlorobenzene (aq)	<1 µg/l	TM176		<10 #	<10 #				
Hexachlorobutadiene (aq)	<1 µg/l	TM176		<10 #	<10 #				
Pentachlorophenol (aq)	<1 µg/l	TM176		<10	<10				
Phenol (aq)	<1 µg/l	TM176		<10	<10				
n-Nitroso-n-dipropylamine (aq)	<1 µg/l	TM176		<10 #	<10 #				
Hexachloroethane (aq)	<1 µg/l	TM176		<10 #	<10 #				
Nitrobenzene (aq)	<1 µg/l	TM176		<10 #	<10 #				
Naphthalene (aq)	<1 µg/l	TM176		<10 #	<10 #				
Isophorone (aq)	<1 µg/l	TM176		<10 #	<10 #				
Hexachlorocyclopentadiene (aq)	<1 µg/l	TM176		<10	<10				
Phenanthrene (aq)	<1 µg/l	TM176		<10 #	<10 #				
Indeno(1,2,3-cd)pyrene (aq)	<1 µg/l	TM176		<10 #	<10 #				
Pyrene (aq)	<1 µg/l	TM176		<10 #	<10 #				

CERTIFICATE OF ANALYSIS

SDG: 220623-96 **Report Number:** 652588 **Superseded Report:** 652101
Client Ref.: LD10385 **Location:** Ten Acres Lane

TPH CWG (W)

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4+$@ Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	CP206	RH201				
			Depth (m)	0.00 - 0.00	0.00 - 0.00				
			Sample Type	Ground Water (GW)	Ground Water (GW)				
			Date Sampled	22/06/2022	22/06/2022				
			Sample Time	12:00	14:00				
			Date Received	23/06/2022	23/06/2022				
			SDG Ref	220623-96	220623-96				
			Lab Sample No.(s)	26477244	26477226				
			AGS Reference						
GRO Surrogate % recovery**	%	TM245		100	107				
GRO >C5-C12	<50 µg/l	TM245		<50 #	<50 #				
Aliphatics >C5-C6	<10 µg/l	TM245		<10	<10				
Aliphatics >C6-C8	<10 µg/l	TM245		<10	<10				
Aliphatics >C8-C10	<10 µg/l	TM245		<10	<10				
Aliphatics >C10-C12	<10 µg/l	TM245		<10	<10				
Aliphatics >C12-C16 (aq)	<10 µg/l	TM174		<10	165				
Aliphatics >C16-C21 (aq)	<10 µg/l	TM174		14	19				
Aliphatics >C21-C35 (aq)	<10 µg/l	TM174		77	107				
Total Aliphatics >C12-C35 (aq)	<10 µg/l	TM174		91	291				
Aromatics >EC5-EC7	<10 µg/l	TM245		<10	<10				
Aromatics >EC7-EC8	<10 µg/l	TM245		<10	<10				
Aromatics >EC8-EC10	<10 µg/l	TM245		<10	<10				
Aromatics >EC10-EC12	<10 µg/l	TM245		<10	<10				
Aromatics >EC12-EC16 (aq)	<10 µg/l	TM174		<10	<10				
Aromatics >EC16-EC21 (aq)	<10 µg/l	TM174		<10	<10				
Aromatics >EC21-EC35 (aq)	<10 µg/l	TM174		<10	<10				
Total Aromatics >EC12-EC35 (aq)	<10 µg/l	TM174		<10	<10				
Total Aliphatics & Aromatics >C5-35 (aq)	<10 µg/l	TM174		91	291				
Aliphatics >C16-C35 Aqueous	<10 µg/l	TM174		91	126				

CERTIFICATE OF ANALYSIS

SDG: 220623-96 **Report Number:** 652588 **Superseded Report:** 652101
Client Ref.: LD10385 **Location:** Ten Acres Lane

VOC MS (W)

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
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- (F) Trigger breach confirmed
- 1-4+§@ Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	CP206	RH201				
			Depth (m)	0.00 - 0.00	0.00 - 0.00				
			Sample Type	Ground Water (GW)	Ground Water (GW)				
			Date Sampled	22/06/2022	22/06/2022				
			Sample Time	12:00	14:00				
			Date Received	23/06/2022	23/06/2022				
			SDG Ref	220623-96	220623-96				
			Lab Sample No.(s)	26477244	26477226				
			AGS Reference						
Dibromofluoromethane**	%	TM208		116	116				
Toluene-d8**	%	TM208		95.1	98.1				
4-Bromofluorobenzene**	%	TM208		84.2	92.6				
Dichlorodifluoromethane	<1 µg/l	TM208		<1 #	<1 #				
Chloromethane	<1 µg/l	TM208		<1 #	<1 #				
Vinyl chloride	<1 µg/l	TM208		<1 #	<1 #				
Bromomethane	<1 µg/l	TM208		<1 #	<1 #				
Chloroethane	<1 µg/l	TM208		<1 #	<1 #				
Trichlorofluoromethane	<1 µg/l	TM208		<1 #	<1 #				
1,1-Dichloroethene	<1 µg/l	TM208		<1 #	<1 #				
Carbon disulphide	<1 µg/l	TM208		<1 #	<1 #				
Dichloromethane	<3 µg/l	TM208		<5 #	<5 #				
Methyl tertiary butyl ether (MTBE)	<1 µg/l	TM208		<1 #	<1 #				
trans-1,2-Dichloroethene	<1 µg/l	TM208		<1 #	<1 #				
1,1-Dichloroethane	<1 µg/l	TM208		<1 #	<1 #				
cis-1,2-Dichloroethene	<1 µg/l	TM208		<1 #	<1 #				
2,2-Dichloropropane	<1 µg/l	TM208		<1	<1				
Bromochloromethane	<1 µg/l	TM208		<1 #	<1 #				
Chloroform	<1 µg/l	TM208		<1 #	<1 #				
1,1,1-Trichloroethane	<1 µg/l	TM208		<1 #	<1 #				
1,1-Dichloropropene	<1 µg/l	TM208		<1 #	<1 #				
Carbontetrachloride	<1 µg/l	TM208		<1 #	<1 #				
1,2-Dichloroethane	<1 µg/l	TM208		<1 #	<1 #				
Benzene	<1 µg/l	TM208		<1 #	<1 #				
Trichloroethene	<1 µg/l	TM208		<1 #	<1 #				
1,2-Dichloropropane	<1 µg/l	TM208		<1 #	<1 #				
Dibromomethane	<1 µg/l	TM208		<1 #	<1 #				
Bromodichloromethane	<1 µg/l	TM208		<1 #	<1 #				
cis-1,3-Dichloropropene	<1 µg/l	TM208		<1 #	<1 #				
Toluene	<1 µg/l	TM208		<1 #	<1 #				
trans-1,3-Dichloropropene	<1 µg/l	TM208		<1 #	<1 #				
1,1,2-Trichloroethane	<1 µg/l	TM208		<1 #	<1 #				
1,3-Dichloropropane	<1 µg/l	TM208		<1 #	<1 #				

CERTIFICATE OF ANALYSIS

SDG: 220623-96 **Report Number:** 652588 **Superseded Report:** 652101
Client Ref.: LD10385 **Location:** Ten Acres Lane

VOC MS (W)

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4+§@ Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	CP206	RH201				
			Depth (m)	0.00 - 0.00	0.00 - 0.00				
			Sample Type	Ground Water (GW)	Ground Water (GW)				
			Date Sampled	22/06/2022	22/06/2022				
			Sample Time	12:00	14:00				
			Date Received	23/06/2022	23/06/2022				
			SDG Ref	220623-96	220623-96				
			Lab Sample No.(s)	26477244	26477226				
			AGS Reference						
Tetrachloroethene	<1 µg/l	TM208		<1 #	<1 #				
Dibromochloromethane	<1 µg/l	TM208		<1 #	<1 #				
1,2-Dibromoethane	<1 µg/l	TM208		<1 #	<1 #				
Chlorobenzene	<1 µg/l	TM208		<1 #	<1 #				
1,1,1,2-Tetrachloroethane	<1 µg/l	TM208		<1 #	<1 #				
Ethylbenzene	<1 µg/l	TM208		<1 #	<1 #				
m,p-Xylene	<1 µg/l	TM208		<1 #	<1 #				
o-Xylene	<1 µg/l	TM208		<1 #	<1 #				
Styrene	<1 µg/l	TM208		<1 #	<1 #				
Bromoform	<1 µg/l	TM208		<1 #	<1 #				
Isopropylbenzene	<1 µg/l	TM208		<1 #	<1 #				
1,1,2,2-Tetrachloroethane	<1 µg/l	TM208		<1 #	<1 #				
1,2,3-Trichloropropane	<1 µg/l	TM208		<1 #	<1 #				
Bromobenzene	<1 µg/l	TM208		<1 #	<1 #				
Propylbenzene	<1 µg/l	TM208		<1 #	<1 #				
2-Chlorotoluene	<1 µg/l	TM208		<1 #	<1 #				
1,3,5-Trimethylbenzene	<1 µg/l	TM208		<1 #	<1 #				
4-Chlorotoluene	<1 µg/l	TM208		<1 #	<1 #				
tert-Butylbenzene	<1 µg/l	TM208		<1 #	<1 #				
1,2,4-Trimethylbenzene	<1 µg/l	TM208		<1 #	<1 #				
sec-Butylbenzene	<1 µg/l	TM208		<1 #	<1 #				
4-iso-Propyltoluene	<1 µg/l	TM208		<1 #	<1 #				
1,3-Dichlorobenzene	<1 µg/l	TM208		<1 #	<1 #				
1,4-Dichlorobenzene	<1 µg/l	TM208		<1 #	<1 #				
n-Butylbenzene	<1 µg/l	TM208		<1 #	<1 #				
1,2-Dichlorobenzene	<1 µg/l	TM208		<1 #	<1 #				
1,2-Dibromo-3-chloropropane	<1 µg/l	TM208		<1	<1				
1,2,4-Trichlorobenzene	<1 µg/l	TM208		<1 #	<1 #				
Hexachlorobutadiene	<1 µg/l	TM208		<1 #	<1 #				
tert-Amyl methyl ether (TAME)	<1 µg/l	TM208		<1 #	<1 #				
Naphthalene	<1 µg/l	TM208		<1 #	<1 #				
1,2,3-Trichlorobenzene	<1 µg/l	TM208		<1 #	<1 #				
1,3,5-Trichlorobenzene	<1 µg/l	TM208		<1	<1				

Validated

CERTIFICATE OF ANALYSIS

SDG: 220623-96 **Report Number:** 652588 **Superseded Report:** 652101

Client Ref.: LD10385 **Location:** Ten Acres Lane

VOC MS (W)

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	CP206	RH201
			Depth (m)	0.00 - 0.00	0.00 - 0.00
			Sample Type	Ground Water (GW)	Ground Water (GW)
			Date Sampled	22/06/2022	22/06/2022
			Sample Time	12:00	14:00
			Date Received	23/06/2022	23/06/2022
			SDG Ref	220623-96	220623-96
			Lab Sample No.(s)	26477244	26477226
			AGS Reference		
Sum of detected Xylenes	<2 µg/l	TM208		<2	<2
Sum of BTEX	<5 µg/l	TM208		<5	<5

Table of Results - Appendix

Method No	Reference	Description
TM043	Method 2320B, AWWA/APHA, 20th Ed., 1999 / BS 2690: Part109 1984	Determination of alkalinity in aqueous samples
TM090	Method 5310, AWWA/APHA, 20th Ed., 1999 / Modified: US EPA Method 415.1 & 9060	Determination of Total Organic Carbon/Total Inorganic Carbon in Water and Waste Water
TM101	Method 4500B & C, AWWA/APHA, 20th Ed., 1999	Determination of Sulphide in soil and water samples using the Kone Analyser
TM110	BS 1377: Part 3 1990	Redox Potential
TM152	ISO 17294-2:2016 Water quality - Application of inductively coupled plasma mass spectrometry (ICP-MS)	Analysis of Aqueous Samples by ICP-MS
TM174	Analysis of Petroleum Hydrocarbons in Environmental Media – Total Petroleum Hydrocarbon Criteria	Determination of Speciated Extractable Petroleum Hydrocarbons in Waters by GC-FID
TM176	EPA 8270D Semi-Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)	Determination of SVOCs in Water by GCMS
TM178	Modified: US EPA Method 8100	Determination of Polynuclear Aromatic Hydrocarbons (PAH) by GC-MS in Waters
TM183	BS EN 23506:2002, (BS 6068-2.74:2002) ISBN 0 580 38924 3	Determination of Trace Level Mercury in Waters and Leachates by PSA Cold Vapour Atomic Fluorescence Spectrometry
TM184	EPA Methods 325.1 & 325.2,	The Determination of Anions in Aqueous Matrices using the Kone Spectrophotometric Analysers
TM208	Modified: US EPA Method 8260b & 624	Determination of Volatile Organic Compounds by Headspace / GC-MS in Waters
TM227	Standard methods for the examination of waters and wastewaters 20th Edition, AWWA/APHA Method 4500.	Determination of Total Cyanide, Free (Easily Liberatable) Cyanide and Thiocyanate
TM245	By GC-FID	Determination of GRO by Headspace in waters
TM256	The measurement of Electrical Conductivity and the Laboratory determination of pH Value of Natural, Treated and Wastewaters. HMSO, 1978. ISBN 011 751428 4, Standard Methods for the examination of waters and wastewaters 20th Edition, PHA, Washington DC, USA. ISBN 0-87553-235-7 and The Determination of Alkalinity and Acidity in water HMSO, 1981, ISBN 0 11 751601 5.	Determination of pH, EC, TDS and Alkalinity in Aqueous samples
TM259	by HPLC	Determination of Phenols in Waters and Leachates by HPLC
TM331		Low Level Hexavalent Chromium
TM337	PFAS in Environmental Water Matrices	Analysis of PFAS
TM405	PFAS (TOP Assay)	Analysis of perfluoroalkylsulfonates and perfluorocarboxylic acids - Total Oxidizable Precursor Assay

NA = not applicable.

Chemical testing (unless subcontracted) performed at ALS Life Sciences Ltd Hawarden (Method codes TM).

CERTIFICATE OF ANALYSIS

SDG: 220623-96 **Report Number:** 652588 **Superseded Report:** 652101
Client Ref.: LD10385 **Location:** Ten Acres Lane

Test Completion Dates

Lab Sample No(s)	26477244	26477226
Customer Sample Ref.	CP206	RH201
AGS Ref.		
Depth	0.00 - 0.00	0.00 - 0.00
Type	Ground Water	Ground Water
Alkalinity as CaCO3	23-Jun-2022	23-Jun-2022
Anions by Kone (w)	23-Jun-2022	23-Jun-2022
Cyanide Comp/Free/Total/Thiocyanate	24-Jun-2022	24-Jun-2022
Dissolved Metals by ICP-MS	24-Jun-2022	24-Jun-2022
Dissolved Organic/Inorganic Carbon	24-Jun-2022	24-Jun-2022
EPH CWG (Aliphatic) Aqueous GC (W)	24-Jun-2022	24-Jun-2022
EPH CWG (Aromatic) Aqueous GC (W)	24-Jun-2022	24-Jun-2022
GRO by GC-FID (W)	24-Jun-2022	24-Jun-2022
Low Level Hexavalent Chromium (w)	23-Jun-2022	23-Jun-2022
Mercury Dissolved	24-Jun-2022	24-Jun-2022
PAH Spec MS - Aqueous (W)	24-Jun-2022	24-Jun-2022
PFAS (Post Ox.) Liquids		30-Jun-2022
PFAS Liquids		27-Jun-2022
pH Value	23-Jun-2022	23-Jun-2022
Phenols by HPLC (W)	24-Jun-2022	24-Jun-2022
Redox Potential	23-Jun-2022	23-Jun-2022
Sulphide	24-Jun-2022	24-Jun-2022
SVOC MS (W) - Aqueous	24-Jun-2022	24-Jun-2022
TPH CWG (W)	24-Jun-2022	24-Jun-2022
VOC MS (W)	24-Jun-2022	24-Jun-2022

SDG:	220623-96	**Report Number:**	652588	**Superseded Report:**	652101
Client Ref:	LD10385	**Location:**	Ten Acres Lane		

Appendix

General

1. Results are expressed on a dry weight basis (dried at 35ºC) for all soil analyses except for the following: NRA and CEN Leach tests, flash point LOI, pH, ammonium as NH4 by the BRE method, VOC TICs and SVOC TICs.

2. If sufficient sample is received a sub sample will be retained free of charge for 30 days after analysis is completed (e-mailed) for all sample types unless the sample is destroyed on testing. The prepared soil sub sample that is analysed for asbestos will be retained for a period of 6 months after the analysis date. All bulk samples will be retained for a period of 6 months after the analysis date. All samples received and not scheduled will be disposed of one month after the date of receipt unless we are instructed to the contrary. Once the initial period has expired, a storage charge will be applied for each month or part thereof until the client cancels the request for sample storage. ALS reserve the right to charge for samples received and stored but not analysed.

3. With respect to turnaround, we will always endeavour to meet client requirements wherever possible, but turnaround times cannot be absolutely guaranteed due to so many variables beyond our control.

4. We take responsibility for any test performed by sub-contractors (marked with an asterisk). We endeavour to use UKAS/MCERTS Accredited Laboratories, who either complete a quality questionnaire or are audited by ourselves. For some determinands there are no UKAS/MCERTS Accredited Laboratories, in this instance a laboratory with a known track record will be utilised.

5. If no separate volatile sample is supplied by the client, or if a headspace or sediment is present in the volatile sample, the integrity of the data may be compromised. This will be flagged up as an invalid VOC on the test schedule and the result marked as deviating on the test certificate.

6. NDP - No determination possible due to insufficient/unsuitable sample.

7. Results relate only to the items tested.

8. LoDs (Limit of Detection) for wet tests reported on a dry weight basis are not corrected for moisture content.

9. **Surrogate recoveries** - Surrogates are added to your sample to monitor recovery of the test requested. A % recovery is reported, results are not corrected for the recovery measured. Typical recoveries for organics tests are 70-130%. Recoveries in soils are affected by organic rich or clay rich matrices. Waters can be affected by remediation fluids or high amounts of sediment. Test results are only ever reported if all of the associated quality checks pass; it is assumed that all recoveries outside of the values above are due to matrix affect.

10. Stones/debris are not routinely removed. We always endeavour to take a representative sub sample from the received sample.

11. In certain circumstances the method detection limit may be elevated due to the sample being outside the calibration range. Other factors that may contribute to this include possible interferences. In both cases the sample would be diluted which would cause the method detection limit to be raised.

12. For dried and crushed preparations of soils volatile loss may occur e.g volatile mercury.

13. For leachate preparations other than Zero Headspace Extraction (ZHE) volatile loss may occur.

14. For the BSEN 12457-3 two batch process to allow the cumulative release to be calculated, the volume of the leachate produced is measured and filtered for all tests. We therefore cannot carry out any unfiltered analysis. The tests affected include volatiles GCFID/GCMS and all subcontracted analysis.

15. Analysis and identification of specific compounds using GCFID is by retention time only, and we routinely calibrate and quantify for benzene, toluene, ethylbenzenes and xylenes (BTEX). For total volatiles in the C5-C12 range, the total area of the chromatogram is integrated and expressed as ug/kg or ug/l. Although this analysis is commonly used for the quantification of gasoline range organics (GRO), the system will also detect other compounds such as chlorinated solvents, and this may lead to a falsely high result with respect to hydrocarbons only. It is not possible to specifically identify these non-hydrocarbons, as standards are not routinely run for any other compounds, and for more definitive identification, volatiles by GCMS should be utilised.

16. We are accredited to MCERTS for sand, clay and loam/topsoil, or any of these materials - whether these are derived from naturally occurring soil profiles, or from fill/made ground, as long as these materials constitute the major part of the sample. Other coarse granular material such as concrete, gravel and brick are not accredited if they comprise the major part of the sample.

17 Data retention. All records, communications and reports pertaining to the analysis are archived for seven years from the date of issue of the final report.

18. **Tentatively Identified Compounds (TICs)** are non-target peaks in VOC and SVOC analysis. All non-target peaks detected with a concentration above the LoD are subjected to a mass spectral library search. Non-target peaks with a library search confidence of >75% are reported based on the best mass spectral library match. When a non-target peak with a library search confidence of <75% is detected it is reported as “mixed hydrocarbons”. Non-target compounds identified from the scan data are semi-quantified relative to one of the deuterated internal standards, under the same chromatographic conditions as the target compounds. This result is reported as a semi-quantitative value and reported as Tentatively Identified Compounds (TICs). TICs are outside the scope of UKAS accreditation and are not moisture corrected.

19. **Sample Deviations**

If a sample is classed as deviated then the associated results may be compromised.

1	**Container with Headspace provided for volatiles analysis**
2	**Incorrect container received**
3	**Deviation from method**
4	**Matrix interference**
♦	**Sample holding time exceeded in laboratory**
@	**Sample holding time exceeded due to late arrival of instructions or samples**
§	**Sampled on date not provided**

20. **Asbestos**

When requested, the individual sub sample scheduled will be analysed in house for the presence of asbestos fibres and asbestos containing material by our documented in house method TM048 based on HSG 248 (2021), which is accredited to ISO17025. If a specific asbestos fibre type is not found this will be reported as “Not detected”. If no asbestos fibre types are found all will be reported as “Not detected” and the sub sample analysed deemed to be clear of asbestos. If an asbestos fibre type is found it will be reported as detected (for each fibre type found). Testing can be carried out on asbestos positive samples, but, due to Health and Safety considerations, may be replaced by alternative tests or reported as No Determination Possible (NDP). The quantity of asbestos present is not determined unless specifically requested.

Identification of Asbestos in Bulk Materials & Soils

The results for identification of asbestos in bulk materials and soils are obtained from supplied bulk materials andd soils which have been examined to determine the presence of asbestos fibres using ALS (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining, based on HSG 248 (2021).

The results for identification of asbestos in soils are obtained from a homogenised sub sample which has been examined to determine the presence of asbestos fibres using ALS (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining.

Asbestos Type	Common Name
Chrysotile	White Asbestos
Amosite	Brown Asbestos
Crocidolite	Blue Asbestos
Fibrous Actinolite	-
Fibrous Anthophyllite	-
Fibrous Tremolite	-

Visual Estimation Of Fibre Content

Estimation of fibre content is not permitted as part of our UKAS accredited test other than: - Trace - Where only one or two asbestos fibres were identified.

Respirable Fibres

Respirable fibres are defined as fibres of <3 µm diameter, longer than 5 µm and with aspect ratios of at least 3:1 that can be inhaled into the lower regions of the lung and are generally acknowledged to be most important predictor of hazard and risk for cancers of the lung.

Further guidance on typical asbestos fibre content of manufactured products can be found in HSG 264.

The identification of asbestos containing materials and soils falls within our schedule of tests for which we hold UKAS accreditation, however opinions, interpretations and all other information contained in the report are outside the scope of UKAS accreditation.

Unit 7-8 Hawarden Business Park
Manor Road (off Manor Lane)
Hawarden
Deeside
CH5 3US
Tel: (01244) 528777
email: hawardencustomerservices@alsglobal.com
Website: www.alsenvironmental.co.uk

Wardell Armstrong LLP
36 Park Row
Leeds
LS1 5JL

Attention: Jonathan Currie

CERTIFICATE OF ANALYSIS

Date of report Generation:	30 June 2022
Customer:	Wardell Armstrong LLP
Sample Delivery Group (SDG):	220623-99
Your Reference:	LD10385
Location:	Ten Acres Lane
Report No:	652591
Order Number:	LD2905

This report has been revised and directly supersedes 652103 in its entirety.

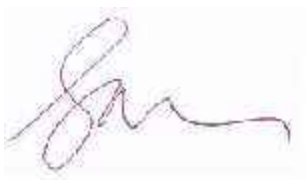
We received 3 samples on Thursday June 23, 2022 and 3 of these samples were scheduled for analysis which was completed on Thursday June 30, 2022. Accredited laboratory tests are defined within the report, but opinions, interpretations and on-site data expressed herein are outside the scope of ISO 17025 accreditation.

Should this report require incorporation into client reports, it must be used in its entirety and not simply with the data sections alone.

Chemical testing (unless subcontracted) performed at ALS Life Sciences Ltd Hawarden.

All sample data is provided by the customer. The reported results relate to the sample supplied, and on the basis that this data is correct.
Incorrect sampling dates and/or sample information will affect the validity of results.
The customer is not permitted to reproduce this report except in full without the approval of the laboratory.

Approved By:



Sonia McWhan

Operations Manager

1291

CERTIFICATE OF ANALYSIS

SDG: 220623-99 **Report Number:** 652591 **Superseded Report:** 652103
Client Ref.: LD10385 **Location:** Ten Acres Lane

Received Sample Overview

Lab Sample No(s)	Customer Sample Ref.	AGS Ref.	Depth (m)	Sampled Date
26477450	CP203		0.00 - 0.00	21/06/2022
26477482	WS308		0.00 - 0.00	21/06/2022
26477466	WS312		0.00 - 0.00	21/06/2022

Only received samples which have had analysis scheduled will be shown on the following pages.

Validated

CERTIFICATE OF ANALYSIS

SDG: 220623-99 **Report Number:** 652591 **Superseded Report:** 652103
Client Ref.: LD10385 **Location:** Ten Acres Lane

Results Legend

X Test

N No Determination Possible

Sample Types -
S - Soil/Solid
UNS - Unspecified Solid
GW - Ground Water
SW - Surface Water
LE - Land Leachate
PL - Prepared Leachate
PR - Process Water
SA - Saline Water
TE - Trade Effluent
TS - Treated Sewage
US - Untreated Sewage
RE - Recreational Water
DW - Drinking Water Non-regulatory
UNL - Unspecified Liquid
SL - Sludge
G - Gas
OTH - Other

			Lab Sample No(s)	Customer Sample Reference	AGS Reference	Depth (m)	Container	Sample Type
			26477450	CP203		0.00 - 0.00	0.5l glass bottle (ALE227)	GW
							1lplastic (ALE221)	GW
							250ml Amber Gl. PTFE/PE (ALE219)	GW
							500ml Plastic (ALE208)	GW
							H2SO4 (ALE244)	GW
							HNO3 Filtered (ALE204)	GW
							NaOH (ALE245)	GW
							Vial (ALE297)	GW
							ZnAc (ALE246)	GW
			26477482	WS308		0.00 - 0.00	0.5l glass bottle (ALE227)	GW
							1lplastic (ALE221)	GW
							250ml Amber Gl. PTFE/PE (ALE219)	GW
							500ml Plastic (ALE208)	GW
							H2SO4 (ALE244)	GW
							HNO3 Filtered (ALE204)	GW
							NaOH (ALE245)	GW
							Vial (ALE297)	GW
							ZnAc (ALE246)	GW
			26477466	WS312		0.00 - 0.00	0.5l glass bottle (ALE227)	GW
Alkalinity as CaCO3	All	NDPs: 0 Tests: 3						
				X				
							X	
Anions by Kone (w)	All	NDPs: 0 Tests: 3						
				X				
							X	
Cyanide Comp/Free/Total/Thiocyanate	All	NDPs: 0 Tests: 3						
							X	
							X	
Dissolved Metals by ICP-MS	All	NDPs: 0 Tests: 3						
							X	
							X	
Dissolved Organic/Inorganic Carbon	All	NDPs: 0 Tests: 3						
			X					
							X	
EPH CWG (Aliphatic) Aqueous GC (W)	All	NDPs: 0 Tests: 3						
							X	
							X	
EPH CWG (Aromatic) Aqueous GC (W)	All	NDPs: 0 Tests: 3						
							X	
							X	
GRO by GC-FID (W)	All	NDPs: 0 Tests: 3						
							X	
Low Level Hexavalent Chromium (w)	All	NDPs: 1 Tests: 2						
				N				
							X	
Mercury Dissolved	All	NDPs: 0 Tests: 3						
							X	
							X	
PAH Spec MS - Aqueous (W)	All	NDPs: 0 Tests: 3						
							X	
							X	
PFAS (Post Ox.) Liquids	All	NDPs: 0 Tests: 2						
				X				
							X	
PFAS Liquids	All	NDPs: 0 Tests: 2						
				X				
							X	
pH Value	All	NDPs: 0 Tests: 3						
				X				
							X	
Phenols by HPLC (W)	All	NDPs: 0 Tests: 3						
					X			
							X	

26477466	WS312		0.00 - 0.00	ZnAc (ALE246)	GW															
				Vial (ALE297)	GW							X								
				NaOH (ALE245)	GW			X												
				HNO3 Filtered (ALE204)	GW				X						X					
				H2SO4 (ALE244)	GW															X
				500ml Plastic (ALE208)	GW	X	X							X					X	
				250ml Amber Gl. PTFE/PE (ALE219)	GW						X	X				X				

Validated

CERTIFICATE OF ANALYSIS

SDG: 220623-99 **Report Number:** 652591 **Superseded Report:** 652103
Client Ref.: LD10385 **Location:** Ten Acres Lane

Results Legend

X Test

N No Determination Possible

Sample Types -
S - Soil/Solid
UNS - Unspecified Solid
GW - Ground Water
SW - Surface Water
LE - Land Leachate
PL - Prepared Leachate
PR - Process Water
SA - Saline Water
TE - Trade Effluent
TS - Treated Sewage
US - Untreated Sewage
RE - Recreational Water
DW - Drinking Water Non-regulatory
UNL - Unspecified Liquid
SL - Sludge
G - Gas
OTH - Other

Lab Sample No(s)										26477450									26477482			26477466
Customer Sample Reference										CP203									WS308			WS312
AGS Reference																						
Depth (m)										0.00 - 0.00									0.00 - 0.00			0.00 - 0.00
Container										0.5l glass bottle (ALE227)	1lplastic (ALE221)	250ml Amber Gl. PTFE/PE (ALE219)	500ml Plastic (ALE208)	H2SO4 (ALE244)	HNO3 Filtered (ALE204)	NaOH (ALE245)	Vial (ALE297)	ZnAc (ALE246)	0.5l glass bottle (ALE227)	1lplastic (ALE221)	250ml Amber Gl. PTFE/PE (ALE219)	500ml Plastic (ALE208)	H2SO4 (ALE244)	HNO3 Filtered (ALE204)	NaOH (ALE245)	Vial (ALE297)	ZnAc (ALE246)	0.5l glass bottle (ALE227)
Sample Type										GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
Redox Potential	All	NDPs: 0 Tests: 3																										
										X									X									X
Sulphide	All	NDPs: 0 Tests: 3																										
																		X									X	
SVOC MS (W) - Aqueous	All	NDPs: 0 Tests: 3																										
										X									X									X
TPH CWG (W)	All	NDPs: 0 Tests: 3																										
										X									X									X
VOC MS (W)	All	NDPs: 0 Tests: 3																										
																	X									X		

26477466	WS312		0.00 - 0.00	ZnAc (ALE246)	GW				X						
				Vial (ALE297)	GW										X
				NaOH (ALE245)	GW										
				HNO3 Filtered (ALE204)	GW										
				H2SO4 (ALE244)	GW										
				500ml Plastic (ALE208)	GW										
				250ml Amber Gl. PTFE/PE (ALE219)	GW										

CERTIFICATE OF ANALYSIS

SDG: 220623-99 **Report Number:** 652591 **Superseded Report:** 652103
Client Ref.: LD10385 **Location:** Ten Acres Lane

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4+§@ Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	CP203	WS308	WS312			
			Depth (m)	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00			
			Sample Type	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)			
			Date Sampled	21/06/2022	21/06/2022	21/06/2022			
			Sample Time	10:00	12:30	11:00			
			Date Received	23/06/2022	23/06/2022	23/06/2022			
			SDG Ref	220623-99	220623-99	220623-99			
			Lab Sample No.(s)	26477450	26477482	26477466			
			AGS Reference						
Alkalinity, Total as CaCO3	<2 mg/l	TM043		675 #	730 #	635 #			
Carbon, Organic (diss.filt)	<3 mg/l	TM090		10.5	8.43	8.18			
Sulphide	<0.01 mg/l	TM101		0.0359 #	0.0282 #	0.0428 #			
Redox potential	mV	TM110		-16	-38	-22			
Arsenic (diss.filt)	<0.5 µg/l	TM152		15.6 2 #	2.02 2 #	14.4 2 #			
Boron (diss.filt)	<10 µg/l	TM152		1340 2 #	235 2 #	1010 2 #			
Cadmium (diss.filt)	<0.08 µg/l	TM152		<0.08 2 #	<0.08 2 #	<0.08 2 #			
Chromium (diss.filt)	<1 µg/l	TM152		<1 2 #	<1 2 #	<1 2 #			
Copper (diss.filt)	<0.3 µg/l	TM152		0.537 2 #	<0.3 2 #	<0.3 2 #			
Lead (diss.filt)	<0.2 µg/l	TM152		1.04 2 #	<0.2 2 #	<0.2 2 #			
Manganese (diss.filt)	<3 µg/l	TM152		1060 2 #	665 2 #	3450 2 #			
Nickel (diss.filt)	<0.4 µg/l	TM152		10.9 2 #	1.11 2 #	5.56 2 #			
Selenium (diss.filt)	<1 µg/l	TM152		<1 2 #	<1 2 #	<1 2 #			
Zinc (diss.filt)	<1 µg/l	TM152		11.3 2 #	1.65 2 #	5.09 2 #			
Calcium (Dis.Filt)	<0.2 mg/l	TM152		388 2 #	264 2 #	292 2 #			
Mercury (diss.filt)	<0.01 µg/l	TM183		<0.01 2 #	<0.01 2 #	<0.01 2 #			
Sulphate	<2 mg/l	TM184		497 #	124 #	393 #			
Cyanide, Total	<0.05 mg/l	TM227		<0.05 #	<0.05 #	<0.05 #			
Cyanide, Free	<0.05 mg/l	TM227		<0.05 #	<0.05 #	<0.05 #			
Thiocyanate	<0.05 mg/l	TM227		<0.05 #	<0.05 #	<0.05 #			
pH	<1 pH Units	TM256		6.99 #	6.96 #	6.93 #			
Phenol	<0.002 mg/l	TM259		<0.002 #	<0.002 #	<0.002 #			
Cresols	<0.006 mg/l	TM259		<0.006 #	<0.006 #	<0.006 #			
Xylenols	<0.008 mg/l	TM259		<0.008 #	<0.008 #	<0.008 #			
Phenols, Total Detected monohydric	<0.016 mg/l	TM259		<0.016 #	<0.016 #	<0.016 #			
Low Level Hexavalent Chromium	<0.003 mg/l	TM331			<0.003	<0.003			
PFBA (375-22-4)	<2 ng/l	TM337		21.5 #	<11 #				
PFPA (2706-90-3)	<1 ng/l	TM337		8 #	<5 #				
PFHxA (307-24-4)	<1 ng/l	TM337		9.97 #	<5 #				
PFBS (375-73-5)	<1 ng/l	TM337		<5 #	<5 #				
PFHpA (375-85-9)	<1 ng/l	TM337		9.93 #	<5 #				
6:2 FTS (27619-97-2)	<1 ng/l	TM337		<5 #	<5 #				
PFOA (335-67-1)	<0.65 ng/l	TM337		34.9 #	8.97 #				

CERTIFICATE OF ANALYSIS

SDG: 220623-99 **Report Number:** 652591 **Superseded Report:** 652103
Client Ref.: LD10385 **Location:** Ten Acres Lane

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4+§@ Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	CP203	WS308	WS312			
			Depth (m)	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00			
			Sample Type	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)			
			Date Sampled	21/06/2022	21/06/2022	21/06/2022			
			Sample Time	10:00	12:30	11:00			
			Date Received	23/06/2022	23/06/2022	23/06/2022			
			SDG Ref	220623-99	220623-99	220623-99			
			Lab Sample No.(s)	26477450	26477482	26477466			
			AGS Reference						
PFHxS (355-46-4)	<1 ng/l	TM337		9.67 #	<5 #				
PFNA (375-95-1)	<1 ng/l	TM337		<5 #	<5 #				
PFHpS (375-92-8)	<1 ng/l	TM337		<5 #	<5 #				
PFDA (335-76-2)	<1 ng/l	TM337		<5 #	<5 #				
Linear PFOS (1763-23-1)	<0.65 ng/l	TM337		24 #	<3.25 #				
Branched PFOS	<0.65 ng/l	TM337		33.7 #	<3.25 #				
PFUnA (2058-94-8)	<1 ng/l	TM337		<5 #	<5 #				
PFDoA (307-55-1)	<1 ng/l	TM337		<5 #	<5 #				
PFOSA (754-91-6)	<2 ng/l	TM337		<10 #	<10 #				
PFDS (335-77-3)	<1 ng/l	TM337		<5	<5				
PFPeS (2706-91-4)	<1 ng/l	TM337		<5 #	<5 #				
Total PFOS	<0.65 ng/l	TM337		57.7 #	<3.25 #				
PFBA (Post Ox.) (375-22-4)	<4 ng/l	TM405		19.1	<10				
PFPA (Post Ox.) (2706-90-3)	<2 ng/l	TM405		8.11	<5				
PFHxA (Post Ox.) (307-24-4)	<2 ng/l	TM405		9.9	<5				
PFBS (Post Ox.) (375-73-5)	<2 ng/l	TM405		<5	<5				
PFHpA (Post Ox.) (375-85-9)	<2 ng/l	TM405		11.8	<5				
6:2 FTS (Post Ox.) (27619-97-2)	<2 ng/l	TM405		<5	<5				
PFOA (Post Ox.) (335-67-1)	<2 ng/l	TM405		34.2	8.33				
PFHxS (Post Ox.) (355-46-4)	<2 ng/l	TM405		8.33	<5				
PFNA (Post Ox.) (375-95-1)	<2 ng/l	TM405		<5	<5				
PFHpS (Post Ox.) (375-92-8)	<2 ng/l	TM405		<5	<5				
PFDA (Post Ox.) (335-76-2)	<2 ng/l	TM405		<5	<5				
Linear PFOS (Post Ox.) (1763-23-1)	<2 ng/l	TM405		17.7	<5				
Branched PFOS (Post Ox.)	<2 ng/l	TM405		28	<5				
PFUnA (Post Ox.) (2058-94-8)	<2 ng/l	TM405		<5	<5				
PFDoA (Post Ox.) (307-55-1)	<2 ng/l	TM405		<5	<5				
PFOSA (Post Ox.) (754-91-6)	<4 ng/l	TM405		<10	<10				
PFDS (Post Ox.) (335-77-3)	<2 ng/l	TM405		<5	<5				
PFPeS (Post Ox.) (2706-91-4)	<2 ng/l	TM405		<5	<5				
Total PFOS (Post Ox.)	<2 ng/l	TM405		45.7	<5				

CERTIFICATE OF ANALYSIS

SDG: 220623-99 **Report Number:** 652591 **Superseded Report:** 652103
Client Ref.: LD10385 **Location:** Ten Acres Lane

PAH Spec MS - Aqueous (W)

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4+$@ Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	CP203	WS308	WS312			
			Depth (m)	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00			
			Sample Type	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)			
			Date Sampled	21/06/2022	21/06/2022	21/06/2022			
			Sample Time	10:00	12:30	11:00			
			Date Received	23/06/2022	23/06/2022	23/06/2022			
			SDG Ref	220623-99	220623-99	220623-99			
			Lab Sample No.(s)	26477450	26477482	26477466			
			AGS Reference						
Naphthalene (aq)	<0.01 µg/l	TM178		0.0806 #	0.133 #	<0.01 #			
Acenaphthene (aq)	<0.005 µg/l	TM178		0.114 #	1.98 #	<0.005 #			
Acenaphthylene (aq)	<0.005 µg/l	TM178		0.0074 #	<0.005 #	<0.005 #			
Fluoranthene (aq)	<0.005 µg/l	TM178		0.414 #	3.89 #	<0.005 #			
Anthracene (aq)	<0.005 µg/l	TM178		0.0606 #	0.984 #	<0.005 #			
Phenanthrene (aq)	<0.005 µg/l	TM178		0.325 #	1.07 #	<0.005 #			
Fluorene (aq)	<0.005 µg/l	TM178		0.0515 #	0.755 #	<0.005 #			
Chrysene (aq)	<0.005 µg/l	TM178		0.261 #	1.51 #	<0.005 #			
Pyrene (aq)	<0.005 µg/l	TM178		0.378 #	4.46 #	<0.005 #			
Benzo(a)anthracene (aq)	<0.005 µg/l	TM178		0.205 #	1.21 #	<0.005 #			
Benzo(b)fluoranthene (aq)	<0.005 µg/l	TM178		0.358 #	1.27 #	<0.005 #			
Benzo(k)fluoranthene (aq)	<0.005 µg/l	TM178		0.137 #	0.434 #	<0.005 #			
Benzo(a)pyrene (aq)	<0.002 µg/l	TM178		0.271 #	0.887 #	<0.002 #			
Dibenzo(a,h)anthracene (aq)	<0.005 µg/l	TM178		<0.005 #	<0.005 #	<0.005 #			
Benzo(g,h,i)perylene (aq)	<0.005 µg/l	TM178		0.248 #	0.553 #	<0.005 #			
Indeno(1,2,3-cd)pyrene (aq)	<0.005 µg/l	TM178		0.248 #	0.432 #	<0.005 #			
PAH, Total Detected USEPA 16 (aq)	<0.082 µg/l	TM178		3.16 #	19.6 #	<0.082 #			

CERTIFICATE OF ANALYSIS

SDG: 220623-99 **Report Number:** 652591 **Superseded Report:** 652103
Client Ref.: LD10385 **Location:** Ten Acres Lane

SVOC MS (W) - Aqueous

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4+§@ Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	CP203	WS308	WS312			
			Depth (m)	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00			
			Sample Type	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)			
			Date Sampled	21/06/2022	21/06/2022	21/06/2022			
			Sample Time	10:00	12:30	11:00			
			Date Received	23/06/2022	23/06/2022	23/06/2022			
			SDG Ref	220623-99	220623-99	220623-99			
			Lab Sample No.(s)	26477450	26477482	26477466			
			AGS Reference						
1,2,4-Trichlorobenzene (aq)	<1 µg/l	TM176		<8 #	<8 #	<1 #			
1,2-Dichlorobenzene (aq)	<1 µg/l	TM176		<8 #	<8 #	<1 #			
1,3-Dichlorobenzene (aq)	<1 µg/l	TM176		<8 #	<8 #	<1 #			
1,4-Dichlorobenzene (aq)	<1 µg/l	TM176		<8 #	<8 #	<1 #			
2,4,5-Trichlorophenol (aq)	<1 µg/l	TM176		<8 #	<8 #	<1 #			
2,4,6-Trichlorophenol (aq)	<1 µg/l	TM176		<8 #	<8 #	<1 #			
2,4-Dichlorophenol (aq)	<1 µg/l	TM176		<8 #	<8 #	<1 #			
2,4-Dimethylphenol (aq)	<1 µg/l	TM176		<8 #	<8 #	<1 #			
2,4-Dinitrotoluene (aq)	<1 µg/l	TM176		<8 #	<8 #	<1 #			
2,6-Dinitrotoluene (aq)	<1 µg/l	TM176		<8 #	<8 #	<1 #			
2-Chloronaphthalene (aq)	<1 µg/l	TM176		<8 #	<8 #	<1 #			
2-Chlorophenol (aq)	<1 µg/l	TM176		<8 #	<8 #	<1 #			
2-Methylnaphthalene (aq)	<1 µg/l	TM176		<8 #	<8 #	<1 #			
2-Methylphenol (aq)	<1 µg/l	TM176		<8 #	<8 #	<1 #			
2-Nitroaniline (aq)	<1 µg/l	TM176		<8 #	<8 #	<1 #			
2-Nitrophenol (aq)	<1 µg/l	TM176		<8 #	<8 #	<1 #			
3-Nitroaniline (aq)	<1 µg/l	TM176		<8	<8	<1			
4-Bromophenylphenylether (aq)	<1 µg/l	TM176		<8 #	<8 #	<1 #			
4-Chloro-3-methylphenol (aq)	<1 µg/l	TM176		<8 #	<8 #	<1 #			
4-Chloroaniline (aq)	<1 µg/l	TM176		<8	<8	<1			
4-Chlorophenylphenylether (aq)	<1 µg/l	TM176		<8 #	<8 #	<1 #			
4-Methylphenol (aq)	<1 µg/l	TM176		<8 #	<8 #	<1 #			
4-Nitroaniline (aq)	<1 µg/l	TM176		<8 #	<8 #	<1 #			
4-Nitrophenol (aq)	<1 µg/l	TM176		<8	<8	<1			
Azobenzene (aq)	<1 µg/l	TM176		<8 #	<8 #	<1 #			
Acenaphthylene (aq)	<1 µg/l	TM176		<8 #	<8 #	<1 #			
Acenaphthene (aq)	<1 µg/l	TM176		<8 #	<8 #	<1 #			
Anthracene (aq)	<1 µg/l	TM176		<8 #	<8 #	<1 #			
bis(2-Chloroethyl)ether (aq)	<1 µg/l	TM176		<8 #	<8 #	<1 #			
bis(2-Chloroethoxy)methane (aq)	<1 µg/l	TM176		<8 #	<8 #	<1 #			
bis(2-Ethylhexyl) phthalate (aq)	<2 µg/l	TM176		<16 #	<16 #	<2 #			
Butylbenzyl phthalate (aq)	<1 µg/l	TM176		<8 #	<8 #	<1 #			
Benzo(a)anthracene (aq)	<1 µg/l	TM176		<8 #	<8 #	<1 #			

CERTIFICATE OF ANALYSIS

SDG: 220623-99 **Report Number:** 652591 **Superseded Report:** 652103
Client Ref.: LD10385 **Location:** Ten Acres Lane

SVOC MS (W) - Aqueous

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4+§@ Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	CP203	WS308	WS312			
			Depth (m)	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00			
			Sample Type	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)			
			Date Sampled	21/06/2022	21/06/2022	21/06/2022			
			Sample Time	10:00	12:30	11:00			
			Date Received	23/06/2022	23/06/2022	23/06/2022			
			SDG Ref	220623-99	220623-99	220623-99			
			Lab Sample No.(s)	26477450	26477482	26477466			
			AGS Reference						
Benzo(b)fluoranthene (aq)	<1 µg/l	TM176		<8 #	<8 #	<1 #			
Benzo(k)fluoranthene (aq)	<1 µg/l	TM176		<8 #	<8 #	<1 #			
Benzo(a)pyrene (aq)	<1 µg/l	TM176		<8 #	<8 #	<1 #			
Benzo(g,h,i)perylene (aq)	<1 µg/l	TM176		<8 #	<8 #	<1 #			
Carbazole (aq)	<1 µg/l	TM176		<8 #	<8 #	<1 #			
Chrysene (aq)	<1 µg/l	TM176		<8 #	<8 #	<1 #			
Dibenzofuran (aq)	<1 µg/l	TM176		<8 #	<8 #	<1 #			
n-Dibutyl phthalate (aq)	<1 µg/l	TM176		<8 #	<8 #	<1 #			
Diethyl phthalate (aq)	<1 µg/l	TM176		<8 #	<8 #	<1 #			
Dibenzo(a,h)anthracene (aq)	<1 µg/l	TM176		<8 #	<8 #	<1 #			
Dimethyl phthalate (aq)	<1 µg/l	TM176		<8 #	<8 #	<1 #			
n-Dioctyl phthalate (aq)	<5 µg/l	TM176		<40 #	<40 #	<5 #			
Fluoranthene (aq)	<1 µg/l	TM176		<8 #	<8 #	<1 #			
Fluorene (aq)	<1 µg/l	TM176		<8 #	<8 #	<1 #			
Hexachlorobenzene (aq)	<1 µg/l	TM176		<8 #	<8 #	<1 #			
Hexachlorobutadiene (aq)	<1 µg/l	TM176		<8 #	<8 #	<1 #			
Pentachlorophenol (aq)	<1 µg/l	TM176		<8	<8	<1			
Phenol (aq)	<1 µg/l	TM176		<8	<8	<1			
n-Nitroso-n-dipropylamine (aq)	<1 µg/l	TM176		<8 #	<8 #	<1 #			
Hexachloroethane (aq)	<1 µg/l	TM176		<8 #	<8 #	<1 #			
Nitrobenzene (aq)	<1 µg/l	TM176		<8 #	<8 #	<1 #			
Naphthalene (aq)	<1 µg/l	TM176		<8 #	<8 #	<1 #			
Isophorone (aq)	<1 µg/l	TM176		<8 #	<8 #	<1 #			
Hexachlorocyclopentadiene (aq)	<1 µg/l	TM176		<8	<8	<1			
Phenanthrene (aq)	<1 µg/l	TM176		<8 #	<8 #	<1 #			
Indeno(1,2,3-cd)pyrene (aq)	<1 µg/l	TM176		<8 #	<8 #	<1 #			
Pyrene (aq)	<1 µg/l	TM176		<8 #	<8 #	<1 #			

CERTIFICATE OF ANALYSIS

SDG: 220623-99 **Report Number:** 652591 **Superseded Report:** 652103
Client Ref.: LD10385 **Location:** Ten Acres Lane

TPH CWG (W)

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4+$@ Sample deviation (see appendix)

Customer Sample Ref.			CP203	WS308	WS312			
Depth (m)			0.00 - 0.00	0.00 - 0.00	0.00 - 0.00			
Sample Type			Ground Water (GW)	Ground Water (GW)	Ground Water (GW)			
Date Sampled			21/06/2022	21/06/2022	21/06/2022			
Sample Time			10:00	12:30	11:00			
Date Received			23/06/2022	23/06/2022	23/06/2022			
SDG Ref			220623-99	220623-99	220623-99			
Lab Sample No.(s)			26477450	26477482	26477466			
AGS Reference								
Component	**LOD/Units**	**Method**						
GRO Surrogate % recovery**	%	TM245	105	105	116			
GRO >C5-C12	<50 µg/l	TM245	<50 #	<50 #	<50 #			
Aliphatics >C5-C6	<10 µg/l	TM245	<10	<10	<10			
Aliphatics >C6-C8	<10 µg/l	TM245	<10	<10	<10			
Aliphatics >C8-C10	<10 µg/l	TM245	<10	<10	<10			
Aliphatics >C10-C12	<10 µg/l	TM245	<10	<10	<10			
Aliphatics >C12-C16 (aq)	<10 µg/l	TM174	<10	185	<10			
Aliphatics >C16-C21 (aq)	<10 µg/l	TM174	<10	1130	<10			
Aliphatics >C21-C35 (aq)	<10 µg/l	TM174	20	3720	<10			
Total Aliphatics >C12-C35 (aq)	<10 µg/l	TM174	20	5030	<10			
Aromatics >EC5-EC7	<10 µg/l	TM245	<10	<10	<10			
Aromatics >EC7-EC8	<10 µg/l	TM245	<10	<10	<10			
Aromatics >EC8-EC10	<10 µg/l	TM245	<10	<10	<10			
Aromatics >EC10-EC12	<10 µg/l	TM245	<10	<10	<10			
Aromatics >EC12-EC16 (aq)	<10 µg/l	TM174	<10	31	<10			
Aromatics >EC16-EC21 (aq)	<10 µg/l	TM174	<10	257	<10			
Aromatics >EC21-EC35 (aq)	<10 µg/l	TM174	<10	1280	<10			
Total Aromatics >EC12-EC35 (aq)	<10 µg/l	TM174	<10	1570	<10			
Total Aliphatics & Aromatics >C5-35 (aq)	<10 µg/l	TM174	20	6590	<10			
Aliphatics >C16-C35 Aqueous	<10 µg/l	TM174	20	4840	<10			

CERTIFICATE OF ANALYSIS

SDG: 220623-99 **Report Number:** 652591 **Superseded Report:** 652103
Client Ref.: LD10385 **Location:** Ten Acres Lane

VOC MS (W)

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4+§@ Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	CP203	WS308	WS312			
			Depth (m)	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00			
			Sample Type	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)			
			Date Sampled	21/06/2022	21/06/2022	21/06/2022			
			Sample Time	10:00	12:30	11:00			
			Date Received	23/06/2022	23/06/2022	23/06/2022			
			SDG Ref	220623-99	220623-99	220623-99			
			Lab Sample No.(s)	26477450	26477482	26477466			
			AGS Reference						
Dibromofluoromethane**	%	TM208		117	116	115			
Toluene-d8**	%	TM208		99.3	98.8	99			
4-Bromofluorobenzene**	%	TM208		98.3	94.9	96.7			
Dichlorodifluoromethane	<1 µg/l	TM208		<1 #	<1 #	<1 #			
Chloromethane	<1 µg/l	TM208		<1 #	<1 #	<1 #			
Vinyl chloride	<1 µg/l	TM208		<1 #	<1 #	<1 #			
Bromomethane	<1 µg/l	TM208		<1 #	<1 #	<1 #			
Chloroethane	<1 µg/l	TM208		<1 #	<1 #	<1 #			
Trichlorofluoromethane	<1 µg/l	TM208		<1 #	<1 #	<1 #			
1,1-Dichloroethene	<1 µg/l	TM208		<1 #	<1 #	<1 #			
Carbon disulphide	<1 µg/l	TM208		<1 #	<1 #	<1 #			
Dichloromethane	<3 µg/l	TM208		<5 #	<5 #	<5 #			
Methyl tertiary butyl ether (MTBE)	<1 µg/l	TM208		<1 #	<1 #	<1 #			
trans-1,2-Dichloroethene	<1 µg/l	TM208		<1 #	<1 #	<1 #			
1,1-Dichloroethane	<1 µg/l	TM208		<1 #	<1 #	<1 #			
cis-1,2-Dichloroethene	<1 µg/l	TM208		<1 #	<1 #	<1 #			
2,2-Dichloropropane	<1 µg/l	TM208		<1	<1	<1			
Bromochloromethane	<1 µg/l	TM208		<1 #	<1 #	<1 #			
Chloroform	<1 µg/l	TM208		<1 #	<1 #	<1 #			
1,1,1-Trichloroethane	<1 µg/l	TM208		<1 #	<1 #	<1 #			
1,1-Dichloropropene	<1 µg/l	TM208		<1 #	<1 #	<1 #			
Carbontetrachloride	<1 µg/l	TM208		<1 #	<1 #	<1 #			
1,2-Dichloroethane	<1 µg/l	TM208		<1 #	<1 #	<1 #			
Benzene	<1 µg/l	TM208		<1 #	<1 #	<1 #			
Trichloroethene	<1 µg/l	TM208		<1 #	<1 #	<1 #			
1,2-Dichloropropane	<1 µg/l	TM208		<1 #	<1 #	<1 #			
Dibromomethane	<1 µg/l	TM208		<1 #	<1 #	<1 #			
Bromodichloromethane	<1 µg/l	TM208		<1 #	<1 #	<1 #			
cis-1,3-Dichloropropene	<1 µg/l	TM208		<1 #	<1 #	<1 #			
Toluene	<1 µg/l	TM208		<1 #	<1 #	<1 #			
trans-1,3-Dichloropropene	<1 µg/l	TM208		<1 #	<1 #	<1 #			
1,1,2-Trichloroethane	<1 µg/l	TM208		<1 #	<1 #	<1 #			
1,3-Dichloropropane	<1 µg/l	TM208		<1 #	<1 #	<1 #			

CERTIFICATE OF ANALYSIS

SDG: 220623-99 **Report Number:** 652591 **Superseded Report:** 652103
Client Ref.: LD10385 **Location:** Ten Acres Lane

VOC MS (W)

Results Legend
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- (F) Trigger breach confirmed
- 1-4+§@ Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	CP203	WS308	WS312			
			Depth (m)	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00			
			Sample Type	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)			
			Date Sampled	21/06/2022	21/06/2022	21/06/2022			
			Sample Time	10:00	12:30	11:00			
			Date Received	23/06/2022	23/06/2022	23/06/2022			
			SDG Ref	220623-99	220623-99	220623-99			
			Lab Sample No.(s)	26477450	26477482	26477466			
			AGS Reference						
Tetrachloroethene	<1 µg/l	TM208		<1 #	<1 #	<1 #			
Dibromochloromethane	<1 µg/l	TM208		<1 #	<1 #	<1 #			
1,2-Dibromoethane	<1 µg/l	TM208		<1 #	<1 #	<1 #			
Chlorobenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #			
1,1,1,2-Tetrachloroethane	<1 µg/l	TM208		<1 #	<1 #	<1 #			
Ethylbenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #			
m,p-Xylene	<1 µg/l	TM208		<1 #	<1 #	<1 #			
o-Xylene	<1 µg/l	TM208		<1 #	<1 #	<1 #			
Styrene	<1 µg/l	TM208		<1 #	<1 #	<1 #			
Bromoform	<1 µg/l	TM208		<1 #	<1 #	<1 #			
Isopropylbenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #			
1,1,2,2-Tetrachloroethane	<1 µg/l	TM208		<1 #	<1 #	<1 #			
1,2,3-Trichloropropane	<1 µg/l	TM208		<1 #	<1 #	<1 #			
Bromobenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #			
Propylbenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #			
2-Chlorotoluene	<1 µg/l	TM208		<1 #	<1 #	<1 #			
1,3,5-Trimethylbenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #			
4-Chlorotoluene	<1 µg/l	TM208		<1 #	<1 #	<1 #			
tert-Butylbenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #			
1,2,4-Trimethylbenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #			
sec-Butylbenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #			
4-iso-Propyltoluene	<1 µg/l	TM208		<1 #	<1 #	<1 #			
1,3-Dichlorobenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #			
1,4-Dichlorobenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #			
n-Butylbenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #			
1,2-Dichlorobenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #			
1,2-Dibromo-3-chloropropane	<1 µg/l	TM208		<1	<1	<1			
1,2,4-Trichlorobenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #			
Hexachlorobutadiene	<1 µg/l	TM208		<1 #	<1 #	<1 #			
tert-Amyl methyl ether (TAME)	<1 µg/l	TM208		<1 #	<1 #	<1 #			
Naphthalene	<1 µg/l	TM208		<1 #	<1 #	<1 #			
1,2,3-Trichlorobenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #			
1,3,5-Trichlorobenzene	<1 µg/l	TM208		<1	<1	<1			

CERTIFICATE OF ANALYSIS

SDG: 220623-99 **Report Number:** 652591 **Superseded Report:** 652103

Client Ref.: LD10385 **Location:** Ten Acres Lane

VOC MS (W)

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+§@	Sample deviation (see appendix)

Customer Sample Ref.	CP203	WS308	WS312
Depth (m)	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Sample Type	Ground Water (GW)	Ground Water (GW)	Ground Water (GW)
Date Sampled	21/06/2022	21/06/2022	21/06/2022
Sample Time	10:00	12:30	11:00
Date Received	23/06/2022	23/06/2022	23/06/2022
SDG Ref	220623-99	220623-99	220623-99
Lab Sample No.(s)	26477450	26477482	26477466
AGS Reference			

Component	LOD/Units	Method			
Sum of detected Xylenes	<2 µg/l	TM208	<2	<2	<2
Sum of BTEX	<5 µg/l	TM208	<5	<5	<5

CERTIFICATE OF ANALYSIS

SDG: 220623-99 **Report Number:** 652591 **Superseded Report:** 652103
Client Ref.: LD10385 **Location:** Ten Acres Lane

Notification of NDPs (No determination possible)

Date Received : 23/06/2022 11:19:32

Sample No	Customer Sample Ref.	Depth (m)	Test	Comment
26477450	CP203	0.00 - 0.00	Low Level Hexavalent Chromium (w)	Unsuitable for Analysis

Table of Results - Appendix

Method No	Reference	Description
TM043	Method 2320B, AWWA/APHA, 20th Ed., 1999 / BS 2690: Part109 1984	Determination of alkalinity in aqueous samples
TM090	Method 5310, AWWA/APHA, 20th Ed., 1999 / Modified: US EPA Method 415.1 & 9060	Determination of Total Organic Carbon/Total Inorganic Carbon in Water and Waste Water
TM101	Method 4500B & C, AWWA/APHA, 20th Ed., 1999	Determination of Sulphide in soil and water samples using the Kone Analyser
TM110	BS 1377: Part 3 1990	Redox Potential
TM152	ISO 17294-2:2016 Water quality - Application of inductively coupled plasma mass spectrometry (ICP-MS)	Analysis of Aqueous Samples by ICP-MS
TM174	Analysis of Petroleum Hydrocarbons in Environmental Media – Total Petroleum Hydrocarbon Criteria	Determination of Speciated Extractable Petroleum Hydrocarbons in Waters by GC-FID
TM176	EPA 8270D Semi-Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)	Determination of SVOCs in Water by GCMS
TM178	Modified: US EPA Method 8100	Determination of Polynuclear Aromatic Hydrocarbons (PAH) by GC-MS in Waters
TM183	BS EN 23506:2002, (BS 6068-2.74:2002) ISBN 0 580 38924 3	Determination of Trace Level Mercury in Waters and Leachates by PSA Cold Vapour Atomic Fluorescence Spectrometry
TM184	EPA Methods 325.1 & 325.2,	The Determination of Anions in Aqueous Matrices using the Kone Spectrophotometric Analysers
TM208	Modified: US EPA Method 8260b & 624	Determination of Volatile Organic Compounds by Headspace / GC-MS in Waters
TM227	Standard methods for the examination of waters and wastewaters 20th Edition, AWWA/APHA Method 4500.	Determination of Total Cyanide, Free (Easily Liberatable) Cyanide and Thiocyanate
TM245	By GC-FID	Determination of GRO by Headspace in waters
TM256	The measurement of Electrical Conductivity and the Laboratory determination of pH Value of Natural, Treated and Wastewaters. HMSO, 1978. ISBN 011 751428 4, Standard Methods for the examination of waters and wastewaters 20th Edition, PHA, Washington DC, USA. ISBN 0-87553-235-7 and The Determination of Alkalinity and Acidity in water HMSO, 1981, ISBN 0 11 751601 5.	Determination of pH, EC, TDS and Alkalinity in Aqueous samples
TM259	by HPLC	Determination of Phenols in Waters and Leachates by HPLC
TM331		Low Level Hexavalent Chromium
TM337	PFAS in Environmental Water Matrices	Analysis of PFAS
TM405	PFAS (TOP Assay)	Analysis of perfluoroalkylsulfonates and perfluorocarboxylic acids - Total Oxidizable Precursor Assay

NA = not applicable.

Chemical testing (unless subcontracted) performed at ALS Life Sciences Ltd Hawarden (Method codes TM).

CERTIFICATE OF ANALYSIS

SDG: 220623-99 **Report Number:** 652591 **Superseded Report:** 652103
Client Ref.: LD10385 **Location:** Ten Acres Lane

Test Completion Dates

Lab Sample No(s)	26477450	26477482	26477466
Customer Sample Ref.	CP203	WS308	WS312
AGS Ref.			
Depth	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Type	Ground Water	Ground Water	Ground Water
Alkalinity as CaCO3	23-Jun-2022	23-Jun-2022	23-Jun-2022
Anions by Kone (w)	23-Jun-2022	23-Jun-2022	23-Jun-2022
Cyanide Comp/Free/Total/Thiocyanate	24-Jun-2022	24-Jun-2022	24-Jun-2022
Dissolved Metals by ICP-MS	24-Jun-2022	24-Jun-2022	24-Jun-2022
Dissolved Organic/Inorganic Carbon	24-Jun-2022	24-Jun-2022	24-Jun-2022
EPH CWG (Aliphatic) Aqueous GC (W)	24-Jun-2022	24-Jun-2022	24-Jun-2022
EPH CWG (Aromatic) Aqueous GC (W)	24-Jun-2022	24-Jun-2022	24-Jun-2022
GRO by GC-FID (W)	24-Jun-2022	24-Jun-2022	24-Jun-2022
Low Level Hexavalent Chromium (w)		23-Jun-2022	23-Jun-2022
Mercury Dissolved	24-Jun-2022	24-Jun-2022	24-Jun-2022
PAH Spec MS - Aqueous (W)	24-Jun-2022	24-Jun-2022	24-Jun-2022
PFAS (Post Ox.) Liquids	30-Jun-2022	30-Jun-2022	
PFAS Liquids	27-Jun-2022	27-Jun-2022	
pH Value	23-Jun-2022	23-Jun-2022	23-Jun-2022
Phenols by HPLC (W)	24-Jun-2022	24-Jun-2022	24-Jun-2022
Redox Potential	23-Jun-2022	23-Jun-2022	23-Jun-2022
Sulphide	24-Jun-2022	24-Jun-2022	24-Jun-2022
SVOC MS (W) - Aqueous	24-Jun-2022	24-Jun-2022	24-Jun-2022
TPH CWG (W)	24-Jun-2022	24-Jun-2022	24-Jun-2022
VOC MS (W)	24-Jun-2022	24-Jun-2022	24-Jun-2022

Appendix

1. Results are expressed on a dry weight basis (dried at 35ºC) for all soil analyses except for the following: NRA and CEN Leach tests, flash point LOI, pH, ammonium as NH4 by the BRE method, VOC TICs and SVOC TICs.

2. If sufficient sample is received a sub sample will be retained free of charge for 30 days after analysis is completed (e-mailed) for all sample types unless the sample is destroyed on testing. The prepared soil sub sample that is analysed for asbestos will be retained for a period of 6 months after the analysis date. All bulk samples will be retained for a period of 6 months after the analysis date. All samples received and not scheduled will be disposed of one month after the date of receipt unless we are instructed to the contrary. Once the initial period has expired, a storage charge will be applied for each month or part thereof until the client cancels the request for sample storage. ALS reserve the right to charge for samples received and stored but not analysed.

3. With respect to turnaround, we will always endeavour to meet client requirements wherever possible, but turnaround times cannot be absolutely guaranteed due to so many variables beyond our control.

4. We take responsibility for any test performed by sub-contractors (marked with an asterisk). We endeavour to use UKAS/MCERTS Accredited Laboratories, who either complete a quality questionnaire or are audited by ourselves. For some determinands there are no UKAS/MCERTS Accredited Laboratories, in this instance a laboratory with a known track record will be utilised.

5. If no separate volatile sample is supplied by the client, or if a headspace or sediment is present in the volatile sample, the integrity of the data may be compromised. This will be flagged up as an invalid VOC on the test schedule and the result marked as deviating on the test certificate.

6. NDP - No determination possible due to insufficient/unsuitable sample.

7. Results relate only to the items tested.

8. LoDs (Limit of Detection) for wet tests reported on a dry weight basis are not corrected for moisture content.

9. **Surrogate recoveries** - Surrogates are added to your sample to monitor recovery of the test requested. A % recovery is reported, results are not corrected for the recovery measured. Typical recoveries for organics tests are 70-130%. Recoveries in soils are affected by organic rich or clay rich matrices. Waters can be affected by remediation fluids or high amounts of sediment. Test results are only ever reported if all of the associated quality checks pass; it is assumed that all recoveries outside of the values above are due to matrix affect.

10. Stones/debris are not routinely removed. We always endeavour to take a representative sub sample from the received sample.

11. In certain circumstances the method detection limit may be elevated due to the sample being outside the calibration range. Other factors that may contribute to this include possible interferences. In both cases the sample would be diluted which would cause the method detection limit to be raised.

12. For dried and crushed preparations of soils volatile loss may occur e.g volatile mercury.

13. For leachate preparations other than Zero Headspace Extraction (ZHE) volatile loss may occur.

14. For the BSEN 12457-3 two batch process to allow the cumulative release to be calculated, the volume of the leachate produced is measured and filtered for all tests. We therefore cannot carry out any unfiltered analysis. The tests affected include volatiles GCFID/GCMS and all subcontracted analysis.

15. Analysis and identification of specific compounds using GCFID is by retention time only, and we routinely calibrate and quantify for benzene, toluene, ethylbenzenes and xylenes (BTEX). For total volatiles in the C5-C12 range, the total area of the chromatogram is integrated and expressed as ug/kg or ug/l. Although this analysis is commonly used for the quantification of gasoline range organics (GRO), the system will also detect other compounds such as chlorinated solvents, and this may lead to a falsely high result with respect to hydrocarbons only. It is not possible to specifically identify these non-hydrocarbons, as standards are not routinely run for any other compounds, and for more definitive identification, volatiles by GCMS should be utilised.

16. We are accredited to MCERTS for sand, clay and loam/topsoil, or any of these materials - whether these are derived from naturally occurring soil profiles, or from fill/made ground, as long as these materials constitute the major part of the sample. Other coarse granular material such as concrete, gravel and brick are not accredited if they comprise the major part of the sample.

17 Data retention. All records, communications and reports pertaining to the analysis are archived for seven years from the date of issue of the final report.

General

18. **Tentatively Identified Compounds (TICs)** are non-target peaks in VOC and SVOC analysis. All non-target peaks detected with a concentration above the LoD are subjected to a mass spectral library search. Non-target peaks with a library search confidence of >75% are reported based on the best mass spectral library match. When a non-target peak with a library search confidence of <75% is detected it is reported as “mixed hydrocarbons”. Non-target compounds identified from the scan data are semi-quantified relative to one of the deuterated internal standards, under the same chromatographic conditions as the target compounds. This result is reported as a semi-quantitative value and reported as Tentatively Identified Compounds (TICs). TICs are outside the scope of UKAS accreditation and are not moisture corrected.

19. **Sample Deviations**

If a sample is classed as deviated then the associated results may be compromised.

1	**Container with Headspace provided for volatiles analysis**
2	**Incorrect container received**
3	**Deviation from method**
4	**Matrix interference**
♦	**Sample holding time exceeded in laboratory**
@	**Sample holding time exceeded due to late arrival of instructions or samples**
§	**Sampled on date not provided**

20. **Asbestos**

When requested, the individual sub sample scheduled will be analysed in house for the presence of asbestos fibres and asbestos containing material by our documented in house method TM048 based on HSG 248 (2021), which is accredited to ISO17025. If a specific asbestos fibre type is not found this will be reported as “Not detected”. If no asbestos fibre types are found all will be reported as “Not detected” and the sub sample analysed deemed to be clear of asbestos. If an asbestos fibre type is found it will be reported as detected (for each fibre type found). Testing can be carried out on asbestos positive samples, but, due to Health and Safety considerations, may be replaced by alternative tests or reported as No Determination Possible (NDP). The quantity of asbestos present is not determined unless specifically requested.

Identification of Asbestos in Bulk Materials & Soils

The results for identification of asbestos in bulk materials and soils are obtained from supplied bulk materials andd soils which have been examined to determine the presence of asbestos fibres using ALS (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining, based on HSG 248 (2021).

The results for identification of asbestos in soils are obtained from a homogenised sub sample which has been examined to determine the presence of asbestos fibres using ALS (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining.

Asbestos Type	Common Name
Chrysotile	White Asbestos
Amosite	Brown Asbestos
Crocidolite	Blue Asbestos
Fibrous Actinolite	-
Fibrous Anthophyllite	-
Fibrous Tremolite	-

Visual Estimation Of Fibre Content

Estimation of fibre content is not permitted as part of our UKAS accredited test other than: - Trace - Where only one or two asbestos fibres were identified.

Respirable Fibres

Respirable fibres are defined as fibres of <3 µm diameter, longer than 5 µm and with aspect ratios of at least 3:1 that can be inhaled into the lower regions of the lung and are generally acknowledged to be most important predictor of hazard and risk for cancers of the lung.

Further guidance on typical asbestos fibre content of manufactured products can be found in HSG 264.

The identification of asbestos containing materials and soils falls within our schedule of tests for which we hold UKAS accreditation, however opinions, interpretations and all other information contained in the report are outside the scope of UKAS accreditation.

APPENDIX I

Contaminant Exceedence Tables

Summary of Metal Exceedances in Made Ground (2020 & 2022)							
Metal	Range of All Results (mg/kg)	GAC (mg/kg)	No.	Exceedance Details			
				Location	Depth	Result (mg/kg)	Geology Code
Chromium IV	<0.6 – 26	21[1]	1	CP106	1.8	26	MG-CW
Arsenic	2.16 – 1,930	37[1]	19	TP126	0.50-0.50	**1930**	MG-CW
				TP139	2.40-2.40	**332**	MG-CW
				TP128	3.60-3.60	**309**	MG-CW
				TP108	2.30-2.30	**199**	MGC
				TP149	0.50-0.50	99.7	MG-CW
				TP231	0.60-0.60	95.9	MGC
				TP123	1.90-1.90	80.9	MG-CW
				TP145	3.80-3.80	72.5	MG-CDW
				TP256	0.35-0.35	65.5	MG-CW
				TP230	1.60-1.60	64.5	MG-CW
				CP108	0.50-0.50	62.9	MG-CW
				WS111	0.35-0.35	60	MG-CW
				TP114	3.40-3.40	45.4	MG-CDW
				WS107	1.40-1.40	44.7	MGC
				TP139	1.50-1.50	43.3	MGC
				TP206	1.00-1.00	41.9	MG-CDW
				WS112	0.90-0.90	40.9	MG-CW
				TP234	3.50-3.50	40	MG-CW
				TP230	1.50-1.50	37.5	MG-CW
Beryllium	0.213 – 4.87	1.7	10	TP237	2.00-2.00	4.87	MG-CW
				WS314	0.50-0.50	4.71	MGG
				TP245	2.00-2.00	3.46	MG-CDW
				TP247	1.60-1.60	3	MG-CW
				TP230	1.50-1.50	2.88	MG-CW
				TP256	0.35-0.35	2.43	MG-CW
				TP231	0.60-0.60	2.05	MGC
				TP206	1.00-1.00	1.79	MG-CDW
				TP248	4.50-4.50	1.77	MG-CW
				TP234	3.50-3.50	1.72	MG-CW
Cadmium	<0.02 – 37.4	22	1	TP231	0.60	37.4	MGC
Copper	6.90 – 9990	2400	3	TP102	1.60-1.60	9990	MG-CDW
				TP247	1.60-1.60	4440	MG-CW
				TP229	3.00-3.00	3600	MG-CDW

Summary of Metal Exceedances in Made Ground (2020 & 2022)							
Metal	Range of All Results (mg/kg)	GAC (mg/kg)	No.	Exceedance Details			
				Location	Depth	Result (mg/kg)	Geology Code
Lead	4.98 – 28700	200[1]	53	TP114	3.40-3.40	**28700**	MG-CDW
				TP242	2.50-2.50	**10400**	MGG
				TP139	1.50-1.50	**3220**	MGC
				TP229	3.00-3.00	**2520**	MG-CDW
				TP216	0.60-0.60	**1410**	MG-CW
				CP106	1.80-1.80	**1220**	MG-CW
				TP206	1.00-1.00	**1170**	MG-CDW
				TP108	2.30-2.30	**1130**	MGC
				TP245	2.00-2.00	**1120**	MG-CDW
				TP141	0.50-0.50	931	MG-CW
				TP247	1.60-1.60	923	MG-CW
				TP204	0.90-0.90	901	MGC
				TP126	0.50-0.50	879	MG-CW
				TP240	2.00-2.00	850	MG-HW
				TP226	1.50-1.50	753	MG-CDW
				TP203	1.00-1.00	695	MGC
				TP244	0.70-1.00	670	MGC
				TP144	0.40-0.40	622	MG-CW
				TP215	1.00-1.00	611	MG-HW
				CP207	10.00-11.00	601	MGG
				CP107	4.50-4.50	589	MGG
				CP202	8.00-9.00	576	MGG
				TP149	0.50-0.50	510	MG-CW
				TP138	1.60-1.60	471	MG-CDW
				TP102	1.60-1.60	470	MG-CDW
				TP211	1.80-1.80	379	MGC
				TP253	3.80-3.80	373	MGG
				TP119	1.70-1.70	352	MG-CDW
				TP248	4.50-4.50	350	MG-CW
				TP231	0.60-0.60	342	MGC
				TP128	3.60-3.60	341	MG-CW
				TP224	1.40-1.40	340	MG-CDW
				TP127	1.20-1.20	322	MGC
				TP255	0.20-1.00	317	MG-CDW

Summary of Metal Exceedances in Made Ground (2020 & 2022)							
Metal	Range of All Results (mg/kg)	GAC (mg/kg)	No.	Exceedance Details			
				Location	Depth	Result (mg/kg)	Geology Code
				TP139	2.40-2.40	284	MG-CW
				TP117	4.20-4.20	283	MG-CDW
				TP248	1.00-1.00	277	MG-CW
				TP207	3.00-3.00	272	MG-HW
				TP101	0.50-0.50	270	MG-CDW
				CP103	2.00-3.00	250	MGC
				TP219	1.50-1.50	246	MGG
				CP205	5.00-6.00	245	MGC
				TP115	0.40-0.40	245	MGG
				TP208	2.50-2.50	237	MG-CDW
				TP111	1.50-1.50	236	MG-CDW
				RH108	0.00-1.00	233	TF
				TP239	1.40-1.40	231	MGC
				WS112	0.90-0.90	229	MG-CW
				TP145	3.80-3.80	227	MG-CDW
				CP108	0.50-0.50	226	MG-CW
				TP230	1.60-1.60	223	MG-CW
				TP123	1.90-1.90	208	MG-CW
				TP134	0.20-0.20	204	MG-CDW
Nickel	2.00 – 535	130	10	CP109	7.50-7.50	535	MG-CDW
				TP240	2.00-2.00	309	MG-HW
				TP245	2.00-2.00	189	MG-CDW
				TP231	0.60-0.60	183	MGC
				TP229	3.00-3.00	180	MG-CDW
				TP141	0.50-0.50	175	MG-CW
				TP149	0.50-0.50	160	MG-CW
				CP201	4.00-6.00	153	MG-CW
				CP104	7.30-7.30	145	MG-CDW
				WS105	2.50-2.50	131	MGG
Zinc	15.7 – 7290	3700	1	TP102	1.60-1.60	7290	MG-CDW
				TP229	3.00-3.00	5610	MG-CDW
				TP216	0.60-0.60	3950	MG-CW
Notes: MGC = Predominantly Cohesive Made Ground, MGG = Predominantly Granular Made Ground, MG-CW = Suspected Combustion Waste, MG-CDW = Suspected Construction and Demolition Waste,							

Summary of Metal Exceedances in Made Ground (2020 & 2022)							
Metal	**Range of All Results (mg/kg)**	**GAC (mg/kg)**	**No.**	**Exceedance Details**			
				Location	**Depth**	**Result (mg/kg)**	**Geology Code**
MG-CS = Suspected Colliery Spoil Waste, MG-HW = Suspected Household Waste, TF = Topsoil Fill Generic Assessment Criteria Used: LQM/CIEH S4ULs for Human Health Risk Assessment (3rd edition, 2015), unless otherwise stated. [1] Category 4 Screening Levels (March 2014).							

Summary of Metal Exceedances in Made Ground (Celtic 2007)							
Metal	**Range of All Results (mg/kg)**	**GAC (mg/kg)**	**No.**	**Exceedance Details**			
				Location	**Depth**	**Result (mg/kg)**	**Geology Code**
Arsenic	<3– 190	37[1]	21	WS6	1.5	**190**	MGC
				R3	0.4	**130**	MGG
				TP5	2.4	**120**	MGC
				TP12	1.7	**120**	MGC
				WS12	1.5	**110**	MG-CW
				TP23	0.4	89	MGG
				BH3	5.3-6.0	78	MG-CW
				TP39	0.2-0.7	75	MGC
				TP21	1.2	74	MG-CW
				WS2	0.5	73	MGC
				TP27	1.4-2.0	49	MG-CW
				TP9	1.4	48	MGC
				TP20	0.9	47	MG-CW
				TP40	1.9	47	MGC
				TP21	1.2	46	MG-CDW
				TP35	0.6-1.2	40	MG-CS
				TP43	2.9	38	MGG
				TP10	2.4	37	MG-CW
				TP18A	0.9	37	MGC
				BH4	1.2-2.1	37	MG
				TP24	0.0-0.45	37	TF
Lead	5 – 4300	200[1]	24	BH3	5.3-6.0	**4300**	MG-CW
				TP21	1.2	**2600**	MG-CDW
				TP21	1.2	**1900**	MG-CW
				TP27	1.4-2.0	**1500**	MG-CW

Summary of Metal Exceedances in Made Ground (Celtic 2007)							
Metal	**Range of All Results (mg/kg)**	**GAC (mg/kg)**	**No.**	**Exceedance Details**			
				Location	**Depth**	**Result (mg/kg)**	**Geology Code**
				TP20	0.9	**1300**	MG-CW
				TP5	2.4	910	MGC
				TP11A	1.3-2.0	830	MGG
				TP12	1.7	770	MGC
				TP9	1.4	510	MGC
				TP8	2.8	410	MGC
				TP11	0.7	380	MGG
				WS12	1.5	350	MG-CW
				WS17	1.2	330	MGC
				WS4	0.4	330	MGG
				TP4	2.4	300	MGC
				TP27	3.1	290	MG-CW
				BH4	1.2-2.1	280	MG
				TP18A	0.9	260	MGC
				TP19	1	250	MGC
				WS6	1.5	240	MGC
				R3	0.4	240	MGG
				TP23	0.4	230	MGG
				TP46	1.5	220	MGC
				TP24	0-0.45	210	MGG
Nickel	6 – 360	130	2	WS19	2.6	360	MG-CDW
				TP21	1.2	310	MG-CW

Notes:
MGC = Predominantly Cohesive Made Ground, MGG = Predominantly Granular Made Ground, MG-CW = Suspected Combustion Waste, MG-CDW = Suspected Construction and Demolition Waste, MG-CS = Suspected Colliery Spoil Waste, MG-HW = Suspected Household Waste, TF = Topsoil Fill
Generic Assessment Criteria Used: LQM/CIEH S4ULs for Human Health Risk Assessment (3rd edition, 2015), unless otherwise stated. [1] Category 4 Screening Levels (March 2014).

Summary of Metal Exceedances in Natural Ground (2020 & 2022)							
Metal	**Range of All Results (mg/kg)**	**GAC (mg/kg)**	**No.**	**Exceedance Details**			
				Location	**Depth**	**Result (mg/kg)**	**Geology Code**
Arsenic	3.75 – 55.9	37[1]	1	WS102	2.8	55.9	CGT
Lead	4.98 – 291	200[1]	1	WS102	2.8	291	CGT
Notes: CGT = Cohesive Glacial Till, GGT = Granular Glacial Till Generic Assessment Criteria Used: LQM/CIEH S4ULs for Human Health Risk Assessment (3rd edition, 2015), unless otherwise stated. [1] Category 4 Screening Levels (March 2014).							

Summary of Metal Exceedances in Natural Ground (Celtic 2007)							
Metal	**Range of All Results (mg/kg)**	**GAC (mg/kg)**	**No.**	**Exceedance Details**			
				Location	**Depth**	**Result (mg/kg)**	**Geology Code**
Arsenic	<3 – 45	37[1]	2	TP47	4.8-5.0	45	GGT
				TP66	3.3	42	GGT
Lead	5 – 540	200[1]	2	TP47	4.8-5.0	540	GGT
				TP66	3.3	290	GGT
Notes: CGT = Cohesive Glacial Till, GGT = Granular Glacial Till [1] Category 4 Screening Levels (March 2014).							

Summary of Cyanide Exceedances in Made Ground (2020 & 2022)							
Type	**Range of All Results (mg/kg)**	**GAC (mg/kg)**	**No.**	**Exceedance Details**			
				Location	**Depth**	**Result (mg/kg)**	**Geology Code**
Total Cyanide	<1 – 499	20[1]	10	TP108	2.30-2.30	**499**	MGC
				TP139	2.40-2.40	**162**	MG-CW
				TP114	3.40-3.40	79.5	MG-CDW
				TP123	1.90-1.90	68.8	MG-CW
				TP253	3.80-3.80	53.4	MGG
				TP139	1.50-1.50	51.9	MGC
				TP123	2.40-2.40	45.1	MG-CW

Summary of Cyanide Exceedances in Made Ground (2020 & 2022)							
Type	**Range of All Results (mg/kg)**	**GAC (mg/kg)**	**No.**	**Exceedance Details**			
				Location	**Depth**	**Result (mg/kg)**	**Geology Code**
				TP226	4.00-4.00	40.6	MGC
				TP230	1.50-1.50	38	MG-CW
				TP231	0.60-0.60	20.1	MGC

Notes:
MGC = Predominantly Cohesive Made Ground, MGG = Predominantly Granular Made Ground, MG-CW = Suspected Combustion Waste, MG-CDW = Suspected Construction and Demolition Waste, MG-CS = Suspected Colliery Spoil Waste, MG-HW = Suspected Household Waste, TF = Topsoil Fill
[1] Value for thiocyanate

Summary of Cyanide Exceedances in Made Ground (Celtic 2007)							
Type	**Range of All Results (mg/kg)**	**GAC (mg/kg)**	**No.**	**Exceedance Details**			
				Location	**Depth**	**Result (mg/kg)**	**Geology Code**
Total Cyanide	<1 – 920	20[1]	4	TP12	1.7	**920**	MGC
				TP10	2.4	**180**	MG-CW
				TP5	2.4	69	MGC
				TP62	2.4	50	MG-CS

Notes:
MGC = Predominantly Cohesive Made Ground, MGG = Predominantly Granular Made Ground, MG-CW = Suspected Combustion Waste, MG-CDW = Suspected Construction and Demolition Waste, MG-CS = Suspected Colliery Spoil Waste, MG-HW = Suspected Household Waste, TF = Topsoil Fill
[1] Value for thiocyanate

Summary of Cyanide Exceedances in Natural Ground (Celtic 2007)							
Type	Range of All Results (mg/kg)	GAC (mg/kg)	No.	Exceedance Details			
				Location	Depth	Result (mg/kg)	Geology Code
Total Cyanide	<1 – 50	20[1]	1	TP67	2.8	50	CGT
Notes: CGT = Cohesive Glacial Till, GGT = Granular Glacial Till [1] Value for thiocyanate							

Summary of TPH Exceedances in Made Ground (2020 & 2022)							
TPH Fraction	Range of All Results (mg/kg)	GAC (mg/kg)	No.	Exceedance Details			
				Location	Depth	Result (mg/kg)	Geology Code
Aliphatics >C8-C10	<0.01 – 703	27	1	TP139	2.4	703	MG-CW
Aromatics >EC8-EC10	<0.01 – 469	34	1	TP139	2.4	469	MG-CW
Aromatics > EC10-EC12	<1 – 6110	74	3	TP139	2.4	6110	MG-CW
				TP117	4.2	**459**	MG-CDW
				WS309	3.2	81.1	MGC
Aromatics > EC12-EC16	<1 – 5210	140	6	TP139	2.4	**5210**	MG-CW
				TP117	4.20	**2610**	MG-CDW
				WS309	3.20	994	MGC
				TP223	1.00	661	MGC
				TP126	0.50	325	MG-CW
				WS109	3.65-3.75	157	MGG
Aromatics > EC16-EC21	<1 – 10900	260	9	WS309	3.2	10900	MGC
				TP117	4.	**8780**	MG-CDW
				TP139	2.4	**2160**	MG-CW
				TP126	0.5	**1380**	MG-CW
				TP223	1.0	671	MGC
				WS306	1.3	550	MGC
				WS109	3.65-3.75	513	MGG
				WS112 ES1	0.9	449	MG-CW
				TP108	2.3	382	MGC

Summary of TPH Exceedances in Made Ground (2020 & 2022)							
TPH Fraction	Range of All Results (mg/kg)	GAC (mg/kg)	No.	Exceedance Details			
				Location	Depth	Result (mg/kg)	Geology Code
Aromatics > EC21-EC35	<1 – 17800	1100	6	WS309	3.2	**17800**	MGC
				TP117	4.2	**10200**	MG-CDW
				TP139	2.4	2220	MG-CW
				TP126	0.5	2210	MG-CW
				TP145	3.8	1980	MG-CDW
				WS306	1.3	1140	MGC
Aromatics > EC35-EC44	<1 – 1680	1100	1	WS309	3.2	1680	MGC

Notes:
MGC = Predominantly Cohesive Made Ground, MGG = Predominantly Granular Made Ground, MG-CW = Suspected Combustion Waste, MG-CDW = Suspected Construction and Demolition Waste, MG-CS = Suspected Colliery Spoil Waste, MG-HW = Suspected Household Waste, TF = Topsoil Fill
Generic Assessment Criteria Used: LQM/CIEH S4ULs for Human Health Risk Assessment (3rd edition, 2015), unless otherwise stated.

Summary of TPH Exceedances in Made Ground (Celtic 2007)							
TPH Fraction	Range of All Results (mg/kg)	GAC (mg/kg)	No.	Exceedance Details			
				Location	Depth	Result (mg/kg)	Geology Code
Aromatics > EC16-EC21	0.29 – 890	260	4	TP43	2.9	890	MGG
				TP112	1.7	460	MGC
				WS16	4.5	280	MGG
				TP46	1.5	260	MGC
Aromatics > EC21-EC35	4.1 – 8300	1100	3	TP43	2.9	8300	MGG
				TP12	1.7	2700	MGC
				TP46	1.5	1200	MGC

Notes:
MGC = Predominantly Cohesive Made Ground, MGG = Predominantly Granular Made Ground, MG-CW = Suspected Combustion Waste, MG-CDW = Suspected Construction and Demolition Waste, MG-CS = Suspected Colliery Spoil Waste, MG-HW = Suspected Household Waste, TF = Topsoil Fill
Generic Assessment Criteria Used: LQM/CIEH S4ULs for Human Health Risk Assessment (3rd edition, 2015), unless otherwise stated.

Summary of PAH Exceedances in Made Ground (2020 & 2022)							
PAH Fraction	Range of All Results (mg/kg)	GAC (mg/kg)	No.	Exceedance Details			
				Location	Depth	Result (mg/kg)	Geology Code
Naphthalene	<0.009 – 13100	2.3	27	TP139	2.40-2.40	13100	MG-CW
				TP117	4.20-4.20	279	MG-CDW
				TP117	4.20-4.20	144	MG-CDW
				WS109	3.65-3.75	102	MGG
				TP117	4.20-4.20	**83.4**	MG-CDW
				WS109	3.65-3.75	**22.4**	MGG
				TP126	0.50-0.50	**17.5**	MG-CW
				TP223	1.00-1.00	**16.5**	MGC
				WS109	3.65-3.75	**15**	MGG
				WS309	3.20-3.20	**12.3**	MGC
				WS309	3.20-3.20	**12**	MGC
				TP242	2.50-2.50	8.58	MGG
				TP226	1.50-1.50	6.84	MG-CDW
				WS112	0.90-0.90	6.04	MG-CW
				TP130	0.30-0.30	5.47	MG-CDW
				TP126	0.50-0.50	5.1	MG-CW
				WS306	1.30-1.30	5.06	MGC
				TP223	1.00-1.00	4.73	MGC
				TP223	1.00-1.00	3.77	MGC
				CP201	4.00-6.00	3.76	MG-CW
				TP104	1.80-1.80	3.14	MG-CDW
				CP201	4.00-6.00	2.91	MG-CW
				CP203	3.00-3.00	2.6	MGC
				TP206	1.00-1.00	2.46	MG-CDW
				TP224	1.40-1.40	2.44	MG-CDW
				TP227	1.10-1.10	2.36	MG-CS
				CP207	10.00-11.00	2.35	MGG
Acenaphthylene	<0.012 – 315	170	1	TP139	2.4	315	MG-CW
Acenaphthene	<0.008 – 341	210	1	TP117	4.2	341	MG-CDW
Fluorene	<0.01 – 656	170	2	TP139	2.4	656	MG-CW
				TP117	4.2	322	MG-CDW
Phenanthrene	<0.015 – 1550	95	6	TP117	4.2	1550	MG-CDW
				TP139	2.4	1320	MG-CW
				TP117	4.2	**725**	MG-CDW
				WS309	3.65-3.75	**518**	MGC

Summary of PAH Exceedances in Made Ground (2020 & 2022)							
PAH Fraction	Range of All Results (mg/kg)	GAC (mg/kg)	No.	Exceedance Details			
				Location	Depth	Result (mg/kg)	Geology Code
				TP126	0.5	**365**	MG-CW
				WS109	3.65-3.75	98.3	MGG
Fluoranthene	<0.017 – 1290	280	5	TP117	4.2	**1290**	MG-CDW
				TP117	4.2	621	MG-CDW
				WS309	3.2	572	MGC
				TP139	2.4	450	MG-CW
				TP126	0.5	400	MG-CW
Pyrene	<0.015 – 1120	620	1	TP117	4.2	**1120**	MG-CDW
Benz(a)anthracene	<0.014 – 432	7.2	31	TP117	4.20-4.20	**432**	MG-CDW
				WS309	3.20-3.20	**311**	MGC
				TP139	2.40-2.40	**237**	MG-CW
				TP117	4.20-4.20	**196**	MG-CDW
				TP126	0.50-0.50	**134**	MG-CW
				WS112	0.90-0.90	**46.8**	MG-CW
				TP224	1.40-1.40	**37.7**	MG-CDW
				TP123	2.40-2.40	**35**	MG-CW
				WS109	3.65-3.75	**25.8**	MGG
				WS109	3.65-3.75	**25.3**	MGG
				TP126	0.50-0.50	**24**	MG-CW
				TP108	2.30-2.30	**22.2**	MGC
				TP253	3.80-3.80	**21.6**	MGG
				TP104	1.80-1.80	**18.7**	MG-CDW
				WS306	1.30-1.30	**16.6**	MGC
				TP204	0.90-0.90	**13.8**	MGC
				TP149	0.50-0.50	**13**	MG-CW
				TP224	1.40-1.40	**12.9**	MG-CDW
				CP103	2.00-3.00	**12.4**	MGC
				TP258	2.50-2.50	**11**	MGG
				TP226	1.50-1.50	**10.3**	MG-CDW
				WS111	0.35-0.35	9.65	MG-CW
				CP202	6.70-6.70	9.59	MGG
				TP145	3.80-3.80	9.51	MG-CDW
				TP149	0.50-0.50	9.02	MG-CW
				TP144	0.40-0.40	8.91	MG-CW
				TP206	1.00-1.00	8.3	MG-CDW
				TP242	2.50-2.50	7.71	MGG

Summary of PAH Exceedances in Made Ground (2020 & 2022)							
PAH Fraction	Range of All Results (mg/kg)	GAC (mg/kg)	No.	Exceedance Details			
				Location	Depth	Result (mg/kg)	Geology Code
				WS105	2.50-2.50	7.7	MGG
				TP145	2.30-2.30	7.42	MG-CDW
				TP212	1.50-1.50	7.32	MG-CW
Chrysene	<0.01 – 432	15	15	TP117	4.20-4.20	**432**	MG-CDW
				WS309	3.20-3.20	**237**	MGC
				TP117	4.20-4.20	**196**	MG-CDW
				TP139	2.40-2.40	**187**	MG-CW
				TP126	0.50-0.50	**144**	MG-CW
				WS112	0.90-0.90	45.2	MG-CW
				TP224	1.40-1.40	37.2	MG-CDW
				TP123	2.40-2.40	30.6	MG-CW
				WS109	3.65-3.75	26.3	MGG
				TP108	2.30-2.30	22.7	MGC
				WS109	3.65-3.75	22.2	MGG
				TP126	0.50-0.50	21.9	MG-CW
				TP253	3.80-3.80	19.2	MGG
				TP104	1.80-1.80	18.4	MG-CDW
				WS306	1.30-1.30	16.9	MGC
Benzo(b)fluoranthene	<0.015 – 461	2.6	56	TP117	4.20-4.20	**461**	MG-CDW
				TP117	4.20-4.20	**197**	MG-CDW
				TP126	0.50-0.50	**159**	MG-CW
				WS309	3.20-3.20	**117**	MGC
				TP139	2.40-2.40	**113**	MG-CW
				WS112	0.90-0.90	**52.8**	MG-CW
				TP123	2.40-2.40	**26.7**	MG-CW
				TP224	1.40-1.40	**24.9**	MG-CDW
				WS109	3.65-3.75	**23**	MGG
				TP104	1.80-1.80	**22.1**	MG-CDW
				TP253	3.80-3.80	**21.9**	MGG
				TP108	2.30-2.30	**21.2**	MGC
				TP126	0.50-0.50	**18.9**	MG-CW
				WS109	3.65-3.75	**18.5**	MGG
				CP103	2.00-3.00	**15.7**	MGC
				TP224	1.40-1.40	**15.2**	MG-CDW
				TP149	0.50-0.50	**12.3**	MG-CW
				TP149	0.50-0.50	**11.8**	MG-CW

Summary of PAH Exceedances in Made Ground (2020 & 2022)							
PAH Fraction	Range of All Results (mg/kg)	GAC (mg/kg)	No.	Exceedance Details			
				Location	Depth	Result (mg/kg)	Geology Code
				TP144	0.40-0.40	**11.3**	MG-CW
				TP145	3.80-3.80	**10.9**	MG-CDW
				WS111	0.35-0.35	**10.4**	MG-CW
				TP102	1.60-1.60	9.73	MG-CDW
				WS306	1.30-1.30	9.7	MGC
				TP141	0.50-0.50	9.08	MG-CW
				TP226	1.50-1.50	8.86	MG-CDW
				TP258	2.50-2.50	8.64	MGG
				CP202	6.70-6.70	8.42	MGG
				TP145	2.30-2.30	7.74	MG-CDW
				TP145	3.80-3.80	7.52	MG-CDW
				TP144	0.40-0.40	7.2	MG-CW
				TP248	1.00-1.00	7.01	MG-CW
				WS105	2.50-2.50	6.76	MGG
				CP201	4.00-6.00	6.43	MG-CW
				TP242	2.50-2.50	5.83	MGG
				TP242	2.50-2.50	5.83	MGG
				TP226	1.50-1.50	5.77	MG-CDW
				TP206	1.00-1.00	5.58	MG-CDW
				TP123	0.80-0.80	5.34	MG-CW
				TP134	0.20-0.20	4.99	MG-CDW
				TP119	1.70-1.70	4.84	MG-CDW
				TP256	0.35-0.35	4.83	MG-CW
				CP207	10.00-11.00	4.03	MGG
				TP223	1.00-1.00	3.97	MGC
				TP130	0.30-0.30	3.8	MG-CDW
				TP212	1.50-1.50	3.69	MG-CW
				TP258	2.50-2.50	3.61	MGG
				CP201	4.00-6.00	3.43	MG-CW
				TP119	1.70-1.70	3.3	MG-CDW
				CP108	0.50-0.50	3.28	MG-CW
				TP115	0.40-0.40	3.25	MGG
				CP107	4.50-4.50	3.13	MGG
				TP212	1.50-1.50	3.13	MG-CW
				TP203	1.00-1.00	3.03	MGC

Summary of PAH Exceedances in Made Ground (2020 & 2022)							
PAH Fraction	Range of All Results (mg/kg)	GAC (mg/kg)	No.	Exceedance Details			
				Location	Depth	Result (mg/kg)	Geology Code
				TP101	0.50-0.50	2.92	MG-CDW
				TP210	0.90-0.90	2.86	MG-CDW
				CP108	0.50-0.50	2.71	MG-CW
Benzo(k)fluoranthene	<0.014 – 173	77	3	TP117	4.2	**173**	MG-CDW
				TP117	4.2	**155**	MG-CDW
				WS309	3.2	**149**	MGC
Benzo(a)pyrene	<0.015 – 376	2.2	67	TP117	4.20-4.20	**376**	MG-CDW
				WS309	3.20-3.20	**194**	MGC
				TP117	4.20-4.20	**192**	MG-CDW
				TP139	2.40-2.40	**154**	MG-CW
				TP126	0.50-0.50	**123**	MG-CW
				WS112	0.90-0.90	**39.2**	MG-CW
				TP224	1.40-1.40	**36.8**	MG-CDW
				TP123	2.40-2.40	**35**	MG-CW
				WS109	3.65-3.75	**29.1**	MGG
				TP126	0.50-0.50	**21.9**	MG-CW
				WS109	3.65-3.75	**21.8**	MGG
				TP253	3.80-3.80	**17.1**	MGG
				TP108	2.30-2.30	**16.4**	MGC
				TP104	1.80-1.80	**16.3**	MG-CDW
				TP224	1.40-1.40	**12.6**	MG-CDW
				TP204	0.90-0.90	**12.2**	MGC
				WS306	1.30-1.30	**12.1**	MGC
				CP103	2.00-3.00	**11.3**	MGC
				TP149	0.50-0.50	**10.7**	MG-CW
				TP258	2.50-2.50	9.3	MGG
				TP145	3.80-3.80	9.07	MG-CDW
				TP149	0.50-0.50	8.57	MG-CW
				TP226	1.50-1.50	8.56	MG-CDW
				TP144	0.40-0.40	8.15	MG-CW
				CP202	6.70-6.70	7.55	MGG
				WS111	0.35-0.35	7.44	MG-CW
				TP141	0.50-0.50	7.04	MG-CW
				TP145	2.30-2.30	6.98	MG-CDW
				TP102	1.60-1.60	6.92	MG-CDW
				TP242	2.50-2.50	6.88	MGG

Summary of PAH Exceedances in Made Ground (2020 & 2022)							
PAH Fraction	Range of All Results (mg/kg)	GAC (mg/kg)	No.	Exceedance Details			
				Location	Depth	Result (mg/kg)	Geology Code
				WS105	2.50-2.50	6.22	MGG
				TP123	0.80-0.80	6.05	MG-CW
				TP212	1.50-1.50	6.02	MG-CW
				TP206	1.00-1.00	5.8	MG-CDW
				TP144	0.40-0.40	5.7	MG-CW
				TP248	1.00-1.00	5.52	MG-CW
				TP242	2.50-2.50	5.37	MGG
				CP201	4.00-6.00	5.12	MG-CW
				TP226	1.50-1.50	5.04	MG-CDW
				TP134	0.20-0.20	4.29	MG-CDW
				TP256	0.35-0.35	4.08	MG-CW
				TP258	2.50-2.50	3.95	MGG
				CP207	10.00-11.00	3.84	MGG
				CP108	0.50-0.50	3.65	MG-CW
				TP145	3.80-3.80	3.57	MG-CDW
				CP202	8.00-9.00	3.26	MGG
				TP119	1.70-1.70	3.06	MG-CDW
				WS301	2.80-3.00	3.01	MGG
				TP130	0.30-0.30	2.99	MG-CDW
				CP103	2.00-3.00	2.98	MGC
				TP119	1.70-1.70	2.98	MG-CDW
				TP256	0.35-0.35	2.98	MG-CW
				TP208	2.50-2.50	2.92	MG-CDW
				TP248	1.00-1.00	2.92	MG-CW
				CP201	4.00-6.00	2.68	MG-CW
				TP115	0.40-0.40	2.57	MGG
				TP212	1.50-1.50	2.56	MG-CW
				TP254	1.30-1.30	2.54	MG-CDW
				TP229	3.00-3.00	2.5	MG-CDW
				CP107	4.50-4.50	2.44	MGG
				TP223	1.00-1.00	2.36	MGC
				CP108	1.80-1.80	2.3	MG-CW
				WS317	2.50-2.50	2.29	MG-CW
				TP210	0.90-0.90	2.28	MG-CDW
				TP215	1.00-1.00	2.24	MG-HW

Summary of PAH Exceedances in Made Ground (2020 & 2022)							
PAH Fraction	Range of All Results (mg/kg)	GAC (mg/kg)	No.	Exceedance Details			
				Location	Depth	Result (mg/kg)	Geology Code
				TP203	1.00-1.00	2.23	MGC
				TP101	0.50-0.50	2.22	MG-CDW
Indeno(1,2,3-cd)pyrene	<0.018 – 255	27	7	TP117	4.20-4.20	**255**	MG-CDW
				TP117	4.20-4.20	**133**	MG-CDW
				WS309	3.20-3.20	**114**	MGC
				TP126	0.50-0.50	79.6	MG-CW
				TP139	2.40-2.40	61.7	MG-CW
				TP224	1.40-1.40	34	MG-CDW
				WS112	0.90-0.90	28.1	MG-CW
Dibenzo(a,h)anthracene	<0.023 – 51.6	0.24	60	TP117	4.20-4.20	**51.6**	MG-CDW
				TP126	0.50-0.50	**16.4**	MG-CW
				TP139	2.40-2.40	**15.4**	MG-CW
				WS309	3.20-3.20	**14.4**	MGC
				TP117	4.20-4.20	**11.3**	MG-CDW
				TP123	2.40-2.40	**4.83**	MG-CW
				WS112	0.90-0.90	**3.99**	MG-CW
				TP224	1.40-1.40	**3.11**	MG-CDW
				WS109	3.65-3.75	**2.94**	MGG
				TP104	1.80-1.80	**1.92**	MG-CDW
				TP253	3.80-3.80	**1.77**	MGG
				TP108	2.30-2.30	**1.66**	MGC
				WS109	3.65-3.75	**1.63**	MGG
				TP149	0.50-0.50	**1.5**	MG-CW
				TP224	1.40-1.40	**1.46**	MG-CDW
				CP103	2.00-3.00	**1.45**	MGC
				TP204	0.90-0.90	**1.32**	MGC
				TP149	0.50-0.50	0.995	MG-CW
				TP145	3.80-3.80	0.973	MG-CDW
				TP102	1.60-1.60	0.963	MG-CDW
				TP144	0.40-0.40	0.924	MG-CW
				TP141	0.50-0.50	0.911	MG-CW
				CP202	6.70-6.70	0.848	MGG
				TP145	2.30-2.30	0.826	MG-CDW
				TP123	0.80-0.80	0.815	MG-CW
				WS111	0.35-0.35	0.749	MG-CW
				TP144	0.40-0.40	0.73	MG-CW

Summary of PAH Exceedances in Made Ground (2020 & 2022)							
PAH Fraction	Range of All Results (mg/kg)	GAC (mg/kg)	No.	Exceedance Details			
				Location	Depth	Result (mg/kg)	Geology Code
				WS105	2.50-2.50	0.712	MGG
				TP242	2.50-2.50	0.668	MGG
				TP248	1.00-1.00	0.635	MG-CW
				TP226	1.50-1.50	0.596	MG-CDW
				TP134	0.20-0.20	0.541	MG-CDW
				CP201	4.00-6.00	0.51	MG-CW
				TP256	0.35-0.35	0.509	MG-CW
				TP258	2.50-2.50	0.494	MGG
				CP207	10.00-11.00	0.435	MGG
				TP145	3.80-3.80	0.422	MG-CDW
				CP201	4.00-6.00	0.422	MG-CW
				CP108	0.50-0.50	0.391	MG-CW
				TP130	0.30-0.30	0.362	MG-CDW
				TP208	2.50-2.50	0.351	MG-CDW
				TP119	1.70-1.70	0.33	MG-CDW
				TP256	0.35-0.35	0.327	MG-CW
				TP216	0.60-0.60	0.326	MG-CW
				TP119	1.70-1.70	0.326	MG-CDW
				TP212	1.50-1.50	0.304	MG-CW
				CP108	0.50-0.50	0.297	MG-CW
				CP103	2.00-3.00	0.293	MGC
				TP207	3.00-3.00	0.283	MG-HW
				CP202	8.00-9.00	0.283	MGG
				TP210	0.90-0.90	0.277	MG-CDW
				TP127	1.20-1.20	0.275	MGC
				CP108	1.80-1.80	0.272	MG-CW
				TP115	0.40-0.40	0.266	MGG
				TP203	1.00-1.00	0.265	MGC
				TP229	3.00-3.00	0.257	MG-CDW
				TP101	0.50-0.50	0.256	MG-CDW
				TP206	1.00-1.00	0.254	MG-CDW
				TP244	0.70-1.00	0.245	MGC
				TP245	2.00-2.00	0.24	MG-CDW

Notes:
MGC = Predominantly Cohesive Made Ground, MGG = Predominantly Granular Made Ground, MG-

Summary of PAH Exceedances in Made Ground (2020 & 2022)							
PAH Fraction	Range of All Results (mg/kg)	GAC (mg/kg)	No.	Exceedance Details			
				Location	Depth	Result (mg/kg)	Geology Code
CW = Suspected Combustion Waste, MG-CDW = Suspected Construction and Demolition Waste, MG-CS = Suspected Colliery Spoil Waste, MG-HW = Suspected Household Waste, TF = Topsoil Fill Generic Assessment Criteria Used: LQM/CIEH S4ULs for Human Health Risk Assessment (3rd edition, 2015), unless otherwise stated.							

Summary of PAH Exceedances in Made Ground (2007)							
PAH Fraction	Range of All Results (mg/kg)	GAC (mg/kg)	No.	Exceedance Details			
				Location	Depth	Result (mg/kg)	Geology Code
Naphthalene	<0.013 – 18	2.3	6	TP8	2.2-2.4	**18**	MGC
				TP20	0.9	7.6	MG-CW
				TP12	1.7	3.6	MGC
				BH13	0.6-1.1	3.6	MG-CS
				TP11	0.7	3.6	MGG
				TP11A	1.3-2.0	2.4	MGG
Benz(a)anthracene	0.039 – 31	7.2	6	TP12	1.7	**31**	MGC
				TP10	2.4	**22**	MG-CW
				TP20	0.9	**19**	MG-CW
				TP11A	1.3-2.0	**18**	MGG
				WS16	4.5	**11**	MGG
				TP1	0.2	7.9	MGG
Chrysene	<0.1 – 33	15	4	TP12	1.7	33	MGC
				TP10	2.4	24	MG-CW
				TP20	0.9	20	MG-CW
				TP11A	1.3-2.0	19	MGG
Benzo(b)fluoranthene	0.076 – 24	2.6	11	TP12	1.7	**24**	MGC
				TP20	0.9	**18**	MG-CW
				TP11A	1.3-2.0	**18**	MGG
				TP10	2.4	**17**	MG-CW
				TP1	0.2	**11**	MGG
				WS16	4.5	9.9	MGG
				TP16	2.5	9.0	MG-CDW
				WS22	0.5	5.7	MGC
				WS6	1.5	3.7	MGC

Summary of PAH Exceedances in Made Ground (2007)							
PAH Fraction	Range of All Results (mg/kg)	GAC (mg/kg)	No.	Exceedance Details			
				Location	Depth	Result (mg/kg)	Geology Code
				TP8	2.2-2.4	3.5	MGC
				WS9	0.2	2.9	MGG
Benzo(a)pyrene	0.024 – 22	2.2	11	TP10	2.4	**22**	MG-CW
				TP12	1.7	**22**	MGC
				TP11A	1.3-2.0	**20**	MGG
				TP20	0.9	**17**	MG-CW
				WS16	4.5	**10**	MGG
				TP1	0.2	9.1	MGG
				TP16	2.5	6.4	MG-CDW
				WS22	0.5	5.3	MGC
				TP8	2.2-2.4	5.2	MGC
				WS6	1.5	4.5	MGC
				WS9	0.2	3.2	MGG
Dibenzo(a,h)anthracene	<0.008 – 3.5	0.24	13	TP12	1.7	**3.5**	MGC
				TP11A	1.3-2.0	**3.4**	MGG
				TP10	2.4	**2.9**	MG-CW
				TP20	0.9	**1.8**	MG-CW
				WS16	4.5	**1.2**	MGG
				TP1	0.2	**1.1**	MGG
				TP8	2.2-2.4	**1.0**	MGC
				TP16	2.5	0.69	MG-CDW
				WS6	1.5	0.51	MGC
				WS22	0.5	0.48	MGC
				TP31	3.0-3.3	0.44	MG-CW
				WS9	0.2	0.36	MGG
				TP7	2.8	0.29	MGC

Notes:
MGC = Predominantly Cohesive Made Ground, MGG = Predominantly Granular Made Ground, MG-CW = Suspected Combustion Waste, MG-CDW = Suspected Construction and Demolition Waste, MG-CS = Suspected Colliery Spoil Waste, MG-HW = Suspected Household Waste, TF = Topsoil Fill
Generic Assessment Criteria Used: LQM/CIEH S4ULs for Human Health Risk Assessment (3rd edition, 2015), unless otherwise stated.

Summary of PAH Exceedances in Natural Ground (2020 & 2022)							
PAH Fraction	Range of All Results (mg/kg)	GAC (mg/kg)	No.	Exceedance Details			
				Location	Depth	Result (mg/kg)	Geology Code
Naphthalene	<0.009 – 3.6	2.3	1	WS102	2.8	3.6	CGT
Benz(a)anthracene	<0.014 – 10	7.2	2	WS102	2.8	**10**	CGT
				WS102	2.8	8.58	CGT
Benzo(b)fluoranthene	<0.015 – 11.8	3.3	2	WS102	2.8	**11.8**	CGT
				WS102	2.8	8.3	CGT
Benzo(a)pyrene	<0.015 – 9.13	2.7	2	WS102	2.8	9.13	CGT
				WS102	2.8	7.44	CGT
Dibenzo(a,h)anthracene	<0.023 – 0.776	0.28	2	WS102	2.8	0.776	CGT
				WS102	2.8	0.521	CGT
Notes: MGC = Predominantly Cohesive Made Ground, MGG = Predominantly Granular Made Ground, MG-CW = Suspected Combustion Waste, MG-CDW = Suspected Construction and Demolition Waste, MG-CS = Suspected Colliery Spoil Waste, MG-HW = Suspected Household Waste, TF = Topsoil Fill Generic Assessment Criteria Used: LQM/CIEH S4ULs for Human Health Risk Assessment (3rd edition, 2015), unless otherwise stated.							

Summary of PAH Exceedances in Natural Ground (Celtic 2007)							
PAH Fraction	Range of All Results (mg/kg)	GAC (mg/kg)	No.	Exceedance Details			
				Location	Depth	Result (mg/kg)	Geology Code
Naphthalene	0.005 – 30	2.3	3	TP38	1.2	**30**	CGT
				TP38	1.2	**13**	CGT
				TP26	1.6	5.3	CGT
Acenaphthene	<0.014 – 230	210	1	TP38	1.2	230	CGT
Fluorene	0.015 – 200	170	1	TP38	1.2	200	CGT
Phenanthrene	0.049 – 590	95	1	TP38	1.2	**590**	CGT
Benz(a)anthracene	0.017 – 14	7.2	1	TP38	1.2	14	CGT
Benzo(b)fluoranthene	<0.016 – 5.2	2.6	3	TP26	1.6	5.2	CGT
				TP66	3.3	4.4	GGT
				WS11	2.0	2.8	CGT
Benzo(a)pyrene	<0.012 – 4.3	2.2	2	TP26	1.6	4.3	CGT
				TP66	3.3	2.5	GGT
	<0.008 – 0.75	0.24	2	TP26	1.6	0.75	CGT

Summary of PAH Exceedances in Natural Ground (Celtic 2007)							
PAH Fraction	Range of All Results (mg/kg)	GAC (mg/kg)	No.	Exceedance Details			
				Location	Depth	Result (mg/kg)	Geology Code
Dibenzo(a,h)anthracene				TP66	3.3	0.34	GGT
Notes: MGC = Predominantly Cohesive Made Ground, MGG = Predominantly Granular Made Ground, MG-CW = Suspected Combustion Waste, MG-CDW = Suspected Construction and Demolition Waste, MG-CS = Suspected Colliery Spoil Waste, MG-HW = Suspected Household Waste, TF = Topsoil Fill Generic Assessment Criteria Used: LQM/CIEH S4ULs for Human Health Risk Assessment (3rd edition, 2015), unless otherwise stated.							

Summary of BTEX Exceedances in Made Ground (2020 & 2022)							
BTEX	Range of All Results (mg/kg)	GAC (mg/kg)	No.	Exceedance Details			
				Location	Depth	Result (mg/kg)	Geology Code
Benzene	<0.009 – 2.74	0.0087	1	TP139	2.4	**2.74**	MG-CW
p/m-Xylene	<0.01 – 219	56	1	TP139	2.4	**219**	MG-CW
o-Xylene	<0.01 – 114	60	1	TP139	2.4	**114**	MG-CW
Notes: MGC = Predominantly Cohesive Made Ground, MGG = Predominantly Granular Made Ground, MG-CW = Suspected Combustion Waste, MG-CDW = Suspected Construction and Demolition Waste, MG-CS = Suspected Colliery Spoil Waste, MG-HW = Suspected Household Waste, TF = Topsoil Fill Generic Assessment Criteria Used: LQM/CIEH S4ULs for Human Health Risk Assessment (3rd edition, 2015), unless otherwise stated.							

Summary of SVOC and VOC Exceedances in Made Ground (2020 & 2022)							
SVOC / VOC	**Range of All Results (mg/kg)**	**GAC (mg/kg)**	**No.**	**Exceedance Details**			
				Location	**Depth**	**Result (mg/kg)**	**Geology Code**
Pentachlorophenol	<0.1 – <5	0.22	1	TP207	3.0	**3.35**	MG-HW
Dibenzofuran	<0.1 – 114	4.8[4]	3	TP117	4.2	**114**	MG-CDW
				WS109	3.65-3.75	**13.2**	MGG
				TP223	1.0	5.83	MGC
Carbazole	<0.1 – 64.8	6.7[4]	2	WS309	3.2	**64.8**	MGC
				TP117	4.2	**47.3**	MG-CDW
2-Methylnaphthalene	<0.1 – 97.4	10[4]	1	TP117	4.2	**97.4**	MG-CDW
1,2,4-Trimethylbenzene	<0.009 – 1.8	0.35[3]	2	TP117	4.2	0.653	MG-CDW
				WS109	3.65-3.75	0.619	MGG
Trichloroethene	<0.009 – 1.8	0.0093[1]	1	TP226	1.5	**0.41**	MG-CDW

Notes:
MGC = Predominantly Cohesive Made Ground, MGG = Predominantly Granular Made Ground, MG-CW = Suspected Combustion Waste, MG-CDW = Suspected Construction and Demolition Waste, MG-CS = Suspected Colliery Spoil Waste, MG-HW = Suspected Household Waste, TF = Topsoil Fill
Generic Assessment Criteria Used: LQM/CIEH S4ULs for Human Health Risk Assessment (3rd edition, 2015), unless otherwise stated. [1] Category 4 Screening Levels (March 2014). [3] EIC/AGS/CL:AIRE Soil GAC for Human Health Assessment (January 2010). [4] Wardell Armstrong derived GAC.

Summary of SVOC and VOC Exceedances in Made Ground (Celtic 2007)							
SVOC / VOC	Range of All Results (mg/kg)	GAC (mg/kg)	No.	Exceedance Details			
				Location	Depth	Result (mg/kg)	Geology Code
2-Methylnaphthalene	<0.1 – 180	10[4]	2	TP8	2.2-2.4	**180**	MGC
				WS18	2.3	12	MG-CW
2,4-Dinitrotoluene	<0.1 – 13	1.5[3]	1	TP8	2.2-2.4	**13**	MGC
Carbazole	<0.1 – 70	6.7[4]	1	TP8	2.2-2.4	**70**	MGC
Dibenzofuran	<0.1 – 80	4.8[4]	3	TP8	2.2-2.4	**80**	MGC
				WS18	2.3	**15**	MG-CW
				WS16	4.5	6.2	MGG
Chloromethane	<0.007 – 0.013	0.0083[3]	1	WS10	0.2	**0.013**	TF
Trichloroethene	<0.009 – 0.06	0.0093[1]	1	BH13	0.6-1.1	**0.06**	MG-CS
2,4-Dimethylphenol	<0.1 – 27	19	1	TP8	2.2-2.4	27	MGC

Notes:
MGC = Predominantly Cohesive Made Ground, MGG = Predominantly Granular Made Ground, MG-CW = Suspected Combustion Waste, MG-CDW = Suspected Construction and Demolition Waste, MG-CS = Suspected Colliery Spoil Waste, MG-HW = Suspected Household Waste, TF = Topsoil Fill
Generic Assessment Criteria Used: LQM/CIEH S4ULs for Human Health Risk Assessment (3rd edition, 2015), unless otherwise stated. [1] Category 4 Screening Levels (March 2014). [3] EIC/AGS/CL:AIRE Soil GAC for Human Health Assessment (January 2010). [4] Wardell Armstrong derived GAC.

Summary of SVOC and VOC Exceedances in Natural Ground (Celtic 2007)							
SVOC / VOC	Range of All Results (mg/kg)	GAC (mg/kg)	No.	Exceedance Details			
				Location	Depth	Result (mg/kg)	Geology Code
2-Methylnaphthalene	<0.1 – 19	10[4]	1	TP38	1.2	19	CGT
Carbazole	<0.1 – 7.1	6.7[4]	1	TP38	1.2	7.1	CGT
Dibenzofuran	<0.1 – 81	4.8[4]	1	TP38	1.2	**81**	CGT

Notes:
MGC = Predominantly Cohesive Made Ground, MGG = Predominantly Granular Made Ground, MG-CW = Suspected Combustion Waste, MG-CDW = Suspected Construction and Demolition Waste, MG-CS = Suspected Colliery Spoil Waste, MG-HW = Suspected Household Waste, TF = Topsoil Fill

Summary of SVOC and VOC Exceedances in Natural Ground (Celtic 2007)							
SVOC / VOC	Range of All Results (mg/kg)	GAC (mg/kg)	No.	Exceedance Details			
				Location	Depth	Result (mg/kg)	Geology Code
Generic Assessment Criteria Used: LQM/CIEH S4ULs for Human Health Risk Assessment (3rd edition, 2015), unless otherwise stated. [4] Wardell Armstrong derived GAC.							

Summary of PCB Exceedances in Made Ground (2020 & 2022)							
PCB Congener	Range of All Results (mg/kg)	GAC (mg/kg)	No.	Exceedance Details			
				Location	Depth	Result (mg/kg)	Geology Code
PCB congener 28	<0.003 – 0.388	0.008[5]	6	TP229	3.00-3.00	**0.388**	MG-CDW
				CP202	8.00-9.00	**0.143**	MGG
				CP104	7.30-7.30	**0.0834**	MG-CDW
				TP119	1.70-1.70	**0.0648**	MG-CDW
				CP201	4.00-6.00	**0.0471**	MG-CW
				TP253	3.80-3.80	**0.0296**	MGG
PCB congener 52	<0.003 – 0.492	0.008[5]	7	TP229	3.00-3.00	**0.492**	MG-CDW
				CP104	7.30-7.30	**0.0924**	MG-CDW
				CP202	8.00-9.00	**0.0443**	MGG
				TP119	1.70-1.70	**0.0247**	MG-CDW
				TP253	3.80-3.80	**0.0172**	MGG
				TP216	0.60-0.60	**0.016**	MG-CW
				TP150	2.20-2.20	**0.0117**	MGG
PCB congener 101	<0.003 – 0.523	0.008[5]	6	TP229	3.00-3.00	**0.523**	MG-CDW
				CP104	7.30-7.30	**0.17**	MG-CDW
				CP202	8.00-9.00	**0.0328**	MGG
				TP119	1.70-1.70	**0.0265**	MG-CDW
				TP112	1.80-1.80	**0.0237**	MG-CDW
				TP150	2.20-2.20	**0.0197**	MGG
PCB congener 118	<0.003 – 0.275	0.008[5]	6	TP229	3.00-3.00	**0.275**	MG-CDW
				CP104	7.30-7.30	**0.109**	MG-CDW
				CP202	8.00-9.00	**0.0219**	MGG
				TP119	1.70-1.70	**0.0168**	MG-CDW
				TP112	1.80-1.80	**0.0127**	MG-CDW
				TP150	2.20-2.20	**0.0103**	MGG
PCB congener 138	<0.003 – 0.298	0.008[5]	6	TP229	3.00-3.00	**0.298**	MG-CDW
				CP104	7.30-7.30	**0.0887**	MG-CDW

Summary of PCB Exceedances in Made Ground (2020 & 2022)							
PCB Congener	Range of All Results (mg/kg)	GAC (mg/kg)	No.	Exceedance Details			
				Location	Depth	Result (mg/kg)	Geology Code
				TP119	1.70-1.70	**0.0171**	MG-CDW
				CP202	8.00-9.00	**0.017**	MGG
				TP150	2.20-2.20	**0.0148**	MGG
				TP112	1.80-1.80	**0.0101**	MG-CDW
PCB congener 153	<0.003 – 0.224	0.008[5]	5	TP229	3.00-3.00	**0.224**	MG-CDW
				CP104	7.30-7.30	**0.0582**	MG-CDW
				CP202	8.00-9.00	**0.0153**	MGG
				TP150	2.20-2.20	0.00946	MGG
				TP112	1.80-1.80	0.00859	MG-CDW
PCB congener 180	<0.003 - <0.15	0.008[5]	4	TP229	3.00-3.00	**0.0739**	MG-CDW
				TP242	2.50-2.50	**0.0426**	MGG
				CP104	7.30-7.30	**0.0142**	MG-CDW

Notes:
MGC = Predominantly Cohesive Made Ground, MGG = Predominantly Granular Made Ground, MG-CW = Suspected Combustion Waste, MG-CDW = Suspected Construction and Demolition Waste, MG-CS = Suspected Colliery Spoil Waste, MG-HW = Suspected Household Waste, TF = Topsoil Fill
Generic Assessment Criteria Used: LQM/CIEH S4ULs for Human Health Risk Assessment (3rd edition, 2015), unless otherwise stated. [5] Environment Agency Soil Guideline Values for dioxins, furans and dioxin-like PCBs in soil.

Summary of Asbestos Exceedences in Made Ground (2020 & 2022)							
Asbestos	Range of All Results (mg/kg)	GAC (mg/kg)	No.	Exceedance Details			
				Location	Depth	Result (mg/kg)	Geology Code
Asbestos	<0.001 – 5.11%	0.001%	11	CP109	7.50-7.50	**5.11**	MG-CDW
				TP102	1.60-1.60	**0.279**	MG-CDW
				WS112	0.90-0.90	**0.109**	MG-CW
				TP245	2.00-2.00	**0.0647**	MG-CDW
				TP203	1.00-1.00	**0.0607**	MGC
				TP229	3.00-3.00	**0.0489**	MG-CDW
				WS311	1.40-1.40	**0.0199**	MGC
				TP207	3.00-3.00	**0.0173**	MG-HW
				TP224	1.40-1.40	0.0053	MG-CDW
				CP103	2.00-3.00	0.0046	MGC

Summary of Asbestos Exceedences in Made Ground (2020 & 2022)							
Asbestos	Range of All Results (mg/kg)	GAC (mg/kg)	No.	Exceedance Details			
				Location	Depth	Result (mg/kg)	Geology Code
				TP212	1.50-1.50	0.0031	MG-CW
				TP249	1.50-1.50	0.0019	MG-HW
Notes: MGC = Predominantly Cohesive Made Ground, MGG = Predominantly Granular Made Ground, MG-CW = Suspected Combustion Waste, MG-CDW = Suspected Construction and Demolition Waste, MG-CS = Suspected Colliery Spoil Waste, MG-HW = Suspected Household Waste, TF = Topsoil Fill							

Summary of Contaminants in Perched Groundwater with Made Ground Exceeding Screening Criteria (WA 2020 & 2022)						
Contaminant	Range of Results (µg/l)	GAC (µg/l)	No.	Exceedance Details		
				Location	Response Zone (m)	Result (µg/l)
Metals						
Boron	198 – 15700	1,000[1]	11	Seepage Sample	GL	**15700**
				CP109	9.0 - 13.0	**11300**
				CP109	9.0 - 13.0	**11100**
				WS310	1.5 - 4.5	3110
				CP107	5.0 - 9.0	2260
				WS306	1.0 - 5.0	1760
				WS309	2.5 - 4.5	1530
				WS305	2.5 - 4.5	1370
				CP201	2.0 - 7.0	1280
				WS315	1.5 - 4.5	1200
				WS312	2.5 - 5.5	1010
Cadmium	<0.008 – 11	0.25	1	CP110	1.0 – 4.0	11
Chromium	<1 – 10.7	4.7	5	CP109	9.0 - 13.0	**10.7**
				CP109	9.0 - 13.0	9.51
				Seepage Sample	GL	7.22
				CP103 (2)	2.0 - 6.0	6.98
				CP107	5.0 - 9.0	5.11
Copper	<0.3 – 140	37.5[2]	1	CP110	1.0 – 4.0	**140**

Summary of Contaminants in Perched Groundwater with Made Ground Exceeding Screening Criteria (WA 2020 & 2022)						
Contaminant	**Range of Results (µg/l)**	**GAC (µg/l)**	**No.**	**Exceedance Details**		
				Location	**Response Zone (m)**	**Result (µg/l)**
Manganese to Canal	73 – 3450	207.1[2]	13	WS312	2.5 - 5.5	**3450**
				WS315	1.5 - 4.5	**1340**
				WS308	1.0 - 4.0	665
				Seepage Sample	GL	533
				CP110	1.0 - 4.0	485
				CP201	2.0 - 7.0	482
				WS306	1.0 - 5.0	417
				WS310	1.5 - 4.5	397
				WS309	2.5 - 4.5	365
				CP108	2.2 - 5.0	360
				CP103 (2)	2.0 - 6.0	257
				CP107	5.0 - 9.0	230
				CP108	2.2 – 5.0	207
Manganese to River		173.54[2]	13	WS312	2.5 - 5.5	**3450**
				WS315	1.5 - 4.5	**1340**
				WS308	1.0 - 4.0	665
				Seepage Sample	GL	533
				CP110	1.0 - 4.0	485
				CP201	2.0 - 7.0	482
				WS306	1.0 - 5.0	417
				WS310	1.5 - 4.5	397
				WS309	2.5 - 4.5	365
				CP108	2.2 - 5.0	360
				CP103 (2)	2.0 - 6.0	257
				CP107	5.0 - 9.0	230
				CP108	2.2 – 5.0	207
Nickel to Canal	<0.4 – 130	9.73[2]	5	WS315	1.5 - 4.5	**130**
				CP110	1.0 - 4.0	**36.5**
				CP109	9.0 - 13.0	**11.7**
				CP109	9.0 - 13.0	**10.5**
Nickel to River		12.16	2	WS315	1.5 - 4.5	**130**
				CP110	1.0 - 4.0	**36.5**

Summary of Contaminants in Perched Groundwater with Made Ground Exceeding Screening Criteria (WA 2020 & 2022)						
Contaminant	**Range of Results (µg/l)**	**GAC (µg/l)**	**No.**	**Exceedance Details**		
				Location	**Response Zone (m)**	**Result (µg/l)**
Zinc	<1 – 45.8	25.5[2]	2	WS309	2.5 - 4.5	45.8
				WS305	2.5 - 4.5	34.4
Iron	116 – 11000	1000	2	CP108	2.2 - 5.0	**11000**
				Seepage Sample	GL	1890
TPH						
Total Aliphatics & Aromatics >C5-35	<10 – 6590	10^4	8	WS308	1.0 - 4.0	**6590**
				WS305	2.5 - 4.5	**1380**
				CP109	9.0 - 13.0	**669**
				CP109	9.0 - 13.0	**420**
				CP110	1.0 - 4.0	**400**
				CP107	5.0 - 9.0	**101**
				WS310	1.5 - 4.5	32
				CP201	2.0 - 7.0	16
PAH						
Naphthalene	<0.01 – 4.3	2	2	CP109	9.0 - 13.0	4.3
				CP109	9.0 - 13.0	2.25
Fluoranthene	<0.005 – 16.8	0.0063	16	WS305	2.5 - 4.5	**16.8**
				WS305	2.5 - 4.5	**10.8**
				WS308	1.0 - 4.0	**3.89**
				CP109	9.0 - 13.0	**2.37**
				CP110	1.0 - 4.0	**2.37**
				CP103 (2)	2.0 - 6.0	**2.09**
				WS309	2.5 - 4.5	**1.82**
				CP109	9.0 - 13.0	**1.58**
				CP107	5.0 - 9.0	**1.49**
				WS310	1.5 - 4.5	**0.412**
				CP201	2.0 - 7.0	**0.407**
				WS306	1.0 - 5.0	**0.397**
				Seepage Sample	GL	**0.268**
				CP108	2.2 - 5.0	**0.18**
				CP108	2.2 - 5.0	**0.0341**
				WS315	1.5 - 4.5	**0.0193**

Summary of Contaminants in Perched Groundwater with Made Ground Exceeding Screening Criteria (WA 2020 & 2022)						
Contaminant	**Range of Results (µg/l)**	**GAC (µg/l)**	**No.**	**Exceedance Details**		
				Location	**Response Zone (m)**	**Result (µg/l)**
Benzo(a)pyrene	<0.002 – 8.83	0.00017	12	WS305	2.5 - 4.5	**8.83**
				WS305	2.5 - 4.5	**4.4**
				CP110	1.0 - 4.0	**1.84**
				CP103 (2)	2.0 - 6.0	**1.18**
				WS308	1.0 - 4.0	**0.887**
				CP109	9.0 - 13.0	**0.688**
				CP109	9.0 - 13.0	**0.491**
				CP107	5.0 - 9.0	**0.425**
				WS306	1.0 - 5.0	**0.16**
				WS310	1.5 - 4.5	**0.0802**
				CP201	2.0 - 7.0	**0.0277**
				CP108	2.2 - 5.0	**0.012**
SVOC / VOC						
Phenol	<0.002 – 0.37	7.7	2	WS309	2.5 - 4.5	**370**
				CP109	9.0 - 13.0	**110**
PFAS						
Total PFOS	<1.3 – 102ng/l	0.65ng/l	6	WS315	1.5 - 4.5	**102**
				CP109	9.0 - 13.0	**97.7**
				WS306	1.0 - 5.0	**84**
				WS310	1.5 - 4.5	**68.2**
				CP201	2.0 - 7.0	**36.8**
				WS305	2.5 - 4.5	**27.6**
Total PFOS (Post Ox.)	<2 – 129ng/l	0.65ng/l	7	CP109	9.0 - 13.0	**129**
				WS315	1.5 - 4.5	**112**
				WS306	1.0 - 5.0	**109**
				WS310	1.5 - 4.5	**79.6**
				CP201	2.0 - 7.0	**42.2**
				WS305	2.5 - 4.5	**25.4**
				WS318	2.5 - 5.0	**5.06**
Other						
Sulphate	<2000 – 654000	250000[1]	5	WS315	1.5 - 4.5	654000
				WS312	2.5 - 5.5	393000
				Seepage Sample	GL	236000
				CP103 (2)	2.0 - 6.0	228000

Summary of Contaminants in Perched Groundwater with Made Ground Exceeding Screening Criteria (WA 2020 & 2022)						
Contaminant	**Range of Results (µg/l)**	**GAC (µg/l)**	**No.**	**Exceedance Details**		
				Location	**Response Zone (m)**	**Result (µg/l)**
Total Cyanide	<50 – 180	1	1	CP109	9.0 - 13.0	**180**
				CP109	9.0 - 13.0	**170**
				CP107	5.0 - 9.0	**130**
				CP201	2.0 - 7.0	**100**
Complex Cyanide	<50 – 180	1	1	CP109	9.0 - 13.0	**180**
				CP107	5.0 - 9.0	**130**
Thiocyanate	<50 – 120	1	1	CP109	9.0 - 13.0	**120**
				CP109	9.0 - 13.0	**90**
Notes: Environmental Quality Standards (EQS) used unless noted. [1] UK Drinking Water Standard (2016) values. [2] Lowest PNEC calculated for Rochdale canal from M-BAT tool for those samples that exceeded bioavailable EQS.[3] Lowest PNEC calculated for River Medlock from M-BAT tool for those samples that exceeded bioavailable EQS. [4] Environment Agency (2009), 'Petroleum hydrocarbons in groundwater: supplementary guidance for hydrogeological risk assessment' values used unless noted.						

Summary of Contaminants in Perched Groundwater within Made Ground / Glacial Till Exceeding Screening Criteria (WA 2020 & 2022)						
Contaminant	**Range of Results (µg/l)**	**GAC (µg/l)**	**No.**	**Exceedance Details**		
				Location	**Response Zone (m)**	**Result (µg/l)**
Metals						
Boron	176 – 11100	1000[1]	2	RH102	12.0 - 13.5	**11100**
				CP203	4.5 - 7.5	1340
Chromium	<1 – 7.75	4.7	1	CP103	8.0 - 10.0	7.75
Manganese to Canal	238 – 1060	132.8[2]	5	CP203	4.5 - 7.5	**1060**
				WS316	2.5 - 4.5	997
				CP103	8.0 – 10.0	277
				WS318	2.5 – 5.5	264
				RH102	12.0 – 13.5	238
Manganese to River		173.54[2]	5	CP203	4.5 - 7.5	**1060**
				WS316	2.5 - 4.5	997
				CP103	8.0 – 10.0	277
				WS318	2.5 – 5.5	264

Summary of Contaminants in Perched Groundwater within Made Ground / Glacial Till Exceeding Screening Criteria (WA 2020 & 2022)						
Contaminant	**Range of Results (µg/l)**	**GAC (µg/l)**	**No.**	**Exceedance Details**		
				Location	**Response Zone (m)**	**Result (µg/l)**
				RH102	12.0 – 13.5	238
Zinc	11.3 – 54.5	31[2]	1	WS318	2.5 - 4.5	54.5
Iron	240 – 2220	1000	1	RH102	12.0 - 13.5	2220
Nickel	0.771 – 10.9	9.73[2]	2	CP203	4.5 – 7.5	**10.9**
				RH102	12.0 – 13.5	**10.4**
TPH						
Total Aliphatics & Aromatics >C5-35	<10 - 88	10[4]	3	RH102	12.0 - 13.5	**88**
				CP103 (1)	8.0 - 10.0	**33**
				CP203	4.5 - 7.5	**20**
PAH						
Fluoranthene	<0.0733 – 2.1	0.0063	6	WS318	2.5 - 5.5	**2.1**
				CP103 (1)	8.0 - 10.0	**1.87**
				WS318	2.5 - 5.5	**0.544**
				CP203	4.5 - 7.5	**0.414**
				WS316	2.5 - 4.5	**0.103**
				RH102	12.0 - 13.5	**0.0733**
Anthracene	0.0246 – 0.146	0.1	2	CP103	8.0 - 10.0	0.146
				WS318	2.5 - 5.5	0.105
Benzo(a)pyrene	<0.002 – 0.271	0.00017	4	CP203	4.5 - 7.5	**0.271**
				CP103 (1)	8.0 - 10.0	**0.249**
				WS318	2.5 - 5.5	**0.22**
				RH102	12.0 - 13.5	**0.0173**
SVOC / VOC						
Phenol	<1 – 16.3	7.7	1	RH102	12.0 - 13.5	**16.3**
PFAS						
Total PFOS	<1.3 – 57.7ng/l	0.65ng/l	1	CP203	4.5 - 7.5	**57.7**
Total PFOS (Post Ox.)	<2 – 45.7ng/l	0.65ng/l	1	CP203	4.5 - 7.5	**45.7**
Other						
Sulphate	23600 - 497000	250000[1]	1	CP203	4.5 - 7.5	497000

Notes:
Environmental Quality Standards (EQS) used unless noted. [1] UK Drinking Water Standard (2016) values. [2] Lowest PNEC calculated for Rochdale canal from M-BAT tool for those samples that exceeded bioavailable

Summary of Contaminants in Perched Groundwater within Made Ground / Glacial Till Exceeding Screening Criteria (WA 2020 & 2022)						
Contaminant	**Range of Results (µg/l)**	**GAC (µg/l)**	**No.**	**Exceedance Details**		
				Location	**Response Zone (m)**	**Result (µg/l)**
EQS.[3] Lowest PNEC calculated for River Medlock from M-BAT tool for those samples that exceeded bioavailable EQS. [4] Environment Agency (2009), 'Petroleum hydrocarbons in groundwater: supplementary guidance for hydrogeological risk assessment' values used unless noted.						

Summary of Contaminants in Perched Groundwater within Glacial Till Exceeding Screening Criteria (WA 2020 & 2022)						
Contaminant	**Range of Results (µg/l)**	**GAC (µg/l)**	**No.**	**Exceedance Details**		
				Location	**Response Zone (m)**	**Result (µg/l)**
Metals						
Boron	127 – 54800	1000[1]	2	CP112/RH103	27.0 - 30.0	**54800**
				CP202	13.0 - 15.0	**17500**
				CP207	17.5 - 19.0	8520
				CP206	6.0 - 15.0	1250
Cadmium	<0.08 – 0.304	0.25	1	RH108	26.0 - 28.0	0.304
Manganese to Canal	265 – 3880	132.8[3]	9	RH108	26.0 - 28.0	**3880**
				RH108	26.0 - 28.0	**1230**
				CP206	6.0 - 15.0	940
				CP209	5.0 - 7.0	936
				CP112/RH103	27.0 - 30.0	544
				CP207	17.5 - 19.0	487
				CP202	13.0 - 15.0	408
				CP208	9.0 - 12.0	299
				RH101	17.0 - 20.0	265
Iron	<19 – 1790	1000	1	CP112/RH103	27.0 - 30.0	1790
Lead to Canal	<0.2 – 13.9	6.55[2]	2	CP202	13.0 - 15.0	**13.9**
				CP209	5.0 - 7.0	6.95
Lead to River		6.78[2]		CP202	13.0 - 15.0	**13.9**
				CP209	5.0 - 7.0	6.95
TPH						
Total Aliphatics & Aromatics >C5-35	<10 – 4700	10[4]	3	RH108	26.0 - 28.0	**4700**
				CP202	13.0 - 15.0	**788**
				CP206	6.0 - 15.0	91

Summary of Contaminants in Perched Groundwater within Glacial Till Exceeding Screening Criteria (WA 2020 & 2022)						
Contaminant	**Range of Results (µg/l)**	**GAC (µg/l)**	**No.**	**Exceedance Details**		
				Location	**Response Zone (m)**	**Result (µg/l)**
PAH						
Fluoranthene	0.0101 – 19.7	0.0063	9	RH108	26.0 - 28.0	**19.7**
				CP202	13.0 - 15.0	**9.51**
				CP112/RH103	27.0 - 30.0	**1.25**
				CP207	17.5 - 19.0	**1.22**
				CP206	6.0 - 15.0	**0.655**
				RH108	26.0 - 28.0	**0.31**
				RH101	17.0 - 20.0	**0.264**
				CP208	9.0 - 12.0	**0.0481**
				CP209	5.0 - 7.0	**0.0101**
Anthracene	<0.005 – 2.9	0.1	4	RH108	26.0 - 28.0	**2.9**
				CP202	13.0 - 15.0	**2.46**
				CP207	17.5 - 19.0	0.293
				CP112/RH103	27.0 - 30.0	0.135
Benzo(a)pyrene	<0.002 – 23	0.00017	7	RH108	26.0 - 28.0	**23**
				CP202	13.0 - 15.0	**3.58**
				CP112/RH103	27.0 - 30.0	**0.9**
				CP206	6.0 - 15.0	**0.631**
				CP207	17.5 - 19.0	**0.432**
				RH108	26.0 - 28.0	**0.278**
				RH101	17.0 - 20.0	**0.127**
SVOC / VOC						
Phenol	<1 – 200	7.7	1	CP202	13.0 - 15.0	**200**
Other						
Sulphate	53300 – 807000	250000[1]	4	CP209	5.0 - 7.0	807000
				RH108	26.0 - 28.0	588000
				RH108	26.0 - 28.0	348000
				CP206	6.0 - 15.0	333000
Total Cyanide	<50 – 60	1	1	CP202	13.0 - 15.0	**60**

Notes:
Environmental Quality Standards (EQS) used unless noted. [1] UK Drinking Water Standard (2016) values. [2] Lowest PNEC calculated for Rochdale canal from M-BAT tool for those samples that exceeded bioavailable EQS.[3] Lowest PNEC calculated for River Medlock from M-BAT tool for those samples that exceeded bioavailable EQS. [4] Environment Agency (2009), 'Petroleum hydrocarbons in groundwater: supplementary guidance for hydrogeological risk assessment' values used unless noted.

Summary of Contaminants in Groundwater within Bedrock Exceeding Screening Criteria (WA 2020 & 2022)						
Contaminant	**Range of Results (µg/l)**	**GAC (µg/l)**	**No.**	**Exceedance Details**		
				Location	**Response Zone (m)**	**Result (µg/l)**
Metals						
Arsenic	1.13 – 12.5	10[1]	1	RH204	45.0 - 46.0	12.5
Manganese	37.2 – 993	50[1]	8	RH201	39.5 - 41.5	**993**
				RH203	47.0 - 50.0	**807**
				RH106	44.5 - 45.00	**471**
				CP101/RH109	40.0 - 42.5	**408**
				RH206	45.0 - 48.0	**360**
				RH205	48.0 - 50.0	**332**
				RH204	45.0 - 46.0	**318**
				RH202	46.0 - 50.0	**253**
Selenium	<1 – 11.8	10[1]	1	RH106	44.5 - 45.0	11.8
TPH						
Total Aliphatics & Aromatics >C5-35	<10 – 1410	10[2]	4	RH203	47.0 - 50.0	**1410**
				RH201	39.5 - 41.5	**291**
				CP101/RH109	40.0 - 42.5	**172**
				RH106	44.5 - 45.00	**128**
PAH						
Benzo(b)fluoranthene	<0.005 – 5.7	0.1[1]	5	RH203	47.0 - 50.0	**5.7**
				RH201	39.5 - 41.5	0.861
				RH106	44.5 - 45.00	0.637
				RH206	45.0 - 48.0	0.195
				CP101/RH109	40.0 - 42.5	0.144
Benzo(k)fluoranthene	<0.005 – 2.07	0.1[1]	3	RH203	47.0 - 50.0	**2.07**
				RH201	39.5 - 41.5	0.331
				RH106	44.5 - 45.00	0.23
Benzo(a)pyrene	<0.002 – 0.0916	0.01[1]	6	RH203	47.0 - 50.0	**4.02**
				RH201	39.5 - 41.5	**0.673**
				RH106	44.5 - 45.00	**0.399**
				CP101/RH109	40.0 - 42.5	0.0916
				RH106	44.5 - 45.00	0.0564
				RH202	46.0 - 50.0	0.0386

Summary of Contaminants in Groundwater within Bedrock Exceeding Screening Criteria (WA 2020 & 2022)						
Contaminant	**Range of Results (µg/l)**	**GAC (µg/l)**	**No.**	**Exceedance Details**		
				Location	**Response Zone (m)**	**Result (µg/l)**
Benzo(g,h,i)perylene	<0.005 – 3.56	0.1[1]	3	RH203	47.0 - 50.0	**3.56**
				RH201	39.5 - 41.5	0.587
				RH106	44.5 - 45.00	0.296
Indeno(1,2,3-cd)pyrene	<0.005 – 3.26	0.1[1]	3	RH206	45.0 - 48.0	**3.26**
				RH203	47.0 - 50.0	0.54
				RH106	44.5 - 45.00	0.285
SVOC / VOC						
Chloroform	<1 – 2.96	0.4[3]	4	RH204	45.0 - 46.0	**2.96**
				RH202	46.0 - 50.0	**2.47**
				RH205	48.0 - 50.0	**1.32**
				RH106	44.5 - 45.00	**1.27**
Bis(2-Ethylhexyl) phthalate	<4 – 104	8[4]	1	RH204	45.0 – 46.0	**104**
Other						
Sulphate	30200 – 364000	250000[1]	3	CP101/RH109	40.0 - 42.5	364000
				RH203	47.0 - 50.0m	344000
				RH201	39.5 - 41.5m	276000

Notes:
Environmental Quality Standards (EQS) used unless noted. [1] UK Drinking Water Standard (2016) values. [2] Environment Agency (2009), 'Petroleum hydrocarbons in groundwater: supplementary guidance for hydrogeological risk assessment' values used unless noted. [3] The Water Supply (Water Quality) Regulations 2000. [4] World Health Organization Guidelines for Drinking Water Quality

Summary of Contaminants in Perched Groundwaters within Made Ground Exceeding Screening Criteria (Celtic 2007)						
Contaminant	**Range of Results (µg/l)**	**GAC (µg/l)**	**No.**	**Exceedance Details**		
				Location	**Response Zone (m)**	**Result (µg/l)**
Metals						
Arsenic	<1 – 11	10[1]	1	BH3	3.0 – 5.9	11
Boron	180 – 6100	1000[1]	2	BH11	3.0 – 8.4	6100

Summary of Contaminants in Perched Groundwaters within Made Ground Exceeding Screening Criteria (Celtic 2007)						
Contaminant	**Range of Results (µg/l)**	**GAC (µg/l)**	**No.**	**Exceedance Details**		
				Location	**Response Zone (m)**	**Result (µg/l)**
				BH10	3.0 – 10.1	2100
Manganese	400 – 3100	50[1]	4	BH6	3.0 – 6.0	**3100**
				BH3	3.0 – 5.9	**2100**
				BH11	3.0 – 8.4	**700**
				BH10	3.0 – 10.1	**400**
Iron	100 – 250	200[1]	2	BH3	3.0 – 5.9	250
				BH10	3.0 – 10.1	210
TPH						
Total Aliphatics & Aromatics >C5-35	<10 – 97	10[2]	1	BH11	3.0 – 8.4	97
Phenol						
Phenol Monohydric	<10 – 20	0.5[1]	2	BH3	3.0 – 5.9	20
				BH6	3.0 – 6.0	20
Other						
Total Ammonium as NH_3 and NH_4	1800 – 18100	50[1]	4	BH10	3.0 – 10.1	**18100**
				BH11	3.0 – 8.4	**12000**
				BH3	3.0 – 5.9	**1800**
				BH6	3.0 – 6.0	**1200**
Notes: [1] UK Drinking Water Standard (2016) values. [2] Environment Agency (2009), 'Petroleum hydrocarbons in groundwater: supplementary guidance for hydrogeological risk assessment' values used unless noted.						

Summary of Contaminants in Perched Groundwaters within Glacial Till / Bedrock* Exceeding Screening Criteria (Celtic 2007)						
Contaminant	**Range of Results (µg/l)**	**GAC (µg/l)**	**No.**	**Exceedance Details**		
				Location	**Response Zone (m)**	**Result (µg/l)**
Metals						
Boron	86 – 1600	10[1]	4	R2	19.0 – 22.0	**1700**
				BH1	1.0 - 5.0	**1600**
				R1	23.0 - 26.0	**1200**
				BH2	6.0 - 10.0	**1100**
Manganese	<1 – 3100	50[1]	7	BH1	1.0 - 5.0	**3100**

Summary of Contaminants in Perched Groundwaters within Glacial Till / Bedrock* Exceeding Screening Criteria (Celtic 2007)						
Contaminant	**Range of Results (µg/l)**	**GAC (µg/l)**	**No.**	**Exceedance Details**		
				Location	**Response Zone (m)**	**Result (µg/l)**
				BH2	6.0 - 10.0	**1700**
				R1	23.0 - 26.0	**660**
				BH8	5.0 - 8.0	**640**
				R3	22.0 – 25.0	**530**
				R2	19.0 – 22.0	**230**
				BH9	1.5- 10.5	**110**
Iron	<50 – 1200	200[1]	3	BH9	1.5- 10.5	**1200**
				BH1	1.0 - 5.0	570
				BH2	6.0 - 10.0	280
Phenol						
Phenol Monohydric	<10 – 50	0.5[1]	2	R1	23.0 - 26.0	**50**
				BH9	1.5- 10.5	**20**
Phenol	<1 – 3	0.5[1]	1	R5	24.0 – 27.00	**3**
Other						
Sulphate	140000 – 520000	250000[1]	4	BH2	6.0 - 10.0	520000
				R5	24.0 – 27.00	460000
				BH9	1.5- 10.5	320000
				BH8	5.0 - 8.0	300000
Total Ammonium as NH_3 and NH_4	400 – 1200	50[1]	5	R3	22.0 – 25.0	**1200**
				R1	23.0 - 26.0	**1000**
				R2	19.0 – 22.0	**800**
				R5	24.0 – 27.00	**400**
				BH9	1.5- 10.5	**400**

Notes:

* It should be noted that what Celtic interpreted as "bedrock" groundwaters has since been proven to be perched groundwater from Glacial Till. [1] UK Drinking Water Standard (2016) values. [2] Environment Agency (2009), 'Petroleum hydrocarbons in groundwater: supplementary guidance for hydrogeological risk assessment' values used unless noted.

Summary of Leachate EQS Exceedences in Soil (WA 2020)							
Contaminant	**Units**	**GAC[1]**	**No. Tests**	**No. > GAC**	**Max. Conc.**	**Mean Conc.**	**Location of >WQS (Conc.)**
Arsenic	µg/l	50	10	1	73.4	9.66	TP145 (**73.4**) in MG-CDW
Total Cyanide	µg/l	1	10	1	70	52	TP123 (**70**) in MG-CW
Chromium IV	µg/l	3.4	10	4	53.4	9.56	CP108 (**53.4**) in MG-CW CP107 (**15**) in MG-HW TP123 (**4.96**) in MG-CW WS104 (**4.24**) in MGC
Cadmium	µg/l	0.08	10	2	0.349	0.11	TP148 (**0.349**) in MG-CW TP120 (**0.11**) in MG-CDW
Chromium	µg/l	4.7	10	4	1500	159.32	TP148 (**1500**) in MG-CW CP108 (**50.3**) in MG-CW CP107 (**17.9**) in MG-HW TP120 (**4.82**) in MG-CDW
Copper	µg/l	18.62[3]	10	1	35.8	7.45	CP108 (**35.8**) in MG-CW
Lead	µg/l	6.55[3]	10	5	108	15.02	TP148 (**108**) in MG-CW CP107 (**33.2**) in MG-HW
Total Aliphatics & Aromatics >C5-35	µg/l	10[2]	10	2	65	28.8	TP146 (**65**) in MG-CDW CP107 (**49**) in MG-HW
Anthracene	µg/l	0.1	10	1	1.18	0.13	CP107 (**1.18**) in MG-HW
Fluoranthene	µg/l	0.0063	10	10	1.63	0.20	CP107 (**1.63**) in MG-HW TP145 (**0.15**) in MG-CDW TP112 (**0.05**) in MG-CDW TP120 (**0.04**) in MG-CDW CP108 (**0.024**) in MG-CW TP146 (**0.023**) in MG-CDW TP148 (**0.022**) in MG-CW CP101 (**0.014**) in MG-CS WS104 (**0.0134**) in MGC TP123 (**0.011**) in MG-CW
Benzo(a)pyrene	µg/l	0.00017	10	4	0.040	0.012	TP112 (**0.040**) in MG-CDW CP107 (**0.030**) in MG-HW TP148 (**0.018**) in MG-CW CP108 (**0.016**) in MG-CW

Notes:
Detection limit values used to calculate arithmetic mean. [1] Environmental Quality Standards (2015) values unless noted. [2] Environment Agency (2009), 'Petroleum hydrocarbons in groundwater: supplementary guidance for hydrogeological risk assessment' values used unless noted. [3] Lowest PNEC calculated for River Medlock from M-BAT tool for those samples that exceeded bioavailable EQS.

Summary of Leachate EQS Exceedences in Soil (Celtic 2007)							
Contaminant	**Units**	**WQS[1]**	**No. Tests**	**No. > GAC**	**Max. Conc.**	**Mean Conc.**	**Location of >WQS (Conc.)**
Chromium	µg/l	4.7	10	2	13	3	TP51 (**13**) in MG-CW BH5 (**7**) in MGC
Copper	µg/l	1	10	9	<1	7	BH9 (7) in MGG TP51 (5) in MG-CW BH2 (3) in MG BH7 (3) in MGG WS20 (2) in MG-CW TP11 (2) in MG-CW BH13 (2) in MG-CS BH5 (2) in MGC TP47 (2) in MG-CW
Lead	µg/l	1.2[2]	10	2	3	1	TP51 (**3**) in MG-CW BH9 (**2**) in MGG
Nickel	µg/l	4[2]	10	2	56	7	WS20 (**56**) in MG-CW BH9 (4) in MGG
Zinc	µg/l	10.9[2]	10	2	110	16	WS20 (**110**) in MG-CW BH7 (27) in MGG
Phenols Monohydric	µg/l	7.7	10	1	20	12	BH5 (**20**) in MGC
Anthracene	µg/l	0.1	10	6	0.14	0.04	TP47 (**0.14**) in MG-CW TP11 (**0.12**) in MG-CW
Fluoranthene	µg/l	0.0063	10	10	0.26	0.08	TP11 (**0.26**) in MG-CW TP47 (**0.16**) in MG-CW BH01 (**0.08**) in GT BH9 (**0.062**) in MGG BH2 (**0.047**) in MG BH5 (**0.047**) in MGC WS20 (**0.044**) in MG-CW BH13 (**0.025**) in MG-CS TP51 (**0.023**) in MG-CW BH7 (**0.017**) in MGG
Benzo(a)pyrene	µg/l	0.00017	10	4	0.15	0.03	TP47 (**0.15**) in MG-CW BH5 (**0.044**) in MGC BH9 (**0.036**) in MGG TP11 (**0.013**) in MG-CW

Notes:
Detection limit values used to calculate arithmetic mean. [1] Environmental Quality Standards (2015) values unless noted. [2] Parameters not obtained at the time to allow for an MBAT calculation to be undertaken so bioavailable screening criteria used.

Summary of Contaminants in Surface Water from Rochdale Canal Exceeding Screening Criteria (WA 2020 and 2022)						
Contaminant	**Range of Results (µg/l)**	**GAC (µg/l)**	**No.**	**Exceedance Details**		
				Location	**Position**	**Result (µg/l)**
Metals						
Chromium	<1 – 6.25	4.7[1]	1	SW01	Midstream	6.25
Total Aliphatics & Aromatics >C5-35	<10 – 83	10[2]	3	Midstream	Midstream	83
				Downstream	Downstream	25
				SW01	Midstream	23
Fluoranthene	0.024 – 0.485	0.0063[1]	6	SW01 (mid)	Midstream	**0.485**
				Upstream	Upstream	**0.123**
				Downstream	Downstream	**0.0918**
				SW02 (up)	Upstream	**0.0809**
				Midstream	Midstream	**0.0413**
				SW03 (down)	Downstream	**0.024**
Benzo(a)anthracene	0.0109 – 0.182	0.01[1]	6	SW01 (mid)	Midstream	**0.182**
				Upstream	Upstream	0.0567
				SW02 (up)	Upstream	0.0458
				Downstream	Downstream	0.0351
				Midstream	Midstream	0.0249
				SW03 (down)	Downstream	0.0109
Benzo(a)pyrene	<0.002 – 0.186	0.00017[1]	5	SW01 (mid)	Midstream	**0.186**
				SW02 (up)	Upstream	**0.0464**
				Downstream	Downstream	**0.0307**
				Midstream	Midstream	**0.0127**
				SW03 (down)	Downstream	**0.0107**

Notes:
[1] Environmental Quality Standards (2015) values unless noted.[2] Environment Agency (2009), 'Petroleum hydrocarbons in groundwater: supplementary guidance for hydrogeological risk assessment' values used unless noted.

Summary of Contaminants in Surface Water from Rochdale Canal Exceeding Screening Criteria (Celtic 2007)						
Contaminant	**Range of Results (µg/l)**	**GAC (µg/l)**	**No.**	**Exceedance Details**		
				Location	**Position**	**Result (µg/l)**
Metals						
Copper	6 – 9	1[1,2]	2	Canal B	-	9
				Canal A	-	6
Lead	3 – 4	1.2[1,2]	2	Canal B	-	4
				Canal A	-	3
Nickel	<1 – 4	4[1,2]	1	Canal A	-	4

Notes:

[1] Environmental Quality Standards (2015) values unless noted.[2] Parameters not obtained to allow for MBAT calculation to be undertaken. Screening value used as therefore highly conservative.

Canal A and Canal B taken upstream and downstream respectively.

A P P E N D I X J

Ground Gas and Groundwater Monitoring Results

RECORD OF MEASUREMENTS FOR GAS MONITORING BOREHOLES

Client Name: Your Housing Group Ltd.

Site Name: Ten Acres Lane – Newton Heath

Date of Sampling: 30/11/20

Job Number: LD10162

Borehole Ref.	CH_4% by Volume		CO_2 % by Volume		O_2 % by Volume		Flow Rate l/hr		Sample Type	Barometric Pressure (mb)	Relative Pressure (mb)	Depth to Water (m bToC)	Depth to Base (m bToC)
	Peak	Steady	Peak	Steady	Peak	Steady	Peak	Steady					
CP103a	1.1	0.9	1.3	1.2	9.4	10.2	-1.3	-1.0		1011	-8 to -7	5.14	8.68
CP103b	1.1	1.1	3	3	-0.1	-0.1	-1.8	-1.5		1012	-8 to -7	5.13	6.25
CP107	-2.0	0	-0.5	0	18.7	20.2	-2	-1.6		1011	-12	3.58	8.9
CP108	0	0	1.7	1.7	18.5	18.5	-1.0	-0.9		1013	-5	1.34	5.21
CP109	0.5	0.5	0.1	0.1	20	20	-1.7	-1.2		1012	-11	2.37	12.9
CP110	0	0	5.0	5.0	12.2	12.2	1.5	1.5		1012	-9	2.59	3.85

CP112	0	0	1.5	0	18.9	20.3	-2.0	-1.9		1011	-12 to -11	13.91	27.35
CP113	0	0	2.6	2.6	14.7	14.7	-1.7	-1.3		1012	-11	2.04	3.61
RH101	0	0	0.4	0.3	20	20.2	-0.7	1.1		1015	-5	2.19	20.11
RH102	-	-	-	-	-	-	-	-		-	-	2.59	13.50
RH106	0	0	0	0	17.9	19	-1.7	-1.6		1012	-12 to -10	25.46	30+
RH108	0	0	0.8	0.5	16.8	18.4	0	0		1010	0	8.74	12.29
RH109a	0	0	0	0	20.3	20.3	-1.8	-1.7		1010	-12 to -11	-	-
RH109b	0	0	0.4	0.4	16.3	16.3	-2	-1.7		1010	-11 to -10	11.36	15.22
RH110	0	0	0.8	0.5	9.4	16.8	-1.2	-0.9		1012	-6	21.3	22.13
WS101	0	0	1	1	19.8	19.8	-1.3	-0.9		1013	-6	0	1.68

WS102	0	0	10.7	10.7	3.2	3.2	-2	-1.6		1010	-12 to -12	1.34	1.78
WS103	0	0	4.7	4.7	10.1	10.1	-0.5	-0.3		1015	-3	1.2	1.89
WS104	0	0	1.6	1.6	18.9	18.9	-1.8	-1.5		1011	-11 to -9	1.52	1.83
WS105	0	0	0	0	19	19	-1.6	-1.5		1013	-9	0.86	1.86
WS106	0	0	1.5	1.3	19.2	19.3	57.4	-0.7		1012	768 to -5	0.79	1.8
							1 min						
WS107	0	0	1.2	1.2	19	19	119.8	0		1010	>>> to 0	0.28	1.72
							2 mins						
WS108	0	0	4.2	4.2	18.8	18.8	108.7	2.3		1010	843 to 15	-	-
WS109	0	0	7	6.4	1.7	3.5	-1	-0.9		1013	-6	Dry	1.83
WS111	0	0	0.5	0.1	19.9	20.2	64.6	0		1012	1111 to 0	0.35	1.51
							3 mins						
WS112	0	0	5.6	5.6	9.7	9.7	-0.9	-0.9		1013	-6 to -5	Dry	1.81

WS113	0	0	16.8	16.7	9.3	9.3	27.2	-1.3		1010	163 to -8	1.32	1.82
WS119	0	0	2	2	17.2	17.8	-1.8	-1.6		1010	-12 to -11	Dry	1.82
WS120	0	0	0	0	19.7	19.9	-2	-1.8		1011	-13 to -12	1.65	1.71
BH04	-	-	-	-	-	-	-	-		-	-	3.53	4.69
BH06	-	-	-	-	-	-	-	-		-	-	Dry	4.15

Atmospheric Pressure: As indicated

Pressure Trend: Falling

Weather: Raining

Instrument Used: GFM 436

Sample Type: As indicated

Operator: ZH & NA

Notes:	CP103a	LEL=24.6, HEX=0.093, PID=1.4
	CP103b	LEL=26.1, HEX=0.099, PID=1.5, eggy odour.
	CP108	LEL=<<<, PID=1.0, probe silty.
	CP109	LEL=17.9, HEX=0.077, PID=1.0
	WS112	LEL=<<<, PID=1.5
	RH101	LEL=<<<, PID=1.0, probe silty.
	RH110	LEL=<<<, PID=1.0, CO=10, probe silty.
	WS101	LEL=<<<, PID=1.0
	WS109	LEL=<<<, PID=1.0
	WS103	LEL=<<<, PID=1.0
	BH04	No bung.
	WS105	HEX=0.012, PID=1.0
	CP113	CO=-10, HEX=0.08, PID=1.0.
	WS106	HEX=0.08, PID=1.0
	RH106	HEX=-0.011, PID=1.0
	WS111	HEX=-0.011, PID=1.0
	CP110	BUNG OPEN. HEX=0.009, PID=1.0, CO=-10. After 4 mins O2 and CO2 still fluctuating.
	RH102	No bung.
	CP107	HEX=0.008, PID=1.0, CO=-10, probe silty.
	WS120	HEX=0.014, PID=1.0
	CP112	CO=-10, HEX=0.012, PID=1.0
	WS104	HEX=0.012, PID=1.0
	RH109a	Tubing dropped down hole. HEX=0.012, PID=1.0.
	RH109b	BUNG OPEN. HEX=0.011.
	BH06	No bung. Gravel on probe.
	WS108	Bung stuck as pipe not cemented in. HEX=0.010, PID=1.0. Hissed on removal.
	WS107	Hissed when valve opened. HEX=0.011, PID=1.0
	RH108	HEX=0.010, PID=1.0
	WS113	Hissed on removal. HEX=0.007, PID=1.0
	WS102	HEX=0.010, PID=1.0
	WS119	HEX=0.009, PID=1.0

RECORD OF MEASUREMENTS FOR GAS MONITORING BOREHOLES

Client Name: Your Housing Group Ltd.

Site Name: Ten Acres Lane – Newton Heath

Date of Sampling: 14/12/20

Job Number: LD10162

Borehole Ref.	CH_4% by Volume		CO_2 % by Volume		O_2 % by Volume		Flow Rate l/hr		Sample Type	Barometric Pressure (mb)	Relative Pressure (mb)	Depth to Water (m bToC)	Depth to Base (m bToC)
	Peak	Steady	Peak	Steady	Peak	Steady	Peak	Steady					
CP103a	0	0	1.0	1.0	18.5	18.5	-1.2	-1.2		984	-8	5.01	8.66
CP103b	0	0	1.0	1.0	18.7	18.7	-2.2	-1 to -2 Fluct.		984	-11 to -14 Fluct.	4.98	6.12
CP107	0	0	0.5	1.2	19.8	20.0	-1.5	-1.3		985	-9	3.35	8.92
CP108	0	0	0.1	0	19.6	20.5	-0.9	-0.6		985	-5	5.05	5.14
CP109	1.3	1.2	0	0	19.9	19.9	-1.5	-1.5		986	-10	2.18	10.5
CP110	0	0	0.1	0	19.8	20.1	-1.5	-1.5		986	-10	2.53	3.91

Borehole Ref.	CH_4% by Volume		CO_2 % by Volume		O_2 % by Volume		Flow Rate l/hr		Sample Type	Barometric Pressure (mb)	Relative Pressure (mb)	Depth to Water (m bToC)	Depth to Base (m bToC)
	Peak	Steady	Peak	Steady	Peak	Steady	Peak	Steady					
CP112	3.1	3.1	3.8	3.8	17.9	17.9	16.0	-1.0 to -1.2 Fluct.		986	468 to -1.6	7.82	27.39
CP113	0	0	1.2	0.6	17.6	19.0	-1.5	-1.5		986	-8	Dry	3.50
RH101	-0.1	-0.1	0.1	0.1	20.6	20.6	-0.5	-0.3		986	-3	1.73	19.75
RH102	0	0	0.6	0.2	19.7	20.0	-1.5	-1.5		986	-10 to -9	2.5	13.68
RH106	0	0	0.6	0.6	17.6	17.6	28.9	-1.0 to -1.3 Fluct.		987	155 to -6	25.25	42.02
RH108	0	0	0.1	0	20.1	20.4	-1.6	-1.6		986	-9	-	-
RH109a	0	0	0	0	19.8	19.8	23	0.5		985	237 to -3	9.3	17.68
RH109b	0	0	0.1	0	19.9	19.8	12.4	-1.0		984	124 to -7.0	12.59	15.40
RH110	0	0	1.0	1.0	18.1	18.1	-1.2	-1.0		984	-1.7	-	-

Borehole Ref.	CH_4% by Volume		CO_2 % by Volume		O_2 % by Volume		Flow Rate l/hr		Sample Type	Barometric Pressure (mb)	Relative Pressure (mb)	Depth to Water (m bToC)	Depth to Base (m bToC)
	Peak	Steady	Peak	Steady	Peak	Steady	Peak	Steady					
WS101	0	0	-	-	19.6	19.6	-1.0	-0.6		984	-6	0	1.68
WS102	0	0	8.2	8.2	2.8	2.8	-1.6	-1.3		986	-10 to -5	0.98	1.80
WS103	0	0	5.0	5.0	7.8	7.8	-1.7	-1.5		988	-10	1.09	1.85
WS104	0	0	1.6	1.6	19.1	19.1	-1.5	-1.3		986	-9	1.23	1.86
WS105	0	0	0	0	20.2	20.2	-1.5	-1.0		986	-9	0.78	1.87
WS106	0	0	1.4	1.4	19.3	19.3	119.8	-1.0		986	>>> to -5 (2mins)	0.40	1.91
							2mins						
WS107	0	0	-	-	-	-	66.9	-0.7		985	1069 to -5 (2mins)	0	1.80
							2 mins						
WS108	0	0	4.9	4.9	17.0	17.0	74.8	2.5		984	126 to 14 (2mins)	-	-
WS109	0	0	5.8	5.8	0.4	0.5	0.9	0.7		985	-4	Dry	1.80

Borehole Ref.	CH_4% by Volume		CO_2 % by Volume		O_2 % by Volume		Flow Rate l/hr		Sample Type	Barometric Pressure (mb)	Relative Pressure (mb)	Depth to Water (m bToC)	Depth to Base (m bToC)
	Peak	Steady	Peak	Steady	Peak	Steady	Peak	Steady					
WS111	0.1	0.1	2.4	2.4	18.6	18.6	25.2 1.50min	3.3		987	273 to 23	0	1.63
WS112	0	0	5.8	5.8	8.2	8.2	-0.7	0		984	-2	Dry	1.81
WS113	0	0	15.9	15.9	8.4	8.3	41.8	-1.2		986	434 to -7 (1min)	1.03	1.87
WS119	0	0	2.4	2.4	17.4	17.4	-1.6	-1.3		986	-5 to -12	Dry	1.86
WS120	0	0	1.4	0.3	0.5	1.4	29.7	-1.0 to -1.2		986	339 to -6	1.49	1.74
BH04	0	0	13.7	11.8	0	0	-2.1	-1.6		985	-10	3.49	3.49
BH06	0	0	0.1	0.1	20	20	-0.9	-0.7		984	-4	Dry	4.17

Atmospheric Pressure: As indicated

Pressure Trend: Fluctuating (falling, then rose midday, then falling again)

Weather: Overcast, windy, with occasional clear spells.

Instrument Used: GFM 436

Sample Type: As indicated

Operator: ZH & NA

Notes:	CP103a	**Filter Water Clogged**. Hex=0.009, PID=1.0
	CP103b	**Filter Water Clogged**. Hex=0.009, PID=1.0
	CP107	Hex=0.024, PID=1.0
	CP108	PID=1.0, LEL=<<<
	CP109	Hex=0.111, PID=1.6, CO=-10, LEL=51.1
	CP110	Hex=0.013, PID=1.0
	CP112	Probe silty. LEL=72.5, Hex=0.194, PID=3.5.
	CP113	PID=1.0, Hex=0.006
	RH101	LEL=<<<, PID=0.9
	RH102	Hex=0.011, PID=1.0, eggy odour.
	RH106	Hex=0.009, PID=1.0
	RH108	Hex=0.007, PID=1.0
	RH109a	**Filter Water Clogged.** Hex=0.007, PID=1.0
	RH109b	**Filter Water Clogged**. Hex=0.008, PID=1.0
	RH110	**Filter Water Clogged.** Hex=0.006, PID=1.0
	WS101	**Water came up GM pipe.** Hex=0.003, PID=1.0
	WS102	Hex=0.005, PID=1.0
	WS103	CO=-10, PID=1.0, Hex=0.009
	WS104	Hex=0.009, PID=1.0
	WS105	Hex=0.014, PID=1.0
	WS106	Hex=0.006, PID=1.0. Hissed when bung tap opened.
	WS107	**Water came up GM pipe.**
	WS108	Hex=0.006, PID=1.0. Hissed on removal.
	WS109	Hex=0.035, PID=1.0
	WS111	Hex=0.065, PID=1.0, LEL=2.4
	WS112	LEL=<<<, PID=1.0
	WS113	Hex=0.004, PID=1.0
	WS119	Hex=0.006, PID=1.0.
	WS120	Hex=0.008, PID =1.0. Hissed on removal.
	BH04	Hex=0.014, CO=-10, PID=1.0
	BH06	**Filter Water Clogged**. Hex=0.006, PID=1.0

RECORD OF MEASUREMENTS FOR GAS MONITORING BOREHOLES

Client Name: Your Housing Group Ltd.

Site Name: Ten Acres Lane – Newton Heath

Date of Sampling: 06/01/21

Job Number: LD10162

Borehole Ref.	CH_4% by Volume		CO_2 % by Volume		O_2 % by Volume		Flow Rate l/hr		Sample Type	Barometric Pressure (mb)	Relative Pressure (mb)	Depth to Water (m BGL)	Depth to Base (mBGL)
	Peak	Steady	Peak	Steady	Peak	Steady	Peak	Steady					
CP103a	1.2	1.0	1.2	1.2	10.8	13	-1.7	-1.8		1014	-12	4.67	8.57
CP103b	1.5	1.5	3.0	3.0	0.6	0.6	-1.3	-2		1014	-12	4.66	6.11
CP107	0.0	0.0	0.4	0.1	20.0	20.0	0.1	-0.1		1013	-1.0	3.10	9.10
CP108	0.0	0.0	0.2	0.1	20.1	20.1	0.1	-0.1		1015	-1.0	1.69	5.09
CP109	0.4	0.4	0.0	0.0	19.9	20.0	-0.7	-2.0		1015	-14	1.99	12.89
CP110	0.0	0.0	0.4	0.2	19.8	19.8	0.3	0.1		1015	0.2	2.47	3.87

Borehole Ref.	CH_4% by Volume		CO_2 % by Volume		O_2 % by Volume		Flow Rate l/hr		Sample Type	Barometric Pressure (mb)	Relative Pressure (mb)	Depth to Water (m BGL)	Depth to Base (mBGL)
	Peak	Steady	Peak	Steady	Peak	Steady	Peak	Steady					
CP112	4.1	4.1	5.0	5.0	15.1	15.1	-1.8	-2.1		1015	-255 to -13	3.38	16.58
CP113	0.0	0.0	2.0	1.9	17.1	17.1	-2.0	-2.2		1016	-13	1.71	3.48
RH101	-	-	-	-	-	-	-	-		-	-	1.91	19.58
RH102	0.0	0.0	1.5	0.1	20.0	20.0	0.2	0.1		1015	1.0	2.32	13.53
RH106	0.0	0.0	1.1	1.1	17.9	17.9	0.4	1.1		1016	1.0	-	-
RH108	0.0	0.0	2.6	2.6	12.8	12.8	6.7	0		1012	69 to 0	8.53	12.22
RH109a	0.0	0.0	4.2	4.2	13.7	13.7	-1.2	-1.3		1013	-11 to -9	11.30	15.08
RH109b	0.0	0.0	3.1	3.1	11.0	11.0	-1.7	-2.1		1013	-250 to -12	-	-
RH110	0.0	0.0	0.4	0.4	14.7	14.7	-2.1	-2.5		1015	-15	-	-

Borehole Ref.	CH_4% by Volume		CO_2 % by Volume		O_2 % by Volume		Flow Rate l/hr		Sample Type	Barometric Pressure (mb)	Relative Pressure (mb)	Depth to Water (m BGL)	Depth to Base (m BGL)
	Peak	Steady	Peak	Steady	Peak	Steady	Peak	Steady					
WS101	0.0	0.0	2.4	2.4	11.7	11.7	0.1	-1.2		1015	-13	0.00	1.71
WS102	0.0	0.0	8.1	8.1	6.2	6.2	-1.6	-1.3		1013	-11	1.21	1.71
WS103	0.0	0.0	4.7	4.7	9.0	9.0	0.2	0.0		1015	1.0 to 0.0	1.04	1.82
WS104	0.0	0.0	0.8	0.8	19.3	19.3	0.1	0.0		1016	0.0 to 2.0	1.18	1.80
WS105	0.0	0.0	0.2	0.1	20.0	20.0	-1.8	-2.0		1015	-13	0.53	1.81
WS106	0.0	0.0	0.6	0.6	19.1	19.0	-3.7	-0.8		1015	-1196 to -6	0.68	1.77
WS107	0.0	0.0	0.7	0.7	17.6	17.6	-30.1	-0.7		1014	-658 to -4	0.31	1.71
WS108	0.0	0.0	1.1	1.1	19.2	19.2	0.2	0.2		1013	2	0.29	1.68
WS109	0.0	0.0	6.2	6.2	4.1	4.1	0.4	0.1		1015	1.0	Dry	1.26

Borehole Ref.	CH_4% by Volume		CO_2 % by Volume		O_2 % by Volume		Flow Rate l/hr		Sample Type	Barometric Pressure (mb)	Relative Pressure (mb)	Depth to Water (m BGL)	Depth to Base (m b BGL)
	Peak	Steady	Peak	Steady	Peak	Steady	Peak	Steady					
WS111	3.8	3.6	14.8	14.8	4.9	4.9	0.4	1.3		1016	1.0 to 0.0	0.00	1.50
WS112	0.0	0.0	5.9	5.9	9.9	9.9	-0.5	-0.4		1015	-2	Dry	1.76
WS113	0.0	0.0	17.4	17.4	9.3	9.3	64.9	-0.7		1012	1200 to -5	0.89	1.81
WS119	0.0	0.0	2.2	2.2	18.2	18.2	-0.6	-0.6		1012	-10 to -9	1.78	1.79
WS120	0.0	0.0	0.0	0.0	0.9	0.9	-2.1	-2.4		1015	-15	1.66	1.74
BH04	-	-	-	-	-	-	-	-	-	-	-	3.50	4.67
BH06	0.0	0.0	11.8	11.8	0.8	0.7	-1.5	-1.7		1013	-12 to -11	Dry	4.11

Atmospheric Pressure: As indicated

Pressure Trend: Rising

Weather: Cold and sunny

Instrument Used: GFM 436

Sample Type: -

Operator: LT & NA

Notes:	CP103a	Hex=0.124, PID 1.8, LEL 27
	CP103b	Hex=0.081, PID=1.8, LEL 35.8
	CP107	Hex=0.025, PID=1.0
	CP108	PID=1.0, Hex 0.02
	CP109	Hex=0.051, PID=1.0, LEL=9.1
	CP110	**Loose bung, unrepresentative.** Hex=0.018, PID=1.0
	CP112	LEL=95.4, Hex=0.220, PID=3.7.
	CP113	PID=1.0, Hex=0.019
	RH101	**No bung. Dip only.**
	RH102	**Loose bung.** Hex=0.02, PID=1.0.
	RH106	**Loose tap**. Hex=0.021, PID=1.0
	RH108	Hex=0.03, PID=1.0
	RH109a	Hex=0.014, PID=1.0
	RH109b	Hex=0.014, PID=1.0
	RH110	Hex=0.021, PID=1.0
	WS101	Hex=0.018, PID=1.0
	WS102	Hex=0.0011, PID=1.0
	WS103	PID=1.0, Hex=0.0017
	WS104	Hex=0.02, PID=1.0
	WS105	Hex=0.021, PID=1.0
	WS106	**Hissed when opening tap**. Hex=0.006, PID=1.0.
	WS107	**Water came up GM pipe.**
	WS108	**Water came up GM pipe.**
	WS109	Hex=0.016, PID=1.0
	WS111	Hex=0.206, PID=3.6, LEL=85
	WS112	Hex 0.016, PID=1.0
	WS113	**Hissed when opening tap.** Hex=0.005, PID=1.0
	WS119	Hex=0.01, PID=1.0.
	WS120	Hex=0.022, PID =1.0.
	BH04	**Loose bung – dip only**
	BH06	Hex=0.014, PID=1.0

RECORD OF MEASUREMENTS FOR GAS MONITORING BOREHOLES

Client Name: Your Housing Group Ltd.

Site Name: Ten Acres Lane – Newton Heath

Date of Sampling: 21/01/21

Job Number: LD10162

Borehole Ref.	CH_4% by Volume		CO_2 % by Volume		O_2 % by Volume		Flow Rate l/hr		Sample Type	Barometric Pressure (mb)	Relative Pressure (mb)	Depth to Water (m BGL)	Depth to Base (mBGL)	Notes
	Peak	Steady	Peak	Steady	Peak	Steady	Peak	Steady						
CP103a (~8m)	0.5	0.0	0.6	0.6	15.9	15.9	-1.7	-2.4	n/a	969	-14	4.35	8.55	HEX: 0.055 PID: 1.0 LEL: 0.0
CP103b (~6m)	0.0	0.0	2.3	2.3	4.5	4.5	-1.0	-1.5	n/a	969	-12	4.31	6.10	HEX: 0.055 PID: 1.0 LEL: 0.0
CP107	0.1	0.0	1.1	0.7	18.0	18.8	-2.4	-2.4	n/a	971	-16	2.67	8.90	HEX: 0.063 PID: 1.0 LEL:2.1
CP108	0.0	0.0	0.5	0.3	19.7	19.9	-1.8	-2.8	n/a	971	-18	1.31	5.14	HEX: 0.017 PID: 1.0 LEL:0.0
CP109	1.5	1.3	0.0	0.0	19.7	19.7	-2.1	2.5	n/a	970	-16	1.63	12.80	HEX: 0.017 PID: 1.7 LEL: 39.4
CP110	0.0	0.0	0.0	0.0	18.9	20.0	0.0	-3.0	n/a	971	-19	2.38	3.91	HEX: 0.019 PID:1.0 LEL: 0.0

Borehole Ref.	CH_4% by Volume		CO_2 % by Volume		O_2 % by Volume		Flow Rate l/hr		Sample Type	Barometric Pressure (mb)	Relative Pressure (mb)	Depth to Water (m BGL)	Depth to Base (mBGL)	Notes
	Peak	Steady	Peak	Steady	Peak	Steady	Peak	Steady						
CP112	5.8	5.7	4.7	4.7	15.0	15.0	-2.2	-2.4	n/a	969	-15	2.91	16.53	HEX: 0.0271 PID: 1.0 LEL: >>
CP113	0.0	0.0	0.1	0.0	20.0	20.0	-2.4	-3.0	n/a	971	-19	1.17	3.37	HEX: 0.018 PID: 1.0 LEL: 0.0
RH101	0.0	0.0	0.7	0.4	19.8	19.9	-2.4	-2.5	n/a	971	-16	1.39	19.53	HEX: 0.016 PID: 1.0 LEL: 0.0
RH102	0.0	0.0	1.7	0.7	18.5	19.4	-2.4	-2.8	n/a	971	-18	1.82	13.54	HEX: 0.018 PID: 1.0 LEL: 0.0
RH106	0.0	0.0	1.6	1.6	9.2	9.2	120	0.0	n/a	970	>2000 // 0.0	Unable to dip – tubing stuck in borehole		HEX: 0.02 PID: 1.0 LEL:.0.0
RH108	0.0	0.0	1.7	1.7	15.5	15.5	52.5	20.9	n/a	966	979 // 259	Unable to dip – tubing stuck in borehole		HEX: 0.001 PID: 1.0 LEL: 0.0
RH109a (~15m)	0.0	0.0	4.9	4.9	11.8	11.8	-1.7	-2.0	n/a	967	-10	10.49	14.98	HEX: 0.012 PID: 1.0 LEL: 0.0
RH109b	0.0	0.0	3.1	2.8	10.3	10.9	39.2	0.0	n/a	968	624 // 0	Unable to dip – tubing stuck in borehole		HEX: 0.014 PID: 1.0 LEL: 0.0
RH110	0.0	0.0	0.1	0.0	19.6	19.7	-1.6	-2.2	n/a	969	-14	Unable to dip – tubing stuck in borehole		HEX: 0.019 PID: 1.0 LEL: 0.0

Borehole Ref.	CH_4% by Volume		CO_2 % by Volume		O_2 % by Volume		Flow Rate l/hr		Sample Type	Barometric Pressure (mb)	Relative Pressure (mb)	Depth to Water (m BGL)	Depth to Base (mBGL)	Notes
	Peak	Steady	Peak	Steady	Peak	Steady	Peak	Steady						
WS101	Well flooded – not sampled								n/a	972	-11	0.00	1.69	n/a
WS102	0.0	0.0	4.5	4.5	5.9	5.9	12.1	-2.0	n/a	966	135 // -12	0.84	1.76	HEX: 0.01 PID: 1.0 LEL: 0.0
WS103	0.0	0.0	5.1	5.1	5.7	5.7	77.5	-1.7	n/a	971	1836 // -13	0.78	1.76	HEX: 0.016 PID: 1.0 LEL: 0.0
WS104	0.0	0.0	1.4	1.4	19.0	19.0	101.4	-2.5	n/a	971	2000 // -16	0.86	1.80	HEX: 0.016 PID: 1.0 LEL: 0.0
WS105	0.0	0.0	0.0	0.0	20.0	20.0	-1.7	-2.5	n/a	970	-15	0.15	1.79	HEX: 0.022 PID: 1.0 LEL: 0.0
WS106	0.0	0.0	0.7	0.7	18.8	18.8	119	-1.0	n/a	971	2000 // -7	0.08	1.84	HEX: 0.018 PID: 1.0 LEL: 0.0
WS107	0.0	0.0	0.6	0.6	19.0	19.0	55.2	0	n/a	967	991 // 0	0.00	1.69	Well flooded before sampling
WS108	Well flooded – not sampled								n/a	967	0	0.24	1.65	n/a
WS109	0.0	0.0	4.5	4.5	2.6	2.6	3.3	-2.0	n/a	971	0 // -20	0.89	1.23	HEX: 0.045 PID: 1.0 LEL: 0.0

Borehole Ref.	CH_4% by Volume		CO_2 % by Volume		O_2 % by Volume		Flow Rate l/hr		Sample Type	Barometric Pressure (mb)	Relative Pressure (mb)	Depth to Water (m BGL)	Depth to Base (mBGL)	Notes
	Peak	Steady	Peak	Steady	Peak	Steady	Peak	Steady						
WS111	Well flooded – not sampled								n/a	971	n/a	0.00	1.65	n/a
WS112	0.0	0.0	3.6	3.6	10.2	10.2	-0.7	-3.0	n/a	972	-12 to -8	1.4	1.746	HEX: 0.016 PID: 1.0 LEL: 0.0
WS113	0.0	0.0	16.3	16.3	11.1	11.1	106.8	-0.6	n/a	966	1100 // -6	0.91	1.83	HEX: 0.005 PID: 1.0 LEL: 0.0
WS119	0.0	0.0	1.8	1.8	18.3	18.3	-1.5	-1.7	n/a	966	-12	1.61	1.80	HEX:0.008 PID: 1.0 LEL: 0.0
WS120	0.0	0.0	0.5	0.5	0.0	0.0	31.1	-2.1	n/a	971	360 // -6	1.27	1.67	HEX: 0.017 PID: 1.0 LEL: 0.0
BH04	Tap not secure – not sampled								n/a	971	n/a	4.16	4.69	n/a
BH06	Tap not secure – not sampled								n/a	971	n/a	Dry	4.11	n/a

Atmospheric Pressure: As indicated

Pressure Trend: Low, Rising

Weather: Overcast, occasional showers

Instrument Used: GFM 436

Sample Type: -

Operator: LT & NA

Notes:	CP103a – Flow fluctuating for 4 minutes. CP110 – Bung not fully secure RH106 – Hissed when opening tap. Flow settled after 5 minutes. WS103 – Flow fluctuating WS106 – Water close to bung. Flow fluctuating for 2 minutes. WS111 – Flow settled after 4 minutes WS113 – Hissed when opening tap WS120 – Hissed when opening tap

RECORD OF MEASUREMENTS FOR GAS MONITORING BOREHOLES

Client Name: Your Housing Group Ltd.

Site Name: Ten Acres Lane – Newton Heath

Date of Sampling: 01/02/21

Job Number: LD10162

Borehole Ref.	CH_4% by Volume		CO_2 % by Volume		O_2 % by Volume		Flow Rate l/hr		Sample Type	Barometric Pressure (mb)	Relative Pressure (mb)	Depth to Water (m BGL)	Depth to Base (mBGL)	Notes
	Peak	Steady	Peak	Steady	Peak	Steady	Peak	Steady						
CP103a (~8m)	0.3	0.0	0.8	0.8	16.0	16.0	0.1	0.0	n/a	988	0	4.37	8.51	HEX: 0.052 PID: 1.0 LEL: 0.0
CP103b (~6m)	0.0	0.0	0.2	0.2	19.4	19.4	-0.6	-0.6	n/a	988	-4	4.44	6.12	HEX: 0.019 PID: 1.0 LEL: 0.0
CP107	0.0	0.0	0.8	0.8	19.0	19.0	0.2	0.0	n/a	991	2//0	2.89	8.93	HEX: 0.062 PID: 1.0 LEL:1.0
CP108	0.0	0.0	0.4	0.4	19.9	19.9	0.3	0.0	n/a	992	2//0	1.51	5.09	HEX: 0.011 PID: 1.0 LEL:0.0
CP109	2.2	0.8	0.0	0.0	19.8	19.9	0.3	-0.1	n/a	990	-1.0	1.87	12.81	HEX: 0.114 PID: 1.7 LEL: 48
CP110	0.0	0.0	6.3	6.3	6.0	6.0	0.3	0.0	n/a	991	0.0	2.47	3.88	HEX: 0.009 PID:1.0 LEL: 0.0

Borehole Ref.	CH_4% by Volume		CO_2 % by Volume		O_2 % by Volume		Flow Rate l/hr		Sample Type	Barometric Pressure (mb)	Relative Pressure (mb)	Depth to Water (m BGL)	Depth to Base (mBGL)	Notes
	Peak	Steady	Peak	Steady	Peak	Steady	Peak	Steady						
CP112	3.4	3.4	5.8	5.8	11.8	11.7	-0.4	-0.1	n/a	990	-2	3.15	16.45	HEX: 0.2 PID: 3.5 LEL: 77.3
CP113	0.0	0.0	0.2	0.0	20.2	20.2	-0.3	-0.1	n/a	990	0	1.36	3.42	HEX: 0.011 PID: 1.0 LEL: 0.0
RH101	0.0	0.0	0.8	0.4	20.1	20.1	0.3	0.1	n/a	991	-3//0	1.49	19.63	HEX: 0.011 PID: 1.0 LEL: 0.0
RH102	0.0	0.0	0.1	0.0	20.1	20.1	0.1	0.0	n/a	991	0	2.11	13.53	HEX: 0.018 PID: 1.0 LEL: 0.0
RH106	0.0	0.0	1.2	1.2	6.8	6.8	4.4	0.1	n/a	991	-2	Unable to dip, tube blocking borehole		HEX: 0.02 PID: 1.0 LEL:.0.0
RH108	0.0	0.0	2.4	2.4	13.3	13.3	104	2.9	n/a	987	56//18	Unable to dip, tube blocking borehole		HEX: 0.003 PID: 1.0 LEL: 0.0
RH109a (~15m)	0.0	0.0	6.0	6.0	10.5	10.5	2.8	-2.5	n/a	988	17//-15	9.43	14.90	HEX: 0.011 PID: 1.0 LEL: 0.0
RH109b	0.0	0.0	3.0	2.4	11.6	12.4	0.4	0.3	n/a	988	1.0	Unable to dip, tube blocking borehole		HEX: 0.013 PID: 1.0 LEL: 0.0
RH110	0.0	0.0	0.1	0.0	19.8	19.8	-0.2	0.0	n/a	989	1//0	Unable to dip, tube blocking borehole		HEX: 0.017 PID: 1.0 LEL: 0.0

Borehole Ref.	CH_4% by Volume		CO_2 % by Volume		O_2 % by Volume		Flow Rate l/hr		Sample Type	Barometric Pressure (mb)	Relative Pressure (mb)	Depth to Water (m BGL)	Depth to Base (mBGL)	Notes
	Peak	Steady	Peak	Steady	Peak	Steady	Peak	Steady						
WS101	Not monitored – water near ground level								n/a	990	-4	0.00	1.6	n/a
WS102	0.0	0.0	6.5	6.5	8.2	8.2	-0.4	-0.3	n/a	987	-3	1.05	1.7	HEX: 0.011 PID: 1.0 LEL: 0.0
WS103	0.0	0.0	3.2	3.2	12.9	12.9	-65.7	-2	n/a	991	>>//-12	0.92	1.75	HEX: 0.009 PID: 1.0 LEL: 0.0
WS104	0.0	0.0	0.8	0.8	19.8	19.8	-69	0.2	n/a	993	>>//2	0.88	1.72	HEX: 0.011 PID: 1.0 LEL: 0.0
WS105	0.0	0.0	0.4	0.4	19.6	19.6	0.6	-0.3	n/a	990	-3	0.34	1.77	HEX: 0.022 PID: 1.0 LEL: 0.0
WS106	0.0	0.0	0.3	0.3	19.8	19.8	-79	-0.6	n/a	991	>>//-4	0.37	1.78	HEX: 0.018 PID: 1.0 LEL: 0.0
WS107	Not monitored – water near ground level								n/a	988	-250//-5	0.16	1.67	Well flooded before sampling
WS108	Not monitored – water near ground level								n/a			0.28	1.65	n/a
WS109	0.0	0.0	5.4	5.4	4.3	4.3	0.9	0.4	n/a	990	1.0	1.51	1.72	HEX: 0.013 PID: 1.0 LEL: 0.0

Borehole Ref.	CH_4% by Volume		CO_2 % by Volume		O_2 % by Volume		Flow Rate l/hr		Sample Type	Barometric Pressure (mb)	Relative Pressure (mb)	Depth to Water (m BGL)	Depth to Base (mBGL)	Notes
	Peak	Steady	Peak	Steady	Peak	Steady	Peak	Steady						
WS111	Not monitored – water near ground level								n/a			0.00	1.47	n/a
WS112	0.0	0.0	4.5	4.5	10.7	10.7	0.1	0.0	n/a	990	0.0	1.66	1.70	HEX: 0.015 PID: 1.0 LEL: 0.0
WS113	0.0	0.0	16.1	16.1	12.3	12.3	75.5	1.1	n/a	986	>-1300/1	0.88	1.79	HEX: 0.005 PID: 1.0 LEL: 0.0
WS119	0.0	0.0	1.8	1.8	18.4	18.4	-0.3	-0.1	n/a	987	-2//-1	1.7	1.73	HEX:0.01 PID: 1.0 LEL: 0.0
WS120	0.0	0.0	0.0	0.0	6.2	6.2	0.3	0.1	n/a	992	2//1	1.48	1.59	HEX: 0.013 PID: 1.0 LEL: 0.0
BH04	0.0	0.0	9.9	9.9	0.0	0.0	-0.5	-0.4	n/a	990	-3	3.36	4.53	HEX: 0.007 PID: 1.0 LEL: 0.0
BH06	0.0	0.0	9.1	9.0	5.0	5.0	-0.5	-0.2	n/a	988	-2	DRY	4.05	HEX: 0.012 PID: 1.0 LEL: 0.0

Atmospheric Pressure: As indicated

Pressure Trend: Low, Rising

Weather: Sunny, cold

Instrument Used: GFM 436

Sample Type: -

Operator: LT & NA

Notes:	CP103a – Flow fluctuating for 4 minutes. CP110 – Bung not fully secure RH106 – Hissed when opening tap. Flow settled after 5 minutes. WS103 – Flow fluctuating WS106 – Water close to bung. Flow fluctuating for 2 minutes. WS111 – Flow settled after 4 minutes WS113 – Hissed when opening tap WS120 – Hissed when opening tap

RECORD OF MEASUREMENTS FOR GAS MONITORING BOREHOLES

Client Name: Your Housing Group Ltd.

Site Name: Ten Acres Lane – Newton Heath

Date of Sampling: 16/02/21

Job Number: LD10162

Borehole Ref.	CH_4% by Volume		CO_2 % by Volume		O_2 % by Volume		Flow Rate l/hr		Sample Type	Barometric Pressure (mb)	Relative Pressure (mb)	Depth to Water (m BGL)	Depth to Base (mBGL)	Notes
	Peak	Steady	Peak	Steady	Peak	Steady	Peak	Steady						
CP103a (~8m)	0	0	1.1	0.7	15.0	15.5	-1.6	-1.9	-	992	-14	4.52	8.58	HEX: 0.028 PID: 1.0 LEL: 0.0
CP103b (~6m)	0.9	0.9	2.3	2.3	0.5	0.5	-0.8	-0.9	-	992	-16	4.5	6.17	HEX: 0.084 PID: 1.3 LEL: 16.6
CP107	0	0	0.8	0.7	19.2	19.4	-1.2	-1.6	-	992	-12	2.94	8.87	HEX: 0.005 PID: 1.0 LEL: 0.0
CP108	0	0	0.3	0.1	20.3	20.3	-1.5	-1.8	-	993	-14	1.7	5.16	HEX: 0.0 PID: 0.9 LEL: 8
CP109	GAS TAP OPEN								-	-	-	1.9	12.85	HEX: PID: LEL:
CP110	0	0	0.3	0.3	20.4	20.4	0	-1.8	-	993	-12	2.48	3.90	HEX: 0.000 PID: 0.9 LEL: 0.0

Borehole Ref.	CH_4% by Volume		CO_2 % by Volume		O_2 % by Volume		Flow Rate l/hr		Sample Type	Barometric Pressure (mb)	Relative Pressure (mb)	Depth to Water (m BGL)	Depth to Base (mBGL)	Notes
	Peak	Steady	Peak	Steady	Peak	Steady	Peak	Steady						
CP112	2.1	2.1	5.4	5.4	10.8	10.7	-1.8	-2.2	-	992	-16	3.31	16.42	HEX: 0.152 PID: 2 LEL: 47.9
CP113	0	0	0.3	0.1	20.3	20.4	-1.1	-1.6	-	992	-12	1.62	3.5	HEX: 0.0 PID: 0.9 LEL: <<<
RH101	0	0	0.6	0.3	20.3	20.3	-1.5	-1.9	-	992	-14	1.62	19.58	HEX: 0.0 PID: 0.9 LEL: <<<
RH102	0	0	0.3	0.3	20.2	20.2	0	-1.8	-	992	-13	2.14	13.58	HEX: 0.0 PID: 0.9 LEL: <<<
RH106	0	0	2.3	2.3	0.5	0.5	120	1.2	-	992	> // 6 (over 4 mins)	Unable to dip – tubing stuck in borehole		HEX: 0.0 PID: 1.0 LEL: <<<
RH108	0	0	2.6	2.6	12.9	12.9	29.8	11.0	-	992	394 // 129	Unable to dip – tubing stuck in borehole		HEX: 0.0 PID: 0.9 LEL: <<<
RH109a (~15m)	0	0	6.9	6.9	9.3	9.3	-1.3	-1.9	-	991	-14	9.21	15.02	HEX: 0.0 PID: 0.9 LEL: <<<
RH109b	0	0	1.3	0.5	17.4	19.6	-1.9	-2.2	-	991	-16	Unable to dip – tubing stuck in borehole		HEX: 0.0 PID: 0.9 LEL: <<<
RH110	0	0	0	0	20.3	20.3	-1.5	-1.9	-	992	-14	Unable to dip – tubing stuck in borehole		HEX: 0.0 PID: 0.9 LEL: <<<

Borehole Ref.	CH_4% by Volume		CO_2 % by Volume		O_2 % by Volume		Flow Rate l/hr		Sample Type	Barometric Pressure (mb)	Relative Pressure (mb)	Depth to Water (m BGL)	Depth to Base (mBGL)	Notes
	Peak	Steady	Peak	Steady	Peak	Steady	Peak	Steady						
WS101	0	0	2.2	2.2	18.8	18.8	15.7	-1.3	-	993	-11	1.63	1.63	HEX: 0.0 PID: 0.9 LEL: <<<
WS102	0	0	5.7	5.7	11.6	11.6	-1.5	-2.2	-	992	-16	1.32	1.79	HEX: 0.0 PID: 1.0 LEL: <<<
WS103	0	0	4.7	4.7	11.8	11.8	-1.5	-1.8	-	993	-12	1.40	1.82	HEX: 0.0 PID: 0.9 LEL: <<<
WS104	0	0	0.4	0.4	20.2	20.2	-1.3	-1.5	-	992	-10	1.05	1.80	HEX: 0.0 PID: 0.9 LEL: <<<
WS105	0	0	0	0	20.4	20.4	-1.1	-1.3	-	992	-10	-.34	1.84	HEX: 0.0 PID: 0.9 LEL: <<<
WS106	0	0	0.4	0.4	19.9	19.9	-1.6	-1.6	-	992	<//-11 (fluctuating)	0.58	1.80	HEX: 0.0 PID: 0.9 LEL: <<<
WS107	0	0	0.4	0.4	20.1	20.1	-1.3	-1.6	-	993	>//-12	0.3	1.77	HEX: 0.0 PID: 0.9 LEL: <<<
WS108	0	0	0.5	0.5	19.2	19.2	-1.3	-1.8	-	992	-13	0.3	1.70	HEX: 0.0 PID: 0.9 LEL: <<<
WS109	0	0	4.9	4.9	4.9	4.9	-1.6	-2.2	-	992	-16	1.7	1.79	HEX: 0.0 PID: 0.9 LEL: <<<

Borehole Ref.	CH_4% by Volume		CO_2 % by Volume		O_2 % by Volume		Flow Rate l/hr		Sample Type	Barometric Pressure (mb)	Relative Pressure (mb)	Depth to Water (m BGL)	Depth to Base (mBGL)	Notes
	Peak	Steady	Peak	Steady	Peak	Steady	Peak	Steady						
WS111	0.8	0.8	2.4	2.4	18.2	18.2	-1.6	-3.7	-	992	-36 // -11 (fluctuating)	0	1.58	HEX: 0.095 PID: 1.5 LEL: 3 Hissed on removal of GFM
WS112	0	0	4.2	4.1	14.2	14.2	-1.6	-1.9	-	992	-13	1.8	1.8	HEX: 0.0 PID: 0.9 LEL: <<<
WS113	0	0	16.1	16.1	13	13	0	-1.5	-	992	-11	0.94	1.82	HEX: 0.0 PID: 0.9 LEL: <<<
WS119	0	0	1.6	1.6	19.1	19.1	-1.8	-2.1	-	992	-14	1.82	1.87	HEX: 0.0 PID: 0.9 LEL: <<<
WS120	GAS TAP OPEN								-	-	-	1.65	1.70	HEX: PID: LEL:
BH04	0	0	10.1	10.1	1.4	1.4	-0.4	-1.6	-	992	-12	3.44	4.60	HEX: 0.0 PID: 0.9 LEL: <<<
BH06	0	0	11.4	11.4	0.9	0.9	-1.1	-1.1/-2.9 (fluctuating)	-	992	-14	Dry	4.12	HEX: 0.0 PID: 0.9 LEL: <<<

Atmospheric Pressure: As indicated

Pressure Trend: Low, steady.

Weather: light cloud cover and a light breeze, occasional sun.

Instrument Used: GFM 436

Sample Type: -

Operator: NA & EG

Notes:	CP109 – tap open, need another bolt to secure cover. CP110 – Bung not fully secure RH101 - Brown silt on probe RH106 – Could hear flowing. WS108 - Hissed on removal of GFM WS111 – Hissed when opening tap WS113 – Hissed when opening tap WS120 – Tap open – cover cannot be secured down.

RECORD OF FIELD PARAMETER MEASUREMENTS

Client Name: Your Housing Group Ltd. **Job Number: LD10162**

Site Name: Ten Acres Lane – Newton Heath

Borehole Ref.	Waterbody	Date & Time	Temp (C)	Baro (mb)	pH	pHmV	ORP (REDOX)	DO (% Sat)	DO (mg/L)	EC (uS/cm @25C)	RES (Ohms.cm)	TDS (mg/L)	SAL (PSU)	SSG
SW01	Canal (downstream)	02/12/2020 15:56	5.75	1003	8.86	-99.4	-59.4	100.4	12.41	229	6896	148	0.07	0
SW02	Canal (Middle)	01/12/2020 15:12	5.4	1017	6.81	14.6	13.8	98.4	12.47	230	6944	149	0.07	0
SW03	Canal (Upstream)	01/12/2020 15:35	5.5	1017	7.26	-11	11.1	96.4	12.19	208	7633	135	0.07	0
CP101 / RH109	GT	10/12/2020 15:16	10.43	986	7.45	-59.1	25	4.8	0.52	1572	881	1021	0.78	0.2
CP103a	MG/GT	02/12/2020 14:05	9.9	1003	7.75	-38.8	-208.2	5.3	0.59	1797	781	1168	0.89	0.3
CP103b	MG	02/12/2020 14:35	10.5	1003	7.64	-32.4	-233.8	18.1	1.99	1575	877	1023	0.78	0.2
CP107	MG	02/12/2020 15:16	10.6	1003	8.03	-54.5	-176.8	23.9	2.61	1573	876	1022	0.78	0.2

Borehole Ref.	Waterbody	Date & Time	Temp (C)	Baro (mb)	pH	pHmV	ORP (REDOX)	DO (% Sat)	DO (mg/L)	EC (uS/cm @25C)	RES (Ohms.cm)	TDS (mg/L)	SAL (PSU)	SSG
CP108	MG	02/12/2020 10:21	10.4	1008	7	3.3	-152	2.6	0.29	1155	1200	750	0.55	0
CP109	MG	02/12/2020 13:24	10.6	1004	8.88	-102.6	-294.3	1.8	0.2	4262	323	2770	2.25	1.3
CP110	MG	02/12/2020 10:53	10.7	1008	6.96	5.9	68.7	20.4	2.24	1377	999	895	0.65	0.1
RH101	MST	02/12/2020 09:20	10.1	1009	6.67	22.7	20.1	10.2	1.14	1197	1166	778	0.57	0.1
RH102	MG/GT	02/12/2020 11:23	11.1	1006	7.34	-15.7	-214.9	1.1	0.12	4010	339	2606	2.12	1.2
RH103	GT	07/01/2021 11:58	10.5	1008	7.72	-32.9	54.1	11.5	1.26	2015	686	1309	1.02	0.4
RH106	GT/SST	10/12/2020 10:58	10.28	989	7.62	-68.9	-113.8	68.6	7.46	1505	925	978	0.74	0.2
RH106	GT/SST	07/01/2021 10:06	9.4	1010	7.5	-20.6	65	94.3	10.74	2	500000	1	0	0
RH108	SST	04/12/2020 15:09	9.5	963	8.03	-54.2	13.1	89	9.64	0		0	0	0
RH108	SST	07/01/2021 13:03	7.6	1007	7.7	-31.5	42.3	65.1	7.69	2053	729	1334	1.04	0.6

RECORD OF MEASUREMENTS FOR GAS MONITORING BOREHOLES

Client Name: Your Housing Group Ltd.

Site Name: Ten Acres Lane – Newton Heath

Date of Sampling: 25/02/21

Job Number: LD10162

Borehole Ref.	CH_4% by Volume		CO_2 % by Volume		O_2 % by Volume		Flow Rate l/hr		Sample Type	Barometric Pressure (mb)	Relative Pressure (mb)	Depth to Water (m BGL)	Depth to Base (mBGL)	Notes
	Peak	Steady	Peak	Steady	Peak	Steady	Peak	Steady						
CP103a (~8m)	0	0	0.3	0.1	19.5	20.0	-0.9	-0.9	-	1012	-10	4.58	8.5	HEX: 0.0 PID: 1.0 LEL: <<<
CP103b (~6m)	0	0	0	0	20.5	20.5	-1.2	-1.5	-	1013	-13	4.58	6.13	HEX: 0.0 PID: 0.0 LEL: <<<
CP107	0	0	1.3	1.3	18.2	18.2	-0.9	-1.1	-	1015	-9	2.94	8.84	HEX: 0.029 PID: 1.0 LEL: <<<
CP108	0	0	0.4	0.4	20.2	20.2	-0.8	-1.1	-	1014	-9	1.74	5.14	HEX: 0.0 PID: 0.9 LEL: <<<
CP109	0	0	0.3	0	20.4	20.4	-1.1	-1.1	-	1016	-10	1.91	12.85	HEX: 0.062 PID: 1.0 LEL: 0.0
CP110	0	0	0.5	0.5	19.9	19.9	-0.8	-1.1	-	1014	-8	2.45	3.86	HEX: 0.0 PID: 0.9 LEL: <<<

Borehole Ref.	CH_4% by Volume		CO_2 % by Volume		O_2 % by Volume		Flow Rate l/hr		Sample Type	Barometric Pressure (mb)	Relative Pressure (mb)	Depth to Water (m BGL)	Depth to Base (mBGL)	Notes
	Peak	Steady	Peak	Steady	Peak	Steady	Peak	Steady						
CP112	1.6	1.5	3.9	3.9	13.0	13.0	-0.9	-1.1	-	1012	-8	3.4	16.41	HEX: 0.123 PID: 1.7 LEL: 36.5
CP113	0	0	0.2	0.1	20.5	20.5	-1.3	-1.6	-	1016	-12	1.42	3.48	HEX: 0.0 PID: 0.9 LEL: <<<
RH101	0	0	0.7	0.5	18.8	18.8	-1.5	-1.8	-	1014	-10	1.8	19.53	HEX: 0.0 PID: 0.9 LEL: <<<
RH102	0	0	0.6	0.6	19.6	19.6	-1.1	-1.2	-	1014	-9	2.18	13.54	HEX: 0.0 PID: 0.9 LEL: <<<
RH106	0	0	2.9	2.9	0.2	0.2	119.9	0	-	1014	>/0	Unable to dip – tubing stuck in borehole		HEX: 0.0 PID: 1.0 LEL: <<<
RH108	0	0	1.3	1.3	16.9	16.9	-1.6	-13.9	-	1012	-340/-235	Unable to dip – tubing stuck in borehole		HEX: 0.0 PID: 0.9 LEL: <<<
RH109a (~15m)	0	0	7.3	7.3	8.2	8.2	-1.5	-1.8	-	1013	-13	9.15	11.3	HEX: 0.0 PID: 0.9 LEL: <<<
RH109b	0	0	0.5	0.3	19.9	20.2	-1.1	0	-	1013	0	Unable to dip – tubing stuck in borehole		HEX: 0.0 PID: 0.9 LEL: <<<
RH110	0	0	0.1	0	20.3	20.3	-1.1	-1.3	-	1013	-10	Unable to dip – tubing stuck in borehole		HEX: 0.0 PID: 0.9 LEL: <<<

Borehole Ref.	CH_4% by Volume		CO_2 % by Volume		O_2 % by Volume		Flow Rate l/hr		Sample Type	Barometric Pressure (mb)	Relative Pressure (mb)	Depth to Water (m BGL)	Depth to Base (mBGL)	Notes
	Peak	Steady	Peak	Steady	Peak	Steady	Peak	Steady						
WS101	0	0	2.9	2.9	18.8	18.8	-1.2	-1.6	-	1014	-12	0	1.62	HEX: 0.0 PID: 0.9 LEL: <<<
WS102	0	0	4.5	4.5	10.2	10.2	-1.3	-1.5	-	1013	-10	1.32	1.74	HEX: 0.0 PID: 0.9 LEL: <<<
WS103	0	0	0.4	0.4	19.7	19.7	0	0	-	1014	-5	1.17	1.85	HEX: 0.0 PID: 0.9 LEL: <<<
WS104	0	0	0.4	0.4	20.0	20.0	-0.5	-1.1	-	1014	-7	1.17	1.79	HEX: 0.0 PID: 0.9 LEL: <<<
WS105	0	0	0	0	20.6	20.6	-0.5	-0.6	-	1015	-7	0.43	1.83	HEX: 0.0 PID: 0.9 LEL: <<<
WS106	0	0	0.3	0.3	20.0	20.0	47.2	0.0	-	1017	262 / 0	0.44	1.85	HEX: 0.0 PID: 0.9 LEL: <<<
WS107	0	0	0.4	0.4	20.3	20.3	18.9	0.0	-	1013	0.0	0.22	1.78	HEX: 0.0 PID: 0.9 LEL: <<<
WS108	0	0	0.6	0.6	19.8	19.8	3.0	-1.6	-	1013	-11	0.29	1.69	HEX: 0.0 PID: 0.9 LEL: <<<
WS109	0	0	0.2	0.2	20.3	20.3	-0.6	-1.1	-	1014	-8	1.71	1.76	HEX: 0.0 PID: 0.9 LEL: <<<

Borehole Ref.	CH_4% by Volume		CO_2 % by Volume		O_2 % by Volume		Flow Rate l/hr		Sample Type	Barometric Pressure (mb)	Relative Pressure (mb)	Depth to Water (m BGL)	Depth to Base (mBGL)	Notes
	Peak	Steady	Peak	Steady	Peak	Steady	Peak	Steady						
WS111	0	0	1.3	1.3	19.3	19.3	0.9	0.0	-	1014	0.0	0	1.55	HEX: 0.0 PID: 1.0 LEL: <<<
WS112	0	0	0.1	0.1	20.3	20.3	-1.1	-1.1	-	1014	-10	Dry	1.78	HEX: 0.0 PID: 0.9 LEL: <<<
WS113	0	0	14.5	14.5	14.3	14.3	56.3	0.0	-	1012	0.0	0.88	1.81	HEX: 0.0 PID: 0.9 LEL: <<<
WS119	0	0	1.5	1.5	19.1	19.1	-1.2	-1.5	-	1013	-9	1.79	1.84	HEX: 0.84 PID: 0.9 LEL: <<<
WS120	0	0	0	0	11.2	11.2	-	-	-	-	-	1.72	1.72	HEX: 0.0 PID: 0.9 LEL: <<<
BH04	0	0	9.5	9.5	2.9	2.9	-0.1	-1.3	-	1012	-10	3.47	4.59	HEX: 0.0 PID: 0.9 LEL: <<<
BH06	0	0	10.9	10.2	1.9	3.4	-1.8	-1.8	-	1012	-15	Dry	4.06	HEX: 0.0 PID: 0.9 LEL: <<<

Atmospheric Pressure: As indicated

Pressure Trend: Rising slightly and fluctuating (1012 → 1013 ←→ 1017)

Weather: Sunny, slightly breezy with breeze strengthening in the afternoon.

Instrument Used: GFM 436

Sample Type: -

Operator: NA & EG

Notes:	RH106 – relative pressure settled in 1.5 minutes. Could hear gas pushing out of bung when opened to measure flow. RH108 – Hissed when tap opened. WS101 – water drawn up in tube after 30 seconds. WS106 – relative pressure settled after 45 seconds. WS108 – Hissed when tap opened. WS113 – Hissed when tap opened. WS120 – tap open, borehole cover unable to be bolted shut. Despite tap being open, tap hissed when gas tubing was removed. BH06 – gas level fluctuating, especially CO2 and O2, and struggling to stabilise after 3 mins. Groundwater ponding in the south of the beginning to retreat and dry out, extent of flooded area has reduced. Less obvious discolouration.

RECORD OF MEASUREMENTS FOR GAS MONITORING BOREHOLES

Client Name: Your Housing Group Ltd.

Site Name: Ten Acres Lane – Newton Heath

Date of Sampling: 08/03/21

Job Number: LD10162

Borehole Ref.	CH_4% by Volume		CO_2 % by Volume		O_2 % by Volume		Flow Rate l/hr		Sample Type	Barometric Pressure (mb)	Relative Pressure (mb)	Depth to Water (m BGL)	Depth to Base (mBGL)	Notes
	Peak	Steady	Peak	Steady	Peak	Steady	Peak	Steady						
CP103a (~8m)	0.5	0.0	0.9	0.8	11.5	15.1	-1.9	-2.1	-	1010	-16	4.69	8.57	HEX: 0.086 PID: 1.3 LEL: 15
CP103b (~6m)	1.2	1.2	2.2	2.2	2.4	2.4	-2.1	-2.4	-	1010	-18	4.71	6.18	HEX: 0.103 PID: 1.5 LEL: 28.2
CP107	0.0	0.0	1.2	1.0	18.3	18.4	-1.8	-2.2	-	1011	-16	3.0	8.81	HEX: 0.054 PID: 1.0 LEL: 0.0
CP108	0.0	0.0	0.5	0.2	20	20.1	-2.1	-2.1	-	1012	-15	1.78	5.16	HEX: 0.0 PID: 1.0 LEL: <<<
CP109	3.1	3.0	0.0	0.0	19.6	19.5	-1.8	-2.5	-	1011	-16	1.96	12.90	HEX: 0.193 PID: 3.5 LEL: 83
CP110	0.0	0.0	4.7	4.7	10.3	10.3	-2.1	-2.4	-	1012	-16	2.49	3.87	HEX: 0.0 PID: 1.0 LEL: <<<

Borehole Ref.	CH_4% by Volume		CO_2 % by Volume		O_2 % by Volume		Flow Rate l/hr		Sample Type	Barometric Pressure (mb)	Relative Pressure (mb)	Depth to Water (m BGL)	Depth to Base (mBGL)	Notes
	Peak	Steady	Peak	Steady	Peak	Steady	Peak	Steady						
CP112	1.9	1.9	4.4	4.4	12.3	12.3	-1.9	-2.1	-	1010	-15	3.42	16.36	HEX: 0.136 PID: 0.9 LEL: 42.6
CP113	0.0	0.0	1.2	1.1	17.6	17.6	-1.9	-2.4	-	1011	-16	1.85	3.5	HEX: 0.0 PID: 1.0 LEL: <<<
RH101	0.0	0.0	0.4	0.2	20.0	20.1	-2.4	-2.5	-	1012	-19	1.87	19.71	HEX: 0.0 PID: 1.0 LEL: <<<
RH102	0.0	0.0	0.2	0.2	20.1	20.1	-1.9	-2.4	-	1011	-17	2.33	13.60	HEX: 0.0 PID: 1.0 LEL: <<<
RH106	0.0	0.0	4.4	4.4	1.7	1.7	-1.8	-2.1	-	1011	-16	Unable to dip – tubing stuck in borehole		HEX: 0.0 PID: 1.0 LEL: <<<
RH108	-0.1	-0.1	2.8	2.8	12.7	12.7	10.5	2.7	-	1010	15	Unable to dip – tubing stuck in borehole		HEX: 0.0 PID: 0.9 LEL: <<<
RH109a (~15m)	-0.1	-0.1	6.7	6.7	9.6	9.6	-16	-1.8	-	1010	-14	9.1	14.81	HEX: 0.0 PID: 0.9 LEL: <<<
RH109b	-0.1	-0.1	6.7	6.5	18.9	19.3	-1.9	-2.3	-	1010	-11	Unable to dip – tubing stuck in borehole		HEX: 0.0 PID: 0.9 LEL: <<<
RH110	0.0	0.0	0.1	0.0	19.9	20.1	-2.1	-2.5	-	1011	-16	Unable to dip – tubing stuck in borehole		HEX: 0.0 PID: 1.0 LEL: <<<

Borehole Ref.	CH_4% by Volume		CO_2 % by Volume		O_2 % by Volume		Flow Rate l/hr		Sample Type	Barometric Pressure (mb)	Relative Pressure (mb)	Depth to Water (m BGL)	Depth to Base (mBGL)	Notes
	Peak	Steady	Peak	Steady	Peak	Steady	Peak	Steady						
WS101	0.0	0.0	3.1	3.1	17.8	17.8	-2.2	-2.4	-	1011	-17	0.0	1.63	HEX: 0.0 PID: 1.0 LEL: <<<
WS102	-0.1	-0.1	7.1	7.1	6.0	6.0	-1.9	-2.1	-	1010	-15	1.37	1.77	HEX: 0.0 PID: 0.9 LEL: <<<
WS103	0.0	0.0	4.6	4.6	11.3	11.3	-2.4	-2.7	-	1013	-18	1.19	1.89	HEX: 0.0 PID: 1.0 LEL: <<<
WS104	0.0	0.0	0.9	0.9	19.2	19.2	-2.2	-2.4	-	1011	-18	1.30	1.84	HEX: 0.0 PID: 1.0 LEL: <<<
WS105	0.0	0.0	0.0	0.0	20.1	20.1	-2.2	-2.5	-	1011	-17	0.45	1.79	HEX: 0.0 PID: 1.0 LEL: 0.0
WS106	0.0	0.0	0.1	0.1	20.1	20.1	-1.8	-2.7	-	1011	</-20	0.97	1.82	HEX: 0.0 PID: 1.0 LEL: <<<
WS107	-0.1	-0.1	0.45	0.45	20.1	20.1	-2.4	-3	-	1012	</-21	0.46	1.78	HEX: 0.0 PID: 0.9 LEL: <<<
WS108	-0.1	-0.1	0.7	0.7	19.2	19.2	-2.5	-3.7	-	1011	-36	0.42	1.70	HEX: 0.0 PID: 0.9 LEL: <<<
WS109	0.0	0.0	5.5	5.5	4.4	4.4	-1.8	-1.9	-	1011	-14	1.74	1.76	HEX: 0.0 PID: 1.0 LEL: <<<

Borehole Ref.	CH_4% by Volume		CO_2 % by Volume		O_2 % by Volume		Flow Rate l/hr		Sample Type	Barometric Pressure (mb)	Relative Pressure (mb)	Depth to Water (m BGL)	Depth to Base (mBGL)	Notes
	Peak	Steady	Peak	Steady	Peak	Steady	Peak	Steady						
WS111	0.0	0.0	2.0	2.0	19.1	19.1	-1.9	-2.1	-	1011	-16	0.22	1.55	HEX: 0.026 PID: 1.0 LEL: 0.0
WS112	0.0	0.0	4.5	4.5	13.9	13.9	-1.9	-2.1	-	1011	-15	Dry	1.75	HEX: 0.0 PID: 1.0 LEL: <<<
WS113	-0.1	-0.1	13.8	13.8	15.1	15.1	35.4	-1.5	-	1010	-13	0.9	1.85	HEX: 0.0 PID: 0.9 LEL: <<<
WS119	-0.1	-0.1	1.8	1.8	18.6	18.6	-2.1	-2.4	-	1010	-17	1.81	1.87	HEX: 0.0 PID: 0.9 LEL: <<<
WS120	0.0	0.0	0.0	0.0	10.4	10.4	-	-	-	-	-	1.71	1.72	HEX: - PID: - LEL: -
BH04	0.0	0.0	0.0	0.0	20.2	20.3	-1.9	-2.1	-	1011	-16	3.5	4.63	HEX: 0.0 PID: 0.9 LEL: <<<
BH06	-0.1	-0.1	11.4	11.4	2.2	2.2	-2.1	-2.4	-	1010	-17	Dry	4.10	HEX: 0.0 PID: 1.0 LEL: <<<

Atmospheric Pressure: As indicated

Pressure Trend: Steady

Weather: Overcast

Instrument Used: GFM 436

Sample Type: -

Operator: NA & EG

Notes:	WS107 – still settling after 2 mins. WS108 – hissed when bung was removed. WS113 – hissed when bung was removed. WS120 – tap open, unable to monitor flow. CP103a – Oxygen still rising steadily after 2.5 mins.

RECORD OF MEASUREMENTS FOR GAS MONITORING BOREHOLES

Client Name: Your Housing Group
Site Name: Ten Acres Lane, Newton Heath
Weather: Overcast and dry. Temp 8°C. Wind 11mph SSW. Gust 20 SW.
Ground Conditions: Slightly wet.
Operator: JC

Date of Sampling:
Job Number: LD10162
Pressure Trend: Falling slightly
Instrument Type: GFM 436

Borehole Ref.	CH_4% by Volume		CO_2 % by Volume		O_2 % by Volume		Flow Rate l/hr		Sample Type	Barometric Pressure (mb)	Relative Pressure (mb)	Depth to Water (m BGL)	Depth to Base (mBGL)	Notes
	Peak	Steady	Peak	Steady	Peak	Steady	Peak	Steady						
CP103a (~8m)	0	0	0.4	0.3	16.6	16.6	0	0		1004	0	4.92	8.95	H2S: 0 CO: 0 HEX: 0.002 PID: 1.0 LEL: 0
CP103b (~6m)	0.9	0.9	2.1	2.1	1.1	1.1	0	0		1004	0	4.93	6.53	H2S: 0 CO: 0 HEX: 0.045 PID: 1.3 LEL: 20.3
CP107	0	0	0.7	0.7	19.3	19.4	0	0		1004	0	-	-	H2S: 0 CO: 0 HEX: 0 PID: 0.9 LEL: 0
CP108	0	0	0.4	0	20.4	20.4	0	0		1005	0	1.96	5.47	H2S: 0 CO: 0 HEX: 0 PID: 0.9 LEL: <<<
CP109	1.4	0	0	0	20.4	20.4	0	0		1003	0	-	13.6	H2S: 0 CO: 0 HEX: 0.032 PID: 1.0 LEL: 4.6

Borehole Ref.	CH_4% by Volume		CO_2 % by Volume		O_2 % by Volume		Flow Rate l/hr		Sample Type	Barometric Pressure (mb)	Relative Pressure (mb)	Depth to Water (m BGL)	Depth to Base (mBGL)	Notes
	Peak	Steady	Peak	Steady	Peak	Steady	Peak	Steady						
CP110	0	0	5.9	5.9	7.6	7.6	0	0		1004	0	-	-	H2S: 0 CO: 0 HEX: 0 PID: 0.9 LEL: <<<
CP112	2.2	2.2	3.8	3.8	7.9	7.9	0	0		1004	0	3.49	27.16	H2S: 0 CO: 0 HEX: 0 PID: 0.9 LEL: 50.4
CP113	0	0	0	0	20.7	20.7	0	0		1004	0	-	3.83	H2S: 0 CO: 0 HEX: 0 PID: 0.9 LEL: <<<
RH101	0	0	0.6	0	20.5	20.5	0	0		1006	0	2.13	20.02	H2S: 0 CO: 0 HEX: 0 PID: 0.9 LEL: <<<
RH102	0	0	0.2	0	20.5	20.5	0	0		1004	0	-	-	H2S: 0 CO: 0 HEX: 0 PID: 0.9 LEL: <<<
RH106	0	0	2.3	2.3	1.6	1.6	0	0		1004	0	-	-	H2S: 0 CO: 0 HEX: 0 PID: 0.9 LEL: <<<
RH108	0	0	2.6	2.6	12.6	12.6	7.2	2.7		1004	13	8.67	12.52	H2S: 0 CO: 0 HEX: 0 PID: 0.9 LEL: <<<
RH109a (~15m)	0	0	6.9	6.8	7.6	7.6	0	0		1004	0	9.06	15.0	H2S: 0 CO: 0 HEX: 0 PID: 0.9 LEL: <<<

Borehole Ref.	CH_4% by Volume		CO_2 % by Volume		O_2 % by Volume		Flow Rate l/hr		Sample Type	Barometric Pressure (mb)	Relative Pressure (mb)	Depth to Water (m BGL)	Depth to Base (mBGL)	Notes
	Peak	Steady	Peak	Steady	Peak	Steady	Peak	Steady						
RH109b	0	0	2.3	1.4	18.5	18.5	-0.4	-0.4		1004	-2	8.95	17.44	H2S: 0 CO: 0 HEX: 0 PID: 0.9 LEL: <<<
RH110	0	0	0	0	20.4	20.4	0	0		1005	0	17.44	22.25	H2S: 0 CO: 0 HEX: 0 PID: 0.9 LEL: <<<
WS101	-	-	-	-	-	-	-	-		-	-	-	-	H2S: CO: HEX: PID: LEL:
WS102	0	0	6.5	6.5	6.9	6.9	0	0		1003	0	1.65	2.13	H2S: 0 CO: 0 HEX: 0 PID: 0.9 LEL: <<<
WS103	-	-	-	-	-	-	-	-		-	-	-	-	H2S: CO: HEX: PID: LEL:
WS104	0	0	0.5	0.5	20	20	0	0		1003	0	1.45	2.15	H2S: 0 CO: 0 HEX: 0 PID: 0.9 LEL: <<<
WS105	0	0	0	0	20.6	20.6	0	0		1004	0	0.88	2.2	H2S: 0 CO: 0 HEX: 0 PID: 0.9 LEL: <<<
WS106	0	0	0	0	20.6	20.6	0	0		1004	0	1.36	2.15	H2S: 0 CO: 0 HEX: 0 PID: 0.9 LEL: <<<

Borehole Ref.	CH_4% by Volume		CO_2 % by Volume		O_2 % by Volume		Flow Rate l/hr		Sample Type	Barometric Pressure (mb)	Relative Pressure (mb)	Depth to Water (m BGL)	Depth to Base (mBGL)	Notes
	Peak	Steady	Peak	Steady	Peak	Steady	Peak	Steady						
WS107	0	0	20.2	20.2	0.4	0.4	21.4	0.1		1004	0	0.76	2.17	H2S: 0 CO: 0 HEX: 0 PID: 0.9 LEL: <<<
WS108	0	0	0.5	0.5	19.6	19.6	-23.5	0		1003	0	0.80	2.06	H2S: 0 CO: 0 HEX: 0 PID: 0.9 LEL: <<<
WS109	0	0	1.6	1.4	17.5	17.5	0	0		1006	0	Dry	2.25	H2S: 0 CO: 0 HEX: 0 PID: 0.9 LEL: <<<
WS111	0	0	1.0	1.0	19.8	19.8	0.5	0		1004	0	0.64	1.93	H2S: 0 CO: 0 HEX: 0 PID: 0.9 LEL: <<<
WS112	0	0	4.3	4.3	12.6	12.6	0	0		1005	0	Dry	2.12	H2S: 0 CO: 0 HEX: 0 PID: 0.9 LEL: <<<
WS113	-	-	-	-	-	-	-	-		-	-	-	-	H2S: CO: HEX: PID: LEL:
WS119	0	0	1.4	1.4	18.9	18.9	0	0		1004	0	2.1	2.1	H2S: 0 CO: 0 HEX: 0 PID: 0.9 LEL: <<<
WS120	-	-	-	-	-	-	-	-		-	-	1.98	2.03	H2S: CO: HEX: PID: LEL:

Borehole Ref.	CH_4% by Volume		CO_2 % by Volume		O_2 % by Volume		Flow Rate l/hr		Sample Type	Barometric Pressure (mb)	Relative Pressure (mb)	Depth to Water (m BGL)	Depth to Base (mBGL)	Notes
	Peak	Steady	Peak	Steady	Peak	Steady	Peak	Steady						
BH04	-	-	-	-	-	-	-	-		-	-	-	-	H2S: CO: HEX: PID: LEL:
BH06	0	0	10	10	2.5	2.5	0	0		1004	0	Dry	4.46	H2S: 0 CO: 0 HEX: 0 PID: 0.9 LEL: <<<

Notes:	**CP103A:** Flow measured for 1 minute. Gas measured for 3 minutes. Silty water noted on probe. **CP103B:** Flow measured for 1 minute. Gas measured for 3 minutes. Clear water noted on probe. **CP107:** Flow measured for 1 minute. Gas measured for 1 minutes. Interface probe had stopped working so could not determine water level. **CP108:** Flow measured for 1 minute. Gas measured for 3 minutes. CO2 fell from 0.4 to 0 over 2 minutes and then was steady at 0 for 1 minute. 1.96 fast beep from interface probe that become a slow beep from 3.85. Clear water noted on probe. **CP109:** Flow measured for 1 minute. Gas measured for 3 minutes. CH4 fell from 1.4 to 0 over 2 minutes and then steady at 0 for 1 minute. Interface probe had stopped working so could determine water level. Black sludge on probe with slightly hydrocarbon / organic odour. **CP110:** Flow measured for 1 minute. Gas measured for 1:30 minutes. Bung stuck. **CP112:** Flow measured for 1 minute. Gas measured for 2 minutes. 3.49 fast beep from interface probe that become a slow beep from 5.36. **CP113:** Flow measured for 1 minute. Gas measured for 2 minutes. Interface probe had stopped working so could not determine water level. Clear water noted on probe. **RH101:** Flow measured for 1 minute. Gas measured for 2 minutes. CO2 fell steadily from 0.6 to 0 over 1 minute and then was steady at 0 for 1 minute. Silt water on probe. **RH102:** Flow measured for 1 minute. Gas measured for 2 minutes. Interface probe had stopped working so could not determine water level. **RH106:** Flow measured for 1 minute. Gas measured for 2 minutes. Interface probe had stopped working so could not determine water level. **RH108:** Flow measured for 3 minutes. Gas measured for 1 minute. Flow fell from 7.2 to 2.7 over 1 minute. Fluctuated between 2.7 – 3.0 over 2 minutes. Mostly steady at 2.7. **RH109A:** Flow measured for 1 minutes. Gas measured for 3 minute. Silty water on probe. **RH109B:** Flow measured for 2 minutes. Gas measured for 3:30 minutes. Negative flow that fluctuated between -0.2 and -0.4 but mostly steady at -0.4. CO2 peak at 2.3 fluctuated between 0.9 – 1.5 over 2 minutes and settled at 0.9. **RH110:** Flow measured for 1 minutes. Gas measured for 2 minutes. **WS101:** Unable to remove bolt from raised cover. **WS102:** Flow measured for 1 minutes. Gas measured for 1:30 minute. Clear water on probe. **WS103:** Unable to remove bolt from raised cover. **WS104:** Flow measured for 1 minutes. Gas measured for 1 minute. Clear water on probe. **WS105:** Flow measured for 1 minutes. Gas measured for 1:30 minute. Clear water on probe. **WS106:** Flow measured for 1 minutes. Gas measured for 2 minute. **WS107:** Flow measured for 5 minutes. Gas measured for 1 minute. Flow fell steadily from 21.4 to to 3.3 over 2 minutes and then fell from 3.3 to 0 over a further 2 minutes. Fluctuated between 0.1 and over 1 minute. Black sludge on probe. **WS108:** Flow measured for 1 minutes. Gas measured for 2 minutes. Hiss when removing tubing from valve. Clear water on probe. **WS109:** Flow measured for 1 minutes. Gas measured for 2 minutes. Headworks could be pulled out the ground. **WS111:** Flow measured for 1 minutes. Gas measured for 1 minutes. Clear water on probe. **WS112:** Flow measured for 1 minutes. Gas measured for 2 minutes. **WS113:** Unable to remove bolt from raised cover. **WS119:** Flow measured for 1 minutes. Gas measured for 1 minutes. Clear water on probe. **WS120:** Gas valve left open. Unable to monitor gas. **BH04:** Unable to remove bolt from raised cover. **BH06:** Flow measured for 1 minutes. Gas measured for 2 minutes.

RECORD OF MEASUREMENTS FOR GAS MONITORING BOREHOLES

Client Name:
Site Name: Ten Acres Lane
Weather: Overcast and Dry
Ground Conditions: Dry
Operator: JC & AM

Date of Sampling: 19/05/2022
Job Number: LD10385
Pressure Trend:
Instrument Type: GFM 436

Borehole Ref.	CH_4% by Volume		CO_2 % by Volume		O_2 % by Volume		Flow Rate l/hr		Sample Type	Barometric Pressure (mb)	Relative Pressure (mb)	Depth to Water (m BtC)	Depth to Base (mBtC)	Notes Steady or Peak / Steady
	Peak	Steady	Peak	Steady	Peak (low)	Steady	Peak	Steady						
RH206	0.0	0.0	0.2	0.2	20.2	20.2	1.2	1.2		1009	19	21.96	43.52	H2S: 0 CO: 0 HEX: 0 PID: 0.9 LEL: <<<<
CP209	-0.1	-0.1	0.0	0.0	20.6	20.6	0.1	0.0		1011	0.0	0.86	6.95	H2S: 0 CO: 0 HEX: 0.000 PID: 0.9 LEL:<<<<
RH204	-0.1	-0.1	0.7	0.7	18.6	18.6	1.5	1.5		1010	22	24.59	47.19	H2S: 0 CO: 0 HEX: 0.000 PID: 0.9 LEL:<<<<
RH202	0.0	0.0	0.3	0.3	20.6	20.6	0.0	0.0		1009	0.0	30.23	51.00	H2S: 0 CO: 0 HEX: 0.000 PID: 1.0 LEL:<<<<
WS318	-0.1	-0.1	3.3	3.3	17.8	17.8	0.0	0.0		1010	0.0	2.75	5.00	H2S: 0 CO: 0 HEX: 0.000 PID: 0.9 LEL:<<<<

Borehole Ref.	CH_4% by Volume		CO_2 % by Volume		O_2 % by Volume		Flow Rate l/hr		Sample Type	Barometric Pressure (mb)	Relative Pressure (mb)	Depth to Water (m BtC)	Depth to Base (mBtC)	Notes
	Peak	Steady	Peak	Steady	Peak (low)	Steady	Peak	Steady						Steady or Peak / Steady
CP201	11.2	8.6	2.0	0.9	17.5	17.5	0.0	0.0		1009	0	2.60	7.90	H2S: 0 CO: 0 HEX: 0.377 PID: 9.5 LEL:<<<<

Notes:	CP201	CH4 fluctuating from 9.4-9.8 and after 2 mins from 8.2-8.8.
	RH206	Valve left open

Water Sampling Pro Forma

Client Name: YHG
Site Name: Ten Acres
Weather: Overcast and dry
Ground Conditions: Dry
Operator: JC & JP

Date of Sampling: 19.05.22
Job Number: LD10385
Pressure Trend:
Instrument Type: Waterra pump, peristaltic pump

Monitoring Location	Borehole Diameter (mm)	Standpipe Diameter (mm)	Depth to Product (mbgl)	Depth to Water (mbgl)	Depth to Base (mbgl)	Volume of Water in Borehole (l)	Volume of Water Purged (l)	Depth Water Post Purge (mbgl)	Notes
RH206	200	50	N/A	21.96	43.52	42.26	147	23.50	Very thick brown silty water. Did not use Aquaread as too silty.
CP209	200	50	N/A	0.95	6.95	11.76	24	-	Aquaread used and stabilised after 24l
WS318	-	50	N/A	2.75	5.00	4.41	11	-	Aquaread used and stabilised after 11l
CP201	200	50	N/A	2.60	7.90	10.38	-	-	Peristaltic pump broke down.

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Water Sampling Pro Forma

mbgl– metres below ground level

Monitoring Location	Total Dissolved Solids	pH	Temp	Oxidation Reduction Potential	Electrical Conductivity	Dissolved Oxygen		Notes
	(mg/l)	(Units)	(°C)	(mV)	(µs/cm)	(mg/l)	(% saturation)	
CP209	1290	7.13	10.30	-0.055	1986	0.0	0.0	Salinity: 0.97 SSG: 0.4 Slightly cloudy water. No odour.
WS318	0731	7.39	10.90	7.38	1127	0.0	0.0	Salinity: 0.53 SSG: 0.53 Slightly cloudy water. No odour.

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Water Sampling Pro Forma

Client Name: YHG
Site Name: Ten Acres
Weather: Sunny and dry
Ground Conditions: Dry
Operator: JC, JP, EH, AK

Date of Sampling: 15.06.22 – 22.06.22
Job Number: LD10385
Pressure Trend:
Instrument Type: Waterra pump, peristaltic pump

Monitoring Location	Borehole Diameter (mm)	Standpipe Diameter (mm)	Depth to Product (mbgl)	Depth to Water (mbgl)	Depth to Base (mbgl)	Volume of Water in Borehole (l)	Volume of Water Purged (l)	Depth Water Post Purge (mbgl)	Notes
15.06.22									
CP201	200	50	-	2.6	7.8	10.19	30.63	-	
CP202	200	50	-	2.2	15.05	25.18	91	-	
CP207	200	50	-	7.3	19	22.93	107.1	-	
RH205	200	50	-	26.6	50.8	47.4	126	-	
16.06.22									
CP102/RH110	200	50	-	21.78	22.45	-	-	-	Dry possibly silted up
RH203	200	50	-	31.61	50	36.04	108	-	Reddish brown sandy water
CP114/RH108	200	50	-		4	Dry	-	-	Silted up
RH201	200	50	-	29.38	41.9	24.53	-	-	Waterra pump broke

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Water Sampling Pro Forma

Monitoring Location	Total Dissolved Solids	pH	Temp	Oxidation Reduction Potential	Electrical Conductivity	Dissolved Oxygen		Notes
	(mg/l)	(Units)	(°C)	(mV)	(µs/cm)	(mg/l)	(% saturation)	
15.06.22								
CP202	2789	6.74	11.28	-0144.9	4291	0.5	4.6	Grey foamy water with putrid odour. SSG:1.3 SAL:1.27
CP207	1144	7.64	10.8	-0092.6	1761	0.51	4.6	Brown silty water SAL:0.87 SSG:0.2
RH205	542	7.4	11.1	-0008.5	0835	4.63	42.4	Brown sandy water SSG: 0
16.06.22								
Rh203	1161	7.52	14.78	+84.4	1787	6.32	62.7	SAL:0.88 SSG:0
Downstream canal	196	8.55	24.2	+28	302	8.88	106.2	SAL:0.1 SSG:0
Upstream canal	178	8.24	22.7	+45.5	274	8.95	104.3	SAL:0.09 SSG:0
Mid-stream canal	166	7.93	21.9	+78.5	256	9.4	106.4	Sal:0.08 Ssg:0

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Water Sampling Pro Forma

Monitoring Location	Borehole Diameter (mm)	Standpipe Diameter (mm)	Depth to Product (mbgl)	Depth to Water (mbgl)	Depth to Base (mbgl)	Volume of Water in Borehole (l)	Volume of Water Purged (l)	Depth Water Post Purge (mbgl)	Notes
17.06.22									
Cp201		50		2.7	7.85	10.094	30.33		
Ws315		50		3.45	3.95	0.98	2.95		
Cp109		50		2.38	3	20.81	62.55		Stable after 14 litres purged
Ws310		50		1.75	4.05	4.51	13.55		Stable after 7l
Ws306		50		1.3	5.05	7.35	22.1		

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Water Sampling Pro Forma

Monitoring Location	Total Dissolved Solids	pH	Temp	Oxidation Reduction Potential	Electrical Conductivity	Dissolved Oxygen		Notes
	(mg/l)	(Units)	(°C)	(mV)	(µs/cm)	(mg/l)	(% saturation)	
17.06.22								
Cp201	1125	7.17	12.3	-190.9	1729	0	0	Sal: 0.86 Ssg:0.2 101l until stable. Grey putid odour
Ws315	1517	6.99	14.98	-134.8	2427	0	0	Sal:1.23 Ssg:0.1
Cp109	2644	8.14	12.5	-298.8	4069	0	0	Sal:2.14 Ssg:1
Ws310	1204	7.39	11.3	-143.4	1853	0	0	Sal:1.92 Ssg:0.2 Grey putrid odour
Ws306	1088	7.32	11.3	-224.0	1665	0	0	Sal:0.83 Ssg:0.1 Grey putrid odour. 14l purged

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Water Sampling Pro Forma

Client Name: YHG
Site Name: Ten Acres
Weather: Sunny and dry
Ground Conditions: Dry
Operator: JC, JP, EH, AK

Date of Sampling: 15.06.22 – 22.06.22
Job Number: LD10385
Pressure Trend:
Instrument Type: Waterra pump, peristaltic pump

Monitoring Location	Borehole Diameter (mm)	Standpipe Diameter (mm)	Depth to Product (mbgl)	Depth to Water (mbgl)	Depth to Base (mbgl)	Volume of Water in Borehole (l)	Volume of Water Purged (l)	Depth Water Post Purge (mbgl)	Notes
20.06.22									
Ws305		50		2.95	4.15	2.35	7.1		Taken from high up in water column
Ws316		50		2.85	4.02	2.3	7		Grey slightly cloudy*?
Ws309		50		2.45	4.07	3.2	10		
Cp108		50		2.1	5.15	5.98	17.96		
Cp208		50		3.6	12.2	16.85	12		
Ws304		50		DRY					
Ws314		50		DRY					
CP204		50		8.55	17	16.56	49.89		
CP203		50		2.75	7.2	8.7	26.2		

mbgl– metres below ground level

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Water Sampling Pro Forma

Monitoring Location	Total Dissolved Solids	pH	Temp	Oxidation Reduction Potential	Electrical Conductivity	Dissolved Oxygen		Notes
	(mg/l)	(Units)	(°C)	(mV)	(µs/cm)	(mg/l)	(% saturation)	
20.06.22								
WS305	1188	6.42	10.1	-110.4	1836	0	0	SAL: 0.9 SSG:0.4
WS316	842	6.63	10.2	-82.7	1296	0	0	SAL:0.61 SSG:0.1
WS309	1079	6.6	10.1	-129.3	1660	0	0	SAL:0.82 SSG:0.3
CP108	778	6.9	10.5	-144.9	1197	0	0	SAL:0.57 SSG:0
CP208	767	6.78	12.4	-40.2	1180	0	0	SAL:0.56 SSG:0

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Water Sampling Pro Forma

Client Name: YHG
Site Name: Ten Acres
Weather: Sunny and dry
Ground Conditions: Dry
Operator: JC, JP, EH, AK

Date of Sampling: 15.06.22 – 22.06.22
Job Number: LD10385
Pressure Trend:
Instrument Type: Waterra pump, peristaltic pump

Monitoring Location	Borehole Diameter (mm)	Standpipe Diameter (mm)	Depth to Product (mbgl)	Depth to Water (mbgl)	Depth to Base (mbgl)	Volume of Water in Borehole (l)	Volume of Water Purged (l)	Depth Water Post Purge (mbgl)	Notes
21.06.22									
CP203		50		2.75	7.25	8.82	26.5		
WS312		50		2.67	4.87	4.31	12.96		
WS308		50		2.65	4.05	2.74	8.24		
CP204		50		8.75	17.00				
RH201		50		41.70	41.70				
22.06.22									
RH201		50		29.30	41.50	29.91	71.80		
CP206		50		4.04	13.90		58.07		

mbgl– metres below ground level

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Water Sampling Pro Forma

Monitoring Location	Total Dissolved Solids	pH	Temp	Oxidation Reduction Potential	Electrical Conductivity	Dissolved Oxygen		Notes
	(mg/l)	(Units)	(°C)	(mV)	(µs/cm)	(mg/l)	(% saturation)	
21.06.22								
CP203	1371	6.65	10.6	-0113.3	2110	1.02	9.3	SAL:1.06 SSG:0.4
WS312	1168	6.58	10.8	-59.4	1798	1.83	16.7	SAL:0.88 SSG:0.2
WS308	1014	6.92	10.2	-178.8	1561	0	0	SAL:0.76 SSG:0.1
CP204								Could not pump with low flow
22.06.22								
RH201	845	6.88	12.6	-14.3	1299	3.12	29.7	SAL:0.02 SSG:0
CP206	1254	6.73	11	-86.1	1930	0.97	9	SAL:0.96 SSG:0.3

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Water Sampling Pro Forma

Monitoring Location	Borehole Diameter (mm)	Standpipe Diameter (mm)	Depth to Product (mbgl)	Depth to Water (mbgl)	Depth to Base (mbgl)	Volume of Water in Borehole (l)	Volume of Water Purged (l)	Depth Water Post Purge (mbgl)	Notes
20.06.22									
RH205		50		26.6	50.82				
WS302		50		1.40	5.15				
WS105		50		0.92	1.86				
WS307		50		1.15	2.8				
WS106		50		1.71	1.82				
RH106		50		3.80	7.00				Blocked up to 7.00m.
WS303		50		2.55	5.02				Putrid odour

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Water Sampling Pro Forma

Monitoring Location	Borehole Diameter (mm)	Standpipe Diameter (mm)	Depth to Product (mbgl)	Depth to Water (mbgl)	Depth to Base (mbgl)	Volume of Water in Borehole (l)	Volume of Water Purged (l)	Depth Water Post Purge (mbgl)	Notes
21.06.22									
WS301		50		2.74	2.95				Putrid odour
CP210		50		9.10	17.41				
WS313		50		DRY	4.00				
CP205		50		3.05	7.60				
WS319		50		2.20	3.08				
WS317		50		2.80	5.00				

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RECORD OF MEASUREMENTS FOR GAS MONITORING BOREHOLES

Client Name:
Site Name: Ten Acres
Weather: Sunny, Very hot
Ground Conditions:
Operator: JP AK

Date of Sampling: 18/07/2022
Job Number: LD10385
Pressure Trend:
Instrument Type: GFM 436

Borehole Ref.	CH_4% by Volume		CO_2 % by Volume		O_2 % by Volume		Flow Rate l/hr		Sample Type	Barometric Pressure (mb)	Relative Pressure (mb)	Depth to Water (m BtC)	Depth to Base (mBtC)	Notes
	Peak	Steady	Peak	Steady	Peak (low)	Steady	Peak	Steady						
RH206	-	-	-	-	-	-	0.3	0		1012	0	22	44.5	
CP108	-	-	-	-	-	-	0	0		1012	0	2.36	5.53	
WS309	-	-	-	-	-	-	0	0		1010	0	2.45	4.05	
WS306	-	-	-	-	-	-	0	0		1009	0	1.4	5.05	
WS311	6	6	10	10	0.9	0.9	0	0		1009	0	DRY	2.05	
CP202	0.1	0	0.2	0.2	21.1	21.5	0	0		1008	0	2.25	15.05	H2S: 0 CO: 0 HEX: 0

Borehole Ref.	CH_4% by Volume		CO_2 % by Volume		O_2 % by Volume		Flow Rate l/hr		Sample Type	Barometric Pressure (mb)	Relative Pressure (mb)	Depth to Water (m BtC)	Depth to Base (mBtC)	Notes
	Peak	Steady	Peak	Steady	Peak (low)	Steady	Peak	Steady						
WS303	0	0	5.7	5.7	12.9	12.9	0	0		1008	0	2.6	4.95	H2S: 0 CO: -10 HEX: 254
RH101	-	-	-	-	-	-	-	-		-	-	3.05	19.75	
WS109	-	-	-	-	-	-	-	-		-	-	DRY	1.75	
WS307	-	-	-	-	-	-	-	-		-	-	1.25	2.97	
WS310	-	-	-	-	-	-	-	-		-	-	1.8	4	
CP109	-	-	-	-	-	-	-	-		-	-	2.55	13.05	
CP207	0.3	0.3	2.4	2.4	15.3	15.3	0	0		1008	0	7.38	19.62	H2S: 0 CO: 0 HEX: 0.035
RH205	0	0	0	0	19.9	19.9	0	0		1008	0	26.6	50.5	H2S: 0 CO: 0 HEX: 0.011
WS105	0.5	0.5	1.7	1.7	16.4	16.4	0	0		1008	0	1.05	1.88	H2S: 0 CO: 0 HEX: 0.221

Borehole Ref.	CH_4% by Volume		CO_2 % by Volume		O_2 % by Volume		Flow Rate l/hr		Sample Type	Barometric Pressure (mb)	Relative Pressure (mb)	Depth to Water (m BtC)	Depth to Base (mBtC)	Notes Steady or Peak / Steady
	Peak	Steady	Peak	Steady	Peak (low)	Steady	Peak	Steady						
WS302	0.3	0.3	4.2	4.2	15.3	15.3	0	0		1008	0	1.46	5.14	H2S: 0 CO: 0 HEX: 0
WS312	-0.3	-0.3	0.9	0.9	20.1	20.1	0	0		1008	0	2.8	4.9	H2S: 0 CO: 0 HEX: 0
CP203	-0.3	-0.3	0.2	0.2	21.4	21.5	0	0		1007	0	2.9	7.25	H2S: 0 CO: 0 HEX: 0
CP206	0	-0.2	0.3	0.3	20.9	20.9	0	0		1007	0	4.15		H2S: 0 CO: 0 HEX: 0
CP205	0	-0.3	0.3	0.3	21	21	0	0		1007	0	3.28	7.26	H2S: 0 CO: 0 HEX: 0
CP112/R H103	-	-	-	-	-	-	-	-		-	-	7.55	26.95	NO BUNG OR HEADWORKS
CP204	0	-0.3	0.2	0.2	21.4	21.4	0	0		1007	0	TUBING STUCK	TUBING STUCK	H2S: 0 CO: 0 HEX: 0
WS313	0	-0.4	2.9	2.9	18.7	18.7	0	0		1007	0	DRY	4.04	H2S: 0 CO: 0 HEX: 0
WS120	-	-	-	-	-	-	-	-		-	-	DRY	1.74	NO BUNG

Borehole Ref.	CH_4% by Volume		CO_2 % by Volume		O_2 % by Volume		Flow Rate l/hr		Sample Type	Barometric Pressure (mb)	Relative Pressure (mb)	Depth to Water (m BtC)	Depth to Base (mBtC)	Notes
	Peak	Steady	Peak	Steady	Peak (low)	Steady	Peak	Steady						Steady or Peak / Steady
WS308	0	-0.4	7.1	7.1	21.7	21.7	0	0		1007	0	2.76	4.05	H2S: 0 CO: 0 HEX: 0
WS113	-	-	-	-	-	-	-	-		-	-	1.5	1.85	
RH201	-0.4	-0.4	0	0	21.7	21.7	0	0		1007	0	29.3		H2S: 0 CO: 0 HEX: 0
WS316	-0.1	-0.1	2.9	2.9	18.8	18.8	0	0		1011	0	3.45	4.4	H2S: 0 CO: 0 HEX: <<
WS301	-0	0	6.6	6.6	10.2	10.2	0	0		1011	0	3.09	3.12	H2S: 0 CO: 0 HEX: 0
CP201	0	0	0.2	0.2	21.2	21.2	0.1	0.1		1009	0	3.18	8.2	H2S: 0 CO: 0 HEX: 0
CP107	0	0	0.1	0.1	21.5	21.5	0	0		1010	0	3.72	9.16	H2S: 0 CO: 0 HEX: ?
WS315	-0.1	-0.1	2.2	2.2	18.8	18.8	0.1	0.1		1009	1	4.05	4.47	H2S: 0 CO: 0 HEX: 0
CP208	-0.1	-0.1	0.3	0.3	21.2	21.2	0	0		1009	0	4.21	12.51	H2S: 0 CO: 0 HEX: 0

Borehole Ref.	CH_4% by Volume		CO_2 % by Volume		O_2 % by Volume		Flow Rate l/hr		Sample Type	Barometric Pressure (mb)	Relative Pressure (mb)	Depth to Water (m BtC)	Depth to Base (mBtC)	Notes
	Peak	Steady	Peak	Steady	Peak (low)	Steady	Peak	Steady						Steady or Peak / Steady
WS111	-0.1	-0.1	1.4	1.4	7.3	7.3	0	0		1008	0	DRY	2	H2S: 0 CO: 0 HEX: 0
CP209	0	0	0	0	20.9	20.9	0	0		1012	0	1.54	7.53	H2S: 0 CO: 0 HEX: 0
WS103	-0.1	-0.1	3.7	3.7	14.7	14.7	0	0		1012	0	1.8	2.26	H2S: 0 CO: 0 HEX: 0
WS318	-0.1	-0.1	2.9	2.9	18.3	18.3	0	0		1012	0	3.44	5.59	H2S: 0 CO: 0 HEX: 0
WS305	-0.1	-0.1	2.9	2.9	20.2	20.2	0.1	0.1		1011	1	3.48	4.68	H2S: 0 CO: 0 HEX: 0
RH204	0	0	0.6	0.6	20.3	20.3	0	0		1011	0	24.8	47.23	
WS117	-0.1	-0.1	5.8	5.8	13.5	13.5	0	0		1011	0	2.74	3.5	
WS113	0	0	1.6	1.6	19	19	0	0		1011	0	1.96	1.97	
CP102	-	-	-	-	-	-	-	-		-	-	DRY	2.57	NO BUNG

Borehole Ref.	CH_4% by Volume		CO_2 % by Volume		O_2 % by Volume		Flow Rate l/hr		Sample Type	Barometric Pressure (mb)	Relative Pressure (mb)	Depth to Water (m BtC)	Depth to Base (mBtC)	Notes Steady or Peak / Steady
	Peak	Steady	Peak	Steady	Peak (low)	Steady	Peak	Steady						
WS304	-	-	-	-	-	-	-	-		-	-	DRY	4.56	NO BUNG
WS314	1.5	1.5	0.9	0.9	3	3	0	0		1007	0	DRY	3.99	H2S: 0 CO: 0 HEX: 0.119
RH202	-0.1	-0.1	0.5	0.5	20.1	20.1	0	0		1007	0			TUBE STUCK H2S: 0 CO: 0 HEX: 0
RH203	-0.1	-0.1	0.6	0.6	20.1	20.1	0	0		1008	0	31.94	50.62	H2S: 0 CO: 0 HEX: 0
CP210	-0.1	-0.1	0.6	0.6	19.9	19.9	0	0		1007	0	9.62	10.91	H2S: 0 CO: 0 HEX: 0
WS108	-	-	-	-	-	-	-	-		-	-	DRY	2.02	NO BUNG
WS107	-	-	-	-	-	-	-	-		-	-	1.59	2.22	
CP114	-	-	-	-	-	-	-	-		-	-	9.1	12.69	

RECORD OF MEASUREMENTS FOR GAS MONITORING BOREHOLES

Client Name:
Site Name: Ten Acres
Weather: Sunny, Very hot
Ground Conditions:
Operator: JP AK

Date of Sampling: 01/08/2022
Job Number: LD10385
Pressure Trend:
Instrument Type: GFM 436

Borehole Ref.	CH_4% by Volume		CO_2 % by Volume		O_2 % by Volume		Flow Rate l/hr		Sample Type	Barometric Pressure (mb)	Relative Pressure (mb)	Depth to Water (m BtC)	Depth to Base (mBtC)	Notes Steady or Peak / Steady
	Peak	Steady	Peak	Steady	Peak (low)	Steady	Peak	Steady						
CP102	-	-	-	-	-	-	-	-	-	-	-	DRY	1.3	
CP108	-	-	-	-	-	-	-	-	-	-	-	2.25	5.15	
CP109	-	-	-	-	-	-	-	-	-	-	-	1.6	12.95	
CP109	-	-	-	-	-	-	-	-	-	-	-	3.69	9.1	
CP112/ RH103	-	-	-	-	-	-	-	-	-	-	-	7.5	26.9	
CP114	-	-	-	-	-	-	-	-	-	-	-	DRY	4	

Borehole Ref.	CH_4% by Volume		CO_2 % by Volume		O_2 % by Volume		Flow Rate l/hr		Sample Type	Barometric Pressure (mb)	Relative Pressure (mb)	Depth to Water (m BtC)	Depth to Base (mBtC)	Notes Steady or Peak / Steady
	Peak	Steady	Peak	Steady	Peak (low)	Steady	Peak	Steady						
CP201	-	-	-	-	-	-	-	-	-	-	-	3.09	8.12	
CP202A	-	-	-	-	-	-	-	-	-	-	-	2.44	15	Putrid
CP203	-	-	-	-	-	-	-	-	-	-	-	3	7.25	
CP204	-	-	-	-	-	-	-	-	-	-	-	8.7	16.8	
CP205	-	-	-	-	-	-	-	-	-	-	-	3.4	7.67	
CP206	-	-	-	-	-	-	-	-	-	-	-	4.25	13.95	
CP207	-	-	-	-	-	-	-	-	-	-	-	7.5	19.2	
CP208	-	-	-	-	-	-	-	-	-	-	-	4.13	12.47	
CP209	-	-	-	-	-	-	-	-	-	-	-	1.36	7.28	

Borehole Ref.	CH_4% by Volume		CO_2 % by Volume		O_2 % by Volume		Flow Rate l/hr		Sample Type	Barometric Pressure (mb)	Relative Pressure (mb)	Depth to Water (m BtC)	Depth to Base (mBtC)	Notes Steady or Peak / Steady
	Peak	Steady	Peak	Steady	Peak (low)	Steady	Peak	Steady						
CP210	-	-	-	-	-	-	-	-	-	-	-	9.46	17.68	
RH101	-	-	-	-	-	-	-	-	-	-	-	3.18	19.7	
RH106	-	-	-	-	-	-	-	-	-	-	-	DRY	3.95	
RH201	-	-	-	-	-	-	-	-	-	-	-	29.28	41.15	
RH202	-	-	-	-	-	-	-	-	-	-	-	30.26	50.76	
RH203	-	-	-	-	-	-	-	-	-	-	-	31.85	50.48	
RH204	-	-	-	-	-	-	-	-	-	-	-	DRY	11.4	Tube stuck
RH205	-	-	-	-	-	-	-	-	-	-	-	26.6	50.35	
RH206	-	-	-	-	-	-	-	-	-	-	-	21.95	44.45	

Borehole Ref.	CH_4% by Volume		CO_2 % by Volume		O_2 % by Volume		Flow Rate l/hr		Sample Type	Barometric Pressure (mb)	Relative Pressure (mb)	Depth to Water (m BtC)	Depth to Base (mBtC)	Notes Steady or Peak / Steady
	Peak	Steady	Peak	Steady	Peak (low)	Steady	Peak	Steady						
WS103	-	-	-	-	-	-	-	-	-	-	-	1.55	2	
WS104	-	-	-	-	-	-	-	-	-	-	-	DRY	1.75	
WS105	-	-	-	-	-	-	-	-	-	-	-	1.1	1.9	
WS107	-	-	-	-	-	-	-	-	-	-	-	1.42	2	
WS108	-	-	-	-	-	-	-	-	-	-	-	DRY	2	
WS109	-	-	-	-	-	-	-	-	-	-	-	DRY	1.76	
WS111	-	-	-	-	-	-	-	-	-	-	-	DRY	1.63	
WS112	-	-	-	-	-	-	-	-	-	-	-	DRY	1.96	
WS113	-	-	-	-	-	-	-	-	-	-	-	1.6	1.85	No bung

Borehole Ref.	CH_4% by Volume		CO_2 % by Volume		O_2 % by Volume		Flow Rate l/hr		Sample Type	Barometric Pressure (mb)	Relative Pressure (mb)	Depth to Water (m BtC)	Depth to Base (mBtC)	Notes Steady or Peak / Steady
	Peak	Steady	Peak	Steady	Peak (low)	Steady	Peak	Steady						
WS120	-	-	-	-	-	-	-	-	-	-	-	DRY	1.75	
WS301	-	-	-	-	-	-	-	-	-	-	-	3.17	3.21	
WS302	-	-	-	-	-	-	-	-	-	-	-	1.45	5.15	
WS303	-	-	-	-	-	-	-	-	-	-	-	2.65	5	
WS304	-	-	-	-	-	-	-	-	-	-	-	4.24	4.25	
WS305	-	-	-	-	-	-	-	-	-	-	-	3.42	4.4	
WS306	-	-	-	-	-	-	-	-	-	-	-	1.46	5.1	
WS307	-	-	-	-	-	-	-	-	-	-	-	1.3	3.02	
WS308	-	-	-	-	-	-	-	-	-	-	-	2.85	4.05	

Borehole Ref.	CH_4% by Volume		CO_2 % by Volume		O_2 % by Volume		Flow Rate l/hr		Sample Type	Barometric Pressure (mb)	Relative Pressure (mb)	Depth to Water (m BtC)	Depth to Base (mBtC)	Notes Steady or Peak / Steady
	Peak	Steady	Peak	Steady	Peak (low)	Steady	Peak	Steady						
WS310	-	-	-	-	-	-	-	-	-	-	-	1.9	4.05	
WS311	-	-	-	-	-	-	-	-	-	-	-	DRY	2.1	
WS312	-	-	-	-	-	-	-	-	-	-	-	2.9	4.9	
WS313	-	-	-	-	-	-	-	-	-	-	-	DRY	4.05	
WS314	-	-	-	-	-	-	-	-	-	-	-	DRY	3.96	
WS315	-	-	-	-	-	-	-	-	-	-	-	3.97	4.28	
WS316	-	-	-	-	-	-	-	-	-	-	-	3.47	4.42	
WS317	-	-	-	-	-	-	-	-	-	-	-	2.83	3.45	
WS318	-	-	-	-	-	-	-	-	-	-	-	3.38	5.39	

A P P E N D I X K

Groundwater Development and Sampling Records

Well Development Data

Client Name: Your Housing Group Ltd. **Job Number: LD10162**

Site Name: Ten Acres Lane - Newton Heath

Date	Borehole	Depth to water (m bgl)	Depth to Base (m bgl)	Notes
09/11/2020	CP110	2.61	3.86	10x well volume removed. Water was silty.
	RH106	24.81	41.87	43 litres removed, well dry with very slow recharge
	RH102	2.65	13.54	No bung. Water silty with very strong rotten egg odour. 10x well volume removed - water appears clearer.
	RH110	21.76	22.55	Unable to remove any water
	CP103a	5.29	8.61	Taller pipe. Rotten egg odour. 10x well volume removed.
	CP103b	5.23	6.13	Shorter pipe. Rotten egg odour. 10x well volume removed.
	RH101	9.47	20.32	35 litres removed, hole dry.
10/11/2020	CP107	3.46	8.91	10x well volume removed. Water was silty.
	CP113	1.82	3.49	7 litres removed, hole dry. Brown silty water.
	CP109	2.42	12.9	Grey silty water with strong eggy odour
	CP112	7.14	27.22	Silty water with slight eggy odour. Poor headworks
	CP108	1.77	5.14	silty water. 15 litres removed, water running clear.
	WS109	DRY	1.66	-
	WS112	DRY	1.76	-
	WS101	0.44	1.82	7 litres very silty water removed, hole dry.
	WS103	1.15	1.85	10x well volume removed. Water slightly silty.
	RH108	8.64	14.74	Verysilty/sl sandy water removed. 15 litres removed, blocking tubing. After developing base at 13.02m
	RH109a	9.97	15.73	Very silty/sandy water. 30 litres removed, tubing blocked.
	RH109b	9.4	17.06	Very silty/sandy water. 10x well volume removed, very slow.
11/11/2020	WS107	0.25	1.76	10x well volume removed, slow recharge.
	WS108	1.76	2.11	10x well volume removed, slow recharge.
	WS113	1.33	1.8	10x well volume removed, slow recharge.
	WS119	DRY	1.81	-
	WS102	1.25	1.75	10x well volume removed, fast recharge.
	WS120	1.65	1.69	Unable to remove any water
	WS104	1.59	1.78	10x well volume removed, slow recharge.
	WS105	0.9	1.74	10x well volume removed, fast recharge.
	WS106	0.72	1.72	10x well volume removed, fast recharge.
	WS111	0.45	1.38	Silty, slow recharge.

Water Sampling Pro Forma

Client Name: YHG
Site Name: Ten Acres
Weather: Overcast and dry
Ground Conditions: Recently wet
Operator: JC & JP

Date of Sampling: 05-06/05/2022
Job Number: LD10385
Pressure Trend:
Instrument Type: Waterra pump, bailers, HDPE tubing

Monitoring Location	Borehole Diameter (mm)	Standpipe Diameter (mm)	Depth to Product (mbgl)	Depth to Water (mbgl)	Depth to Base (mbgl)	Volume of Water in Borehole (l)	Volume of Water Purged (l)	Depth Water Post Purge (mbgl)	Notes
WS302	-	50	-	~1.5m	5.50	7.84	23.52	-	Light brown water with black plant like detritus.
WS307	-	50	-	~1.0m	3.50	5.00	15.00	-	Light brown water with black plant like detritus. Putrid / solvent odour becoming stronger as developed. Dead bee next to well.
WS306	-	50	-	~1.0m	5.00	8.00	24.00	-	Initially greenish grey becoming brown. Hydrocarbon / putrid odour.
WS310	-	50	-	2.40m	3.90	4.67	14.00	-	Greenish grey with black plant like and fine white detritus. Putrid-hydrocarbon odour.
WS311	-	50	-	Dry	2.50	-	-	-	Dry
WS303	-	50	-	~2.00m	5.50	7.00	21.00	-	Greyish brown water. Putrid odour. Clear on second bucket.
WS301	-	50	-	2.50m	2.90	0.80	0.24	-	No bung. Dark brown with oily sheen and black plant like detritus.
WS309	-	50	-	Dry	1.50	-	-	-	Can see bentonite in standpipe. Base should be at 4.00m.
WS313	-	50	-	Dry	Dry	-	Dry	-	Dry

Please consider the environment before printing this document

Water Sampling Pro Forma

Monitoring Location	Borehole Diameter (mm)	Standpipe Diameter (mm)	Depth to Product (mbgl)	Depth to Water (mbgl)	Depth to Base (mbgl)	Volume of Water in Borehole (l)	Volume of Water Purged (l)	Depth Water Post Purge (mbgl)	Notes
CP202	200	50	-	1.85	14.60	24.99	74.97	-	Gas valve left open. Dark brown with white detritus becoming grey with white froth and strong putrid odour.
CP207	200	50	-	6.10	19.10	25.48	76.44	-	Light brown water.
CP203	200	50	-	~1.00m	7.30	12.40	3700	-	Light brown water.
CP206	200	50	-	~1.00m	13.65	24.79	74.38	-	Light brown with fine sand or ash on surface.
CP204	200	50	-	~1.00m	17.00	31.36	28.00	-	Light brown with fine sand or ash on surface. Only did two buckets as ran dry.
WS308	-	50	-	~1.00m	4.00	5.88	17.64	-	Black oily water. Oily sheen and strong hydrocarbon odour.
WS312	-	50	-	2.75	5.50	5.00	6.00	-	Ran dry half a bucket. Light brown with black droplets.
WS313	-	50	-	Dry	-	-	-	-	Dry
WS314	-	50	-	Dry	3.95	-	-	-	Dry
CP210	200	50	-	~1.00m	17.5	18.30	-	-	Unable to develop as well full of f-m quartz media that was blocking up foot valve.
WS304	-	50	-	Dry	4.15	-	-	-	Dry
CP203	200	50	-	-	7.30	4.80	14.40	-	Light brown silty water. Slight putrid odour
CP206	200	50	-	-	13.65	6.95	20.87	-	No bung or valve. Light brown water with black detritus.

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Water Sampling Pro Forma

Monitoring Location	Borehole Diameter (mm)	Standpipe Diameter (mm)	Depth to Product (mbgl)	Depth to Water (mbgl)	Depth to Base (mbgl)	Volume of Water in Borehole (l)	Volume of Water Purged (l)	Depth Water Post Purge (mbgl)	Notes
CP204	200	50	-		17.00	12.94	38.80	-	Light brown water with black detritus becoming clear by second bucket.
CP205	-	-	-	-	-	-	-	-	No install?
CP209	200	50	-	~1.00m	7.14	11.76	35.30	-	Brown silty water with black detritus.
WS318	-	50	-	-	5.09	6.86	20.58	-	Dark brown water with slight oily sheen and black detritus.
WS306	-	50	-	~2.00m	4.20	4.31	14.00	-	Dark brown water with slight oil sheen. Frequent black detritus.
WS316	-	50	-	~2.00m	4.00	3.92	12.00	-	Dark brown water with slight oil sheen. Frequent black detritus.
WS317	-	50	-	~1.50m	3.13	2.94	14.00	-	Dark brown water with oil sheen. Frequent black detritus. Hydrocarbon odour. Becoming clearer as developed.
CP201	200	50	-	~2.00m	7.70	11.17	33.52	-	No valve. Light brown with strong putrid odour.
CP208	200	50	-	~3.60	11.85	16.17	48.50	-	Light brown water with black detritus.
WS315	-	50	-	~2.50	3.95	3.92	11.76	-	Light brown water with black detritus.

mbgl– metres below ground level

Please consider the environment before printing this document

A P P E N D I X L

PID Results

PID Results

Client Name: Your Housing Group Ltd.
Site Name: Ten Acres Lane - Newton Heath
Job Number: LD10162

Reference	Depth	PIDResult
CP101/RH109	1.5	0.30
CP101/RH109	4.5	0.70
CP101/RH109	6.5	0.20
CP101/RH109	10.5	0.00
CP103	1.5	3.50
CP103	8.5	0.50
CP103	0.5	0.50
CP103	2.5	1.70
CP103	9.5	0.20
CP103	3.5	1.00
CP103	5.5	4.30
CP103	14.5	0.20
CP105	0.5	0.10
CP105	4.5	0.10
CP105	1.5	0.80
CP105	2.5	0.20
CP108	2.4	0.30
CP108	5.1	0.10
CP108	1.5	0.50
CP108	0.5	0.10
CP110	0.6	0.10
CP113	0.8	0.80
CP113	0.5	0.10
CP114/RH108	8.5	0.20
CP114/RH108	0.5	0.10
CP114/RH108	5.5	0.00
TP109	1.1	0.00
TP110	1.2	1.80
TP110	3.3	13.80
TP114	3.6	0.40
TP114	0.9	0.50
TP115	0.4	0.20
TP117	3.6	5.00
TP117	1.7	0.40
TP118	1.8	0.60
TP118	0.5	0.20
TP118	1.8	0.60
TP125	3.3	0.30
TP125	2.4	0.30
TP127	1.2	0.30

TP127	4.35	0.30
TP128	3.6	0.10
TP130	0.3	0.10
TP132	0.3	0.40
TP132	2.6	0.40
TP133	0.6	0.20
TP134	0.2	0.20
TP135	1.2	0.20
TP138	3.3	0.10
TP140	1	0.10
TP142	2.7	0.00
TP145	2.2	0.60
TP145	3.9	2.10
TP146	4.3	1.10
TP146	0.8	0.20
WS101	3	0.00
WS101	0.5	0.00
WS102	2.5	1.00
WS104	5	0.10
WS106	4	0.10
WS106	2.72	0.00
WS107	1.4	1.50
WS108	0.8	5.40
WS109	3.4	0.70
WS109	0.9	0.00
WS109	2.35	0.80
WS119	1.5	8.40

A P P E N D I X M

Geotechnical Results

LABORATORY REPORT

4043

Contract Number: PSL22/3486

Report Date: 24 June 2022

Client's Reference: LD10385

Client Name: Wardell Armstrong
Northspring
36 Park Row
Leeds
LS1 5JL

For the attention of: Elliot Heatherington

Contract Title: Ten Acres Lane

Date Received: 17/5/2022
Date Commenced: 17/5/2022
Date Completed: 24/6/2022

Notes: Opinions and Interpretations are outside the UKAS Accreditation

A copy of the Laboratory Schedule of accredited tests as issued by UKAS is attached to this report. This certificate is issued in accordance with the accreditation requirements of the United Kingdom Accreditation Service. The results reported herein relate only to the material supplied to the laboratory. This certificate shall not be reproduced other than in full, without the prior written approval of the laboratory.

Checked and Approved Signatories:

A Watkins (Director)	R Berriman (Quality Manager)	S Royle (Laboratory Manager)
L Knight (Assistant Laboratory Manager)	S Eyre (Senior Technician)	T Watkins (Senior Technician)

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SUMMARY OF LABORATORY SOIL DESCRIPTIONS

Hole Number	Sample Number	Sample Type	Top Depth m	Base Depth m	Description of Sample
TP242		B	2.50		MADE GROUND brown clayey sand & gravel.
TP254		B	1.30		MADE GROUND brown very sandy clayey gravel with cobbles.
TP204		B	2.50		Dark brown gravelly sandy CLAY.
TP207		B	3.00		MADE GROUND brown clayey sand & gravel.
TP206		B	1.00		MADE GROUND dark brown very gravelly clayey sand.
TP226		B	1.50		MADE GROUND dark brown very gravelly very sandy clay.
TP227A		B	2.50		MADE GROUND brown clayey sand & gravel.
TP259		B	2.80		MADE GROUND brown very gravelly clayey sand.
TP260		B	2.10		MADE GROUND dark brown very gravelly very sandy clay.
TP261		B	2.00		MADE GROUND dark grey very sandy clayey gravel.
TP262		B	2.00		Grey sandy clayey GRAVEL with cobbles.
TP248A		B	1.40		MADE GROUND dark brown very sandy clayey gravel.
TP246A		B	1.50		MADE GROUND dark brown very sandy clayey gravel.
TP217A		B	1.60		MADE GROUND dark brown very sandy clayey gravel with some cobbles.
TP258		B	2.50		MADE GROUND brown clayey sand & gravel.

SUMMARY OF SOIL CLASSIFICATION TESTS

(BS1377 : PART 2 : 1990)

Hole Number	Sample Number	Sample Type	Top Depth m	Base Depth m	Moisture Content % Clause 3.2	Linear Shrinkage % Clause 6.5	Particle Density Mg/m^3 Clause 8.2	Liquid Limit % Clause 4.3/4	Plastic Limit % Clause 5.3	Plasticity Index % Clause 5.4	Passing .425mm %	Remarks
TP242		B	2.50		19		2.51					
TP254		B	1.30		16							
TP204		B	2.50		29		2.61	46	23	23	70	Intermediate Plasticity CI
TP207		B	3.00		25							
TP206		B	1.00		25		2.42					
TP226		B	1.50		20		2.47	44	22	22	51	Intermediate Plasticity CI
TP227A		B	2.50		12		2.42					
TP259		B	2.80		25		2.38					
TP260		B	2.10		14							
TP261		B	2.00		11		2.35					
TP262		B	2.00		7.3							
TP248A		B	1.40		25							
TP246A		B	1.50		25							
TP217A		B	1.60		21		2.32					
TP258		B	2.50		19							

SYMBOLS : **NP : Non Plastic** *** : Liquid Limit and Plastic Limit Wet Sieved.**

UKAS TESTING 4043

PSL Professional Soils Laboratory

Ten Acres Lane

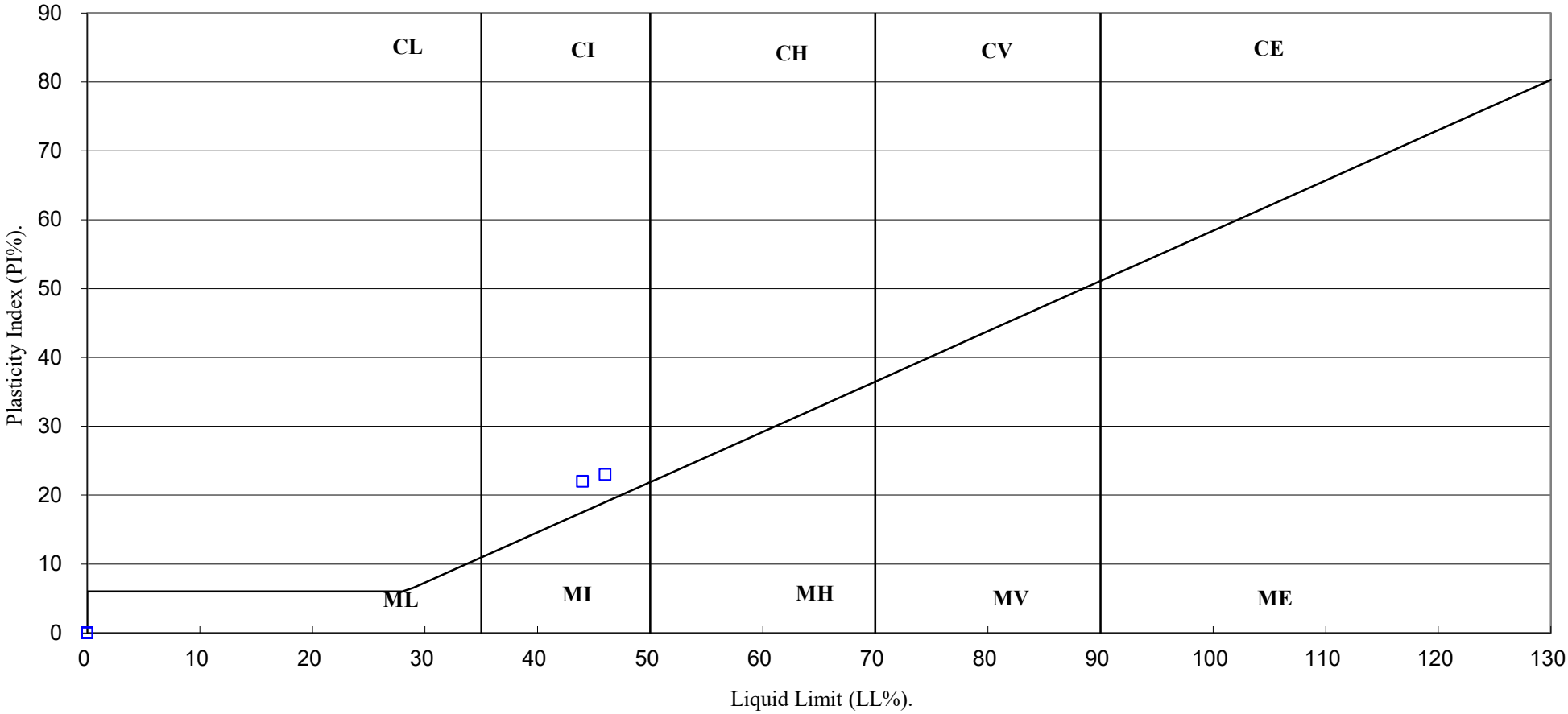
Contract No:

PSL22/3486

Client Ref:

LD10385

PLASTICITY CHART FOR CASAGRANDE CLASSIFICATION.



UKAS TESTING 4043	PSL Professional Soils Laboratory	Ten Acres Lane	Contract No: PSL22/3486 Client Ref: LD10385

PARTICLE SIZE DISTRIBUTION TEST

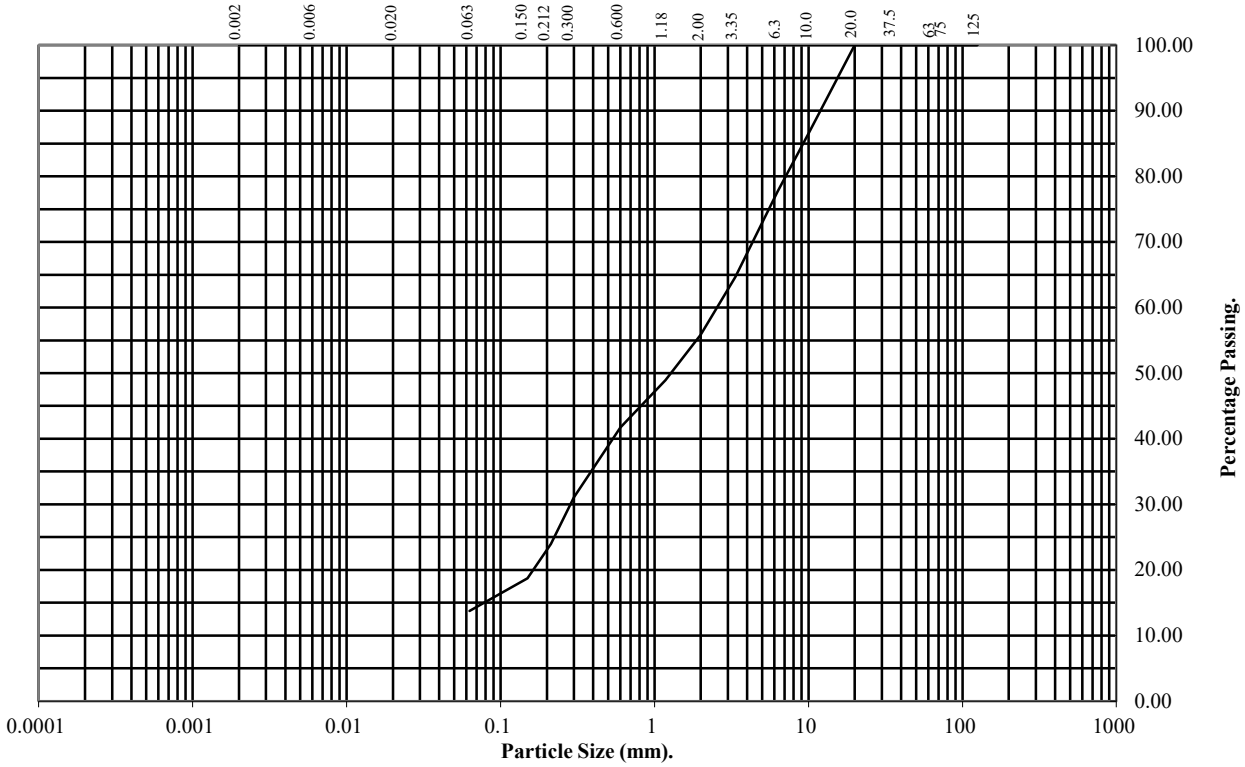
BS1377 : Part 2 : 1990

Wet Sieve, Clause 9.2

Hole Number: TP242 **Top Depth (m):** 2.50

Sample Number: **Base Depth(m):**

Sample Type: B



BS Test Sieve (mm)	Percentage Passing
125	100
75	100
63	100
37.5	100
20	100
10	87
6.3	78
3.35	65
2	56
1.18	49
0.6	42
0.3	31
0.212	24
0.15	19
0.063	14

Soil Fraction	Total Percentage
Cobbles	0
Gravel	44
Sand	42
Silt/Clay	14

Remarks:

See Summary of Soil Descriptions

PARTICLE SIZE DISTRIBUTION TEST

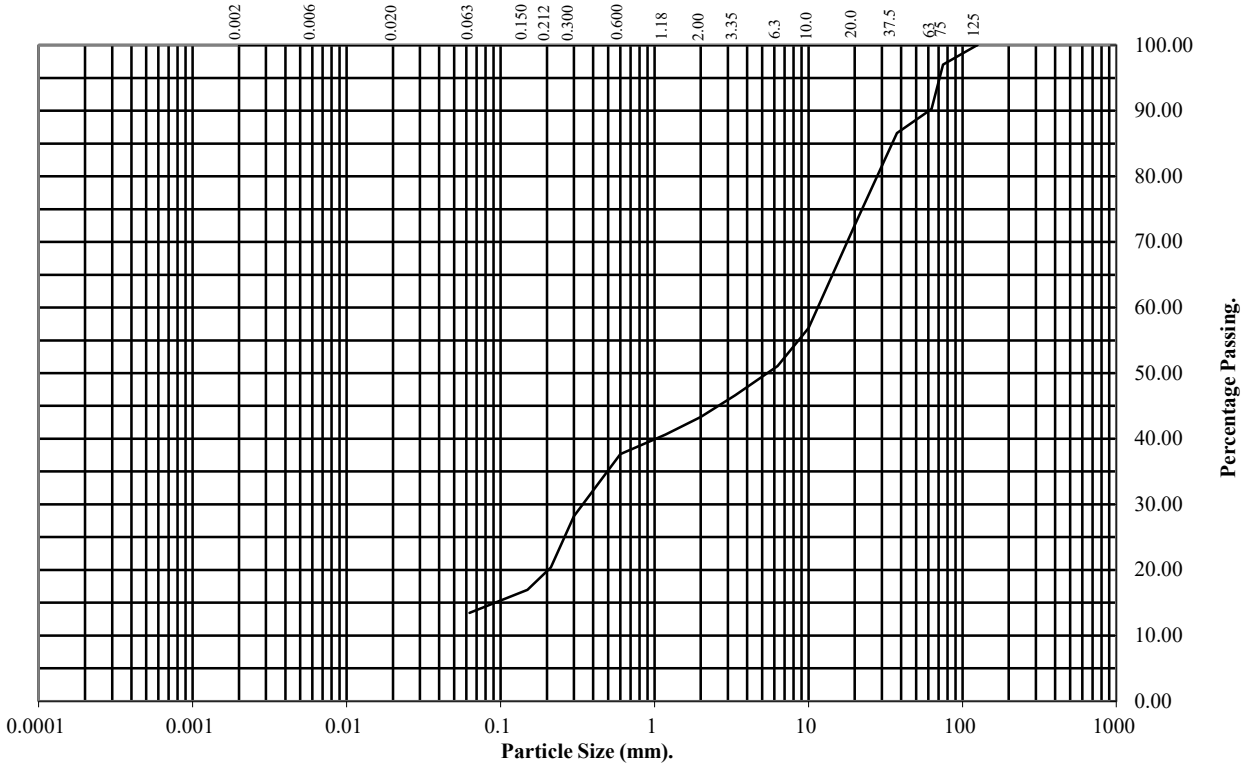
BS1377 : Part 2 : 1990

Wet Sieve, Clause 9.2

Hole Number: **TP254** **Top Depth (m):** **1.30**

Sample Number: **Base Depth(m):**

Sample Type: **B**



BS Test Sieve (mm)	Percentage Passing
125	100
75	97
63	90
37.5	87
20	73
10	57
6.3	51
3.35	47
2	43
1.18	41
0.6	38
0.3	28
0.212	20
0.15	17
0.063	13

Soil Fraction	Total Percentage
Cobbles	10
Gravel	47
Sand	30
Silt/Clay	13

Remarks:

See Summary of Soil Descriptions

PARTICLE SIZE DISTRIBUTION TEST

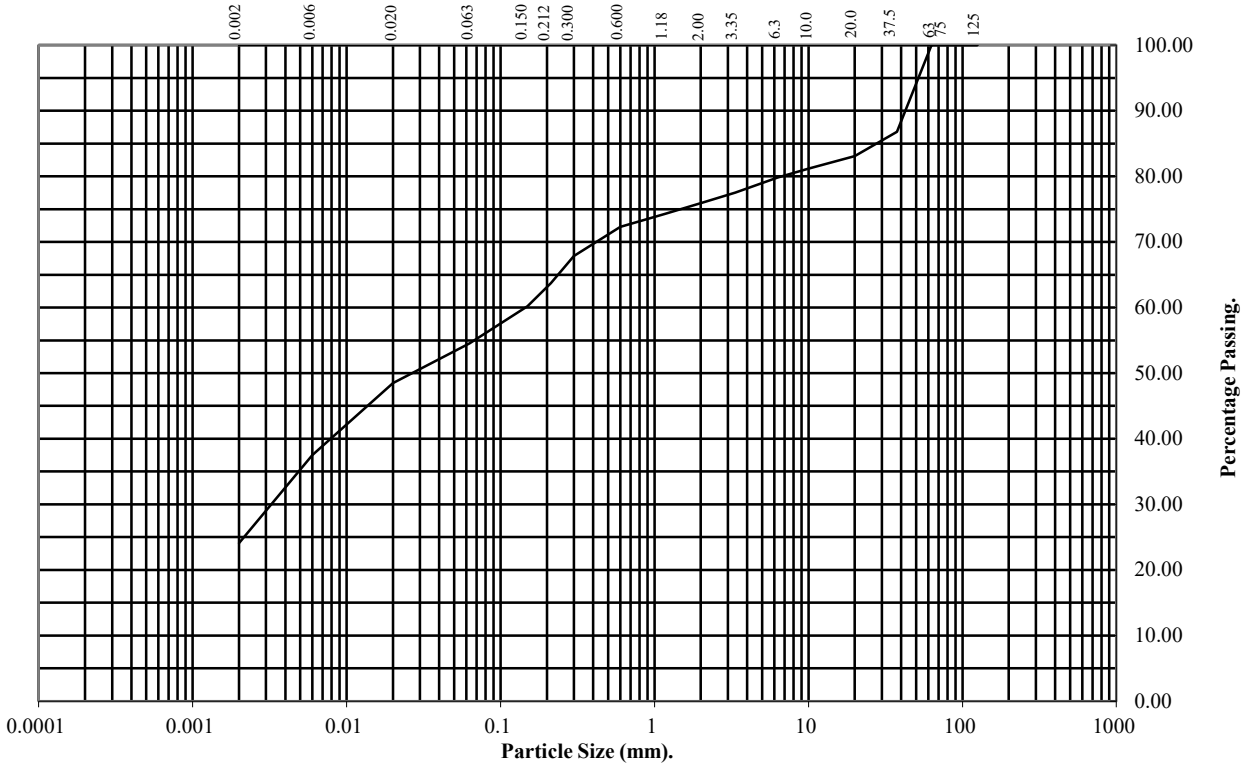
BS1377 : Part 2 : 1990

Wet Sieve & Pipette Analysis, Clause 9.2 & 9.4

Hole Number: TP204 **Top Depth (m):** 2.50

Sample Number: **Base Depth(m):**

Sample Type: B



BS Test Sieve (mm)	Percentage Passing
125	100
75	100
63	100
37.5	87
20	83
10	81
6.3	80
3.35	78
2	76
1.18	74
0.6	72
0.3	68
0.212	64
0.15	60
0.063	55

Particle Diameter	Percentage Passing
0.02	48
0.006	38
0.002	24

Soil Fraction	Total Percentage
Cobbles	0
Gravel	24
Sand	21
Silt	31
Clay	24

Remarks:

See Summary of Soil Descriptions

PARTICLE SIZE DISTRIBUTION TEST

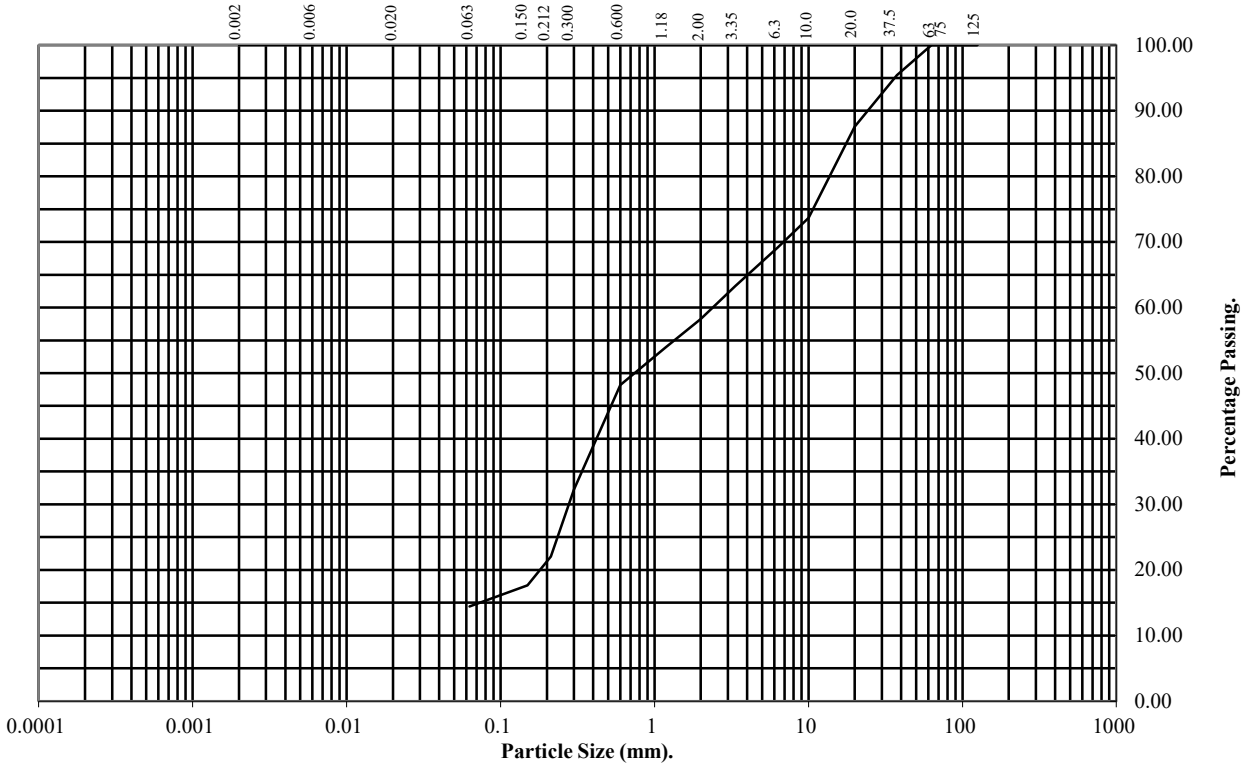
BS1377 : Part 2 : 1990

Wet Sieve, Clause 9.2

Hole Number: TP207 **Top Depth (m):** 3.00

Sample Number: **Base Depth(m):**

Sample Type: B



BS Test Sieve (mm)	Percentage Passing
125	100
75	100
63	100
37.5	95
20	88
10	74
6.3	69
3.35	63
2	58
1.18	54
0.6	48
0.3	32
0.212	22
0.15	18
0.063	14

Soil Fraction	Total Percentage
Cobbles	0
Gravel	42
Sand	44
Silt/Clay	14

Remarks:

See Summary of Soil Descriptions

PARTICLE SIZE DISTRIBUTION TEST

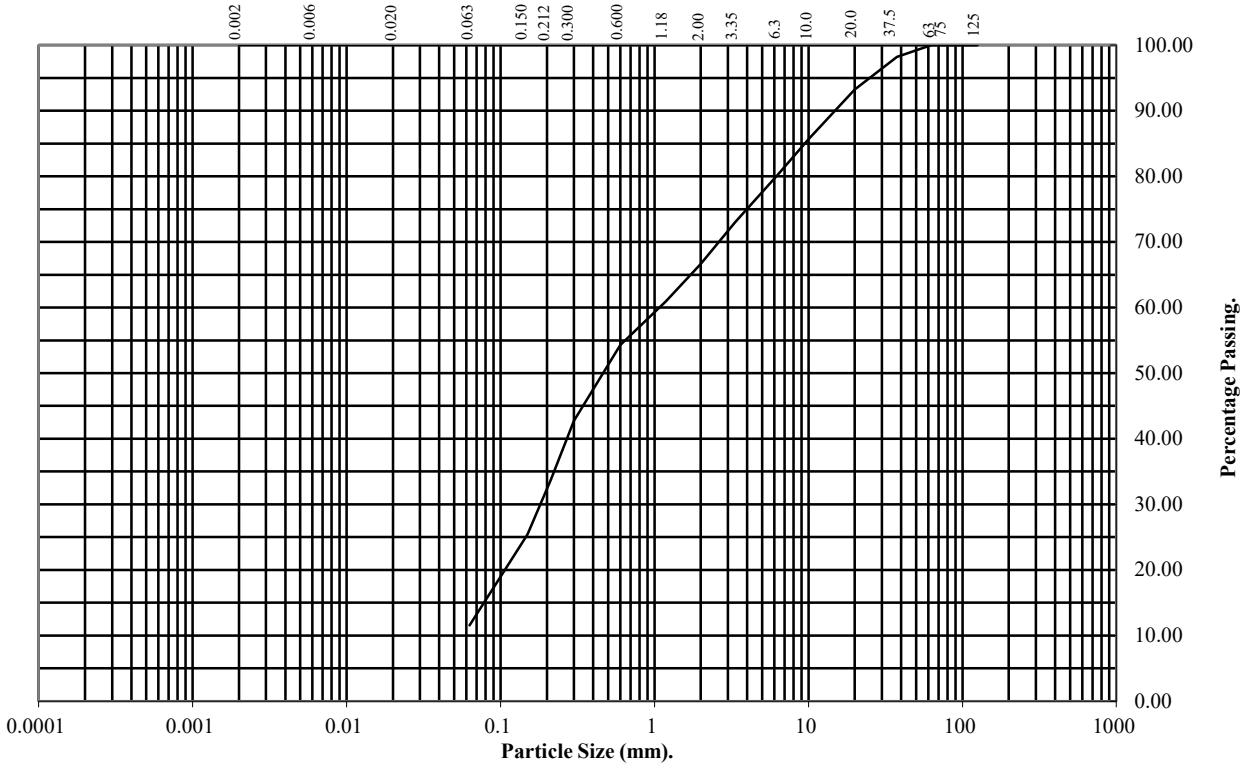
BS1377 : Part 2 : 1990

Wet Sieve, Clause 9.2

Hole Number: TP206 **Top Depth (m):** 1.00

Sample Number: **Base Depth(m):**

Sample Type: B



BS Test Sieve (mm)	Percentage Passing
125	100
75	100
63	100
37.5	98
20	93
10	86
6.3	80
3.35	73
2	67
1.18	61
0.6	54
0.3	43
0.212	34
0.15	25
0.063	12

Soil Fraction	Total Percentage
Cobbles	0
Gravel	33
Sand	55
Silt/Clay	12

Remarks:

See Summary of Soil Descriptions

UKAS TESTING 4043

PSL Professional Soils Laboratory

Ten Acres Lane

Contract No: PSL22/3486

Client Ref: LD10385

PARTICLE SIZE DISTRIBUTION TEST

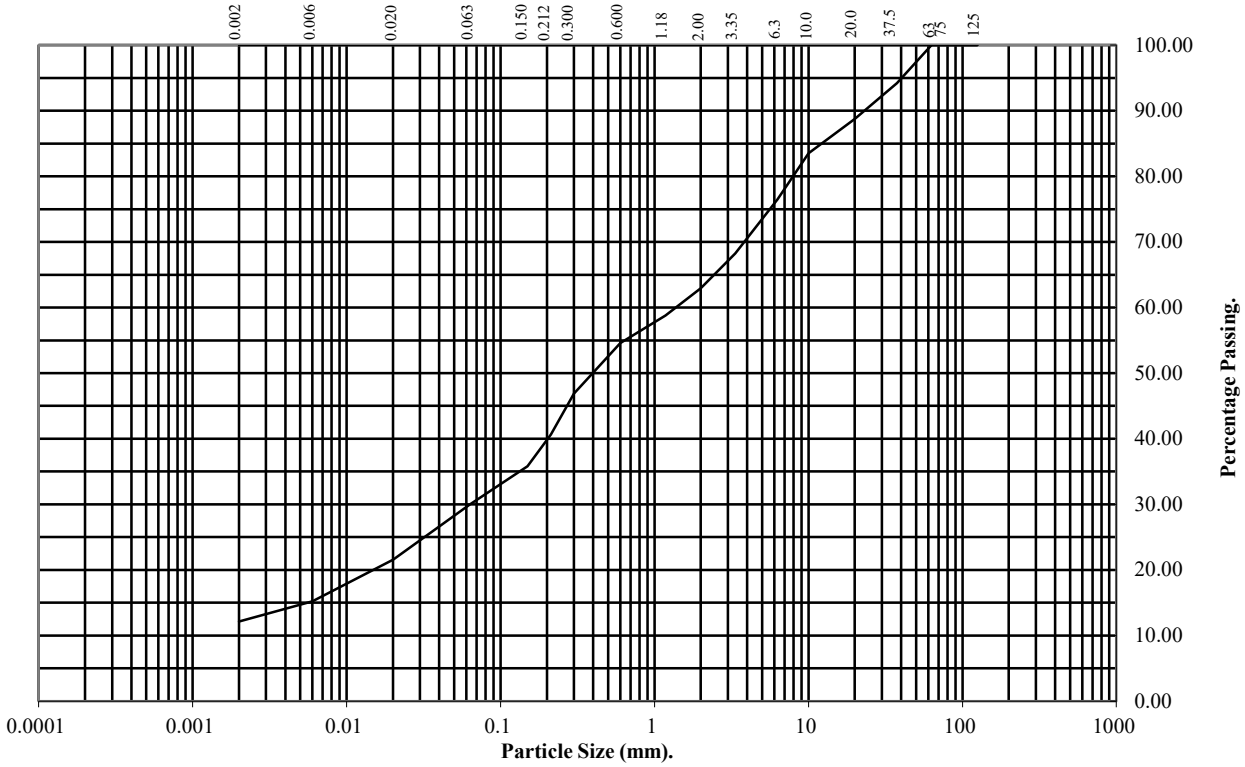
BS1377 : Part 2 : 1990

Wet Sieve & Pipette Analysis, Clause 9.2 & 9.4

Hole Number: TP226 **Top Depth (m):** 1.50

Sample Number: **Base Depth(m):**

Sample Type: B



BS Test Sieve (mm)	Percentage Passing
125	100
75	100
63	100
37.5	94
20	89
10	84
6.3	76
3.35	68
2	63
1.18	59
0.6	55
0.3	47
0.212	41
0.15	36
0.063	30

Particle Diameter	Percentage Passing
0.02	22
0.006	15
0.002	12

Soil Fraction	Total Percentage
Cobbles	0
Gravel	37
Sand	33
Silt	18
Clay	12

Remarks:

See Summary of Soil Descriptions

UKAS TESTING 4043	PSL Professional Soils Laboratory	**Ten Acres Lane**	**Contract No:** PSL22/3486 **Client Ref:** LD10385

PARTICLE SIZE DISTRIBUTION TEST

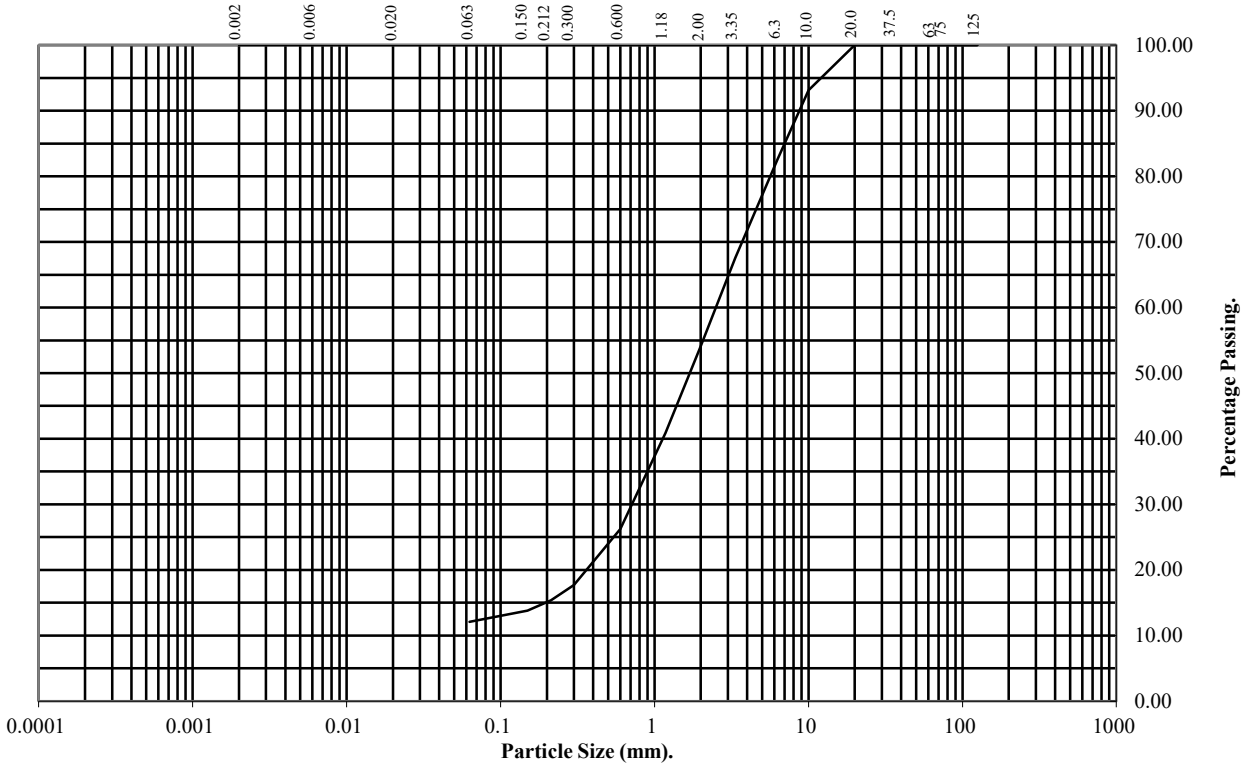
BS1377 : Part 2 : 1990

Wet Sieve, Clause 9.2

Hole Number: TP227A **Top Depth (m):** 2.50

Sample Number: **Base Depth(m):**

Sample Type: B



BS Test Sieve (mm)	Percentage Passing
125	100
75	100
63	100
37.5	100
20	100
10	93
6.3	83
3.35	68
2	54
1.18	41
0.6	26
0.3	18
0.212	15
0.15	14
0.063	12

Soil Fraction	Total Percentage
Cobbles	0
Gravel	46
Sand	42
Silt/Clay	12

Remarks:

See Summary of Soil Descriptions

PARTICLE SIZE DISTRIBUTION TEST

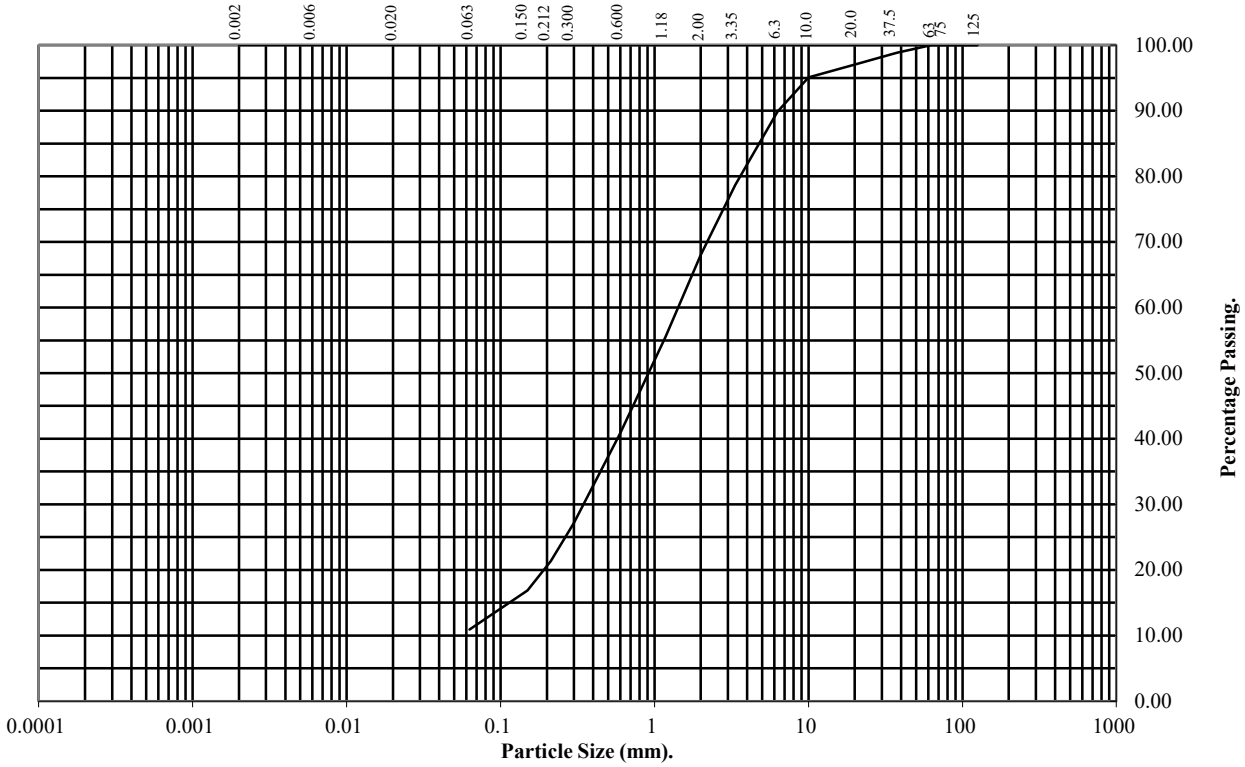
BS1377 : Part 2 : 1990

Wet Sieve, Clause 9.2

Hole Number: **TP259** **Top Depth (m):** **2.80**

Sample Number: **Base Depth(m):**

Sample Type: **B**



BS Test Sieve (mm)	Percentage Passing
125	100
75	100
63	100
37.5	99
20	97
10	95
6.3	90
3.35	79
2	68
1.18	56
0.6	41
0.3	27
0.212	21
0.15	17
0.063	11

Soil Fraction	Total Percentage
Cobbles	0
Gravel	32
Sand	57
Silt/Clay	11

Remarks:

See Summary of Soil Descriptions

PARTICLE SIZE DISTRIBUTION TEST

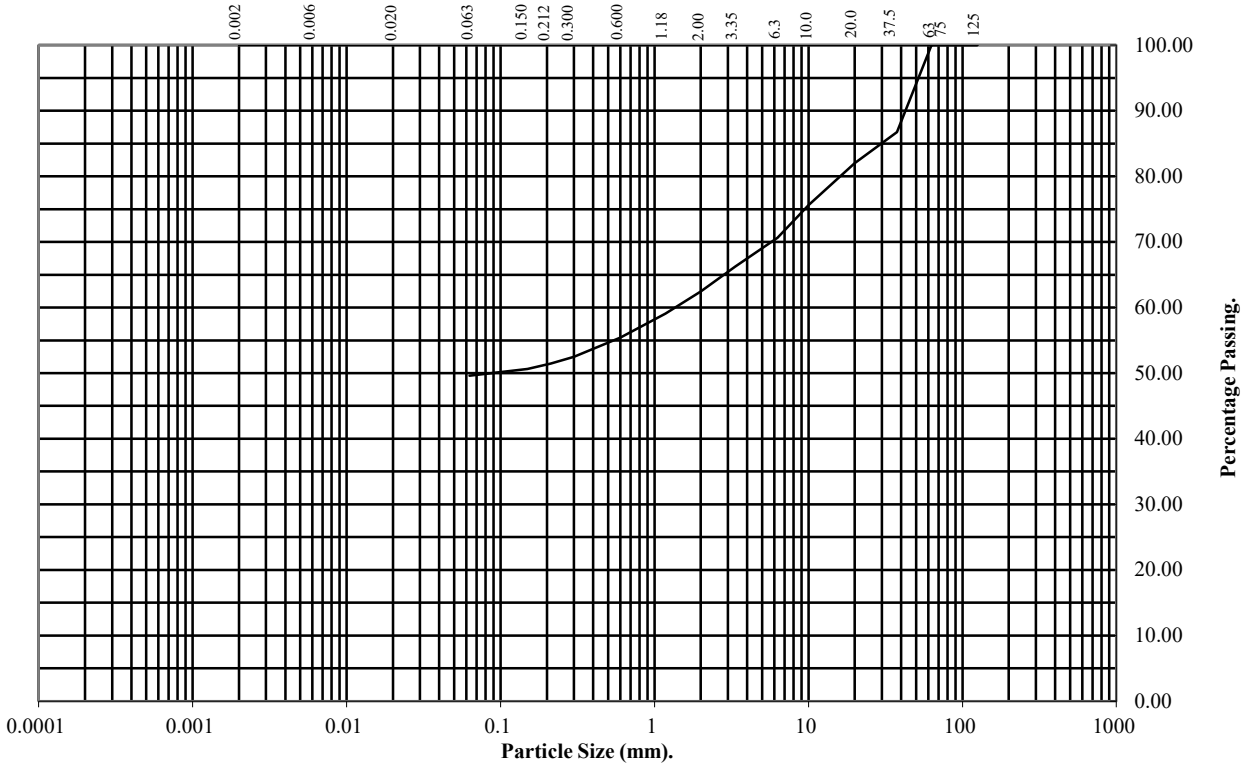
BS1377 : Part 2 : 1990

Wet Sieve, Clause 9.2

Hole Number: TP260 **Top Depth (m):** 2.10

Sample Number: **Base Depth(m):**

Sample Type: B



BS Test Sieve (mm)	Percentage Passing
125	100
75	100
63	100
37.5	87
20	82
10	76
6.3	71
3.35	66
2	62
1.18	59
0.6	55
0.3	53
0.212	51
0.15	51
0.063	50

Soil Fraction	Total Percentage
Cobbles	0
Gravel	38
Sand	12
Silt/Clay	50

Remarks:

See Summary of Soil Descriptions

PARTICLE SIZE DISTRIBUTION TEST

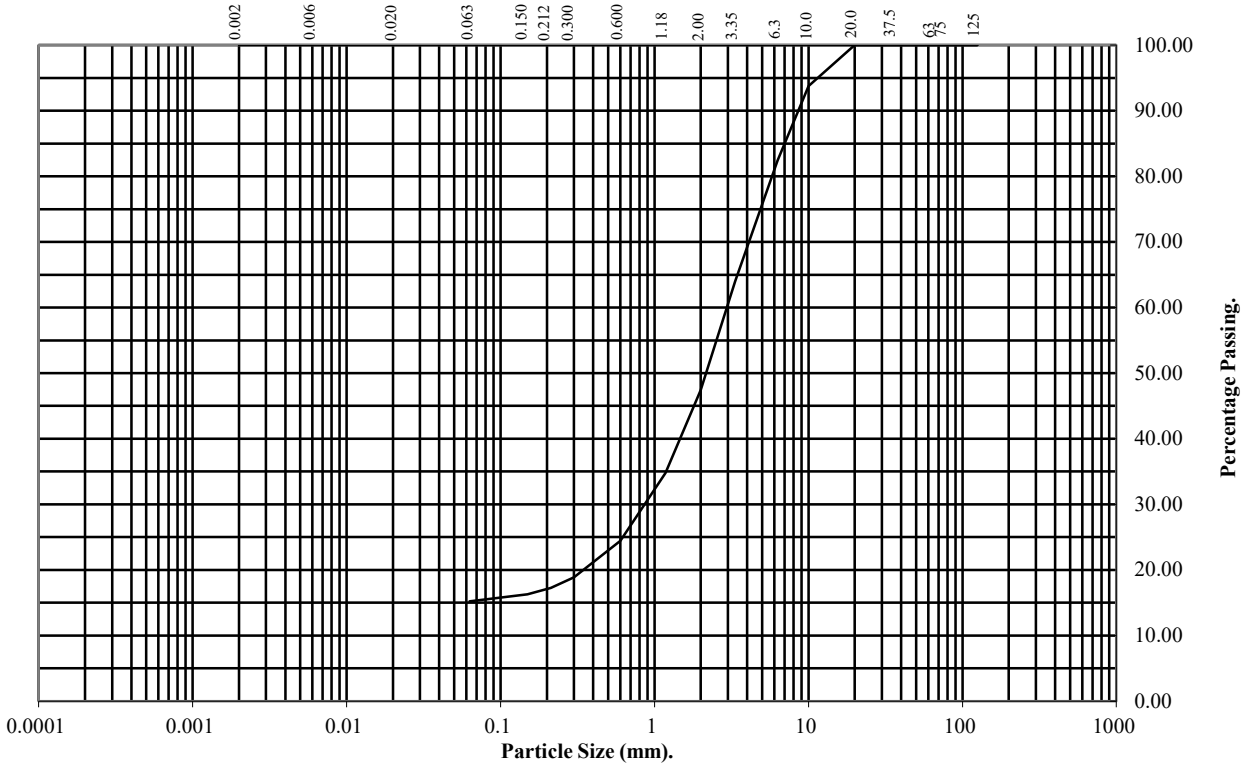
BS1377 : Part 2 : 1990

Wet Sieve, Clause 9.2

Hole Number: **TP261** **Top Depth (m):** **2.00**

Sample Number: **Base Depth(m):**

Sample Type: **B**



BS Test Sieve (mm)	Percentage Passing
125	100
75	100
63	100
37.5	100
20	100
10	94
6.3	82
3.35	64
2	47
1.18	35
0.6	24
0.3	19
0.212	17
0.15	16
0.063	15

Soil Fraction	Total Percentage
Cobbles	0
Gravel	53
Sand	32
Silt/Clay	15

Remarks:

See Summary of Soil Descriptions

PARTICLE SIZE DISTRIBUTION TEST

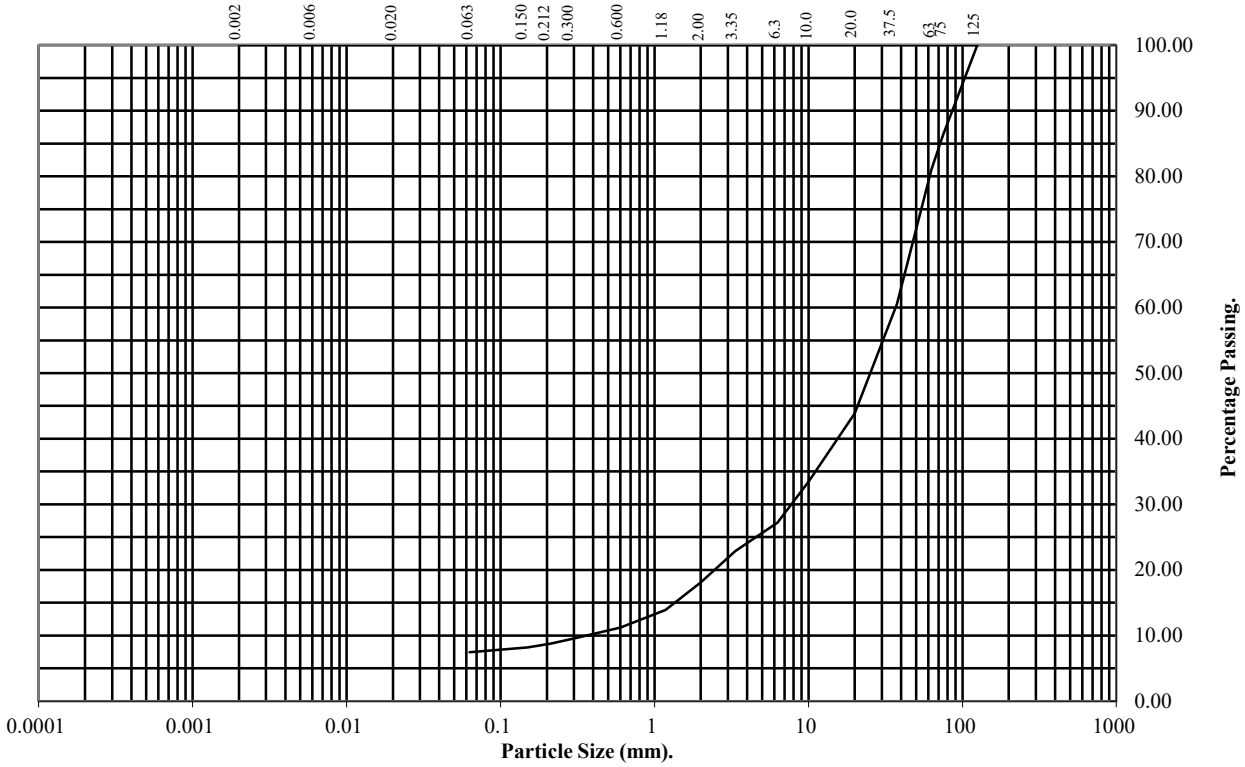
BS1377 : Part 2 : 1990

Wet Sieve, Clause 9.2

Hole Number: **TP262** **Top Depth (m):** **2.00**

Sample Number: **Base Depth(m):**

Sample Type: **B**



BS Test Sieve (mm)	Percentage Passing
125	100
75	86
63	81
37.5	61
20	44
10	33
6.3	27
3.35	23
2	18
1.18	14
0.6	11
0.3	10
0.212	9
0.15	8
0.063	7

Soil Fraction	Total Percentage
Cobbles	19
Gravel	63
Sand	11
Silt/Clay	7

Remarks:

See Summary of Soil Descriptions

PARTICLE SIZE DISTRIBUTION TEST

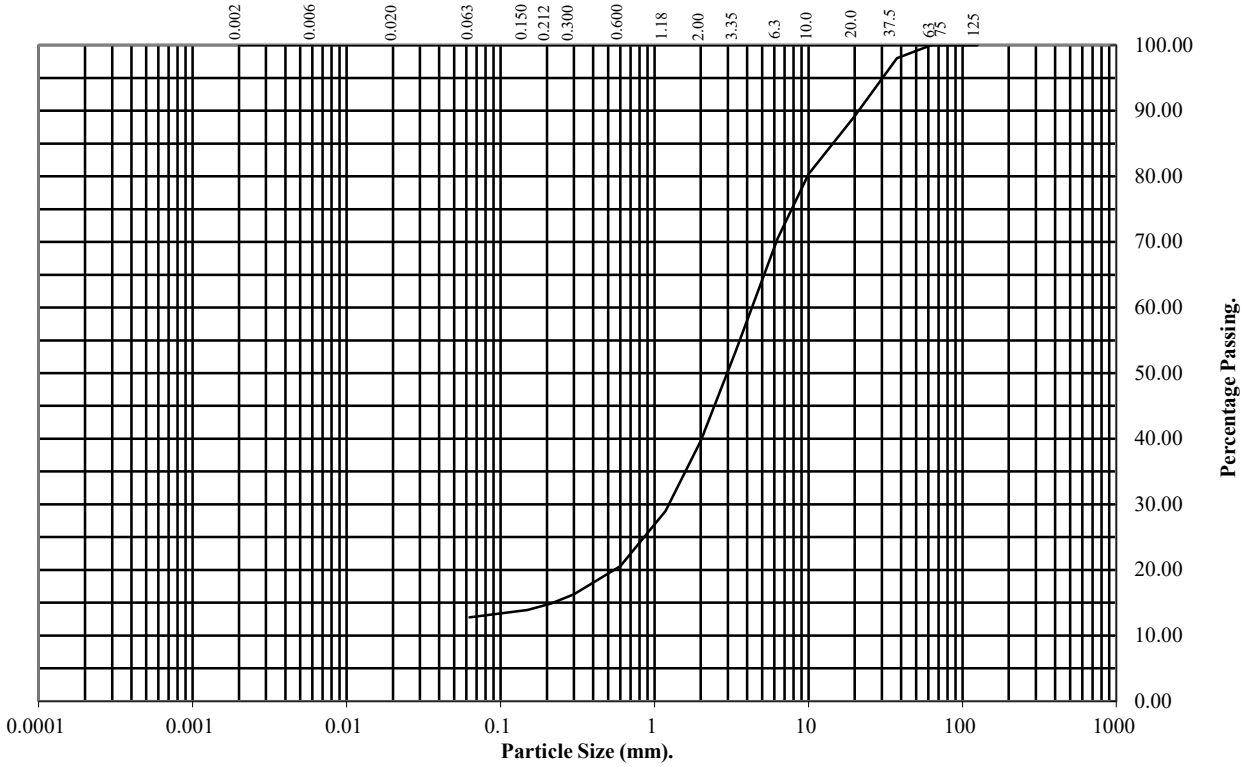
BS1377 : Part 2 : 1990

Wet Sieve, Clause 9.2

Hole Number: **TP248A** **Top Depth (m):** **1.40**

Sample Number: **Base Depth(m):**

Sample Type: **B**



BS Test Sieve (mm)	Percentage Passing
125	100
75	100
63	100
37.5	98
20	89
10	80
6.3	70
3.35	53
2	40
1.18	29
0.6	21
0.3	16
0.212	15
0.15	14
0.063	13

Soil Fraction	Total Percentage
Cobbles	0
Gravel	60
Sand	27
Silt/Clay	13

Remarks:

See Summary of Soil Descriptions

PARTICLE SIZE DISTRIBUTION TEST

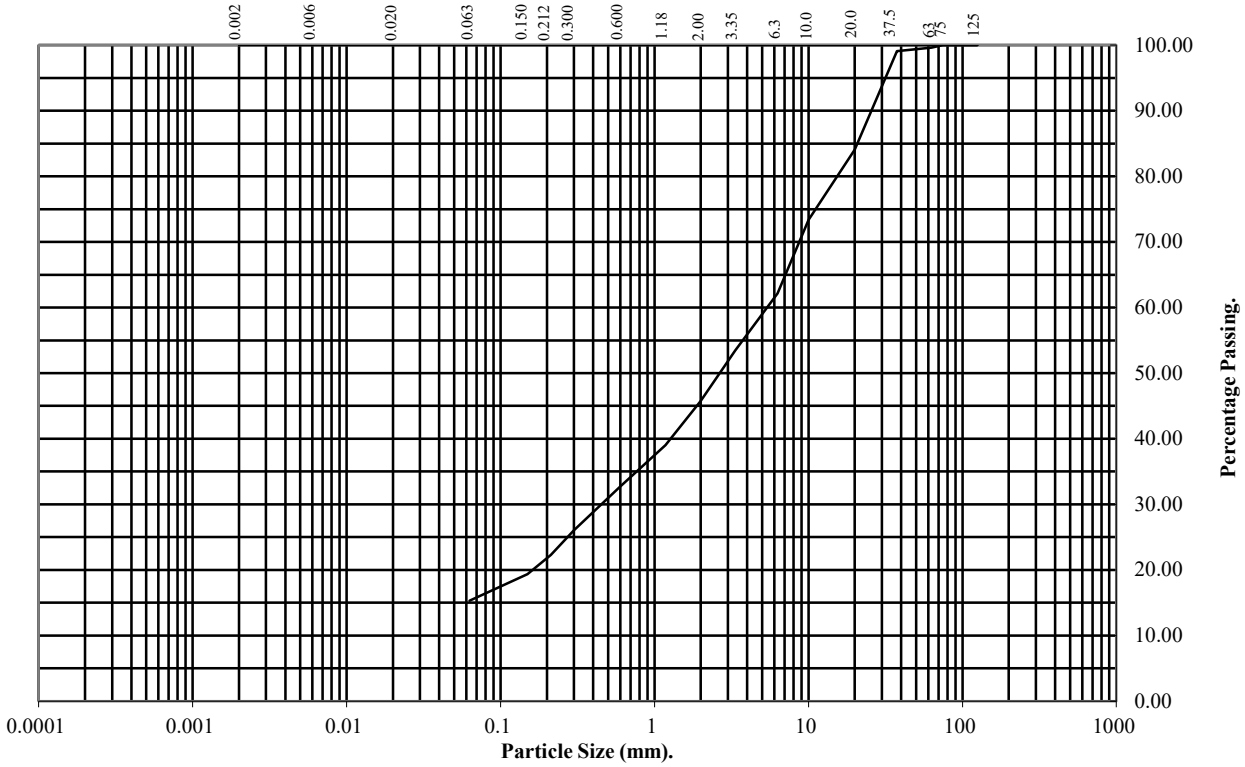
BS1377 : Part 2 : 1990

Wet Sieve, Clause 9.2

Hole Number: **TP246A** **Top Depth (m):** **1.50**

Sample Number: **Base Depth(m):**

Sample Type: **B**



BS Test Sieve (mm)	Percentage Passing
125	100
75	100
63	100
37.5	99
20	84
10	73
6.3	62
3.35	53
2	46
1.18	39
0.6	33
0.3	26
0.212	22
0.15	19
0.063	15

Soil Fraction	Total Percentage
Cobbles	0
Gravel	54
Sand	31
Silt/Clay	15

Remarks:

See Summary of Soil Descriptions

PARTICLE SIZE DISTRIBUTION TEST

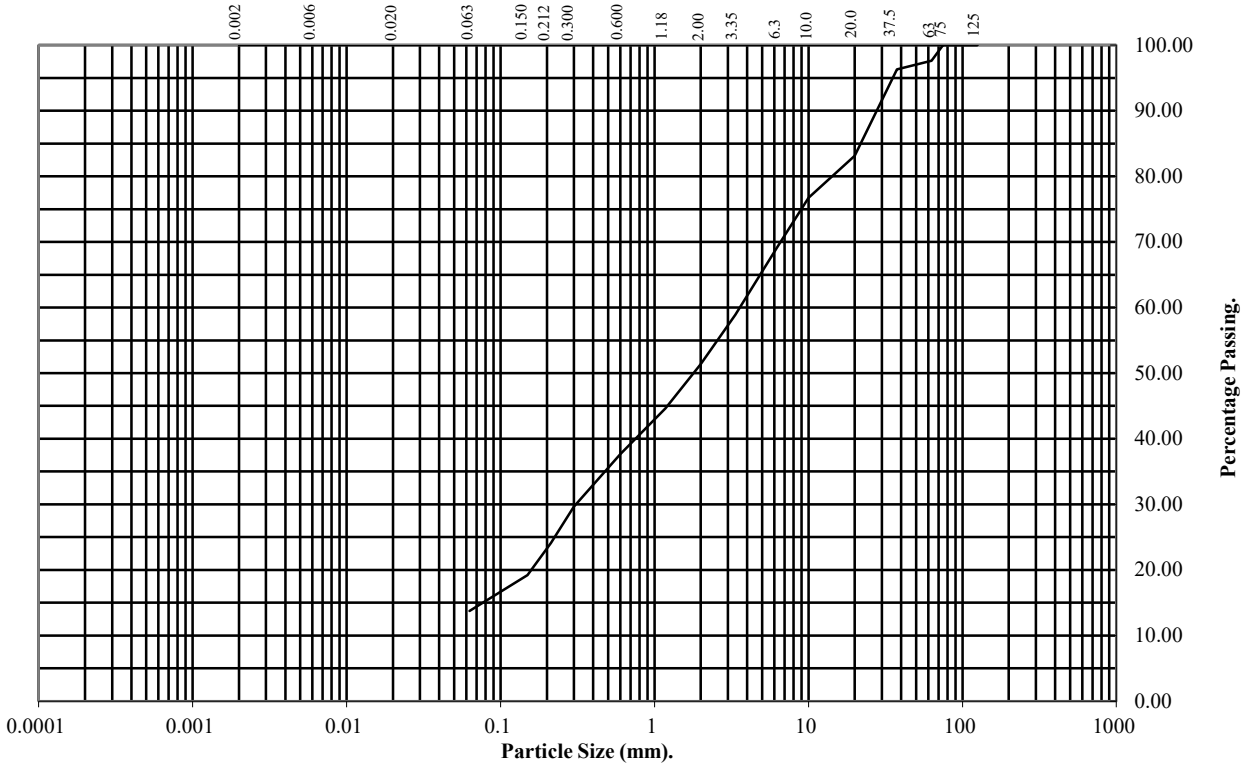
BS1377 : Part 2 : 1990

Wet Sieve, Clause 9.2

Hole Number: **TP217A** **Top Depth (m):** **1.60**

Sample Number: **Base Depth(m):**

Sample Type: **B**



BS Test Sieve (mm)	Percentage Passing
125	100
75	100
63	98
37.5	96
20	83
10	77
6.3	69
3.35	59
2	51
1.18	45
0.6	38
0.3	30
0.212	24
0.15	19
0.063	14

Soil Fraction	Total Percentage
Cobbles	2
Gravel	47
Sand	37
Silt/Clay	14

Remarks:

See Summary of Soil Descriptions

PARTICLE SIZE DISTRIBUTION TEST

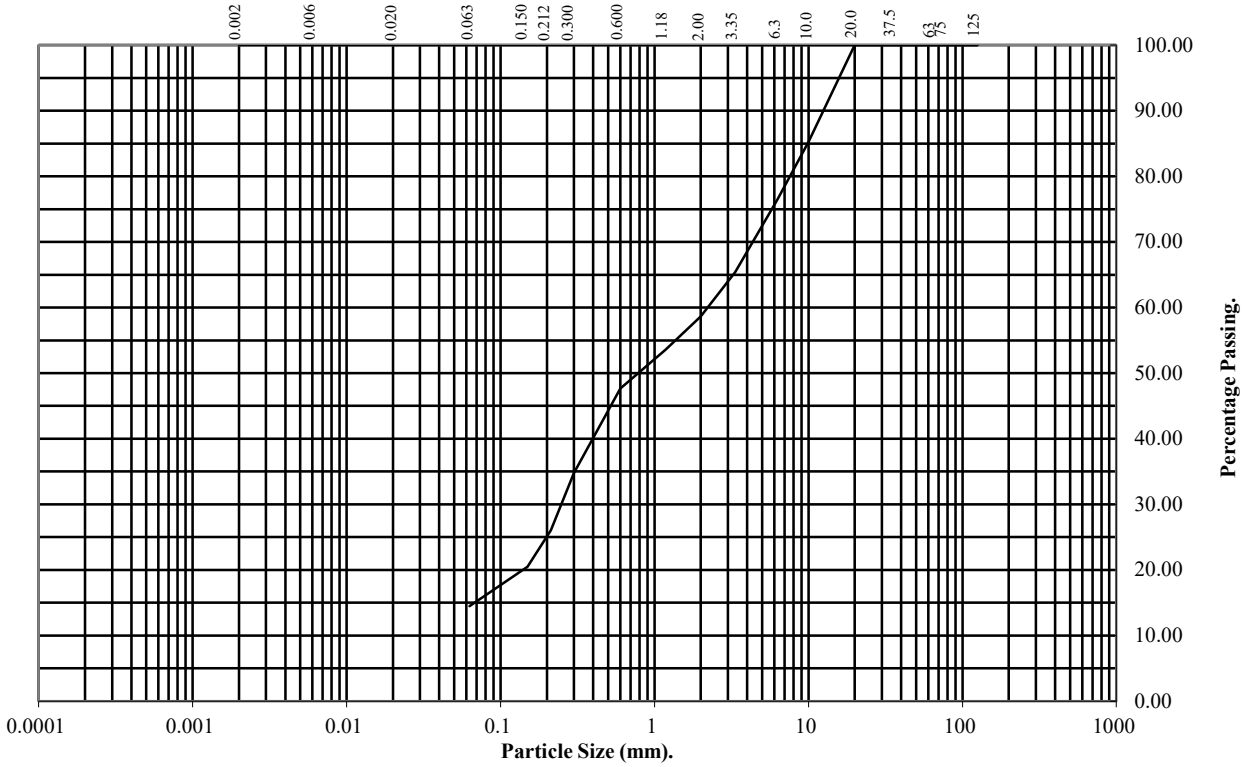
BS1377 : Part 2 : 1990

Wet Sieve, Clause 9.2

Hole Number: TP258 **Top Depth (m):** 2.50

Sample Number: **Base Depth(m):**

Sample Type: B



BS Test Sieve (mm)	Percentage Passing
125	100
75	100
63	100
37.5	100
20	100
10	85
6.3	76
3.35	65
2	59
1.18	54
0.6	48
0.3	35
0.212	26
0.15	21
0.063	14

Soil Fraction	Total Percentage
Cobbles	0
Gravel	41
Sand	45
Silt/Clay	14

Remarks:

See Summary of Soil Descriptions

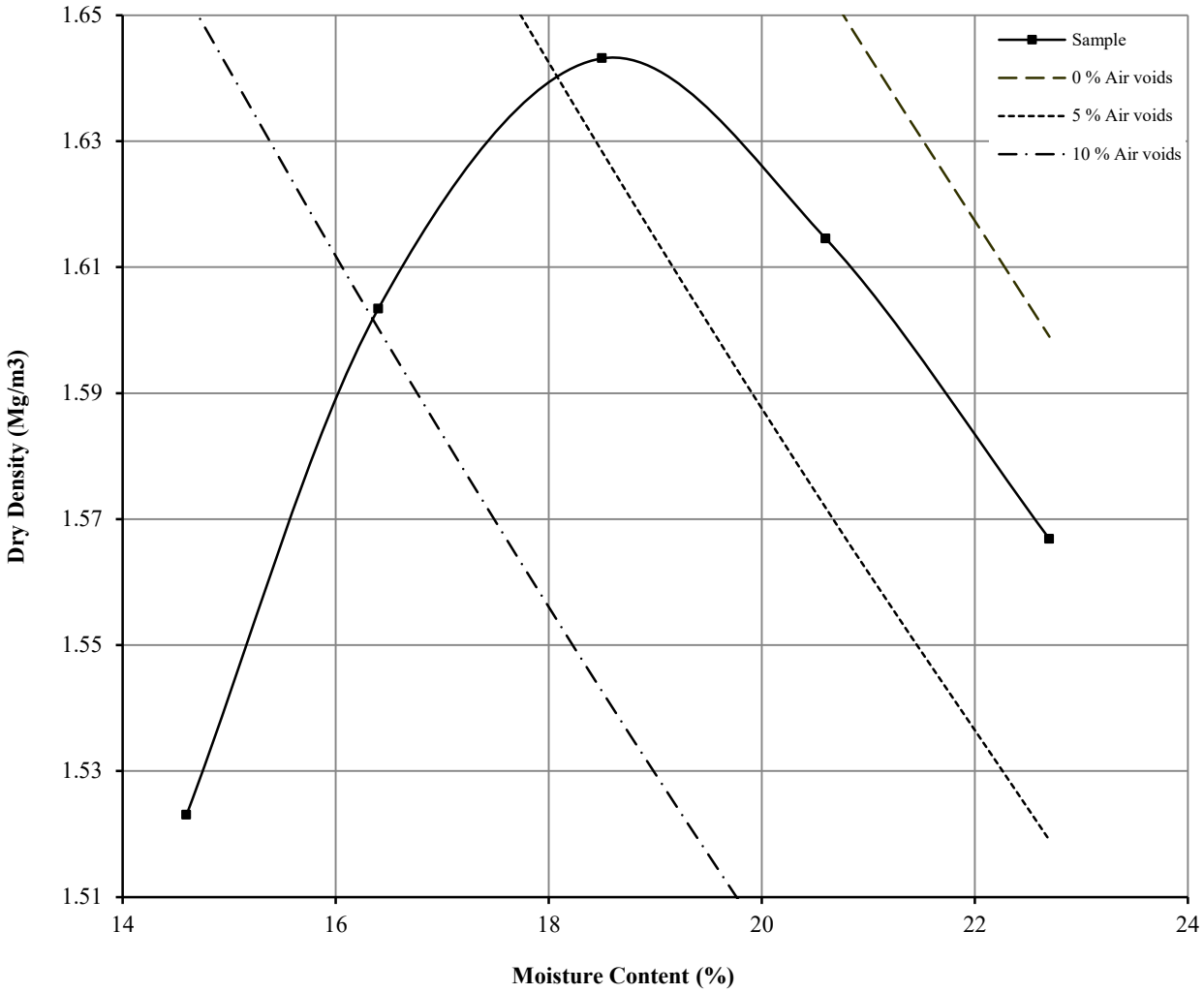
DRY DENSITY / MOISTURE CONTENT RELATIONSHIP

BS 1377 : Part 4 : Clause 3.3 : 1990

Hole Number: TP242 **Top Depth (m) :** 2.50

Sample Number: **Base Depth (m) :**

Sample Type: B



Initial Moisture Content:		19	Method of Compaction:	2.5kg	Separate Samples
Particle Density (Mg/m3):	2.51	Measured	Material Retained on 37.5 mm Test Sieve (%):		0
Maximum Dry Density (Mg/m3):		1.64	Material Retained on 20.0 mm Test Sieve (%):		0
Optimum Moisture Content (%):		19			
Remarks See summary of soil descriptions					

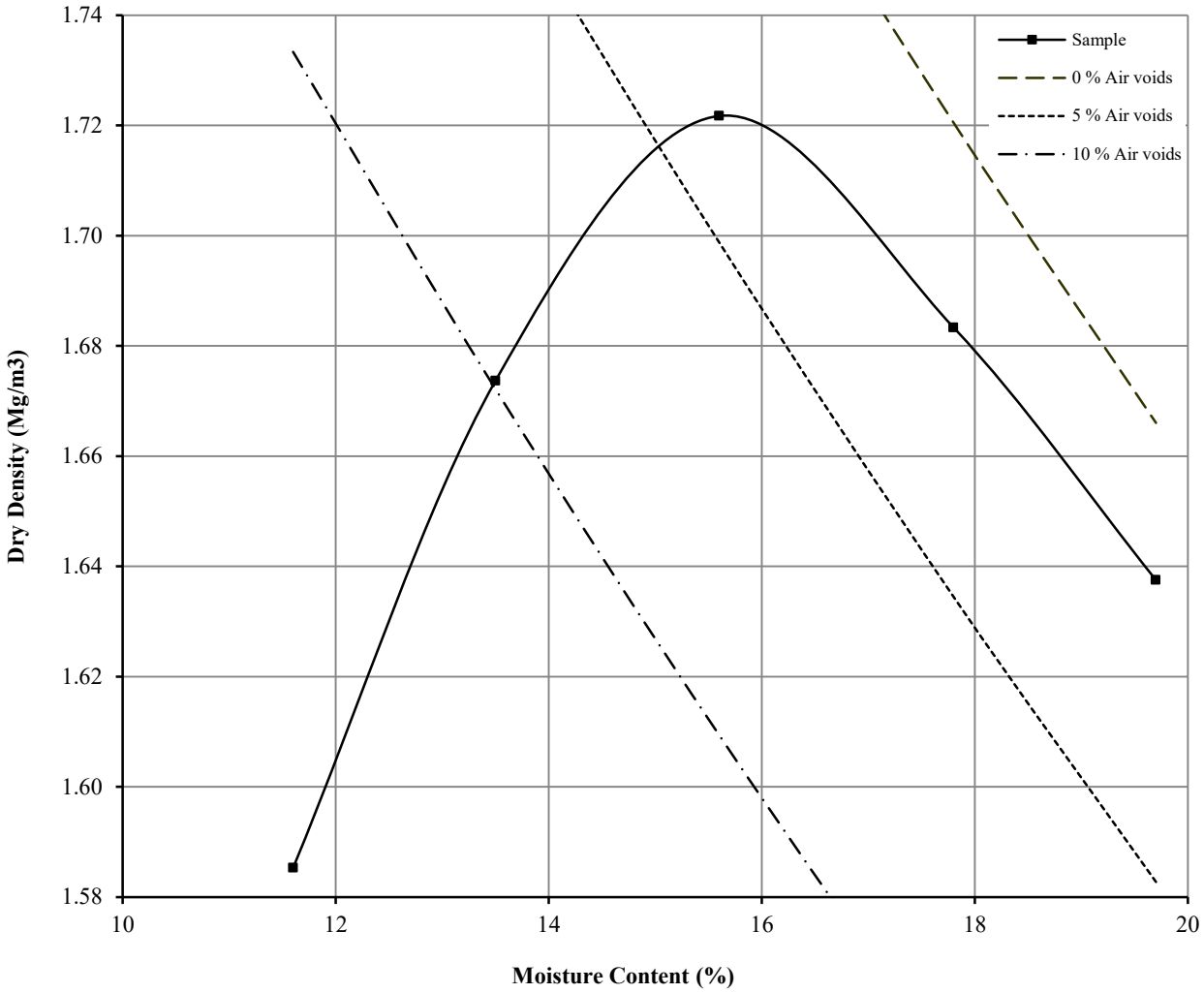
DRY DENSITY / MOISTURE CONTENT RELATIONSHIP

Non compliance with BS 1377 : Part 4 : Clause 3.4 : 1990

Hole Number: TP254 **Top Depth (m) :** 1.30

Sample Number: **Base Depth (m) :**

Sample Type: B



Initial Moisture Content:		16	Method of Compaction:	2.5kg	Separate Samples
Particle Density (Mg/m3):	2.48	Assumed	Material Retained on 37.5 mm Test Sieve (%):		13
Maximum Dry Density (Mg/m3):		1.72	Material Retained on 20.0 mm Test Sieve (%):		14
Optimum Moisture Content (%):		16			
Remarks See summary of soil descriptions					

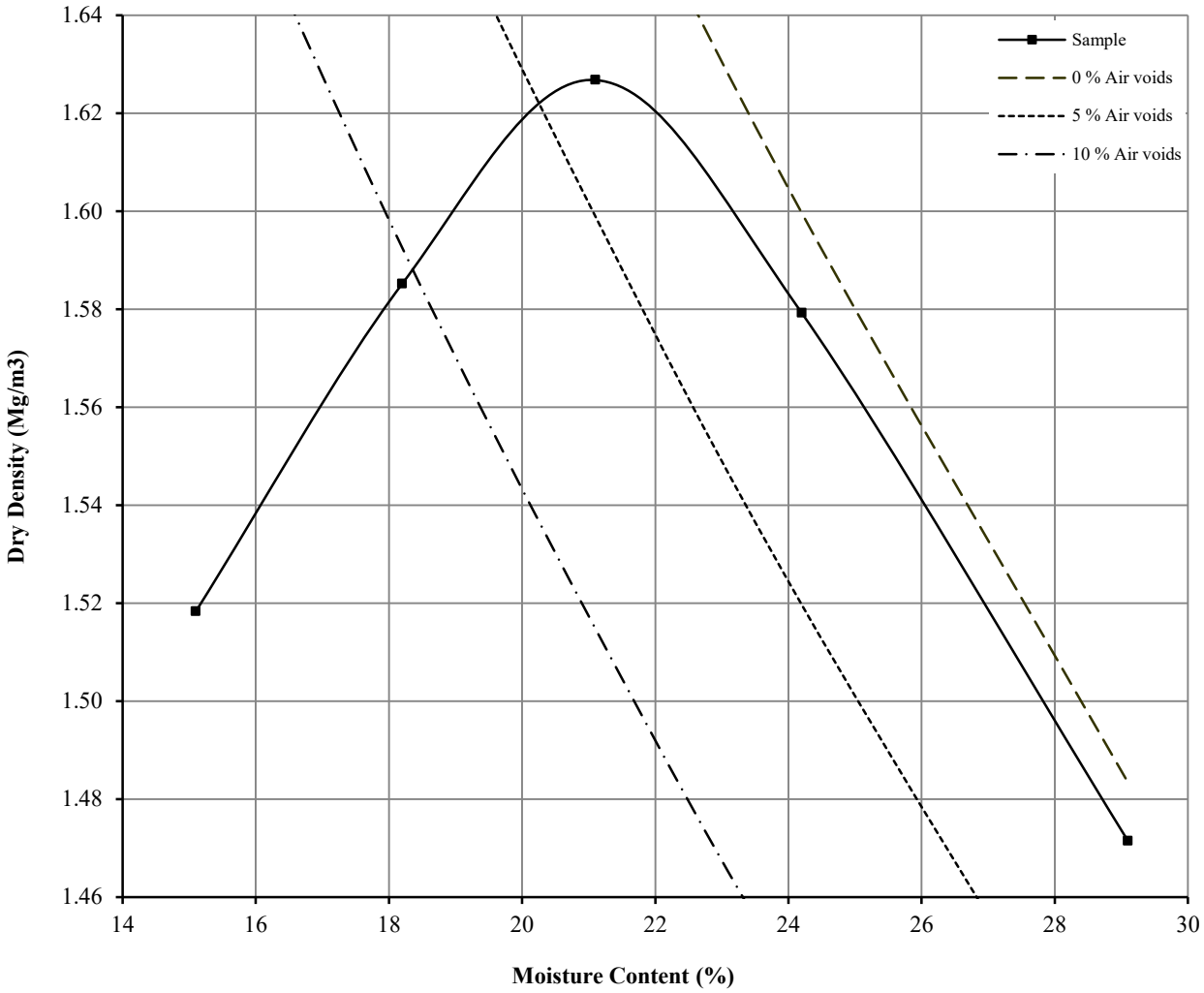
DRY DENSITY / MOISTURE CONTENT RELATIONSHIP

Non compliance with BS 1377 : Part 4 : Clause 3.4 : 1990

Hole Number: TP204 **Top Depth (m) :** 2.50

Sample Number: **Base Depth (m) :**

Sample Type: B



Initial Moisture Content:		29	Method of Compaction:	2.5kg	Separate Samples
Particle Density (Mg/m3):	2.61	Measured	Material Retained on 37.5 mm Test Sieve (%):		13
Maximum Dry Density (Mg/m3):		1.63	Material Retained on 20.0 mm Test Sieve (%):		4
Optimum Moisture Content (%):		21			
Remarks See summary of soil descriptions					

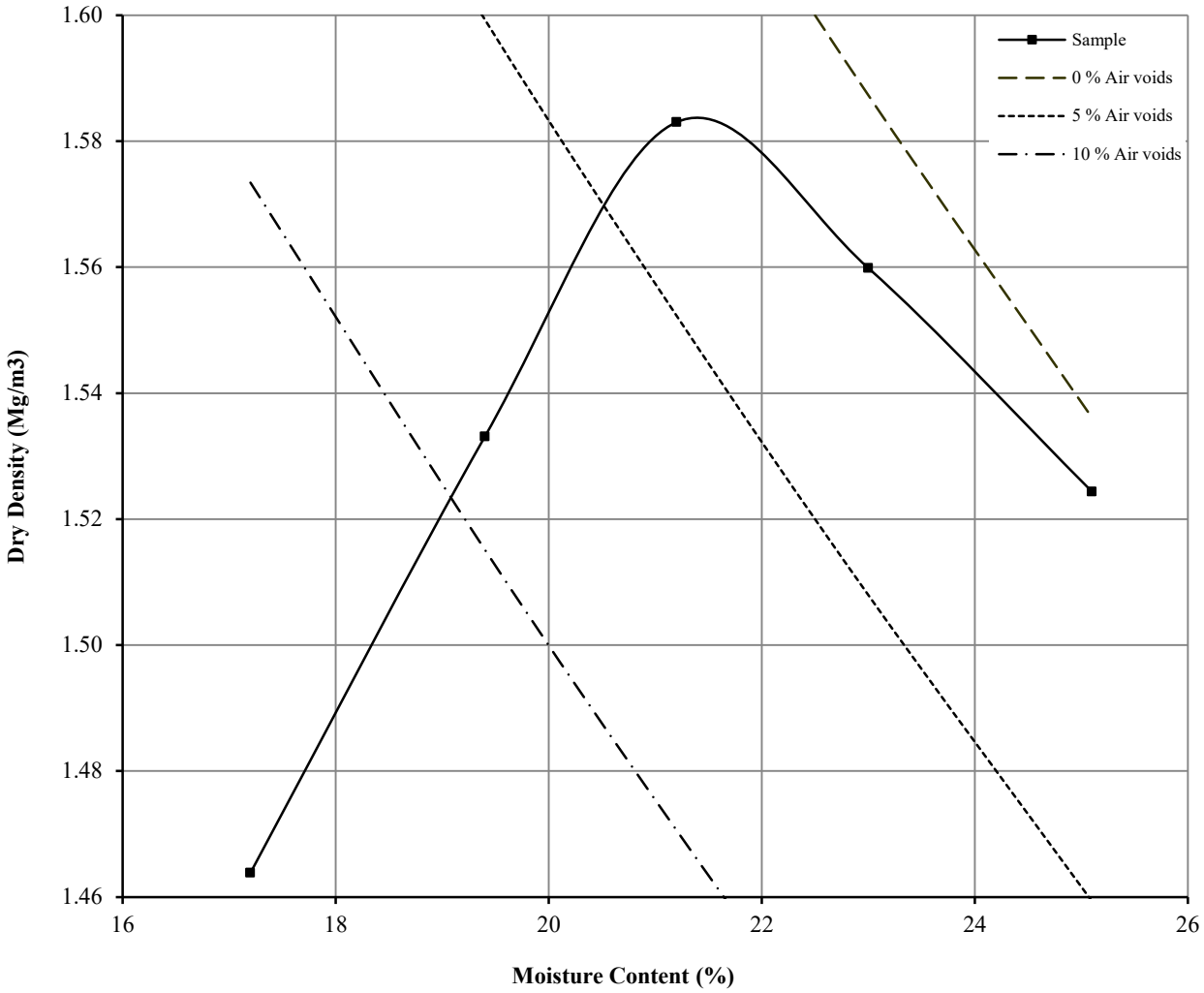
DRY DENSITY / MOISTURE CONTENT RELATIONSHIP

BS 1377 : Part 4 : Clause 3.4 : 1990

Hole Number: TP207 **Top Depth (m) :** 3.00

Sample Number: **Base Depth (m) :**

Sample Type: B



Initial Moisture Content:		25	Method of Compaction:	2.5kg	Separate Samples
Particle Density (Mg/m3):	2.5	Assumed	Material Retained on 37.5 mm Test Sieve (%):		5
Maximum Dry Density (Mg/m3):		1.58	Material Retained on 20.0 mm Test Sieve (%):		7
Optimum Moisture Content (%):		21			
Remarks See summary of soil descriptions					

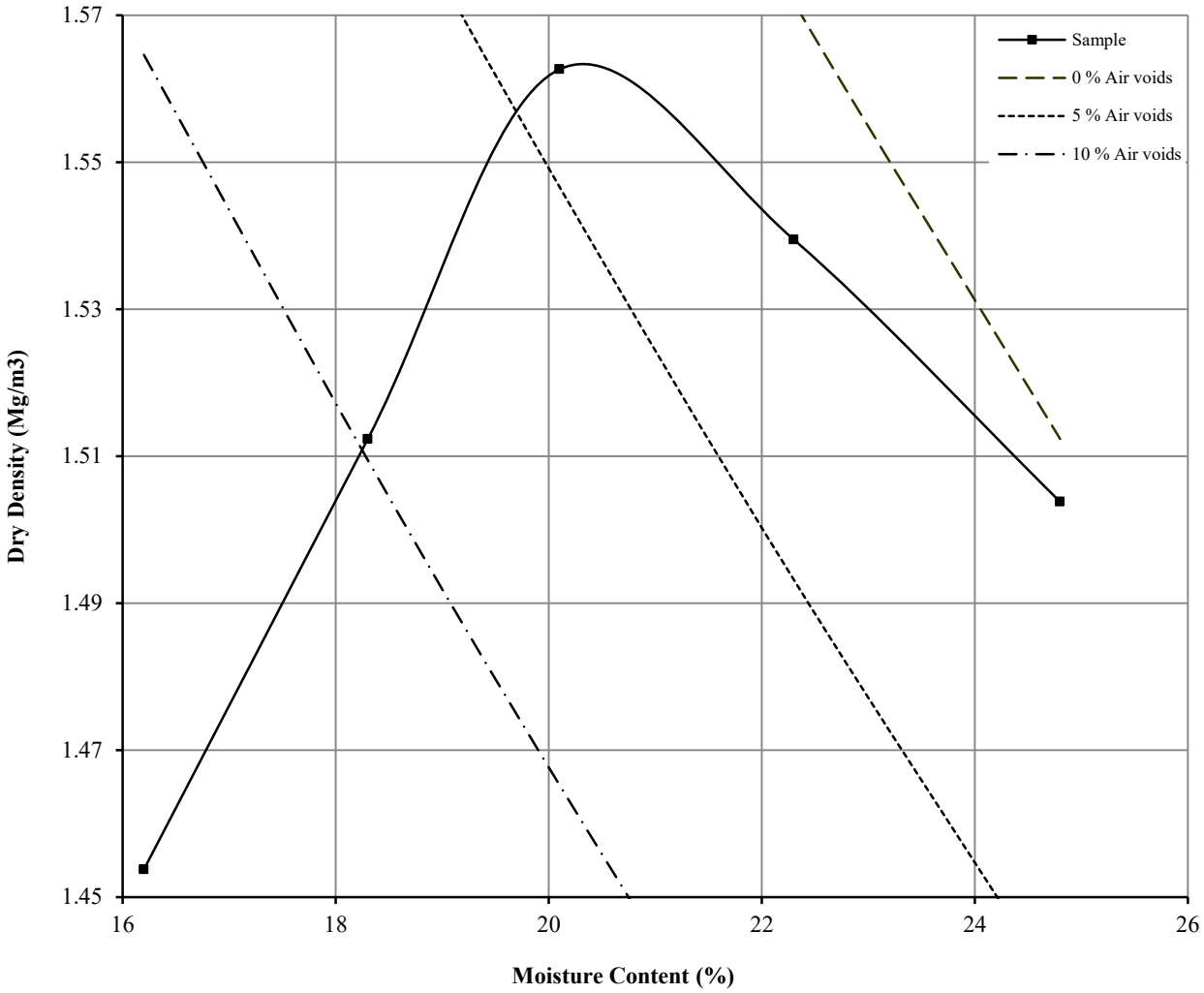
DRY DENSITY / MOISTURE CONTENT RELATIONSHIP

BS 1377 : Part 4 : Clause 3.4 : 1990

Hole Number: TP206 **Top Depth (m) :** 1.00

Sample Number: **Base Depth (m) :**

Sample Type: B



Initial Moisture Content:		25	Method of Compaction:	2.5kg	Separate Samples
Particle Density (Mg/m3):	2.42	Measured	Material Retained on 37.5 mm Test Sieve (%):		2
Maximum Dry Density (Mg/m3):		1.56	Material Retained on 20.0 mm Test Sieve (%):		5
Optimum Moisture Content (%):		20			
Remarks See summary of soil descriptions					

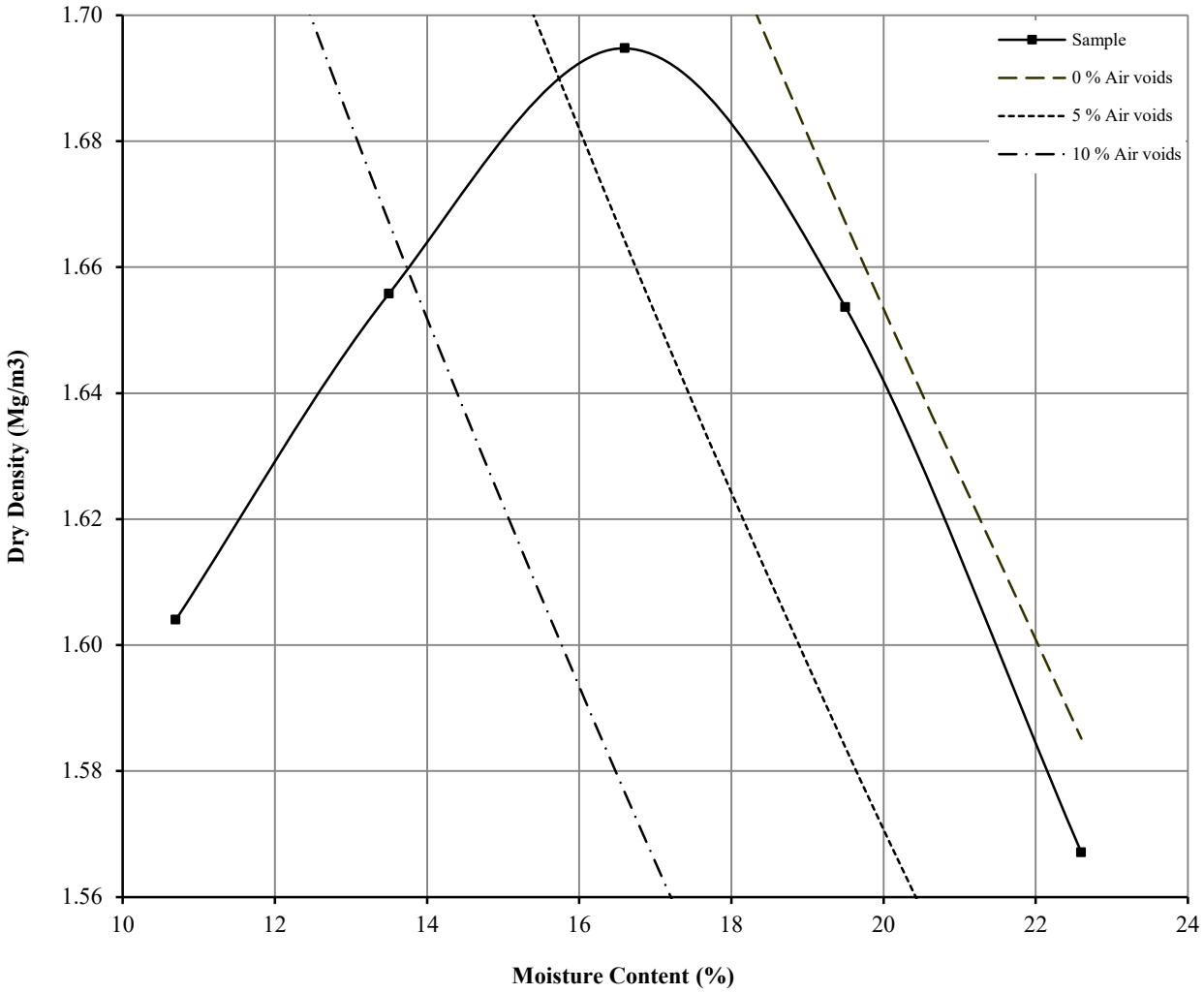
DRY DENSITY / MOISTURE CONTENT RELATIONSHIP

BS 1377 : Part 4 : Clause 3.4 : 1990

Hole Number: TP226 **Top Depth (m) :** 1.50

Sample Number: **Base Depth (m) :**

Sample Type: B



Initial Moisture Content:		20	Method of Compaction:	2.5kg	Separate Samples
Particle Density (Mg/m3):	2.47	Measured	Material Retained on 37.5 mm Test Sieve (%):		6
Maximum Dry Density (Mg/m3):		1.69	Material Retained on 20.0 mm Test Sieve (%):		5
Optimum Moisture Content (%):		17			
Remarks See summary of soil descriptions					

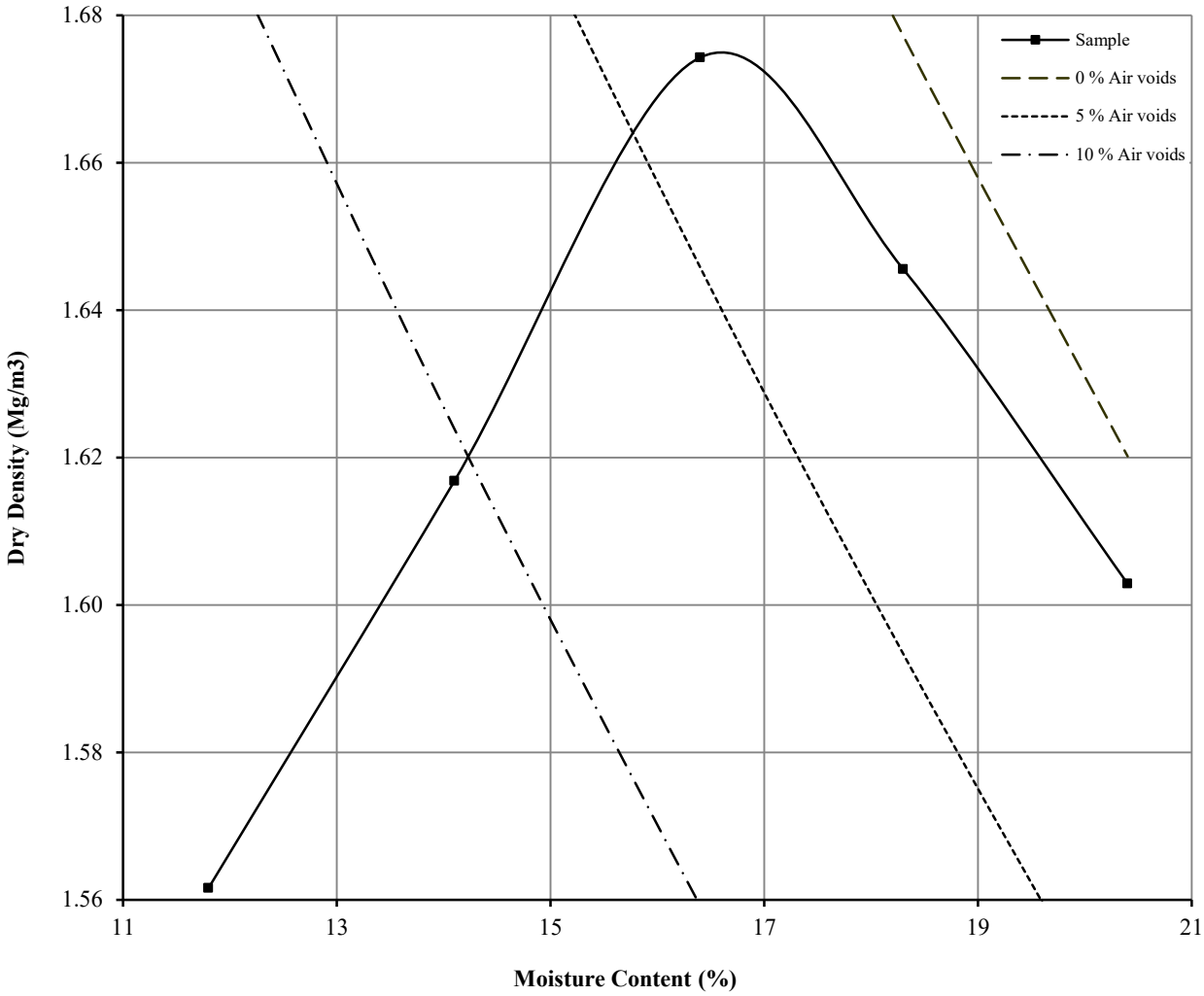
DRY DENSITY / MOISTURE CONTENT RELATIONSHIP

BS 1377 : Part 4 : Clause 3.3 : 1990

Hole Number: TP227A **Top Depth (m) :** 2.50

Sample Number: **Base Depth (m) :**

Sample Type: B



Initial Moisture Content:		12	Method of Compaction:	2.5kg	Separate Samples
Particle Density (Mg/m3):	2.42	Measured	Material Retained on 37.5 mm Test Sieve (%):		0
Maximum Dry Density (Mg/m3):		1.67	Material Retained on 20.0 mm Test Sieve (%):		0
Optimum Moisture Content (%):		16			
Remarks See summary of soil descriptions					

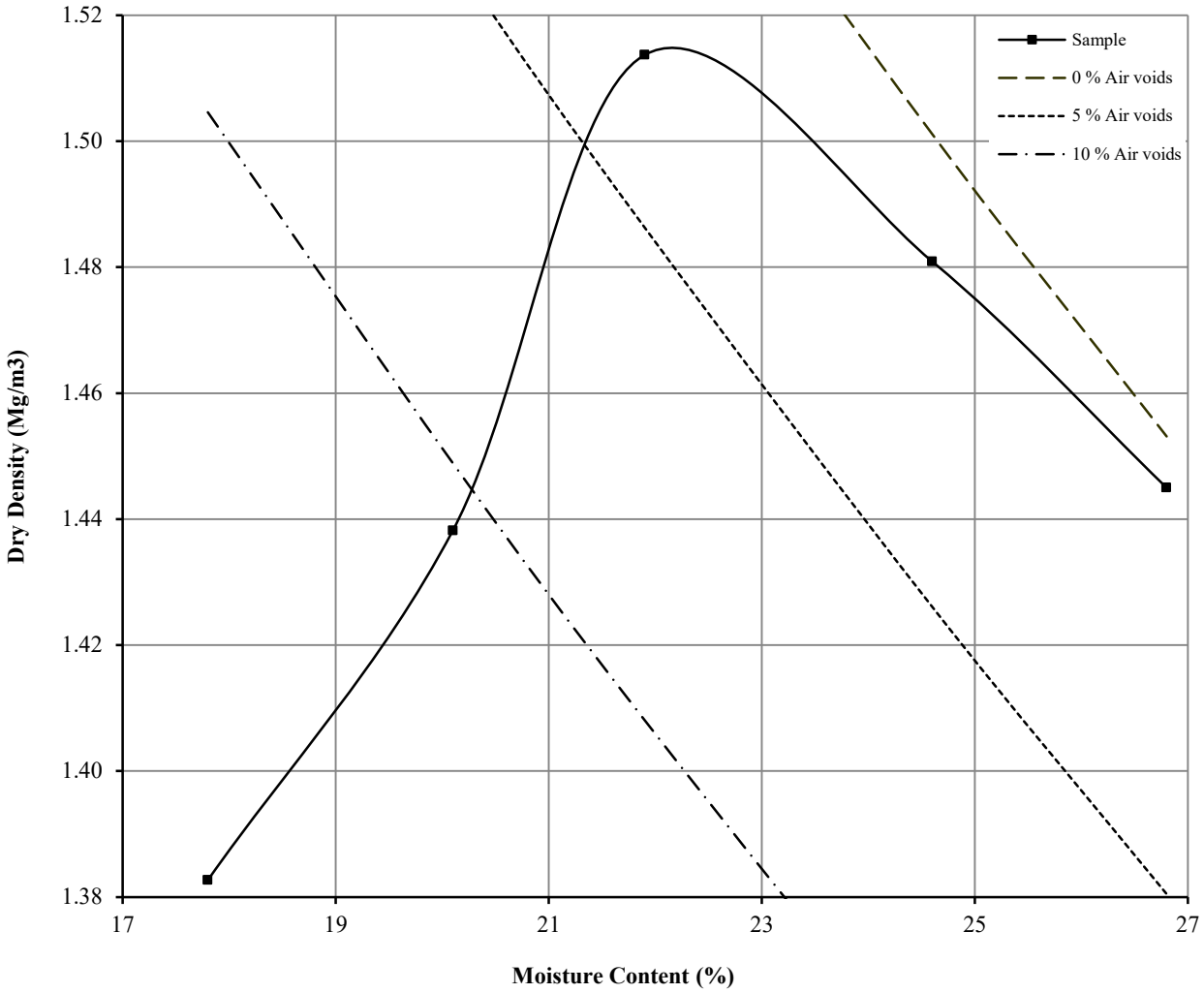
DRY DENSITY / MOISTURE CONTENT RELATIONSHIP

BS 1377 : Part 4 : Clause 3.3 : 1990

Hole Number: TP259 **Top Depth (m) :** 2.80

Sample Number: **Base Depth (m) :**

Sample Type: B



Initial Moisture Content:		25	Method of Compaction:	2.5kg	Separate Samples
Particle Density (Mg/m3):	2.38	Measured	Material Retained on 37.5 mm Test Sieve (%):		1
Maximum Dry Density (Mg/m3):		1.51	Material Retained on 20.0 mm Test Sieve (%):		2
Optimum Moisture Content (%):		22			
Remarks See summary of soil descriptions					

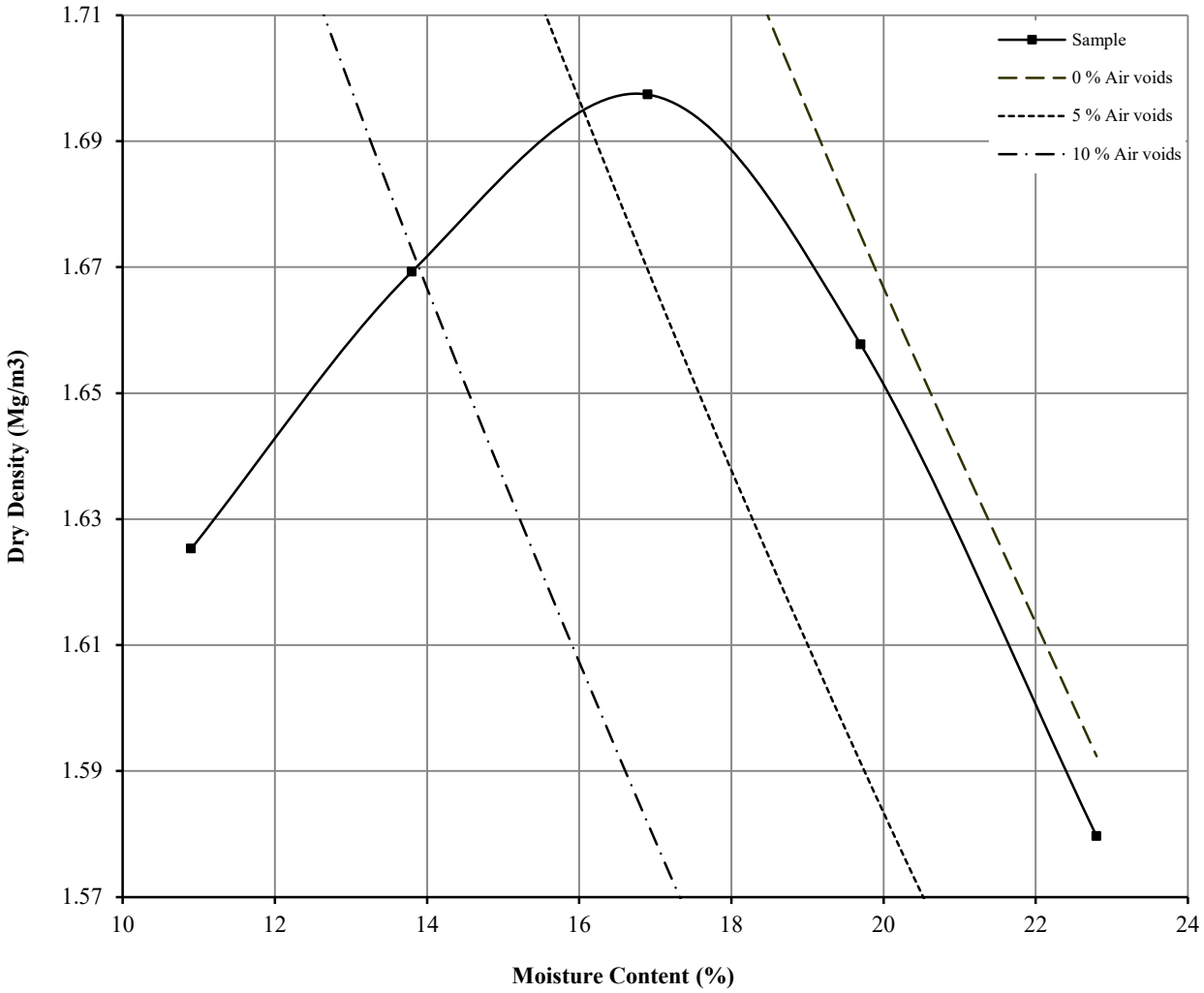
DRY DENSITY / MOISTURE CONTENT RELATIONSHIP

Non compliance with BS 1377 : Part 4 : Clause 3.4 : 1990

Hole Number: TP260 **Top Depth (m) :** 2.10

Sample Number: **Base Depth (m) :**

Sample Type: B



Initial Moisture Content:		14	Method of Compaction:	2.5kg	Separate Samples
Particle Density (Mg/m3):	2.5	Assumed	Material Retained on 37.5 mm Test Sieve (%):		13
Maximum Dry Density (Mg/m3):		1.70	Material Retained on 20.0 mm Test Sieve (%):		5
Optimum Moisture Content (%):		17			
Remarks See summary of soil descriptions					

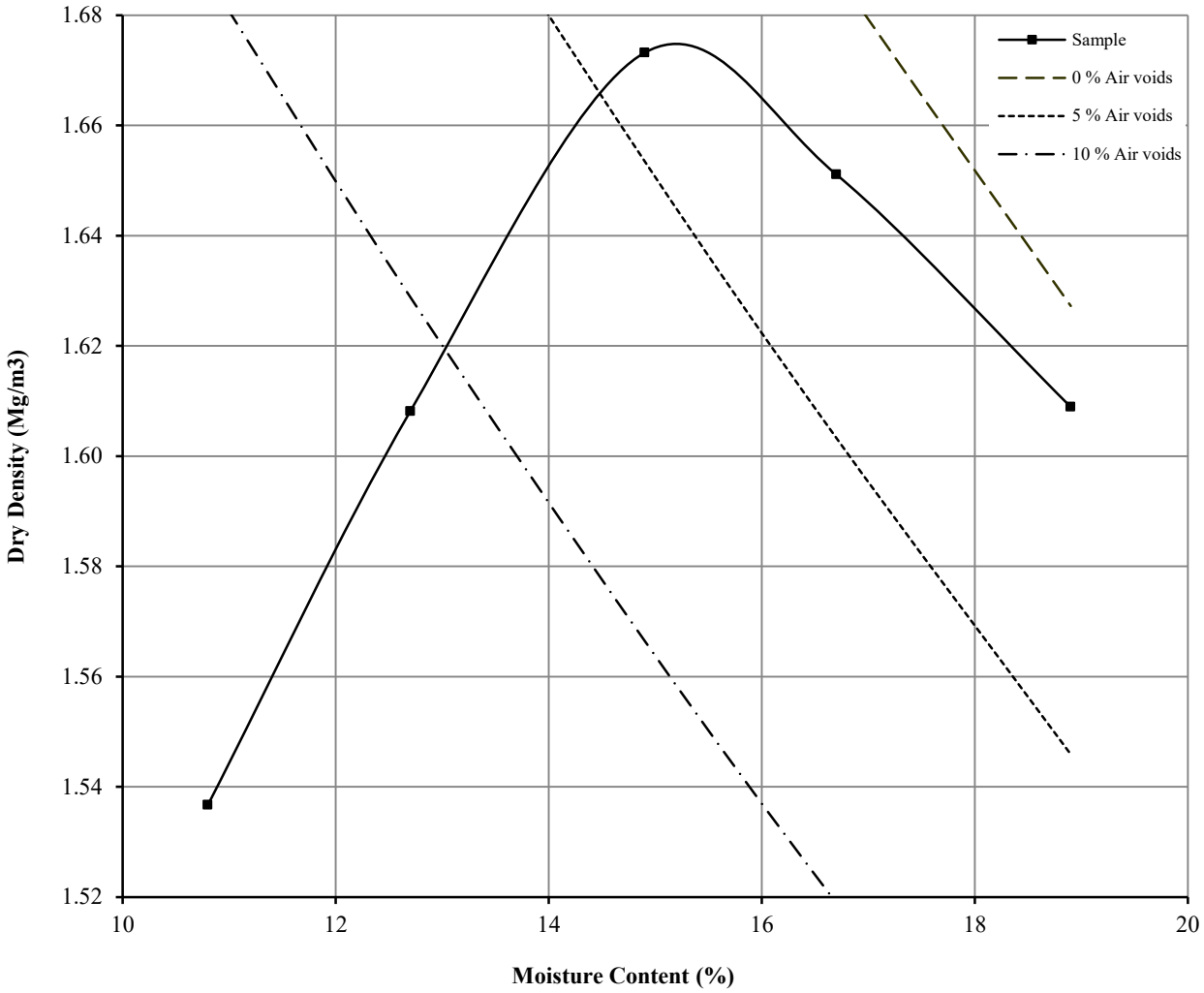
DRY DENSITY / MOISTURE CONTENT RELATIONSHIP

BS 1377 : Part 4 : Clause 3.3 : 1990

Hole Number: TP261 **Top Depth (m) :** 2.00

Sample Number: **Base Depth (m) :**

Sample Type: B



Initial Moisture Content:		11	Method of Compaction:	2.5kg	Separate Samples
Particle Density (Mg/m3):	2.35	Measured	Material Retained on 37.5 mm Test Sieve (%):		0
Maximum Dry Density (Mg/m3):		1.67	Material Retained on 20.0 mm Test Sieve (%):		0
Optimum Moisture Content (%):		15			
Remarks See summary of soil descriptions					

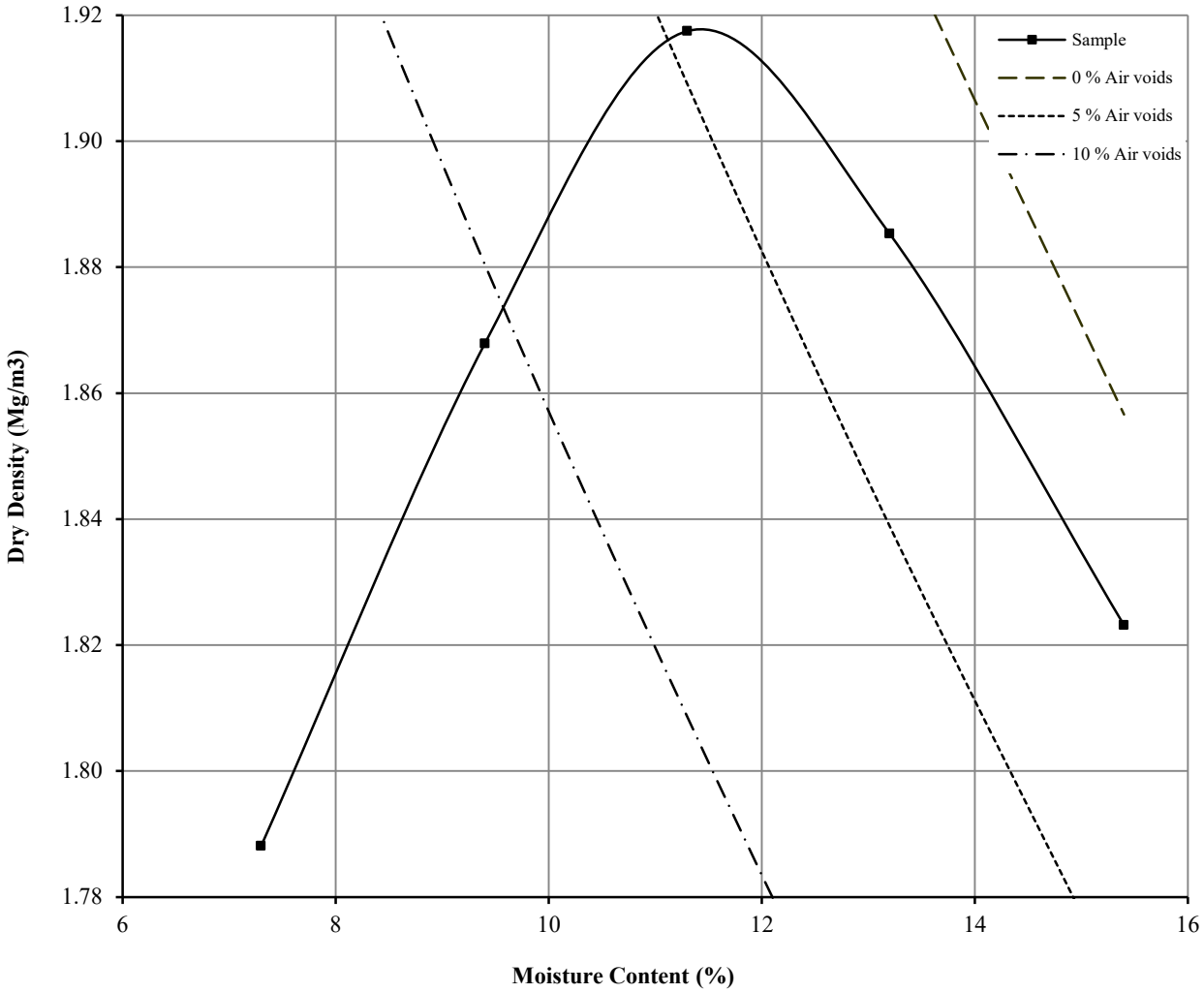
DRY DENSITY / MOISTURE CONTENT RELATIONSHIP

Non compliance with BS 1377 : Part 4 : Clause 3.4 : 1990

Hole Number: TP262 **Top Depth (m) :** 2.00

Sample Number: **Base Depth (m) :**

Sample Type: B



Initial Moisture Content:		7.3	Method of Compaction:	2.5kg	Separate Samples
Particle Density (Mg/m3):	2.6	Assumed	Material Retained on 37.5 mm Test Sieve (%):		39
Maximum Dry Density (Mg/m3):		1.92	Material Retained on 20.0 mm Test Sieve (%):		17
Optimum Moisture Content (%):		11			
Remarks See summary of soil descriptions					

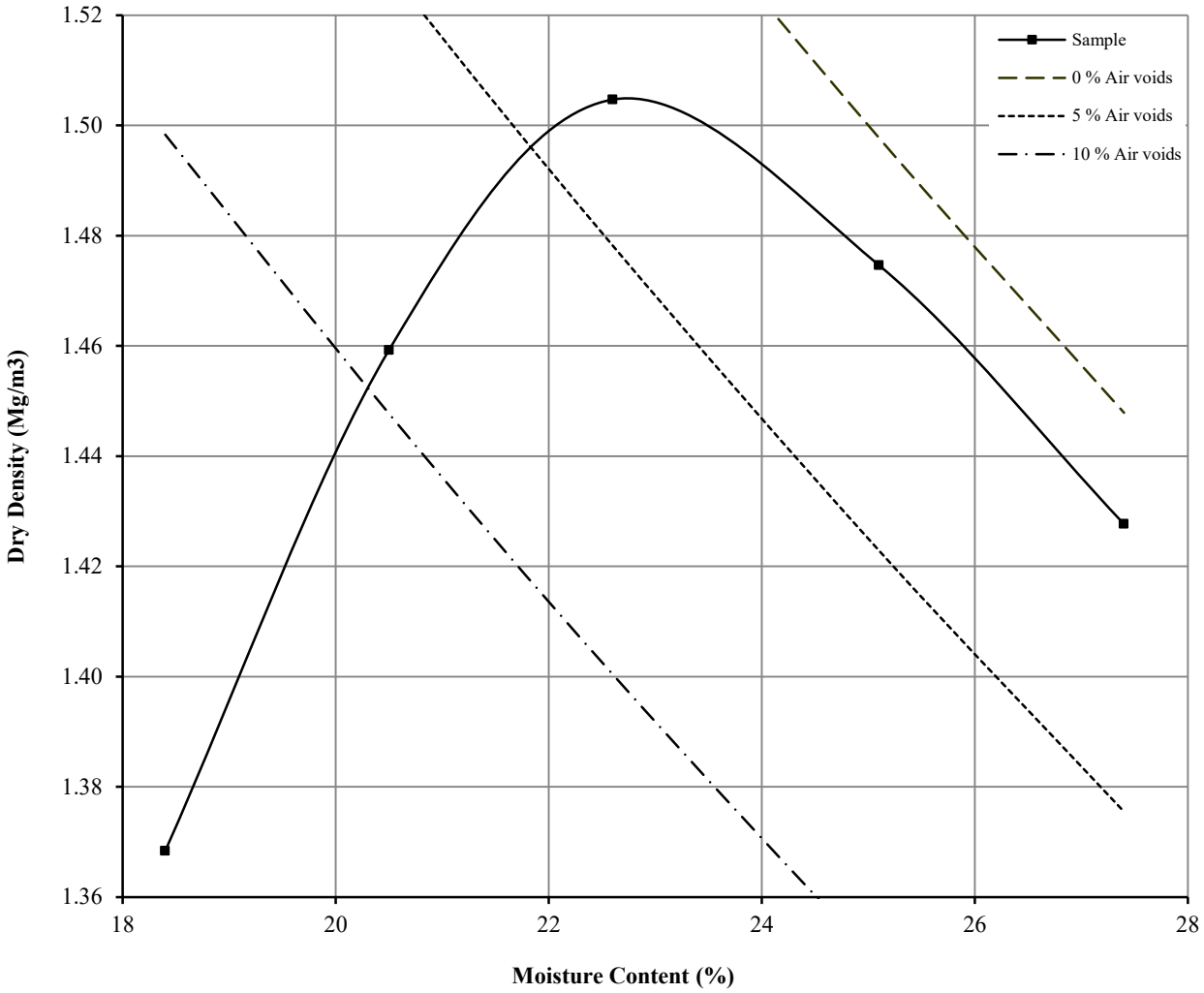
DRY DENSITY / MOISTURE CONTENT RELATIONSHIP

BS 1377 : Part 4 : Clause 3.4 : 1990

Hole Number: TP248A **Top Depth (m) :** 1.40

Sample Number: **Base Depth (m) :**

Sample Type: B



Initial Moisture Content:		25	Method of Compaction:	2.5kg	Separate Samples
Particle Density (Mg/m3):	2.4	Assumed	Material Retained on 37.5 mm Test Sieve (%):		2
Maximum Dry Density (Mg/m3):		1.50	Material Retained on 20.0 mm Test Sieve (%):		9
Optimum Moisture Content (%):		23			
Remarks See summary of soil descriptions					

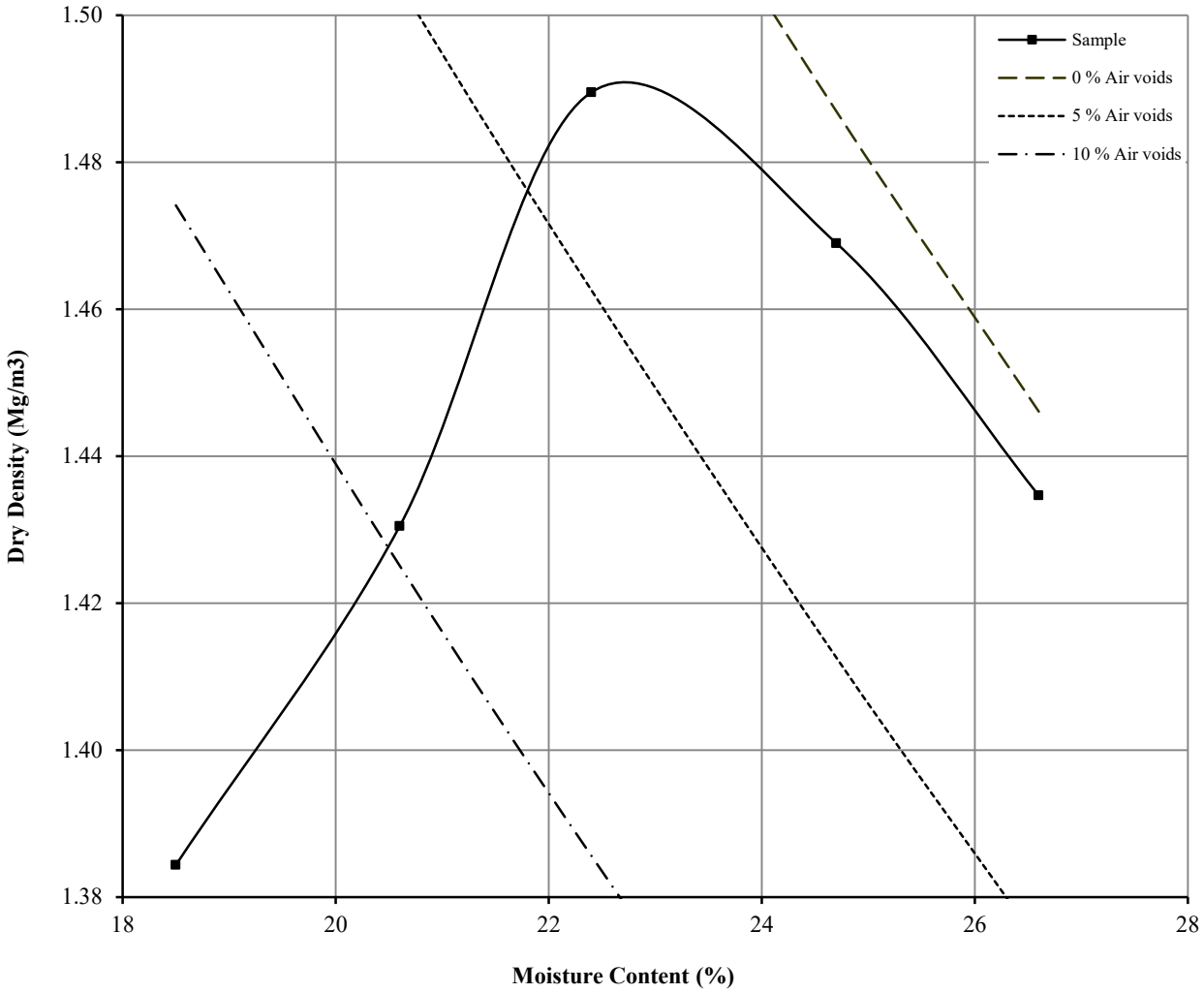
DRY DENSITY / MOISTURE CONTENT RELATIONSHIP

BS 1377 : Part 4 : Clause 3.4 : 1990

Hole Number: TP246A **Top Depth (m) :** 1.50

Sample Number: **Base Depth (m) :**

Sample Type: B



Initial Moisture Content:		25	Method of Compaction:	2.5kg	Separate Samples
Particle Density (Mg/m3):	2.35	Assumed	Material Retained on 37.5 mm Test Sieve (%):		1
Maximum Dry Density (Mg/m3):		1.49	Material Retained on 20.0 mm Test Sieve (%):		15
Optimum Moisture Content (%):		22			
Remarks See summary of soil descriptions					

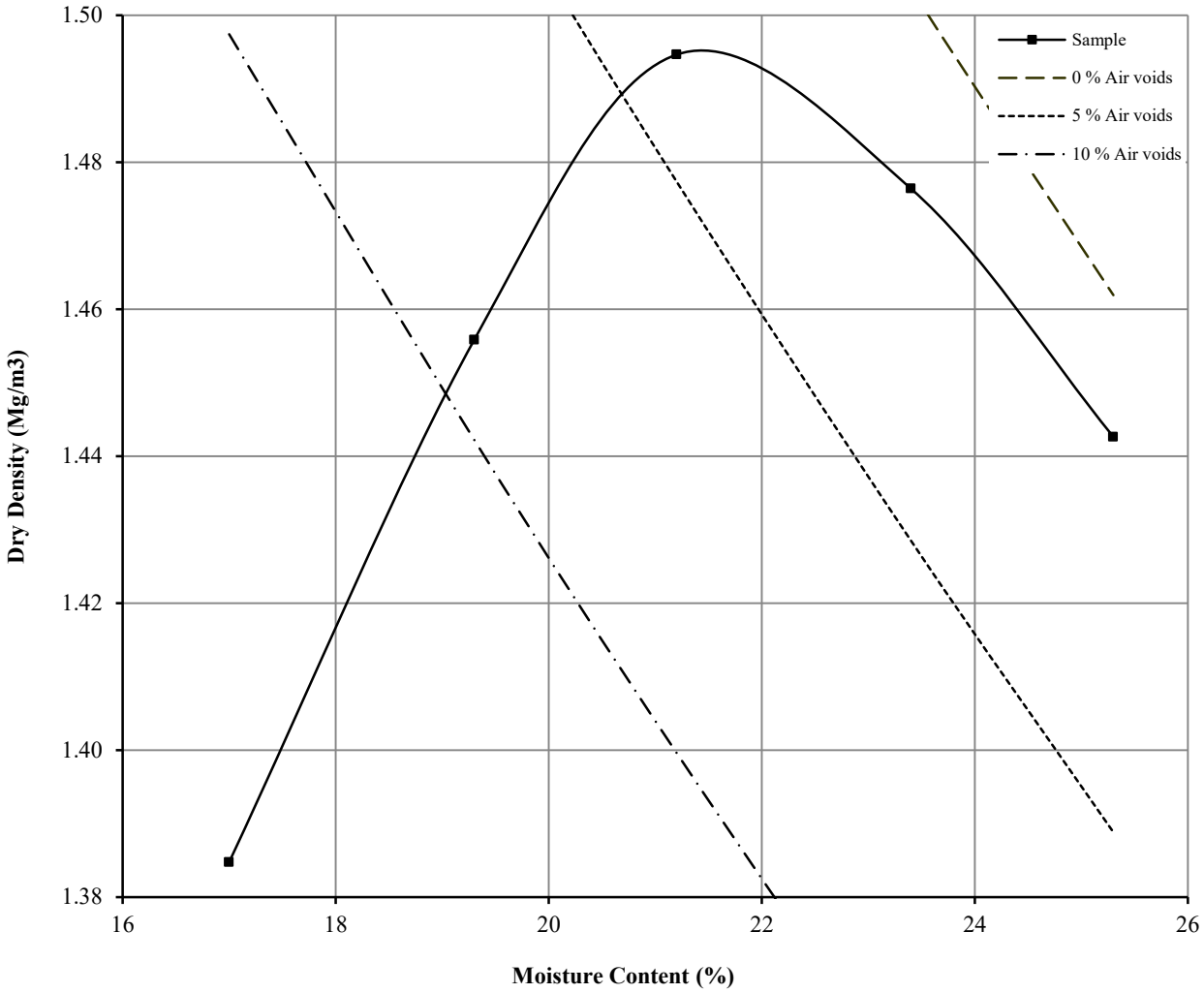
DRY DENSITY / MOISTURE CONTENT RELATIONSHIP

BS 1377 : Part 4 : Clause 3.4 : 1990

Hole Number: TP217A **Top Depth (m) :** 1.60

Sample Number: **Base Depth (m) :**

Sample Type: B



Initial Moisture Content:		21	Method of Compaction:	2.5kg	Separate Samples
Particle Density (Mg/m3):	2.32	Assumed	Material Retained on 37.5 mm Test Sieve (%):		4
Maximum Dry Density (Mg/m3):		1.49	Material Retained on 20.0 mm Test Sieve (%):		13
Optimum Moisture Content (%):		21			
Remarks See summary of soil descriptions					

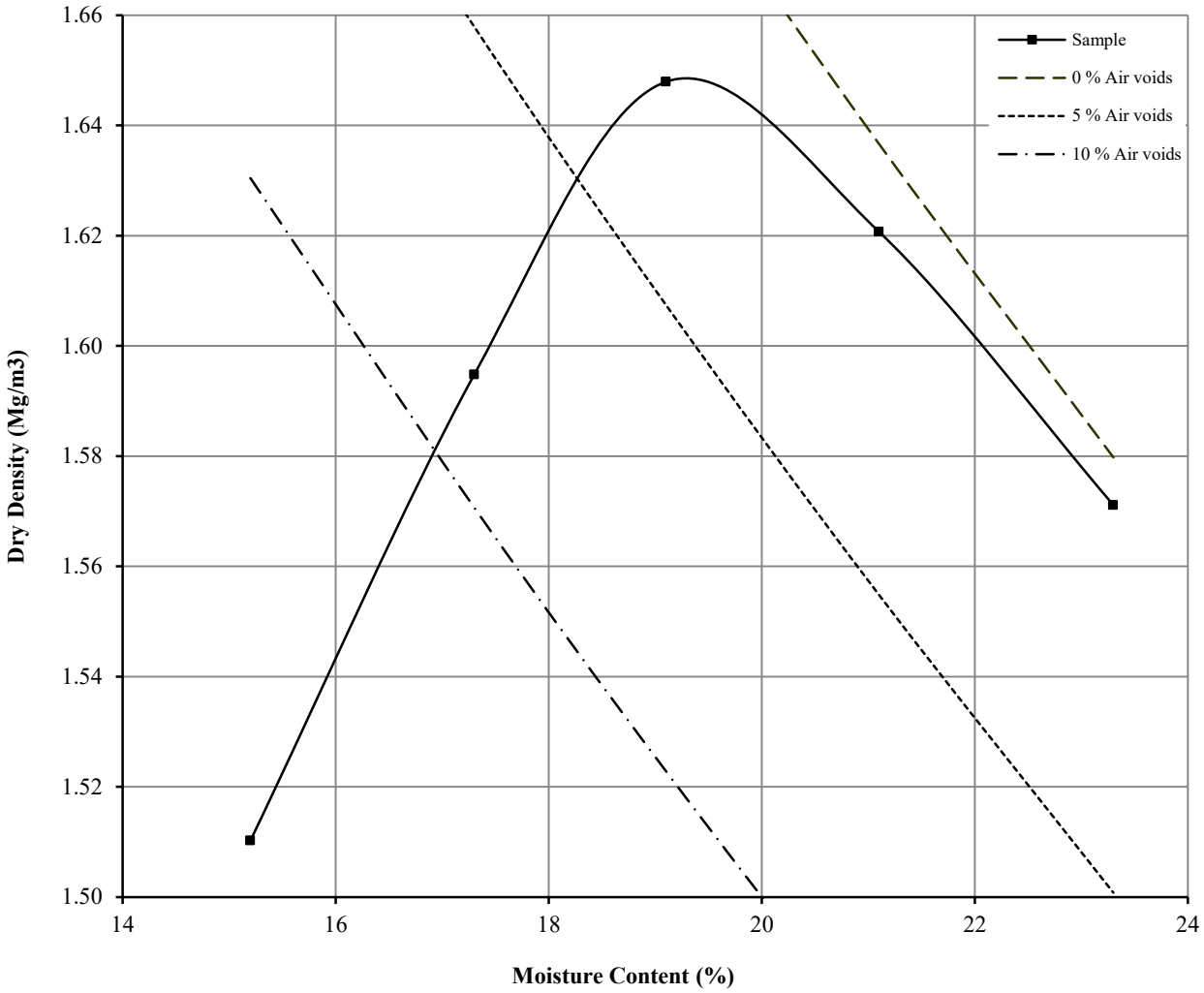
DRY DENSITY / MOISTURE CONTENT RELATIONSHIP

BS 1377 : Part 4 : Clause 3.3 : 1990

Hole Number: TP258 **Top Depth (m) :** 2.50

Sample Number: **Base Depth (m) :**

Sample Type: B



Initial Moisture Content:		19	Method of Compaction:	2.5kg	Separate Samples
Particle Density (Mg/m3):	2.5	Assumed	Material Retained on 37.5 mm Test Sieve (%):		0
Maximum Dry Density (Mg/m3):		1.65	Material Retained on 20.0 mm Test Sieve (%):		0
Optimum Moisture Content (%):		19			
Remarks See summary of soil descriptions					

EMERY EXPANSION TEST.

Road and Transport Association of Canada 1974.

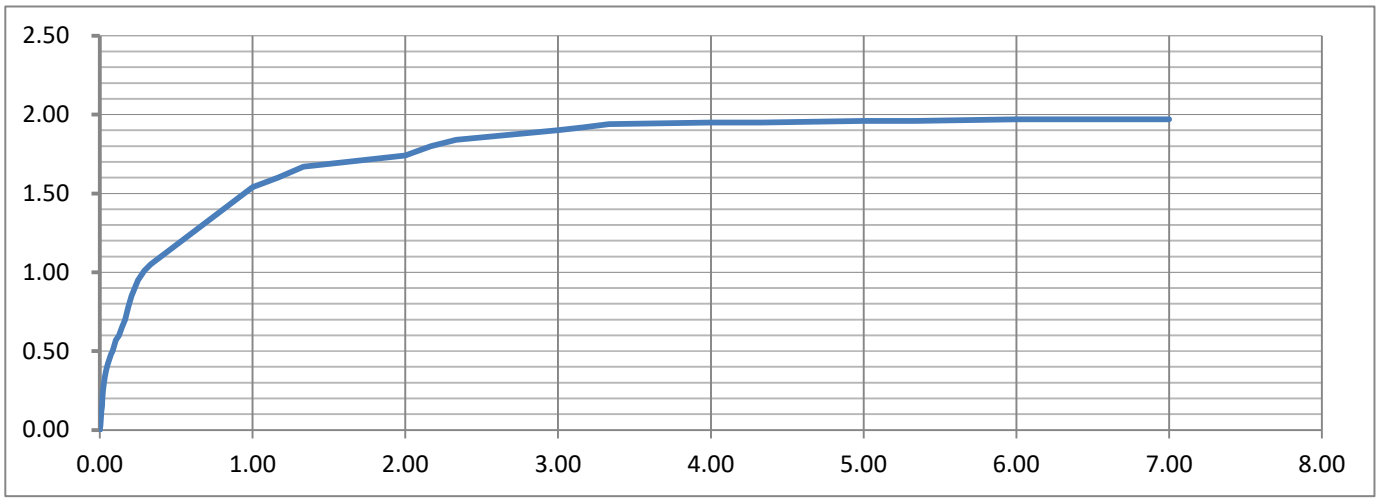
Hole Number: TP259 **Top Depth (m):** 2.80

Sample Number: **Base Depth(m):**

Sample Type: B

INITIAL CONDITIONS.		FINAL CONDITIONS.	
Initial Height - mm:	126.79	Final Height - mm:	128.76
Initial Diameter - mm:	152.77	Final Mass - g:	4404.00
Initial Mass - g:	4321.00	Final Volume - cm3:	2360.50
Initial Volume - cm3:	2324.38	Dry Mass - g:	3451.00
Dry Mass - g:	3451.00	Final Moisture Content - %:	28
Initial Moisture Content - %:	25	Final Bulk Density - Mg/m3:	1.87
Initial Bulk Density - Mg/m3:	1.86	Final Dry Density - Mg/m3:	1.46
Initial Dry Density - Mg/m3:	1.48	Test Temperature oC:	82

Elapsed Time Min	Dial Gauge Reading Div	Change In Height mm	Elapsed Time Min	Dial Gauge Reading Div	Change In Height mm	Elapsed Time Min	Dial Gauge Reading Div	Change In Height mm
0	0	0.00	120	50	0.50	2880	174	1.74
5	3	0.03	150	57	0.57	3120	180	1.80
10	6	0.06	180	60	0.60	3360	184	1.84
15	12	0.12	210	65	0.65	4320	190	1.90
20	15	0.15	240	70	0.70	4560	192	1.92
25	20	0.20	270	78	0.78	4800	194	1.94
30	25	0.25	300	85	0.85	5760	195	1.95
40	30	0.30	360	95	0.95	6240	195	1.95
50	34	0.34	420	101	1.01	7200	196	1.96
60	38	0.38	480	105	1.05	7680	196	1.96
75	42	0.42	1440	154	1.54	8640	197	1.97
90	45	0.45	1680	160	1.60	9120	197	1.97
105	48	0.48	1920	167	1.67	10080	197	1.97



PSL Professional Soils Laboratory

Ten Acres Lane

Contract No:
PSL22/3486
Client Ref:
LD10385

EMERY EXPANSION TEST.

Road and Transport Association of Canada 1974.

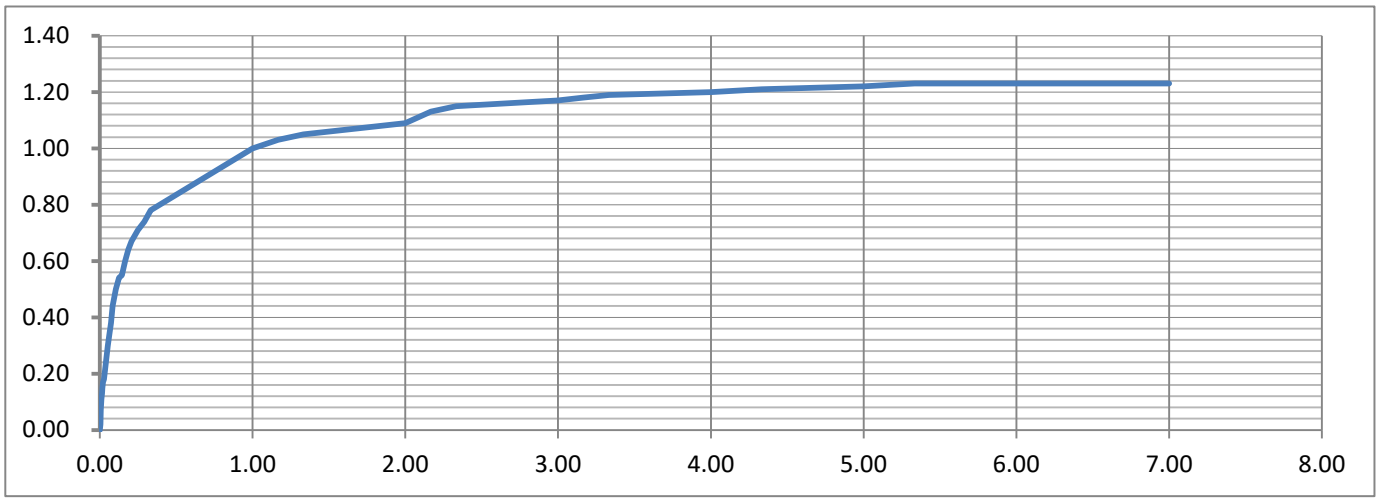
Hole Number: TP248A **Top Depth (m):** 1.40

Sample Number: **Base Depth(m):**

Sample Type: B

INITIAL CONDITIONS.		FINAL CONDITIONS.	
Initial Height - mm:	126.97	Final Height - mm:	128.20
Initial Diameter - mm:	152.77	Final Mass - g:	4351.00
Initial Mass - g:	4275.00	Final Volume - cm3:	2350.23
Initial Volume - cm3:	2327.68	Dry Mass - g:	3411.00
Dry Mass - g:	3411.00	Final Moisture Content - %:	28
Initial Moisture Content - %:	25	Final Bulk Density - Mg/m3:	1.85
Initial Bulk Density - Mg/m3:	1.84	Final Dry Density - Mg/m3:	1.45
Initial Dry Density - Mg/m3:	1.47	Test Temperature oC:	82

Elapsed Time Min	Dial Gauge Reading Div	Change In Height mm	Elapsed Time Min	Dial Gauge Reading Div	Change In Height mm	Elapsed Time Min	Dial Gauge Reading Div	Change In Height mm
0	0	0.00	120	44	0.44	2880	109	1.09
5	2	0.02	150	50	0.50	3120	113	1.13
10	7	0.07	180	54	0.54	3360	115	1.15
15	11	0.11	210	55	0.55	4320	117	1.17
20	13	0.13	240	60	0.60	4560	118	1.18
25	15	0.15	270	64	0.64	4800	119	1.19
30	17	0.17	300	67	0.67	5760	120	1.20
40	18	0.18	360	71	0.71	6240	121	1.21
50	21	0.21	420	74	0.74	7200	122	1.22
60	25	0.25	480	78	0.78	7680	123	1.23
75	30	0.30	1440	100	1.00	8640	123	1.23
90	34	0.34	1680	103	1.03	9120	123	1.23
105	38	0.38	1920	105	1.05	10080	123	1.23



PSL Professional Soils Laboratory

Ten Acres Lane

Contract No:
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Client Ref:
LD10385

EMERY EXPANSION TEST.

Road and Transport Association of Canada 1974.

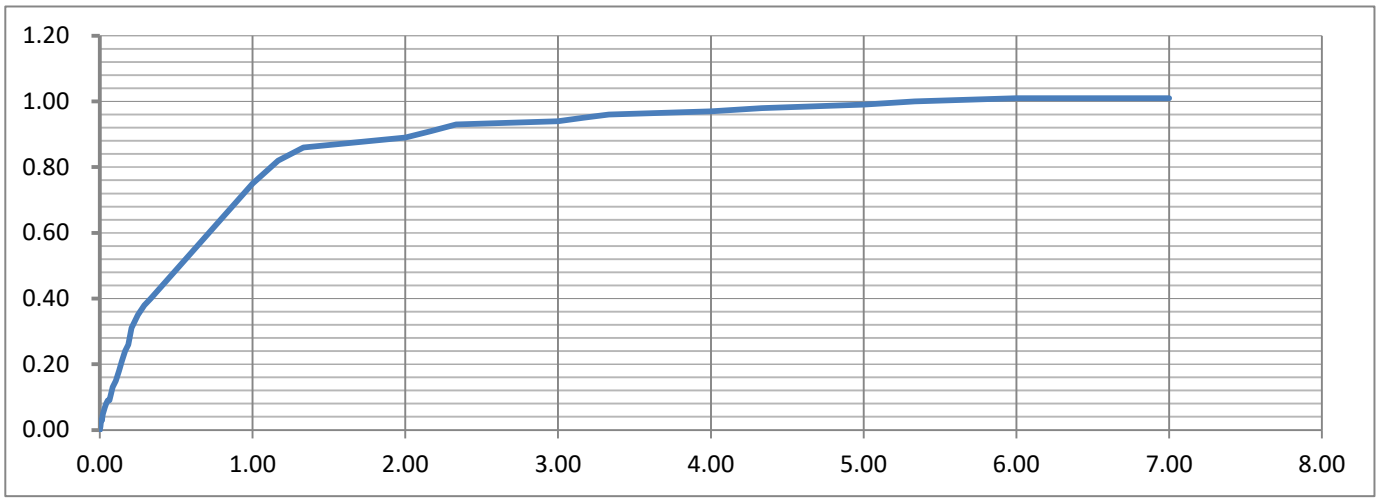
Hole Number: TP246A **Top Depth (m):** 1.40

Sample Number: **Base Depth(m):**

Sample Type: B

INITIAL CONDITIONS.		FINAL CONDITIONS.	
Initial Height - mm:	127.37	Final Height - mm:	128.38
Initial Diameter - mm:	151.94	Final Mass - g:	4302.00
Initial Mass - g:	4238.00	Final Volume - cm3:	2328.03
Initial Volume - cm3:	2309.71	Dry Mass - g:	3392.00
Dry Mass - g:	3392.00	Final Moisture Content - %:	27
Initial Moisture Content - %:	25	Final Bulk Density - Mg/m3:	1.85
Initial Bulk Density - Mg/m3:	1.83	Final Dry Density - Mg/m3:	1.46
Initial Dry Density - Mg/m3:	1.47	Test Temperature oC:	82

Elapsed Time Min	Dial Gauge Reading Div	Change In Height mm	Elapsed Time Min	Dial Gauge Reading Div	Change In Height mm	Elapsed Time Min	Dial Gauge Reading Div	Change In Height mm
0	0	0.00	120	13	0.13	2880	89	0.89
5	1	0.01	150	15	0.15	3120	91	0.91
10	2	0.02	180	18	0.18	3360	93	0.93
15	3	0.03	210	21	0.21	4320	94	0.94
20	3	0.03	240	24	0.24	4560	95	0.95
25	4	0.04	270	26	0.26	4800	96	0.96
30	5	0.05	300	31	0.31	5760	97	0.97
40	6	0.06	360	35	0.35	6240	98	0.98
50	7	0.07	420	38	0.38	7200	99	0.99
60	8	0.08	480	40	0.40	7680	100	1.00
75	9	0.09	1440	75	0.75	8640	101	1.01
90	9	0.09	1680	82	0.82	9120	101	1.01
105	11	0.11	1920	86	0.86	10080	101	1.01



PSL Professional Soils Laboratory

Ten Acres Lane

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PSL22/3486
Client Ref:
LD10385

EMERY EXPANSION TEST.

Road and Transport Association of Canada 1974.

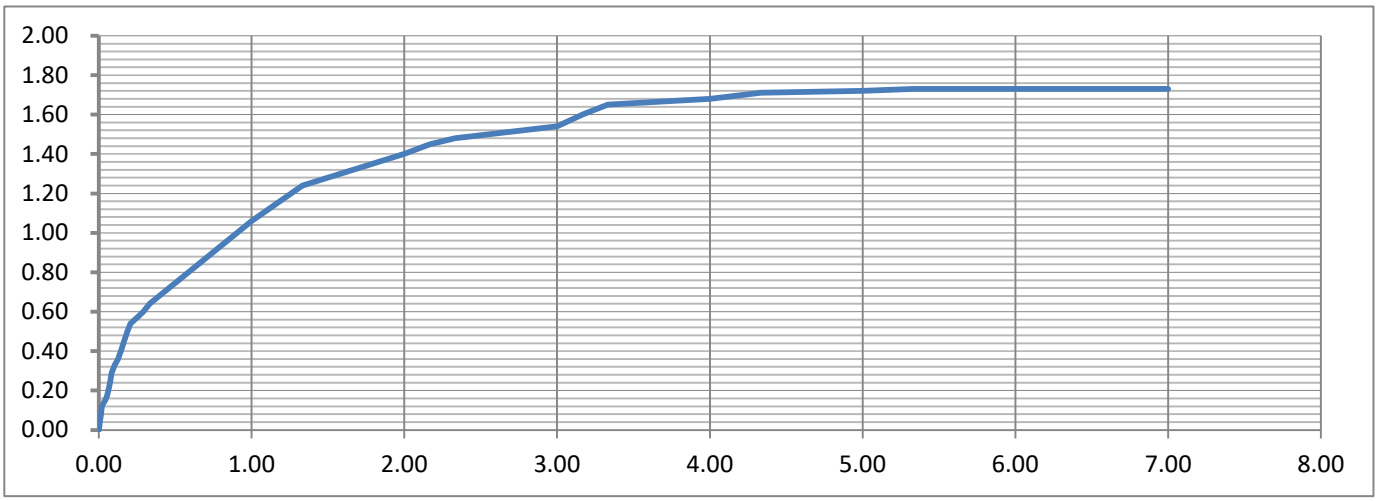
Hole Number: TP217A **Top Depth (m):** 1.60

Sample Number: **Base Depth(m):**

Sample Type: B

INITIAL CONDITIONS.		FINAL CONDITIONS.	
Initial Height - mm:	126.91	Final Height - mm:	128.64
Initial Diameter - mm:	151.92	Final Mass - g:	4269.00
Initial Mass - g:	4158.00	Final Volume - cm3:	2332.13
Initial Volume - cm3:	2300.76	Dry Mass - g:	3434.00
Dry Mass - g:	3434.00	Final Moisture Content - %:	24
Initial Moisture Content - %:	21	Final Bulk Density - Mg/m3:	1.83
Initial Bulk Density - Mg/m3:	1.81	Final Dry Density - Mg/m3:	1.47
Initial Dry Density - Mg/m3:	1.49	Test Temperature oC:	82

Elapsed Time Min	Dial Gauge Reading Div	Change In Height mm	Elapsed Time Min	Dial Gauge Reading Div	Change In Height mm	Elapsed Time Min	Dial Gauge Reading Div	Change In Height mm
0	0	0.00	120	29	0.29	2880	140	1.40
5	2	0.02	150	33	0.33	3120	145	1.45
10	4	0.04	180	36	0.36	3360	148	1.48
15	6	0.06	210	40	0.40	4320	154	1.54
20	8	0.08	240	45	0.45	4560	160	1.60
25	10	0.10	270	50	0.50	4800	165	1.65
30	12	0.12	300	54	0.54	5760	168	1.68
40	13	0.13	360	57	0.57	6240	171	1.71
50	14	0.14	420	60	0.60	7200	172	1.72
60	15	0.15	480	64	0.64	7680	173	1.73
75	17	0.17	1440	106	1.06	8640	173	1.73
90	20	0.20	1680	115	1.15	9120	173	1.73
105	24	0.24	1920	124	1.24	10080	173	1.73



PSL Professional Soils Laboratory

Ten Acres Lane

Contract No:
PSL22/3486
Client Ref:
LD10385

2531

ANALYTICAL TEST REPORT

Contract no: 109912

Contract name: Ten Acres Lane

Client reference: PSL22/3486

Clients name: Professional Soils Laboratory

Clients address: 5/7 Hexthorpe Road
Doncaster
DN4 0AR

Samples received: 31 May 2022

Analysis started: 31 May 2022

Analysis completed: 14 June 2022

Report issued: 14 June 2022

Key

U	UKAS accredited test
M	MCERTS & UKAS accredited test
$	Test carried out by an approved subcontractor
I/S	Insufficient sample to carry out test
N/S	Sample not suitable for testing

Approved by:

Rachael Burton

Reporting Team Lead

Chemtech Environmental Limited

SOILS

Lab number			109912-01	109912-02	109912-03	109912-04	109912-05	109912-06
Sample id			TP204	TP206	TP207	TP217A	TP227A	TP242
Depth (m)			2.50	1.00	3.00	1.60	2.50	2.50
Sample Type			B	B	B	B	B	B
Date sampled			-	-	-	-	-	-
Test	**Method**	**Units**						
pH	CE004 [U]	units	7.3	8.1	7.6	8.4	7.9	-
Magnesium (2:1 water soluble)	CE061	mg/l Mg	21	12	45	16	68	-
Chloride (2:1 water soluble)	CE049 [U]	mg/l Cl	8.6	14	14	8.3	34	-
Nitrate (2:1 water soluble)	CE049 [U]	mg/l NO_3	<1	9.1	1.3	4.9	2.9	-
Sulphate (2:1 water soluble)	CE061 [U]	mg/l SO_4	314	200	1563	639	1965	-
Sulphate (total)	CE062 [U]	mg/kg SO_4	686	1369	11851	3685	13395	-
Sulphur (total)	CE119	mg/kg S	561	1095	5297	1632	7782	-
Sulphur (total)	CE119	% w/w S	0.06	0.11	0.53	0.16	0.78	-
Total Organic Carbon (TOC)	CE197	% w/w C	2.2	0.9	11.6	-	-	0.8
Estimate of OMC (calculated from TOC)	CE197	% w/w	3.7	1.5	20.0	-	-	1.3
Subcontracted analysis								
Calorific value	$	MJ/kg	-	-	-	-	9	-

Chemtech Environmental Limited

SOILS

Lab number			109912-07	109912-08	109912-09	109912-10	109912-11	109912-12
Sample id			TP246A	TP248A	TP254	TP258	TP260	TP261
Depth (m)			1.50	1.40	1.30	2.50	2.10	2.00
Sample Type			B	B	B	B	B	B
Date sampled			-	-	-	-	-	-
Test	**Method**	**Units**						
pH	CE004 [U]	units	-	7.7	8.1	7.9	5.6	8.2
Magnesium (2:1 water soluble)	CE061	mg/l Mg	-	23	24	22	8.9	5.5
Chloride (2:1 water soluble)	CE049 [U]	mg/l Cl	-	8.7	9.3	12	51	52
Nitrate (2:1 water soluble)	CE049 [U]	mg/l NO_3	-	1.3	6.8	<1	2.6	1.9
Sulphate (2:1 water soluble)	CE061 [U]	mg/l SO_4	-	439	819	1974	303	71
Sulphate (total)	CE062 [U]	mg/kg SO_4	-	2584	3135	5603	2230	891
Sulphur (total)	CE119	mg/kg S	-	2251	1573	2778	2509	2480
Sulphur (total)	CE119	% w/w S	-	0.23	0.16	0.28	0.25	0.25
Total Organic Carbon (TOC)	CE197	% w/w C	5.7	8.1	-	2.6	2.3	-
Estimate of OMC (calculated from TOC)	CE197	% w/w	9.7	13.9	-	4.5	3.9	-
Subcontracted analysis								
Calorific value	$	MJ/kg	-	-	-	-	6	14

Chemtech Environmental Limited

SOILS

Lab number			109912-13
Sample id			TP262
Depth (m)			2.00
Sample Type			B
Date sampled			-
Test	**Method**	**Units**	
pH	CE004 [U]	units	8.8
Magnesium (2:1 water soluble)	CE061	mg/l Mg	7.5
Chloride (2:1 water soluble)	CE049 [U]	mg/l Cl	10
Nitrate (2:1 water soluble)	CE049 [U]	mg/l NO_3	<1
Sulphate (2:1 water soluble)	CE061 [U]	mg/l SO_4	59
Sulphate (total)	CE062 [U]	mg/kg SO_4	925
Sulphur (total)	CE119	mg/kg S	672
Sulphur (total)	CE119	% w/w S	0.07
Total Organic Carbon (TOC)	CE197	% w/w C	2.9
Estimate of OMC (calculated from TOC)	CE197	% w/w	4.9
Subcontracted analysis			
Calorific value	$	MJ/kg	<2

Chemtech Environmental Limited

METHOD DETAILS

METHOD	SOILS	METHOD SUMMARY	SAMPLE	STATUS	LOD	UNITS
CE004	pH	Based on BS 1377, pH Meter	As received	U	-	units
CE061	Magnesium (2:1 water soluble)	Aqueous extraction, ICP-OES	Dry		1	mg/l Mg
CE049	Chloride (2:1 water soluble)	Aqueous extraction, IC-COND	Dry	U	1	mg/l Cl
CE049	Nitrate (2:1 water soluble)	Aqueous extraction, IC-COND	Dry	U	1	mg/l NO_3
CE061	Sulphate (2:1 water soluble)	Aqueous extraction, ICP-OES	Dry	U	10	mg/l SO_4
CE062	Sulphate (total)	Acid extraction, ICP-OES	Dry	U	100	mg/kg SO_4
CE119	Sulphur (total)	Acid extraction, ICP-OES	Dry		100	mg/kg S
CE119	Sulphur (total)	Acid extraction, ICP-OES	Dry		0.01	% w/w S
CE197	Total Organic Carbon (TOC)	Carbon Analyser	Dry		0.1	% w/w C
CE197	Estimate of OMC (calculated from TOC)	Calculation from Total Organic Carbon	Dry		0.1	% w/w
$	Calorific value	Combustion, Carbon analyser	Dry		2	MJ/kg

Chemtech Environmental Limited

DEVIATING SAMPLE INFORMATION

Comments
Sample deviation is determined in accordance with the UKAS note "Guidance on Deviating Samples" and based on reference standards and laboratory trials.
For samples identified as deviating, test result(s) may be compromised and may not be representative of the sample at the time of sampling.
Chemtech Environmental Ltd cannot be held responsible for the integrity of sample(s) received if Chemtech Environmental Ltd did not undertake the sampling. Such samples may be deviating.

Key

N	No (not deviating sample)
Y	Yes (deviating sample)
NSD	Sampling date not provided
NST	Sampling time not provided (waters only)
EHT	Sample exceeded holding time(s)
IC	Sample not received in appropriate containers
HP	Headspace present in sample container
NCF	Sample not chemically fixed (where appropriate)
OR	Other (specify)

Lab ref	Sample id	Depth (m)	Deviating	Tests (Reason for deviation)
109912-01	TP204	2.50	Y	All (NSD)
109912-02	TP206	1.00	Y	All (NSD)
109912-03	TP207	3.00	Y	All (NSD)
109912-04	TP217A	1.60	Y	All (NSD)
109912-05	TP227A	2.50	Y	All (NSD)
109912-08	TP248A	1.40	Y	All (NSD)
109912-09	TP254	1.30	Y	All (NSD)
109912-10	TP258	2.50	Y	All (NSD)
109912-11	TP260	2.10	Y	All (NSD)
109912-12	TP261	2.00	Y	All (NSD)
109912-13	TP262	2.00	Y	All (NSD)

Chemtech Environmental Limited

ADDITIONAL INFORMATION

Notes

Opinions and interpretations expressed herein are outside the UKAS accreditation scope.

Unless otherwise stated, Chemtech Environmental Ltd was not responsible for sampling.

All testing carried out at Unit 6 Parkhead, Stanley, DH9 7YB, except for subcontracted testing.

Methods, procedures and performance data are available on request.

Results reported herein relate only to the material supplied to the laboratory.

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

Samples will be disposed of 6 weeks from initial receipt unless otherwise instructed.

For soils and solids, all results are reported on a dry basis. Samples dried at no more than 30°C in a drying cabinet.

Analytical results are inclusive of stones, where applicable.

LABORATORY REPORT

4043

Contract Number: PSL22/3506

Report Date: 23 June 2022

Client's Reference: LD10385

Client Name: Wardell Armstrong
Northspring
36 Park Row
Leeds
LS1 5JL

For the attention of: Elliot Heatherington

Contract Title: Ten Acres Lane

Date Received: 18/5/2022
Date Commenced: 18/5/2022
Date Completed: 23/6/2022

Notes: Opinions and Interpretations are outside the UKAS Accreditation

A copy of the Laboratory Schedule of accredited tests as issued by UKAS is attached to this report. This certificate is issued in accordance with the accreditation requirements of the United Kingdom Accreditation Service. The results reported herein relate only to the material supplied to the laboratory. This certificate shall not be reproduced other than in full, without the prior written approval of the laboratory.

Checked and Approved Signatories:

A Watkins (Director)
R Berriman (Quality Manager)
S Royle (Laboratory Manager)
L Knight (Assistant Laboratory Manager)
S Eyre (Senior Technician)
T Watkins (Senior Technician)

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e-mail: rberriman@prosoils.co.uk
awatkins@prosoils.co.uk

SUMMARY OF LABORATORY SOIL DESCRIPTIONS

Hole Number	Sample Number	Sample Type	Top Depth m	Base Depth m	Description of Sample
TP211		B	1.80		MADE GROUND dark grey very gravelly very sandy clay.
TP237		B	4.50		Brown slightly gravelly very sandy CLAY.
TP252		B	2.10		Brown slightly gravelly silty SAND.
TP202		B	2.00		Brown slightly gravelly sandy CLAY.
TP236		B	2.50		Brown slightly gravelly very sandy CLAY.
TP250		B	1.00		Grey gravelly sandy CLAY.
TP223		B	2.20		Dark grey slightly gravelly very sandy organic CLAY.
TP213		B	1.00		MADE GROUND brown very gravelly very sandy clay.
TP214		B	2.00		MADE GROUND brown very sandy clayey gravel with some cobbles.
TP219		B	1.20		MADE GROUND brown sandy clayey gravel with many cobbles.
TP220		B	2.00		MADE GROUND brown very sandy clayey gravel with cobbles.
TP236		B	1.50		MADE GROUND brown very sandy very clayey gravel with cobbles.
TP252		B	1.00		MADE GROUND brownvery sandy slightly clayey gravel of cobbles.
CP203		B	7.00		Brown slightly gravelly very sandy CLAY.
CP205		B	8.00		Brown very gravelly very sandy CLAY.
CP207		B	18.00		Brown gravelly very sandy CLAY.
CP210		B	10.00		Brown slightly silty SAND.
RH201		CS	15.80	16.00	Stiff brown very sandy CLAY.
RH202		CS	13.10	13.50	Stiff brown slightly gravelly very sandy CLAY.

SUMMARY OF LABORATORY SOIL DESCRIPTIONS

Hole Number	Sample Number	Sample Type	Top Depth m	Base Depth m	Description of Sample
RH205		CS	12.50	12.80	Stiff brown slightly gravelly very sandy CLAY.
RH206		CS	6.00	6.45	Brown slightly gravelly sandy CLAY.
CP207		U	15.00	15.45	Brown slightly gravelly very sandy CLAY.
CP202		B	11.00	12.00	Brown very sandy slightly silty GRAVEL.
CP204		B	4.00		MADE GROUND brown very sandy very clayey gravel.
CP206		B	4.00		Brown slightly gravelly sandy CLAY.
CP207		B	10.00	11.00	Brown very sandy very clayey GRAVEL.

SUMMARY OF SOIL CLASSIFICATION TESTS

(BS1377 : PART 2 : 1990)

Hole Number	Sample Number	Sample Type	Top Depth m	Base Depth m	Moisture Content % Clause 3.2	Linear Shrinkage % Clause 6.5	Particle Density Mg/m^3 Clause 8.2	Liquid Limit % Clause 4.3/4	Plastic Limit % Clause 5.3	Plasticity Index % Clause 5.4	Passing .425mm %	Remarks
TP211		B	1.80		31		2.59	46	24	22	71	Intermediate Plasticity CI
TP237		B	4.50		19		2.64	36	19	17	86	Intermediate Plasticity CI
TP252		B	2.10		20		2.61					
TP202		B	2.00		20		2.66	45	22	23	93	Intermediate Plasticity CI
TP236		B	2.50		20			36	18	18	91	Intermediate Plasticity CI
TP250		B	1.00		30		2.65	48	25	23	85	Intermediate Plasticity CI
TP223		B	2.20		50			90	38	52	93	Extremely High Plasticity CE
TP213		B	1.00		26		2.58					
TP214		B	2.00		21		2.40					
TP219		B	1.20		16		2.48					
TP220		B	2.00		20							
TP236		B	1.50		26							
TP252		B	1.00		15		2.55					
CP203		B	7.00		20		2.66					
CP205		B	8.00		17							
CP207		B	18.00		19							
CP210		B	10.00		14		2.62					
RH201		CS	15.80	16.00	14		2.64	27	15	12	98	Low Plasticity CL
RH202		CS	13.10	13.50	15			33	17	16	96	Low Plasticity CL

SYMBOLS : **NP : Non Plastic** *** : Liquid Limit and Plastic Limit Wet Sieved.**

UKAS TESTING 4043

PSL Professional Soils Laboratory

Ten Acres Lane

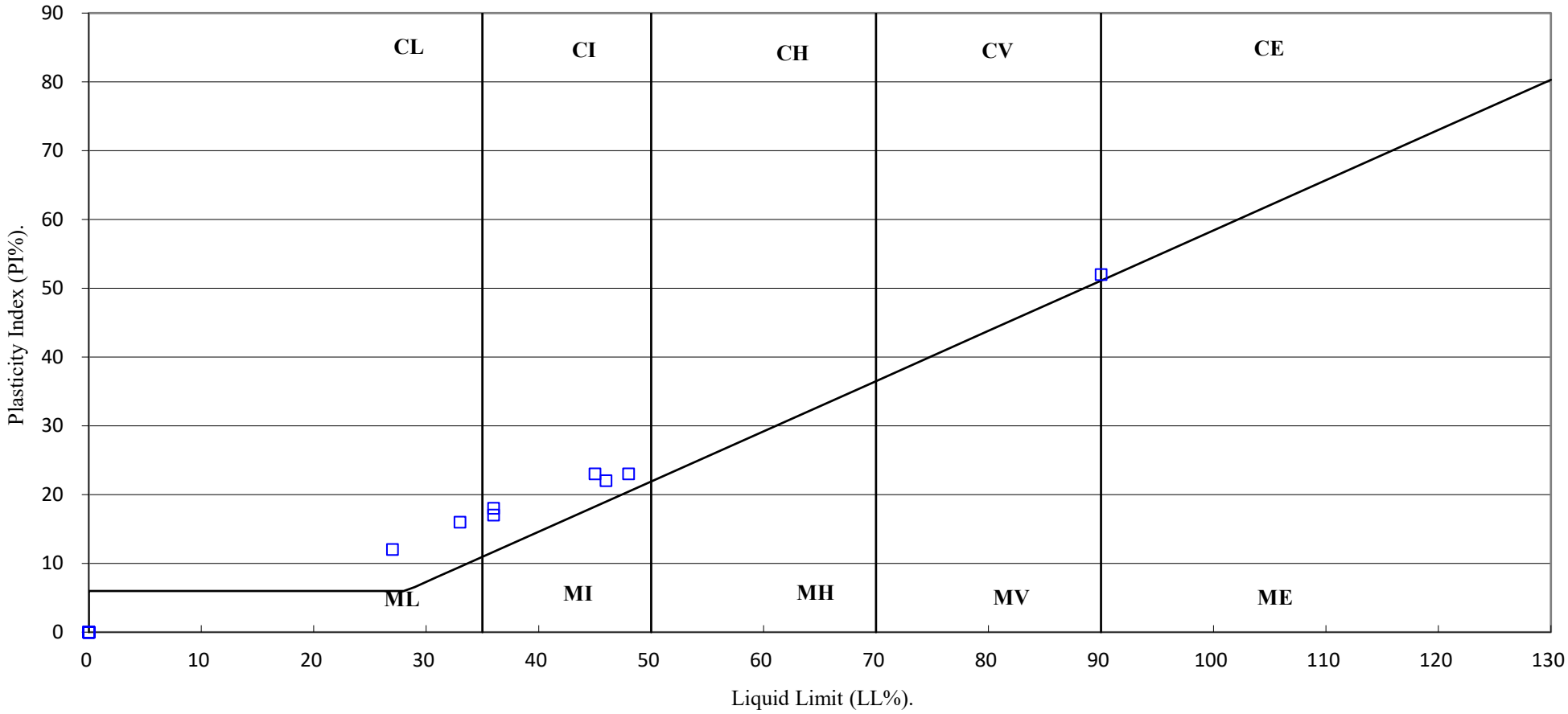
Contract No:

PSL22/3506

Client Ref:

LD10385

PLASTICITY CHART FOR CASAGRANDE CLASSIFICATION.



UKAS TESTING 4043	PSL Professional Soils Laboratory	Ten Acres Lane	**Contract No:** PSL22/3506 **Client Ref:** LD10385

SUMMARY OF SOIL CLASSIFICATION TESTS

(BS1377 : PART 2 : 1990)

Hole Number	Sample Number	Sample Type	Top Depth m	Base Depth m	Moisture Content % Clause 3.2	Linear Shrinkage % Clause 6.5	Particle Density Mg/m^3 Clause 8.2	Liquid Limit % Clause 4.3/4	Plastic Limit % Clause 5.3	Plasticity Index % Clause 5.4	Passing .425mm %	Remarks
RH205		CS	12.50	12.80	15			35	17	18	89	Intermediate Plasticity CI
RH206		CS	6.00	6.45	17		2.63	37	19	18	89	Intermediate Plasticity CI
CP207		U	15.00	15.45	14			36	17	19	92	Intermediate Plasticity CI
CP202		B	11.00	12.00	14							
CP204		B	4.00		20							
CP206		B	4.00		20			44	20	24	88	Intermediate Plasticity CI
CP207		B	10.00	11.00	20							

SYMBOLS : **NP : Non Plastic** *** : Liquid Limit and Plastic Limit Wet Sieved.**

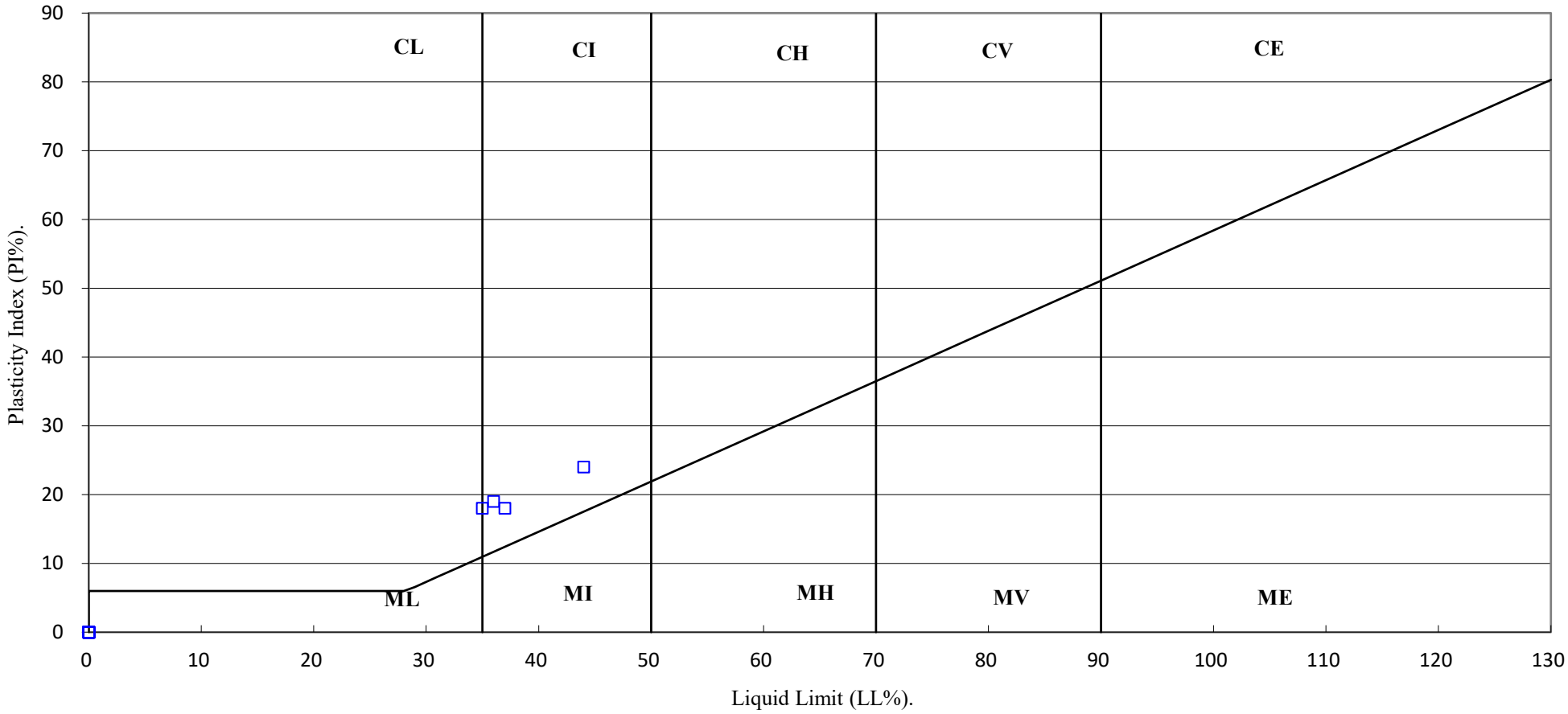
UKAS TESTING 4043

PSL Professional Soils Laboratory

Ten Acres Lane

Contract No:
PSL22/3506
Client Ref:
LD10385

PLASTICITY CHART FOR CASAGRANDE CLASSIFICATION.



UKAS TESTING 4043	PSL Professional Soils Laboratory	Ten Acres Lane	Contract No: PSL22/3506 Client Ref: LD10385

PARTICLE SIZE DISTRIBUTION TEST

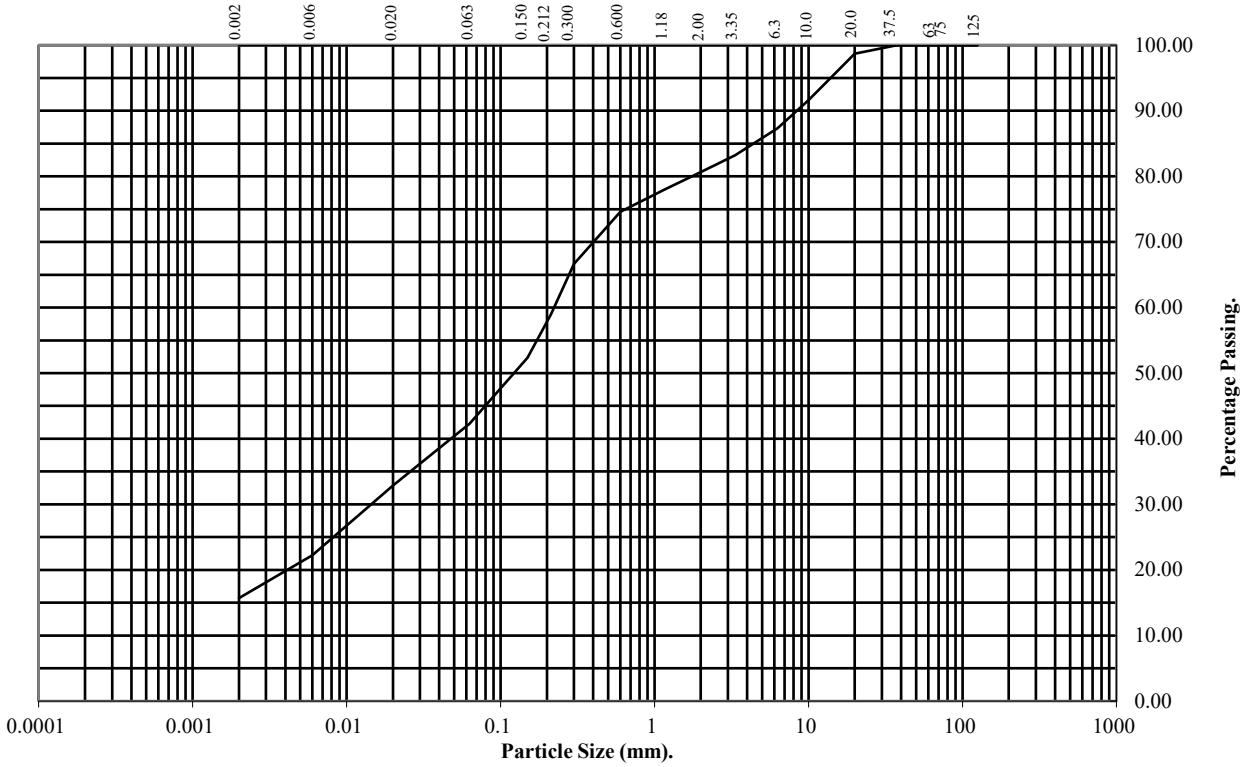
BS1377 : Part 2 : 1990

Wet Sieve & Pipette Analysis, Clause 9.2 & 9.4

Hole Number: **TP211** **Top Depth (m):** **1.80**

Sample Number: **Base Depth(m):**

Sample Type: **B**



BS Test Sieve (mm)	Percentage Passing
125	100
75	100
63	100
37.5	100
20	99
10	92
6.3	87
3.35	83
2	81
1.18	78
0.6	75
0.3	67
0.212	59
0.15	52
0.063	42

Particle Diameter	Percentage Passing
0.02	33
0.006	22
0.002	16

Soil Fraction	Total Percentage
Cobbles	0
Gravel	19
Sand	39
Silt	26
Clay	16

Remarks:

See Summary of Soil Descriptions

PARTICLE SIZE DISTRIBUTION TEST

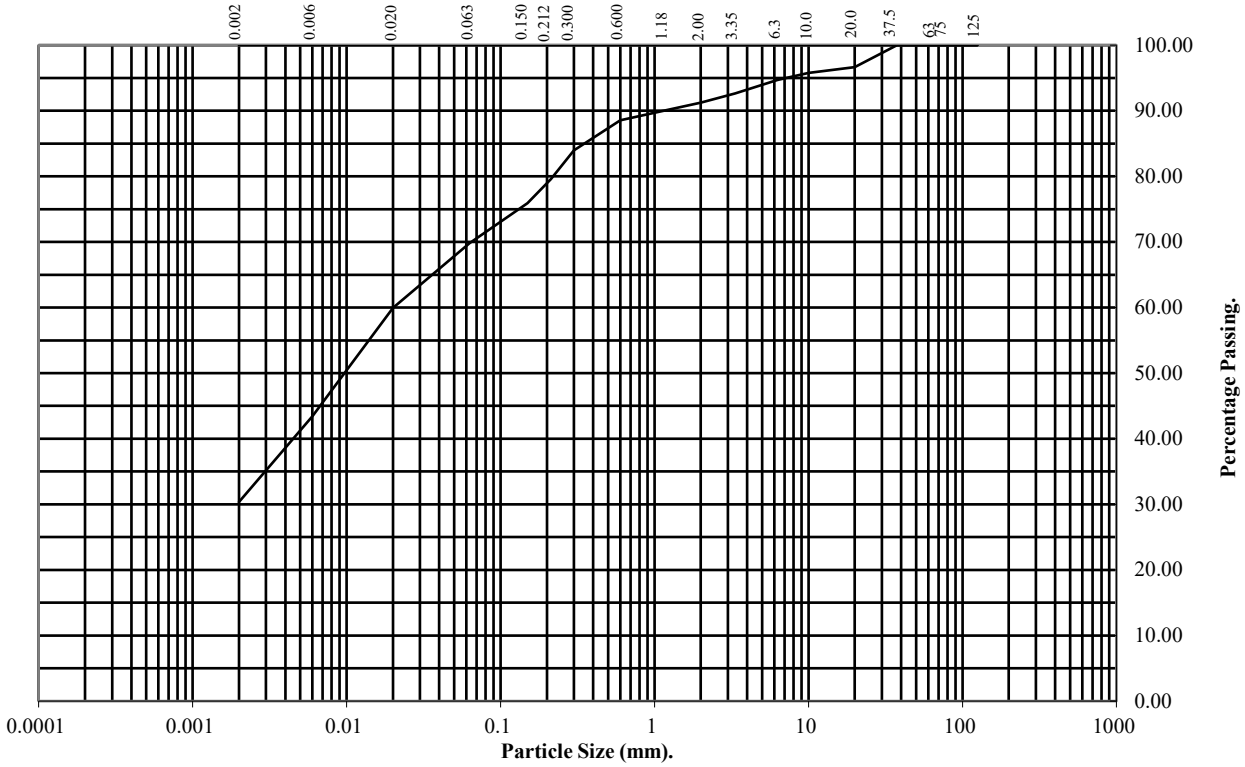
BS1377 : Part 2 : 1990

Wet Sieve & Pipette Analysis, Clause 9.2 & 9.4

Hole Number: TP237 **Top Depth (m):** 4.50

Sample Number: **Base Depth(m):**

Sample Type: B



BS Test Sieve (mm)	Percentage Passing
125	100
75	100
63	100
37.5	100
20	97
10	96
6.3	95
3.35	93
2	91
1.18	90
0.6	89
0.3	84
0.212	80
0.15	76
0.063	70

Particle Diameter	Percentage Passing
0.02	60
0.006	43
0.002	30

Soil Fraction	Total Percentage
Cobbles	0
Gravel	9
Sand	21
Silt	40
Clay	30

Remarks:

See Summary of Soil Descriptions

PARTICLE SIZE DISTRIBUTION TEST

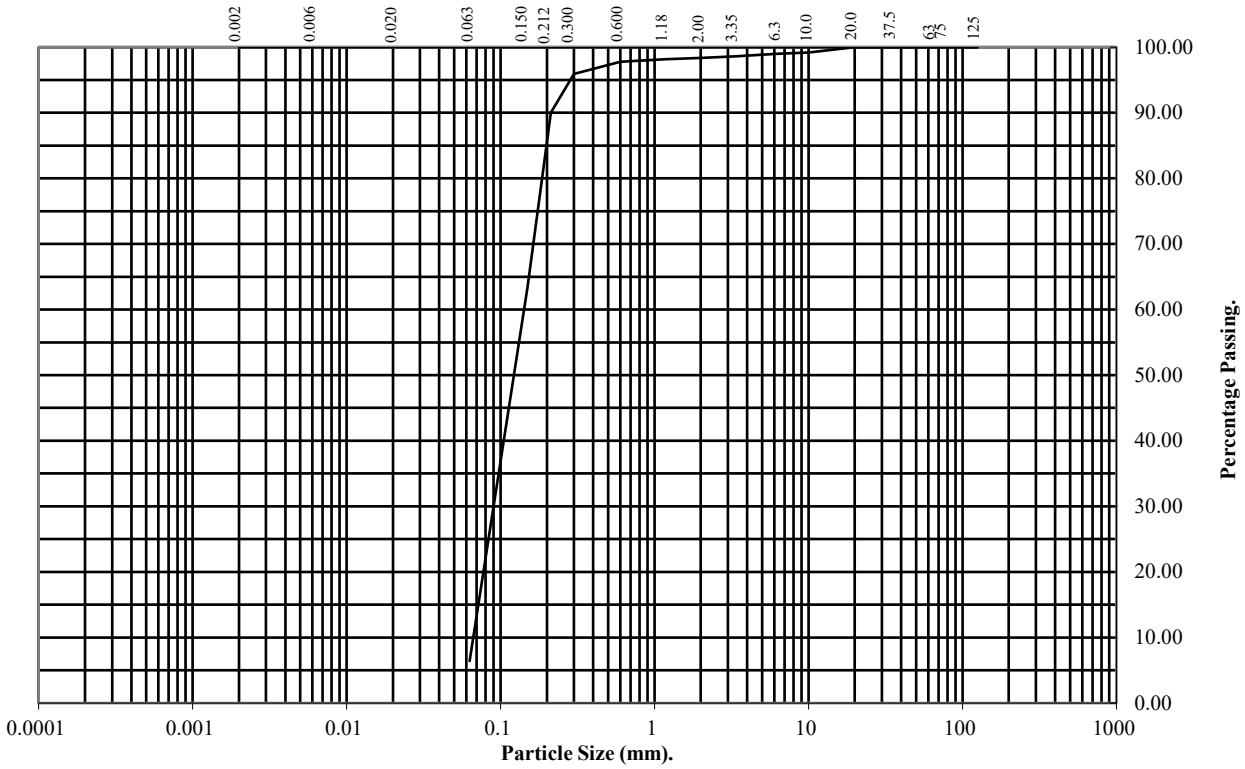
BS1377 : Part 2 : 1990

Wet Sieve, Clause 9.2

Hole Number: **TP252** **Top Depth (m):** **2.10**

Sample Number: **Base Depth(m):**

Sample Type: **B**



BS Test Sieve (mm)	Percentage Passing
125	100
75	100
63	100
37.5	100
20	100
10	99
6.3	99
3.35	99
2	98
1.18	98
0.6	98
0.3	96
0.212	90
0.15	63
0.063	6

Soil Fraction	Total Percentage
Cobbles	0
Gravel	2
Sand	92
Silt/Clay	6

Remarks:

See Summary of Soil Descriptions

PARTICLE SIZE DISTRIBUTION TEST

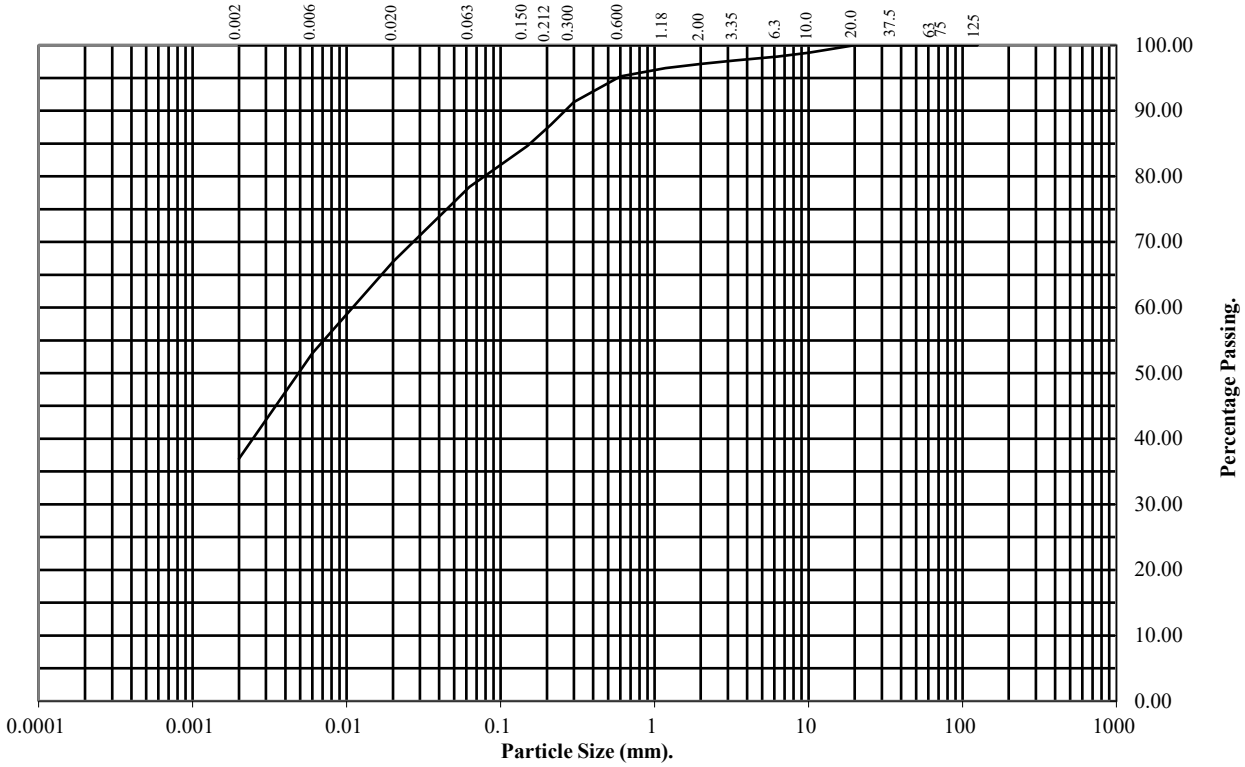
BS1377 : Part 2 : 1990

Wet Sieve & Pipette Analysis, Clause 9.2 & 9.4

Hole Number: TP202 **Top Depth (m):** 2.00

Sample Number: **Base Depth(m):**

Sample Type: B



BS Test Sieve (mm)	Percentage Passing
125	100
75	100
63	100
37.5	100
20	100
10	99
6.3	98
3.35	98
2	97
1.18	97
0.6	95
0.3	91
0.212	88
0.15	85
0.063	78

Particle Diameter	Percentage Passing
0.02	67
0.006	53
0.002	37

Soil Fraction	Total Percentage
Cobbles	0
Gravel	3
Sand	19
Silt	41
Clay	37

Remarks:

See Summary of Soil Descriptions

PARTICLE SIZE DISTRIBUTION TEST

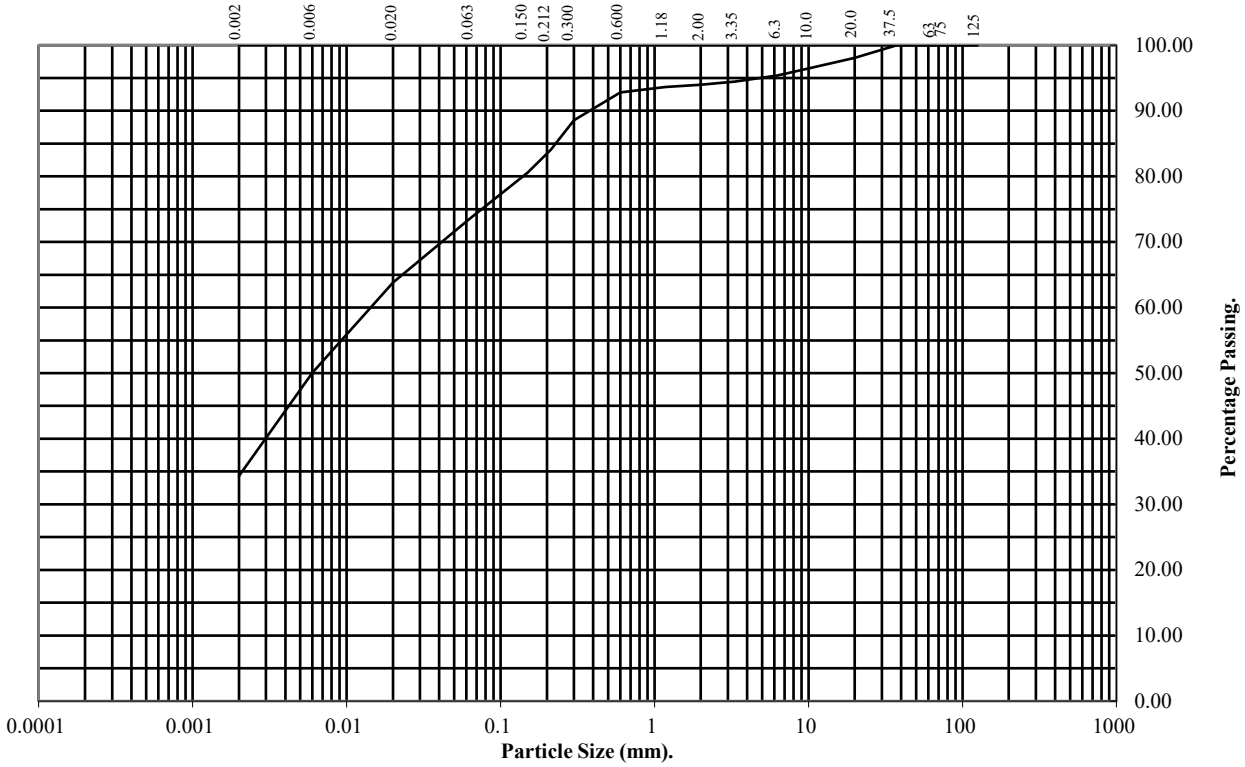
BS1377 : Part 2 : 1990

Wet Sieve & Pipette Analysis, Clause 9.2 & 9.4

Hole Number: TP236 **Top Depth (m):** 2.50

Sample Number: **Base Depth(m):**

Sample Type: B



BS Test Sieve (mm)	Percentage Passing
125	100
75	100
63	100
37.5	100
20	98
10	96
6.3	95
3.35	94
2	94
1.18	94
0.6	93
0.3	89
0.212	84
0.15	81
0.063	74

Particle Diameter	Percentage Passing
0.02	64
0.006	50
0.002	34

Soil Fraction	Total Percentage
Cobbles	0
Gravel	6
Sand	20
Silt	40
Clay	34

Remarks:

See Summary of Soil Descriptions

UKAS TESTING 4043

PSL Professional Soils Laboratory

Ten Acres Lane

Contract No:
PSL22/3506
Client Ref:
LD10385

PARTICLE SIZE DISTRIBUTION TEST

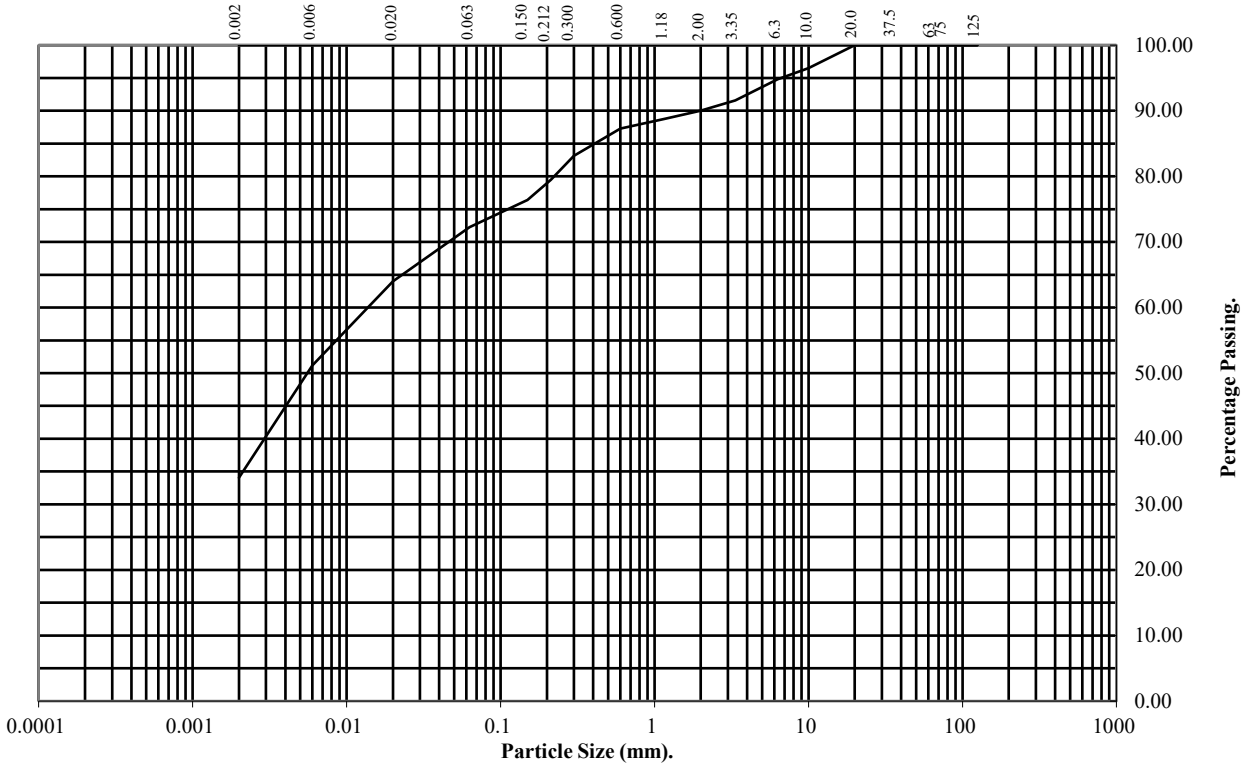
BS1377 : Part 2 : 1990

Wet Sieve & Pipette Analysis, Clause 9.2 & 9.4

Hole Number: **TP250** **Top Depth (m):** **1.00**

Sample Number: **Base Depth(m):**

Sample Type: **B**



BS Test Sieve (mm)	Percentage Passing
125	100
75	100
63	100
37.5	100
20	100
10	97
6.3	95
3.35	92
2	90
1.18	89
0.6	87
0.3	83
0.212	79
0.15	76
0.063	72

Particle Diameter	Percentage Passing
0.02	64
0.006	51
0.002	34

Soil Fraction	Total Percentage
Cobbles	0
Gravel	10
Sand	18
Silt	38
Clay	34

Remarks:
See Summary of Soil Descriptions

UKAS TESTING 4043

PSL Professional Soils Laboratory

Ten Acres Lane

Contract No:
PSL22/3506
Client Ref:
LD10385

PARTICLE SIZE DISTRIBUTION TEST

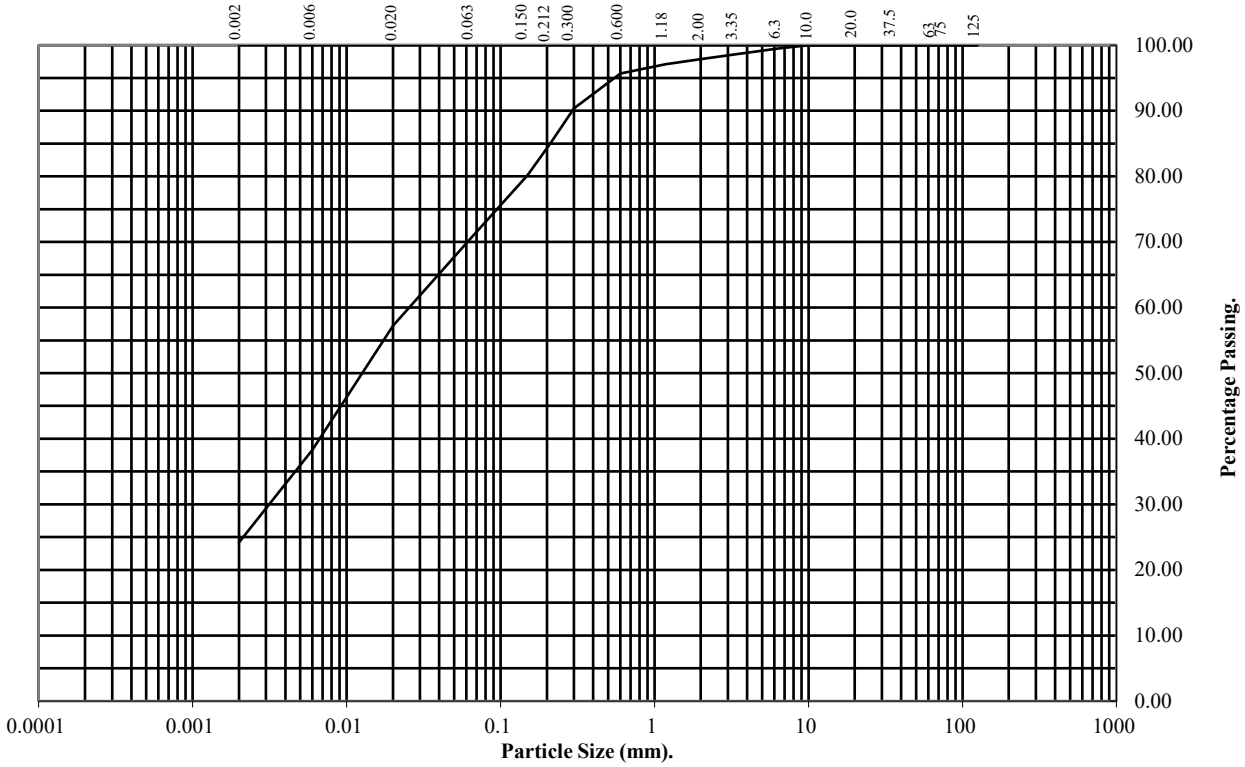
BS1377 : Part 2 : 1990

Wet Sieve & Pipette Analysis, Clause 9.2 & 9.4

Hole Number: **TP223** **Top Depth (m):** **2.20**

Sample Number: **Base Depth(m):**

Sample Type: **B**



BS Test Sieve (mm)	Percentage Passing
125	100
75	100
63	100
37.5	100
20	100
10	100
6.3	99
3.35	99
2	98
1.18	97
0.6	96
0.3	90
0.212	85
0.15	80
0.063	70

Particle Diameter	Percentage Passing
0.02	57
0.006	38
0.002	24

Soil Fraction	Total Percentage
Cobbles	0
Gravel	2
Sand	28
Silt	46
Clay	24

Remarks:
See Summary of Soil Descriptions

PARTICLE SIZE DISTRIBUTION TEST

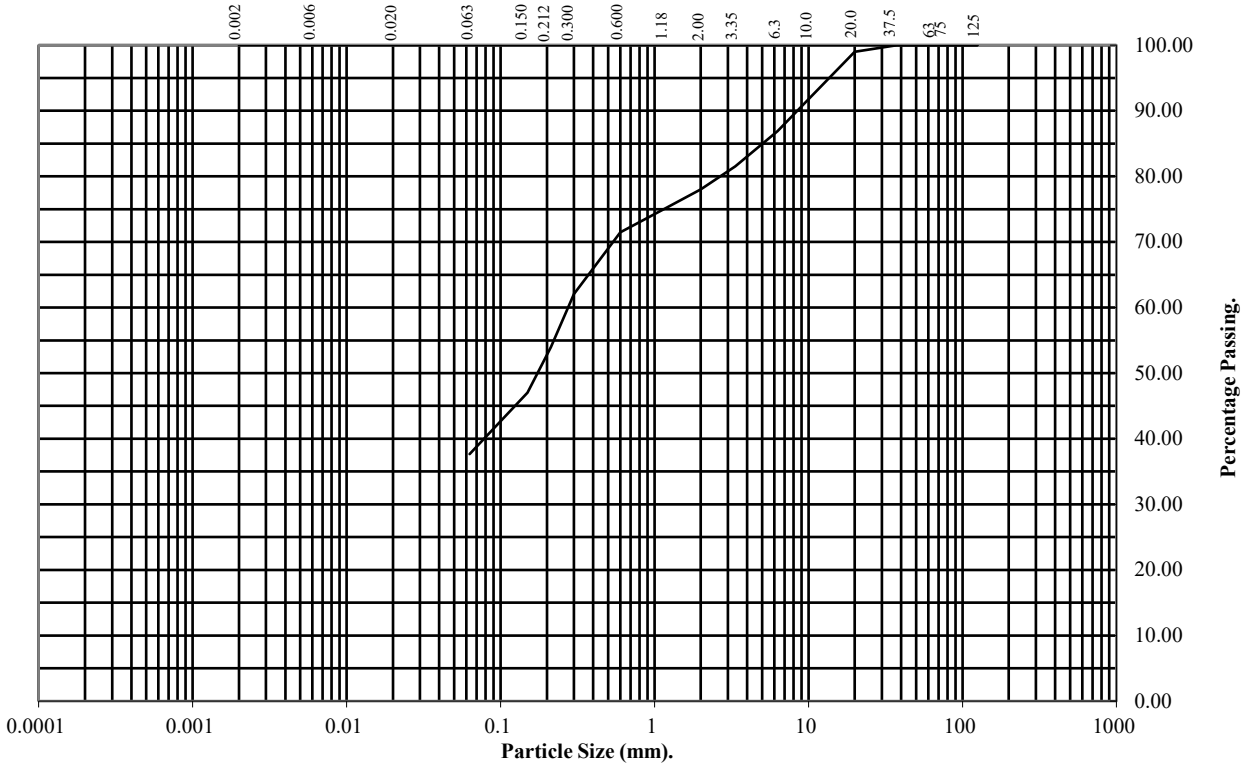
BS1377 : Part 2 : 1990

Wet Sieve, Clause 9.2

Hole Number: TP213 **Top Depth (m):** 1.00

Sample Number: **Base Depth(m):**

Sample Type: B



BS Test Sieve (mm)	Percentage Passing
125	100
75	100
63	100
37.5	100
20	99
10	92
6.3	87
3.35	82
2	78
1.18	75
0.6	71
0.3	62
0.212	54
0.15	47
0.063	38

Soil Fraction	Total Percentage
Cobbles	0
Gravel	22
Sand	40
Silt/Clay	38

Remarks:

See Summary of Soil Descriptions

PARTICLE SIZE DISTRIBUTION TEST

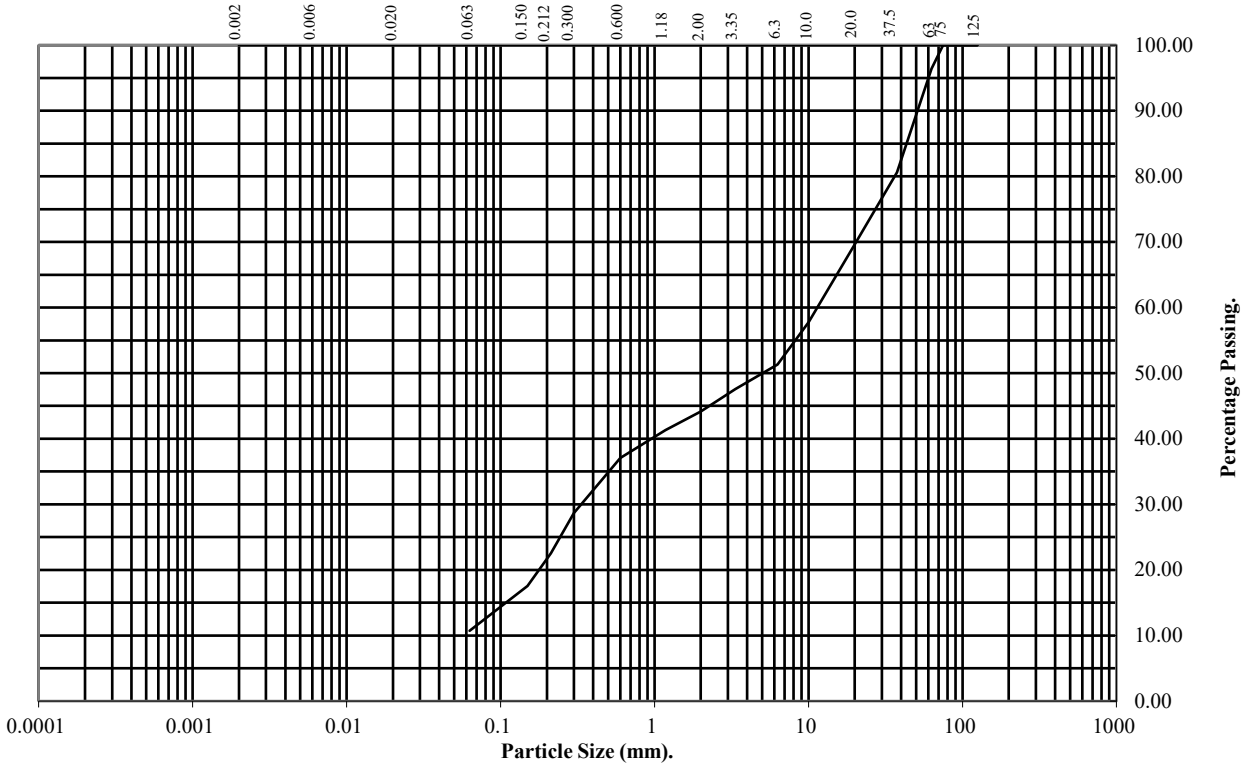
BS1377 : Part 2 : 1990

Wet Sieve, Clause 9.2

Hole Number: TP214 **Top Depth (m):** 2.00

Sample Number: **Base Depth(m):**

Sample Type: B



BS Test Sieve (mm)	Percentage Passing
125	100
75	100
63	96
37.5	81
20	70
10	58
6.3	51
3.35	48
2	44
1.18	41
0.6	37
0.3	29
0.212	23
0.15	18
0.063	11

Soil Fraction	Total Percentage
Cobbles	4
Gravel	52
Sand	33
Silt/Clay	11

Remarks:

See Summary of Soil Descriptions

PARTICLE SIZE DISTRIBUTION TEST

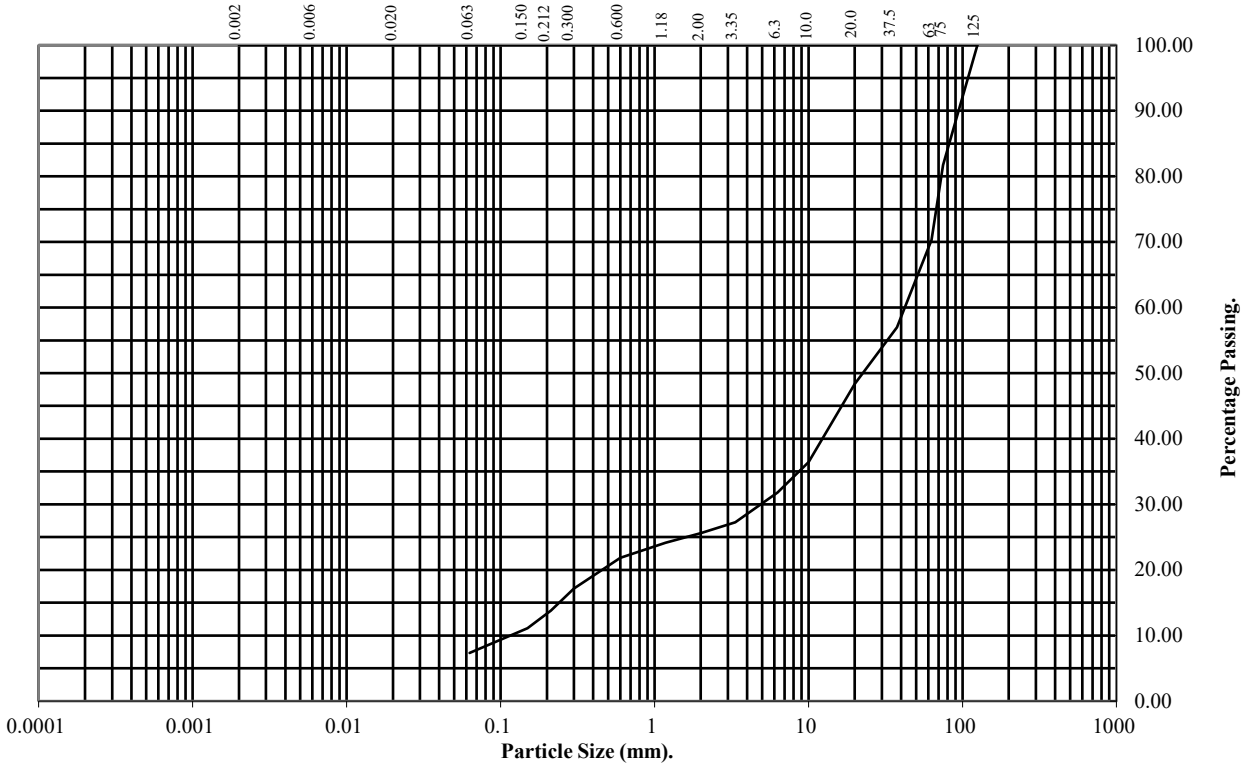
BS1377 : Part 2 : 1990

Wet Sieve, Clause 9.2

Hole Number: TP219 **Top Depth (m):** 1.20

Sample Number: **Base Depth(m):**

Sample Type: B



BS Test Sieve (mm)	Percentage Passing
125	100
75	82
63	70
37.5	57
20	48
10	36
6.3	32
3.35	27
2	26
1.18	24
0.6	22
0.3	17
0.212	14
0.15	11
0.063	7

Soil Fraction	Total Percentage
Cobbles	30
Gravel	44
Sand	19
Silt/Clay	7

Remarks:

See Summary of Soil Descriptions

PARTICLE SIZE DISTRIBUTION TEST

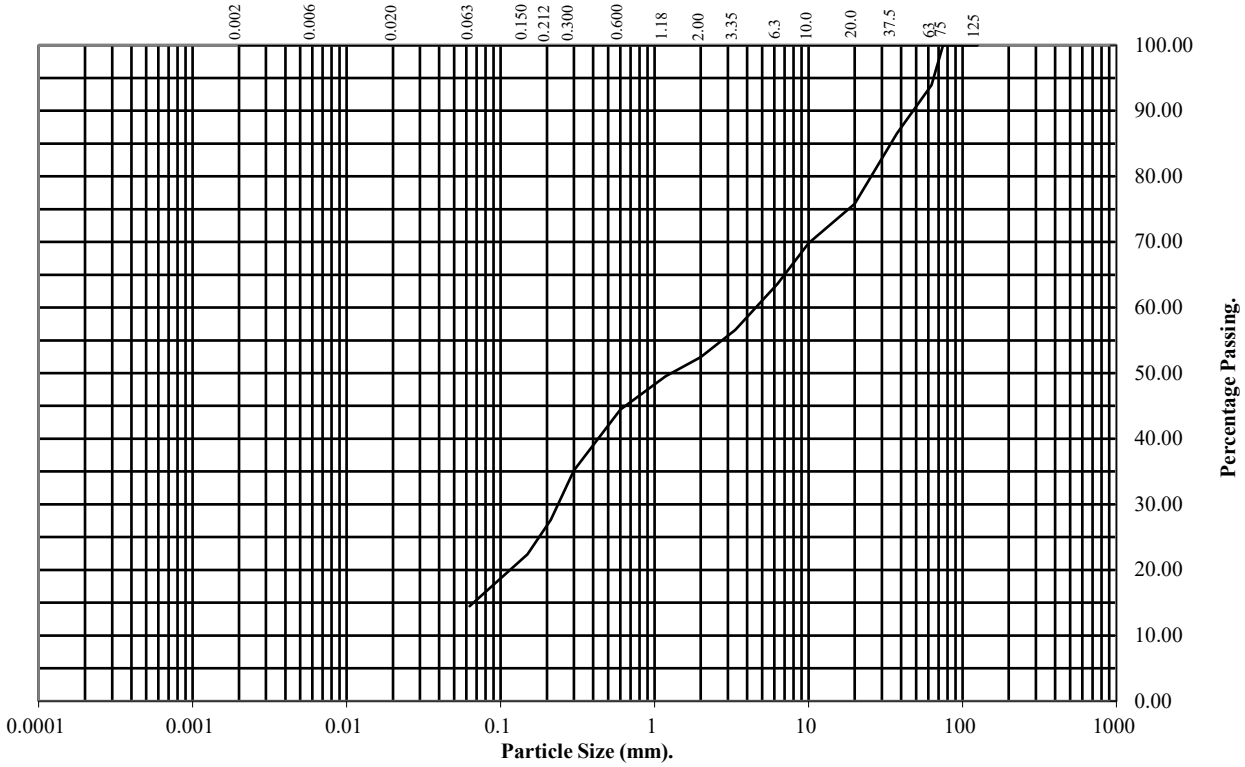
BS1377 : Part 2 : 1990

Wet Sieve, Clause 9.2

Hole Number: **TP220** **Top Depth (m):** **2.00**

Sample Number: **Base Depth(m):**

Sample Type: **B**



BS Test Sieve (mm)	Percentage Passing
125	100
75	100
63	94
37.5	87
20	76
10	70
6.3	64
3.35	57
2	52
1.18	50
0.6	44
0.3	35
0.212	28
0.15	22
0.063	14

Soil Fraction	Total Percentage
Cobbles	6
Gravel	42
Sand	38
Silt/Clay	14

Remarks:

See Summary of Soil Descriptions

PARTICLE SIZE DISTRIBUTION TEST

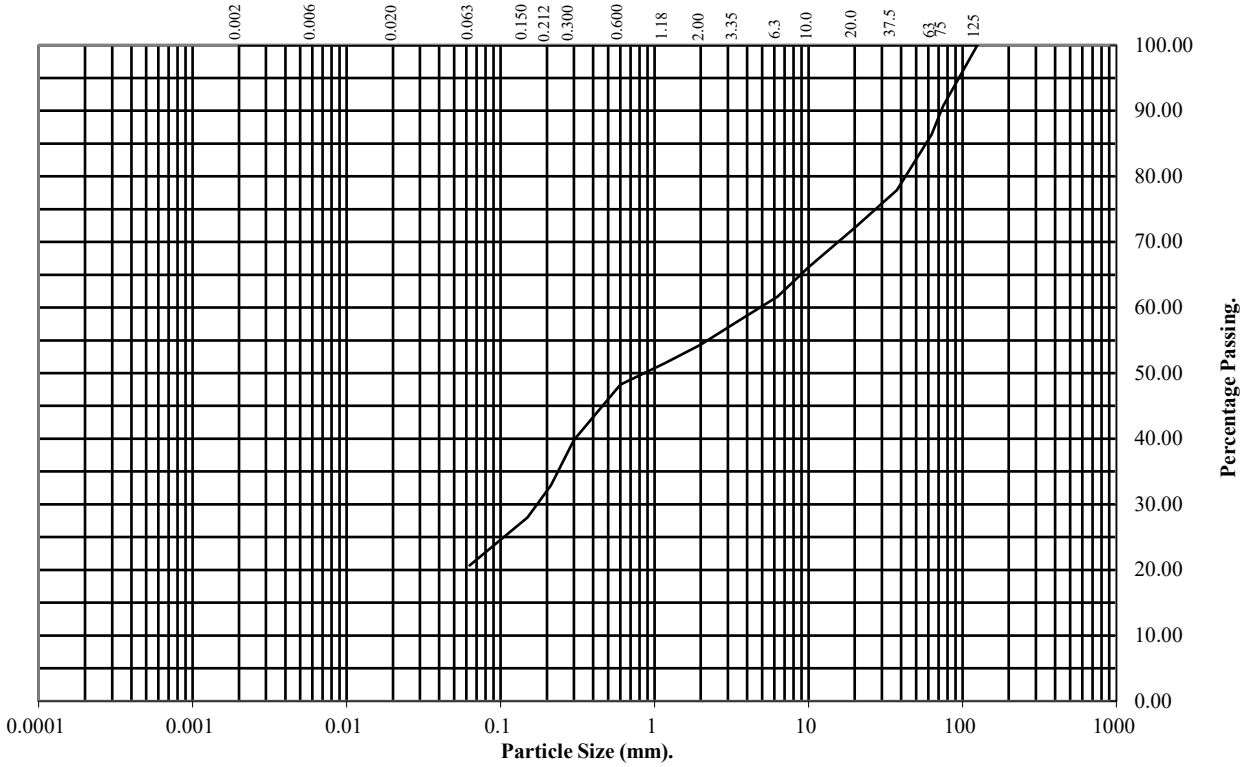
BS1377 : Part 2 : 1990

Wet Sieve, Clause 9.2

Hole Number: **TP236** **Top Depth (m):** **1.50**

Sample Number: **Base Depth(m):**

Sample Type: **B**



BS Test Sieve (mm)	Percentage Passing
125	100
75	91
63	86
37.5	78
20	72
10	66
6.3	62
3.35	58
2	54
1.18	52
0.6	48
0.3	40
0.212	33
0.15	28
0.063	21

Soil Fraction	Total Percentage
Cobbles	14
Gravel	32
Sand	33
Silt/Clay	21

Remarks:

See Summary of Soil Descriptions

PARTICLE SIZE DISTRIBUTION TEST

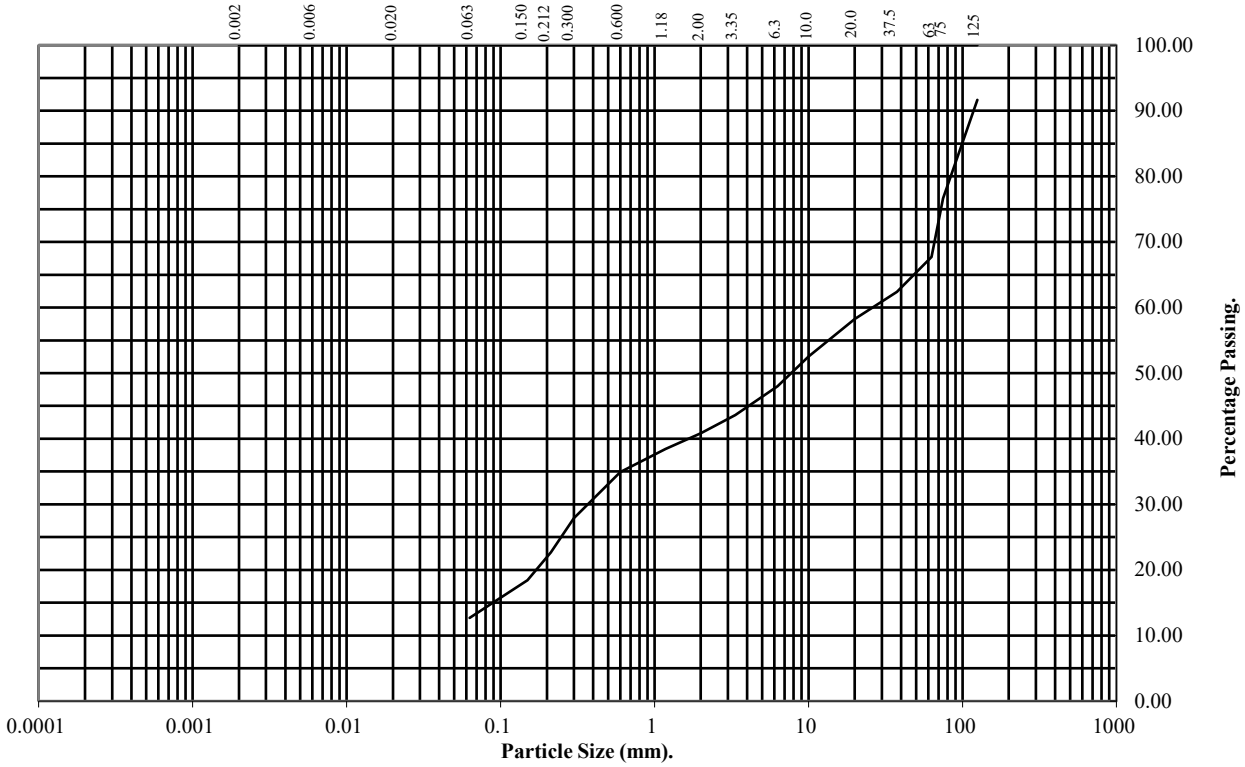
BS1377 : Part 2 : 1990

Wet Sieve, Clause 9.2

Hole Number: **TP252** **Top Depth (m):** **1.00**

Sample Number: **Base Depth(m):**

Sample Type: **B**



BS Test Sieve (mm)	Percentage Passing
125	92
75	77
63	68
37.5	62
20	58
10	53
6.3	48
3.35	44
2	41
1.18	38
0.6	35
0.3	28
0.212	23
0.15	18
0.063	13

Soil Fraction	Total Percentage
Cobbles	32
Gravel	27
Sand	28
Silt/Clay	13

Remarks:

See Summary of Soil Descriptions

PARTICLE SIZE DISTRIBUTION TEST

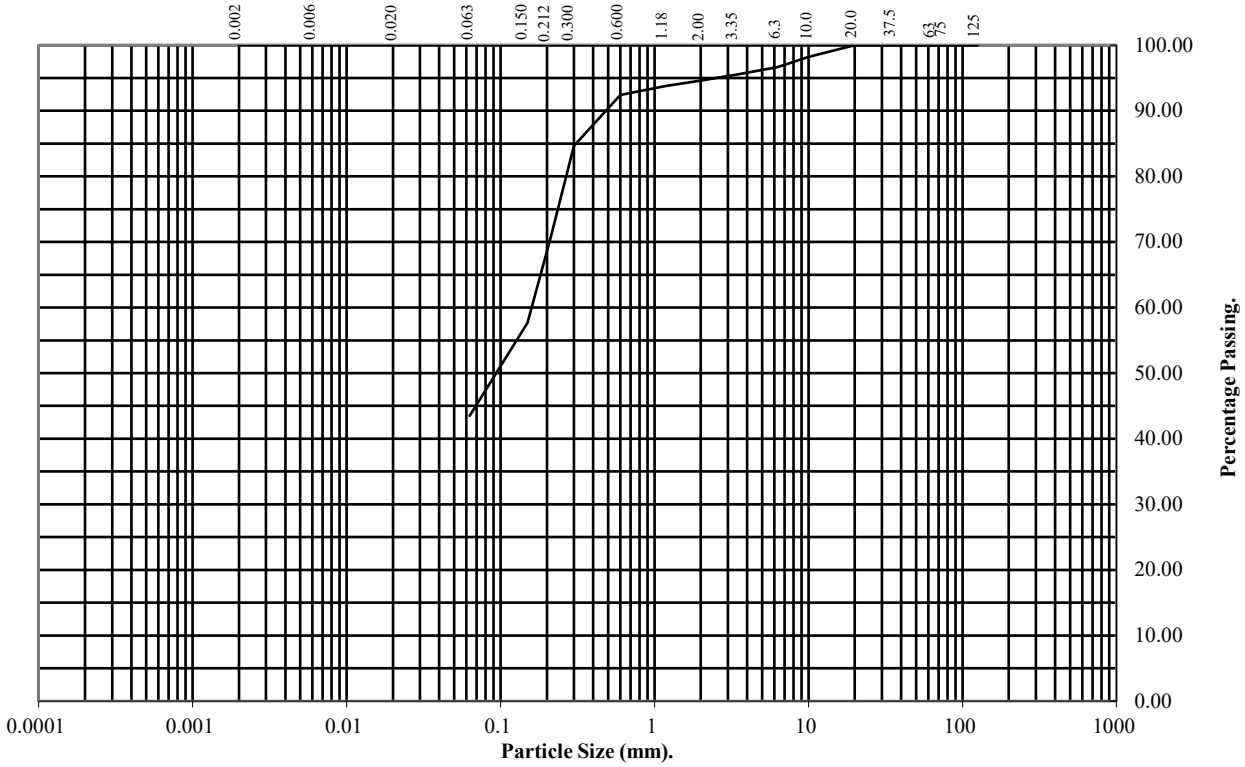
BS1377 : Part 2 : 1990

Wet Sieve, Clause 9.2

Hole Number: **CP203** **Top Depth (m):** **7.00**

Sample Number: **Base Depth(m):**

Sample Type: **B**



BS Test Sieve (mm)	Percentage Passing
125	100
75	100
63	100
37.5	100
20	100
10	98
6.3	97
3.35	95
2	95
1.18	94
0.6	92
0.3	85
0.212	71
0.15	58
0.063	43

Soil Fraction	Total Percentage
Cobbles	0
Gravel	5
Sand	52
Silt/Clay	43

Remarks:

See Summary of Soil Descriptions

PARTICLE SIZE DISTRIBUTION TEST

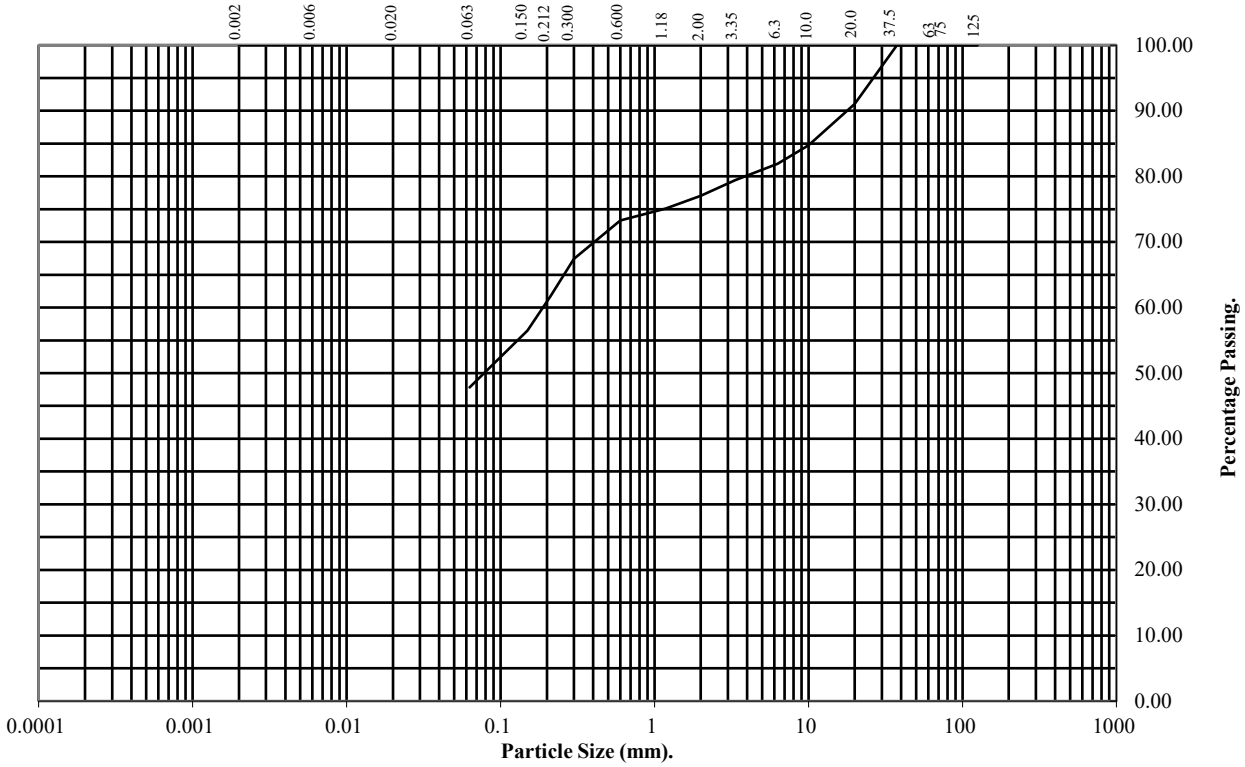
BS1377 : Part 2 : 1990

Wet Sieve, Clause 9.2

Hole Number: CP205 **Top Depth (m):** 8.00

Sample Number: **Base Depth(m):**

Sample Type: B



BS Test Sieve (mm)	Percentage Passing
125	100
75	100
63	100
37.5	100
20	91
10	85
6.3	82
3.35	79
2	77
1.18	75
0.6	73
0.3	67
0.212	62
0.15	57
0.063	48

Soil Fraction	Total Percentage
Cobbles	0
Gravel	23
Sand	29
Silt/Clay	48

Remarks:

See Summary of Soil Descriptions

PARTICLE SIZE DISTRIBUTION TEST

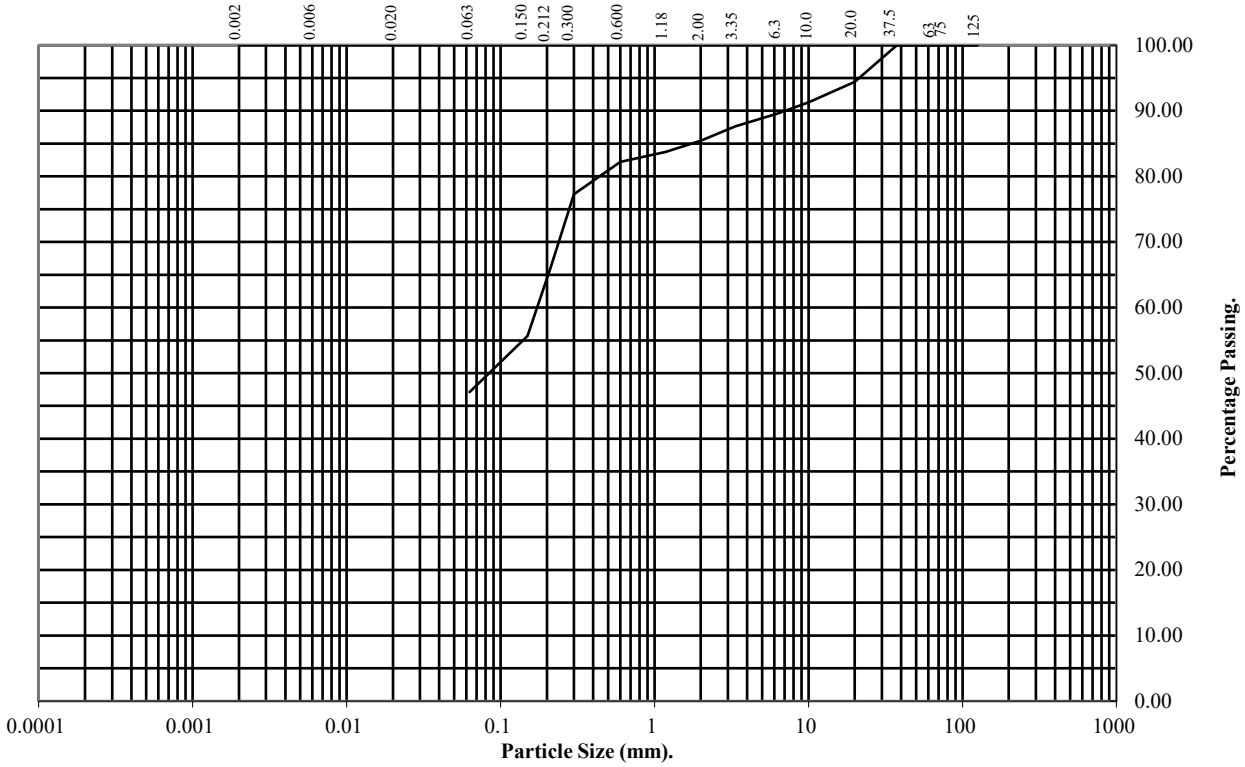
BS1377 : Part 2 : 1990

Wet Sieve, Clause 9.2

Hole Number: **CP207** **Top Depth (m):** **18.00**

Sample Number: **Base Depth(m):**

Sample Type: **B**



BS Test Sieve (mm)	Percentage Passing
125	100
75	100
63	100
37.5	100
20	94
10	91
6.3	90
3.35	88
2	85
1.18	84
0.6	82
0.3	77
0.212	66
0.15	56
0.063	47

Soil Fraction	Total Percentage
Cobbles	0
Gravel	15
Sand	38
Silt/Clay	47

Remarks:

See Summary of Soil Descriptions

PARTICLE SIZE DISTRIBUTION TEST

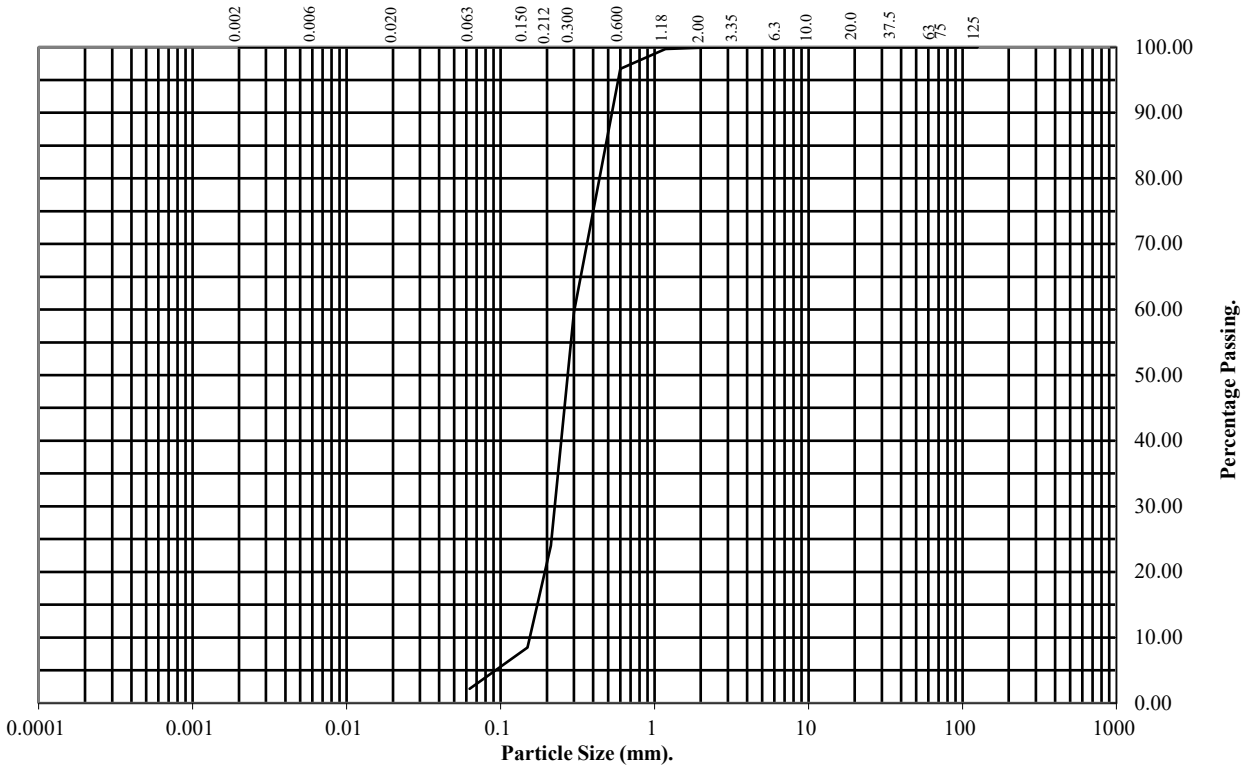
BS1377 : Part 2 : 1990

Wet Sieve, Clause 9.2

Hole Number: CP210 **Top Depth (m):** 10.00

Sample Number: **Base Depth(m):**

Sample Type: B



BS Test Sieve (mm)	Percentage Passing
125	100
75	100
63	100
37.5	100
20	100
10	100
6.3	100
3.35	100
2	100
1.18	100
0.6	97
0.3	60
0.212	24
0.15	8
0.063	2

Soil Fraction	Total Percentage
Cobbles	0
Gravel	0
Sand	98
Silt/Clay	2

Remarks:

See Summary of Soil Descriptions

PARTICLE SIZE DISTRIBUTION TEST

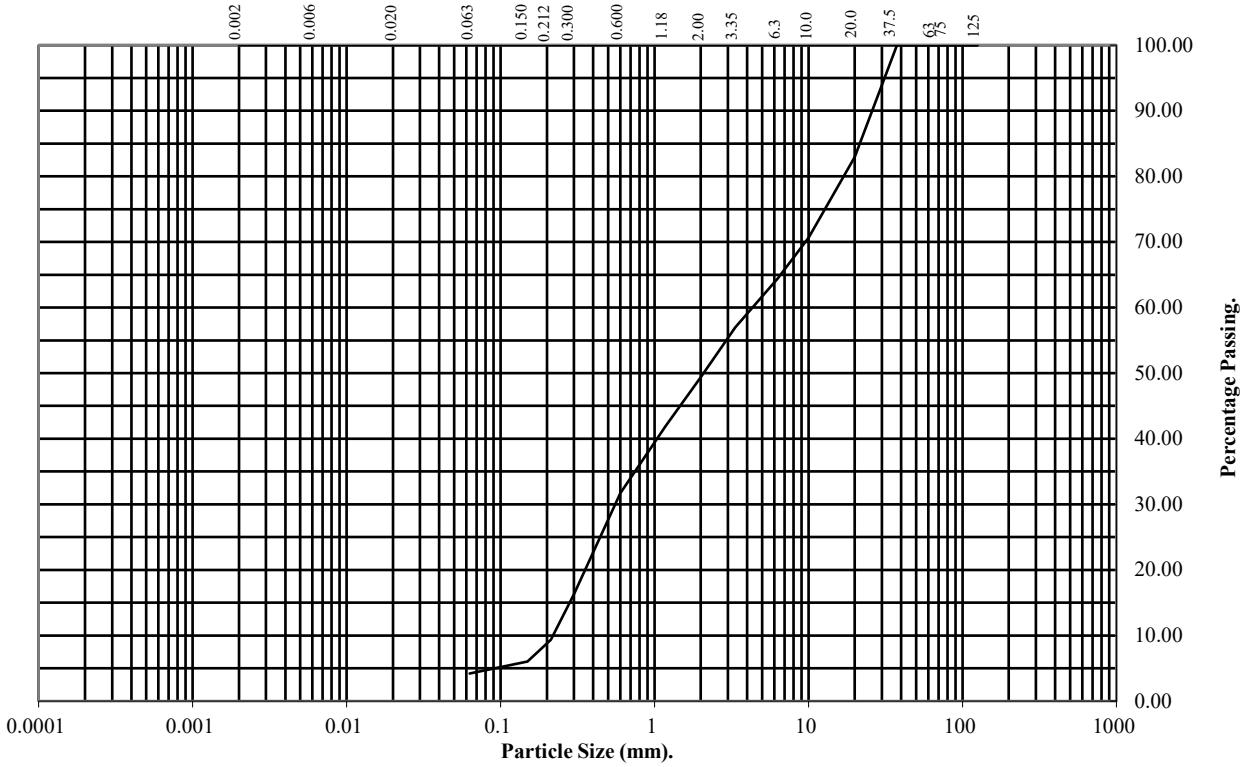
BS1377 : Part 2 : 1990

Wet Sieve, Clause 9.2

Hole Number: **CP202** **Top Depth (m):** **11.00**

Sample Number: **Base Depth(m):** **12.00**

Sample Type: **B**



BS Test Sieve (mm)	Percentage Passing
125	100
75	100
63	100
37.5	100
20	83
10	71
6.3	64
3.35	57
2	49
1.18	42
0.6	32
0.3	16
0.212	9
0.15	6
0.063	4

Soil Fraction	Total Percentage
Cobbles	0
Gravel	51
Sand	45
Silt/Clay	4

Remarks:

See Summary of Soil Descriptions

PARTICLE SIZE DISTRIBUTION TEST

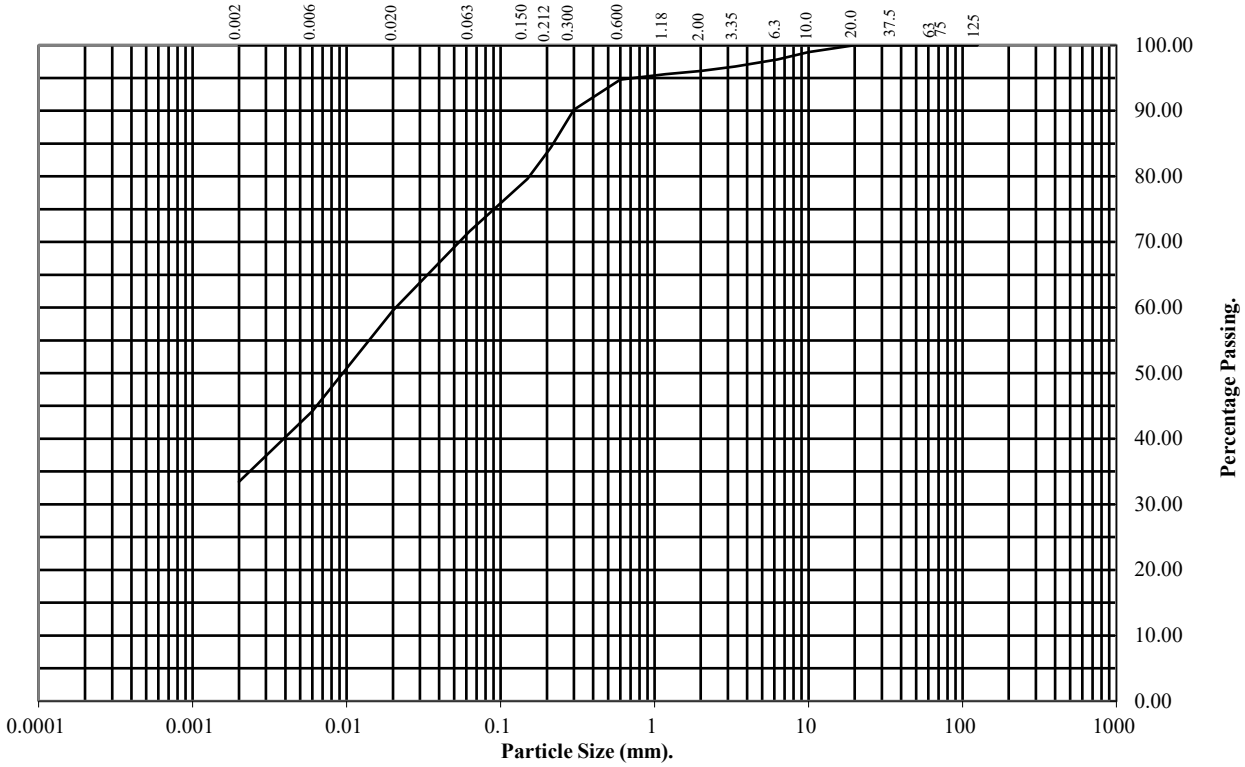
BS1377 : Part 2 : 1990

Wet Sieve & Pipette Analysis, Clause 9.2 & 9.4

Hole Number: **CP207** **Top Depth (m):** **15.00**

Sample Number: **Base Depth(m):** **15.45**

Sample Type: **U**



BS Test Sieve (mm)	Percentage Passing
125	100
75	100
63	100
37.5	100
20	100
10	99
6.3	98
3.35	97
2	96
1.18	96
0.6	95
0.3	90
0.212	84
0.15	80
0.063	72

Particle Diameter	Percentage Passing
0.02	60
0.006	44
0.002	33

Soil Fraction	Total Percentage
Cobbles	0
Gravel	4
Sand	24
Silt	39
Clay	33

Remarks:

See Summary of Soil Descriptions

PARTICLE SIZE DISTRIBUTION TEST

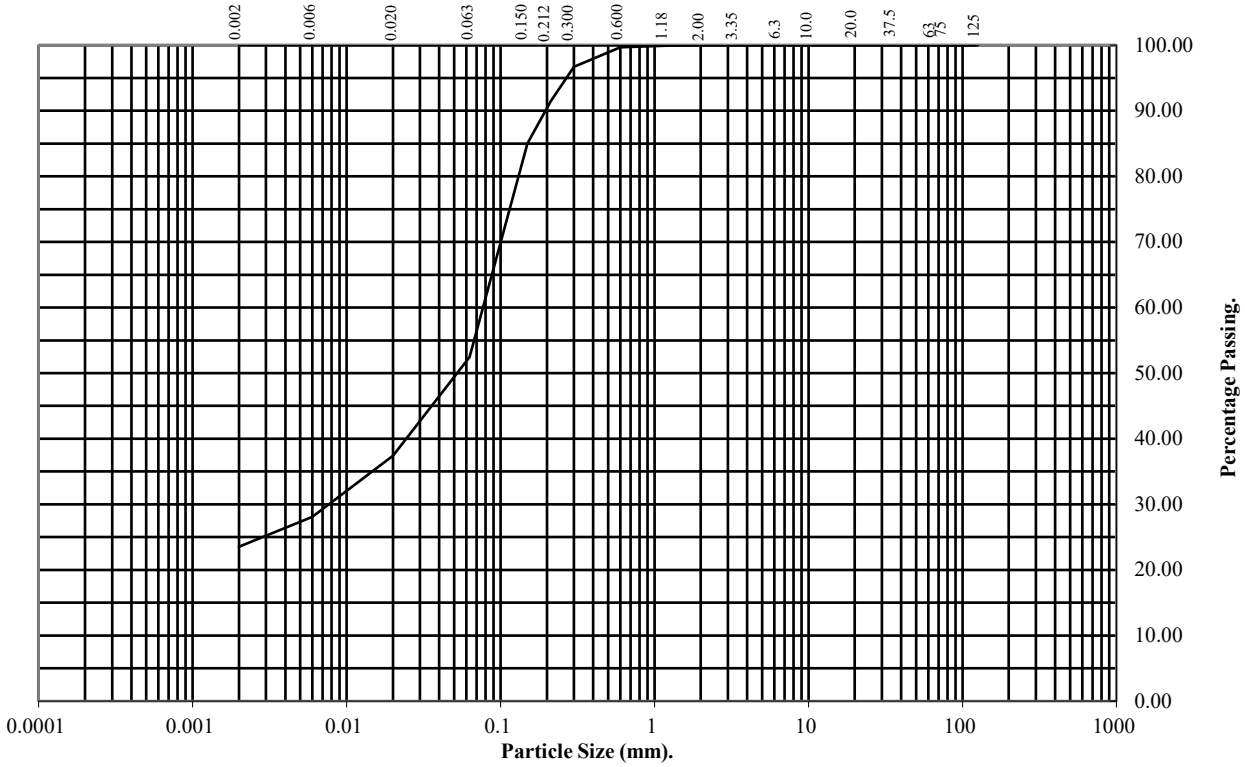
BS1377 : Part 2 : 1990

Wet Sieve & Pipette Analysis, Clause 9.2 & 9.4

Hole Number: **RH201** **Top Depth (m):** **15.80**

Sample Number: **Base Depth(m):** **16.00**

Sample Type: **CS**



BS Test Sieve (mm)	Percentage Passing
125	100
75	100
63	100
37.5	100
20	100
10	100
6.3	100
3.35	100
2	100
1.18	100
0.6	100
0.3	97
0.212	91
0.15	85
0.063	52

Particle Diameter	Percentage Passing
0.02	37
0.006	28
0.002	24

Soil Fraction	Total Percentage
Cobbles	0
Gravel	0
Sand	48
Silt	28
Clay	24

Remarks:
See Summary of Soil Descriptions

PARTICLE SIZE DISTRIBUTION TEST

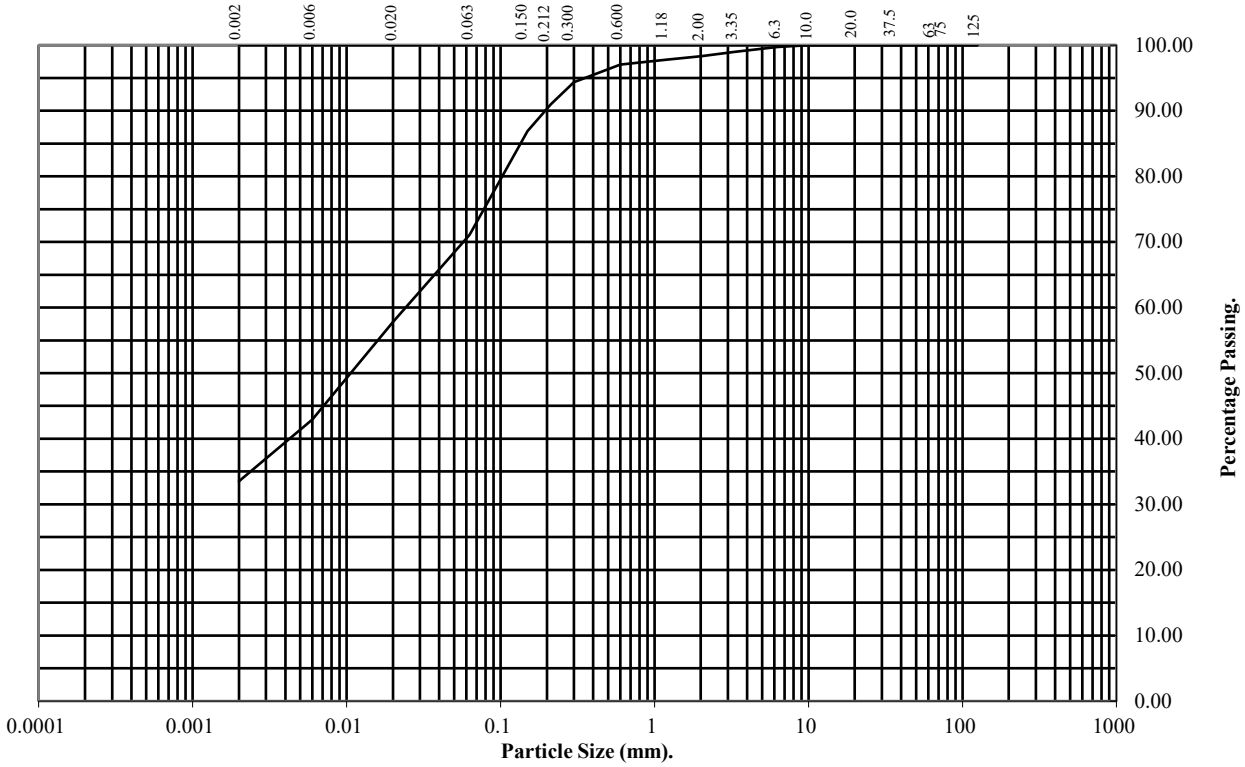
BS1377 : Part 2 : 1990

Wet Sieve & Pipette Analysis, Clause 9.2 & 9.4

Hole Number: **RH202** **Top Depth (m):** **13.10**

Sample Number: **Base Depth(m):** **13.50**

Sample Type: **CS**



BS Test Sieve (mm)	Percentage Passing
125	100
75	100
63	100
37.5	100
20	100
10	100
6.3	100
3.35	99
2	98
1.18	98
0.6	97
0.3	94
0.212	91
0.15	87
0.063	71

Particle Diameter	Percentage Passing
0.02	58
0.006	43
0.002	34

Soil Fraction	Total Percentage
Cobbles	0
Gravel	2
Sand	27
Silt	37
Clay	34

Remarks:

See Summary of Soil Descriptions

PARTICLE SIZE DISTRIBUTION TEST

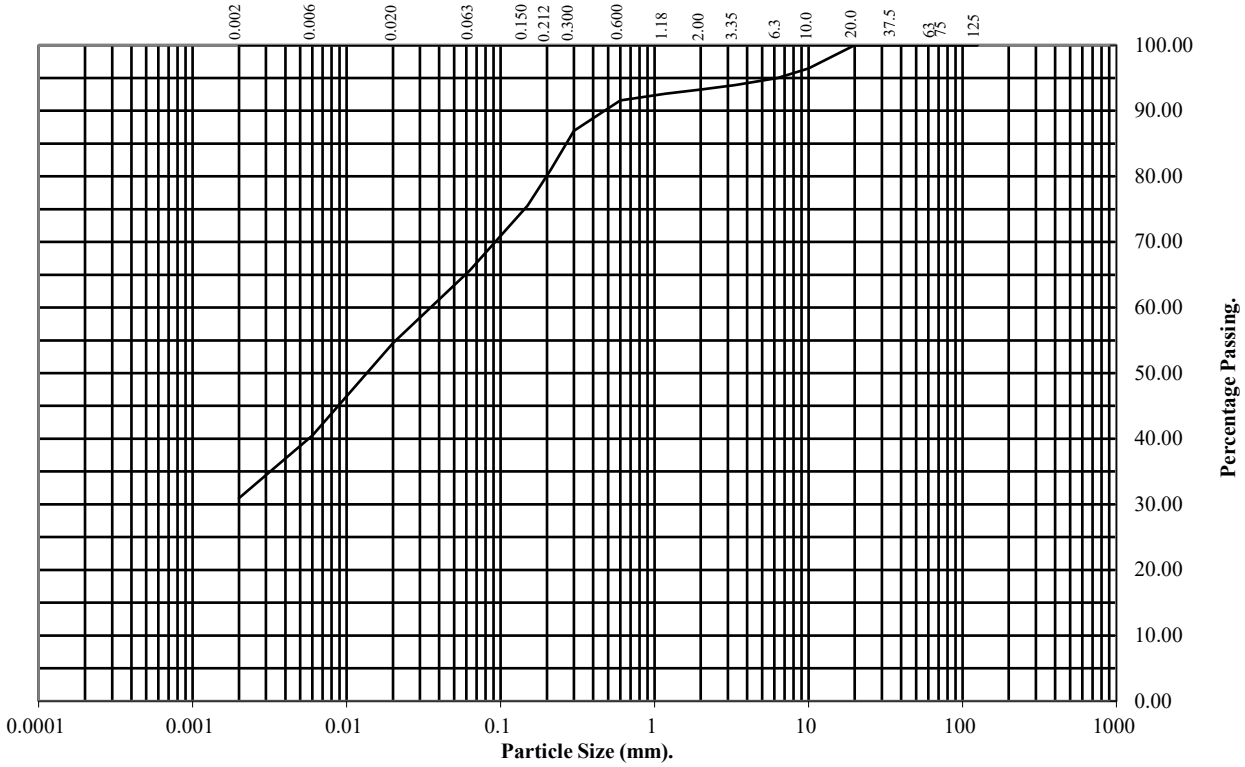
BS1377 : Part 2 : 1990

Wet Sieve & Pipette Analysis, Clause 9.2 & 9.4

Hole Number: **RH205** **Top Depth (m):** **12.50**

Sample Number: **Base Depth(m):** **12.80**

Sample Type: **CS**



BS Test Sieve (mm)	Percentage Passing
125	100
75	100
63	100
37.5	100
20	100
10	96
6.3	95
3.35	94
2	93
1.18	93
0.6	92
0.3	87
0.212	81
0.15	76
0.063	66

Particle Diameter	Percentage Passing
0.02	55
0.006	41
0.002	31

Soil Fraction	Total Percentage
Cobbles	0
Gravel	7
Sand	27
Silt	35
Clay	31

Remarks:

See Summary of Soil Descriptions

PARTICLE SIZE DISTRIBUTION TEST

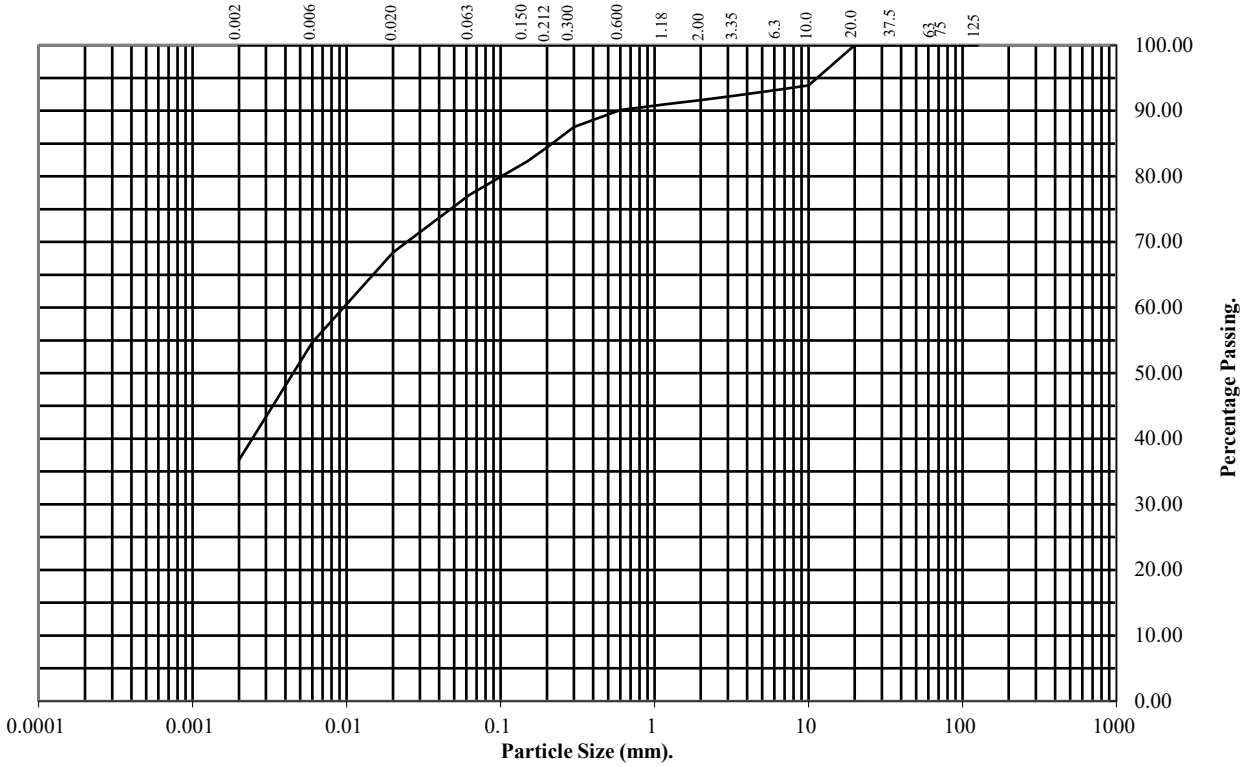
BS1377 : Part 2 : 1990

Wet Sieve & Pipette Analysis, Clause 9.2 & 9.4

Hole Number: **RH206** **Top Depth (m):** **6.00**

Sample Number: **Base Depth(m):** **6.45**

Sample Type: **CS**



BS Test Sieve (mm)	Percentage Passing
125	100
75	100
63	100
37.5	100
20	100
10	94
6.3	93
3.35	92
2	92
1.18	91
0.6	90
0.3	88
0.212	85
0.15	82
0.063	77

Particle Diameter	Percentage Passing
0.02	68
0.006	55
0.002	37

Soil Fraction	Total Percentage
Cobbles	0
Gravel	8
Sand	15
Silt	40
Clay	37

Remarks:

See Summary of Soil Descriptions

PARTICLE SIZE DISTRIBUTION TEST

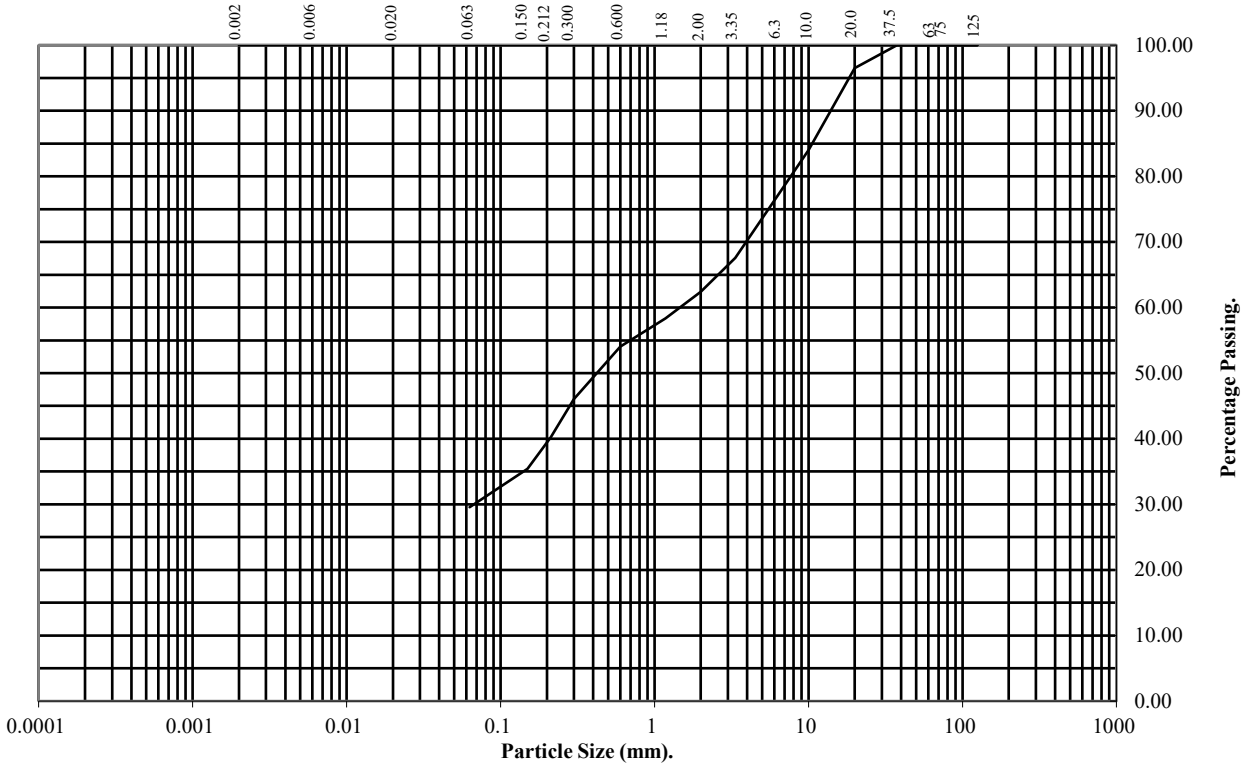
BS1377 : Part 2 : 1990

Wet Sieve, Clause 9.2

Hole Number: CP204 **Top Depth (m):** 4.00

Sample Number: **Base Depth(m):**

Sample Type: B



BS Test Sieve (mm)	Percentage Passing
125	100
75	100
63	100
37.5	100
20	96
10	84
6.3	77
3.35	68
2	62
1.18	58
0.6	54
0.3	46
0.212	40
0.15	35
0.063	30

Soil Fraction	Total Percentage
Cobbles	0
Gravel	38
Sand	32
Silt/Clay	30

Remarks:

See Summary of Soil Descriptions

PARTICLE SIZE DISTRIBUTION TEST

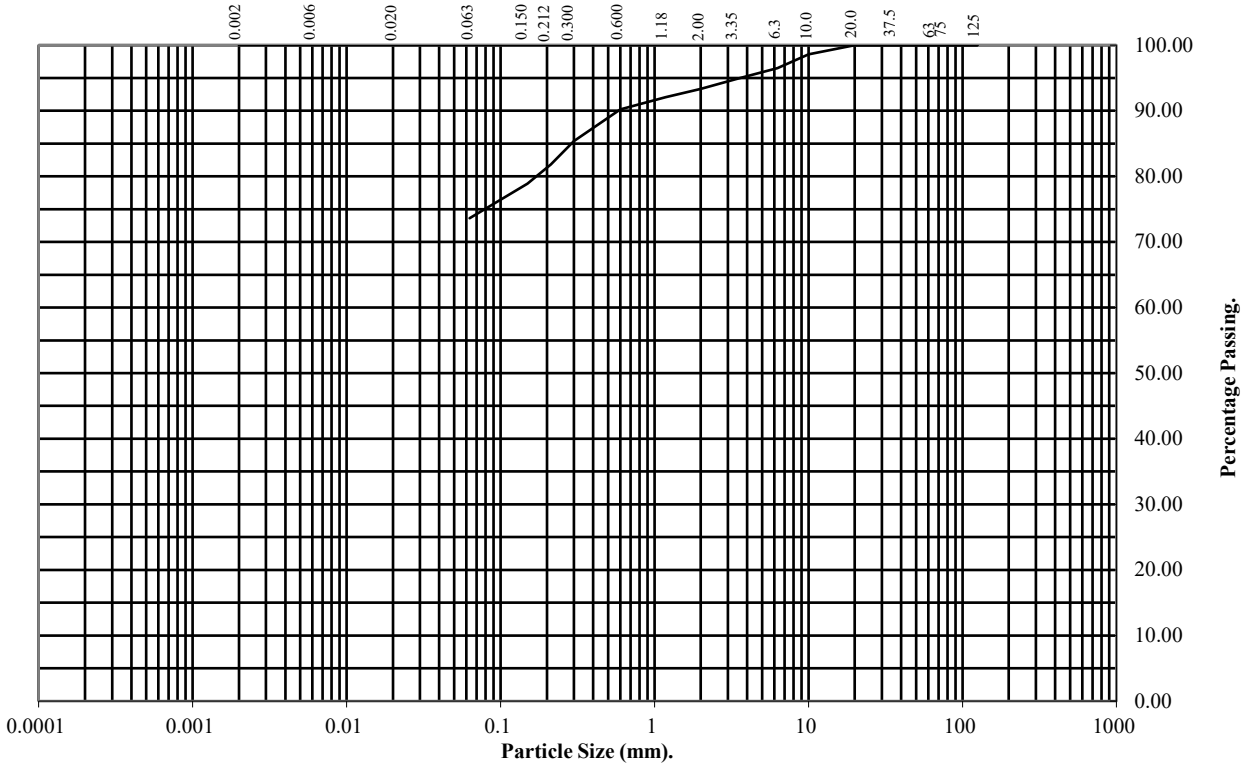
BS1377 : Part 2 : 1990

Wet Sieve, Clause 9.2

Hole Number: **CP206** **Top Depth (m):** **4.00**

Sample Number: **Base Depth(m):**

Sample Type: **B**



BS Test Sieve (mm)	Percentage Passing
125	100
75	100
63	100
37.5	100
20	100
10	99
6.3	97
3.35	95
2	93
1.18	92
0.6	90
0.3	85
0.212	82
0.15	79
0.063	74

Soil Fraction	Total Percentage
Cobbles	0
Gravel	7
Sand	19
Silt/Clay	74

Remarks:

See Summary of Soil Descriptions

PARTICLE SIZE DISTRIBUTION TEST

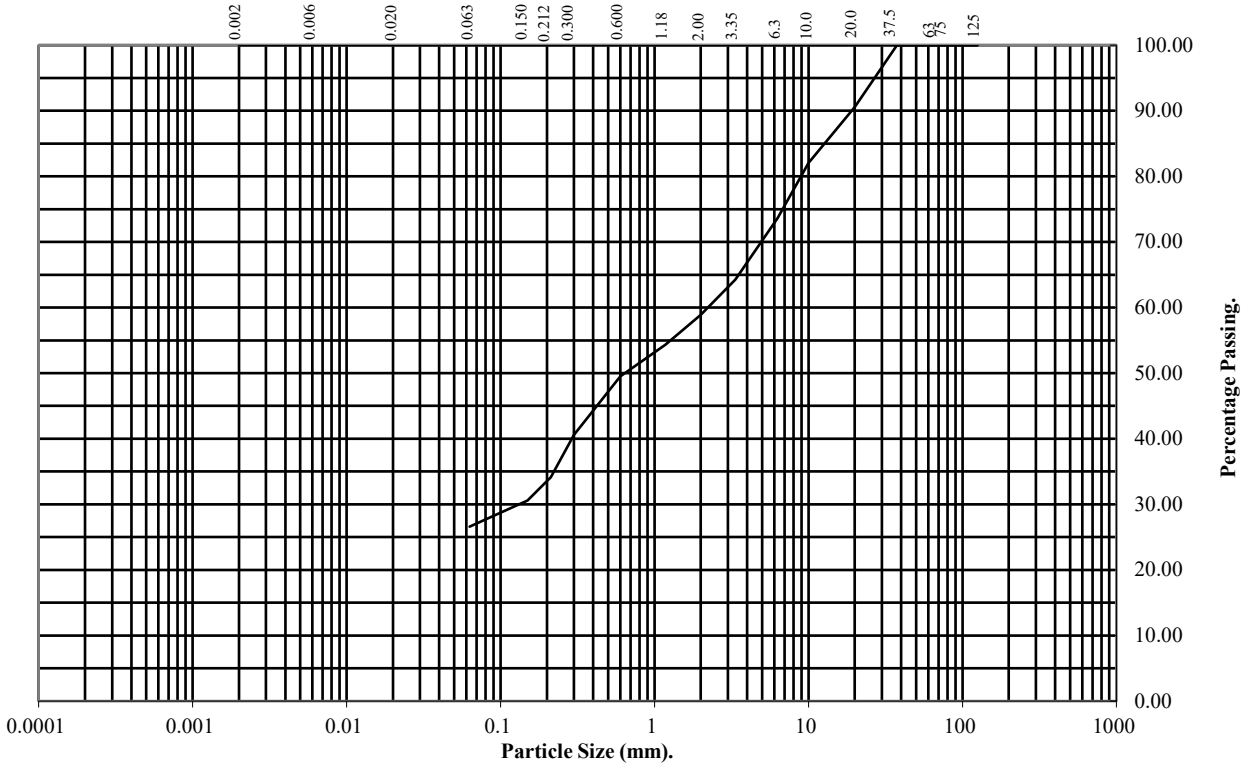
BS1377 : Part 2 : 1990

Wet Sieve, Clause 9.2

Hole Number: **CP207** **Top Depth (m):** **10.00**

Sample Number: **Base Depth(m):** **11.00**

Sample Type: **B**



BS Test Sieve (mm)	Percentage Passing
125	100
75	100
63	100
37.5	100
20	91
10	82
6.3	74
3.35	64
2	59
1.18	54
0.6	50
0.3	41
0.212	34
0.15	31
0.063	27

Soil Fraction	Total Percentage
Cobbles	0
Gravel	41
Sand	32
Silt/Clay	27

Remarks:

See Summary of Soil Descriptions

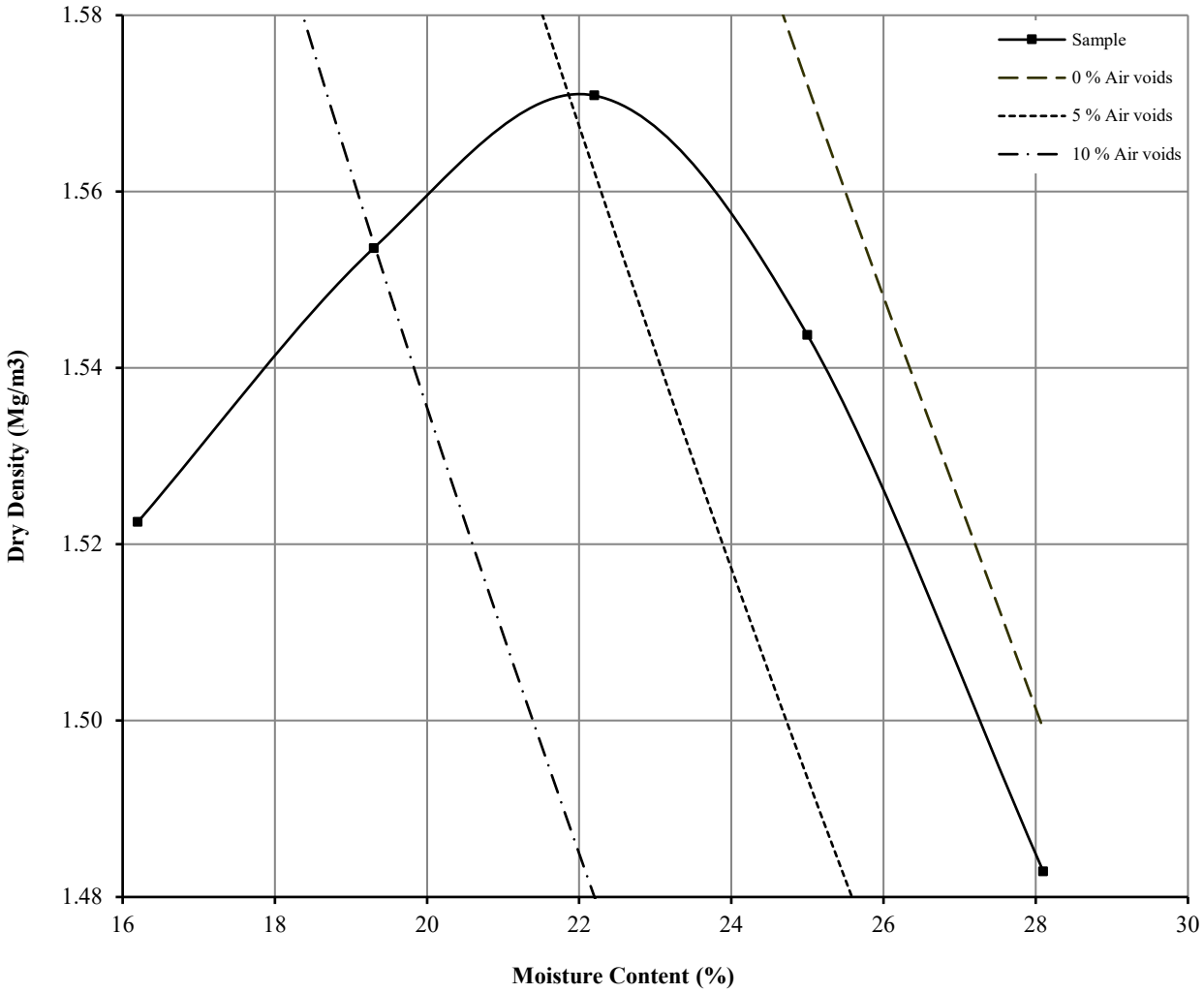
DRY DENSITY / MOISTURE CONTENT RELATIONSHIP

BS 1377 : Part 4 : Clause 3.3 : 1990

Hole Number: TP211 **Top Depth (m) :** 1.80

Sample Number: **Base Depth (m) :**

Sample Type: B



Initial Moisture Content:		31	Method of Compaction:	2.5kg	Separate Samples
Particle Density (Mg/m3):	2.59	Measured	Material Retained on 37.5 mm Test Sieve (%):		0
Maximum Dry Density (Mg/m3):		1.57	Material Retained on 20.0 mm Test Sieve (%):		1
Optimum Moisture Content (%):		22			
Remarks See summary of soil descriptions					

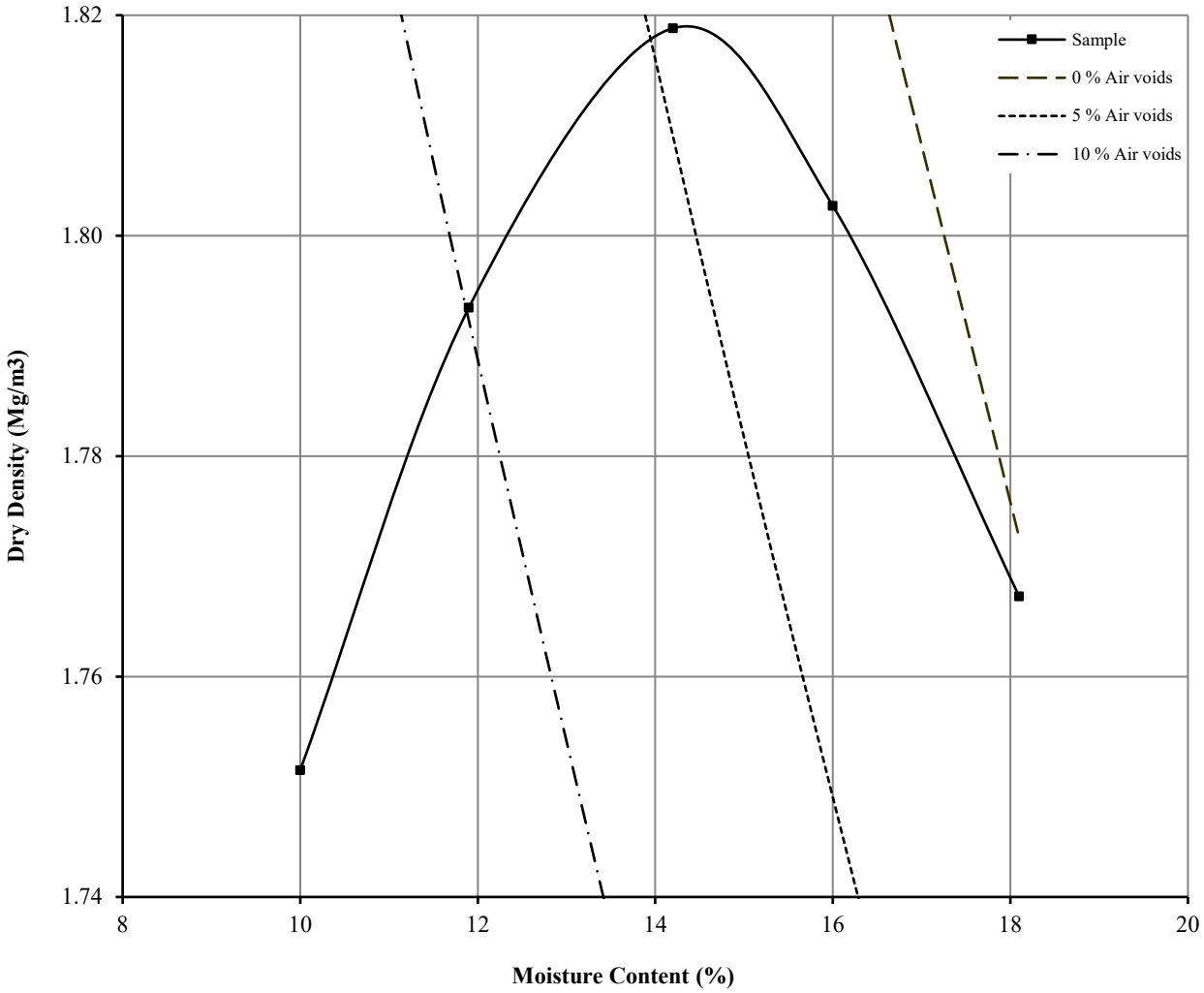
DRY DENSITY / MOISTURE CONTENT RELATIONSHIP

BS 1377 : Part 4 : Clause 3.3 : 1990

Hole Number: TP252 **Top Depth (m) :** 2.10

Sample Number: **Base Depth (m) :**

Sample Type: B



Initial Moisture Content:		20	Method of Compaction:	2.5kg	Separate Samples
Particle Density (Mg/m3):	2.61	Measured	Material Retained on 37.5 mm Test Sieve (%):		0
Maximum Dry Density (Mg/m3):		1.82	Material Retained on 20.0 mm Test Sieve (%):		0
Optimum Moisture Content (%):		14			
Remarks See summary of soil descriptions					

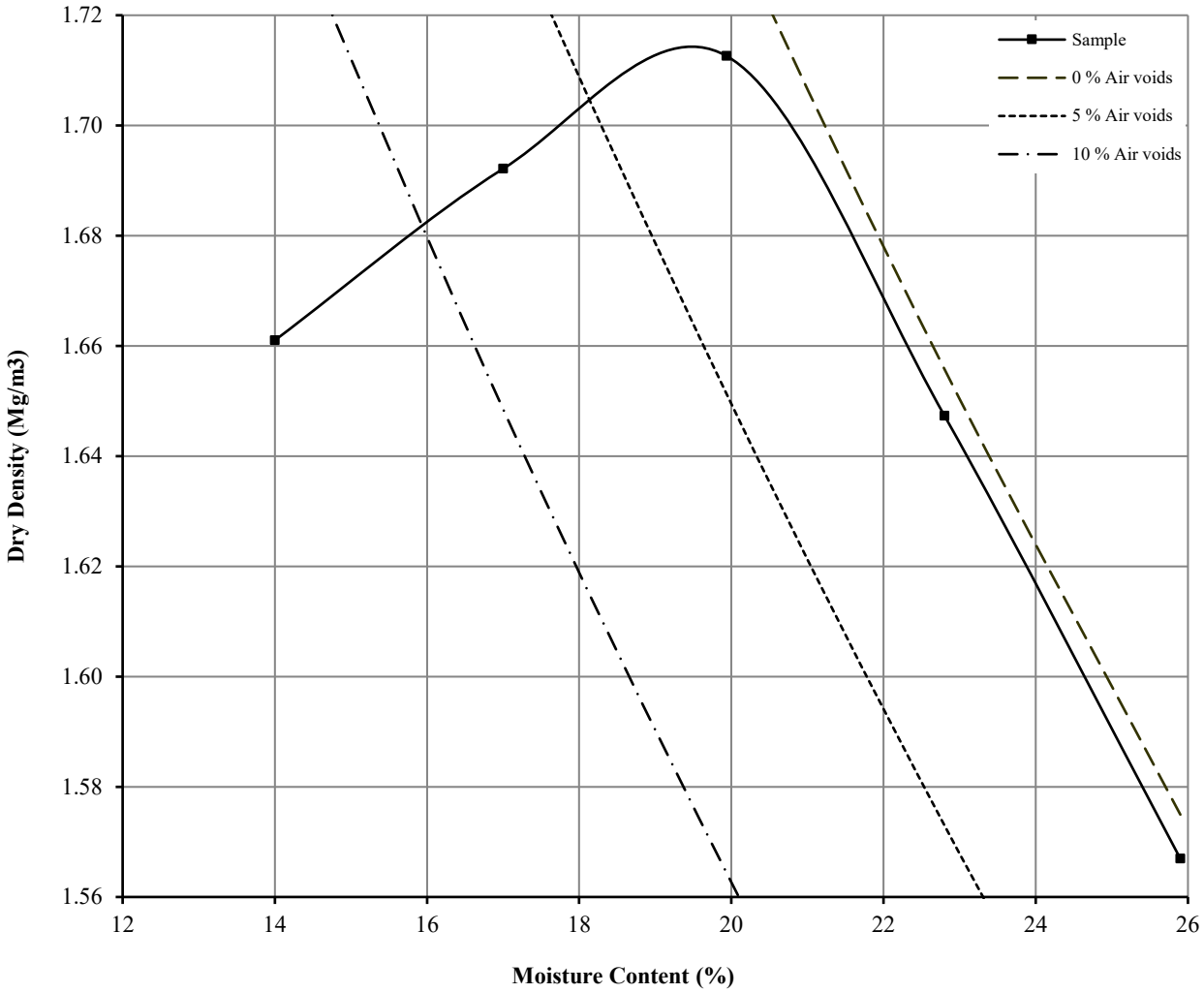
DRY DENSITY / MOISTURE CONTENT RELATIONSHIP

BS 1377 : Part 4 : Clause 3.3 : 1990

Hole Number: TP202 **Top Depth (m) :** 2.00

Sample Number: **Base Depth (m) :**

Sample Type: B



Initial Moisture Content:		20	Method of Compaction:	2.5kg	Separate Samples
Particle Density (Mg/m3):	2.66	Measured	Material Retained on 37.5 mm Test Sieve (%):		0
Maximum Dry Density (Mg/m3):		1.71	Material Retained on 20.0 mm Test Sieve (%):		0
Optimum Moisture Content (%):		20			
Remarks See summary of soil descriptions					

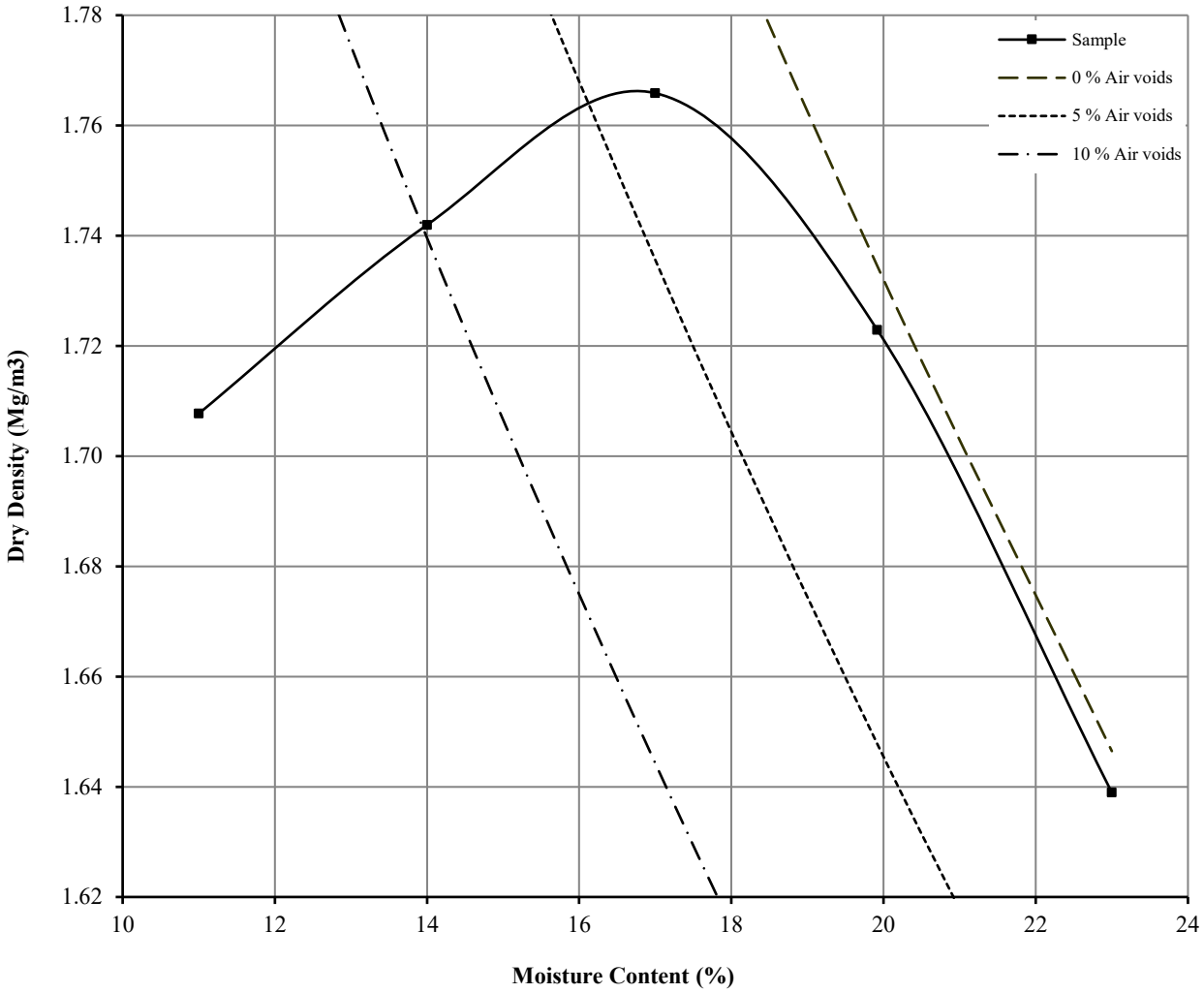
DRY DENSITY / MOISTURE CONTENT RELATIONSHIP

BS 1377 : Part 4 : Clause 3.3 : 1990

Hole Number: TP236 **Top Depth (m) :** 2.50

Sample Number: **Base Depth (m) :**

Sample Type: B



Initial Moisture Content:		20	Method of Compaction:	2.5kg	Separate Samples
Particle Density (Mg/m3):	2.65	Assumed	Material Retained on 37.5 mm Test Sieve (%):		0
Maximum Dry Density (Mg/m3):		1.77	Material Retained on 20.0 mm Test Sieve (%):		2
Optimum Moisture Content (%):		17			
Remarks See summary of soil descriptions					

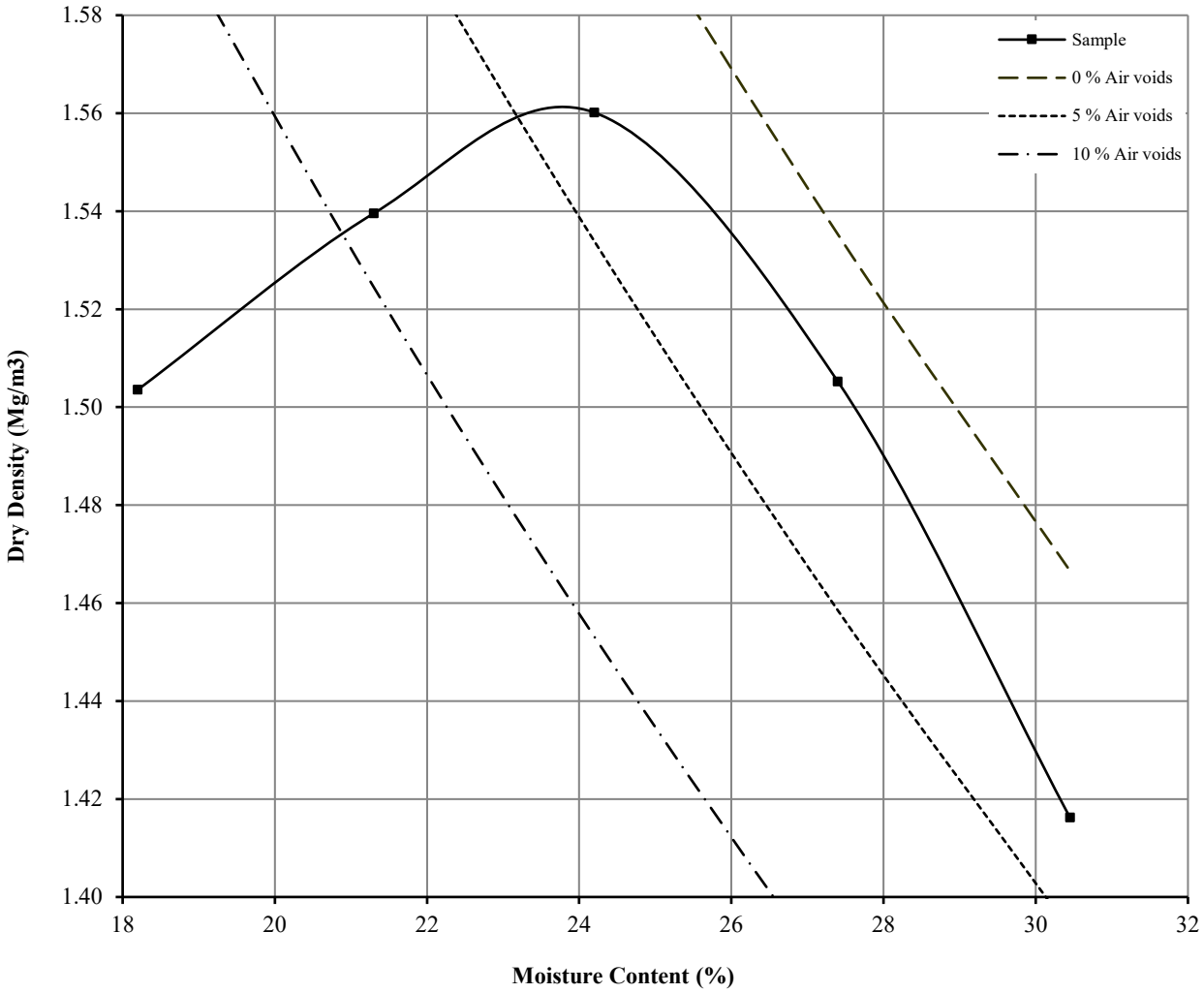
DRY DENSITY / MOISTURE CONTENT RELATIONSHIP

BS 1377 : Part 4 : Clause 3.3 : 1990

Hole Number: TP250 **Top Depth (m) :** 1.00

Sample Number: **Base Depth (m) :**

Sample Type: B



Initial Moisture Content:		30	Method of Compaction:	2.5kg	Separate Samples
Particle Density (Mg/m3):	2.65	Measured	Material Retained on 37.5 mm Test Sieve (%):		0
Maximum Dry Density (Mg/m3):		1.56	Material Retained on 20.0 mm Test Sieve (%):		0
Optimum Moisture Content (%):		24			
Remarks See summary of soil descriptions					

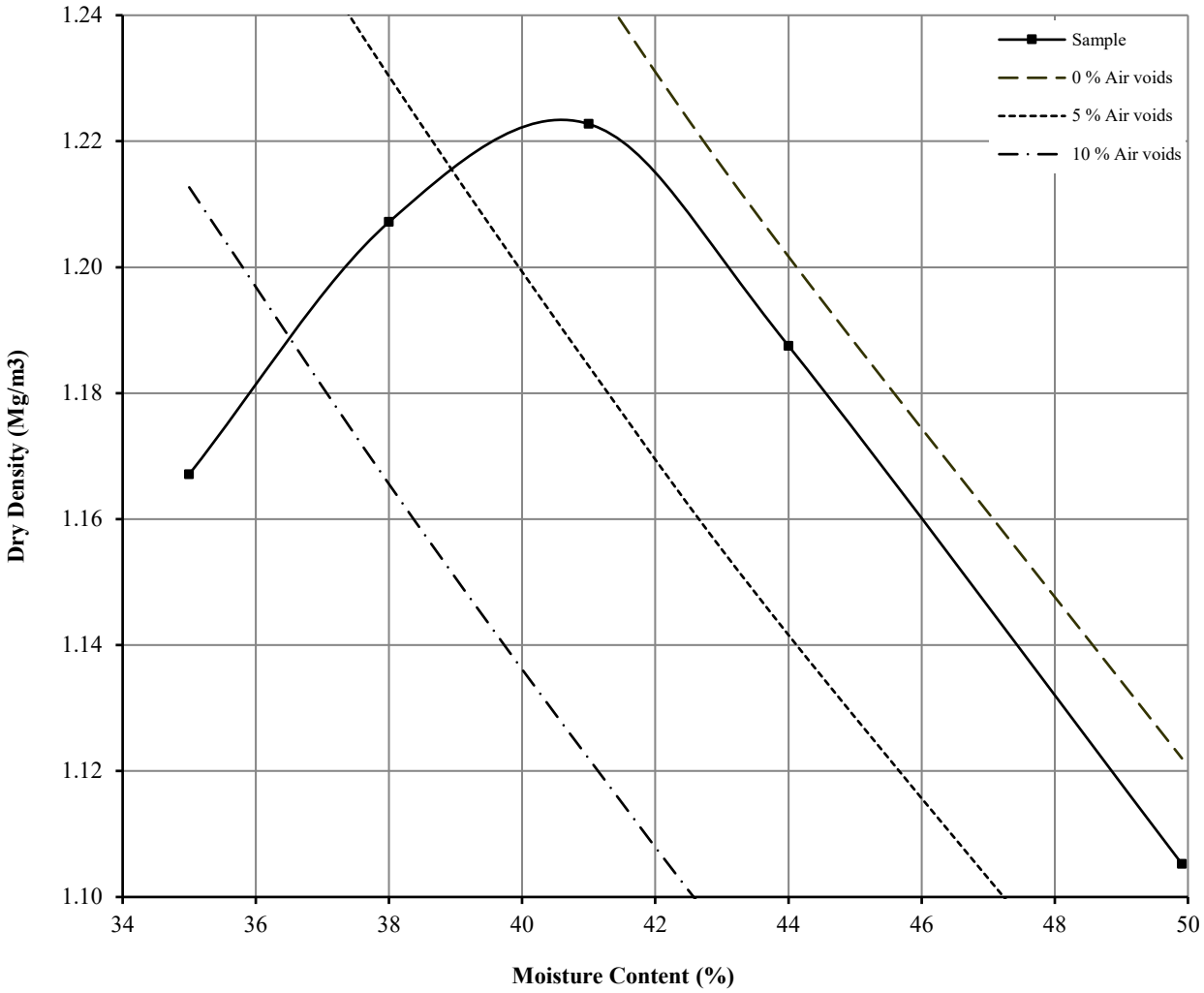
DRY DENSITY / MOISTURE CONTENT RELATIONSHIP

BS 1377 : Part 4 : Clause 3.3 : 1990

Hole Number: TP223 **Top Depth (m) :** 2.20

Sample Number: **Base Depth (m) :**

Sample Type: B



Initial Moisture Content:		50	Method of Compaction:	2.5kg	Separate Samples
Particle Density (Mg/m3):	2.55	Assumed	Material Retained on 37.5 mm Test Sieve (%):		0
Maximum Dry Density (Mg/m3):		1.22	Material Retained on 20.0 mm Test Sieve (%):		0
Optimum Moisture Content (%):		41			
Remarks See summary of soil descriptions					

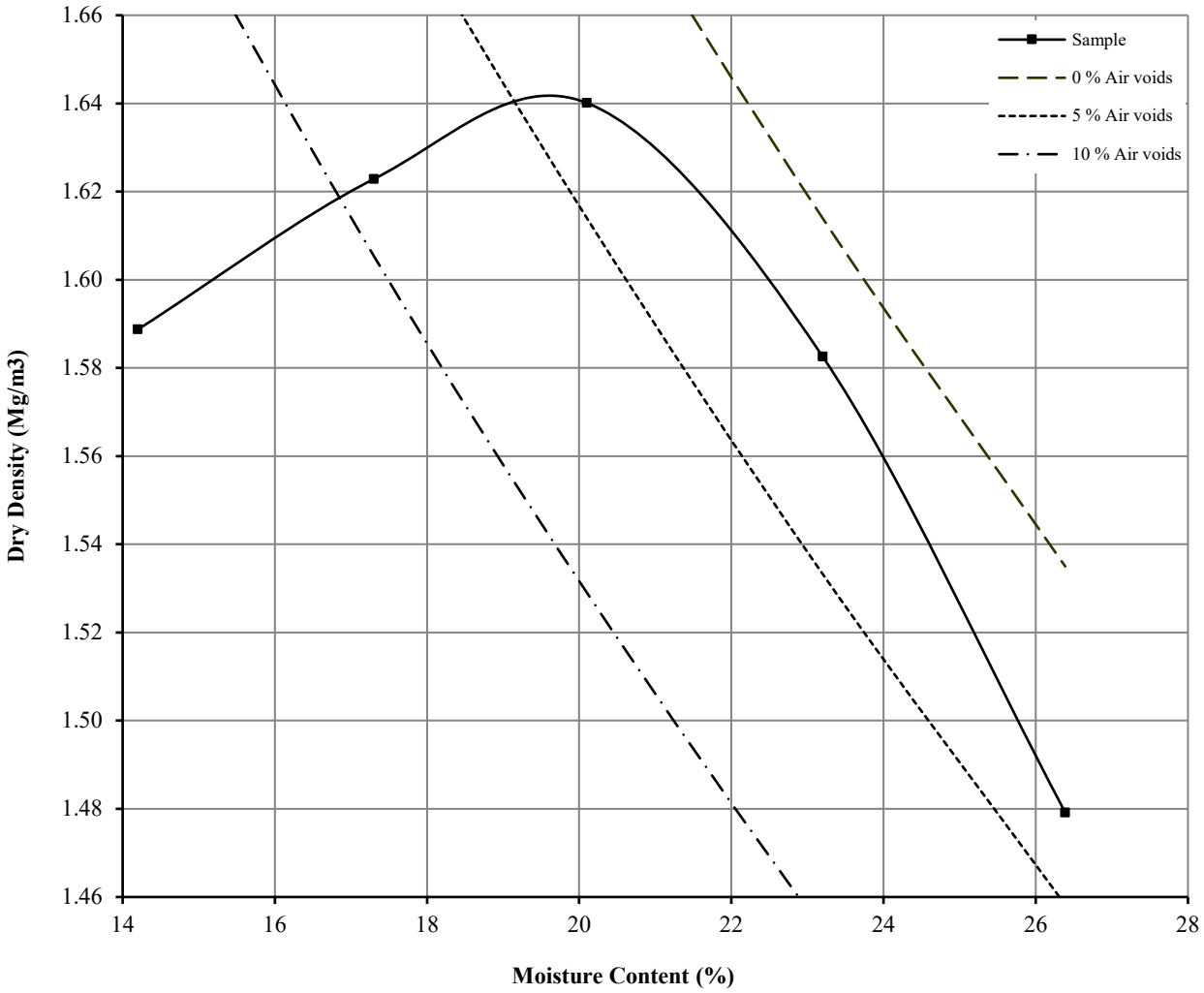
DRY DENSITY / MOISTURE CONTENT RELATIONSHIP

BS 1377 : Part 4 : Clause 3.3 : 1990

Hole Number: TP213 **Top Depth (m) :** 1.00

Sample Number: **Base Depth (m) :**

Sample Type: B



Initial Moisture Content:		26	Method of Compaction:	2.5kg	Separate Samples
Particle Density (Mg/m3):	2.58	Measured	Material Retained on 37.5 mm Test Sieve (%):		0
Maximum Dry Density (Mg/m3):		1.64	Material Retained on 20.0 mm Test Sieve (%):		1
Optimum Moisture Content (%):		20			
Remarks See summary of soil descriptions					

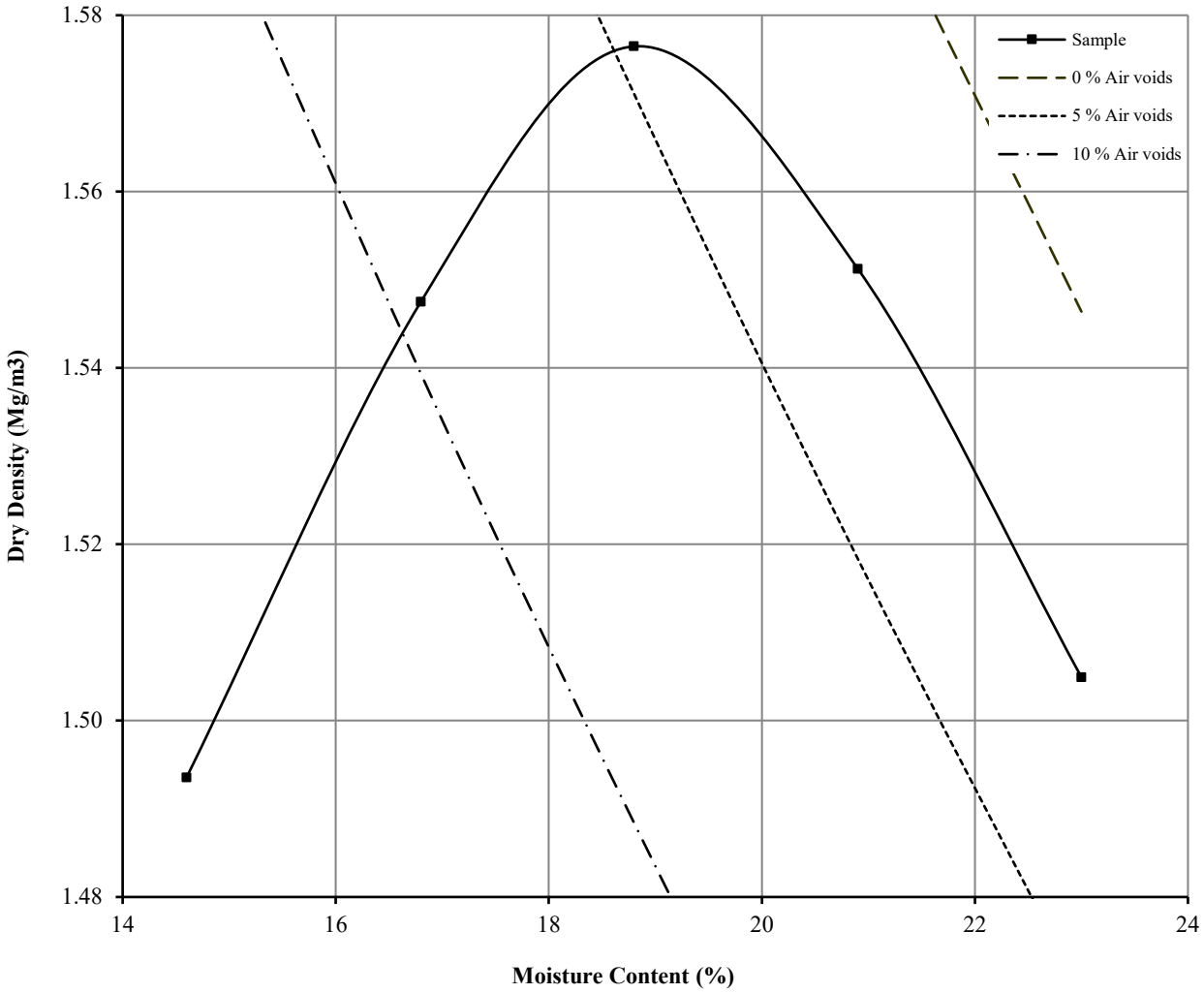
DRY DENSITY / MOISTURE CONTENT RELATIONSHIP

Non compliance with BS 1377 : Part 4 : Clause 3.4 : 1990

Hole Number: TP214 **Top Depth (m) :** 2.00

Sample Number: **Base Depth (m) :**

Sample Type: B



Initial Moisture Content:		21	Method of Compaction:	2.5kg	Separate Samples
Particle Density (Mg/m3):	2.4	Measured	Material Retained on 37.5 mm Test Sieve (%):		19
Maximum Dry Density (Mg/m3):		1.58	Material Retained on 20.0 mm Test Sieve (%):		11
Optimum Moisture Content (%):		19			
Remarks See summary of soil descriptions					

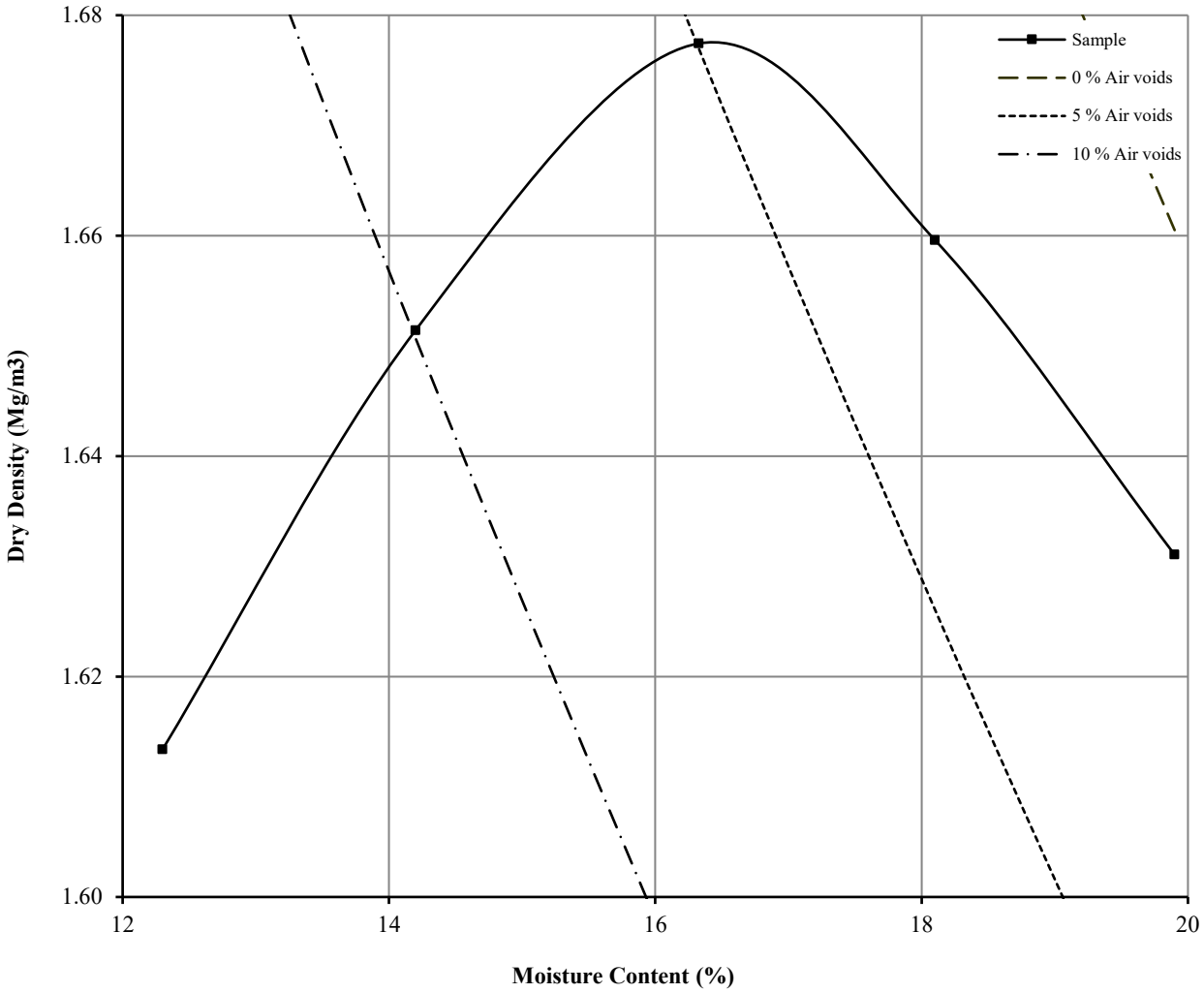
DRY DENSITY / MOISTURE CONTENT RELATIONSHIP

Non compliance with BS 1377 : Part 4 : Clause 3.4 : 1990

Hole Number: TP219 **Top Depth (m) :** 1.20

Sample Number: **Base Depth (m) :**

Sample Type: B



Initial Moisture Content:		16	Method of Compaction:	2.5kg	Separate Samples
Particle Density (Mg/m3):	2.48	Measured	Material Retained on 37.5 mm Test Sieve (%):		43
Maximum Dry Density (Mg/m3):		1.68	Material Retained on 20.0 mm Test Sieve (%):		9
Optimum Moisture Content (%):		16			
Remarks See summary of soil descriptions					

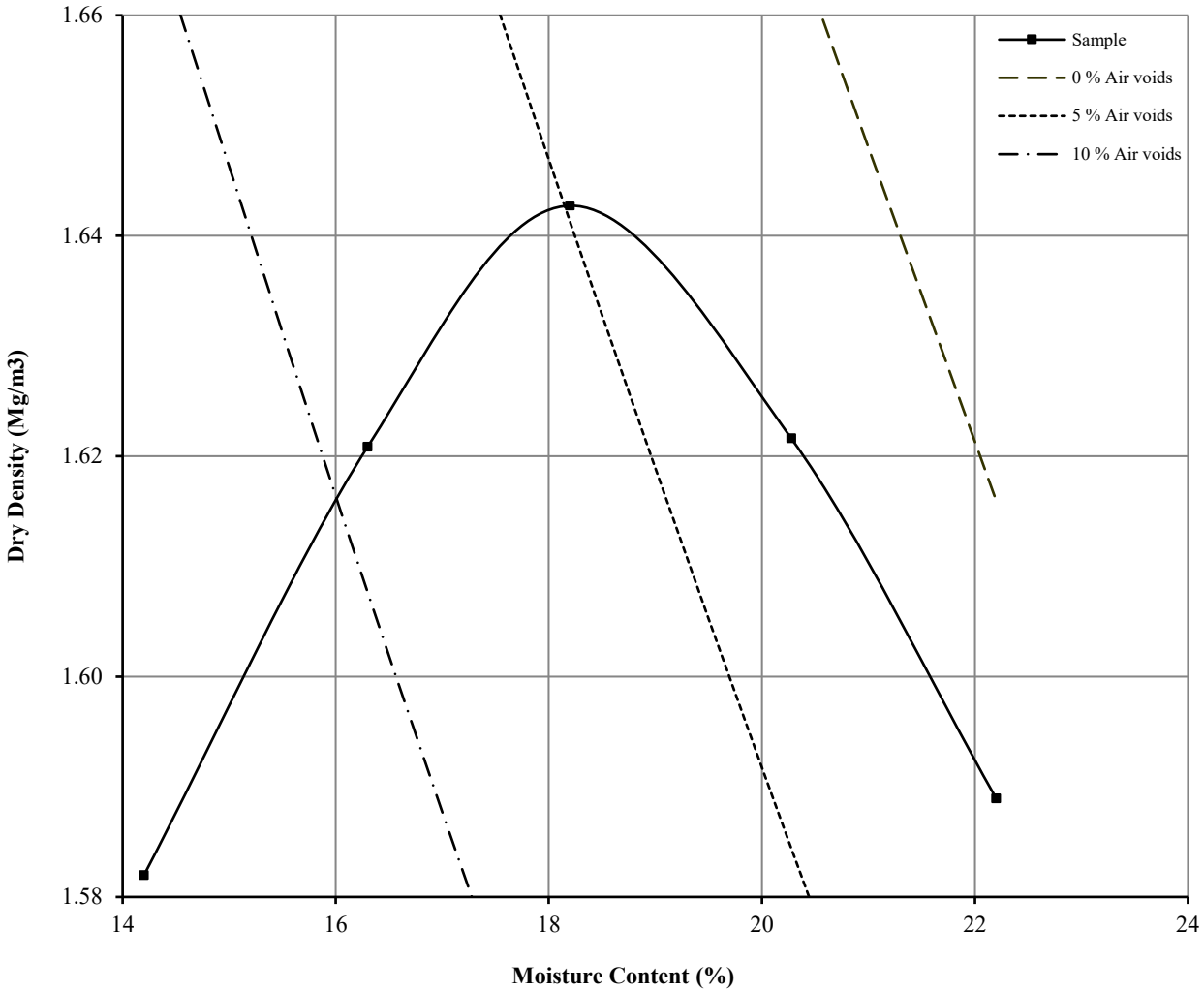
DRY DENSITY / MOISTURE CONTENT RELATIONSHIP

Non compliance with BS 1377 : Part 4 : Clause 3.4 : 1990

Hole Number: TP220 **Top Depth (m) :** 2.00

Sample Number: **Base Depth (m) :**

Sample Type: B



Initial Moisture Content:		20	Method of Compaction:	2.5kg	Separate Samples
Particle Density (Mg/m3):	2.52	Assumed	Material Retained on 37.5 mm Test Sieve (%):		13
Maximum Dry Density (Mg/m3):		1.64	Material Retained on 20.0 mm Test Sieve (%):		11
Optimum Moisture Content (%):		18			
Remarks See summary of soil descriptions					

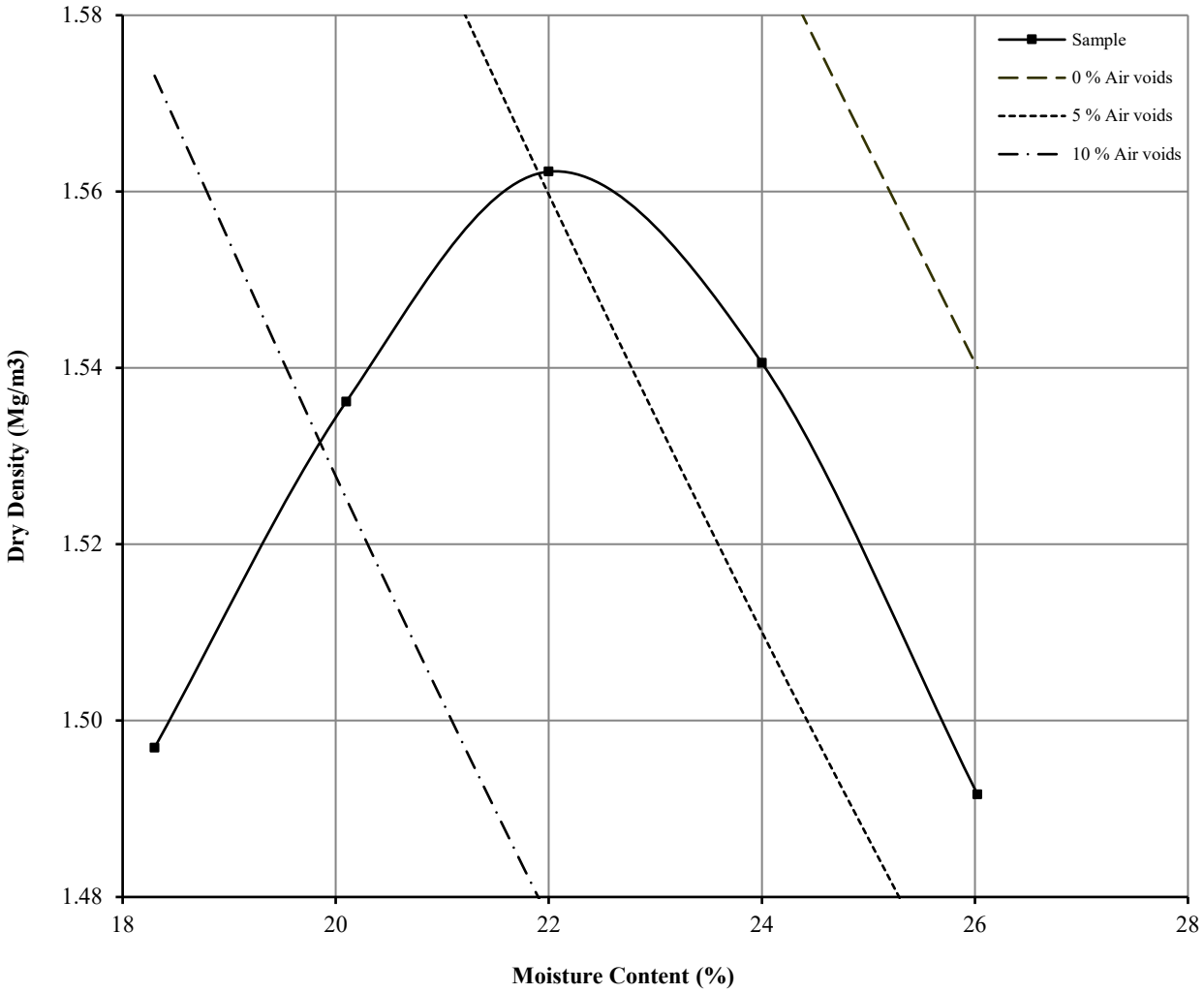
DRY DENSITY / MOISTURE CONTENT RELATIONSHIP

Non compliance with BS 1377 : Part 4 : Clause 3.4 : 1990

Hole Number: TP236 **Top Depth (m) :** 1.50

Sample Number: **Base Depth (m) :**

Sample Type: B



Initial Moisture Content:		26	Method of Compaction:	2.5kg	Separate Samples
Particle Density (Mg/m3):	2.57	Assumed	Material Retained on 37.5 mm Test Sieve (%):		22
Maximum Dry Density (Mg/m3):		1.56	Material Retained on 20.0 mm Test Sieve (%):		6
Optimum Moisture Content (%):		22			
Remarks See summary of soil descriptions					

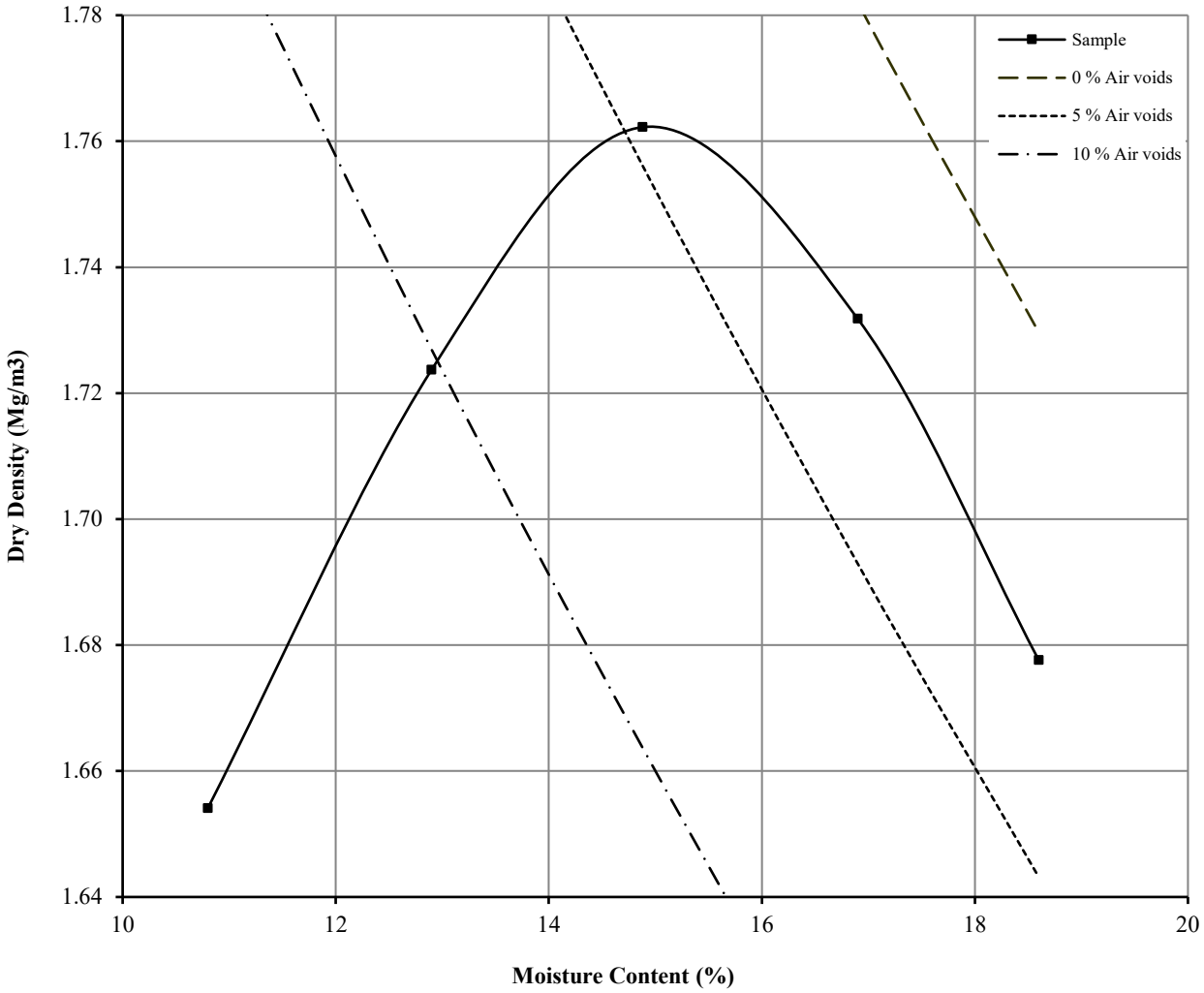
DRY DENSITY / MOISTURE CONTENT RELATIONSHIP

Non compliance with BS 1377 : Part 4 : Clause 3.4 : 1990

Hole Number: TP252 **Top Depth (m) :** 1.00

Sample Number: **Base Depth (m) :**

Sample Type: B



Initial Moisture Content:		15	Method of Compaction:	2.5kg	Separate Samples
Particle Density (Mg/m3):	2.55	Measured	Material Retained on 37.5 mm Test Sieve (%):		38
Maximum Dry Density (Mg/m3):		1.76	Material Retained on 20.0 mm Test Sieve (%):		4
Optimum Moisture Content (%):		15			
Remarks See summary of soil descriptions					

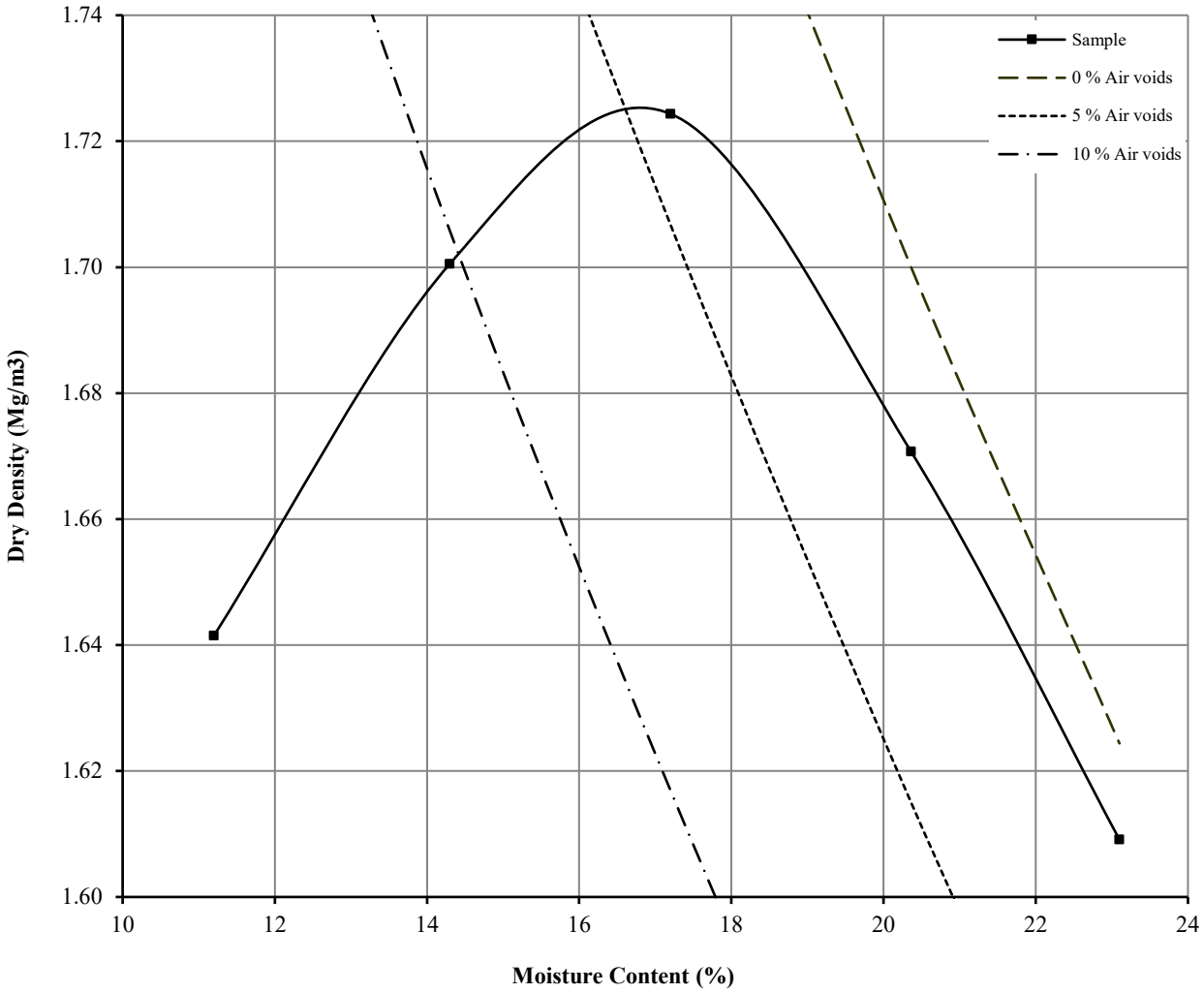
DRY DENSITY / MOISTURE CONTENT RELATIONSHIP

BS 1377 : Part 4 : Clause 3.3 : 1990

Hole Number: CP204 **Top Depth (m) :** 4.00

Sample Number: **Base Depth (m) :**

Sample Type: B



Initial Moisture Content:		20	Method of Compaction:	2.5kg	Separate Samples
Particle Density (Mg/m3):	2.6	Assumed	Material Retained on 37.5 mm Test Sieve (%):		0
Maximum Dry Density (Mg/m3):		1.72	Material Retained on 20.0 mm Test Sieve (%):		4
Optimum Moisture Content (%):		17			
Remarks See summary of soil descriptions					

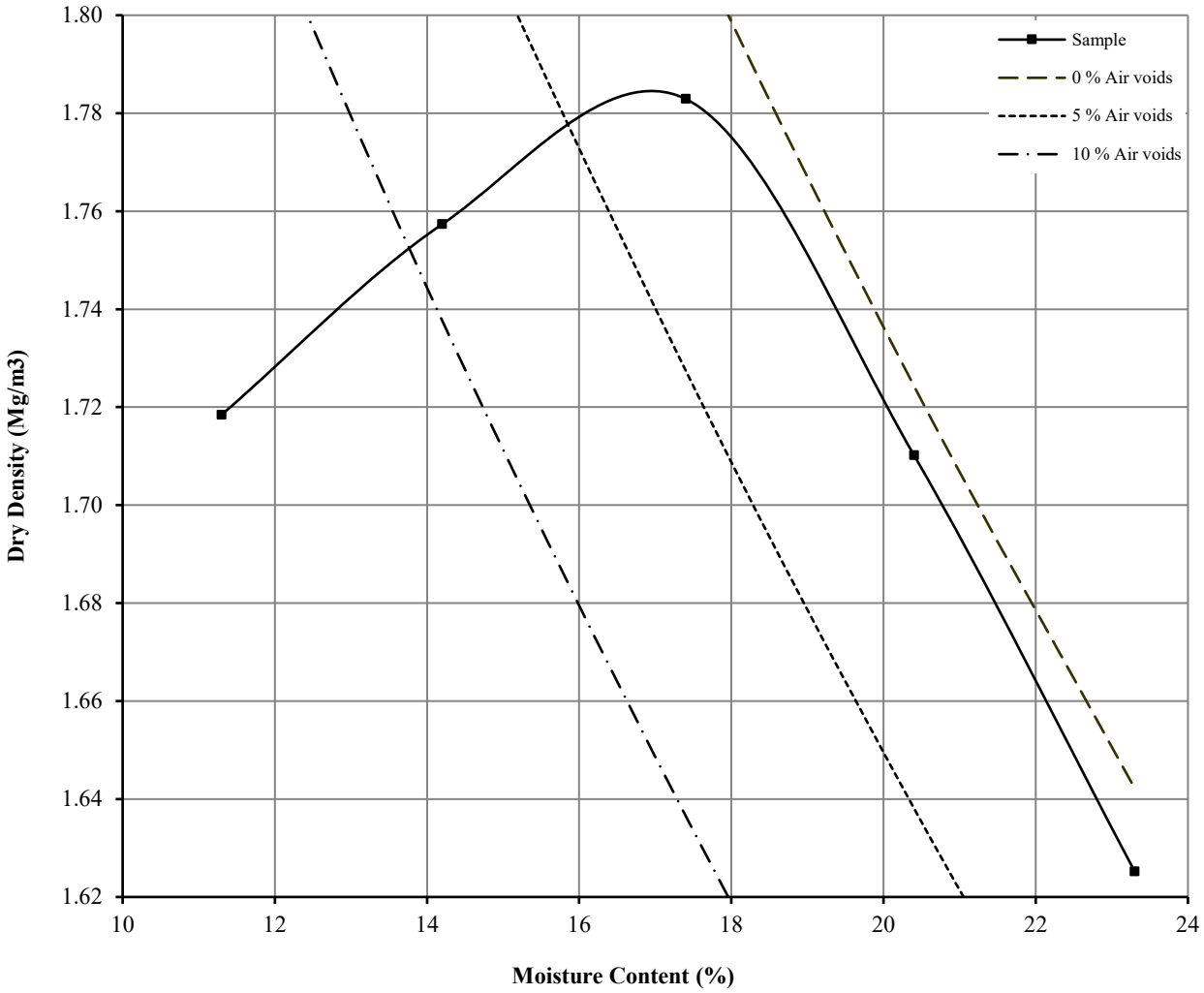
DRY DENSITY / MOISTURE CONTENT RELATIONSHIP

BS 1377 : Part 4 : Clause 3.3 : 1990

Hole Number: CP206 **Top Depth (m) :** 4.00

Sample Number: **Base Depth (m) :**

Sample Type: B



Initial Moisture Content:		20	Method of Compaction:	2.5kg	Separate Samples
Particle Density (Mg/m3):	2.66	Assumed	Material Retained on 37.5 mm Test Sieve (%):		0
Maximum Dry Density (Mg/m3):		1.78	Material Retained on 20.0 mm Test Sieve (%):		0
Optimum Moisture Content (%):		17			
Remarks See summary of soil descriptions					

UNDRAINED SHEAR STRENGTH IN TRIAXIAL COMPRESSION

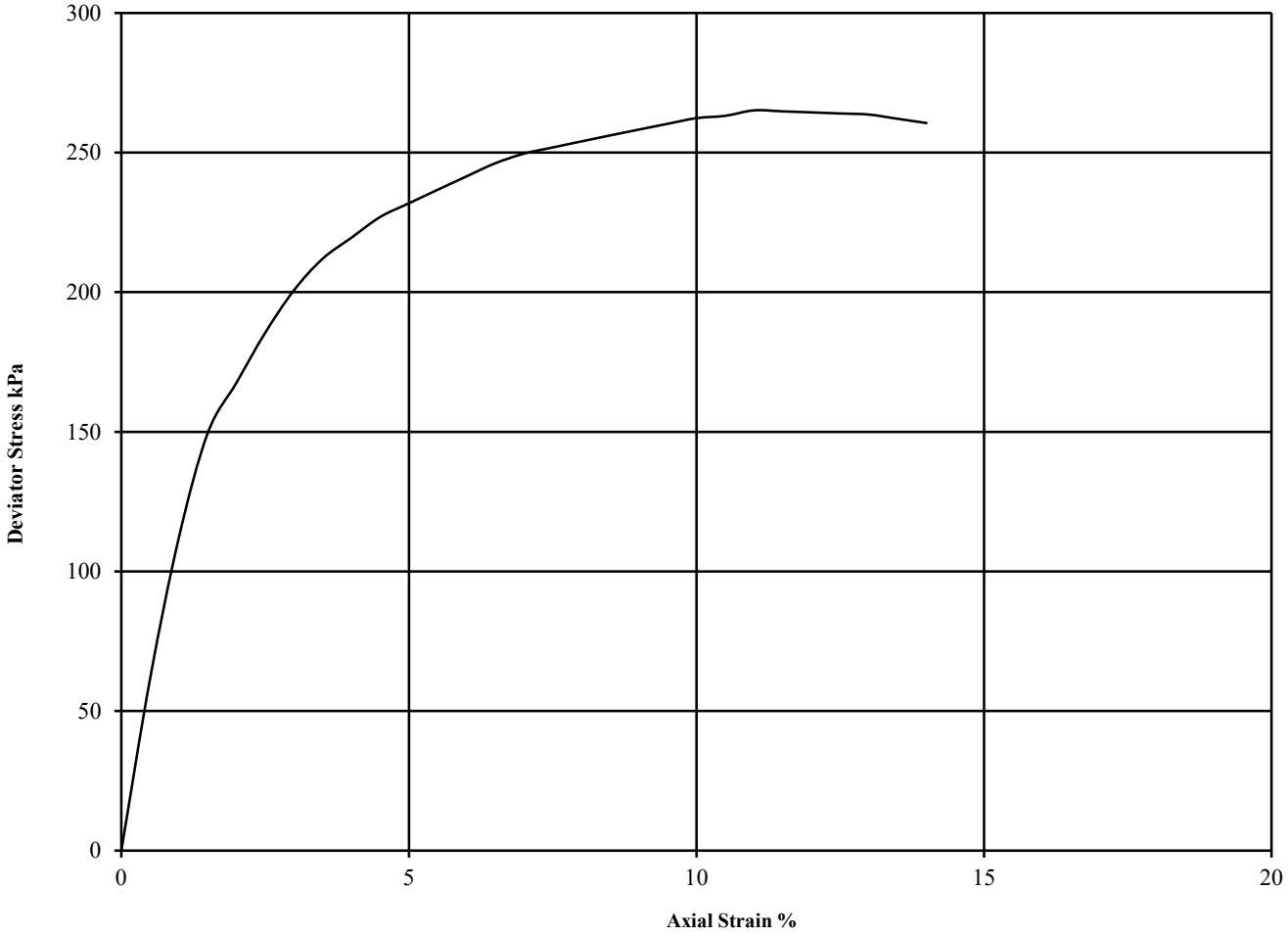
WITHOUT MEASUREMENT OF PORE PRESSURE

BS1377 : Part7 : 1990: Clause 8

Hole Number: **RH201** **Top Depth (m):** **15.80**

Sample Number: **Base Depth (m):** **16.00**

Sample Type **CS**



Diameter (mm):		38	Height (mm):		76	Test:	UU Single Stage		Remarks:
Specimen	Moisture Content (%)	Bulk Density (Mg/m3)	Dry Density (Mg/m3)	Cell Pressure (kPa) θ_3	Corr. Max. Deviator Stress (kPa) $(\theta_1-\theta_3)_f$	Shear Strength Cu (kPa) $^1/_2(\theta_1-\theta_3)_f$	Failure Strain (%)	Mode of Failure	Undisturbed Sample Sample taken from top of tube Rate of strain = 2 %/min Latex Membrane used 0.2 mm thick, Correction applied 0.84
1	14	2.04	1.80	200	265	133	11.0	Intermediate	See summary of soil descriptions

UKAS TESTING 4043

PSL Professional Soils Laboratory

Ten Acres Lane

Contract No:
PSL22/3506
Client Ref:
LD10385

UNDRAINED SHEAR STRENGTH IN TRIAXIAL COMPRESSION

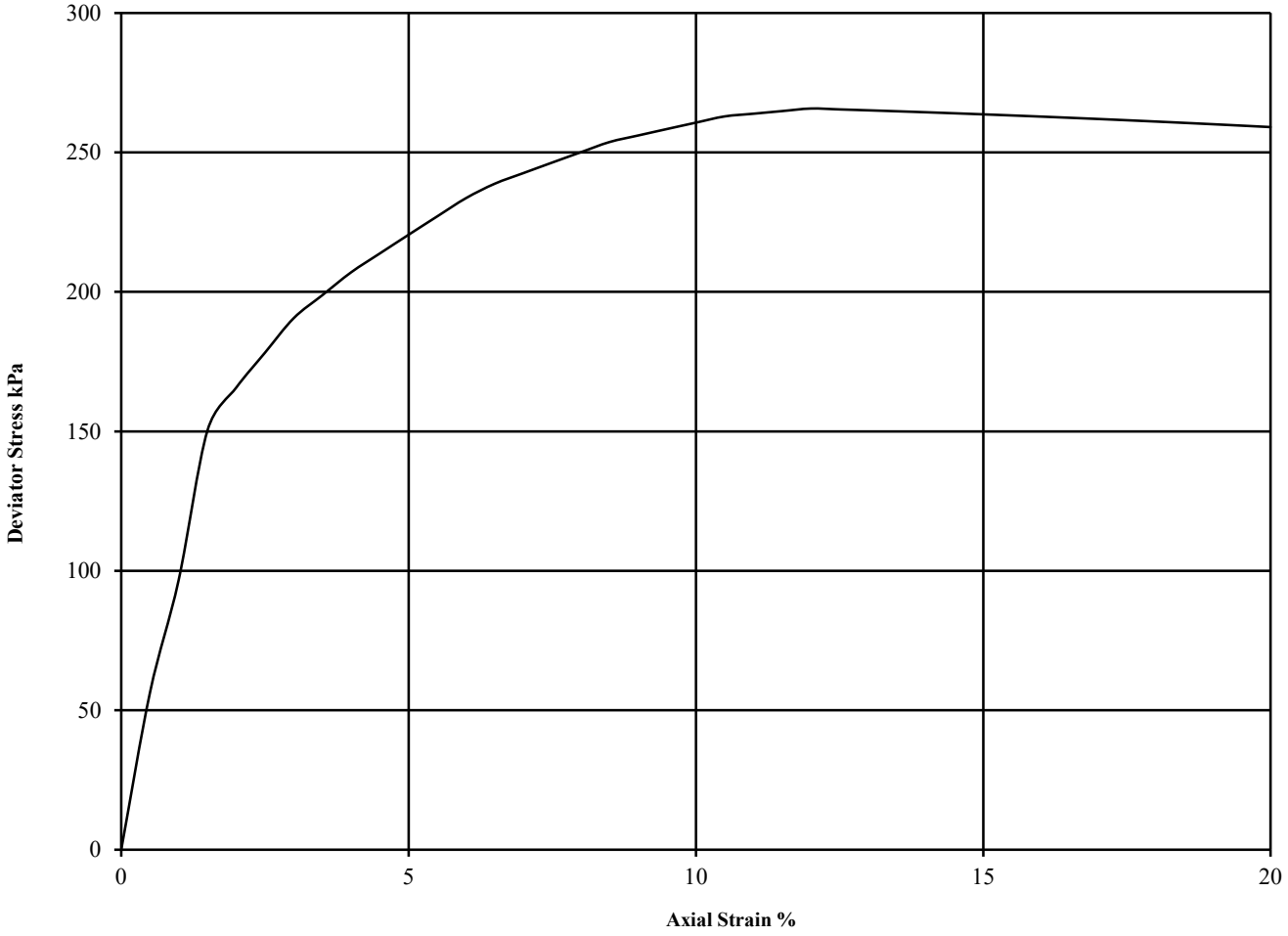
WITHOUT MEASUREMENT OF PORE PRESSURE

BS1377 : Part7 : 1990: Clause 8

Hole Number: **RH202** **Top Depth (m):** **13.10**

Sample Number: **Base Depth (m):** **13.50**

Sample Type **CS**



Diameter (mm):		38	Height (mm):		76	Test:	UU Single Stage		Remarks:
Specimen	Moisture Content (%)	Bulk Density (Mg/m3)	Dry Density (Mg/m3)	Cell Pressure (kPa) θ_3	Corr. Max. Deviator Stress (kPa) $(\theta_1-\theta_3)_f$	Shear Strength Cu (kPa) $^1/_2(\theta_1-\theta_3)_f$	Failure Strain (%)	Mode of Failure	Undisturbed Sample Sample taken from top of tube Rate of strain = 2 %/min Latex Membrane used 0.2 mm thick, Correction applied 0.83
1	15	2.12	1.84	180	266	133	12.0	Intermediate	See summary of soil descriptions

UKAS TESTING 4043

PSL Professional Soils Laboratory

Ten Acres Lane

Contract No:
PSL22/3506
Client Ref:
LD10385

UNDRAINED SHEAR STRENGTH IN TRIAXIAL COMPRESSION

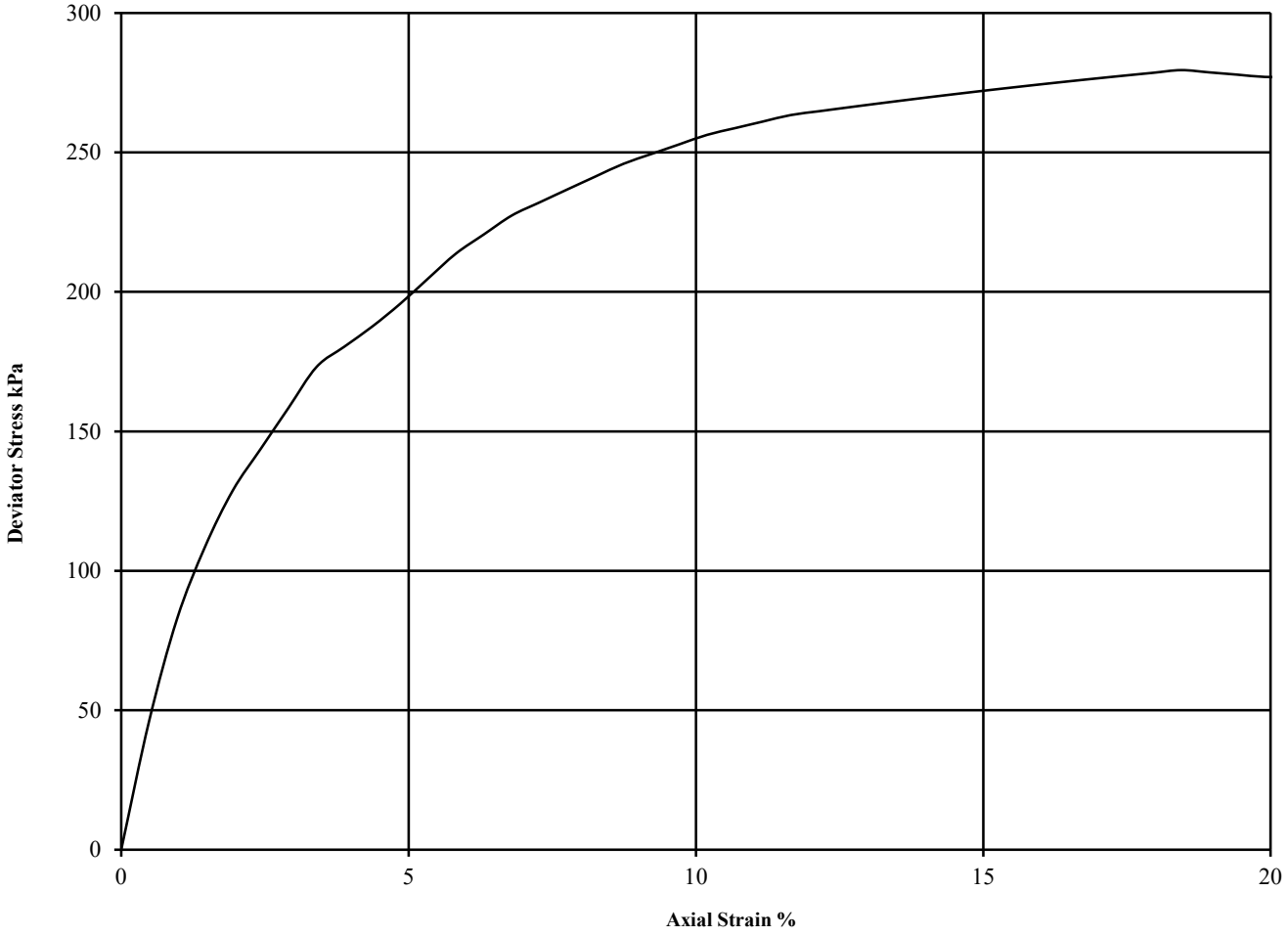
WITHOUT MEASUREMENT OF PORE PRESSURE

BS1377 : Part7 : 1990: Clause 8

Hole Number: **RH205** **Top Depth (m):** **12.50**

Sample Number: **Base Depth (m):** **12.80**

Sample Type **CS**



Diameter (mm):		100	Height (mm):		206	Test:	UU Single Stage		Remarks:
Specimen	Moisture Content (%)	Bulk Density (Mg/m3)	Dry Density (Mg/m3)	Cell Pressure (kPa) θ_3	Corr. Max. Deviator Stress (kPa) $(\theta_1-\theta_3)_f$	Shear Strength Cu (kPa) $^1/_2(\theta_1-\theta_3)_f$	Failure Strain (%)	Mode of Failure	Undisturbed Sample Sample taken from top of tube Rate of strain = 2 %/min Latex Membrane used 0.2 mm thick, Correction applied 0.34
1	15	2.20	1.91	130	280	140	18.4	Intermediate	See summary of soil descriptions

UKAS TESTING 4043	PSL Professional Soils Laboratory	**Ten Acres Lane**	**Contract No:** PSL22/3506 **Client Ref:** LD10385

UNDRAINED SHEAR STRENGTH IN TRIAXIAL COMPRESSION

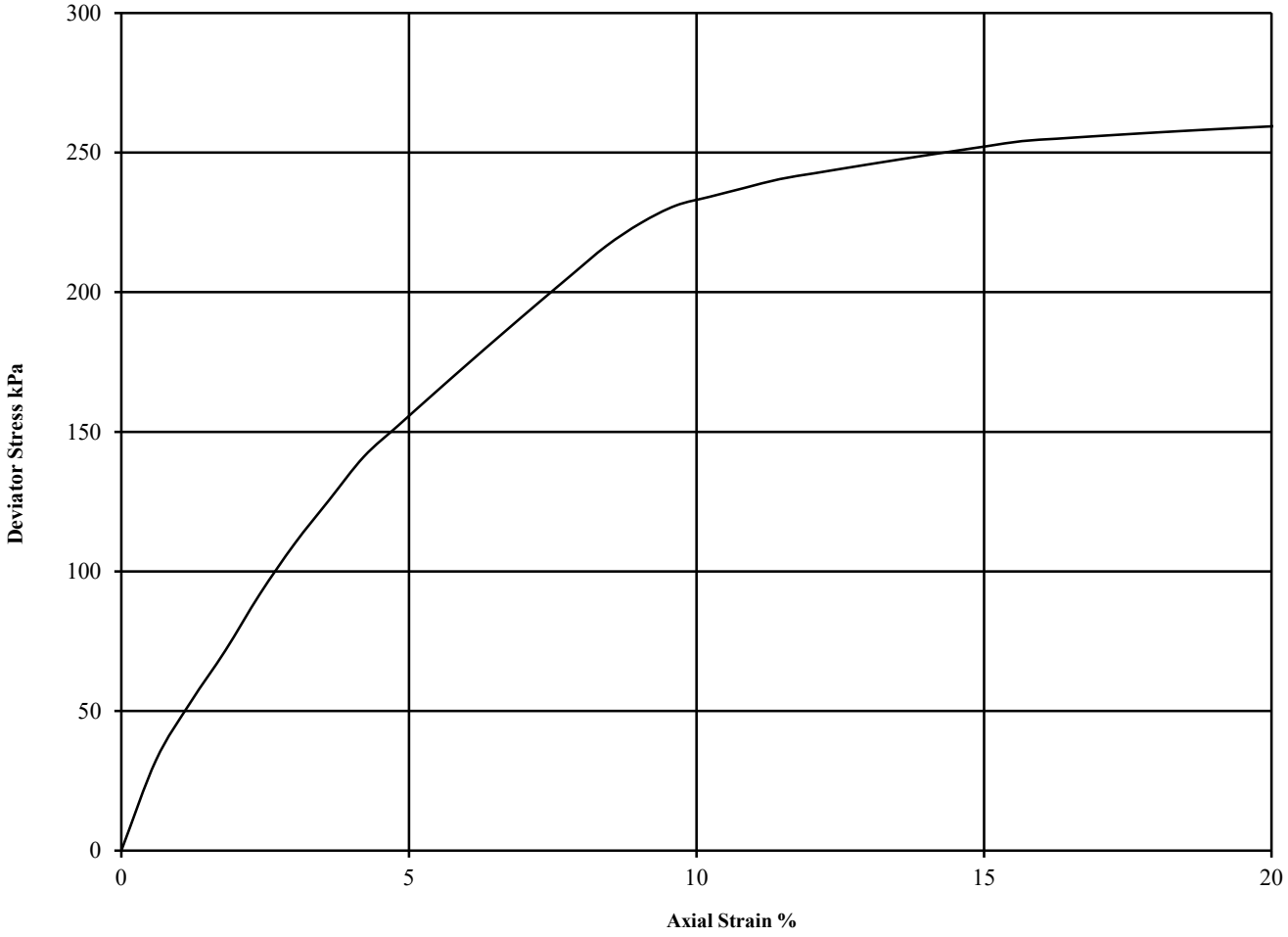
WITHOUT MEASUREMENT OF PORE PRESSURE

BS1377 : Part7 : 1990: Clause 8

Hole Number: **RH206** **Top Depth (m):** **6.00**

Sample Number: **Base Depth (m):** **6.45**

Sample Type **CS**



Diameter (mm):		100	Height (mm):		166	Test:	UU Single Stage		Remarks:
Specimen	Moisture Content (%)	Bulk Density (Mg/m3)	Dry Density (Mg/m3)	Cell Pressure (kPa) θ_3	Corr. Max. Deviator Stress (kPa) $(\theta_1-\theta_3)_f$	Shear Strength Cu (kPa) $^1/_2(\theta_1-\theta_3)_f$	Failure Strain (%)	Mode of Failure	Undisturbed Sample Sample taken from top of tube Rate of strain = 2 %/min Latex Membrane used 0.2 mm thick, Correction applied 0.34 See summary of soil descriptions
1	17	2.15	1.84	100	261	130	21.7	Brittle	

UKAS TESTING 4043	PSL Professional Soils Laboratory	**Ten Acres Lane**	**Contract No:** PSL22/3506 **Client Ref:** LD10385

UNDRAINED SHEAR STRENGTH IN TRIAXIAL COMPRESSION

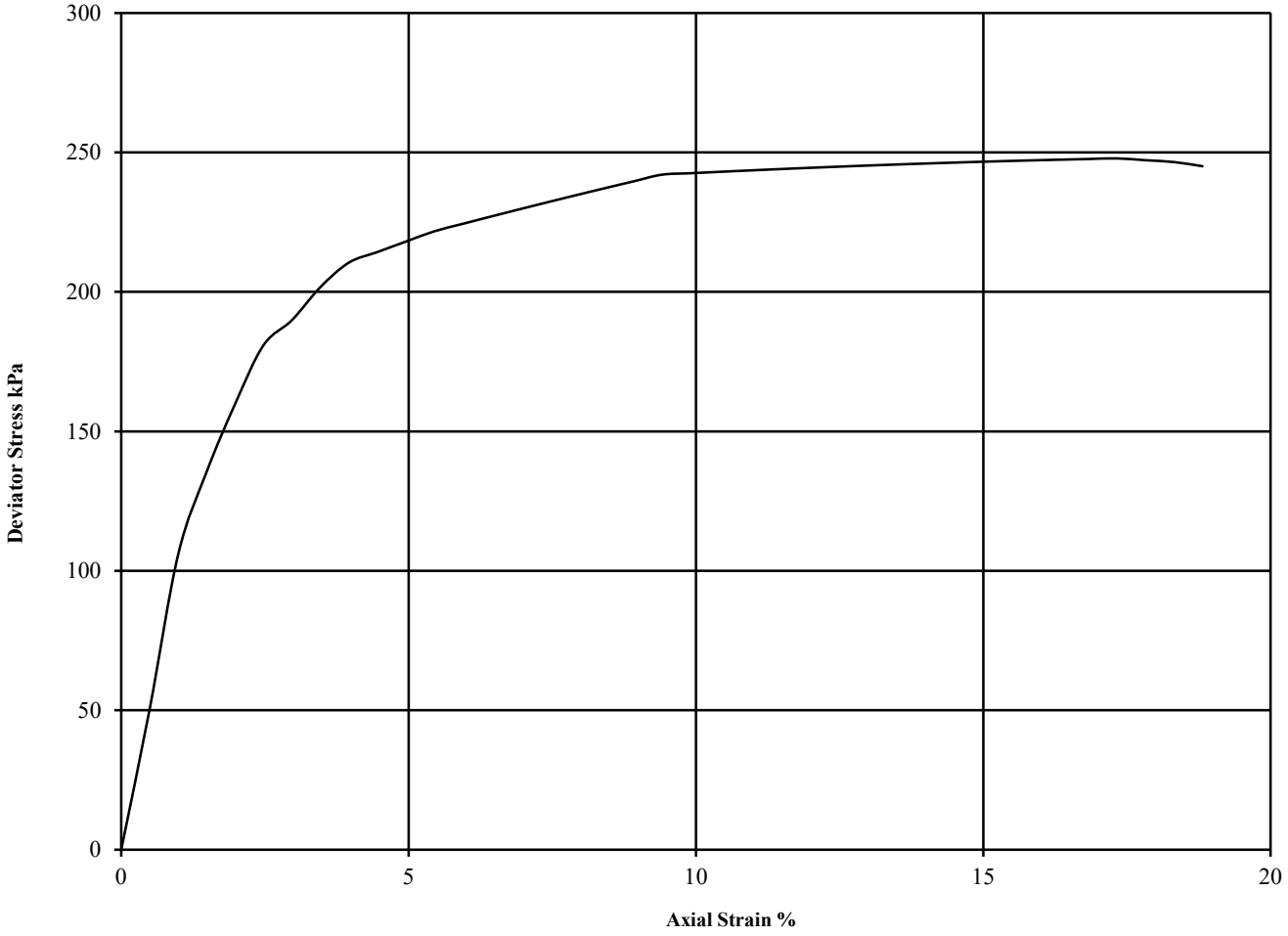
WITHOUT MEASUREMENT OF PORE PRESSURE

BS1377 : Part7 : 1990: Clause 8

Hole Number: **CP207** **Top Depth (m):** **15.00**

Sample Number: **Base Depth (m):** **15.45**

Sample Type **U**



Diameter (mm):		102	Height (mm):		206	Test:	UU Single Stage		Remarks:
Specimen	Moisture Content (%)	Bulk Density (Mg/m3)	Dry Density (Mg/m3)	Cell Pressure (kPa) θ_3	Corr. Max. Deviator Stress (kPa) $(\theta_1-\theta_3)_f$	Shear Strength Cu (kPa) $^1/_2(\theta_1-\theta_3)_f$	Failure Strain (%)	Mode of Failure	Undisturbed Sample Sample taken from top of tube Rate of strain = 2 %/min Latex Membrane used 0.2 mm thick, Correction applied 0.34
1	14	2.22	1.94	180	248	124	17.3	Intermediate	See summary of soil descriptions

UKAS TESTING 4043

PSL Professional Soils Laboratory

Ten Acres Lane

Contract No:
PSL22/3506
Client Ref:
LD10385

ONE DIMENSIONAL CONSOLIDATION TEST

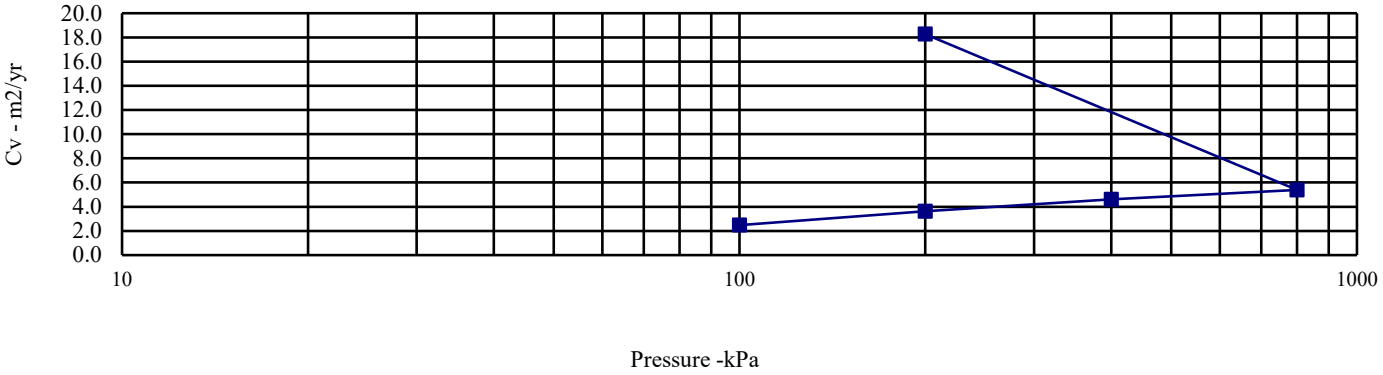
BS 1377: Part 5: 1990: Clause 3

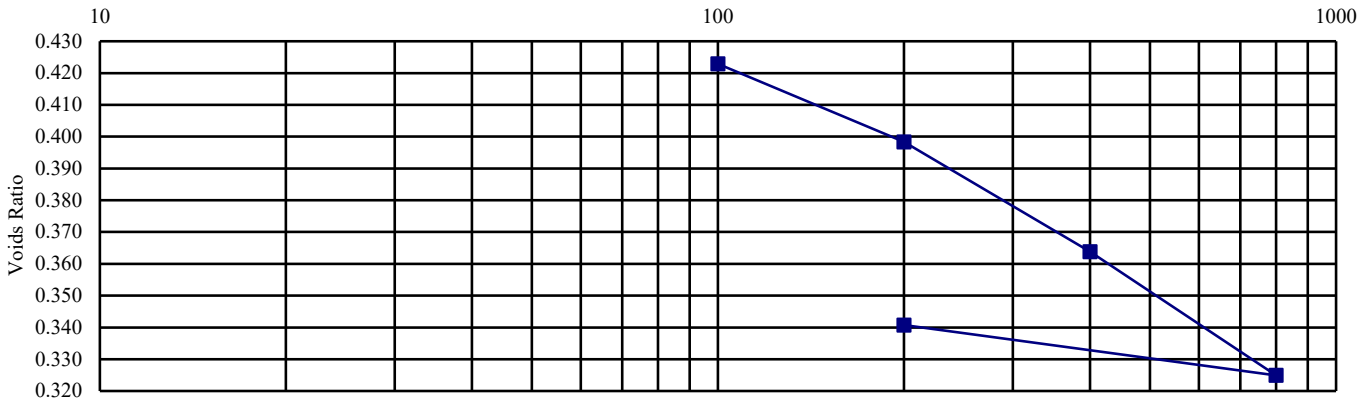
Hole Number: **RH201** **Top Depth (m):** **15.80**

Sample Number: **Base Depth (m) :** **16.00**

Sample Type: **CS**

Initial Conditions		Pressure Range kPa		Mv m2/MN	Cv m2/yr	Specimen location within tube:	Top
Moisture Content (%):	15						
Bulk Density (Mg/m3):	2.06	0	100	0.375	2.478	Method used to	
Dry Density (Mg/m3):	1.79	100	200	0.173	3.613	determine CV:	T90
Voids Ratio:	0.478	200	400	0.123	4.620	Nominal temperature	
Degree of saturation:	84.4	400	800	0.071	5.381	during test ' C:	20
Height (mm):	20.052	800	200	0.020	18.269	Remarks:	
Diameter (mm)	75.058					See summary of soil descriptions	
Particle Density (Mg/m3): Measured	2.64						





UKAS TESTING 4043	PSL Professional Soils Laboratory	**Ten Acres Lane**	**Contract No:** PSL22/3506 **Client Ref:** LD10385

ONE DIMENSIONAL CONSOLIDATION TEST

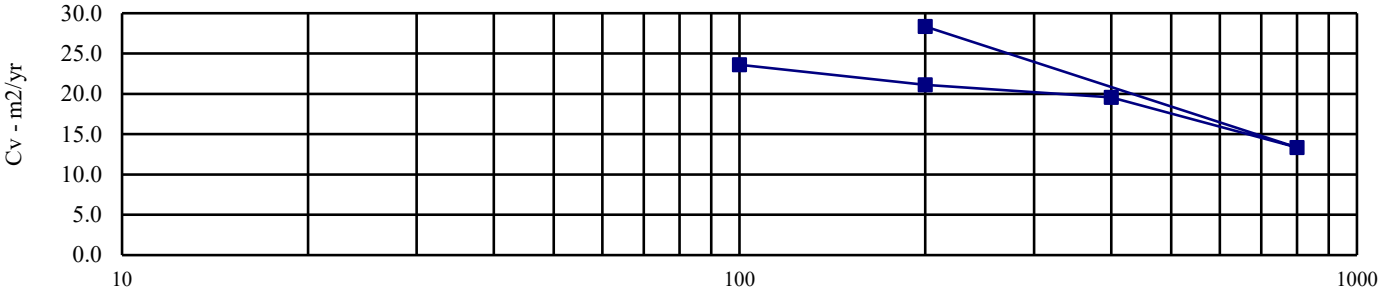
BS 1377: Part 5: 1990: Clause 3

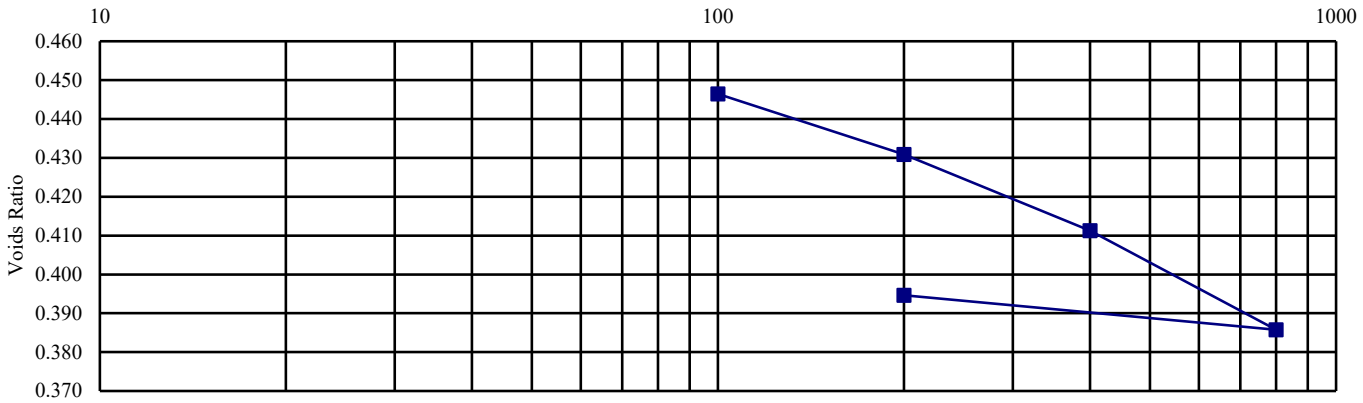
Hole Number: **RH202** **Top Depth (m):** **13.10**

Sample Number: **Base Depth (m) :** **13.50**

Sample Type: **CS**

Initial Conditions		Pressure Range kPa		Mv m2/MN	Cv m2/yr	Specimen location within tube:	Top
Moisture Content (%):	15						
Bulk Density (Mg/m3):	2.06	0	100	0.229	23.613	Method used to	
Dry Density (Mg/m3):	1.79	100	200	0.108	21.106	determine CV:	T90
Voids Ratio:	0.480	200	400	0.068	19.575	Nominal temperature	
Degree of saturation:	83.3	400	800	0.045	13.348	during test ' C:	20
Height (mm):	20.052	800	200	0.011	28.355	Remarks:	
Diameter (mm)	75.108					See summary of soil descriptions	
Particle Density (Mg/m3): Assumed	2.65						





UKAS TESTING 4043	PSL Professional Soils Laboratory	**Ten Acres Lane**	**Contract No:** PSL22/3506 **Client Ref:** LD10385

ONE DIMENSIONAL CONSOLIDATION TEST

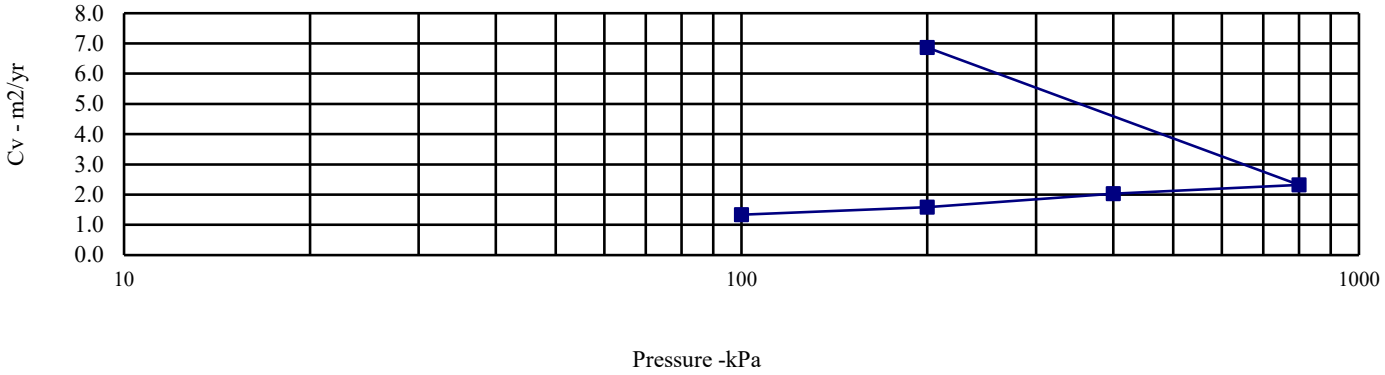
BS 1377: Part 5: 1990: Clause 3

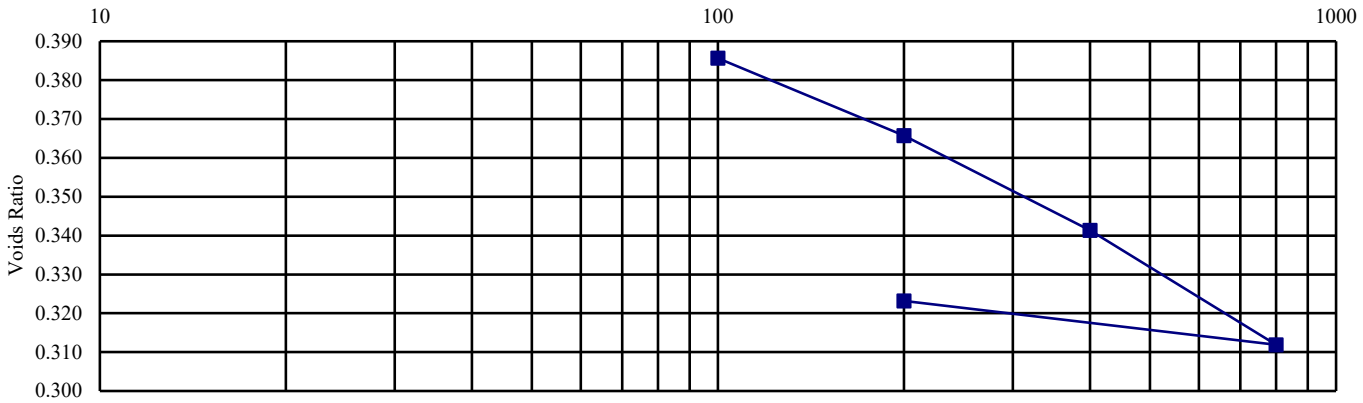
Hole Number: **RH205** **Top Depth (m):** **12.50**

Sample Number: **Base Depth (m) :** **12.80**

Sample Type: **CS**

Initial Conditions		Pressure Range kPa		Mv m2/MN	Cv m2/yr	Specimen location within tube:	Top
Moisture Content (%):	16						
Bulk Density (Mg/m3):	2.15	0	100	0.299	1.336	Method used to	
Dry Density (Mg/m3):	1.86	100	200	0.144	1.582	determine CV:	T90
Voids Ratio:	0.428	200	400	0.089	2.027	Nominal temperature	
Degree of saturation:	97.8	400	800	0.055	2.317	during test ' C:	20
Height (mm):	20.108	800	200	0.014	6.865	Remarks:	
Diameter (mm)	75.055					See summary of soil descriptions	
Particle Density (Mg/m3): Assumed	2.65						





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