

Analytical Report Number : 21-28347
Project / Site name: Ashley Road Depot

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

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Sulphate, water soluble, in soil (16hr extraction)	Determination of water soluble sulphate by ICP-OES. Results reported directly (leachate equivalent) and corrected for extraction ratio (soil equivalent).	In house method.	L038-PL	D	MCERTS
Metals in soil by ICP-OES	Determination of metals in soil by aqua-regia digestion followed by ICP-OES.	In-house method based on MEWAM 2006 Methods for the Determination of Metals in Soil.	L038-PL	D	MCERTS
Asbestos identification in Bunks	Asbestos Identification in bulk material with the use of polarised light microscopy in conjunction with disperion staining techniques.	In house method based on HSG 248	A001-PL	W	ISO 17025
Asbestos identification in soil	Asbestos Identification with the use of polarised light microscopy in conjunction with disperion staining techniques.	In house method based on HSG 248	A001-PL	D	ISO 17025
Chloride, water soluble, in soil	Determination of Chloride colorimetrically by discrete analyser.	In house method.	L082-PL	D	MCERTS
Hexavalent chromium in soil	Determination of hexavalent chromium in soil by extraction in water then by acidification, addition of 1,5 diphenylcarbazide followed by colorimetry.	In-house method	L080-PL	W	MCERTS
Moisture Content	Moisture content, determined gravimetrically, (30 oC)	In house method.	L019-UK/PL	W	NONE
Monohydric phenols in soil	Determination of phenols in soil by extraction with sodium hydroxide followed by distillation followed by colorimetry.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton (skalar)	L080-PL	W	MCERTS
Speciated EPA-16 PAHs in soil	Determination of PAH compounds in soil by extraction in dichloromethane and hexane followed by GC-MS with the use of surrogate and internal standards.	In-house method based on USEPA 8270	L064-PL	D	MCERTS
pH in soil (automated)	Determination of pH in soil by addition of water followed by automated electrometric measurement.	In house method.	L099-PL	D	MCERTS
Sulphide in soil	Determination of sulphide in soil by acidification and heating to liberate hydrogen sulphide, trapped in an alkaline solution then assayed by ion selective electrode.	In-house method	L010-PL	D	MCERTS
Total sulphate (as SO ₄ in soil)	Determination of total sulphate in soil by extraction with 10% HCl followed by ICP-OES.	In house method.	L038-PL	D	MCERTS
Stones content of soil	Standard preparation for all samples unless otherwise detailed, Gravimetric determination of stone > 10 mm as % dry weight.	In-house method based on British Standard Methods and MCERTS requirements.	L019-UK/PL	D	NONE
Total cyanide in soil	Determination of total cyanide by distillation followed by colorimetry.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton (Skalar)	L080-PL	W	MCERTS
Total organic carbon (Automated) in soil	Determination of organic matter in soil by oxidising with potassium dichromate followed by titration with iron (II) sulphate.	In house method.	L009-PL	D	MCERTS
TPH in (Soil)	Determination of TPH bands by HS-GC-MS/GC-FID	In-house method, TPH with carbon banding and silica gel split/cleanup.	L076-PL	D	MCERTS
TPH Banding in Soil by FID	Determination of hexane extractable hydrocarbons in soil by GC-FID.	In-house method, TPH with carbon banding and silica gel split/cleanup.	L076-PL	W	MCERTS



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

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Asbestos Quantification - Gravimetric	Asbestos quantification by gravimetric method - in house method based on references.	HSE Report No: 83/1996, HSG 248, HSG 264 & SCA Blue Book (draft).	A006-PL	D	ISO 17025
D.O. for Gravimetric Quant if Screen/ID positive	Dependent option for Gravimetric Quant if Screen/ID positive scheduled.	In house asbestos methods A001 & A006.	A006-PL	D	NONE

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

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

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

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

Information in Support of Analytical Results

List of HWOL Acronyms and Operators

Acronym	Descriptions
HS	Headspace Analysis
MS	Mass spectrometry
FID	Flame Ionisation Detector
GC	Gas Chromatography
EH	Extractable Hydrocarbons (i.e. everything extracted by the solvent(s))
CU	Clean-up - e.g. by Florisil®, silica gel
1D	GC - Single coil/column gas chromatography
2D	GC-GC - Double coil/column gas chromatography
Total	Aliphatics & Aromatics
AL	Aliphatics
AR	Aromatics
#1	EH_2D_Total but with humics mathematically subtracted
#2	EH_2D_Total but with fatty acids mathematically subtracted
-	Operator - understore to separate acronyms (exception for +)
+	Operator to indicate cumulative e.g. EH+HS_Total or EH_CU+HS_Total

Analytical Report Number : 21-28347
Project / Site name: Ashley Road Depot

Sample ID	Other ID	Sample Type	Lab Sample Number	Sample Deviation	Test Name	Test Ref	Test Deviation
TP4	None Supplied	S	2112266	b	Monohydric phenols in soil	L080-PL	b
TP4	None Supplied	S	2112266	b	Speciated EPA-16 PAHs in soil	L064-PL	b
TP4	None Supplied	S	2112266	b	TPH in (Soil)	L076-PL	b

**Jordan Wood**

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Analytical Report Number : 21-30011

Project / Site name:	Ashley Road Depot	Samples received on:	17/11/2021
Your job number:	J21294	Samples instructed on/ Analysis started on:	20/12/2021
Your order number:		Analysis completed by:	04/01/2022
Report Issue Number:	1	Report issued on:	04/01/2022
Samples Analysed:	1 soil sample		

Signed: *Karolina Marek*

Karolina Marek
PL Head of Reporting Team
For & on behalf of i2 Analytical Ltd.

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

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

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

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

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

Analytical Report Number: 21-30011
Project / Site name: Ashley Road Depot

Lab Sample Number				2121571
Sample Reference				IT2
Sample Number				None Supplied
Depth (m)				0.50
Date Sampled				14/12/2021
Time Taken				None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status	
Stone Content	%	0.1	NONE	< 0.1
Moisture Content	%	0.01	NONE	14
Total mass of sample received	kg	0.001	NONE	1.0

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

General Inorganics

pH - Automated	pH Units	N/A	MCERTS	8.4
Total Cyanide	mg/kg	1	MCERTS	< 1.0
Total Sulphate as SO ₄	mg/kg	50	MCERTS	4300
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	g/l	0.00125	MCERTS	0.37
Sulphide	mg/kg	1	MCERTS	16
Water Soluble Chloride (2:1)	mg/kg	1	MCERTS	170
Total Organic Carbon (TOC) - Automated	%	0.1	MCERTS	3.9

Total Phenols

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

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

Total PAH

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

Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	170
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	< 0.2
Chromium (hexavalent)	mg/kg	4	MCERTS	< 4.0
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	72
Copper (aqua regia extractable)	mg/kg	1	MCERTS	2500
Lead (aqua regia extractable)	mg/kg	1	MCERTS	1900
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	220
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	2400

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Lab Sample Number				2121571
Sample Reference				IT2
Sample Number				None Supplied
Depth (m)				0.50
Date Sampled				14/12/2021
Time Taken				None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status	

Petroleum Hydrocarbons

TPH C10 - C40 _{EH_CU_1D_TOTAL}	mg/kg	10	MCERTS	73
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TPH (C8 - C10) _{HS_1D_TOTAL}	mg/kg	0.1	MCERTS	< 0.1
TPH (C10 - C12) _{EH_CU_1D_TOTAL}	mg/kg	2	MCERTS	< 2.0
TPH (C12 - C16) _{EH_CU_1D_TOTAL}	mg/kg	4	MCERTS	6.0
TPH (C16 - C21) _{EH_CU_1D_TOTAL}	mg/kg	1	MCERTS	8.0
TPH (C21 - C35) _{EH_CU_1D_TOTAL}	mg/kg	1	MCERTS	45
TPH Total C8 - C35 _{EH_CU+HS_1D_TOTAL}	mg/kg	10	MCERTS	59

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



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

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

Lab Sample Number	Sample Reference	Sample Number	Depth (m)	Sample Description *
2121571	IT2	None Supplied	0.5	Brown loam and gravel.

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Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Sulphate, water soluble, in soil (16hr extraction)	Determination of water soluble sulphate by ICP-OES. Results reported directly (leachate equivalent) and corrected for extraction ratio (soil equivalent).	In house method.	L038-PL	D	MCERTS
Metals in soil by ICP-OES	Determination of metals in soil by aqua-regia digestion followed by ICP-OES.	In-house method based on MEWAM 2006 Methods for the Determination of Metals in Soil.	L038-PL	D	MCERTS
Asbestos identification in soil	Asbestos Identification with the use of polarised light microscopy in conjunction with disperion staining techniques.	In house method based on HSG 248	A001-PL	D	ISO 17025
Chloride, water soluble, in soil	Determination of Chloride colorimetrically by discrete analyser.	In house method.	L082-PL	D	MCERTS
Hexavalent chromium in soil	Determination of hexavalent chromium in soil by extraction in water then by acidification, addition of 1,5 diphenylcarbazide followed by colorimetry.	In-house method	L080-PL	W	MCERTS
Moisture Content	Moisture content, determined gravimetrically. (30 oC)	In house method.	L019-JK/PL	W	NONE
Monohydric phenols in soil	Determination of phenols in soil by extraction with sodium hydroxide followed by distillation followed by colorimetry.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton (skalar)	L080-PL	W	MCERTS
Speciated EPA-16 PAHs in soil	Determination of PAH compounds in soil by extraction in dichloromethane and hexane followed by GC-MS with the use of surrogate and internal standards.	In-house method based on USEPA 8270	L064-PL	D	MCERTS
pH in soil (automated)	Determination of pH in soil by addition of water followed by automated electrometric measurement.	In house method.	L099-PL	D	MCERTS
Sulphide in soil	Determination of sulphide in soil by acidification and heating to liberate hydrogen sulphide, trapped in an alkaline solution then assayed by ion selective electrode.	In-house method	L010-PL	D	MCERTS
Total sulphate (as SO4 in soil)	Determination of total sulphate in soil by extraction with 10% HCl followed by ICP-OES.	In house method.	L038-PL	D	MCERTS
Stones content of soil	Standard preparation for all samples unless otherwise detailed. Gravimetric determination of stone > 10 mm as % dry weight.	In-house method based on British Standard Methods and MCERTS requirements.	L019-JK/PL	D	NONE
Total cyanide in soil	Determination of total cyanide by distillation followed by colorimetry.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton (Skalar)	L080-PL	W	MCERTS
Total organic carbon (Automated) in soil	Determination of organic matter in soil by oxidising with potassium dichromate followed by titration with iron (II) sulphate.	In house method.	L009-PL	D	MCERTS
TPH in (Soil)	Determination of TPH bands by HS-GC-MS/GC-FID	In-house method, TPH with carbon banding and silica gel split/deanup.	L076-PL	D	MCERTS
TPH Banding in Soil by FID	Determination of hexane extractable hydrocarbons in soil by GC-FID.	In-house method, TPH with carbon banding and silica gel split/deanup.	L076-PL	D	MCERTS

Analytical Report Number : 21-30011
Project / Site name: Ashley Road Depot

Water matrix abbreviations:

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

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
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For method numbers ending in 'UK' analysis have been carried out in our laboratory in the United Kingdom.

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

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

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

Information in Support of Analytical Results

List of HWOL Acronyms and Operators

Acronym	Descriptions
HS	Headspace Analysis
MS	Mass spectrometry
FID	Flame Ionisation Detector
GC	Gas Chromatography
EH	Extractable Hydrocarbons (i.e. everything extracted by the solvent(s))
CU	Clean-up - e.g. by Florisil®, silica gel
1D	GC - Single coil/column gas chromatography
2D	GC-GC - Double coil/column gas chromatography
Total	Aliphatics & Aromatics
AL	Aliphatics
AR	Aromatics
#1	EH_2D_Total but with humics mathematically subtracted
#2	EH_2D_Total but with fatty acids mathematically subtracted
_	Operator - understore to separate acronyms (exception for +)
+	Operator to indicate cumulative e.g. EH+HS_Total or EH_CU+HS_Total

**Jordan Wood**

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Analytical Report Number : 22-31272

Project / Site name: Ashley Road Depot

Samples received on: 17/12/2021

Your job number: J21294

**Samples instructed on/
Analysis started on:** 05/01/2022

Your order number: J21294

Analysis completed by: 12/01/2022

Report Issue Number: 1

Report issued on: 12/01/2022

Samples Analysed: 4 leachate samples

Signed: *Karolina Marek*

Karolina Marek
PL Head of Reporting Team
For & on behalf of i2 Analytical Ltd.

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

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

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

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

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Any assessments of compliance with specifications are based on actual analytical results with no contribution from uncertainty of measurement.

Application of uncertainty of measurement would provide a range within which the true result lies.

An estimate of measurement uncertainty can be provided on request.



Analytical Report Number: 22-31272
Project / Site name: Ashley Road Depot

Your Order No: J21294

Lab Sample Number	2129005			2129006	2129007	2129008
Sample Reference	IT2			CBR2	BH14	BH10
Sample Number	None Supplied			None Supplied	None Supplied	None Supplied
Depth (m)	0,50			0,30	0,90	0,60
Date Sampled	14/12/2021			08/12/2021	08/12/2021	08/12/2021
Time Taken	None Supplied			None Supplied	None Supplied	None Supplied
Analytical Parameter (Leachate Analysis)	Units	Limit of detection	Accreditation Status			

General Inorganics

Electrical Conductivity	µS/cm	10	ISO 17025	220	260	350	210
Total Cyanide	µg/l	10	ISO 17025	< 10	< 10	< 10	< 10
Ammoniacal Nitrogen as NH3	µg/l	15	NONE	42	380	40	51
Total Organic Carbon (TOC)	mg/l	0,1	NONE	3,95	8,32	3,26	6,47

Total Phenols

Total Phenols (monohydric)	µg/l	10	ISO 17025	< 10	< 10	< 10	< 10
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Speciated PAHs

Naphthalene	µg/l	0,01	ISO 17025	< 0,01	< 0,01	< 0,01	< 0,01
Acenaphthylene	µg/l	0,01	ISO 17025	< 0,01	< 0,01	< 0,01	< 0,01
Acenaphthene	µg/l	0,01	ISO 17025	< 0,01	< 0,01	< 0,01	< 0,01
Fluorene	µg/l	0,01	ISO 17025	< 0,01	< 0,01	< 0,01	< 0,01
Phenanthrene	µg/l	0,01	ISO 17025	< 0,01	< 0,01	< 0,01	< 0,01
Anthracene	µg/l	0,01	ISO 17025	< 0,01	< 0,01	< 0,01	< 0,01
Fluoranthene	µg/l	0,01	ISO 17025	< 0,01	< 0,01	< 0,01	< 0,01
Pyrene	µg/l	0,01	ISO 17025	< 0,01	< 0,01	< 0,01	< 0,01
Benzo(a)anthracene	µg/l	0,01	ISO 17025	< 0,01	< 0,01	< 0,01	< 0,01
Chrysene	µg/l	0,01	ISO 17025	< 0,01	< 0,01	< 0,01	< 0,01
Benzo(b)fluoranthene	µg/l	0,01	ISO 17025	< 0,01	< 0,01	< 0,01	< 0,01
Benzo(k)fluoranthene	µg/l	0,01	ISO 17025	< 0,01	< 0,01	< 0,01	< 0,01
Benzo(a)pyrene	µg/l	0,01	ISO 17025	< 0,01	< 0,01	< 0,01	< 0,01
Indeno(1,2,3-cd)pyrene	µg/l	0,01	NONE	< 0,01	< 0,01	< 0,01	< 0,01
Dibenz(a,h)anthracene	µg/l	0,01	NONE	< 0,01	< 0,01	< 0,01	< 0,01
Benzo(ghi)perylene	µg/l	0,01	NONE	< 0,01	< 0,01	< 0,01	< 0,01

Total PAH

Total EPA-16 PAHs	µg/l	0,2	NONE	< 0,2	< 0,2	< 0,2	< 0,2
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Heavy Metals / Metalloids

Arsenic (dissolved)	µg/l	1	ISO 17025	11	16	8,9	28
Cadmium (dissolved)	µg/l	0,08	ISO 17025	0,14	< 0,08	0,53	0,16
Chromium (dissolved)	µg/l	0,4	ISO 17025	2,7	2,5	< 0,4	6,3
Copper (dissolved)	µg/l	0,7	ISO 17025	15	44	7,1	14
Lead (dissolved)	µg/l	1	ISO 17025	16	14	17	18
Mercury (dissolved)	µg/l	0,5	ISO 17025	< 0,5	< 0,5	< 0,5	< 0,5
Nickel (dissolved)	µg/l	0,3	ISO 17025	6,7	7,9	4,5	5,2
Selenium (dissolved)	µg/l	4	ISO 17025	< 4,0	6,4	< 4,0	< 4,0
Zinc (dissolved)	µg/l	0,4	ISO 17025	56	21	130	45

Petroleum Hydrocarbons

TPH (C8 - C10) HS_1D_TOTAL	µg/l	10	ISO 17025	< 10	< 10	< 10	< 10
TPH (C10 - C12) EH_1D_TOTAL_#1_#2_MS	µg/l	10	NONE	< 10	< 10	< 10	< 10
TPH (C12 - C16) EH_1D_TOTAL_#1_#2_MS	µg/l	10	NONE	< 10	< 10	< 10	< 10
TPH (C16 - C21) EH_1D_TOTAL_#1_#2_MS	µg/l	10	NONE	< 10	< 10	< 10	< 10
TPH (C21 - C35) EH_1D_TOTAL_#1_#2_MS	µg/l	10	NONE	< 10	< 10	< 10	< 10

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



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Project / Site name: Ashley Road Depot

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Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
NRA Leachate Prep	10:1 extract with de-ionised water shaken for 24 hours then filtered.	In-house method based on National Rivers Authority	L020-PL	W	NONE
Metals by ICP-OES in leachate	Determination of metals in leachate by acidification followed by ICP-OES.	In-house method based on MEWAM 2006 Methods for the Determination of Metals in Soil.	L039-PL	W	ISO 17025
Electrical conductivity at 20oC of leachate	Determination of electrical conductivity in leachate by electrometric measurement.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton	L031-PL	W	ISO 17025
Monohydric phenols in leachate	Determination of phenols in leachate by distillation followed by colorimetry.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton (skalar)	L080-PL	W	ISO 17025
Speciated EPA-16 PAHs in leachate	Determination of PAH compounds in leachate by extraction in dichloromethane followed by GC-MS with the use of surrogate and internal standards.	In-house method based on USEPA 8270	L102B-PL	W	NONE
Total cyanide in leachate	Determination of total cyanide by distillation followed by colorimetry.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton (Skalar)	L080-PL	W	ISO 17025
Total organic carbon in leachate	Determination of dissolved organic carbon in leachate by TOC/DOC NDIR analyser.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton	L037-PL	W	NONE
Ammonia as NH3 in leachate	Determination of Ammonium/Ammonia/ Ammoniacal Nitrogen by the colorimetric salicylate/nitroprusside method.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton	L082-PL	W	NONE
TPH in (Leachate)	Determination of dichloromethane extractable hydrocarbons in leachate by GC-MS.	In-house method, TPH with carbon banding.	L070-PL	W	NONE

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

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

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

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



Analytical Report Number : 22-31272
Project / Site name: Ashley Road Depot

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

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
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Information in Support of Analytical Results

List of HWOL Acronyms and Operators

Acronym	Descriptions
HS	Headspace Analysis
MS	Mass spectrometry
FID	Flame Ionisation Detector
GC	Gas Chromatography
EH	Extractable Hydrocarbons (i.e. everything extracted by the solvent(s))
CU	Clean-up - e.g. by Florisil®, silica gel
1D	GC - Single coil/column gas chromatography
2D	GC-GC - Double coil/column gas chromatography
Total	Aliphatics & Aromatics
AL	Aliphatics
AR	Aromatics
#1	EH_2D_Total but with humics mathematically subtracted
#2	EH_2D_Total but with fatty acids mathematically subtracted
-	Operator - understore to separate acronyms (exception for +)
+	Operator to indicate cumulative e.g. EH+HS_Total or EH_CU+HS_Total

**Jordan Wood**

Geotechnical & Environmental Associates
Widbury Barn
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e: jordan@gea-ltd.co.uk

Analytical Report Number : 22-57605

Project / Site name:	Ashley Road Depot	Samples received on:	10/05/2022
Your job number:	J21294	Samples instructed on/ Analysis started on:	11/05/2022
Your order number:		Analysis completed by:	24/05/2022
Report Issue Number:	1	Report issued on:	24/05/2022
Samples Analysed:	6 soil samples		

Signed:

Joanna Wawrzeczko
Reporting Specialist
For & on behalf of i2 Analytical Ltd.

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

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

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

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

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

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

Analytical Report Number: 22-57605
Project / Site name: Ashley Road Depot

Lab Sample Number				2271571	2271572	2271573	2271574	2271575
Sample Reference				TP101A	TP101A	TP102A	TP102A	TP103A
Sample Number				None Supplied	S2	None Supplied	S2	None Supplied
Depth (m)				0.50	0.50	0.50	0.50	0.50
Date Sampled				04/05/2022	04/05/2022	03/05/2022	03/05/2022	05/05/2022
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Stone Content	%	0.1	NONE	< 0.1	-	32	-	34
Moisture Content	%	0.01	NONE	12	-	5.6	-	9.1
Total mass of sample received	kg	0.001	NONE	0.9	-	0.9	-	0.9

Asbestos in Soil Screen / Identification Name	Type	N/A	ISO 17025	-	-	-	-	-
Asbestos in Soil	Type	N/A	ISO 17025	Not-detected	Not-detected	Not-detected	Not-detected	Not-detected
Asbestos Quantification (Stage 2)	%	0.001	ISO 17025	-	-	-	-	-
Asbestos Quantification Total	%	0.001	ISO 17025	-	-	-	-	-
Asbestos Analyst ID	N/A	N/A	N/A	JSW	JSW	JSW	JSW	JSW

General Inorganics

pH - Automated	pH Units	N/A	MCERTS	7.8	-	9.4	-	9.4
Total Cyanide	mg/kg	1	MCERTS	< 1.0	-	1.5	-	< 1.0
Total Sulphate as SO ₄	mg/kg	50	MCERTS	6500	-	2300	-	4500
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	g/l	0.00125	MCERTS	1.2	-	0.29	-	0.6
Sulphide	mg/kg	1	MCERTS	71	-	1600	-	120
Water Soluble Chloride (2:1)	mg/kg	1	MCERTS	460	-	250	-	220
Total Organic Carbon (TOC) - Automated	%	0.1	MCERTS	3.1	-	3.8	-	5.1

Total Phenols

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

Naphthalene	mg/kg	0.05	MCERTS	< 0.05	-	< 0.05	-	< 0.05
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	-	0.67	-	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05	-	0.65	-	< 0.05
Fluorene	mg/kg	0.05	MCERTS	< 0.05	-	0.56	-	< 0.05
Phenanthrene	mg/kg	0.05	MCERTS	0.79	-	8.6	-	2.2
Anthracene	mg/kg	0.05	MCERTS	< 0.05	-	2.6	-	0.31
Fluoranthene	mg/kg	0.05	MCERTS	2.8	-	14	-	4.5
Pyrene	mg/kg	0.05	MCERTS	2.9	-	12	-	4
Benzo(a)anthracene	mg/kg	0.05	MCERTS	1.6	-	7.7	-	2.2
Chrysene	mg/kg	0.05	MCERTS	1.3	-	4.9	-	1.9
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	1.8	-	5.5	-	1.8
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	1.1	-	4.2	-	1.8
Benzo(a)pyrene	mg/kg	0.05	MCERTS	1.6	-	5.7	-	1.9
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	1.1	-	3.5	-	1.3
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	0.29	-	1	-	0.31
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	1.4	-	4.5	-	1.6

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	MCERTS	16.7	-	76	-	23.8
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Analytical Report Number: 22-57605
Project / Site name: Ashley Road Depot

Lab Sample Number				2271571	2271572	2271573	2271574	2271575
Sample Reference				TP101A	TP101A	TP102A	TP102A	TP103A
Sample Number				None Supplied	S2	None Supplied	S2	None Supplied
Depth (m)				0.50	0.50	0.50	0.50	0.50
Date Sampled				04/05/2022	04/05/2022	03/05/2022	03/05/2022	05/05/2022
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					

Heavy Metals / Metalloids

Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	160	-	29	-	87
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	8.9	-	1.9	-	< 0.2
Chromium (hexavalent)	mg/kg	1.8	MCERTS	< 1.8	-	< 1.8	-	< 1.8
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	95	-	43	-	55
Copper (aqua regia extractable)	mg/kg	1	MCERTS	2200	-	230	-	760
Lead (aqua regia extractable)	mg/kg	1	MCERTS	3500	-	530	-	2000
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	7.1	-	1.1	-	3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	270	-	44	-	97
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	-	< 1.0	-	< 1.0
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	3600	-	640	-	1900

Petroleum Hydrocarbons

TPH C10 - C40 EH_CU_ID_TOTAL	mg/kg	10	MCERTS	100	-	410	-	53
TPH (C8 - C10) HS_ID_TOTAL	mg/kg	0.1	MCERTS	< 0.1	-	< 0.1	-	< 0.1
TPH (C10 - C12) EH_CU_ID_TOTAL	mg/kg	2	MCERTS	< 2.0	-	4.6	-	2.4
TPH (C12 - C16) EH_CU_ID_TOTAL	mg/kg	4	MCERTS	< 4.0	-	11	-	8.5
TPH (C16 - C21) EH_CU_ID_TOTAL	mg/kg	1	MCERTS	17	-	32	-	8.3
TPH (C21 - C35) EH_CU_ID_TOTAL	mg/kg	1	MCERTS	66	-	190	-	34
TPH Total C8 - C35 EH_CU+HS_ID_TOTAL	mg/kg	10	MCERTS	83	-	240	-	53

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

Analytical Report Number: 22-57605
Project / Site name: Ashley Road Depot

Lab Sample Number				2271576
Sample Reference				TP103A
Sample Number				S2
Depth (m)				0.50
Date Sampled				05/05/2022
Time Taken				None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status	
Stone Content	%	0.1	NONE	-
Moisture Content	%	0.01	NONE	-
Total mass of sample received	kg	0.001	NONE	-

Asbestos in Soil Screen / Identification Name	Type	N/A	ISO 17025	Chrysotile
Asbestos in Soil	Type	N/A	ISO 17025	Detected
Asbestos Quantification (Stage 2)	%	0.001	ISO 17025	< 0.001
Asbestos Quantification Total	%	0.001	ISO 17025	< 0.001
Asbestos Analyst ID	N/A	N/A	N/A	JSW

General Inorganics

pH - Automated	pH Units	N/A	MCERTS	-
Total Cyanide	mg/kg	1	MCERTS	-
Total Sulphate as SO ₄	mg/kg	50	MCERTS	-
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	g/l	0.00125	MCERTS	-
Sulphide	mg/kg	1	MCERTS	-
Water Soluble Chloride (2:1)	mg/kg	1	MCERTS	-
Total Organic Carbon (TOC) - Automated	%	0.1	MCERTS	-

Total Phenols

Total Phenols (monohydric)	mg/kg	1	MCERTS	-
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Speciated PAHs

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

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	MCERTS	-
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Analytical Report Number: 22-57605
Project / Site name: Ashley Road Depot

Lab Sample Number				2271576
Sample Reference				TP103A
Sample Number				S2
Depth (m)				0.50
Date Sampled				05/05/2022
Time Taken				None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status	
Heavy Metals / Metalloids				
Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	-
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	-
Chromium (hexavalent)	mg/kg	1.8	MCERTS	-
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	-
Copper (aqua regia extractable)	mg/kg	1	MCERTS	-
Lead (aqua regia extractable)	mg/kg	1	MCERTS	-
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	-
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	-
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	-
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	-

Petroleum Hydrocarbons

TPH C10 - C40 EH_CU_ID_TOTAL	mg/kg	10	MCERTS	-
TPH (C8 - C10) HS_ID_TOTAL	mg/kg	0.1	MCERTS	-
TPH (C10 - C12) EH_CU_ID_TOTAL	mg/kg	2	MCERTS	-
TPH (C12 - C16) EH_CU_ID_TOTAL	mg/kg	4	MCERTS	-
TPH (C16 - C21) EH_CU_ID_TOTAL	mg/kg	1	MCERTS	-
TPH (C21 - C35) EH_CU_ID_TOTAL	mg/kg	1	MCERTS	-
TPH Total C8 - C35 EH_CU+HS_ID_TOTAL	mg/kg	10	MCERTS	-

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



Analytical Report Number: 22-57605
Project / Site name: Ashley Road Depot
Your Order No:

Certificate of Analysis - Asbestos Quantification

Methods:

Qualitative Analysis

The samples were analysed qualitatively for asbestos by polarising light and dispersion staining as described by the Health and Safety Executive in HSG 248.

Quantitative Analysis

The analysis was carried out using our documented in-house method A006-PL based on HSE Contract Research Report No: 83/1996: Development and Validation of an analytical method to determine the amount of asbestos in soils and loose aggregates (Davies et al, 1996) and HSG 248. Our method includes initial examination of the entire representative sample, then fractionation and detailed analysis of each fraction, with quantification by hand picking and weighing.

The limit of detection (reporting limit) of this method is 0.001 %.

The method has been validated using samples of at least 100 g, results for samples smaller than this should be interpreted with caution.

Both Qualitative and Quantitative Analyses are UKAS accredited.

Sample Number	Sample ID	Sample Depth (m)	Sample Weight (g)	Asbestos Containing Material Types Detected (ACM)	PLM Results	Asbestos by hand picking/weighing (%)	Total % Asbestos in Sample
2271576	TP103A	0.50	149	Loose Fibres	Chrysotile	< 0.001	< 0.001

Opinions and interpretations expressed herein are outside the scope of UKAS accreditation.



Analytical Report Number : 22-57605
Project / Site name: Ashley Road Depot

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

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

Lab Sample Number	Sample Reference	Sample Number	Depth (m)	Sample Description *
2271571	TP101A	None Supplied	0.5	Brown loam and sand with gravel.
2271573	TP102A	None Supplied	0.5	Brown loam and sand with stones and vegetation.
2271575	TP103A	None Supplied	0.5	Brown loam and sand with stones and vegetation.

Analytical Report Number : 22-57605
Project / Site name: Ashley Road Depot

Water matrix abbreviations:

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

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Metals in soil by ICP-OES	Determination of metals in soil by aqua-regia digestion followed by ICP-OES.	In-house method based on MEWAM 2006 Methods for the Determination of Metals in Soil.	L038-PL	D	MCERTS
Sulphate, water soluble, in soil (16hr extraction)	Determination of water soluble sulphate by ICP-OES. Results reported directly (leachate equivalent) and corrected for extraction ratio (soil equivalent).	In house method.	L038-PL	D	MCERTS
Asbestos identification in soil	Asbestos Identification with the use of polarised light microscopy in conjunction with disperion staining techniques.	In house method based on HSG 248	A001-PL	D	ISO 17025
Chloride, water soluble, in soil	Determination of Chloride colorimetrically by discrete analyser.	In house method.	L082-PL	D	MCERTS
Moisture Content	Moisture content, determined gravimetrically. (30 oC)	In house method.	L019-UK/PL	W	NONE
Monohydric phenols in soil	Determination of phenols in soil by extraction with sodium hydroxide followed by distillation followed by colorimetry.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton (skalar)	L080-PL	W	MCERTS
Speciated EPA-16 PAHs in soil	Determination of PAH compounds in soil by extraction in dichloromethane and hexane followed by GC-MS with the use of surrogate and internal standards.	In-house method based on USEPA 8270	L064-PL	D	MCERTS
pH in soil (automated)	Determination of pH in soil by addition of water followed by automated electrometric measurement.	In house method.	L099-PL	D	MCERTS
Sulphide in soil	Determination of sulphide in soil by acidification and heating to liberate hydrogen sulphide, trapped in an alkaline solution then assayed by ion selective electrode.	In-house method	L010-PL	D	MCERTS
Total sulphate (as SO ₄ in soil)	Determination of total sulphate in soil by extraction with 10% HCl followed by ICP-OES.	In house method.	L038-PL	D	MCERTS
Stones content of soil	Standard preparation for all samples unless otherwise detailed. Gravimetric determination of stone > 10 mm as % dry weight.	In-house method based on British Standard Methods and MCERTS requirements.	L019-UK/PL	D	NONE
Total cyanide in soil	Determination of total cyanide by distillation followed by colorimetry.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton (Skalar)	L080-PL	W	MCERTS
Total organic carbon (Automated) in soil	Determination of organic matter in soil by oxidising with potassium dichromate followed by titration with iron (II) sulphate.	In house method.	L009-PL	D	MCERTS
TPH in (Soil)	Determination of TPH bands by HS-GC-MS/GC-FID	In-house method, TPH with carbon banding and silica gel split/cleanup.	L076-PL	D	MCERTS
TPH Banding in Soil by FID	Determination of hexane extractable hydrocarbons in soil by GC-FID.	In-house method, TPH with carbon banding and silica gel split/cleanup.	L076-PL	D	MCERTS
Asbestos Quantification - Gravimetric	Asbestos quantification by gravimetric method - in house method based on references.	HSE Report No: 83/1996, HSG 248, HSG 264 & SCA Blue Book (draft).	A006-PL	D	ISO 17025
Hexavalent chromium in soil	Determination of hexavalent chromium in soil by extraction in NaOH and addition of 1,5 diphenylcarbazide followed by colorimetry.	In-house method	L080-PL	W	MCERTS

Analytical Report Number : 22-57605
Project / Site name: Ashley Road Depot

Water matrix abbreviations:

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

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
D.O. for Gravimetric Quant if Screen/ID positive	Dependent option for Gravimetric Quant if Screen/ID positive scheduled.	In house asbestos methods A001 & A006.	A006-PL	D	NONE

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

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

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

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

Information in Support of Analytical Results

List of HWOL Acronyms and Operators

Acronym	Descriptions
HS	Headspace Analysis
MS	Mass spectrometry
FID	Flame Ionisation Detector
GC	Gas Chromatography
EH	Extractable Hydrocarbons (i.e. everything extracted by the solvent(s))
CU	Clean-up - e.g. by Florisil®, silica gel
1D	GC - Single coil/column gas chromatography
2D	GC-GC - Double coil/column gas chromatography
Total	Aliphatics & Aromatics
AL	Aliphatics
AR	Aromatics
#1	EH_2D_Total but with humics mathematically subtracted
#2	EH_2D_Total but with fatty acids mathematically subtracted
_	Operator - understore to separate acronyms (exception for +)
+	Operator to indicate cumulative e.g. EH+HS_Total or EH_CU+HS_Total

Analytical Report Number : 22-57605

Project / Site name: Ashley Road Depot

This deviation report indicates the sample and test deviations that apply to the samples submitted for analysis. Please note that the associated result(s) may be unreliable and should be interpreted with care.

Sample ID	Other ID	Sample Type	Lab Sample Number	Sample Deviation	Test Name	Test Ref	Test Deviation
TP102A	None Supplied	S	2271573	c	Sulphide in soil	L010-PL	c
TP102A	None Supplied	S	2271573	c	Total cyanide in soil	L080-PL	c

Daily Analytical Paperwork Daily Site Reference Log

Project No.:	N-30934	Report No.:	69712	Page	1	of	5
Client Details		Site Details					
Client Name:	Geotechnical and Environmental Associates	Site Address:	Ashley Road Depot	Contractor:	Start Time:		
Address:	Widbury Barn		Tottenham	Contract Foreman:	N/A		
	Widbury Hill		N17 9AZ	No. Additional Operatives:	N/A		
	SG12 7QE			Start Time:	N/A		
Contact:	Jordan Wood			Finish Time:	N/A		
Tel No.:	7395790469						
Email:	jordan@gea-ita.co.uk						

Description of Works

To undertake air testing whilst trenches are being dug at the aforementioned site where asbestos is suspected in the soil.

Site Diary:

Acorn consultant Charlie Dalby on site at 08:50 and met with the site supervisor and client to sign in, conduct a site walk and discuss RAMS.

Air tests are conducted throughout the day.

Air tests complete. Result shows a satisfactory fibre concentration level of <0.01f/ml.

Offsite 16:00

Analyst Name:	Charlie Dalby	Signed:		Date:	03/05/2022	
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Daily Analytical Paperwork Air Monitoring Certificate

Project No.:	N-30934	Certificate No.:	69712	Page Number	2	of	5
Client Details		Site Details					
Name:	Geotechnical and Environmental Associates	Ashley Road Depot					
Address:	Widbury Barn Widbury Hill SG12 7QE	Tottenham N17 9AZ					
Contact:	Jordan Wood	Visible Bands 5					
Tel No.:	7395790469	Flow Meter FM012/FM013					
Email:	jordan@gea-ita.co.uk	Measured Graticule Diameter (um) - d 100					
Contractor		Tally Counters					
N/A		Diameter of exposed filter (mm) - D 28/29					
		Stopwatch SW/52					
		Batch No 4273					

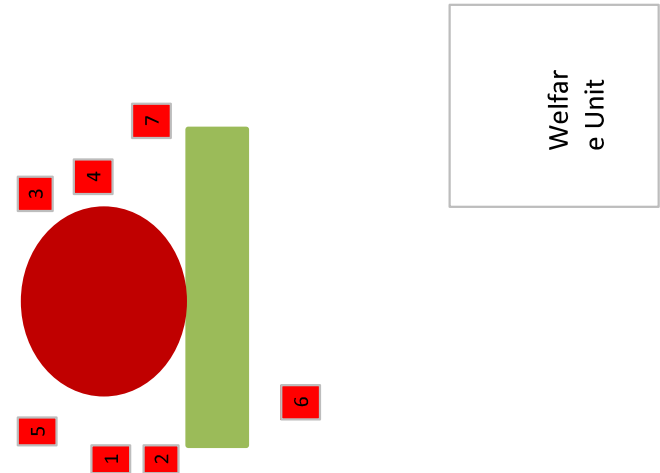
This certificate is issued in accordance with the documented in-house method for carrying out air sampling and fibre analysis procedures which is accredited by UKAS and follows the guidance set out in HSG248 (Edition 2)

CS Compliance Sample	BT Background Test	LT Leakage Test	RT Reassurance Test	SF Site Field Blank	FS Far Source Monitoring	NS Near Source Monitoring
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Sample No.	Pump No.	Cowl No.	Test	Pump Location	Time		Sample Time (T)		Flow Rate (l/m)			Volume (V) (V=T*F)	Fibres (N)	Fields (n)	Limit of Quantification	Respirable fibre concentration		Analyst
					Start	Finish			Initial Flow	Final Flow	Average Flow (F)					Calculated Result f/ml	Recorded Result f/ml	
1	N/A	128	SF	Adjacent to soil	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0	200		Satisfactory		CD
2	AC131	132	NS	Adjacent to soil	10:20	11:20	60	60	8.3	8.3	8.3	498	1.5	193	0.010	0.001	<0.01	CD
3	AC17	10	NS	Adjacent to soil	10:22	11:22	60	60	8.3	8.3	8.3	498	2	193	0.010	0.001	<0.01	CD
4	AC131	407	NS	Adjacent to soil	11:30	12:30	60	60	8.3	8.3	8.3	498	1.5	193	0.010	0.001	<0.01	CD
5	AC17	404	RT	Adjacent to soil	11:32	12:32	60	60	8.3	8.3	8.3	498	2	193	0.010	0.001	<0.01	CD
6	AC131	134	RT	Adjacent to soil	13:02	14:02	60	60	8.3	8.3	8.3	498	2	193	0.010	0.001	<0.01	CD
7	AC17	41	RT	Adjacent to soil	13:04	14:04	60	60	8.3	8.3	8.3	498	1	193	0.010	0.001	<0.01	CD
8				END														
9																		
10																		
11				END														
12																		
Analyst Name:				Charlie Dalby	Signed:											Date:		03/05/2022

Daily Analytical Paperwork Diagram Photo Reference Sheet

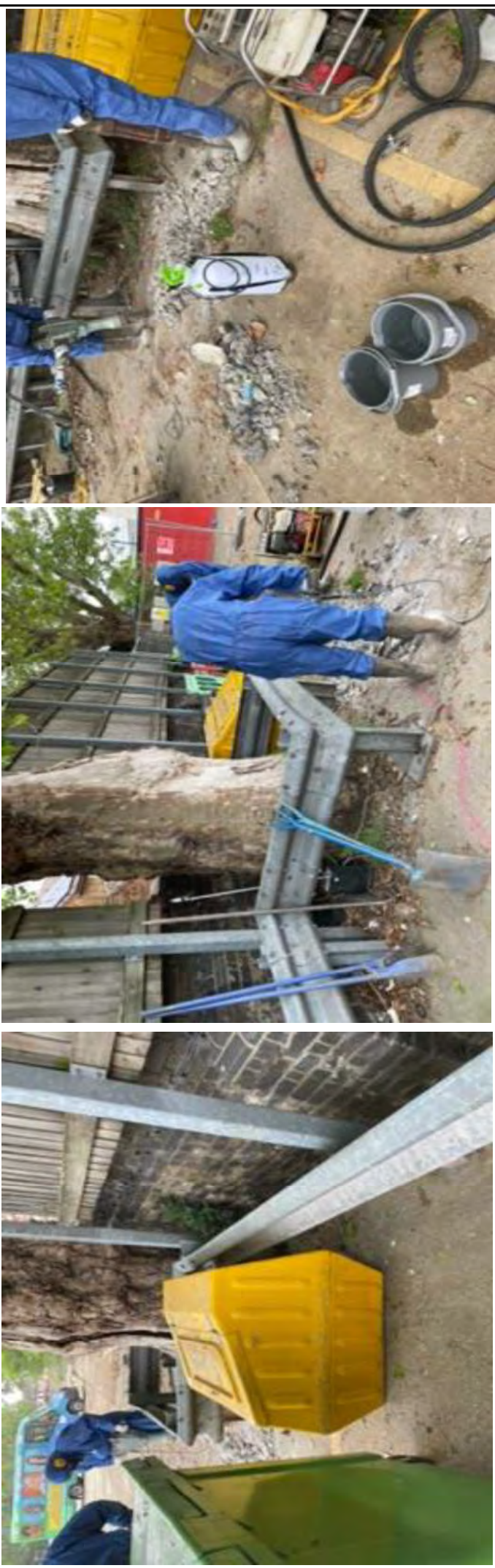
Project No.:	N-30934	Report No.:	69712	Page	3	of	5
Client Name:	Client Details						
Address:	Geotechnical and Environmental Associates Widbury Barn Widbury Hill SG12 7QE		Site Address:		Ashley Road Depot Tottenham N17 9AZ		
Contact:	Jordan Wood 7395790469		Contractor:		N/A		
Tel No.:							
Email:	jordan@gea-ita.co.uk						
Key to Diagram							
				Airlock/Baglock Chamber			
				Negative Pressure Unit			
				Enclosure Material		Pump Location and Sample No.	

Diagram					
					
Analyst Name:	Charlie Dalby	Signed:		Date:	03/05/2022

Daily Analytical Paperwork Diagram Photo Reference Sheet

Project No.:	N-30934	Report No.:	69712	Page	4	of	5
Client Details		Site Details					
Client Name:	Geotechnical and Environmental Associates	Site Address:	Ashley Road Depot Tottenham N17 9AZ				
Address:	Widbury Barn Widbury Hill SG12 7QE						
Contact:	Jordan Wood						
Tel No.:	7395790469	Contractor: N/A					
Email:	jordan@gea-ita.co.uk						

Diagram



Analyst Name:	Charlie Dalby	Signed:	
		Date:	03/05/2022

Daily Analytical Paperwork Diagram Photo Reference Sheet

Project No.:	N-30934	Report No.:	69712	Page	5	of	5
Client Details		Site Details					
Client Name:	Geotechnical and Environmental Associates	Site Address:	Ashley Road Depot Tottenham N17 9AZ				
Address:	Widbury Barn Widbury Hill SG12 7QE						
Contact:	Jordan Wood						
Tel No.:	7395790469	Contractor: N/A					
Email:	jordan@gea-ita.co.uk						

Diagram



Analyst Name:	Charlie Dalby	Signed:	
		Date:	03/05/2022

Daily Analytical Paperwork Daily Site Reference Log

Project No.:	N-30934	Report No.:	69713	Page	1	of	5
Client Details		Site Details					
Client Name:	Geotechnical and Environmental Associates	Site Address:	Ashley Road Depot Tottenham N17 9AZ	Contractor:			
Address:	Widbury Barn			Contract Foreman:			
	Widbury Hill SG12 7QE			No. Additional Operatives:			
Contact:	Jordan Wood			Start Time:			
Tel No.:	7395790469			Finish Time:			
Email:	jordan@gea-ita.co.uk						

Description of Works

To undertake air testing whilst trenches are being dug at the aforementioned site where asbestos is suspected in the soil.

Site Diary:

Acorn consultant Charlie Dalby on site at 08:35 and met with the site supervisor and client to sign in, conduct a site walk and discuss RAMS.

Air tests are conducted throughout the day.

Air tests complete. Result shows a satisfactory fibre concentration level of <0.01f/ml.

Offsite 15:00

Analyst Name:	Charlie Dalby	Signed:		Date:	04/05/2022
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Daily Analytical Paperwork Air Monitoring Certificate

Project No.:	N-30934	Certificate No.:	69713	Page Number	2	of	5
Client Details		Site Details					
Name:	Geotechnical and Environmental Associates	Ashley Road Depot					
Address:	Widbury Barn Widbury Hill SG12 7QE	Tottenham N17 9AZ					
Contact:	Jordan Wood	Visible Bands 5					
Tel No.:	7395790469	Flow Meter FM012/FM013					
Email:	jordan@gea-ita.co.uk	Measured Graticule Diameter (um) - d 100					
Contractor		Tally Counters					
N/A		Diameter of exposed filter (mm) - D 28/29					
		Stopwatch SW/52					
		Batch No 4273					

This certificate is issued in accordance with the documented in-house method for carrying out air sampling and fibre analysis procedures which is accredited by UKAS and follows the guidance set out in HSG248 (Edition 2)

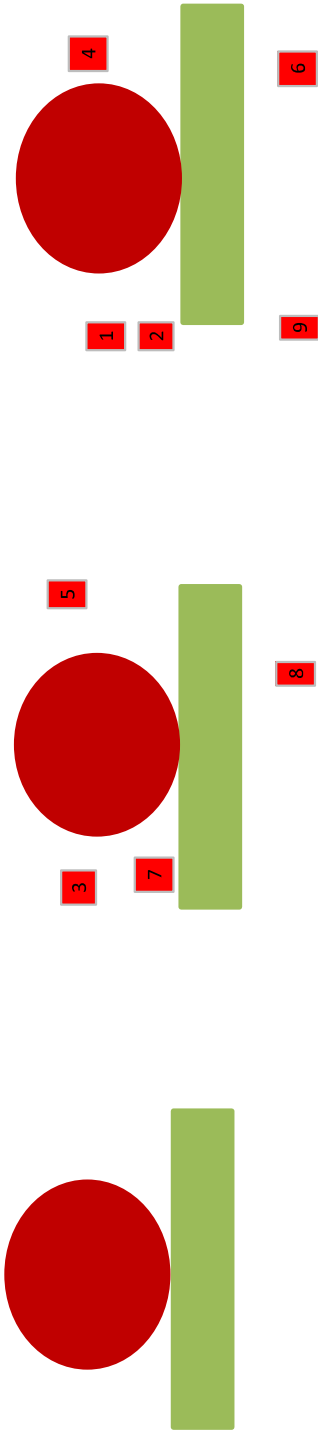
CS Compliance Sample	BT Background Test	LT Leakage Test	RT Reassurance Test	SF Site Field Blank	FS Far Source Monitoring	NS Near Source Monitoring
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Sample No.	Pump No.	Cowl No.	Test	Pump Location	Time		Sample Time (T)		Flow Rate (l/m)			Volume (V) (V=T*F)	Fibres (N)	Fields (n)	Limit of Quantification	Respirable fibre concentration		Analyst
					Start	Finish			Initial Flow	Final Flow	Average Flow (F)					Calculated Result f/ml	Recorded Result f/ml	
1	N/A	159	SF	Adjacent to soil	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0	200		Satisfactory		CD
2	AC131	41	NS	Adjacent to soil	08:47	09:53	66	66	8.0	8.0	8.0	528	0.5	182	0.009	0.000	<0.01	CD
3	AC17	10	NS	Adjacent to soil	08:49	09:55	66	66	8.0	8.0	8.0	528	1.5	182	0.009	0.001	<0.01	CD
4	AC131	404	NS	Adjacent to soil	10:01	11:01	60	60	8.0	8.0	8.0	480	1	182	0.010	0.001	<0.01	CD
5	AC17	400	RT	Adjacent to soil	10:03	11:03	60	60	8.0	8.0	8.0	480	1	200	0.010	0.001	<0.01	CD
6	AC131	134	RT	Adjacent to soil	11:10	12:12	62	62	8.0	8.0	8.0	496	1.5	194	0.010	0.001	<0.01	CD
7	AC17	132	RT	Adjacent to soil	11:12	12:14	62	62	8.0	8.0	8.0	496	0.5	194	0.010	0.000	<0.01	CD
8	AC131	132	RT	Adjacent to soil	12:45	13:45	60	60	8.0	8.0	8.0	480	1.5	200	0.010	0.001	<0.01	CD
9	AC17	407	RT	Adjacent to soil	12:47	13:47	60	60	8.0	8.0	8.0	480	1	200	0.010	0.001	<0.01	CD
10				END														
11																		
12																		
Analyst Name:		Charlie Dalby		Signed:												Date:		04/05/2022



Daily Analytical Paperwork Diagram Photo Reference Sheet

Project No.:	N-30934	Report No.:	69713	Page	3	of	5
Client Name:	Client Details						
Address:	Geotechnical and Environmental Associates Widbury Barn Widbury Hill SG12 7QE		Site Address:		Site Details		
Contact:	Jordan Wood 7395790469		Ashley Road Depot Tottenham N17 9AZ		Key to Diagram		
Tel No.:	jordan@gea-ital.co.uk		Contractor:		Enclosure Material		
Email:			N/A		Pump Location and Sample No.		

Diagram							
							
Analyst Name:	Charlie Dalby	Signed:		Date:	04/05/2022		

Daily Analytical Paperwork Diagram Photo Reference Sheet

Project No.:	N-30934	Report No.:	69713		Page	4	of	5
Client Details		Site Details						
Client Name:	Geotechnical and Environmental Associates	Site Address:	Ashley Road Depot Tottenham N17 9AZ					
Address:	Widbury Barn Widbury Hill SG12 7QE							
Contact:	Jordan Wood							
Tel No.:	7395790469	Contractor:	N/A					
Email:	jordan@gea-ita.co.uk							

Diagram



Analyst Name:	Charlie Dalby	Signed:	
		Date:	04/05/2022

Daily Analytical Paperwork Diagram Photo Reference Sheet

Project No.:	N-30934	Report No.:	69713		Page	5	of	5
Client Details		Site Details						
Client Name:	Geotechnical and Environmental Associates	Site Address:	Ashley Road Depot Tottenham N17 9AZ					
Address:	Widbury Barn Widbury Hill SG12 7QE							
Contact:	Jordan Wood							
Tel No.:	7395790469	Contractor:	N/A					
Email:	jordan@gea-ita.co.uk							

Diagram



Analyst Name:	Charlie Dalby	Signed:	
		Date:	04/05/2022