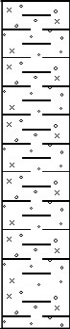


				Brighton London Bristol 0845 604 6494 www.landscience.co.uk		Site 2 The Spinney, Eastern Road, Haywards Heath		Trial Pit Number TP03	
Excavation Method Trial Pit		Dimensions		Ground Level (mOD)		Client Wood & Associates LLP		Job Number LS6737	
		Location		Dates 31/01/2023		Project Contractor Land Science		Sheet 1/1	
Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description		Legend	Water
0.10	D				(0.25) 0.25	Grass over dark brown, slightly gravelly, silty, firm CLAY. Gravels are rare fine to medium subangular to subrounded flint, plastic and glass. Abundant charcoal noted. Rare roots and abundant rootlets noted throughout. (TOPSOIL) ... Large root noted at 0.10mbgl.			
0.45 0.45	HP 50kPa D				(0.35) 0.60	Dark brown, slightly silty, firm heavy CLAY. Rare rootlets noted throughout. (UPPER TUNBRIDGE WELLS SAND)			
1.00 1.00	HP 75kPa D				(1.15)	Light brown orange, mottled blue grey, gravelly, silty, firm CLAY. Gravels are fine to coarse, subangular to angular siltstone. (UPPER TUNBRIDGE WELLS SAND)			
1.50 1.65	D D				1.75	Complete at 1.75m			
Plan						Remarks			
.						GROUNDWATER: No groundwater encountered. STABILITY: No instability encountered. BACKFILL: Trial hole backfilled with arisings. DIMENSIONS: 1.60m (l) 0.30m (w) (approx). NOTES: Trial hole complete at 1.75m.			
.									
.									
.									
.									
.									
						Scale (approx) 1:25	Logged By EP	Figure No. LS6737.TP03	

Site : 2 The Spinney, Eastern Road, Haywards Heath

Client : Wood & Associates LLP

Project Contractor
: Land Science

Job Number
LS6737

Sheet
1 / 2

Location	Date	Level	Location
TP01	01/02/2023		

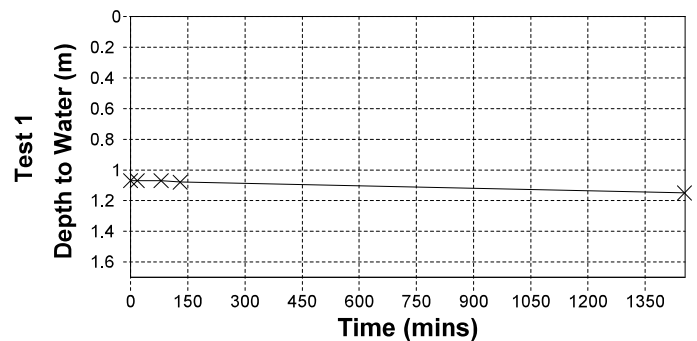
Pit Width (m)	0.35
Pit Depth (m)	1.65
Pit Length (m)	1.90

Soil type at test level	
Groundwater	
Drain discharge depth	
Sidewall stability	
Stone filled or open pit	Open pit

	1
Effective depth (m)	0.58
Volume outflowing between 75% & 25% (m3)	
Mean surface area through which outflow occurs (m2)	
Time for outflow between 75% & 25% (min)	
SOIL INFILTRATION RATE (ms⁻¹), f	Test Failed

Remarks

Elapsed time (mins)	Depth to Water Test 1
0	1.07
17	1.07
80	1.07
130	1.08
1453	1.15



Site : 2 The Spinney, Eastern Road, Haywards Heath

Client : Wood & Associates LLP

Project Contractor
: Land Science

Job Number
LS6737

Sheet
2 / 2

Location	Date	Level	Location
TP03	01/02/2023		

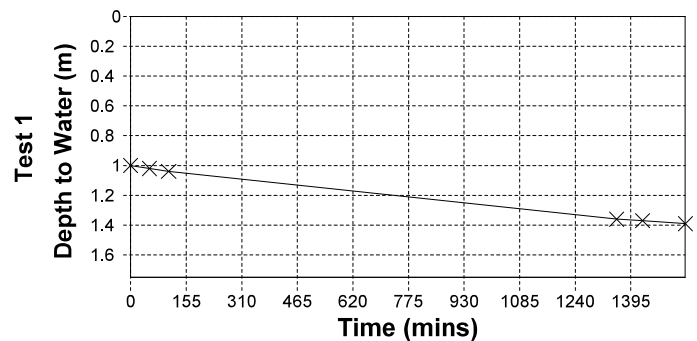
Pit Width (m)	0.30
Pit Depth (m)	1.75
Pit Length (m)	1.60

Soil type at test level	
Groundwater	
Drain discharge depth	
Sidewall stability	
Stone filled or open pit	Open pit

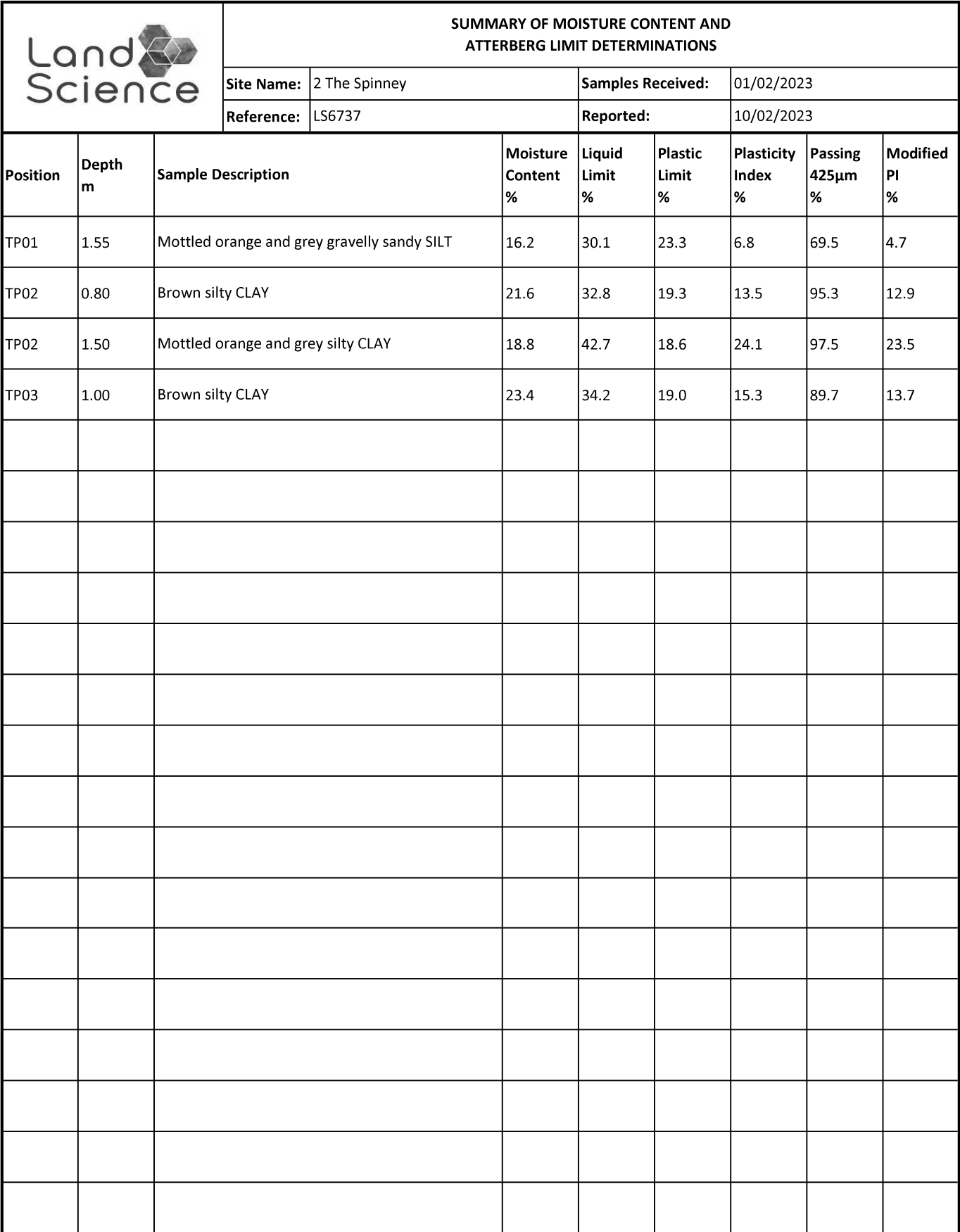
	1
Effective depth (m)	0.75
Volume outflowing between 75% & 25% (m3)	0.18
Mean surface area through which outflow occurs (m2)	1.91
Time for outflow between 75% & 25% (min)	1792.83
SOIL INFILTRATION RATE (ms⁻¹), f	8.76E-7

Remarks

Elapsed time (mins)	Depth to Water Test 1
0	1.00
53	1.02
106	1.04
1356	1.36
1428	1.37
1547	1.39



APPENDIX D

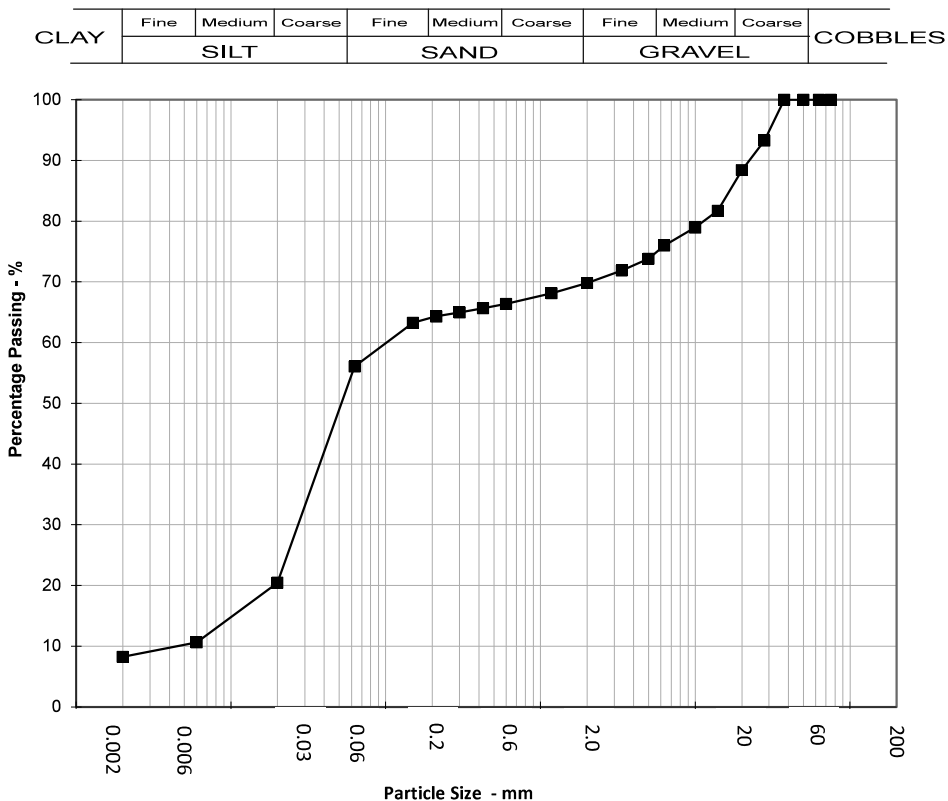


SUMMARY OF PARTICLE SIZE DISTRIBUTION

ANALYSIS

Site Name:	2 The Spinney	Samples Received:	01/02/2023
Reference:	LS6737	Reported:	10/02/2023

Sample Data				Sample Description																																																																							
Position		TP01		Mottled orange and grey gravelly sandy SILT																																																																							
Sample Ref		-																																																																									
Depth		1.55																																																																									
Sieve Analysis				<table><tr><th rowspan="2">CLAY</th><th>Fine</th><th>Medium</th><th>Coarse</th><th>Fine</th><th>Medium</th><th>Coarse</th><th>Fine</th><th>Medium</th><th>Coarse</th><th rowspan="2">COBBLES</th></tr><tr><th colspan="3">SILT</th><th colspan="3">SAND</th><th colspan="3">GRAVEL</th></tr></table><table><thead><tr><th>Particle Size - mm</th><th>Percentage Passing - %</th></tr></thead><tbody><tr><td>0.075</td><td>8.3</td></tr><tr><td>0.15</td><td>10.6</td></tr><tr><td>0.3</td><td>20.5</td></tr><tr><td>0.6</td><td>56.1</td></tr><tr><td>1.18</td><td>68.1</td></tr><tr><td>2.0</td><td>69.8</td></tr><tr><td>3.35</td><td>71.9</td></tr><tr><td>5.0</td><td>73.8</td></tr><tr><td>6.3</td><td>76.0</td></tr><tr><td>10</td><td>79.0</td></tr><tr><td>14</td><td>81.7</td></tr><tr><td>20</td><td>88.4</td></tr><tr><td>28</td><td>93.3</td></tr><tr><td>37.5</td><td>100.0</td></tr><tr><td>50</td><td>100.0</td></tr><tr><td>63</td><td>100.0</td></tr><tr><td>75</td><td>100.0</td></tr><tr><td>90</td><td>100.0</td></tr><tr><td>125</td><td>100.0</td></tr></tbody></table>												CLAY	Fine	Medium	Coarse	Fine	Medium	Coarse	Fine	Medium	Coarse	COBBLES	SILT			SAND			GRAVEL			Particle Size - mm	Percentage Passing - %	0.075	8.3	0.15	10.6	0.3	20.5	0.6	56.1	1.18	68.1	2.0	69.8	3.35	71.9	5.0	73.8	6.3	76.0	10	79.0	14	81.7	20	88.4	28	93.3	37.5	100.0	50	100.0	63	100.0	75	100.0	90	100.0	125	100.0
CLAY	Fine	Medium	Coarse														Fine	Medium	Coarse	Fine	Medium	Coarse	COBBLES																																																				
	SILT															SAND			GRAVEL																																																								
Particle Size - mm	Percentage Passing - %																																																																										
0.075	8.3																																																																										
0.15	10.6																																																																										
0.3	20.5																																																																										
0.6	56.1																																																																										
1.18	68.1																																																																										
2.0	69.8																																																																										
3.35	71.9																																																																										
5.0	73.8																																																																										
6.3	76.0																																																																										
10	79.0																																																																										
14	81.7																																																																										
20	88.4																																																																										
28	93.3																																																																										
37.5	100.0																																																																										
50	100.0																																																																										
63	100.0																																																																										
75	100.0																																																																										
90	100.0																																																																										
125	100.0																																																																										
mm	%																																																																										
125																																																																											
90																																																																											
75	100.0																																																																										
63	100.0																																																																										
50	100.0																																																																										
37.5	100.0																																																																										
28	93.3																																																																										
20	88.4																																																																										
14	81.7																																																																										
10	79.0																																																																										
6.3	76.0																																																																										
5.0	73.8																																																																										
3.35	71.9																																																																										
2.0	69.8																																																																										
1.18	68.1																																																																										
0.60	66.4																																																																										
0.425	65.6																																																																										
0.30	65.0																																																																										
0.212	64.3																																																																										
0.150	63.3		Sample Proportions					Grading Analysis																																																																			
0.063	56.1		Cobbles		0.0			D100		37.5																																																																	
0.020	20.5		Gravel		30.2			D60		0.099																																																																	
0.006	10.6		Sand		13.7			D10		0.0045																																																																	
0.002	8.3		Silt & Clay		56.1			Uniformity Coeff.		22.0																																																																	
0.002	8.3		-					-																																																																			



BS 1377 : Part 2 : 1990 : Clause 9

Test Results relate only to the sample numbers shown above.

Prepared:

T Curtis

Checked:

E Toms



APPENDIX E

Emily Prosser
Land Science
Unit 10
19 Albert Drive
Burgess Hill
West Sussex
RH15 9TN

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

t: 01923 225404

f: 01923 237404

e: reception@i2analytical.com

e: emily.prosser@landscience.co.uk

Analytical Report Number : 23-15116

Project / Site name: 2 The Spinney, Eastern Road, Haywards Heath, RH16 3NG

Samples received on: 01/02/2023

Your job number: LS6737

**Samples instructed on/
Analysis started on:** 01/02/2023

Your order number:

Analysis completed by: 10/02/2023

Report Issue Number: 1

Report issued on: 12/02/2023

Samples Analysed: 1 leachate sample - 3 soil samples

Signed:



Adam Fenwick
Technical Reviewer
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: 23-15116

Project / Site name: 2 The Spinney, Eastern Road, Haywards Heath, RH16 3NG

Lab Sample Number				2571448	2571449	2571450
Sample Reference				TP01	TP02	TP02
Sample Number				None Supplied	None Supplied	None Supplied
Depth (m)				0,90	0,10	1,30
Date Sampled				31/01/2023	31/01/2023	31/01/2023
Time Taken				None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status			
Stone Content	%	0,1	NONE	< 0,1	< 0,1	34
Moisture Content	%	0,01	NONE	18	27	15
Total mass of sample received	kg	0,001	NONE	1	1	1

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

General Inorganics

pH - Manual	pH Units	N/A	MCERTS	-	7,4	-
pH - Automated	pH Units	N/A	MCERTS	7,3	7,2	7,7
Total Cyanide	mg/kg	1	MCERTS	-	< 1,0	-
Water Soluble Sulphate as SO ₄ 16hr extraction (2:1)	mg/kg	2,5	MCERTS	25	-	25
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	g/l	0,00125	MCERTS	0,013	0,0082	0,013
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	mg/l	1,25	MCERTS	12,6	-	12,6
Sulphide	mg/kg	1	MCERTS	-	9,5	-
Fraction Organic Carbon (FOC) Automated	N/A	0,001	MCERTS	-	0,034	-
Total Organic Carbon (TOC) - Automated	%	0,1	MCERTS	-	3,4	-
Loss on Ignition @ 450°C	%	0,2	MCERTS	-	7,4	-
Acid Neutralisation Capacity	mmol/kg	-999	NONE	-	1,4	-

Total Phenols

Total Phenols (monohydric)	mg/kg	1	MCERTS	-	< 1,0	-
----------------------------	-------	---	--------	---	-------	---

Speciated PAHs

Naphthalene	mg/kg	0,05	MCERTS	-	0,05	-
Acenaphthylene	mg/kg	0,05	MCERTS	-	0,06	-
Acenaphthene	mg/kg	0,05	MCERTS	-	< 0,05	-
Fluorene	mg/kg	0,05	MCERTS	-	< 0,05	-
Phenanthrene	mg/kg	0,05	MCERTS	-	0,4	-
Anthracene	mg/kg	0,05	MCERTS	-	0,08	-
Fluoranthene	mg/kg	0,05	MCERTS	-	0,99	-
Pyrene	mg/kg	0,05	MCERTS	-	0,96	-
Benzo(a)anthracene	mg/kg	0,05	MCERTS	-	0,55	-
Chrysene	mg/kg	0,05	MCERTS	-	0,48	-
Benzo(b)fluoranthene	mg/kg	0,05	ISO 17025	-	0,49	-
Benzo(k)fluoranthene	mg/kg	0,05	ISO 17025	-	0,39	-
Benzo(a)pyrene	mg/kg	0,05	MCERTS	-	0,47	-
Indeno(1,2,3-cd)pyrene	mg/kg	0,05	MCERTS	-	0,29	-
Dibenz(a,h)anthracene	mg/kg	0,05	MCERTS	-	0,07	-
Benzo(ghi)perylene	mg/kg	0,05	MCERTS	-	0,3	-
Coronene	mg/kg	0,05	NONE	-	< 0,05	-

Total PAH

Total WAC-17 PAHs	mg/kg	0,85	NONE	-	5,58	-
-------------------	-------	------	------	---	------	---

Analytical Report Number: 23-15116

Project / Site name: 2 The Spinney, Eastern Road, Haywards Heath, RH16 3NG

Lab Sample Number				2571448	2571449	2571450
Sample Reference				TP01	TP02	TP02
Sample Number				None Supplied	None Supplied	None Supplied
Depth (m)				0,90	0,10	1,30
Date Sampled				31/01/2023	31/01/2023	31/01/2023
Time Taken				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	-	8,1	-
Barium (aqua regia extractable)	mg/kg	1	MCERTS	-	94	-
Beryllium (aqua regia extractable)	mg/kg	0,06	MCERTS	-	0,56	-
Boron (water soluble)	mg/kg	0,2	MCERTS	-	1	-
Cadmium (aqua regia extractable)	mg/kg	0,2	MCERTS	-	0,4	-
Chromium (hexavalent)	mg/kg	1,2	NONE	-	< 1,2	-
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	-	16	-
Copper (aqua regia extractable)	mg/kg	1	MCERTS	-	23	-
Lead (aqua regia extractable)	mg/kg	1	MCERTS	-	130	-
Mercury (aqua regia extractable)	mg/kg	0,3	MCERTS	-	< 0,3	-
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	-	9,8	-
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	-	< 1,0	-
Vanadium (aqua regia extractable)	mg/kg	1	MCERTS	-	23	-
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	-	260	-

Monoaromatics & Oxygenates

Benzene	µg/kg	5	MCERTS	-	< 5,0	-
Toluene	µg/kg	5	MCERTS	-	< 5,0	-
Ethylbenzene	µg/kg	5	MCERTS	-	< 5,0	-
p & m-xylene	µg/kg	5	MCERTS	-	< 5,0	-
o-xylene	µg/kg	5	MCERTS	-	< 5,0	-

Total BTEX	µg/kg	5	MCERTS	-	< 5,0	-
------------	-------	---	--------	---	-------	---

Petroleum Hydrocarbons

Mineral Oil (C10 - C40) EH_CU_1D_AL	mg/kg	10	NONE	-	< 10	-
--	-------	----	------	---	------	---

PCBs by GC-MS

PCB Congener 28	mg/kg	0,001	MCERTS	-	< 0,001	-
PCB Congener 52	mg/kg	0,001	MCERTS	-	< 0,001	-
PCB Congener 101	mg/kg	0,001	MCERTS	-	< 0,001	-
PCB Congener 118	mg/kg	0,001	MCERTS	-	< 0,001	-
PCB Congener 138	mg/kg	0,001	MCERTS	-	< 0,001	-
PCB Congener 153	mg/kg	0,001	MCERTS	-	< 0,001	-
PCB Congener 180	mg/kg	0,001	MCERTS	-	< 0,001	-

Total PCBs by GC-MS

Total PCBs	mg/kg	0,007	MCERTS	-	< 0,007	-
------------	-------	-------	--------	---	---------	---

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

Analytical Report Number: 23-15116

Project / Site name: 2 The Spinney, Eastern Road, Haywards Heath, RH16 3NG

Lab Sample Number				2571451
Sample Reference				TP02
Sample Number				None Supplied
Depth (m)				0,10
Date Sampled				31/01/2023
Time Taken				None Supplied
Analytical Parameter (Leachate Analysis)	Units	Limit of detection	Accreditation Status	

10:1 WAC Leachate

Arsenic	mg/l	0,001	ISO 17025	0,0019
Barium	mg/l	0,00005	ISO 17025	0,0273
Cadmium	mg/l	0,0001	ISO 17025	< 0,0001
Chromium	mg/l	0,0004	ISO 17025	0,0039
Copper	mg/l	0,0007	ISO 17025	0,035
Mercury	mg/l	0,0005	ISO 17025	< 0,0005
Molybdenum	mg/l	0,0004	ISO 17025	< 0,0004
Nickel	mg/l	0,0003	ISO 17025	0,0026
Lead	mg/l	0,001	ISO 17025	0,01
Antimony	mg/l	0,0017	ISO 17025	< 0,0017
Selenium	mg/l	0,004	ISO 17025	< 0,0040
Zinc	mg/l	0,0004	ISO 17025	0,031
Chloride	mg/l	0,15	ISO 17025	1,3
Fluoride	mg/l	0,05	ISO 17025	0,1
Sulphate	mg/l	0,1	ISO 17025	1,6
Total dissolved solids	mg/l	4	ISO 17025	36
Total monohydric phenols	mg/l	0,01	ISO 17025	< 0,010
Dissolved organic carbon	mg/l	0,1	NONE	14,3

10:1 WAC Leachate

Arsenic	mg/kg	0,01	NONE	0,0145
Barium	mg/kg	0,0005	NONE	0,205
Cadmium	mg/kg	0,0008	NONE	< 0,0008
Chromium	mg/kg	0,004	NONE	0,029
Copper	mg/kg	0,007	NONE	0,26
Mercury	mg/kg	0,005	NONE	< 0,0050
Molybdenum	mg/kg	0,004	NONE	< 0,0040
Nickel	mg/kg	0,003	NONE	0,019
Lead	mg/kg	0,01	NONE	0,078
Antimony	mg/kg	0,017	NONE	< 0,017
Selenium	mg/kg	0,04	NONE	< 0,040
Zinc	mg/kg	0,004	NONE	0,23
Chloride	mg/kg	1,5	NONE	9,8
Fluoride	mg/kg	0,5	NONE	0,76
Sulphate	mg/kg	1	NONE	12
Total dissolved solids	mg/kg	40	ISO 17025	270
Total monohydric phenols	mg/kg	0,1	NONE	< 0,10
Dissolved organic carbon	mg/kg	1	NONE	107

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

Analytical Report Number : 23-15116

Project / Site name: 2 The Spinney, Eastern Road, Haywards Heath, RH16 3NG

* 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 *
2571448	TP01	None Supplied	0.9	Brown clay and sand with gravel.
2571449	TP02	None Supplied	0.1	Brown clay and sand with gravel and vegetation.
2571450	TP02	None Supplied	1.3	Brown clay and sand with stones and vegetation.

Analytical Report Number : 23-15116

Project / Site name: 2 The Spinney, Eastern Road, Haywards Heath, RH16 3NG

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
BS EN 12457-2 (10:1) Leachate Prep	10:1 (as recieved, moisture adjusted) end over end extraction with water for 24 hours, Eluate filtered prior to analysis.	In-house method based on BSEN12457-2.	L043-PL	W	NONE
Acid neutralisation capacity of soil	Determination of acid neutralisation capacity by addition of acid or alkali followed by electronic probe.	In-house method based on Guidance an Sampling and Testing of Wastes to Meet Landfill Waste Acceptance"	L046-PL	W	NONE
Asbestos identification in soil	Asbestos Identification with the use of polarised light microscopy in conjunction with dispersion staining techniques.	In house method based on HSG 248	A001-PL	D	ISO 17025
Boron, water soluble, in soil	Determination of water soluble boron in soil by hot water extract followed by ICP-OES.	In-house method based on Second Site Properties version 3	L038-PL	D	MCERTS
Loss on ignition of soil @ 450oC	Determination of loss on ignition in soil by gravimetrically with the sample being ignited in a muffle furnace.	In house method.	L047-PL	D	MCERTS
Mineral Oil (Soil) C10 - C40	Determination of mineral oil fraction extractable hydrocarbons in soil by GC-MS/GC-FID.	In-house method with silica gel split/clean up.	L076-PL	D	NONE
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 WAC-17 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
PCB's By GC-MS in soil	Determination of PCB by extraction with acetone and hexane followed by GC-MS.	In-house method based on USEPA 8082	L027-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
pH at 20oC in soil	Determination of pH in soil by addition of water followed by electrometric measurement.	In house method.	L005-PL	W	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
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

Analytical Report Number : 23-15116

Project / Site name: 2 The Spinney, Eastern Road, Haywards Heath, RH16 3NG

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
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
BTEX in soil (Monoaromatics)	Determination of BTEX in soil by headspace GC-MS. Individual components MCERTS accredited	In-house method based on USEPA8260	L073B-PL	W	MCERTS
Total BTEX in soil (Poland)	Determination of BTEX in soil by headspace GC-MS. Individual components MCERTS accredited	In-house method based on USEPA8260	L073-PL	W	MCERTS
Fraction Organic Carbon FOC Automated	Determination of fraction of organic carbon in soil by oxidising with potassium dichromate followed by titration with iron (II) sulphate.	In house method	L009	D	MCERTS
Hexavalent chromium in soil (Lower Level)	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	NONE
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
Sulphate, water soluble, in soil	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 leachate by ICP-OES	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
Chloride 10:1 WAC	Determination of Chloride colorimetrically by discrete analyser.	In house based on MEWAM Method ISBN 0117516260.	L082-PL	W	ISO 17025
Fluoride 10:1 WAC	Determination of fluoride in leachate by 1:1ratio with a buffer solution followed by Ion Selective Electrode.	In-house method based on Use of Total Ionic Strength Adjustment Buffer for Electrode Determination"	L033B-PL	W	ISO 17025
Sulphate 10:1 WAC	Determination of sulphate in leachate by ICP-OES	In-house method based on MEWAM 1986 Methods for the Determination of Metals in Soil""	L039-PL	W	ISO 17025
Total dissolved solids 10:1 WAC	Determination of total dissolved solids in water by EC probe using a factor of 0.6.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton	L031	W	ISO 17025

Analytical Report Number : 23-15116

Project / Site name: 2 The Spinney, Eastern Road, Haywards Heath, RH16 3NG

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
Monohydric phenols 10:1 WAC	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	L080-PL	W	ISO 17025
Dissolved organic carbon 10:1 WAC	Determination of dissolved inorganic 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

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

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

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

Soil analytical results are expressed on a dry weight basis. Where analysis is carried out on as-received the results obtained are multiplied by a moisture correction factor that is determined gravimetrically using the moisture content which is carried out at a maximum of 30°C. 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 - underscore to separate acronyms (exception for +)
+	Operator to indicate cumulative e.g. EH+HS_Total or EH_CU+HS_Total

Waste Classification Report

HazWasteOnline™ classifies waste as either **hazardous** or **non-hazardous** based on its chemical composition, related legislation and the rules and data defined in the current UK or EU technical guidance (Appendix C) (note that HP 9 Infectious is not assessed). It is the responsibility of the classifier named below to:

- understand the origin of the waste
- select the correct List of Waste code(s)
- confirm that the list of determinands, results and sampling plan are fit for purpose
- select and justify the chosen metal species (Appendix B)
- correctly apply moisture correction and other available corrections
- add the meta data for their user-defined substances (Appendix A)
- check that the classification engine is suitable with respect to the national destination of the waste (Appendix C)



KX119-H4VKS-81N0H

To aid the reviewer, the laboratory results, assumptions and justifications managed by the classifier are highlighted in pale yellow.

Job name

2 The Spinney

Description/Comments

Project

LS6737

Site

2 The Spinney

Classified by

Name:
Tom Kistruck
Date:
17 Feb 2023 14:59 GMT
Telephone:
01444 882 084

Company:
Land Science
Unit 10
19 Albert Drive
Burgess Hill
RH15 9TN

HazWasteOnline™ provides a two day, hazardous waste classification course that covers the use of the software and both basic and advanced waste classification techniques. Certification has to be renewed every 3 years.

HazWasteOnline™ Certification:

Course	Date
Hazardous Waste Classification	-

Purpose of classification

4 - Classification of Waste Products

Address of the waste

Post Code

SIC for the process giving rise to the waste

Description of industry/producer giving rise to the waste

Description of the specific process, sub-process and/or activity that created the waste

Description of the waste

Job summary

#	Sample name	Depth [m]	Classification Result	Hazard properties	Page
1	TP02	0.10	Non Hazardous		3

Related documents

#	Name	Description
1	Land Science Template WM3 v1.2GB	waste stream template used to create this Job

Report

Created by: Tom Kistruck

Created date: 17 Feb 2023 14:59 GMT

Appendices	Page
Appendix A: Classifier defined and non GB MCL determinands	5
Appendix B: Rationale for selection of metal species	6
Appendix C: Version	7

Classification of sample: TP02

✓ **Non Hazardous Waste**
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:	TP02	LoW Code:	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	0.10 m	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)	
Moisture content:	27%			
(no correction)				

Hazard properties

None identified

Determinands

Moisture content: 27% No Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number									
1	● pH				7.4	pH		7.4	pH	7.4 pH		
2	phenol	604-001-00-2	203-632-7	108-95-2	<1	mg/kg		<1	mg/kg	<0.0001 %		<LOD
3	naphthalene	601-052-00-2	202-049-5	91-20-3	0.05	mg/kg		0.05	mg/kg	0.000005 %		
4	● acenaphthylene		205-917-1	208-96-8	0.06	mg/kg		0.06	mg/kg	0.000006 %		
5	● acenaphthene		201-469-6	83-32-9	<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
6	● fluorene		201-695-5	86-73-7	<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
7	● phenanthrene		201-581-5	85-01-8	0.4	mg/kg		0.4	mg/kg	0.00004 %		
8	● anthracene		204-371-1	120-12-7	0.08	mg/kg		0.08	mg/kg	0.000008 %		
9	● fluoranthene		205-912-4	206-44-0	0.99	mg/kg		0.99	mg/kg	0.000099 %		
10	● pyrene		204-927-3	129-00-0	0.96	mg/kg		0.96	mg/kg	0.000096 %		
11	benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3	0.55	mg/kg		0.55	mg/kg	0.000055 %		
12	chrysene	601-048-00-0	205-923-4	218-01-9	0.48	mg/kg		0.48	mg/kg	0.000048 %		
13	benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2	0.49	mg/kg		0.49	mg/kg	0.000049 %		
14	benzo[k]fluoranthene	601-036-00-5	205-916-6	207-08-9	0.39	mg/kg		0.39	mg/kg	0.000039 %		
15	benzo[a]pyrene; benzo[def]chrysene	601-032-00-3	200-028-5	50-32-8	0.47	mg/kg		0.47	mg/kg	0.000047 %		
16	● indeno[123-cd]pyrene		205-893-2	193-39-5	0.29	mg/kg		0.29	mg/kg	0.000029 %		
17	dibenz[a,h]anthracene	601-041-00-2	200-181-8	53-70-3	0.07	mg/kg		0.07	mg/kg	0.000007 %		

#	Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number									
18	benzo[ghi]perylene	205-883-8	191-24-2		0.3	mg/kg		0.3	mg/kg	0.00003 %		
19	coronene	205-881-7	191-07-1		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
20	arsenic { arsenic trioxide }	033-003-00-0	125-481-4	1327-53-3	8.1	mg/kg	1.32	10.695	mg/kg	0.00107 %		
21	barium { barium sulfate }	231-784-4	7727-43-7		94	mg/kg	1.7	159.755	mg/kg	0.016 %		
22	beryllium { beryllium oxide }	004-003-00-8	215-133-1	1304-56-9	0.56	mg/kg	2.775	1.554	mg/kg	0.000155 %		
23	boron { diboron trioxide; boric oxide }	005-008-00-8	215-125-8	1303-86-2	1	mg/kg	3.22	3.22	mg/kg	0.000322 %		
24	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0	0.4	mg/kg	1.142	0.457	mg/kg	0.0000457 %		
25	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0	<1.2	mg/kg	1.923	<2.308	mg/kg	<0.000231 %		<LOD
26	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1	23	mg/kg	1.126	25.895	mg/kg	0.00259 %		
27	lead { lead chromate }	082-004-00-2	231-846-0	7758-97-6	1	130	mg/kg	1.56	202.776	mg/kg	0.013 %	
28	mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7	<0.3	mg/kg	1.353	<0.406	mg/kg	<0.0000406 %		<LOD
29	nickel { nickel chromate }	028-035-00-7	238-766-5	14721-18-7	9.8	mg/kg	2.976	29.167	mg/kg	0.00292 %		
30	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }	034-002-00-8			<1	mg/kg	1.405	<1.405	mg/kg	<0.000141 %		<LOD
31	vanadium { divanadium pentaoxide; vanadium pentoxide }	023-001-00-8	215-239-8	1314-62-1	23	mg/kg	1.785	41.059	mg/kg	0.00411 %		
32	zinc { zinc chromate }	024-007-00-3	236-878-9	13530-65-9	260	mg/kg	2.774	721.278	mg/kg	0.0721 %		
33	benzene	601-020-00-8	200-753-7	71-43-2	<5	mg/kg		<5	mg/kg	<0.0005 %		<LOD
34	toluene	601-021-00-3	203-625-9	108-88-3	<5	mg/kg		<5	mg/kg	<0.0005 %		<LOD
35	ethylbenzene	601-023-00-4	202-849-4	100-41-4	<5	mg/kg		<5	mg/kg	<0.0005 %		<LOD
36	o-xylene; [1] p-xylene; [2] m-xylene; [3] xylene [4]	601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]	<5	mg/kg		<5	mg/kg	<0.0005 %		<LOD
37	polychlorobiphenyls; PCB	602-039-00-4	215-648-1	1336-36-3	<0.007	mg/kg		<0.007	mg/kg	<0.0000007 %		<LOD
Total:										0.115 %		

Key

- User supplied data
- Determinand values ignored for classification, see column 'Conc. Not Used' for reason
- Determinand defined or amended by HazWasteOnline (see Appendix A)
- Speciated Determinand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
- <LOD Below limit of detection
- ND Not detected
- CLP: Note 1 Only the metal concentration has been used for classification

Appendix A: Classifier defined and non GB MCL determinands

• pH (CAS Number: PH)

Description/Comments: Appendix C4
Data source: WM3 1st Edition 2015
Data source date: 25 May 2015
Hazard Statements: None.

• acenaphthylene (EC Number: 205-917-1, CAS Number: 208-96-8)

Description/Comments: Data from C&L Inventory Database
Data source: <http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>
Data source date: 17 Jul 2015
Hazard Statements: Acute Tox. 4; H302 , Acute Tox. 1; H330 , Acute Tox. 1; H310 , Eye Irrit. 2; H319 , STOT SE 3; H335 , Skin Irrit. 2; H315

• acenaphthene (EC Number: 201-469-6, CAS Number: 83-32-9)

Description/Comments: Data from C&L Inventory Database
Data source: <http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>
Data source date: 17 Jul 2015
Hazard Statements: Eye Irrit. 2; H319 , STOT SE 3; H335 , Skin Irrit. 2; H315 , Aquatic Acute 1; H400 , Aquatic Chronic 1; H410 , Aquatic Chronic 2; H411

• fluorene (EC Number: 201-695-5, CAS Number: 86-73-7)

Description/Comments: Data from C&L Inventory Database
Data source: <http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>
Data source date: 06 Aug 2015
Hazard Statements: Aquatic Acute 1; H400 , Aquatic Chronic 1; H410

• phenanthrene (EC Number: 201-581-5, CAS Number: 85-01-8)

Description/Comments: Data from C&L Inventory Database
Data source: <http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>
Data source date: 06 Aug 2015
Hazard Statements: Acute Tox. 4; H302 , Eye Irrit. 2; H319 , STOT SE 3; H335 , Carc. 2; H351 , Skin Sens. 1; H317 , Aquatic Acute 1; H400 , Aquatic Chronic 1; H410 , Skin Irrit. 2; H315

• anthracene (EC Number: 204-371-1, CAS Number: 120-12-7)

Description/Comments: Data from C&L Inventory Database
Data source: <http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>
Data source date: 17 Jul 2015
Hazard Statements: Eye Irrit. 2; H319 , STOT SE 3; H335 , Skin Irrit. 2; H315 , Skin Sens. 1; H317 , Aquatic Acute 1; H400 , Aquatic Chronic 1; H410

• fluoranthene (EC Number: 205-912-4, CAS Number: 206-44-0)

Description/Comments: Data from C&L Inventory Database
Data source: <http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>
Data source date: 21 Aug 2015
Hazard Statements: Acute Tox. 4; H302 , Aquatic Acute 1; H400 , Aquatic Chronic 1; H410

• pyrene (EC Number: 204-927-3, CAS Number: 129-00-0)

Description/Comments: Data from C&L Inventory Database; SDS Sigma Aldrich 2014
Data source: <http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>
Data source date: 21 Aug 2015
Hazard Statements: Skin Irrit. 2; H315 , Eye Irrit. 2; H319 , STOT SE 3; H335 , Aquatic Acute 1; H400 , Aquatic Chronic 1; H410

• indeno[123-cd]pyrene (EC Number: 205-893-2, CAS Number: 193-39-5)

Description/Comments: Data from C&L Inventory Database
Data source: <http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>
Data source date: 06 Aug 2015
Hazard Statements: Carc. 2; H351

• benzo[ghi]perylene (EC Number: 205-883-8, CAS Number: 191-24-2)

Description/Comments: Data from C&L Inventory Database; SDS Sigma Aldrich 28/02/2015
Data source: <http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>
Data source date: 23 Jul 2015
Hazard Statements: Aquatic Acute 1; H400 , Aquatic Chronic 1; H410