APPENDIX 8 - Geo-Environmental Testing Results

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Attention :	Connor Hastings
Date :	18th February, 2022
Your reference :	GRO-21190
Our reference :	Test Report 22/1512 Batch 1
Location :	Holbeach
Date samples received :	1st February, 2022
Status :	Final Report
Issue :	1

Thirteen samples were received for analysis on 1st February, 2022 of which twelve were scheduled for analysis. Please find attached our Test Report which should be read with notes at the end of the report and should include all sections if reproduced. Interpretations and opinions are outside the scope of any accreditation, and all results relate only to samples supplied.
All analysis is carried out on as received samples and reported on a dry weight basis unless stated otherwise. Results are not surrogate corrected.

Authorised By:

Phil Sommerton BSc
Senior Project Manager

Please include all sections of this report if it is reproduced

Client Name: Groundtech Consulting Limited
Reference: GRO-21190
Location: Holbeach
Contact: Connor Hastings
EMT Job No: 22/1512

Report : Solid

Solids: V=60g VOC jar, J=250g glass jar, T=plastic tub

EMT Sample No.	1-3	4-6	7-9	10-12	13-15	16-18	19-21	22-24	25-27	28-30	LOD/LOR	Units	Method No.
Sample ID	WS1	WS2	WS2	WS3	WS3	WS4	WS5	WS6	WS7	WS7			
Depth	0.20	0.05	0.30	0.30	0.60	0.30	0.20	0.30	0.10	0.40			
COC No / misc													
Containers	V J T	V J T	V J T	V J T	V J T	V J T	V J T	V J T	V J T	V J T			
Sample Date	25/01/2022	25/01/2022	25/01/2022	25/01/2022	25/01/2022	25/01/2022	25/01/2022	25/01/2022	25/01/2022	25/01/2022			
Sample Type	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil			
Batch Number	1	1	1	1	1	1	1	1	1	1			
Date of Receipt	01/02/2022	01/02/2022	01/02/2022	01/02/2022	01/02/2022	01/02/2022	01/02/2022	01/02/2022	01/02/2022	01/02/2022			
Arsenic #	4.5	-	7.7	6.2	4.8	10.9	7.0	3.0	3.6	3.6	<0.5	mg/kg	TM30/PM15
Cadmium #	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	mg/kg	TM30/PM15
Chromium #	19.1	-	10.8	14.4	9.0	23.7	13.3	7.7	10.5	6.8	<0.5	mg/kg	TM30/PM15
Copper #	3	-	4	8	4	9	9	9	2	1	<1	mg/kg	TM30/PM15
Lead #	<5	-	10	13	<5	19	11	<5	8	<5	<5	mg/kg	TM30/PM15
Mercury #	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	mg/kg	TM30/PM15
Nickel #	1.8	-	5.9	5.2	3.1	8.8	4.4	3.4	1.5	1.3	<0.7	mg/kg	TM30/PM15
Water Soluble Boron #	1.0	-	0.5	1.5	0.7	1.0	1.0	0.2	0.3	0.2	<0.1	mg/kg	TM74/PM32
Zinc #	6	-	34	21	7	34	18	14	<5	<5	<5	mg/kg	TM30/PM15
PAH MS													
Naphthalene #	0.08	-	<0.04	-	0.06	<0.04	0.15	<0.04	-	<0.04	<0.04	mg/kg	TM4/PM8
Acenaphthylene	1.01	-	<0.03	-	0.13	0.19	0.83	0.17	-	<0.03	<0.03	mg/kg	TM4/PM8
Acenaphthene #	0.24	-	<0.05	-	3.98	0.50	2.16	<0.05	-	<0.05	<0.05	mg/kg	TM4/PM8
Fluorene #	0.25	-	<0.04	-	2.09	0.53	2.18	<0.04	-	<0.04	<0.04	mg/kg	TM4/PM8
Phenanthrene #	3.01	-	0.06	-	0.16	3.92	16.07	0.24	-	<0.03	<0.03	mg/kg	TM4/PM8
Anthracene #	2.48	-	<0.04	-	2.09	1.26	5.46	0.13	-	<0.04	<0.04	mg/kg	TM4/PM8
Fluoranthene #	>>39.20	-	0.22	-	5.88	8.58	>>40.11	0.99	-	0.08	<0.03	mg/kg	TM4/PM8
Pyrene #	>>42.10	-	0.20	-	4.32	7.72	>>32.95	0.96	-	0.07	<0.03	mg/kg	TM4/PM8
Benzo(a)anthracene #	>>30.31	-	0.17	-	1.81	4.15	19.69	0.42	-	0.07	<0.06	mg/kg	TM4/PM8
Chrysene #	>>26.69	-	0.14	-	1.98	3.99	15.87	0.47	-	0.05	<0.02	mg/kg	TM4/PM8
Benzo(bk)fluoranthene #	>>59.95	-	0.31	-	2.57	8.13	42.03	0.92	-	0.10	<0.07	mg/kg	TM4/PM8
Benzo(a)pyrene #	>>34.81	-	0.18	-	1.43	4.68	>>25.37	0.52	-	0.05	<0.04	mg/kg	TM4/PM8
Indeno(123cd)pyrene #	>>26.38	-	0.12	-	0.92	3.51	20.07	0.41	-	0.04	<0.04	mg/kg	TM4/PM8
Dibenzo(ah)anthracene #	4.38	-	<0.04	-	0.13	0.51	2.79	0.07	-	<0.04	<0.04	mg/kg	TM4/PM8
Benzo(ghi)perylene #	20.88	-	0.11	-	0.78	2.92	15.86	0.39	-	<0.04	<0.04	mg/kg	TM4/PM8
Coronene	-	-	-	-	0.13	-	-	-	-	<0.04	<0.04	mg/kg	TM4/PM8
PAH 16 Total	291.8	-	1.5	-	28.3	50.6	241.6	5.7	-	<0.6	<0.6	mg/kg	TM4/PM8
PAH 17 Total	-	-	-	-	28.46	-	-	-	-	<0.64	<0.64	mg/kg	TM4/PM8
Benzo(b)fluoranthene	43.16	-	0.22	-	1.85	5.85	30.26	0.66	-	0.07	<0.05	mg/kg	TM4/PM8
Benzo(k)fluoranthene	16.79	-	0.09	-	0.72	2.28	11.77	0.26	-	0.03	<0.02	mg/kg	TM4/PM8
PAH Surrogate % Recovery	92	-	97	-	86	94	92	93	-	91	<0	%	TM4/PM8
EPH (C8-C40) (EH_1D_Total) #	2814	-	<30	625	2717	209	4807	617	161	<30	<30	mg/kg	TM5/PM8
Mineral Oil (C10-C40) (EH_CU_1D_AL)	-	-	-	-	451	-	-	-	-	<30	<30	mg/kg	TM5/PM8/PM16

Please see attached notes for all abbreviations and acronyms

Client Name: Groundtech Consulting Limited
Reference: GRO-21190
Location: Holbeach
Contact: Connor Hastings
EMT Job No: 22/1512

Report : Solid

Solids: V=60g VOC jar, J=250g glass jar, T=plastic tub

EMT Sample No.	1-3	4-6	7-9	10-12	13-15	16-18	19-21	22-24	25-27	28-30	LOD/LOR	Units	Method No.
Sample ID	WS1	WS2	WS2	WS3	WS3	WS4	WS5	WS6	WS7	WS7			
Depth	0.20	0.05	0.30	0.30	0.60	0.30	0.20	0.30	0.10	0.40			
COC No / misc													
Containers	V J T	V J T	V J T	V J T	V J T	V J T	V J T	V J T	V J T	V J T			
Sample Date	25/01/2022	25/01/2022	25/01/2022	25/01/2022	25/01/2022	25/01/2022	25/01/2022	25/01/2022	25/01/2022	25/01/2022			
Sample Type	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil			
Batch Number	1	1	1	1	1	1	1	1	1	1			
Date of Receipt	01/02/2022	01/02/2022	01/02/2022	01/02/2022	01/02/2022	01/02/2022	01/02/2022	01/02/2022	01/02/2022	01/02/2022			
TPH CWG													
Aliphatics													
>C5-C6 (HS_1D_AL)#	-	<0.1 SV	-	-	-	-	-	-	-	-	<0.1	mg/kg	TM36/PM12
>C6-C8 (HS_1D_AL)#	-	<0.1 SV	-	-	-	-	-	-	-	-	<0.1	mg/kg	TM36/PM12
>C8-C10 (HS_1D_AL)	-	<0.1 SV	-	-	-	-	-	-	-	-	<0.1	mg/kg	TM36/PM12
>C10-C12 (EH_CU_1D_AL)#	-	<0.2	-	-	-	-	-	-	-	-	<0.2	mg/kg	TM5/PM8/PM16
>C12-C16 (EH_CU_1D_AL)#	-	23	-	-	-	-	-	-	-	-	<4	mg/kg	TM5/PM8/PM16
>C16-C21 (EH_CU_1D_AL)#	-	129	-	-	-	-	-	-	-	-	<7	mg/kg	TM5/PM8/PM16
>C21-C35 (EH_CU_1D_AL)#	-	481	-	-	-	-	-	-	-	-	<7	mg/kg	TM5/PM8/PM16
Total aliphatics C5-35 (EH+HS_CU_1D_AL)	-	633	-	-	-	-	-	-	-	-	<19	mg/kg	TM5/TM36/PM8/PM12/PM16
Aromatics													
>C5-EC7 (HS_1D_AR)#	-	<0.1 SV	-	-	-	-	-	-	-	-	<0.1	mg/kg	TM36/PM12
>EC7-EC8 (HS_1D_AR)#	-	<0.1 SV	-	-	-	-	-	-	-	-	<0.1	mg/kg	TM36/PM12
>EC8-EC10 (HS_1D_AR)#	-	<0.1 SV	-	-	-	-	-	-	-	-	<0.1	mg/kg	TM36/PM12
>EC10-EC12 (EH_CU_1D_AR)#	-	1.2	-	-	-	-	-	-	-	-	<0.2	mg/kg	TM5/PM8/PM16
>EC12-EC16 (EH_CU_1D_AR)#	-	19	-	-	-	-	-	-	-	-	<4	mg/kg	TM5/PM8/PM16
>EC16-EC21 (EH_CU_1D_AR)#	-	968	-	-	-	-	-	-	-	-	<7	mg/kg	TM5/PM8/PM16
>EC21-EC35 (EH_CU_1D_AR)#	-	5939	-	-	-	-	-	-	-	-	<7	mg/kg	TM5/PM8/PM16
Total aromatics C5-35 (EH+HS_CU_1D_AR)#	-	6927	-	-	-	-	-	-	-	-	<19	mg/kg	TM5/TM36/PM8/PM12/PM16
Total aliphatics and aromatics(C5-35) (EH+HS_CU_1D_Total)	-	7560	-	-	-	-	-	-	-	-	<38	mg/kg	TM5/TM36/PM8/PM12/PM16
MTBE#	-	<5 SV	-	-	<5	-	-	-	-	<5	<5	ug/kg	TM36/PM12
Benzene#	-	<5 SV	-	-	<5	-	-	-	-	<5	<5	ug/kg	TM36/PM12
Toluene#	-	<5 SV	-	-	<5	-	-	-	-	<5	<5	ug/kg	TM36/PM12
Ethylbenzene#	-	<5 SV	-	-	<5	-	-	-	-	<5	<5	ug/kg	TM36/PM12
m/p-Xylene#	-	<5 SV	-	-	<5	-	-	-	-	<5	<5	ug/kg	TM36/PM12
o-Xylene#	-	<5 SV	-	-	<5	-	-	-	-	<5	<5	ug/kg	TM36/PM12
PCB 28#	-	-	-	-	<5	-	-	-	-	<5	<5	ug/kg	TM17/PM8
PCB 52#	-	-	-	-	<5	-	-	-	-	<5	<5	ug/kg	TM17/PM8
PCB 101#	-	-	-	-	<5	-	-	-	-	<5	<5	ug/kg	TM17/PM8
PCB 118#	-	-	-	-	<5	-	-	-	-	<5	<5	ug/kg	TM17/PM8
PCB 138#	-	-	-	-	<5	-	-	-	-	<5	<5	ug/kg	TM17/PM8
PCB 153#	-	-	-	-	<5	-	-	-	-	<5	<5	ug/kg	TM17/PM8
PCB 180#	-	-	-	-	<5	-	-	-	-	<5	<5	ug/kg	TM17/PM8
Total 7 PCBs#	-	-	-	-	<35	-	-	-	-	<35	<35	ug/kg	TM17/PM8
Phenol#	<0.01	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM26/PM21B
Natural Moisture Content	8.3	8.2	10.1	9.3	10.8	13.6	9.1	8.8	7.4	<0.1	<0.1	%	PM4/PM0
Hexavalent Chromium#	<0.3	-	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	mg/kg	TM38/PM20
Sulphate as SO4 (2:1 Ext)#	0.0696	-	0.0225	0.0971	0.0577	0.0413	0.1171	0.0034	0.0159	0.0142	<0.0015	g/l	TM38/PM20

Please see attached notes for all abbreviations and acronyms

Element Materials Technology

Client Name: Groundtech Consulting Limited
Reference: GRO-21190
Location: Holbeach
Contact: Connor Hastings
EMT Job No: 22/1512

Report : Solid

Solids: V=60g VOC jar, J=250g glass jar, T=plastic tub

EMT Sample No.	1-3	4-6	7-9	10-12	13-15	16-18	19-21	22-24	25-27	28-30	LOD/LOR	Units	Method No.
Sample ID	WS1	WS2	WS2	WS3	WS3	WS4	WS5	WS6	WS7	WS7			
Depth	0.20	0.05	0.30	0.30	0.60	0.30	0.20	0.30	0.10	0.40			
COC No / misc													
Containers	V J T	V J T	V J T	V J T	V J T	V J T	V J T	V J T	V J T	V J T			
Sample Date	25/01/2022	25/01/2022	25/01/2022	25/01/2022	25/01/2022	25/01/2022	25/01/2022	25/01/2022	25/01/2022	25/01/2022			
Sample Type	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil			
Batch Number	1	1	1	1	1	1	1	1	1	1			
Date of Receipt	01/02/2022	01/02/2022	01/02/2022	01/02/2022	01/02/2022	01/02/2022	01/02/2022	01/02/2022	01/02/2022	01/02/2022			
Total Cyanide #	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	mg/kg	TM89/PM45
Total Organic Carbon #	-	-	-	-	0.29	-	-	-	-	0.12	<0.02	%	TM21/PM24
Organic Matter	0.6	-	0.4	1.1	0.5	0.9	1.2	0.9	<0.2	0.2	<0.2	%	TM21/PM24
ANC at pH4	-	-	-	-	1.52	-	-	-	-	2.35	<0.03	mol/kg	TM77/PM0
ANC at pH7	-	-	-	-	0.06	-	-	-	-	0.09	<0.03	mol/kg	TM77/PM0
Loss on Ignition #	-	-	-	-	<1.0	-	-	-	-	<1.0	<1.0	%	TM22/PM0
pH #	8.53	-	8.32	8.29	8.42	8.56	8.06	8.73	9.07	9.04	<0.01	pH units	TM73/PM11

Please see attached notes for all abbreviations and acronyms

Client Name: Groundtech Consulting Limited
Reference: GRO-21190
Location: Holbeach
Contact: Connor Hastings
EMT Job No: 22/1512

Report : Solid

Solids: V=60g VOC jar, J=250g glass jar, T=plastic tub

EMT Sample No.	31-33	37-39									LOD/LOR	Units	Method No.
Sample ID	WS8	BH1											
Depth	0.10	0.20											
COC No / misc													
Containers	V J T	V J T											
Sample Date	25/01/2022	25/01/2022											
Sample Type	Soil	Soil											
Batch Number	1	1											
Date of Receipt	01/02/2022	01/02/2022											
Arsenic #	11.9	10.5									<0.5	mg/kg	TM30/PM15
Cadmium #	0.1	0.2									<0.1	mg/kg	TM30/PM15
Chromium #	41.2	35.8									<0.5	mg/kg	TM30/PM15
Copper #	18	16									<1	mg/kg	TM30/PM15
Lead #	12	10									<5	mg/kg	TM30/PM15
Mercury #	<0.1	<0.1									<0.1	mg/kg	TM30/PM15
Nickel #	15.2	22.1									<0.7	mg/kg	TM30/PM15
Water Soluble Boron #	1.6	7.2									<0.1	mg/kg	TM74/PM32
Zinc #	52	95									<5	mg/kg	TM30/PM15
PAH MS													
Naphthalene #	0.04	-									<0.04	mg/kg	TM4/PM8
Acenaphthylene	0.39	-									<0.03	mg/kg	TM4/PM8
Acenaphthene #	0.50	-									<0.05	mg/kg	TM4/PM8
Fluorene #	0.45	-									<0.04	mg/kg	TM4/PM8
Phenanthrene #	2.95	-									<0.03	mg/kg	TM4/PM8
Anthracene #	1.30	-									<0.04	mg/kg	TM4/PM8
Fluoranthene #	8.82	-									<0.03	mg/kg	TM4/PM8
Pyrene #	7.43	-									<0.03	mg/kg	TM4/PM8
Benzo(a)anthracene #	4.10	-									<0.06	mg/kg	TM4/PM8
Chrysene #	4.51	-									<0.02	mg/kg	TM4/PM8
Benzo(bk)fluoranthene #	7.58	-									<0.07	mg/kg	TM4/PM8
Benzo(a)pyrene #	4.67	-									<0.04	mg/kg	TM4/PM8
Indeno(123cd)pyrene #	3.15	-									<0.04	mg/kg	TM4/PM8
Dibenzo(ah)anthracene #	0.58	-									<0.04	mg/kg	TM4/PM8
Benzo(ghi)perylene #	2.73	-									<0.04	mg/kg	TM4/PM8
Coronene	-	-									<0.04	mg/kg	TM4/PM8
PAH 16 Total	49.2	-									<0.6	mg/kg	TM4/PM8
PAH 17 Total	-	-									<0.64	mg/kg	TM4/PM8
Benzo(b)fluoranthene	5.46	-									<0.05	mg/kg	TM4/PM8
Benzo(k)fluoranthene	2.12	-									<0.02	mg/kg	TM4/PM8
PAH Surrogate % Recovery	93	-									<0	%	TM4/PM8
EPH (C8-C40) (EH_1D_Total) #	13326 AA	<30									<30	mg/kg	TM5/PM8
Mineral Oil (C10-C40) (EH_CU_1D_AL)	-	-									<30	mg/kg	TM5/PM8/PM16

Please see attached notes for all abbreviations and acronyms

Client Name: Groundtech Consulting Limited
Reference: GRO-21190
Location: Holbeach
Contact: Connor Hastings
EMT Job No: 22/1512

Report : Solid

Solids: V=60g VOC jar, J=250g glass jar, T=plastic tub

EMT Sample No.	31-33	37-39									LOD/LOR	Units	Method No.
Sample ID	WS8	BH1											
Depth	0.10	0.20											
COC No / misc													
Containers	V J T	V J T											
Sample Date	25/01/2022	25/01/2022											
Sample Type	Soil	Soil											
Batch Number	1	1											
Date of Receipt	01/02/2022	01/02/2022											
TPH CWG													
Aliphatics													
>C5-C6 (HS_1D_AL)#	<0.1 SV	<0.1									<0.1	mg/kg	TM36/PM12
>C6-C8 (HS_1D_AL)#	<0.1 SV	<0.1									<0.1	mg/kg	TM36/PM12
>C8-C10 (HS_1D_AL)	<0.1 SV	<0.1									<0.1	mg/kg	TM36/PM12
>C10-C12 (EH_CU_1D_AL)#	<0.2	<0.2									<0.2	mg/kg	TM5/PM8/PM16
>C12-C16 (EH_CU_1D_AL)#	<4	<4									<4	mg/kg	TM5/PM8/PM16
>C16-C21 (EH_CU_1D_AL)#	20	<7									<7	mg/kg	TM5/PM8/PM16
>C21-C35 (EH_CU_1D_AL)#	1381	<7									<7	mg/kg	TM5/PM8/PM16
Total aliphatics C5-35 (EH+HS_CU_1D_AL)	1401	<19									<19	mg/kg	TM5/TM36/PM8/PM12/PM16
Aromatics													
>C5-EC7 (HS_1D_AR)#	<0.1 SV	<0.1									<0.1	mg/kg	TM36/PM12
>EC7-EC8 (HS_1D_AR)#	<0.1 SV	<0.1									<0.1	mg/kg	TM36/PM12
>EC8-EC10 (HS_1D_AR)#	<0.1 SV	<0.1									<0.1	mg/kg	TM36/PM12
>EC10-EC12 (EH_CU_1D_AR)#	<0.2	<0.2									<0.2	mg/kg	TM5/PM8/PM16
>EC12-EC16 (EH_CU_1D_AR)#	11	<4									<4	mg/kg	TM5/PM8/PM16
>EC16-EC21 (EH_CU_1D_AR)#	241	<7									<7	mg/kg	TM5/PM8/PM16
>EC21-EC35 (EH_CU_1D_AR)#	4309	<7									<7	mg/kg	TM5/PM8/PM16
Total aromatics C5-35 (EH+HS_CU_1D_AR)#	4561	<19									<19	mg/kg	TM5/TM36/PM8/PM12/PM16
Total aliphatics and aromatics(C5-35) (EH+HS_CU_1D_Total)	5962	<38									<38	mg/kg	TM5/TM36/PM8/PM12/PM16
MTBE#	<5 SV	<5									<5	ug/kg	TM36/PM12
Benzene#	<5 SV	<5									<5	ug/kg	TM36/PM12
Toluene#	<5 SV	<5									<5	ug/kg	TM36/PM12
Ethylbenzene#	<5 SV	<5									<5	ug/kg	TM36/PM12
m/p-Xylene#	<5 SV	<5									<5	ug/kg	TM36/PM12
o-Xylene#	<5 SV	<5									<5	ug/kg	TM36/PM12
PCB 28#	-	-									<5	ug/kg	TM17/PM8
PCB 52#	-	-									<5	ug/kg	TM17/PM8
PCB 101#	-	-									<5	ug/kg	TM17/PM8
PCB 118#	-	-									<5	ug/kg	TM17/PM8
PCB 138#	-	-									<5	ug/kg	TM17/PM8
PCB 153#	-	-									<5	ug/kg	TM17/PM8
PCB 180#	-	-									<5	ug/kg	TM17/PM8
Total 7 PCBs#	-	-									<35	ug/kg	TM17/PM8
Phenol#	<0.01	<0.01									<0.01	mg/kg	TM26/PM21B
Natural Moisture Content	7.3	31.3									<0.1	%	PM4/PM0
Hexavalent Chromium#	<0.3	<0.3									<0.3	mg/kg	TM38/PM20
Sulphate as SO4 (2:1 Ext)#	0.0851	2.3709									<0.0015	g/l	TM38/PM20

Please see attached notes for all abbreviations and acronyms

Element Materials Technology

Client Name: Groundtech Consulting Limited
Reference: GRO-21190
Location: Holbeach
Contact: Connor Hastings
EMT Job No: 22/1512

Report : Solid

Solids: V=60g VOC jar, J=250g glass jar, T=plastic tub

EMT Sample No.	31-33	37-39											
Sample ID	WS8	BH1											
Depth	0.10	0.20											
COC No / misc													
Containers	V J T	V J T											
Sample Date	25/01/2022	25/01/2022											
Sample Type	Soil	Soil											
Batch Number	1	1											
Date of Receipt	01/02/2022	01/02/2022											

Please see attached notes for all abbreviations and acronyms

											LOD/LOR	Units	Method No.
Total Cyanide #	<0.5	<0.5									<0.5	mg/kg	TM89/PM45
Total Organic Carbon #	-	-									<0.02	%	TM21/PM24
Organic Matter	7.4	1.5									<0.2	%	TM21/PM24
ANC at pH4	-	-									<0.03	mol/kg	TM77/PM0
ANC at pH7	-	-									<0.03	mol/kg	TM77/PM0
Loss on Ignition #	-	-									<1.0	%	TM22/PM0
pH #	8.25	7.70									<0.01	pH units	TM73/PM11

Please include all sections of this report if it is reproduced
All solid results are expressed on a dry weight basis unless stated otherwise.

CEN 10:1 LEACHATE RESULTS BS EN 12547-2

Mass of sample taken (kg)	-	Moisture Content Ratio (%) =	18.4
Mass of dry sample (kg) =	0.09	Dry Matter Content Ratio (%) =	84.5
Particle Size <4mm =	>95%		

		Landfill Waste Acceptance Criteria Limits		
EMT Job No	**22/1512**			
Sample No	**15**			
Client Sample No	**WS3**	**Inert Waste Landfill**	**Stable Non-reactive Hazardous Waste in Non-Hazardous Landfill**	**Hazardous Waste Landfill**
Depth/Other	**0.60**			
Sample Date	**25/01/2022**			
Batch No	**1**			
Solid Waste Analysis				
Total Organic Carbon (%)	0.29	3	5	6
Loss on Ignition (%)	<1.0	-	-	10
Sum of BTEX (mg/kg)	<0.025	6	-	-
Sum of 7 PCBs (mg/kg)	<0.035	1	-	-
Mineral Oil (mg/kg) (EH_CU_1D_AL)	451	500	-	-
PAH Sum of 17(mg/kg)	28.46	100	-	-
pH (pH Units)	8.42	-	>6	-
ANC to pH 7 (mol/kg)	0.06	-	to be evaluated	to be evaluated
ANC to pH 4 (mol/kg)	1.52	-	to be evaluated	to be evaluated

Eluate Analysis	**10:1 conc^{n} leached**		**Limit values for compliance leaching test using BS EN 12457-2 at L/S 10 l/kg**		
	C_{10}	**A_{10}**			
	mg/l	**mg/kg**	**mg/kg**		
Arsenic	0.0054	0.054	0.5	2	25
Barium	0.031	0.31	20	100	300
Cadmium	<0.0005	<0.005	0.04	1	5
Chromium	<0.0015	<0.015	0.5	10	70
Copper	<0.007	<0.07	2	50	100
Mercury	<0.001	<0.01	0.01	0.2	2
Molybdenum	0.029	0.29	0.5	10	30
Nickel	<0.002	<0.02	0.4	10	40
Lead	<0.005	<0.05	0.5	10	50
Antimony	0.004	0.04	0.06	0.7	5
Selenium	<0.003	<0.03	0.1	0.5	7
Zinc	<0.003	<0.03	4	50	200
Chloride	5.3	53	800	15000	25000
Fluoride	0.4	4	10	150	500
Sulphate as SO4	17.9	179	1000	20000	50000
Total Dissolved Solids	123	1229	4000	60000	100000
Phenol	<0.01	<0.1	1	-	-
Dissolved Organic Carbon	8	80	500	800	1000

Please include all sections of this report if it is reproduced

All solid results are expressed on a dry weight basis unless stated otherwise.

CEN 10:1 LEACHATE RESULTS BS EN 12547-2

Mass of sample taken (kg)	-	Moisture Content Ratio (%) =	7.5
Mass of dry sample (kg) =	0.09	Dry Matter Content Ratio (%) =	93.1
Particle Size <4mm =	>95%		

		Landfill Waste Acceptance Criteria Limits		
EMT Job No	**22/1512**			
Sample No	**30**			
Client Sample No	**WS7**	**Inert Waste Landfill**	**Stable Non-reactive Hazardous Waste in Non-Hazardous Landfill**	**Hazardous Waste Landfill**
Depth/Other	**0.40**			
Sample Date	**25/01/2022**			
Batch No	**1**			
Solid Waste Analysis				
Total Organic Carbon (%)	0.12	3	5	6
Loss on Ignition (%)	<1.0	-	-	10
Sum of BTEX (mg/kg)	<0.025	6	-	-
Sum of 7 PCBs (mg/kg)	<0.035	1	-	-
Mineral Oil (mg/kg) (EH_CU_1D_AL)	<30	500	-	-
PAH Sum of 17(mg/kg)	<0.64	100	-	-
pH (pH Units)	9.04	-	>6	-
ANC to pH 7 (mol/kg)	0.09	-	to be evaluated	to be evaluated
ANC to pH 4 (mol/kg)	2.35	-	to be evaluated	to be evaluated

Eluate Analysis	**10:1 conc^{n} leached**		**Limit values for compliance leaching test using BS EN 12457-2 at L/S 10 l/kg**		
	C_{10}	**A_{10}**			
	mg/l	**mg/kg**	**mg/kg**		
Arsenic	<0.0025	<0.025	0.5	2	25
Barium	<0.003	<0.03	20	100	300
Cadmium	<0.0005	<0.005	0.04	1	5
Chromium	<0.0015	<0.015	0.5	10	70
Copper	<0.007	<0.07	2	50	100
Mercury	<0.001	<0.01	0.01	0.2	2
Molybdenum	0.006	0.06	0.5	10	30
Nickel	<0.002	<0.02	0.4	10	40
Lead	<0.005	<0.05	0.5	10	50
Antimony	<0.002	<0.02	0.06	0.7	5
Selenium	<0.003	<0.03	0.1	0.5	7
Zinc	<0.003	<0.03	4	50	200
Chloride	1.0	10	800	15000	25000
Fluoride	<0.3	<3	10	150	500
Sulphate as SO4	1.7	17	1000	20000	50000
Total Dissolved Solids	<35	<350	4000	60000	100000
Phenol	<0.01	<0.1	1	-	-
Dissolved Organic Carbon	<2	<20	500	800	1000

Please include all sections of this report if it is reproduced

All solid results are expressed on a dry weight basis unless stated otherwise.

Client Name: Groundtech Consulting Limited
Reference: GRO-21190
Location: Holbeach
Contact: Connor Hastings

Note:

Asbestos Screen analysis is carried out in accordance with our documented in-house methods PM042 and TM065 and HSG 248 by Stereo and Polarised Light Microscopy using Dispersion Staining Techniques and is covered by our UKAS accreditation. Detailed Gravimetric Quantification and PCOM Fibre Analysis is carried out in accordance with our documented in-house methods PM042 and TM131 and HSG 248 using Stereo and Polarised Light Microscopy and Phase Contrast Optical Microscopy (PCOM). Asbestos sub-samples are retained for not less than 6 months from the date of analysis unless specifically requested.

The LOQ of the Asbestos Quantification is 0.001% dry fibre of dry mass of sample.

Where the sample is not taken by a Element Materials Technology consultant, Element Materials Technology cannot be responsible for inaccurate or unrepresentative sampling.

EMT Job No.	Batch	Sample ID	Depth	EMT Sample No.	Analyst Name	Date Of Analysis	Analysis	Result
22/1512	1	WS1	0.20	3	Anthony Carman	16/02/2022	**General Description (Bulk Analysis)**	Soil/Stones
					Anthony Carman	16/02/2022	**Asbestos Fibres**	NAD
					Anthony Carman	16/02/2022	**Asbestos ACM**	NAD
					Anthony Carman	16/02/2022	**Asbestos Type**	NAD
					Anthony Carman	16/02/2022	**Asbestos Level Screen**	NAD
22/1512	1	WS2	0.30	9	Anthony Carman	16/02/2022	**General Description (Bulk Analysis)**	Soil/Stones
					Anthony Carman	16/02/2022	**Asbestos Fibres**	NAD
					Anthony Carman	16/02/2022	**Asbestos ACM**	NAD
					Anthony Carman	16/02/2022	**Asbestos Type**	NAD
					Anthony Carman	16/02/2022	**Asbestos Level Screen**	NAD
22/1512	1	WS3	0.30	12	Kevin Hughes	14/02/2022	**General Description (Bulk Analysis)**	soil
					Kevin Hughes	14/02/2022	**Asbestos Fibres**	NAD
					Kevin Hughes	14/02/2022	**Asbestos ACM**	NAD
					Kevin Hughes	14/02/2022	**Asbestos Type**	NAD
22/1512	1	WS3	0.60	14	Andrew Alker	17/02/2022	**General Description (Bulk Analysis)**	soil
					Andrew Alker	17/02/2022	**Asbestos Fibres**	NAD
					Andrew Alker	17/02/2022	**Asbestos ACM**	NAD
					Andrew Alker	17/02/2022	**Asbestos Type**	NAD
					Andrew Alker	17/02/2022	**Asbestos Level Screen**	NAD
22/1512	1	WS4	0.30	18	Kevin Hughes	16/02/2022	**General Description (Bulk Analysis)**	soil
					Kevin Hughes	16/02/2022	**Asbestos Fibres**	NAD
					Kevin Hughes	16/02/2022	**Asbestos ACM**	NAD
					Kevin Hughes	16/02/2022	**Asbestos Type**	NAD
					Kevin Hughes	16/02/2022	**Asbestos Level Screen**	NAD
22/1512	1	WS5	0.20	21	Charlotte Taylor	16/02/2022	**General Description (Bulk Analysis)**	soil/stones
					Charlotte Taylor	16/02/2022	**Asbestos Fibres**	NAD
					Charlotte Taylor	16/02/2022	**Asbestos ACM**	NAD
					Charlotte Taylor	16/02/2022	**Asbestos Type**	NAD
					Charlotte Taylor	16/02/2022	**Asbestos Level Screen**	NAD
22/1512	1	WS6	0.30	24	Charlotte Taylor	16/02/2022	**General Description (Bulk Analysis)**	soil/stones
					Charlotte Taylor	16/02/2022	**Asbestos Fibres**	NAD
					Charlotte Taylor	16/02/2022	**Asbestos ACM**	NAD
					Charlotte Taylor	16/02/2022	**Asbestos Type**	NAD

Client Name: Groundtech Consulting Limited
Reference: GRO-21190
Location: Holbeach
Contact: Connor Hastings

EMT Job No.	Batch	Sample ID	Depth	EMT Sample No.	Analyst Name	Date Of Analysis	Analysis	Result
22/1512	1	WS6	0.30	24	Charlotte Taylor	16/02/2022	**Asbestos Level Screen**	NAD
22/1512	1	WS7	0.10	27	Kevin Hughes	14/02/2022	**General Description (Bulk Analysis)**	soil
					Kevin Hughes	14/02/2022	**Asbestos Fibres**	NAD
					Kevin Hughes	14/02/2022	**Asbestos ACM**	NAD
					Kevin Hughes	14/02/2022	**Asbestos Type**	NAD
22/1512	1	WS7	0.40	29	Andrew Alker	17/02/2022	**General Description (Bulk Analysis)**	SOIL
					Andrew Alker	17/02/2022	**Asbestos Fibres**	NAD
					Andrew Alker	17/02/2022	**Asbestos ACM**	NAD
					Andrew Alker	17/02/2022	**Asbestos Type**	NAD
					Andrew Alker	17/02/2022	**Asbestos Level Screen**	NAD
22/1512	1	WS8	0.10	33	Kevin Hughes	16/02/2022	**General Description (Bulk Analysis)**	soil
					Kevin Hughes	16/02/2022	**Asbestos Fibres**	NAD
					Kevin Hughes	16/02/2022	**Asbestos ACM**	NAD
					Kevin Hughes	16/02/2022	**Asbestos Type**	NAD
					Kevin Hughes	16/02/2022	**Asbestos Level Screen**	NAD
22/1512	1	BH1	0.20	39	Andrew Alker	14/02/2022	**General Description (Bulk Analysis)**	soil
					Andrew Alker	14/02/2022	**Asbestos Fibres**	NAD
					Andrew Alker	14/02/2022	**Asbestos ACM**	NAD
					Andrew Alker	14/02/2022	**Asbestos Type**	NAD

Client Name: Groundtech Consulting Limited

Reference: GRO-21190

Location: Holbeach

Contact: Connor Hastings

Matrix : Solid

EMT Job No.	Batch	Sample ID	Depth	EMT Sample No.	Analysis	Reason
22/1512	1	WS1	0.20	1-3	Cyanide, EPH, PAH, Phenols	Sample holding time exceeded
22/1512	1	WS2	0.05	4-6	EPH	Sample holding time exceeded
22/1512	1	WS2	0.30	7-9	Cyanide, EPH, PAH, Phenols	Sample holding time exceeded
22/1512	1	WS3	0.30	10-12	Cyanide, EPH, Phenols	Sample holding time exceeded
22/1512	1	WS3	0.60	13-15	Cyanide, EPH, PAH, PCB, Phenols	Sample holding time exceeded
22/1512	1	WS4	0.30	16-18	Cyanide, EPH, PAH, Phenols	Sample holding time exceeded
22/1512	1	WS5	0.20	19-21	Cyanide, EPH, PAH, Phenols	Sample holding time exceeded
22/1512	1	WS6	0.30	22-24	Cyanide, EPH, PAH, Phenols	Sample holding time exceeded
22/1512	1	WS7	0.10	25-27	Cyanide, EPH, Phenols	Sample holding time exceeded
22/1512	1	WS7	0.40	28-30	Cyanide, EPH, PAH, PCB, Phenols	Sample holding time exceeded
22/1512	1	WS8	0.10	31-33	Cyanide, EPH, PAH, Phenols	Sample holding time exceeded
22/1512	1	BH1	0.20	37-39	Cyanide, EPH, GRO, Phenols	Sample holding time exceeded

Please note that only samples that are deviating are mentioned in this report. If no samples are listed it is because none were deviating.

Only analyses which are accredited are recorded as deviating if set criteria are not met.

EMT Job No.: 22/1512

SOILS and ASH

Please note we are only MCERTS accredited (UK soils only) for sand, loam and clay and any other matrix is outside our scope of accreditation.

Where an MCERTS report has been requested, you will be notified within 48 hours of any samples that have been identified as being outside our MCERTS scope. As validation has been performed on clay, sand and loam, only samples that are predominantly these matrices, or combinations of them will be within our MCERTS scope. If samples are not one of a combination of the above matrices they will not be marked as MCERTS accredited.

It is assumed that you have taken representative samples on site and require analysis on a representative subsample. Stones will generally be included unless we are requested to remove them.

All samples will be discarded one month after the date of reporting, unless we are instructed to the contrary. Asbestos samples are retained for 6 months.

If you have not already done so, please send us a purchase order if this is required by your company.

Where appropriate please make sure that our detection limits are suitable for your needs, if they are not, please notify us immediately.

All analysis is reported on a dry weight basis unless stated otherwise. Limits of detection for analyses carried out on as received samples are not moisture content corrected. Results are not surrogate corrected. Samples are dried at 35°C ±5°C unless otherwise stated. Moisture content for CEN Leachate tests are dried at 105°C ±5°C. Ash samples are dried at 37°C ±5°C.

Where Mineral Oil or Fats, Oils and Grease is quoted, this refers to Total Aliphatics C10-C40.

Where a CEN 10:1 ZERO Headspace VOC test has been carried out, a 10:1 ratio of water to wet (as received) soil has been used.

% Asbestos in Asbestos Containing Materials (ACMs) is determined by reference to HSG 264 The Survey Guide - Appendix 2 : ACMs in buildings listed in order of ease of fibre release.

Sufficient amount of sample must be received to carry out the testing specified. Where an insufficient amount of sample has been received the testing may not meet the requirements of our accredited methods, as such accreditation may be removed.

Negative Neutralization Potential (NP) values are obtained when the volume of NaOH (0.1N) titrated (pH 8.3) is greater than the volume of HCl (1N) to reduce the pH of the sample to 2.0 - 2.5. Any negative NP values are corrected to 0.

The calculation of Pyrite content assumes that all oxidisable sulphides present in the sample are pyrite. This may not be the case. The calculation may be an overesitimate when other sulphides such as Barite (Barium Sulphate) are present.

WATERS

Please note we are not a UK Drinking Water Inspectorate (DWI) Approved Laboratory .

ISO17025 accreditation applies to surface water and groundwater and usually one other matrix which is analysis specific, any other liquids are outside our scope of accreditation.

As surface waters require different sample preparation to groundwaters the laboratory must be informed of the water type when submitting samples.

Where Mineral Oil or Fats, Oils and Grease is quoted, this refers to Total Aliphatics C10-C40.

STACK EMISSIONS

Where an MCERTS report has been requested, you will be notified within 48 hours of any samples that have been identified as being outside our MCERTS scope. As validation for Dioxins and Furans and Dioxin like PCBs has been performed on XAD-2 Resin, only samples which use this resin will be within our MCERTS scope.

Where appropriate please make sure that our detection limits are suitable for your needs, if they are not, please notify us immediately.

DEVIATING SAMPLES

All samples should be submitted to the laboratory in suitable containers with sufficient ice packs to sustain an appropriate temperature for the requested analysis. The temperature of sample receipt is recorded on the confirmation schedules in order that the client can make an informed decision as to whether testing should still be undertaken.

SURROGATES

Surrogate compounds are added during the preparation process to monitor recovery of analytes. However low recovery in soils is often due to peat, clay or other organic rich matrices. For waters this can be due to oxidants, surfactants, organic rich sediments or remediation fluids. Acceptable limits for most organic methods are 70 - 130% and for VOCs are 50 - 150%. When surrogate recoveries are outside the performance criteria but the associated AQC passes this is assumed to be due to matrix effect. Results are not surrogate corrected.

DILUTIONS

A dilution suffix indicates a dilution has been performed and the reported result takes this into account. No further calculation is required.

BLANKS

Where analytes have been found in the blank, the sample will be treated in accordance with our laboratory procedure for dealing with contaminated blanks.

NOTE

Data is only reported if the laboratory is confident that the data is a true reflection of the samples analysed. Data is only reported as accredited when all the requirements of our Quality System have been met. In certain circumstances where all the requirements of the Quality System have not been met, for instance if the associated AQC has failed, the reason is fully investigated and documented. The sample data is then evaluated alongside the other quality control checks performed during analysis to determine its suitability. Following this evaluation, provided the sample results have not been effected, the data is reported but accreditation is removed. It is a UKAS requirement for data not reported as accredited to be considered indicative only, but this does not mean the data is not valid.
Where possible, and if requested, samples will be re-extracted and a revised report issued with accredited results. Please do not hesitate to contact the laboratory if further details are required of the circumstances which have led to the removal of accreditation.
Laboratory records are kept for a period of no less than 6 years.

REPORTS FROM THE SOUTH AFRICA LABORATORY

Any method number not prefixed with SA has been undertaken in our UK laboratory unless reported as subcontracted.

Measurement Uncertainty

Measurement uncertainty defines the range of values that could reasonably be attributed to the measured quantity. This range of values has not been included within the reported results. Uncertainty expressed as a percentage can be provided upon request.

Customer Provided Information

Sample ID and depth is information provided by the customer.

ABBREVIATIONS and ACRONYMS USED

#	ISO17025 (UKAS Ref No. 4225) accredited - UK.
SA	ISO17025 (SANAS Ref No.T0729) accredited - South Africa
B	Indicates analyte found in associated method blank.
DR	Dilution required.
M	MCERTS accredited.
NA	Not applicable
NAD	No Asbestos Detected.
ND	None Detected (usually refers to VOC and/SVOC TICs).
NDP	No Determination Possible
SS	Calibrated against a single substance
SV	Surrogate recovery outside performance criteria. This may be due to a matrix effect.
W	Results expressed on as received basis.
+	AQC failure, accreditation has been removed from this result, if appropriate, see 'Note' on previous page.
>>	Results above calibration range, the result should be considered the minimum value. The actual result could be significantly higher.
*	Analysis subcontracted to an Element Materials Technology approved laboratory.
AD	Samples are dried at 35°C ±5°C
CO	Suspected carry over
LOD/LOR	Limit of Detection (Limit of Reporting) in line with ISO 17025 and MCERTS
ME	Matrix Effect
NFD	No Fibres Detected
BS	AQC Sample
LB	Blank Sample
N	Client Sample
TB	Trip Blank Sample
OC	Outside Calibration Range
AA	x5 Dilution

HWOL ACRONYMS AND OPERATORS USED

HS	Headspace Analysis.
EH	Extractable Hydrocarbons - i.e. everything extracted by the solvent.
CU	Clean-up - e.g. by florisil, silica gel.
1D	GC - Single coil gas chromatography.
Total	Aliphatics & Aromatics.
AL	Aliphatics only.
AR	Aromatics only.
2D	GC-GC - Double coil gas chromatography.
#1	EH_Total but with humics mathematically subtracted
#2	EU_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
MS	Mass Spectrometry.

EMT Job No: 22/1512

Test Method No.	Description	Prep Method No. (if appropriate)	Description	ISO 17025 (UKAS/SANAS)	MCERTS (UK soils only)	Analysis done on As Received (AR) or Dried (AD)	Reported on dry weight basis
PM4	Gravimetric measurement of Natural Moisture Content and % Moisture Content at either 35°C or 105°C. Calculation based on ISO 11465:1993(E) and BS1377-2:1990.	PM0	No preparation is required.			AR	
TM4	Modified USEPA 8270D v5:2014 method for the solvent extraction and determination of PAHs by GC-MS.	PM8	End over end extraction of solid samples for organic analysis. The solvent mix varies depending on analysis required.			AR	Yes
TM4	Modified USEPA 8270D v5:2014 method for the solvent extraction and determination of PAHs by GC-MS.	PM8	End over end extraction of solid samples for organic analysis. The solvent mix varies depending on analysis required.	Yes		AR	Yes
TM5	Modified 8015B v2:1996 method for the determination of solvent Extractable Petroleum Hydrocarbons (EPH) within the range C8-C40 by GCFID. For waters the solvent extracts dissolved phase plus a sheen if present.	PM8	End over end extraction of solid samples for organic analysis. The solvent mix varies depending on analysis required.	Yes		AR	Yes
TM5	Modified 8015B v2:1996 method for the determination of solvent Extractable Petroleum Hydrocarbons (EPH) within the range C8-C40 by GCFID. For waters the solvent extracts dissolved phase plus a sheen if present.	PM8/PM16	End over end extraction of solid samples for organic analysis. The solvent mix varies depending on analysis required/Fractionation into aliphatic and aromatic fractions using a Rapid Trace SPE.			AR	Yes
TM5	Modified 8015B v2:1996 method for the determination of solvent Extractable Petroleum Hydrocarbons (EPH) within the range C8-C40 by GCFID. For waters the solvent extracts dissolved phase plus a sheen if present.	PM8/PM16	End over end extraction of solid samples for organic analysis. The solvent mix varies depending on analysis required/Fractionation into aliphatic and aromatic fractions using a Rapid Trace SPE.	Yes		AR	Yes
TM5/TM36	please refer to TM5 and TM36 for method details	PM8/PM12/PM16	please refer to PM8/PM16 and PM12 for method details			AR	Yes
TM5/TM36	please refer to TM5 and TM36 for method details	PM8/PM12/PM16	please refer to PM8/PM16 and PM12 for method details	Yes		AR	Yes
TM17	Modified US EPA method 8270D v5:2014. Determination of specific Polychlorinated Biphenyl congeners by GC-MS.	PM8	End over end extraction of solid samples for organic analysis. The solvent mix varies depending on analysis required.	Yes		AR	Yes
TM20	Modified BS 1377-3:1990/USEPA 160.1/3 (TDS/TS: 1971) Gravimetric determination of Total Dissolved Solids/Total Solids	PM0	No preparation is required.			AR	Yes

EMT Job No: 22/1512

Test Method No.	Description	Prep Method No. (if appropriate)	Description	ISO 17025 (UKAS/SANAS)	MCERTS (UK soils only)	Analysis done on As Received (AR) or Dried (AD)	Reported on dry weight basis
TM21	Modified BS 7755-3:1995, ISO10694:1995 Determination of Total Organic Carbon or Total Carbon by combustion in an Eltra TOC furnace/analyser in the presence of oxygen. The CO2 generated is quantified using infra-red detection. Organic Matter (SOM) calculated as per EA MCERTS Chemical Testing of Soil, March 2012 v4.	PM24	Dried and ground solid samples are washed with hydrochloric acid, then rinsed with deionised water to remove the mineral carbon before TOC analysis.			AD	Yes
TM21	Modified BS 7755-3:1995, ISO10694:1995 Determination of Total Organic Carbon or Total Carbon by combustion in an Eltra TOC furnace/analyser in the presence of oxygen. The CO2 generated is quantified using infra-red detection. Organic Matter (SOM) calculated as per EA MCERTS Chemical Testing of Soil, March 2012 v4.	PM24	Dried and ground solid samples are washed with hydrochloric acid, then rinsed with deionised water to remove the mineral carbon before TOC analysis.	Yes		AD	Yes
TM22	Modified BS1377-3:1990 Gravimetric determination of Loss on Ignition by temperature controlled Muffle Furnace (35C-440C). On request modified ASTM D2974-00 LOI (105C-440C)	PM0	No preparation is required.	Yes		AD	Yes
TM26	Determination of phenols by Reversed Phased High Performance Liquid Chromatography and Electro-Chemical Detection.	PM0	No preparation is required.			AR	Yes
TM26	Determination of phenols by Reversed Phased High Performance Liquid Chromatography and Electro-Chemical Detection.	PM21B	As Received samples are extracted in Methanol: Water (60:40) by reciprocal shaker.	Yes		AR	Yes
TM30	Determination of Trace Metals by ICP-OES (Inductively Coupled Plasma – Optical Emission Spectrometry): WATERS by Modified USEPA Method 200.7, Rev. 4.4, 1994; Modified EPA Method 6010B, Rev.2, Dec 1996; Modified BS EN ISO 11885:2009: SOILS by Modified USEP 6010B, Rev.2, Dec.1996; Modified EPA Method 3050B, Rev.2, Dec.1996	PM15	Acid digestion of dried and ground solid samples using Aqua Regia refluxed at 112.5 °C. Samples containing asbestos are not dried and ground.	Yes		AD	Yes
TM36	Modified US EPA method 8015B v2:1996. Determination of Gasoline Range Organics (GRO) in the carbon chain range of C4-12 by headspace GC-FID. MTBE by GCFID co-elutes with 3-methylpentane if present and therefore can give a false positive. Positive MTBE results will be re-run using GC-MS to double check, when requested.	PM12	Modified US EPA method 5021A v2:2014. Preparation of solid and liquid samples for GC headspace analysis.			AR	Yes
TM36	Modified US EPA method 8015B v2:1996. Determination of Gasoline Range Organics (GRO) in the carbon chain range of C4-12 by headspace GC-FID. MTBE by GCFID co-elutes with 3-methylpentane if present and therefore can give a false positive. Positive MTBE results will be re-run using GC-MS to double check, when requested.	PM12	Modified US EPA method 5021A v2:2014. Preparation of solid and liquid samples for GC headspace analysis.	Yes		AR	Yes
TM38	Soluble Ion analysis using Discrete Analyser. Modified US EPA methods: Chloride 325.2 (1978), Sulphate 375.4 (Rev.2 1993), o-Phosphate 365.2 (Rev.2 1993), TON 353.1 (Rev.2 1993), Nitrite 354.1 (1971), Hex Cr 7196A (1992), NH4+ 350.1 (Rev.2 1993) – All anions comparable to BS ISO 15923-1: 2013l	PM0	No preparation is required.	Yes		AR	Yes
TM38	Soluble Ion analysis using Discrete Analyser. Modified US EPA methods: Chloride 325.2 (1978), Sulphate 375.4 (Rev.2 1993), o-Phosphate 365.2 (Rev.2 1993), TON 353.1 (Rev.2 1993), Nitrite 354.1 (1971), Hex Cr 7196A (1992), NH4+ 350.1 (Rev.2 1993) – All anions comparable to BS ISO 15923-1: 2013l	PM20	Extraction of dried and ground or as received samples with deionised water in a 2:1 water to solid ratio using a reciprocal shaker for all analytes except hexavalent chromium. Extraction of as received sample using 10:1 ratio of 0.2M sodium hydroxide to soil for hexavalent chromium using a reciprocal shaker.	Yes		AD	Yes

EMT Job No: 22/1512

Test Method No.	Description	Prep Method No. (if appropriate)	Description	ISO 17025 (UKAS/SANAS)	MCERTS (UK soils only)	Analysis done on As Received (AR) or Dried (AD)	Reported on dry weight basis
TM38	Soluble Ion analysis using Discrete Analyser. Modified US EPA methods: Chloride 325.2 (1978), Sulphate 375.4 (Rev.2 1993), o-Phosphate 365.2 (Rev.2 1993), TON 353.1 (Rev.2 1993), Nitrite 354.1 (1971), Hex Cr 7196A (1992), NH4+ 350.1 (Rev.2 1993) – All anions comparable to BS ISO 15923-1: 2013l	PM20	Extraction of dried and ground or as received samples with deionised water in a 2:1 water to solid ratio using a reciprocal shaker for all analytes except hexavalent chromium. Extraction of as received sample using 10:1 ratio of 0.2M sodium hydroxide to soil for hexavalent chromium using a reciprocal shaker.	Yes		AR	Yes
TM60	TC/TOC analysis of Waters by High Temperature Combustion followed by NDIR detection. Based on the following modified standard methods: USEPA 9060A (2002), APHA SMEWW 5310B:1999 22nd Edition, ASTM D 7573, and USEPA 415.1.	PM0	No preparation is required.			AR	Yes
TM65	Asbestos Bulk Identification method based on HSG 248 Second edition (2021)	PM42	Modified SCA Blue Book V.12 draft 2017 and WM3 1st Edition v1.1:2018. Solid samples undergo a thorough visual inspection for asbestos fibres prior to asbestos identification using TM065.	Yes		AR	
TM73	Modified US EPA methods 150.1 (1982) and 9045D Rev. 4 - 2004) and BS1377-3:1990. Determination of pH by Metrohm automated probe analyser.	PM11	Extraction of as received solid samples using one part solid to 2.5 parts deionised water.	Yes		AR	No
TM74	Analysis of water soluble boron (20:1 extract) by ICP-OES.	PM32	Hot water soluble boron is extracted from dried and ground samples using a 20:1 ratio.	Yes		AD	Yes
TM77	Modified DDCEN/TS method 15364:2006. Determination of Acid Neutralization Capacity by Metrohm automated probe analyser.	PM0	No preparation is required.			AR	No
TM89	Modified USEPA method OIA-1667 (1999). Determination of cyanide by Flow Injection Analyser. Where WAD cyanides are required a Ligand displacement step is carried out before analysis.	PM45	As received solid samples are extracted with 1M NaOH by orbital shaker for Cyanide, Sulphide and Thiocyanate analysis.	Yes		AR	Yes
TM170	Determination of Trace Metals by ICP-MS (Inductively Coupled Plasma – Mass Spectrometry): Modified USEPA Method 200.8, Rev. 5.4, 1994; Modified EPA Method 6020A, Rev.1, Feb 2007; Modified BS EN ISO 17294-2:2016	PM14	Preparation of waters and leachates for metals by ICP OES/ICP MS. Samples are filtered for Dissolved metals, and remain unfiltered for Total metals then acidified			AR	Yes
TM173	Analysis of fluoride by ISE (Ion Selective Electrode) using modified ISE method 9214 - 340.2 (EPA 1998)	PM0	No preparation is required.			AR	Yes
NONE	No Method Code	PM4	Gravimetric measurement of Natural Moisture Content and % Moisture Content at either 35°C or 105°C. Calculation based on ISO 11465:1993(E) and BS1377-2:1990.			AR	

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Manchester
M28 8EE

Attention :	Connor Hastings
Date :	23rd February, 2022
Your reference :	GRO-21190
Our reference :	Test Report 22/1512 Batch 2
Location :	Holbeach
Date samples received :	10th February, 2022
Status :	Final Report
Issue :	1

Sixteen samples were received for analysis on 10th February, 2022 of which ten were scheduled for analysis. Please find attached our Test Report which should be read with notes at the end of the report and should include all sections if reproduced. Interpretations and opinions are outside the scope of any accreditation, and all results relate only to samples supplied.
All analysis is carried out on as received samples and reported on a dry weight basis unless stated otherwise. Results are not surrogate corrected.

Authorised By:

Bruce Leslie
Project Manager

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Registered in England and Wales
Registered Office: 3rd Floor Davidson Building, 5 Southampton Street, London WC2E 7HA
Company Registration No: 11371415

Client Name: Groundtech Consulting Limited
Reference: GRO-21190
Location: Holbeach
Contact: Connor Hastings
EMT Job No: 22/1512

Report : Solid

Solids: V=60g VOC jar, J=250g glass jar, T=plastic tub

EMT Sample No.	40-41	42-44	45-47	48-49	53-55	56	57-59	60-62	63	64-66	LOD/LOR	Units	Method No.
Sample ID	WS09	WS10	WS12	WS13	WS14	SUDS1	SUDS2	SUDS2	SUDS2	SUDS2A			
Depth	0.20	0.30	0.30	0.30	0.50	0.30	0.20	0.80	1.20	0.10			
COC No / misc													
Containers	J T	V J T	V J T	J T	V J T	T	V J	V J T	T	T V J			
Sample Date	26/01/2022	26/01/2022	27/01/2022	27/01/2022	27/01/2022	27/01/2022	27/01/2022	27/01/2022	27/01/2022	27/01/2022			
Sample Type	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil			
Batch Number	2	2	2	2	2	2	2	2	2	2			
Date of Receipt	10/02/2022	10/02/2022	10/02/2022	10/02/2022	10/02/2022	10/02/2022	10/02/2022	10/02/2022	10/02/2022	10/02/2022			
Arsenic #	9.0	4.0	10.7	13.0	3.2	7.1	9.1	11.7	7.9	12.2	<0.5	mg/kg	TM30/PM15
Cadmium #	0.2	<0.1	0.3	0.2	<0.1	<0.1	<0.1	<0.1	<0.1	0.4	<0.1	mg/kg	TM30/PM15
Chromium #	26.1	20.7	55.4	46.7	18.8	23.1	84.6	43.3	35.6	44.4	<0.5	mg/kg	TM30/PM15
Copper #	25	34	44	7	15	13	19	27	15	24	<1	mg/kg	TM30/PM15
Lead #	12	<5	597	9	<5	53	29	21	20	80	<5	mg/kg	TM30/PM15
Mercury #	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	<0.1	<0.1	mg/kg	TM30/PM15
Nickel #	10.7	5.3	29.4	12.6	4.7	9.4	16.2	14.1	12.9	18.5	<0.7	mg/kg	TM30/PM15
Water Soluble Boron #	1.2	0.3	0.6	0.6	0.2	1.0	3.7	3.1	2.6	1.6	<0.1	mg/kg	TM74/PM32
Zinc #	117	34	132	55	27	35	50	59	39	156	<5	mg/kg	TM30/PM15
PAH MS													
Naphthalene #	<0.04	<0.04	<0.04	<0.04	<0.04	0.05	0.62	0.28	1.31	<0.04	<0.04	mg/kg	TM4/PM8
Acenaphthylene	0.28	0.06	<0.03	<0.03	0.07	0.17	0.08	<0.03	0.08	0.04	<0.03	mg/kg	TM4/PM8
Acenaphthene #	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	mg/kg	TM4/PM8
Fluorene #	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	0.10	<0.04	0.19	<0.04	<0.04	mg/kg	TM4/PM8
Phenanthrene #	0.06	<0.03	0.04	<0.03	<0.03	0.19	0.31	0.20	0.56	0.31	<0.03	mg/kg	TM4/PM8
Anthracene #	0.09	<0.04	<0.04	<0.04	<0.04	0.13	<0.04	<0.04	<0.04	0.10	<0.04	mg/kg	TM4/PM8
Fluoranthene #	0.38	0.04	0.15	0.09	<0.03	1.25	0.34	0.11	0.30	0.76	<0.03	mg/kg	TM4/PM8
Pyrene #	0.44	0.05	0.16	0.07	0.06	1.20	0.27	0.08	0.19	0.63	<0.03	mg/kg	TM4/PM8
Benzo(a)anthracene #	0.23	<0.06	0.11	0.09	<0.06	0.89	0.18	<0.06	0.10	0.36	<0.06	mg/kg	TM4/PM8
Chrysene #	0.39	0.06	0.13	0.09	0.06	0.91	0.17	0.04	0.08	0.36	<0.02	mg/kg	TM4/PM8
Benzo(bk)fluoranthene #	0.87	0.11	0.26	0.21	0.12	1.84	0.24	<0.07	0.10	0.64	<0.07	mg/kg	TM4/PM8
Benzo(a)pyrene #	0.49	0.06	0.11	0.12	0.06	0.89	0.11	<0.04	<0.04	0.36	<0.04	mg/kg	TM4/PM8
Indeno(123cd)pyrene #	0.41	0.05	0.14	0.13	0.07	0.87	0.08	<0.04	<0.04	0.32	<0.04	mg/kg	TM4/PM8
Dibenzo(ah)anthracene #	0.09	<0.04	<0.04	<0.04	<0.04	0.13	<0.04	<0.04	<0.04	0.05	<0.04	mg/kg	TM4/PM8
Benzo(ghi)perylene #	0.45	0.07	0.11	0.13	0.11	0.63	0.07	<0.04	<0.04	0.28	<0.04	mg/kg	TM4/PM8
Coronene	0.10	<0.04	<0.04	<0.04	<0.04	0.12	<0.04	<0.04	<0.04	0.05	<0.04	mg/kg	TM4/PM8
PAH 17 Total	4.28	<0.64	1.21	0.93	<0.64	9.27	2.57	0.71	2.91	4.26	<0.64	mg/kg	TM4/PM8
Benzo(b)fluoranthene	0.63	0.08	0.19	0.15	0.09	1.32	0.17	<0.05	0.07	0.46	<0.05	mg/kg	TM4/PM8
Benzo(k)fluoranthene	0.24	0.03	0.07	0.06	0.03	0.52	0.07	<0.02	0.03	0.18	<0.02	mg/kg	TM4/PM8
PAH Surrogate % Recovery	93	93	92	91	92	72	77	90	97	94	<0	%	TM4/PM8
EPH (C8-C40) (EH_1D_Total) #	3952	591	92	<30	1084	531	762	1351	1719	162	<30	mg/kg	TM5/PM8
Mineral Oil (C10-C40) (EH_CU_1D_AL)	-	-	41	-	30	-	-	397	-	-	<30	mg/kg	TM5/PM8/PM16

Please see attached notes for all abbreviations and acronyms

Client Name: Groundtech Consulting Limited
Reference: GRO-21190
Location: Holbeach
Contact: Connor Hastings
EMT Job No: 22/1512

Report : Solid

Solids: V=60g VOC jar, J=250g glass jar, T=plastic tub

EMT Sample No.	40-41	42-44	45-47	48-49	53-55	56	57-59	60-62	63	64-66	LOD/LOR	Units	Method No.
Sample ID	WS09	WS10	WS12	WS13	WS14	SUDS1	SUDS2	SUDS2	SUDS2	SUDS2A			
Depth	0.20	0.30	0.30	0.30	0.50	0.30	0.20	0.80	1.20	0.10			
COC No / misc													
Containers	J T	V J T	V J T	J T	V J T	T	V J	V J T	T	T V J			
Sample Date	26/01/2022	26/01/2022	27/01/2022	27/01/2022	27/01/2022	27/01/2022	27/01/2022	27/01/2022	27/01/2022	27/01/2022			
Sample Type	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil			
Batch Number	2	2	2	2	2	2	2	2	2	2			
Date of Receipt	10/02/2022	10/02/2022	10/02/2022	10/02/2022	10/02/2022	10/02/2022	10/02/2022	10/02/2022	10/02/2022	10/02/2022			
TPH CWG													
Aliphatics													
>C5-C6 (HS_1D_AL)#	-	-	<0.1	-	<0.1	-	-	<0.1	<0.1	-	<0.1	mg/kg	TM36/PM12
>C6-C8 (HS_1D_AL)#	-	-	<0.1	-	<0.1	-	-	0.1	0.1	-	<0.1	mg/kg	TM36/PM12
>C8-C10 (HS_1D_AL)	-	-	<0.1	-	<0.1	-	-	2.8	5.5	-	<0.1	mg/kg	TM36/PM12
>C10-C12 (EH_CU_1D_AL)#	-	-	<0.2	-	<0.2	-	-	105.5	109.7	-	<0.2	mg/kg	TM5/PM8/PM16
>C12-C16 (EH_CU_1D_AL)#	-	-	<4	-	<4	-	-	237	253	-	<4	mg/kg	TM5/PM8/PM16
>C16-C21 (EH_CU_1D_AL)#	-	-	<7	-	<7	-	-	20	25	-	<7	mg/kg	TM5/PM8/PM16
>C21-C35 (EH_CU_1D_AL)#	-	-	41	-	30	-	-	34	25	-	<7	mg/kg	TM5/PM8/PM16
Total aliphatics C5-35 (EH+HS_CU_1D_AL)	-	-	41	-	30	-	-	399	418	-	<19	mg/kg	TM5/TM36/PM8/PM12/PM16
Aromatics													
>C5-EC7 (HS_1D_AR)#	-	-	<0.1	-	<0.1	-	-	<0.1	<0.1	-	<0.1	mg/kg	TM36/PM12
>EC7-EC8 (HS_1D_AR)#	-	-	<0.1	-	<0.1	-	-	<0.1	<0.1	-	<0.1	mg/kg	TM36/PM12
>EC8-EC10 (HS_1D_AR)#	-	-	<0.1	-	<0.1	-	-	<0.1	0.3	-	<0.1	mg/kg	TM36/PM12
>EC10-EC12 (EH_CU_1D_AR)#	-	-	<0.2	-	<0.2	-	-	59.4	48.1	-	<0.2	mg/kg	TM5/PM8/PM16
>EC12-EC16 (EH_CU_1D_AR)#	-	-	<4	-	<4	-	-	120	110	-	<4	mg/kg	TM5/PM8/PM16
>EC16-EC21 (EH_CU_1D_AR)#	-	-	<7	-	<7	-	-	44	28	-	<7	mg/kg	TM5/PM8/PM16
>EC21-EC35 (EH_CU_1D_AR)#	-	-	41	-	82	-	-	127	52	-	<7	mg/kg	TM5/PM8/PM16
Total aromatics C5-35 (EH+HS_CU_1D_AR)#	-	-	41	-	82	-	-	350	238	-	<19	mg/kg	TM5/TM36/PM8/PM12/PM16
Total aliphatics and aromatics(C5-35) (EH+HS_CU_1D_Total)	-	-	82	-	112	-	-	749	656	-	<38	mg/kg	TM5/TM36/PM8/PM12/PM16
MTBE#	-	-	<5	-	<5	-	-	<5	<5	-	<5	ug/kg	TM36/PM12
Benzene#	-	-	<5	-	<5	-	-	<5	<5	-	<5	ug/kg	TM36/PM12
Toluene#	-	-	<5	-	<5	-	-	<5	12	-	<5	ug/kg	TM36/PM12
Ethylbenzene#	-	-	<5	-	<5	-	-	<5	14	-	<5	ug/kg	TM36/PM12
m/p-Xylene#	-	-	<5	-	<5	-	-	<5	120	-	<5	ug/kg	TM36/PM12
o-Xylene#	-	-	<5	-	<5	-	-	30	73	-	<5	ug/kg	TM36/PM12
PCB 28#	-	-	<5 SV	-	<5	-	-	<5	-	-	<5	ug/kg	TM17/PM8
PCB 52#	-	-	<5 SV	-	<5	-	-	<5	-	-	<5	ug/kg	TM17/PM8
PCB 101#	-	-	<5 SV	-	<5	-	-	<5	-	-	<5	ug/kg	TM17/PM8
PCB 118#	-	-	<5 SV	-	<5	-	-	<5	-	-	<5	ug/kg	TM17/PM8
PCB 138#	-	-	<5 SV	-	<5	-	-	<5	-	-	<5	ug/kg	TM17/PM8
PCB 153#	-	-	<5 SV	-	<5	-	-	<5	-	-	<5	ug/kg	TM17/PM8
PCB 180#	-	-	<5 SV	-	<5	-	-	<5	-	-	<5	ug/kg	TM17/PM8
Total 7 PCBs#	-	-	<35 SV	-	<35	-	-	<35	-	-	<35	ug/kg	TM17/PM8
Phenol#	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.04	<0.01	<0.01	<0.01	mg/kg	TM26/PM21B
Natural Moisture Content	7.5	6.8	8.0	6.8	6.3	18.7	41.6	41.0	37.5	22.7	<0.1	%	PM4/PM0
Hexavalent Chromium#	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	mg/kg	TM38/PM20
Sulphate as SO4 (2:1 Ext)#	0.1466	0.0149	0.0135	0.0322	0.0294	0.0161	0.0458	0.0238	0.0303	0.0340	<0.0015	g/l	TM38/PM20

Please see attached notes for all abbreviations and acronyms

Element Materials Technology

Client Name: Groundtech Consulting Limited
Reference: GRO-21190
Location: Holbeach
Contact: Connor Hastings
EMT Job No: 22/1512

Report : Solid

Solids: V=60g VOC jar, J=250g glass jar, T=plastic tub

EMT Sample No.	40-41	42-44	45-47	48-49	53-55	56	57-59	60-62	63	64-66	LOD/LOR	Units	Method No.
Sample ID	WS09	WS10	WS12	WS13	WS14	SUDS1	SUDS2	SUDS2	SUDS2	SUDS2A			
Depth	0.20	0.30	0.30	0.30	0.50	0.30	0.20	0.80	1.20	0.10			
COC No / misc													
Containers	J T	V J T	V J T	J T	V J T	T	V J	V J T	T	T V J			
Sample Date	26/01/2022	26/01/2022	27/01/2022	27/01/2022	27/01/2022	27/01/2022	27/01/2022	27/01/2022	27/01/2022	27/01/2022			
Sample Type	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil			
Batch Number	2	2	2	2	2	2	2	2	2	2			
Date of Receipt	10/02/2022	10/02/2022	10/02/2022	10/02/2022	10/02/2022	10/02/2022	10/02/2022	10/02/2022	10/02/2022	10/02/2022			
Total Cyanide #	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	mg/kg	TM89/PM45
Total Organic Carbon #	-	-	1.58	-	0.57	-	-	1.08	-	-	<0.02	%	TM21/PM24
Organic Matter	1.9	1.1	2.7	0.3	1.0	1.4	2.3	1.9	1.4	2.4	<0.2	%	TM21/PM24
ANC at pH4	-	-	0.43	-	4.72	-	-	0.82	-	-	<0.03	mol/kg	TM77/PM0
ANC at pH7	-	-	0.03	-	0.08	-	-	0.04	-	-	<0.03	mol/kg	TM77/PM0
Loss on Ignition #	-	-	2.0	-	1.0	-	-	3.5	-	-	<1.0	%	TM22/PM0
pH #	11.03	8.62	8.28	8.56	8.54	8.21	7.53	7.53	7.62	7.92	<0.01	pH units	TM73/PM11

Please see attached notes for all abbreviations and acronyms

Please include all sections of this report if it is reproduced
All solid results are expressed on a dry weight basis unless stated otherwise.

CEN 10:1 LEACHATE RESULTS BS EN 12547-2

Mass of sample taken (kg)	-	Moisture Content Ratio (%) =	10.9
Mass of dry sample (kg) =	0.09	Dry Matter Content Ratio (%) =	90.2
Particle Size <4mm =	>95%		

		Landfill Waste Acceptance Criteria Limits		
EMT Job No	**22/1512**			
Sample No	**47**			
Client Sample No	**WS12**	**Inert Waste Landfill**	**Stable Non-reactive Hazardous Waste in Non-Hazardous Landfill**	**Hazardous Waste Landfill**
Depth/Other	**0.30**			
Sample Date	**27/01/2022**			
Batch No	**2**			
Solid Waste Analysis				
Total Organic Carbon (%)	1.58	3	5	6
Loss on Ignition (%)	2.0	-	-	10
Sum of BTEX (mg/kg)	<0.025	6	-	-
Sum of 7 PCBs (mg/kg)	<0.035	1	-	-
Mineral Oil (mg/kg) (EH_CU_1D_AL)	41	500	-	-
PAH Sum of 17(mg/kg)	1.21	100	-	-
pH (pH Units)	8.28	-	>6	-
ANC to pH 7 (mol/kg)	0.03	-	to be evaluated	to be evaluated
ANC to pH 4 (mol/kg)	0.43	-	to be evaluated	to be evaluated

Eluate Analysis	**10:1 conc^{n} leached**		**Limit values for compliance leaching test using BS EN 12457-2 at L/S 10 l/kg**		
	C_{10}	**A_{10}**			
	mg/l	**mg/kg**	**mg/kg**		
Arsenic	0.0034	0.034	0.5	2	25
Barium	0.008	0.08	20	100	300
Cadmium	<0.0005	<0.005	0.04	1	5
Chromium	<0.0015	<0.015	0.5	10	70
Copper	<0.007	<0.07	2	50	100
Mercury	<0.001	<0.01	0.01	0.2	2
Molybdenum	0.005	0.05	0.5	10	30
Nickel	<0.002	<0.02	0.4	10	40
Lead	0.027	0.27	0.5	10	50
Antimony	<0.002	<0.02	0.06	0.7	5
Selenium	<0.003	<0.03	0.1	0.5	7
Zinc	0.008	0.08	4	50	200
Chloride	0.6	6	800	15000	25000
Fluoride	<0.3	<3	10	150	500
Sulphate as SO4	3.2	32	1000	20000	50000
Total Dissolved Solids	42	420	4000	60000	100000
Phenol	<0.01	<0.1	1	-	-
Dissolved Organic Carbon	<2	<20	500	800	1000

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All solid results are expressed on a dry weight basis unless stated otherwise.

CEN 10:1 LEACHATE RESULTS BS EN 12547-2

Mass of sample taken (kg)	-	Moisture Content Ratio (%) =	12.9
Mass of dry sample (kg) =	0.09	Dry Matter Content Ratio (%) =	88.6
Particle Size <4mm =	>95%		

		Landfill Waste Acceptance Criteria Limits		
EMT Job No	**22/1512**			
Sample No	**55**			
Client Sample No	**WS14**	**Inert Waste Landfill**	**Stable Non-reactive Hazardous Waste in Non-Hazardous Landfill**	**Hazardous Waste Landfill**
Depth/Other	**0.50**			
Sample Date	**27/01/2022**			
Batch No	**2**			
Solid Waste Analysis				
Total Organic Carbon (%)	0.57	3	5	6
Loss on Ignition (%)	1.0	-	-	10
Sum of BTEX (mg/kg)	<0.025	6	-	-
Sum of 7 PCBs (mg/kg)	<0.035	1	-	-
Mineral Oil (mg/kg) (EH_CU_1D_AL)	30	500	-	-
PAH Sum of 17(mg/kg)	<0.64	100	-	-
pH (pH Units)	8.54	-	>6	-
ANC to pH 7 (mol/kg)	0.08	-	to be evaluated	to be evaluated
ANC to pH 4 (mol/kg)	4.72	-	to be evaluated	to be evaluated

Eluate Analysis	**10:1 conc^{n} leached**		**Limit values for compliance leaching test using BS EN 12457-2 at L/S 10 l/kg**		
	C_{10}	**A_{10}**			
	mg/l	**mg/kg**	**mg/kg**		
Arsenic	<0.0025	<0.025	0.5	2	25
Barium	<0.003	<0.03	20	100	300
Cadmium	<0.0005	<0.005	0.04	1	5
Chromium	<0.0015	<0.015	0.5	10	70
Copper	<0.007	<0.07	2	50	100
Mercury	<0.001	<0.01	0.01	0.2	2
Molybdenum	0.003	0.03	0.5	10	30
Nickel	<0.002	<0.02	0.4	10	40
Lead	<0.005	<0.05	0.5	10	50
Antimony	<0.002	<0.02	0.06	0.7	5
Selenium	<0.003	<0.03	0.1	0.5	7
Zinc	<0.003	<0.03	4	50	200
Chloride	<0.3	<3	800	15000	25000
Fluoride	<0.3	<3	10	150	500
Sulphate as SO4	4.5	45	1000	20000	50000
Total Dissolved Solids	35	<350	4000	60000	100000
Phenol	<0.01	<0.1	1	-	-
Dissolved Organic Carbon	2	<20	500	800	1000

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All solid results are expressed on a dry weight basis unless stated otherwise.

CEN 10:1 LEACHATE RESULTS BS EN 12547-2

Mass of sample taken (kg)	-	Moisture Content Ratio (%) =	46.9
Mass of dry sample (kg) =	0.09	Dry Matter Content Ratio (%) =	68.1
Particle Size <4mm =	>95%		

		Landfill Waste Acceptance Criteria Limits		
EMT Job No	**22/1512**			
Sample No	**62**			
Client Sample No	**SUDS2**	**Inert Waste Landfill**	**Stable Non-reactive Hazardous Waste in Non-Hazardous Landfill**	**Hazardous Waste Landfill**
Depth/Other	**0.80**			
Sample Date	**27/01/2022**			
Batch No	**2**			
Solid Waste Analysis				
Total Organic Carbon (%)	1.08	3	5	6
Loss on Ignition (%)	3.5	-	-	10
Sum of BTEX (mg/kg)	0.030	6	-	-
Sum of 7 PCBs (mg/kg)	<0.035	1	-	-
Mineral Oil (mg/kg) (EH_CU_1D_AL)	397	500	-	-
PAH Sum of 17(mg/kg)	0.71	100	-	-
pH (pH Units)	7.53	-	>6	-
ANC to pH 7 (mol/kg)	0.04	-	to be evaluated	to be evaluated
ANC to pH 4 (mol/kg)	0.82	-	to be evaluated	to be evaluated

Eluate Analysis	**10:1 conc^{n} leached**		**Limit values for compliance leaching test using BS EN 12457-2 at L/S 10 l/kg**		
	C_{10}	**A_{10}**			
	mg/l	**mg/kg**	**mg/kg**		
Arsenic	0.0037	0.037	0.5	2	25
Barium	0.051	0.51	20	100	300
Cadmium	<0.0005	<0.005	0.04	1	5
Chromium	<0.0015	<0.015	0.5	10	70
Copper	<0.007	<0.07	2	50	100
Mercury	<0.001	<0.01	0.01	0.2	2
Molybdenum	0.042	0.42	0.5	10	30
Nickel	<0.002	<0.02	0.4	10	40
Lead	<0.005	<0.05	0.5	10	50
Antimony	<0.002	<0.02	0.06	0.7	5
Selenium	<0.003	<0.03	0.1	0.5	7
Zinc	<0.003	<0.03	4	50	200
Chloride	2.3	23	800	15000	25000
Fluoride	<0.3	<3	10	150	500
Sulphate as SO4	17.0	170	1000	20000	50000
Total Dissolved Solids	160	1600	4000	60000	100000
Phenol	<0.01	<0.1	1	-	-
Dissolved Organic Carbon	9	90	500	800	1000

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All solid results are expressed on a dry weight basis unless stated otherwise.

Client Name: Groundtech Consulting Limited
Reference: GRO-21190
Location: Holbeach
Contact: Connor Hastings

Note:

Asbestos Screen analysis is carried out in accordance with our documented in-house methods PM042 and TM065 and HSG 248 by Stereo and Polarised Light Microscopy using Dispersion Staining Techniques and is covered by our UKAS accreditation. Detailed Gravimetric Quantification and PCOM Fibre Analysis is carried out in accordance with our documented in-house methods PM042 and TM131 and HSG 248 using Stereo and Polarised Light Microscopy and Phase Contrast Optical Microscopy (PCOM). Asbestos sub-samples are retained for not less than 6 months from the date of analysis unless specifically requested.

The LOQ of the Asbestos Quantification is 0.001% dry fibre of dry mass of sample.

Where the sample is not taken by a Element Materials Technology consultant, Element Materials Technology cannot be responsible for inaccurate or unrepresentative sampling.

EMT Job No.	Batch	Sample ID	Depth	EMT Sample No.	Analyst Name	Date Of Analysis	Analysis	Result
22/1512	2	WS09	0.20	41	Andrew Alker	19/02/2022	**General Description (Bulk Analysis)**	soil
					Andrew Alker	19/02/2022	**Asbestos Fibres**	NAD
					Andrew Alker	19/02/2022	**Asbestos Fibres (2)**	NAD
					Andrew Alker	19/02/2022	**Asbestos ACM**	NAD
					Andrew Alker	19/02/2022	**Asbestos ACM (2)**	NAD
					Andrew Alker	19/02/2022	**Asbestos Type**	NAD
					Andrew Alker	19/02/2022	**Asbestos Type (2)**	NAD
22/1512	2	WS10	0.30	44	Andrew Alker	19/02/2022	**General Description (Bulk Analysis)**	soil
					Andrew Alker	19/02/2022	**Asbestos Fibres**	NAD
					Andrew Alker	19/02/2022	**Asbestos Fibres (2)**	NAD
					Andrew Alker	19/02/2022	**Asbestos ACM**	NAD
					Andrew Alker	19/02/2022	**Asbestos ACM (2)**	NAD
					Andrew Alker	19/02/2022	**Asbestos Type**	NAD
					Andrew Alker	19/02/2022	**Asbestos Type (2)**	NAD
22/1512	2	WS12	0.30	46	Kevin Hughes	18/02/2022	**General Description (Bulk Analysis)**	soil
					Kevin Hughes	18/02/2022	**Asbestos Fibres**	NAD
					Kevin Hughes	18/02/2022	**Asbestos ACM**	NAD
					Kevin Hughes	18/02/2022	**Asbestos Type**	NAD
22/1512	2	WS13	0.30	49	Andrew Alker	19/02/2022	**General Description (Bulk Analysis)**	soil
					Andrew Alker	19/02/2022	**Asbestos Fibres**	NAD
					Andrew Alker	19/02/2022	**Asbestos Fibres (2)**	NAD
					Andrew Alker	19/02/2022	**Asbestos ACM**	NAD
					Andrew Alker	19/02/2022	**Asbestos ACM (2)**	NAD
					Andrew Alker	19/02/2022	**Asbestos Type**	NAD
					Andrew Alker	19/02/2022	**Asbestos Type (2)**	NAD
22/1512	2	WS14	0.50	54	Kevin Hughes	19/02/2022	**General Description (Bulk Analysis)**	soil
					Kevin Hughes	19/02/2022	**Asbestos Fibres**	NAD
					Kevin Hughes	19/02/2022	**Asbestos ACM**	NAD
					Kevin Hughes	19/02/2022	**Asbestos Type**	NAD
22/1512	2	SUDS1	0.30	56	Kevin Hughes	18/02/2022	**General Description (Bulk Analysis)**	soil
					Kevin Hughes	18/02/2022	**Asbestos Fibres**	NAD
					Kevin Hughes	18/02/2022	**Asbestos ACM**	NAD
					Kevin Hughes	18/02/2022	**Asbestos Type**	NAD

Client Name: Groundtech Consulting Limited
Reference: GRO-21190
Location: Holbeach
Contact: Connor Hastings

EMT Job No.	Batch	Sample ID	Depth	EMT Sample No.	Analyst Name	Date Of Analysis	Analysis	Result
22/1512	2	SUDS2	0.20	59	Andrew Alker	19/02/2022	**General Description (Bulk Analysis)**	soil
					Andrew Alker	19/02/2022	**Asbestos Fibres**	NAD
					Andrew Alker	19/02/2022	**Asbestos Fibres (2)**	NAD
					Andrew Alker	19/02/2022	**Asbestos ACM**	NAD
					Andrew Alker	19/02/2022	**Asbestos ACM (2)**	NAD
					Andrew Alker	19/02/2022	**Asbestos Type**	NAD
					Andrew Alker	19/02/2022	**Asbestos Type (2)**	NAD
22/1512	2	SUDS2	0.80	61	Andrew Alker	18/02/2022	**General Description (Bulk Analysis)**	soil
					Andrew Alker	18/02/2022	**Asbestos Fibres**	NAD
					Andrew Alker	18/02/2022	**Asbestos ACM**	NAD
					Andrew Alker	18/02/2022	**Asbestos Type**	NAD
22/1512	2	SUDS2	1.20	63	Andrew Alker	18/02/2022	**General Description (Bulk Analysis)**	soil
					Andrew Alker	18/02/2022	**Asbestos Fibres**	NAD
					Andrew Alker	18/02/2022	**Asbestos ACM**	NAD
					Andrew Alker	18/02/2022	**Asbestos Type**	NAD
22/1512	2	SUDS2A	0.10	64	Andrew Alker	19/02/2022	**General Description (Bulk Analysis)**	soil
					Andrew Alker	19/02/2022	**Asbestos Fibres**	NAD
					Andrew Alker	19/02/2022	**Asbestos Fibres (2)**	NAD
					Andrew Alker	19/02/2022	**Asbestos ACM**	NAD
					Andrew Alker	19/02/2022	**Asbestos ACM (2)**	NAD
					Andrew Alker	19/02/2022	**Asbestos Type**	NAD
					Andrew Alker	19/02/2022	**Asbestos Type (2)**	NAD

Client Name: Groundtech Consulting Limited

Reference: GRO-21190

Location: Holbeach

Contact: Connor Hastings

Matrix : Solid

EMT Job No.	Batch	Sample ID	Depth	EMT Sample No.	Analysis	Reason
22/1512	2	WS09	0.20	40-41	Cyanide, EPH, PAH, Phenols	Sample holding time exceeded prior to receipt
22/1512	2	WS10	0.30	42-44	Cyanide, EPH, PAH, Phenols	Sample holding time exceeded prior to receipt
22/1512	2	WS12	0.30	45-47	PAH, PCB	Sample holding time exceeded
22/1512	2	WS13	0.30	48-49	PAH	Sample holding time exceeded
22/1512	2	WS14	0.50	53-55	PAH, PCB	Sample holding time exceeded
22/1512	2	SUDS1	0.30	56	EPH	Sample received in inappropriate container
22/1512	2	SUDS1	0.30	56	PAH	Sample holding time exceeded
22/1512	2	SUDS2	0.20	57-59	PAH	Sample holding time exceeded
22/1512	2	SUDS2	0.80	60-62	PAH, PCB	Sample holding time exceeded
22/1512	2	SUDS2	1.20	63	EPH	Sample received in inappropriate container
22/1512	2	SUDS2	1.20	63	PAH	Sample holding time exceeded
22/1512	2	SUDS2A	0.10	64-66	PAH	Sample holding time exceeded

Please note that only samples that are deviating are mentioned in this report. If no samples are listed it is because none were deviating.

Only analyses which are accredited are recorded as deviating if set criteria are not met.

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SOILS and ASH

Please note we are only MCERTS accredited (UK soils only) for sand, loam and clay and any other matrix is outside our scope of accreditation.

Where an MCERTS report has been requested, you will be notified within 48 hours of any samples that have been identified as being outside our MCERTS scope. As validation has been performed on clay, sand and loam, only samples that are predominantly these matrices, or combinations of them will be within our MCERTS scope. If samples are not one of a combination of the above matrices they will not be marked as MCERTS accredited.

It is assumed that you have taken representative samples on site and require analysis on a representative subsample. Stones will generally be included unless we are requested to remove them.

All samples will be discarded one month after the date of reporting, unless we are instructed to the contrary. Asbestos samples are retained for 6 months.

If you have not already done so, please send us a purchase order if this is required by your company.

Where appropriate please make sure that our detection limits are suitable for your needs, if they are not, please notify us immediately.

All analysis is reported on a dry weight basis unless stated otherwise. Limits of detection for analyses carried out on as received samples are not moisture content corrected. Results are not surrogate corrected. Samples are dried at 35°C ±5°C unless otherwise stated. Moisture content for CEN Leachate tests are dried at 105°C ±5°C. Ash samples are dried at 37°C ±5°C.

Where Mineral Oil or Fats, Oils and Grease is quoted, this refers to Total Aliphatics C10-C40.

Where a CEN 10:1 ZERO Headspace VOC test has been carried out, a 10:1 ratio of water to wet (as received) soil has been used.

% Asbestos in Asbestos Containing Materials (ACMs) is determined by reference to HSG 264 The Survey Guide - Appendix 2 : ACMs in buildings listed in order of ease of fibre release.

Sufficient amount of sample must be received to carry out the testing specified. Where an insufficient amount of sample has been received the testing may not meet the requirements of our accredited methods, as such accreditation may be removed.

Negative Neutralization Potential (NP) values are obtained when the volume of NaOH (0.1N) titrated (pH 8.3) is greater than the volume of HCl (1N) to reduce the pH of the sample to 2.0 - 2.5. Any negative NP values are corrected to 0.

The calculation of Pyrite content assumes that all oxidisable sulphides present in the sample are pyrite. This may not be the case. The calculation may be an overesitimate when other sulphides such as Barite (Barium Sulphate) are present.

WATERS

Please note we are not a UK Drinking Water Inspectorate (DWI) Approved Laboratory .

ISO17025 accreditation applies to surface water and groundwater and usually one other matrix which is analysis specific, any other liquids are outside our scope of accreditation.

As surface waters require different sample preparation to groundwaters the laboratory must be informed of the water type when submitting samples.

Where Mineral Oil or Fats, Oils and Grease is quoted, this refers to Total Aliphatics C10-C40.

STACK EMISSIONS

Where an MCERTS report has been requested, you will be notified within 48 hours of any samples that have been identified as being outside our MCERTS scope. As validation for Dioxins and Furans and Dioxin like PCBs has been performed on XAD-2 Resin, only samples which use this resin will be within our MCERTS scope.

Where appropriate please make sure that our detection limits are suitable for your needs, if they are not, please notify us immediately.

DEVIATING SAMPLES

All samples should be submitted to the laboratory in suitable containers with sufficient ice packs to sustain an appropriate temperature for the requested analysis. The temperature of sample receipt is recorded on the confirmation schedules in order that the client can make an informed decision as to whether testing should still be undertaken.

SURROGATES

Surrogate compounds are added during the preparation process to monitor recovery of analytes. However low recovery in soils is often due to peat, clay or other organic rich matrices. For waters this can be due to oxidants, surfactants, organic rich sediments or remediation fluids. Acceptable limits for most organic methods are 70 - 130% and for VOCs are 50 - 150%. When surrogate recoveries are outside the performance criteria but the associated AQC passes this is assumed to be due to matrix effect. Results are not surrogate corrected.

DILUTIONS

A dilution suffix indicates a dilution has been performed and the reported result takes this into account. No further calculation is required.

BLANKS

Where analytes have been found in the blank, the sample will be treated in accordance with our laboratory procedure for dealing with contaminated blanks.

NOTE

Data is only reported if the laboratory is confident that the data is a true reflection of the samples analysed. Data is only reported as accredited when all the requirements of our Quality System have been met. In certain circumstances where all the requirements of the Quality System have not been met, for instance if the associated AQC has failed, the reason is fully investigated and documented. The sample data is then evaluated alongside the other quality control checks performed during analysis to determine its suitability. Following this evaluation, provided the sample results have not been effected, the data is reported but accreditation is removed. It is a UKAS requirement for data not reported as accredited to be considered indicative only, but this does not mean the data is not valid.
Where possible, and if requested, samples will be re-extracted and a revised report issued with accredited results. Please do not hesitate to contact the laboratory if further details are required of the circumstances which have led to the removal of accreditation.
Laboratory records are kept for a period of no less than 6 years.

REPORTS FROM THE SOUTH AFRICA LABORATORY

Any method number not prefixed with SA has been undertaken in our UK laboratory unless reported as subcontracted.

Measurement Uncertainty

Measurement uncertainty defines the range of values that could reasonably be attributed to the measured quantity. This range of values has not been included within the reported results. Uncertainty expressed as a percentage can be provided upon request.

Customer Provided Information

Sample ID and depth is information provided by the customer.

ABBREVIATIONS and ACRONYMS USED

#	ISO17025 (UKAS Ref No. 4225) accredited - UK.
SA	ISO17025 (SANAS Ref No.T0729) accredited - South Africa
B	Indicates analyte found in associated method blank.
DR	Dilution required.
M	MCERTS accredited.
NA	Not applicable
NAD	No Asbestos Detected.
ND	None Detected (usually refers to VOC and/SVOC TICs).
NDP	No Determination Possible
SS	Calibrated against a single substance
SV	Surrogate recovery outside performance criteria. This may be due to a matrix effect.
W	Results expressed on as received basis.
+	AQC failure, accreditation has been removed from this result, if appropriate, see 'Note' on previous page.
>>	Results above calibration range, the result should be considered the minimum value. The actual result could be significantly higher.
*	Analysis subcontracted to an Element Materials Technology approved laboratory.
AD	Samples are dried at 35°C ±5°C
CO	Suspected carry over
LOD/LOR	Limit of Detection (Limit of Reporting) in line with ISO 17025 and MCERTS
ME	Matrix Effect
NFD	No Fibres Detected
BS	AQC Sample
LB	Blank Sample
N	Client Sample
TB	Trip Blank Sample
OC	Outside Calibration Range

HWOL ACRONYMS AND OPERATORS USED

HS	Headspace Analysis.
EH	Extractable Hydrocarbons - i.e. everything extracted by the solvent.
CU	Clean-up - e.g. by florisil, silica gel.
1D	GC - Single coil gas chromatography.
Total	Aliphatics & Aromatics.
AL	Aliphatics only.
AR	Aromatics only.
2D	GC-GC - Double coil gas chromatography.
#1	EH_Total but with humics mathematically subtracted
#2	EU_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
MS	Mass Spectrometry.

EMT Job No: 22/1512

Test Method No.	Description	Prep Method No. (if appropriate)	Description	ISO 17025 (UKAS/SANAS)	MCERTS (UK soils only)	Analysis done on As Received (AR) or Dried (AD)	Reported on dry weight basis
PM4	Gravimetric measurement of Natural Moisture Content and % Moisture Content at either 35°C or 105°C. Calculation based on ISO 11465:1993(E) and BS1377-2:1990.	PM0	No preparation is required.			AR	
TM4	Modified USEPA 8270D v5:2014 method for the solvent extraction and determination of PAHs by GC-MS.	PM8	End over end extraction of solid samples for organic analysis. The solvent mix varies depending on analysis required.			AR	Yes
TM4	Modified USEPA 8270D v5:2014 method for the solvent extraction and determination of PAHs by GC-MS.	PM8	End over end extraction of solid samples for organic analysis. The solvent mix varies depending on analysis required.	Yes		AR	Yes
TM5	Modified 8015B v2:1996 method for the determination of solvent Extractable Petroleum Hydrocarbons (EPH) within the range C8-C40 by GCFID. For waters the solvent extracts dissolved phase plus a sheen if present.	PM8	End over end extraction of solid samples for organic analysis. The solvent mix varies depending on analysis required.	Yes		AR	Yes
TM5	Modified 8015B v2:1996 method for the determination of solvent Extractable Petroleum Hydrocarbons (EPH) within the range C8-C40 by GCFID. For waters the solvent extracts dissolved phase plus a sheen if present.	PM8/PM16	End over end extraction of solid samples for organic analysis. The solvent mix varies depending on analysis required/Fractionation into aliphatic and aromatic fractions using a Rapid Trace SPE.			AR	Yes
TM5	Modified 8015B v2:1996 method for the determination of solvent Extractable Petroleum Hydrocarbons (EPH) within the range C8-C40 by GCFID. For waters the solvent extracts dissolved phase plus a sheen if present.	PM8/PM16	End over end extraction of solid samples for organic analysis. The solvent mix varies depending on analysis required/Fractionation into aliphatic and aromatic fractions using a Rapid Trace SPE.	Yes		AR	Yes
TM5/TM36	please refer to TM5 and TM36 for method details	PM8/PM12/PM16	please refer to PM8/PM16 and PM12 for method details			AR	Yes
TM5/TM36	please refer to TM5 and TM36 for method details	PM8/PM12/PM16	please refer to PM8/PM16 and PM12 for method details	Yes		AR	Yes
TM17	Modified US EPA method 8270D v5:2014. Determination of specific Polychlorinated Biphenyl congeners by GC-MS.	PM8	End over end extraction of solid samples for organic analysis. The solvent mix varies depending on analysis required.	Yes		AR	Yes
TM20	Modified BS 1377-3:1990/USEPA 160.1/3 (TDS/TS: 1971) Gravimetric determination of Total Dissolved Solids/Total Solids	PM0	No preparation is required.			AR	Yes

EMT Job No: 22/1512

Test Method No.	Description	Prep Method No. (if appropriate)	Description	ISO 17025 (UKAS/SANAS)	MCERTS (UK soils only)	Analysis done on As Received (AR) or Dried (AD)	Reported on dry weight basis
TM21	Modified BS 7755-3:1995, ISO10694:1995 Determination of Total Organic Carbon or Total Carbon by combustion in an Eltra TOC furnace/analyser in the presence of oxygen. The CO2 generated is quantified using infra-red detection. Organic Matter (SOM) calculated as per EA MCERTS Chemical Testing of Soil, March 2012 v4.	PM24	Dried and ground solid samples are washed with hydrochloric acid, then rinsed with deionised water to remove the mineral carbon before TOC analysis.			AD	Yes
TM21	Modified BS 7755-3:1995, ISO10694:1995 Determination of Total Organic Carbon or Total Carbon by combustion in an Eltra TOC furnace/analyser in the presence of oxygen. The CO2 generated is quantified using infra-red detection. Organic Matter (SOM) calculated as per EA MCERTS Chemical Testing of Soil, March 2012 v4.	PM24	Dried and ground solid samples are washed with hydrochloric acid, then rinsed with deionised water to remove the mineral carbon before TOC analysis.	Yes		AD	Yes
TM22	Modified BS1377-3:1990 Gravimetric determination of Loss on Ignition by temperature controlled Muffle Furnace (35C-440C). On request modified ASTM D2974-00 LOI (105C-440C)	PM0	No preparation is required.	Yes		AD	Yes
TM26	Determination of phenols by Reversed Phased High Performance Liquid Chromatography and Electro-Chemical Detection.	PM0	No preparation is required.			AR	Yes
TM26	Determination of phenols by Reversed Phased High Performance Liquid Chromatography and Electro-Chemical Detection.	PM21B	As Received samples are extracted in Methanol: Water (60:40) by reciprocal shaker.	Yes		AR	Yes
TM30	Determination of Trace Metals by ICP-OES (Inductively Coupled Plasma – Optical Emission Spectrometry): WATERS by Modified USEPA Method 200.7, Rev. 4.4, 1994; Modified EPA Method 6010B, Rev.2, Dec 1996; Modified BS EN ISO 11885:2009: SOILS by Modified USEP 6010B, Rev.2, Dec.1996; Modified EPA Method 3050B, Rev.2, Dec.1996	PM15	Acid digestion of dried and ground solid samples using Aqua Regia refluxed at 112.5 °C. Samples containing asbestos are not dried and ground.	Yes		AD	Yes
TM36	Modified US EPA method 8015B v2:1996. Determination of Gasoline Range Organics (GRO) in the carbon chain range of C4-12 by headspace GC-FID. MTBE by GCFID co-elutes with 3-methylpentane if present and therefore can give a false positive. Positive MTBE results will be re-run using GC-MS to double check, when requested.	PM12	Modified US EPA method 5021A v2:2014. Preparation of solid and liquid samples for GC headspace analysis.			AR	Yes
TM36	Modified US EPA method 8015B v2:1996. Determination of Gasoline Range Organics (GRO) in the carbon chain range of C4-12 by headspace GC-FID. MTBE by GCFID co-elutes with 3-methylpentane if present and therefore can give a false positive. Positive MTBE results will be re-run using GC-MS to double check, when requested.	PM12	Modified US EPA method 5021A v2:2014. Preparation of solid and liquid samples for GC headspace analysis.	Yes		AR	Yes
TM38	Soluble Ion analysis using Discrete Analyser. Modified US EPA methods: Chloride 325.2 (1978), Sulphate 375.4 (Rev.2 1993), o-Phosphate 365.2 (Rev.2 1993), TON 353.1 (Rev.2 1993), Nitrite 354.1 (1971), Hex Cr 7196A (1992), NH4+ 350.1 (Rev.2 1993) – All anions comparable to BS ISO 15923-1: 2013l	PM0	No preparation is required.	Yes		AR	Yes
TM38	Soluble Ion analysis using Discrete Analyser. Modified US EPA methods: Chloride 325.2 (1978), Sulphate 375.4 (Rev.2 1993), o-Phosphate 365.2 (Rev.2 1993), TON 353.1 (Rev.2 1993), Nitrite 354.1 (1971), Hex Cr 7196A (1992), NH4+ 350.1 (Rev.2 1993) – All anions comparable to BS ISO 15923-1: 2013l	PM20	Extraction of dried and ground or as received samples with deionised water in a 2:1 water to solid ratio using a reciprocal shaker for all analytes except hexavalent chromium. Extraction of as received sample using 10:1 ratio of 0.2M sodium hydroxide to soil for hexavalent chromium using a reciprocal shaker.	Yes		AD	Yes

EMT Job No: 22/1512

Test Method No.	Description	Prep Method No. (if appropriate)	Description	ISO 17025 (UKAS/SANAS)	MCERTS (UK soils only)	Analysis done on As Received (AR) or Dried (AD)	Reported on dry weight basis
TM38	Soluble Ion analysis using Discrete Analyser. Modified US EPA methods: Chloride 325.2 (1978), Sulphate 375.4 (Rev.2 1993), o-Phosphate 365.2 (Rev.2 1993), TON 353.1 (Rev.2 1993), Nitrite 354.1 (1971), Hex Cr 7196A (1992), NH4+ 350.1 (Rev.2 1993) – All anions comparable to BS ISO 15923-1: 2013l	PM20	Extraction of dried and ground or as received samples with deionised water in a 2:1 water to solid ratio using a reciprocal shaker for all analytes except hexavalent chromium. Extraction of as received sample using 10:1 ratio of 0.2M sodium hydroxide to soil for hexavalent chromium using a reciprocal shaker.	Yes		AR	Yes
TM60	TC/TOC analysis of Waters by High Temperature Combustion followed by NDIR detection. Based on the following modified standard methods: USEPA 9060A (2002), APHA SMEWW 5310B:1999 22nd Edition, ASTM D 7573, and USEPA 415.1.	PM0	No preparation is required.			AR	Yes
TM65	Asbestos Bulk Identification method based on HSG 248 Second edition (2021)	PM42	Modified SCA Blue Book V.12 draft 2017 and WM3 1st Edition v1.1:2018. Solid samples undergo a thorough visual inspection for asbestos fibres prior to asbestos identification using TM065.	Yes		AR	
TM73	Modified US EPA methods 150.1 (1982) and 9045D Rev. 4 - 2004) and BS1377-3:1990. Determination of pH by Metrohm automated probe analyser.	PM11	Extraction of as received solid samples using one part solid to 2.5 parts deionised water.	Yes		AR	No
TM74	Analysis of water soluble boron (20:1 extract) by ICP-OES.	PM32	Hot water soluble boron is extracted from dried and ground samples using a 20:1 ratio.	Yes		AD	Yes
TM77	Modified DDCEN/TS method 15364:2006. Determination of Acid Neutralization Capacity by Metrohm automated probe analyser.	PM0	No preparation is required.			AR	No
TM89	Modified USEPA method OIA-1667 (1999). Determination of cyanide by Flow Injection Analyser. Where WAD cyanides are required a Ligand displacement step is carried out before analysis.	PM45	As received solid samples are extracted with 1M NaOH by orbital shaker for Cyanide, Sulphide and Thiocyanate analysis.	Yes		AR	Yes
TM170	Determination of Trace Metals by ICP-MS (Inductively Coupled Plasma – Mass Spectrometry): Modified USEPA Method 200.8, Rev. 5.4, 1994; Modified EPA Method 6020A, Rev.1, Feb 2007; Modified BS EN ISO 17294-2:2016	PM14	Preparation of waters and leachates for metals by ICP OES/ICP MS. Samples are filtered for Dissolved metals, and remain unfiltered for Total metals then acidified			AR	Yes
TM173	Analysis of fluoride by ISE (Ion Selective Electrode) using modified ISE method 9214 - 340.2 (EPA 1998)	PM0	No preparation is required.			AR	Yes
NONE	No Method Code	PM4	Gravimetric measurement of Natural Moisture Content and % Moisture Content at either 35°C or 105°C. Calculation based on ISO 11465:1993(E) and BS1377-2:1990.			AR	

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Groundtech Consulting Limited
PO Box 499
Manchester
M28 8EE

Attention :	Connor Hastings
Date :	18th February, 2022
Your reference :	GRO-21190
Our reference :	Test Report 22/1512 Batch 3
Location :	Holbeach
Date samples received :	11th February, 2022
Status :	Final Report
Issue :	1

Ten samples were received for analysis on 11th February, 2022 of which eight were scheduled for analysis. Please find attached our Test Report which should be read with notes at the end of the report and should include all sections if reproduced. Interpretations and opinions are outside the scope of any accreditation, and all results relate only to samples supplied.
All analysis is carried out on as received samples and reported on a dry weight basis unless stated otherwise. Results are not surrogate corrected.

Authorised By:



Bruce Leslie
Project Manager

Please include all sections of this report if it is reproduced

Element Materials Technology

Client Name: Groundtech Consulting Limited
Reference: GRO-21190
Location: Holbeach
Contact: Connor Hastings
EMT Job No: 22/1512

Report : Solid

Solids: V=60g VOC jar, J=250g glass jar, T=plastic tub

EMT Sample No.	73	74	75	78	79-81	82	83	84			LOD/LOR	Units	Method No.
Sample ID	CP1	CP2	CP2	CP3	CP2	WS03	WS04	WS10					
Depth	8.00	11.00	21.50	22.50	2.00	3.00	2.00	2.00					
COC No / misc													
Containers	T	T	T	T	V J T	T	T	T					
Sample Date	<>	<>	<>	<>	01/02/2022	01/02/2022	01/02/2022	01/02/2022					
Sample Type	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil					
Batch Number	3	3	3	3	3	3	3	3					
Date of Receipt	11/02/2022	11/02/2022	11/02/2022	11/02/2022	11/02/2022	11/02/2022	11/02/2022	11/02/2022					
Arsenic #	-	-	-	-	4.4	-	-	-			<0.5	mg/kg	TM30/PM15
Cadmium #	-	-	-	-	<0.1	-	-	-			<0.1	mg/kg	TM30/PM15
Chromium #	-	-	-	-	62.7	-	-	-			<0.5	mg/kg	TM30/PM15
Copper #	-	-	-	-	7	-	-	-			<1	mg/kg	TM30/PM15
Lead #	-	-	-	-	8	-	-	-			<5	mg/kg	TM30/PM15
Mercury #	-	-	-	-	<0.1	-	-	-			<0.1	mg/kg	TM30/PM15
Nickel #	-	-	-	-	8.5	-	-	-			<0.7	mg/kg	TM30/PM15
Sulphur as S	1.18	0.24	0.60	0.61	-	0.20	0.22	0.37			<0.01	%	TM30/PM15
Total Sulphate as SO4 BRE	0.15	0.09	0.13	0.15	-	0.12	0.13	0.09			<0.01	%	TM50/PM29
Water Soluble Boron #	-	-	-	-	0.4	-	-	-			<0.1	mg/kg	TM74/PM32
Zinc #	-	-	-	-	16	-	-	-			<5	mg/kg	TM30/PM15
Magnesium	0.0299	0.0955	0.0487	NDP	-	0.0517	0.0468	0.0460			<0.0001	g/l	TM30/PM20
Magnesium	-	-	-	0.0326	-	-	-	-			<0.0001	g/l	TM30/PM60
PAH MS													
Naphthalene #	-	-	-	-	<0.04	-	-	-			<0.04	mg/kg	TM4/PM8
Acenaphthylene	-	-	-	-	<0.03	-	-	-			<0.03	mg/kg	TM4/PM8
Acenaphthene #	-	-	-	-	<0.05	-	-	-			<0.05	mg/kg	TM4/PM8
Fluorene #	-	-	-	-	<0.04	-	-	-			<0.04	mg/kg	TM4/PM8
Phenanthrene #	-	-	-	-	<0.03	-	-	-			<0.03	mg/kg	TM4/PM8
Anthracene #	-	-	-	-	<0.04	-	-	-			<0.04	mg/kg	TM4/PM8
Fluoranthene #	-	-	-	-	<0.03	-	-	-			<0.03	mg/kg	TM4/PM8
Pyrene #	-	-	-	-	<0.03	-	-	-			<0.03	mg/kg	TM4/PM8
Benzo(a)anthracene #	-	-	-	-	<0.06	-	-	-			<0.06	mg/kg	TM4/PM8
Chrysene #	-	-	-	-	<0.02	-	-	-			<0.02	mg/kg	TM4/PM8
Benzo(bk)fluoranthene #	-	-	-	-	<0.07	-	-	-			<0.07	mg/kg	TM4/PM8
Benzo(a)pyrene #	-	-	-	-	<0.04	-	-	-			<0.04	mg/kg	TM4/PM8
Indeno(123cd)pyrene #	-	-	-	-	<0.04	-	-	-			<0.04	mg/kg	TM4/PM8
Dibenzo(ah)anthracene #	-	-	-	-	<0.04	-	-	-			<0.04	mg/kg	TM4/PM8
Benzo(ghi)perylene #	-	-	-	-	<0.04	-	-	-			<0.04	mg/kg	TM4/PM8
Coronene	-	-	-	-	<0.04	-	-	-			<0.04	mg/kg	TM4/PM8
PAH 17 Total	-	-	-	-	<0.64	-	-	-			<0.64	mg/kg	TM4/PM8
Benzo(b)fluoranthene	-	-	-	-	<0.05	-	-	-			<0.05	mg/kg	TM4/PM8
Benzo(k)fluoranthene	-	-	-	-	<0.02	-	-	-			<0.02	mg/kg	TM4/PM8
PAH Surrogate % Recovery	-	-	-	-	94	-	-	-			<0	%	TM4/PM8
EPH (C8-C40) (EH_1D_Total) #	-	-	-	-	97	-	-	-			<30	mg/kg	TM5/PM8

Please see attached notes for all abbreviations and acronyms

Element Materials Technology

Client Name: Groundtech Consulting Limited
Reference: GRO-21190
Location: Holbeach
Contact: Connor Hastings
EMT Job No: 22/1512

Report : Solid

Solids: V=60g VOC jar, J=250g glass jar, T=plastic tub

Please see attached notes for all abbreviations and acronyms

EMT Sample No.	73	74	75	78	79-81	82	83	84			LOD/LOR	Units	Method No.
Sample ID	CP1	CP2	CP2	CP3	CP2	WS03	WS04	WS10					
Depth	8.00	11.00	21.50	22.50	2.00	3.00	2.00	2.00					
COC No / misc													
Containers	T	T	T	T	V J T	T	T	T					
Sample Date	<>	<>	<>	<>	01/02/2022	01/02/2022	01/02/2022	01/02/2022					
Sample Type	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil					
Batch Number	3	3	3	3	3	3	3	3					
Date of Receipt	11/02/2022	11/02/2022	11/02/2022	11/02/2022	11/02/2022	11/02/2022	11/02/2022	11/02/2022					
TPH CWG													
Aliphatics													
>C5-C6 (HS_1D_AL)#	-	-	-	-	<0.1	-	-	-			<0.1	mg/kg	TM36/PM12
>C6-C8 (HS_1D_AL)#	-	-	-	-	<0.1	-	-	-			<0.1	mg/kg	TM36/PM12
>C8-C10 (HS_1D_AL)	-	-	-	-	<0.1	-	-	-			<0.1	mg/kg	TM36/PM12
>C10-C12 (EH_CU_1D_AL)#	-	-	-	-	<0.2	-	-	-			<0.2	mg/kg	TM5/PM8/PM16
>C12-C16 (EH_CU_1D_AL)#	-	-	-	-	<4	-	-	-			<4	mg/kg	TM5/PM8/PM16
>C16-C21 (EH_CU_1D_AL)#	-	-	-	-	<7	-	-	-			<7	mg/kg	TM5/PM8/PM16
>C21-C35 (EH_CU_1D_AL)#	-	-	-	-	<7	-	-	-			<7	mg/kg	TM5/PM8/PM16
Total aliphatics C5-35 (EH+HS_CU_1D_AL)	-	-	-	-	<19	-	-	-			<19	mg/kg	TM5/TM36/PM8/PM12/PM16
Aromatics													
>C5-EC7 (HS_1D_AR)#	-	-	-	-	<0.1	-	-	-			<0.1	mg/kg	TM36/PM12
>EC7-EC8 (HS_1D_AR)#	-	-	-	-	<0.1	-	-	-			<0.1	mg/kg	TM36/PM12
>EC8-EC10 (HS_1D_AR)#	-	-	-	-	<0.1	-	-	-			<0.1	mg/kg	TM36/PM12
>EC10-EC12 (EH_CU_1D_AR)#	-	-	-	-	<0.2	-	-	-			<0.2	mg/kg	TM5/PM8/PM16
>EC12-EC16 (EH_CU_1D_AR)#	-	-	-	-	<4	-	-	-			<4	mg/kg	TM5/PM8/PM16
>EC16-EC21 (EH_CU_1D_AR)#	-	-	-	-	<7	-	-	-			<7	mg/kg	TM5/PM8/PM16
>EC21-EC35 (EH_CU_1D_AR)#	-	-	-	-	<7	-	-	-			<7	mg/kg	TM5/PM8/PM16
Total aromatics C5-35 (EH+HS_CU_1D_AR)#	-	-	-	-	<19	-	-	-			<19	mg/kg	TM5/TM36/PM8/PM12/PM16
Total aliphatics and aromatics(C5-35) (EH+HS_CU_1D_Total)	-	-	-	-	<38	-	-	-			<38	mg/kg	TM5/TM36/PM8/PM12/PM16
MTBE#	-	-	-	-	<5	-	-	-			<5	ug/kg	TM36/PM12
Benzene#	-	-	-	-	<5	-	-	-			<5	ug/kg	TM36/PM12
Toluene#	-	-	-	-	<5	-	-	-			<5	ug/kg	TM36/PM12
Ethylbenzene#	-	-	-	-	<5	-	-	-			<5	ug/kg	TM36/PM12
m/p-Xylene#	-	-	-	-	<5	-	-	-			<5	ug/kg	TM36/PM12
o-Xylene#	-	-	-	-	<5	-	-	-			<5	ug/kg	TM36/PM12
Phenol#	-	-	-	-	<0.01	-	-	-			<0.01	mg/kg	TM26/PM21B
Natural Moisture Content	-	-	-	-	14.7	-	-	-			<0.1	%	PM4/PM0
Chloride (2:1 Ext BRE)#	2.072	2.067	1.199	0.944	-	1.509	1.469	1.374			<0.002	g/l	TM38/PM20
Hexavalent Chromium#	-	-	-	-	<0.3	-	-	-			<0.3	mg/kg	TM38/PM20
Nitrate as NO3 (2:1 Ext BRE)	<0.0025	<0.0025	<0.0025	<0.0025	-	<0.0025	<0.0025	<0.0025			<0.0025	g/l	TM38/PM20
Sulphate as SO4 (2:1 Ext)#	0.1259	0.2701	0.2914	0.2959	0.0995	0.3378	0.3096	0.1671			<0.0015	g/l	TM38/PM20
Total Cyanide#	-	-	-	-	<0.5	-	-	-			<0.5	mg/kg	TM89/PM45
Organic Matter	-	-	-	-	0.6	-	-	-			<0.2	%	TM21/PM24
pH#	8.01	8.08	8.50	8.64	7.69	8.49	8.42	8.42			<0.01	pH units	TM73/PM11

Client Name: Groundtech Consulting Limited
Reference: GRO-21190
Location: Holbeach
Contact: Connor Hastings

Note:

Asbestos Screen analysis is carried out in accordance with our documented in-house methods PM042 and TM065 and HSG 248 by Stereo and Polarised Light Microscopy using Dispersion Staining Techniques and is covered by our UKAS accreditation. Detailed Gravimetric Quantification and PCOM Fibre Analysis is carried out in accordance with our documented in-house methods PM042 and TM131 and HSG 248 using Stereo and Polarised Light Microscopy and Phase Contrast Optical Microscopy (PCOM). Asbestos sub-samples are retained for not less than 6 months from the date of analysis unless specifically requested.

The LOQ of the Asbestos Quantification is 0.001% dry fibre of dry mass of sample.

Where the sample is not taken by a Element Materials Technology consultant, Element Materials Technology cannot be responsible for inaccurate or unrepresentative sampling.

EMT Job No.	Batch	Sample ID	Depth	EMT Sample No.	Analyst Name	Date Of Analysis	Analysis	Result
22/1512	3	CP2	2.00	81	Andrew Alker	14/02/2022	**General Description (Bulk Analysis)**	soil
					Andrew Alker	14/02/2022	**Asbestos Fibres**	NAD
					Andrew Alker	14/02/2022	**Asbestos ACM**	NAD
					Andrew Alker	14/02/2022	**Asbestos Type**	NAD

Client Name: Groundtech Consulting Limited

Reference: GRO-21190

Location: Holbeach

Contact: Connor Hastings

Matrix : Solid

EMT Job No.	Batch	Sample ID	Depth	EMT Sample No.	Method No.	NDP Reason
22/1512	3	CP3	22.50	78	TM30/PM20	Sample unsuitable for this test

Client Name: Groundtech Consulting Limited

Reference: GRO-21190

Location: Holbeach

Contact: Connor Hastings

Matrix : Solid

EMT Job No.	Batch	Sample ID	Depth	EMT Sample No.	Analysis	Reason
22/1512	3	CP1	8.00	73	All analyses	No sampling date given
22/1512	3	CP2	11.00	74	All analyses	No sampling date given
22/1512	3	CP2	21.50	75	All analyses	No sampling date given
22/1512	3	CP3	22.50	78	All analyses	No sampling date given

Please note that only samples that are deviating are mentioned in this report. If no samples are listed it is because none were deviating.

Only analyses which are accredited are recorded as deviating if set criteria are not met.

NOTES TO ACCOMPANY ALL SCHEDULES AND REPORTS

EMT Job No.: 22/1512

SOILS and ASH

Please note we are only MCERTS accredited (UK soils only) for sand, loam and clay and any other matrix is outside our scope of accreditation.

Where an MCERTS report has been requested, you will be notified within 48 hours of any samples that have been identified as being outside our MCERTS scope. As validation has been performed on clay, sand and loam, only samples that are predominantly these matrices, or combinations of them will be within our MCERTS scope. If samples are not one of a combination of the above matrices they will not be marked as MCERTS accredited.

It is assumed that you have taken representative samples on site and require analysis on a representative subsample. Stones will generally be included unless we are requested to remove them.

All samples will be discarded one month after the date of reporting, unless we are instructed to the contrary. Asbestos samples are retained for 6 months.

If you have not already done so, please send us a purchase order if this is required by your company.

Where appropriate please make sure that our detection limits are suitable for your needs, if they are not, please notify us immediately.

All analysis is reported on a dry weight basis unless stated otherwise. Limits of detection for analyses carried out on as received samples are not moisture content corrected. Results are not surrogate corrected. Samples are dried at 35°C ±5°C unless otherwise stated. Moisture content for CEN Leachate tests are dried at 105°C ±5°C. Ash samples are dried at 37°C ±5°C.

Where Mineral Oil or Fats, Oils and Grease is quoted, this refers to Total Aliphatics C10-C40.

Where a CEN 10:1 ZERO Headspace VOC test has been carried out, a 10:1 ratio of water to wet (as received) soil has been used.

% Asbestos in Asbestos Containing Materials (ACMs) is determined by reference to HSG 264 The Survey Guide - Appendix 2 : ACMs in buildings listed in order of ease of fibre release.

Sufficient amount of sample must be received to carry out the testing specified. Where an insufficient amount of sample has been received the testing may not meet the requirements of our accredited methods, as such accreditation may be removed.

Negative Neutralization Potential (NP) values are obtained when the volume of NaOH (0.1N) titrated (pH 8.3) is greater than the volume of HCl (1N) to reduce the pH of the sample to 2.0 - 2.5. Any negative NP values are corrected to 0.

The calculation of Pyrite content assumes that all oxidisable sulphides present in the sample are pyrite. This may not be the case. The calculation may be an overesitimate when other sulphides such as Barite (Barium Sulphate) are present.

WATERS

Please note we are not a UK Drinking Water Inspectorate (DWI) Approved Laboratory .

ISO17025 accreditation applies to surface water and groundwater and usually one other matrix which is analysis specific, any other liquids are outside our scope of accreditation.

As surface waters require different sample preparation to groundwaters the laboratory must be informed of the water type when submitting samples.

Where Mineral Oil or Fats, Oils and Grease is quoted, this refers to Total Aliphatics C10-C40.

STACK EMISSIONS

Where an MCERTS report has been requested, you will be notified within 48 hours of any samples that have been identified as being outside our MCERTS scope. As validation for Dioxins and Furans and Dioxin like PCBs has been performed on XAD-2 Resin, only samples which use this resin will be within our MCERTS scope.

Where appropriate please make sure that our detection limits are suitable for your needs, if they are not, please notify us immediately.

DEVIATING SAMPLES

All samples should be submitted to the laboratory in suitable containers with sufficient ice packs to sustain an appropriate temperature for the requested analysis. The temperature of sample receipt is recorded on the confirmation schedules in order that the client can make an informed decision as to whether testing should still be undertaken.

SURROGATES

Surrogate compounds are added during the preparation process to monitor recovery of analytes. However low recovery in soils is often due to peat, clay or other organic rich matrices. For waters this can be due to oxidants, surfactants, organic rich sediments or remediation fluids. Acceptable limits for most organic methods are 70 - 130% and for VOCs are 50 - 150%. When surrogate recoveries are outside the performance criteria but the associated AQC passes this is assumed to be due to matrix effect. Results are not surrogate corrected.

DILUTIONS

A dilution suffix indicates a dilution has been performed and the reported result takes this into account. No further calculation is required.

BLANKS

Where analytes have been found in the blank, the sample will be treated in accordance with our laboratory procedure for dealing with contaminated blanks.

NOTE

Data is only reported if the laboratory is confident that the data is a true reflection of the samples analysed. Data is only reported as accredited when all the requirements of our Quality System have been met. In certain circumstances where all the requirements of the Quality System have not been met, for instance if the associated AQC has failed, the reason is fully investigated and documented. The sample data is then evaluated alongside the other quality control checks performed during analysis to determine its suitability. Following this evaluation, provided the sample results have not been effected, the data is reported but accreditation is removed. It is a UKAS requirement for data not reported as accredited to be considered indicative only, but this does not mean the data is not valid.
Where possible, and if requested, samples will be re-extracted and a revised report issued with accredited results. Please do not hesitate to contact the laboratory if further details are required of the circumstances which have led to the removal of accreditation.
Laboratory records are kept for a period of no less than 6 years.

REPORTS FROM THE SOUTH AFRICA LABORATORY

Any method number not prefixed with SA has been undertaken in our UK laboratory unless reported as subcontracted.

Measurement Uncertainty

Measurement uncertainty defines the range of values that could reasonably be attributed to the measured quantity. This range of values has not been included within the reported results. Uncertainty expressed as a percentage can be provided upon request.

Customer Provided Information

Sample ID and depth is information provided by the customer.

ABBREVIATIONS and ACRONYMS USED

#	ISO17025 (UKAS Ref No. 4225) accredited - UK.
SA	ISO17025 (SANAS Ref No.T0729) accredited - South Africa
B	Indicates analyte found in associated method blank.
DR	Dilution required.
M	MCERTS accredited.
NA	Not applicable
NAD	No Asbestos Detected.
ND	None Detected (usually refers to VOC and/SVOC TICs).
NDP	No Determination Possible
SS	Calibrated against a single substance
SV	Surrogate recovery outside performance criteria. This may be due to a matrix effect.
W	Results expressed on as received basis.
+	AQC failure, accreditation has been removed from this result, if appropriate, see 'Note' on previous page.
>>	Results above calibration range, the result should be considered the minimum value. The actual result could be significantly higher.
*	Analysis subcontracted to an Element Materials Technology approved laboratory.
AD	Samples are dried at 35°C ±5°C
CO	Suspected carry over
LOD/LOR	Limit of Detection (Limit of Reporting) in line with ISO 17025 and MCERTS
ME	Matrix Effect
NFD	No Fibres Detected
BS	AQC Sample
LB	Blank Sample
N	Client Sample
TB	Trip Blank Sample
OC	Outside Calibration Range

HWOL ACRONYMS AND OPERATORS USED

HS	Headspace Analysis.
EH	Extractable Hydrocarbons - i.e. everything extracted by the solvent.
CU	Clean-up - e.g. by florisil, silica gel.
1D	GC - Single coil gas chromatography.
Total	Aliphatics & Aromatics.
AL	Aliphatics only.
AR	Aromatics only.
2D	GC-GC - Double coil gas chromatography.
#1	EH_Total but with humics mathematically subtracted
#2	EU_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
MS	Mass Spectrometry.

EMT Job No: 22/1512

Test Method No.	Description	Prep Method No. (if appropriate)	Description	ISO 17025 (UKAS/SANAS)	MCERTS (UK soils only)	Analysis done on As Received (AR) or Dried (AD)	Reported on dry weight basis
PM4	Gravimetric measurement of Natural Moisture Content and % Moisture Content at either 35°C or 105°C. Calculation based on ISO 11465:1993(E) and BS1377-2:1990.	PM0	No preparation is required.			AR	
TM4	Modified USEPA 8270D v5:2014 method for the solvent extraction and determination of PAHs by GC-MS.	PM8	End over end extraction of solid samples for organic analysis. The solvent mix varies depending on analysis required.			AR	Yes
TM4	Modified USEPA 8270D v5:2014 method for the solvent extraction and determination of PAHs by GC-MS.	PM8	End over end extraction of solid samples for organic analysis. The solvent mix varies depending on analysis required.	Yes		AR	Yes
TM5	Modified 8015B v2:1996 method for the determination of solvent Extractable Petroleum Hydrocarbons (EPH) within the range C8-C40 by GCFID. For waters the solvent extracts dissolved phase plus a sheen if present.	PM8	End over end extraction of solid samples for organic analysis. The solvent mix varies depending on analysis required.	Yes		AR	Yes
TM5	Modified 8015B v2:1996 method for the determination of solvent Extractable Petroleum Hydrocarbons (EPH) within the range C8-C40 by GCFID. For waters the solvent extracts dissolved phase plus a sheen if present.	PM8/PM16	End over end extraction of solid samples for organic analysis. The solvent mix varies depending on analysis required/Fractionation into aliphatic and aromatic fractions using a Rapid Trace SPE.	Yes		AR	Yes
TM5/TM36	please refer to TM5 and TM36 for method details	PM8/PM12/PM16	please refer to PM8/PM16 and PM12 for method details			AR	Yes
TM5/TM36	please refer to TM5 and TM36 for method details	PM8/PM12/PM16	please refer to PM8/PM16 and PM12 for method details	Yes		AR	Yes
TM21	Modified BS 7755-3:1995, ISO10694:1995 Determination of Total Organic Carbon or Total Carbon by combustion in an Eltra TOC furnace/analyser in the presence of oxygen. The CO2 generated is quantified using infra-red detection. Organic Matter (SOM) calculated as per EA MCERTS Chemical Testing of Soil, March 2012 v4.	PM24	Dried and ground solid samples are washed with hydrochloric acid, then rinsed with deionised water to remove the mineral carbon before TOC analysis.			AD	Yes
TM26	Determination of phenols by Reversed Phased High Performance Liquid Chromatography and Electro-Chemical Detection.	PM21B	As Received samples are extracted in Methanol: Water (60:40) by reciprocal shaker.	Yes		AR	Yes
TM30	Determination of Trace Metals by ICP-OES (Inductively Coupled Plasma – Optical Emission Spectrometry): WATERS by Modified USEPA Method 200.7, Rev. 4.4, 1994; Modified EPA Method 6010B, Rev.2, Dec 1996; Modified BS EN ISO 11885:2009: SOILS by Modified USEP 6010B, Rev.2, Dec.1996; Modified EPA Method 3050B, Rev.2, Dec.1996	PM15	Acid digestion of dried and ground solid samples using Aqua Regia refluxed at 112.5 °C. Samples containing asbestos are not dried and ground.			AD	Yes

EMT Job No: 22/1512

Test Method No.	Description	Prep Method No. (if appropriate)	Description	ISO 17025 (UKAS/SANAS)	MCERTS (UK soils only)	Analysis done on As Received (AR) or Dried (AD)	Reported on dry weight basis
TM30	Determination of Trace Metals by ICP-OES (Inductively Coupled Plasma – Optical Emission Spectrometry): WATERS by Modified USEPA Method 200.7, Rev. 4.4, 1994; Modified EPA Method 6010B, Rev.2, Dec 1996; Modified BS EN ISO 11885:2009: SOILS by Modified USEP 6010B, Rev.2, Dec.1996; Modified EPA Method 3050B, Rev.2, Dec.1996	PM15	Acid digestion of dried and ground solid samples using Aqua Regia refluxed at 112.5 °C. Samples containing asbestos are not dried and ground.	Yes		AD	Yes
TM30	Determination of Trace Metals by ICP-OES (Inductively Coupled Plasma – Optical Emission Spectrometry): WATERS by Modified USEPA Method 200.7, Rev. 4.4, 1994; Modified EPA Method 6010B, Rev.2, Dec 1996; Modified BS EN ISO 11885:2009: SOILS by Modified USEP 6010B, Rev.2, Dec.1996; Modified EPA Method 3050B, Rev.2, Dec.1996	PM20	Extraction of dried and ground or as received samples with deionised water in a 2:1 water to solid ratio using a reciprocal shaker for all analytes except hexavalent chromium. Extraction of as received sample using 10:1 ratio of 0.2M sodium hydroxide to soil for hexavalent chromium using a reciprocal shaker.			AD	Yes
TM30	Determination of Trace Metals by ICP-OES (Inductively Coupled Plasma – Optical Emission Spectrometry): WATERS by Modified USEPA Method 200.7, Rev. 4.4, 1994; Modified EPA Method 6010B, Rev.2, Dec 1996; Modified BS EN ISO 11885:2009: SOILS by Modified USEP 6010B, Rev.2, Dec.1996; Modified EPA Method 3050B, Rev.2, Dec.1996	PM60	As received solid samples are extracted with deionised water in a 2:1 ratio of water to solid.			AR	Yes
TM36	Modified US EPA method 8015B v2:1996. Determination of Gasoline Range Organics (GRO) in the carbon chain range of C4-12 by headspace GC-FID. MTBE by GCFID co-elutes with 3-methylpentane if present and therefore can give a false positive. Positive MTBE results will be re-run using GC-MS to double check, when requested.	PM12	Modified US EPA method 5021A v2:2014. Preparation of solid and liquid samples for GC headspace analysis.			AR	Yes
TM36	Modified US EPA method 8015B v2:1996. Determination of Gasoline Range Organics (GRO) in the carbon chain range of C4-12 by headspace GC-FID. MTBE by GCFID co-elutes with 3-methylpentane if present and therefore can give a false positive. Positive MTBE results will be re-run using GC-MS to double check, when requested.	PM12	Modified US EPA method 5021A v2:2014. Preparation of solid and liquid samples for GC headspace analysis.	Yes		AR	Yes
TM38	Soluble Ion analysis using Discrete Analyser. Modified US EPA methods: Chloride 325.2 (1978), Sulphate 375.4 (Rev.2 1993), o-Phosphate 365.2 (Rev.2 1993), TON 353.1 (Rev.2 1993), Nitrite 354.1 (1971), Hex Cr 7196A (1992), NH4+ 350.1 (Rev.2 1993) – All anions comparable to BS ISO 15923-1: 2013I	PM20	Extraction of dried and ground or as received samples with deionised water in a 2:1 water to solid ratio using a reciprocal shaker for all analytes except hexavalent chromium. Extraction of as received sample using 10:1 ratio of 0.2M sodium hydroxide to soil for hexavalent chromium using a reciprocal shaker.			AD	Yes
TM38	Soluble Ion analysis using Discrete Analyser. Modified US EPA methods: Chloride 325.2 (1978), Sulphate 375.4 (Rev.2 1993), o-Phosphate 365.2 (Rev.2 1993), TON 353.1 (Rev.2 1993), Nitrite 354.1 (1971), Hex Cr 7196A (1992), NH4+ 350.1 (Rev.2 1993) – All anions comparable to BS ISO 15923-1: 2013I	PM20	Extraction of dried and ground or as received samples with deionised water in a 2:1 water to solid ratio using a reciprocal shaker for all analytes except hexavalent chromium. Extraction of as received sample using 10:1 ratio of 0.2M sodium hydroxide to soil for hexavalent chromium using a reciprocal shaker.	Yes		AD	Yes
TM38	Soluble Ion analysis using Discrete Analyser. Modified US EPA methods: Chloride 325.2 (1978), Sulphate 375.4 (Rev.2 1993), o-Phosphate 365.2 (Rev.2 1993), TON 353.1 (Rev.2 1993), Nitrite 354.1 (1971), Hex Cr 7196A (1992), NH4+ 350.1 (Rev.2 1993) – All anions comparable to BS ISO 15923-1: 2013I	PM20	Extraction of dried and ground or as received samples with deionised water in a 2:1 water to solid ratio using a reciprocal shaker for all analytes except hexavalent chromium. Extraction of as received sample using 10:1 ratio of 0.2M sodium hydroxide to soil for hexavalent chromium using a reciprocal shaker.	Yes		AR	Yes
TM50	Acid soluble sulphate (Total Sulphate) analysed by ICP-OES	PM29	A hot hydrochloric acid digest is performed on a dried and ground sample, and the resulting liquor is analysed.			AD	Yes
TM65	Asbestos Bulk Identification method based on HSG 248 Second edition (2021)	PM42	Modified SCA Blue Book V.12 draft 2017 and WM3 1st Edition v1.1:2018. Solid samples undergo a thorough visual inspection for asbestos fibres prior to asbestos identification using TM065.	Yes		AR	

EMT Job No: 22/1512

Test Method No.	Description	Prep Method No. (if appropriate)	Description	ISO 17025 (UKAS/SANAS)	MCERTS (UK soils only)	Analysis done on As Received (AR) or Dried (AD)	Reported on dry weight basis
TM73	Modified US EPA methods 150.1 (1982) and 9045D Rev. 4 - 2004) and BS1377-3:1990. Determination of pH by Metrohm automated probe analyser.	PM11	Extraction of as received solid samples using one part solid to 2.5 parts deionised water.	Yes		AR	No
TM74	Analysis of water soluble boron (20:1 extract) by ICP-OES.	PM32	Hot water soluble boron is extracted from dried and ground samples using a 20:1 ratio.	Yes		AD	Yes
TM89	Modified USEPA method OIA-1667 (1999). Determination of cyanide by Flow Injection Analyser. Where WAD cyanides are required a Ligand displacement step is carried out before analysis.	PM45	As received solid samples are extracted with 1M NaOH by orbital shaker for Cyanide, Sulphide and Thiocyanate analysis.	Yes		AR	Yes

APPENDIX 9 - Geotechnical Testing Results

LABORATORY REPORT

4043

Contract Number: PSL22/1197

Report Date: 25 February 2022

Client's Reference: GRO-21400

Client Name: Groundtech Consulting
First Floor
Lloyd House
Orford Court
Greenfold Way
WN7 3XJ

For the attention of: James Doyle

Contract Title: Holbeach

Date Received: 16/2/2022
Date Commenced: 16/2/2022
Date Completed: 25/2/2022

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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awatkins@prosoils.co.uk

SUMMARY OF LABORATORY SOIL DESCRIPTIONS

Hole Number	Sample Number	Sample Type	Top Depth m	Base Depth m	Description of Sample
CP1		U	21.50		Stiff brown mottled grey slightly gravelly sandy CLAY.
CP1		U	23.00		Very stiff grey slightly gravelly sandy CLAY.
CP2		U	4.00	4.45	CON
CP2		U	8.00		Very soft grey slightly gravelly sandy CLAY with some organic material.
CP2		U	15.50		Stiff brown slightly gravelly sandy CLAY.
CP2		U	20.00		Stiff brown slightly gravelly sandy CLAY.
CP3		U	4.00		Stiff brown slightly gravelly slightly sandy CLAY.
CP3		U	15.50		Hard brown slightly sandy CLAY.
CP1		D	1.20		Brown CLAY with some organic material.
CP2		D	2.00		Brown mottled grey gravelly slightly sandy CLAY with some organic material.
CP3		D	1.20		Brown very gravelly very sandy CLAY.
WS3		D	2.00		Brown gravelly sandy CLAY.
WS4		D	1.00		Brown gravelly very sandy CLAY.
WS5		D	2.00		Brown slightly gravelly sandy CLAY.
SuDS2A		D	1.00		Grey mottled brown gravelly sandy CLAY.

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
CP3		U	4.00		32							
CP1		D	1.20		47			93	37	56	100	Extremely High Plasticity CE
CP2		D	2.00		49			58	25	33	89	High Plasticity CH
CP3		D	1.20		13			31	15	16	68	Low Plasticity CL
CP3		U	4.00		32							
WS3		D	2.00		30			41	19	22	78	Intermediate Plasticity CI
WS4		D	1.00		14			34	17	17	87	Low Plasticity CL
WS5		D	2.00		20			46	22	24	96	Intermediate Plasticity CI
SuDS2A		D	1.00		37			39	19	20	85	Intermediate Plasticity CI

SYMBOLS : **NP : Non Plastic** *** : Liquid Limit and Plastic Limit Wet Sieved.**

UKAS TESTING 4043

PSL Professional Soils Laboratory

Holbeach

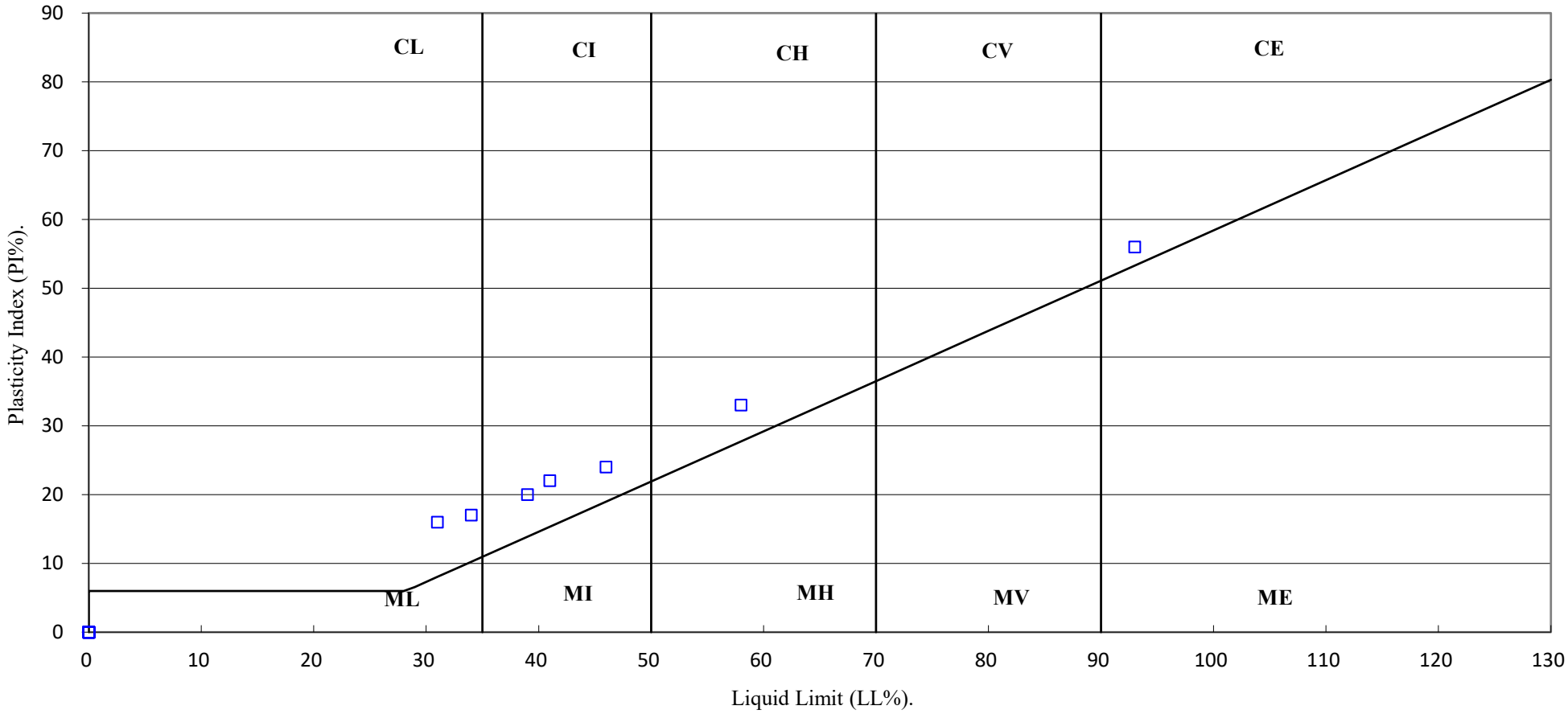
Contract No:

PSL22/1197

Client Ref:

GRO-21400

PLASTICITY CHART FOR CASAGRANDE CLASSIFICATION.



UKAS TESTING 4043	PSL Professional Soils Laboratory	Holbeach	Contract No: PSL22/1197 Client Ref: GRO-21400

UNDRAINED SHEAR STRENGTH IN TRIAXIAL COMPRESSION

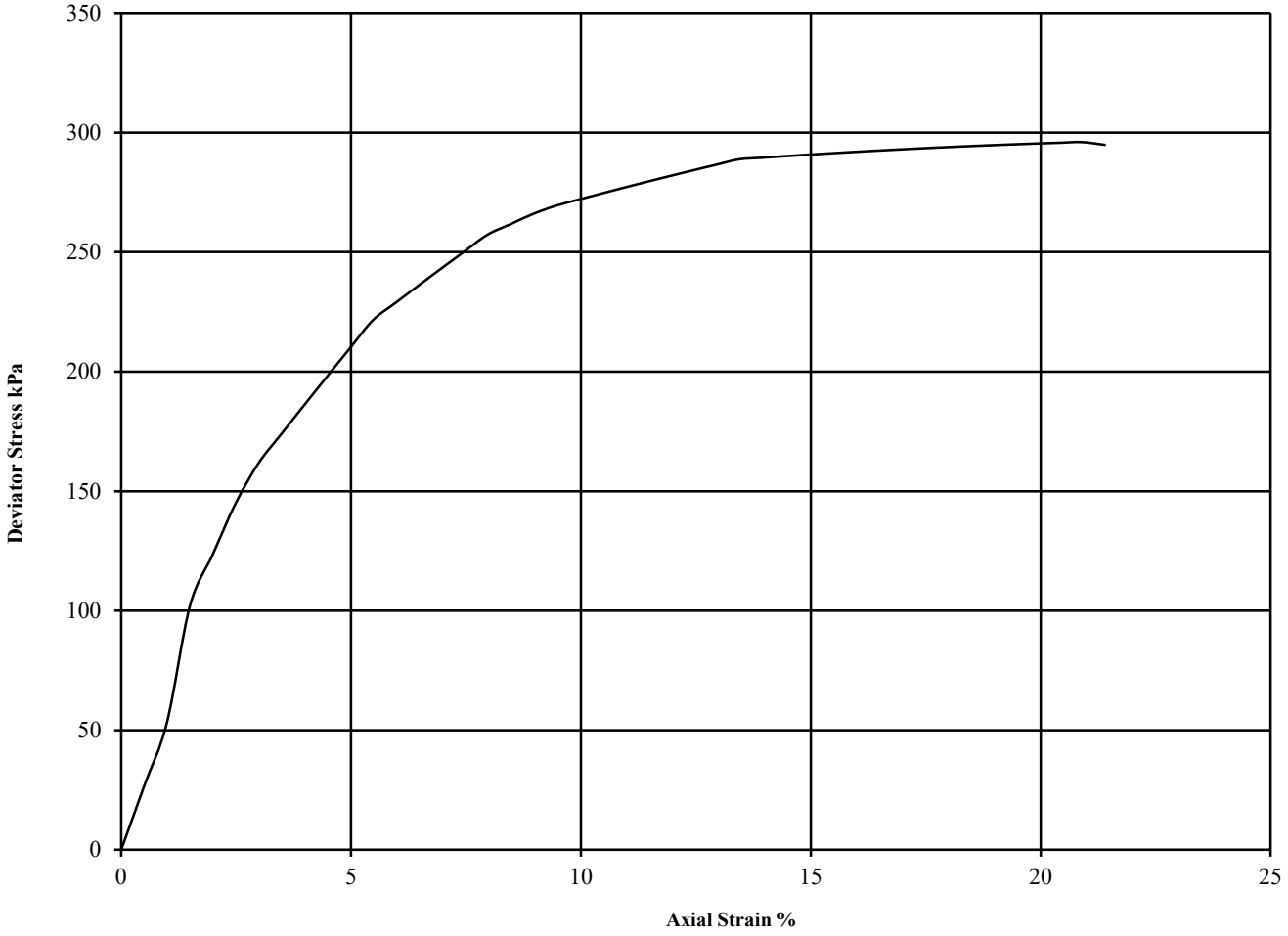
WITHOUT MEASUREMENT OF PORE PRESSURE

BS1377 : Part7 : 1990: Clause 8

Hole Number: CP1 **Top Depth (m):** 21.50

Sample Number: **Base Depth (m):**

Sample Type U



Diameter (mm):		103	Height (mm):		207	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 0.33
1	18	2.14	1.82	430	296	148	20.9	Intermediate	See summary of soil descriptions

UKAS TESTING 4043

PSL Professional Soils Laboratory

Holbeach

Contract No: PSL22/1197

Client Ref: GRO-21400

UNDRAINED SHEAR STRENGTH IN TRIAXIAL COMPRESSION

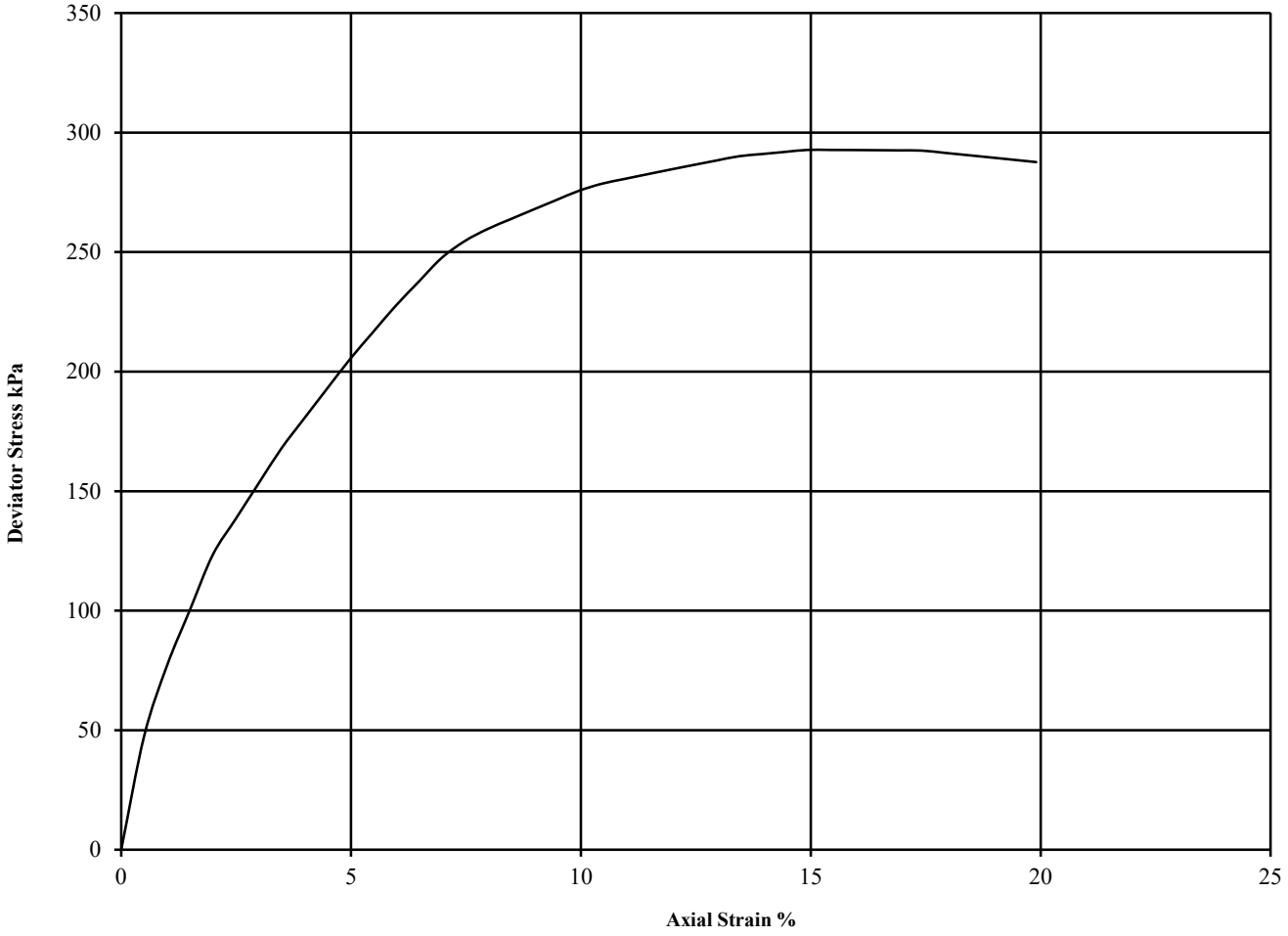
WITHOUT MEASUREMENT OF PORE PRESSURE

BS1377 : Part7 : 1990: Clause 8

Hole Number: CP1 **Top Depth (m):** 23.00

Sample Number: **Base Depth (m):**

Sample Type U



Diameter (mm):		103	Height (mm):		207	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	17	2.16	1.85	460	293	146	14.9	Intermediate	See summary of soil descriptions

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PSL Professional Soils Laboratory

Holbeach

Contract No: PSL22/1197

Client Ref: 'GRO-21400

UNDRAINED SHEAR STRENGTH IN TRIAXIAL COMPRESSION

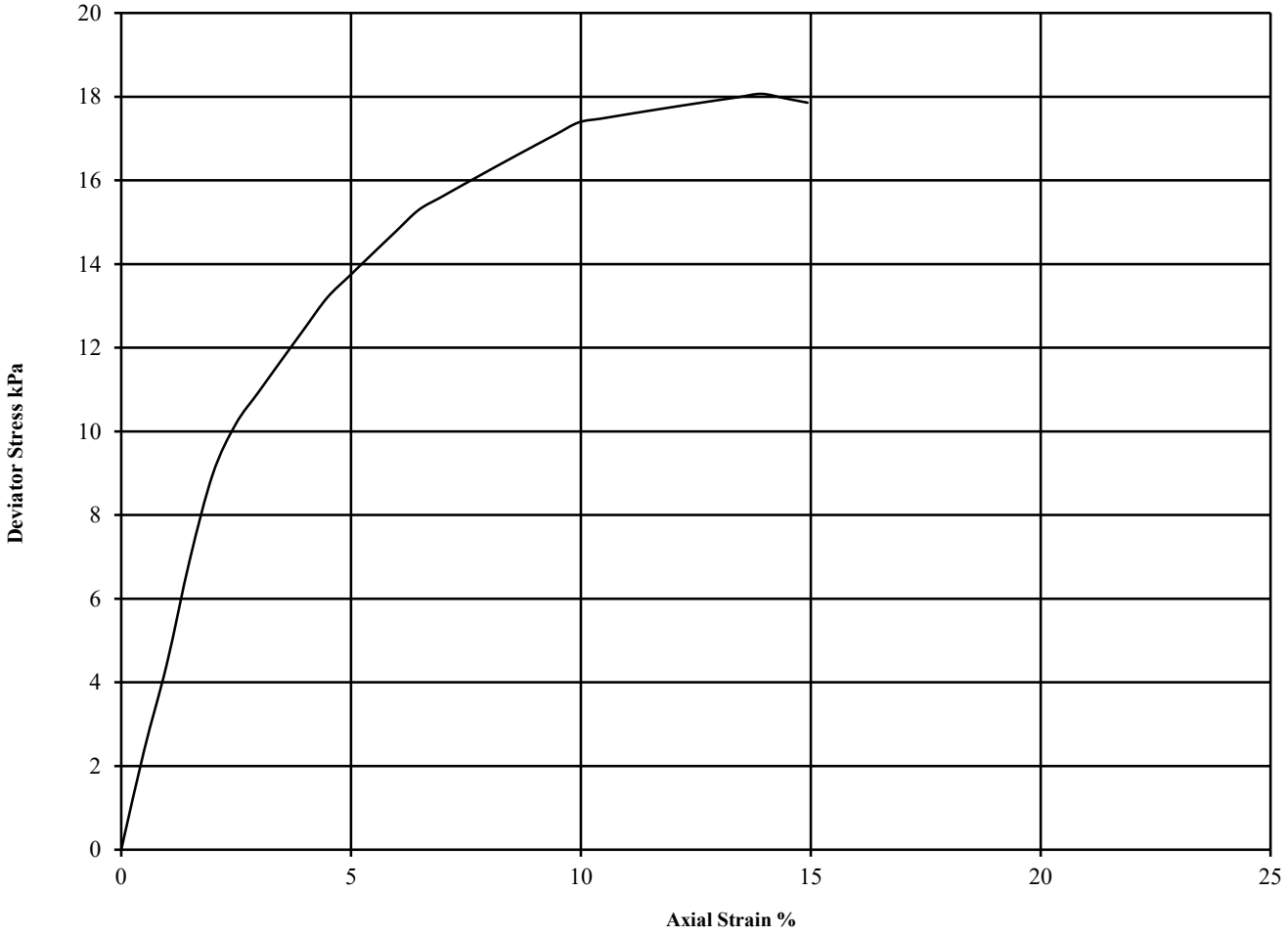
WITHOUT MEASUREMENT OF PORE PRESSURE

BS1377 : Part7 : 1990: Clause 8

Hole Number: CP2 **Top Depth (m):** 8.00

Sample Number: **Base Depth (m):**

Sample Type U



Diameter (mm):		103	Height (mm):		207	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	50	1.60	1.07	160	18	9	13.9	Plastic	See summary of soil descriptions

UKAS TESTING 4043	PSL Professional Soils Laboratory	**Holbeach**	**Contract No:** PSL22/1197 **Client Ref:** GRO-21400

UNDRAINED SHEAR STRENGTH IN TRIAXIAL COMPRESSION

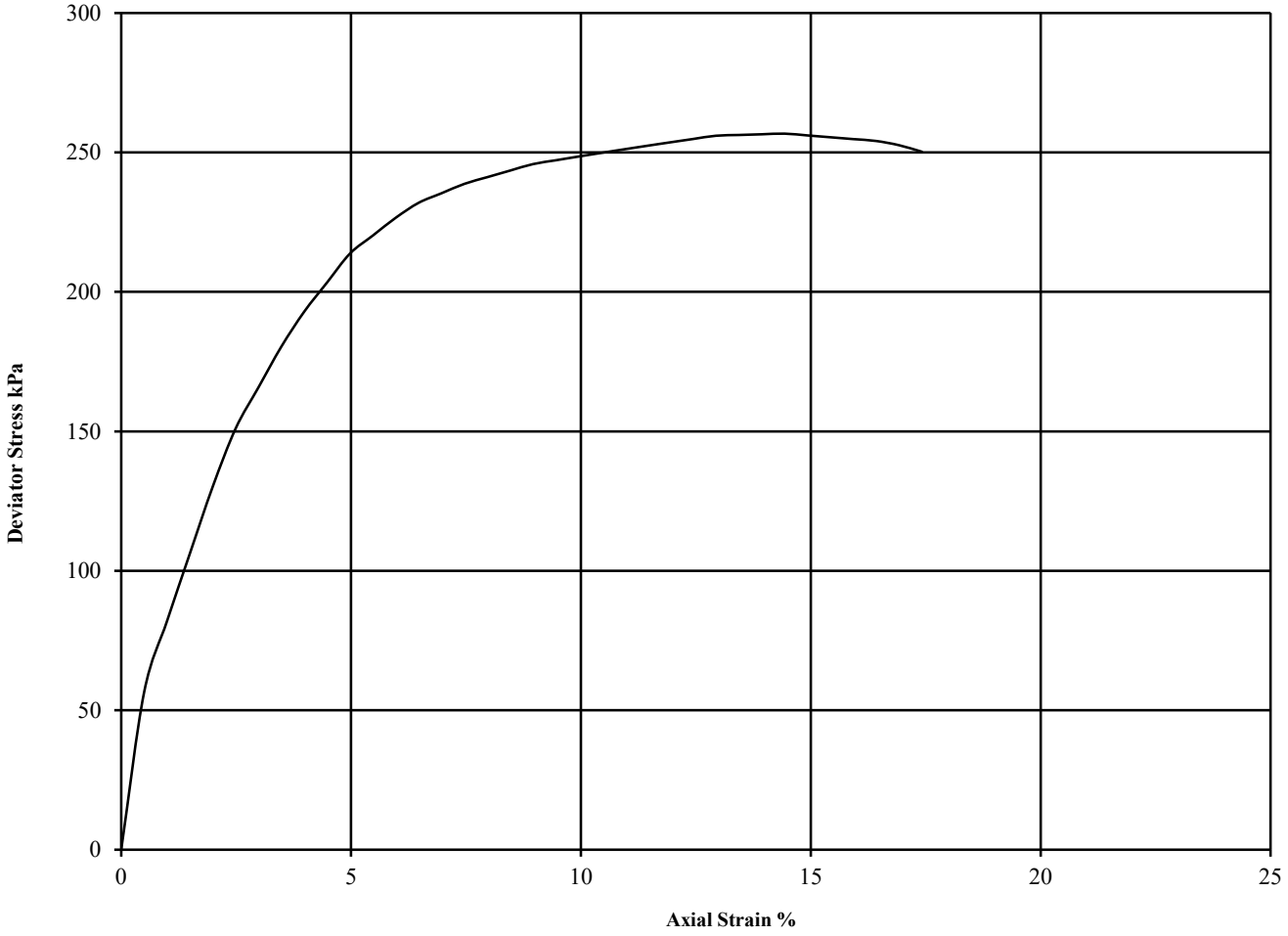
WITHOUT MEASUREMENT OF PORE PRESSURE

BS1377 : Part7 : 1990: Clause 8

Hole Number: CP2 **Top Depth (m):** 15.50

Sample Number: **Base Depth (m):**

Sample Type U



Diameter (mm):		103	Height (mm):		207	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	19	2.12	1.78	310	257	128	14.4	Plastic	See summary of soil descriptions

UKAS TESTING 4043

PSL Professional Soils Laboratory

Holbeach

Contract No: PSL22/1197

Client Ref: GRO-21400

UNDRAINED SHEAR STRENGTH IN TRIAXIAL COMPRESSION

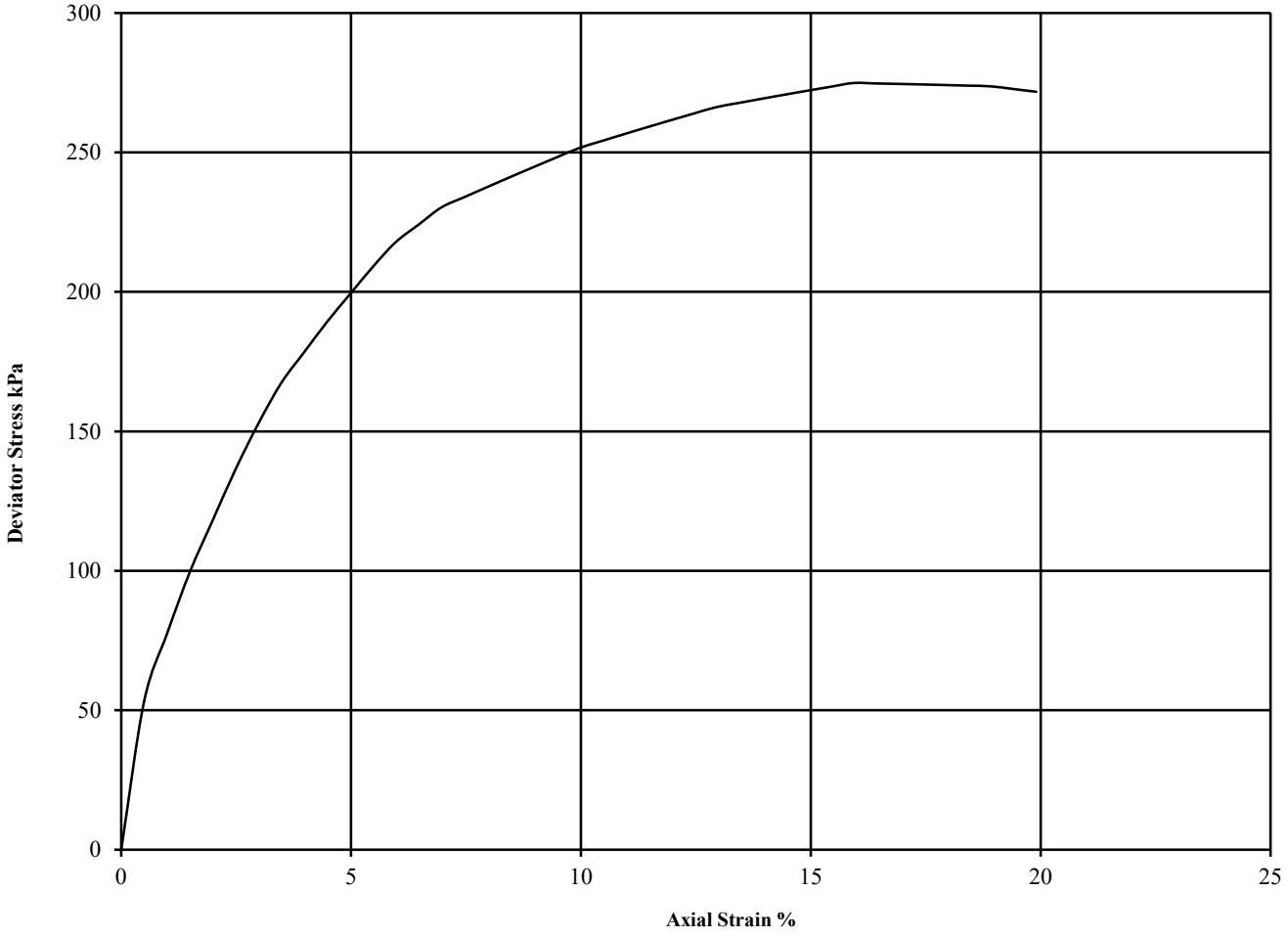
WITHOUT MEASUREMENT OF PORE PRESSURE

BS1377 : Part7 : 1990: Clause 8

Hole Number: CP2 **Top Depth (m):** 20.00

Sample Number: **Base Depth (m):**

Sample Type U



Diameter (mm):		103	Height (mm):		207	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	20	2.09	1.75	400	275	137	15.9	Plastic	See summary of soil descriptions

UKAS TESTING 4043

PSL Professional Soils Laboratory

Holbeach

Contract No: PSL22/1197

Client Ref: GRO-21400

UNDRAINED SHEAR STRENGTH IN TRIAXIAL COMPRESSION

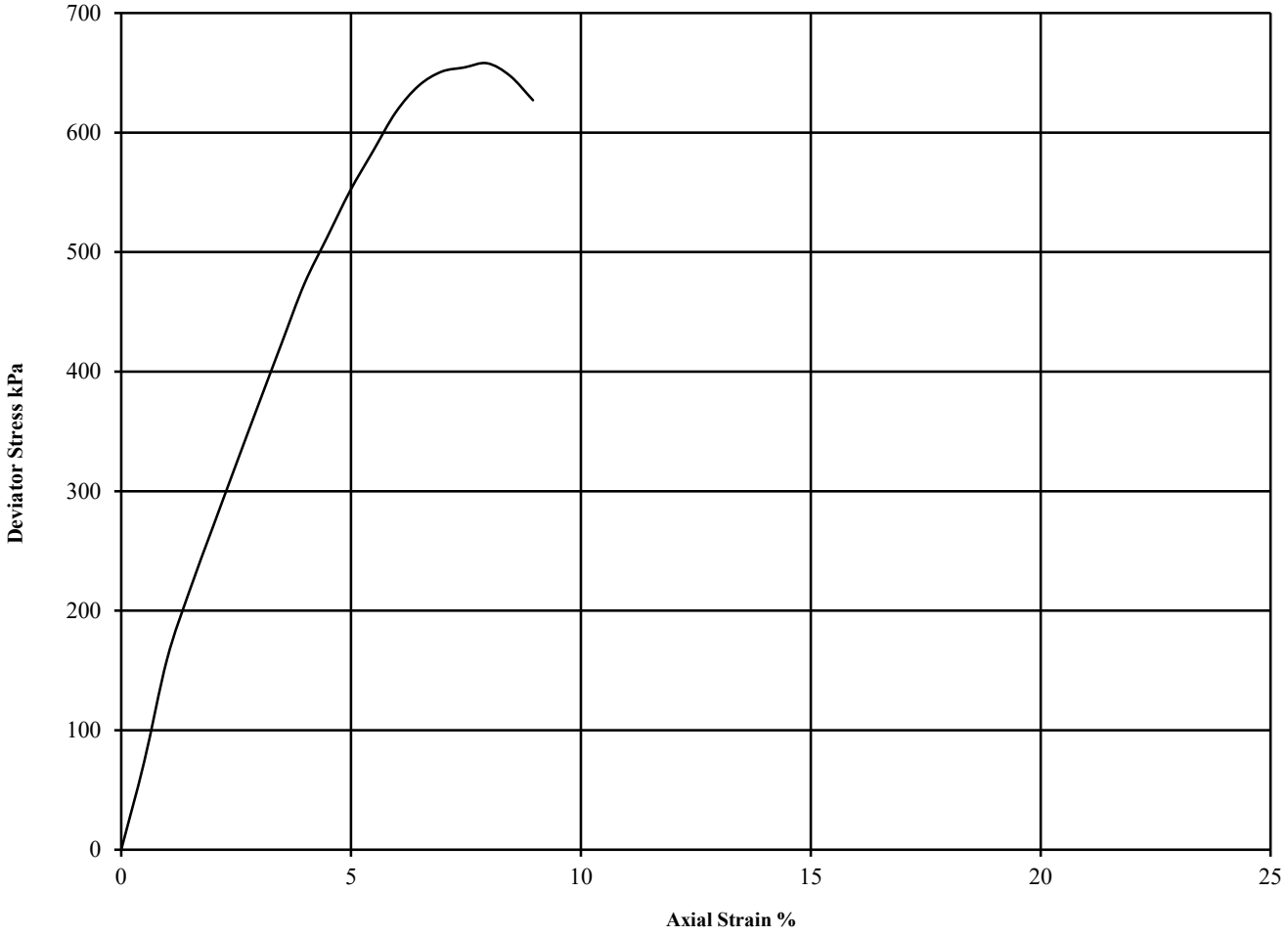
WITHOUT MEASUREMENT OF PORE PRESSURE

BS1377 : Part7 : 1990: Clause 8

Hole Number: CP3 **Top Depth (m):** 15.50

Sample Number: **Base Depth (m):**

Sample Type U



Diameter (mm):		103	Height (mm):		207	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 0.35
1	24	2.03	1.64	310	658	329	8.0	Brittle	See summary of soil descriptions

UKAS TESTING 4043

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Holbeach

Contract No: PSL22/1197

Client Ref: 'GRO-21400

ONE DIMENSIONAL CONSOLIDATION TEST

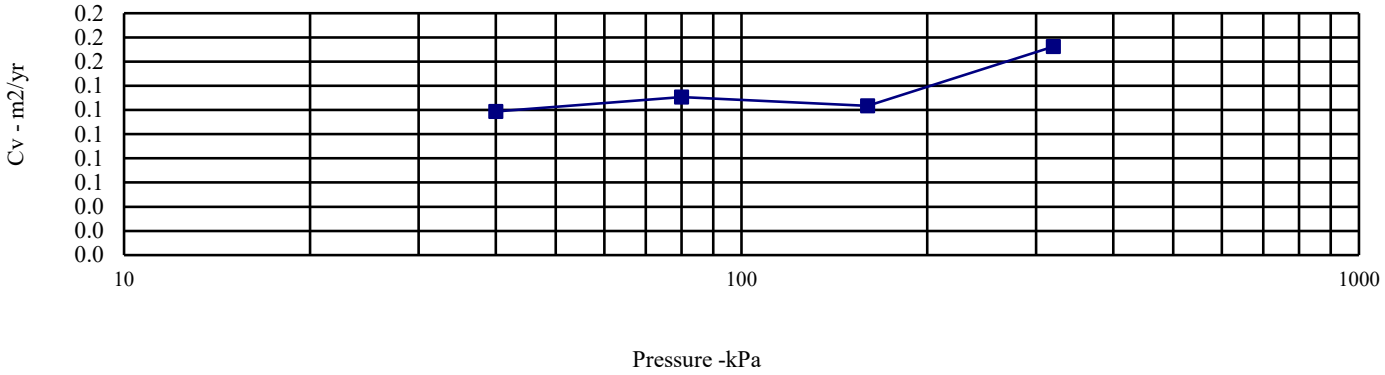
BS 1377: Part 5: 1990: Clause 3

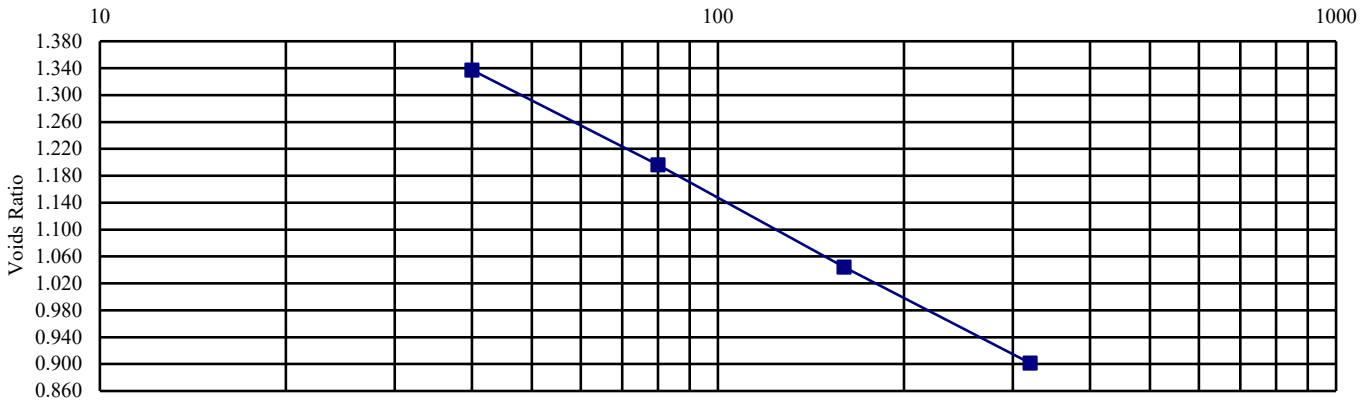
Hole Number: CP2 **Top Depth (m):** 4.00

Sample Number: **Base Depth (m) :** 4.45

Sample Type: U

Initial Conditions		Pressure Range kPa		Mv m2/MN	Cv m2/yr	Specimen location within tube:	Top
Moisture Content (%):	79						
Bulk Density (Mg/m3):	1.43	0	40	2.966	0.119	Method used to	
Dry Density (Mg/m3):	0.80	40	80	1.507	0.131	determine CV:	T90
Voids Ratio:	1.652	80	160	0.866	0.124	Nominal temperature	
Degree of saturation:	101.4	160	320	0.437	0.172	during test ' C:	20
Height (mm):	20.024					Remarks:	
Diameter (mm)	75.038					See summary of soil descriptions	
Particle Density (Mg/m3): Assumed	2.12						





UKAS TESTING 4043	PSL Professional Soils Laboratory	Holbeach	Contract No: PSL22/1197 Client Ref: GRO-21400

APPENDIX 10 - Permanent Gas Monitoring Results

PERMANENT GROUND GAS MONITORING FORM

GROUNDTECH CONSULTING

SITE NAME:	*ALDI, HOLBEACH*	***ENGINEER:***	*Jack Perkins*
CLIENT:	*ALDI STORES LIMITED*	***DATE:***	*22/02/2022*
JOB NO:	*GRO-21400*		

Pressure Trend:	*Steady*	***Weather:***	*Overcast*	***Equipment:***	*GFM 436*

Ambient:	O_2 (%v/v)	CH_4 (%v/v)	CO_2 (%v/v)	LEL	H_2S (ppm)	CO (ppm)
Start	20.7	0.0	0.0	0.0	0.0	0.0
Finish	20.7	0.0	0.0	0.0	0.0	0.0

BH Ref.	Gas Flow Rate (l/hr)		Borehole Pressure (mb)	Methane (%v/v)			Carbon Dioxide (%v/v)		Oxygen (%v/v)		Hydrogen Sulphide (ppm)		Carbon Monoxide (ppm)		Q_{hg} CO_2 (l/hr)	Q_{hg} CH_4 (l/hr)	Atmos Press (mb)	PID (ppm)	Sheen (Y/N)	Depth to Water (m bgl)
	Peak	Steady		Peak	Steady	LEL	Peak	Steady	Peak	Steady	Peak	Steady	Peak	Steady						
CP01	0.0	0.0	0.00	25.4	13.7	508.0	2.6	1.3	6.6	13.2	0.0	0.0	0.0	0.0	0.0026	0.0254	1009	-		0.98
CP02	0.0	0.0	0.00	60.7	31.0	1214.0	2.7	1.2	2.7	11.2	0.0	0.0	0.0	0.0	0.0027	0.0607	1008	-		0.94
CP03	0.0	0.0	0.00	11.8	2.3	236.0	0.0	0.0	15.4	19.5	0.0	0.0	0.0	0.0	0.0000	0.0118	1008	-		0.49
WS01	0.0	0.0	0.00	29.8	14.1	596.0	1.4	0.6	10.6	15.9	0.0	0.0	0.0	0.0	0.0014	0.0298	1009	-		0.73
WS06	0.0	0.0	0.00	0.0	0.0	0.0	0.8	0.7	18.9	19.1	0.0	0.0	0.0	0.0	0.0008	0.0000	1009	-		0.54
WS08	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
WS13	0.0	0.0	0.00	0.0	0.0	0.0	1.3	0.5	18.5	19.8	0.0	0.0	0.0	0.0	0.0013	0.0000	1009	-		0.88
WS14	0.0	0.0	0.00	2.5	2.1	50.0	2.4	2.1	18.3	18.5	0.0	0.0	0.0	0.0	0.0024	0.0025	1009	-		0.81

Notes: WS08 Covered by skip.

PERMANENT GROUND GAS MONITORING FORM

GROUNDTECH CONSULTING

SITE NAME:	*ALDI, HOLBEACH*	***ENGINEER:***	*Jack Perkins*
CLIENT:	*ALDI STORES LIMITED*	***DATE:***	*15/03/2022*
JOB NO:	*GRO-21400*		

Pressure Trend:	*Rising*	***Weather:***	*Sunny*	***Equipment:***	*GFM 436*

Ambient:	O_2 (%v/v)	CH_4 (%v/v)	CO_2 (%v/v)	LEL	H_2S (ppm)	CO (ppm)
Start	20.3	0.0	0.0	0.0	0.0	0.0
Finish	20.3	0.0	0.0	0.0	0.0	0.0

BH Ref.	Gas Flow Rate (l/hr)		Borehole Pressure (mb)	Methane (%v/v)			Carbon Dioxide (%v/v)		Oxygen (%v/v)		Hydrogen Sulphide (ppm)		Carbon Monoxide (ppm)		Q_{hg} CO_2 (l/hr)	Q_{hg} CH_4 (l/hr)	Atmos Press (mb)	PID (ppm)	Sheen (Y/N)	Depth to Water (m bgl)
	Peak	Steady		Peak	Steady	LEL	Peak	Steady	Peak	Steady	Peak	Steady	Peak	Steady						
CP01	0.0	0.0	0.00	21.1	13.5	422.0	2.7	1.7	8.0	12.4	0.0	0.0	0.0	0.0	0.0027	0.0211	1019	-	N	0.88
CP02	18.4	18.4	2.03	51.6	32.7	1032.0	2.3	1.5	4.5	10.2	0.0	0.0	0.0	0.0	0.4232	9.4944	1020	-	N	1.22
CP03	0.0	0.0	0.00	1.4	0.1	28.0	0.3	0.1	17.0	18.7	0.0	0.0	0.0	0.0	0.0003	0.0014	1019	-	N	0.62
WS01	0.0	0.0	0.00	9.4	3.9	188.0	0.6	0.3	16.8	18.8	0.0	0.0	19.0	10.0	0.0006	0.0094	1019	-	N	0.98
WS06	0.0	0.0	0.00	0.0	0.0	0.0	1.4	0.2	15.8	19.6	0.0	0.0	10.0	0.0	0.0014	0.0000	1020	-	N	0.52
WS08	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
WS13	0.0	0.0	0.00	0.6	0.0	12.0	1.9	0.3	16.8	19.8	0.0	0.0	0.0	0.0	0.0019	0.0006	1020	-	N	1.08
WS14	0.0	0.0	0.00	42.4	25.6	848.0	18.2	11.5	1.2	8.6	0.0	0.0	0.0	0.0	0.0182	0.0424	1020	-	N	NGW

Notes: WS08 covered by skip.

APPENDIX 11 - Soil Percolation Testing Results

ALDI HOLBEACH
GRO-21400
ALDI STORES LIMITED

SOIL PERCOLATION TEST

Sheet 1 of 2

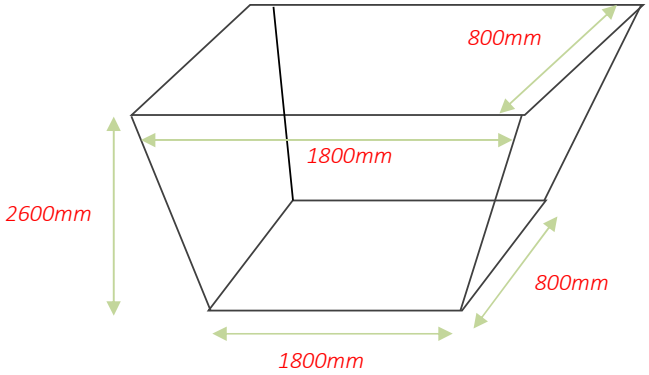
Date of Test: 27/01/2022

POSITION: SuDS1
TEST 1

Weather: Overcast

Engineer: *C Hastings*
Checked: *R Wyatt*

Trial Pit Measurements



Pit Depth (mm):	2600
Pit Details:	Open with no stone filling
Groundwater Level:	NGW

Test Data

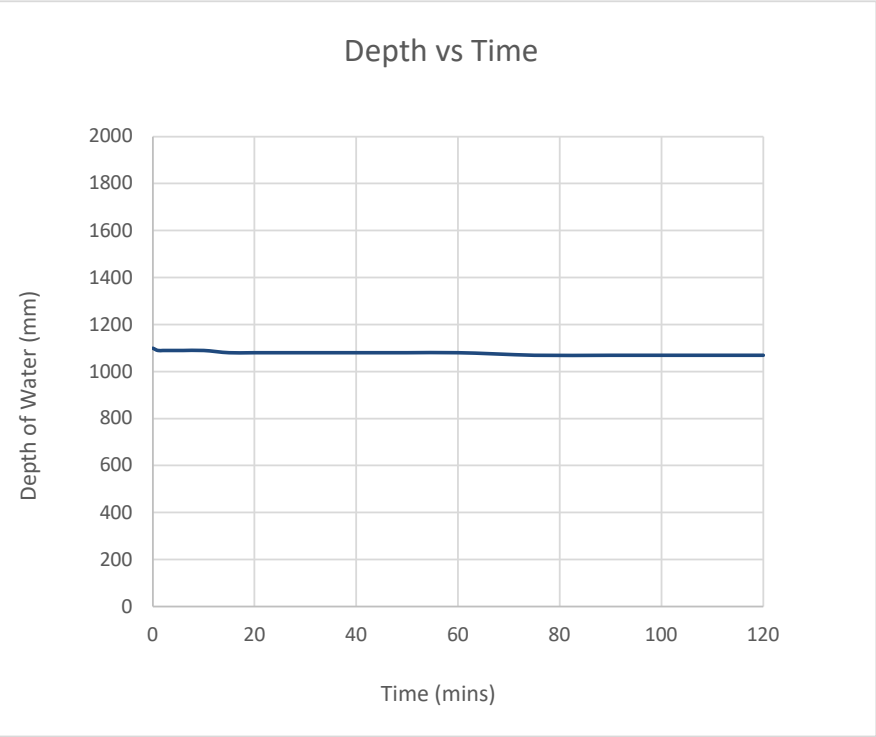
Time Elapsed (mins)	Depth to Water Level (mm)
0	1500
1	1510
2	1510
3	1510
5	1510
6	1510
10	1510
15	1520
20	1520
30	1520
40	1520
50	1520
60	1520
75	1530
90	1530
105	1530
120	1530

ALDI HOLBEACH
GRO-21400
ALDI STORES LIMITED

SOIL PERCOLATION TEST

Sheet 2 of 2

POSITION: SuDS1
TEST 1



Volume of Pit (m^3)	3.744
Void Ratio of Infill	1
Volume of Infill (m^3)	N/A
Volume of Water in Pit (m^3)	1.584

Compliancy Check:

Water Level at 75% effective depth (mm)	825
Water Level at 25% effective depth (mm)	275

Test not BRE 365 compliant with BRE 365 - insufficient time to drain past 25% effective depth

Soil Infiltration Rate Calculation

Water Level 1	1530
Water Level 2	1500
Time to Drain from Level 1 to Level 2 (mins)	120
Volume of water discharged (m^3)	0.0432
Discharge Area (m^2)	9.396
Soil Infiltration Rate (m/min)	3.831E-05
Soil Infiltration Rate (m/sec)	***6.39E-07***

ALDI HOLBEACH
GRO-21400
ALDI STORES LIMITED

SOIL PERCOLATION TEST

Sheet 1 of 2

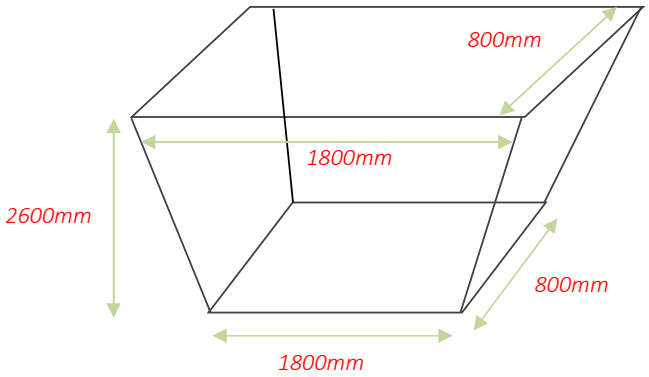
Date of Test: 27/01/2022

POSITION: SuDS1
TEST 2

Weather: Overcast

Engineer: *C Hastings*
Checked: *R Wyatt*

Trial Pit Measurements



Pit Depth (mm):	2600
Pit Details:	Open with no stone filling
Groundwater Level:	NGW

Test Data

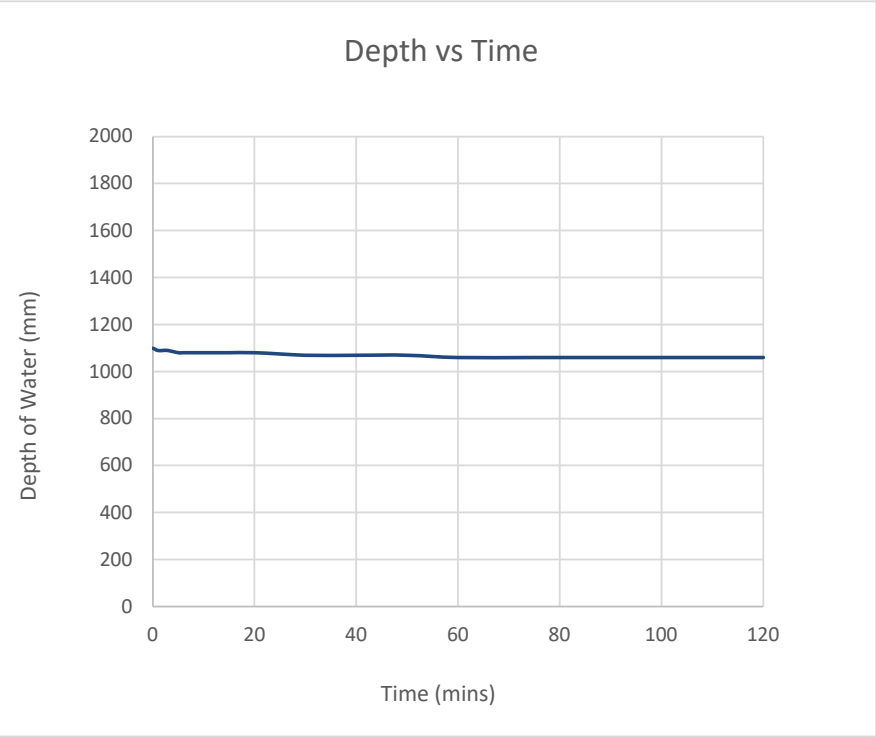
Time Elapsed (mins)	Depth to Water Level (mm)
0	1500
1	1510
2	1510
3	1510
5	1520
6	1520
10	1520
15	1520
20	1520
30	1530
40	1530
50	1530
60	1540
75	1540
90	1540
105	1540
120	1540

ALDI HOLBEACH
GRO-21400
ALDI STORES LIMITED

SOIL PERCOLATION TEST

Sheet 2 of 2

POSITION: SuDS1
TEST 2



Volume of Pit (m^3)	3.744
Void Ratio of Infill	1
Volume of Infill (m^3)	N/A
Volume of Water in Pit (m^3)	1.584

Compliancy Check:

Water Level at 75% effective depth (mm)	825
Water Level at 25% effective depth (mm)	275

Test not BRE 365 compliant with BRE 365 - insufficient time to drain past 25% effective depth

Soil Infiltration Rate Calculation

Water Level 1	1540
Water Level 2	1500
Time to Drain from Level 1 to Level 2 (mins)	120
Volume of water discharged (m^3)	0.0576
Discharge Area (m^2)	9.448
Soil Infiltration Rate (m/min)	5.08E-05
Soil Infiltration Rate (m/sec)	***8.47E-07***

ALDI HOLBEACH
GRO-21400
ALDI STORES LIMITED

SOIL PERCOLATION TEST

Sheet 1 of 2

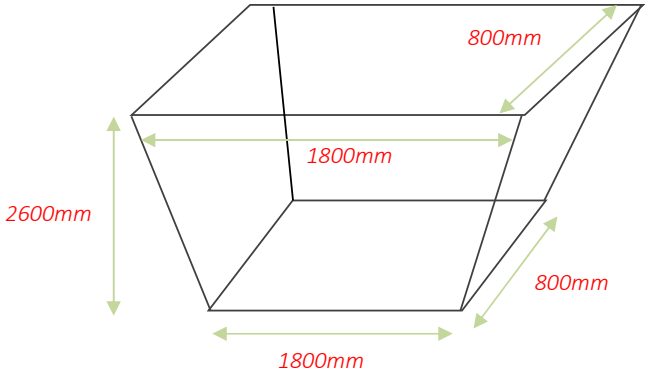
Date of Test: 27/01/2022

POSITION: SuDS1
TEST 3

Weather: Overcast

Engineer: *C Hastings*
Checked: *R Wyatt*

Trial Pit Measurements



Pit Depth (mm):	2600
Pit Details:	Open with no stone filling
Groundwater Level:	NGW

Test Data

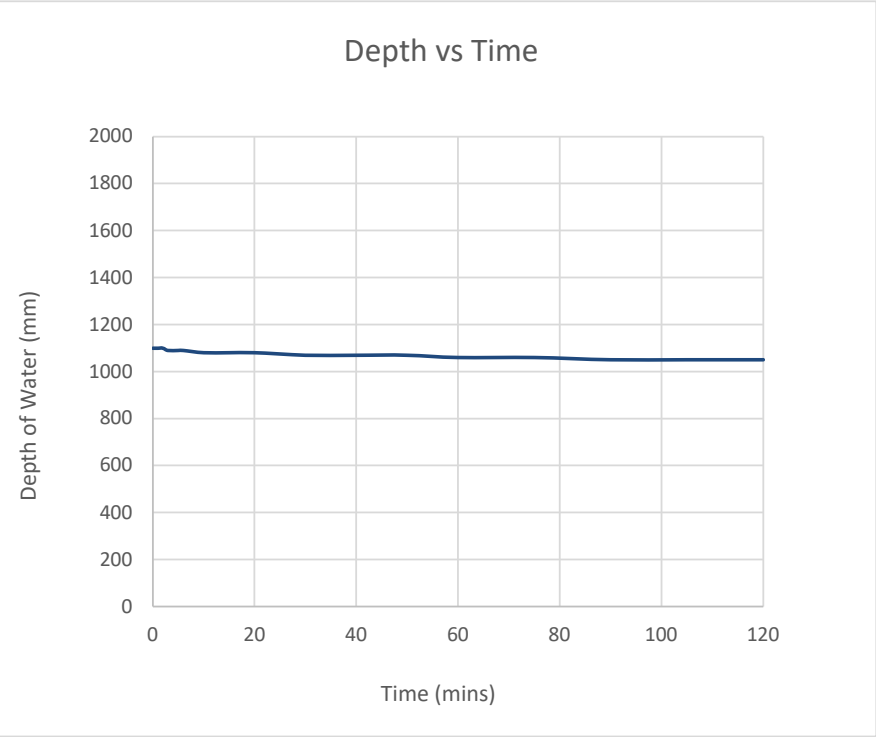
Time Elapsed (mins)	Depth to Water Level (mm)
0	1500
1	1500
2	1500
3	1510
5	1510
6	1510
10	1520
15	1520
20	1520
30	1530
40	1530
50	1530
60	1540
75	1540
90	1550
105	1550
120	1550

ALDI HOLBEACH
GRO-21400
ALDI STORES LIMITED

SOIL PERCOLATION TEST

Sheet 2 of 2

POSITION: SuDS1
TEST 3



Volume of Pit (m^3)	3.744
Void Ratio of Infill	1
Volume of Infill (m^3)	N/A
Volume of Water in Pit (m^3)	1.584

Compliancy Check:

Water Level at 75% effective depth (mm)	825
Water Level at 25% effective depth (mm)	275

Test not BRE 365 compliant with BRE 365 - insufficient time to drain past 25% effective depth

Soil Infiltration Rate Calculation

Water Level 1	1550
Water Level 2	1500
Time to Drain from Level 1 to Level 2 (mins)	120
Volume of water discharged (m^3)	0.072
Discharge Area (m^2)	9.5
Soil Infiltration Rate (m/min)	6.316E-05
Soil Infiltration Rate (m/sec)	***1.05E-06***

ALDI HOLBEACH
GRO-21400
ALDI STORES LIMITED

SOIL PERCOLATION TEST

Sheet 1 of 2

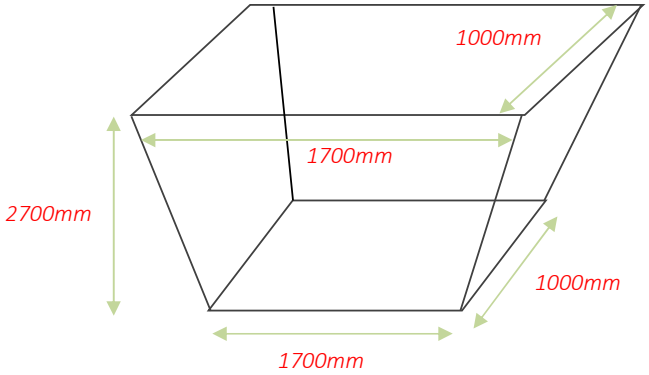
Date of Test: 27/01/2022

POSITION: SuDS2a
TEST 1

Weather: Overcast

Engineer: *C Hastings*
Checked: *R Wyatt*

Trial Pit Measurements



Pit Depth (mm):	2700
Pit Details:	Open with no stone filling
Groundwater Level:	NGW

Test Data

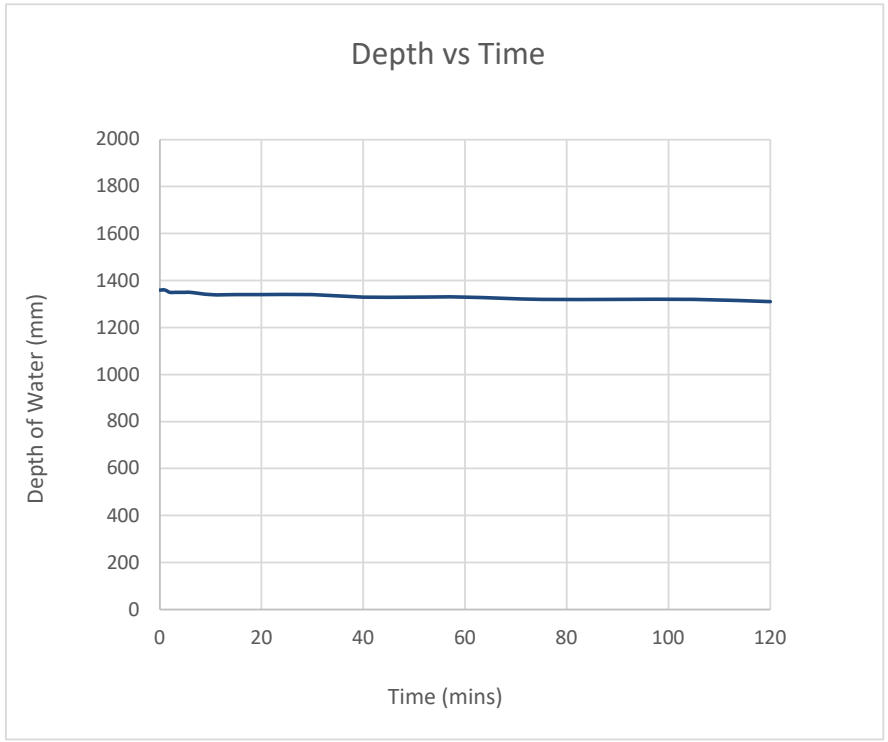
Time Elapsed (mins)	Depth to Water Level (mm)
0	1340
1	1340
2	1350
3	1350
5	1350
6	1350
10	1360
15	1360
20	1360
30	1360
40	1370
50	1370
60	1370
75	1380
90	1380
105	1380
120	1390

ALDI HOLBEACH
GRO-21400
ALDI STORES LIMITED

SOIL PERCOLATION TEST

Sheet 2 of 2

POSITION: SuDS2a
TEST 1



Volume of Pit (m^3)	4.59
Void Ratio of Infill	1
Volume of Infill (m^3)	N/A
Volume of Water in Pit (m^3)	2.312

Compliancy Check:

Water Level at 75% effective depth (mm)	1020
Water Level at 25% effective depth (mm)	340

Test not BRE 365 compliant with BRE 365 - insufficient time to drain past 25% effective depth

Soil Infiltration Rate Calculation

Water Level 1	1390
Water Level 2	1340
Time to Drain from Level 1 to Level 2 (mins)	120
Volume of water discharged (m^3)	0.085
Discharge Area (m^2)	9.206
Soil Infiltration Rate (m/min)	7.694E-05
Soil Infiltration Rate (m/sec)	***1.28E-06***

ALDI HOLBEACH
GRO-21400
ALDI STORES LIMITED

SOIL PERCOLATION TEST

Sheet 1 of 2

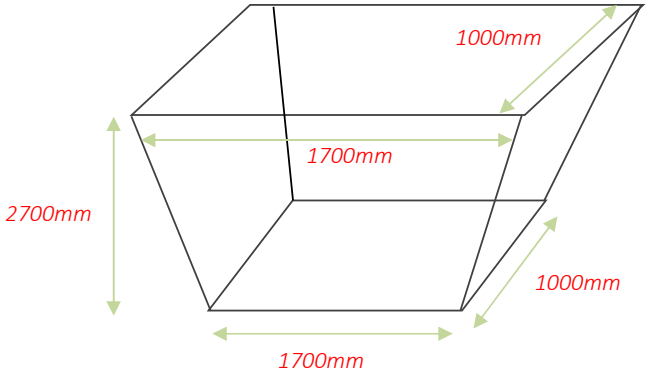
Date of Test: 27/01/2022

POSITION: SuDS2a
TEST 2

Weather: Overcast

Engineer: *C Hastings*
Checked: *R Wyatt*

Trial Pit Measurements



Pit Depth (mm):	2700
Pit Details:	Open with no stone filling
Groundwater Level:	NGW

Test Data

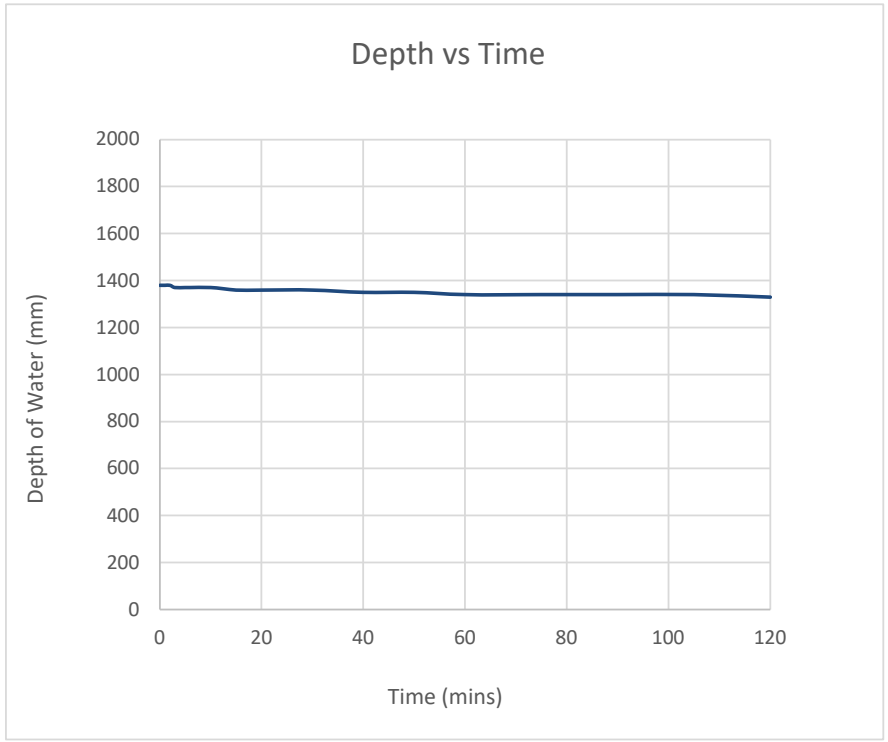
Time Elapsed (mins)	Depth to Water Level (mm)
0	1320
1	1320
2	1320
3	1330
5	1330
6	1330
10	1330
15	1340
20	1340
30	1340
40	1350
50	1350
60	1360
75	1360
90	1360
105	1360
120	1370

ALDI HOLBEACH
GRO-21400
ALDI STORES LIMITED

Sheet 2 of 2

SOIL PERCOLATION TEST

POSITION: SuDS2a
TEST 2



Volume of Pit (m^3)	4.59
Void Ratio of Infill	1
Volume of Infill (m^3)	N/A
Volume of Water in Pit (m^3)	2.346

Compliancy Check:

Water Level at 75% effective depth (mm)	1035
Water Level at 25% effective depth (mm)	345

Test not BRE 365 compliant with BRE 365 - insufficient time to drain past 25% effective depth

Soil Infiltration Rate Calculation

Water Level 1	1370
Water Level 2	1320
Time to Drain from Level 1 to Level 2 (mins)	120
Volume of water discharged (m^3)	0.085
Discharge Area (m^2)	9.098
Soil Infiltration Rate (m/min)	7.786E-05
Soil Infiltration Rate (m/sec)	***1.30E-06***

ALDI HOLBEACH
GRO-21400
ALDI STORES LIMITED

SOIL PERCOLATION TEST

Sheet 1 of 2

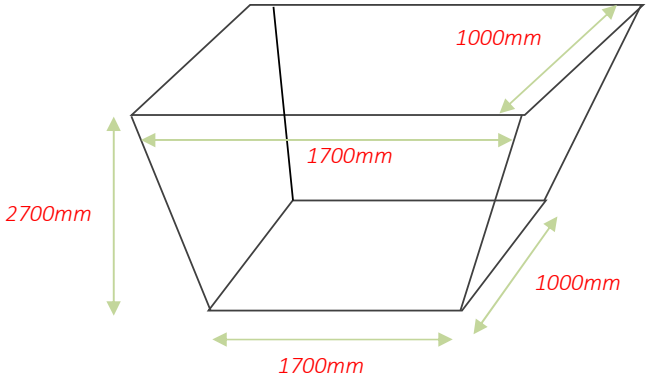
Date of Test: 27/01/2022

POSITION: SuDS2a
TEST 3

Weather: Overcast

Engineer: *C Hastings*
Checked: *R Wyatt*

Trial Pit Measurements



Pit Depth (mm):	2700
Pit Details:	Open with no stone filling
Groundwater Level:	NGW

Test Data

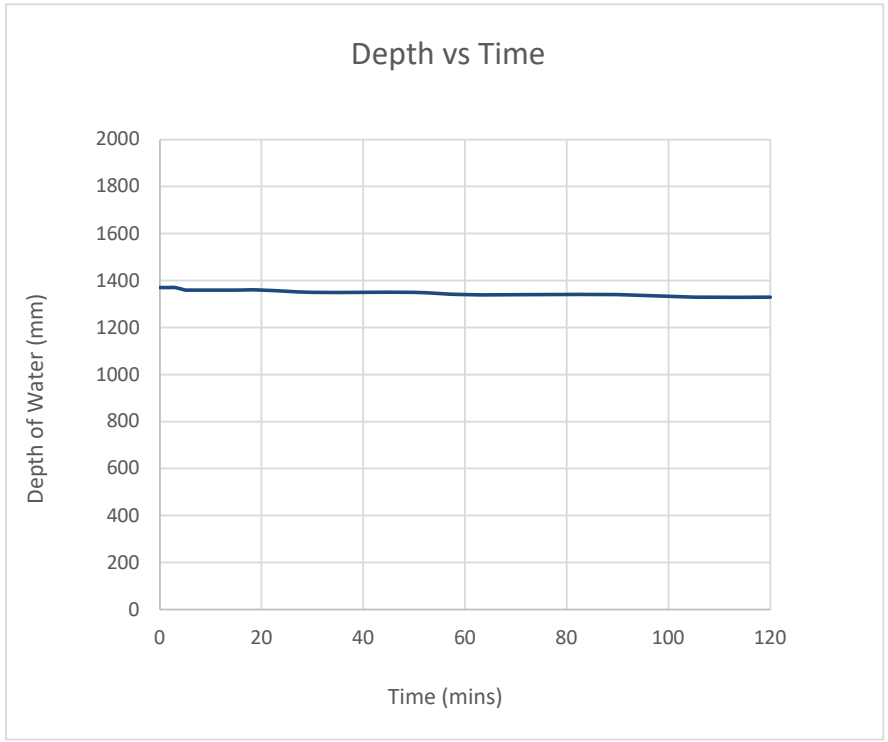
Time Elapsed (mins)	Depth to Water Level (mm)
0	1330
1	1330
2	1330
3	1330
5	1340
6	1340
10	1340
15	1340
20	1340
30	1350
40	1350
50	1350
60	1360
75	1360
90	1360
105	1370
120	1370

ALDI HOLBEACH
GRO-21400
ALDI STORES LIMITED

SOIL PERCOLATION TEST

Sheet 2 of 2

POSITION: SuDS2a
TEST 3



Volume of Pit (m^3)	4.59
Void Ratio of Infill	1
Volume of Infill (m^3)	N/A
Volume of Water in Pit (m^3)	2.329

Compliancy Check:

Water Level at 75% effective depth (mm)	1027.5
Water Level at 25% effective depth (mm)	342.5

Test not BRE 365 compliant with BRE 365 - insufficient time to drain past 25% effective depth

Soil Infiltration Rate Calculation

Water Level 1	1370
Water Level 2	1330
Time to Drain from Level 1 to Level 2 (mins)	120
Volume of water discharged (m^3)	0.068

Discharge Area (m^2)	9.098
Soil Infiltration Rate (m/min)	6.228E-05
Soil Infiltration Rate (m/sec)	***1.04E-06***

APPENDIX 12 - Screening Values (Commercial End Use)

Generic Assessment Criteria (GAC)

GROUNDTECH CONSULTING

Proposed End Use	Unit	Residential with Plant Uptake			Commercial			Source
SOM	%	1	2.5	6	1	2.5	6	
Arsenic	mg/kg	32	32	32	640	640	640	SGVs
Beryllium	mg/kg	1.7	1.7	1.7	12	12	12	LQM S4ULs
Boron (water soluble)	mg/kg	290	290	290	240000	240000	240000	LQM S4ULs
Cadmium	mg/kg	10	10	10	230	230	230	SGVs
Chromium (Total)	mg/kg	910	910	910	8600	8600	8600	LQM S4ULs
Chromium (VI)	mg/kg	21	21	21	49	49	49	DEFRA C4SLs
Copper	mg/kg	2400	2400	2400	68000	68000	68000	LQM S4ULs
Lead	mg/kg	200	200	200	2300	2300	2300	DEFRA C4SLs
Organic Mercury	mg/kg	1.2	1.2	1.2	26	26	26	LQM S4ULs
Nickel	mg/kg	130	130	130	980	980	980	LQM S4ULs
Selenium	mg/kg	350	350	350	13000	13000	13000	SGVs
Vanadium	mg/kg	410	410	410	9000	9000	9000	LQM S4ULs
Zinc	mg/kg	3700	3700	3700	730000	730000	730000	LQM S4ULs
Aliphatic EC 5 - 6	mg/kg	42	78	160	3200 (304) sol	5900 (558) sol	12000 (1150) sol	LQM S4ULs
Aliphatic EC 6 - 8	mg/kg	100	230	530	7800 (144) sol	17000 (322) sol	40000 (736) sol	LQM S4ULs
Aliphatic EC 8 - 10	mg/kg	27	65	150	2000 (78) sol	4800 (190) sol	11000 (451) vap	LQM S4ULs
Aliphatic EC 10 - 12	mg/kg	130 (48) vap	330 (118) vap	760 (283) vap	9700 (48) sol	23000 (118) vap	47000 (283) vap	LQM S4ULs
Aliphatic EC 12 - 16	mg/kg	1100 (24) sol	2400 (59) sol	4300 (142) sol	59000 (24) sol	82000 (59) sol	90000 (142) sol	LQM S4ULs
Aliphatic EC 16 - 35	mg/kg	65000 (8.48) f,sol	92000 (21) f,sol	110000 f	1600000 f	1700000 f	1800000 f	LQM S4ULs
Aliphatic EC 35 - 44	mg/kg	65000 (8.48) f,sol	92000 (21) f,sol	110000 f	1600000 f	1700000 f	1800000 f	LQM S4ULs
Aromatic EC 5 - 7	mg/kg	70	140	300	26000 (1220) sol	46000 (2260) sol	86000 (4710) sol	LQM S4ULs
Aromatic EC 7 - 8	mg/kg	130	290	660	56000 (869) vap	110000 (1920)	180000 (4360)	LQM S4ULs
Aromatic EC 8 - 10	mg/kg	34	83	190	3500 (613) vap	8100 (1500) vap	17000 (3580)	LQM S4ULs
Aromatic EC 10 - 12	mg/kg	74	180	380	16000 (364) sol	28000 (899) sol	34000 (2150) sol	LQM S4ULs
Aromatic EC 12 -16	mg/kg	140	330	660	36000 (169) sol	37000	38000	LQM S4ULs
Aromatic EC 16 - 21	mg/kg	260 f	540 f	930 f	28000 f	28000 f	28000 f	LQM S4ULs
Aromatic EC 21 - 35	mg/kg	1100 f	1500 f	1700 f	28000 f	28000 f	28000 f	LQM S4ULs
Aromatic EC 35 - 44	mg/kg	1100 f	1500 f	1700 f	28000 f	28000 f	28000 f	LQM S4ULs
Benzene	mg/kg	0.33	0.33	0.33	95	95	95	SGVs
Toluene	mg/kg	610	610	610	4400	4400	4400	SGVs
Ethyl Benzene	mg/kg	350	350	350	2800	2800	2800	SGVs
Xylene - o	mg/kg	250	250	250	2600	2600	2600	SGVs
Xylene - m	mg/kg	240	240	240	3500	3500	3500	SGVs
Xylene - p	mg/kg	230	230	230	3200	3200	3200	SGVs
MTBE (methyl tert-butyl ether)	mg/kg	49	84	160	7900	13000	24000	CL:AIRE 2010
Acenaphthene	mg/kg	210	510	1100	84000 (57) sol	97000 (141) sol	100000	LQM SAULs
Acenaphthylene	mg/kg	170	420	920	83000 (86.1) sol	97000 (212) sol	100000	LQM S4ULs
Anthracene	mg/kg	2400	5400	11000	520000	540000	540000	LQM S4ULs
Benz(a)anthracene	mg/kg	7.2	11	13	170	170	180	LQM S4ULs
Benzo(a)pyrene	mg/kg	2.2	2.7	5*	35	35	77*	DEFRA C4SL*/LQM
Benzo(b)fluoranthene	mg/kg	2.6	3.3	3.7	44	44	45	LQM S4ULs
Benzo(ghi)perylene	mg/kg	320	340	350	3900	4000	4000	LQM S4ULs
Benzo(k)fluoranthene	mg/kg	77	93	100	1200	1200	1200	LQM S4ULs
Chrysene	mg/kg	15	22	27	350	350	350	LQM S4ULs
Dibenz(ah)anthracene	mg/kg	0.24	0.28	0.3	3.5	3.6	3.6	LQM S4ULs
Fluoranthene	mg/kg	280	560	890	23000	23000	23000	LQM S4ULs
Fluorene	mg/kg	170	400	860	63000 (30.9) sol	68000	71000	LQM S4ULs
Indeno(123-cd)pyrene	mg/kg	27	36	41	500	510	510	LQM S4ULs
Naphthalene	mg/kg	2.3 f	5.6 f	13 f	190 f (76.4) sol	460 f (183) sol	1100 f (432) sol	LQM S4ULs
Phenanthrene	mg/kg	95	220	440	22000	22000	23000	LQM S4ULs
Pyrene	mg/kg	620	1200	2000	54000	54000	54000	LQM S4ULs

Generic Assessment Criteria (GAC)

GROUNDTECH CONSULTING

Proposed End Use	Unit	Residential with Plant Uptake			Commercial			Source
SOM	%	1	2.5	6	1	2.5	6	
Phenol	*mg/kg*	*420*	*420*	*420*	*3200*	*3200*	*3200*	*SGVs*
Chlorophenols	*mg/kg*	*0.87* [g]	*2*	*4.5*	*3500*	*4000*	*4300*	*LQM S4ULs*
Pentachlorophenol	*mg/kg*	*0.22*	*0.52*	*1.2*	*400*	*400*	*400*	*LQM S4ULs*
Carbon disulphide	*mg/kg*	*0.14*	*0.29*	*0.62*	*11*	*22*	*47*	*LQM S4ULs*
Hexachlorobutadiene	*mg/kg*	*0.29*	*0.7*	*1.6*	*31*	*66*	*120*	*LQM S4ULs*
1,1,1,2 Tetrachloroethane	*mg/kg*	*1.6*	*3.4*	*7.5*	*270*	*550*	*1100*	*LQM S4ULs*
1,1,1 Trichloroethane	*mg/kg*	*8.8*	*18*	*39*	*660*	*1300*	*3000*	*LQM S4ULs*
Trichloroethene	*mg/kg*	*0.016*	*0.034*	*0.075*	*1.2*	*2.6*	*5.7*	*LQM S4ULs*
Tetrachoromethane (Carbon Tetrachloride)	*mg/kg*	*0.026*	*0.056*	*0.13*	*2.9*	*6.3*	*14*	*LQM S4ULs*
1,2-Dichloroethane	*mg/kg*	*0.0071*	*0.011*	*0.019*	*0.67*	*0.97*	*1.7*	*LQM S4ULs*
Chloroethene (Vinyl chloride)	*mg/kg*	*0.00064*	*0.00087*	*0.0014*	*0.059*	*0.077*	*0.12*	*LQM S4ULs*
Trichloromethane (Chloroform)	*mg/kg*	*0.91*	*1.7*	*3.4*	*99*	*170*	*350*	*LQM S4ULs*
Tetrachloroethene	*mg/kg*	*0.18*	*0.39*	*0.9*	*19*	*42*	*95*	*LQM S4ULs*
Hexachlorobenzene	*mg/kg*	*1.8 (0.2)* [vap]	*3.3 (0.5)* [vap]	*4.9*	*110 (0.2)* [vap]	*120*	*120*	*LQM S4ULs*
Pentachlorobenzene	*mg/kg*	*5.8*	*12*	*22*	*640 (43)* [sol]	*770 (107)* [sol]	*830*	*LQM S4ULs*
1,2,4,5-Tetrachlorobenzene	*mg/kg*	*0.33*	*0.77*	*1.6*	*42 (19.7)* [sol]	*72 (49.1)* [sol]	*96*	*LQM S4ULs*
1,2,3,5-Tetrachlorobenzene	*mg/kg*	*0.66*	*1.69*	*3.7*	*49 (39.4)* [vap]	*120 (98.1)* [vap]	*240 (235)* [vap]	*LQM S4ULs*
1,2,3,4-Tetrachlorobenzene	*mg/kg*	*15*	*36*	*78*	*1700 (122)* [vap]	*3080 (304)* [vap]	*4400 (728)* [vap]	*LQM S4ULs*
1,3,5-Trichlorobenzene	*mg/kg*	*0.33*	*0.81*	*1.9*	*23*	*55*	*130*	*LQM S4ULs*
1,2,4-Trichlorobenzene	*mg/kg*	*2.6*	*6.4*	*15*	*220*	*530*	*1300*	*LQM S4ULs*
1,2,3-Trichlorobenzene	*mg/kg*	*1.5*	*3.6*	*8.6*	*102*	*250*	*590*	*LQM S4ULs*
1,4-dichlorobenzene	*mg/kg*	*61* [f]	*150* [f]	*350* [f]	*4400* [f] *(224)* [vap]	*10000* [f] *(540)*	*25000* [f] *(1280)*	*LQM S4ULs*
1,3-dichlorobenzene	*mg/kg*	*0.4*	*1*	*2.3*	*30*	*73*	*170*	*LQM S4ULs*
1,2-Dichlorobenzene	*mg/kg*	*23*	*55*	*130*	*2000 (571)* [sol]	*4800 (1370)* [sol]	*11000 (3240)* [sol]	*LQM S4ULs*
Chlorobenzene	*mg/kg*	*0.46*	*1*	*2.4*	*56*	*130*	*290*	*LQM S4ULs*
Gamma-Hexachlorocyclohexane	*mg/kg*	*0.06*	*0.14*	*0.33*	*67*	*69*	*70*	*LQM S4ULs*
Beta-Hexachlorocyclohexane	*mg/kg*	*0.085*	*0.2*	*0.46*	*65*	*65*	*65*	*LQM S4ULs*
Alpha -Hexachlorocyclohexane	*mg/kg*	*0.23*	*0.55*	*1.2*	*170*	*180*	*180*	*LQM S4ULs*
Beta -Endosulfan	*mg/kg*	*7*	*17*	*39*	*6300 (0.00007)*	*7800 (0.0002)*	*8700*	*LQM S4ULs*
Alpha-Endosulfan	*mg/kg*	*7.4*	*18*	*41*	*5600 (0.003)* [vap]	*7400 (0.007)* [vap]	*8400 (0.016)* [vap]	*LQM S4ULs*
Dichlorvos	*mg/kg*	*0.032*	*0.066*	*0.14*	*140*	*140*	*140*	*LQM S4ULs*
Atrazine	*mg/kg*	*3.3*	*7.6*	*17.4*	*9300*	*9400*	*9400*	*LQM S4ULs*
Dieldrin	*mg/kg*	*0.97*	*2*	*3.5*	*170*	*170*	*170*	*LQM S4ULs*
Aldrin	*mg/kg*	*5.7*	*6.6*	*7.1*	*170*	*170*	*170*	*LQM S4ULs*
HMX	*mg/kg*	*5.7*	*13*	*26*	*110000*	*110000*	*110000*	*LQM S4ULs*
2,4,6-Trinitrotoulene	*mg/kg*	*1.6*	*3.7*	*8.1*	*1000*	*1000*	*1000*	*LQM S4ULs*
RDX	*mg/kg*	*120*	*250*	*540*	*210000*	*210000*	*210000*	*LQM S4ULs*

[sol] S4UL exceeds the solubility saturation limit (which is presented in brackets)

[vap] S4ULS presented exceeds the vapour saturation limit, which is presented in brackets

[f] For naphthalene, the S4UL is based on a comparison of inhalation exposure with the TDI_{inhal} for localised affects

[f] S4UL based on comparison of inhalation exposure with inhalation TDI for localised effects

[dir] S4ULs based on a threshold protecive direct skin contact with phenol (guideline in brackets based on health effects following long term exposure provided for illustation only

APPENDIX 13 - JWIG Receptor Tool

JIWG

Joint Industry Working Group

Asbestos in Soil and Construction & Demolition Materials

Decision Support Tool for Receptor Risk Ranking

Stage 1

Hazard Identification		Score
Select ACM type (run model for each type to generate 'Worst Case' output)	Free dispersed fibres/fibre bundles	2
Extent of degradation of ACMs	Disaggregated (dominated by loose fibrous material; extreme degradation in ACM and/or free asbestos fibres/fibre bundles)	4
Friability and degree of bonding by matrix (ACM matrix, not ground materials)	Friable ACM or ACM with fibres not linked in any matrix (free dispersed fibres/fibre bundles)	4
Distribution of Visible Asbestos Across Affected Area	No visible ACMs/fibre bundles	0
Asbestos fibre type	Chrysotile alone	0
Sub-total		10
Hazard ranking		Low

No warranty, expressed or implied, or reliance, is provided in relation to the use of this tool.
It is contingent on users to satisfy themselves that the output from the tool is relevant and appropriate to the assessment being made.

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Version 2, February 2017

Stage 2

Emission Factors		Score
Amount of asbestos fibre in selected ACM/fibre type as % of host material	Very Low quantities - 0.001 to 0.01 %wt/wt	1
Respirable fibre index for ACM - RIVM report 711701034 (2003)	Low	2
Activity type and effect on deterioration of ACMs	No disturbance activity	0
Best description of primary host material matrix	Coarse to Fine Gravel	3
Sub-total		**6**
Exposure ranking		**Low**

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Stage 3

Pathway and Receptor Sensitivity		Score	
Receptor category	Commercial/industrial	No score required	
Age of Receptor	Adult (>24 and <60)	1	
Duration of exposure/site occupancy	< 1 hour in any single day (e.g. frequent but short exposure event)	1	
Receptor ranking		2	Very Low
Combined hazard, exposure and receptor ranking			Low
Pathway: Distance of Receptor from Source	In or within 10m of area of disturbance	4	
Pathway: Depth to impacted material	Material buried at shallow depth, potential to be disturbed by excavation	C	
Pathway ranking		4C	Low
Overall ranking			Very Low

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Project Reference	GRO-21400

Site Name	ALDI HOLBEACH
Client	ALDI STORES LIMITED

Run by	CONNOR HASTINGS
Date	21-Apr-22
Reviewed by	CH

Characterisation of scenario being evaluated	

Interpretation of scenario ranking by DST	

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JIWG

Joint Industry Working Group

Asbestos in Soil and Construction & Demolition Materials

Project Reference	GRO-21400
Site Name	Aldi Holbeach
Client	Aldi Stores Limited
Run by	CJH
Date	21-Apr-22
Scenario details	

Decision Support Tool for CAR2012 Work Categories

Stage 1

Hazard Factors

		Score
Select ACM type (run model for each type to generate 'Worst Case' output)	Free dispersed fibres/fibre bundles	2
Extent of degradation of ACMs at outset of work	Disaggregated (dominated by loose fibrous material; extreme degradation in ACM and/or free asbestos fibres/fibre bundles)	4
Friability and degree of bonding by matrix (ACM matrix, not ground materials)	Friable ACM or ACM with fibres not linked in any matrix (free dispersed fibres/fibre bundles)	4
Distribution of Visible Asbestos Across Affected Area	No visible ACMs/fibre bundles	0
Amount of asbestos fibre in selected ACM/fibre type as % of host material	Very Low quantities - <0.001 to 0.01 %wt/wt	1
Sub-total		**11**

Note: the asbestos licensing regime is unaffected by the type of asbestos fibre present in ACMs

Hazard ranking **Medium**

No warranty, expressed or implied, or reliance, is provided in relation to the use of this tool.
It is contingent on users to satisfy themselves that the output from the tool is relevant and appropriate to the assessment being made.

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Stage 2

Exposure Factors

			Score
Anticipated airborne fibre concentration - Control Limit or SALI?	<0.001 fibres/ml		0
Anticipated duration of exposure to asbestos	< 2 hours in a 7 day period for all persons involved (e.g. Short Duration Work)		1
Activity type and effect on deterioration of ACMs during work	Sampling, manual or mechanical (significant deterioration expected)		2
Best description of primary host material matrix (soil/made ground)	Coarse to Fine Sand		2
Respirable fibre index for ACM - RIVM report 711701034 (2003)	Low		2
Sub-total			**7**
Exposure ranking			Low
Combined hazard and exposure ranking		**18**	Low

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Stage 3

Risk Assessment Outputs

Probable Licensing Status	Non-Licensed Work
RPE*	EN149 type FFP3 disposable
Dust Suppression**	Manual/localised dust suppression
Hygiene/Decontamination***	Localised and basic personal decontamination facilities

*Where RPE has to be worn continuously for long periods (e.g. more than 1-hour), then powered RPE may be necessary.
**Reduction in control measures possible if natural mitigation factors are present (e.g. raining, wet ground)
***Guide only; suitability of selected personal hygiene measures may be reviewed on a site/contamination-specific basis

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APPENDIX 14 - Waste Classification Report

HazWasteOnline™

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:

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

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

F6J19-1YLUN-2D6XP

Job name

EMT-22-1512-Batch-1-202202180836[4]

Description/Comments

Project

GRO-21400

Site

Aldi Holbeach (3)

Classified by

Name:
Bradley Massey
Date:
19 May 2022 14:26 GMT
Telephone:
01618 201368

Company:
Groundtech Consulting Limited
First Floor, Lloyd House, Orford Court,
Greenfold Way
Leigh
WN7 3XJ

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	-

Job summary

#	Sample name	Depth [m]	Classification Result	Hazard properties	Page
1	WS1-25/01/2022-0.20m		Non Hazardous		2
2	WS2-25/01/2022-0.05m		Hazardous	HP 7, HP 11	4
3	WS2-25/01/2022-0.30m		Non Hazardous		6
4	WS3-25/01/2022-0.30m		Non Hazardous		8
5	WS3-25/01/2022-0.60m		Non Hazardous		10
6	WS4-25/01/2022-0.30m		Non Hazardous		12
7	WS5-25/01/2022-0.20m		Non Hazardous		14
8	WS6-25/01/2022-0.30m		Non Hazardous		16
9	WS7-25/01/2022-0.10m		Non Hazardous		18
10	WS7-25/01/2022-0.40m		Non Hazardous		20
11	WS8-25/01/2022-0.10m		Hazardous	HP 7, HP 11	22
12	BH1-25/01/2022-0.20m		Non Hazardous		25

Related documents

#	Name	Description
1	EMT-22-1512-Batch-1-202202180836.HWOL[3]	.hwol[3] file used to create the Job

Report

Created by: Bradley Massey

Created date: 19 May 2022 14:26 GMT

Appendices	Page
Appendix A: Classifier defined and non GB MCL determinands	27
Appendix B: Rationale for selection of metal species	29
Appendix C: Version	29

Classification of sample: WS1-25/01/2022-0.20m

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

Sample details

Sample name:
WS1-25/01/2022-0.20m
Moisture content:
8.3%
(dry weight correction)

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 8.3% Dry Weight Moisture Correction applied (MC)

#		Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
1		phenol	604-001-00-2	203-632-7	108-95-2		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
2		arsenic { arsenic pentoxide }	033-004-00-6	215-116-9	1303-28-2		4.5	mg/kg	1.534	6.373	mg/kg	0.000637 %	✓	
3		cadmium { cadmium compounds, with the exception of cadmium sulphoselenide (xCdS.yCdSe), reaction mass of cadmium sulphide with zinc sulphide (xCdS.yZnS), reaction mass of cadmium sulphide with mercury sulphide (xCdS.yHgS), and those specified elsewhere in this Annex }	048-001-00-5			1	<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
4		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		3	mg/kg	1.126	3.119	mg/kg	0.000312 %	✓	
5		lead { lead compounds with the exception of those specified elsewhere in this Annex (worst case) }	082-001-00-6			1	<5	mg/kg		<5	mg/kg	<0.0005 %		<**LOD**
6		mercury { mercury }	080-001-00-0	231-106-7	7439-97-6		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
7		nickel { nickel diiodide }	028-029-00-4	236-666-6	13462-90-3		1.8	mg/kg	5.324	8.849	mg/kg	0.000885 %	✓	
8		zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		6	mg/kg	1.245	6.896	mg/kg	0.00069 %	✓	
9		chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<0.3	mg/kg	1.923	<0.577	mg/kg	<0.0000577 %		<**LOD**
10		acenaphthylene		205-917-1	208-96-8		1.01	mg/kg		0.933	mg/kg	0.0000933 %	✓	
11		acenaphthene		201-469-6	83-32-9		0.24	mg/kg		0.222	mg/kg	0.0000222 %	✓	
12		fluorene		201-695-5	86-73-7		0.25	mg/kg		0.231	mg/kg	0.0000231 %	✓	
13		phenanthrene		201-581-5	85-01-8		3.01	mg/kg		2.779	mg/kg	0.000278 %	✓	
14		anthracene		204-371-1	120-12-7		2.48	mg/kg		2.29	mg/kg	0.000229 %	✓	
15		fluoranthene		205-912-4	206-44-0		39.2	mg/kg		36.196	mg/kg	0.00362 %	✓	

#		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									
16		pyrene				42.1	mg/kg		38.873	mg/kg	0.00389 %	✓	
			204-927-3	129-00-0									
17		benzo[a]anthracene				30.31	mg/kg		27.987	mg/kg	0.0028 %	✓	
		601-033-00-9	200-280-6	56-55-3									
18		chrysene				26.69	mg/kg		24.645	mg/kg	0.00246 %	✓	
		601-048-00-0	205-923-4	218-01-9									
19		benzo[a]pyrene; benzo[def]chrysene				34.81	mg/kg		32.142	mg/kg	0.00321 %	✓	
		601-032-00-3	200-028-5	50-32-8									
20		indeno[123-cd]pyrene				26.38	mg/kg		24.358	mg/kg	0.00244 %	✓	
			205-893-2	193-39-5									
21		dibenz[a,h]anthracene				4.38	mg/kg		4.044	mg/kg	0.000404 %	✓	
		601-041-00-2	200-181-8	53-70-3									
22		benzo[ghi]perylene				20.88	mg/kg		19.28	mg/kg	0.00193 %	✓	
			205-883-8	191-24-2									
23		pH				8.53	pH		8.53	pH	8.53 pH		
				PH									
24		boron { boron tribromide }				1	mg/kg	23.173	21.397	mg/kg	0.00214 %	✓	
		005-003-00-0	233-657-9	10294-33-4									
25		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }				<0.5	mg/kg	1.884	<0.942	mg/kg	<0.0000942 %		<**LOD**
		006-007-00-5											
26		benzo[bk]fluoranthene				59.95	mg/kg		55.355	mg/kg	0.00554 %	✓	
			[1] 205-911-9 [2] 205-916-6	[1] 205-99-2 [2] 207-08-9									
27		chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				19.1	mg/kg	1.462	25.776	mg/kg	0.00258 %	✓	
			215-160-9	1308-38-9									
										Total:	0.0348 %		

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 Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
	This determinand is defined in the EU CLP Table 3
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: WS2-25/01/2022-0.05m

Hazardous Waste
Classified as **17 05 03 ***
in the List of Waste

Sample details

Sample name:
WS2-25/01/2022-0.05m
Moisture content:
8.2%
(dry weight correction)

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 03 * (Soil and stones containing hazardous substances)

Hazard properties

HP 7: Carcinogenic "waste which induces cancer or increases its incidence"

Hazard Statements hit:

Carc. 1B; H350 "May cause cancer [state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard]."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.699%)

HP 11: Mutagenic "waste which may cause a mutation, that is a permanent change in the amount or structure of the genetic material in a cell"

Hazard Statements hit:

Muta. 1B; H340 "May cause genetic defects [state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard]."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.699%)

Determinands

Moisture content: 8.2% Dry Weight Moisture Correction applied (MC)

#		Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<5 µg/kg		<0.005 mg/kg	<0.0000005 %		<**LOD**
2		benzene	601-020-00-8	200-753-7	71-43-2		<5 µg/kg		<0.005 mg/kg	<0.0000005 %		<**LOD**
3		toluene	601-021-00-3	203-625-9	108-88-3		<5 µg/kg		<0.005 mg/kg	<0.0000005 %		<**LOD**
4		ethylbenzene	601-023-00-4	202-849-4	100-41-4		<5 µg/kg		<0.005 mg/kg	<0.0000005 %		<**LOD**
5		xylene	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]		<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<**LOD**
6		TPH (C6 to C40) petroleum group			TPH		7560 mg/kg		6987.061 mg/kg	0.699 %	✓	
									Total:	0.699 %		

Key	
	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Hazardous result
	Determinand defined or amended by HazWasteOnline (see Appendix A)
<LOD	Below limit of detection
ND	Not detected

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because All elevated TPH relates to longer chain carbon fractions which are not readily combustible. Additional no free phase contamination was encountered during the ground investigation.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.699%)

Classification of sample: WS2-25/01/2022-0.30m

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

Sample details

Sample name:
WS2-25/01/2022-0.30m
Moisture content:
10.1%
(dry weight correction)

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 10.1% Dry Weight Moisture Correction applied (MC)

#		Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
1		phenol	604-001-00-2	203-632-7	108-95-2		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
2		arsenic { arsenic pentoxide }	033-004-00-6	215-116-9	1303-28-2		7.7	mg/kg	1.534	10.727	mg/kg	0.00107 %	✓	
3		cadmium { cadmium compounds, with the exception of cadmium sulphoselenide (xCdS.yCdSe), reaction mass of cadmium sulphide with zinc sulphide (xCdS.yZnS), reaction mass of cadmium sulphide with mercury sulphide (xCdS.yHgS), and those specified elsewhere in this Annex }	048-001-00-5			1	<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
4		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		4	mg/kg	1.126	4.09	mg/kg	0.000409 %	✓	
5		lead { lead compounds with the exception of those specified elsewhere in this Annex (worst case) }	082-001-00-6			1	10	mg/kg		9.083	mg/kg	0.000908 %	✓	
6		mercury { mercury }	080-001-00-0	231-106-7	7439-97-6		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
7		nickel { nickel diiodide }	028-029-00-4	236-666-6	13462-90-3		5.9	mg/kg	5.324	28.532	mg/kg	0.00285 %	✓	
8		zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		34	mg/kg	1.245	38.438	mg/kg	0.00384 %	✓	
9		chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<0.3	mg/kg	1.923	<0.577	mg/kg	<0.0000577 %		<LOD
10		acenaphthylene		205-917-1	208-96-8		<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
11		acenaphthene		201-469-6	83-32-9		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
12		fluorene		201-695-5	86-73-7		<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
13		phenanthrene		201-581-5	85-01-8		0.06	mg/kg		0.0545	mg/kg	0.00000545 %	✓	
14		anthracene		204-371-1	120-12-7		<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
15		fluoranthene		205-912-4	206-44-0		0.22	mg/kg		0.2	mg/kg	0.00002 %	✓	

#		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									
16		pyrene				0.2	mg/kg		0.182	mg/kg	0.0000182 %	✓	
			204-927-3	129-00-0									
17		benzo[a]anthracene				0.17	mg/kg		0.154	mg/kg	0.0000154 %	✓	
		601-033-00-9	200-280-6	56-55-3									
18		chrysene				0.14	mg/kg		0.127	mg/kg	0.0000127 %	✓	
		601-048-00-0	205-923-4	218-01-9									
19		benzo[a]pyrene; benzo[def]chrysene				0.18	mg/kg		0.163	mg/kg	0.0000163 %	✓	
		601-032-00-3	200-028-5	50-32-8									
20		indeno[123-cd]pyrene				0.12	mg/kg		0.109	mg/kg	0.0000109 %	✓	
			205-893-2	193-39-5									
21		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-041-00-2	200-181-8	53-70-3									
22		benzo[ghi]perylene				0.11	mg/kg		0.0999	mg/kg	0.00000999 %	✓	
			205-883-8	191-24-2									
23		pH				8.32	pH		8.32	pH	8.32 pH		
				PH									
24		boron { boron tribromide }				0.5	mg/kg	23.173	10.524	mg/kg	0.00105 %	✓	
		005-003-00-0	233-657-9	10294-33-4									
25		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }				<0.5	mg/kg	1.884	<0.942	mg/kg	<0.0000942 %		<**LOD**
		006-007-00-5											
26		benzo[bk]fluoranthene				0.31	mg/kg		0.282	mg/kg	0.0000282 %	✓	
			[1] 205-911-9 [2] 205-916-6	[1] 205-99-2 [2] 207-08-9									
27		chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				10.8	mg/kg	1.462	14.337	mg/kg	0.00143 %	✓	
			215-160-9	1308-38-9									
										Total:	0.0119 %		

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 Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
	This determinand is defined in the EU CLP Table 3
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: WS3-25/01/2022-0.30m

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

Sample details

Sample name:
WS3-25/01/2022-0.30m
Moisture content:
9.3%
(dry weight correction)

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 9.3% Dry Weight Moisture Correction applied (MC)

#		Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
1		phenol	604-001-00-2	203-632-7	108-95-2		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
2		arsenic { arsenic pentoxide }	033-004-00-6	215-116-9	1303-28-2		6.2	mg/kg	1.534	8.701	mg/kg	0.00087 %	✓	
3		cadmium { cadmium compounds, with the exception of cadmium sulphoselenide (xCdS.yCdSe), reaction mass of cadmium sulphide with zinc sulphide (xCdS.yZnS), reaction mass of cadmium sulphide with mercury sulphide (xCdS.yHgS), and those specified elsewhere in this Annex }	048-001-00-5			1	<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
4		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		8	mg/kg	1.126	8.241	mg/kg	0.000824 %	✓	
5		lead { lead compounds with the exception of those specified elsewhere in this Annex (worst case) }	082-001-00-6			1	13	mg/kg		11.894	mg/kg	0.00119 %	✓	
6		mercury { mercury }	080-001-00-0	231-106-7	7439-97-6		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
7		nickel { nickel diiodide }	028-029-00-4	236-666-6	13462-90-3		5.2	mg/kg	5.324	25.331	mg/kg	0.00253 %	✓	
8		zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		21	mg/kg	1.245	23.915	mg/kg	0.00239 %	✓	
9		chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<0.3	mg/kg	1.923	<0.577	mg/kg	<0.0000577 %		<**LOD**
10		pH			PH		8.29	pH		8.29	pH	8.29 pH		
11		boron { boron tribromide }	005-003-00-0	233-657-9	10294-33-4		1.5	mg/kg	23.173	31.802	mg/kg	0.00318 %	✓	
12		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }	006-007-00-5				<0.5	mg/kg	1.884	<0.942	mg/kg	<0.0000942 %		<**LOD**
13		chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		14.4	mg/kg	1.462	19.256	mg/kg	0.00193 %	✓	
											Total:	0.0131 %		

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 Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
	This determinand is defined in the EU CLP Table 3
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: WS3-25/01/2022-0.60m

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

Sample details

Sample name:
WS3-25/01/2022-0.60m
Moisture content:
10.8%
(dry weight correction)

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 10.8% Dry Weight Moisture Correction applied (MC)

#		Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
1		phenol	604-001-00-2	203-632-7	108-95-2		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
2		arsenic { arsenic pentoxide }	033-004-00-6	215-116-9	1303-28-2		4.8	mg/kg	1.534	6.645	mg/kg	0.000664 %	✓	
3		cadmium { cadmium compounds, with the exception of cadmium sulphoselenide (xCdS.yCdSe), reaction mass of cadmium sulphide with zinc sulphide (xCdS.yZnS), reaction mass of cadmium sulphide with mercury sulphide (xCdS.yHgS), and those specified elsewhere in this Annex }	048-001-00-5			1	<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
4		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		4	mg/kg	1.126	4.065	mg/kg	0.000406 %	✓	
5		lead { lead compounds with the exception of those specified elsewhere in this Annex (worst case) }	082-001-00-6			1	<5	mg/kg		<5	mg/kg	<0.0005 %		<**LOD**
6		mercury { mercury }	080-001-00-0	231-106-7	7439-97-6		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
7		nickel { nickel diiodide }	028-029-00-4	236-666-6	13462-90-3		3.1	mg/kg	5.324	14.897	mg/kg	0.00149 %	✓	
8		zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		7	mg/kg	1.245	7.864	mg/kg	0.000786 %	✓	
9		chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<0.3	mg/kg	1.923	<0.577	mg/kg	<0.0000577 %		<**LOD**
10		acenaphthylene		205-917-1	208-96-8		0.13	mg/kg		0.117	mg/kg	0.0000117 %	✓	
11		acenaphthene		201-469-6	83-32-9		3.98	mg/kg		3.592	mg/kg	0.000359 %	✓	
12		fluorene		201-695-5	86-73-7		2.09	mg/kg		1.886	mg/kg	0.000189 %	✓	
13		phenanthrene		201-581-5	85-01-8		0.16	mg/kg		0.144	mg/kg	0.0000144 %	✓	
14		anthracene		204-371-1	120-12-7		2.09	mg/kg		1.886	mg/kg	0.000189 %	✓	
15		fluoranthene		205-912-4	206-44-0		5.88	mg/kg		5.307	mg/kg	0.000531 %	✓	

#		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									
16		pyrene				4.32	mg/kg		3.899	mg/kg	0.00039 %	✓	
			204-927-3	129-00-0									
17		benzo[a]anthracene				1.81	mg/kg		1.634	mg/kg	0.000163 %	✓	
		601-033-00-9	200-280-6	56-55-3									
18		chrysene				1.98	mg/kg		1.787	mg/kg	0.000179 %	✓	
		601-048-00-0	205-923-4	218-01-9									
19		benzo[a]pyrene; benzo[def]chrysene				1.43	mg/kg		1.291	mg/kg	0.000129 %	✓	
		601-032-00-3	200-028-5	50-32-8									
20		indeno[123-cd]pyrene				0.92	mg/kg		0.83	mg/kg	0.000083 %	✓	
			205-893-2	193-39-5									
21		dibenz[a,h]anthracene				0.13	mg/kg		0.117	mg/kg	0.0000117 %	✓	
		601-041-00-2	200-181-8	53-70-3									
22		benzo[ghi]perylene				0.78	mg/kg		0.704	mg/kg	0.0000704 %	✓	
			205-883-8	191-24-2									
23		pH				8.42	pH		8.42	pH	8.42 pH		
				PH									
24		boron { boron tribromide }				0.7	mg/kg	23.173	14.64	mg/kg	0.00146 %	✓	
		005-003-00-0	233-657-9	10294-33-4									
25		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }				<0.5	mg/kg	1.884	<0.942	mg/kg	<0.0000942 %		<LOD
		006-007-00-5											
26		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane				<5	µg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
		603-181-00-X	216-653-1	1634-04-4									
27		benzene				<5	µg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
		601-020-00-8	200-753-7	71-43-2									
28		toluene				<5	µg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
		601-021-00-3	203-625-9	108-88-3									
29		ethylbenzene				<5	µg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
		601-023-00-4	202-849-4	100-41-4									
30		xylene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
		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]									
31		coronene				0.13	mg/kg		0.117	mg/kg	0.0000117 %	✓	
			205-881-7	191-07-1									
32		benzo[bk]fluoranthene				2.57	mg/kg		2.319	mg/kg	0.000232 %	✓	
			[1] 205-911-9 [2] 205-916-6	[1] 205-99-2 [2] 207-08-9									
33		chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				9	mg/kg	1.462	11.872	mg/kg	0.00119 %	✓	
			215-160-9	1308-38-9									
										Total:	0.00924 %		

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 Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
	This determinand is defined in the EU CLP Table 3
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: WS4-25/01/2022-0.30m

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

Sample details

Sample name:
WS4-25/01/2022-0.30m
Moisture content:
13.6%
(dry weight correction)

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 13.6% Dry Weight Moisture Correction applied (MC)

#		Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
1		phenol	604-001-00-2	203-632-7	108-95-2		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
2		arsenic { arsenic pentoxide }	033-004-00-6	215-116-9	1303-28-2		10.9	mg/kg	1.534	14.718	mg/kg	0.00147 %	✓	
3		cadmium { cadmium compounds, with the exception of cadmium sulphoselenide (xCdS.yCdSe), reaction mass of cadmium sulphide with zinc sulphide (xCdS.yZnS), reaction mass of cadmium sulphide with mercury sulphide (xCdS.yHgS), and those specified elsewhere in this Annex }	048-001-00-5			1	<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
4		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		9	mg/kg	1.126	8.92	mg/kg	0.000892 %	✓	
5		lead { lead compounds with the exception of those specified elsewhere in this Annex (worst case) }	082-001-00-6			1	19	mg/kg		16.725	mg/kg	0.00167 %	✓	
6		mercury { mercury }	080-001-00-0	231-106-7	7439-97-6		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
7		nickel { nickel diiodide }	028-029-00-4	236-666-6	13462-90-3		8.8	mg/kg	5.324	41.245	mg/kg	0.00412 %	✓	
8		zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		34	mg/kg	1.245	37.254	mg/kg	0.00373 %	✓	
9		chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<0.3	mg/kg	1.923	<0.577	mg/kg	<0.0000577 %		<**LOD**
10		acenaphthylene		205-917-1	208-96-8		0.19	mg/kg		0.167	mg/kg	0.0000167 %	✓	
11		acenaphthene		201-469-6	83-32-9		0.5	mg/kg		0.44	mg/kg	0.000044 %	✓	
12		fluorene		201-695-5	86-73-7		0.53	mg/kg		0.467	mg/kg	0.0000467 %	✓	
13		phenanthrene		201-581-5	85-01-8		3.92	mg/kg		3.451	mg/kg	0.000345 %	✓	
14		anthracene		204-371-1	120-12-7		1.26	mg/kg		1.109	mg/kg	0.000111 %	✓	
15		fluoranthene		205-912-4	206-44-0		8.58	mg/kg		7.553	mg/kg	0.000755 %	✓	

#		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									
16		pyrene				7.72	mg/kg		6.796	mg/kg	0.00068 %	✓	
			204-927-3	129-00-0									
17		benzo[a]anthracene				4.15	mg/kg		3.653	mg/kg	0.000365 %	✓	
		601-033-00-9	200-280-6	56-55-3									
18		chrysene				3.99	mg/kg		3.512	mg/kg	0.000351 %	✓	
		601-048-00-0	205-923-4	218-01-9									
19		benzo[a]pyrene; benzo[def]chrysene				4.68	mg/kg		4.12	mg/kg	0.000412 %	✓	
		601-032-00-3	200-028-5	50-32-8									
20		indeno[123-cd]pyrene				3.51	mg/kg		3.09	mg/kg	0.000309 %	✓	
			205-893-2	193-39-5									
21		dibenz[a,h]anthracene				0.51	mg/kg		0.449	mg/kg	0.0000449 %	✓	
		601-041-00-2	200-181-8	53-70-3									
22		benzo[ghi]perylene				2.92	mg/kg		2.57	mg/kg	0.000257 %	✓	
			205-883-8	191-24-2									
23		pH				8.56	pH		8.56	pH	8.56 pH		
				PH									
24		boron { boron tribromide }				1	mg/kg	23.173	20.399	mg/kg	0.00204 %	✓	
		005-003-00-0	233-657-9	10294-33-4									
25		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }				<0.5	mg/kg	1.884	<0.942	mg/kg	<0.0000942 %		<**LOD**
		006-007-00-5											
26		benzo[bk]fluoranthene				8.13	mg/kg		7.157	mg/kg	0.000716 %	✓	
			[1] 205-911-9 [2] 205-916-6	[1] 205-99-2 [2] 207-08-9									
27		chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				23.7	mg/kg	1.462	30.492	mg/kg	0.00305 %	✓	
			215-160-9	1308-38-9									
										Total:	0.0216 %		

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 Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
	This determinand is defined in the EU CLP Table 3
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: WS5-25/01/2022-0.20m

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

Sample details

Sample name:
WS5-25/01/2022-0.20m
Moisture content:
9.1%
(dry weight correction)

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 9.1% Dry Weight Moisture Correction applied (MC)

#		Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
1		phenol	604-001-00-2	203-632-7	108-95-2		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
2		arsenic { arsenic pentoxide }	033-004-00-6	215-116-9	1303-28-2		7	mg/kg	1.534	9.842	mg/kg	0.000984 %	✓	
3		cadmium { cadmium compounds, with the exception of cadmium sulphoselenide (xCdS.yCdSe), reaction mass of cadmium sulphide with zinc sulphide (xCdS.yZnS), reaction mass of cadmium sulphide with mercury sulphide (xCdS.yHgS), and those specified elsewhere in this Annex }	048-001-00-5			1	<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
4		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		9	mg/kg	1.126	9.288	mg/kg	0.000929 %	✓	
5		lead { lead compounds with the exception of those specified elsewhere in this Annex (worst case) }	082-001-00-6			1	11	mg/kg		10.082	mg/kg	0.00101 %	✓	
6		mercury { mercury }	080-001-00-0	231-106-7	7439-97-6		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
7		nickel { nickel diiodide }	028-029-00-4	236-666-6	13462-90-3		4.4	mg/kg	5.324	21.473	mg/kg	0.00215 %	✓	
8		zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		18	mg/kg	1.245	20.536	mg/kg	0.00205 %	✓	
9		chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<0.3	mg/kg	1.923	<0.577	mg/kg	<0.0000577 %		<**LOD**
10		acenaphthylene		205-917-1	208-96-8		0.83	mg/kg		0.761	mg/kg	0.0000761 %	✓	
11		acenaphthene		201-469-6	83-32-9		2.16	mg/kg		1.98	mg/kg	0.000198 %	✓	
12		fluorene		201-695-5	86-73-7		2.18	mg/kg		1.998	mg/kg	0.0002 %	✓	
13		phenanthrene		201-581-5	85-01-8		16.07	mg/kg		14.73	mg/kg	0.00147 %	✓	
14		anthracene		204-371-1	120-12-7		5.46	mg/kg		5.005	mg/kg	0.0005 %	✓	
15		fluoranthene		205-912-4	206-44-0		40.11	mg/kg		36.764	mg/kg	0.00368 %	✓	

#		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									
16		pyrene				32.95	mg/kg		30.202	mg/kg	0.00302 %	✓	
			204-927-3	129-00-0									
17		benzo[a]anthracene				19.69	mg/kg		18.048	mg/kg	0.0018 %	✓	
		601-033-00-9	200-280-6	56-55-3									
18		chrysene				15.87	mg/kg		14.546	mg/kg	0.00145 %	✓	
		601-048-00-0	205-923-4	218-01-9									
19		benzo[a]pyrene; benzo[def]chrysene				25.37	mg/kg		23.254	mg/kg	0.00233 %	✓	
		601-032-00-3	200-028-5	50-32-8									
20		indeno[123-cd]pyrene				20.07	mg/kg		18.396	mg/kg	0.00184 %	✓	
			205-893-2	193-39-5									
21		dibenz[a,h]anthracene				2.79	mg/kg		2.557	mg/kg	0.000256 %	✓	
		601-041-00-2	200-181-8	53-70-3									
22		benzo[ghi]perylene				15.86	mg/kg		14.537	mg/kg	0.00145 %	✓	
			205-883-8	191-24-2									
23		pH				8.06	pH		8.06	pH	8.06 pH		
				PH									
24		boron { boron tribromide }				1	mg/kg	23.173	21.24	mg/kg	0.00212 %	✓	
		005-003-00-0	233-657-9	10294-33-4									
25		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }				<0.5	mg/kg	1.884	<0.942	mg/kg	<0.0000942 %		**<LOD**
		006-007-00-5											
26		benzo[bk]fluoranthene				42.03	mg/kg		38.524	mg/kg	0.00385 %	✓	
			[1] 205-911-9 [2] 205-916-6	[1] 205-99-2 [2] 207-08-9									
27		chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				13.3	mg/kg	1.462	17.817	mg/kg	0.00178 %	✓	
			215-160-9	1308-38-9									
										Total:	0.0333 %		

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 Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
	This determinand is defined in the EU CLP Table 3
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: WS6-25/01/2022-0.30m

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

Sample details

Sample name:
WS6-25/01/2022-0.30m
Moisture content:
8.8%
(dry weight correction)

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 8.8% Dry Weight Moisture Correction applied (MC)

#		Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
1		phenol	604-001-00-2	203-632-7	108-95-2		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
2		arsenic { arsenic pentoxide }	033-004-00-6	215-116-9	1303-28-2		3	mg/kg	1.534	4.229	mg/kg	0.000423 %	✓	
3		cadmium { cadmium compounds, with the exception of cadmium sulphoselenide (xCdS.yCdSe), reaction mass of cadmium sulphide with zinc sulphide (xCdS.yZnS), reaction mass of cadmium sulphide with mercury sulphide (xCdS.yHgS), and those specified elsewhere in this Annex }	048-001-00-5			1	<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
4		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		9	mg/kg	1.126	9.313	mg/kg	0.000931 %	✓	
5		lead { lead compounds with the exception of those specified elsewhere in this Annex (worst case) }	082-001-00-6			1	<5	mg/kg		<5	mg/kg	<0.0005 %		<LOD
6		mercury { mercury }	080-001-00-0	231-106-7	7439-97-6		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
7		nickel { nickel diiodide }	028-029-00-4	236-666-6	13462-90-3		3.4	mg/kg	5.324	16.638	mg/kg	0.00166 %	✓	
8		zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		14	mg/kg	1.245	16.017	mg/kg	0.0016 %	✓	
9		chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<0.3	mg/kg	1.923	<0.577	mg/kg	<0.0000577 %		<LOD
10		acenaphthylene		205-917-1	208-96-8		0.17	mg/kg		0.156	mg/kg	0.0000156 %	✓	
11		acenaphthene		201-469-6	83-32-9		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
12		fluorene		201-695-5	86-73-7		<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
13		phenanthrene		201-581-5	85-01-8		0.24	mg/kg		0.221	mg/kg	0.0000221 %	✓	
14		anthracene		204-371-1	120-12-7		0.13	mg/kg		0.119	mg/kg	0.0000119 %	✓	
15		fluoranthene		205-912-4	206-44-0		0.99	mg/kg		0.91	mg/kg	0.000091 %	✓	

#		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									
16		pyrene				0.96	mg/kg		0.882	mg/kg	0.0000882 %	✓	
			204-927-3	129-00-0									
17		benzo[a]anthracene				0.42	mg/kg		0.386	mg/kg	0.0000386 %	✓	
		601-033-00-9	200-280-6	56-55-3									
18		chrysene				0.47	mg/kg		0.432	mg/kg	0.0000432 %	✓	
		601-048-00-0	205-923-4	218-01-9									
19		benzo[a]pyrene; benzo[def]chrysene				0.52	mg/kg		0.478	mg/kg	0.0000478 %	✓	
		601-032-00-3	200-028-5	50-32-8									
20		indeno[123-cd]pyrene				0.41	mg/kg		0.377	mg/kg	0.0000377 %	✓	
			205-893-2	193-39-5									
21		dibenz[a,h]anthracene				0.07	mg/kg		0.0643	mg/kg	0.00000643 %	✓	
		601-041-00-2	200-181-8	53-70-3									
22		benzo[ghi]perylene				0.39	mg/kg		0.358	mg/kg	0.0000358 %	✓	
			205-883-8	191-24-2									
23		pH				8.73	pH		8.73	pH	8.73 pH		
				PH									
24		boron { boron tribromide }				0.2	mg/kg	23.173	4.26	mg/kg	0.000426 %	✓	
		005-003-00-0	233-657-9	10294-33-4									
25		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }				<0.5	mg/kg	1.884	<0.942	mg/kg	<0.0000942 %		<**LOD**
		006-007-00-5											
26		benzo[bk]fluoranthene				0.92	mg/kg		0.846	mg/kg	0.0000846 %	✓	
			[1] 205-911-9 [2] 205-916-6	[1] 205-99-2 [2] 207-08-9									
27		chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				7.7	mg/kg	1.462	10.344	mg/kg	0.00103 %	✓	
			215-160-9	1308-38-9									
										Total:	0.00729 %		

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 Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
	This determinand is defined in the EU CLP Table 3
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: WS7-25/01/2022-0.10m

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

Sample details

Sample name:
WS7-25/01/2022-0.10m
Moisture content:
7.4%
(dry weight correction)

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 7.4% Dry Weight 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		phenol 604-001-00-2 / 203-632-7 / 108-95-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
2		arsenic { arsenic pentoxide } 033-004-00-6 / 215-116-9 / 1303-28-2		3.6 mg/kg	1.534	5.141 mg/kg	0.000514 %	✓	
3		cadmium { cadmium compounds, with the exception of cadmium sulphoselenide (xCdS.yCdSe), reaction mass of cadmium sulphide with zinc sulphide (xCdS.yZnS), reaction mass of cadmium sulphide with mercury sulphide (xCdS.yHgS), and those specified elsewhere in this Annex } 048-001-00-5	1	<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
4		copper { dicopper oxide; copper (I) oxide } 029-002-00-X / 215-270-7 / 1317-39-1		2 mg/kg	1.126	2.097 mg/kg	0.00021 %	✓	
5		lead { lead compounds with the exception of those specified elsewhere in this Annex (worst case) } 082-001-00-6	1	8 mg/kg		7.449 mg/kg	0.000745 %	✓	
6		mercury { mercury } 080-001-00-0 / 231-106-7 / 7439-97-6		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
7		nickel { nickel diiodide } 028-029-00-4 / 236-666-6 / 13462-90-3		1.5 mg/kg	5.324	7.436 mg/kg	0.000744 %	✓	
8		zinc { zinc oxide } 030-013-00-7 / 215-222-5 / 1314-13-2		<5 mg/kg	1.245	<6.224 mg/kg	<0.000622 %		<LOD
9		chromium in chromium(VI) compounds { chromium(VI) oxide } 024-001-00-0 / 215-607-8 / 1333-82-0		<0.3 mg/kg	1.923	<0.577 mg/kg	<0.0000577 %		<LOD
10		pH PH		9.07 pH		9.07 pH	9.07 pH		
11		boron { boron tribromide } 005-003-00-0 / 233-657-9 / 10294-33-4		0.3 mg/kg	23.173	6.473 mg/kg	0.000647 %	✓	
12		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex } 006-007-00-5		<0.5 mg/kg	1.884	<0.942 mg/kg	<0.0000942 %		<LOD
13		chromium in chromium(III) compounds { chromium(III) oxide (worst case) } 215-160-9 / 1308-38-9		10.5 mg/kg	1.462	14.289 mg/kg	0.00143 %	✓	
						Total:	0.00508 %		

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 Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
	This determinand is defined in the EU CLP Table 3
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: WS7-25/01/2022-0.40m

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

Sample details

Sample name:
WS7-25/01/2022-0.40m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#		Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
1		phenol	604-001-00-2	203-632-7	108-95-2		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
2		arsenic { arsenic pentoxide }	033-004-00-6	215-116-9	1303-28-2		3.6	mg/kg	1.534	5.522	mg/kg	0.000552 %	✓	
3		cadmium { cadmium compounds, with the exception of cadmium sulphoselenide (xCdS.yCdSe), reaction mass of cadmium sulphide with zinc sulphide (xCdS.yZnS), reaction mass of cadmium sulphide with mercury sulphide (xCdS.yHgS), and those specified elsewhere in this Annex }	048-001-00-5			1	<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
4		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		1	mg/kg	1.126	1.126	mg/kg	0.000113 %	✓	
5		lead { lead compounds with the exception of those specified elsewhere in this Annex (worst case) }	082-001-00-6			1	<5	mg/kg		<5	mg/kg	<0.0005 %		<**LOD**
6		mercury { mercury }	080-001-00-0	231-106-7	7439-97-6		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
7		nickel { nickel diiodide }	028-029-00-4	236-666-6	13462-90-3		1.3	mg/kg	5.324	6.922	mg/kg	0.000692 %	✓	
8		zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		<5	mg/kg	1.245	<6.224	mg/kg	<0.000622 %		<**LOD**
9		chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<0.3	mg/kg	1.923	<0.577	mg/kg	<0.0000577 %		<**LOD**
10		acenaphthylene		205-917-1	208-96-8		<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
11		acenaphthene		201-469-6	83-32-9		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
12		fluorene		201-695-5	86-73-7		<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
13		phenanthrene		201-581-5	85-01-8		<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
14		anthracene		204-371-1	120-12-7		<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
15		fluoranthene		205-912-4	206-44-0		0.08	mg/kg		0.08	mg/kg	0.000008 %	✓	

#		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									
16		pyrene				0.07	mg/kg		0.07	mg/kg	0.000007 %	✓	
			204-927-3	129-00-0									
17		benzo[a]anthracene				0.07	mg/kg		0.07	mg/kg	0.000007 %	✓	
		601-033-00-9	200-280-6	56-55-3									
18		chrysene				0.05	mg/kg		0.05	mg/kg	0.000005 %	✓	
		601-048-00-0	205-923-4	218-01-9									
19		benzo[a]pyrene; benzo[def]chrysene				0.05	mg/kg		0.05	mg/kg	0.000005 %	✓	
		601-032-00-3	200-028-5	50-32-8									
20		indeno[123-cd]pyrene				0.04	mg/kg		0.04	mg/kg	0.000004 %	✓	
			205-893-2	193-39-5									
21		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-041-00-2	200-181-8	53-70-3									
22		benzo[ghi]perylene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
			205-883-8	191-24-2									
23		pH				9.04	pH		9.04	pH	9.04 pH		
				PH									
24		boron { boron tribromide }				0.2	mg/kg	23.173	4.635	mg/kg	0.000463 %	✓	
		005-003-00-0	233-657-9	10294-33-4									
25		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }				<0.5	mg/kg	1.884	<0.942	mg/kg	<0.0000942 %		<**LOD**
		006-007-00-5											
26		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane				<5	µg/kg		<0.005	mg/kg	<0.0000005 %		<**LOD**
		603-181-00-X	216-653-1	1634-04-4									
27		benzene				<5	µg/kg		<0.005	mg/kg	<0.0000005 %		<**LOD**
		601-020-00-8	200-753-7	71-43-2									
28		toluene				<5	µg/kg		<0.005	mg/kg	<0.0000005 %		<**LOD**
		601-021-00-3	203-625-9	108-88-3									
29		ethylbenzene				<5	µg/kg		<0.005	mg/kg	<0.0000005 %		<**LOD**
		601-023-00-4	202-849-4	100-41-4									
30		xylene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<**LOD**
		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]									
31		coronene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
			205-881-7	191-07-1									
32		benzo[bk]fluoranthene				0.1	mg/kg		0.1	mg/kg	0.00001 %	✓	
			[1] 205-911-9 [2] 205-916-6	[1] 205-99-2 [2] 207-08-9									
33		chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				6.8	mg/kg	1.462	9.939	mg/kg	0.000994 %	✓	
			215-160-9	1308-38-9									
										Total:	0.00419 %		

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 Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
	This determinand is defined in the EU CLP Table 3
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: WS8-25/01/2022-0.10m

Hazardous Waste
Classified as **17 05 03 ***
in the List of Waste

Sample details

Sample name:
WS8-25/01/2022-0.10m
Moisture content:
7.3%
(dry weight correction)

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 03 * (Soil and stones containing hazardous substances)

Hazard properties

HP 7: Carcinogenic "waste which induces cancer or increases its incidence"

Hazard Statements hit:

Carc. 1B; H350 "May cause cancer [state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard]."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.556%)

HP 11: Mutagenic "waste which may cause a mutation, that is a permanent change in the amount or structure of the genetic material in a cell"

Hazard Statements hit:

Muta. 1B; H340 "May cause genetic defects [state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard]."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.556%)

Determinands

Moisture content: 7.3% Dry Weight Moisture Correction applied (MC)

#		Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
1		phenol	604-001-00-2	203-632-7	108-95-2		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
2		arsenic { arsenic pentoxide }	033-004-00-6	215-116-9	1303-28-2		11.9	mg/kg	1.534	17.011	mg/kg	0.0017 %	✓	
3		cadmium { cadmium compounds, with the exception of cadmium sulphoselenide (xCdS.yCdSe), reaction mass of cadmium sulphide with zinc sulphide (xCdS.yZnS), reaction mass of cadmium sulphide with mercury sulphide (xCdS.yHgS), and those specified elsewhere in this Annex }	048-001-00-5			1	0.1	mg/kg		0.0932	mg/kg	0.00000932 %	✓	
4		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		18	mg/kg	1.126	18.887	mg/kg	0.00189 %	✓	
5		lead { lead compounds with the exception of those specified elsewhere in this Annex (worst case) }	082-001-00-6			1	12	mg/kg		11.184	mg/kg	0.00112 %	✓	
6		mercury { mercury }	080-001-00-0	231-106-7	7439-97-6		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
7		nickel { nickel diiodide }	028-029-00-4	236-666-6	13462-90-3		15.2	mg/kg	5.324	75.423	mg/kg	0.00754 %	✓	
8		zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		52	mg/kg	1.245	60.322	mg/kg	0.00603 %	✓	

#		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									
9		chromium in chromium(VI) compounds { chromium(VI) oxide }				<0.3	mg/kg	1.923	<0.577	mg/kg	<0.0000577 %		<**LOD**
		024-001-00-0	215-607-8	1333-82-0									
10		acenaphthylene				0.39	mg/kg		0.363	mg/kg	0.0000363 %	✓	
			205-917-1	208-96-8									
11		acenaphthene				0.5	mg/kg		0.466	mg/kg	0.0000466 %	✓	
			201-469-6	83-32-9									
12		fluorene				0.45	mg/kg		0.419	mg/kg	0.0000419 %	✓	
			201-695-5	86-73-7									
13		phenanthrene				2.95	mg/kg		2.749	mg/kg	0.000275 %	✓	
			201-581-5	85-01-8									
14		anthracene				1.3	mg/kg		1.212	mg/kg	0.000121 %	✓	
			204-371-1	120-12-7									
15		fluoranthene				8.82	mg/kg		8.22	mg/kg	0.000822 %	✓	
			205-912-4	206-44-0									
16		pyrene				7.43	mg/kg		6.925	mg/kg	0.000692 %	✓	
			204-927-3	129-00-0									
17		benzo[a]anthracene				4.1	mg/kg		3.821	mg/kg	0.000382 %	✓	
		601-033-00-9	200-280-6	56-55-3									
18		chrysene				4.51	mg/kg		4.203	mg/kg	0.00042 %	✓	
		601-048-00-0	205-923-4	218-01-9									
19		benzo[a]pyrene; benzo[def]chrysene				4.67	mg/kg		4.352	mg/kg	0.000435 %	✓	
		601-032-00-3	200-028-5	50-32-8									
20		indeno[123-cd]pyrene				3.15	mg/kg		2.936	mg/kg	0.000294 %	✓	
			205-893-2	193-39-5									
21		dibenz[a,h]anthracene				0.58	mg/kg		0.541	mg/kg	0.0000541 %	✓	
		601-041-00-2	200-181-8	53-70-3									
22		benzo[ghi]perylene				2.73	mg/kg		2.544	mg/kg	0.000254 %	✓	
			205-883-8	191-24-2									
23		pH				8.25	pH		8.25	pH	8.25 pH		
				PH									
24		boron { boron tribromide }				1.6	mg/kg	23.173	34.554	mg/kg	0.00346 %	✓	
		005-003-00-0	233-657-9	10294-33-4									
25		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }				<0.5	mg/kg	1.884	<0.942	mg/kg	<0.0000942 %		<**LOD**
		006-007-00-5											
26		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane				<5	µg/kg		<0.005	mg/kg	<0.0000005 %		<**LOD**
		603-181-00-X	216-653-1	1634-04-4									
27		benzene				<5	µg/kg		<0.005	mg/kg	<0.0000005 %		<**LOD**
		601-020-00-8	200-753-7	71-43-2									
28		toluene				<5	µg/kg		<0.005	mg/kg	<0.0000005 %		<**LOD**
		601-021-00-3	203-625-9	108-88-3									
29		ethylbenzene				<5	µg/kg		<0.005	mg/kg	<0.0000005 %		<**LOD**
		601-023-00-4	202-849-4	100-41-4									
30		xylene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<**LOD**
		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]									
31		TPH (C6 to C40) petroleum group				5962	mg/kg		5556.384	mg/kg	0.556 %	✓	
				TPH									
32		benzo[bk]fluoranthene				7.58	mg/kg		7.064	mg/kg	0.000706 %	✓	
			[1] 205-911-9 [2] 205-916-6	[1] 205-99-2 [2] 207-08-9									
33		chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				41.2	mg/kg	1.462	56.119	mg/kg	0.00561 %	✓	
			215-160-9	1308-38-9									
										Total:	0.588 %		

Key	
	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Hazardous result
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
	This determinand is defined in the EU CLP Table 3
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"
Force this Hazardous property to non hazardous because All elevated TPH relates to longer chain carbon fractions which are not readily combustible. Additional no free phase contamination was encountered during the ground investigation.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.556%)

Classification of sample: BH1-25/01/2022-0.20m

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

Sample details

Sample name:
BH1-25/01/2022-0.20m
Moisture content:
31.3%
(dry weight correction)

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 31.3% Dry Weight 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		phenol 604-001-00-2 / 203-632-7 / 108-95-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**
2		arsenic { arsenic pentoxide } 033-004-00-6 / 215-116-9 / 1303-28-2		10.5 mg/kg	1.534	12.266 mg/kg	0.00123 %	✓	
3		cadmium { cadmium compounds, with the exception of cadmium sulphoselenide (xCdS.yCdSe), reaction mass of cadmium sulphide with zinc sulphide (xCdS.yZnS), reaction mass of cadmium sulphide with mercury sulphide (xCdS.yHgS), and those specified elsewhere in this Annex } 048-001-00-5	1	0.2 mg/kg		0.152 mg/kg	0.0000152 %	✓	
4		copper { dicopper oxide; copper (I) oxide } 029-002-00-X / 215-270-7 / 1317-39-1		16 mg/kg	1.126	13.72 mg/kg	0.00137 %	✓	
5		lead { lead compounds with the exception of those specified elsewhere in this Annex (worst case) } 082-001-00-6	1	10 mg/kg		7.616 mg/kg	0.000762 %	✓	
6		mercury { mercury } 080-001-00-0 / 231-106-7 / 7439-97-6		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<**LOD**
7		nickel { nickel diiodide } 028-029-00-4 / 236-666-6 / 13462-90-3		22.1 mg/kg	5.324	89.617 mg/kg	0.00896 %	✓	
8		zinc { zinc oxide } 030-013-00-7 / 215-222-5 / 1314-13-2		95 mg/kg	1.245	90.059 mg/kg	0.00901 %	✓	
9		chromium in chromium(VI) compounds { chromium(VI) oxide } 024-001-00-0 / 215-607-8 / 1333-82-0		<0.3 mg/kg	1.923	<0.577 mg/kg	<0.0000577 %		<**LOD**
10		pH PH		7.7 pH		7.7 pH	7.7 pH		
11		boron { boron tribromide } 005-003-00-0 / 233-657-9 / 10294-33-4		7.2 mg/kg	23.173	127.072 mg/kg	0.0127 %	✓	
12		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex } 006-007-00-5		<0.5 mg/kg	1.884	<0.942 mg/kg	<0.0000942 %		<**LOD**
13		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane 603-181-00-X / 216-653-1 / 1634-04-4		<5 µg/kg		<0.005 mg/kg	<0.0000005 %		<**LOD**
14		benzene 601-020-00-8 / 200-753-7 / 71-43-2		<5 µg/kg		<0.005 mg/kg	<0.0000005 %		<**LOD**

#		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									
15		toluene				<5	µg/kg		<0.005	mg/kg	<0.0000005 %		<**LOD**
		601-021-00-3	203-625-9	108-88-3									
16		ethylbenzene				<5	µg/kg		<0.005	mg/kg	<0.0000005 %		<**LOD**
		601-023-00-4	202-849-4	100-41-4									
17		xylene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<**LOD**
		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]									
18		TPH (C6 to C40) petroleum group				<38	mg/kg		<38	mg/kg	<0.0038 %		<**LOD**
				TPH									
19		chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				35.8	mg/kg	1.462	39.85	mg/kg	0.00399 %	✓	
			215-160-9	1308-38-9									
										Total:	0.042 %		

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 Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
	This determinand is defined in the EU CLP Table 3
<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

cadmium compounds, with the exception of cadmium sulphoselenide (xCdS.yCdSe), reaction mass of cadmium sulphide with zinc sulphide (xCdS.yZnS), reaction mass of cadmium sulphide with mercury sulphide (xCdS.yHgS), and those specified elsewhere in this Annex

EU CLP index number: 048-001-00-5
Description/Comments: Worst Case: IARC considers cadmium compounds Group 1; Carcinogenic to humans
Data source: Regulation 1272/2008/EC - Classification, labelling and packaging of substances and mixtures. (CLP)
Hazard Statements: Acute Tox. 4; H332 , Acute Tox. 4; H312 , Acute Tox. 4; H302 , Aquatic Acute 1; H400 , Aquatic Chronic 1; H410 , Carc. 1A; H350
Reason for additional Hazards Statement(s):
29 Sep 2015 - Carc. 1A; H350 hazard statement sourced from: IARC Group 1 (23, Sup 7, 100C) 2012

dicopper oxide; copper (I) oxide (EC Number: 215-270-7, CAS Number: 1317-39-1)

EU CLP index number: 029-002-00-X
Description/Comments:
Data source: Regulation (EU) 2021/849 of 11 March 2021 (ATP17)
Hazard Statements: Acute Tox. 4; H302 , Eye Dam. 1; H318 , Acute Tox. 4; H332 , Aquatic Acute 1; H400 (M=100) , Aquatic Chronic 1; H410 (M=10)

lead compounds with the exception of those specified elsewhere in this Annex (worst case)

EU CLP index number: 082-001-00-6
Description/Comments: Worst Case: IARC considers lead compounds Group 2A; Probably carcinogenic to humans; Lead REACH Consortium, following CLP protocols, considers lead compounds from smelting industries, flue dust and similar to be Carcinogenic category 1A
Data source: Regulation 1272/2008/EC - Classification, labelling and packaging of substances and mixtures. (CLP)
Hazard Statements: Repr. 1A; H360Df , Acute Tox. 4; H332 , Acute Tox. 4; H302 , STOT RE 2; H373 , Aquatic Acute 1; H400 , Aquatic Chronic 1; H410 , Repr. 2; H361f >= 2.5 % , STOT RE 2; H373 >= 0.5 % , Carc. 1A; H350
Reason for additional Hazards Statement(s):
03 Jun 2015 - Carc. 1A; H350 hazard statement sourced from: IARC Group 2A (Sup 7, 87) 2006; Lead REACH Consortium www.reach-lead.eu/substanceinformation.html (worst case lead compounds). Review date 29/09/2015

zinc oxide (EC Number: 215-222-5, CAS Number: 1314-13-2)

EU CLP index number: 030-013-00-7
Description/Comments:
Data source: Regulation 1272/2008/EC - Classification, labelling and packaging of substances and mixtures. (CLP)
Hazard Statements: Aquatic Acute 1; H400 , Aquatic Chronic 1; H410

chromium(VI) oxide (EC Number: 215-607-8, CAS Number: 1333-82-0)

EU CLP index number: 024-001-00-0
Description/Comments:
Data source: Regulation 1272/2008/EC - Classification, labelling and packaging of substances and mixtures. (CLP)
Hazard Statements: Ox. Sol. 1; H271 , Carc. 1A; H350 , Muta. 1B; H340 , Repr. 2; H361f , Acute Tox. 2; H330 , Acute Tox. 3; H311 , Acute Tox. 3; H301 , STOT RE 1; H372 , Skin Corr. 1A; H314 , Resp. Sens. 1; H334 , Skin Sens. 1; H317 , Aquatic Acute 1; H400 , Aquatic Chronic 1; H410 , STOT SE 3; H335 >= 1 %

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

pH (CAS Number: PH)

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

boron tribromide (EC Number: 233-657-9, CAS Number: 10294-33-4)

EU CLP index number: 005-003-00-0
Description/Comments:
Data source: Regulation 1272/2008/EC - Classification, labelling and packaging of substances and mixtures. (CLP)
Hazard Statements: Acute Tox. 2; H330 , Acute Tox. 2; H300 , Skin Corr. 1A; H314 , EUH014

salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex

EU CLP index number: 006-007-00-5
Description/Comments: Conversion factor based on a worst case compound: sodium cyanide
Data source: Commission Regulation (EC) No 790/2009 - 1st Adaptation to Technical Progress for Regulation (EC) No 1272/2008. (ATP1)
Hazard Statements: Acute Tox. 2; H330 , Acute Tox. 1; H310 , Acute Tox. 2; H300 , Aquatic Acute 1; H400 , Aquatic Chronic 1; H410 , EUH032 , EUH032 >= 0.2 %
Reason for additional Hazards Statement(s):
14 Dec 2015 - EUH032 >= 0.2 % hazard statement sourced from: WM3, Table C12.2

benzo[bk]fluoranthene (EC Number: [1] 205-911-9 [2] 205-916-6, CAS Number: [1] 205-99-2 [2] 207-08-9)

Description/Comments: Combined data from harmonised entries in CLP for benzo[b] and benzo[k]fluoranthene; C&L Inventory Database
Data source: https://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 02 Mar 2017
Hazard Statements: Carc. 1B; H350 , Aquatic Acute 1; H400 , Aquatic Chronic 1; H410

chromium(III) oxide (worst case) (EC Number: 215-160-9, CAS Number: 1308-38-9)

Description/Comments: Data from C&L Inventory Database
Data source: https://echa.europa.eu/information-on-chemicals/cl-inventory-database/-/discli/details/33806
Data source date: 17 Jul 2015
Hazard Statements: Acute Tox. 4; H332 , Acute Tox. 4; H302 , Eye Irrit. 2; H319 , STOT SE 3; H335 , Skin Irrit. 2; H315 , Resp. Sens. 1; H334 , Skin Sens. 1; H317 , Repr. 1B; H360FD , Aquatic Acute 1; H400 , Aquatic Chronic 1; H410

ethylbenzene (EC Number: 202-849-4, CAS Number: 100-41-4)

GB MCL index number: 601-023-00-4
Description/Comments:
Additional Hazard Statement(s): Carc. 2; H351
Reason for additional Hazards Statement(s):
20 Nov 2021 - Carc. 2; H351 hazard statement sourced from: IARC Group 2B (77) 2000

TPH (C6 to C40) petroleum group (CAS Number: TPH)

Description/Comments: Hazard statements taken from WM3 1st Edition 2015; Risk phrases: WM2 3rd Edition 2013
Data source: WM3 1st Edition 2015
Data source date: 25 May 2015
Hazard Statements: Flam. Liq. 3; H226 , Asp. Tox. 1; H304 , STOT RE 2; H373 , Muta. 1B; H340 , Carc. 1B; H350 , Repr. 2; H361d , Aquatic Chronic 2; H411

coronene (EC Number: 205-881-7, CAS Number: 191-07-1)

Description/Comments: Data from C&L Inventory Database; no entries in Registered Substances or Pesticides Properties databases; SDS: Sigma Aldrich, 1907/2006 compliant, dated 2012 - no entries; IARC – Group 3, not carcinogenic.
Data source: http://clp-inventory.echa.europa.eu/SummaryOfClassAndLabelling.aspx?SubstanceID=17010&HarmOnly=no?fc=true&lang=en
Data source date: 16 Jun 2014
Hazard Statements: STOT SE 2; H371

Appendix B: Rationale for selection of metal species

arsenic {arsenic pentoxide}

Worst case

cadmium {cadmium compounds, with the exception of cadmium sulphoselenide (xCdS.yCdSe), reaction mass of cadmium sulphide with zinc sulphide (xCdS.yZnS), reaction mass of cadmium sulphide with mercury sulphide (xCdS.yHgS), and those specified elsewhere in this Annex}

Cadmium results not speciated.

copper {dicopper oxide; copper (I) oxide}

Copper results not speciated.

lead {lead compounds with the exception of those specified elsewhere in this Annex (worst case)}

Lead results not speciated.

mercury {mercury}

Worst case

nickel {nickel diiodide}

Worst case

zinc {zinc oxide}

Zinc results not speciated.

chromium in chromium(VI) compounds {chromium(VI) oxide}

Chromium(VI) compounds not speciated.

boron {boron tribromide}

Worst case.

cyanides {salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex}

Cyanide results not speciated.

chromium in chromium(III) compounds {chromium(III) oxide (worst case)}

Chromium (III) compounds not speciated.

Appendix C: Version

HazWasteOnline Classification Engine: WM3 1st Edition v1.2.GB - Oct 2021
HazWasteOnline Classification Engine Version: 2022.103.5089.9622 (13 Apr 2022)
HazWasteOnline Database: 2022.103.5089.9622 (13 Apr 2022)

This classification utilises the following guidance and legislation:
WM3 v1.2.GB - Waste Classification - 1st Edition v1.2.GB - Oct 2021
CLP Regulation - Regulation 1272/2008/EC of 16 December 2008
1st ATP - Regulation 790/2009/EC of 10 August 2009
2nd ATP - Regulation 286/2011/EC of 10 March 2011
3rd ATP - Regulation 618/2012/EU of 10 July 2012
4th ATP - Regulation 487/2013/EU of 8 May 2013
Correction to 1st ATP - Regulation 758/2013/EU of 7 August 2013
5th ATP - Regulation 944/2013/EU of 2 October 2013
6th ATP - Regulation 605/2014/EU of 5 June 2014
WFD Annex III replacement - Regulation 1357/2014/EU of 18 December 2014
Revised List of Waste 2014 - Decision 2014/955/EU of 18 December 2014
7th ATP - Regulation 2015/1221/EU of 24 July 2015
8th ATP - Regulation (EU) 2016/918 of 19 May 2016
9th ATP - Regulation (EU) 2016/1179 of 19 July 2016
10th ATP - Regulation (EU) 2017/776 of 4 May 2017
HP14 amendment - Regulation (EU) 2017/997 of 8 June 2017
13th ATP - Regulation (EU) 2018/1480 of 4 October 2018
14th ATP - Regulation (EU) 2020/217 of 4 October 2019
15th ATP - Regulation (EU) 2020/1182 of 19 May 2020
The Chemicals (Health and Safety) and Genetically Modified Organisms (Contained Use)(Amendment etc.) (EU Exit) Regulations 2020 - UK: 2020 No. 1567 of 16th December 2020
The Waste and Environmental Permitting etc. (Legislative Functions and Amendment etc.) (EU Exit) Regulations 2020 - UK: 2020 No. 1540 of 16th December 2020
GB MCL List - version 1.1 of 09 June 2021

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:

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

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

UTHC5-6E9U4-HNQFD

Job name

EMT-22-1512-Batch-2-202202231311[2]

Description/Comments

Project

GRO-21400

Site

Aldi Holbeach (2)

Classified by

Name:
Bradley Massey
Date:
19 May 2022 14:27 GMT
Telephone:
01618 201368

Company:
Groundtech Consulting Limited
First Floor, Lloyd House, Orford Court,
Greenfold Way
Leigh
WN7 3XJ

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	-

Job summary

#	Sample name	Depth [m]	Classification Result	Hazard properties	Page
1	WS09-26/01/2022-0.20m		Non Hazardous		2
2	WS10-26/01/2022-0.30m		Non Hazardous		4
3	WS12-27/01/2022-0.30m		Non Hazardous		6
4	WS13-27/01/2022-0.30m		Non Hazardous		9
5	WS14-27/01/2022-0.50m		Non Hazardous		11
6	SUDS1-27/01/2022-0.30m		Non Hazardous		14
7	SUDS2-27/01/2022-0.20m		Non Hazardous		16
8	SUDS2-27/01/2022-0.80m		Non Hazardous		18
9	SUDS2-27/01/2022-1.20m		Non Hazardous		21
10	SUDS2A-27/01/2022-0.10m		Non Hazardous		24

Related documents

#	Name	Description
1	EMT-22-1512-Batch-2-202202231311.HWOL[2]	.hwol[2] file used to create the Job

Report

Created by: Bradley Massey

Created date: 19 May 2022 14:27 GMT

Appendices	Page
Appendix A: Classifier defined and non GB MCL determinands	26
Appendix B: Rationale for selection of metal species	28
Appendix C: Version	28

Classification of sample: WS09-26/01/2022-0.20m

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

Sample details

Sample name:
WS09-26/01/2022-0.20m
Moisture content:
7.5%
(dry weight correction)

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 7.5% Dry Weight Moisture Correction applied (MC)

#		Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1		phenol	604-001-00-2	203-632-7	108-95-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
2		arsenic { arsenic pentoxide }	033-004-00-6	215-116-9	1303-28-2		9 mg/kg	1.534	12.842 mg/kg	0.00128 %	✓	
3		cadmium { cadmium compounds, with the exception of cadmium sulphoselenide (xCdS.yCdSe), reaction mass of cadmium sulphide with zinc sulphide (xCdS.yZnS), reaction mass of cadmium sulphide with mercury sulphide (xCdS.yHgS), and those specified elsewhere in this Annex }	048-001-00-5			1	0.2 mg/kg		0.186 mg/kg	0.0000186 %	✓	
4		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		25 mg/kg	1.126	26.183 mg/kg	0.00262 %	✓	
5		lead { lead compounds with the exception of those specified elsewhere in this Annex (worst case) }	082-001-00-6			1	12 mg/kg		11.163 mg/kg	0.00112 %	✓	
6		mercury { mercury }	080-001-00-0	231-106-7	7439-97-6		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
7		nickel { nickel diiodide }	028-029-00-4	236-666-6	13462-90-3		10.7 mg/kg	5.324	52.995 mg/kg	0.0053 %	✓	
8		zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		117 mg/kg	1.245	135.471 mg/kg	0.0135 %	✓	
9		chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<0.3 mg/kg	1.923	<0.577 mg/kg	<0.0000577 %		<LOD
10		acenaphthylene		205-917-1	208-96-8		0.28 mg/kg		0.26 mg/kg	0.000026 %	✓	
11		acenaphthene		201-469-6	83-32-9		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
12		fluorene		201-695-5	86-73-7		<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<LOD
13		phenanthrene		201-581-5	85-01-8		0.06 mg/kg		0.0558 mg/kg	0.00000558 %	✓	
14		anthracene		204-371-1	120-12-7		0.09 mg/kg		0.0837 mg/kg	0.00000837 %	✓	
15		fluoranthene		205-912-4	206-44-0		0.38 mg/kg		0.353 mg/kg	0.0000353 %	✓	

#		Determinand	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		EU CLP index number											
16		pyrene	204-927-3	129-00-0		0.44	mg/kg		0.409	mg/kg	0.0000409 %	✓	
17		benzo[a]anthracene	200-280-6	56-55-3		0.23	mg/kg		0.214	mg/kg	0.0000214 %	✓	
		601-033-00-9											
18		chrysene	205-923-4	218-01-9		0.39	mg/kg		0.363	mg/kg	0.0000363 %	✓	
		601-048-00-0											
19		benzo[a]pyrene; benzo[def]chrysene	200-028-5	50-32-8		0.49	mg/kg		0.456	mg/kg	0.0000456 %	✓	
		601-032-00-3											
20		indeno[123-cd]pyrene	205-893-2	193-39-5		0.41	mg/kg		0.381	mg/kg	0.0000381 %	✓	
21		dibenz[a,h]anthracene	200-181-8	53-70-3		0.09	mg/kg		0.0837	mg/kg	0.00000837 %	✓	
		601-041-00-2											
22		benzo[ghi]perylene	205-883-8	191-24-2		0.45	mg/kg		0.419	mg/kg	0.0000419 %	✓	
23		coronene	205-881-7	191-07-1		0.1	mg/kg		0.093	mg/kg	0.0000093 %	✓	
24		pH		PH		11.03	pH		11.03	pH	11.03 pH		
25		boron { boron tribromide }	233-657-9	10294-33-4		1.2	mg/kg	23.173	25.868	mg/kg	0.00259 %	✓	
		005-003-00-0											
26		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }				<0.5	mg/kg	1.884	<0.942	mg/kg	<0.0000942 %		<**LOD**
		006-007-00-5											
27		benzo[bk]fluoranthene	[1] 205-911-9 [2] 205-916-6	[1] 205-99-2 [2] 207-08-9		0.87	mg/kg		0.809	mg/kg	0.0000809 %	✓	
28		chromium in chromium(III) compounds { chromium(III) oxide (worst case) }	215-160-9	1308-38-9		26.1	mg/kg	1.462	35.485	mg/kg	0.00355 %	✓	
										Total:	0.0306 %		

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 Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
	This determinand is defined in the EU CLP Table 3
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: WS10-26/01/2022-0.30m

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

Sample details

Sample name:
WS10-26/01/2022-0.30m
Moisture content:
6.8%
(dry weight correction)

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 6.8% Dry Weight Moisture Correction applied (MC)

#		Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
1		phenol	604-001-00-2	203-632-7	108-95-2		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
2		arsenic { arsenic pentoxide }	033-004-00-6	215-116-9	1303-28-2		4	mg/kg	1.534	5.745	mg/kg	0.000574 %	✓	
3		cadmium { cadmium compounds, with the exception of cadmium sulphoselenide (xCdS.yCdSe), reaction mass of cadmium sulphide with zinc sulphide (xCdS.yZnS), reaction mass of cadmium sulphide with mercury sulphide (xCdS.yHgS), and those specified elsewhere in this Annex }	048-001-00-5			1	<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
4		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		34	mg/kg	1.126	35.843	mg/kg	0.00358 %	✓	
5		lead { lead compounds with the exception of those specified elsewhere in this Annex (worst case) }	082-001-00-6			1	<5	mg/kg		<5	mg/kg	<0.0005 %		<LOD
6		mercury { mercury }	080-001-00-0	231-106-7	7439-97-6		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
7		nickel { nickel diiodide }	028-029-00-4	236-666-6	13462-90-3		5.3	mg/kg	5.324	26.422	mg/kg	0.00264 %	✓	
8		zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		34	mg/kg	1.245	39.626	mg/kg	0.00396 %	✓	
9		chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<0.3	mg/kg	1.923	<0.577	mg/kg	<0.0000577 %		<LOD
10		acenaphthylene		205-917-1	208-96-8		0.06	mg/kg		0.0562	mg/kg	0.00000562 %	✓	
11		acenaphthene		201-469-6	83-32-9		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
12		fluorene		201-695-5	86-73-7		<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
13		phenanthrene		201-581-5	85-01-8		<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
14		anthracene		204-371-1	120-12-7		<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
15		fluoranthene		205-912-4	206-44-0		0.04	mg/kg		0.0375	mg/kg	0.00000375 %	✓	

#		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									
16		pyrene				0.05	mg/kg		0.0468	mg/kg	0.00000468 %	✓	
			204-927-3	129-00-0									
17		benzo[a]anthracene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<**LOD**
		601-033-00-9	200-280-6	56-55-3									
18		chrysene				0.06	mg/kg		0.0562	mg/kg	0.00000562 %	✓	
		601-048-00-0	205-923-4	218-01-9									
19		benzo[a]pyrene; benzo[def]chrysene				0.06	mg/kg		0.0562	mg/kg	0.00000562 %	✓	
		601-032-00-3	200-028-5	50-32-8									
20		indeno[123-cd]pyrene				0.05	mg/kg		0.0468	mg/kg	0.00000468 %	✓	
			205-893-2	193-39-5									
21		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-041-00-2	200-181-8	53-70-3									
22		benzo[ghi]perylene				0.07	mg/kg		0.0655	mg/kg	0.00000655 %	✓	
			205-883-8	191-24-2									
23		coronene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
			205-881-7	191-07-1									
24		pH				8.62	pH		8.62	pH	8.62 pH		
				PH									
25		boron { boron tribromide }				0.3	mg/kg	23.173	6.509	mg/kg	0.000651 %	✓	
		005-003-00-0	233-657-9	10294-33-4									
26		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }				<0.5	mg/kg	1.884	<0.942	mg/kg	<0.0000942 %		<**LOD**
		006-007-00-5											
27		benzo[bk]fluoranthene				0.11	mg/kg		0.103	mg/kg	0.0000103 %	✓	
			[1] 205-911-9 [2] 205-916-6	[1] 205-99-2 [2] 207-08-9									
28		chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				20.7	mg/kg	1.462	28.328	mg/kg	0.00283 %	✓	
			215-160-9	1308-38-9									
										Total:	0.015 %		

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 Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
	This determinand is defined in the EU CLP Table 3
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: WS12-27/01/2022-0.30m

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

Sample details

Sample name:
WS12-27/01/2022-0.30m
Moisture content:
8%
(dry weight correction)

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 8% Dry Weight Moisture Correction applied (MC)

#		Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
1		phenol	604-001-00-2	203-632-7	108-95-2		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
2		arsenic { arsenic pentoxide }	033-004-00-6	215-116-9	1303-28-2		10.7	mg/kg	1.534	15.197	mg/kg	0.00152 %	✓	
3		cadmium { cadmium compounds, with the exception of cadmium sulphoselenide (xCdS.yCdSe), reaction mass of cadmium sulphide with zinc sulphide (xCdS.yZnS), reaction mass of cadmium sulphide with mercury sulphide (xCdS.yHgS), and those specified elsewhere in this Annex }	048-001-00-5			1	0.3	mg/kg		0.278	mg/kg	0.0000278 %	✓	
4		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		44	mg/kg	1.126	45.87	mg/kg	0.00459 %	✓	
5		lead { lead compounds with the exception of those specified elsewhere in this Annex (worst case) }	082-001-00-6			1	597	mg/kg		552.778	mg/kg	0.0553 %	✓	
6		mercury { mercury }	080-001-00-0	231-106-7	7439-97-6		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
7		nickel { nickel diiodide }	028-029-00-4	236-666-6	13462-90-3		29.4	mg/kg	5.324	144.939	mg/kg	0.0145 %	✓	
8		zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		132	mg/kg	1.245	152.132	mg/kg	0.0152 %	✓	
9		chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<0.3	mg/kg	1.923	<0.577	mg/kg	<0.0000577 %		<**LOD**
10		acenaphthylene		205-917-1	208-96-8		<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
11		acenaphthene		201-469-6	83-32-9		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
12		fluorene		201-695-5	86-73-7		<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
13		phenanthrene		201-581-5	85-01-8		0.04	mg/kg		0.037	mg/kg	0.0000037 %	✓	
14		anthracene		204-371-1	120-12-7		<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
15		fluoranthene		205-912-4	206-44-0		0.15	mg/kg		0.139	mg/kg	0.0000139 %	✓	

#		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									
16		pyrene				0.16	mg/kg		0.148	mg/kg	0.0000148 %	✓	
			204-927-3	129-00-0									
17		benzo[a]anthracene				0.11	mg/kg		0.102	mg/kg	0.0000102 %	✓	
		601-033-00-9	200-280-6	56-55-3									
18		chrysene				0.13	mg/kg		0.12	mg/kg	0.000012 %	✓	
		601-048-00-0	205-923-4	218-01-9									
19		benzo[a]pyrene; benzo[def]chrysene				0.11	mg/kg		0.102	mg/kg	0.0000102 %	✓	
		601-032-00-3	200-028-5	50-32-8									
20		indeno[123-cd]pyrene				0.14	mg/kg		0.13	mg/kg	0.000013 %	✓	
			205-893-2	193-39-5									
21		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-041-00-2	200-181-8	53-70-3									
22		benzo[ghi]perylene				0.11	mg/kg		0.102	mg/kg	0.0000102 %	✓	
			205-883-8	191-24-2									
23		coronene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
			205-881-7	191-07-1									
24		pH				8.28	pH		8.28	pH	8.28 pH		
				PH									
25		boron { boron tribromide }				0.6	mg/kg	23.173	12.874	mg/kg	0.00129 %	✓	
		005-003-00-0	233-657-9	10294-33-4									
26		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }				<0.5	mg/kg	1.884	<0.942	mg/kg	<0.0000942 %		<**LOD**
		006-007-00-5											
27		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane				<5	µg/kg		<0.005	mg/kg	<0.0000005 %		<**LOD**
		603-181-00-X	216-653-1	1634-04-4									
28		benzene				<5	µg/kg		<0.005	mg/kg	<0.0000005 %		<**LOD**
		601-020-00-8	200-753-7	71-43-2									
29		toluene				<5	µg/kg		<0.005	mg/kg	<0.0000005 %		<**LOD**
		601-021-00-3	203-625-9	108-88-3									
30		ethylbenzene				<5	µg/kg		<0.005	mg/kg	<0.0000005 %		<**LOD**
		601-023-00-4	202-849-4	100-41-4									
31		xylene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<**LOD**
		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]									
32		TPH (C6 to C40) petroleum group				82	mg/kg		75.926	mg/kg	0.00759 %	✓	
				TPH									
33		benzo[bk]fluoranthene				0.26	mg/kg		0.241	mg/kg	0.0000241 %	✓	
			[1] 205-911-9 [2] 205-916-6	[1] 205-99-2 [2] 207-08-9									
34		chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				55.4	mg/kg	1.462	74.972	mg/kg	0.0075 %	✓	
			215-160-9	1308-38-9									
										Total:	0.108 %		

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 Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
	This determinand is defined in the EU CLP Table 3
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because No free phase contamination was encountered during the ground investigation.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.00759%)

Classification of sample: WS13-27/01/2022-0.30m

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

Sample details

Sample name:
WS13-27/01/2022-0.30m
Moisture content:
6.8%
(dry weight correction)

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 6.8% Dry Weight Moisture Correction applied (MC)

#		Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1		phenol	604-001-00-2	203-632-7	108-95-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**
2		arsenic { arsenic pentoxide }	033-004-00-6	215-116-9	1303-28-2		13 mg/kg	1.534	18.671 mg/kg	0.00187 %	✓	
3		cadmium { cadmium compounds, with the exception of cadmium sulphoselenide (xCdS.yCdSe), reaction mass of cadmium sulphide with zinc sulphide (xCdS.yZnS), reaction mass of cadmium sulphide with mercury sulphide (xCdS.yHgS), and those specified elsewhere in this Annex }	048-001-00-5			1	0.2 mg/kg		0.187 mg/kg	0.0000187 %	✓	
4		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		7 mg/kg	1.126	7.379 mg/kg	0.000738 %	✓	
5		lead { lead compounds with the exception of those specified elsewhere in this Annex (worst case) }	082-001-00-6			1	9 mg/kg		8.427 mg/kg	0.000843 %	✓	
6		mercury { mercury }	080-001-00-0	231-106-7	7439-97-6		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<**LOD**
7		nickel { nickel diiodide }	028-029-00-4	236-666-6	13462-90-3		12.6 mg/kg	5.324	62.815 mg/kg	0.00628 %	✓	
8		zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		55 mg/kg	1.245	64.1 mg/kg	0.00641 %	✓	
9		chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<0.3 mg/kg	1.923	<0.577 mg/kg	<0.0000577 %		<**LOD**
10		acenaphthylene		205-917-1	208-96-8		<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<**LOD**
11		acenaphthene		201-469-6	83-32-9		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<**LOD**
12		fluorene		201-695-5	86-73-7		<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<**LOD**
13		phenanthrene		201-581-5	85-01-8		<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<**LOD**
14		anthracene		204-371-1	120-12-7		<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<**LOD**
15		fluoranthene		205-912-4	206-44-0		0.09 mg/kg		0.0843 mg/kg	0.00000843 %	✓	

#		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									
16		pyrene				0.07	mg/kg		0.0655	mg/kg	0.00000655 %	✓	
			204-927-3	129-00-0									
17		benzo[a]anthracene				0.09	mg/kg		0.0843	mg/kg	0.00000843 %	✓	
		601-033-00-9	200-280-6	56-55-3									
18		chrysene				0.09	mg/kg		0.0843	mg/kg	0.00000843 %	✓	
		601-048-00-0	205-923-4	218-01-9									
19		benzo[a]pyrene; benzo[def]chrysene				0.12	mg/kg		0.112	mg/kg	0.0000112 %	✓	
		601-032-00-3	200-028-5	50-32-8									
20		indeno[123-cd]pyrene				0.13	mg/kg		0.122	mg/kg	0.0000122 %	✓	
			205-893-2	193-39-5									
21		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-041-00-2	200-181-8	53-70-3									
22		benzo[ghi]perylene				0.13	mg/kg		0.122	mg/kg	0.0000122 %	✓	
			205-883-8	191-24-2									
23		coronene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
			205-881-7	191-07-1									
24		pH				8.56	pH		8.56	pH	8.56 pH		
				PH									
25		boron { boron tribromide }				0.6	mg/kg	23.173	13.019	mg/kg	0.0013 %	✓	
		005-003-00-0	233-657-9	10294-33-4									
26		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }				<0.5	mg/kg	1.884	<0.942	mg/kg	<0.0000942 %		<**LOD**
		006-007-00-5											
27		benzo[bk]fluoranthene				0.21	mg/kg		0.197	mg/kg	0.0000197 %	✓	
			[1] 205-911-9 [2] 205-916-6	[1] 205-99-2 [2] 207-08-9									
28		chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				46.7	mg/kg	1.462	63.909	mg/kg	0.00639 %	✓	
			215-160-9	1308-38-9									
										Total:	0.0241 %		

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 Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
	This determinand is defined in the EU CLP Table 3
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: WS14-27/01/2022-0.50m

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

Sample details

Sample name:
WS14-27/01/2022-0.50m
Moisture content:
6.3%
(dry weight correction)

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 6.3% Dry Weight Moisture Correction applied (MC)

#		Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1		phenol	604-001-00-2	203-632-7	108-95-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**
2		arsenic { arsenic pentoxide }	033-004-00-6	215-116-9	1303-28-2		3.2 mg/kg	1.534	4.617 mg/kg	0.000462 %	✓	
3		cadmium { cadmium compounds, with the exception of cadmium sulphoselenide (xCdS.yCdSe), reaction mass of cadmium sulphide with zinc sulphide (xCdS.yZnS), reaction mass of cadmium sulphide with mercury sulphide (xCdS.yHgS), and those specified elsewhere in this Annex }	048-001-00-5			1	<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<**LOD**
4		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		15 mg/kg	1.126	15.887 mg/kg	0.00159 %	✓	
5		lead { lead compounds with the exception of those specified elsewhere in this Annex (worst case) }	082-001-00-6			1	<5 mg/kg		<5 mg/kg	<0.0005 %		<**LOD**
6		mercury { mercury }	080-001-00-0	231-106-7	7439-97-6		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<**LOD**
7		nickel { nickel diiodide }	028-029-00-4	236-666-6	13462-90-3		4.7 mg/kg	5.324	23.541 mg/kg	0.00235 %	✓	
8		zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		27 mg/kg	1.245	31.616 mg/kg	0.00316 %	✓	
9		chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<0.3 mg/kg	1.923	<0.577 mg/kg	<0.0000577 %		<**LOD**
10		acenaphthylene		205-917-1	208-96-8		0.07 mg/kg		0.0659 mg/kg	0.00000659 %	✓	
11		acenaphthene		201-469-6	83-32-9		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<**LOD**
12		fluorene		201-695-5	86-73-7		<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<**LOD**
13		phenanthrene		201-581-5	85-01-8		<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<**LOD**
14		anthracene		204-371-1	120-12-7		<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<**LOD**
15		fluoranthene		205-912-4	206-44-0		<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<**LOD**

#		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									
16		pyrene				0.06	mg/kg		0.0564	mg/kg	0.00000564 %	✓	
			204-927-3	129-00-0									
17		benzo[a]anthracene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
18		chrysene				0.06	mg/kg		0.0564	mg/kg	0.00000564 %	✓	
		601-048-00-0	205-923-4	218-01-9									
19		benzo[a]pyrene; benzo[def]chrysene				0.06	mg/kg		0.0564	mg/kg	0.00000564 %	✓	
		601-032-00-3	200-028-5	50-32-8									
20		indeno[123-cd]pyrene				0.07	mg/kg		0.0659	mg/kg	0.00000659 %	✓	
			205-893-2	193-39-5									
21		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
22		benzo[ghi]perylene				0.11	mg/kg		0.103	mg/kg	0.0000103 %	✓	
			205-883-8	191-24-2									
23		coronene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
			205-881-7	191-07-1									
24		pH				8.54	pH		8.54	pH	8.54 pH		
				PH									
25		boron { boron tribromide }				0.2	mg/kg	23.173	4.36	mg/kg	0.000436 %	✓	
		005-003-00-0	233-657-9	10294-33-4									
26		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }				<0.5	mg/kg	1.884	<0.942	mg/kg	<0.0000942 %		<LOD
		006-007-00-5											
27		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane				<5	µg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
		603-181-00-X	216-653-1	1634-04-4									
28		benzene				<5	µg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
		601-020-00-8	200-753-7	71-43-2									
29		toluene				<5	µg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
		601-021-00-3	203-625-9	108-88-3									
30		ethylbenzene				<5	µg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
		601-023-00-4	202-849-4	100-41-4									
31		xylene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
		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]									
32		TPH (C6 to C40) petroleum group				112	mg/kg		105.362	mg/kg	0.0105 %	✓	
				TPH									
33		benzo[bk]fluoranthene				0.12	mg/kg		0.113	mg/kg	0.0000113 %	✓	
			[1] 205-911-9 [2] 205-916-6	[1] 205-99-2 [2] 207-08-9									
34		chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				18.8	mg/kg	1.462	25.849	mg/kg	0.00258 %	✓	
			215-160-9	1308-38-9									
										Total:	0.0219 %		

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 Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
	This determinand is defined in the EU CLP Table 3
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because No free phase contamination was encountered during the ground investigation.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0105%)

Classification of sample: SUDS1-27/01/2022-0.30m

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

Sample details

Sample name:
SUDS1-27/01/2022-0.30m
Moisture content:
18.7%
(dry weight correction)

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 18.7% Dry Weight Moisture Correction applied (MC)

#		Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
1		phenol	604-001-00-2	203-632-7	108-95-2		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
2		arsenic { arsenic pentoxide }	033-004-00-6	215-116-9	1303-28-2		7.1	mg/kg	1.534	9.175	mg/kg	0.000917 %	✓	
3		cadmium { cadmium compounds, with the exception of cadmium sulphoselenide (xCdS.yCdSe), reaction mass of cadmium sulphide with zinc sulphide (xCdS.yZnS), reaction mass of cadmium sulphide with mercury sulphide (xCdS.yHgS), and those specified elsewhere in this Annex }	048-001-00-5			1	<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
4		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		13	mg/kg	1.126	12.331	mg/kg	0.00123 %	✓	
5		lead { lead compounds with the exception of those specified elsewhere in this Annex (worst case) }	082-001-00-6			1	53	mg/kg		44.65	mg/kg	0.00447 %	✓	
6		mercury { mercury }	080-001-00-0	231-106-7	7439-97-6		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
7		nickel { nickel diiodide }	028-029-00-4	236-666-6	13462-90-3		9.4	mg/kg	5.324	42.164	mg/kg	0.00422 %	✓	
8		zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		35	mg/kg	1.245	36.702	mg/kg	0.00367 %	✓	
9		chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<0.3	mg/kg	1.923	<0.577	mg/kg	<0.0000577 %		<**LOD**
10		acenaphthylene		205-917-1	208-96-8		0.17	mg/kg		0.143	mg/kg	0.0000143 %	✓	
11		acenaphthene		201-469-6	83-32-9		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
12		fluorene		201-695-5	86-73-7		<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
13		phenanthrene		201-581-5	85-01-8		0.19	mg/kg		0.16	mg/kg	0.000016 %	✓	
14		anthracene		204-371-1	120-12-7		0.13	mg/kg		0.11	mg/kg	0.000011 %	✓	
15		fluoranthene		205-912-4	206-44-0		1.25	mg/kg		1.053	mg/kg	0.000105 %	✓	

#		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									
16		pyrene				1.2	mg/kg		1.011	mg/kg	0.000101 %	✓	
			204-927-3	129-00-0									
17		benzo[a]anthracene				0.89	mg/kg		0.75	mg/kg	0.000075 %	✓	
		601-033-00-9	200-280-6	56-55-3									
18		chrysene				0.91	mg/kg		0.767	mg/kg	0.0000767 %	✓	
		601-048-00-0	205-923-4	218-01-9									
19		benzo[a]pyrene; benzo[def]chrysene				0.89	mg/kg		0.75	mg/kg	0.000075 %	✓	
		601-032-00-3	200-028-5	50-32-8									
20		indeno[123-cd]pyrene				0.87	mg/kg		0.733	mg/kg	0.0000733 %	✓	
			205-893-2	193-39-5									
21		dibenz[a,h]anthracene				0.13	mg/kg		0.11	mg/kg	0.000011 %	✓	
		601-041-00-2	200-181-8	53-70-3									
22		benzo[ghi]perylene				0.63	mg/kg		0.531	mg/kg	0.0000531 %	✓	
			205-883-8	191-24-2									
23		coronene				0.12	mg/kg		0.101	mg/kg	0.0000101 %	✓	
			205-881-7	191-07-1									
24		pH				8.21	pH		8.21	pH	8.21 pH		
				PH									
25		boron { boron tribromide }				1	mg/kg	23.173	19.522	mg/kg	0.00195 %	✓	
		005-003-00-0	233-657-9	10294-33-4									
26		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }				<0.5	mg/kg	1.884	<0.942	mg/kg	<0.0000942 %		<**LOD**
		006-007-00-5											
27		benzo[bk]fluoranthene				1.84	mg/kg		1.55	mg/kg	0.000155 %	✓	
			[1] 205-911-9 [2] 205-916-6	[1] 205-99-2 [2] 207-08-9									
28		chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				23.1	mg/kg	1.462	28.443	mg/kg	0.00284 %	✓	
			215-160-9	1308-38-9									
										Total:	0.0203 %		

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 Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
	This determinand is defined in the EU CLP Table 3
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: SUDS2-27/01/2022-0.20m

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

Sample details

Sample name:
SUDS2-27/01/2022-0.20m
Moisture content:
41.6%
(dry weight correction)

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 41.6% Dry Weight Moisture Correction applied (MC)

#		Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
1		phenol	604-001-00-2	203-632-7	108-95-2		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
2		arsenic { arsenic pentoxide }	033-004-00-6	215-116-9	1303-28-2		9.1	mg/kg	1.534	9.858	mg/kg	0.000986 %	✓	
3		cadmium { cadmium compounds, with the exception of cadmium sulphoselenide (xCdS.yCdSe), reaction mass of cadmium sulphide with zinc sulphide (xCdS.yZnS), reaction mass of cadmium sulphide with mercury sulphide (xCdS.yHgS), and those specified elsewhere in this Annex }	048-001-00-5			1	<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
4		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		19	mg/kg	1.126	15.107	mg/kg	0.00151 %	✓	
5		lead { lead compounds with the exception of those specified elsewhere in this Annex (worst case) }	082-001-00-6			1	29	mg/kg		20.48	mg/kg	0.00205 %	✓	
6		mercury { mercury }	080-001-00-0	231-106-7	7439-97-6		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
7		nickel { nickel diiodide }	028-029-00-4	236-666-6	13462-90-3		16.2	mg/kg	5.324	60.914	mg/kg	0.00609 %	✓	
8		zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		50	mg/kg	1.245	43.952	mg/kg	0.0044 %	✓	
9		chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<0.3	mg/kg	1.923	<0.577	mg/kg	<0.0000577 %		<**LOD**
10		acenaphthylene		205-917-1	208-96-8		0.08	mg/kg		0.0565	mg/kg	0.00000565 %	✓	
11		acenaphthene		201-469-6	83-32-9		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
12		fluorene		201-695-5	86-73-7		0.1	mg/kg		0.0706	mg/kg	0.00000706 %	✓	
13		phenanthrene		201-581-5	85-01-8		0.31	mg/kg		0.219	mg/kg	0.0000219 %	✓	
14		anthracene		204-371-1	120-12-7		<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
15		fluoranthene		205-912-4	206-44-0		0.34	mg/kg		0.24	mg/kg	0.000024 %	✓	

#		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									
16		pyrene				0.27	mg/kg		0.191	mg/kg	0.0000191 %	✓	
			204-927-3	129-00-0									
17		benzo[a]anthracene				0.18	mg/kg		0.127	mg/kg	0.0000127 %	✓	
		601-033-00-9	200-280-6	56-55-3									
18		chrysene				0.17	mg/kg		0.12	mg/kg	0.000012 %	✓	
		601-048-00-0	205-923-4	218-01-9									
19		benzo[a]pyrene; benzo[def]chrysene				0.11	mg/kg		0.0777	mg/kg	0.00000777 %	✓	
		601-032-00-3	200-028-5	50-32-8									
20		indeno[123-cd]pyrene				0.08	mg/kg		0.0565	mg/kg	0.00000565 %	✓	
			205-893-2	193-39-5									
21		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
		601-041-00-2	200-181-8	53-70-3									
22		benzo[ghi]perylene				0.07	mg/kg		0.0494	mg/kg	0.00000494 %	✓	
			205-883-8	191-24-2									
23		coronene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
			205-881-7	191-07-1									
24		pH				7.53	pH		7.53	pH	7.53 pH		
				PH									
25		boron { boron tribromide }				3.7	mg/kg	23.173	60.551	mg/kg	0.00606 %	✓	
		005-003-00-0	233-657-9	10294-33-4									
26		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }				<0.5	mg/kg	1.884	<0.942	mg/kg	<0.0000942 %		<**LOD**
		006-007-00-5											
27		benzo[bk]fluoranthene				0.24	mg/kg		0.169	mg/kg	0.0000169 %	✓	
			[1] 205-911-9 [2] 205-916-6	[1] 205-99-2 [2] 207-08-9									
28		chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				84.6	mg/kg	1.462	87.322	mg/kg	0.00873 %	✓	
			215-160-9	1308-38-9									
										Total:	0.0301 %		

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 Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
	This determinand is defined in the EU CLP Table 3
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: SUDS2-27/01/2022-0.80m

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

Sample details

Sample name:
SUDS2-27/01/2022-0.80m
Moisture content:
41%
(dry weight correction)

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 41% Dry Weight Moisture Correction applied (MC)

#		Determinand EU CLP index number / EC Number / CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1		phenol 604-001-00-2 / 203-632-7 / 108-95-2		0.04 mg/kg		0.0284 mg/kg	0.00000284 %	✓	
2		arsenic { arsenic pentoxide } 033-004-00-6 / 215-116-9 / 1303-28-2		11.7 mg/kg	1.534	12.728 mg/kg	0.00127 %	✓	
3		cadmium { cadmium compounds, with the exception of cadmium sulphoselenide (xCdS.yCdSe), reaction mass of cadmium sulphide with zinc sulphide (xCdS.yZnS), reaction mass of cadmium sulphide with mercury sulphide (xCdS.yHgS), and those specified elsewhere in this Annex } 048-001-00-5	1	<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<**LOD**
4		copper { dicopper oxide; copper (I) oxide } 029-002-00-X / 215-270-7 / 1317-39-1		27 mg/kg	1.126	21.56 mg/kg	0.00216 %	✓	
5		lead { lead compounds with the exception of those specified elsewhere in this Annex (worst case) } 082-001-00-6	1	21 mg/kg		14.894 mg/kg	0.00149 %	✓	
6		mercury { mercury } 080-001-00-0 / 231-106-7 / 7439-97-6		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<**LOD**
7		nickel { nickel diiodide } 028-029-00-4 / 236-666-6 / 13462-90-3		14.1 mg/kg	5.324	53.243 mg/kg	0.00532 %	✓	
8		zinc { zinc oxide } 030-013-00-7 / 215-222-5 / 1314-13-2		59 mg/kg	1.245	52.084 mg/kg	0.00521 %	✓	
9		chromium in chromium(VI) compounds { chromium(VI) oxide } 024-001-00-0 / 215-607-8 / 1333-82-0		<0.3 mg/kg	1.923	<0.577 mg/kg	<0.0000577 %		<**LOD**
10		acenaphthylene 205-917-1 / 208-96-8		<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<**LOD**
11		acenaphthene 201-469-6 / 83-32-9		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<**LOD**
12		fluorene 201-695-5 / 86-73-7		<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<**LOD**
13		phenanthrene 201-581-5 / 85-01-8		0.2 mg/kg		0.142 mg/kg	0.0000142 %	✓	
14		anthracene 204-371-1 / 120-12-7		<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<**LOD**
15		fluoranthene 205-912-4 / 206-44-0		0.11 mg/kg		0.078 mg/kg	0.0000078 %	✓	

#		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									
16		pyrene				0.08	mg/kg		0.0567	mg/kg	0.00000567 %	✓	
			204-927-3	129-00-0									
17		benzo[a]anthracene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
18		chrysene				0.04	mg/kg		0.0284	mg/kg	0.00000284 %	✓	
		601-048-00-0	205-923-4	218-01-9									
19		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
20		indeno[123-cd]pyrene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
			205-893-2	193-39-5									
21		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
22		benzo[ghi]perylene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
			205-883-8	191-24-2									
23		coronene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
			205-881-7	191-07-1									
24		pH				7.53	pH		7.53	pH	7.53 pH		
				PH									
25		boron { boron tribromide }				3.1	mg/kg	23.173	50.948	mg/kg	0.00509 %	✓	
		005-003-00-0	233-657-9	10294-33-4									
26		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }				<0.5	mg/kg	1.884	<0.942	mg/kg	<0.0000942 %		<LOD
		006-007-00-5											
27		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane				<5	µg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
		603-181-00-X	216-653-1	1634-04-4									
28		benzene				<5	µg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
		601-020-00-8	200-753-7	71-43-2									
29		toluene				<5	µg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
		601-021-00-3	203-625-9	108-88-3									
30		ethylbenzene				<5	µg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
		601-023-00-4	202-849-4	100-41-4									
31		xylene				0.03	mg/kg		0.0213	mg/kg	0.00000213 %	✓	
		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]									
32		TPH (C6 to C40) petroleum group				749	mg/kg		531.206	mg/kg	0.0531 %	✓	
				TPH									
33		benzo[bk]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
			[1] 205-911-9 [2] 205-916-6	[1] 205-99-2 [2] 207-08-9									
34		chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				43.3	mg/kg	1.462	44.883	mg/kg	0.00449 %	✓	
			215-160-9	1308-38-9									
										Total:	0.0784 %		

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 Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
	This determinand is defined in the EU CLP Table 3
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because No free phase contamination was encountered during the ground investigation.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinands:

xylene: (conc.: 2.13e-06%)
TPH (C6 to C40) petroleum group: (conc.: 0.0531%)

Classification of sample: SUDS2-27/01/2022-1.20m

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

Sample details

Sample name:
SUDS2-27/01/2022-1.20m
Moisture content:
37.5%
(dry weight correction)

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 37.5% Dry Weight Moisture Correction applied (MC)

#		Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1		phenol	604-001-00-2	203-632-7	108-95-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**
2		arsenic { arsenic pentoxide }	033-004-00-6	215-116-9	1303-28-2		7.9 mg/kg	1.534	8.813 mg/kg	0.000881 %	✓	
3		cadmium { cadmium compounds, with the exception of cadmium sulphoselenide (xCdS.yCdSe), reaction mass of cadmium sulphide with zinc sulphide (xCdS.yZnS), reaction mass of cadmium sulphide with mercury sulphide (xCdS.yHgS), and those specified elsewhere in this Annex }	048-001-00-5			1	<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<**LOD**
4		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		15 mg/kg	1.126	12.282 mg/kg	0.00123 %	✓	
5		lead { lead compounds with the exception of those specified elsewhere in this Annex (worst case) }	082-001-00-6			1	20 mg/kg		14.545 mg/kg	0.00145 %	✓	
6		mercury { mercury }	080-001-00-0	231-106-7	7439-97-6		0.1 mg/kg		0.0727 mg/kg	0.00000727 %	✓	
7		nickel { nickel diiodide }	028-029-00-4	236-666-6	13462-90-3		12.9 mg/kg	5.324	49.952 mg/kg	0.005 %	✓	
8		zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		39 mg/kg	1.245	35.305 mg/kg	0.00353 %	✓	
9		chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<0.3 mg/kg	1.923	<0.577 mg/kg	<0.0000577 %		<**LOD**
10		acenaphthylene		205-917-1	208-96-8		0.08 mg/kg		0.0582 mg/kg	0.00000582 %	✓	
11		acenaphthene		201-469-6	83-32-9		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<**LOD**
12		fluorene		201-695-5	86-73-7		0.19 mg/kg		0.138 mg/kg	0.0000138 %	✓	
13		phenanthrene		201-581-5	85-01-8		0.56 mg/kg		0.407 mg/kg	0.0000407 %	✓	
14		anthracene		204-371-1	120-12-7		<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		<**LOD**
15		fluoranthene		205-912-4	206-44-0		0.3 mg/kg		0.218 mg/kg	0.0000218 %	✓	

#		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									
16		pyrene				0.19	mg/kg		0.138	mg/kg	0.0000138 %	✓	
			204-927-3	129-00-0									
17		benzo[a]anthracene				0.1	mg/kg		0.0727	mg/kg	0.00000727 %	✓	
		601-033-00-9	200-280-6	56-55-3									
18		chrysene				0.08	mg/kg		0.0582	mg/kg	0.00000582 %	✓	
		601-048-00-0	205-923-4	218-01-9									
19		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
20		indeno[123-cd]pyrene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
			205-893-2	193-39-5									
21		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
22		benzo[ghi]perylene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
			205-883-8	191-24-2									
23		coronene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
			205-881-7	191-07-1									
24		pH				7.62	pH		7.62	pH	7.62 pH		
				PH									
25		boron { boron tribromide }				2.6	mg/kg	23.173	43.818	mg/kg	0.00438 %	✓	
		005-003-00-0	233-657-9	10294-33-4									
26		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }				<0.5	mg/kg	1.884	<0.942	mg/kg	<0.0000942 %		<LOD
		006-007-00-5											
27		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane				<5	µg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
		603-181-00-X	216-653-1	1634-04-4									
28		benzene				<5	µg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
		601-020-00-8	200-753-7	71-43-2									
29		toluene				12	µg/kg		0.0087	mg/kg	0.000000873 %	✓	
		601-021-00-3	203-625-9	108-88-3									
30		ethylbenzene				14	µg/kg		0.0102	mg/kg	0.00000102 %	✓	
		601-023-00-4	202-849-4	100-41-4									
31		xylene				0.073	mg/kg		0.0531	mg/kg	0.00000531 %	✓	
		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]									
32		TPH (C6 to C40) petroleum group				656	mg/kg		477.091	mg/kg	0.0477 %	✓	
				TPH									
33		benzo[bk]fluoranthene				0.1	mg/kg		0.0727	mg/kg	0.00000727 %	✓	
			[1] 205-911-9 [2] 205-916-6	[1] 205-99-2 [2] 207-08-9									
34		chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				35.6	mg/kg	1.462	37.841	mg/kg	0.00378 %	✓	
			215-160-9	1308-38-9									
										Total:	0.0683 %		

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 Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
	This determinand is defined in the EU CLP Table 3
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"
Force this Hazardous property to non hazardous because No free phase contamination was encountered during the ground investigation.

Hazard Statements hit:

Flam. Liq. 2; H225 "Highly flammable liquid and vapour."

Because of determinands:

toluene: (conc.: 8.73e-07%)
ethylbenzene: (conc.: 1.02e-06%)

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinands:

xylene: (conc.: 5.31e-06%)
TPH (C6 to C40) petroleum group: (conc.: 0.0477%)

Classification of sample: SUDS2A-27/01/2022-0.10m

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

Sample details

Sample name:
SUDS2A-27/01/2022-0.10m
Moisture content:
22.7%
(dry weight correction)

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 22.7% Dry Weight Moisture Correction applied (MC)

#		Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
1		phenol	604-001-00-2	203-632-7	108-95-2		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
2		arsenic { arsenic pentoxide }	033-004-00-6	215-116-9	1303-28-2		12.2	mg/kg	1.534	15.251	mg/kg	0.00153 %	✓	
3		cadmium { cadmium compounds, with the exception of cadmium sulphoselenide (xCdS.yCdSe), reaction mass of cadmium sulphide with zinc sulphide (xCdS.yZnS), reaction mass of cadmium sulphide with mercury sulphide (xCdS.yHgS), and those specified elsewhere in this Annex }	048-001-00-5			1	0.4	mg/kg		0.326	mg/kg	0.0000326 %	✓	
4		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		24	mg/kg	1.126	22.022	mg/kg	0.0022 %	✓	
5		lead { lead compounds with the exception of those specified elsewhere in this Annex (worst case) }	082-001-00-6			1	80	mg/kg		65.2	mg/kg	0.00652 %	✓	
6		mercury { mercury }	080-001-00-0	231-106-7	7439-97-6		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
7		nickel { nickel diiodide }	028-029-00-4	236-666-6	13462-90-3		18.5	mg/kg	5.324	80.277	mg/kg	0.00803 %	✓	
8		zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		156	mg/kg	1.245	158.252	mg/kg	0.0158 %	✓	
9		chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<0.3	mg/kg	1.923	<0.577	mg/kg	<0.0000577 %		<**LOD**
10		acenaphthylene		205-917-1	208-96-8		0.04	mg/kg		0.0326	mg/kg	0.00000326 %	✓	
11		acenaphthene		201-469-6	83-32-9		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
12		fluorene		201-695-5	86-73-7		<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**LOD**
13		phenanthrene		201-581-5	85-01-8		0.31	mg/kg		0.253	mg/kg	0.0000253 %	✓	
14		anthracene		204-371-1	120-12-7		0.1	mg/kg		0.0815	mg/kg	0.00000815 %	✓	
15		fluoranthene		205-912-4	206-44-0		0.76	mg/kg		0.619	mg/kg	0.0000619 %	✓	

#		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									
16		pyrene				0.63	mg/kg		0.513	mg/kg	0.0000513 %	✓	
			204-927-3	129-00-0									
17		benzo[a]anthracene				0.36	mg/kg		0.293	mg/kg	0.0000293 %	✓	
		601-033-00-9	200-280-6	56-55-3									
18		chrysene				0.36	mg/kg		0.293	mg/kg	0.0000293 %	✓	
		601-048-00-0	205-923-4	218-01-9									
19		benzo[a]pyrene; benzo[def]chrysene				0.36	mg/kg		0.293	mg/kg	0.0000293 %	✓	
		601-032-00-3	200-028-5	50-32-8									
20		indeno[123-cd]pyrene				0.32	mg/kg		0.261	mg/kg	0.0000261 %	✓	
			205-893-2	193-39-5									
21		dibenz[a,h]anthracene				0.05	mg/kg		0.0407	mg/kg	0.00000407 %	✓	
		601-041-00-2	200-181-8	53-70-3									
22		benzo[ghi]perylene				0.28	mg/kg		0.228	mg/kg	0.0000228 %	✓	
			205-883-8	191-24-2									
23		coronene				0.05	mg/kg		0.0407	mg/kg	0.00000407 %	✓	
			205-881-7	191-07-1									
24		pH				7.92	pH		7.92	pH	7.92 pH		
				PH									
25		boron { boron tribromide }				1.6	mg/kg	23.173	30.217	mg/kg	0.00302 %	✓	
		005-003-00-0	233-657-9	10294-33-4									
26		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }				<0.5	mg/kg	1.884	<0.942	mg/kg	<0.0000942 %		<**LOD**
		006-007-00-5											
27		benzo[bk]fluoranthene				0.64	mg/kg		0.522	mg/kg	0.0000522 %	✓	
			[1] 205-911-9 [2] 205-916-6	[1] 205-99-2 [2] 207-08-9									
28		chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				44.4	mg/kg	1.462	52.888	mg/kg	0.00529 %	✓	
			215-160-9	1308-38-9									
										Total:	0.043 %		

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 Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
	This determinand is defined in the EU CLP Table 3
<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

cadmium compounds, with the exception of cadmium sulphoselenide (xCdS.yCdSe), reaction mass of cadmium sulphide with zinc sulphide (xCdS.yZnS), reaction mass of cadmium sulphide with mercury sulphide (xCdS.yHgS), and those specified elsewhere in this Annex

EU CLP index number: 048-001-00-5
Description/Comments: Worst Case: IARC considers cadmium compounds Group 1; Carcinogenic to humans
Data source: Regulation 1272/2008/EC - Classification, labelling and packaging of substances and mixtures. (CLP)
Hazard Statements: Acute Tox. 4; H332 , Acute Tox. 4; H312 , Acute Tox. 4; H302 , Aquatic Acute 1; H400 , Aquatic Chronic 1; H410 , Carc. 1A; H350
Reason for additional Hazards Statement(s):
29 Sep 2015 - Carc. 1A; H350 hazard statement sourced from: IARC Group 1 (23, Sup 7, 100C) 2012

dicopper oxide; copper (I) oxide (EC Number: 215-270-7, CAS Number: 1317-39-1)

EU CLP index number: 029-002-00-X
Description/Comments:
Data source: Regulation (EU) 2021/849 of 11 March 2021 (ATP17)
Hazard Statements: Acute Tox. 4; H302 , Eye Dam. 1; H318 , Acute Tox. 4; H332 , Aquatic Acute 1; H400 (M=100) , Aquatic Chronic 1; H410 (M=10)

lead compounds with the exception of those specified elsewhere in this Annex (worst case)

EU CLP index number: 082-001-00-6
Description/Comments: Worst Case: IARC considers lead compounds Group 2A; Probably carcinogenic to humans; Lead REACH Consortium, following CLP protocols, considers lead compounds from smelting industries, flue dust and similar to be Carcinogenic category 1A
Data source: Regulation 1272/2008/EC - Classification, labelling and packaging of substances and mixtures. (CLP)
Hazard Statements: Repr. 1A; H360Df , Acute Tox. 4; H332 , Acute Tox. 4; H302 , STOT RE 2; H373 , Aquatic Acute 1; H400 , Aquatic Chronic 1; H410 , Repr. 2; H361f >= 2.5 % , STOT RE 2; H373 >= 0.5 % , Carc. 1A; H350
Reason for additional Hazards Statement(s):
03 Jun 2015 - Carc. 1A; H350 hazard statement sourced from: IARC Group 2A (Sup 7, 87) 2006; Lead REACH Consortium www.reach-lead.eu/substanceinformation.html (worst case lead compounds). Review date 29/09/2015

zinc oxide (EC Number: 215-222-5, CAS Number: 1314-13-2)

EU CLP index number: 030-013-00-7
Description/Comments:
Data source: Regulation 1272/2008/EC - Classification, labelling and packaging of substances and mixtures. (CLP)
Hazard Statements: Aquatic Acute 1; H400 , Aquatic Chronic 1; H410

chromium(VI) oxide (EC Number: 215-607-8, CAS Number: 1333-82-0)

EU CLP index number: 024-001-00-0
Description/Comments:
Data source: Regulation 1272/2008/EC - Classification, labelling and packaging of substances and mixtures. (CLP)
Hazard Statements: Ox. Sol. 1; H271 , Carc. 1A; H350 , Muta. 1B; H340 , Repr. 2; H361f , Acute Tox. 2; H330 , Acute Tox. 3; H311 , Acute Tox. 3; H301 , STOT RE 1; H372 , Skin Corr. 1A; H314 , Resp. Sens. 1; H334 , Skin Sens. 1; H317 , Aquatic Acute 1; H400 , Aquatic Chronic 1; H410 , STOT SE 3; H335 >= 1 %

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

coronene (EC Number: 205-881-7, CAS Number: 191-07-1)

Description/Comments: Data from C&L Inventory Database; no entries in Registered Substances or Pesticides Properties databases; SDS: Sigma Aldrich, 1907/2006 compliant, dated 2012 - no entries; IARC – Group 3, not carcinogenic.
Data source: http://clp-inventory.echa.europa.eu/SummaryOfClassAndLabelling.aspx?SubstanceID=17010&HarmOnly=no?fc=true&lang=en
Data source date: 16 Jun 2014
Hazard Statements: STOT SE 2; H371

pH (CAS Number: PH)

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

boron tribromide (EC Number: 233-657-9, CAS Number: 10294-33-4)

EU CLP index number: 005-003-00-0
Description/Comments:
Data source: Regulation 1272/2008/EC - Classification, labelling and packaging of substances and mixtures. (CLP)
Hazard Statements: Acute Tox. 2; H330 , Acute Tox. 2; H300 , Skin Corr. 1A; H314 , EUH014

salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex

EU CLP index number: 006-007-00-5
Description/Comments: Conversion factor based on a worst case compound: sodium cyanide
Data source: Commission Regulation (EC) No 790/2009 - 1st Adaptation to Technical Progress for Regulation (EC) No 1272/2008. (ATP1)
Hazard Statements: Acute Tox. 2; H330 , Acute Tox. 1; H310 , Acute Tox. 2; H300 , Aquatic Acute 1; H400 , Aquatic Chronic 1; H410 , EUH032 , EUH032 >= 0.2 %
Reason for additional Hazards Statement(s):
14 Dec 2015 - EUH032 >= 0.2 % hazard statement sourced from: WM3, Table C12.2

benzo[bk]fluoranthene (EC Number: [1] 205-911-9 [2] 205-916-6, CAS Number: [1] 205-99-2 [2] 207-08-9)

Description/Comments: Combined data from harmonised entries in CLP for benzo[b] and benzo[k]fluoranthene; C&L Inventory Database
Data source: https://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 02 Mar 2017
Hazard Statements: Carc. 1B; H350 , Aquatic Acute 1; H400 , Aquatic Chronic 1; H410

- **chromium(III) oxide (worst case)** (EC Number: 215-160-9, CAS Number: 1308-38-9)

Description/Comments: Data from C&L Inventory Database
Data source: https://echa.europa.eu/information-on-chemicals/cl-inventory-database/-/discli/details/33806
Data source date: 17 Jul 2015
Hazard Statements: Acute Tox. 4; H332 , Acute Tox. 4; H302 , Eye Irrit. 2; H319 , STOT SE 3; H335 , Skin Irrit. 2; H315 , Resp. Sens. 1; H334 , Skin Sens. 1; H317 , Repr. 1B; H360FD , Aquatic Acute 1; H400 , Aquatic Chronic 1; H410

- **ethylbenzene** (EC Number: 202-849-4, CAS Number: 100-41-4)

GB MCL index number: 601-023-00-4
Description/Comments:
Additional Hazard Statement(s): Carc. 2; H351
Reason for additional Hazards Statement(s):
20 Nov 2021 - Carc. 2; H351 hazard statement sourced from: IARC Group 2B (77) 2000

- **TPH (C6 to C40) petroleum group** (CAS Number: TPH)

Description/Comments: Hazard statements taken from WM3 1st Edition 2015; Risk phrases: WM2 3rd Edition 2013
Data source: WM3 1st Edition 2015
Data source date: 25 May 2015
Hazard Statements: Flam. Liq. 3; H226 , Asp. Tox. 1; H304 , STOT RE 2; H373 , Muta. 1B; H340 , Carc. 1B; H350 , Repr. 2; H361d , Aquatic Chronic 2; H411

Appendix B: Rationale for selection of metal species

arsenic {arsenic pentoxide}

Worst case

cadmium {cadmium compounds, with the exception of cadmium sulphoselenide (xCdS.yCdSe), reaction mass of cadmium sulphide with zinc sulphide (xCdS.yZnS), reaction mass of cadmium sulphide with mercury sulphide (xCdS.yHgS), and those specified elsewhere in this Annex}

Cadmium results not speciated.

copper {dicopper oxide; copper (I) oxide}

Copper results not speciated.

lead {lead compounds with the exception of those specified elsewhere in this Annex (worst case)}

Lead results not speciated.

mercury {mercury}

Worst case

nickel {nickel diiodide}

Worst case

zinc {zinc oxide}

Zinc results not speciated.

chromium in chromium(VI) compounds {chromium(VI) oxide}

Chromium(VI) compounds not speciated.

boron {boron tribromide}

Worst case.

cyanides {salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex}

Cyanide results not speciated.

chromium in chromium(III) compounds {chromium(III) oxide (worst case)}

Chromium (III) compounds not speciated.

Appendix C: Version

HazWasteOnline Classification Engine: WM3 1st Edition v1.2.GB - Oct 2021
HazWasteOnline Classification Engine Version: 2022.103.5089.9622 (13 Apr 2022)
HazWasteOnline Database: 2022.103.5089.9622 (13 Apr 2022)

This classification utilises the following guidance and legislation:
WM3 v1.2.GB - Waste Classification - 1st Edition v1.2.GB - Oct 2021
CLP Regulation - Regulation 1272/2008/EC of 16 December 2008
1st ATP - Regulation 790/2009/EC of 10 August 2009
2nd ATP - Regulation 286/2011/EC of 10 March 2011
3rd ATP - Regulation 618/2012/EU of 10 July 2012
4th ATP - Regulation 487/2013/EU of 8 May 2013
Correction to 1st ATP - Regulation 758/2013/EU of 7 August 2013
5th ATP - Regulation 944/2013/EU of 2 October 2013
6th ATP - Regulation 605/2014/EU of 5 June 2014
WFD Annex III replacement - Regulation 1357/2014/EU of 18 December 2014
Revised List of Waste 2014 - Decision 2014/955/EU of 18 December 2014
7th ATP - Regulation 2015/1221/EU of 24 July 2015
8th ATP - Regulation (EU) 2016/918 of 19 May 2016
9th ATP - Regulation (EU) 2016/1179 of 19 July 2016
10th ATP - Regulation (EU) 2017/776 of 4 May 2017
HP14 amendment - Regulation (EU) 2017/997 of 8 June 2017
13th ATP - Regulation (EU) 2018/1480 of 4 October 2018
14th ATP - Regulation (EU) 2020/217 of 4 October 2019
15th ATP - Regulation (EU) 2020/1182 of 19 May 2020
The Chemicals (Health and Safety) and Genetically Modified Organisms (Contained Use)(Amendment etc.) (EU Exit) Regulations 2020 - UK: 2020 No. 1567 of 16th December 2020
The Waste and Environmental Permitting etc. (Legislative Functions and Amendment etc.) (EU Exit) Regulations 2020 - UK: 2020 No. 1540 of 16th December 2020
GB MCL List - version 1.1 of 09 June 2021

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:

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

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

0TI7D-Q5HO5-2WAI2

Job name

EMT-22-1512-Batch-3-202202181437

Description/Comments

Project

GRO-21400

Site

Aldi Holbeach

Classified by

Name:
Bradley Massey
Date:
28 Feb 2022 13:19 GMT
Telephone:
01618 201368

Company:
Groundtech Consulting Limited
First Floor, Lloyd House, Orford Court,
Greenfold Way
Leigh
WN7 3XJ

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	-

Job summary

#	Sample name	Depth [m]	Classification Result	Hazard properties	Page
1	CP1-8.00m		Non Hazardous		2
2	CP2-11.00m		Non Hazardous		3
3	CP2-21.50m		Non Hazardous		4
4	CP3-22.50m		Non Hazardous		5
5	CP2-01/02/2022-2.00m		Non Hazardous		6
6	WS03-01/02/2022-3.00m		Non Hazardous		8
7	WS04-01/02/2022-2.00m		Non Hazardous		9
8	WS10-01/02/2022-2.00m		Non Hazardous		10

Related documents

#	Name	Description
1	EMT-22-1512-Batch-3-202202181437.HWOL	.hwol file used to create the Job

Report

Created by: Bradley Massey

Created date: 28 Feb 2022 13:19 GMT

Appendices	Page
Appendix A: Classifier defined and non GB MCL determinands	11
Appendix B: Rationale for selection of metal species	13
Appendix C: Version	14

Classification of sample: CP1-8.00m

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

Sample details

Sample name:
CP1-8.00m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#		Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1		magnesium { magnesium, powder or turnings }	012-002-00-9	231-104-6	7439-95-4		0.0299 µg/l		2.99e-05 mg/kg	0.000000002 %	✓	
2		sulfur { sulfur }	016-094-00-1	231-722-6	7704-34-9		1.18 %		1.18 %	1.18 %	✓	
3		pH			PH		8.01 pH		8.01 pH	8.01 pH		
									Total:	1.18 %		

Key

	User supplied data
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration

Supplementary Hazardous Property Information

HP 3(iii): Flammable "flammable solid waste: solid waste which is readily combustible or may cause or contribute to fire through friction"
Force this Hazardous property to non hazardous because No free phase encountered

Hazard Statements hit:

Flam. Sol. 1; H228 "Flammable solid."

Because of determinand:

magnesium, powder or turnings: (compound conc.: 2.99e-09%)

Classification of sample: CP2-11.00m

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

Sample details

Sample name:
CP2-11.00m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#		Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1		magnesium { magnesium, powder or turnings }	012-002-00-9	231-104-6	7439-95-4		0.0955 µg/l		9.55e-05 mg/kg	0.000000009 %	✓	
2		sulfur { sulfur }	016-094-00-1	231-722-6	7704-34-9		0.24 %		0.24 %	0.24 %	✓	
3		pH			PH		8.08 pH		8.08 pH	8.08 pH		
									Total:	0.24 %		

Key

- User supplied data
- Determinand defined or amended by HazWasteOnline (see Appendix A)
- Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration

Supplementary Hazardous Property Information

HP 3(ii): Flammable "flammable solid waste: solid waste which is readily combustible or may cause or contribute to fire through friction"
Force this Hazardous property to non hazardous because No free phase encountered

Hazard Statements hit:

Flam. Sol. 1; H228 "Flammable solid."

Because of determinand:

magnesium, powder or turnings: (compound conc.: 9.55e-09%)

Classification of sample: CP2-21.50m

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

Sample details

Sample name:
CP2-21.50m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#		Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1		magnesium { magnesium, powder or turnings }	012-002-00-9	231-104-6	7439-95-4		0.0487 µg/l		4.87e-05 mg/kg	0.000000004 %	✓	
2		sulfur { sulfur }	016-094-00-1	231-722-6	7704-34-9		0.6 %		0.6 %	0.6 %	✓	
3		pH			PH		8.5 pH		8.5 pH	8.5 pH		
									Total:	0.6 %		

Key

	User supplied data
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration

Supplementary Hazardous Property Information

HP 3(iii): Flammable "flammable solid waste: solid waste which is readily combustible or may cause or contribute to fire through friction"
Force this Hazardous property to non hazardous because No free phase encountered

Hazard Statements hit:

Flam. Sol. 1; H228 "Flammable solid."

Because of determinand:

magnesium, powder or turnings: (compound conc.: 4.87e-09%)

Classification of sample: CP3-22.50m

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

Sample details

Sample name:
CP3-22.50m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#		Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1		magnesium { magnesium, powder or turnings }	012-002-00-9	231-104-6	7439-95-4		0.0326 µg/l		3.26e-05 mg/kg	0.000000003 %	✓	
2		sulfur { sulfur }	016-094-00-1	231-722-6	7704-34-9		0.61 %		0.61 %	0.61 %	✓	
3		pH			PH		8.64 pH		8.64 pH	8.64 pH		
									Total:	0.61 %		

Key

	User supplied data
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration

Supplementary Hazardous Property Information

HP 3(ii): Flammable "flammable solid waste: solid waste which is readily combustible or may cause or contribute to fire through friction"
Force this Hazardous property to non hazardous because No free phase encountered

Hazard Statements hit:

Flam. Sol. 1; H228 "Flammable solid."

Because of determinand:

magnesium, powder or turnings: (compound conc.: 3.26e-09%)

Classification of sample: CP2-01/02/2022-2.00m

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

Sample details

Sample name:
CP2-01/02/2022-2.00m
Moisture content:
14.7%
(dry weight correction)

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 14.7% Dry Weight Moisture Correction applied (MC)

#		Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
1		pH			PH		7.69	pH		7.69	pH	7.69 pH		
2		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<5	µg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
3		benzene	601-020-00-8	200-753-7	71-43-2		<5	µg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
4		toluene	601-021-00-3	203-625-9	108-88-3		<5	µg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
5		ethylbenzene	601-023-00-4	202-849-4	100-41-4		<5	µg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
6		xylene	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]		<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
7		phenol	604-001-00-2	203-632-7	108-95-2		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
8		arsenic { arsenic pentoxide }	033-004-00-6	215-116-9	1303-28-2		4.4	mg/kg	1.534	5.884	mg/kg	0.000588 %	✓	
9		cadmium { cadmium compounds, with the exception of cadmium sulphoselenide (xCdS.yCdSe), reaction mass of cadmium sulphide with zinc sulphide (xCdS.yZnS), reaction mass of cadmium sulphide with mercury sulphide (xCdS.yHgS), and those specified elsewhere in this Annex }	048-001-00-5			1	<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
10		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		7	mg/kg	1.126	6.871	mg/kg	0.000687 %	✓	
11		lead { lead compounds with the exception of those specified elsewhere in this Annex (worst case) }	082-001-00-6			1	8	mg/kg		6.975	mg/kg	0.000697 %	✓	
12		mercury { mercury }	080-001-00-0	231-106-7	7439-97-6		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
13		nickel { nickel diiodide }	028-029-00-4	236-666-6	13462-90-3		8.5	mg/kg	5.324	39.456	mg/kg	0.00395 %	✓	
14		zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		16	mg/kg	1.245	17.363	mg/kg	0.00174 %	✓	

#		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									
15		chromium in chromium(VI) compounds { chromium(VI) oxide }				<0.3	mg/kg	1.923	<0.577	mg/kg	<0.0000577 %		<LOD
		024-001-00-0	215-607-8	1333-82-0									
16		acenaphthylene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			205-917-1	208-96-8									
17		acenaphthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			201-469-6	83-32-9									
18		fluorene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
			201-695-5	86-73-7									
19		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			201-581-5	85-01-8									
20		anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
			204-371-1	120-12-7									
21		fluoranthene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			205-912-4	206-44-0									
22		pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			204-927-3	129-00-0									
23		benzo[a]anthracene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
24		chrysene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
25		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
26		indeno[123-cd]pyrene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
			205-893-2	193-39-5									
27		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
28		benzo[ghi]perylene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
			205-883-8	191-24-2									
29		coronene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<LOD
			205-881-7	191-07-1									
30		TPH (C6 to C40) petroleum group				<38	mg/kg		<38	mg/kg	<0.0038 %		<LOD
				TPH									
31		boron { boron tribromide }				0.4	mg/kg	23.173	8.081	mg/kg	0.000808 %	✓	
		005-003-00-0	233-657-9	10294-33-4									
32		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }				<0.5	mg/kg	1.884	<0.942	mg/kg	<0.0000942 %		<LOD
		006-007-00-5											
33		benzo[bk]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<LOD
			[1] 205-911-9 [2] 205-916-6	[1] 205-99-2 [2] 207-08-9									
34		chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				62.7	mg/kg	1.462	79.895	mg/kg	0.00799 %	✓	
			215-160-9	1308-38-9									
										Total:	0.0205 %		

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 Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
	This determinand is defined in the EU CLP Table 3
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: WS03-01/02/2022-3.00m

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

Sample details

Sample name:
WS03-01/02/2022-3.00m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#		Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1		magnesium { magnesium, powder or turnings }	012-002-00-9	231-104-6	7439-95-4		0.0517 µg/l		5.17e-05 mg/kg	0.000000005 %	✓	
2		sulfur { sulfur }	016-094-00-1	231-722-6	7704-34-9		0.2 %		0.2 %	0.2 %	✓	
3		pH			PH		8.49 pH		8.49 pH	8.49 pH		
									Total:	0.2 %		

Key

	User supplied data
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration

Supplementary Hazardous Property Information

HP 3(iii): Flammable "flammable solid waste: solid waste which is readily combustible or may cause or contribute to fire through friction"
Force this Hazardous property to non hazardous because No free phase encountered

Hazard Statements hit:

Flam. Sol. 1; H228 "Flammable solid."

Because of determinand:

magnesium, powder or turnings: (compound conc.: 5.17e-09%)

Classification of sample: WS04-01/02/2022-2.00m

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

Sample details

Sample name:
WS04-01/02/2022-2.00m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight 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		magnesium { magnesium, powder or turnings }				0.0468 µg/l		4.68e-05 mg/kg	0.000000004 %	✓	
		012-002-00-9	231-104-6	7439-95-4							
2		sulfur { sulfur }				0.22 %		0.22 %	0.22 %	✓	
		016-094-00-1	231-722-6	7704-34-9							
3		pH				8.42 pH		8.42 pH	8.42 pH		
				PH							
								Total:	0.22 %		

Key

	User supplied data
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration

Supplementary Hazardous Property Information

HP 3(iii): Flammable "flammable solid waste: solid waste which is readily combustible or may cause or contribute to fire through friction"
Force this Hazardous property to non hazardous because No free phase encountered

Hazard Statements hit:

Flam. Sol. 1; H228 "Flammable solid."

Because of determinand:

magnesium, powder or turnings: (compound conc.: 4.68e-09%)

Classification of sample: WS10-01/02/2022-2.00m

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

Sample details

Sample name:
WS10-01/02/2022-2.00m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#		Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1		magnesium { magnesium, powder or turnings }	012-002-00-9	231-104-6	7439-95-4		0.046 µg/l		4.6e-05 mg/kg	0.000000004 %	✓	
2		sulfur { sulfur }	016-094-00-1	231-722-6	7704-34-9		0.37 %		0.37 %	0.37 %	✓	
3		pH			PH		8.42 pH		8.42 pH	8.42 pH		
									Total:	0.37 %		

Key

	User supplied data
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration

Supplementary Hazardous Property Information

HP 3(iii): Flammable "flammable solid waste: solid waste which is readily combustible or may cause or contribute to fire through friction"
Force this Hazardous property to non hazardous because No free phase encountered

Hazard Statements hit:

Flam. Sol. 1; H228 "Flammable solid."

Because of determinand:

magnesium, powder or turnings: (compound conc.: 4.6e-09%)

Appendix A: Classifier defined and non GB MCL determinands

magnesium, powder or turnings (EC Number: 231-104-6, CAS Number: 7439-95-4)

GB MCL index number: 012-002-00-9
Description/Comments:
Additional Hazard Statement(s): Water-react. 2; H261 >= 0.1 %
Reason for additional Hazards Statement(s):
20 Nov 2021 - Water-react. 2; H261 >= 0.1 % hazard statement sourced from: WM3, Table C3.2

pH (CAS Number: PH)

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

ethylbenzene (EC Number: 202-849-4, CAS Number: 100-41-4)

GB MCL index number: 601-023-00-4
Description/Comments:
Additional Hazard Statement(s): Carc. 2; H351
Reason for additional Hazards Statement(s):
20 Nov 2021 - Carc. 2; H351 hazard statement sourced from: IARC Group 2B (77) 2000

cadmium compounds, with the exception of cadmium sulphoselenide (xCdS.yCdSe), reaction mass of cadmium sulphide with zinc sulphide (xCdS.yZnS), reaction mass of cadmium sulphide with mercury sulphide (xCdS.yHgS), and those specified elsewhere in this Annex

EU CLP index number: 048-001-00-5
Description/Comments: Worst Case: IARC considers cadmium compounds Group 1; Carcinogenic to humans
Data source: Regulation 1272/2008/EC - Classification, labelling and packaging of substances and mixtures. (CLP)
Hazard Statements: Acute Tox. 4; H332 , Acute Tox. 4; H312 , Acute Tox. 4; H302 , Aquatic Acute 1; H400 , Aquatic Chronic 1; H410 , Carc. 1A; H350
Reason for additional Hazards Statement(s):
29 Sep 2015 - Carc. 1A; H350 hazard statement sourced from: IARC Group 1 (23, Sup 7, 100C) 2012

dicopper oxide; copper (I) oxide (EC Number: 215-270-7, CAS Number: 1317-39-1)

EU CLP index number: 029-002-00-X
Description/Comments:
Data source: Regulation (EU) 2021/849 of 11 March 2021 (ATP17)
Hazard Statements: Acute Tox. 4; H302 , Eye Dam. 1; H318 , Acute Tox. 4; H332 , Aquatic Acute 1; H400 (M=100) , Aquatic Chronic 1; H410 (M=10)

lead compounds with the exception of those specified elsewhere in this Annex (worst case)

EU CLP index number: 082-001-00-6
Description/Comments: Worst Case: IARC considers lead compounds Group 2A; Probably carcinogenic to humans; Lead REACH Consortium, following CLP protocols, considers lead compounds from smelting industries, flue dust and similar to be Carcinogenic category 1A
Data source: Regulation 1272/2008/EC - Classification, labelling and packaging of substances and mixtures. (CLP)
Hazard Statements: Repr. 1A; H360Df , Acute Tox. 4; H332 , Acute Tox. 4; H302 , STOT RE 2; H373 , Aquatic Acute 1; H400 , Aquatic Chronic 1; H410 , Repr. 2; H361f >= 2.5 % , STOT RE 2; H373 >= 0.5 % , Carc. 1A; H350
Reason for additional Hazards Statement(s):
03 Jun 2015 - Carc. 1A; H350 hazard statement sourced from: IARC Group 2A (Sup 7, 87) 2006; Lead REACH Consortium www.reach-lead.eu/substanceinformation.html (worst case lead compounds). Review date 29/09/2015

zinc oxide (EC Number: 215-222-5, CAS Number: 1314-13-2)

EU CLP index number: 030-013-00-7
Description/Comments:
Data source: Regulation 1272/2008/EC - Classification, labelling and packaging of substances and mixtures. (CLP)
Hazard Statements: Aquatic Acute 1; H400 , Aquatic Chronic 1; H410

chromium(VI) oxide (EC Number: 215-607-8, CAS Number: 1333-82-0)

EU CLP index number: 024-001-00-0
Description/Comments:
Data source: Regulation 1272/2008/EC - Classification, labelling and packaging of substances and mixtures. (CLP)
Hazard Statements: Ox. Sol. 1; H271 , Carc. 1A; H350 , Muta. 1B; H340 , Repr. 2; H361f , Acute Tox. 2; H330 , Acute Tox. 3; H311 , Acute Tox. 3; H301 , STOT RE 1; H372 , Skin Corr. 1A; H314 , Resp. Sens. 1; H334 , Skin Sens. 1; H317 , Aquatic Acute 1; H400 , Aquatic Chronic 1; H410 , STOT SE 3; H335 >= 1 %

- **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

- **coronene** (EC Number: 205-881-7, CAS Number: 191-07-1)

Description/Comments: Data from C&L Inventory Database; no entries in Registered Substances or Pesticides Properties databases; SDS: Sigma Aldrich, 1907/2006 compliant, dated 2012 - no entries; IARC – Group 3, not carcinogenic.
Data source: http://clp-inventory.echa.europa.eu/SummaryOfClassAndLabelling.aspx?SubstanceID=17010&HarmOnly=no?fc=true&lang=en
Data source date: 16 Jun 2014
Hazard Statements: STOT SE 2; H371

TPH (C6 to C40) petroleum group (CAS Number: TPH)

Description/Comments: Hazard statements taken from WM3 1st Edition 2015; Risk phrases: WM2 3rd Edition 2013
Data source: WM3 1st Edition 2015
Data source date: 25 May 2015
Hazard Statements: Flam. Liq. 3; H226 , Asp. Tox. 1; H304 , STOT RE 2; H373 , Muta. 1B; H340 , Carc. 1B; H350 , Repr. 2; H361d , Aquatic Chronic 2; H411

boron tribromide (EC Number: 233-657-9, CAS Number: 10294-33-4)

EU CLP index number: 005-003-00-0
Description/Comments:
Data source: Regulation 1272/2008/EC - Classification, labelling and packaging of substances and mixtures. (CLP)
Hazard Statements: Acute Tox. 2; H330 , Acute Tox. 2; H300 , Skin Corr. 1A; H314 , EUH014

salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex

EU CLP index number: 006-007-00-5
Description/Comments: Conversion factor based on a worst case compound: sodium cyanide
Data source: Commission Regulation (EC) No 790/2009 - 1st Adaptation to Technical Progress for Regulation (EC) No 1272/2008. (ATP1)
Hazard Statements: Acute Tox. 2; H330 , Acute Tox. 1; H310 , Acute Tox. 2; H300 , Aquatic Acute 1; H400 , Aquatic Chronic 1; H410 , EUH032 , EUH032 >= 0.2 %
Reason for additional Hazards Statement(s):
14 Dec 2015 - EUH032 >= 0.2 % hazard statement sourced from: WM3, Table C12.2

benzo[bk]fluoranthene (EC Number: [1] 205-911-9 [2] 205-916-6, CAS Number: [1] 205-99-2 [2] 207-08-9)

Description/Comments: Combined data from harmonised entries in CLP for benzo[b] and benzo[k]fluoranthene; C&L Inventory Database
Data source: https://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 02 Mar 2017
Hazard Statements: Carc. 1B; H350 , Aquatic Acute 1; H400 , Aquatic Chronic 1; H410

chromium(III) oxide (worst case) (EC Number: 215-160-9, CAS Number: 1308-38-9)

Description/Comments: Data from C&L Inventory Database
Data source: https://echa.europa.eu/information-on-chemicals/cl-inventory-database/-/discli/details/33806
Data source date: 17 Jul 2015
Hazard Statements: Acute Tox. 4; H332 , Acute Tox. 4; H302 , Eye Irrit. 2; H319 , STOT SE 3; H335 , Skin Irrit. 2; H315 , Resp. Sens. 1; H334 , Skin Sens. 1; H317 , Repr. 1B; H360FD , Aquatic Acute 1; H400 , Aquatic Chronic 1; H410

Appendix B: Rationale for selection of metal species

magnesium {magnesium, powder or turnings}

Tested metal species

sulfur {sulfur}

Tested metal species

arsenic {arsenic pentoxide}

Worst case

cadmium {cadmium compounds, with the exception of cadmium sulphoselenide (xCdS.yCdSe), reaction mass of cadmium sulphide with zinc sulphide (xCdS.yZnS), reaction mass of cadmium sulphide with mercury sulphide (xCdS.yHgS), and those specified elsewhere in this Annex}

Cadmium results not speciated.

copper {dicopper oxide; copper (I) oxide}

Copper results not speciated.

lead {lead compounds with the exception of those specified elsewhere in this Annex (worst case)}

Lead results not speciated.

mercury {mercury}

Worst case

nickel {nickel diiodide}

Worst case

zinc {zinc oxide}

Zinc results not speciated.

chromium in chromium(VI) compounds {chromium(VI) oxide}

Chromium(VI) compounds not speciated.

boron {boron tribromide}

Worst case.

cyanides {salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex}

Cyanide results not speciated.

chromium in chromium(III) compounds {chromium(III) oxide (worst case)}

Chromium (III) compounds not speciated.

Appendix C: Version

HazWasteOnline Classification Engine: WM3 1st Edition v1.2.GB - Oct 2021
HazWasteOnline Classification Engine Version: 2022.25.4995.9469 (25 Jan 2022)
HazWasteOnline Database: 2022.25.4995.9469 (25 Jan 2022)

This classification utilises the following guidance and legislation:
WM3 v1.2.GB - Waste Classification - 1st Edition v1.2.GB - Oct 2021
CLP Regulation - Regulation 1272/2008/EC of 16 December 2008
1st ATP - Regulation 790/2009/EC of 10 August 2009
2nd ATP - Regulation 286/2011/EC of 10 March 2011
3rd ATP - Regulation 618/2012/EU of 10 July 2012
4th ATP - Regulation 487/2013/EU of 8 May 2013
Correction to 1st ATP - Regulation 758/2013/EU of 7 August 2013
5th ATP - Regulation 944/2013/EU of 2 October 2013
6th ATP - Regulation 605/2014/EU of 5 June 2014
WFD Annex III replacement - Regulation 1357/2014/EU of 18 December 2014
Revised List of Waste 2014 - Decision 2014/955/EU of 18 December 2014
7th ATP - Regulation 2015/1221/EU of 24 July 2015
8th ATP - Regulation (EU) 2016/918 of 19 May 2016
9th ATP - Regulation (EU) 2016/1179 of 19 July 2016
10th ATP - Regulation (EU) 2017/776 of 4 May 2017
HP14 amendment - Regulation (EU) 2017/997 of 8 June 2017
13th ATP - Regulation (EU) 2018/1480 of 4 October 2018
14th ATP - Regulation (EU) 2020/217 of 4 October 2019
15th ATP - Regulation (EU) 2020/1182 of 19 May 2020
The Chemicals (Health and Safety) and Genetically Modified Organisms (Contained Use)(Amendment etc.) (EU Exit) Regulations 2020 - UK: 2020 No. 1567 of 16th December 2020
The Waste and Environmental Permitting etc. (Legislative Functions and Amendment etc.) (EU Exit) Regulations 2020 - UK: 2020 No. 1540 of 16th December 2020
GB MCL List - version 1.1 of 09 June 2021

APPENDIX 15 - Contaminated Land Legislative Background

Legislative Background

Environmental liabilities and risks have been evaluated in terms of a source -pathway - target relationship in accordance with the approach set out in:

- The 1995 Environment Act;
- The Contaminated Land (England) Regulations 2000;
- The DETR circular 02/2000 Environmental Protection Act 1990: Part IIA Contaminated Land.

Contaminated land is defined within the legislative framework as land which is in such condition by reason of substances in, on or under the land that:

1) Significant harm is being caused or there is a significant possibility of such harm being caused;
2) Significant pollution of controlled waters is being or is likely to be caused.

The potential for harm is based on the presence of three factors:

- **Source** - substances that are potential contaminants or pollutants that may cause harm;
- **Pathway** - a potential route by which contaminants can move from the source to the receptor;
- **Receptor** - a receptor that may be harmed, for example the water environment, humans and water.

Where a source, pathway and target are all present a pollutant linkage exists and there is potential for harm to be caused. The presence of a source does not automatically imply that a contamination problem exists, since contamination must be defined in terms of pollutant linkages and unacceptable risk of harm. The nature and importance of both pathways and receptors are site specific and will vary according to the intended end use of the site, its characteristics and its surroundings.

The key principle which supports the SPR approach is 'suitable for use' criteria. This requires remedial action only where contamination is considered to pose unacceptable actual or potential risks to health or the environment and, taking into account the proposed use of the site.

Relevant Guidance Documents

This report has been prepared in accordance with the list of guidance below however the list is not exhaustive:

- LCRM – Model Procedures;
- Contamination and Environmental Matters - Their implications for Property Professionals (2nd Edition RICS Nov 2003);
- Brownfields – Managing the development of previously developed land – A client's guide, CIRIA 2002;
- DEFRA and Environment Agency publications CLR7 – 10, supported by the TOX guides and SGV guides, dated March 2002;
- DETR Circular 02/2000, Contaminated Land: Implementation of Part IIA of the Environmental Protection Act 1990;
- Environment Agency technical advice to third parties on Pollution of Controlled Waters for Part IIA of the EPA1990, May 2002;

Relevant Legislative Documents

The following is a non-exhaustive list of legislative framework documents that has been considered in the production of this report:

- The Environment Act (1995);
- The Environmental Protection Act 1990: Part 2A Contaminated Land Statutory Guidance (2012);
- The Environment Protection Act (1990);
- The Contaminated Land (England) Act (2000);
- Contaminated Land (England) Regulations (2012);
- The Water Resources Act (1991);
- The Pollution Prevention and Control (England and Wales) Regulations (2000);
- The Landfill Regulations (England and Wales) Regulations (2002);
- The Landfill (England and Wales) (Amendment) Regulations (2004);
- Health and Safety at Work Act;

APPENDIX 16 - Limitations

Limitations

This contract was completed by Groundtech Consulting on the basis of a defined programme and scope of works and terms and conditions agreed with the client. This report was compiled with due skill and care, taking into consideration the project brief provided, project objectives, agreed scope of works, prevailing site conditions and budget allocation.

Other than that defined in the paragraph above, Groundtech Consulting provides no other accountability or warranty whether express or implied, is made in relation to the services. Unless otherwise agreed this report has been prepared exclusively for the use and reliance of the client in accordance with generally accepted industry practices and for the intended purposes as stated in the agreement under which this work was completed. This report may not be relied upon, or transferred to, by any other party without the written agreement of a Director of Groundtech Consulting. A third party who relies on this report, does so at their own and sole risk and no liability to such parties is provided by Groundtech Consulting.

It is the understanding of Groundtech Consulting that this report is to be used for the intended purpose as set out in the introduction. The purpose was instrumental in determining the scope and level of the services provided. Should the purpose of the report or the proposed end use of the site change, this report will no longer be directly applicable, and its validity readdressed. No reliance upon the report in the revised situation should be assumed by the client without the permission of Groundtech Consulting.

The report was written in 2022, later changes in legislation, statutory requirements and industry best practices have not been considered and this should be allowed for. Ground conditions can also change and should be investigated if there is any significant delay in acting on the findings of this report. The period of time may result in changes in site conditions, regulatory or other legal provisions, technology or economic conditions which could render the report inaccurate or unreliable. The information and conclusions in this report should not be relied upon in the future without the written confirmation from Groundtech Consulting that it is safe to do so.

The observations and conclusions outlined in this report are based exclusively on the services that were provided as set out in the agreement between the client and Groundtech Consulting.

Groundtech Consulting are not liable for the existence of any condition, the discovery of which would require additional investigation outside the agreed scope of works or core competency. The services provided are based upon Groundtech Consulting observations of existing physical conditions at the site gained from site reconnaissance together with interpretation of information including documentation, obtained from third parties and from the client on the history and usage of the site. The findings and recommendations contained in this report are based in part upon information provided by third parties, and Groundtech Consulting assume the information to be correct.

No responsibility can be accepted for errors for third party information presented in this report. Groundtech Consulting were not authorised to independently verify the accuracy or completeness of information, documentation or materials received from the client or third parties, including laboratories and information services, during the performance of the services. Groundtech Consulting are not liable for any inaccurate information, misrepresentation of data or conclusions, which may inform the scope of investigation undertaken by Groundtech Consulting and forms the contract with the client.

Where field investigations have been carried out these have been restricted to a level of detail required to achieve the stated objectives of the work. Ground conditions can also be variable due to its heterogeneous

properties and as investigation exploratory locations only allow examination of the ground at discrete locations. The potential exists for ground conditions to be encountered which are different to those considered in this report, particularly between exploratory holes. The extent of the limited area depends on the soil and groundwater conditions, together with other constraints such as the position of any existing structures and underground utilities. Geo-Environmental testing was carried out for a limited number of parameters [as stipulated in the contract] based on an understanding of the available operational and historical information, and it should not be inferred that other chemical species are not present.

The groundwater conditions entered on the exploratory hole records are those observed at the time of investigation. The groundwater level often has not had time to reach equilibrium and a monitoring period is required. Furthermore, groundwater levels are subject to seasonal variation or changes in local drainage conditions and higher groundwater levels may occur at other times of the year than were recorded during this investigation.

Any site drawings provided in this report are not meant to be an accurate base plan, but are preliminary and used to present the general relative locations of features on, and surrounding, the site.

