

ANNEX E
Soil Laboratory Chemical Test
Results



Final Report

Report No.:	21-22305-1		
Initial Date of Issue:	06-Jul-2021		
Client	Terra Firma (Wales) Ltd		
Client Address:	5 Deryn Court Wharfedale Road Pentwyn Cardiff CF23 7HA		
Contact(s):	ieuan@terrafirmawales.co.uk		
Project	16819 - Pearsons Way		
Quotation No.:	Q19-16176	Date Received:	30-Jun-2021
Order No.:	16819 IB	Date Instructed:	30-Jun-2021
No. of Samples:	5		
Turnaround (Wkdays):	5	Results Due:	06-Jul-2021
Date Approved:	06-Jul-2021		
Approved By:			
Details:	Glynn Harvey, Technical Manager		

Results - Soil

Project: 16819 - Pearsons Way

Client: Terra Firma (Wales) Ltd	Chemtest Job No.:					21-22305	21-22305	21-22305	21-22305	21-22305
Quotation No.: Q19-16176	Chemtest Sample ID.:					1231144	1231145	1231146	1231147	1231148
Order No.: 16819 IB	Client Sample Ref.:					WS01	WS01	WS02	WS03	WS03
	Client Sample ID.:					WS01	WS01	WS02	WS03	WS03
	Sample Location:					16819 - Pearsons Way	16819 - Pearsons Way	16819 - Pearsons Way	16819 - Pearsons Way	16819 - Pearsons Way
	Sample Type:					SOIL	SOIL	SOIL	SOIL	SOIL
	Bottom Depth (m):					0.45	1.5	03	0.5	2.5
	Date Sampled:					28-Jun-2021	28-Jun-2021	28-Jun-2021	28-Jun-2021	28-Jun-2021
	Time Sampled:					0:00	0:00	0:00	0:00	0:00
	Asbestos Lab:					DURHAM	DURHAM	DURHAM	DURHAM	DURHAM
Determinand	Accred.	SOP	Units	LOD						
ACM Type	U	2192		N/A	-	-	-	-	-	-
Asbestos Identification	U	2192		N/A	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected
ACM Detection Stage	U	2192		N/A	-	-	-	-	-	-
Moisture	N	2030	%	0.020	6.7	8.4	11	8.7	11	
Soil Colour	N	2040		N/A	Brown	Brown	Brown	Brown	Brown	
Other Material	N	2040		N/A	Stones	Stones and Roots	Stones	Stones	Stones	
Soil Texture	N	2040		N/A	Sand	Clay	Clay	Clay	Clay	
pH	M	2010		4.0	8.2	8.1	8.1	8.2	8.1	
Boron (Hot Water Soluble)	M	2120	mg/kg	0.40	< 0.40	< 0.40	0.42	< 0.40	< 0.40	
Cyanide (Total)	M	2300	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	
Sulphate (Acid Soluble)	M	2430	%	0.010	0.014	0.014	0.040	0.047	< 0.010	
Arsenic	M	2450	mg/kg	1.0	12	12	19	6.3	7.9	
Cadmium	M	2450	mg/kg	0.10	0.21	0.28	0.40	0.12	0.18	
Chromium	M	2450	mg/kg	1.0	20	21	21	12	14	
Mercury Low Level	M	2450	mg/kg	0.05	0.13	0.09	0.13	0.09	0.07	
Copper	M	2450	mg/kg	0.50	43	28	43	27	22	
Nickel	M	2450	mg/kg	0.50	50	44	40	33	30	
Lead	M	2450	mg/kg	0.50	26	25	59	18	17	
Selenium	M	2450	mg/kg	0.20	0.70	0.34	0.81	0.31	0.27	
Zinc	M	2450	mg/kg	0.50	110	100	160	66	74	
Chromium (Trivalent)	N	2490	mg/kg	1.0	20	21	21	12	14	
Chromium (Hexavalent)	N	2490	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	
Aliphatic TPH >C5-C6	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
Aliphatic TPH >C6-C8	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
Aliphatic TPH >C8-C10	M	2680	mg/kg	1.0	8.1	9.1	9.1	< 1.0	< 1.0	
Aliphatic TPH >C10-C12	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
Aliphatic TPH >C12-C16	M	2680	mg/kg	1.0	2.2	2.0	3.7	< 1.0	< 1.0	
Aliphatic TPH >C16-C21	M	2680	mg/kg	1.0	2.6	3.9	2.1	< 1.0	< 1.0	
Aliphatic TPH >C21-C35	M	2680	mg/kg	1.0	17	26	18	< 1.0	1.8	
Aliphatic TPH >C35-C44	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
Total Aliphatic Hydrocarbons	N	2680	mg/kg	5.0	30	41	33	< 5.0	< 5.0	
Aromatic TPH >C5-C7	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	

Results - Soil

Project: 16819 - Pearsons Way

Client: Terra Firma (Wales) Ltd	Chemtest Job No.:				21-22305	21-22305	21-22305	21-22305	21-22305
Quotation No.: Q19-16176	Chemtest Sample ID.:				1231144	1231145	1231146	1231147	1231148
Order No.: 16819 IB	Client Sample Ref.:				WS01	WS01	WS02	WS03	WS03
	Client Sample ID.:				WS01	WS01	WS02	WS03	WS03
	Sample Location:				16819 - Pearsons Way	16819 - Pearsons Way	16819 - Pearsons Way	16819 - Pearsons Way	16819 - Pearsons Way
	Sample Type:				SOIL	SOIL	SOIL	SOIL	SOIL
	Bottom Depth (m):				0.45	1.5	03	0.5	2.5
	Date Sampled:				28-Jun-2021	28-Jun-2021	28-Jun-2021	28-Jun-2021	28-Jun-2021
	Time Sampled:				0:00	0:00	0:00	0:00	0:00
	Asbestos Lab:				DURHAM	DURHAM	DURHAM	DURHAM	DURHAM
Determinand	Accred.	SOP	Units	LOD					
Aromatic TPH >C7-C8	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C8-C10	M	2680	mg/kg	1.0	13	13	13	< 1.0	< 1.0
Aromatic TPH >C10-C12	M	2680	mg/kg	1.0	7.5	7.9	7.1	< 1.0	< 1.0
Aromatic TPH >C12-C16	M	2680	mg/kg	1.0	15	14	15	4.4	4.3
Aromatic TPH >C16-C21	U	2680	mg/kg	1.0	13	15	15	< 1.0	< 1.0
Aromatic TPH >C21-C35	M	2680	mg/kg	1.0	33	38	37	24	25
Aromatic TPH >C35-C44	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Total Aromatic Hydrocarbons	N	2680	mg/kg	5.0	82	88	87	29	29
Total Petroleum Hydrocarbons	N	2680	mg/kg	10.0	110	130	120	29	31
Naphthalene	M	2700	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Acenaphthylene	M	2700	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Acenaphthene	M	2700	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Fluorene	M	2700	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Phenanthrene	M	2700	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Anthracene	M	2700	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Fluoranthene	M	2700	mg/kg	0.10	< 0.10	0.20	< 0.10	< 0.10	< 0.10
Pyrene	M	2700	mg/kg	0.10	< 0.10	0.18	< 0.10	< 0.10	< 0.10
Benzo[a]anthracene	M	2700	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Chrysene	M	2700	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Benzo[b]fluoranthene	M	2700	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Benzo[k]fluoranthene	M	2700	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Benzo[a]pyrene	M	2700	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Indeno(1,2,3-c,d)Pyrene	M	2700	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Dibenz(a,h)Anthracene	M	2700	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Benzo[g,h,i]perylene	M	2700	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Total Of 16 PAH's	M	2700	mg/kg	2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Total Phenols	M	2920	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Organic Matter BS1377	N	2930	%	0.10	< 0.10	1.5	3.4	1.4	1.1

Test Methods

SOP	Title	Parameters included	Method summary
2010	pH Value of Soils	pH	pH Meter
2030	Moisture and Stone Content of Soils(Requirement of MCERTS)	Moisture content	Determination of moisture content of soil as a percentage of its as received mass obtained at <37°C.
2040	Soil Description(Requirement of MCERTS)	Soil description	As received soil is described based upon BS5930
2120	Water Soluble Boron, Sulphate, Magnesium & Chromium	Boron; Sulphate; Magnesium; Chromium	Aqueous extraction / ICP-OES
2192	Asbestos	Asbestos	Polarised light microscopy / Gravimetry
2300	Cyanides & Thiocyanate in Soils	Free (or easy liberatable) Cyanide; total Cyanide; complex Cyanide; Thiocyanate	Alkaline extraction followed by colorimetric determination using Automated Flow Injection Analyser.
2430	Total Sulphate in soils	Total Sulphate	Acid digestion followed by determination of sulphate in extract by ICP-OES.
2450	Acid Soluble Metals in Soils	Metals, including: Arsenic; Barium; Beryllium; Cadmium; Chromium; Cobalt; Copper; Lead; Manganese; Mercury; Molybdenum; Nickel; Selenium; Vanadium; Zinc	Acid digestion followed by determination of metals in extract by ICP-MS.
2490	Hexavalent Chromium in Soils	Chromium [VI]	Soil extracts are prepared by extracting dried and ground soil samples into boiling water. Chromium [VI] is determined by 'Aquakem 600' Discrete Analyser using 1,5-diphenylcarbazide.
2680	TPH A/A Split	Aliphatics: >C5–C6, >C6–C8,>C8–C10, >C10–C12, >C12–C16, >C16–C21, >C21–C35, >C35– C44Aromatics: >C5–C7, >C7–C8, >C8– C10, >C10–C12, >C12–C16, >C16– C21, >C21– C35, >C35– C44	Dichloromethane extraction / GCxGC FID detection
2700	Speciated Polynuclear Aromatic Hydrocarbons (PAH) in Soil by GC-FID	Acenaphthene; Acenaphthylene; Anthracene; Benzo[a]Anthracene; Benzo[a]Pyrene; Benzo[b]Fluoranthene; Benzo[ghi]Perylene; Benzo[k]Fluoranthene; Chrysene; Dibenz[ah]Anthracene; Fluoranthene; Fluorene; Indeno[123cd]Pyrene; Naphthalene; Phenanthrene; Pyrene	Dichloromethane extraction / GC-FID (GC-FID detection is non-selective and can be subject to interference from co-eluting compounds)
2920	Phenols in Soils by HPLC	Phenolic compounds including Resorcinol, Phenol, Methylphenols, Dimethylphenols, 1-Naphthol and TrimethylphenolsNote: chlorophenols are excluded.	60:40 methanol/water mixture extraction, followed by HPLC determination using electrochemical detection.
2930	Organic Matter	Organic Matter	Acid Dichromate digestion/Titration

Report Information

Key

U	UKAS accredited
M	MCERTS and UKAS accredited
N	Unaccredited
S	This analysis has been subcontracted to a UKAS accredited laboratory that is accredited for this analysis
SN	This analysis has been subcontracted to a UKAS accredited laboratory that is not accredited for this analysis
T	This analysis has been subcontracted to an unaccredited laboratory
I/S	Insufficient Sample
U/S	Unsuitable Sample
N/E	not evaluated
<	"less than"
>	"greater than"
SOP	Standard operating procedure
LOD	Limit of detection

Comments or interpretations are beyond the scope of UKAS accreditation

The results relate only to the items tested

Uncertainty of measurement for the determinands tested are available upon request

None of the results in this report have been recovery corrected

All results are expressed on a dry weight basis

The following tests were analysed on samples as received and the results subsequently corrected to a dry weight basis TPH, BTEX, VOCs, SVOCs, PCBs, Phenols

For all other tests the samples were dried at < 37°C prior to analysis

All Asbestos testing is performed at the indicated laboratory

Issue numbers are sequential starting with 1 all subsequent reports are incremented by 1

Sample Deviation Codes

- A - Date of sampling not supplied
- B - Sample age exceeds stability time (sampling to extraction)
- C - Sample not received in appropriate containers
- D - Broken Container
- E - Insufficient Sample (Applies to LOI in Trommel Fines Only)

Sample Retention and Disposal

All soil samples will be retained for a period of 30 days from the date of receipt

All water samples will be retained for 14 days from the date of receipt

Charges may apply to extended sample storage

If you require extended retention of samples, please email your requirements to:

customerservices@chemtest.com



Final Report

Report No.: 22-14578-1
Initial Date of Issue: 26-Apr-2022
Client Terra Firma (Wales) Ltd
Client Address: 5 Deryn Court
Wharfedale Road
Pentwyn
Cardiff
CF23 7HA

Contact(s): Dave Emanuel

Project 16819 Neath

Quotation No.: **Date Received:** 20-Apr-2022

Order No.: **Date Instructed:** 20-Apr-2022

No. of Samples: 3

Turnaround (Wkdays): 5 **Results Due:** 26-Apr-2022

Date Approved: 26-Apr-2022

Approved By:

Details: Stuart Henderson, Technical
Manager

Results - Soil

Project: 16819 Neath

Client: Terra Firma (Wales) Ltd	Chemtest Job No.:				22-14578	22-14578	22-14578
Quotation No.:	Chemtest Sample ID.:				1413919	1413920	1413921
	Sample Location:				TP01	TP02	TP03
	Sample Type:				SOIL	SOIL	SOIL
	Top Depth (m):				0.50	0.10	0.10
	Asbestos Lab:				DURHAM	DURHAM	DURHAM
Determinand	Accred.	SOP	Units	LOD			
ACM Type	U	2192		N/A	-	-	-
Asbestos Identification	U	2192		N/A	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected
Moisture	N	2030	%	0.020	35	22	24
Soil Colour	N	2040		N/A	Brown	Brown	Brown
Other Material	N	2040		N/A	Stones and Roots	Roots and Stones	Stones and Roots
Soil Texture	N	2040		N/A	Sand	Sand	Sand
pH	M	2010		4.0	[A] 8.4	[A] 8.2	[A] 8.2
Boron (Hot Water Soluble)	M	2120	mg/kg	0.40	[A] < 0.40	[A] 0.61	[A] 0.90
Cyanide (Complex)	M	2300	mg/kg	0.50	[A] < 0.50	[A] < 0.50	[A] < 0.50
Cyanide (Free)	M	2300	mg/kg	0.50	[A] < 0.50	[A] < 0.50	[A] < 0.50
Cyanide (Total)	M	2300	mg/kg	0.50	[A] < 0.50	[A] < 0.50	[A] < 0.50
Sulphate (Acid Soluble)	U	2430	%	0.010	[A] 0.015	[A] < 0.010	[A] 0.026
Arsenic	M	2455	mg/kg	1.0	11	11	6.3
Beryllium	U	2455	mg/kg	1.0	< 1.0	< 1.0	< 1.0
Cadmium	M	2455	mg/kg	0.10	0.24	0.31	0.19
Chromium	M	2455	mg/kg	1.0	8.1	6.6	7.8
Mercury Low Level	M	2450	mg/kg	0.05	0.07	0.06	0.05
Manganese	M	2455	mg/kg	5.0	450	380	530
Molybdenum	M	2455	mg/kg	2.0	< 2.0	< 2.0	< 2.0
Antimony	N	2455	mg/kg	2.0	< 2.0	< 2.0	< 2.0
Copper	M	2455	mg/kg	0.50	29	31	22
Nickel	M	2455	mg/kg	0.50	12	10	11
Lead	M	2455	mg/kg	0.50	40	37	31
Selenium	M	2455	mg/kg	0.20	0.27	0.33	0.25
Zinc	M	2455	mg/kg	0.50	78	74	75
Chromium (Trivalent)	N	2490	mg/kg	1.0	8.1	6.6	7.8
Chromium (Hexavalent)	N	2490	mg/kg	0.50	< 0.50	< 0.50	< 0.50
Aliphatic TPH >C5-C6	N	2680	mg/kg	1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0
Aliphatic TPH >C6-C8	N	2680	mg/kg	1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0
Aliphatic TPH >C8-C10	M	2680	mg/kg	1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0
Aliphatic TPH >C10-C12	M	2680	mg/kg	1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0
Aliphatic TPH >C12-C16	M	2680	mg/kg	1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0
Aliphatic TPH >C16-C21	M	2680	mg/kg	1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0
Aliphatic TPH >C21-C35	M	2680	mg/kg	1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0
Aliphatic TPH >C35-C44	N	2680	mg/kg	1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0
Total Aliphatic Hydrocarbons	N	2680	mg/kg	5.0	[A] < 5.0	[A] < 5.0	[A] < 5.0
Aromatic TPH >C5-C7	N	2680	mg/kg	1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0
Aromatic TPH >C7-C8	N	2680	mg/kg	1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0

Results - Soil

Project: 16819 Neath

Client: Terra Firma (Wales) Ltd	Chemtest Job No.:				22-14578	22-14578	22-14578
Quotation No.:	Chemtest Sample ID.:				1413919	1413920	1413921
	Sample Location:				TP01	TP02	TP03
	Sample Type:				SOIL	SOIL	SOIL
	Top Depth (m):				0.50	0.10	0.10
	Asbestos Lab:				DURHAM	DURHAM	DURHAM
Determinand	Accred.	SOP	Units	LOD			
Aromatic TPH >C8-C10	M	2680	mg/kg	1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0
Aromatic TPH >C10-C12	M	2680	mg/kg	1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0
Aromatic TPH >C12-C16	M	2680	mg/kg	1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0
Aromatic TPH >C16-C21	U	2680	mg/kg	1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0
Aromatic TPH >C21-C35	M	2680	mg/kg	1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0
Aromatic TPH >C35-C44	N	2680	mg/kg	1.0	[A] < 1.0	[A] < 1.0	[A] < 1.0
Total Aromatic Hydrocarbons	N	2680	mg/kg	5.0	[A] < 5.0	[A] < 5.0	[A] < 5.0
Total Petroleum Hydrocarbons	N	2680	mg/kg	10.0	[A] < 10	[A] < 10	[A] < 10
Naphthalene	M	2700	mg/kg	0.10	[A] < 0.10	[A] < 0.10	[A] < 0.10
Acenaphthylene	M	2700	mg/kg	0.10	[A] < 0.10	[A] < 0.10	[A] < 0.10
Acenaphthene	M	2700	mg/kg	0.10	[A] < 0.10	[A] < 0.10	[A] < 0.10
Fluorene	M	2700	mg/kg	0.10	[A] < 0.10	[A] < 0.10	[A] < 0.10
Phenanthrene	M	2700	mg/kg	0.10	[A] < 0.10	[A] 0.64	[A] < 0.10
Anthracene	M	2700	mg/kg	0.10	[A] < 0.10	[A] < 0.10	[A] < 0.10
Fluoranthene	M	2700	mg/kg	0.10	[A] < 0.10	[A] 3.0	[A] 0.85
Pyrene	M	2700	mg/kg	0.10	[A] < 0.10	[A] 3.0	[A] 1.0
Benzo[a]anthracene	M	2700	mg/kg	0.10	[A] < 0.10	[A] 2.1	[A] 0.30
Chrysene	M	2700	mg/kg	0.10	[A] < 0.10	[A] 2.8	[A] 0.60
Benzo[b]fluoranthene	M	2700	mg/kg	0.10	[A] < 0.10	[A] 2.3	[A] < 0.10
Benzo[k]fluoranthene	M	2700	mg/kg	0.10	[A] < 0.10	[A] 0.96	[A] < 0.10
Benzo[a]pyrene	M	2700	mg/kg	0.10	[A] < 0.10	[A] 2.1	[A] < 0.10
Indeno(1,2,3-c,d)Pyrene	M	2700	mg/kg	0.10	[A] < 0.10	[A] 1.3	[A] < 0.10
Dibenz(a,h)Anthracene	M	2700	mg/kg	0.10	[A] < 0.10	[A] 0.27	[A] < 0.10
Benzo[g,h,i]perylene	M	2700	mg/kg	0.10	[A] < 0.10	[A] 1.4	[A] < 0.10
Total Of 16 PAH's	M	2700	mg/kg	2.0	[A] < 2.0	[A] 20	[A] 2.8
Total Phenols	M	2920	mg/kg	0.10	< 0.10	< 0.10	< 0.10
Organic Matter BS1377	N	2930	%	0.10	[A] 2.9	[A] 4.8	[A] 4.1

Deviations

In accordance with UKAS Policy on Deviating Samples TPS 63. Chemtest have a procedure to ensure 'upon receipt of each sample a competent laboratory shall assess whether the sample is suitable with regard to the requested test(s)'. This policy and the respective holding times applied, can be supplied upon request. The reason a sample is declared as deviating is detailed below. Where applicable the analysis remains UKAS/MCERTs accredited but the results may be compromised.

Sample:	Sample Ref:	Sample ID:	Sample Location:	Sampled Date:	Deviation Code(s):	Containers Received:
1413919			TP01		A	Amber Glass 250ml
1413919			TP01		A	Plastic Tub 1000g
1413920			TP02		A	Amber Glass 250ml
1413920			TP02		A	Plastic Tub 1000g
1413921			TP03		A	Amber Glass 250ml
1413921			TP03		A	Plastic Tub 1000g

Test Methods

SOP	Title	Parameters included	Method summary
2010	pH Value of Soils	pH	pH Meter
2030	Moisture and Stone Content of Soils(Requirement of MCERTS)	Moisture content	Determination of moisture content of soil as a percentage of its as received mass obtained at <37°C.
2040	Soil Description(Requirement of MCERTS)	Soil description	As received soil is described based upon BS5930
2120	Water Soluble Boron, Sulphate, Magnesium & Chromium	Boron; Sulphate; Magnesium; Chromium	Aqueous extraction / ICP-OES
2192	Asbestos	Asbestos	Polarised light microscopy / Gravimetry
2300	Cyanides & Thiocyanate in Soils	Free (or easy liberatable) Cyanide; total Cyanide; complex Cyanide; Thiocyanate	Alkaline extraction followed by colorimetric determination using Automated Flow Injection Analyser.
2430	Total Sulphate in soils	Total Sulphate	Acid digestion followed by determination of sulphate in extract by ICP-OES.
2450	Acid Soluble Metals in Soils	Metals, including: Arsenic; Barium; Beryllium; Cadmium; Chromium; Cobalt; Copper; Lead; Manganese; Mercury; Molybdenum; Nickel; Selenium; Vanadium; Zinc	Acid digestion followed by determination of metals in extract by ICP-MS.
2490	Hexavalent Chromium in Soils	Chromium [VI]	Soil extracts are prepared by extracting dried and ground soil samples into boiling water. Chromium [VI] is determined by 'Aquakem 600' Discrete Analyser using 1,5-diphenylcarbazine.
2680	TPH A/A Split	Aliphatics: >C5–C6, >C6–C8,>C8–C10, >C10–C12, >C12–C16, >C16–C21, >C21–C35, >C35– C44Aromatics: >C5–C7, >C7–C8, >C8– C10, >C10–C12, >C12–C16, >C16– C21, >C21– C35, >C35– C44	Dichloromethane extraction / GCxGC FID detection
2700	Speciated Polynuclear Aromatic Hydrocarbons (PAH) in Soil by GC-FID	Acenaphthene; Acenaphthylene; Anthracene; Benzo[a]Anthracene; Benzo[a]Pyrene; Benzo[b]Fluoranthene; Benzo[ghi]Perylene; Benzo[k]Fluoranthene; Chrysene; Dibenz[ah]Anthracene; Fluoranthene; Fluorene; Indeno[123cd]Pyrene; Naphthalene; Phenanthrene; Pyrene	Dichloromethane extraction / GC-FID (GC-FID detection is non-selective and can be subject to interference from co-eluting compounds)
2920	Phenols in Soils by HPLC	Phenolic compounds including Resorcinol, Phenol, Methylphenols, Dimethylphenols, 1-Naphthol and TrimethylphenolsNote: chlorophenols are excluded.	60:40 methanol/water mixture extraction, followed by HPLC determination using electrochemical detection.
2930	Organic Matter	Organic Matter	Acid Dichromate digestion/Titration

Report Information

Key

U	UKAS accredited
M	MCERTS and UKAS accredited
N	Unaccredited
S	This analysis has been subcontracted to a UKAS accredited laboratory that is accredited for this analysis
SN	This analysis has been subcontracted to a UKAS accredited laboratory that is not accredited for this analysis
T	This analysis has been subcontracted to an unaccredited laboratory
I/S	Insufficient Sample
U/S	Unsuitable Sample
N/E	not evaluated
<	"less than"
>	"greater than"
SOP	Standard operating procedure
LOD	Limit of detection

Comments or interpretations are beyond the scope of UKAS accreditation

The results relate only to the items tested

Uncertainty of measurement for the determinands tested are available upon request

None of the results in this report have been recovery corrected

All results are expressed on a dry weight basis

The following tests were analysed on samples as received and the results subsequently corrected to a dry weight basis TPH, BTEX, VOCs, SVOCs, PCBs, Phenols

For all other tests the samples were dried at < 37°C prior to analysis

All Asbestos testing is performed at the indicated laboratory

Issue numbers are sequential starting with 1 all subsequent reports are incremented by 1

Sample Deviation Codes

- A - Date of sampling not supplied
- B - Sample age exceeds stability time (sampling to extraction)
- C - Sample not received in appropriate containers
- D - Broken Container
- E - Insufficient Sample (Applies to LOI in Trommel Fines Only)

Sample Retention and Disposal

All soil samples will be retained for a period of 30 days from the date of receipt

All water samples will be retained for 14 days from the date of receipt

Charges may apply to extended sample storage

If you require extended retention of samples, please email your requirements to:

customerservices@chemtest.com