



2183



Amended Report

Report No.:	19-05556-2		
Initial Date of Issue:	26-Feb-2019	Date of Re-Issue:	15-Mar-2019
Client	Earth Science Partnership		
Client Address:	33 Cardiff Road Taffs Well Cardiff CF15 7RB		
Contact(s):	Emma Kirk		
Project	7061b Cosmeston Farm		
Quotation No.:		Date Received:	15-Feb-2019
Order No.:		Date Instructed:	15-Feb-2019
No. of Samples:	1		
Turnaround (Wkdays):	21	Results Due:	15-Mar-2019
Date Approved:	15-Mar-2019		

Approved By:



Details: Robert Monk, Technical Manager

Project: 7061b Cosmeston Farm
Results - Soil

Client: Earth Science Partnership	Chemtest Job No.:				19-05556
Quotation No.:	Chemtest Sample ID.:				775201
	Sample Location:				EBH2
	Sample Type:				SOIL
	Top Depth (m):				0.20
	Asbestos Lab:				COVENTRY
Determinand	Accred.	SOP	Units	LOD	
ACM Type	U	2192		N/A	-
Asbestos Identification	U	2192	%	0.001	No Asbestos Detected
ACM Detection Stage	U	2192		N/A	-
Moisture	N	2030	%	0.020	30
Soil Colour	N	2040		N/A	Brown
Other Material	N	2040		N/A	Stones
Soil Texture	N	2040		N/A	Sand
pH	M	2010		N/A	[A] 7.8
Boron (Hot Water Soluble)	M	2120	mg/kg	0.40	1.5
Cyanide (Total)	M	2300	mg/kg	0.50	[A] < 0.50
Arsenic	M	2450	mg/kg	1.0	21
Barium	M	2450	mg/kg	10	140
Beryllium	U	2450	mg/kg	1.0	1.4
Cadmium	M	2450	mg/kg	0.10	0.87
Chromium	M	2450	mg/kg	1.0	37
Copper	M	2450	mg/kg	0.50	45
Mercury	M	2450	mg/kg	0.10	0.10
Nickel	M	2450	mg/kg	0.50	38
Lead	M	2450	mg/kg	0.50	75
Selenium	M	2450	mg/kg	0.20	1.4
Vanadium	U	2450	mg/kg	5.0	29
Zinc	M	2450	mg/kg	0.50	160
Chromium (Hexavalent)	N	2490	mg/kg	0.50	< 0.50
Organic Matter	M	2625	%	0.40	[A] 10
Aliphatic TPH >C5-C6	N	2680	mg/kg	1.0	[A] < 1.0
Aliphatic TPH >C6-C8	N	2680	mg/kg	1.0	[A] < 1.0
Aliphatic TPH >C8-C10	M	2680	mg/kg	1.0	[A] < 1.0
Aliphatic TPH >C10-C12	M	2680	mg/kg	1.0	[A] < 1.0
Aliphatic TPH >C12-C16	M	2680	mg/kg	1.0	[A] < 1.0
Aliphatic TPH >C16-C21	M	2680	mg/kg	1.0	[A] < 1.0
Aliphatic TPH >C21-C35	M	2680	mg/kg	1.0	[A] < 1.0
Aliphatic TPH >C35-C44	N	2680	mg/kg	1.0	[A] < 1.0
Total Aliphatic Hydrocarbons	N	2680	mg/kg	5.0	[A] < 5.0
Aromatic TPH >C5-C7	N	2680	mg/kg	1.0	[A] < 1.0
Aromatic TPH >C7-C8	N	2680	mg/kg	1.0	[A] < 1.0
Aromatic TPH >C8-C10	M	2680	mg/kg	1.0	[A] < 1.0
Aromatic TPH >C10-C12	M	2680	mg/kg	1.0	[A] < 1.0
Aromatic TPH >C12-C16	M	2680	mg/kg	1.0	[A] < 1.0
Aromatic TPH >C16-C21	U	2680	mg/kg	1.0	[A] < 1.0

Project: 7061b Cosmeston Farm
Results - Soil

Client: Earth Science Partnership	Chemtest Job No.:		19-05556		
Quotation No.:	Chemtest Sample ID.:		775201		
	Sample Location:		EBH2		
	Sample Type:		SOIL		
	Top Depth (m):		0.20		
	Asbestos Lab:		COVENTRY		
Determinand	Accred.	SOP	Units	LOD	
Aromatic TPH >C21-C35	M	2680	mg/kg	1.0	[A] < 1.0
Aromatic TPH >C35-C44	N	2680	mg/kg	1.0	[A] < 1.0
Total Aromatic Hydrocarbons	N	2680	mg/kg	5.0	[A] < 5.0
Total Petroleum Hydrocarbons	N	2680	mg/kg	10.0	[A] < 10
Naphthalene	M	2700	mg/kg	0.10	[A] < 0.10
Acenaphthylene	M	2700	mg/kg	0.10	[A] < 0.10
Acenaphthene	M	2700	mg/kg	0.10	[A] < 0.10
Fluorene	M	2700	mg/kg	0.10	[A] < 0.10
Phenanthrene	M	2700	mg/kg	0.10	[A] < 0.10
Anthracene	M	2700	mg/kg	0.10	[A] < 0.10
Fluoranthene	M	2700	mg/kg	0.10	[A] 0.99
Pyrene	M	2700	mg/kg	0.10	[A] 0.96
Benzo[a]anthracene	M	2700	mg/kg	0.10	[A] < 0.10
Chrysene	M	2700	mg/kg	0.10	[A] < 0.10
Benzo[b]fluoranthene	M	2700	mg/kg	0.10	[A] < 0.10
Benzo[k]fluoranthene	M	2700	mg/kg	0.10	[A] < 0.10
Benzo[a]pyrene	M	2700	mg/kg	0.10	[A] < 0.10
Indeno(1,2,3-c,d)Pyrene	M	2700	mg/kg	0.10	[A] < 0.10
Dibenz(a,h)Anthracene	M	2700	mg/kg	0.10	[A] < 0.10
Benzo[g,h,i]perylene	M	2700	mg/kg	0.10	[A] < 0.10
Total Of 16 PAH's	M	2700	mg/kg	2.0	[A] < 2.0
Total Phenols	M	2920	mg/kg	0.30	< 0.30

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:
775201			EBH2		A	Amber Glass 250ml
775201			EBH2		A	Plastic Tub 1000g

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.
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.
2625	Total Organic Carbon in Soils	Total organic Carbon (TOC)	Determined by high temperature combustion under oxygen, using an Eltra elemental analyser.
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; Dibenzo[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.

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"

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 45 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