ANALYTICAL TEST REPORT

Report Number	24-04712, issue number 1
Contract name:	K.E Lunness Holme Hall Premium Topsoil
Client reference:	Not Supplied
Clients name:	Blackburn Material Solutions
Clients address:	Blackburn Material Solutions 6 The Chestnuts Hensall DN14 0QB
Samples received:	29/11/2024
Analysis started:	02/12/2024
Analysis completed:	10/12/2024
Report issued:	10/12/2024

Key

U	UKAS accredited test
M	MCERTS & UKAS accredited test
$	Test carried out by an approved subcontractor
I/S	Insufficient sample to carry out test
U/S	Sample not suitable for testing
NAD	No Asbestos Detected

[redacted]

Approved by: Abbie Neasham-Bourn
Senior Reporting Administrator

Unit 6 Parkhead, Greencroft Industrial Park, Stanley, County Durham, DH9 7YB

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SAMPLE INFORMATION

MCERTS (Soils):

Soil descriptions are only intended to provide a log of sample matrices with respect to MCERTS validation. They are not intended as full geological descriptions. MCERTS accreditation applies for sand, clay and loam/topsoil, or combinations of these whether these are derived from naturally occurring soils or from made ground, as long as these materials constitute the major part of the sample. Other materials such as concrete, gravel and brick are not accredited if they comprise the major part of the sample.

Lab ref	Sample ID	Depth (m)	Sample description	Material removed	% Removed	% Moisture
25081	1	-	Brown Sand with Gravel and Vegetation.	-	-	7.8
25082	2	-	Brown Sand with Gravel and Vegetation.	-	-	7.9
25083	3	-	Brown Sand with Gravel and Vegetation.	-	-	7.8

DEVIATING SAMPLE INFORMATION

Comments

Sample deviation is determined in accordance with the UKAS note "Guidance on Deviating Samples" and based on reference standards and laboratory trials.
For samples identified as deviating, test result(s) may be compromised and may not be representative of the sample at the time of sampling.
Chemtech Environmental Ltd cannot be held responsible for the integrity of sample(s) received if Chemtech Environmental Ltd did not undertake the sampling. Such samples may be deviating.

Key

a	Sampling date not provided
b	Sampling time not provided (waters only)
c	Sample not received in appropriate containers
d	Storage Temperature
e	Headspace present in sample container
f	Sample exceeded sampling to reciept
g	Sample exceeded holding time(s)

Lab ref	Sample ID	Depth (m)	Deviating	Tests (Reason for deviation)
25081	1	-	N	
25082	2	-	N	
25083	3	-	N	

SOILS

Lab Number					25081	25082	25083
Sample ID					1	2	3
Sampling Date					27/11/2024	27/11/2024	27/11/2024
Test	**Method**	**Accred**	**LoD**	**Units**			
Asbestos							
Asbestos Identification	SUBCON	SU	0	-	NAD	NAD	NAD
Metals							
Water Soluble Sulphate	CE061	M	10	mg/l	23.7	20.3	20.4
Water Soluble Boron	CE063	N	0.5	mg/kg	< 0.50	< 0.50	< 0.50
Arsenic	CE264	U	1.8	mg/kg	4.8	3.9	3.8
Cadmium	CE264	M	1.6	mg/kg	< 1.6	< 1.6	< 1.6
Chromium	CE264	U	2	mg/kg	6.9	5.9	6.0
Copper	CE264	M	1.6	mg/kg	12.6	9.2	8.6
Lead	CE264	U	2.3	mg/kg	52.5	26.1	26.2
Mercury	CE264	U	0.7	mg/kg	< 0.7	< 0.7	< 0.7
Nickel	CE264	M	2.1	mg/kg	5.1	3.7	3.6
Selenium	CE264	U	3	mg/kg	< 3.0	< 3.0	< 3.0
Zinc	CE264	M	4	mg/kg	54.8	29.3	28.5
Colourimetric							
Total Monohydric Phenols	CE078	N	0.5	mg/kg	< 0.50	< 0.50	< 0.50
Total Cyanide	CE077	N	1	mg/kg	< 1.0	< 1.0	< 1.0
Combustion							
Moisture Content	CE001	N	0.1	%	7.8	7.9	7.8
Total Organic Carbon	CE197	N	0.1	%	2.16	2.07	2.19
Soil Organic Matter	CE072	N	0.1	%	3.72	3.57	3.78
Polyaromatic hydrocarbons							
Naphthalene	CE087	M	0.016	mg/kg	0.036	0.026	0.033
Acenaphthylene	CE087	M	0.015	mg/kg	< 0.015	< 0.015	< 0.015
Acenaphthene	CE087	M	0.013	mg/kg	< 0.013	< 0.013	< 0.013
Fluorene	CE087	U	0.013	mg/kg	< 0.013	< 0.013	< 0.013
Phenanthrene	CE087	M	0.014	mg/kg	0.083	0.095	0.078
Anthracene	CE087	U	0.017	mg/kg	0.018	0.022	< 0.017
Fluoranthene	CE087	M	0.017	mg/kg	0.230	0.191	0.166
Pyrene	CE087	M	0.016	mg/kg	0.205	0.166	0.147
Benzo(a)anthracene	CE087	U	0.012	mg/kg	0.133	0.098	0.096
Chrysene	CE087	M	0.028	mg/kg	0.151	0.118	0.108

SOILS

Benzo(b)fluoranthene	CE087	M	0.02	mg/kg	0.166	0.133	0.133
Benzo(k)fluoranthene	CE087	M	0.025	mg/kg	0.068	0.053	0.050
Benzo(a)pyrene	CE087	U	0.019	mg/kg	0.145	0.108	0.102
Indeno(1,2,3-cd)pyrene	CE087	M	0.019	mg/kg	0.122	0.096	0.093
Dibenzo(a,h)anthracene	CE087	M	0.017	mg/kg	0.025	0.021	< 0.017
Benzo(g,h,i)perylene	CE087	M	0.019	mg/kg	0.108	0.088	0.087
Total PAH(16)	CE087	N	0.28	mg/kg	1.49	1.21	1.09
Wet Chem							
pH	CE004	M	0.1	pH units	7.1	7.0	7.0
EPH							
>C10-C40 Soil (EH_1D_Total)	CE033	M	19	mg/kg	73.6	61.8	68.2

METHOD DETAILS

METHOD	TESTNAME	METHOD SUMMARY	ANALYSIS BASIS
SUBCON	Asbestos Solid	HSG248	Air Dried Sample
CE061	W. Sol Metals	ICPOES	Air dried sample
CE004	pH of Solids	Potentiometric	As submitted sample
CE063	Water soluble boron	ICPOES	Air dried sample
CE264	Metals by ICP in Soil	ICPOES	Air dried sample
CE087	PAH in Soil	DCM Extraction and GCMS	As submitted sample
CE078	Phenols in Solids	Continuous Flow Analyser	As submitted sample
CE077	Cyanides in Solids	Continuous Flow Analyser	As submitted sample
CE197	Primacs in Solids	Primacs	Air dried sample
CE033	EPH in Solids	Acetone:Hexane Extraction and GCFID	As submitted sample

REPORT INFORMATION

Report No.:24-04712, issue number 1

Key	
U	ISO17025 Accredited Result
M	ISO17025 and MCERTS Accredited Result
N	Do not currently hold accreditation
^	MCERTS accreditation not applicable for sample matrix
*	ISO17025 accreditation not applicable for sample matrix
S	Subcontracted
I/S	Insufficient Sample
U/S	Unsuitable sample
N/T	Not tested
<	Means "less than"
>	Means "greater than"

LOD refers to limit of detection, except in the case of pH soils and pH waters where it means limit of discrimination.

This report shall not be reproduced except in full, without prior written approval.

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

All testing carried out at Unit 6 Parkhead, Stanley, DH9 7YB, except for subcontracted testing.

The results relate only to the sample received.

Unless otherwise stated, sample information has been provided by the client. This may affect the validity of the results.

Moisture Content Calculated on a Wet Weight basis

Unless otherwise stated, Chemtech Environmental Ltd was not responsible for sampling.

Sampling was undertaken by Chemtech Environmental Limited and is outside the UKAS accreditation scope.

Methods, procedures and performance data are available on request.

Results reported herein relate only to the material supplied to the laboratory.

BTEX compounds are identified by retention time only and may include interference from co-eluting compounds.

For soils and solids, all results are reported on a dry basis. Samples dried at no more than 30°C in a drying

For soils and solids, analytical results are inclusive of stones, where applicable.

Sample Retention and Disposal

All soil samples will be retained for a period of 4 weeks from the point of receipt

All water samples will be retained for a period of 2 weeks from the point of Reporting

Charges may apply to extended sample storage

TPH Classification - HWOL Acronym System

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	EH_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