EMT Job No: 23/2028

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
TM15	Modified USEPA 8260B v2:1996. Quantitative Determination of Volatile Organic Compounds (VOCs) by Headspace GC-MS.	PM10	Modified US EPA method 5021A v2:2014. Preparation of solid and liquid samples for GC headspace analysis.	Yes		AR	Yes
TM16	Modified USEPA 8270D v5:2014. Quantitative determination of Semi-Volatile Organic compounds (SVOCs) by GC-MS.	PM8	End over end extraction of solid samples for organic analysis. The solvent mix varies depending on analysis required.			AR	Yes
TM16	Modified USEPA 8270D v5:2014. Quantitative determination of Semi-Volatile Organic compounds (SVOCs) 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.	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	Preparation of Soil and Marine Sediment Samples for Total Organic Carbon.	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
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
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.	PM69	One part soil is mixed with 10 parts water in a vial leaving no headspace. The mixture is shaken and then left to leach for 24 hours before VOC analysis.			AR	Yes

EMT Job No: 23/2028

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	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
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.			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.	Yes		AD	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.	PM0	No preparation is required.			AR	Yes
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
TM76	Modified US EPA method 120.1 (1982). Determination of Specific Conductance by Metrohm automated probe analyser.	PM0	No preparation is required.			AR	Yes

EMT Job No: 23/2028

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TM76	Modified US EPA method 120.1 (1982). Determination of Specific Conductance by Metrohm automated probe analyser.	PM58	Dried and ground solid samples are extracted with water in a 5:1 water to solid ratio, the samples are shaken on an orbital shaker.			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.	PM0	No preparation is required.			AR	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.	PM0	No preparation is required.	Yes		AR	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.			AR	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
TM107	Determination of Sulphide/Thiocyanate by Skalar Continuous Flow Analyser	PM0	No preparation is required.			AR	Yes
TM107	Determination of Sulphide/Thiocyanate by Skalar Continuous Flow Analyser	PM45	As received solid samples are extracted with 1M NaOH by orbital shaker for Cyanide, Sulphide and Thiocyanate analysis.			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	Yes		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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Columbus House
Greenmeadow Springs
Tongwynlais
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CF15 7NE

Attention :	Tim Vickers
Date :	23rd February, 2023
Your reference :	C1856
Our reference :	Test Report 23/2030 Batch 1
Location :	NG Salisbury
Date samples received :	10th February, 2023
Status :	Final Report
Issue :	1

Twelve samples were received for analysis on 10th February, 2023 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:

Liza Klebe
Project Co-ordinator

Please include all sections of this report if it is reproduced

Client Name: Englobe
Reference: C1856
Location: NG Salisbury
Contact: Tim Vickers
EMT Job No: 23/2030

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			LOD/LOR	Units	Method No.
Sample ID	AREA 2 RE-USE STK 1	AREA 2 RE-USE STK 2	AREA 2 RE-USE STK 3	AREA 2 RE-USE STK 4	AREA 2 RE-USE STK 5	AREA 2 RE-USE STK 6	AREA 2 RE-USE STK 7	AREA 2 RE-USE STK 7 DUPLICATE					
Depth													
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					
Sample Date	08/02/2023 12:00	08/02/2023 12:10	08/02/2023 12:20	08/02/2023 12:30	08/02/2023 12:40	08/02/2023 12:50	08/02/2023 13:00	08/02/2023 13:10					
Sample Type	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil					
Batch Number	1	1	1	1	1	1	1	1					
Date of Receipt	10/02/2023	10/02/2023	10/02/2023	10/02/2023	10/02/2023	10/02/2023	10/02/2023	10/02/2023					
Arsenic #	11.1	12.3	10.2	13.2	11.8	11.3	9.2	12.4			<0.5	mg/kg	TM30/PM15
Cadmium #	0.7	0.7	0.4	0.8	0.8	0.9	0.7	1.1			<0.1	mg/kg	TM30/PM15
Chromium #	76.9	77.5	41.7	35.1	52.0	61.5	49.0	94.4			<0.5	mg/kg	TM30/PM15
Copper #	33	35	30	44	37	34	22	27			<1	mg/kg	TM30/PM15
Lead #	736	252	238	350	397	478	98	200			<5	mg/kg	TM30/PM15
Mercury #	0.6	0.9	0.6	0.7	0.6	0.6	0.8	0.5			<0.1	mg/kg	TM30/PM15
Nickel #	14.8	14.3	15.3	16.3	15.3	24.0	9.3	11.8			<0.7	mg/kg	TM30/PM15
Selenium #	<1	<1	<1	<1	<1	<1	<1	<1			<1	mg/kg	TM30/PM15
Total Sulphate as SO4 #	931	1198	1525	1314	1351	1186	764	1046			<50	mg/kg	TM50/PM29
Water Soluble Boron #	2.4	1.4	2.1	1.6	1.4	1.6	0.7	1.5			<0.1	mg/kg	TM74/PM32
Zinc #	355	445	314	548	544	467	195	340			<5	mg/kg	TM30/PM15
PAH MS													
Naphthalene #	2.07	2.06	1.17	1.95	1.34	3.84	3.34	4.77			<0.04	mg/kg	TM4/PM8
Acenaphthylene	1.15	3.54	1.20	1.50	1.40	2.52	2.45	2.31			<0.03	mg/kg	TM4/PM8
Acenaphthene #	0.49	1.53	0.72	0.79	1.24	1.20	2.38	2.95			<0.05	mg/kg	TM4/PM8
Fluorene #	1.09	3.99	1.73	1.67	2.07	3.00	3.75	3.82			<0.04	mg/kg	TM4/PM8
Phenanthrene #	8.93	>>30.71	10.76	12.14	10.58	15.91	19.04	27.45			<0.03	mg/kg	TM4/PM8
Anthracene #	3.55	8.06	4.35	4.23	4.43	5.98	7.81	9.58			<0.04	mg/kg	TM4/PM8
Fluoranthene #	13.39	>>40.17	16.48	22.00	19.66	>>26.49	>>29.52	>>51.94			<0.03	mg/kg	TM4/PM8
Pyrene #	10.80	>>30.42	13.37	18.07	15.74	21.45	>>22.67	>>39.58			<0.03	mg/kg	TM4/PM8
Benzo(a)anthracene #	6.84	17.19	8.70	13.77	10.05	14.03	13.34	>>25.01			<0.06	mg/kg	TM4/PM8
Chrysene #	6.62	14.79	7.72	12.88	9.41	13.22	13.21	>>23.53			<0.02	mg/kg	TM4/PM8
Benzo(bk)fluoranthene #	12.07	29.17	13.60	29.32	18.05	25.38	24.59	>>44.36			<0.07	mg/kg	TM4/PM8
Benzo(a)pyrene #	7.19	17.21	7.84	18.85	10.45	14.07	13.44	22.69			<0.04	mg/kg	TM4/PM8
Indeno(123cd)pyrene #	5.56	13.21	5.63	15.98	8.52	11.67	11.69	20.73			<0.04	mg/kg	TM4/PM8
Dibenzo(ah)anthracene #	0.99	3.10	1.19	3.56	1.56	2.57	2.29	4.21			<0.04	mg/kg	TM4/PM8
Benzo(ghi)perylene #	4.64	10.66	4.63	13.81	6.99	9.72	9.39	16.26			<0.04	mg/kg	TM4/PM8
PAH 16 Total	85.4	225.8	99.1	170.5	121.5	171.1	178.9	299.2			<0.6	mg/kg	TM4/PM8
Benzo(b)fluoranthene	8.69	21.00	9.79	21.11	13.00	18.27	17.70	31.94			<0.05	mg/kg	TM4/PM8
Benzo(k)fluoranthene	3.38	8.17	3.81	8.21	5.05	7.11	6.89	12.42			<0.02	mg/kg	TM4/PM8
PAH Surrogate % Recovery	88	90	90	92	91	98	97	92			<0	%	TM4/PM8
TPH CWG													
Aliphatics													
>C5-C6 #	<0.1 SV	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1			<0.1	mg/kg	TM36/PM12
>C6-C8 #	<0.1 SV	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1			<0.1	mg/kg	TM36/PM12
>C8-C10	0.1 SV	0.3	<0.1	<0.1	0.1	0.1	0.2	0.1			<0.1	mg/kg	TM36/PM12
>C10-C12 #	3.6	0.9	<0.2	<0.2	<0.2	6.2	<0.2	2.3			<0.2	mg/kg	TM5/PM8/PM16
>C12-C16 #	18	17	9	6	5	31	18	20			<4	mg/kg	TM5/PM8/PM16
>C16-C21 #	79	66	26	41	32	113	63	53			<7	mg/kg	TM5/PM8/PM16
>C21-C35 #	187	191	77	83	71	281	145	108			<7	mg/kg	TM5/PM8/PM16
Total aliphatics C5-35	288	275	112	130	108	431	226	183			<19	mg/kg	TM5/TM36/PM8/PM12/PM16

Please see attached notes for all abbreviations and acronyms

Element Materials Technology

Client Name: Englobe
Reference: C1856
Location: NG Salisbury
Contact: Tim Vickers
EMT Job No: 23/2030

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			LOD/LOR	Units	Method No.
Sample ID	AREA 2 RE-USE STK 1	AREA 2 RE-USE STK 2	AREA 2 RE-USE STK 3	AREA 2 RE-USE STK 4	AREA 2 RE-USE STK 5	AREA 2 RE-USE STK 6	AREA 2 RE-USE STK 7	AREA 2 RE-USE STK 7 DUPLICATE					
Depth													
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					
Sample Date	08/02/2023 12:00	08/02/2023 12:10	08/02/2023 12:20	08/02/2023 12:30	08/02/2023 12:40	08/02/2023 12:50	08/02/2023 13:00	08/02/2023 13:10					
Sample Type	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil					
Batch Number	1	1	1	1	1	1	1	1					
Date of Receipt	10/02/2023	10/02/2023	10/02/2023	10/02/2023	10/02/2023	10/02/2023	10/02/2023	10/02/2023					
TPH CWG													
Aromatics													
>C5-EC7 #	<0.1 SV	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1			<0.1	mg/kg	TM36/PM12
>EC7-EC8 #	<0.1 SV	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1			<0.1	mg/kg	TM36/PM12
>EC8-EC10 #	<0.1 SV	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1			<0.1	mg/kg	TM36/PM12
>EC10-EC12 #	6.4	<0.2	<0.2	<0.2	<0.2	5.5	<0.2	<0.2			<0.2	mg/kg	TM5/PM8/PM16
>EC12-EC16 #	33	34	34	20	22	40	48	35			<4	mg/kg	TM5/PM8/PM16
>EC16-EC21 #	189	263	260	231	197	290	530	281			<7	mg/kg	TM5/PM8/PM16
>EC21-EC35 #	600	808	550	688	603	859	1140	714			<7	mg/kg	TM5/PM8/PM16
Total aromatics C5-35 #	828	1105	844	939	822	1195	1718	1030			<19	mg/kg	TM5/TM36/PM8/PM12/PM16
Total aliphatics and aromatics(C5-35)	1116	1380	956	1069	930	1626	1944	1213			<38	mg/kg	TM5/TM36/PM8/PM12/PM16
MTBE #	<5 SV	<5	<5	<5	<5	<5	<5	<5			<5	ug/kg	TM36/PM12
Benzene #	29 SV	38	19	17	24	20	29	22			<5	ug/kg	TM36/PM12
Toluene #	18 SV	27	10	10	14	12	19	14			<5	ug/kg	TM36/PM12
Ethylbenzene #	9 SV	15	10	<5	12	<5	7	5			<5	ug/kg	TM36/PM12
m/p-Xylene #	40 SV	66	14	<5	34	<5	<5	18			<5	ug/kg	TM36/PM12
o-Xylene #	21 SV	35	12	7	19	10	15	24			<5	ug/kg	TM36/PM12
2-Chlorophenol #	<10	<10	<10	<10	<10	<10	<10	<10			<10	ug/kg	TM16/PM8
Natural Moisture Content	14.8	12.4	10.0	10.9	9.0	10.7	6.7	8.6			<0.1	%	PM4/PM0
2-Methylphenol	95	61	47	73	94	69	68	70			<10	ug/kg	TM16/PM8
2-Nitrophenol	<10	<10	<10	<10	<10	<10	<10	<10			<10	ug/kg	TM16/PM8
2,4-Dichlorophenol #	<10	<10	<10	<10	<10	<10	<10	<10			<10	ug/kg	TM16/PM8
2,4-Dimethylphenol	172	66	37	53	62	65	69	65			<10	ug/kg	TM16/PM8
2,4,5-Trichlorophenol	<10	<10	<10	<10	<10	<10	<10	<10			<10	ug/kg	TM16/PM8
2,4,6-Trichlorophenol	<10	<10	<10	<10	<10	<10	<10	<10			<10	ug/kg	TM16/PM8
4-Chloro-3-methylphenol	<10	<10	<10	<10	<10	<10	<10	<10			<10	ug/kg	TM16/PM8
4-Methylphenol	<10	<10	<10	182	266	<10	<10	<10			<10	ug/kg	TM16/PM8
4-Nitrophenol	<10	<10	<10	<10	<10	<10	<10	<10			<10	ug/kg	TM16/PM8
Pentachlorophenol	<10	<10	<10	<10	<10	<10	<10	<10			<10	ug/kg	TM16/PM8
Phenol #	<10	<10	<10	<10	<10	<10	<10	<10			<10	ug/kg	TM16/PM8
Total Speciated Phenols MS	267	127	84	308	422	134	137	135			<10	ug/kg	TM16/PM8
Ammoniacal Nitrogen as NH4	30.1	21.9	31.9	26.1	25.9	23.8	15.2	23.3			<0.6	mg/kg	TM38/PM20
Chloride #	16	16	38	19	17	15	15	20			<2	mg/kg	TM38/PM20
Free Cyanide	<0.5	0.8	0.9	<0.5	<0.5	<0.5	<0.5	0.8			<0.5	mg/kg	TM89/PM45
Total Cyanide #	17.2	47.2	46.4	17.3	18.4	22.4	32.8	44.3			<0.5	mg/kg	TM89/PM45
Complex Cyanide	17.2	46.4	45.5	17.3	18.4	22.4	32.8	43.5			<0.5	mg/kg	TM89/PM45
Total Organic Carbon #	6.16	9.40	4.38	6.16	4.07	5.35	1.86	2.73			<0.02	%	TM21/PM24

Please see attached notes for all abbreviations and acronyms

Element Materials Technology

Client Name: Englobe
Reference: C1856
Location: NG Salisbury
Contact: Tim Vickers
EMT Job No: 23/2030

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			LOD/LOR	Units	Method No.
Sample ID	AREA 2 RE-USE STK 1	AREA 2 RE-USE STK 2	AREA 2 RE-USE STK 3	AREA 2 RE-USE STK 4	AREA 2 RE-USE STK 5	AREA 2 RE-USE STK 6	AREA 2 RE-USE STK 7	AREA 2 RE-USE STK 7 DUPLICATE					
Depth													
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					
Sample Date	08/02/2023 12:00	08/02/2023 12:10	08/02/2023 12:20	08/02/2023 12:30	08/02/2023 12:40	08/02/2023 12:50	08/02/2023 13:00	08/02/2023 13:10					
Sample Type	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil					
Batch Number	1	1	1	1	1	1	1	1					
Date of Receipt	10/02/2023	10/02/2023	10/02/2023	10/02/2023	10/02/2023	10/02/2023	10/02/2023	10/02/2023					
Sulphide	<10	<10	<10	<10	<10	<10	<10	<10			<10	mg/kg	TM107/PM45
Electrical Conductivity @25C (5:1 ext)	227	293	394	278	306	275	228	284			<100	uS/cm	TM76/PM58
pH #	8.10	7.99	8.01	8.14	8.09	8.07	8.09	8.11			<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.

Client Name: Englobe
Reference: C1856
Location: NG Salisbury
Contact: Tim Vickers
EMT Job No: 23/2030

Report : CEN 10:1 1 Batch

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

EMT Sample No.	25	26	27	28							LOD/LOR	Units	Method No.
Sample ID	AREA 2 RE-USE STK 1 LEACHATE	AREA 2 RE-USE STK 3 LEACHATE	AREA 2 RE-USE STK 5 LEACHATE	AREA 2 RE-USE STK 7 LEACHATE									
Depth													
COC No / misc													
Containers	T	T	T	T									
Sample Date	08/02/2023 13:20	08/02/2023 13:30	08/02/2023 13:40	08/02/2023 13:50									
Sample Type	Soil	Soil	Soil	Soil									
Batch Number	1	1	1	1									
Date of Receipt	10/02/2023	10/02/2023	10/02/2023	10/02/2023									
Dissolved Arsenic #	5.2	6.5	6.0	4.1							<2.5	ug/l	TM170/PM14
Dissolved Cadmium #	<0.5	<0.5	<0.5	<0.5							<0.5	ug/l	TM170/PM14
Dissolved Chromium #	<1.5	<1.5	<1.5	<1.5							<1.5	ug/l	TM170/PM14
Dissolved Copper #	<7	<7	<7	<7							<7	ug/l	TM170/PM14
Dissolved Lead #	<5	<5	<5	<5							<5	ug/l	TM170/PM14
Dissolved Mercury #	<1	<1	<1	<1							<1	ug/l	TM170/PM14
Dissolved Nickel #	2	2	2	2							<2	ug/l	TM170/PM14
Dissolved Selenium #	<3	<3	<3	<3							<3	ug/l	TM170/PM14
Dissolved Zinc #	7	7	15	19							<3	ug/l	TM170/PM14
PAH MS													
Naphthalene	<0.1	<0.1	<0.1	<0.1							<0.1	ug/l	TM4/PM30
Acenaphthylene	0.607	0.660	0.870	0.481							<0.005	ug/l	TM4/PM30
Acenaphthene	1.364	2.359	6.484	2.237							<0.005	ug/l	TM4/PM30
Fluorene	0.763	1.870	1.327	0.238							<0.005	ug/l	TM4/PM30
Phenanthrene	0.860	1.483	0.781	<0.005							<0.005	ug/l	TM4/PM30
Anthracene	0.962	1.209	1.572	<0.005							<0.005	ug/l	TM4/PM30
Fluoranthene	5.037	4.788	9.165	<0.005							<0.005	ug/l	TM4/PM30
Pyrene	3.337	3.231	5.941	<0.005							<0.005	ug/l	TM4/PM30
Benzo(a)anthracene	1.065	1.091	1.974	1.194							<0.005	ug/l	TM4/PM30
Chrysene	1.750	1.579	3.309	1.772							<0.005	ug/l	TM4/PM30
Benzo(bk)fluoranthene	2.704	2.478	4.041	2.914							<0.008	ug/l	TM4/PM30
Benzo(a)pyrene	1.179	1.174	1.634	1.053							<0.005	ug/l	TM4/PM30
Indeno(123cd)pyrene	0.811	0.634	0.820	1.193							<0.005	ug/l	TM4/PM30
Dibenzo(ah)anthracene	0.160	0.117	0.157	0.232							<0.005	ug/l	TM4/PM30
Benzo(ghi)perylene	0.434	0.362	0.379	0.688							<0.005	ug/l	TM4/PM30
PAH 16 Total	21.033	23.035	38.454	12.002							<0.173	ug/l	TM4/PM30
Benzo(b)fluoranthene	1.947	1.784	2.910	2.098							<0.008	ug/l	TM4/PM30
Benzo(k)fluoranthene	0.757	0.694	1.131	0.816							<0.008	ug/l	TM4/PM30
PAH Surrogate % Recovery	83	77	83	82							<0	%	TM4/PM30
TPH CWG													
Aliphatics													
>C5-C6	<10	<10	<10	<10							<10	ug/l	TM36/PM69
>C6-C8	<10	<10	<10	<10							<10	ug/l	TM36/PM69
>C8-C10	<10	<10	<10	<10							<10	ug/l	TM36/PM69
>C10-C12	<5	<5	<5	<5							<5	ug/l	TM5/PM16/PM30
>C12-C16	<10	<10	<10	<10							<10	ug/l	TM5/PM16/PM30
>C16-C21	<10	<10	<10	<10							<10	ug/l	TM5/PM16/PM30
>C21-C35	<10	<10	<10	<10							<10	ug/l	TM5/PM16/PM30
Total aliphatics C5-35	<10	<10	<10	<10							<10	ug/l	TM5/TM36/PM16/PM30/PM69

Please see attached notes for all abbreviations and acronyms

Client Name: Englobe
Reference: C1856
Location: NG Salisbury
Contact: Tim Vickers
EMT Job No: 23/2030

Report : CEN 10:1 1 Batch

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

EMT Sample No.	25	26	27	28							LOD/LOR	Units	Method No.
Sample ID	AREA 2 RE-USE STK 1 LEACHATE	AREA 2 RE-USE STK 3 LEACHATE	AREA 2 RE-USE STK 5 LEACHATE	AREA 2 RE-USE STK 7 LEACHATE									
Depth													
COC No / misc													
Containers	T	T	T	T									
Sample Date	08/02/2023 13:20	08/02/2023 13:30	08/02/2023 13:40	08/02/2023 13:50									
Sample Type	Soil	Soil	Soil	Soil									
Batch Number	1	1	1	1									
Date of Receipt	10/02/2023	10/02/2023	10/02/2023	10/02/2023									
TPH CWG													
Aromatics													
>C5-EC7	<10	<10	<10	<10							<10	ug/l	TM36/PM69
>EC7-EC8	<10	<10	<10	<10							<10	ug/l	TM36/PM69
>EC8-EC10	<10	<10	<10	<10							<10	ug/l	TM36/PM69
>EC10-EC12	<5	<5	<5	<5							<5	ug/l	TM5/PM16/PM30
>EC12-EC16	<10	<10	<10	<10							<10	ug/l	TM5/PM16/PM30
>EC16-EC21	<10	<10	<10	<10							<10	ug/l	TM5/PM16/PM30
>EC21-EC35	<10	<10	<10	<10							<10	ug/l	TM5/PM16/PM30
Total aromatics C5-35	<10	<10	<10	<10							<10	ug/l	TM5/TM36/PM16/PM30/PM69
Total aliphatics and aromatics(C5-35)	<10	<10	<10	<10							<10	ug/l	TM5/TM36/PM16/PM30/PM69
MTBE	<5	<5	<5	<5							<5	ug/l	TM36/PM69
Benzene	<5	<5	<5	<5							<5	ug/l	TM36/PM69
Toluene	<5	<5	<5	<5							<5	ug/l	TM36/PM69
Ethylbenzene	<5	<5	<5	<5							<5	ug/l	TM36/PM69
m/p-Xylene	<5	<5	<5	<5							<5	ug/l	TM36/PM69
o-Xylene	<5	<5	<5	<5							<5	ug/l	TM36/PM69
Resorcinol	<0.01	<0.01	<0.01	<0.01							<0.01	mg/l	TM26/PM0
Catechol	<0.01	<0.01	<0.01	<0.01							<0.01	mg/l	TM26/PM0
Phenol	<0.01	<0.01	<0.01	<0.01							<0.01	mg/l	TM26/PM0
m/p-cresol	<0.02	<0.02	<0.02	<0.02							<0.02	mg/l	TM26/PM0
o-cresol	<0.01	<0.01	<0.01	<0.01							<0.01	mg/l	TM26/PM0
Total cresols	<0.03	<0.03	<0.03	<0.03							<0.03	mg/l	TM26/PM0
Xylenols	<0.06	<0.06	<0.06	<0.06							<0.06	mg/l	TM26/PM0
1-naphthol	<0.01	<0.01	<0.01	<0.01							<0.01	mg/l	TM26/PM0
2,3,5-trimethyl phenol	<0.01	<0.01	<0.01	<0.01							<0.01	mg/l	TM26/PM0
2-isopropylphenol	<0.01	<0.01	<0.01	<0.01							<0.01	mg/l	TM26/PM0
Total Speciated Phenols HPLC	<0.1	<0.1	<0.1	<0.1							<0.1	mg/l	TM26/PM0
Sulphate as SO4 #	28.5	81.3	64.4	95.5							<0.5	mg/l	TM38/PM0
Chloride #	0.5	1.5	1.0	0.9							<0.3	mg/l	TM38/PM0
Ammoniacal Nitrogen as NH4 #	4.93	6.03	4.20	4.05							<0.03	mg/l	TM38/PM0
Free Cyanide #	<0.01	<0.01	<0.01	<0.01							<0.01	mg/l	TM89/PM0
Total Cyanide #	0.13	0.18	0.10	0.10							<0.01	mg/l	TM89/PM0
Complex Cyanide	0.13	0.18	0.10	0.10							<0.01	mg/l	TM89/PM0
Sulphide	<0.01	<0.01	<0.01	<0.01							<0.01	mg/l	TM107/PM0
Dissolved Organic Carbon	6	18	10	9							<2	mg/l	TM60/PM0
Electrical Conductivity @25C	252	338	306	393							<2	uS/cm	TM76/PM0
pH	8.38	8.34	8.27	8.22							<0.01	pH units	TM73/PM0

Please see attached notes for all abbreviations and acronyms

Client Name: Englobe
Reference: C1856
Location: NG Salisbury
Contact: Tim Vickers

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.

Where trace asbestos is reported the amount of asbestos will be <0.1%.

EMT Job No.	Batch	Sample ID	Depth	EMT Sample No.	Analyst Name	Date Of Analysis	Analysis	Result
23/2030	1	AREA 2 RE-USE STK 1		3	Remigiusz Blichowski	17/02/2023	**General Description (Bulk Analysis)**	Black brown sand with roots
					Remigiusz Blichowski	17/02/2023	**Asbestos Fibres**	NAD
					Remigiusz Blichowski	17/02/2023	**Asbestos ACM**	NAD
					Remigiusz Blichowski	17/02/2023	**Asbestos Type**	NAD
23/2030	1	AREA 2 RE-USE STK 2		6	Remigiusz Blichowski	17/02/2023	**General Description (Bulk Analysis)**	Black brown sand with roots
					Remigiusz Blichowski	17/02/2023	**Asbestos Fibres**	NAD
					Remigiusz Blichowski	17/02/2023	**Asbestos ACM**	NAD
					Remigiusz Blichowski	17/02/2023	**Asbestos Type**	NAD
23/2030	1	AREA 2 RE-USE STK 3		9	Remigiusz Blichowski	17/02/2023	**General Description (Bulk Analysis)**	Black brown sand with roots
					Remigiusz Blichowski	17/02/2023	**Asbestos Fibres**	NAD
					Remigiusz Blichowski	17/02/2023	**Asbestos ACM**	NAD
					Remigiusz Blichowski	17/02/2023	**Asbestos Type**	NAD
23/2030	1	AREA 2 RE-USE STK 4		12	Remigiusz Blichowski	17/02/2023	**General Description (Bulk Analysis)**	Black brown sand
					Remigiusz Blichowski	17/02/2023	**Asbestos Fibres**	NAD
					Remigiusz Blichowski	17/02/2023	**Asbestos ACM**	NAD
					Remigiusz Blichowski	17/02/2023	**Asbestos Type**	NAD
23/2030	1	AREA 2 RE-USE STK 5		15	Catherine Coles	17/02/2023	**General Description (Bulk Analysis)**	loose brown soil
					Catherine Coles	17/02/2023	**Asbestos Fibres**	NAD
					Catherine Coles	17/02/2023	**Asbestos ACM**	NAD
					Catherine Coles	17/02/2023	**Asbestos Type**	NAD
23/2030	1	AREA 2 RE-USE STK 6		18	Catherine Coles	17/02/2023	**General Description (Bulk Analysis)**	loose brown soil
					Catherine Coles	17/02/2023	**Asbestos Fibres**	Fibre Bundles
					Catherine Coles	17/02/2023	**Asbestos ACM**	NAD
					Catherine Coles	17/02/2023	**Asbestos Type**	Chrysotile
					Matthew Turner	20/02/2023	**Total ACM Gravimetric Quantification (% Asb)**	<0.001 (mass %)
					Matthew Turner	20/02/2023	**Total Detailed Gravimetric Quantification (% Asb)**	0.006 (mass %)
					Matthew Turner	20/02/2023	**Total Gravimetric Quantification (ACM + Detailed) (% Asb)**	0.006 (mass %)
					Matthew Turner	23/02/2023	**Asbestos PCOM Quantification (Fibres)**	<0.001 (mass %)
					Matthew Turner	23/02/2023	**Asbestos Gravimetric & PCOM Total**	0.006 (mass %)
23/2030	1	AREA 2 RE-USE STK 7		21	Catherine Coles	17/02/2023	**General Description (Bulk Analysis)**	loose brown soil
					Catherine Coles	17/02/2023	**Asbestos Fibres**	Fibre Bundles
					Catherine Coles	17/02/2023	**Asbestos ACM**	NAD
					Catherine Coles	17/02/2023	**Asbestos Type**	Chrysotile

Client Name: Englobe
Reference: C1856
Location: NG Salisbury
Contact: Tim Vickers

EMT Job No.	Batch	Sample ID	Depth	EMT Sample No.	Analyst Name	Date Of Analysis	Analysis	Result
23/2030	1	AREA 2 RE-USE STK 7		21	Matthew Turner	20/02/2023	**Total ACM Gravimetric Quantification (% Asb)**	<0.001 (mass %)
					Matthew Turner	20/02/2023	**Total Detailed Gravimetric Quantification (% Asb)**	0.002 (mass %)
					Matthew Turner	20/02/2023	**Total Gravimetric Quantification (ACM + Detailed) (% Asb)**	0.002 (mass %)
					Matthew Turner	23/02/2023	**Asbestos PCOM Quantification (Fibres)**	0.001 (mass %)
					Matthew Turner	23/02/2023	**Asbestos Gravimetric & PCOM Total**	0.003 (mass %)
23/2030	1	AREA 2 RE-USE STK 7 DUPLICATE		24	Catherine Coles	17/02/2023	**General Description (Bulk Analysis)**	soil,stone
					Catherine Coles	17/02/2023	**Asbestos Fibres**	NAD
					Catherine Coles	17/02/2023	**Asbestos ACM**	NAD
					Catherine Coles	17/02/2023	**Asbestos Type**	NAD

Client Name: Englobe
Reference: C1856
Location: NG Salisbury
Contact: Tim Vickers

EMT Job No.	Batch	Sample ID	Depth	EMT Sample No.	Analysis	Reason
No deviating sample report results for job 23/2030						

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.

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

EMT Job No: 23/2030

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.	PM30	Water samples are extracted with solvent using a magnetic stirrer to create a vortex.			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.			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.	PM16/PM30	Fractionation into aliphatic and aromatic fractions using a Rapid Trace SPE/Water samples are extracted with solvent using a magnetic stirrer to create a vortex.			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	PM16/PM30/PM69	please refer to PM16/PM30 and PM69 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			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
TM16	Modified USEPA 8270D v5:2014. Quantitative determination of Semi-Volatile Organic compounds (SVOCs) by GC-MS.	PM8	End over end extraction of solid samples for organic analysis. The solvent mix varies depending on analysis required.			AR	Yes

EMT Job No: 23/2030

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
TM16	Modified USEPA 8270D v5:2014. Quantitative determination of Semi-Volatile Organic compounds (SVOCs) 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
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	Preparation of Soil and Marine Sediment Samples for Total Organic Carbon.	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
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
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.	PM69	One part soil is mixed with 10 parts water in a vial leaving no headspace. The mixture is shaken and then left to leach for 24 hours before VOC analysis.			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
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.			AR	Yes

EMT Job No: 23/2030

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
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.	Yes		AD	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.	PM0	No preparation is required.			AR	Yes
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
TM76	Modified US EPA method 120.1 (1982). Determination of Specific Conductance by Metrohm automated probe analyser.	PM0	No preparation is required.			AR	Yes
TM76	Modified US EPA method 120.1 (1982). Determination of Specific Conductance by Metrohm automated probe analyser.	PM58	Dried and ground solid samples are extracted with water in a 5:1 water to solid ratio, the samples are shaken on an orbital shaker.			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.	PM0	No preparation is required.			AR	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.	PM0	No preparation is required.	Yes		AR	Yes

EMT Job No: 23/2030

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
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.			AR	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
TM107	Determination of Sulphide/Thiocyanate by Skalar Continuous Flow Analyser	PM0	No preparation is required.			AR	Yes
TM107	Determination of Sulphide/Thiocyanate by Skalar Continuous Flow Analyser	PM45	As received solid samples are extracted with 1M NaOH by orbital shaker for Cyanide, Sulphide and Thiocyanate analysis.			AR	Yes
TM131	Quantification of Asbestos Fibres and ACM based on HSG 248 Second edition:2021, HSG 264 Second edition:2012, HSE Contract Research Report No.83/1996, MDHS 87:1998, WM3 1st Edition v1.1:2018	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	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	Yes		AR	Yes
NONE	No Method Code	PM17	Modified method BS EN12457-2:2002 As received solid samples are leached with water in a 10:1 water to soil ratio for 24 hours, the moisture content of the sample is included in the ratio.				
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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Englobe
Columbus House
Greenmeadow Springs
Tongwynlais
Cardiff
CF15 7NE

Attention :	Tim Vickers
Date :	20th February, 2023
Your reference :	C1856
Our reference :	Test Report 23/2116 Batch 1
Location :	NG Salisbury
Date samples received :	11th February, 2023
Status :	Final Report
Issue :	1

Five samples were received for analysis on 11th February, 2023 of which five 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

Client Name: Englobe
Reference: C1856
Location: NG Salisbury
Contact: Tim Vickers
EMT Job No: 23/2116

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						LOD/LOR	Units	Method No.
Sample ID	GH2 SIDE VALIDATION - 1	GH2 SIDE VALIDATION - 2	GH2 SIDE VALIDATION - 3	GH2 SIDE VALIDATION - 4	GH2 SIDE VALIDATION - 5								
Depth	0.00-2.10	0.00-2.10	0.00-2.10	0.00-2.10	0.00-2.10								
COC No / misc													
Containers	V J T	V J T	V J T	V J T	V J T								
Sample Date	09/02/2023 15:00	09/02/2023 15:10	09/02/2023 15:20	09/02/2023 15:30	09/02/2023 15:40								
Sample Type	Soil	Soil	Soil	Soil	Soil								
Batch Number	1	1	1	1	1								
Date of Receipt	11/02/2023	11/02/2023	11/02/2023	11/02/2023	11/02/2023								
Arsenic #	4.2	5.5	3.8	8.2	6.3						<0.5	mg/kg	TM30/PM15
Cadmium #	0.1	<0.1	<0.1	<0.1	<0.1						<0.1	mg/kg	TM30/PM15
Chromium #	36.8	41.3	33.6	57.7	39.5						<0.5	mg/kg	TM30/PM15
Copper #	5	6	6	16	7						<1	mg/kg	TM30/PM15
Lead #	45	62	35	28	78						<5	mg/kg	TM30/PM15
Mercury #	<0.1	0.1	<0.1	<0.1	<0.1						<0.1	mg/kg	TM30/PM15
Nickel #	11.7	11.7	11.0	12.0	12.7						<0.7	mg/kg	TM30/PM15
Selenium #	<1	<1	<1	<1	<1						<1	mg/kg	TM30/PM15
Total Sulphate as SO4 #	468	361	426	402	414						<50	mg/kg	TM50/PM29
Water Soluble Boron #	0.9	0.8	0.9	0.5	0.5						<0.1	mg/kg	TM74/PM32
Zinc #	87	46	34	32	38						<5	mg/kg	TM30/PM15
PAH MS													
Naphthalene #	0.49	0.25	1.12	1.83	0.51						<0.04	mg/kg	TM4/PM8
Acenaphthylene	<0.03	<0.03	0.05	<0.03	<0.03						<0.03	mg/kg	TM4/PM8
Acenaphthene #	<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	mg/kg	TM4/PM8
Phenanthrene #	0.05	0.13	0.07	0.21	0.08						<0.03	mg/kg	TM4/PM8
Anthracene #	<0.04	<0.04	0.17	0.09	<0.04						<0.04	mg/kg	TM4/PM8
Fluoranthene #	0.05	0.23	0.26	0.28	0.13						<0.03	mg/kg	TM4/PM8
Pyrene #	0.04	0.19	0.24	0.21	0.11						<0.03	mg/kg	TM4/PM8
Benzo(a)anthracene #	0.10	0.25	0.50	0.26	0.12						<0.06	mg/kg	TM4/PM8
Chrysene #	0.04	0.18	0.47	0.21	0.08						<0.02	mg/kg	TM4/PM8
Benzo(bk)fluoranthene #	0.12	0.24	0.84	0.50	0.19						<0.07	mg/kg	TM4/PM8
Benzo(a)pyrene #	<0.04	0.14	0.43	0.27	0.11						<0.04	mg/kg	TM4/PM8
Indeno(123cd)pyrene #	0.06	0.08	0.31	0.25	0.08						<0.04	mg/kg	TM4/PM8
Dibenzo(ah)anthracene #	<0.04	<0.04	0.10	0.05	<0.04						<0.04	mg/kg	TM4/PM8
Benzo(ghi)perylene #	<0.04	0.06	0.25	0.20	0.07						<0.04	mg/kg	TM4/PM8
PAH 16 Total	1.0	1.8	4.8	4.4	1.5						<0.6	mg/kg	TM4/PM8
Benzo(b)fluoranthene	0.09	0.17	0.60	0.36	0.14						<0.05	mg/kg	TM4/PM8
Benzo(k)fluoranthene	0.03	0.07	0.24	0.14	0.05						<0.02	mg/kg	TM4/PM8
PAH Surrogate % Recovery	88	96	87	92	93						<0	%	TM4/PM8
TPH CWG													
Aliphatics													
>C5-C6 #	<0.1	<0.1	<0.1	<0.1	<0.1						<0.1	mg/kg	TM36/PM12
>C6-C8 #	<0.1	<0.1	<0.1	<0.1	<0.1						<0.1	mg/kg	TM36/PM12
>C8-C10	<0.1	0.1	<0.1	0.2	<0.1						<0.1	mg/kg	TM36/PM12
>C10-C12 #	<0.2	<0.2	<0.2	<0.2	<0.2						<0.2	mg/kg	TM5/PM8/PM16
>C12-C16 #	<4	<4	<4	<4	<4						<4	mg/kg	TM5/PM8/PM16
>C16-C21 #	<7	<7	<7	<7	<7						<7	mg/kg	TM5/PM8/PM16
>C21-C35 #	<7	<7	<7	<7	<7						<7	mg/kg	TM5/PM8/PM16
Total aliphatics C5-35	<19	<19	<19	<19	<19						<19	mg/kg	TM5/TM36/PM8/PM12/PM16

Please see attached notes for all abbreviations and acronyms

Client Name: Englobe
Reference: C1856
Location: NG Salisbury
Contact: Tim Vickers
EMT Job No: 23/2116

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						LOD/LOR	Units	Method No.
Sample ID	GH2 SIDE VALIDATION - 1	GH2 SIDE VALIDATION - 2	GH2 SIDE VALIDATION - 3	GH2 SIDE VALIDATION - 4	GH2 SIDE VALIDATION - 5								
Depth	0.00-2.10	0.00-2.10	0.00-2.10	0.00-2.10	0.00-2.10								
COC No / misc													
Containers	V J T	V J T	V J T	V J T	V J T								
Sample Date	09/02/2023 15:00	09/02/2023 15:10	09/02/2023 15:20	09/02/2023 15:30	09/02/2023 15:40								
Sample Type	Soil	Soil	Soil	Soil	Soil								
Batch Number	1	1	1	1	1								
Date of Receipt	11/02/2023	11/02/2023	11/02/2023	11/02/2023	11/02/2023								
TPH CWG													
Aromatics													
>C5-EC7 #	<0.1	<0.1	<0.1	0.2	<0.1						<0.1	mg/kg	TM36/PM12
>EC7-EC8 #	<0.1	<0.1	<0.1	<0.1	<0.1						<0.1	mg/kg	TM36/PM12
>EC8-EC10 #	<0.1	<0.1	<0.1	0.2	<0.1						<0.1	mg/kg	TM36/PM12
>EC10-EC12 #	<0.2	<0.2	<0.2	<0.2	<0.2						<0.2	mg/kg	TM5/PM8/PM16
>EC12-EC16 #	<4	<4	<4	<4	<4						<4	mg/kg	TM5/PM8/PM16
>EC16-EC21 #	<7	<7	<7	<7	<7						<7	mg/kg	TM5/PM8/PM16
>EC21-EC35 #	<7	<7	<7	<7	<7						<7	mg/kg	TM5/PM8/PM16
Total aromatics C5-35 #	<19	<19	<19	<19	<19						<19	mg/kg	TM5/TM36/PM8/PM12/PM16
Total aliphatics and aromatics(C5-35)	<38	<38	<38	<38	<38						<38	mg/kg	TM5/TM36/PM8/PM12/PM16
MTBE #	<5	<5	<5	<5	<5						<5	ug/kg	TM36/PM12
Benzene #	43	91	43	213	31						<5	ug/kg	TM36/PM12
Toluene #	<5	9	<5	19	<5						<5	ug/kg	TM36/PM12
Ethylbenzene #	<5	23	10	49	7						<5	ug/kg	TM36/PM12
m/p-Xylene #	<5	57	23	115	18						<5	ug/kg	TM36/PM12
o-Xylene #	<5	35	17	70	14						<5	ug/kg	TM36/PM12
2-Chlorophenol #	<10	<10	<10	<10	<10						<10	ug/kg	TM16/PM8
Natural Moisture Content	22.7	26.6	19.4	17.0	19.5						<0.1	%	PM4/PM0
2-Methylphenol	<10	<10	<10	<10	<10						<10	ug/kg	TM16/PM8
2-Nitrophenol	<10	<10	<10	<10	<10						<10	ug/kg	TM16/PM8
2,4-Dichlorophenol #	<10	<10	<10	<10	<10						<10	ug/kg	TM16/PM8
2,4-Dimethylphenol	137	289	96	266	159						<10	ug/kg	TM16/PM8
2,4,5-Trichlorophenol	<10	<10	<10	<10	<10						<10	ug/kg	TM16/PM8
2,4,6-Trichlorophenol	<10	<10	<10	<10	<10						<10	ug/kg	TM16/PM8
4-Chloro-3-methylphenol	<10	<10	<10	<10	<10						<10	ug/kg	TM16/PM8
4-Methylphenol	<10	<10	<10	<10	<10						<10	ug/kg	TM16/PM8
4-Nitrophenol	<10	<10	<10	<10	<10						<10	ug/kg	TM16/PM8
Pentachlorophenol	<10	<10	<10	<10	<10						<10	ug/kg	TM16/PM8
Phenol #	<10	<10	<10	<10	<10						<10	ug/kg	TM16/PM8
Total Speciated Phenols MS	137	289	96	266	159						<10	ug/kg	TM16/PM8
Ammoniacal Nitrogen as NH4	16.7	21.0	17.4	28.3	13.7						<0.6	mg/kg	TM38/PM20
Chloride #	19	20	20	14	17						<2	mg/kg	TM38/PM20
Free Cyanide	<0.5	<0.5	<0.5	<0.5	<0.5						<0.5	mg/kg	TM89/PM45
Total Cyanide #	18.4	14.8	19.1	24.5	41.1						<0.5	mg/kg	TM89/PM45
Complex Cyanide	20.9	29.5	9.2	14.5	24.5						<0.5	mg/kg	TM89/PM45
Total Organic Carbon #	0.83	0.88	1.05	1.02	0.95						<0.02	%	TM21/PM24

Please see attached notes for all abbreviations and acronyms

Element Materials Technology

Client Name: Englobe
Reference: C1856
Location: NG Salisbury
Contact: Tim Vickers
EMT Job No: 23/2116

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							
Sample ID	GH2 SIDE VALIDATION - 1	GH2 SIDE VALIDATION - 2	GH2 SIDE VALIDATION - 3	GH2 SIDE VALIDATION - 4	GH2 SIDE VALIDATION - 5							
Depth	0.00-2.10	0.00-2.10	0.00-2.10	0.00-2.10	0.00-2.10							
COC No / misc												
Containers	V J T	V J T	V J T	V J T	V J T							
Sample Date	09/02/2023 15:00	09/02/2023 15:10	09/02/2023 15:20	09/02/2023 15:30	09/02/2023 15:40							
Sample Type	Soil	Soil	Soil	Soil	Soil							
Batch Number	1	1	1	1	1							
Date of Receipt	11/02/2023	11/02/2023	11/02/2023	11/02/2023	11/02/2023							
Sulphide	<10	<10	<10	<10	<10						<10	mg/kg	TM107/PM45
Electrical Conductivity @25C (5:1 ext)	179	195	181	158	176						<100	uS/cm	TM76/PM58
pH #	8.25	8.00	8.07	8.33	8.09						<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.

Client Name: Englobe
Reference: C1856
Location: NG Salisbury
Contact: Tim Vickers

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.

Where trace asbestos is reported the amount of asbestos will be <0.1%.

EMT Job No.	Batch	Sample ID	Depth	EMT Sample No.	Analyst Name	Date Of Analysis	Analysis	Result
23/2116	1	GH2 SIDE VALIDATION - 1	0.00-2.10	3	Anthony Carman	20/02/2023	**General Description (Bulk Analysis)**	Brown Soil/Stones
					Anthony Carman	20/02/2023	**Asbestos Fibres**	NAD
					Anthony Carman	20/02/2023	**Asbestos ACM**	NAD
					Anthony Carman	20/02/2023	**Asbestos Type**	NAD
23/2116	1	GH2 SIDE VALIDATION - 2	0.00-2.10	6	Anthony Carman	20/02/2023	**General Description (Bulk Analysis)**	Brown Soil/Stones
					Anthony Carman	20/02/2023	**Asbestos Fibres**	NAD
					Anthony Carman	20/02/2023	**Asbestos ACM**	NAD
					Anthony Carman	20/02/2023	**Asbestos Type**	NAD
23/2116	1	GH2 SIDE VALIDATION - 3	0.00-2.10	9	Catherine Coles	20/02/2023	**General Description (Bulk Analysis)**	soil,stone
					Catherine Coles	20/02/2023	**Asbestos Fibres**	NAD
					Catherine Coles	20/02/2023	**Asbestos ACM**	NAD
					Catherine Coles	20/02/2023	**Asbestos Type**	NAD
23/2116	1	GH2 SIDE VALIDATION - 4	0.00-2.10	12	Catherine Coles	20/02/2023	**General Description (Bulk Analysis)**	soil,stone
					Catherine Coles	20/02/2023	**Asbestos Fibres**	NAD
					Catherine Coles	20/02/2023	**Asbestos ACM**	NAD
					Catherine Coles	20/02/2023	**Asbestos Type**	NAD
23/2116	1	GH2 SIDE VALIDATION - 5	0.00-2.10	15	Catherine Coles	20/02/2023	**General Description (Bulk Analysis)**	soil,stone
					Catherine Coles	20/02/2023	**Asbestos Fibres**	NAD
					Catherine Coles	20/02/2023	**Asbestos ACM**	NAD
					Catherine Coles	20/02/2023	**Asbestos Type**	NAD

Client Name: Englobe
Reference: C1856
Location: NG Salisbury
Contact: Tim Vickers

EMT Job No.	Batch	Sample ID	Depth	EMT Sample No.	Analysis	Reason
No deviating sample report results for job 23/2116						

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.

Please include all sections of this report if it is reproduced

NOTES TO ACCOMPANY ALL SCHEDULES AND REPORTS

EMT Job No.: 23/2116

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

EMT Job No: 23/2116

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/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
TM16	Modified USEPA 8270D v5:2014. Quantitative determination of Semi-Volatile Organic compounds (SVOCs) by GC-MS.	PM8	End over end extraction of solid samples for organic analysis. The solvent mix varies depending on analysis required.			AR	Yes
TM16	Modified USEPA 8270D v5:2014. Quantitative determination of Semi-Volatile Organic compounds (SVOCs) 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
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	Preparation of Soil and Marine Sediment Samples for Total Organic Carbon.	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	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

EMT Job No: 23/2116

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
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.	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.			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.	Yes		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	
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
TM76	Modified US EPA method 120.1 (1982). Determination of Specific Conductance by Metrohm automated probe analyser.	PM58	Dried and ground solid samples are extracted with water in a 5:1 water to solid ratio, the samples are shaken on an orbital shaker.			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.			AR	Yes

EMT Job No: 23/2116

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
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
TM107	Determination of Sulphide/Thiocyanate by Skalar Continuous Flow Analyser	PM45	As received solid samples are extracted with 1M NaOH by orbital shaker for Cyanide, Sulphide and Thiocyanate analysis.			AR	Yes

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Englobe
Columbus House
Greenmeadow Springs
Tongwynlais
Cardiff
CF15 7NE

Attention :	Tim Vickers
Date :	23rd February, 2023
Your reference :	C1856
Our reference :	Test Report 23/2330 Batch 1
Location :	NG Salisbury
Date samples received :	15th February, 2023
Status :	Final Report
Issue :	1

One sample was received for analysis on 15th February, 2023 and was 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

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

Element Materials Technology

Client Name: Englobe
Reference: C1856
Location: NG Salisbury
Contact: Tim Vickers
EMT Job No: 23/2330

Report : Solid

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

EMT Sample No.	1-3												
Sample ID	Area 1-STKB-1												
Depth													
COC No / misc													
Containers	V J B												
Sample Date	13/02/2023												
Sample Type	Soil												
Batch Number	1												
Date of Receipt	15/02/2023												

Please see attached notes for all abbreviations and acronyms

											LOD/LOR	Units	Method No.
Arsenic #	27.7										<0.5	mg/kg	TM30/PM15
Cadmium #	0.3										<0.1	mg/kg	TM30/PM15
Chromium #	69.0										<0.5	mg/kg	TM30/PM15
Copper #	93										<1	mg/kg	TM30/PM15
Lead #	556										<5	mg/kg	TM30/PM15
Mercury #	4.1										<0.1	mg/kg	TM30/PM15
Nickel #	9.4										<0.7	mg/kg	TM30/PM15
Selenium #	2										<1	mg/kg	TM30/PM15
Sulphur as S	1.15										<0.01	%	TM30/PM15
Total Sulphate as SO4 #	33600 AA										<50	mg/kg	TM50/PM29
Water Soluble Boron #	0.6										<0.1	mg/kg	TM74/PM32
Zinc #	316										<5	mg/kg	TM30/PM15
PAH MS													
Naphthalene #	29.14 AB										<0.04	mg/kg	TM4/PM8
Acenaphthylene	44.42 AB										<0.03	mg/kg	TM4/PM8
Acenaphthene #	4.69 AB										<0.05	mg/kg	TM4/PM8
Fluorene #	22.00 AB										<0.04	mg/kg	TM4/PM8
Phenanthrene #	260.86 AB										<0.03	mg/kg	TM4/PM8
Anthracene #	98.35 AB										<0.04	mg/kg	TM4/PM8
Fluoranthene #	370.07 AB										<0.03	mg/kg	TM4/PM8
Pyrene #	296.19 AB										<0.03	mg/kg	TM4/PM8
Benzo(a)anthracene #	169.82 AB										<0.06	mg/kg	TM4/PM8
Chrysene #	164.67 AB										<0.02	mg/kg	TM4/PM8
Benzo(bk)fluoranthene #	313.85 AB										<0.07	mg/kg	TM4/PM8
Benzo(a)pyrene #	158.90 AB										<0.04	mg/kg	TM4/PM8
Indeno(123cd)pyrene #	147.50 AB										<0.04	mg/kg	TM4/PM8
Dibenzo(ah)anthracene #	32.47 AB										<0.04	mg/kg	TM4/PM8
Benzo(ghi)perylene #	121.33 AB										<0.04	mg/kg	TM4/PM8
PAH 16 Total	2234.3 AB										<0.6	mg/kg	TM4/PM8
Benzo(b)fluoranthene	225.97 AB										<0.05	mg/kg	TM4/PM8
Benzo(k)fluoranthene	87.88 AB										<0.02	mg/kg	TM4/PM8
PAH Surrogate % Recovery	109 AB										<0	%	TM4/PM8

Element Materials Technology

Client Name: Englobe
Reference: C1856
Location: NG Salisbury
Contact: Tim Vickers
EMT Job No: 23/2330

Report : Solid

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

EMT Sample No.	1-3												
Sample ID	Area 1-STKB-1												
Depth													
COC No / misc													
Containers	V J B												
Sample Date	13/02/2023												
Sample Type	Soil												
Batch Number	1												
Date of Receipt	15/02/2023												

Please see attached notes for all abbreviations and acronyms

											LOD/LOR	Units	Method No.
TPH CWG													
Aliphatics													
>C5-C6 #	<0.1 SV										<0.1	mg/kg	TM36/PM12
>C6-C8 #	<0.1 SV										<0.1	mg/kg	TM36/PM12
>C8-C10	<0.1 SV										<0.1	mg/kg	TM36/PM12
>C10-C12 #	<0.2										<0.2	mg/kg	TM5/PM8/PM16
>C12-C16 #	<4										<4	mg/kg	TM5/PM8/PM16
>C16-C21 #	25										<7	mg/kg	TM5/PM8/PM16
>C21-C35 #	163										<7	mg/kg	TM5/PM8/PM16
Total aliphatics C5-35	188										<19	mg/kg	TM5/TM36/PM8/PM12/PM16
Aromatics													
>C5-EC7 #	<0.1 SV										<0.1	mg/kg	TM36/PM12
>EC7-EC8 #	<0.1 SV										<0.1	mg/kg	TM36/PM12
>EC8-EC10 #	<0.1 SV										<0.1	mg/kg	TM36/PM12
>EC10-EC12 #	7.0										<0.2	mg/kg	TM5/PM8/PM16
>EC12-EC16 #	26										<4	mg/kg	TM5/PM8/PM16
>EC16-EC21 #	341										<7	mg/kg	TM5/PM8/PM16
>EC21-EC35 #	1285										<7	mg/kg	TM5/PM8/PM16
Total aromatics C5-35 #	1659										<19	mg/kg	TM5/TM36/PM8/PM12/PM16
Total aliphatics and aromatics(C5-35)	1847										<38	mg/kg	TM5/TM36/PM8/PM12/PM16
MTBE #	<5 SV										<5	ug/kg	TM36/PM12
Benzene #	17 SV										<5	ug/kg	TM36/PM12
Toluene #	12 SV										<5	ug/kg	TM36/PM12
Ethylbenzene #	<5 SV										<5	ug/kg	TM36/PM12
m/p-Xylene #	7 SV										<5	ug/kg	TM36/PM12
o-Xylene #	17 SV										<5	ug/kg	TM36/PM12
Natural Moisture Content	18.8										<0.1	%	PM4/PM0
Free Cyanide	1.2										<0.5	mg/kg	TM89/PM45
Total Cyanide #	83.3										<0.5	mg/kg	TM89/PM45
Complex Cyanide	82.1										<0.5	mg/kg	TM89/PM45
Sulphide	<10										<10	mg/kg	TM107/PM45
Thiocyanate	1.0										<0.6	mg/kg	TM107/PM45
pH #	7.37										<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.

Client Name: Englobe
Reference: C1856
Location: NG Salisbury
Contact: Tim Vickers

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.

Where trace asbestos is reported the amount of asbestos will be <0.1%.

EMT Job No.	Batch	Sample ID	Depth	EMT Sample No.	Analyst Name	Date Of Analysis	Analysis	Result
23/2330	1	Area 1-STKB-1		3	Simon Postlewhite	23/02/2023	**General Description (Bulk Analysis)**	Brown soil/stones
					Simon Postlewhite	23/02/2023	**Asbestos Fibres**	NAD
					Simon Postlewhite	23/02/2023	**Asbestos ACM**	NAD
					Simon Postlewhite	23/02/2023	**Asbestos Type**	NAD

Client Name: Englobe
Reference: C1856
Location: NG Salisbury
Contact: Tim Vickers

EMT Job No.	Batch	Sample ID	Depth	EMT Sample No.	Analysis	Reason
No deviating sample report results for job 23/2330						

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.: 23/2330

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
AB	x20 Dilution

EMT Job No: 23/2330

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/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
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
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

EMT Job No: 23/2330

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
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.	Yes		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	
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.			AR	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
TM107	Determination of Sulphide/Thiocyanate by Skalar Continuous Flow Analyser	PM45	As received solid samples are extracted with 1M NaOH by orbital shaker for Cyanide, Sulphide and Thiocyanate analysis.			AR	Yes

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Englobe
Columbus House
Greenmeadow Springs
Tongwynlais
Cardiff
CF15 7NE

Attention :	Tim Vickers
Date :	24th February, 2023
Your reference :	C1856
Our reference :	Test Report 23/2332 Batch 1
Location :	NG Salisbury
Date samples received :	15th February, 2023
Status :	Final Report
Issue :	1

Eight samples were received for analysis on 15th February, 2023 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:

Liza Klebe
Project Co-ordinator

Please include all sections of this report if it is reproduced

Client Name: Englobe
Reference: C1856
Location: NG Salisbury
Contact: Tim Vickers
EMT Job No: 23/2332

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						LOD/LOR	Units	Method No.
Sample ID	GH2 Reuse STK-1	GH2 Reuse STK-2	GH2 Reuse STK-3	GH2 Reuse STK-4	GH2 Reuse STK-5								
Depth													
COC No / misc													
Containers	V J B	V J B	V J B	V J B	V J B								
Sample Date	13/02/2023	13/02/2023	13/02/2023	13/02/2023	13/02/2023								
Sample Type	Soil	Soil	Soil	Soil	Soil								
Batch Number	1	1	1	1	1								
Date of Receipt	15/02/2023	15/02/2023	15/02/2023	15/02/2023	15/02/2023								
Arsenic #	12.0	12.6	16.6	15.3	12.8						<0.5	mg/kg	TM30/PM15
Cadmium #	0.5	0.6	0.8	0.8	0.6						<0.1	mg/kg	TM30/PM15
Chromium #	70.2	49.3	84.8	61.9	56.0						<0.5	mg/kg	TM30/PM15
Copper #	39	59	99	44	36						<1	mg/kg	TM30/PM15
Lead #	476	440	465	588	266						<5	mg/kg	TM30/PM15
Mercury #	0.6	0.4	1.3	0.9	0.6						<0.1	mg/kg	TM30/PM15
Nickel #	17.8	17.7	16.9	18.7	17.4						<0.7	mg/kg	TM30/PM15
Selenium #	<1	<1	<1	1	<1						<1	mg/kg	TM30/PM15
Total Sulphate as SO4 #	4658	4351	4387	4018	1843						<50	mg/kg	TM50/PM29
Water Soluble Boron #	2.5	2.4	2.2	2.6	2.5						<0.1	mg/kg	TM74/PM32
Zinc #	381	354	430	467	391						<5	mg/kg	TM30/PM15
PAH MS													
Naphthalene #	1.98	13.88	52.27 AA	48.65	4.65						<0.04	mg/kg	TM4/PM8
Acenaphthylene	0.65	2.25	6.57 AA	5.33	0.91						<0.03	mg/kg	TM4/PM8
Acenaphthene #	0.68	1.59	2.88 AA	2.04	1.02						<0.05	mg/kg	TM4/PM8
Fluorene #	1.06	3.19	6.19 AA	6.30	1.65						<0.04	mg/kg	TM4/PM8
Phenanthrene #	5.92	14.70	39.30 AA	23.04	7.59						<0.03	mg/kg	TM4/PM8
Anthracene #	2.46	5.11	14.71 AA	8.29	2.65						<0.04	mg/kg	TM4/PM8
Fluoranthene #	9.45	17.33	59.86 AA	21.37	11.30						<0.03	mg/kg	TM4/PM8
Pyrene #	7.25	13.45	50.04 AA	17.88	9.19						<0.03	mg/kg	TM4/PM8
Benzo(a)anthracene #	4.94	9.24	35.93 AA	11.13	5.21						<0.06	mg/kg	TM4/PM8
Chrysene #	4.20	8.27	31.00 AA	9.08	5.68						<0.02	mg/kg	TM4/PM8
Benzo(bk)fluoranthene #	7.83	14.97	54.43 AA	18.08	11.78						<0.07	mg/kg	TM4/PM8
Benzo(a)pyrene #	4.25	7.54	28.45 AA	9.88	6.63						<0.04	mg/kg	TM4/PM8
Indeno(123cd)pyrene #	3.90	6.46	23.30 AA	8.30	6.03						<0.04	mg/kg	TM4/PM8
Dibenzo(ah)anthracene #	0.73	1.10	4.70 AA	1.61	1.33						<0.04	mg/kg	TM4/PM8
Benzo(ghi)perylene #	3.22	4.64	20.47 AA	7.21	4.90						<0.04	mg/kg	TM4/PM8
PAH 16 Total	58.5	123.7	430.1 AA	198.2	80.5						<0.6	mg/kg	TM4/PM8
Benzo(b)fluoranthene	5.64	10.78	39.19 AA	13.02	8.48						<0.05	mg/kg	TM4/PM8
Benzo(k)fluoranthene	2.19	4.19	15.24 AA	5.06	3.30						<0.02	mg/kg	TM4/PM8
PAH Surrogate % Recovery	77	84	91 AA	81	87						<0	%	TM4/PM8
TPH CWG													
Aliphatics													
>C5-C6 #	<0.1	<0.1	<0.1	<0.1	<0.1						<0.1	mg/kg	TM36/PM12
>C6-C8 #	<0.1	<0.1	0.1	0.1	<0.1						<0.1	mg/kg	TM36/PM12
>C8-C10	<0.1	0.1	0.8	1.2	0.2						<0.1	mg/kg	TM36/PM12
>C10-C12 #	<0.2	<0.2	4.1	2.1	<0.2						<0.2	mg/kg	TM5/PM8/PM16
>C12-C16 #	<4	13	43	31	11						<4	mg/kg	TM5/PM8/PM16
>C16-C21 #	<7	61	92	52	35						<7	mg/kg	TM5/PM8/PM16
>C21-C35 #	<7	225	271	123	71						<7	mg/kg	TM5/PM8/PM16
Total aliphatics C5-35	<19	299	411	209	117						<19	mg/kg	TM5/TM36/PM8/PM12/PM16

Please see attached notes for all abbreviations and acronyms

Client Name: Englobe
Reference: C1856
Location: NG Salisbury
Contact: Tim Vickers
EMT Job No: 23/2332

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						LOD/LOR	Units	Method No.
Sample ID	GH2 Reuse STK-1	GH2 Reuse STK-2	GH2 Reuse STK-3	GH2 Reuse STK-4	GH2 Reuse STK-5								
Depth													
COC No / misc													
Containers	V J B	V J B	V J B	V J B	V J B								
Sample Date	13/02/2023	13/02/2023	13/02/2023	13/02/2023	13/02/2023								
Sample Type	Soil	Soil	Soil	Soil	Soil								
Batch Number	1	1	1	1	1								
Date of Receipt	15/02/2023	15/02/2023	15/02/2023	15/02/2023	15/02/2023								
TPH CWG													
Aromatics													
>C5-EC7 #	<0.1	<0.1	<0.1	<0.1	0.1						<0.1	mg/kg	TM36/PM12
>EC7-EC8 #	<0.1	<0.1	0.1	<0.1	<0.1						<0.1	mg/kg	TM36/PM12
>EC8-EC10 #	<0.1	<0.1	0.7	0.6	0.2						<0.1	mg/kg	TM36/PM12
>EC10-EC12 #	3.7	16.9	41.0	26.2	6.4						<0.2	mg/kg	TM5/PM8/PM16
>EC12-EC16 #	14	45	126	92	32						<4	mg/kg	TM5/PM8/PM16
>EC16-EC21 #	61	279	631	399	165						<7	mg/kg	TM5/PM8/PM16
>EC21-EC35 #	364	823	1513	866	487						<7	mg/kg	TM5/PM8/PM16
Total aromatics C5-35 #	443	1164	2312	1384	691						<19	mg/kg	TM5/TM36/PM8/PM12/PM16
Total aliphatics and aromatics(C5-35)	443	1463	2723	1593	808						<38	mg/kg	TM5/TM36/PM8/PM12/PM16
MTBE #	<5	<5	<5	<5	<5						<5	ug/kg	TM36/PM12
Benzene #	26	34	113	87	140						<5	ug/kg	TM36/PM12
Toluene #	11	19	145	106	61						<5	ug/kg	TM36/PM12
Ethylbenzene #	27	28	80	77	30						<5	ug/kg	TM36/PM12
m/p-Xylene #	26	34	386	396	109						<5	ug/kg	TM36/PM12
o-Xylene #	28	35	203	189	81						<5	ug/kg	TM36/PM12
2-Chlorophenol #	<10	<10	<10	<10	<10						<10	ug/kg	TM16/PM8
Natural Moisture Content	22.9	25.5	19.2	23.0	24.0						<0.1	%	PM4/PM0
2-Methylphenol	<10	<10	178	323	<10						<10	ug/kg	TM16/PM8
2-Nitrophenol	<10	<10	<10	<10	<10						<10	ug/kg	TM16/PM8
2,4-Dichlorophenol #	<10	<10	<10	<10	<10						<10	ug/kg	TM16/PM8
2,4-Dimethylphenol	<10	93	362	752	175						<10	ug/kg	TM16/PM8
2,4,5-Trichlorophenol	<10	<10	<10	<10	<10						<10	ug/kg	TM16/PM8
2,4,6-Trichlorophenol	<10	<10	<10	<10	<10						<10	ug/kg	TM16/PM8
4-Chloro-3-methylphenol	<10	<10	<10	<10	<10						<10	ug/kg	TM16/PM8
4-Methylphenol	<10	<10	309	428	<10						<10	ug/kg	TM16/PM8
4-Nitrophenol	<10	<10	<10	<10	<10						<10	ug/kg	TM16/PM8
Pentachlorophenol	<10	<10	<10	<10	<10						<10	ug/kg	TM16/PM8
Phenol #	<10	<10	247	230	<10						<10	ug/kg	TM16/PM8
Total Speciated Phenols MS	<10	93	1096	1733	175						<10	ug/kg	TM16/PM8
Ammoniacal Nitrogen as NH4	46.9	66.4	58.1	63.5	72.0						<0.6	mg/kg	TM38/PM20
Chloride #	40	46	118	128	80						<2	mg/kg	TM38/PM20
Free Cyanide	6.4	0.8	1.9	1.6	1.0						<0.5	mg/kg	TM89/PM45
Total Cyanide #	1940.3 AD	<50.0 AC	156.9 AC	105.3 AB	53.3 AA						<0.5	mg/kg	TM89/PM45
Complex Cyanide	1933.9	48.1	155.0	103.7	52.3						<0.5	mg/kg	TM89/PM45
Total Organic Carbon #	5.22	5.36	5.23	4.83	5.07						<0.02	%	TM21/PM24

Please see attached notes for all abbreviations and acronyms

Element Materials Technology

Client Name: Englobe
Reference: C1856
Location: NG Salisbury
Contact: Tim Vickers
EMT Job No: 23/2332

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						LOD/LOR	Units	Method No.
Sample ID	GH2 Reuse STK-1	GH2 Reuse STK-2	GH2 Reuse STK-3	GH2 Reuse STK-4	GH2 Reuse STK-5								
Depth													
COC No / misc													
Containers	V J B	V J B	V J B	V J B	V J B								
Sample Date	13/02/2023	13/02/2023	13/02/2023	13/02/2023	13/02/2023								
Sample Type	Soil	Soil	Soil	Soil	Soil								
Batch Number	1	1	1	1	1								
Date of Receipt	15/02/2023	15/02/2023	15/02/2023	15/02/2023	15/02/2023								
Sulphide	<10	<10	<10	17	<10						<10	mg/kg	TM107/PM45
Electrical Conductivity @25C (5:1 ext)	1121	1077	967	897	462						<100	uS/cm	TM76/PM58
pH #	7.91	7.85	9.35	8.47	8.18						<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.

Client Name: Englobe
Reference: C1856
Location: NG Salisbury
Contact: Tim Vickers
EMT Job No: 23/2332

Report : CEN 10:1 1 Batch

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

EMT Sample No.	16	17	18									
Sample ID	GH2 Reuse STK-1 Leachate	GH2 Reuse STK-3 Leachate	GH2 Reuse STK-5 Leachate									
Depth												
COC No / misc												
Containers	T	T	T									
Sample Date	13/02/2023	13/02/2023	13/02/2023									
Sample Type	Soil	Soil	Soil									
Batch Number	1	1	1									
Date of Receipt	15/02/2023	15/02/2023	15/02/2023									

Please see attached notes for all abbreviations and acronyms

											LOD/LOR	Units	Method No.
Dissolved Arsenic #	9.6	11.2	4.4								<2.5	ug/l	TM170/PM14
Dissolved Cadmium #	<0.5	<0.5	<0.5								<0.5	ug/l	TM170/PM14
Dissolved Chromium #	<1.5	<1.5	4.7								<1.5	ug/l	TM170/PM14
Dissolved Copper #	<7	<7	<7								<7	ug/l	TM170/PM14
Dissolved Lead #	<5	<5	<5								<5	ug/l	TM170/PM14
Dissolved Mercury #	<1	<1	<1								<1	ug/l	TM170/PM14
Dissolved Nickel #	6	3	2								<2	ug/l	TM170/PM14
Dissolved Selenium #	<3	<3	<3								<3	ug/l	TM170/PM14
Dissolved Zinc #	<3	<3	4								<3	ug/l	TM170/PM14
PAH MS													
Naphthalene	<0.1	0.7	<0.1								<0.1	ug/l	TM4/PM30
Acenaphthylene	2.155	2.202	<0.005								<0.005	ug/l	TM4/PM30
Acenaphthene	3.352	4.460	<0.005								<0.005	ug/l	TM4/PM30
Fluorene	6.097	>>6.816	<0.005								<0.005	ug/l	TM4/PM30
Phenanthrene	>>9.478	>>11.887	<0.005								<0.005	ug/l	TM4/PM30
Anthracene	2.908	3.125	<0.005								<0.005	ug/l	TM4/PM30
Fluoranthene	>>7.899	5.568	0.006								<0.005	ug/l	TM4/PM30
Pyrene	5.724	3.942	0.005								<0.005	ug/l	TM4/PM30
Benzo(a)anthracene	1.522	1.185	<0.005								<0.005	ug/l	TM4/PM30
Chrysene	1.556	1.229	<0.005								<0.005	ug/l	TM4/PM30
Benzo(bk)fluoranthene	1.390	1.608	<0.008								<0.008	ug/l	TM4/PM30
Benzo(a)pyrene	0.531	0.722	<0.005								<0.005	ug/l	TM4/PM30
Indeno(123cd)pyrene	0.171	0.395	<0.005								<0.005	ug/l	TM4/PM30
Dibenzo(ah)anthracene	0.030	0.047	<0.005								<0.005	ug/l	TM4/PM30
Benzo(ghi)perylene	0.124	0.236	<0.005								<0.005	ug/l	TM4/PM30
PAH 16 Total	42.937	44.122	<0.173								<0.173	ug/l	TM4/PM30
Benzo(b)fluoranthene	1.001	1.158	<0.008								<0.008	ug/l	TM4/PM30
Benzo(k)fluoranthene	0.389	0.450	<0.008								<0.008	ug/l	TM4/PM30
PAH Surrogate % Recovery	108	109	92								<0	%	TM4/PM30
TPH CWG													
Aliphatics													
>C5-C6	<10	<10	<10								<10	ug/l	TM36/PM69
>C6-C8	<10	<10	<10								<10	ug/l	TM36/PM69
>C8-C10	<10	<10	<10								<10	ug/l	TM36/PM69
>C10-C12	<5	<5	<5								<5	ug/l	TM5/PM16/PM30
>C12-C16	<10	<10	<10								<10	ug/l	TM5/PM16/PM30
>C16-C21	<10	<10	<10								<10	ug/l	TM5/PM16/PM30
>C21-C35	<10	<10	<10								<10	ug/l	TM5/PM16/PM30
Total aliphatics C5-35	<10	<10	<10								<10	ug/l	TM5/TM36/PM16/PM30/PM69

Client Name: Englobe
Reference: C1856
Location: NG Salisbury
Contact: Tim Vickers
EMT Job No: 23/2332

Report : CEN 10:1 1 Batch

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

EMT Sample No.	16	17	18									
Sample ID	GH2 Reuse STK-1 Leachate	GH2 Reuse STK-3 Leachate	GH2 Reuse STK-5 Leachate									
Depth												
COC No / misc												
Containers	T	T	T									
Sample Date	13/02/2023	13/02/2023	13/02/2023									
Sample Type	Soil	Soil	Soil									
Batch Number	1	1	1									
Date of Receipt	15/02/2023	15/02/2023	15/02/2023									

Please see attached notes for all abbreviations and acronyms

											LOD/LOR	Units	Method No.
TPH CWG													
Aromatics													
>C5-EC7	<10	<10	<10								<10	ug/l	TM36/PM69
>EC7-EC8	<10	<10	<10								<10	ug/l	TM36/PM69
>EC8-EC10	<10	<10	<10								<10	ug/l	TM36/PM69
>EC10-EC12	<5	<5	<5								<5	ug/l	TM5/PM16/PM30
>EC12-EC16	<10	<10	<10								<10	ug/l	TM5/PM16/PM30
>EC16-EC21	<10	<10	<10								<10	ug/l	TM5/PM16/PM30
>EC21-EC35	<10	<10	<10								<10	ug/l	TM5/PM16/PM30
Total aromatics C5-35	<10	<10	<10								<10	ug/l	TM5/TM36/PM16/PM30/PM69
Total aliphatics and aromatics(C5-35)	<10	<10	<10								<10	ug/l	TM5/TM36/PM16/PM30/PM69
MTBE	<5	<5	<5								<5	ug/l	TM36/PM69
Benzene	<5	<5	<5								<5	ug/l	TM36/PM69
Toluene	<5	<5	<5								<5	ug/l	TM36/PM69
Ethylbenzene	<5	<5	<5								<5	ug/l	TM36/PM69
m/p-Xylene	<5	<5	<5								<5	ug/l	TM36/PM69
o-Xylene	<5	<5	<5								<5	ug/l	TM36/PM69
Resorcinol	<0.01	<0.01	<0.01								<0.01	mg/l	TM26/PM0
Catechol	<0.01	<0.01	<0.01								<0.01	mg/l	TM26/PM0
Phenol	<0.01	<0.01	<0.01								<0.01	mg/l	TM26/PM0
m/p-cresol	<0.02	<0.02	<0.02								<0.02	mg/l	TM26/PM0
o-cresol	<0.01	<0.01	<0.01								<0.01	mg/l	TM26/PM0
Total cresols	<0.03	<0.03	<0.03								<0.03	mg/l	TM26/PM0
Xylenols	<0.06	<0.06	<0.06								<0.06	mg/l	TM26/PM0
1-naphthol	<0.01	<0.01	<0.01								<0.01	mg/l	TM26/PM0
2,3,5-trimethyl phenol	<0.01	<0.01	<0.01								<0.01	mg/l	TM26/PM0
2-isopropylphenol	<0.01	<0.01	<0.01								<0.01	mg/l	TM26/PM0
Total Speciated Phenols HPLC	<0.1	<0.1	<0.1								<0.1	mg/l	TM26/PM0
Sulphate as SO4 #	159.6	134.1	97.5								<0.5	mg/l	TM38/PM0
Chloride #	8.6	7.3	2.0								<0.3	mg/l	TM38/PM0
Ammoniacal Nitrogen as NH4 #	6.98	5.31	1.56								<0.03	mg/l	TM38/PM0
Free Cyanide #	0.01	<0.01	<0.01								<0.01	mg/l	TM89/PM0
Total Cyanide #	2.62_{AA}	2.51_{AA}	1.26_{AA}								<0.01	mg/l	TM89/PM0
Complex Cyanide	2.61	2.51	1.26								<0.01	mg/l	TM89/PM0
Sulphide	<0.01	<0.01	<0.01								<0.01	mg/l	TM107/PM0
Dissolved Organic Carbon	10	62	10								<2	mg/l	TM60/PM0
Electrical Conductivity @25C	517	409	379								<2	uS/cm	TM76/PM0
pH	8.03	8.07	8.11								<0.01	pH units	TM73/PM0

Client Name: Englobe
Reference: C1856
Location: NG Salisbury
Contact: Tim Vickers

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.

Where trace asbestos is reported the amount of asbestos will be <0.1%.

EMT Job No.	Batch	Sample ID	Depth	EMT Sample No.	Analyst Name	Date Of Analysis	Analysis	Result
23/2332	1	GH2 Reuse STK-1		3	Remigiusz Blichowski	23/02/2023	**General Description (Bulk Analysis)**	Brown sand with roots
					Remigiusz Blichowski	23/02/2023	**Asbestos Fibres**	NAD
					Remigiusz Blichowski	23/02/2023	**Asbestos ACM**	NAD
					Remigiusz Blichowski	23/02/2023	**Asbestos Type**	NAD
23/2332	1	GH2 Reuse STK-2		6	Remigiusz Blichowski	23/02/2023	**General Description (Bulk Analysis)**	Brown sand with roots
					Remigiusz Blichowski	23/02/2023	**Asbestos Fibres**	NAD
					Remigiusz Blichowski	23/02/2023	**Asbestos ACM**	NAD
					Remigiusz Blichowski	23/02/2023	**Asbestos Type**	NAD
23/2332	1	GH2 Reuse STK-3		9	Remigiusz Blichowski	23/02/2023	**General Description (Bulk Analysis)**	Brown sand
					Remigiusz Blichowski	23/02/2023	**Asbestos Fibres**	Fibre Bundles
					Remigiusz Blichowski	23/02/2023	**Asbestos Fibres (2)**	Fibre Bundles
					Remigiusz Blichowski	23/02/2023	**Asbestos ACM**	NAD
					Remigiusz Blichowski	23/02/2023	**Asbestos ACM (2)**	NAD
					Remigiusz Blichowski	23/02/2023	**Asbestos Type**	Chrysotile
					Remigiusz Blichowski	23/02/2023	**Asbestos Type (2)**	Amosite
					Remigiusz Blichowski	23/02/2023	**Total ACM Gravimetric Quantification (% Asb)**	<0.001 (mass %)
					Remigiusz Blichowski	23/02/2023	**Total Detailed Gravimetric Quantification (% Asb)**	0.002 (mass %)
					Remigiusz Blichowski	23/02/2023	**Total Gravimetric Quantification (ACM + Detailed) (% Asb)**	0.002 (mass %)
23/2332	1	GH2 Reuse STK-4		12	Remigiusz Blichowski	23/02/2023	**General Description (Bulk Analysis)**	Brown sand
					Remigiusz Blichowski	23/02/2023	**Asbestos Fibres**	NAD
					Remigiusz Blichowski	23/02/2023	**Asbestos ACM**	NAD
					Remigiusz Blichowski	23/02/2023	**Asbestos Type**	NAD
23/2332	1	GH2 Reuse STK-5		15	Remigiusz Blichowski	23/02/2023	**General Description (Bulk Analysis)**	Brown sand with roots
					Remigiusz Blichowski	23/02/2023	**Asbestos Fibres**	NAD
					Remigiusz Blichowski	23/02/2023	**Asbestos ACM**	NAD
					Remigiusz Blichowski	23/02/2023	**Asbestos Type**	NAD

Client Name: Englobe
Reference: C1856
Location: NG Salisbury
Contact: Tim Vickers

EMT Job No.	Batch	Sample ID	Depth	EMT Sample No.	Analysis	Reason
No deviating sample report results for job 23/2332						

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.

Please include all sections of this report if it is reproduced

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	x10 Dilution
AB	x30 Dilution
AC	x100 Dilution
AD	x400 Dilution

EMT Job No: 23/2332

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.	PM30	Water samples are extracted with solvent using a magnetic stirrer to create a vortex.			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.			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.	PM16/PM30	Fractionation into aliphatic and aromatic fractions using a Rapid Trace SPE/Water samples are extracted with solvent using a magnetic stirrer to create a vortex.			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	PM16/PM30/PM69	please refer to PM16/PM30 and PM69 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			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
TM16	Modified USEPA 8270D v5:2014. Quantitative determination of Semi-Volatile Organic compounds (SVOCs) by GC-MS.	PM8	End over end extraction of solid samples for organic analysis. The solvent mix varies depending on analysis required.			AR	Yes

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EMT Job No: 23/2332

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
TM16	Modified USEPA 8270D v5:2014. Quantitative determination of Semi-Volatile Organic compounds (SVOCs) 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
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	Preparation of Soil and Marine Sediment Samples for Total Organic Carbon.	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
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
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.	PM69	One part soil is mixed with 10 parts water in a vial leaving no headspace. The mixture is shaken and then left to leach for 24 hours before VOC analysis.			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
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.			AR	Yes

EMT Job No: 23/2332

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
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.	Yes		AD	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.	PM0	No preparation is required.			AR	Yes
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
TM76	Modified US EPA method 120.1 (1982). Determination of Specific Conductance by Metrohm automated probe analyser.	PM0	No preparation is required.			AR	Yes
TM76	Modified US EPA method 120.1 (1982). Determination of Specific Conductance by Metrohm automated probe analyser.	PM58	Dried and ground solid samples are extracted with water in a 5:1 water to solid ratio, the samples are shaken on an orbital shaker.			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.	PM0	No preparation is required.			AR	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.	PM0	No preparation is required.	Yes		AR	Yes

EMT Job No: 23/2332

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
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.			AR	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
TM107	Determination of Sulphide/Thiocyanate by Skalar Continuous Flow Analyser	PM0	No preparation is required.			AR	Yes
TM107	Determination of Sulphide/Thiocyanate by Skalar Continuous Flow Analyser	PM45	As received solid samples are extracted with 1M NaOH by orbital shaker for Cyanide, Sulphide and Thiocyanate analysis.			AR	Yes
TM131	Quantification of Asbestos Fibres and ACM based on HSG 248 Second edition:2021, HSG 264 Second edition:2012, HSE Contract Research Report No.83/1996, MDHS 87:1998, WM3 1st Edition v1.1:2018	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	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	Yes		AR	Yes
NONE	No Method Code	PM17	Modified method BS EN12457-2:2002 As received solid samples are leached with water in a 10:1 water to soil ratio for 24 hours, the moisture content of the sample is included in the ratio.				
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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Englobe
Columbus House
Greenmeadow Springs
Tongwynlais
Cardiff
CF15 7NE

Attention :	Tim Vickers
Date :	28th February, 2023
Your reference :	C1856
Our reference :	Test Report 23/2450 Batch 1
Location :	NG Salisbury
Date samples received :	17th February, 2023
Status :	Final Report
Issue :	1

Six samples were received for analysis on 17th February, 2023 of which six 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

Client Name: Englobe
Reference: C1856
Location: NG Salisbury
Contact: Tim Vickers
EMT Job No: 23/2450

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					LOD/LOR	Units	Method No.
Sample ID	GH2 Side Validation-6	GH2 Side Validation-7	GH2 Side Validation-8	GH2 Side Validation-9	GH2 Side Validation-9 DUP	GH2 Side Validation-10							
Depth	0.00-2.10	0.00-2.10	0.00-2.10	0.00-2.10	0.00-2.10	0.00-2.10							
COC No / misc													
Containers	V J B	V J B	V J B	V J B	V J B	V J B							
Sample Date	15/02/2023	15/02/2023	15/02/2023	15/02/2023	15/02/2023	15/02/2023							
Sample Type	Soil	Soil	Soil	Soil	Soil	Soil							
Batch Number	1	1	1	1	1	1							
Date of Receipt	17/02/2023	17/02/2023	17/02/2023	17/02/2023	17/02/2023	17/02/2023							
Arsenic #	2.7	6.1	3.6	4.2	5.1	3.2					<0.5	mg/kg	TM30/PM15
Cadmium #	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1					<0.1	mg/kg	TM30/PM15
Chromium #	51.3	46.1	28.9	49.1	40.2	33.3					<0.5	mg/kg	TM30/PM15
Copper #	5	3	6	7	10	7					<1	mg/kg	TM30/PM15
Lead #	17	26	17	94	105	71					<5	mg/kg	TM30/PM15
Mercury #	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1					<0.1	mg/kg	TM30/PM15
Nickel #	9.6	15.0	12.0	12.0	12.5	12.8					<0.7	mg/kg	TM30/PM15
Selenium #	<1	<1	<1	<1	<1	<1					<1	mg/kg	TM30/PM15
Total Sulphate as SO4 #	280	221	362	312	307	327					<50	mg/kg	TM50/PM29
Water Soluble Boron #	0.6	1.2	0.9	0.5	0.6	0.7					<0.1	mg/kg	TM74/PM32
Zinc #	17	31	24	44	42	21					<5	mg/kg	TM30/PM15
PAH MS													
Naphthalene #	<0.04	0.41	0.20	1.63	3.86	0.22					<0.04	mg/kg	TM4/PM8
Acenaphthylene	<0.03	<0.03	0.09	<0.03	0.06	<0.03					<0.03	mg/kg	TM4/PM8
Acenaphthene #	<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	0.07	<0.04					<0.04	mg/kg	TM4/PM8
Phenanthrene #	<0.03	<0.03	0.23	0.09	0.49	<0.03					<0.03	mg/kg	TM4/PM8
Anthracene #	<0.04	<0.04	0.16	<0.04	0.18	<0.04					<0.04	mg/kg	TM4/PM8
Fluoranthene #	<0.03	<0.03	0.88	0.09	0.71	<0.03					<0.03	mg/kg	TM4/PM8
Pyrene #	<0.03	<0.03	0.78	0.08	0.58	<0.03					<0.03	mg/kg	TM4/PM8
Benzo(a)anthracene #	<0.06	<0.06	0.57	0.11	0.77	<0.06					<0.06	mg/kg	TM4/PM8
Chrysene #	<0.02	<0.02	0.48	0.08	0.77	0.06					<0.02	mg/kg	TM4/PM8
Benzo(bk)fluoranthene #	<0.07	<0.07	0.93	0.13	2.03	<0.07					<0.07	mg/kg	TM4/PM8
Benzo(a)pyrene #	<0.04	<0.04	0.53	<0.04	1.11	<0.04					<0.04	mg/kg	TM4/PM8
Indeno(123cd)pyrene #	<0.04	<0.04	0.36	<0.04	0.90	<0.04					<0.04	mg/kg	TM4/PM8
Dibenzo(ah)anthracene #	<0.04	<0.04	0.07	<0.04	0.22	<0.04					<0.04	mg/kg	TM4/PM8
Benzo(ghi)perylene #	<0.04	<0.04	0.25	<0.04	0.65	<0.04					<0.04	mg/kg	TM4/PM8
PAH 16 Total	<0.6	<0.6	5.5	2.2	12.4	<0.6					<0.6	mg/kg	TM4/PM8
Benzo(b)fluoranthene	<0.05	<0.05	0.67	0.09	1.46	<0.05					<0.05	mg/kg	TM4/PM8
Benzo(k)fluoranthene	<0.02	<0.02	0.26	0.04	0.57	<0.02					<0.02	mg/kg	TM4/PM8
PAH Surrogate % Recovery	82	76	80	88	88	90					<0	%	TM4/PM8
TPH CWG													
Aliphatics													
>C5-C6 #	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1					<0.1	mg/kg	TM36/PM12
>C6-C8 #	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1					<0.1	mg/kg	TM36/PM12
>C8-C10	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1					<0.1	mg/kg	TM36/PM12
>C10-C12 #	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2					<0.2	mg/kg	TM5/PM8/PM16
>C12-C16 #	<4	<4	<4	<4	<4	<4					<4	mg/kg	TM5/PM8/PM16
>C16-C21 #	<7	<7	<7	<7	<7	<7					<7	mg/kg	TM5/PM8/PM16
>C21-C35 #	<7	<7	<7	<7	<7	<7					<7	mg/kg	TM5/PM8/PM16
Total aliphatics C5-35	<19	<19	<19	<19	<19	<19					<19	mg/kg	TM5/TM36/PM8/PM12/PM16

Please see attached notes for all abbreviations and acronyms

Client Name: Englobe
Reference: C1856
Location: NG Salisbury
Contact: Tim Vickers
EMT Job No: 23/2450

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					LOD/LOR	Units	Method No.
Sample ID	GH2 Side Validation-6	GH2 Side Validation-7	GH2 Side Validation-8	GH2 Side Validation-9	GH2 Side Validation-9 DUP	GH2 Side Validation-10							
Depth	0.00-2.10	0.00-2.10	0.00-2.10	0.00-2.10	0.00-2.10	0.00-2.10							
COC No / misc													
Containers	V J B	V J B	V J B	V J B	V J B	V J B							
Sample Date	15/02/2023	15/02/2023	15/02/2023	15/02/2023	15/02/2023	15/02/2023							
Sample Type	Soil	Soil	Soil	Soil	Soil	Soil							
Batch Number	1	1	1	1	1	1							
Date of Receipt	17/02/2023	17/02/2023	17/02/2023	17/02/2023	17/02/2023	17/02/2023							
TPH CWG													
Aromatics													
>C5-EC7 #	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1					<0.1	mg/kg	TM36/PM12
>EC7-EC8 #	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1					<0.1	mg/kg	TM36/PM12
>EC8-EC10 #	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1					<0.1	mg/kg	TM36/PM12
>EC10-EC12 #	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2					<0.2	mg/kg	TM5/PM8/PM16
>EC12-EC16 #	<4	<4	<4	<4	<4	<4					<4	mg/kg	TM5/PM8/PM16
>EC16-EC21 #	<7	<7	<7	<7	<7	<7					<7	mg/kg	TM5/PM8/PM16
>EC21-EC35 #	130	<7	<7	<7	87	<7					<7	mg/kg	TM5/PM8/PM16
Total aromatics C5-35 #	130	<19	<19	<19	87	<19					<19	mg/kg	TM5/TM36/PM8/PM12/PM16
Total aliphatics and aromatics(C5-35)	130	<38	<38	<38	87	<38					<38	mg/kg	TM5/TM36/PM8/PM12/PM16
MTBE #	<5	<5	<5	<5	<5	<5					<5	ug/kg	TM36/PM12
Benzene #	<5	12	<5	96	24	<5					<5	ug/kg	TM36/PM12
Toluene #	<5	<5	<5	<5	<5	<5					<5	ug/kg	TM36/PM12
Ethylbenzene #	<5	8	<5	17	<5	<5					<5	ug/kg	TM36/PM12
m/p-Xylene #	<5	19	<5	45	10	<5					<5	ug/kg	TM36/PM12
o-Xylene #	<5	10	<5	26	<5	<5					<5	ug/kg	TM36/PM12
2-Chlorophenol #	<10	<10	<10	<10	<10	<10					<10	ug/kg	TM16/PM8
Natural Moisture Content	44.1	29.2	23.4	87.8	48.3	102.8					<0.1	%	PM4/PM0
2-Methylphenol	<10	<10	<10	<10	<10	<10					<10	ug/kg	TM16/PM8
2-Nitrophenol	<10	<10	<10	<10	<10	<10					<10	ug/kg	TM16/PM8
2,4-Dichlorophenol #	<10	<10	<10	<10	<10	<10					<10	ug/kg	TM16/PM8
2,4-Dimethylphenol	<10	<10	<10	<10	<10	<10					<10	ug/kg	TM16/PM8
2,4,5-Trichlorophenol	<10	<10	<10	<10	<10	<10					<10	ug/kg	TM16/PM8
2,4,6-Trichlorophenol	<10	<10	<10	<10	<10	<10					<10	ug/kg	TM16/PM8
4-Chloro-3-methylphenol	<10	<10	<10	<10	<10	<10					<10	ug/kg	TM16/PM8
4-Methylphenol	<10	<10	<10	<10	<10	<10					<10	ug/kg	TM16/PM8
4-Nitrophenol	<10	<10	<10	<10	<10	<10					<10	ug/kg	TM16/PM8
Pentachlorophenol	<10	<10	<10	<10	<10	<10					<10	ug/kg	TM16/PM8
Phenol #	<10	<10	<10	<10	<10	<10					<10	ug/kg	TM16/PM8
Total Speciated Phenols MS	<10	<10	<10	<10	<10	<10					<10	ug/kg	TM16/PM8
Ammoniacal Nitrogen as NH4	20.6	38.1	30.4	97.8	46.7	35.7					<0.6	mg/kg	TM38/PM20
Chloride #	7	11	10	14	16	9					<2	mg/kg	TM38/PM20
Free Cyanide	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5					<0.5	mg/kg	TM89/PM45
Total Cyanide #	0.9	4.0	1.0	47.9	31.1	1.4					<0.5	mg/kg	TM89/PM45
Complex Cyanide	0.9	4.0	1.0	47.9	31.1	1.4					<0.5	mg/kg	TM89/PM45
Total Organic Carbon #	0.28	0.45	0.65	0.87	0.65	0.32					<0.02	%	TM21/PM24

Please see attached notes for all abbreviations and acronyms

Element Materials Technology

Client Name: Englobe
Reference: C1856
Location: NG Salisbury
Contact: Tim Vickers
EMT Job No: 23/2450

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					LOD/LOR	Units	Method No.
Sample ID	GH2 Side Validation-6	GH2 Side Validation-7	GH2 Side Validation-8	GH2 Side Validation-9	GH2 Side Validation-9 DUP	GH2 Side Validation-10							
Depth	0.00-2.10	0.00-2.10	0.00-2.10	0.00-2.10	0.00-2.10	0.00-2.10							
COC No / misc													
Containers	V J B	V J B	V J B	V J B	V J B	V J B							
Sample Date	15/02/2023	15/02/2023	15/02/2023	15/02/2023	15/02/2023	15/02/2023							
Sample Type	Soil	Soil	Soil	Soil	Soil	Soil							
Batch Number	1	1	1	1	1	1							
Date of Receipt	17/02/2023	17/02/2023	17/02/2023	17/02/2023	17/02/2023	17/02/2023							
Sulphide	<10	<10	<10	<10	<10	<10					<10	mg/kg	TM107/PM45
Electrical Conductivity @25C (5:1 ext)	131	154	154	178	175	148					<100	uS/cm	TM76/PM58
pH #	8.56	8.57	8.90	8.63	8.48	8.78					<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.

Client Name: Englobe
Reference: C1856
Location: NG Salisbury
Contact: Tim Vickers

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.

Where trace asbestos is reported the amount of asbestos will be <0.1%.

EMT Job No.	Batch	Sample ID	Depth	EMT Sample No.	Analyst Name	Date Of Analysis	Analysis	Result
23/2450	1	GH2 Side Validation-6	0.00-2.10	3	Catherine Coles	28/02/2023	**General Description (Bulk Analysis)**	grey/green soil, stone
					Catherine Coles	28/02/2023	**Asbestos Fibres**	NAD
					Catherine Coles	28/02/2023	**Asbestos ACM**	NAD
					Catherine Coles	28/02/2023	**Asbestos Type**	NAD
23/2450	1	GH2 Side Validation-7	0.00-2.10	6	Catherine Coles	28/02/2023	**General Description (Bulk Analysis)**	grey/greeen, soil, stone
					Catherine Coles	28/02/2023	**Asbestos Fibres**	NAD
					Catherine Coles	28/02/2023	**Asbestos ACM**	NAD
					Catherine Coles	28/02/2023	**Asbestos Type**	NAD
23/2450	1	GH2 Side Validation-8	0.00-2.10	9	Catherine Coles	28/02/2023	**General Description (Bulk Analysis)**	grey/greeen soil, stone
					Catherine Coles	28/02/2023	**Asbestos Fibres**	NAD
					Catherine Coles	28/02/2023	**Asbestos ACM**	NAD
					Catherine Coles	28/02/2023	**Asbestos Type**	NAD
23/2450	1	GH2 Side Validation-9	0.00-2.10	12	Catherine Coles	28/02/2023	**General Description (Bulk Analysis)**	grey/greeen soil, stone
					Catherine Coles	28/02/2023	**Asbestos Fibres**	NAD
					Catherine Coles	28/02/2023	**Asbestos ACM**	NAD
					Catherine Coles	28/02/2023	**Asbestos Type**	NAD
23/2450	1	GH2 Side Validation-9 DUP	0.00-2.10	15	Catherine Coles	28/02/2023	**General Description (Bulk Analysis)**	grey/green soil, stone
					Catherine Coles	28/02/2023	**Asbestos Fibres**	NAD
					Catherine Coles	28/02/2023	**Asbestos ACM**	NAD
					Catherine Coles	28/02/2023	**Asbestos Type**	NAD
23/2450	1	GH2 Side Validation-10	0.00-2.10	18	Catherine Coles	28/02/2023	**General Description (Bulk Analysis)**	grey/greeen soil, stone
					Catherine Coles	28/02/2023	**Asbestos Fibres**	NAD
					Catherine Coles	28/02/2023	**Asbestos ACM**	NAD
					Catherine Coles	28/02/2023	**Asbestos Type**	NAD

Client Name: Englobe
Reference: C1856
Location: NG Salisbury
Contact: Tim Vickers

EMT Job No.	Batch	Sample ID	Depth	EMT Sample No.	Analysis	Reason
No deviating sample report results for job 23/2450						

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.

Please include all sections of this report if it is reproduced

NOTES TO ACCOMPANY ALL SCHEDULES AND REPORTS

EMT Job No.: 23/2450

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

EMT Job No: 23/2450

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/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
TM16	Modified USEPA 8270D v5:2014. Quantitative determination of Semi-Volatile Organic compounds (SVOCs) by GC-MS.	PM8	End over end extraction of solid samples for organic analysis. The solvent mix varies depending on analysis required.			AR	Yes
TM16	Modified USEPA 8270D v5:2014. Quantitative determination of Semi-Volatile Organic compounds (SVOCs) 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
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	Preparation of Soil and Marine Sediment Samples for Total Organic Carbon.	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	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

EMT Job No: 23/2450

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
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.	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.			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.	Yes		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	
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
TM76	Modified US EPA method 120.1 (1982). Determination of Specific Conductance by Metrohm automated probe analyser.	PM58	Dried and ground solid samples are extracted with water in a 5:1 water to solid ratio, the samples are shaken on an orbital shaker.			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.			AR	Yes

EMT Job No: 23/2450

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
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
TM107	Determination of Sulphide/Thiocyanate by Skalar Continuous Flow Analyser	PM45	As received solid samples are extracted with 1M NaOH by orbital shaker for Cyanide, Sulphide and Thiocyanate analysis.			AR	Yes

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Englobe
Columbus House
Greenmeadow Springs
Tongwynlais
Cardiff
CF15 7NE

Attention :	Tim Vickers
Date :	21st March, 2023
Your reference :	C1856
Our reference :	Test Report 23/2804 Batch 1
Location :	NG Salisbury
Date samples received :	23rd February, 2023
Status :	Final Report
Issue :	1

Two samples were received for analysis on 23rd February, 2023 of which two 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:

Liza Klebe
Project Co-ordinator

Please include all sections of this report if it is reproduced

Element Materials Technology

Client Name: Englobe
Reference: C1856
Location: NG Salisbury
Contact: Tim Vickers
EMT Job No: 23/2804

Report : Solid

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

EMT Sample No.	1-3	4-6									LOD/LOR	Units	Method No.
Sample ID	AREA 1 - NWB VALIDATION 1	AREA 1 - NWB VALIDATION 2											
Depth	0.00-1.90	0.00-1.90											
COC No / misc													
Containers	V J B	V J B											
Sample Date	21/02/2023 12:00	21/02/2023 12:15											
Sample Type	Soil	Soil											
Batch Number	1	1											
Date of Receipt	23/02/2023	23/02/2023											
Arsenic #	5.9	58.5									<0.5	mg/kg	TM30/PM15
Cadmium #	0.2	0.5									<0.1	mg/kg	TM30/PM15
Chromium #	48.7	77.5									<0.5	mg/kg	TM30/PM15
Copper #	15	327 AA									<1	mg/kg	TM30/PM15
Lead #	41	1441									<5	mg/kg	TM30/PM15
Mercury #	<0.1	6.6									<0.1	mg/kg	TM30/PM15
Nickel #	12.9	19.8									<0.7	mg/kg	TM30/PM15
Selenium #	<1	8									<1	mg/kg	TM30/PM15
Total Sulphate as SO4 #	1369	47420									<50	mg/kg	TM50/PM29
Water Soluble Boron #	1.0	0.4									<0.1	mg/kg	TM74/PM32
Zinc #	43	430									<5	mg/kg	TM30/PM15
PAH MS													
Naphthalene #	8.36	20.95 AB									<0.04	mg/kg	TM4/PM8
Acenaphthylene	0.35	29.63 AB									<0.03	mg/kg	TM4/PM8
Acenaphthene #	0.41	1.18 AB									<0.05	mg/kg	TM4/PM8
Fluorene #	0.51	4.82 AB									<0.04	mg/kg	TM4/PM8
Phenanthrene #	2.96	99.81 AB									<0.03	mg/kg	TM4/PM8
Anthracene #	0.80	44.26 AB									<0.04	mg/kg	TM4/PM8
Fluoranthene #	1.94	236.82 AB									<0.03	mg/kg	TM4/PM8
Pyrene #	1.55	209.25 AB									<0.03	mg/kg	TM4/PM8
Benzo(a)anthracene #	0.78	117.46 AB									<0.06	mg/kg	TM4/PM8
Chrysene #	0.77	125.61 AB									<0.02	mg/kg	TM4/PM8
Benzo(bk)fluoranthene #	1.43	239.54 AB									<0.07	mg/kg	TM4/PM8
Benzo(a)pyrene #	0.82	118.20 AB									<0.04	mg/kg	TM4/PM8
Indeno(123cd)pyrene #	0.76	105.28 AB									<0.04	mg/kg	TM4/PM8
Dibenzo(ah)anthracene #	0.11	17.59 AB									<0.04	mg/kg	TM4/PM8
Benzo(ghi)perylene #	0.59	84.62 AB									<0.04	mg/kg	TM4/PM8
PAH 16 Total	22.1	1455.0 AB									<0.6	mg/kg	TM4/PM8
Benzo(b)fluoranthene	1.03	172.47 AB									<0.05	mg/kg	TM4/PM8
Benzo(k)fluoranthene	0.40	67.07 AB									<0.02	mg/kg	TM4/PM8
PAH Surrogate % Recovery	91	88 AB									<0	%	TM4/PM8
Methyl Tertiary Butyl Ether #	<2	<2									<2	ug/kg	TM15/PM10
Benzene #	3	16									<3	ug/kg	TM15/PM10
Toluene #	<3	11									<3	ug/kg	TM15/PM10
Ethylbenzene #	6	15									<3	ug/kg	TM15/PM10
m/p-Xylene #	15	26									<5	ug/kg	TM15/PM10
o-Xylene #	6	9									<3	ug/kg	TM15/PM10
Surrogate Recovery Toluene D8	95	75									<0	%	TM15/PM10
Surrogate Recovery 4-Bromofluorobenzene	80	59									<0	%	TM15/PM10

Please see attached notes for all abbreviations and acronyms

Element Materials Technology

Client Name: Englobe
Reference: C1856
Location: NG Salisbury
Contact: Tim Vickers
EMT Job No: 23/2804

Report : Solid

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

EMT Sample No.	1-3	4-6									LOD/LOR	Units	Method No.
Sample ID	AREA 1 - NWB VALIDATION 1	AREA 1 - NWB VALIDATION 2											
Depth	0.00-1.90	0.00-1.90											
COC No / misc													
Containers	V J B	V J B											
Sample Date	21/02/2023 12:00	21/02/2023 12:15											
Sample Type	Soil	Soil											
Batch Number	1	1											
Date of Receipt	23/02/2023	23/02/2023											
TPH CWG													
Aliphatics													
>C5-C6 #	<0.1	<0.1 SV									<0.1	mg/kg	TM36/PM12
>C6-C8 #	<0.1	<0.1 SV									<0.1	mg/kg	TM36/PM12
>C8-C10	<0.1	<0.1 SV									<0.1	mg/kg	TM36/PM12
>C10-C12 #	<0.2	3.0									<0.2	mg/kg	TM5/PM8/PM16
>C12-C16 #	<4	17									<4	mg/kg	TM5/PM8/PM16
>C16-C21 #	<7	84									<7	mg/kg	TM5/PM8/PM16
>C21-C35 #	<7	530									<7	mg/kg	TM5/PM8/PM16
Total aliphatics C5-35	<19	634									<19	mg/kg	TM5/TM36/PM8/PM12/PM16
Aromatics													
>C5-EC7 #	<0.1	<0.1 SV									<0.1	mg/kg	TM36/PM12
>EC7-EC8 #	<0.1	<0.1 SV									<0.1	mg/kg	TM36/PM12
>EC8-EC10 #	<0.1	<0.1 SV									<0.1	mg/kg	TM36/PM12
>EC10-EC12 #	6.9	11.3									<0.2	mg/kg	TM5/PM8/PM16
>EC12-EC16 #	6	52									<4	mg/kg	TM5/PM8/PM16
>EC16-EC21 #	18	986									<7	mg/kg	TM5/PM8/PM16
>EC21-EC35 #	41	3122									<7	mg/kg	TM5/PM8/PM16
Total aromatics C5-35 #	72	4171									<19	mg/kg	TM5/TM36/PM8/PM12/PM16
Total aliphatics and aromatics(C5-35)	72	4805									<38	mg/kg	TM5/TM36/PM8/PM12/PM16
2-Chlorophenol #	<10	<10									<10	ug/kg	TM16/PM8
Natural Moisture Content	13.7	12.1									<0.1	%	PM4/PM0
2-Methylphenol	<10	117									<10	ug/kg	TM16/PM8
2-Nitrophenol	<10	<10									<10	ug/kg	TM16/PM8
2,4-Dichlorophenol #	<10	<10									<10	ug/kg	TM16/PM8
2,4-Dimethylphenol	<10	64									<10	ug/kg	TM16/PM8
2,4,5-Trichlorophenol	<10	<10									<10	ug/kg	TM16/PM8
2,4,6-Trichlorophenol	<10	<10									<10	ug/kg	TM16/PM8
4-Chloro-3-methylphenol	<10	<10									<10	ug/kg	TM16/PM8
4-Methylphenol	<10	269									<10	ug/kg	TM16/PM8
4-Nitrophenol	<10	<10									<10	ug/kg	TM16/PM8
Pentachlorophenol	<10	<10									<10	ug/kg	TM16/PM8
Phenol #	<10	420									<10	ug/kg	TM16/PM8
Total Speciated Phenols MS	<10	870									<10	ug/kg	TM16/PM8
Ammoniacal Nitrogen as NH4	2.0	<0.6									<0.6	mg/kg	TM38/PM20
Chloride #	8	14									<2	mg/kg	TM38/PM20
Free Cyanide	<0.5	4.3									<0.5	mg/kg	TM89/PM45
Total Cyanide #	11.6	906.4 AC									<0.5	mg/kg	TM89/PM45
Complex Cyanide	11.6	902.1									<0.5	mg/kg	TM89/PM45

Please see attached notes for all abbreviations and acronyms

Client Name: Englobe
Reference: C1856
Location: NG Salisbury
Contact: Tim Vickers
EMT Job No: 23/2804

Report : Solid

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

EMT Sample No.	1-3	4-6									LOD/LOR	Units	Method No.
Sample ID	AREA 1 - NWB VALIDATION 1	AREA 1 - NWB VALIDATION 2											
Depth	0.00-1.90	0.00-1.90											
COC No / misc													
Containers	V J B	V J B											
Sample Date	21/02/2023 12:00	21/02/2023 12:15											
Sample Type	Soil	Soil											
Batch Number	1	1											
Date of Receipt	23/02/2023	23/02/2023											
Total Organic Carbon #	1.48	16.45									<0.02	%	TM21/PM24
Sulphide	<10	<10									<10	mg/kg	TM107/PM45
Electrical Conductivity @25C (5:1 ext)	507	2158									<100	uS/cm	TM76/PM58
pH #	7.80	7.34									<0.01	pH units	TM73/PM11

Please see attached notes for all abbreviations and acronyms

Client Name: Englobe
Reference: C1856
Location: NG Salisbury
Contact: Tim Vickers
EMT Job No: 23/2804

VOC Report : **Solid**

EMT Sample No.	1-3	4-6											
Sample ID	AREA 1 - NWB VALIDATION 1	AREA 1 - NWB VALIDATION 2											
Depth	0.00-1.90	0.00-1.90											
COC No / misc													
Containers	V J B	V J B											
Sample Date	21/02/2023 12:00	21/02/2023 12:15											
Sample Type	Soil	Soil											
Batch Number	1	1											
Date of Receipt	23/02/2023	23/02/2023											

Please see attached notes for all abbreviations and acronyms

											LOD/LOR	Units	Method No.
VOC MS													
Dichlorodifluoromethane	<2	<2									<2	ug/kg	TM15/PM10
Methyl Tertiary Butyl Ether #	<2	<2									<2	ug/kg	TM15/PM10
Chloromethane #	<3	11									<3	ug/kg	TM15/PM10
Vinyl Chloride	<2	<2									<2	ug/kg	TM15_A/PM10
Bromomethane	<1	<1									<1	ug/kg	TM15/PM10
Chloroethane #	<2	<2									<2	ug/kg	TM15/PM10
Trichlorofluoromethane #	<2	<2									<2	ug/kg	TM15/PM10
1,1-Dichloroethene (1,1 DCE) #	<6	<6									<6	ug/kg	TM15/PM10
Dichloromethane (DCM) #	<7	<7									<7	ug/kg	TM15/PM10
trans-1-2-Dichloroethene #	<3	<3									<3	ug/kg	TM15/PM10
1,1-Dichloroethane #	<3	<3									<3	ug/kg	TM15/PM10
cis-1-2-Dichloroethene #	<3	<3									<3	ug/kg	TM15/PM10
2,2-Dichloropropane	<4	<4									<4	ug/kg	TM15/PM10
Bromochloromethane #	<3	<3									<3	ug/kg	TM15/PM10
Chloroform #	<3	<3									<3	ug/kg	TM15/PM10
1,1,1-Trichloroethane #	<3	<3									<3	ug/kg	TM15/PM10
1,1-Dichloropropene #	<3	<3									<3	ug/kg	TM15/PM10
Carbon tetrachloride #	<4	<4									<4	ug/kg	TM15/PM10
1,2-Dichloroethane #	<4	<4									<4	ug/kg	TM15/PM10
Benzene #	3	16									<3	ug/kg	TM15/PM10
Trichloroethene (TCE) #	<3	<3									<3	ug/kg	TM15/PM10
1,2-Dichloropropane #	<6	<6									<6	ug/kg	TM15/PM10
Dibromomethane #	<3	<3									<3	ug/kg	TM15/PM10
Bromodichloromethane #	<3	<3									<3	ug/kg	TM15/PM10
cis-1-3-Dichloropropene	<4	<4									<4	ug/kg	TM15/PM10
Toluene #	<3	11									<3	ug/kg	TM15/PM10
trans-1-3-Dichloropropene	<3	<3									<3	ug/kg	TM15/PM10
1,1,2-Trichloroethane #	<3	<3									<3	ug/kg	TM15/PM10
Tetrachloroethene (PCE) #	<3	<3									<3	ug/kg	TM15/PM10
1,3-Dichloropropane #	<3	<3									<3	ug/kg	TM15/PM10
Dibromochloromethane #	<3	<3									<3	ug/kg	TM15/PM10
1,2-Dibromoethane #	<3	<3									<3	ug/kg	TM15/PM10
Chlorobenzene #	<3	<3									<3	ug/kg	TM15/PM10
1,1,1,2-Tetrachloroethane #	<3	<3									<3	ug/kg	TM15/PM10
Ethylbenzene #	6	15									<3	ug/kg	TM15/PM10
m/p-Xylene #	15	26									<5	ug/kg	TM15/PM10
o-Xylene #	6	9									<3	ug/kg	TM15/PM10
Styrene	<3	18									<3	ug/kg	TM15_A/PM10
Bromoform	<3	<3									<3	ug/kg	TM15/PM10
Isopropylbenzene #	<3	<3									<3	ug/kg	TM15/PM10
1,1,2,2-Tetrachloroethane #	<3	<3									<3	ug/kg	TM15/PM10
Bromobenzene	<2	<2									<2	ug/kg	TM15/PM10
1,2,3-Trichloropropane #	<4	<4									<4	ug/kg	TM15/PM10
Propylbenzene #	<4	<4									<4	ug/kg	TM15/PM10
2-Chlorotoluene	<3	<3									<3	ug/kg	TM15/PM10
1,3,5-Trimethylbenzene #	5	6									<3	ug/kg	TM15/PM10
4-Chlorotoluene	<3	<3									<3	ug/kg	TM15/PM10
tert-Butylbenzene #	<5	<5									<5	ug/kg	TM15/PM10
1,2,4-Trimethylbenzene #	15	17									<6	ug/kg	TM15/PM10
sec-Butylbenzene #	<4	<4									<4	ug/kg	TM15/PM10
4-Isopropyltoluene	<4	<4									<4	ug/kg	TM15/PM10
1,3-Dichlorobenzene #	<4	<4									<4	ug/kg	TM15/PM10
1,4-Dichlorobenzene #	<4	<4									<4	ug/kg	TM15/PM10
n-Butylbenzene	<4	<4									<4	ug/kg	TM15/PM10
1,2-Dichlorobenzene #	<4	<4									<4	ug/kg	TM15/PM10
1,2-Dibromo-3-chloropropane	<4	<4									<4	ug/kg	TM15/PM10
1,2,4-Trichlorobenzene	<7	<7									<7	ug/kg	TM15/PM10
Hexachlorobutadiene	<4	<4									<4	ug/kg	TM15/PM10
Naphthalene	>>3094	497									<27	ug/kg	TM15/PM10
1,2,3-Trichlorobenzene	<7	<7									<7	ug/kg	TM15/PM10
Surrogate Recovery Toluene D8	95	75									<0	%	TM15/PM10
Surrogate Recovery 4-Bromofluorobenzene	80	59									<0	%	TM15/PM10

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: Englobe
Reference: C1856
Location: NG Salisbury
Contact: Tim Vickers

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.

Where trace asbestos is reported the amount of asbestos will be <0.1%.

EMT Job No.	Batch	Sample ID	Depth	EMT Sample No.	Analyst Name	Date Of Analysis	Analysis	Result
23/2804	1	AREA 1 - NWB VALIDATION 1	0.00-1.90	3	Catherine Coles	06/03/2023	**General Description (Bulk Analysis)**	soil,stone
					Catherine Coles	06/03/2023	**Asbestos Fibres**	NAD
					Catherine Coles	06/03/2023	**Asbestos ACM**	NAD
					Catherine Coles	06/03/2023	**Asbestos Type**	NAD
23/2804	1	AREA 1 - NWB VALIDATION 2	0.00-1.90	6	Catherine Coles	06/03/2023	**General Description (Bulk Analysis)**	soil, coal, metal, debris
					Catherine Coles	06/03/2023	**Asbestos Fibres**	Fibre Bundles
					Catherine Coles	06/03/2023	**Asbestos Fibres (2)**	Fibre Bundles
					Catherine Coles	06/03/2023	**Asbestos Fibres (3)**	Fibre Bundles
					Catherine Coles	06/03/2023	**Asbestos ACM**	ACM Debris
					Catherine Coles	06/03/2023	**Asbestos ACM (2)**	ACM Debris
					Catherine Coles	06/03/2023	**Asbestos ACM (3)**	ACM Debris
					Catherine Coles	06/03/2023	**Asbestos Type**	Chrysotile
					Catherine Coles	06/03/2023	**Asbestos Type (2)**	Amosite
					Catherine Coles	06/03/2023	**Asbestos Type (3)**	Crocidolite
					Matthew Turner	21/03/2023	**Total ACM Gravimetric Quantification (% Asb)**	<0.001 (mass %)
					Matthew Turner	21/03/2023	**Total Detailed Gravimetric Quantification (% Asb)**	3.472 (mass %)
					Matthew Turner	21/03/2023	**Total Gravimetric Quantification (ACM + Detailed) (% Asb)**	3.472 (mass %)

Client Name: Englobe
Reference: C1856
Location: NG Salisbury
Contact: Tim Vickers

EMT Job No.	Batch	Sample ID	Depth	EMT Sample No.	Analysis	Reason
No deviating sample report results for job 23/2804						

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.

Please include all sections of this report if it is reproduced

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 quantitative calibration range. The result should be considered the minimum value and is indicative only. 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
AB	x10 Dilution
AC	x20 Dilution

EMT Job No: 23/2804

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/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
TM15	Modified USEPA 8260B v2:1996. Quantitative Determination of Volatile Organic Compounds (VOCs) by Headspace GC-MS.	PM10	Modified US EPA method 5021A v2:2014. Preparation of solid and liquid samples for GC headspace analysis.			AR	Yes
TM15	Modified USEPA 8260B v2:1996. Quantitative Determination of Volatile Organic Compounds (VOCs) by Headspace GC-MS.	PM10	Modified US EPA method 5021A v2:2014. Preparation of solid and liquid samples for GC headspace analysis.	Yes		AR	Yes
TM16	Modified USEPA 8270D v5:2014. Quantitative determination of Semi-Volatile Organic compounds (SVOCs) by GC-MS.	PM8	End over end extraction of solid samples for organic analysis. The solvent mix varies depending on analysis required.			AR	Yes
TM16	Modified USEPA 8270D v5:2014. Quantitative determination of Semi-Volatile Organic compounds (SVOCs) 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

EMT Job No: 23/2804

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	Preparation of Soil and Marine Sediment Samples for Total Organic Carbon.	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	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	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: 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.			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.	Yes		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	
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

EMT Job No: 23/2804

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
TM76	Modified US EPA method 120.1 (1982). Determination of Specific Conductance by Metrohm automated probe analyser.	PM58	Dried and ground solid samples are extracted with water in a 5:1 water to solid ratio, the samples are shaken on an orbital shaker.			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.			AR	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
TM107	Determination of Sulphide/Thiocyanate by Skalar Continuous Flow Analyser	PM45	As received solid samples are extracted with 1M NaOH by orbital shaker for Cyanide, Sulphide and Thiocyanate analysis.			AR	Yes
TM131	Quantification of Asbestos Fibres and ACM based on HSG 248 Second edition:2021, HSG 264 Second edition:2012, HSE Contract Research Report No.83/1996, MDHS 87:1998, WM3 1st Edition v1.1:2018	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	Yes
TM15_A	Modified USEPA 8260B v2:1996. Quantitative Determination of Volatile Organic Compounds, Vinyl Chloride & Styrene by Headspace GC-MS.	PM10	Modified US EPA method 5021A v2:2014. Preparation of solid and liquid samples for GC headspace analysis.			AR	Yes

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Englobe
Columbus House
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CF15 7NE

Attention :	Tim Vickers
Date :	6th March, 2023
Your reference :	84201
Our reference :	Test Report 23/2807 Batch 1
Location :	NG Salisbury
Date samples received :	23rd February, 2023
Status :	Final Report
Issue :	1

Two samples were received for analysis on 23rd February, 2023 of which two 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:

Liza Klebe
Project Co-ordinator

Please include all sections of this report if it is reproduced

Client Name: Englobe
Reference: 84201
Location: NG Salisbury
Contact: Tim Vickers
EMT Job No: 23/2807

Report : Solid

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

EMT Sample No.	1-3	4-6									LOD/LOR	Units	Method No.
Sample ID	AREA 5 - BASE VALIDATION 1	AREA 5 - BASE VALIDATION 2											
Depth	0.35	0.35											
COC No / misc													
Containers	V J T	V J T											
Sample Date	21/02/2023 16:00	21/02/2023 16:10											
Sample Type	Soil	Soil											
Batch Number	1	1											
Date of Receipt	23/02/2023	23/02/2023											
Arsenic #	4.5	7.2									<0.5	mg/kg	TM30/PM15
Cadmium #	0.6	0.1									<0.1	mg/kg	TM30/PM15
Chromium #	55.9	123.7									<0.5	mg/kg	TM30/PM15
Copper #	14	9									<1	mg/kg	TM30/PM15
Lead #	234	63									<5	mg/kg	TM30/PM15
Mercury #	<0.1	<0.1									<0.1	mg/kg	TM30/PM15
Nickel #	10.4	12.4									<0.7	mg/kg	TM30/PM15
Selenium #	<1	<1									<1	mg/kg	TM30/PM15
Total Sulphate as SO4 #	1156	211									<50	mg/kg	TM50/PM29
Water Soluble Boron #	1.1	0.4									<0.1	mg/kg	TM74/PM32
Zinc #	247	88									<5	mg/kg	TM30/PM15
PAH MS													
Naphthalene #	0.47	0.06									<0.04	mg/kg	TM4/PM8
Acenaphthylene	0.87	0.07									<0.03	mg/kg	TM4/PM8
Acenaphthene #	<0.05	<0.05									<0.05	mg/kg	TM4/PM8
Fluorene #	0.08	<0.04									<0.04	mg/kg	TM4/PM8
Phenanthrene #	1.13	0.15									<0.03	mg/kg	TM4/PM8
Anthracene #	0.82	0.09									<0.04	mg/kg	TM4/PM8
Fluoranthene #	4.44	0.54									<0.03	mg/kg	TM4/PM8
Pyrene #	4.13	0.50									<0.03	mg/kg	TM4/PM8
Benzo(a)anthracene #	2.64	0.37									<0.06	mg/kg	TM4/PM8
Chrysene #	2.62	0.37									<0.02	mg/kg	TM4/PM8
Benzo(bk)fluoranthene #	5.34	0.69									<0.07	mg/kg	TM4/PM8
Benzo(a)pyrene #	3.13	0.39									<0.04	mg/kg	TM4/PM8
Indeno(123cd)pyrene #	2.48	0.35									<0.04	mg/kg	TM4/PM8
Dibenzo(ah)anthracene #	0.49	0.06									<0.04	mg/kg	TM4/PM8
Benzo(ghi)perylene #	2.15	0.28									<0.04	mg/kg	TM4/PM8
PAH 16 Total	30.8	3.9									<0.6	mg/kg	TM4/PM8
Benzo(b)fluoranthene	3.84	0.50									<0.05	mg/kg	TM4/PM8
Benzo(k)fluoranthene	1.50	0.19									<0.02	mg/kg	TM4/PM8
PAH Surrogate % Recovery	78	90									<0	%	TM4/PM8
TPH CWG													
Aliphatics													
>C5-C6 #	<0.1 SV	<0.1									<0.1	mg/kg	TM36/PM12
>C6-C8 #	<0.1 SV	<0.1									<0.1	mg/kg	TM36/PM12
>C8-C10	<0.1 SV	<0.1									<0.1	mg/kg	TM36/PM12
>C10-C12 #	<0.2	<0.2									<0.2	mg/kg	TM5/PM8/PM16
>C12-C16 #	<4	<4									<4	mg/kg	TM5/PM8/PM16
>C16-C21 #	<7	<7									<7	mg/kg	TM5/PM8/PM16
>C21-C35 #	<7	<7									<7	mg/kg	TM5/PM8/PM16
Total aliphatics C5-35	<19	<19									<19	mg/kg	TM5/TM36/PM8/PM12/PM16

Please see attached notes for all abbreviations and acronyms

Element Materials Technology

Client Name: Englobe
Reference: 84201
Location: NG Salisbury
Contact: Tim Vickers
EMT Job No: 23/2807

Report : Solid

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

EMT Sample No.	1-3	4-6									LOD/LOR	Units	Method No.
Sample ID	AREA 5 - BASE VALIDATION 1	AREA 5 - BASE VALIDATION 2											
Depth	0.35	0.35											
COC No / misc													
Containers	V J T	V J T											
Sample Date	21/02/2023 16:00	21/02/2023 16:10											
Sample Type	Soil	Soil											
Batch Number	1	1											
Date of Receipt	23/02/2023	23/02/2023											
TPH CWG													
Aromatics													
>C5-EC7 #	<0.1 SV	<0.1									<0.1	mg/kg	TM36/PM12
>EC7-EC8 #	<0.1 SV	<0.1									<0.1	mg/kg	TM36/PM12
>EC8-EC10 #	<0.1 SV	<0.1									<0.1	mg/kg	TM36/PM12
>EC10-EC12 #	<0.2	<0.2									<0.2	mg/kg	TM5/PM8/PM16
>EC12-EC16 #	<4	<4									<4	mg/kg	TM5/PM8/PM16
>EC16-EC21 #	15	<7									<7	mg/kg	TM5/PM8/PM16
>EC21-EC35 #	220	<7									<7	mg/kg	TM5/PM8/PM16
Total aromatics C5-35 #	235	<19									<19	mg/kg	TM5/TM36/PM8/PM12/PM16
Total aliphatics and aromatics(C5-35)	235	<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 #	22 SV	<5									<5	ug/kg	TM36/PM12
o-Xylene #	16 SV	<5									<5	ug/kg	TM36/PM12
2-Chlorophenol #	<10	<10									<10	ug/kg	TM16/PM8
Natural Moisture Content	5.7	10.2									<0.1	%	PM4/PM0
2-Methylphenol	<10	<10									<10	ug/kg	TM16/PM8
2-Nitrophenol	<10	<10									<10	ug/kg	TM16/PM8
2,4-Dichlorophenol #	<10	<10									<10	ug/kg	TM16/PM8
2,4-Dimethylphenol	<10	<10									<10	ug/kg	TM16/PM8
2,4,5-Trichlorophenol	<10	<10									<10	ug/kg	TM16/PM8
2,4,6-Trichlorophenol	<10	<10									<10	ug/kg	TM16/PM8
4-Chloro-3-methylphenol	<10	<10									<10	ug/kg	TM16/PM8
4-Methylphenol	<10	<10									<10	ug/kg	TM16/PM8
4-Nitrophenol	<10	<10									<10	ug/kg	TM16/PM8
Pentachlorophenol	<10	<10									<10	ug/kg	TM16/PM8
Phenol #	<10	<10									<10	ug/kg	TM16/PM8
Total Speciated Phenols MS	<10	<10									<10	ug/kg	TM16/PM8
Ammoniacal Nitrogen as NH4	<0.6	<0.6									<0.6	mg/kg	TM38/PM20
Chloride #	14	4									<2	mg/kg	TM38/PM20
Free Cyanide	<0.5	<0.5									<0.5	mg/kg	TM89/PM45
Total Cyanide #	2.0	2.3									<0.5	mg/kg	TM89/PM45
Complex Cyanide	2.0	2.3									<0.5	mg/kg	TM89/PM45
Total Organic Carbon #	1.33	0.63									<0.02	%	TM21/PM24

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.

Element Materials Technology

Client Name: Englobe
Reference: 84201
Location: NG Salisbury
Contact: Tim Vickers
EMT Job No: 23/2807

Report : Solid

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

EMT Sample No.	1-3	4-6											
Sample ID	AREA 5 - BASE VALIDATION 1	AREA 5 - BASE VALIDATION 2											
Depth	0.35	0.35											
COC No / misc													
Containers	V J T	V J T											
Sample Date	21/02/2023 16:00	21/02/2023 16:10											
Sample Type	Soil	Soil											
Batch Number	1	1											
Date of Receipt	23/02/2023	23/02/2023											

Please see attached notes for all abbreviations and acronyms

											LOD/LOR	Units	Method No.
Sulphide	<10	<10									<10	mg/kg	TM107/PM45
Electrical Conductivity @25C (5:1 ext)	180	181									<100	uS/cm	TM76/PM58
pH #	8.56	8.57									<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.

Client Name: Englobe
Reference: 84201
Location: NG Salisbury
Contact: Tim Vickers

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.

Where trace asbestos is reported the amount of asbestos will be <0.1%.

EMT Job No.	Batch	Sample ID	Depth	EMT Sample No.	Analyst Name	Date Of Analysis	Analysis	Result
23/2807	1	AREA 5 - BASE VALIDATION 1	0.35	3	Catherine Coles	06/03/2023	**General Description (Bulk Analysis)**	soil,stone
					Catherine Coles	06/03/2023	**Asbestos Fibres**	NAD
					Catherine Coles	06/03/2023	**Asbestos ACM**	NAD
					Catherine Coles	06/03/2023	**Asbestos Type**	NAD
23/2807	1	AREA 5 - BASE VALIDATION 2	0.35	6	Catherine Coles	06/03/2023	**General Description (Bulk Analysis)**	soil,stone
					Catherine Coles	06/03/2023	**Asbestos Fibres**	NAD
					Catherine Coles	06/03/2023	**Asbestos ACM**	NAD
					Catherine Coles	06/03/2023	**Asbestos Type**	NAD

Client Name: Englobe
Reference: 84201
Location: NG Salisbury
Contact: Tim Vickers

EMT Job No.	Batch	Sample ID	Depth	EMT Sample No.	Analysis	Reason
No deviating sample report results for job 23/2807						

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.

Please include all sections of this report if it is reproduced

NOTES TO ACCOMPANY ALL SCHEDULES AND REPORTS

EMT Job No.: 23/2807

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

EMT Job No: 23/2807

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/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
TM16	Modified USEPA 8270D v5:2014. Quantitative determination of Semi-Volatile Organic compounds (SVOCs) by GC-MS.	PM8	End over end extraction of solid samples for organic analysis. The solvent mix varies depending on analysis required.			AR	Yes
TM16	Modified USEPA 8270D v5:2014. Quantitative determination of Semi-Volatile Organic compounds (SVOCs) 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
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	Preparation of Soil and Marine Sediment Samples for Total Organic Carbon.	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	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

EMT Job No: 23/2807

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
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.	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.			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.	Yes		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	
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
TM76	Modified US EPA method 120.1 (1982). Determination of Specific Conductance by Metrohm automated probe analyser.	PM58	Dried and ground solid samples are extracted with water in a 5:1 water to solid ratio, the samples are shaken on an orbital shaker.			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.			AR	Yes

EMT Job No: 23/2807

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
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
TM107	Determination of Sulphide/Thiocyanate by Skalar Continuous Flow Analyser	PM45	As received solid samples are extracted with 1M NaOH by orbital shaker for Cyanide, Sulphide and Thiocyanate analysis.			AR	Yes

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Englobe
Columbus House
Greenmeadow Springs
Tongwynlais
Cardiff
CF15 7NE

Attention :	Tim Vickers
Date :	20th March, 2023
Your reference :	C1856
Our reference :	Test Report 23/2809 Batch 1
Location :	NG Salisbury
Date samples received :	23rd February, 2023
Status :	Final Report
Issue :	1

Eight samples were received for analysis on 23rd February, 2023 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

Client Name: Englobe
Reference: C1856
Location: NG Salisbury
Contact: Tim Vickers
EMT Job No: 23/2809

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			LOD/LOR	Units	Method No.
Sample ID	AREA 1 - BASE VALIDATION 6	AREA 1 - BASE VALIDATION 6 - DUPLICATE	AREA 1 - BASE VALIDATION 7	AREA 1 - BASE VALIDATION 8	AREA 1 - SIDE VALIDATION 1	AREA 1 - SIDE VALIDATION 2	AREA 1 - SIDE VALIDATION 3	AREA 1 - SIDE VALIDATION 5					
Depth	1.80	1.80	1.80	1.90	0.00-1.90	0.00-1.80	0.00-1.80	0.00-1.80					
COC No / misc													
Containers	V J B	V J B	V J B	V J B	V J T	V J T	V J T	V J T					
Sample Date	21/02/2023 11:00	21/02/2023 11:05	21/02/2023 11:15	21/02/2023 11:30	21/02/2023 15:00	21/02/2023 15:10	21/02/2023 15:20	21/02/2023 15:30					
Sample Type	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil					
Batch Number	1	1	1	1	1	1	1	1					
Date of Receipt	23/02/2023	23/02/2023	23/02/2023	23/02/2023	23/02/2023	23/02/2023	23/02/2023	23/02/2023					
Arsenic #	4.1	5.4	5.3	2.6	12.6	7.1	33.6	36.6			<0.5	mg/kg	TM30/PM15
Cadmium #	<0.1	<0.1	0.4	<0.1	1.1	<0.1	0.2	0.4			<0.1	mg/kg	TM30/PM15
Chromium #	64.2	73.7	62.9	73.7	40.1	46.1	45.5	43.3			<0.5	mg/kg	TM30/PM15
Copper #	2	2	2	2	39	8	39	162			<1	mg/kg	TM30/PM15
Lead #	6	7	8	<5	55	77	675	519			<5	mg/kg	TM30/PM15
Mercury #	<0.1	<0.1	<0.1	<0.1	0.5	<0.1	7.7	1.3			<0.1	mg/kg	TM30/PM15
Nickel #	13.1	10.9	14.4	8.0	55.6	14.7	21.4	21.8			<0.7	mg/kg	TM30/PM15
Selenium #	1	1	1	<1	2	1	<1	2			<1	mg/kg	TM30/PM15
Total Sulphate as SO4 #	2755	4470	1853	387	2340	762	28380	61210			<50	mg/kg	TM50/PM29
Water Soluble Boron #	0.5	0.5	0.7	0.4	1.1	0.9	1.2	0.6			<0.1	mg/kg	TM74/PM32
Zinc #	43	36	55	14	334	61	185	260			<5	mg/kg	TM30/PM15
PAH MS													
Naphthalene #	<0.04	<0.04	<0.04	97.44 AB	17.37	20.75	0.72	11.49 AC			<0.04	mg/kg	TM4/PM8
Acenaphthylene	<0.03	<0.03	<0.03	5.33	6.00	4.01	1.81	14.18 AC			<0.03	mg/kg	TM4/PM8
Acenaphthene #	<0.05	<0.05	<0.05	2.54	0.86	2.50	0.07	1.36 AC			<0.05	mg/kg	TM4/PM8
Fluorene #	<0.04	<0.04	<0.04	6.35	2.54	3.09	0.19	7.37 AC			<0.04	mg/kg	TM4/PM8
Phenanthrene #	0.06	<0.03	<0.03	32.67 AB	13.87	22.46	4.39	147.99 AC			<0.03	mg/kg	TM4/PM8
Anthracene #	<0.04	<0.04	<0.04	7.24	7.30	8.04	3.45	66.33 AC			<0.04	mg/kg	TM4/PM8
Fluoranthene #	0.10	<0.03	<0.03	19.37	>>34.13	39.46 AB	18.26	197.03 AC			<0.03	mg/kg	TM4/PM8
Pyrene #	0.08	<0.03	<0.03	14.69	>>30.01	31.47 AB	15.11	153.45 AC			<0.03	mg/kg	TM4/PM8
Benzo(a)anthracene #	0.07	<0.06	<0.06	6.31	19.12	17.62	11.25	100.27 AC			<0.06	mg/kg	TM4/PM8
Chrysene #	0.05	<0.02	<0.02	5.90	17.61	17.25	10.13	87.24 AC			<0.02	mg/kg	TM4/PM8
Benzo(bk)fluoranthene #	<0.07	<0.07	<0.07	9.27	38.24	31.97	21.71	155.08 AC			<0.07	mg/kg	TM4/PM8
Benzo(a)pyrene #	<0.04	<0.04	<0.04	6.20	>>22.50	17.51	11.42	80.55 AC			<0.04	mg/kg	TM4/PM8
Indeno(123cd)pyrene #	<0.04	<0.04	<0.04	4.32	19.38	15.24	13.31	75.35 AC			<0.04	mg/kg	TM4/PM8
Dibenzo(ah)anthracene #	<0.04	<0.04	<0.04	0.70	3.68	2.71	1.95	12.87 AC			<0.04	mg/kg	TM4/PM8
Benzo(ghi)perylene #	<0.04	<0.04	<0.04	3.57	16.09	12.44	11.31	64.62 AC			<0.04	mg/kg	TM4/PM8
PAH 16 Total	<0.6	<0.6	<0.6	221.9	248.7	246.5	125.1	1175.2 AC			<0.6	mg/kg	TM4/PM8
Benzo(b)fluoranthene	<0.05	<0.05	<0.05	6.67	27.53	23.02	15.63	111.66 AC			<0.05	mg/kg	TM4/PM8
Benzo(k)fluoranthene	<0.02	<0.02	<0.02	2.60	10.71	8.95	6.08	43.42 AC			<0.02	mg/kg	TM4/PM8
PAH Surrogate % Recovery	87	88	83	97	86	91	93	87 AC			<0	%	TM4/PM8
TPH CWG													
Aliphatics													
>C5-C6 #	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1 SV			<0.1	mg/kg	TM36/PM12
>C6-C8 #	<0.1	<0.1	<0.1	0.1	<0.1	<0.1	<0.1	<0.1 SV			<0.1	mg/kg	TM36/PM12
>C8-C10	<0.1	<0.1	<0.1	3.6	<0.1	<0.1	<0.1	<0.1 SV			<0.1	mg/kg	TM36/PM12
>C10-C12 #	<0.2	<0.2	<0.2	4.2	<0.2	<0.2	<0.2	<0.2			<0.2	mg/kg	TM5/PM8/PM16
>C12-C16 #	<4	<4	<4	9	21	12	<4	10			<4	mg/kg	TM5/PM8/PM16
>C16-C21 #	<7	<7	<7	<7	28	61	<7	75			<7	mg/kg	TM5/PM8/PM16
>C21-C35 #	<7	<7	<7	<7	<7	98	<7	367			<7	mg/kg	TM5/PM8/PM16
Total aliphatics C5-35	<19	<19	<19	<19	49	171	<19	452			<19	mg/kg	TM5/TM36/PM8/PM12/PM16

Please see attached notes for all abbreviations and acronyms

Client Name: Englobe
Reference: C1856
Location: NG Salisbury
Contact: Tim Vickers
EMT Job No: 23/2809

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			LOD/LOR	Units	Method No.
Sample ID	AREA 1 - BASE VALIDATION 6	AREA 1 - BASE VALIDATION 6 - DUPLICATE	AREA 1 - BASE VALIDATION 7	AREA 1 - BASE VALIDATION 8	AREA 1 - SIDE VALIDATION 1	AREA 1 - SIDE VALIDATION 2	AREA 1 - SIDE VALIDATION 3	AREA 1 - SIDE VALIDATION 5					
Depth	1.80	1.80	1.80	1.90	0.00-1.90	0.00-1.80	0.00-1.80	0.00-1.80					
COC No / misc													
Containers	V J B	V J B	V J B	V J B	V J T	V J T	V J T	V J T					
Sample Date	21/02/2023 11:00	21/02/2023 11:05	21/02/2023 11:15	21/02/2023 11:30	21/02/2023 15:00	21/02/2023 15:10	21/02/2023 15:20	21/02/2023 15:30					
Sample Type	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil					
Batch Number	1	1	1	1	1	1	1	1					
Date of Receipt	23/02/2023	23/02/2023	23/02/2023	23/02/2023	23/02/2023	23/02/2023	23/02/2023	23/02/2023					
TPH CWG													
Aromatics													
>C5-EC7 #	<0.1	<0.1	<0.1	0.2	<0.1	<0.1	<0.1	<0.1 SV			<0.1	mg/kg	TM36/PM12
>EC7-EC8 #	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1 SV			<0.1	mg/kg	TM36/PM12
>EC8-EC10 #	<0.1	<0.1	<0.1	2.6	<0.1	<0.1	<0.1	<0.1 SV			<0.1	mg/kg	TM36/PM12
>EC10-EC12 #	<0.2	<0.2	<0.2	121.5	6.6	35.9	4.7	5.5			<0.2	mg/kg	TM5/PM8/PM16
>EC12-EC16 #	<4	<4	<4	68	21	50	9	29			<4	mg/kg	TM5/PM8/PM16
>EC16-EC21 #	<7	<7	<7	217	205	876	69	746			<7	mg/kg	TM5/PM8/PM16
>EC21-EC35 #	<7	<7	<7	190	624	2026	276	2329			<7	mg/kg	TM5/PM8/PM16
Total aromatics C5-35 #	<19	<19	<19	599	857	2988	359	3110			<19	mg/kg	TM5/TM36/PM8/PM12/PM16
Total aliphatics and aromatics(C5-35)	<38	<38	<38	599	906	3159	359	3562			<38	mg/kg	TM5/TM36/PM8/PM12/PM16
MTBE #	<5	<5	<5	<5	<5	<5	<5	<5 SV			<5	ug/kg	TM36/PM12
Benzene #	<5	<5	<5	183	<5	15	19	39 SV			<5	ug/kg	TM36/PM12
Toluene #	<5	<5	<5	60	<5	<5	15	22 SV			<5	ug/kg	TM36/PM12
Ethylbenzene #	<5	<5	<5	683	23	22	<5	<5 SV			<5	ug/kg	TM36/PM12
m/p-Xylene #	<5	<5	<5	1045	32	26	9	9 SV			<5	ug/kg	TM36/PM12
o-Xylene #	<5	<5	<5	831	14	16	15	19 SV			<5	ug/kg	TM36/PM12
2-Chlorophenol #	<10	<10	<10	<10	<10	<10	<10	<10			<10	ug/kg	TM16/PM8
Natural Moisture Content	20.1	15.4	23.2	13.0	28.7	23.9	24.7	24.5			<0.1	%	PM4/PM0
2-Methylphenol	<10	<10	<10	<10	<10	<10	491	229			<10	ug/kg	TM16/PM8
2-Nitrophenol	<10	<10	<10	<10	<10	<10	<10	<10			<10	ug/kg	TM16/PM8
2,4-Dichlorophenol #	<10	<10	<10	<10	<10	<10	<10	<10			<10	ug/kg	TM16/PM8
2,4-Dimethylphenol	<10	<10	<10	<10	<10	<10	667	157			<10	ug/kg	TM16/PM8
2,4,5-Trichlorophenol	<10	<10	<10	<10	<10	<10	<10	<10			<10	ug/kg	TM16/PM8
2,4,6-Trichlorophenol	<10	<10	<10	<10	<10	<10	<10	<10			<10	ug/kg	TM16/PM8
4-Chloro-3-methylphenol	<10	<10	<10	<10	<10	<10	<10	<10			<10	ug/kg	TM16/PM8
4-Methylphenol	<10	<10	<10	<10	<10	<10	1428	705			<10	ug/kg	TM16/PM8
4-Nitrophenol	<10	<10	<10	<10	<10	<10	<10	<10			<10	ug/kg	TM16/PM8
Pentachlorophenol	<10	<10	<10	<10	<10	<10	<10	<10			<10	ug/kg	TM16/PM8
Phenol #	<10	<10	<10	<10	<10	<10	761	688			<10	ug/kg	TM16/PM8
Total Speciated Phenols MS	<10	<10	<10	<10	<10	<10	3347	1779			<10	ug/kg	TM16/PM8
Ammoniacal Nitrogen as NH4	7.3	22.0	27.4	9.9	<0.6	4.7	<0.6	<0.6			<0.6	mg/kg	TM38/PM20
Chloride #	3	<2	3	2	17	8	9	6			<2	mg/kg	TM38/PM20
Free Cyanide	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	5.6	1.7			<0.5	mg/kg	TM89/PM45
Total Cyanide #	2.3	<0.5	2.1	<0.5	91.2 AA	46.5	555.3 AC	459.0 AC			<0.5	mg/kg	TM89/PM45
Complex Cyanide	2.3	<0.5	2.1	<0.5	91.2	46.5	549.7	459.0 AC			<0.5	mg/kg	TM89/PM45
Total Organic Carbon #	0.30	0.26	0.37	0.30	2.38	2.09	8.60	11.28			<0.02	%	TM21/PM24

Please see attached notes for all abbreviations and acronyms

Client Name: Englobe
Reference: C1856
Location: NG Salisbury
Contact: Tim Vickers
EMT Job No: 23/2809

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			LOD/LOR	Units	Method No.
Sample ID	AREA 1 - BASE VALIDATION 6	AREA 1 - BASE VALIDATION 6 - DUPLICATE	AREA 1 - BASE VALIDATION 7	AREA 1 - BASE VALIDATION 8	AREA 1 - SIDE VALIDATION 1	AREA 1 - SIDE VALIDATION 2	AREA 1 - SIDE VALIDATION 3	AREA 1 - SIDE VALIDATION 5					
Depth	1.80	1.80	1.80	1.90	0.00-1.90	0.00-1.80	0.00-1.80	0.00-1.80					
COC No / misc													
Containers	V J B	V J B	V J B	V J B	V J T	V J T	V J T	V J T					
Sample Date	21/02/2023 11:00	21/02/2023 11:05	21/02/2023 11:15	21/02/2023 11:30	21/02/2023 15:00	21/02/2023 15:10	21/02/2023 15:20	21/02/2023 15:30					
Sample Type	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil					
Batch Number	1	1	1	1	1	1	1	1					
Date of Receipt	23/02/2023	23/02/2023	23/02/2023	23/02/2023	23/02/2023	23/02/2023	23/02/2023	23/02/2023					
Sulphide	<10	<10	<10	<10	15	<10	<10	<10			<10	mg/kg	TM107/PM45
Electrical Conductivity @25C (5:1 ext)	656	916	488	128	662	235	1970	2247			<100	uS/cm	TM76/PM58
pH #	7.82	6.98	7.95	6.84	7.82	7.77	7.53	7.53			<0.01	pH units	TM73/PM11

Please see attached notes for all abbreviations and acronyms

Client Name: Englobe
Reference: C1856
Location: NG Salisbury
Contact: Tim Vickers

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.

Where trace asbestos is reported the amount of asbestos will be <0.1%.

EMT Job No.	Batch	Sample ID	Depth	EMT Sample No.	Analyst Name	Date Of Analysis	Analysis	Result
23/2809	1	AREA 1 - BASE VALIDATION 6	1.80	3	Anthony Carman	06/03/2023	**General Description (Bulk Analysis)**	Brown Soil/Stones
					Anthony Carman	06/03/2023	**Asbestos Fibres**	NAD
					Anthony Carman	06/03/2023	**Asbestos ACM**	NAD
					Anthony Carman	06/03/2023	**Asbestos Type**	NAD
23/2809	1	AREA 1 - BASE VALIDATION 6 - DUPLICATE	1.80	6	Simon Postlewhite	06/03/2023	**General Description (Bulk Analysis)**	Brown soil/stones
					Simon Postlewhite	06/03/2023	**Asbestos Fibres**	NAD
					Simon Postlewhite	06/03/2023	**Asbestos ACM**	NAD
					Simon Postlewhite	06/03/2023	**Asbestos Type**	NAD
23/2809	1	AREA 1 - BASE VALIDATION 7	1.80	9	Anthony Carman	06/03/2023	**General Description (Bulk Analysis)**	Brown Soil/Stones
					Anthony Carman	06/03/2023	**Asbestos Fibres**	NAD
					Anthony Carman	06/03/2023	**Asbestos ACM**	NAD
					Anthony Carman	06/03/2023	**Asbestos Type**	NAD
23/2809	1	AREA 1 - BASE VALIDATION 8	1.90	12	Anthony Carman	06/03/2023	**General Description (Bulk Analysis)**	Brown Soil/Stones
					Anthony Carman	06/03/2023	**Asbestos Fibres**	NAD
					Anthony Carman	06/03/2023	**Asbestos ACM**	NAD
					Anthony Carman	06/03/2023	**Asbestos Type**	NAD
23/2809	1	AREA 1 - SIDE VALIDATION 1	0.00-1.90	15	Anthony Carman	06/03/2023	**General Description (Bulk Analysis)**	Brown Soil/Stones
					Anthony Carman	06/03/2023	**Asbestos Fibres**	Fibre Bundles
					Anthony Carman	06/03/2023	**Asbestos ACM**	NAD
					Anthony Carman	06/03/2023	**Asbestos Type**	Chrysotile
					Matthew Turner	20/03/2023	**Total ACM Gravimetric Quantification (% Asb)**	<0.001 (mass %)
					Matthew Turner	20/03/2023	**Total Detailed Gravimetric Quantification (% Asb)**	0.007 (mass %)
					Matthew Turner	20/03/2023	**Total Gravimetric Quantification (ACM + Detailed) (% Asb)**	0.007 (mass %)
23/2809	1	AREA 1 - SIDE VALIDATION 2	0.00-1.80	18	Anthony Carman	06/03/2023	**General Description (Bulk Analysis)**	Brown Soil/Stones
					Anthony Carman	06/03/2023	**Asbestos Fibres**	NAD
					Anthony Carman	06/03/2023	**Asbestos ACM**	NAD
					Anthony Carman	06/03/2023	**Asbestos Type**	NAD
23/2809	1	AREA 1 - SIDE VALIDATION 3	0.00-1.80	21	Simon Postlewhite	06/03/2023	**General Description (Bulk Analysis)**	Brown soil/stones
					Simon Postlewhite	06/03/2023	**Asbestos Fibres**	NAD
					Simon Postlewhite	06/03/2023	**Asbestos ACM**	NAD
					Simon Postlewhite	06/03/2023	**Asbestos Type**	NAD

Client Name: Englobe
Reference: C1856
Location: NG Salisbury
Contact: Tim Vickers

EMT Job No.	Batch	Sample ID	Depth	EMT Sample No.	Analyst Name	Date Of Analysis	Analysis	Result
23/2809	1	AREA 1 - SIDE VALIDATION 5	0.00-1.80	24	Simon Postlewhite	06/03/2023	**General Description (Bulk Analysis)**	Brown soil/stones
					Simon Postlewhite	06/03/2023	**Asbestos Fibres**	NAD
					Simon Postlewhite	06/03/2023	**Asbestos ACM**	NAD
					Simon Postlewhite	06/03/2023	**Asbestos Type**	NAD

Client Name: Englobe
Reference: C1856
Location: NG Salisbury
Contact: Tim Vickers

EMT Job No.	Batch	Sample ID	Depth	EMT Sample No.	Analysis	Reason
No deviating sample report results for job 23/2809						

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.

Please include all sections of this report if it is reproduced

EMT Job No.: 23/2809

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 quantitative calibration range. The result should be considered the minimum value and is indicative only. 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	x2 Dilution
AB	x10 Dilution
AC	x20 Dilution

EMT Job No: 23/2809

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/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
TM16	Modified USEPA 8270D v5:2014. Quantitative determination of Semi-Volatile Organic compounds (SVOCs) by GC-MS.	PM8	End over end extraction of solid samples for organic analysis. The solvent mix varies depending on analysis required.			AR	Yes
TM16	Modified USEPA 8270D v5:2014. Quantitative determination of Semi-Volatile Organic compounds (SVOCs) 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
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	Preparation of Soil and Marine Sediment Samples for Total Organic Carbon.	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	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

EMT Job No: 23/2809

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
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.	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.			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.	Yes		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	
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
TM76	Modified US EPA method 120.1 (1982). Determination of Specific Conductance by Metrohm automated probe analyser.	PM58	Dried and ground solid samples are extracted with water in a 5:1 water to solid ratio, the samples are shaken on an orbital shaker.			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.			AR	Yes

EMT Job No: 23/2809

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
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
TM107	Determination of Sulphide/Thiocyanate by Skalar Continuous Flow Analyser	PM45	As received solid samples are extracted with 1M NaOH by orbital shaker for Cyanide, Sulphide and Thiocyanate analysis.			AR	Yes
TM131	Quantification of Asbestos Fibres and ACM based on HSG 248 Second edition:2021, HSG 264 Second edition:2012, HSE Contract Research Report No.83/1996, MDHS 87:1998, WM3 1st Edition v1.1:2018	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	Yes

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Englobe
Columbus House
Greenmeadow Springs
Tongwynlais
Cardiff
CF15 7NE

Attention :	Tim Vickers
Date :	7th March, 2023
Your reference :	C1856
Our reference :	Test Report 23/2881 Batch 1
Location :	NG Sailsbury
Date samples received :	24th February, 2023
Status :	Final Report
Issue :	1

Two samples were received for analysis on 24th February, 2023 of which two 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

Client Name: Englobe
Reference: C1856
Location: NG Sailsbury
Contact: Tim Vickers
EMT Job No: 23/2881

Report : Liquid

Liquids/products: V=40ml vial, G=glass bottle, P=plastic bottle
$H=H_2SO_4$, Z=ZnAc, N=NaOH, $HN=HN0_3$

EMT Sample No.	1-9	10-18											
Sample ID	WTS-INFLUENT	WTS-EFFLUENT											
Depth													
COC No / misc													
Containers	V HN N Z P G	V HN N Z P G											
Sample Date	22/02/2023 15:00	22/02/2023 15:15											
Sample Type	Ground Water	Ground Water											
Batch Number	1	1											
Date of Receipt	24/02/2023	24/02/2023											

Please see attached notes for all abbreviations and acronyms

											LOD/LOR	Units	Method No.
Dissolved Arsenic #	87.5	59.6									<0.9	ug/l	TM170/PM14
Dissolved Cadmium #	<0.03	<0.03									<0.03	ug/l	TM170/PM14
Total Dissolved Chromium #	0.3	0.3									<0.2	ug/l	TM170/PM14
Dissolved Copper #	2	<1									<1	ug/l	TM170/PM14
Dissolved Lead #	<0.4	<0.4									<0.4	ug/l	TM170/PM14
Dissolved Mercury #	<0.5	<0.5									<0.5	ug/l	TM170/PM14
Dissolved Nickel #	0.6	1.4									<0.2	ug/l	TM170/PM14
Dissolved Selenium #	<1.2	<1.2									<1.2	ug/l	TM170/PM14
Dissolved Zinc #	16.0	14.1									<1.5	ug/l	TM170/PM14
Total Phosphorus	434_{AA}	709_{AA}									<5	ug/l	TM170/PM14
PAH MS													
Naphthalene #	$<0.1^{SV}$	0.1^{SV}									<0.1	ug/l	TM4/PM30
Acenaphthylene #	0.008^{SV}	0.007^{SV}									<0.005	ug/l	TM4/PM30
Acenaphthene #	$<0.005^{SV}$	0.007^{SV}									<0.005	ug/l	TM4/PM30
Fluorene #	0.006^{SV}	$<0.005^{SV}$									<0.005	ug/l	TM4/PM30
Phenanthrene #	0.006^{SV}	0.009^{SV}									<0.005	ug/l	TM4/PM30
Anthracene #	0.009^{SV}	$<0.005^{SV}$									<0.005	ug/l	TM4/PM30
Fluoranthene #	0.038^{SV}	0.007^{SV}									<0.005	ug/l	TM4/PM30
Pyrene #	0.024^{SV}	0.008^{SV}									<0.005	ug/l	TM4/PM30
Benzo(a)anthracene #	0.011^{SV}	0.010^{SV}									<0.005	ug/l	TM4/PM30
Chrysene #	0.014^{SV}	0.012^{SV}									<0.005	ug/l	TM4/PM30
Benzo(bk)fluoranthene #	0.020^{SV}	0.020^{SV}									<0.008	ug/l	TM4/PM30
Benzo(a)pyrene #	$<0.005^{SV}$	0.006^{SV}									<0.005	ug/l	TM4/PM30
Indeno(123cd)pyrene #	0.005^{SV}	0.006^{SV}									<0.005	ug/l	TM4/PM30
Dibenzo(ah)anthracene #	$<0.005^{SV}$	0.008^{SV}									<0.005	ug/l	TM4/PM30
Benzo(ghi)perylene #	0.008^{SV}	0.010^{SV}									<0.005	ug/l	TM4/PM30
PAH 16 Total #	$<0.173^{SV}$	0.210^{SV}									<0.173	ug/l	TM4/PM30
Benzo(b)fluoranthene	0.014^{SV}	0.014^{SV}									<0.008	ug/l	TM4/PM30
Benzo(k)fluoranthene	$<0.008^{SV}$	$<0.008^{SV}$									<0.008	ug/l	TM4/PM30
PAH Surrogate % Recovery	61^{SV}	66^{SV}									<0	%	TM4/PM30
GRO (>C4-C8) #	<10	<10									<10	ug/l	TM36/PM12
GRO (>C8-C12) #	80	62									<10	ug/l	TM36/PM12
GRO (>C4-C12) #	80	62									<10	ug/l	TM36/PM12
EPH (C8-C40) #	<10	<10									<10	ug/l	TM5/PM30
Total Phenols HPLC	<0.15	<0.15									<0.15	mg/l	TM26/PM0
Resorcinol	<0.01	<0.01									<0.01	mg/l	TM26/PM0
Catechol	<0.01	<0.01									<0.01	mg/l	TM26/PM0
Phenol #	<0.01	<0.01									<0.01	mg/l	TM26/PM0
m/p-cresol	<0.02	<0.02									<0.02	mg/l	TM26/PM0
o-cresol	<0.01	<0.01									<0.01	mg/l	TM26/PM0

Client Name: Englobe
Reference: C1856
Location: NG Sailsbury
Contact: Tim Vickers
EMT Job No: 23/2881

Report : Liquid

Liquids/products: V=40ml vial, G=glass bottle, P=plastic bottle
$H=H_2SO_4$, Z=ZnAc, N=NaOH, $HN=HN0_3$

EMT Sample No.	1-9	10-18									LOD/LOR	Units	Method No.
Sample ID	WTS-INFLUENT	WTS-EFFLUENT											
Depth													
COC No / misc													
Containers	V HN N Z P G	V HN N Z P G											
Sample Date	22/02/2023 15:00	22/02/2023 15:15											
Sample Type	Ground Water	Ground Water											
Batch Number	1	1											
Date of Receipt	24/02/2023	24/02/2023											
Xylenols #	<0.06	<0.06									<0.06	mg/l	TM26/PM0
1-naphthol	<0.01	<0.01									<0.01	mg/l	TM26/PM0
2,3,5-trimethyl phenol	<0.01	<0.01									<0.01	mg/l	TM26/PM0
2-isopropylphenol	<0.01	<0.01									<0.01	mg/l	TM26/PM0
Sulphate as SO4 #	29.3	64.6									<0.5	mg/l	TM38/PM0
Chloride #	23.0	33.5									<0.3	mg/l	TM38/PM0
Free Cyanide #	<0.01	<0.01									<0.01	mg/l	TM89/PM0
Total Cyanide #	<0.01	<0.01									<0.01	mg/l	TM89/PM0
Complex Cyanide	<0.01	<0.01									<0.01	mg/l	TM89/PM0
Ammoniacal Nitrogen as NH4 #	0.08	0.08									<0.03	mg/l	TM38/PM0
Dissolved Methane #	<1	<1									<1	ug/l	TM25/PM0
Sulphide	<0.01	<0.01									<0.01	mg/l	TM107/PM0
COD (Settled) #	8	<7									<7	mg/l	TM57/PM0
Electrical Conductivity @25C #	535	518									<2	uS/cm	TM76/PM0
pH #	8.77	9.45									<0.01	pH units	TM73/PM0
Total Organic Carbon #	<2	2									<2	mg/l	TM60/PM0
Total Suspended Solids #	<10	<10									<10	mg/l	TM37/PM0

Please see attached notes for all abbreviations and acronyms

Client Name: Englobe
Reference: C1856
Location: NG Sailsbury
Contact: Tim Vickers
EMT Job No: 23/2881

VOC Report : **Liquid**

EMT Sample No.	1-9	10-18									LOD/LOR	Units	Method No.
Sample ID	WTS-INFLUENT	WTS-EFFLUENT											
Depth													
COC No / misc													
Containers	V HN N Z P G	V HN N Z P G											
Sample Date	22/02/2023 15:00	22/02/2023 15:15											
Sample Type	Ground Water	Ground Water											
Batch Number	1	1											
Date of Receipt	24/02/2023	24/02/2023											
VOC MS													
Dichlorodifluoromethane	<2	<2									<2	ug/l	TM15/PM10
Methyl Tertiary Butyl Ether #	<0.1	<0.1									<0.1	ug/l	TM15/PM10
Chloromethane #	<3	<3									<3	ug/l	TM15/PM10
Vinyl Chloride #	<0.1	<0.1									<0.1	ug/l	TM15/PM10
Bromomethane	<1	<1									<1	ug/l	TM15/PM10
Chloroethane #	<3	<3									<3	ug/l	TM15/PM10
Trichlorofluoromethane #	<3	<3									<3	ug/l	TM15/PM10
1,1-Dichloroethene (1,1 DCE) #	<3	<3									<3	ug/l	TM15/PM10
Dichloromethane (DCM) #	<3	<3									<3	ug/l	TM15/PM10
trans-1-2-Dichloroethene #	<3	<3									<3	ug/l	TM15/PM10
1,1-Dichloroethane #	<3	<3									<3	ug/l	TM15/PM10
cis-1-2-Dichloroethene #	<3	<3									<3	ug/l	TM15/PM10
2,2-Dichloropropane	<1	<1									<1	ug/l	TM15/PM10
Bromochloromethane #	<2	<2									<2	ug/l	TM15/PM10
Chloroform #	<2	<2									<2	ug/l	TM15/PM10
1,1,1-Trichloroethane #	<2	<2									<2	ug/l	TM15/PM10
1,1-Dichloropropene #	<3	<3									<3	ug/l	TM15/PM10
Carbon tetrachloride #	<2	<2									<2	ug/l	TM15/PM10
1,2-Dichloroethane #	<2	<2									<2	ug/l	TM15/PM10
Benzene #	<0.5	<0.5									<0.5	ug/l	TM15/PM10
Trichloroethene (TCE) #	<3	<3									<3	ug/l	TM15/PM10
1,2-Dichloropropane #	<2	<2									<2	ug/l	TM15/PM10
Dibromomethane #	<3	<3									<3	ug/l	TM15/PM10
Bromodichloromethane #	<2	<2									<2	ug/l	TM15/PM10
cis-1-3-Dichloropropene	<2	<2									<2	ug/l	TM15/PM10
Toluene #	<5	<5									<5	ug/l	TM15/PM10
trans-1-3-Dichloropropene	<2	<2									<2	ug/l	TM15/PM10
1,1,2-Trichloroethane #	<2	<2									<2	ug/l	TM15/PM10
Tetrachloroethene (PCE) #	<3	<3									<3	ug/l	TM15/PM10
1,3-Dichloropropane #	<2	<2									<2	ug/l	TM15/PM10
Dibromochloromethane #	<2	<2									<2	ug/l	TM15/PM10
1,2-Dibromoethane #	<2	<2									<2	ug/l	TM15/PM10
Chlorobenzene #	<2	<2									<2	ug/l	TM15/PM10
1,1,1,2-Tetrachloroethane #	<2	<2									<2	ug/l	TM15/PM10
Ethylbenzene #	<1	<1									<1	ug/l	TM15/PM10
m/p-Xylene #	<2	<2									<2	ug/l	TM15/PM10
o-Xylene #	<1	<1									<1	ug/l	TM15/PM10
Styrene	<2	<2									<2	ug/l	TM15/PM10
Bromoform #	<2	<2									<2	ug/l	TM15/PM10
Isopropylbenzene #	<3	<3									<3	ug/l	TM15/PM10
1,1,2,2-Tetrachloroethane	<4	<4									<4	ug/l	TM15/PM10
Bromobenzene #	<2	<2									<2	ug/l	TM15/PM10
1,2,3-Trichloropropane #	<3	<3									<3	ug/l	TM15/PM10
Propylbenzene #	<3	<3									<3	ug/l	TM15/PM10
2-Chlorotoluene #	<3	<3									<3	ug/l	TM15/PM10
1,3,5-Trimethylbenzene #	<3	<3									<3	ug/l	TM15/PM10
4-Chlorotoluene #	<3	<3									<3	ug/l	TM15/PM10
tert-Butylbenzene #	<3	<3									<3	ug/l	TM15/PM10
1,2,4-Trimethylbenzene #	<3	<3									<3	ug/l	TM15/PM10
sec-Butylbenzene #	<3	<3									<3	ug/l	TM15/PM10
4-Isopropyltoluene #	<3	<3									<3	ug/l	TM15/PM10
1,3-Dichlorobenzene #	<3	<3									<3	ug/l	TM15/PM10
1,4-Dichlorobenzene #	<3	<3									<3	ug/l	TM15/PM10
n-Butylbenzene #	<3	<3									<3	ug/l	TM15/PM10
1,2-Dichlorobenzene #	<3	<3									<3	ug/l	TM15/PM10
1,2-Dibromo-3-chloropropane	<2	<2									<2	ug/l	TM15/PM10
1,2,4-Trichlorobenzene	<3	<3									<3	ug/l	TM15/PM10
Hexachlorobutadiene	<3	<3									<3	ug/l	TM15/PM10
Naphthalene	<2	<2									<2	ug/l	TM15/PM10
1,2,3-Trichlorobenzene	<3	<3									<3	ug/l	TM15/PM10
Surrogate Recovery Toluene D8	97	99									<0	%	TM15/PM10
Surrogate Recovery 4-Bromofluorobenzene	98	100									<0	%	TM15/PM10

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.

Client Name: Englobe
Reference: C1856
Location: NG Sailsbury
Contact: Tim Vickers

EMT Job No.	Batch	Sample ID	Depth	EMT Sample No.	Analysis	Reason
No deviating sample report results for job 23/2881						

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.: 23/2881

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

EMT Job No: 23/2881

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
TM4	Modified USEPA 8270D v5:2014 method for the solvent extraction and determination of PAHs by GC-MS.	PM30	Water samples are extracted with solvent using a magnetic stirrer to create a vortex.				
TM4	Modified USEPA 8270D v5:2014 method for the solvent extraction and determination of PAHs by GC-MS.	PM30	Water samples are extracted with solvent using a magnetic stirrer to create a vortex.	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.	PM30	Water samples are extracted with solvent using a magnetic stirrer to create a vortex.	Yes			
TM15	Modified USEPA 8260B v2:1996. Quantitative Determination of Volatile Organic Compounds (VOCs) by Headspace GC-MS.	PM10	Modified US EPA method 5021A v2:2014. Preparation of solid and liquid samples for GC headspace analysis.				
TM15	Modified USEPA 8260B v2:1996. Quantitative Determination of Volatile Organic Compounds (VOCs) by Headspace GC-MS.	PM10	Modified US EPA method 5021A v2:2014. Preparation of solid and liquid samples for GC headspace analysis.	Yes			
TM25	Determintaion of Dissolved Methane, Ethane and Ethene by Headspace GC-FID	PM0	No preparation is required.	Yes			
TM26	Determination of phenols by Reversed Phased High Performance Liquid Chromatography and Electro-Chemical Detection.	PM0	No preparation is required.				
TM26	Determination of phenols by Reversed Phased High Performance Liquid Chromatography and Electro-Chemical Detection.	PM0	No preparation is required.	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			
TM37	Modified methods - TSS: USEPA 160.2 (1985), EN872:2005 and APHA SMEWW 2540D:1999 22nd Edition; VSS: USEPA 1684 (Jan 2001), USEPA 160.4 (1971) and SMEWW 2540E:1999 22nd Edition. Gravimetric determination of Total Suspended Solids (TSS) and Volatile Suspended Solids (VSS). Sample is filtered through a 1.5um pore size glass fibre filter and the resulting residue is dried and weighed at 105°C for TSS and 550°C for VSS.	PM0	No preparation is required.	Yes			

EMT Job No: 23/2881

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	PM0	No preparation is required.	Yes			
TM57	Modified US EPA Method 410.4. (Rev. 2.0 1993) Comparable with ISO 15705:2002. Chemical Oxygen Demand is determined by hot digestion with Potassium Dichromate and measured spectrophotometerically.	PM0	No preparation is required.	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.	Yes			
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.	PM0	No preparation is required.	Yes			
TM76	Modified US EPA method 120.1 (1982). Determination of Specific Conductance by Metrohm automated probe analyser.	PM0	No preparation is required.	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.	PM0	No preparation is required.				
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.	PM0	No preparation is required.	Yes			
TM107	Determination of Sulphide/Thiocyanate by Skalar Continuous Flow Analyser	PM0	No preparation is required.				
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				
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	Yes			

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Englobe
Columbus House
Greenmeadow Springs
Tongwynlais
Cardiff
CF15 7NE

Attention :	Tim Vickers
Date :	10th March, 2023
Your reference :	C1856
Our reference :	Test Report 23/3100 Batch 1
Location :	NG Salisbury
Date samples received :	28th February, 2023
Status :	Final Report
Issue :	1

Five samples were received for analysis on 28th February, 2023 of which five 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

Client Name: Englobe
Reference: C1856
Location: NG Salisbury
Contact: Tim Vickers
EMT Job No: 23/3100

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.	1-3	4-6	7-9	10-12	13-15						LOD/LOR	Units	Method No.
Sample ID	Area1-NWB-Validation 1A	Area1-Base-Validation 1A	Area1-Side-Validation 1A	Area1-Side-Validation 2A	Oil Band-Area 1 West								
Depth	0.00-1.80	2.00	0.00-1.80	0.00-1.80	1.90								
COC No / misc													
Containers	V J T	V J T	V J T	V J T	V J T								
Sample Date	27/02/2023	27/02/2023	27/02/2023	27/02/2023	27/02/2023								
Sample Type	Soil	Soil	Soil	Soil	Soil								
Batch Number	1	1	1	1	1								
Date of Receipt	28/02/2023	28/02/2023	28/02/2023	28/02/2023	28/02/2023								
Arsenic #	23.8	4.7	12.5	32.3	NDP						<0.5	mg/kg	TM30/PM15
Cadmium #	0.6	<0.1	0.5	0.7	NDP						<0.1	mg/kg	TM30/PM15
Chromium #	51.5	52.5	56.1	56.3	NDP						<0.5	mg/kg	TM30/PM15
Copper #	35	<1	15	40	NDP						<1	mg/kg	TM30/PM15
Lead #	80	9	49	183	NDP						<5	mg/kg	TM30/PM15
Mercury #	<0.1	<0.1	<0.1	0.2	NDP						<0.1	mg/kg	TM30/PM15
Nickel #	27.3	12.0	14.2	20.3	NDP						<0.7	mg/kg	TM30/PM15
Selenium #	<1	<1	<1	<1	NDP						<1	mg/kg	TM30/PM15
Total Sulphate as SO4 #	89030$_{AC}$	795	12300$_{AB}$	2147	NDP						<50	mg/kg	TM50/PM29
Water Soluble Boron #	1.3	0.9	0.7	0.4	NDP						<0.1	mg/kg	TM74/PM32
Zinc #	244	37	1048	162	NDP						<5	mg/kg	TM30/PM15
Arsenic	-	-	-	-	69.6						<0.5	mg/kg	TM30/PM62
Cadmium	-	-	-	-	4.2						<0.1	mg/kg	TM30/PM62
Chromium	-	-	-	-	21.3						<0.5	mg/kg	TM30/PM62
Copper	-	-	-	-	82						<1	mg/kg	TM30/PM62
Lead	-	-	-	-	364						<5	mg/kg	TM30/PM62
Mercury	-	-	-	-	24.8						<0.1	mg/kg	TM30/PM62
Nickel	-	-	-	-	22.6						<0.7	mg/kg	TM30/PM62
Selenium	-	-	-	-	<1						<1	mg/kg	TM30/PM62
Total Sulphate as SO4	-	-	-	-	18018$_{AB}$						<50	mg/kg	TM50/PM129
Water Soluble Boron	-	-	-	-	0.5						<0.1	mg/kg	TM74/PM61
Zinc	-	-	-	-	1196						<5	mg/kg	TM30/PM62
PAH MS													
Naphthalene #	34.91$_{AC}$	<0.04	1.13	62.33	65453.61$_{AE}$						<0.04	mg/kg	TM4/PM8
Acenaphthylene	55.89$_{AC}$	<0.03	1.65	1.51	1508.26$_{AE}$						<0.03	mg/kg	TM4/PM8
Acenaphthene #	18.92$_{AC}$	<0.05	0.13	2.18	376.15$_{AE}$						<0.05	mg/kg	TM4/PM8
Fluorene #	87.31$_{AC}$	<0.04	0.39	3.67	1553.95$_{AE}$						<0.04	mg/kg	TM4/PM8
Phenanthrene #	462.30$_{AC}$	<0.03	7.12	36.12	7526.13$_{AE}$						<0.03	mg/kg	TM4/PM8
Anthracene #	176.78$_{AC}$	<0.04	3.58	8.31	2288.68$_{AE}$						<0.04	mg/kg	TM4/PM8
Fluoranthene #	499.29$_{AC}$	<0.03	19.05	16.16	4791.99$_{AE}$						<0.03	mg/kg	TM4/PM8
Pyrene #	381.89$_{AC}$	<0.03	16.53	12.42	3572.43$_{AE}$						<0.03	mg/kg	TM4/PM8
Benzo(a)anthracene #	235.63$_{AC}$	<0.06	9.86	7.88	1681.72$_{AE}$						<0.06	mg/kg	TM4/PM8
Chrysene #	215.32$_{AC}$	<0.02	9.43	7.64	1572.63$_{AE}$						<0.02	mg/kg	TM4/PM8
Benzo(bk)fluoranthene #	328.85$_{AC}$	<0.07	18.47	19.42	2292.56$_{AE}$						<0.07	mg/kg	TM4/PM8
Benzo(a)pyrene #	174.09$_{AC}$	<0.04	9.05	9.92	1427.25$_{AE}$						<0.04	mg/kg	TM4/PM8
Indeno(123cd)pyrene #	129.98$_{AC}$	<0.04	9.38	12.28	939.34$_{AE}$						<0.04	mg/kg	TM4/PM8
Dibenzo(ah)anthracene #	33.01$_{AC}$	<0.04	1.38	3.06	138.66$_{AE}$						<0.04	mg/kg	TM4/PM8
Benzo(ghi)perylene #	95.02$_{AC}$	<0.04	7.25	10.22	880.10$_{AE}$						<0.04	mg/kg	TM4/PM8
PAH 16 Total	2929.2$_{AC}$	<0.6	114.4	213.1	96003.5$_{AE}$						<0.6	mg/kg	TM4/PM8
Benzo(b)fluoranthene	236.77$_{AC}$	<0.05	13.30	13.98	1650.64$_{AE}$						<0.05	mg/kg	TM4/PM8
Benzo(k)fluoranthene	92.08$_{AC}$	<0.02	5.17	5.44	641.92$_{AE}$						<0.02	mg/kg	TM4/PM8
PAH Surrogate % Recovery	85$_{AC}$	101	96	93	93$_{AE}$						<0	%	TM4/PM8

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Client Name: Englobe
Reference: C1856
Location: NG Salisbury
Contact: Tim Vickers
EMT Job No: 23/3100

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						LOD/LOR	Units	Method No.
Sample ID	Area1-NWB-Validation 1A	Area1-Base-Validation 1A	Area1-Side-Validation 1A	Area1-Side-Validation 2A	Oil Band-Area 1 West								
Depth	0.00-1.80	2.00	0.00-1.80	0.00-1.80	1.90								
COC No / misc													
Containers	V J T	V J T	V J T	V J T	V J T								
Sample Date	27/02/2023	27/02/2023	27/02/2023	27/02/2023	27/02/2023								
Sample Type	Soil	Soil	Soil	Soil	Soil								
Batch Number	1	1	1	1	1								
Date of Receipt	28/02/2023	28/02/2023	28/02/2023	28/02/2023	28/02/2023								
TPH CWG													
Aliphatics													
>C5-C6 #	<0.1 SV	<0.1	<0.1	<0.1	<0.1 SV						<0.1	mg/kg	TM36/PM12
>C6-C8 #	<0.1 SV	<0.1	<0.1	<0.1	5.8 SV						<0.1	mg/kg	TM36/PM12
>C8-C10	2.4 SV	<0.1	<0.1	<0.1	10.5 SV						<0.1	mg/kg	TM36/PM12
>C10-C12 #	8.0	<0.2	<0.2	<0.2	>>211.2						<0.2	mg/kg	TM5/PM8/PM16
>C12-C16 #	35	<4	<4	15	>>353						<4	mg/kg	TM5/PM8/PM16
>C16-C21 #	<7	<7	<7	13	>>123						<7	mg/kg	TM5/PM8/PM16
>C21-C35 #	<7	<7	<7	<7	>>83						<7	mg/kg	TM5/PM8/PM16
Total aliphatics C5-35	45	<19	<19	28	787						<19	mg/kg	TM5/TM36/PM8/PM12/PM16
Aromatics													
>C5-EC7 #	0.1 SV	<0.1	<0.1	<0.1	4.5 SV						<0.1	mg/kg	TM36/PM12
>EC7-EC8 #	<0.1 SV	<0.1	<0.1	<0.1	7.8 SV						<0.1	mg/kg	TM36/PM12
>EC8-EC10 #	0.4 SV	<0.1	<0.1	<0.1	20.0 SV						<0.1	mg/kg	TM36/PM12
>EC10-EC12 #	25.2	<0.2	<0.2	28.3	>>17557.2						<0.2	mg/kg	TM5/PM8/PM16
>EC12-EC16 #	231	<4	<4	67	>>4067						<4	mg/kg	TM5/PM8/PM16
>EC16-EC21 #	2239	<7	140	238	>>15046						<7	mg/kg	TM5/PM8/PM16
>EC21-EC35 #	3975	<7	452	778	>>14298						<7	mg/kg	TM5/PM8/PM16
Total aromatics C5-35 #	6471	<19	592	1111	51001						<19	mg/kg	TM5/TM36/PM8/PM12/PM16
Total aliphatics and aromatics(C5-35)	6516	<38	592	1139	51788						<38	mg/kg	TM5/TM36/PM8/PM12/PM16
MTBE #	<5 SV	<5	<5	<5	<5 SV						<5	ug/kg	TM36/PM12
Benzene #	140 SV	<5	15	7	4591 SV						<5	ug/kg	TM36/PM12
Toluene #	27 SV	<5	7	<5	7838 SV						<5	ug/kg	TM36/PM12
Ethylbenzene #	73 SV	<5	<5	<5	1717 SV						<5	ug/kg	TM36/PM12
m/p-Xylene #	109 SV	<5	<5	<5	13888 SV						<5	ug/kg	TM36/PM12
o-Xylene #	169 SV	<5	<5	<5	4367 SV						<5	ug/kg	TM36/PM12
2-Chlorophenol #	<10	<10	<10	<10	<100 AC						<10	ug/kg	TM16/PM8
Natural Moisture Content	33.3	34.3	18.6	19.2	26.0						<0.1	%	PM4/PM0
2-Methylphenol	<10	<10	<10	<10	<100 AC						<10	ug/kg	TM16/PM8
2-Nitrophenol	<10	<10	<10	<10	<100 AC						<10	ug/kg	TM16/PM8
2,4-Dichlorophenol #	<10	<10	<10	<10	<100 AC						<10	ug/kg	TM16/PM8
2,4-Dimethylphenol	<10	<10	<10	<10	<100 AC						<10	ug/kg	TM16/PM8
2,4,5-Trichlorophenol	<10	<10	<10	<10	<100 AC						<10	ug/kg	TM16/PM8
2,4,6-Trichlorophenol	<10	<10	<10	<10	<100 AC						<10	ug/kg	TM16/PM8
4-Chloro-3-methylphenol	<10	<10	<10	<10	<100 AC						<10	ug/kg	TM16/PM8
4-Methylphenol	<10	<10	<10	<10	<100 AC						<10	ug/kg	TM16/PM8
4-Nitrophenol	<10	<10	<10	<10	<100 AC						<10	ug/kg	TM16/PM8
Pentachlorophenol	<10	<10	<10	<10	<100 AC						<10	ug/kg	TM16/PM8
Phenol #	<10	<10	<10	602	<100 AC						<10	ug/kg	TM16/PM8
Total Speciated Phenols MS	<10	<10	<10	602	<100 AC						<10	ug/kg	TM16/PM8

Please see attached notes for all abbreviations and acronyms

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

Element Materials Technology

Client Name: Englobe
Reference: C1856
Location: NG Salisbury
Contact: Tim Vickers
EMT Job No: 23/3100

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						LOD/LOR	Units	Method No.
Sample ID	Area1-NWB-Validation 1A	Area1-Base-Validation 1A	Area1-Side-Validation 1A	Area1-Side-Validation 2A	Oil Band-Area 1 West								
Depth	0.00-1.80	2.00	0.00-1.80	0.00-1.80	1.90								
COC No / misc													
Containers	V J T	V J T	V J T	V J T	V J T								
Sample Date	27/02/2023	27/02/2023	27/02/2023	27/02/2023	27/02/2023								
Sample Type	Soil	Soil	Soil	Soil	Soil								
Batch Number	1	1	1	1	1								
Date of Receipt	28/02/2023	28/02/2023	28/02/2023	28/02/2023	28/02/2023								
Ammoniacal Nitrogen as NH4	11.7	45.1	<0.6	<0.6	47.0						<0.6	mg/kg	TM38/PM20
Chloride #	20	5	6	5	NDP						<2	mg/kg	TM38/PM20
Chloride	-	-	-	-	9						<2	mg/kg	TM38/PM60
Free Cyanide	1.1	<0.5	3.6	<0.5	0.9						<0.5	mg/kg	TM89/PM45
Total Cyanide #	308.7 AD	<0.5	286.1 AD	38.4 AA	325.5 AD						<0.5	mg/kg	TM89/PM45
Complex Cyanide	308.7 AD	<0.5	286.1 AD	38.4 AA	325.5 AD						<0.5	mg/kg	TM89/PM45
Total Organic Carbon #	13.33	0.31	1.80	4.96	NDP						<0.02	%	TM21/PM24
Sulphide	<10	<10	<10	<10	<10						<10	mg/kg	TM107/PM45
Electrical Conductivity @25C (5:1 ext)	2377	4013	1109	402	NDP						<100	uS/cm	TM76/PM58
pH #	6.82	5.58	7.37	7.73	6.75						<0.01	pH units	TM73/PM11

Please see attached notes for all abbreviations and acronyms

Client Name: Englobe
Reference: C1856
Location: NG Salisbury
Contact: Tim Vickers
EMT Job No: 23/3100

VOC Report : **Solid**

EMT Sample No.	1-3	4-6	7-9	10-12	13-15						LOD/LOR	Units	Method No.
Sample ID	Area1-NWB-Validation 1A	Area1-Base-Validation 1A	Area1-Side-Validation 1A	Area1-Side-Validation 2A	Oil Band-Area 1 West								
Depth	0.00-1.80	2.00	0.00-1.80	0.00-1.80	1.90								
COC No / misc													
Containers	V J T	V J T	V J T	V J T	V J T								
Sample Date	27/02/2023	27/02/2023	27/02/2023	27/02/2023	27/02/2023								
Sample Type	Soil	Soil	Soil	Soil	Soil								
Batch Number	1	1	1	1	1								
Date of Receipt	28/02/2023	28/02/2023	28/02/2023	28/02/2023	28/02/2023								
VOC MS													
Dichlorodifluoromethane	<2	<2	<2	<2	<2 SV						<2	ug/kg	TM15/PM10
Methyl Tertiary Butyl Ether #	<2	<2	<2	<2	<2 SV						<2	ug/kg	TM15/PM10
Chloromethane #	<3	<3	<3	<3	9 SV						<3	ug/kg	TM15/PM10
Vinyl Chloride	<2	<2	<2	<2	<2 SV						<2	ug/kg	TM15_A/PM10
Bromomethane	<1	<1	<1	<1	<1 SV						<1	ug/kg	TM15/PM10
Chloroethane #	<2	<2	<2	<2	<2 SV						<2	ug/kg	TM15/PM10
Trichlorofluoromethane #	<2	<2	<2	<2	<2 SV						<2	ug/kg	TM15/PM10
1,1-Dichloroethene (1,1 DCE) #	<6	<6	<6	<6	<6 SV						<6	ug/kg	TM15/PM10
Dichloromethane (DCM) #	<7	<7	<7	<7	<7 SV						<7	ug/kg	TM15/PM10
trans-1-2-Dichloroethene #	<3	<3	<3	<3	<3 SV						<3	ug/kg	TM15/PM10
1,1-Dichloroethane #	<3	<3	<3	<3	<3 SV						<3	ug/kg	TM15/PM10
cis-1-2-Dichloroethene #	<3	<3	<3	<3	<3 SV						<3	ug/kg	TM15/PM10
2,2-Dichloropropane	<4	<4	<4	<4	<4 SV						<4	ug/kg	TM15/PM10
Bromochloromethane #	<3	<3	<3	<3	<3 SV						<3	ug/kg	TM15/PM10
Chloroform #	<3	<3	<3	<3	<3 SV						<3	ug/kg	TM15/PM10
1,1,1-Trichloroethane #	<3	<3	<3	<3	<3 SV						<3	ug/kg	TM15/PM10
1,1-Dichloropropene #	<3	<3	<3	<3	<3 SV						<3	ug/kg	TM15/PM10
Carbon tetrachloride #	<4	<4	<4	<4	<4 SV						<4	ug/kg	TM15/PM10
1,2-Dichloroethane #	<4	<4	<4	<4	<4 SV						<4	ug/kg	TM15/PM10
Benzene #	72	<3	<3	6	9446 AC						<3	ug/kg	TM15/PM10
Trichloroethene (TCE) #	<3	<3	<3	<3	<3 SV						<3	ug/kg	TM15/PM10
1,2-Dichloropropane #	<6	<6	<6	<6	<6 SV						<6	ug/kg	TM15/PM10
Dibromomethane #	<3	<3	<3	<3	<3 SV						<3	ug/kg	TM15/PM10
Bromodichloromethane #	<3	<3	<3	<3	<3 SV						<3	ug/kg	TM15/PM10
cis-1-3-Dichloropropene	<4	<4	<4	<4	<4 SV						<4	ug/kg	TM15/PM10
Toluene #	20	<3	<3	6	>>34781 AC						<3	ug/kg	TM15/PM10
trans-1-3-Dichloropropene	<3	<3	<3	<3	<3 SV						<3	ug/kg	TM15/PM10
1,1,2-Trichloroethane #	<3	<3	<3	<3	<3 SV						<3	ug/kg	TM15/PM10
Tetrachloroethene (PCE) #	<3	<3	<3	<3	<3 SV						<3	ug/kg	TM15/PM10
1,3-Dichloropropane #	<3	<3	<3	<3	<3 SV						<3	ug/kg	TM15/PM10
Dibromochloromethane #	<3	<3	<3	<3	<3 SV						<3	ug/kg	TM15/PM10
1,2-Dibromoethane #	<3	<3	<3	<3	<3 SV						<3	ug/kg	TM15/PM10
Chlorobenzene #	<3	<3	<3	<3	28 SV						<3	ug/kg	TM15/PM10
1,1,1,2-Tetrachloroethane #	<3	<3	<3	<3	<3 SV						<3	ug/kg	TM15/PM10
Ethylbenzene #	63	<3	<3	5	>>18843 AC						<3	ug/kg	TM15/PM10
m/p-Xylene #	83	<5	<5	17	>>147527 AC						<5	ug/kg	TM15/PM10
o-Xylene #	131	<3	<3	6	>>48214 AC						<3	ug/kg	TM15/PM10
Styrene	9	<3	<3	<3	11132 AC						<3	ug/kg	TM15_A/PM10
Bromoform	<3	<3	<3	<3	<3 SV						<3	ug/kg	TM15/PM10
Isopropylbenzene #	41	<3	<3	<3	809 SV						<3	ug/kg	TM15/PM10
1,1,2,2-Tetrachloroethane #	<3	<3	<3	<3	<3 SV						<3	ug/kg	TM15/PM10
Bromobenzene	<2	<2	<2	<2	<2 SV						<2	ug/kg	TM15/PM10
1,2,3-Trichloropropane #	<4	<4	<4	<4	<4 SV						<4	ug/kg	TM15/PM10
Propylbenzene #	13	<4	<4	<4	1070 SV						<4	ug/kg	TM15/PM10
2-Chlorotoluene	<3	<3	<3	<3	<3 SV						<3	ug/kg	TM15/PM10
1,3,5-Trimethylbenzene #	129	<3	<3	5	>>34075 AC						<3	ug/kg	TM15/PM10
4-Chlorotoluene	<3	<3	<3	<3	<3 SV						<3	ug/kg	TM15/PM10
tert-Butylbenzene #	<5	<5	<5	<5	<5 SV						<5	ug/kg	TM15/PM10
1,2,4-Trimethylbenzene #	317	<6	<6	10	>>115698 AC						<6	ug/kg	TM15/PM10
sec-Butylbenzene #	11	<4	<4	<4	866 SV						<4	ug/kg	TM15/PM10
4-Isopropyltoluene	33	<4	<4	<4	<4 SV						<4	ug/kg	TM15/PM10
1,3-Dichlorobenzene #	<4	<4	<4	<4	<4 SV						<4	ug/kg	TM15/PM10
1,4-Dichlorobenzene #	<4	<4	<4	<4	<4 SV						<4	ug/kg	TM15/PM10
n-Butylbenzene	32	<4	<4	<4	<4 SV						<4	ug/kg	TM15/PM10
1,2-Dichlorobenzene #	<4	<4	<4	<4	<4 SV						<4	ug/kg	TM15/PM10
1,2-Dibromo-3-chloropropane	<4	<4	<4	<4	<4 SV						<4	ug/kg	TM15/PM10
1,2,4-Trichlorobenzene	<7	<7	<7	<7	<7 SV						<7	ug/kg	TM15/PM10
Hexachlorobutadiene	<4	<4	<4	<4	<4 SV						<4	ug/kg	TM15/PM10
Naphthalene	1308	<27	59	1951	>>2634405 AC						<27	ug/kg	TM15/PM10
1,2,3-Trichlorobenzene	<7	<7	<7	<7	<7 SV						<7	ug/kg	TM15/PM10
Surrogate Recovery Toluene D8	77	99	96	82	54 SV						<0	%	TM15/PM10
Surrogate Recovery 4-Bromofluorobenzene	65	96	83	69	42 SV						<0	%	TM15/PM10

Please see attached notes for all abbreviations and acronyms

Client Name: Englobe
Reference: C1856
Location: NG Salisbury
Contact: Tim Vickers

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.

Where trace asbestos is reported the amount of asbestos will be <0.1%.

EMT Job No.	Batch	Sample ID	Depth	EMT Sample No.	Analyst Name	Date Of Analysis	Analysis	Result
23/3100	1	Area1-NWB-Validation 1A	0.00-1.80	3	Catherine Coles	08/03/2023	**General Description (Bulk Analysis)**	soil,stone
					Catherine Coles	08/03/2023	**Asbestos Fibres**	NAD
					Catherine Coles	08/03/2023	**Asbestos ACM**	NAD
					Catherine Coles	08/03/2023	**Asbestos Type**	NAD
23/3100	1	Area1-Base-Validation 1A	2.00	6	Catherine Coles	08/03/2023	**General Description (Bulk Analysis)**	soil,sand, stone
					Catherine Coles	08/03/2023	**Asbestos Fibres**	NAD
					Catherine Coles	08/03/2023	**Asbestos ACM**	NAD
					Catherine Coles	08/03/2023	**Asbestos Type**	NAD
23/3100	1	Area1-Side-Validation 1A	0.00-1.80	9	Catherine Coles	08/03/2023	**General Description (Bulk Analysis)**	soil,stone
					Catherine Coles	08/03/2023	**Asbestos Fibres**	NAD
					Catherine Coles	08/03/2023	**Asbestos ACM**	NAD
					Catherine Coles	08/03/2023	**Asbestos Type**	NAD
23/3100	1	Area1-Side-Validation 2A	0.00-1.80	12	Catherine Coles	08/03/2023	**General Description (Bulk Analysis)**	soil,sand, stones
					Catherine Coles	08/03/2023	**Asbestos Fibres**	NAD
					Catherine Coles	08/03/2023	**Asbestos ACM**	NAD
					Catherine Coles	08/03/2023	**Asbestos Type**	NAD
23/3100	1	Oil Band-Area 1 West	1.90	15	Catherine Coles	08/03/2023	**General Description (Bulk Analysis)**	soil;,stone
					Catherine Coles	08/03/2023	**Asbestos Fibres**	NAD
					Catherine Coles	08/03/2023	**Asbestos ACM**	NAD
					Catherine Coles	08/03/2023	**Asbestos Type**	NAD

Client Name: Englobe

Reference: C1856

Location: NG Salisbury

Contact: Tim Vickers

Matrix : Solid

EMT Job No.	Batch	Sample ID	Depth	EMT Sample No.	Method No.	NDP Reason
23/3100	1	Oil Band-Area 1 West	1.90	13-15	TM30/PM15	Oily sample unsuitable for this test
23/3100	1	Oil Band-Area 1 West	1.90	13-15	TM21/PM24	Oily sample unsuitable for this test
23/3100	1	Oil Band-Area 1 West	1.90	13-15	TM38/PM20	Oily sample unsuitable for this test
23/3100	1	Oil Band-Area 1 West	1.90	13-15	TM76/PM58	Oily sample unsuitable for this test
23/3100	1	Oil Band-Area 1 West	1.90	13-15	TM50/PM29	Oily sample unsuitable for this test
23/3100	1	Oil Band-Area 1 West	1.90	13-15	TM74/PM32	Oily sample unsuitable for this test

Client Name: Englobe
Reference: C1856
Location: NG Salisbury
Contact: Tim Vickers

EMT Job No.	Batch	Sample ID	Depth	EMT Sample No.	Analysis	Reason
No deviating sample report results for job 23/3100						

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.

Please include all sections of this report if it is reproduced

NOTES TO ACCOMPANY ALL SCHEDULES AND REPORTS

EMT Job No.: 23/3100

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	x3 Dilution
AB	x5 Dilution
AC	x10 Dilution
AD	x20 Dilution
AE	x1000 Dilution

EMT Job No: 23/3100

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/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
TM15	Modified USEPA 8260B v2:1996. Quantitative Determination of Volatile Organic Compounds (VOCs) by Headspace GC-MS.	PM10	Modified US EPA method 5021A v2:2014. Preparation of solid and liquid samples for GC headspace analysis.			AR	Yes
TM15	Modified USEPA 8260B v2:1996. Quantitative Determination of Volatile Organic Compounds (VOCs) by Headspace GC-MS.	PM10	Modified US EPA method 5021A v2:2014. Preparation of solid and liquid samples for GC headspace analysis.	Yes		AR	Yes
TM16	Modified USEPA 8270D v5:2014. Quantitative determination of Semi-Volatile Organic compounds (SVOCs) by GC-MS.	PM8	End over end extraction of solid samples for organic analysis. The solvent mix varies depending on analysis required.			AR	Yes
TM16	Modified USEPA 8270D v5:2014. Quantitative determination of Semi-Volatile Organic compounds (SVOCs) 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

EMT Job No: 23/3100

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	Preparation of Soil and Marine Sediment Samples for Total Organic Carbon.	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	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	PM62	Acid digestion of as received solid samples using Aqua Regia refluxed at 112.5 °C.			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: 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
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.			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	PM60	As received solid samples are extracted with deionised water in a 2:1 ratio of water to solid.			AR	Yes
TM50	Acid soluble sulphate (Total Sulphate) analysed by ICP-OES	PM129	A hot hydrochloric acid digest is performed on an as received sample, and the resulting liquor is analysed.			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.	Yes		AD	Yes

EMT Job No: 23/3100

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
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
TM74	Analysis of water soluble boron (20:1 extract) by ICP-OES.	PM61	As received solid samples are extracted with hot water in a 20:1 ratio of water to soil ready for analysis by ICP.			AR	Yes
TM76	Modified US EPA method 120.1 (1982). Determination of Specific Conductance by Metrohm automated probe analyser.	PM58	Dried and ground solid samples are extracted with water in a 5:1 water to solid ratio, the samples are shaken on an orbital shaker.			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.			AR	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
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.			AR	No
TM107	Determination of Sulphide/Thiocyanate by Skalar Continuous Flow Analyser	PM45	As received solid samples are extracted with 1M NaOH by orbital shaker for Cyanide, Sulphide and Thiocyanate analysis.			AR	Yes
TM15_A	Modified USEPA 8260B v2:1996. Quantitative Determination of Volatile Organic Compounds, Vinyl Chloride & Styrene by Headspace GC-MS.	PM10	Modified US EPA method 5021A v2:2014. Preparation of solid and liquid samples for GC headspace analysis.			AR	Yes

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Englobe
Columbus House
Greenmeadow Springs
Tongwynlais
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Attention :	Tim Vickers
Date :	8th March, 2023
Your reference :	C1856
Our reference :	Test Report 23/3102 Batch 1
Location :	NG Salisbury
Date samples received :	28th February, 2023
Status :	Final Report
Issue :	1

One sample was received for analysis on 28th February, 2023 and was 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: Englobe
Reference: C1856
Location: NG Salisbury
Contact: Tim Vickers
EMT Job No: 23/3102

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.	1-3										LOD/LOR	Units	Method No.
Sample ID	Area 5 Base Validation 6												
Depth	0.35												
COC No / misc													
Containers	V J T												
Sample Date	27/02/2023												
Sample Type	Soil												
Batch Number	1												
Date of Receipt	28/02/2023												
Arsenic #	6.9										<0.5	mg/kg	TM30/PM15
Cadmium #	0.8										<0.1	mg/kg	TM30/PM15
Chromium #	33.9										<0.5	mg/kg	TM30/PM15
Copper #	19										<1	mg/kg	TM30/PM15
Lead #	218										<5	mg/kg	TM30/PM15
Mercury #	0.3										<0.1	mg/kg	TM30/PM15
Nickel #	10.7										<0.7	mg/kg	TM30/PM15
Selenium #	<1										<1	mg/kg	TM30/PM15
Total Sulphate as SO4 #	915										<50	mg/kg	TM50/PM29
Water Soluble Boron #	0.4										<0.1	mg/kg	TM74/PM32
Zinc #	205										<5	mg/kg	TM30/PM15
PAH MS													
Naphthalene #	1.13										<0.04	mg/kg	TM4/PM8
Acenaphthylene	0.76										<0.03	mg/kg	TM4/PM8
Acenaphthene #	0.15										<0.05	mg/kg	TM4/PM8
Fluorene #	0.35										<0.04	mg/kg	TM4/PM8
Phenanthrene #	3.76										<0.03	mg/kg	TM4/PM8
Anthracene #	1.55										<0.04	mg/kg	TM4/PM8
Fluoranthene #	7.95										<0.03	mg/kg	TM4/PM8
Pyrene #	6.66										<0.03	mg/kg	TM4/PM8
Benzo(a)anthracene #	4.21										<0.06	mg/kg	TM4/PM8
Chrysene #	4.15										<0.02	mg/kg	TM4/PM8
Benzo(bk)fluoranthene #	8.06										<0.07	mg/kg	TM4/PM8
Benzo(a)pyrene #	4.15										<0.04	mg/kg	TM4/PM8
Indeno(123cd)pyrene #	3.99										<0.04	mg/kg	TM4/PM8
Dibenzo(ah)anthracene #	0.93										<0.04	mg/kg	TM4/PM8
Benzo(ghi)perylene #	3.19										<0.04	mg/kg	TM4/PM8
PAH 16 Total	51.0										<0.6	mg/kg	TM4/PM8
Benzo(b)fluoranthene	5.80										<0.05	mg/kg	TM4/PM8
Benzo(k)fluoranthene	2.26										<0.02	mg/kg	TM4/PM8
PAH Surrogate % Recovery	101										<0	%	TM4/PM8
TPH CWG													
Aliphatics													
>C5-C6 #	<0.1										<0.1	mg/kg	TM36/PM12
>C6-C8 #	<0.1										<0.1	mg/kg	TM36/PM12
>C8-C10	<0.1										<0.1	mg/kg	TM36/PM12
>C10-C12 #	<0.2										<0.2	mg/kg	TM5/PM8/PM16
>C12-C16 #	<4										<4	mg/kg	TM5/PM8/PM16
>C16-C21 #	17										<7	mg/kg	TM5/PM8/PM16
>C21-C35 #	83										<7	mg/kg	TM5/PM8/PM16
Total aliphatics C5-35	100										<19	mg/kg	TM5/TM36/PM8/PM12/PM16

Element Materials Technology

Client Name: Englobe
Reference: C1856
Location: NG Salisbury
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EMT Job No: 23/3102

Report : Solid

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Please see attached notes for all abbreviations and acronyms

EMT Sample No.	1-3										LOD/LOR	Units	Method No.
Sample ID	Area 5 Base Validation 6												
Depth	0.35												
COC No / misc													
Containers	V J T												
Sample Date	27/02/2023												
Sample Type	Soil												
Batch Number	1												
Date of Receipt	28/02/2023												
TPH CWG													
Aromatics													
>C5-EC7 #	<0.1										<0.1	mg/kg	TM36/PM12
>EC7-EC8 #	<0.1										<0.1	mg/kg	TM36/PM12
>EC8-EC10 #	<0.1										<0.1	mg/kg	TM36/PM12
>EC10-EC12 #	<0.2										<0.2	mg/kg	TM5/PM8/PM16
>EC12-EC16 #	<4										<4	mg/kg	TM5/PM8/PM16
>EC16-EC21 #	94										<7	mg/kg	TM5/PM8/PM16
>EC21-EC35 #	357										<7	mg/kg	TM5/PM8/PM16
Total aromatics C5-35 #	451										<19	mg/kg	TM5/TM36/PM8/PM12/PM16
Total aliphatics and aromatics(C5-35)	551										<38	mg/kg	TM5/TM36/PM8/PM12/PM16
MTBE #	<5										<5	ug/kg	TM36/PM12
Benzene #	5										<5	ug/kg	TM36/PM12
Toluene #	8										<5	ug/kg	TM36/PM12
Ethylbenzene #	<5										<5	ug/kg	TM36/PM12
m/p-Xylene #	7										<5	ug/kg	TM36/PM12
o-Xylene #	<5										<5	ug/kg	TM36/PM12
2-Chlorophenol #	<10										<10	ug/kg	TM16/PM8
Natural Moisture Content	5.9										<0.1	%	PM4/PM0
2-Methylphenol	<10										<10	ug/kg	TM16/PM8
2-Nitrophenol	<10										<10	ug/kg	TM16/PM8
2,4-Dichlorophenol #	<10										<10	ug/kg	TM16/PM8
2,4-Dimethylphenol	<10										<10	ug/kg	TM16/PM8
2,4,5-Trichlorophenol	<10										<10	ug/kg	TM16/PM8
2,4,6-Trichlorophenol	<10										<10	ug/kg	TM16/PM8
4-Chloro-3-methylphenol	<10										<10	ug/kg	TM16/PM8
4-Methylphenol	<10										<10	ug/kg	TM16/PM8
4-Nitrophenol	<10										<10	ug/kg	TM16/PM8
Pentachlorophenol	<10										<10	ug/kg	TM16/PM8
Phenol #	<10										<10	ug/kg	TM16/PM8
Total Speciated Phenols MS	<10										<10	ug/kg	TM16/PM8
Ammoniacal Nitrogen as NH4	<0.6										<0.6	mg/kg	TM38/PM20
Chloride #	16										<2	mg/kg	TM38/PM20
Free Cyanide	<0.5										<0.5	mg/kg	TM89/PM45
Total Cyanide #	16.6										<0.5	mg/kg	TM89/PM45
Complex Cyanide	16.6										<0.5	mg/kg	TM89/PM45
Total Organic Carbon #	1.91										<0.02	%	TM21/PM24

Element Materials Technology

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Location: NG Salisbury
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EMT Job No: 23/3102

Report : Solid

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

EMT Sample No.	1-3										LOD/LOR	Units	Method No.
Sample ID	Area 5 Base Validation 6												
Depth	0.35												
COC No / misc													
Containers	V J T												
Sample Date	27/02/2023												
Sample Type	Soil												
Batch Number	1												
Date of Receipt	28/02/2023												
Sulphide	<10										<10	mg/kg	TM107/PM45
Electrical Conductivity @25C (5:1 ext)	289										<100	uS/cm	TM76/PM58
pH #	8.34										<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.

Client Name: Englobe
Reference: C1856
Location: NG Salisbury
Contact: Tim Vickers

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.

Where trace asbestos is reported the amount of asbestos will be <0.1%.

EMT Job No.	Batch	Sample ID	Depth	EMT Sample No.	Analyst Name	Date Of Analysis	Analysis	Result
23/3102	1	Area 5 Base Validation 6	0.35	3	Charlotte Taylor	08/03/2023	**General Description (Bulk Analysis)**	brown soil/stones
					Charlotte Taylor	08/03/2023	**Asbestos Fibres**	NAD
					Charlotte Taylor	08/03/2023	**Asbestos ACM**	NAD
					Charlotte Taylor	08/03/2023	**Asbestos Type**	NAD

Client Name: Englobe
Reference: C1856
Location: NG Salisbury
Contact: Tim Vickers

EMT Job No.	Batch	Sample ID	Depth	EMT Sample No.	Analysis	Reason
No deviating sample report results for job 23/3102						

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.: 23/3102

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

EMT Job No: 23/3102

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/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
TM16	Modified USEPA 8270D v5:2014. Quantitative determination of Semi-Volatile Organic compounds (SVOCs) by GC-MS.	PM8	End over end extraction of solid samples for organic analysis. The solvent mix varies depending on analysis required.			AR	Yes
TM16	Modified USEPA 8270D v5:2014. Quantitative determination of Semi-Volatile Organic compounds (SVOCs) 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
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	Preparation of Soil and Marine Sediment Samples for Total Organic Carbon.	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	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

EMT Job No: 23/3102

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
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.	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.			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.	Yes		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	
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
TM76	Modified US EPA method 120.1 (1982). Determination of Specific Conductance by Metrohm automated probe analyser.	PM58	Dried and ground solid samples are extracted with water in a 5:1 water to solid ratio, the samples are shaken on an orbital shaker.			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.			AR	Yes

EMT Job No: 23/3102

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
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
TM107	Determination of Sulphide/Thiocyanate by Skalar Continuous Flow Analyser	PM45	As received solid samples are extracted with 1M NaOH by orbital shaker for Cyanide, Sulphide and Thiocyanate analysis.			AR	Yes

Element Materials Technology
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Englobe
Columbus House
Greenmeadow Springs
Tongwynlais
Cardiff
CF15 7NE

Attention :	Tim Vickers
Date :	28th March, 2023
Your reference :	C1856
Our reference :	Test Report 23/3701 Batch 1
Location :	NG Salisbury
Date samples received :	9th March, 2023
Status :	Final Report
Issue :	1

One sample was received for analysis on 9th March, 2023 and was 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:

Liza Klebe
Project Co-ordinator

Please include all sections of this report if it is reproduced

Client Name: Englobe
Reference: C1856
Location: NG Salisbury
Contact: Tim Vickers
EMT Job No: 23/3701

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.	1-3												
Sample ID	CONCRETE AND BRICK STK												
Depth													
COC No / misc													
Containers	V J T												
Sample Date	07/03/2023 14:30												
Sample Type	Soil												
Batch Number	1												
Date of Receipt	09/03/2023												

											LOD/LOR	Units	Method No.
Arsenic #	8.2										<0.5	mg/kg	TM30/PM15
Cadmium #	<0.1										<0.1	mg/kg	TM30/PM15
Chromium #	76.2										<0.5	mg/kg	TM30/PM15
Copper #	10										<1	mg/kg	TM30/PM15
Lead #	6										<5	mg/kg	TM30/PM15
Mercury #	<0.1										<0.1	mg/kg	TM30/PM15
Nickel #	18.4										<0.7	mg/kg	TM30/PM15
Selenium #	1										<1	mg/kg	TM30/PM15
Total Sulphate as SO4 #	31520 AA										<50	mg/kg	TM50/PM29
Water Soluble Boron #	1.6										<0.1	mg/kg	TM74/PM32
Zinc #	24										<5	mg/kg	TM30/PM15
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
PAH 16 Total	<0.6										<0.6	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	86										<0	%	TM4/PM8
TPH CWG													
Aliphatics													
>C5-C6 #	<0.1										<0.1	mg/kg	TM36/PM12
>C6-C8 #	<0.1										<0.1	mg/kg	TM36/PM12
>C8-C10	<0.1										<0.1	mg/kg	TM36/PM12
>C10-C12 #	<0.2										<0.2	mg/kg	TM5/PM8/PM16
>C12-C16 #	<4										<4	mg/kg	TM5/PM8/PM16
>C16-C21 #	<7										<7	mg/kg	TM5/PM8/PM16
>C21-C35 #	<7										<7	mg/kg	TM5/PM8/PM16
Total aliphatics C5-35	<19										<19	mg/kg	TM5/TM36/PM8/PM12/PM16

Client Name: Englobe
Reference: C1856
Location: NG Salisbury
Contact: Tim Vickers
EMT Job No: 23/3701

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.	1-3										LOD/LOR	Units	Method No.
Sample ID	CONCRETE AND BRICK STK												
Depth													
COC No / misc													
Containers	V J T												
Sample Date	07/03/2023 14:30												
Sample Type	Soil												
Batch Number	1												
Date of Receipt	09/03/2023												
TPH CWG													
Aromatics													
>C5-EC7 #	<0.1										<0.1	mg/kg	TM36/PM12
>EC7-EC8 #	<0.1										<0.1	mg/kg	TM36/PM12
>EC8-EC10 #	<0.1										<0.1	mg/kg	TM36/PM12
>EC10-EC12 #	<0.2										<0.2	mg/kg	TM5/PM8/PM16
>EC12-EC16 #	<4										<4	mg/kg	TM5/PM8/PM16
>EC16-EC21 #	<7										<7	mg/kg	TM5/PM8/PM16
>EC21-EC35 #	<7										<7	mg/kg	TM5/PM8/PM16
Total aromatics C5-35 #	<19										<19	mg/kg	TM5/TM36/PM8/PM12/PM16
Total aliphatics and aromatics(C5-35)	<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
2-Chlorophenol #	<10										<10	ug/kg	TM16/PM8
Natural Moisture Content	7.5										<0.1	%	PM4/PM0
2-Methylphenol	<10										<10	ug/kg	TM16/PM8
2-Nitrophenol	<10										<10	ug/kg	TM16/PM8
2,4-Dichlorophenol #	<10										<10	ug/kg	TM16/PM8
2,4-Dimethylphenol	<10										<10	ug/kg	TM16/PM8
2,4,5-Trichlorophenol	<10										<10	ug/kg	TM16/PM8
2,4,6-Trichlorophenol	<10										<10	ug/kg	TM16/PM8
4-Chloro-3-methylphenol	<10										<10	ug/kg	TM16/PM8
4-Methylphenol	<10										<10	ug/kg	TM16/PM8
4-Nitrophenol	<10										<10	ug/kg	TM16/PM8
Pentachlorophenol	<10										<10	ug/kg	TM16/PM8
Phenol #	<10										<10	ug/kg	TM16/PM8
Total Speciated Phenols MS	<10										<10	ug/kg	TM16/PM8
Ammoniacal Nitrogen as NH4	0.9										<0.6	mg/kg	TM38/PM20
Chloride #	160										<2	mg/kg	TM38/PM20
Hexavalent Chromium #	<0.3										<0.3	mg/kg	TM38/PM20
Chromium III	76.2										<0.5	mg/kg	NONE/NONE
Free Cyanide	<0.5										<0.5	mg/kg	TM89/PM45
Total Cyanide #	<0.5										<0.5	mg/kg	TM89/PM45
Complex Cyanide	<0.5										<0.5	mg/kg	TM89/PM45

Element Materials Technology

Client Name: Englobe
Reference: C1856
Location: NG Salisbury
Contact: Tim Vickers
EMT Job No: 23/3701

Report : Solid

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

EMT Sample No.	1-3												
Sample ID	CONCRETE AND BRICK STK												
Depth													
COC No / misc													
Containers	V J T												
Sample Date	07/03/2023 14:30												
Sample Type	Soil												
Batch Number	1												
Date of Receipt	09/03/2023												

Please see attached notes for all abbreviations and acronyms

											LOD/LOR	Units	Method No.
Total Organic Carbon #	0.06										<0.02	%	TM21/PM24
Sulphide	<10										<10	mg/kg	TM107/PM45
Electrical Conductivity @25C (5:1 ext)	2605										<100	uS/cm	TM76/PM58
pH #	10.82										<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.

Client Name: Englobe
Reference: C1856
Location: NG Salisbury
Contact: Tim Vickers

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.

Where trace asbestos is reported the amount of asbestos will be <0.1%.

EMT Job No.	Batch	Sample ID	Depth	EMT Sample No.	Analyst Name	Date Of Analysis	Analysis	Result
23/3701	1	CONCRETE AND BRICK STK		3	Catherine Coles	21/03/2023	**General Description (Bulk Analysis)**	brick, stone
					Catherine Coles	21/03/2023	**Asbestos Fibres**	NAD
					Catherine Coles	21/03/2023	**Asbestos ACM**	NAD
					Catherine Coles	21/03/2023	**Asbestos Type**	NAD

Client Name: Englobe
Reference: C1856
Location: NG Salisbury
Contact: Tim Vickers

EMT Job No.	Batch	Sample ID	Depth	EMT Sample No.	Analysis	Reason
No deviating sample report results for job 23/3701						

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.: 23/3701

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 quantitative calibration range. The result should be considered the minimum value and is indicative only. 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

EMT Job No: 23/3701

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/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
TM16	Modified USEPA 8270D v5:2014. Quantitative determination of Semi-Volatile Organic compounds (SVOCs) by GC-MS.	PM8	End over end extraction of solid samples for organic analysis. The solvent mix varies depending on analysis required.			AR	Yes
TM16	Modified USEPA 8270D v5:2014. Quantitative determination of Semi-Volatile Organic compounds (SVOCs) 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
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	Preparation of Soil and Marine Sediment Samples for Total Organic Carbon.	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	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

EMT Job No: 23/3701

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
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.	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.			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.	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.	Yes		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	
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
TM76	Modified US EPA method 120.1 (1982). Determination of Specific Conductance by Metrohm automated probe analyser.	PM58	Dried and ground solid samples are extracted with water in a 5:1 water to solid ratio, the samples are shaken on an orbital shaker.			AD	Yes

EMT Job No: 23/3701

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
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.			AR	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
TM107	Determination of Sulphide/Thiocyanate by Skalar Continuous Flow Analyser	PM45	As received solid samples are extracted with 1M NaOH by orbital shaker for Cyanide, Sulphide and Thiocyanate analysis.			AR	Yes
NONE	No Method Code	NONE	No Method Code			AD	Yes

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Englobe
Columbus House
Greenmeadow Springs
Tongwynlais
Cardiff
CF15 7NE

Attention :	Tim Vickers
Date :	24th March, 2023
Your reference :	C1856
Our reference :	Test Report 23/3703 Batch 1
Location :	NG Salisbury
Date samples received :	9th March, 2023
Status :	Final Report
Issue :	1

One sample was received for analysis on 9th March, 2023 and was 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: Englobe
Reference: C1856
Location: NG Salisbury
Contact: Tim Vickers
EMT Job No: 23/3703

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.	1-3										LOD/LOR	Units	Method No.
Sample ID	IMPORT 6F5												
Depth													
COC No / misc													
Containers	V J T												
Sample Date	08/03/2023 10:00												
Sample Type	Soil												
Batch Number	1												
Date of Receipt	09/03/2023												
Arsenic #	6.3										<0.5	mg/kg	TM30/PM15
Cadmium #	0.4										<0.1	mg/kg	TM30/PM15
Chromium #	6.5										<0.5	mg/kg	TM30/PM15
Copper #	3										<1	mg/kg	TM30/PM15
Lead #	17										<5	mg/kg	TM30/PM15
Mercury #	<0.1										<0.1	mg/kg	TM30/PM15
Nickel #	7.6										<0.7	mg/kg	TM30/PM15
Selenium #	<1										<1	mg/kg	TM30/PM15
Total Sulphate as SO4 #	1103										<50	mg/kg	TM50/PM29
Water Soluble Boron #	1.0										<0.1	mg/kg	TM74/PM32
Zinc #	125										<5	mg/kg	TM30/PM15
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
PAH 16 Total	<0.6										<0.6	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	99										<0	%	TM4/PM8
TPH CWG													
Aliphatics													
>C5-C6 #	<0.1										<0.1	mg/kg	TM36/PM12
>C6-C8 #	0.3										<0.1	mg/kg	TM36/PM12
>C8-C10	0.2										<0.1	mg/kg	TM36/PM12
>C10-C12 #	<0.2										<0.2	mg/kg	TM5/PM8/PM16
>C12-C16 #	<4										<4	mg/kg	TM5/PM8/PM16
>C16-C21 #	<7										<7	mg/kg	TM5/PM8/PM16
>C21-C35 #	<7										<7	mg/kg	TM5/PM8/PM16
Total aliphatics C5-35	<19										<19	mg/kg	TM5/TM36/PM8/PM12/PM16

Client Name: Englobe
Reference: C1856
Location: NG Salisbury
Contact: Tim Vickers
EMT Job No: 23/3703

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.	1-3										LOD/LOR	Units	Method No.
Sample ID	IMPORT 6F5												
Depth													
COC No / misc													
Containers	V J T												
Sample Date	08/03/2023 10:00												
Sample Type	Soil												
Batch Number	1												
Date of Receipt	09/03/2023												
TPH CWG													
Aromatics													
>C5-EC7 #	<0.1										<0.1	mg/kg	TM36/PM12
>EC7-EC8 #	<0.1										<0.1	mg/kg	TM36/PM12
>EC8-EC10 #	<0.1										<0.1	mg/kg	TM36/PM12
>EC10-EC12 #	<0.2										<0.2	mg/kg	TM5/PM8/PM16
>EC12-EC16 #	<4										<4	mg/kg	TM5/PM8/PM16
>EC16-EC21 #	<7										<7	mg/kg	TM5/PM8/PM16
>EC21-EC35 #	<7										<7	mg/kg	TM5/PM8/PM16
Total aromatics C5-35 #	<19										<19	mg/kg	TM5/TM36/PM8/PM12/PM16
Total aliphatics and aromatics(C5-35)	<38										<38	mg/kg	TM5/TM36/PM8/PM12/PM16
MTBE #	13										<5	ug/kg	TM36/PM12
Benzene #	13										<5	ug/kg	TM36/PM12
Toluene #	56										<5	ug/kg	TM36/PM12
Ethylbenzene #	10										<5	ug/kg	TM36/PM12
m/p-Xylene #	66										<5	ug/kg	TM36/PM12
o-Xylene #	19										<5	ug/kg	TM36/PM12
2-Chlorophenol #	<10										<10	ug/kg	TM16/PM8
Natural Moisture Content	3.7										<0.1	%	PM4/PM0
2-Methylphenol	<10										<10	ug/kg	TM16/PM8
2-Nitrophenol	<10										<10	ug/kg	TM16/PM8
2,4-Dichlorophenol #	<10										<10	ug/kg	TM16/PM8
2,4-Dimethylphenol	<10										<10	ug/kg	TM16/PM8
2,4,5-Trichlorophenol	<10										<10	ug/kg	TM16/PM8
2,4,6-Trichlorophenol	<10										<10	ug/kg	TM16/PM8
4-Chloro-3-methylphenol	<10										<10	ug/kg	TM16/PM8
4-Methylphenol	<10										<10	ug/kg	TM16/PM8
4-Nitrophenol	<10										<10	ug/kg	TM16/PM8
Pentachlorophenol	<10										<10	ug/kg	TM16/PM8
Phenol #	<10										<10	ug/kg	TM16/PM8
Total Speciated Phenols MS	<10										<10	ug/kg	TM16/PM8
Ammoniacal Nitrogen as NH4	3.7										<0.6	mg/kg	TM38/PM20
Chloride #	83										<2	mg/kg	TM38/PM20
Hexavalent Chromium #	<0.3										<0.3	mg/kg	TM38/PM20
Chromium III	6.5										<0.5	mg/kg	NONE/NONE
Free Cyanide	<0.5										<0.5	mg/kg	TM89/PM45
Total Cyanide #	<0.5										<0.5	mg/kg	TM89/PM45
Complex Cyanide	<0.5										<0.5	mg/kg	TM89/PM45

Element Materials Technology

Client Name: Englobe
Reference: C1856
Location: NG Salisbury
Contact: Tim Vickers
EMT Job No: 23/3703

Report : Solid

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

EMT Sample No.	1-3												
Sample ID	IMPORT 6F5												
Depth													
COC No / misc													
Containers	V J T												
Sample Date	08/03/2023 10:00												
Sample Type	Soil												
Batch Number	1												
Date of Receipt	09/03/2023												

Please see attached notes for all abbreviations and acronyms

											LOD/LOR	Units	Method No.
Total Organic Carbon #	0.15										<0.02	%	TM21/PM24
Sulphide	<10										<10	mg/kg	TM107/PM45
Electrical Conductivity @25C (5:1 ext)	174										<100	uS/cm	TM76/PM58
pH #	9.04										<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.

Client Name: Englobe
Reference: C1856
Location: NG Salisbury
Contact: Tim Vickers

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.

Where trace asbestos is reported the amount of asbestos will be <0.1%.

EMT Job No.	Batch	Sample ID	Depth	EMT Sample No.	Analyst Name	Date Of Analysis	Analysis	Result
23/3703	1	IMPORT 6F5		3	Remigiusz Blichowski	21/03/2023	**General Description (Bulk Analysis)**	Grey stone and dusty sand with no visiable fibres.
					Remigiusz Blichowski	21/03/2023	**Asbestos Fibres**	NAD
					Remigiusz Blichowski	21/03/2023	**Asbestos ACM**	NAD
					Remigiusz Blichowski	21/03/2023	**Asbestos Type**	NAD

Client Name: Englobe
Reference: C1856
Location: NG Salisbury
Contact: Tim Vickers

EMT Job No.	Batch	Sample ID	Depth	EMT Sample No.	Analysis	Reason
No deviating sample report results for job 23/3703						

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.

Please include all sections of this report if it is reproduced

NOTES TO ACCOMPANY ALL SCHEDULES AND REPORTS

EMT Job No.: 23/3703

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 quantitative calibration range. The result should be considered the minimum value and is indicative only. 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

EMT Job No: 23/3703

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/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
TM16	Modified USEPA 8270D v5:2014. Quantitative determination of Semi-Volatile Organic compounds (SVOCs) by GC-MS.	PM8	End over end extraction of solid samples for organic analysis. The solvent mix varies depending on analysis required.			AR	Yes
TM16	Modified USEPA 8270D v5:2014. Quantitative determination of Semi-Volatile Organic compounds (SVOCs) 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
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	Preparation of Soil and Marine Sediment Samples for Total Organic Carbon.	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	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

EMT Job No: 23/3703

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
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.	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.			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.	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.	Yes		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	
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
TM76	Modified US EPA method 120.1 (1982). Determination of Specific Conductance by Metrohm automated probe analyser.	PM58	Dried and ground solid samples are extracted with water in a 5:1 water to solid ratio, the samples are shaken on an orbital shaker.			AD	Yes

EMT Job No: 23/3703

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
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.			AR	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
TM107	Determination of Sulphide/Thiocyanate by Skalar Continuous Flow Analyser	PM45	As received solid samples are extracted with 1M NaOH by orbital shaker for Cyanide, Sulphide and Thiocyanate analysis.			AR	Yes
NONE	No Method Code	NONE	No Method Code			AD	Yes

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Englobe
Columbus House
Greenmeadow Springs
Tongwynlais
Cardiff
CF15 7NE

Attention :	Tim Vickers
Date :	28th March, 2023
Your reference :	C1856
Our reference :	Test Report 23/3704 Batch 1
Location :	NG Salisbury
Date samples received :	9th March, 2023
Status :	Final Report
Issue :	1

Two samples were received for analysis on 9th March, 2023 of which two 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:

Liza Klebe
Project Co-ordinator

Please include all sections of this report if it is reproduced

Client Name: Englobe
Reference: C1856
Location: NG Salisbury
Contact: Tim Vickers
EMT Job No: 23/3704

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.	1-3	4-6									LOD/LOR	Units	Method No.
Sample ID	AREA 1 SIDE VALIDATION 3A	AREA 1 SIDE VALIDATION 5A											
Depth	0.00-1.80	0.00-1.80											
COC No / misc													
Containers	V J T	V J T											
Sample Date	06/03/2023 16:30	06/03/2023 16:40											
Sample Type	Soil	Soil											
Batch Number	1	1											
Date of Receipt	09/03/2023	09/03/2023											
Arsenic #	5.0	7.0									<0.5	mg/kg	TM30/PM15
Cadmium #	0.2	0.2									<0.1	mg/kg	TM30/PM15
Chromium #	20.9	32.2									<0.5	mg/kg	TM30/PM15
Copper #	9	11									<1	mg/kg	TM30/PM15
Lead #	112	144									<5	mg/kg	TM30/PM15
Mercury #	0.1	<0.1									<0.1	mg/kg	TM30/PM15
Nickel #	6.1	9.4									<0.7	mg/kg	TM30/PM15
Selenium #	<1	<1									<1	mg/kg	TM30/PM15
Total Sulphate as SO4 #	698	821									<50	mg/kg	TM50/PM29
Water Soluble Boron #	0.7	0.7									<0.1	mg/kg	TM74/PM32
Zinc #	95	132									<5	mg/kg	TM30/PM15
PAH MS													
Naphthalene #	1.62	2.56									<0.04	mg/kg	TM4/PM8
Acenaphthylene	1.46	2.75									<0.03	mg/kg	TM4/PM8
Acenaphthene #	0.73	0.88									<0.05	mg/kg	TM4/PM8
Fluorene #	1.30	2.06									<0.04	mg/kg	TM4/PM8
Phenanthrene #	11.02	16.98									<0.03	mg/kg	TM4/PM8
Anthracene #	3.93	5.37									<0.04	mg/kg	TM4/PM8
Fluoranthene #	19.62	24.77									<0.03	mg/kg	TM4/PM8
Pyrene #	15.23	18.89									<0.03	mg/kg	TM4/PM8
Benzo(a)anthracene #	9.22	10.73									<0.06	mg/kg	TM4/PM8
Chrysene #	9.21	10.60									<0.02	mg/kg	TM4/PM8
Benzo(bk)fluoranthene #	17.37	18.24									<0.07	mg/kg	TM4/PM8
Benzo(a)pyrene #	10.21	10.45									<0.04	mg/kg	TM4/PM8
Indeno(123cd)pyrene #	8.83	8.95									<0.04	mg/kg	TM4/PM8
Dibenzo(ah)anthracene #	1.68	1.70									<0.04	mg/kg	TM4/PM8
Benzo(ghi)perylene #	7.55	7.16									<0.04	mg/kg	TM4/PM8
PAH 16 Total	119.0	142.1									<0.6	mg/kg	TM4/PM8
Benzo(b)fluoranthene	12.51	13.13									<0.05	mg/kg	TM4/PM8
Benzo(k)fluoranthene	4.86	5.11									<0.02	mg/kg	TM4/PM8
PAH Surrogate % Recovery	95	97									<0	%	TM4/PM8
TPH CWG													
Aliphatics													
>C5-C6 #	<0.1	<0.1									<0.1	mg/kg	TM36/PM12
>C6-C8 #	<0.1	<0.1									<0.1	mg/kg	TM36/PM12
>C8-C10	0.1	0.3									<0.1	mg/kg	TM36/PM12
>C10-C12 #	<0.2	<0.2									<0.2	mg/kg	TM5/PM8/PM16
>C12-C16 #	<4	<4									<4	mg/kg	TM5/PM8/PM16
>C16-C21 #	10	20									<7	mg/kg	TM5/PM8/PM16
>C21-C35 #	46	75									<7	mg/kg	TM5/PM8/PM16
Total aliphatics C5-35	56	95									<19	mg/kg	TM5/TM36/PM8/PM12/PM16

Client Name: Englobe
Reference: C1856
Location: NG Salisbury
Contact: Tim Vickers
EMT Job No: 23/3704

Report : Solid

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

EMT Sample No.	1-3	4-6									LOD/LOR	Units	Method No.
Sample ID	AREA 1 SIDE VALIDATION 3A	AREA 1 SIDE VALIDATION 5A											
Depth	0.00-1.80	0.00-1.80											
COC No / misc													
Containers	V J T	V J T											
Sample Date	06/03/2023 16:30	06/03/2023 16:40											
Sample Type	Soil	Soil											
Batch Number	1	1											
Date of Receipt	09/03/2023	09/03/2023											
TPH CWG													
Aromatics													
>C5-EC7 #	<0.1	<0.1									<0.1	mg/kg	TM36/PM12
>EC7-EC8 #	<0.1	<0.1									<0.1	mg/kg	TM36/PM12
>EC8-EC10 #	<0.1	<0.1									<0.1	mg/kg	TM36/PM12
>EC10-EC12 #	0.6	0.9									<0.2	mg/kg	TM5/PM8/PM16
>EC12-EC16 #	9	11									<4	mg/kg	TM5/PM8/PM16
>EC16-EC21 #	89	123									<7	mg/kg	TM5/PM8/PM16
>EC21-EC35 #	240	357									<7	mg/kg	TM5/PM8/PM16
Total aromatics C5-35 #	339	492									<19	mg/kg	TM5/TM36/PM8/PM12/PM16
Total aliphatics and aromatics(C5-35)	395	587									<38	mg/kg	TM5/TM36/PM8/PM12/PM16
MTBE #	<5	<5									<5	ug/kg	TM36/PM12
Benzene #	27	34									<5	ug/kg	TM36/PM12
Toluene #	25	35									<5	ug/kg	TM36/PM12
Ethylbenzene #	10	15									<5	ug/kg	TM36/PM12
m/p-Xylene #	41	<5									<5	ug/kg	TM36/PM12
o-Xylene #	22	47									<5	ug/kg	TM36/PM12
2-Chlorophenol #	<10	<10									<10	ug/kg	TM16/PM8
Natural Moisture Content	7.5	9.8									<0.1	%	PM4/PM0
2-Methylphenol	<10	<10									<10	ug/kg	TM16/PM8
2-Nitrophenol	<10	<10									<10	ug/kg	TM16/PM8
2,4-Dichlorophenol #	<10	<10									<10	ug/kg	TM16/PM8
2,4-Dimethylphenol	<10	<10									<10	ug/kg	TM16/PM8
2,4,5-Trichlorophenol	<10	<10									<10	ug/kg	TM16/PM8
2,4,6-Trichlorophenol	<10	<10									<10	ug/kg	TM16/PM8
4-Chloro-3-methylphenol	<10	<10									<10	ug/kg	TM16/PM8
4-Methylphenol	<10	<10									<10	ug/kg	TM16/PM8
4-Nitrophenol	<10	<10									<10	ug/kg	TM16/PM8
Pentachlorophenol	<10	<10									<10	ug/kg	TM16/PM8
Phenol #	<10	<10									<10	ug/kg	TM16/PM8
Total Speciated Phenols MS	<10	<10									<10	ug/kg	TM16/PM8
Ammoniacal Nitrogen as NH4	2.4	1.2									<0.6	mg/kg	TM38/PM20
Chloride #	67	36									<2	mg/kg	TM38/PM20
Free Cyanide	1.0	<0.5									<0.5	mg/kg	TM89/PM45
Total Cyanide #	40.7	23.7									<0.5	mg/kg	TM89/PM45
Complex Cyanide	39.7	23.7									<0.5	mg/kg	TM89/PM45
Total Organic Carbon #	0.66	1.05									<0.02	%	TM21/PM24

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.

Client Name: Englobe
Reference: C1856
Location: NG Salisbury
Contact: Tim Vickers
EMT Job No: 23/3704

Report : Solid

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

EMT Sample No.	1-3	4-6											
Sample ID	AREA 1 SIDE VALIDATION 3A	AREA 1 SIDE VALIDATION 5A											
Depth	0.00-1.80	0.00-1.80											
COC No / misc													
Containers	V J T	V J T											
Sample Date	06/03/2023 16:30	06/03/2023 16:40											
Sample Type	Soil	Soil											
Batch Number	1	1											
Date of Receipt	09/03/2023	09/03/2023											

Please see attached notes for all abbreviations and acronyms

											LOD/LOR	Units	Method No.
Sulphide	<10	<10									<10	mg/kg	TM107/PM45
Electrical Conductivity @25C (5:1 ext)	254	216									<100	uS/cm	TM76/PM58
pH #	8.90	8.51									<0.01	pH units	TM73/PM11

Client Name: Englobe
Reference: C1856
Location: NG Salisbury
Contact: Tim Vickers

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.

Where trace asbestos is reported the amount of asbestos will be <0.1%.

EMT Job No.	Batch	Sample ID	Depth	EMT Sample No.	Analyst Name	Date Of Analysis	Analysis	Result
23/3704	1	AREA 1 SIDE VALIDATION 3A	0.00-1.80	3	Remigiusz Blichowski	20/03/2023	**General Description (Bulk Analysis)**	Brown sand with rock
					Remigiusz Blichowski	20/03/2023	**Asbestos Fibres**	Fibre Bundles
					Remigiusz Blichowski	20/03/2023	**Asbestos ACM**	NAD
					Remigiusz Blichowski	20/03/2023	**Asbestos Type**	Chrysotile
					Remigiusz Blichowski	20/03/2023	**Total ACM Gravimetric Quantification (% Asb)**	<0.001 (mass %)
					Remigiusz Blichowski	20/03/2023	**Total Detailed Gravimetric Quantification (% Asb)**	0.002 (mass %)
					Remigiusz Blichowski	20/03/2023	**Total Gravimetric Quantification (ACM + Detailed) (% Asb)**	0.002 (mass %)
23/3704	1	AREA 1 SIDE VALIDATION 5A	0.00-1.80	6	Catherine Coles	20/03/2023	**General Description (Bulk Analysis)**	loose brown soil,brick
					Catherine Coles	20/03/2023	**Asbestos Fibres**	Fibre Bundles
					Catherine Coles	20/03/2023	**Asbestos Fibres (2)**	Free Fibres
					Catherine Coles	20/03/2023	**Asbestos Fibres (3)**	Fibre Bundles
					Catherine Coles	20/03/2023	**Asbestos ACM**	NAD
					Catherine Coles	20/03/2023	**Asbestos ACM (2)**	NAD
					Catherine Coles	20/03/2023	**Asbestos ACM (3)**	NAD
					Catherine Coles	20/03/2023	**Asbestos Type**	Chrysotile
					Catherine Coles	20/03/2023	**Asbestos Type (2)**	Amosite
					Catherine Coles	20/03/2023	**Asbestos Type (3)**	Crocidolite
					Matthew Turner	28/03/2023	**Total ACM Gravimetric Quantification (% Asb)**	<0.001 (mass %)
					Matthew Turner	28/03/2023	**Total Detailed Gravimetric Quantification (% Asb)**	0.009 (mass %)
					Matthew Turner	28/03/2023	**Total Gravimetric Quantification (ACM + Detailed) (% Asb)**	0.009 (mass %)

Client Name: Englobe
Reference: C1856
Location: NG Salisbury
Contact: Tim Vickers

EMT Job No.	Batch	Sample ID	Depth	EMT Sample No.	Analysis	Reason
No deviating sample report results for job 23/3704						

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.: 23/3704

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 quantitative calibration range. The result should be considered the minimum value and is indicative only. 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

EMT Job No: 23/3704

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/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
TM16	Modified USEPA 8270D v5:2014. Quantitative determination of Semi-Volatile Organic compounds (SVOCs) by GC-MS.	PM8	End over end extraction of solid samples for organic analysis. The solvent mix varies depending on analysis required.			AR	Yes
TM16	Modified USEPA 8270D v5:2014. Quantitative determination of Semi-Volatile Organic compounds (SVOCs) 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
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	Preparation of Soil and Marine Sediment Samples for Total Organic Carbon.	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	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

EMT Job No: 23/3704

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
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.	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.			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.	Yes		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	
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
TM76	Modified US EPA method 120.1 (1982). Determination of Specific Conductance by Metrohm automated probe analyser.	PM58	Dried and ground solid samples are extracted with water in a 5:1 water to solid ratio, the samples are shaken on an orbital shaker.			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.			AR	Yes

EMT Job No: 23/3704

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
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
TM107	Determination of Sulphide/Thiocyanate by Skalar Continuous Flow Analyser	PM45	As received solid samples are extracted with 1M NaOH by orbital shaker for Cyanide, Sulphide and Thiocyanate analysis.			AR	Yes
TM131	Quantification of Asbestos Fibres and ACM based on HSG 248 Second edition:2021, HSG 264 Second edition:2012, HSE Contract Research Report No.83/1996, MDHS 87:1998, WM3 1st Edition v1.1:2018	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	Yes

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Englobe
Columbus House
Greenmeadow Springs
Tongwynlais
Cardiff
CF15 7NE

Attention :	Tim Vickers
Date :	28th March, 2023
Your reference :	C1856
Our reference :	Test Report 23/3878 Batch 1
Location :	NG Salisbury
Date samples received :	11th March, 2023
Status :	Final Report
Issue :	1

Six samples were received for analysis on 11th March, 2023 of which six 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:

Liza Klebe
Project Co-ordinator

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

Client Name: Englobe
Reference: C1856
Location: NG Salisbury
Contact: Tim Vickers
EMT Job No: 23/3878

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					LOD/LOR	Units	Method No.
Sample ID	NWB ADDITIONAL 1	NWB ADDITIONAL 2	NWB ADDITIONAL 3	NWB ADDITIONAL 4	NWB ADDITIONAL 5	NWB ADDITIONAL 6							
Depth	0.25-0.40	0.25-0.40	0.25-0.40	0.25-0.40	0.25-0.40	0.25-0.40							
COC No / misc													
Containers	V J T	V J T	V J T	V J T	V J T	V J T							
Sample Date	09/03/2023 15:00	09/03/2023 15:10	09/03/2023 15:20	09/03/2023 15:30	09/03/2023 15:40	09/03/2023 15:50							
Sample Type	Soil	Soil	Soil	Soil	Soil	Soil							
Batch Number	1	1	1	1	1	1							
Date of Receipt	11/03/2023	11/03/2023	11/03/2023	11/03/2023	11/03/2023	11/03/2023							
Arsenic #	12.4	15.8	46.3	33.1	28.8	10.4					<0.5	mg/kg	TM30/PM15
Cadmium #	1.8	0.3	1.3	0.4	1.6	0.5					<0.1	mg/kg	TM30/PM15
Chromium #	15.8	56.3	516.3$_{AA}$	266.2$_{AA}$	85.7	160.0					<0.5	mg/kg	TM30/PM15
Copper #	10	60	103	90	234	61					<1	mg/kg	TM30/PM15
Lead #	119	350	3429$_{AA}$	500	1251	395					<5	mg/kg	TM30/PM15
Mercury #	0.3	0.6	3.2	0.9	1.3	0.3					<0.1	mg/kg	TM30/PM15
Nickel #	6.6	19.7	35.3	35.0	37.2	17.6					<0.7	mg/kg	TM30/PM15
Selenium #	<1	<1	<1	2	<1	<1					<1	mg/kg	TM30/PM15
Total Sulphate as SO4 #	707	985	5503	3374	2205	988					<50	mg/kg	TM50/PM29
Water Soluble Boron #	0.4	1.4	1.1	0.8	1.3	1.7					<0.1	mg/kg	TM74/PM32
Zinc #	155	392	2103	468	1358	334					<5	mg/kg	TM30/PM15
PAH MS													
Naphthalene #	1.39	5.04	14.43	3.38	4.38	1.24					<0.04	mg/kg	TM4/PM8
Acenaphthylene	1.93	6.80	16.16	6.22	8.85	2.71					<0.03	mg/kg	TM4/PM8
Acenaphthene #	0.17	0.32	0.53	0.30	0.23	0.99					<0.05	mg/kg	TM4/PM8
Fluorene #	0.84	1.15	1.97	1.33	0.77	0.93					<0.04	mg/kg	TM4/PM8
Phenanthrene #	10.84	>>28.74	>>38.84	22.19	10.08	15.58					<0.03	mg/kg	TM4/PM8
Anthracene #	5.28	11.12	23.23	9.98	5.47	6.00					<0.04	mg/kg	TM4/PM8
Fluoranthene #	>>25.30	>>68.84	>>117.26	>>65.32	>>65.41	>>36.81					<0.03	mg/kg	TM4/PM8
Pyrene #	20.85	>>58.24	>>103.27	>>55.65	>>60.37	>>29.24					<0.03	mg/kg	TM4/PM8
Benzo(a)anthracene #	13.49	>>34.21	>>80.10	>>38.83	>>38.51	19.55					<0.06	mg/kg	TM4/PM8
Chrysene #	12.49	>>32.36	>>62.82	>>33.30	>>32.82	20.41					<0.02	mg/kg	TM4/PM8
Benzo(bk)fluoranthene #	22.52	>>65.22	>>146.68	>>72.77	>>72.78	42.60					<0.07	mg/kg	TM4/PM8
Benzo(a)pyrene #	12.24	>>34.89	>>71.33	>>37.29	>>40.14	22.38					<0.04	mg/kg	TM4/PM8
Indeno(123cd)pyrene #	9.68	>>28.70	>>64.55	>>29.04	>>33.32	18.96					<0.04	mg/kg	TM4/PM8
Dibenzo(ah)anthracene #	1.85	4.38	16.11	4.90	4.99	3.13					<0.04	mg/kg	TM4/PM8
Benzo(ghi)perylene #	8.30	>>26.01	>>57.72	>>25.98	>>28.12	18.27					<0.04	mg/kg	TM4/PM8
PAH 16 Total	147.2	406.0	815.0	406.5	406.2	238.8					<0.6	mg/kg	TM4/PM8
Benzo(b)fluoranthene	16.21	46.96	105.61	52.39	52.40	30.67					<0.05	mg/kg	TM4/PM8
Benzo(k)fluoranthene	6.31	18.26	41.07	20.38	20.38	11.93					<0.02	mg/kg	TM4/PM8
PAH Surrogate % Recovery	92	94	90	88	88	93					<0	%	TM4/PM8
Methyl Tertiary Butyl Ether #	<2	<2	<2	<2	<2	<2					<2	ug/kg	TM15/PM10
Benzene #	5	<3	16	12	9	7					<3	ug/kg	TM15/PM10
Toluene #	4	<3	9	8	6	<3					<3	ug/kg	TM15/PM10
Ethylbenzene #	<3	<3	<3	<3	<3	<3					<3	ug/kg	TM15/PM10
m/p-Xylene #	<5	<5	7	7	<5	<5					<5	ug/kg	TM15/PM10
o-Xylene #	<3	<3	<3	<3	<3	<3					<3	ug/kg	TM15/PM10
Surrogate Recovery Toluene D8	88	76	68	74	71	77					<0	%	TM15/PM10
Surrogate Recovery 4-Bromofluorobenzene	73	67	58	58	57	67					<0	%	TM15/PM10

Please see attached notes for all abbreviations and acronyms

Client Name: Englobe
Reference: C1856
Location: NG Salisbury
Contact: Tim Vickers
EMT Job No: 23/3878

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.	1-3	4-6	7-9	10-12	13-15	16-18					LOD/LOR	Units	Method No.
Sample ID	NWB ADDITIONAL 1	NWB ADDITIONAL 2	NWB ADDITIONAL 3	NWB ADDITIONAL 4	NWB ADDITIONAL 5	NWB ADDITIONAL 6							
Depth	0.25-0.40	0.25-0.40	0.25-0.40	0.25-0.40	0.25-0.40	0.25-0.40							
COC No / misc													
Containers	V J T	V J T	V J T	V J T	V J T	V J T							
Sample Date	09/03/2023 15:00	09/03/2023 15:10	09/03/2023 15:20	09/03/2023 15:30	09/03/2023 15:40	09/03/2023 15:50							
Sample Type	Soil	Soil	Soil	Soil	Soil	Soil							
Batch Number	1	1	1	1	1	1							
Date of Receipt	11/03/2023	11/03/2023	11/03/2023	11/03/2023	11/03/2023	11/03/2023							
TPH CWG													
Aliphatics													
>C5-C6 #	<0.1	<0.1	<0.1 SV	<0.1 SV	<0.1 SV	<0.1					<0.1	mg/kg	TM36/PM12
>C6-C8 #	<0.1	<0.1	<0.1 SV	<0.1 SV	<0.1 SV	<0.1					<0.1	mg/kg	TM36/PM12
>C8-C10	<0.1	<0.1	<0.1 SV	<0.1 SV	<0.1 SV	<0.1					<0.1	mg/kg	TM36/PM12
>C10-C12 #	<0.2	<0.2	3.0	<0.2	<0.2	<0.2					<0.2	mg/kg	TM5/PM8/PM16
>C12-C16 #	<4	<4	17	<4	6	<4					<4	mg/kg	TM5/PM8/PM16
>C16-C21 #	<7	<7	154	32	44	31					<7	mg/kg	TM5/PM8/PM16
>C21-C35 #	<7	<7	599	134	261	185					<7	mg/kg	TM5/PM8/PM16
Total aliphatics C5-35	<19	<19	773	166	311	216					<19	mg/kg	TM5/TM36/PM8/PM12/PM16
Aromatics													
>C5-EC7 #	<0.1	<0.1	<0.1 SV	<0.1 SV	<0.1 SV	<0.1					<0.1	mg/kg	TM36/PM12
>EC7-EC8 #	<0.1	<0.1	<0.1 SV	<0.1 SV	<0.1 SV	<0.1					<0.1	mg/kg	TM36/PM12
>EC8-EC10 #	<0.1	<0.1	<0.1 SV	<0.1 SV	<0.1 SV	<0.1					<0.1	mg/kg	TM36/PM12
>EC10-EC12 #	<0.2	<0.2	12.3	4.0	4.3	0.7					<0.2	mg/kg	TM5/PM8/PM16
>EC12-EC16 #	<4	<4	45	32	29	11					<4	mg/kg	TM5/PM8/PM16
>EC16-EC21 #	79	23	932	575	384	222					<7	mg/kg	TM5/PM8/PM16
>EC21-EC35 #	300	110	3426	1532	1068	753					<7	mg/kg	TM5/PM8/PM16
Total aromatics C5-35 #	379	133	4415	2143	1485	987					<19	mg/kg	TM5/TM36/PM8/PM12/PM16
Total aliphatics and aromatics(C5-35)	379	133	5188	2309	1796	1203					<38	mg/kg	TM5/TM36/PM8/PM12/PM16
2-Chlorophenol #	<10	<10	<10	<10	<10	<10					<10	ug/kg	TM16/PM8
Natural Moisture Content	6.3	18.8	16.1	17.3	13.4	14.2					<0.1	%	PM4/PM0
2-Methylphenol	<10	<10	604	271	<10	<10					<10	ug/kg	TM16/PM8
2-Nitrophenol	<10	<10	<10	<10	<10	<10					<10	ug/kg	TM16/PM8
2,4-Dichlorophenol #	<10	<10	<10	<10	<10	<10					<10	ug/kg	TM16/PM8
2,4-Dimethylphenol	<10	53	647	218	147	61					<10	ug/kg	TM16/PM8
2,4,5-Trichlorophenol	<10	<10	<10	<10	<10	<10					<10	ug/kg	TM16/PM8
2,4,6-Trichlorophenol	<10	<10	<10	<10	<10	<10					<10	ug/kg	TM16/PM8
4-Chloro-3-methylphenol	<10	<10	<10	<10	<10	<10					<10	ug/kg	TM16/PM8
4-Methylphenol	<10	163	2395	880	449	<10					<10	ug/kg	TM16/PM8
4-Nitrophenol	<10	<10	<10	<10	<10	<10					<10	ug/kg	TM16/PM8
Pentachlorophenol	<10	<10	<10	<10	<10	<10					<10	ug/kg	TM16/PM8
Phenol #	<10	173	2328	891	379	<10					<10	ug/kg	TM16/PM8
Total Speciated Phenols MS	<10	389	5974	2260	975	61					<10	ug/kg	TM16/PM8
Ammoniacal Nitrogen as NH4	0.9	<0.6	<0.6	1.2	0.8	<0.6					<0.6	mg/kg	TM38/PM20
Chloride #	15	16	11	8	18	13					<2	mg/kg	TM38/PM20
Free Cyanide	<0.5	<0.5	2.9	1.2	1.2	<0.5					<0.5	mg/kg	TM89/PM45
Total Cyanide #	25.1	45.4	551.8 AB	160.2 AA	406.9 AB	39.6					<0.5	mg/kg	TM89/PM45
Complex Cyanide	25.1	45.4	548.9	159.0	405.7	39.6					<0.5	mg/kg	TM89/PM45

Element Materials Technology

Client Name: Englobe
Reference: C1856
Location: NG Salisbury
Contact: Tim Vickers
EMT Job No: 23/3878

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					LOD/LOR	Units	Method No.
Sample ID	NWB ADDITIONAL 1	NWB ADDITIONAL 2	NWB ADDITIONAL 3	NWB ADDITIONAL 4	NWB ADDITIONAL 5	NWB ADDITIONAL 6							
Depth	0.25-0.40	0.25-0.40	0.25-0.40	0.25-0.40	0.25-0.40	0.25-0.40							
COC No / misc													
Containers	V J T	V J T	V J T	V J T	V J T	V J T							
Sample Date	09/03/2023 15:00	09/03/2023 15:10	09/03/2023 15:20	09/03/2023 15:30	09/03/2023 15:40	09/03/2023 15:50							
Sample Type	Soil	Soil	Soil	Soil	Soil	Soil							
Batch Number	1	1	1	1	1	1							
Date of Receipt	11/03/2023	11/03/2023	11/03/2023	11/03/2023	11/03/2023	11/03/2023							
Total Organic Carbon #	1.66	7.74	16.90	14.73	16.83	4.00					<0.02	%	TM21/PM24
Sulphide	<10	<10	<10	<10	<10	<10					<10	mg/kg	TM107/PM45
Electrical Conductivity @25C (5:1 ext)	133	156	169	528	182	136					<100	uS/cm	TM76/PM58
pH #	8.28	8.00	7.86	7.79	7.94	8.17					<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.

Client Name: Englobe
Reference: C1856
Location: NG Salisbury
Contact: Tim Vickers
EMT Job No: 23/3878

VOC Report : **Solid**

EMT Sample No.	1-3	4-6	7-9	10-12	13-15	16-18					LOD/LOR	Units	Method No.
Sample ID	NWB ADDITIONAL 1	NWB ADDITIONAL 2	NWB ADDITIONAL 3	NWB ADDITIONAL 4	NWB ADDITIONAL 5	NWB ADDITIONAL 6							
Depth	0.25-0.40	0.25-0.40	0.25-0.40	0.25-0.40	0.25-0.40	0.25-0.40							
COC No / misc													
Containers	V J T	V J T	V J T	V J T	V J T	V J T							
Sample Date	09/03/2023 15:00	09/03/2023 15:10	09/03/2023 15:20	09/03/2023 15:30	09/03/2023 15:40	09/03/2023 15:50							
Sample Type	Soil	Soil	Soil	Soil	Soil	Soil							
Batch Number	1	1	1	1	1	1							
Date of Receipt	11/03/2023	11/03/2023	11/03/2023	11/03/2023	11/03/2023	11/03/2023							
VOC MS													
Dichlorodifluoromethane	<2	<2	<2	<2	<2	<2					<2	ug/kg	TM15/PM10
Methyl Tertiary Butyl Ether #	<2	<2	<2	<2	<2	<2					<2	ug/kg	TM15/PM10
Chloromethane #	<3	5	5	<3	5	3					<3	ug/kg	TM15/PM10
Vinyl Chloride	<2	<2	<2	<2	<2	<2					<2	ug/kg	TM15_A/PM10
Bromomethane	<1	<1	<1	<1	<1	<1					<1	ug/kg	TM15/PM10
Chloroethane #	<2	<2	<2	<2	2	<2					<2	ug/kg	TM15/PM10
Trichlorofluoromethane #	<2	<2	<2	<2	<2	<2					<2	ug/kg	TM15/PM10
1,1-Dichloroethene (1,1 DCE) #	<6	<6	<6	<6	<6	<6					<6	ug/kg	TM15/PM10
Dichloromethane (DCM) #	<7	<7	<7	<7	<7	<7					<7	ug/kg	TM15/PM10
trans-1-2-Dichloroethene #	<3	<3	<3	<3	<3	<3					<3	ug/kg	TM15/PM10
1,1-Dichloroethane #	<3	<3	<3	<3	<3	<3					<3	ug/kg	TM15/PM10
cis-1-2-Dichloroethene #	<3	<3	<3	<3	<3	<3					<3	ug/kg	TM15/PM10
2,2-Dichloropropane	<4	<4	<4	<4	<4	<4					<4	ug/kg	TM15/PM10
Bromochloromethane #	<3	<3	<3	<3	<3	<3					<3	ug/kg	TM15/PM10
Chloroform #	<3	<3	<3	<3	<3	<3					<3	ug/kg	TM15/PM10
1,1,1-Trichloroethane #	<3	<3	<3	<3	<3	<3					<3	ug/kg	TM15/PM10
1,1-Dichloropropene #	<3	<3	<3	<3	<3	<3					<3	ug/kg	TM15/PM10
Carbon tetrachloride #	<4	<4	<4	<4	<4	<4					<4	ug/kg	TM15/PM10
1,2-Dichloroethane #	<4	<4	<4	<4	<4	<4					<4	ug/kg	TM15/PM10
Benzene #	5	<3	16	12	9	7					<3	ug/kg	TM15/PM10
Trichloroethene (TCE) #	<3	<3	<3	<3	<3	<3					<3	ug/kg	TM15/PM10
1,2-Dichloropropane #	<6	<6	<6	<6	<6	<6					<6	ug/kg	TM15/PM10
Dibromomethane #	<3	<3	<3	<3	<3	<3					<3	ug/kg	TM15/PM10
Bromodichloromethane #	<3	<3	<3	<3	<3	<3					<3	ug/kg	TM15/PM10
cis-1-3-Dichloropropene	<4	<4	<4	<4	<4	<4					<4	ug/kg	TM15/PM10
Toluene #	4	<3	9	8	6	<3					<3	ug/kg	TM15/PM10
trans-1-3-Dichloropropene	<3	<3	<3	<3	<3	<3					<3	ug/kg	TM15/PM10
1,1,2-Trichloroethane #	<3	<3	<3	<3	<3	<3					<3	ug/kg	TM15/PM10
Tetrachloroethene (PCE) #	<3	<3	<3	<3	<3	<3					<3	ug/kg	TM15/PM10
1,3-Dichloropropane #	<3	<3	<3	<3	<3	<3					<3	ug/kg	TM15/PM10
Dibromochloromethane #	<3	<3	<3	<3	<3	<3					<3	ug/kg	TM15/PM10
1,2-Dibromoethane #	<3	<3	<3	<3	<3	<3					<3	ug/kg	TM15/PM10
Chlorobenzene #	<3	<3	<3	<3	<3	<3					<3	ug/kg	TM15/PM10
1,1,1,2-Tetrachloroethane #	<3	<3	<3	<3	<3	<3					<3	ug/kg	TM15/PM10
Ethylbenzene #	<3	<3	<3	<3	<3	<3					<3	ug/kg	TM15/PM10
m/p-Xylene #	<5	<5	7	7	<5	<5					<5	ug/kg	TM15/PM10
o-Xylene #	<3	<3	<3	<3	<3	<3					<3	ug/kg	TM15/PM10
Styrene	<3	<3	8	8	6	<3					<3	ug/kg	TM15_A/PM10
Bromoform	<3	<3	<3	<3	<3	<3					<3	ug/kg	TM15/PM10
Isopropylbenzene #	<3	<3	<3	<3	<3	<3					<3	ug/kg	TM15/PM10
1,1,2,2-Tetrachloroethane #	<3	<3	<3	<3	<3	<3					<3	ug/kg	TM15/PM10
Bromobenzene	<2	<2	<2	<2	<2	<2					<2	ug/kg	TM15/PM10
1,2,3-Trichloropropane #	<4	<4	<4	<4	<4	<4					<4	ug/kg	TM15/PM10
Propylbenzene #	<4	<4	<4	<4	<4	<4					<4	ug/kg	TM15/PM10
2-Chlorotoluene	<3	<3	<3	<3	<3	<3					<3	ug/kg	TM15/PM10
1,3,5-Trimethylbenzene #	<3	<3	<3	<3	<3	<3					<3	ug/kg	TM15/PM10
4-Chlorotoluene	<3	<3	<3	<3	<3	<3					<3	ug/kg	TM15/PM10
tert-Butylbenzene #	<5	<5	<5	<5	<5	<5					<5	ug/kg	TM15/PM10
1,2,4-Trimethylbenzene #	<6	<6	<6	<6	<6	8					<6	ug/kg	TM15/PM10
sec-Butylbenzene #	<4	<4	<4	<4	<4	<4					<4	ug/kg	TM15/PM10
4-Isopropyltoluene	<4	<4	<4	<4	<4	<4					<4	ug/kg	TM15/PM10
1,3-Dichlorobenzene #	<4	<4	<4	<4	<4	<4					<4	ug/kg	TM15/PM10
1,4-Dichlorobenzene #	<4	<4	<4	<4	<4	<4					<4	ug/kg	TM15/PM10
n-Butylbenzene	<4	<4	<4	<4	<4	<4					<4	ug/kg	TM15/PM10
1,2-Dichlorobenzene #	<4	<4	<4	<4	<4	<4					<4	ug/kg	TM15/PM10
1,2-Dibromo-3-chloropropane	<4	<4	<4	<4	<4	<4					<4	ug/kg	TM15/PM10
1,2,4-Trichlorobenzene	<7	<7	<7	<7	<7	<7					<7	ug/kg	TM15/PM10
Hexachlorobutadiene	<4	<4	<4	<4	<4	<4					<4	ug/kg	TM15/PM10
Naphthalene	67	67	185	138	59	<27					<27	ug/kg	TM15/PM10
1,2,3-Trichlorobenzene	<7	<7	<7	<7	<7	<7					<7	ug/kg	TM15/PM10
Surrogate Recovery Toluene D8	88	76	68	74	71	77					<0	%	TM15/PM10
Surrogate Recovery 4-Bromofluorobenzene	73	67	58	58	57	67					<0	%	TM15/PM10

Please see attached notes for all abbreviations and acronyms

Client Name: Englobe
Reference: C1856
Location: NG Salisbury
Contact: Tim Vickers

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.

Where trace asbestos is reported the amount of asbestos will be <0.1%.

EMT Job No.	Batch	Sample ID	Depth	EMT Sample No.	Analyst Name	Date Of Analysis	Analysis	Result
23/3878	1	NWB ADDITIONAL 1	0.25-0.40	3	Charlotte Taylor	21/03/2023	**General Description (Bulk Analysis)**	brown soil/stones
					Charlotte Taylor	21/03/2023	**Asbestos Fibres**	NAD
					Charlotte Taylor	21/03/2023	**Asbestos ACM**	NAD
					Charlotte Taylor	21/03/2023	**Asbestos Type**	NAD
23/3878	1	NWB ADDITIONAL 2	0.25-0.40	6	Catherine Coles	22/03/2023	**General Description (Bulk Analysis)**	brown soil,stones
					Catherine Coles	22/03/2023	**Asbestos Fibres**	NAD
					Catherine Coles	22/03/2023	**Asbestos ACM**	NAD
					Catherine Coles	22/03/2023	**Asbestos Type**	NAD
23/3878	1	NWB ADDITIONAL 3	0.25-0.40	9	Anthony Carman	21/03/2023	**General Description (Bulk Analysis)**	Brown Soil/Debris
					Anthony Carman	21/03/2023	**Asbestos Fibres**	Fibre Bundles
					Anthony Carman	21/03/2023	**Asbestos ACM**	NAD
					Anthony Carman	21/03/2023	**Asbestos Type**	Chrysotile
					Matthew Turner	28/03/2023	**Total ACM Gravimetric Quantification (% Asb)**	<0.001 (mass %)
					Matthew Turner	28/03/2023	**Total Detailed Gravimetric Quantification (% Asb)**	<0.001 (mass %)
					Matthew Turner	28/03/2023	**Total Gravimetric Quantification (ACM + Detailed) (% Asb)**	<0.001 (mass %)
23/3878	1	NWB ADDITIONAL 4	0.25-0.40	12	Charlotte Taylor	21/03/2023	**General Description (Bulk Analysis)**	brown soil/stones
					Charlotte Taylor	21/03/2023	**Asbestos Fibres**	Fibre Bundles
					Charlotte Taylor	21/03/2023	**Asbestos Fibres (2)**	Fibre Bundles
					Charlotte Taylor	21/03/2023	**Asbestos ACM**	Bitumen Products
					Charlotte Taylor	21/03/2023	**Asbestos ACM (2)**	NAD
					Charlotte Taylor	21/03/2023	**Asbestos Type**	Chrysotile
					Charlotte Taylor	21/03/2023	**Asbestos Type (2)**	Crocidolite
					Matthew Turner	28/03/2023	**Total ACM Gravimetric Quantification (% Asb)**	<0.001 (mass %)
					Matthew Turner	28/03/2023	**Total Detailed Gravimetric Quantification (% Asb)**	0.064 (mass %)
					Matthew Turner	28/03/2023	**Total Gravimetric Quantification (ACM + Detailed) (% Asb)**	0.064 (mass %)
23/3878	1	NWB ADDITIONAL 5	0.25-0.40	15	Catherine Coles	22/03/2023	**General Description (Bulk Analysis)**	loose brown soil, metal, debris
					Catherine Coles	22/03/2023	**Asbestos Fibres**	Fibre Bundles
					Catherine Coles	22/03/2023	**Asbestos Fibres (2)**	Fibre Bundles
					Catherine Coles	22/03/2023	**Asbestos Fibres (3)**	Fibre Bundles
					Catherine Coles	22/03/2023	**Asbestos ACM**	NAD
					Catherine Coles	22/03/2023	**Asbestos ACM (2)**	NAD
					Catherine Coles	22/03/2023	**Asbestos ACM (3)**	NAD
					Catherine Coles	22/03/2023	**Asbestos Type**	Chrysotile
					Catherine Coles	22/03/2023	**Asbestos Type (2)**	Amosite
					Catherine Coles	22/03/2023	**Asbestos Type (3)**	Crocidolite

Client Name: Englobe
Reference: C1856
Location: NG Salisbury
Contact: Tim Vickers

EMT Job No.	Batch	Sample ID	Depth	EMT Sample No.	Analyst Name	Date Of Analysis	Analysis	Result
23/3878	1	NWB ADDITIONAL 5	0.25-0.40	15	Matthew Turner	28/03/2023	**Total ACM Gravimetric Quantification (% Asb)**	<0.001 (mass %)
					Matthew Turner	28/03/2023	**Total Detailed Gravimetric Quantification (% Asb)**	0.017 (mass %)
					Matthew Turner	28/03/2023	**Total Gravimetric Quantification (ACM + Detailed) (% Asb)**	0.017 (mass %)
23/3878	1	NWB ADDITIONAL 6	0.25-0.40	18	Catherine Coles	22/03/2023	**General Description (Bulk Analysis)**	loose brown soil, stones
					Catherine Coles	22/03/2023	**Asbestos Fibres**	Fibre Bundles
					Catherine Coles	22/03/2023	**Asbestos Fibres (2)**	Fibre Bundles
					Catherine Coles	22/03/2023	**Asbestos ACM**	NAD
					Catherine Coles	22/03/2023	**Asbestos ACM (2)**	NAD
					Catherine Coles	22/03/2023	**Asbestos Type**	Chrysotile
					Catherine Coles	22/03/2023	**Asbestos Type (2)**	Amosite
					Matthew Turner	28/03/2023	**Total ACM Gravimetric Quantification (% Asb)**	<0.001 (mass %)
					Matthew Turner	28/03/2023	**Total Detailed Gravimetric Quantification (% Asb)**	0.013 (mass %)
					Matthew Turner	28/03/2023	**Total Gravimetric Quantification (ACM + Detailed) (% Asb)**	0.013 (mass %)

Client Name: Englobe
Reference: C1856
Location: NG Salisbury
Contact: Tim Vickers

EMT Job No.	Batch	Sample ID	Depth	EMT Sample No.	Analysis	Reason
No deviating sample report results for job 23/3878						

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.

Please include all sections of this report if it is reproduced

NOTES TO ACCOMPANY ALL SCHEDULES AND REPORTS

EMT Job No.: 23/3878

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 quantitative calibration range. The result should be considered the minimum value and is indicative only. 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
AB	x10 Dilution

EMT Job No: 23/3878

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/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
TM15	Modified USEPA 8260B v2:1996. Quantitative Determination of Volatile Organic Compounds (VOCs) by Headspace GC-MS.	PM10	Modified US EPA method 5021A v2:2014. Preparation of solid and liquid samples for GC headspace analysis.			AR	Yes
TM15	Modified USEPA 8260B v2:1996. Quantitative Determination of Volatile Organic Compounds (VOCs) by Headspace GC-MS.	PM10	Modified US EPA method 5021A v2:2014. Preparation of solid and liquid samples for GC headspace analysis.	Yes		AR	Yes
TM16	Modified USEPA 8270D v5:2014. Quantitative determination of Semi-Volatile Organic compounds (SVOCs) by GC-MS.	PM8	End over end extraction of solid samples for organic analysis. The solvent mix varies depending on analysis required.			AR	Yes
TM16	Modified USEPA 8270D v5:2014. Quantitative determination of Semi-Volatile Organic compounds (SVOCs) 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

EMT Job No: 23/3878

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	Preparation of Soil and Marine Sediment Samples for Total Organic Carbon.	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	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: 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.			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.	Yes		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	
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

EMT Job No: 23/3878

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
TM76	Modified US EPA method 120.1 (1982). Determination of Specific Conductance by Metrohm automated probe analyser.	PM58	Dried and ground solid samples are extracted with water in a 5:1 water to solid ratio, the samples are shaken on an orbital shaker.			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.			AR	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
TM107	Determination of Sulphide/Thiocyanate by Skalar Continuous Flow Analyser	PM45	As received solid samples are extracted with 1M NaOH by orbital shaker for Cyanide, Sulphide and Thiocyanate analysis.			AR	Yes
TM131	Quantification of Asbestos Fibres and ACM based on HSG 248 Second edition:2021, HSG 264 Second edition:2012, HSE Contract Research Report No.83/1996, MDHS 87:1998, WM3 1st Edition v1.1:2018	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	Yes
TM15_A	Modified USEPA 8260B v2:1996. Quantitative Determination of Volatile Organic Compounds, Vinyl Chloride & Styrene by Headspace GC-MS.	PM10	Modified US EPA method 5021A v2:2014. Preparation of solid and liquid samples for GC headspace analysis.			AR	Yes

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Englobe
Columbus House
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Tongwynlais
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CF15 7NE

Attention :	Tim Vickers
Date :	21st March, 2023
Your reference :	C1856
Our reference :	Test Report 23/3880 Batch 1
Location :	NG Sailsbury
Date samples received :	11th March, 2023
Status :	Final Report
Issue :	1

Two samples were received for analysis on 11th March, 2023 of which two 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:

Liza Klebe
Project Co-ordinator

Please include all sections of this report if it is reproduced

Client Name: Englobe
Reference: C1856
Location: NG Sailsbury
Contact: Tim Vickers
EMT Job No: 23/3880

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.	1-3	4-6									LOD/LOR	Units	Method No.
Sample ID	IMPORT 6F5 - SAMPLE 2	IMPORT 6F5 - SAMPLE 3											
Depth													
COC No / misc													
Containers	V J T	V J T											
Sample Date	09/03/2023 09:30	09/03/2023 09:40											
Sample Type	Soil	Soil											
Batch Number	1	1											
Date of Receipt	11/03/2023	11/03/2023											
Arsenic #	7.3	4.3									<0.5	mg/kg	TM30/PM15
Cadmium #	0.3	0.2									<0.1	mg/kg	TM30/PM15
Chromium #	7.9	5.6									<0.5	mg/kg	TM30/PM15
Copper #	4	3									<1	mg/kg	TM30/PM15
Lead #	10	8									<5	mg/kg	TM30/PM15
Mercury #	<0.1	<0.1									<0.1	mg/kg	TM30/PM15
Nickel #	8.5	6.3									<0.7	mg/kg	TM30/PM15
Selenium #	<1	<1									<1	mg/kg	TM30/PM15
Total Sulphate as SO4 #	1057	884									<50	mg/kg	TM50/PM29
Water Soluble Boron #	1.0	0.8									<0.1	mg/kg	TM74/PM32
Zinc #	57	53									<5	mg/kg	TM30/PM15
PAH MS													
Naphthalene #	<0.04	<0.04									<0.04	mg/kg	TM4/PM8
Acenaphthylene	<0.03	<0.03									<0.03	mg/kg	TM4/PM8
Acenaphthene #	<0.05	<0.05									<0.05	mg/kg	TM4/PM8
Fluorene #	<0.04	<0.04									<0.04	mg/kg	TM4/PM8
Phenanthrene #	0.03	<0.03									<0.03	mg/kg	TM4/PM8
Anthracene #	<0.04	<0.04									<0.04	mg/kg	TM4/PM8
Fluoranthene #	<0.03	<0.03									<0.03	mg/kg	TM4/PM8
Pyrene #	<0.03	<0.03									<0.03	mg/kg	TM4/PM8
Benzo(a)anthracene #	<0.06	<0.06									<0.06	mg/kg	TM4/PM8
Chrysene #	<0.02	<0.02									<0.02	mg/kg	TM4/PM8
Benzo(bk)fluoranthene #	<0.07	<0.07									<0.07	mg/kg	TM4/PM8
Benzo(a)pyrene #	<0.04	<0.04									<0.04	mg/kg	TM4/PM8
Indeno(123cd)pyrene #	<0.04	<0.04									<0.04	mg/kg	TM4/PM8
Dibenzo(ah)anthracene #	<0.04	<0.04									<0.04	mg/kg	TM4/PM8
Benzo(ghi)perylene #	<0.04	<0.04									<0.04	mg/kg	TM4/PM8
PAH 16 Total	<0.6	<0.6									<0.6	mg/kg	TM4/PM8
Benzo(b)fluoranthene	<0.05	<0.05									<0.05	mg/kg	TM4/PM8
Benzo(k)fluoranthene	<0.02	<0.02									<0.02	mg/kg	TM4/PM8
PAH Surrogate % Recovery	98	95									<0	%	TM4/PM8
TPH CWG													
Aliphatics													
>C5-C6 #	<0.1	<0.1									<0.1	mg/kg	TM36/PM12
>C6-C8 #	0.1	0.2									<0.1	mg/kg	TM36/PM12
>C8-C10	0.1	0.1									<0.1	mg/kg	TM36/PM12
>C10-C12 #	<0.2	<0.2									<0.2	mg/kg	TM5/PM8/PM16
>C12-C16 #	<4	<4									<4	mg/kg	TM5/PM8/PM16
>C16-C21 #	<7	<7									<7	mg/kg	TM5/PM8/PM16
>C21-C35 #	<7	<7									<7	mg/kg	TM5/PM8/PM16
Total aliphatics C5-35	<19	<19									<19	mg/kg	TM5/TM36/PM8/PM12/PM16

Element Materials Technology

Client Name: Englobe
Reference: C1856
Location: NG Sailsbury
Contact: Tim Vickers
EMT Job No: 23/3880

Report : Solid

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

EMT Sample No.	1-3	4-6									LOD/LOR	Units	Method No.
Sample ID	IMPORT 6F5 - SAMPLE 2	IMPORT 6F5 - SAMPLE 3											
Depth													
COC No / misc													
Containers	V J T	V J T											
Sample Date	09/03/2023 09:30	09/03/2023 09:40											
Sample Type	Soil	Soil											
Batch Number	1	1											
Date of Receipt	11/03/2023	11/03/2023											
TPH CWG													
Aromatics													
>C5-EC7 #	<0.1	<0.1									<0.1	mg/kg	TM36/PM12
>EC7-EC8 #	<0.1	<0.1									<0.1	mg/kg	TM36/PM12
>EC8-EC10 #	<0.1	<0.1									<0.1	mg/kg	TM36/PM12
>EC10-EC12 #	<0.2	<0.2									<0.2	mg/kg	TM5/PM8/PM16
>EC12-EC16 #	<4	<4									<4	mg/kg	TM5/PM8/PM16
>EC16-EC21 #	<7	<7									<7	mg/kg	TM5/PM8/PM16
>EC21-EC35 #	<7	<7									<7	mg/kg	TM5/PM8/PM16
Total aromatics C5-35 #	<19	<19									<19	mg/kg	TM5/TM36/PM8/PM12/PM16
Total aliphatics and aromatics(C5-35)	<38	<38									<38	mg/kg	TM5/TM36/PM8/PM12/PM16
MTBE #	5	7									<5	ug/kg	TM36/PM12
Benzene #	5	<5									<5	ug/kg	TM36/PM12
Toluene #	17	14									<5	ug/kg	TM36/PM12
Ethylbenzene #	<5	<5									<5	ug/kg	TM36/PM12
m/p-Xylene #	22	17									<5	ug/kg	TM36/PM12
o-Xylene #	7	6									<5	ug/kg	TM36/PM12
2-Chlorophenol #	<10	<10									<10	ug/kg	TM16/PM8
Natural Moisture Content	6.0	3.3									<0.1	%	PM4/PM0
2-Methylphenol	<10	<10									<10	ug/kg	TM16/PM8
2-Nitrophenol	<10	<10									<10	ug/kg	TM16/PM8
2,4-Dichlorophenol #	<10	<10									<10	ug/kg	TM16/PM8
2,4-Dimethylphenol	<10	<10									<10	ug/kg	TM16/PM8
2,4,5-Trichlorophenol	<10	<10									<10	ug/kg	TM16/PM8
2,4,6-Trichlorophenol	<10	<10									<10	ug/kg	TM16/PM8
4-Chloro-3-methylphenol	<10	<10									<10	ug/kg	TM16/PM8
4-Methylphenol	<10	<10									<10	ug/kg	TM16/PM8
4-Nitrophenol	<10	<10									<10	ug/kg	TM16/PM8
Pentachlorophenol	<10	<10									<10	ug/kg	TM16/PM8
Phenol #	<10	<10									<10	ug/kg	TM16/PM8
Total Speciated Phenols MS	<10	<10									<10	ug/kg	TM16/PM8
Ammoniacal Nitrogen as NH4	7.7	6.5									<0.6	mg/kg	TM38/PM20
Chloride #	36	59									<2	mg/kg	TM38/PM20
Free Cyanide	<0.5	<0.5									<0.5	mg/kg	TM89/PM45
Total Cyanide #	<0.5	<0.5									<0.5	mg/kg	TM89/PM45
Complex Cyanide	<0.5	<0.5									<0.5	mg/kg	TM89/PM45
Total Organic Carbon #	0.23	0.18									<0.02	%	TM21/PM24

Please see attached notes for all abbreviations and acronyms

Element Materials Technology

Client Name: Englobe
Reference: C1856
Location: NG Sailsbury
Contact: Tim Vickers
EMT Job No: 23/3880

Report : Solid

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

EMT Sample No.	1-3	4-6											
Sample ID	IMPORT 6F5 - SAMPLE 2	IMPORT 6F5 - SAMPLE 3											
Depth													
COC No / misc													
Containers	V J T	V J T											
Sample Date	09/03/2023 09:30	09/03/2023 09:40											
Sample Type	Soil	Soil											
Batch Number	1	1											
Date of Receipt	11/03/2023	11/03/2023											

Please see attached notes for all abbreviations and acronyms

											LOD/LOR	Units	Method No.
Sulphide	<10	<10									<10	mg/kg	TM107/PM45
Electrical Conductivity @25C (5:1 ext)	125	138									<100	uS/cm	TM76/PM58
pH #	9.19	9.14									<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.

Client Name: Englobe
Reference: C1856
Location: NG Sailsbury
Contact: Tim Vickers

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.

Where trace asbestos is reported the amount of asbestos will be <0.1%.

EMT Job No.	Batch	Sample ID	Depth	EMT Sample No.	Analyst Name	Date Of Analysis	Analysis	Result
23/3880	1	IMPORT 6F5 - SAMPLE 2		3	Anthony Carman	21/03/2023	**General Description (Bulk Analysis)**	Stones/Brown Soil
					Anthony Carman	21/03/2023	**Asbestos Fibres**	NAD
					Anthony Carman	21/03/2023	**Asbestos ACM**	NAD
					Anthony Carman	21/03/2023	**Asbestos Type**	NAD
23/3880	1	IMPORT 6F5 - SAMPLE 3		6	Anthony Carman	21/03/2023	**General Description (Bulk Analysis)**	Stones/Brown Soil
					Anthony Carman	21/03/2023	**Asbestos Fibres**	NAD
					Anthony Carman	21/03/2023	**Asbestos ACM**	NAD
					Anthony Carman	21/03/2023	**Asbestos Type**	NAD

Client Name: Englobe
Reference: C1856
Location: NG Sailsbury
Contact: Tim Vickers

EMT Job No.	Batch	Sample ID	Depth	EMT Sample No.	Analysis	Reason
No deviating sample report results for job 23/3880						

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.

Please include all sections of this report if it is reproduced

NOTES TO ACCOMPANY ALL SCHEDULES AND REPORTS

EMT Job No.: 23/3880

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 quantitative calibration range. The result should be considered the minimum value and is indicative only. 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

EMT Job No: 23/3880

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/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
TM16	Modified USEPA 8270D v5:2014. Quantitative determination of Semi-Volatile Organic compounds (SVOCs) by GC-MS.	PM8	End over end extraction of solid samples for organic analysis. The solvent mix varies depending on analysis required.			AR	Yes
TM16	Modified USEPA 8270D v5:2014. Quantitative determination of Semi-Volatile Organic compounds (SVOCs) 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
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	Preparation of Soil and Marine Sediment Samples for Total Organic Carbon.	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	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

EMT Job No: 23/3880

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
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.	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.			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.	Yes		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	
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
TM76	Modified US EPA method 120.1 (1982). Determination of Specific Conductance by Metrohm automated probe analyser.	PM58	Dried and ground solid samples are extracted with water in a 5:1 water to solid ratio, the samples are shaken on an orbital shaker.			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.			AR	Yes

EMT Job No: 23/3880

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
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
TM107	Determination of Sulphide/Thiocyanate by Skalar Continuous Flow Analyser	PM45	As received solid samples are extracted with 1M NaOH by orbital shaker for Cyanide, Sulphide and Thiocyanate analysis.			AR	Yes

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Englobe
Columbus House
Greenmeadow Springs
Tongwynlais
Cardiff
CF15 7NE

Attention :	Tim Vickers
Date :	27th March, 2023
Your reference :	C1856
Our reference :	Test Report 23/3881 Batch 1
Location :	NG Sailsbury
Date samples received :	11th March, 2023
Status :	Final Report
Issue :	1

Three samples were received for analysis on 11th March, 2023 of which three 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

Client Name: Englobe
Reference: C1856
Location: NG Sailsbury
Contact: Tim Vickers
EMT Job No: 23/3881

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.	1-3	4-6	7-9								LOD/LOR	Units	Method No.
Sample ID	IMPORT SAND 1 - MOTAR	IMPORT SAND 2 - MOTAR	IMPORT SAND 3 - MOTAR										
Depth													
COC No / misc													
Containers	V J T	V J T	V J T										
Sample Date	09/03/2023 09:00	09/03/2023 09:05	09/03/2023 09:10										
Sample Type	Sand	Sand	Sand										
Batch Number	1	1	1										
Date of Receipt	11/03/2023	11/03/2023	11/03/2023										
Arsenic #	3.9	3.6	4.0								<0.5	mg/kg	TM30/PM15
Cadmium #	<0.1	<0.1	<0.1								<0.1	mg/kg	TM30/PM15
Chromium #	30.5	26.2	33.2								<0.5	mg/kg	TM30/PM15
Copper #	5	4	6								<1	mg/kg	TM30/PM15
Lead #	<5	<5	<5								<5	mg/kg	TM30/PM15
Mercury #	<0.1	<0.1	<0.1								<0.1	mg/kg	TM30/PM15
Nickel #	2.8	2.6	3.2								<0.7	mg/kg	TM30/PM15
Selenium #	<1	<1	<1								<1	mg/kg	TM30/PM15
Total Sulphate as SO4 #	79	71	80								<50	mg/kg	TM50/PM29
Water Soluble Boron #	<0.1	<0.1	0.1								<0.1	mg/kg	TM74/PM32
Zinc #	6	6	7								<5	mg/kg	TM30/PM15
PAH MS													
Naphthalene #	<0.04	<0.04	<0.04								<0.04	mg/kg	TM4/PM8
Acenaphthylene	<0.03	<0.03	<0.03								<0.03	mg/kg	TM4/PM8
Acenaphthene #	<0.05	<0.05	<0.05								<0.05	mg/kg	TM4/PM8
Fluorene #	<0.04	<0.04	<0.04								<0.04	mg/kg	TM4/PM8
Phenanthrene #	<0.03	<0.03	<0.03								<0.03	mg/kg	TM4/PM8
Anthracene #	<0.04	<0.04	<0.04								<0.04	mg/kg	TM4/PM8
Fluoranthene #	<0.03	<0.03	<0.03								<0.03	mg/kg	TM4/PM8
Pyrene #	<0.03	<0.03	<0.03								<0.03	mg/kg	TM4/PM8
Benzo(a)anthracene #	<0.06	<0.06	<0.06								<0.06	mg/kg	TM4/PM8
Chrysene #	<0.02	<0.02	<0.02								<0.02	mg/kg	TM4/PM8
Benzo(bk)fluoranthene #	<0.07	<0.07	<0.07								<0.07	mg/kg	TM4/PM8
Benzo(a)pyrene #	<0.04	<0.04	<0.04								<0.04	mg/kg	TM4/PM8
Indeno(123cd)pyrene #	<0.04	<0.04	<0.04								<0.04	mg/kg	TM4/PM8
Dibenzo(ah)anthracene #	<0.04	<0.04	<0.04								<0.04	mg/kg	TM4/PM8
Benzo(ghi)perylene #	<0.04	<0.04	<0.04								<0.04	mg/kg	TM4/PM8
PAH 16 Total	<0.6	<0.6	<0.6								<0.6	mg/kg	TM4/PM8
Benzo(b)fluoranthene	<0.05	<0.05	<0.05								<0.05	mg/kg	TM4/PM8
Benzo(k)fluoranthene	<0.02	<0.02	<0.02								<0.02	mg/kg	TM4/PM8
PAH Surrogate % Recovery	97	96	98								<0	%	TM4/PM8
TPH CWG													
Aliphatics													
>C5-C6 #	<0.1	<0.1	<0.1								<0.1	mg/kg	TM36/PM12
>C6-C8 #	<0.1	<0.1	<0.1								<0.1	mg/kg	TM36/PM12
>C8-C10	<0.1	<0.1	<0.1								<0.1	mg/kg	TM36/PM12
>C10-C12 #	<0.2	<0.2	<0.2								<0.2	mg/kg	TM5/PM8/PM16
>C12-C16 #	<4	<4	<4								<4	mg/kg	TM5/PM8/PM16
>C16-C21 #	<7	<7	<7								<7	mg/kg	TM5/PM8/PM16
>C21-C35 #	<7	<7	<7								<7	mg/kg	TM5/PM8/PM16
Total aliphatics C5-35	<19	<19	<19								<19	mg/kg	TM5/TM36/PM8/PM12/PM16

Client Name: Englobe
Reference: C1856
Location: NG Sailsbury
Contact: Tim Vickers
EMT Job No: 23/3881

Report : Solid

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

EMT Sample No.	1-3	4-6	7-9									
Sample ID	IMPORT SAND 1 - MOTAR	IMPORT SAND 2 - MOTAR	IMPORT SAND 3 - MOTAR									
Depth												
COC No / misc												
Containers	V J T	V J T	V J T									
Sample Date	09/03/2023 09:00	09/03/2023 09:05	09/03/2023 09:10									
Sample Type	Sand	Sand	Sand									
Batch Number	1	1	1									
Date of Receipt	11/03/2023	11/03/2023	11/03/2023									

Please see attached notes for all abbreviations and acronyms

				LOD/LOR	Units	Method No.
TPH CWG						
Aromatics						
>C5-EC7 #	<0.1	<0.1	<0.1	<0.1	mg/kg	TM36/PM12
>EC7-EC8 #	<0.1	<0.1	<0.1	<0.1	mg/kg	TM36/PM12
>EC8-EC10 #	<0.1	<0.1	<0.1	<0.1	mg/kg	TM36/PM12
>EC10-EC12 #	<0.2	<0.2	<0.2	<0.2	mg/kg	TM5/PM8/PM16
>EC12-EC16 #	<4	<4	<4	<4	mg/kg	TM5/PM8/PM16
>EC16-EC21 #	<7	<7	<7	<7	mg/kg	TM5/PM8/PM16
>EC21-EC35 #	<7	<7	<7	<7	mg/kg	TM5/PM8/PM16
Total aromatics C5-35 #	<19	<19	<19	<19	mg/kg	TM5/TM36/PM8/PM12/PM16
Total aliphatics and aromatics(C5-35)	<38	<38	<38	<38	mg/kg	TM5/TM36/PM8/PM12/PM16
MTBE #	<5	<5	<5	<5	ug/kg	TM36/PM12
Benzene #	<5	<5	<5	<5	ug/kg	TM36/PM12
Toluene #	<5	<5	<5	<5	ug/kg	TM36/PM12
Ethylbenzene #	<5	<5	<5	<5	ug/kg	TM36/PM12
m/p-Xylene #	<5	<5	<5	<5	ug/kg	TM36/PM12
o-Xylene #	<5	<5	<5	<5	ug/kg	TM36/PM12
2-Chlorophenol #	<10	<10	<10	<10	ug/kg	TM16/PM8
Natural Moisture Content	9.1	10.3	10.2	<0.1	%	PM4/PM0
2-Methylphenol	<10	<10	<10	<10	ug/kg	TM16/PM8
2-Nitrophenol	<10	<10	<10	<10	ug/kg	TM16/PM8
2,4-Dichlorophenol #	<10	<10	<10	<10	ug/kg	TM16/PM8
2,4-Dimethylphenol	<10	<10	<10	<10	ug/kg	TM16/PM8
2,4,5-Trichlorophenol	<10	<10	<10	<10	ug/kg	TM16/PM8
2,4,6-Trichlorophenol	<10	<10	<10	<10	ug/kg	TM16/PM8
4-Chloro-3-methylphenol	<10	<10	<10	<10	ug/kg	TM16/PM8
4-Methylphenol	<10	<10	<10	<10	ug/kg	TM16/PM8
4-Nitrophenol	<10	<10	<10	<10	ug/kg	TM16/PM8
Pentachlorophenol	<10	<10	<10	<10	ug/kg	TM16/PM8
Phenol #	<10	<10	<10	<10	ug/kg	TM16/PM8
Total Speciated Phenols MS	<10	<10	<10	<10	ug/kg	TM16/PM8
Ammoniacal Nitrogen as NH4	<0.6	<0.6	<0.6	<0.6	mg/kg	TM38/PM20
Chloride #	4	5	4	<2	mg/kg	TM38/PM20
Hexavalent Chromium #	<0.3	<0.3	<0.3	<0.3	mg/kg	TM38/PM20
Chromium III	30.5	26.2	33.2	<0.5	mg/kg	NONE/NONE
Free Cyanide	<0.5	<0.5	<0.5	<0.5	mg/kg	TM89/PM45
Total Cyanide #	<0.5	<0.5	<0.5	<0.5	mg/kg	TM89/PM45
Complex Cyanide	<0.5	<0.5	<0.5	<0.5	mg/kg	TM89/PM45

Element Materials Technology

Client Name: Englobe
Reference: C1856
Location: NG Sailsbury
Contact: Tim Vickers
EMT Job No: 23/3881

Report : Solid

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

EMT Sample No.	1-3	4-6	7-9									
Sample ID	IMPORT SAND 1 - MOTAR	IMPORT SAND 2 - MOTAR	IMPORT SAND 3 - MOTAR									
Depth										Please see attached notes for all abbreviations and acronyms		
COC No / misc												
Containers	V J T	V J T	V J T									
Sample Date	09/03/2023 09:00	09/03/2023 09:05	09/03/2023 09:10									
Sample Type	Sand	Sand	Sand									
Batch Number	1	1	1							LOD/LOR	Units	Method No.
Date of Receipt	11/03/2023	11/03/2023	11/03/2023									
Total Organic Carbon #	0.07	0.07	0.07							<0.02	%	TM21/PM24
Sulphide	<10	<10	<10							<10	mg/kg	TM107/PM45
Electrical Conductivity @25C (5:1 ext)	<100	<100	<100							<100	uS/cm	TM76/PM58
pH #	5.76	5.77	5.87							<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.

Client Name: Englobe
Reference: C1856
Location: NG Sailsbury
Contact: Tim Vickers

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.

Where trace asbestos is reported the amount of asbestos will be <0.1%.

EMT Job No.	Batch	Sample ID	Depth	EMT Sample No.	Analyst Name	Date Of Analysis	Analysis	Result
23/3881	1	IMPORT SAND 1 - MOTAR		3	Matthew Turner	21/03/2023	**General Description (Bulk Analysis)**	Light brown sand/Stone
					Matthew Turner	21/03/2023	**Asbestos Fibres**	NAD
					Matthew Turner	21/03/2023	**Asbestos ACM**	NAD
					Matthew Turner	21/03/2023	**Asbestos Type**	NAD
23/3881	1	IMPORT SAND 2 - MOTAR		6	Matthew Turner	21/03/2023	**General Description (Bulk Analysis)**	Light brown sand/Stone
					Matthew Turner	21/03/2023	**Asbestos Fibres**	NAD
					Matthew Turner	21/03/2023	**Asbestos ACM**	NAD
					Matthew Turner	21/03/2023	**Asbestos Type**	NAD
23/3881	1	IMPORT SAND 3 - MOTAR		9	Matthew Turner	21/03/2023	**General Description (Bulk Analysis)**	Light brown sand/Stone
					Matthew Turner	21/03/2023	**Asbestos Fibres**	NAD
					Matthew Turner	21/03/2023	**Asbestos ACM**	NAD
					Matthew Turner	21/03/2023	**Asbestos Type**	NAD

Client Name: Englobe
Reference: C1856
Location: NG Sailsbury
Contact: Tim Vickers

EMT Job No.	Batch	Sample ID	Depth	EMT Sample No.	Analysis	Reason
No deviating sample report results for job 23/3881						

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.

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 quantitative calibration range. The result should be considered the minimum value and is indicative only. 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

EMT Job No: 23/3881

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/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
TM16	Modified USEPA 8270D v5:2014. Quantitative determination of Semi-Volatile Organic compounds (SVOCs) by GC-MS.	PM8	End over end extraction of solid samples for organic analysis. The solvent mix varies depending on analysis required.			AR	Yes
TM16	Modified USEPA 8270D v5:2014. Quantitative determination of Semi-Volatile Organic compounds (SVOCs) 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
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	Preparation of Soil and Marine Sediment Samples for Total Organic Carbon.	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	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

EMT Job No: 23/3881

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
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.	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.			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.	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.	Yes		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	
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
TM76	Modified US EPA method 120.1 (1982). Determination of Specific Conductance by Metrohm automated probe analyser.	PM58	Dried and ground solid samples are extracted with water in a 5:1 water to solid ratio, the samples are shaken on an orbital shaker.			AD	Yes

EMT Job No: 23/3881

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
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.			AR	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
TM107	Determination of Sulphide/Thiocyanate by Skalar Continuous Flow Analyser	PM45	As received solid samples are extracted with 1M NaOH by orbital shaker for Cyanide, Sulphide and Thiocyanate analysis.			AR	Yes
NONE	No Method Code	NONE	No Method Code			AD	Yes

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Englobe
Columbus House
Greenmeadow Springs
Tongwynlais
Cardiff
CF15 7NE

Attention :	Tim Vickers
Date :	6th April, 2023
Your reference :	C1856
Our reference :	Test Report 23/4885 Batch 1
Location :	NG Salisbury
Date samples received :	28th March, 2023
Status :	Final Report
Issue :	1

Three samples were received for analysis on 28th March, 2023 of which three 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

Client Name: Englobe
Reference: C1856
Location: NG Salisbury
Contact: Tim Vickers
EMT Job No: 23/4885

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.	1-3	4-6	7-9								LOD/LOR	Units	Method No.
Sample ID	GRS 6F5 IMPORT 1	GRS 6F5 IMPORT 2	GRS 6F5 IMPORT 3										
Depth													
COC No / misc													
Containers	V J T	V J T	V J T										
Sample Date	24/03/2023 09:00	24/03/2023 09:05	24/03/2023 09:10										
Sample Type	Soil	Soil	Soil										
Batch Number	1	1	1										
Date of Receipt	28/03/2023	28/03/2023	28/03/2023										
Arsenic #	2.1	1.0	3.8								<0.5	mg/kg	TM30/PM15
Cadmium #	<0.1	<0.1	<0.1								<0.1	mg/kg	TM30/PM15
Chromium #	6.5	4.9	12.2								<0.5	mg/kg	TM30/PM15
Copper #	3	2	4								<1	mg/kg	TM30/PM15
Lead #	<5	<5	5								<5	mg/kg	TM30/PM15
Mercury #	<0.1	<0.1	<0.1								<0.1	mg/kg	TM30/PM15
Nickel #	4.9	3.5	5.7								<0.7	mg/kg	TM30/PM15
Selenium #	<1	<1	<1								<1	mg/kg	TM30/PM15
Total Sulphate as SO4 #	747	603	719								<50	mg/kg	TM50/PM29
Water Soluble Boron #	0.8	0.8	1.3								<0.1	mg/kg	TM74/PM32
Zinc #	24	32	31								<5	mg/kg	TM30/PM15
PAH MS													
Naphthalene #	<0.04	<0.04	<0.04								<0.04	mg/kg	TM4/PM8
Acenaphthylene	<0.03	<0.03	<0.03								<0.03	mg/kg	TM4/PM8
Acenaphthene #	<0.05	<0.05	<0.05								<0.05	mg/kg	TM4/PM8
Fluorene #	<0.04	<0.04	<0.04								<0.04	mg/kg	TM4/PM8
Phenanthrene #	0.07	<0.03	0.07								<0.03	mg/kg	TM4/PM8
Anthracene #	<0.04	<0.04	<0.04								<0.04	mg/kg	TM4/PM8
Fluoranthene #	0.15	0.04	0.12								<0.03	mg/kg	TM4/PM8
Pyrene #	0.10	<0.03	0.09								<0.03	mg/kg	TM4/PM8
Benzo(a)anthracene #	0.07	<0.06	0.08								<0.06	mg/kg	TM4/PM8
Chrysene #	0.05	<0.02	0.06								<0.02	mg/kg	TM4/PM8
Benzo(bk)fluoranthene #	<0.07	<0.07	0.08								<0.07	mg/kg	TM4/PM8
Benzo(a)pyrene #	<0.04	<0.04	<0.04								<0.04	mg/kg	TM4/PM8
Indeno(123cd)pyrene #	<0.04	<0.04	<0.04								<0.04	mg/kg	TM4/PM8
Dibenzo(ah)anthracene #	<0.04	<0.04	<0.04								<0.04	mg/kg	TM4/PM8
Benzo(ghi)perylene #	<0.04	<0.04	<0.04								<0.04	mg/kg	TM4/PM8
PAH 16 Total	<0.6	<0.6	<0.6								<0.6	mg/kg	TM4/PM8
Benzo(b)fluoranthene	<0.05	<0.05	0.06								<0.05	mg/kg	TM4/PM8
Benzo(k)fluoranthene	<0.02	<0.02	0.02								<0.02	mg/kg	TM4/PM8
PAH Surrogate % Recovery	85	88	86								<0	%	TM4/PM8
TPH CWG													
Aliphatics													
>C5-C6 #	<0.1	<0.1	<0.1								<0.1	mg/kg	TM36/PM12
>C6-C8 #	<0.1	<0.1	<0.1								<0.1	mg/kg	TM36/PM12
>C8-C10	<0.1	<0.1	<0.1								<0.1	mg/kg	TM36/PM12
>C10-C12 #	3.5	5.4	<0.2								<0.2	mg/kg	TM5/PM8/PM16
>C12-C16 #	9	12	<4								<4	mg/kg	TM5/PM8/PM16
>C16-C21 #	12	20	<7								<7	mg/kg	TM5/PM8/PM16
>C21-C35 #	<7	15	<7								<7	mg/kg	TM5/PM8/PM16
Total aliphatics C5-35	25	52	<19								<19	mg/kg	TM5/TM36/PM8/PM12/PM16

Client Name: Englobe
Reference: C1856
Location: NG Salisbury
Contact: Tim Vickers
EMT Job No: 23/4885

Report : Solid

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

EMT Sample No.	1-3	4-6	7-9									
Sample ID	GRS 6F5 IMPORT 1	GRS 6F5 IMPORT 2	GRS 6F5 IMPORT 3									
Depth												
COC No / misc												
Containers	V J T	V J T	V J T									
Sample Date	24/03/2023 09:00	24/03/2023 09:05	24/03/2023 09:10									
Sample Type	Soil	Soil	Soil									
Batch Number	1	1	1									
Date of Receipt	28/03/2023	28/03/2023	28/03/2023									

Please see attached notes for all abbreviations and acronyms

				LOD/LOR	Units	Method No.
TPH CWG						
Aromatics						
>C5-EC7 #	<0.1	<0.1	<0.1	<0.1	mg/kg	TM36/PM12
>EC7-EC8 #	<0.1	<0.1	<0.1	<0.1	mg/kg	TM36/PM12
>EC8-EC10 #	<0.1	<0.1	<0.1	<0.1	mg/kg	TM36/PM12
>EC10-EC12 #	<0.2	<0.2	<0.2	<0.2	mg/kg	TM5/PM8/PM16
>EC12-EC16 #	<4	<4	<4	<4	mg/kg	TM5/PM8/PM16
>EC16-EC21 #	<7	<7	<7	<7	mg/kg	TM5/PM8/PM16
>EC21-EC35 #	<7	<7	<7	<7	mg/kg	TM5/PM8/PM16
Total aromatics C5-35 #	<19	<19	<19	<19	mg/kg	TM5/TM36/PM8/PM12/PM16
Total aliphatics and aromatics(C5-35)	<38	52	<38	<38	mg/kg	TM5/TM36/PM8/PM12/PM16
MTBE #	<5	<5	<5	<5	ug/kg	TM36/PM12
Benzene #	<5	<5	<5	<5	ug/kg	TM36/PM12
Toluene #	8	9	8	<5	ug/kg	TM36/PM12
Ethylbenzene #	<5	<5	<5	<5	ug/kg	TM36/PM12
m/p-Xylene #	8	8	9	<5	ug/kg	TM36/PM12
o-Xylene #	<5	<5	<5	<5	ug/kg	TM36/PM12
2-Chlorophenol #	<10	<10	<10	<10	ug/kg	TM16/PM8
Natural Moisture Content	1.1	0.5	1.5	<0.1	%	PM4/PM0
2-Methylphenol	<10	<10	<10	<10	ug/kg	TM16/PM8
2-Nitrophenol	<10	<10	<10	<10	ug/kg	TM16/PM8
2,4-Dichlorophenol #	<10	<10	<10	<10	ug/kg	TM16/PM8
2,4-Dimethylphenol	<10	<10	<10	<10	ug/kg	TM16/PM8
2,4,5-Trichlorophenol	<10	<10	<10	<10	ug/kg	TM16/PM8
2,4,6-Trichlorophenol	<10	<10	<10	<10	ug/kg	TM16/PM8
4-Chloro-3-methylphenol	<10	<10	<10	<10	ug/kg	TM16/PM8
4-Methylphenol	<10	<10	<10	<10	ug/kg	TM16/PM8
4-Nitrophenol	<10	<10	<10	<10	ug/kg	TM16/PM8
Pentachlorophenol	<10	<10	<10	<10	ug/kg	TM16/PM8
Phenol #	<10	<10	<10	<10	ug/kg	TM16/PM8
Total Speciated Phenols MS	<10	<10	<10	<10	ug/kg	TM16/PM8
Ammoniacal Nitrogen as NH4	10.7	<0.6	<0.6	<0.6	mg/kg	TM38/PM20
Chloride #	80	92	73	<2	mg/kg	TM38/PM20
Hexavalent Chromium #	<0.3	<0.3	<0.3	<0.3	mg/kg	TM38/PM20
Chromium III	6.5	4.9	12.2	<0.5	mg/kg	NONE/NONE
Free Cyanide	<0.5	<0.5	<0.5	<0.5	mg/kg	TM89/PM45
Total Cyanide #	<0.5	<0.5	<0.5	<0.5	mg/kg	TM89/PM45
Complex Cyanide	<0.5	<0.5	<0.5	<0.5	mg/kg	TM89/PM45

Element Materials Technology

Client Name: Englobe
Reference: C1856
Location: NG Salisbury
Contact: Tim Vickers
EMT Job No: 23/4885

Report : Solid

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

EMT Sample No.	1-3	4-6	7-9									
Sample ID	GRS 6F5 IMPORT 1	GRS 6F5 IMPORT 2	GRS 6F5 IMPORT 3									
Depth										Please see attached notes for all abbreviations and acronyms		
COC No / misc												
Containers	V J T	V J T	V J T									
Sample Date	24/03/2023 09:00	24/03/2023 09:05	24/03/2023 09:10									
Sample Type	Soil	Soil	Soil									
Batch Number	1	1	1							LOD/LOR	Units	Method No.
Date of Receipt	28/03/2023	28/03/2023	28/03/2023									
Total Organic Carbon #	0.15	0.17	0.16							<0.02	%	TM21/PM24
Sulphide	<10	<10	<10							<10	mg/kg	TM107/PM45
Electrical Conductivity @25C (5:1 ext)	196	<100	201							<100	uS/cm	TM76/PM58
pH #	9.43	9.51	9.40							<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.

Client Name: Englobe
Reference: C1856
Location: NG Salisbury
Contact: Tim Vickers

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.

Where trace asbestos is reported the amount of asbestos will be <0.1%.

EMT Job No.	Batch	Sample ID	Depth	EMT Sample No.	Analyst Name	Date Of Analysis	Analysis	Result
23/4885	1	GRS 6F5 IMPORT 1		3	Remigiusz Blichowski	31/03/2023	**General Description (Bulk Analysis)**	Black rock and brown sand
					Remigiusz Blichowski	31/03/2023	**Asbestos Fibres**	NAD
					Remigiusz Blichowski	31/03/2023	**Asbestos ACM**	NAD
					Remigiusz Blichowski	31/03/2023	**Asbestos Type**	NAD
23/4885	1	GRS 6F5 IMPORT 2		6	Remigiusz Blichowski	31/03/2023	**General Description (Bulk Analysis)**	Black rock and brown sand
					Remigiusz Blichowski	31/03/2023	**Asbestos Fibres**	NAD
					Remigiusz Blichowski	31/03/2023	**Asbestos ACM**	NAD
					Remigiusz Blichowski	31/03/2023	**Asbestos Type**	NAD
23/4885	1	GRS 6F5 IMPORT 3		9	Remigiusz Blichowski	31/03/2023	**General Description (Bulk Analysis)**	Black rock and brown sand
					Remigiusz Blichowski	31/03/2023	**Asbestos Fibres**	NAD
					Remigiusz Blichowski	31/03/2023	**Asbestos ACM**	NAD
					Remigiusz Blichowski	31/03/2023	**Asbestos Type**	NAD

Client Name: Englobe
Reference: C1856
Location: NG Salisbury
Contact: Tim Vickers

EMT Job No.	Batch	Sample ID	Depth	EMT Sample No.	Analysis	Reason
No deviating sample report results for job 23/4885						

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.: 23/4885

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 quantitative calibration range. The result should be considered the minimum value and is indicative only. 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

EMT Job No: 23/4885

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/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
TM16	Modified USEPA 8270D v5:2014. Quantitative determination of Semi-Volatile Organic compounds (SVOCs) by GC-MS.	PM8	End over end extraction of solid samples for organic analysis. The solvent mix varies depending on analysis required.			AR	Yes
TM16	Modified USEPA 8270D v5:2014. Quantitative determination of Semi-Volatile Organic compounds (SVOCs) 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
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	Preparation of Soil and Marine Sediment Samples for Total Organic Carbon.	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	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

EMT Job No: 23/4885

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
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.	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.			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.	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.	Yes		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	
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
TM76	Modified US EPA method 120.1 (1982). Determination of Specific Conductance by Metrohm automated probe analyser.	PM58	Dried and ground solid samples are extracted with water in a 5:1 water to solid ratio, the samples are shaken on an orbital shaker.			AD	Yes

EMT Job No: 23/4885

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
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.			AR	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
TM107	Determination of Sulphide/Thiocyanate by Skalar Continuous Flow Analyser	PM45	As received solid samples are extracted with 1M NaOH by orbital shaker for Cyanide, Sulphide and Thiocyanate analysis.			AR	Yes
NONE	No Method Code	NONE	No Method Code			AD	Yes

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Englobe
Columbus House
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Tongwynlais
Cardiff
CF15 7NE

Attention :	Tim Vickers
Date :	6th April, 2023
Your reference :	C1856
Our reference :	Test Report 23/4885 Batch 1
Location :	NG Salisbury
Date samples received :	28th March, 2023
Status :	Final Report
Issue :	1

Three samples were received for analysis on 28th March, 2023 of which three 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

Client Name: Englobe
Reference: C1856
Location: NG Salisbury
Contact: Tim Vickers
EMT Job No: 23/4885

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.	1-3	4-6	7-9								LOD/LOR	Units	Method No.
Sample ID	GRS 6F5 IMPORT 1	GRS 6F5 IMPORT 2	GRS 6F5 IMPORT 3										
Depth													
COC No / misc													
Containers	V J T	V J T	V J T										
Sample Date	24/03/2023 09:00	24/03/2023 09:05	24/03/2023 09:10										
Sample Type	Soil	Soil	Soil										
Batch Number	1	1	1										
Date of Receipt	28/03/2023	28/03/2023	28/03/2023										
Arsenic #	2.1	1.0	3.8								<0.5	mg/kg	TM30/PM15
Cadmium #	<0.1	<0.1	<0.1								<0.1	mg/kg	TM30/PM15
Chromium #	6.5	4.9	12.2								<0.5	mg/kg	TM30/PM15
Copper #	3	2	4								<1	mg/kg	TM30/PM15
Lead #	<5	<5	5								<5	mg/kg	TM30/PM15
Mercury #	<0.1	<0.1	<0.1								<0.1	mg/kg	TM30/PM15
Nickel #	4.9	3.5	5.7								<0.7	mg/kg	TM30/PM15
Selenium #	<1	<1	<1								<1	mg/kg	TM30/PM15
Total Sulphate as SO4 #	747	603	719								<50	mg/kg	TM50/PM29
Water Soluble Boron #	0.8	0.8	1.3								<0.1	mg/kg	TM74/PM32
Zinc #	24	32	31								<5	mg/kg	TM30/PM15
PAH MS													
Naphthalene #	<0.04	<0.04	<0.04								<0.04	mg/kg	TM4/PM8
Acenaphthylene	<0.03	<0.03	<0.03								<0.03	mg/kg	TM4/PM8
Acenaphthene #	<0.05	<0.05	<0.05								<0.05	mg/kg	TM4/PM8
Fluorene #	<0.04	<0.04	<0.04								<0.04	mg/kg	TM4/PM8
Phenanthrene #	0.07	<0.03	0.07								<0.03	mg/kg	TM4/PM8
Anthracene #	<0.04	<0.04	<0.04								<0.04	mg/kg	TM4/PM8
Fluoranthene #	0.15	0.04	0.12								<0.03	mg/kg	TM4/PM8
Pyrene #	0.10	<0.03	0.09								<0.03	mg/kg	TM4/PM8
Benzo(a)anthracene #	0.07	<0.06	0.08								<0.06	mg/kg	TM4/PM8
Chrysene #	0.05	<0.02	0.06								<0.02	mg/kg	TM4/PM8
Benzo(bk)fluoranthene #	<0.07	<0.07	0.08								<0.07	mg/kg	TM4/PM8
Benzo(a)pyrene #	<0.04	<0.04	<0.04								<0.04	mg/kg	TM4/PM8
Indeno(123cd)pyrene #	<0.04	<0.04	<0.04								<0.04	mg/kg	TM4/PM8
Dibenzo(ah)anthracene #	<0.04	<0.04	<0.04								<0.04	mg/kg	TM4/PM8
Benzo(ghi)perylene #	<0.04	<0.04	<0.04								<0.04	mg/kg	TM4/PM8
PAH 16 Total	<0.6	<0.6	<0.6								<0.6	mg/kg	TM4/PM8
Benzo(b)fluoranthene	<0.05	<0.05	0.06								<0.05	mg/kg	TM4/PM8
Benzo(k)fluoranthene	<0.02	<0.02	0.02								<0.02	mg/kg	TM4/PM8
PAH Surrogate % Recovery	85	88	86								<0	%	TM4/PM8
TPH CWG													
Aliphatics													
>C5-C6 #	<0.1	<0.1	<0.1								<0.1	mg/kg	TM36/PM12
>C6-C8 #	<0.1	<0.1	<0.1								<0.1	mg/kg	TM36/PM12
>C8-C10	<0.1	<0.1	<0.1								<0.1	mg/kg	TM36/PM12
>C10-C12 #	3.5	5.4	<0.2								<0.2	mg/kg	TM5/PM8/PM16
>C12-C16 #	9	12	<4								<4	mg/kg	TM5/PM8/PM16
>C16-C21 #	12	20	<7								<7	mg/kg	TM5/PM8/PM16
>C21-C35 #	<7	15	<7								<7	mg/kg	TM5/PM8/PM16
Total aliphatics C5-35	25	52	<19								<19	mg/kg	TM5/TM36/PM8/PM12/PM16

Client Name: Englobe
Reference: C1856
Location: NG Salisbury
Contact: Tim Vickers
EMT Job No: 23/4885

Report : Solid

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

EMT Sample No.	1-3	4-6	7-9									
Sample ID	GRS 6F5 IMPORT 1	GRS 6F5 IMPORT 2	GRS 6F5 IMPORT 3									
Depth												
COC No / misc												
Containers	V J T	V J T	V J T									
Sample Date	24/03/2023 09:00	24/03/2023 09:05	24/03/2023 09:10									
Sample Type	Soil	Soil	Soil									
Batch Number	1	1	1									
Date of Receipt	28/03/2023	28/03/2023	28/03/2023									

Please see attached notes for all abbreviations and acronyms

				LOD/LOR	Units	Method No.
TPH CWG						
Aromatics						
>C5-EC7 #	<0.1	<0.1	<0.1	<0.1	mg/kg	TM36/PM12
>EC7-EC8 #	<0.1	<0.1	<0.1	<0.1	mg/kg	TM36/PM12
>EC8-EC10 #	<0.1	<0.1	<0.1	<0.1	mg/kg	TM36/PM12
>EC10-EC12 #	<0.2	<0.2	<0.2	<0.2	mg/kg	TM5/PM8/PM16
>EC12-EC16 #	<4	<4	<4	<4	mg/kg	TM5/PM8/PM16
>EC16-EC21 #	<7	<7	<7	<7	mg/kg	TM5/PM8/PM16
>EC21-EC35 #	<7	<7	<7	<7	mg/kg	TM5/PM8/PM16
Total aromatics C5-35 #	<19	<19	<19	<19	mg/kg	TM5/TM36/PM8/PM12/PM16
Total aliphatics and aromatics(C5-35)	<38	52	<38	<38	mg/kg	TM5/TM36/PM8/PM12/PM16
MTBE #	<5	<5	<5	<5	ug/kg	TM36/PM12
Benzene #	<5	<5	<5	<5	ug/kg	TM36/PM12
Toluene #	8	9	8	<5	ug/kg	TM36/PM12
Ethylbenzene #	<5	<5	<5	<5	ug/kg	TM36/PM12
m/p-Xylene #	8	8	9	<5	ug/kg	TM36/PM12
o-Xylene #	<5	<5	<5	<5	ug/kg	TM36/PM12
2-Chlorophenol #	<10	<10	<10	<10	ug/kg	TM16/PM8
Natural Moisture Content	1.1	0.5	1.5	<0.1	%	PM4/PM0
2-Methylphenol	<10	<10	<10	<10	ug/kg	TM16/PM8
2-Nitrophenol	<10	<10	<10	<10	ug/kg	TM16/PM8
2,4-Dichlorophenol #	<10	<10	<10	<10	ug/kg	TM16/PM8
2,4-Dimethylphenol	<10	<10	<10	<10	ug/kg	TM16/PM8
2,4,5-Trichlorophenol	<10	<10	<10	<10	ug/kg	TM16/PM8
2,4,6-Trichlorophenol	<10	<10	<10	<10	ug/kg	TM16/PM8
4-Chloro-3-methylphenol	<10	<10	<10	<10	ug/kg	TM16/PM8
4-Methylphenol	<10	<10	<10	<10	ug/kg	TM16/PM8
4-Nitrophenol	<10	<10	<10	<10	ug/kg	TM16/PM8
Pentachlorophenol	<10	<10	<10	<10	ug/kg	TM16/PM8
Phenol #	<10	<10	<10	<10	ug/kg	TM16/PM8
Total Speciated Phenols MS	<10	<10	<10	<10	ug/kg	TM16/PM8
Ammoniacal Nitrogen as NH4	10.7	<0.6	<0.6	<0.6	mg/kg	TM38/PM20
Chloride #	80	92	73	<2	mg/kg	TM38/PM20
Hexavalent Chromium #	<0.3	<0.3	<0.3	<0.3	mg/kg	TM38/PM20
Chromium III	6.5	4.9	12.2	<0.5	mg/kg	NONE/NONE
Free Cyanide	<0.5	<0.5	<0.5	<0.5	mg/kg	TM89/PM45
Total Cyanide #	<0.5	<0.5	<0.5	<0.5	mg/kg	TM89/PM45
Complex Cyanide	<0.5	<0.5	<0.5	<0.5	mg/kg	TM89/PM45

Element Materials Technology

Client Name: Englobe
Reference: C1856
Location: NG Salisbury
Contact: Tim Vickers
EMT Job No: 23/4885

Report : Solid

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

EMT Sample No.	1-3	4-6	7-9									
Sample ID	GRS 6F5 IMPORT 1	GRS 6F5 IMPORT 2	GRS 6F5 IMPORT 3									
Depth										Please see attached notes for all abbreviations and acronyms		
COC No / misc												
Containers	V J T	V J T	V J T									
Sample Date	24/03/2023 09:00	24/03/2023 09:05	24/03/2023 09:10									
Sample Type	Soil	Soil	Soil									
Batch Number	1	1	1							LOD/LOR	Units	Method No.
Date of Receipt	28/03/2023	28/03/2023	28/03/2023									
Total Organic Carbon #	0.15	0.17	0.16							<0.02	%	TM21/PM24
Sulphide	<10	<10	<10							<10	mg/kg	TM107/PM45
Electrical Conductivity @25C (5:1 ext)	196	<100	201							<100	uS/cm	TM76/PM58
pH #	9.43	9.51	9.40							<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.

Client Name: Englobe
Reference: C1856
Location: NG Salisbury
Contact: Tim Vickers

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.

Where trace asbestos is reported the amount of asbestos will be <0.1%.

EMT Job No.	Batch	Sample ID	Depth	EMT Sample No.	Analyst Name	Date Of Analysis	Analysis	Result
23/4885	1	GRS 6F5 IMPORT 1		3	Remigiusz Blichowski	31/03/2023	**General Description (Bulk Analysis)**	Black rock and brown sand
					Remigiusz Blichowski	31/03/2023	**Asbestos Fibres**	NAD
					Remigiusz Blichowski	31/03/2023	**Asbestos ACM**	NAD
					Remigiusz Blichowski	31/03/2023	**Asbestos Type**	NAD
23/4885	1	GRS 6F5 IMPORT 2		6	Remigiusz Blichowski	31/03/2023	**General Description (Bulk Analysis)**	Black rock and brown sand
					Remigiusz Blichowski	31/03/2023	**Asbestos Fibres**	NAD
					Remigiusz Blichowski	31/03/2023	**Asbestos ACM**	NAD
					Remigiusz Blichowski	31/03/2023	**Asbestos Type**	NAD
23/4885	1	GRS 6F5 IMPORT 3		9	Remigiusz Blichowski	31/03/2023	**General Description (Bulk Analysis)**	Black rock and brown sand
					Remigiusz Blichowski	31/03/2023	**Asbestos Fibres**	NAD
					Remigiusz Blichowski	31/03/2023	**Asbestos ACM**	NAD
					Remigiusz Blichowski	31/03/2023	**Asbestos Type**	NAD

Client Name: Englobe
Reference: C1856
Location: NG Salisbury
Contact: Tim Vickers

EMT Job No.	Batch	Sample ID	Depth	EMT Sample No.	Analysis	Reason
No deviating sample report results for job 23/4885						

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.: 23/4885

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 quantitative calibration range. The result should be considered the minimum value and is indicative only. 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

EMT Job No: 23/4885

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/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
TM16	Modified USEPA 8270D v5:2014. Quantitative determination of Semi-Volatile Organic compounds (SVOCs) by GC-MS.	PM8	End over end extraction of solid samples for organic analysis. The solvent mix varies depending on analysis required.			AR	Yes
TM16	Modified USEPA 8270D v5:2014. Quantitative determination of Semi-Volatile Organic compounds (SVOCs) 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
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	Preparation of Soil and Marine Sediment Samples for Total Organic Carbon.	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	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

EMT Job No: 23/4885

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
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.	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.			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.	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.	Yes		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	
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
TM76	Modified US EPA method 120.1 (1982). Determination of Specific Conductance by Metrohm automated probe analyser.	PM58	Dried and ground solid samples are extracted with water in a 5:1 water to solid ratio, the samples are shaken on an orbital shaker.			AD	Yes

EMT Job No: 23/4885

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
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.			AR	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
TM107	Determination of Sulphide/Thiocyanate by Skalar Continuous Flow Analyser	PM45	As received solid samples are extracted with 1M NaOH by orbital shaker for Cyanide, Sulphide and Thiocyanate analysis.			AR	Yes
NONE	No Method Code	NONE	No Method Code			AD	Yes

Appendix J.2
Chemical Analysis - Waters



ENGLOBE

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Analytical Report Number : 23-13694

Project / Site name:	NG Salisbury	**Samples received on:**	25/01/2023
Your job number:	C1856	**Samples instructed on/ Analysis started on:**	25/01/2023
Your order number:	83960	**Analysis completed by:**	01/02/2023
Report Issue Number:	1	**Report issued on:**	01/02/2023
Samples Analysed:	12 water samples		

Signed: _____

Adam Fenwick
Technical Reviewer
For & on behalf of i2 Analytical Ltd.

Standard Geotechnical, Asbestos and Chemical Testing Laboratory located at: ul. Pionierów 39, 41 -711 Ruda Śląska, Poland.

Accredited tests are defined within the report, opinions and interpretations expressed herein are outside the scope of accreditation.

Standard sample disposal times, unless otherwise agreed with the laboratory, are :

soils	- 4 weeks from reporting
leachates	- 2 weeks from reporting
waters	- 2 weeks from reporting
asbestos	- 6 months from reporting

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Any assessments of compliance with specifications are based on actual analytical results with no contribution from uncertainty of measurement.
Application of uncertainty of measurement would provide a range within which the true result lies.
An estimate of measurement uncertainty can be provided on request.

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The results included within the report relate only to the sample(s) submitted for testing.

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Environmental Science

Analytical Report Number: 23-13694
Project / Site name: NG Salisbury

Your Order No: 83960

Lab Sample Number				2564009	2564010	2564011	2564012	2564013
Sample Reference				Summerlock Upstream	Summerlock Downstream	MW20-07	MW20-08	MW16-02
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.95	1.20	14.70	4.50	4.50
Date Sampled				23/01/2023	23/01/2023	23/01/2023	23/01/2023	23/01/2023
Time Taken				0900	0910	1020	1040	1100
Analytical Parameter (Water Analysis)	**Units**	**Limit of detection**	**Accreditation Status**					
General Inorganics								
pH (L005B)	pH Units	N/A	ISO 17025	8.2	8.3	7.9	7.9	7.9
Electrical Conductivity at 20 °C (L031B)	µS/cm	10	ISO 17025	490	460	510	480	480
Total Cyanide	µg/l	10	ISO 17025	< 10	< 10	< 10	11	15
Complex Cyanide	µg/l	10	ISO 17025	< 10	< 10	< 10	11	15
Free Cyanide	µg/l	10	ISO 17025	< 10	< 10	< 10	< 10	< 10
Sulphate as SO4	µg/l	45	ISO 17025	23100	22900	19000	23700	27500
Sulphate as SO4	mg/l	0.045	ISO 17025	23.1	22.9	19	23.7	27.5
Sulphide	µg/l	5	NONE	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Chloride	mg/l	0.15	ISO 17025	18	19	20	17	18
Ammoniacal Nitrogen as NH4	µg/l	15	ISO 17025	49	52	29	< 15	30
Total Organic Carbon (TOC)	mg/l	0.1	ISO 17025	2.81	2.63	1.2	1.09	1.26
Total Suspended Solids (L004B)	mg/l	2	ISO 17025	3	< 2.0	480	11	33
Phenols by GC-MS								
Phenol	µg/l	0.05	NONE	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
2,4,5-Trichlorophenol	µg/l	0.05	NONE	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
2,4,6-Trichlorophenol	µg/l	0.05	NONE	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
2,4-Dichlorophenol	µg/l	0.05	NONE	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
2,4-Dimethylphenol	µg/l	0.05	NONE	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
2-Chlorophenol	µg/l	0.05	NONE	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
2-Methylphenol	µg/l	0.05	NONE	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
2-Nitrophenol	µg/l	0.05	NONE	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
4-Chloro-3-methylphenol	µg/l	0.05	NONE	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
4-Methylphenol	µg/l	0.05	NONE	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Total Phenols								
Total Phenols (GC-MS)	µg/l	0.5	NONE	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Speciated PAHs								
Naphthalene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Acenaphthylene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Acenaphthene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	1.67	< 0.01	< 0.01
Fluorene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Phenanthrene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Anthracene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Fluoranthene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	0.44	< 0.01	< 0.01
Pyrene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	0.4	< 0.01	< 0.01
Benzo(a)anthracene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Chrysene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Benzo(b)fluoranthene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Benzo(k)fluoranthene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Benzo(a)pyrene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Indeno(1,2,3-cd)pyrene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Dibenz(a,h)anthracene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Benzo(ghi)perylene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Total PAH								
Total EPA-16 PAHs	µg/l	0.16	ISO 17025	< 0.16	< 0.16	2.51	< 0.16	< 0.16
Heavy Metals / Metalloids								
Arsenic (dissolved)	µg/l	0.15	ISO 17025	0.57	0.6	0.75	0.32	0.3
Cadmium (dissolved)	mg/l	0.00002	ISO 17025	<0.00002	<0.00002	<0.00002	0.0001	<0.00002
Chromium (dissolved)	µg/l	0.2	ISO 17025	0.4	0.6	0.4	3.1	0.5

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Analytical i2 Environmental Science

Analytical Report Number: 23-13694
Project / Site name: NG Salisbury

Your Order No: 83960

Lab Sample Number				2564009	2564010	2564011	2564012	2564013
Sample Reference				Summerlock Upstream	Summerlock Downstream	MW20-07	MW20-08	MW16-02
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.95	1.20	14.70	4.50	4.50
Date Sampled				23/01/2023	23/01/2023	23/01/2023	23/01/2023	23/01/2023
Time Taken				0900	0910	1020	1040	1100
Analytical Parameter (Water Analysis)	**Units**	**Limit of detection**	**Accreditation Status**					
Copper (dissolved)	µg/l	0.5	ISO 17025	2.4	2.9	1.1	1.7	1.7
Lead (dissolved)	µg/l	0.2	ISO 17025	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Mercury (dissolved)	µg/l	0.05	ISO 17025	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Nickel (dissolved)	µg/l	0.5	ISO 17025	1.1	1.2	1	< 0.5	< 0.5
Selenium (dissolved)	µg/l	0.6	ISO 17025	< 0.6	< 0.6	< 0.6	< 0.6	0.6
Zinc (dissolved)	µg/l	0.5	ISO 17025	1.3	1.6	0.9	1.4	< 0.5
Monoaromatics & Oxygenates								
Benzene	µg/l	3	ISO 17025	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Toluene	µg/l	3	ISO 17025	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Ethylbenzene	µg/l	3	ISO 17025	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
p & m-xylene	µg/l	3	ISO 17025	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
o-xylene	µg/l	3	ISO 17025	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
MTBE (Methyl Tertiary Butyl Ether)	µg/l	3	ISO 17025	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Petroleum Hydrocarbons								
TPH-CWG - Aliphatic >C5 - C6 $_{HS_1D_AL}$	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aliphatic >C6 - C8 $_{HS_1D_AL}$	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aliphatic >C8 - C10 $_{HS_1D_AL}$	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aliphatic >C10 - C12 $_{EH_1D_AL_MS}$	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aliphatic >C12 - C16 $_{EH_1D_AL_MS}$	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aliphatic >C16 - C21 $_{EH_1D_AL_MS}$	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aliphatic >C21 - C35 $_{EH_1D_AL_MS}$	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aliphatic (C5 - C35) $_{HS+EH_1D_AL_MS}$	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aromatic >C5 - C7 $_{HS_1D_AR}$	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aromatic >C7 - C8 $_{HS_1D_AR}$	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aromatic >C8 - C10 $_{HS_1D_AR}$	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aromatic >C10 - C12 $_{EH_1D_AR_MS}$	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aromatic >C12 - C16 $_{EH_1D_AR_MS}$	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aromatic >C16 - C21 $_{EH_1D_AR_MS}$	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aromatic >C21 - C35 $_{EH_1D_AR_MS}$	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aromatic (C5 - C35) $_{HS+EH_1D_AR_MS}$	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10

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

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Environmental Science

Analytical Report Number: 23-13694
Project / Site name: NG Salisbury

Your Order No: 83960

Lab Sample Number				2564014	2564015	2564016	2564017	2564018
Sample Reference				MW16-02 DUPLICATE	MW16-03	MW16-04	MW16-05	MW16-06
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				4.50	4.00	5.00	4.50	5.00
Date Sampled				23/01/2023	23/01/2023	23/01/2023	23/01/2023	23/01/2023
Time Taken				1105	1120	1140	1200	1220
Analytical Parameter (Water Analysis)	**Units**	**Limit of detection**	**Accreditation Status**					
General Inorganics								
pH (L005B)	pH Units	N/A	ISO 17025	7.9	7.7	7.9	7.8	7.9
Electrical Conductivity at 20 °C (L031B)	µS/cm	10	ISO 17025	510	580	550	460	440
Total Cyanide	µg/l	10	ISO 17025	19	120	110	12	< 10
Complex Cyanide	µg/l	10	ISO 17025	19	120	110	12	< 10
Free Cyanide	µg/l	10	ISO 17025	< 10	< 10	< 10	< 10	< 10
Sulphate as SO4	µg/l	45	ISO 17025	31200	68400	69900	29000	16900
Sulphate as SO4	mg/l	0.045	ISO 17025	31.2	68.4	69.9	29	16.9
Sulphide	µg/l	5	NONE	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Chloride	mg/l	0.15	ISO 17025	18	18	18	18	21
Ammoniacal Nitrogen as NH4	µg/l	15	ISO 17025	25	550	620	34	51
Total Organic Carbon (TOC)	mg/l	0.1	ISO 17025	1.21	1.83	1.65	1.31	0.95
Total Suspended Solids (L004B)	mg/l	2	ISO 17025	21	400	140	90	740
Phenols by GC-MS								
Phenol	µg/l	0.05	NONE	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
2,4,5-Trichlorophenol	µg/l	0.05	NONE	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
2,4,6-Trichlorophenol	µg/l	0.05	NONE	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
2,4-Dichlorophenol	µg/l	0.05	NONE	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
2,4-Dimethylphenol	µg/l	0.05	NONE	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
2-Chlorophenol	µg/l	0.05	NONE	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
2-Methylphenol	µg/l	0.05	NONE	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
2-Nitrophenol	µg/l	0.05	NONE	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
4-Chloro-3-methylphenol	µg/l	0.05	NONE	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
4-Methylphenol	µg/l	0.05	NONE	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Total Phenols								
Total Phenols (GC-MS)	µg/l	0.5	NONE	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Speciated PAHs								
Naphthalene	µg/l	0.01	ISO 17025	< 0.01	0.47	0.82	0.42	0.19
Acenaphthylene	µg/l	0.01	ISO 17025	< 0.01	0.26	0.33	< 0.01	< 0.01
Acenaphthene	µg/l	0.01	ISO 17025	< 0.01	0.38	0.39	< 0.01	1.5
Fluorene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01	0.18
Phenanthrene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	0.21	< 0.01	0.17
Anthracene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Fluoranthene	µg/l	0.01	ISO 17025	< 0.01	0.27	0.8	0.35	0.37
Pyrene	µg/l	0.01	ISO 17025	< 0.01	0.29	0.8	0.29	0.31
Benzo(a)anthracene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	0.4	0.17	0.16
Chrysene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	0.39	0.16	0.16
Benzo(b)fluoranthene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	0.66	0.21	0.26
Benzo(k)fluoranthene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	0.19	0.07	0.1
Benzo(a)pyrene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	0.47	0.15	0.17
Indeno(1,2,3-cd)pyrene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	0.33	< 0.01	< 0.01
Dibenz(a,h)anthracene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Benzo(ghi)perylene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	0.37	< 0.01	< 0.01
Total PAH								
Total EPA-16 PAHs	µg/l	0.16	ISO 17025	< 0.16	1.67	6.16	1.82	3.57
Heavy Metals / Metalloids								
Arsenic (dissolved)	µg/l	0.15	ISO 17025	0.21	1.36	1.04	0.16	0.36
Cadmium (dissolved)	mg/l	0.00002	ISO 17025	<0.00002	<0.00002	<0.00002	<0.00002	<0.00002
Chromium (dissolved)	µg/l	0.2	ISO 17025	0.4	< 0.2	< 0.2	0.4	0.5

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Analytical i2 Environmental Science

Analytical Report Number: 23-13694
Project / Site name: NG Salisbury

Your Order No: 83960

Lab Sample Number				2564014	2564015	2564016	2564017	2564018
Sample Reference				MW16-02 DUPLICATE	MW16-03	MW16-04	MW16-05	MW16-06
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				4.50	4.00	5.00	4.50	5.00
Date Sampled				23/01/2023	23/01/2023	23/01/2023	23/01/2023	23/01/2023
Time Taken				1105	1120	1140	1200	1220
Analytical Parameter (Water Analysis)	**Units**	**Limit of detection**	**Accreditation Status**					
Copper (dissolved)	µg/l	0.5	ISO 17025	1.9	1.3	1.2	1.1	0.6
Lead (dissolved)	µg/l	0.2	ISO 17025	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Mercury (dissolved)	µg/l	0.05	ISO 17025	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Nickel (dissolved)	µg/l	0.5	ISO 17025	0.6	1.1	1.1	< 0.5	< 0.5
Selenium (dissolved)	µg/l	0.6	ISO 17025	< 0.6	1.1	1.2	< 0.6	< 0.6
Zinc (dissolved)	µg/l	0.5	ISO 17025	4.7	< 0.5	0.7	1.4	1.9
Monoaromatics & Oxygenates								
Benzene	µg/l	3	ISO 17025	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Toluene	µg/l	3	ISO 17025	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Ethylbenzene	µg/l	3	ISO 17025	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
p & m-xylene	µg/l	3	ISO 17025	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
o-xylene	µg/l	3	ISO 17025	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
MTBE (Methyl Tertiary Butyl Ether)	µg/l	3	ISO 17025	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Petroleum Hydrocarbons								
TPH-CWG - Aliphatic >C5 - C6 $_{HS_1D_AL}$	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aliphatic >C6 - C8 $_{HS_1D_AL}$	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aliphatic >C8 - C10 $_{HS_1D_AL}$	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aliphatic >C10 - C12 $_{EH_1D_AL_MS}$	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aliphatic >C12 - C16 $_{EH_1D_AL_MS}$	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aliphatic >C16 - C21 $_{EH_1D_AL_MS}$	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aliphatic >C21 - C35 $_{EH_1D_AL_MS}$	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aliphatic (C5 - C35) $_{HS+EH_1D_AL_MS}$	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aromatic >C5 - C7 $_{HS_1D_AR}$	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aromatic >C7 - C8 $_{HS_1D_AR}$	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aromatic >C8 - C10 $_{HS_1D_AR}$	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aromatic >C10 - C12 $_{EH_1D_AR_MS}$	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aromatic >C12 - C16 $_{EH_1D_AR_MS}$	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aromatic >C16 - C21 $_{EH_1D_AR_MS}$	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aromatic >C21 - C35 $_{EH_1D_AR_MS}$	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aromatic (C5 - C35) $_{HS+EH_1D_AR_MS}$	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10

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

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UKAS TESTING
4041

Environmental Science

Analytical Report Number: 23-13694
Project / Site name: NG Salisbury

Your Order No: 83960

Lab Sample Number				2564019	2564020
Sample Reference				MW16-07	MW16-08
Sample Number				None Supplied	None Supplied
Depth (m)				3.50	3.50
Date Sampled				23/01/2023	23/01/2023
Time Taken				1240	1300
Analytical Parameter (Water Analysis)	**Units**	**Limit of detection**	**Accreditation Status**		
General Inorganics					
pH (L005B)	pH Units	N/A	ISO 17025	8	7.9
Electrical Conductivity at 20 °C (L031B)	µS/cm	10	ISO 17025	520	780
Total Cyanide	µg/l	10	ISO 17025	64	170
Complex Cyanide	µg/l	10	ISO 17025	64	170
Free Cyanide	µg/l	10	ISO 17025	< 10	< 10
Sulphate as SO4	µg/l	45	ISO 17025	48600	191000
Sulphate as SO4	mg/l	0.045	ISO 17025	48.6	191
Sulphide	µg/l	5	NONE	< 5.0	< 5.0
Chloride	mg/l	0.15	ISO 17025	22	22
Ammoniacal Nitrogen as NH4	µg/l	15	ISO 17025	3300	14000
Total Organic Carbon (TOC)	mg/l	0.1	ISO 17025	2.5	3.77
Total Suspended Solids (L004B)	mg/l	2	ISO 17025	3200	52
Phenols by GC-MS					
Phenol	µg/l	0.05	NONE	< 0.05	< 0.05
2,4,5-Trichlorophenol	µg/l	0.05	NONE	< 0.05	< 0.05
2,4,6-Trichlorophenol	µg/l	0.05	NONE	< 0.05	< 0.05
2,4-Dichlorophenol	µg/l	0.05	NONE	< 0.05	< 0.05
2,4-Dimethylphenol	µg/l	0.05	NONE	< 0.05	< 0.05
2-Chlorophenol	µg/l	0.05	NONE	< 0.05	< 0.05
2-Methylphenol	µg/l	0.05	NONE	< 0.05	< 0.05
2-Nitrophenol	µg/l	0.05	NONE	< 0.05	< 0.05
4-Chloro-3-methylphenol	µg/l	0.05	NONE	< 0.05	< 0.05
4-Methylphenol	µg/l	0.05	NONE	< 0.05	< 0.05
Total Phenols					
Total Phenols (GC-MS)	µg/l	0.5	NONE	< 0.5	< 0.5
Speciated PAHs					
Naphthalene	µg/l	0.01	ISO 17025	< 0.01	< 0.01
Acenaphthylene	µg/l	0.01	ISO 17025	0.32	< 0.01
Acenaphthene	µg/l	0.01	ISO 17025	4.61	1.29
Fluorene	µg/l	0.01	ISO 17025	0.28	< 0.01
Phenanthrene	µg/l	0.01	ISO 17025	0.83	< 0.01
Anthracene	µg/l	0.01	ISO 17025	0.33	< 0.01
Fluoranthene	µg/l	0.01	ISO 17025	3.4	< 0.01
Pyrene	µg/l	0.01	ISO 17025	2.75	0.26
Benzo(a)anthracene	µg/l	0.01	ISO 17025	0.93	< 0.01
Chrysene	µg/l	0.01	ISO 17025	0.93	< 0.01
Benzo(b)fluoranthene	µg/l	0.01	ISO 17025	1.01	< 0.01
Benzo(k)fluoranthene	µg/l	0.01	ISO 17025	0.36	< 0.01
Benzo(a)pyrene	µg/l	0.01	ISO 17025	0.71	< 0.01
Indeno(1,2,3-cd)pyrene	µg/l	0.01	ISO 17025	0.38	< 0.01
Dibenz(a,h)anthracene	µg/l	0.01	ISO 17025	< 0.01	< 0.01
Benzo(ghi)perylene	µg/l	0.01	ISO 17025	0.4	< 0.01
Total PAH					
Total EPA-16 PAHs	µg/l	0.16	ISO 17025	17.2	1.55
Heavy Metals / Metalloids					
Arsenic (dissolved)	µg/l	0.15	ISO 17025	2.19	1.14
Cadmium (dissolved)	mg/l	0.00002	ISO 17025	<0.00002	<0.00002
Chromium (dissolved)	µg/l	0.2	ISO 17025	< 0.2	0.3

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Analytical Report Number: 23-13694
Project / Site name: NG Salisbury

Your Order No: 83960

Lab Sample Number				2564019	2564020
Sample Reference				MW16-07	MW16-08
Sample Number				None Supplied	None Supplied
Depth (m)				3.50	3.50
Date Sampled				23/01/2023	23/01/2023
Time Taken				1240	1300
Analytical Parameter (Water Analysis)	**Units**	**Limit of detection**	**Accreditation Status**		
Copper (dissolved)	µg/l	0.5	ISO 17025	0.9	0.9
Lead (dissolved)	µg/l	0.2	ISO 17025	< 0.2	< 0.2
Mercury (dissolved)	µg/l	0.05	ISO 17025	< 0.05	< 0.05
Nickel (dissolved)	µg/l	0.5	ISO 17025	2.5	2.7
Selenium (dissolved)	µg/l	0.6	ISO 17025	1.4	0.7
Zinc (dissolved)	µg/l	0.5	ISO 17025	< 0.5	0.6
Monoaromatics & Oxygenates					
Benzene	µg/l	3	ISO 17025	< 3.0	< 3.0
Toluene	µg/l	3	ISO 17025	< 3.0	< 3.0
Ethylbenzene	µg/l	3	ISO 17025	< 3.0	< 3.0
p & m-xylene	µg/l	3	ISO 17025	< 3.0	< 3.0
o-xylene	µg/l	3	ISO 17025	< 3.0	< 3.0
MTBE (Methyl Tertiary Butyl Ether)	µg/l	3	ISO 17025	< 3.0	< 3.0
Petroleum Hydrocarbons					
TPH-CWG - Aliphatic >C5 - C6 $_{HS_1D_AL}$	µg/l	1	ISO 17025	< 1.0	< 1.0
TPH-CWG - Aliphatic >C6 - C8 $_{HS_1D_AL}$	µg/l	1	ISO 17025	< 1.0	< 1.0
TPH-CWG - Aliphatic >C8 - C10 $_{HS_1D_AL}$	µg/l	1	ISO 17025	< 1.0	< 1.0
TPH-CWG - Aliphatic >C10 - C12 $_{EH_1D_AL_MS}$	µg/l	10	NONE	< 10	< 10
TPH-CWG - Aliphatic >C12 - C16 $_{EH_1D_AL_MS}$	µg/l	10	NONE	< 10	< 10
TPH-CWG - Aliphatic >C16 - C21 $_{EH_1D_AL_MS}$	µg/l	10	NONE	< 10	< 10
TPH-CWG - Aliphatic >C21 - C35 $_{EH_1D_AL_MS}$	µg/l	10	NONE	< 10	< 10
TPH-CWG - Aliphatic (C5 - C35) $_{HS+EH_1D_AL_MS}$	µg/l	10	NONE	< 10	< 10
TPH-CWG - Aromatic >C5 - C7 $_{HS_1D_AR}$	µg/l	1	ISO 17025	< 1.0	< 1.0
TPH-CWG - Aromatic >C7 - C8 $_{HS_1D_AR}$	µg/l	1	ISO 17025	< 1.0	< 1.0
TPH-CWG - Aromatic >C8 - C10 $_{HS_1D_AR}$	µg/l	1	ISO 17025	< 1.0	< 1.0
TPH-CWG - Aromatic >C10 - C12 $_{EH_1D_AR_MS}$	µg/l	10	NONE	< 10	< 10
TPH-CWG - Aromatic >C12 - C16 $_{EH_1D_AR_MS}$	µg/l	10	NONE	25	45
TPH-CWG - Aromatic >C16 - C21 $_{EH_1D_AR_MS}$	µg/l	10	NONE	50	15
TPH-CWG - Aromatic >C21 - C35 $_{EH_1D_AR_MS}$	µg/l	10	NONE	15	< 10
TPH-CWG - Aromatic (C5 - C35) $_{HS+EH_1D_AR_MS}$	µg/l	10	NONE	90	60

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Analytical Report Number : 23-13694
Project / Site name: NG Salisbury

Water matrix abbreviations:
Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Waters (PrW) Final Sewage Effluent (FSE) Landfill Leachate (LL)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Metals in water by ICP-MS (dissolved)	Determination of metals in water by acidification followed by ICP-MS. Accredited Matrices: SW, GW, PW except B=SW,GW, Hg=SW,PW, Al=SW,PW.	In-house method based on USEPA Method 6020 & 200.8 "for the determination of trace elements in water by ICP-MS.	L012-PL	W	ISO 17025
Phenols, speciated, in water, by GCMS	Determination of speciated phenols in water by extraction in hexane followed by GC-MS.	In-house method based on USEPA 8270	L070-PL	W	NONE
Complex cyanide in water	Determination of complex cyanide by calculation. Accredited matrices SW, PW, GW.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton (Skalar)	L080-PL	W	ISO 17025
Electrical conductivity at 20oC of water	Determination of electrical conductivity in water by electrometric measurement. Accredited Matrices SW, GW, PW	In-house method	L031-PL	W	ISO 17025
Free cyanide in water	Determination of free cyanide by distillation followed by colorimetry.Accredited matrices SW, GW, PW.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton (Skalar)	L080-PL	W	ISO 17025
Speciated EPA-16 PAHs in water	Determination of PAH compounds in water by extraction in dichloromethane followed by GC-MS with the use of surrogate and internal standards. Accredited matrices: SW PW GW	In-house method based on USEPA 8270	L102B-PL	W	ISO 17025
Sulphide in water	Determination of sulphide in water by ion selective electrode.	In-house method	L029-PL	W	NONE
Sulphate in water	Determination of sulphate in water after filtration by acidification followed by ICP-OES. Accredited Matrices SW, GW, PW.	In-house method based on MEWAM 2006 Methods for the Determination of Metals in Soil.	L039-PL	W	ISO 17025
Suspended solids in water	Determined gravimetrically with GFC filtration papers.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton	L004-PL	W	ISO 17025
TPHCWG (Waters)	Determination of dichloromethane extractable hydrocarbons in water by GC-MS, speciation by interpretation.	In-house method	L070-PL	W	ISO 17025
Total cyanide in water	Determination of total cyanide by distillation followed by colorimetry. Accredited matrices: SW PW GW	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton (Skalar)	L080-PL	W	ISO 17025
Total organic carbon in water	Determination of dissolved organic carbon in water by TOC/DOC NDIR analyser. Accredited matrices: SW PW GW.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton	L037-PL	W	ISO 17025
BTEX and MTBE in water (Monoaromatics)	Determination of BTEX and MTBE in water by headspace GC-MS. Accredited matrices: SW PW GW	In-house method based on USEPA8260	L073B-PL	W	ISO 17025
Ammonium as NH4 in water	Determination of Ammonium/Ammonia/ Ammoniacal Nitrogen by the colorimetric salicylate/nitroprusside method. Accredited matrices SW, GW, PW.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton	L082-PL	W	ISO 17025
pH at 20oC in water (automated)	Determination of pH in water by electrometric measurement. Accredited matrices: SW PW GW	In house method.	L099-PL	W	ISO 17025
Chloride in water	Determination of Chloride (diissolved) colorimetrically by discrete analyser.	In house based on MEWAM Method ISBN 0117516260. Accredited matrices: SW, PW, GW.	L082-PL	W	ISO 17025

For method numbers ending in 'UK or A' analysis have been carried out in our laboratory in the United Kingdom (WATFORD).
For method numbers ending in 'F' analysis have been carried out in our laboratory in the United Kingdom (East Kilbride).
For method numbers ending in 'PL or B' analysis have been carried out in our laboratory in Poland.
Soil analytical results are expressed on a dry weight basis. Where analysis is carried out on as-received the results obtained are multiplied by a moisture correction factor that is determined gravimetrically using the moisture content which is carried out at a maximum of 30oC

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Analytical Report Number : 23-13694
Project / Site name: NG Salisbury

Water matrix abbreviations:
Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Waters (PrW) Final Sewage Effluent (FSE) Landfill Leachate (LL)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status

Unless otherwise indicated, site information, order number, project number, sampling date, time, sample reference and depth are provided by the client. The instructed on date indicates the date on which this information was provided to the laboratory.

Information in Support of Analytical Results

List of HWOL Acronyms and Operators

Acronym	Descriptions
HS	Headspace Analysis
MS	Mass spectrometry
FID	Flame Ionisation Detector
GC	Gas Chromatography
EH	Extractable Hydrocarbons (i.e. everything extracted by the solvent(s))
CU	Clean-up - e.g. by Florisil®, silica gel
1D	GC - Single coil/column gas chromatography
2D	GC-GC - Double coil/column gas chromatography
Total	Aliphatics & Aromatics
AL	Aliphatics
AR	Aromatics
#1	EH_2D_Total but with humics mathematically subtracted
#2	EH_2D_Total but with fatty acids mathematically subtracted
_	Operator - understore to separate acronyms (exception for +)
+	Operator to indicate cumulative e.g. EH+HS_Total or EH_CU+HS_Total

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