

FINAL ANALYTICAL TEST REPORT

Envirolab Job Number: 19/03378
Issue Number: 1

Date: 18 April, 2019

Client: WML Construction
No 8 Oak Green
Earl Road
Stanley Green Business Park
Cheadle Hulme
Cheshire
SK8 6QL

Project Manager: Sam Seddon
Project Name: Prisma
Project Ref: 8726G
Order No: 8726G
Date Samples Received: 04/04/19
Date Instructions Received: 05/04/19
Date Analysis Completed: 18/04/19

Prepared by:


Melanie Marshall
Laboratory Coordinator

Approved by:


Georgia King
Admin & Client Services Supervisor

Envirolab Job Number: 19/03378

Client Project Name: Prisma

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Lab Sample ID	19/03378/1	19/03378/3	19/03378/4	19/03378/5	19/03378/7	19/03378/8	19/03378/10	Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	WS1	WS2	WS2	WS3	WS3	WS3	WS4			
Depth to Top	0.40	0.50	1.20	0.10	0.50	2.50	0.60			
Depth To Bottom										
Date Sampled	01-Apr-19	01-Apr-19	01-Apr-19	01-Apr-19	01-Apr-19	01-Apr-19	01-Apr-19			
Sample Type	Soil	Soil	Soil	Soil	Soil	Soil	Soil			
Sample Matrix Code	4AE	4AE	6AE	4AE	4AE	6A	4A			
% Stones >10mm _A	18.3	23.9	<0.1	17.1	25.8	<0.1	2.6	% w/w	0.1	A-T-044
pH _D ^{M#}	9.40	8.05	7.64	-	8.24	7.73	8.08	pH	0.01	A-T-031s
Sulphate (water sol 2:1) _D ^{M#}	0.16	0.05	0.04	-	0.03	<0.01	0.08	g/l	0.01	A-T-026s
Sulphate (acid soluble) _D ^{M#}	1300	470	-	-	<200	-	450	mg/kg	200	A-T-028s
Sulphur (total) _D	924	492	101	-	319	113	966	mg/kg	50	A-T-024s
Cyanide (total) _A ^{M#}	<1	<1	-	-	<1	-	<1	mg/kg	1	A-T-042sTCN
Phenols - Total by HPLC _A	<0.2	<0.2	-	-	<0.2	-	<0.2	mg/kg	0.2	A-T-050s
Organic matter _D ^{M#}	8.4	5.3	-	-	2.3	-	9.4	% w/w	0.1	A-T-032 OM
Arsenic _D ^{M#}	10	8	-	-	4	-	17	mg/kg	1	A-T-024s
Boron (water soluble) _D ^{M#}	<1.0	<1.0	-	-	<1.0	-	<1.0	mg/kg	1	A-T-027s
Cadmium _D ^{M#}	0.7	0.7	-	-	1.2	-	0.9	mg/kg	0.5	A-T-024s
Copper _D ^{M#}	33	21	-	-	19	-	41	mg/kg	1	A-T-024s
Chromium (hexavalent) _D	<1	<1	-	-	<1	-	<1	mg/kg	1	A-T-040s
Lead _D ^{M#}	63	40	-	-	27	-	73	mg/kg	1	A-T-024s
Mercury _D	0.31	0.19	-	-	<0.17	-	<0.17	mg/kg	0.17	A-T-024s
Nickel _D ^{M#}	26	14	-	-	16	-	28	mg/kg	1	A-T-024s
Selenium _D ^{M#}	<1	<1	-	-	<1	-	<1	mg/kg	1	A-T-024s
Vanadium _D ^{M#}	44	29	-	-	10	-	37	mg/kg	1	A-T-024s
Zinc _D ^{M#}	74	41	-	-	47	-	66	mg/kg	5	A-T-024s

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Depth To Bottom										
Date Sampled	01-Apr-19	01-Apr-19	01-Apr-19	01-Apr-19	01-Apr-19	01-Apr-19	01-Apr-19			
Sample Type	Soil	Soil	Soil	Soil	Soil	Soil	Soil			
Sample Matrix Code	4AE	4AE	6AE	4AE	4AE	6A	4A			
Asbestos in Soil (inc. matrix)										
Asbestos in soil [#]	NAD	NAD	-	-	NAD	-	NAD			A-T-045
Asbestos ACM - Suitable for Water Absorption Test?	N/A	N/A	-	-	N/A	-	N/A			

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Depth To Bottom										
Date Sampled	01-Apr-19	01-Apr-19	01-Apr-19	01-Apr-19	01-Apr-19	01-Apr-19	01-Apr-19			
Sample Type	Soil	Soil	Soil	Soil	Soil	Soil	Soil			
Sample Matrix Code	4AE	4AE	6AE	4AE	4AE	6A	4A			
PAH-16MS										
Acenaphthene _A ^{M#}	0.14	0.02	-	-	0.02	-	<0.01	mg/kg	0.01	A-T-019s
Acenaphthylene _A ^{M#}	0.03	0.03	-	-	<0.01	-	<0.01	mg/kg	0.01	A-T-019s
Anthracene _A ^{M#}	0.36	0.08	-	-	0.08	-	<0.02	mg/kg	0.02	A-T-019s
Benzo(a)anthracene _A ^{M#}	2.37	0.32	-	-	0.21	-	<0.04	mg/kg	0.04	A-T-019s
Benzo(a)pyrene _A ^{M#}	3.50	0.23	-	-	0.13	-	<0.04	mg/kg	0.04	A-T-019s
Benzo(b)fluoranthene _A ^{M#}	4.19	0.32	-	-	0.22	-	<0.05	mg/kg	0.05	A-T-019s
Benzo(ghi)perylene _A ^{M#}	1.59	0.12	-	-	0.06	-	<0.05	mg/kg	0.05	A-T-019s
Benzo(k)fluoranthene _A ^{M#}	1.34	0.11	-	-	<0.07	-	<0.07	mg/kg	0.07	A-T-019s
Chrysene _A ^{M#}	2.49	0.35	-	-	0.26	-	<0.06	mg/kg	0.06	A-T-019s
Dibenzo(ah)anthracene _A ^{M#}	0.29	<0.04	-	-	<0.04	-	<0.04	mg/kg	0.04	A-T-019s
Fluoranthene _A ^{M#}	4.56	0.71	-	-	0.41	-	<0.08	mg/kg	0.08	A-T-019s
Fluorene _A ^{M#}	0.09	0.04	-	-	0.07	-	<0.01	mg/kg	0.01	A-T-019s
Indeno(123-cd)pyrene _A ^{M#}	2.17	0.14	-	-	0.07	-	<0.03	mg/kg	0.03	A-T-019s
Naphthalene _A ^{M#}	<0.03	0.04	-	-	<0.03	-	<0.03	mg/kg	0.03	A-T-019s
Phenanthrene _A ^{M#}	1.11	0.49	-	-	0.56	-	0.04	mg/kg	0.03	A-T-019s
Pyrene _A ^{M#}	4.09	0.55	-	-	0.46	-	<0.07	mg/kg	0.07	A-T-019s
Total PAH-16MS _A ^{M#}	28.3	3.55	-	-	2.55	-	<0.08	mg/kg	0.01	A-T-019s

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Date Sampled	01-Apr-19	01-Apr-19	01-Apr-19	01-Apr-19	01-Apr-19	01-Apr-19	01-Apr-19			
Sample Type	Soil	Soil	Soil	Soil	Soil	Soil	Soil			
Sample Matrix Code	4AE	4AE	6AE	4AE	4AE	6A	4A			
TPH CWG										
Ali >C5-C6 _A [#]	-	-	-	<0.05	-	-	-	mg/kg	0.01	A-T-022s
Ali >C6-C8 _A [#]	-	-	-	0.19	-	-	-	mg/kg	0.01	A-T-022s
Ali >C8-C10 _A [#]	-	-	-	24.4	-	-	-	mg/kg	0.01	A-T-022s
Ali >C10-C12 _A [#]	-	-	-	303	-	-	-	mg/kg	0.1	A-T-023s
Ali >C12-C16 _A [#]	-	-	-	15.4	-	-	-	mg/kg	0.1	A-T-023s
Ali >C16-C21 _A [#]	-	-	-	43.8	-	-	-	mg/kg	0.1	A-T-023s
Ali >C21-C35 _A [#]	-	-	-	96.7	-	-	-	mg/kg	0.1	A-T-023s
Total Aliphatics _A	-	-	-	483	-	-	-	mg/kg	0.1	A-T-023s
Aro >C5-C7 _A [#]	-	-	-	<0.05	-	-	-	mg/kg	0.01	A-T-022s
Aro >C7-C8 _A [#]	-	-	-	<0.05	-	-	-	mg/kg	0.01	A-T-022s
Aro >C8-C9 _A [#]	-	-	-	1.36	-	-	-	mg/kg	0.01	A-T-022s
Aro >C9-C10 _A [#]	-	-	-	25.2	-	-	-	mg/kg	0.01	A-T-022s
Aro >C10-C12 _A [#]	-	-	-	98.7	-	-	-	mg/kg	0.1	A-T-023s
Aro >C12-C16 _A [#]	-	-	-	5.1	-	-	-	mg/kg	0.1	A-T-023s
Aro >C16-C21 _A [#]	-	-	-	24.8	-	-	-	mg/kg	0.1	A-T-023s
Aro >C21-C35 _A [#]	-	-	-	96.3	-	-	-	mg/kg	0.1	A-T-023s
Total Aromatics _A	-	-	-	251	-	-	-	mg/kg	0.1	A-T-023s
TPH (Ali & Aro) _A	-	-	-	735	-	-	-	mg/kg	0.1	A-T-023s
BTEX - Benzene _A [#]	-	-	-	<0.05	-	-	-	mg/kg	0.01	A-T-022s
BTEX - Toluene _A [#]	-	-	-	<0.05	-	-	-	mg/kg	0.01	A-T-022s
BTEX - Ethyl Benzene _A [#]	-	-	-	<0.05	-	-	-	mg/kg	0.01	A-T-022s
BTEX - m & p Xylene _A [#]	-	-	-	0.17	-	-	-	mg/kg	0.01	A-T-022s
BTEX - o Xylene _A [#]	-	-	-	1.31	-	-	-	mg/kg	0.01	A-T-022s
MTBE _A [#]	-	-	-	<0.05	-	-	-	mg/kg	0.01	A-T-022s

REPORT NOTES

General

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

The results reported herein relate only to the material supplied to the laboratory.

The residue of any samples contained within this report, and any received with the same delivery, will be disposed of six weeks after initial scheduling. For samples tested for Asbestos we will retain a portion of the dried sample for a minimum of six months after the initial Asbestos testing is completed.

Analytical results reflect the quality of the sample at the time of analysis only.

Opinions and interpretations expressed are outside the scope of our accreditation.

If results are in italic font they are associated with an AQC failure, these are not accredited and are unreliable.

A deviating samples report is appended and will indicate if samples or tests have been found to be deviating. Any test results affected may not be an accurate record of the concentration at the time of sampling and, as a result, may be invalid.

Soil chemical analysis:

All results are reported as dry weight (<40°C).

For samples with Matrix Codes 1 - 6 natural stones, brick and concrete fragments >10mm and any extraneous material (visible glass, metal or twigs) are removed and excluded from the sample prior to analysis and reported results corrected to a whole sample basis. This is reported as '% stones >10mm'.

For samples with Matrix Code 7 the whole sample is dried and crushed prior to analysis and this supersedes any "A" subscripts

All analysis is performed on the sample as received for soil samples which are positive for asbestos or the client has informed asbestos may be present and/or if they are from outside the European Union and this supersedes any "D" subscripts.

TPH analysis of water by method A-T-007:

Free and visible oils are excluded from the sample used for analysis so that the reported result represents the dissolved phase only.

Electrical Conductivity of water by Method A-T-037:

Results greater than 12900µS/cm @ 25°C / 11550µS/cm @ 20°C fall outside the calibration range and as such are unaccredited.

Asbestos:

Asbestos in soil analysis is performed on a dried aliquot of the submitted sample and cannot guarantee to identify asbestos if only present in small numbers as discrete fibres/fragments in the original sample.

Stones etc. are not removed from the sample prior to analysis.

Quantification of asbestos is a 3 stage process including visual identification, hand picking and weighing and fibre counting by sedimentation/phase contrast optical microscopy if required. If asbestos is identified as being present but is not in a form that is suitable for analysis by hand picking and weighing (normally if the asbestos is present as free fibres) quantification by sedimentation is performed. Where ACMs are found a percentage asbestos is assigned to each with reference to 'HSG264, Asbestos: The survey guide' and the calculated asbestos content is expressed as a percentage of the dried soil sample aliquot used.

Predominant Matrix Codes:

1 = SAND, 2 = LOAM, 3 = CLAY, 4 = LOAM/SAND, 5 = SAND/CLAY, 6 = CLAY/LOAM, 7 = OTHER, 8 = Asbestos bulk ID sample.

Samples with Matrix Code 7 & 8 are not predominantly a SAND/LOAM/CLAY mix and are not covered by our BSEN 17025 or MCERTS accreditations, with the exception of bulk asbestos which are BSEN 17025 accredited.

Secondary Matrix Codes:

A = contains stones, B = contains construction rubble, C = contains visible hydrocarbons, D = contains glass/metal,

E = contains roots/twigs.

Key:

IS indicates Insufficient Sample for analysis.

US indicates Unsuitable Sample for analysis.

NDP indicates No Determination Possible.

NAD indicates No Asbestos Detected.

N/A indicates Not Applicable.

Superscript # indicates method accredited to ISO 17025.

Superscript "M" indicates method accredited to MCERTS.

Subscript "A" indicates analysis performed on the sample as received.

Subscript "D" indicates analysis performed on the dried sample, crushed to pass a 2mm sieve

Please contact us if you need any further information.

Envirolab Deviating Samples Report

Units 7&8 Sandpits Business Park, Mottram Road, Hyde, SK14 3AR
Tel. 0161 368 4921 email. ask@envlab.co.uk

Client: WML Construction , No 8 Oak Green, Earl Road, Stanley Green Business Park,
Cheadle Hulme, Cheshire, SK8 6QL

Project: Prisma
Clients Project No: 8726G

Project No: 19/03378
Date Received: 05/04/2019 (am)
Cool Box Temperatures (oC): 9.3

Lab Sample ID	19/03378/5
Client Sample No	
Client Sample ID/Depth	WS3 0.10m
Date Sampled	01/04/19
Deviation Code	
F	✓

Key

F Maximum holding time exceeded between sampling date and analysis for analytes listed below

HOLDING TIME EXCEEDANCES

Lab Sample ID	19/03378/5
Client Sample No	
Client Sample ID/Depth	WS3 0.10m
Date Sampled	01/04/19
VPH CWG	✓

If, at any point before reaching the laboratory, the temperature of the samples has breached those set in published standards, e.g. BS-EN 5667-3, ISO 18400-102:2017, then the concentration of any affected analytes may differ from that at the time of sampling.