

Our Ref: EXR/243879 (Ver. 1)

Your Ref:

July 4, 2017



Environmental Chemistry

ESG

Bretby Business Park

Ashby Road

Burton-on-Trent

Staffordshire

DE15 0YZ

Telephone: 01283 554400

Facsimile: 01283 554422

A Morris
White Rock Geo Environmental Ltd
EnviroArm Limited
597 Walsall Road
Great Wyrley
Walsall
Staffordshire
WS6 6AE

For the attention of A Morris

Dear A Morris

Sample Analysis - Parrys Quarry

Samples from the above site have been analysed in accordance with the schedule supplied.
The sample details and the results of analyses for these samples are given in the appended report.

An invoice for this work will follow under a separate cover.

Please be aware that our policy for the retention of paper based laboratory records and analysis reports is 6 years.

The work was carried out in accordance with Environmental Scientifics Group Ltd (Multi-Sector Services) Standard Terms and Conditions of Contract.

If I can be of any further assistance please do not hesitate to contact me.

Yours sincerely

for ESG

A handwritten signature in black ink, appearing to be 'L Thompson', followed by a horizontal line.

L Thompson
Project Co-ordinator
01283 554467

TEST REPORT

Report No. EXR/243879 (Ver. 1)

White Rock Geo Environmental Ltd
EnviroArm Limited
597 Walsall Road
Great Wyrley
Walsall
Staffordshire
WS6 6AE

Site: Parrys Quarry

The 14 samples described in this report were registered for analysis by ESG on 26-Jun-2017. This report supersedes any versions previously issued by the laboratory.

The analysis was completed by: 04-Jul-2017

The following tables are contained in this report:

Table 1 Main Analysis Results (Pages 2 to 3)
Analytical and Deviating Sample Overview (Pages 4 to 5)
Table of Method Descriptions (Page 6)
Table of Report Notes (Page 7)
Table of Sample Descriptions (Appendix A Page 1 of 1)

On behalf of
ESG :
Tim Barnes



Operations Director
Energy & Waste Services


Date of Issue: 04-Jul-2017


Tests marked '^' have been subcontracted to another laboratory.

Where samples have been flagged as deviant on the Analytical and Deviating Sample Overview, for any reason, the data may not be representative of the sample at the point of sampling and the validity of the data may be affected.

ESG accepts no responsibility for any sampling not carried out by our personnel.

Where individual results are flagged see report notes for status.

Units : Method Codes : Method Reporting Limits :			pH units	uS/cm	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	
			WSLM3	WSLM2	WSLM12	KONENS	ICPWATVAR	ICPWATVAR	ICPWATVAR	ICPWATVAR	ICPWATVAR	ICPMSW	ICPMSW	ICPMSW	ICPMSW	ICPMSW	ICPMSW	ICPMSW	ICPMSW
				100		1	3	1	1	1	1	0.001	0.001	0.0001	0.001	0.001	0.001	0.002	0.002
LAB ID Number EX/	Client Sample Description	Sample Date	pH units w	Conductivity uS/cm @ 20C w	Total Alkalinity as CaCO3 w	Chloride as Cl w	Total Sulphur as SO4 (Dissolved) a	Calcium as Ca (Dissolved) a	Magnesium as Mg (Dissolved) a	Sodium as Na (Dissolved) a	Potassium as K (Dissolved) a	Nickel as Ni (Dissolved)	Chromium as Cr (Dissolved)	Cadmium as Cd (Dissolved)	Copper as Cu (Dissolved)	Lead as Pb (Dissolved)	Zinc as Zn (Dissolved)	Manganese as Mn (Dissolved)	
1806421	BH A	23-Jun-17	7.1	782	151	76	120	72	32	39	11	0.011	<0.001	<0.0001	0.002	<0.001	0.013	1.622	
1806422	BH B	23-Jun-17	8.19	217	34	14	45	17	3	23	2	0.001	<0.001	<0.0001	0.008	<0.001	0.008	0.003	
1806423	BH C	23-Jun-17	7.75	653	213	73	44	57	21	67	6	0.002	<0.001	<0.0001	0.001	<0.001	0.003	0.057	
1806424	BH C1	23-Jun-17	7.58	772	206	40	199	112	37	37	4	0.002	<0.001	0.0002	0.001	<0.001	0.013	0.731	
1806425	BH D	23-Jun-17	7.65	714	228	37	146	111	35	27	3	0.002	<0.001	0.0001	0.004	<0.001	0.007	0.784	
1806426	BH E	23-Jun-17	7.79	503	198	40	33	44	15	55	12	0.003	<0.001	<0.0001	0.007	<0.001	0.044	0.162	
1806427	BH F	23-Jun-17	7.75	535	199	22	45	68	29	16	2	0.002	<0.001	<0.0001	0.005	<0.001	0.007	0.18	
1806428	BH F1	23-Jun-17	6.74	546	102	38	135	69	22	21	3	0.03	<0.001	<0.0001	0.009	<0.001	0.01	2.371	
1806429	BH G	23-Jun-17	7.49	696	207	32	151	103	33	26	2	0.006	<0.001	<0.0001	0.004	<0.001	0.008	0.345	
1806430	BH H	23-Jun-17	7.37	1972	353	273	401	247	57	159	18	0.018	<0.001	<0.0001	0.013	<0.001	0.014	5.897	
1806431	BH I	23-Jun-17	7.07	2300	392	425	225	191	78	237	18	0.017	<0.001	0.0002	0.003	<0.001	0.004	1.724	
1806432	BH J	23-Jun-17	7.15	1232	241	92	330	148	54	71	10	0.024	<0.001	<0.0001	<0.001	<0.001	0.01	5.614	
1806433	BH K	23-Jun-17	7.27	1812	305	154	565	200	101	132	10	0.011	<0.001	<0.0001	0.002	<0.001	0.01	3.999	
1806434	BH K1	23-Jun-17	7.22	951	296	60	163	123	53	37	6	0.008	<0.001	<0.0001	0.003	<0.001	0.016	2.114	
<div><p>Bretby Business Park, Ashby Road Burton-on-Trent, Staffordshire, DE15 0YZ Tel +44 (0) 1283 554400 Fax +44 (0) 1283 554422</p></div>			Client Name		White Rock Geo Environmental Ltd							Sample Analysis							
			Contact		A Morris							Date Printed							
			Parrys Quarry							Report Number		04-Jul-2017							
										Table Number		EXR/243879							
												1							

Units : Method Codes : Method Reporting Limits :			mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l							
			ICPWATVAR	ICPMSW	KONENS	SFAPI	WSLM20	WSLM13	PHEHPLC	PHEHPLC	PHEHPLC	PHEHPLC							
			0.01	0.0001	0.01	0.02	1	0.2	0.1	0.1	0.1	0.1							
LAB ID Number EX/	Client Sample Description	Sample Date	Iron as Fe (Dissolved) a	Mercury as Hg (Dissolved)	Ammoniacal Nitrogen as N	Cyanide (Total) as CN	Biochemical Oxygen Demand w	Total Organic Carbon w	Dimethylphenols	Phenol	Cresols	Trimethylphenols							
1806421	BH A	23-Jun-17	0.14	<0.0001	0.2	0.46	<1.0	2.0	<0.1	<0.1	<0.1	<0.1							
1806422	BH B	23-Jun-17	0.04	<0.0001	0.02	0.05	<1.0	1.2	<0.1	<0.1	<0.1	<0.1							
1806423	BH C	23-Jun-17	0.11	<0.0001	0.02	0.03	<1.0	0.66	<0.1	<0.1	<0.1	<0.1							
1806424	BH C1	23-Jun-17	0.18	<0.0001	0.07	<0.02	<1.0	1.3	<0.1	<0.1	<0.1	<0.1							
1806425	BH D	23-Jun-17	0.17	<0.0001	0.08	0.05	<1.0	1.7	<0.1	<0.1	<0.1	<0.1							
1806426	BH E	23-Jun-17	0.09	<0.0001	0.02	0.14	<1.0	1.3	<0.1	<0.1	<0.1	<0.1							
1806427	BH F	23-Jun-17	0.13	<0.0001	0.03	0.13	<1.0	0.60	<0.1	<0.1	<0.1	<0.1							
1806428	BH F1	23-Jun-17	0.14	<0.0001	0.05	0.09	<1.0	0.96	<0.1	<0.1	<0.1	<0.1							
1806429	BH G	23-Jun-17	0.18	<0.0001	0.03	1.38	<1.0	0.86	<0.1	<0.1	<0.1	<0.1							
1806430	BH H	23-Jun-17	0.25	<0.0001	1.4	0.27	1.0	6.9	<0.1	<0.1	<0.1	<0.1							
1806431	BH I	23-Jun-17	0.23	<0.0001	0.4	0.59	<1.0	5.6	<0.1	<0.1	<0.1	<0.1							
1806432	BH J	23-Jun-17	0.22	<0.0001	0.03	0.03	<1.0	1.3	<0.1	<0.1	<0.1	<0.1							
1806433	BH K	23-Jun-17	0.22	<0.0001	0.14	<0.02	<1.0	1.2	<0.1	<0.1	<0.1	<0.1							
1806434	BH K1	23-Jun-17	0.18	<0.0001	0.12	0.03	<1.0	1.1	<0.1	<0.1	<0.1	<0.1							
<div></div> <div>Bretby Business Park, Ashby Road</div> <div>Burton-on-Trent, Staffordshire, DE15 0YZ</div> <div>Tel +44 (0) 1283 554400</div> <div>Fax +44 (0) 1283 554422</div>			Client Name		White Rock Geo Environmental Ltd							Sample Analysis							
			Contact		A Morris							Date Printed		04-Jul-2017					
			Parrys Quarry									Report Number		EXR/243879					
												Table Number		1					

Sample Analysis

ESG Environmental Chemistry
Analytical and Deviating Sample Overview

W243879

Customer White Rock Geo Environmental Ltd
Site Parrys Quarry
Report No W243879

Consignment No W122366
Date Logged 26-Jun-2017
In-House Report Due 03-Jul-2017

Please note the results for any subcontracted analysis (identified with a '^') is likely to take up to an additional five working

ID Number	Description	MethodID		CUST SERV	ICPMSW										ICPMA/VA					KONENS	PHE/PLC
		Matrix Type	Sampled		Report A	Nickel as Ni MS (Dissolved)	Chromium as Cr MS (Dissolved)	Cadmium as Cd MS (Dissolved)	Copper as Cu MS (Dissolved)	Lead as Pb MS (Dissolved)	Zinc as Zn MS (Dissolved)	Manganese as Mn MS (Dissolved)	Mercury as Hg MS (Dissolved)	Total Sulphur as SO4 (Diss) VAR	Calcium as Ca (Dissolved) VAR	Magnesium as Mg (Dissolved) VAR	Sodium as Na (Dissolved) VAR	Potassium as K (Dissolved) VAR	Iron as Fe (Dissolved) VAR		
EX/1806421	BH A	Unclassified	23/06/17			E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E
EX/1806422	BH B	Unclassified	23/06/17			E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E
EX/1806423	BH C	Unclassified	23/06/17			E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E
EX/1806424	BH C1	Unclassified	23/06/17			E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E
EX/1806425	BH D	Unclassified	23/06/17			E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E
EX/1806426	BH E	Unclassified	23/06/17			E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E
EX/1806427	BH F	Unclassified	23/06/17			E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E
EX/1806428	BH F1	Unclassified	23/06/17			E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E
EX/1806429	BH G	Unclassified	23/06/17			E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E
EX/1806430	BH H	Unclassified	23/06/17			E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E
EX/1806431	BH I	Unclassified	23/06/17			E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E
EX/1806432	BH J	Unclassified	23/06/17			E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E
EX/1806433	BH K	Unclassified	23/06/17			E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E
EX/1806434	BH K1	Unclassified	23/06/17			E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E

Note: We will endeavour to prioritise samples to complete analysis within holding time; however any delay could result in samples becoming deviant whilst being processed in the laboratory.

If sampling dates are missing or matrices unclassified then results will not be ISO 17025 accredited. Please contact us as soon as possible to provide missing information in order to reinstate accreditation.

Deviating Sample Key

A

The sample was received in an inappropriate container for this analysis

B

The sample was received without the correct preservation for this analysis

C

Headspace present in the sample container

D

The sampling date was not supplied so holding time may be compromised - applicable to all analysis

E

Sample processing did not commence within the appropriate holding time

F

Sample processing did not commence within the appropriate handling time

Requested Analysis Key

Analysis Required

Analysis dependant upon trigger result - Note: due date may be affected if triggered

No analysis scheduled

^

Analysis Subcontracted - Note: due date may vary

The integrity of data for samples/analysis that have been categorised as Deviating may be compromised. Data may not be representative of the sample at the time of sampling. Where individual results are flagged see report notes for status.

Customer White Rock Geo Environmental Ltd
Site Parrys Quarry
Report No W243879

Consignment No W122366
Date Logged 26-Jun-2017
In-House Report Due 03-Jul-2017

Please note the results for any subcontracted analysis (identified with a '^') is likely to take up to an additional five working

ID Number	Description	MethodID		SFAPI	WSLM12	WSLM13	WSLM2	WSLM20	WSLM3
		Matrix Type	Sampled	Cyanide (Total) as CN SFA	Total Alkalinity as CaCO3	Total Organic Carbon	Conductivity uS/cm @ 20C	Biochemical Oxygen Demand	pH units
EX/1806421	BH A	Unclassified	23/06/17	E	E	E	E	E	E
EX/1806422	BH B	Unclassified	23/06/17	E	E	E	E	E	E
EX/1806423	BH C	Unclassified	23/06/17	E	E	E	E	E	E
EX/1806424	BH C1	Unclassified	23/06/17	E	E	E	E	E	E
EX/1806425	BH D	Unclassified	23/06/17	E	E	E	E	E	E
EX/1806426	BH E	Unclassified	23/06/17	E	E	E	E	E	E
EX/1806427	BH F	Unclassified	23/06/17	E	E	E	E	E	E
EX/1806428	BH F1	Unclassified	23/06/17	E	E	E	E	E	E
EX/1806429	BH G	Unclassified	23/06/17	E	E	E	E	E	E
EX/1806430	BH H	Unclassified	23/06/17	E	E	E	E	E	E
EX/1806431	BH I	Unclassified	23/06/17	E	E	E	E	E	E
EX/1806432	BH J	Unclassified	23/06/17	E	E	E	E	E	E
EX/1806433	BH K	Unclassified	23/06/17	E	E	E	E	E	E
EX/1806434	BH K1	Unclassified	23/06/17	E	E	E	E	E	E

Note: We will endeavour to prioritise samples to complete analysis within holding time; however any delay could result in samples becoming deviant whilst being processed in the laboratory.

If sampling dates are missing or matrices unclassified then results will not be ISO 17025 accredited. Please contact us as soon as possible to provide missing information in order to reinstate accreditation.

Deviating Sample Key

A

The sample was received in an inappropriate container for this analysis

B

The sample was received without the correct preservation for this analysis

C

Headspace present in the sample container

D

The sampling date was not supplied so holding time may be compromised - applicable to all analysis

E

Sample processing did not commence within the appropriate holding time

F

Sample processing did not commence within the appropriate handling time

Requested Analysis Key

Analysis Required

Analysis dependant upon trigger result - Note: due date may be affected if triggered

No analysis scheduled

^

Analysis Subcontracted - Note: due date may vary

The integrity of data for samples/analysis that have been categorised as Deviating may be compromised. Data may not be representative of the sample at the time of sampling. Where individual results are flagged see report notes for status.

Method Descriptions

Matrix	MethodID	Analysis Basis	Method Description
Water	ICPMSW	As Received	Direct quantitative determination of Metals in water samples using ICPMS
Water	ICPWATVAR	As Received	Direct determination of Metals and Sulphate in water samples using ICPOES
Water	KONENS	As Received	Direct analysis using discrete colorimetric analysis
Water	PHEHPLC	As Received	Determination of Phenols by HPLC
Water	SFAPI	As Received	Segmented flow analysis with colorimetric detection
Water	WSLM12	As Received	Titration with Sulphuric Acid to required pH
Water	WSLM13	As Received	Instrumental analysis using acid/persulphate digestion and non-dispersive IR detection
Water	WSLM2	As Received	Determination of the Electrical Conductivity ($\mu\text{S}/\text{cm}$) by electrical conductivity probe.
Water	WSLM20	As Received	Determination of Biological Oxygen Demand using 5 day incubation and dissolved oxygen probe
Water	WSLM3	As Received	Determination of the pH of water samples by pH probe

Where individual results are flagged see report notes for status.

Report Notes

Generic Notes

Soil/Solid Analysis

Unless stated otherwise,

- Results expressed as mg/kg have been calculated on the basis indicated in the Method Description table.
All results on MCERTS reports are reported on a 105°C dry weight basis with the exception of pH and conductivity.
- Sulphate analysis not conducted in accordance with BS1377
- Water Soluble Sulphate is on a 2:1 water:soil extract

Waters Analysis

Unless stated otherwise results are expressed as mg/l

Nil: Where "Nil" has been entered against Total Alkalinity or Total Acidity this indicates that a measurement was not required due to the inherent pH of the sample.

Oil analysis specific

Unless stated otherwise,

- Results are expressed as mg/kg
- SG is expressed as g/cm³@ 15°C

Gas (Tedlar bag) Analysis

Unless stated otherwise, results are expressed as ug/l

Asbestos Analysis

CH Denotes Chrysotile

TR Denotes Tremolite

CR Denotes Crocidolite

AC Denotes Actinolite

AM Denotes Amosite

AN Denotes Anthophyllite

NAIIS No Asbestos Identified in Sample

NADIS No Asbestos Detected In Sample

Symbol Reference

^ Sub-contracted analysis.

\$\$ Unable to analyse due to the nature of the sample

¶ Samples submitted for this analyte were not preserved on site in accordance with laboratory protocols.

This may have resulted in deterioration of the sample(s) during transit to the laboratory.

Consequently the reported data may not represent the concentration of the target analyte present in the sample at the time of sampling

¥ Results for guidance only due to possible interference

& Blank corrected result

I.S Insufficient sample to complete requested analysis

I.S(g) Insufficient sample to re-analyse, results for guidance only

Intf Unable to analyse due to interferences

N.D Not determined

N.Det Not detected

N.F No Flow

NS Information Not Supplied

Req Analysis requested, see attached sheets for results

▮ Raised detection limit due to nature of the sample

* All accreditation has been removed by the laboratory for this result

‡ MCERTS accreditation has been removed for this result

§ accreditation has been removed for this result as it is a non-accredited matrix

Note: The Laboratory may only claim that data is accredited when all of the requirements of our Quality System have been met. Where these requirements have not been met the laboratory may elect to include the data in its final report and remove the accreditation from individual data items if it believes that the validity of the data has not been affected. If further details are required of the circumstances which have led to the removal of accreditation then please do not hesitate to contact the laboratory.

Sample Descriptions

Client : White Rock Geo Environmental Ltd
Site : Parrys Quarry
Report Number : W24_3879

[illegible]