

Our Ref: EXR/248457 (Ver. 1)

Your Ref:

September 15, 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 read 'J Chislett', written over a horizontal line.

J Chislett
Project Co-ordinator
01283 554458

TEST REPORT

Report No. EXR/248457 (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 07-Sep-2017. This report supersedes any versions previously issued by the laboratory.

The analysis was completed by: 15-Sep-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: 15-Sep-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 @ 25C 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)	
1825745	BHA	05-Sep-17	6.6	774	149	77	129	68	32	40	11	0.011	0.005	<0.0001	0.001	<0.001	0.014	1.678	
1825746	BHB	05-Sep-17	7.4	557	113	53	48	69	8	30	4	0.002	0.004	<0.0001	0.003	<0.001	0.012	<0.002	
1825747	BHC	05-Sep-17	7.5	582	212	47	22	52	20	41	6	0.002	0.006	<0.0001	0.001	<0.001	0.004	0.176	
1825748	BHC1	05-Sep-17	7.2	882	221	42	197	109	37	34	4	0.003	0.006	<0.0001	<0.001	<0.001	0.005	0.832	
1825749	BHD	05-Sep-17	7.3	808	234	42	195	110	37	34	4	0.002	0.006	<0.0001	0.002	<0.001	0.01	0.174	
1825750	BHE	05-Sep-17	7.4	533	214	31	18	41	14	49	10	0.002	0.006	<0.0001	0.005	<0.001	0.033	0.176	
1825751	BHF	05-Sep-17	7.4	531	209	22	45	62	27	16	2	<0.001	0.006	<0.0001	0.001	<0.001	0.004	<0.002	
1825752	BHF1	05-Sep-17	6.4	584	116	35	131	66	22	22	3	0.032	0.004	0.0001	0.017	<0.001	0.034	2.593	
1825753	BHG	05-Sep-17	7.2	738	206	31	144	94	32	24	2	0.002	0.006	<0.0001	0.002	<0.001	0.006	0.009	
1825754	BHH	05-Sep-17	7	1980	372	225	389	234	44	163	18	0.016	0.01	<0.0001	0.005	<0.001	0.01	1.99	
1825755	BHI	05-Sep-17	6.6	2100	416	286	335	192	84	153	18	0.018	0.013	0.0003	0.002	<0.001	0.01	2.605	
1825756	BHJ	05-Sep-17	6.8	1230	254	86	314	140	53	62	10	0.023	0.008	<0.0001	0.001	<0.001	0.019	5.7	
1825757	BHK	05-Sep-17	6.7	3140	230	475	909	238	135	295	12	0.014	0.007	<0.0001	0.003	<0.001	0.016	2.835	
1825758	BHK1	05-Sep-17	7	1010	308	61	165	115	51	36	6	0.008	0.009	<0.0001	0.004	<0.001	0.031	2.168	
<div><div>ESG</div><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></div>			Client Name		White Rock Geo Environmental Ltd						Sample Analysis								
			Contact		A Morris														
			Parrys Quarry						Date Printed		15-Sep-2017								
									Report Number		EXR/248457								
									Table Number		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	mg/l					
			ICPWATVAR	ICPMSW	KONENS	SFAPI	WSLM20	WSLM13	PHEHPLCUV	PHEHPLCUV	PHEHPLCUV	PHEHPLCUV	PHEHPLCUV					
			0.01	0.0001	0.01	0.02	1	0.2	0.05	0.05	0.05	0.05	0.2					
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	Phenol	Methyl Phenols	Dimethylphenols	Trimethylphenols	Total Phenols					
1825745	BHA	05-Sep-17	0.16	<0.0001	0.2	<0.02	<1.0	2.2	<0.05	<0.05	<0.05	<0.05	<0.2					
1825746	BHB	05-Sep-17	0.13	<0.0001	<0.01	<0.02	<1.0	0.78	<0.05	<0.05	<0.05	<0.05	<0.2					
1825747	BHC	05-Sep-17	0.11	<0.0001	0.03	<0.02	2.5	0.70	<0.05	<0.05	<0.05	<0.05	<0.2					
1825748	BHC1	05-Sep-17	0.5	<0.0001	0.02	<0.02	1.3	1.4	<0.05	<0.05	<0.05	<0.05	<0.2					
1825749	BHD	05-Sep-17	0.5	<0.0001	0.02	<0.02	1.4	1.4	<0.05	<0.05	<0.05	<0.05	<0.2					
1825750	BHE	05-Sep-17	0.08	<0.0001	<0.01	<0.02	<1.0	1.2	<0.05	<0.05	<0.05	<0.05	<0.2					
1825751	BHF	05-Sep-17	0.12	<0.0001	<0.01	<0.02	1.0	0.56	<0.05	<0.05	<0.05	<0.05	<0.2					
1825752	BHF1	05-Sep-17	0.12	<0.0001	<0.01	<0.02	1.2	1.0	<0.05	<0.05	<0.05	<0.05	<0.2					
1825753	BHG	05-Sep-17	0.16	<0.0001	0.01	<0.02	<1.0	0.67	<0.05	<0.05	<0.05	<0.05	<0.2					
1825754	BHH	05-Sep-17	0.24	<0.0001	0.7	<0.02	1.8	5.4	<0.05	<0.05	<0.05	<0.05	<0.2					
1825755	BHI	05-Sep-17	0.88	<0.0001	0.5	<0.02	<1.0	8.6	<0.05	<0.05	<0.05	<0.05	<0.2					
1825756	BHJ	05-Sep-17	0.21	<0.0001	0.15	<0.02	<1.0	1.2	<0.05	<0.05	<0.05	<0.05	<0.2					
1825757	BHK	05-Sep-17	0.23	<0.0001	0.15	<0.02	<1.0	1.7	<0.05	<0.05	<0.05	<0.05	<0.2					
1825758	BHK1	05-Sep-17	0.17	<0.0001	0.15	<0.02	<1.0	0.82	<0.05	<0.05	<0.05	<0.05	<0.2					
<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													
			Parrys Quarry						Date Printed		15-Sep-2017							
									Report Number		EXR/248457							
									Table Number		1							

Sample Analysis

ESG Environmental Chemistry
Analytical and Deviating Sample Overview

W248457

Customer White Rock Geo Environmental Ltd
Site Parrys Quarry
Report No W248457

Consignment No W125808
Date Logged 07-Sep-2017
In-House Report Due 14-Sep-2017

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

ID Number	Description	MethodID		CUSTOMER	ICPMS/	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	Chloride as Cl (Kone)	Ammoniacal Nitrogen (Kone)	Phenols - HPLC
		Matrix Type	Sampled																		
EX/1825745	BHA	Unclassified	05/09/17																		
EX/1825746	BHB	Unclassified	05/09/17																		
EX/1825747	BHC	Unclassified	05/09/17																		
EX/1825748	BHC1	Unclassified	05/09/17																		
EX/1825749	BHD	Unclassified	05/09/17																		
EX/1825750	BHE	Unclassified	05/09/17																		
EX/1825751	BHF	Unclassified	05/09/17																		
EX/1825752	BHF1	Unclassified	05/09/17																		
EX/1825753	BHG	Unclassified	05/09/17																		
EX/1825754	BHH	Unclassified	05/09/17																		
EX/1825755	BHI	Unclassified	05/09/17																		
EX/1825756	BHJ	Unclassified	05/09/17																		
EX/1825757	BHK	Unclassified	05/09/17																		
EX/1825758	BHK1	Unclassified	05/09/17																		

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.

Sample Analysis

ESG Environmental Chemistry
Analytical and Deviating Sample Overview

W248457

Customer White Rock Geo Environmental Ltd
Site Parrys Quarry
Report No W248457

Consignment No W125808
Date Logged 07-Sep-2017
In-House Report Due 14-Sep-2017

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

ID Number	Description	MethodID		Matrix Type	Sampled	Phenols - HPLC (CONTEST)	Cyanide (Total) as CN SFA	Total Alkalinity as CaCO3	Total Organic Carbon	Conductivity uS/cm @ 25C	Biochemical Oxygen Demand	pH units
EX/1825745	BHA	Unclassified	05/09/17								E	
EX/1825746	BHB	Unclassified	05/09/17								E	
EX/1825747	BHC	Unclassified	05/09/17								E	
EX/1825748	BHC1	Unclassified	05/09/17								E	
EX/1825749	BHD	Unclassified	05/09/17								E	
EX/1825750	BHE	Unclassified	05/09/17								E	
EX/1825751	BHF	Unclassified	05/09/17								E	
EX/1825752	BHF1	Unclassified	05/09/17								E	
EX/1825753	BHG	Unclassified	05/09/17								E	
EX/1825754	BHH	Unclassified	05/09/17								E	
EX/1825755	BHI	Unclassified	05/09/17								E	
EX/1825756	BHJ	Unclassified	05/09/17								E	
EX/1825757	BHK	Unclassified	05/09/17								E	
EX/1825758	BHK1	Unclassified	05/09/17								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.

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	PHEHPLCUV	As Received	Determination of Phenols by HPLC with UV Detection
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

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_8457

[illegible]