

Our Ref: EXR/259560 (Ver. 1)

Your Ref:

March 27, 2018



Environmental Chemistry

SOCOTEC UK Limited

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 SOCOTEC UK Limited (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 SOCOTEC UK Limited

A handwritten signature in dark ink, appearing to read 'J Chislett'.

J Chislett

Project Co-ordinator

01283 554458

# TEST REPORT

**Report No. EXR/259560 (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 SOCOTEC UK Limited on 20-Mar-2018. This report supersedes any versions previously issued by the laboratory.

The analysis was completed by: 27-Mar-2018

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  
SOCOTEC UK Lim   
Tim Barnes  
Operations Director  
Energy & Waste Services

Date of Issue: 27-Mar-2018

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.

SOCOTEC UK Limited accepts no responsibility for any sampling not carried out by our personnel.

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	mg/l	mg/l	mg/l	mg/l	mg/l	
			ICPMSW	ICPMSW	ICPMSW	ICPMSW	ICPMSW	ICPMSW	ICPMSW	ICPMSW	ICPMSW	ICPMSW	ICPMSW	ICPMSW	ICPMSW	ICPMSW	ICPMSW	KONENS	KONENS
			0.0001	0.001	0.001	0.001	0.001	0.0001	0.001	0.002	1	0.01	1	0.01	1	1	3	0.01	1
LAB ID Number EX/	Client Sample Description	Sample Date	Cadmium as Cd (Dissolved)	Chromium as Cr (Dissolved)	Copper as Cu (Dissolved)	Lead as Pb (Dissolved)	Mercury as Hg (Dissolved)	Nickel as Ni (Dissolved)	Zinc as Zn (Dissolved)	Calcium as Ca (Dissolved) a	Iron as Fe (Dissolved) a	Magnesium as Mg (Dissolved) a	Manganese as MN (Dissolved) a	Potassium as K (Dissolved) a	Sodium as Na (Dissolved) a	Total Sulphur as SO4 (Dissolved) a	Ammoniacal Nitrogen as N	Chloride as Cl w	
1872543	BH A	15-Mar-18	0.0005	<0.001	0.008	<0.001	<0.0001	0.011	0.068	80	0.1	33	1.72	13	46	139	0.08	85	
1872544	BH B	15-Mar-18	0.0003	<0.001	0.007	<0.001	<0.0001	0.007	0.057	57	0.06	21	1	9	29	87	0.12	47	
1872545	BH C	15-Mar-18	<0.0001	<0.001	0.001	<0.001	<0.0001	0.005	0.004	89	0.1	41	0.04	8	393	326	<0.01	390	
1872546	BH C1	15-Mar-18	0.0004	<0.001	<0.001	<0.001	<0.0001	0.002	0.003	97	0.1	31	1.08	4	37	176	0.04	34	
1872547	BH D	15-Mar-18	<0.0001	<0.001	0.012	<0.001	<0.0001	<0.001	0.008	109	0.11	34	0.03	3	36	145	0.11	37	
1872548	BH E	15-Mar-18	0.0002	<0.001	0.038	<0.001	<0.0001	0.005	0.079	48	0.06	17	0.26	11	42	42	0.02	31	
1872549	BH F	15-Mar-18	<0.0001	<0.001	0.008	<0.001	<0.0001	<0.001	0.017	65	0.06	26	0.07	3	24	50	0.02	22	
1872550	BH F1	15-Mar-18	<0.0001	<0.001	0.003	<0.001	<0.0001	0.023	0.009	71	0.08	22	2.4	4	25	124	0.03	39	
1872551	BH G	15-Mar-18	<0.0001	<0.001	0.006	<0.001	<0.0001	0.001	0.017	106	0.11	33	0.03	3	29	149	0.04	37	
1872552	BH H	15-Mar-18	<0.0001	<0.001	0.006	<0.001	<0.0001	0.011	0.018	224	0.17	48	2.88	18	230	455	0.10	266	
1872553	BH I	15-Mar-18	0.0005	<0.001	<0.001	<0.001	<0.0001	0.022	0.014	187	5.38	76	2.35	18	182	252	0.4	362	
1872554	BH J	15-Mar-18	<0.0001	<0.001	0.002	<0.001	<0.0001	0.018	0.025	136	0.16	49	4.42	11	72	261	0.3	105	
1872555	BH K	15-Mar-18	0.0001	<0.001	0.001	<0.001	<0.0001	0.022	0.208	281	2.19	166	10.3	15	340	1160	0.5	519	
1872556	BH K1	15-Mar-18	<0.0001	<0.001	0.003	<0.001	<0.0001	0.007	0.014	117	0.11	50	1.97	6	40	156	0.10	61	
<div><div>SOCOTEC</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					27-Mar-2018	
													Report Number					EXR/259560	
													Table Number					1	



## Sample Analysis

## SOCOTEC UK Ltd Environmental Chemistry Analytical and Deviating Sample Overview

**W259560**

Customer	White Rock Geo Environmental Ltd
Site	Parrys Quarry
Report No	W259560

Consignment No W134814  
Date Logged 20-Mar-2018  
In-House Report Due 28-Mar-2018

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

[illegible]

**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 - <b>Note: due date may be affected if triggered</b> |
|              | No analysis scheduled   |
| <sup>A</sup> | Analysis Subcontracted - <b>Note: due date may vary</b>                                     |

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** W259560

Consignment No W134814  
 Date Logged 20-Mar-2018  
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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		SFAPI	WSLM12	WSLM13	WSLM2	WSLM20	WSLM3
		Matrix Type	Sampled	Cyanide (Total) as CN SFA	Total Alkalinity as CaCO3	Total Organic Carbon	Conductivity uS/cm @ 25C	Biochemical Oxygen Demand	pH units
				✓	✓	✓	✓	✓	✓
EX/1872543	BH A	Unclassified	15/03/18					E	
EX/1872544	BH B	Unclassified	15/03/18					E	
EX/1872545	BH C	Unclassified	15/03/18					E	
EX/1872546	BH C1	Unclassified	15/03/18					E	
EX/1872547	BH D	Unclassified	15/03/18					E	
EX/1872548	BH E	Unclassified	15/03/18					E	
EX/1872549	BH F	Unclassified	15/03/18					E	
EX/1872550	BH F1	Unclassified	15/03/18					E	
EX/1872551	BH G	Unclassified	15/03/18					E	
EX/1872552	BH H	Unclassified	15/03/18					E	
EX/1872553	BH I	Unclassified	15/03/18					E	
EX/1872554	BH J	Unclassified	15/03/18					E	
EX/1872555	BH K	Unclassified	15/03/18					E	
EX/1872556	BH K1	Unclassified	15/03/18					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
- <sup>^</sup> 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	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/cm<sup>3</sup>@ 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 :** W25\_9560

[illegible]