

Appendix E

Geotechnical Laboratory Test Results



Contract Number: 59174

Client Ref: **8053**

Report Date: **11-05-2022**

Client PO:

Client **Earth Science Partnership**
33 Cardiff Road
Taff's Well
Cardiff
CF15 7RB

Contract Title: **Afan Valley Resort**
For the attention of: **Emma Kirk**

Date Received: **25-04-2022**

Date Completed: **11-05-2022**

Test Description	Qty
Samples Received - @ Non Accredited Test	10
Moisture Content BS 1377:1990 - Part 2 : 3.2 - * UKAS	9
4 Point Liquid & Plastic Limit BS 1377:1990 - Part 2 : 4.3 & 5.3 - * UKAS	9
Bulk Density - Linear Measurement Method BS EN ISO 17892-2 - * UKAS	9
Organic Matter Content Sub-contracted Test - @ Non Accredited Test	9
Loss on Ignition Sub-contracted Test - @ Non Accredited Test	9
pH value of soil Sub-contracted Test - @ Non Accredited Test	9

Notes: **Observations and Interpretations are outside the UKAS Accreditation**

* - denotes test included in laboratory scope of accreditation

- denotes test carried out by approved contractor

@ - denotes non accredited tests

This certificate is issued in accordance with the accreditation requirements of the United Kingdom Accreditation Service. The results reported herein relate only to the material supplied to the laboratory. This certificate shall not be reproduced except in full, without the prior written approval of the laboratory.

Approved Signatories:

Emma Sharp (Business Support Manager) - Paul Evans (Director) - Richard John (Quality/Technical Manager)

Shaun Jones (Laboratory manager) - Shaun Thomas (Site Manager) - Wayne Honey (Quality Assistant / Administrator / Health and Safety Coordinator)



Laboratory Report



GEO Site & Testing Services Ltd

Contract Number: 59174

Test Description	Qty
Total Organic Carbon (TOC)	9
- @ Non Accredited Test	
Disposal of samples for job	1

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Approved Signatories:

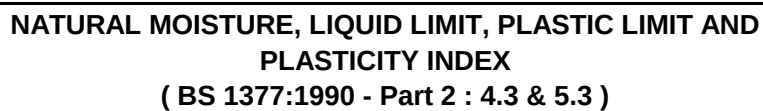
Emma Sharp (Business Support Manager) - Paul Evans (Director) - Richard John (Quality/Technical Manager)

Shaun Jones (Laboratory manager) - Shaun Thomas (Site Manager) - Wayne Honey (Quality Assistant / Administrator / Health and Safety Coordinator)

GEO Site & Testing Services Ltd

Unit 3-4, Heol Aur, Dafen Ind Estate, Dafen, Llanelli, Carmarthenshire SA14 8QN

Tel: 01554 784040 Fax: 01554 784041 info@gstl.co.uk gstl.co.uk

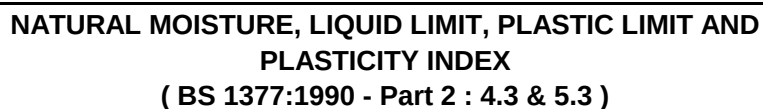


Contract Number	59174	
Site Name	Afan Valley Resort	
Date Tested	04/05/2022	
	DESCRIPTIONS	

[illegible]

Operators	Checked	11/05/2022	Richard John (Advanced Testing Manager)
Darcy Etheridge	Approved	11/05/2022	Paul Evans (Quality/Technical Manager)



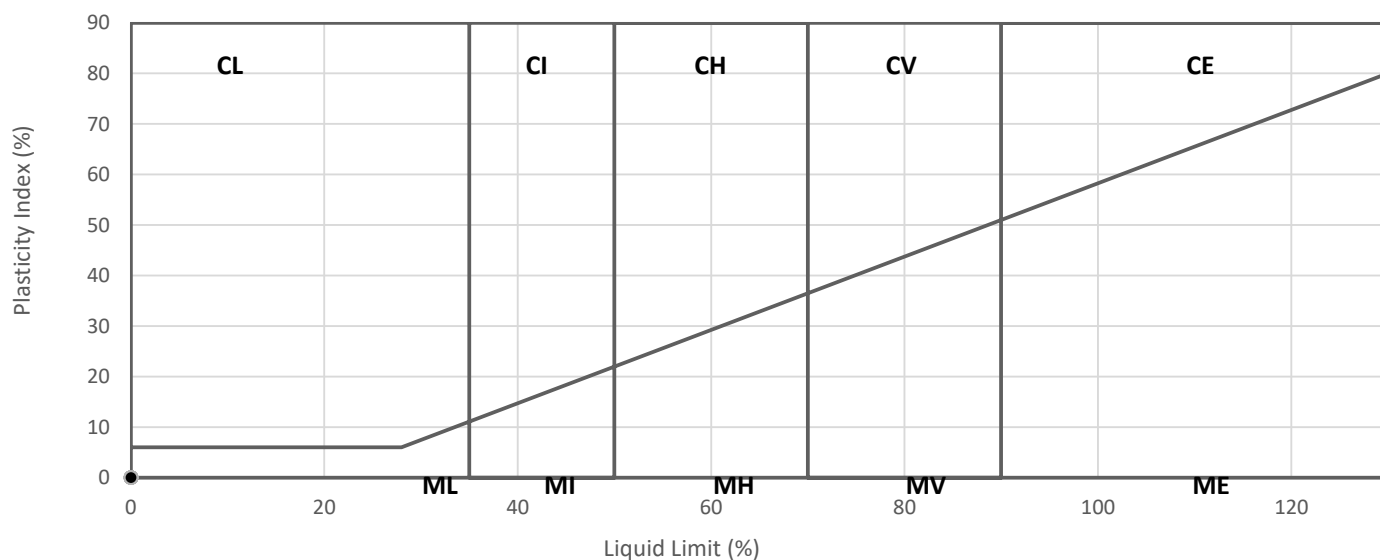


Contract Number	59174	
Project Location	Afan Valley Resort	
Date Tested	04/05/2022	

[illegible]

Symbols: NP : Non Plastic # : Liquid Limit and Plastic Limit Wet Sieved

PLASTICITY CHART FOR CASAGRANDE CLASSIFICATION BS 5930:1999+A2:2010



Operators	Checked	11/05/2022	Richard John (Advanced Testing Manager)
Darcy Etheridge	Approved	11/05/2022	Paul Evans (Quality/Technical Manager)



Contract Number	59174	
Site Name	Afan Valley Resort	
Date Tested	09/05/2022	

[illegible]

<u>Key</u>	<u>Reported As</u>
Moisture Content	%
Bulk Density	Mg/m ³
Dry Density	Mg/m ³
Particle Density	Mg/m ³
Air Voids	%

Operators	Checked	10/05/2022	Wayne Honey	<i>W. Honey</i>
CA/JS	Approved	11/05/2022	Paul Evans	<i>P. Evans</i>





ANALYTICAL TEST REPORT

Contract no: 108798

Contract name: Afan Valley Resort

Client reference: 8053

Clients name: Geo Site & Testing Services

Clients address: Unit 3 and 4 Heol Aur
Dafen Industrial Estate, Dafen
Llanelli, Carmarthenshire
SA14 8QN

Samples received: 03 May 2022

Analysis started: 03 May 2022

Analysis completed: 10 May 2022

Report issued: 10 May 2022

Key

U	UKAS accredited test
M	MCERTS & UKAS accredited test
\$	Test carried out by an approved subcontractor
I/S	Insufficient sample to carry out test
N/S	Sample not suitable for testing

Approved by:

Megan Harris

Senior Reporting Administrator

Chemtech Environmental Limited

SOILS

Lab number			108798-1	108798-2	108798-3	108798-4	108798-5	108798-6
Sample id			Y37	Y37	Y38	Y38	Y39	Y39
Depth (m)			0.80	1.00	0.20	0.50	0.50	1.10
Sample Type			B	B	B	B	B	B
Date sampled			-	-	-	-	-	-
Test	Method	Units						
pH	CE004 ^U	units	5.1	4.9	5.7	4.5	4.6	4.6
Total Organic Carbon (TOC)	CE197	% w/w C	49.3	40.2	45.0	44.4	58.9	42.8
Estimate of OMC (calculated from TOC)	CE197	% w/w	85.1	69.3	77.6	76.6	N/S	73.8
Loss On Ignition at 440°C	CE006 ^U	% w/w	74.9	66.7	83.6	75.4	82.5	69.7

Chemtech Environmental Limited

SOILS

Lab number			108798-7	108798-8	108798-9
Sample id			Y40	Y41	Y41
Depth (m)			0.90	0.30	0.50
Sample Type			B	B	B
Date sampled			-	-	-
Test	Method	Units			
pH	CE004 ^U	units	4.4	4.2	4.2
Total Organic Carbon (TOC)	CE197	% w/w C	33.7	53.7	54.6
Estimate of OMC (calculated from TOC)	CE197	% w/w	58.1	92.6	94.2
Loss On Ignition at 440°C	CE006 ^U	% w/w	55.1	81.9	85.6

Chemtech Environmental Limited

METHOD DETAILS

METHOD	SOILS	METHOD SUMMARY	SAMPLE	STATUS	LOD	UNITS
CE004	pH	Based on BS 1377, pH Meter	As received	U	-	units
CE197	Total Organic Carbon (TOC)	Carbon Analyser	Dry		0.1	% w/w C
CE197	Estimate of OMC (calculated from TOC)	Calculation from Total Organic Carbon	Dry		0.1	% w/w
CE006	Loss On Ignition at 440°C	Based on BS 1377, Gravimetry	Dry	U	0.1	% w/w

Chemtech Environmental Limited

DEVIATING SAMPLE INFORMATION

Comments

Sample deviation is determined in accordance with the UKAS note "Guidance on Deviating Samples" and based on reference standards and laboratory trials.

For samples identified as deviating, test result(s) may be compromised and may not be representative of the sample at the time of sampling.

Chemtech Environmental Ltd cannot be held responsible for the integrity of sample(s) received if Chemtech Environmental Ltd did not undertake the sampling. Such samples may be deviating.

Key

N	No (not deviating sample)
Y	Yes (deviating sample)
NSD	Sampling date not provided
NST	Sampling time not provided (waters only)
EHT	Sample exceeded holding time(s)
IC	Sample not received in appropriate containers
HP	Headspace present in sample container
NCF	Sample not chemically fixed (where appropriate)
OR	Other (specify)

Lab ref	Sample id	Depth (m)	Deviating	Tests (Reason for deviation)
108798-1	Y37	0.80	Y	All (NSD)
108798-2	Y37	1.00	Y	All (NSD)
108798-3	Y38	0.20	Y	All (NSD)
108798-4	Y38	0.50	Y	All (NSD)
108798-5	Y39	0.50	Y	All (NSD)
108798-6	Y39	1.10	Y	All (NSD)
108798-7	Y40	0.90	Y	All (NSD)
108798-8	Y41	0.30	Y	All (NSD)
108798-9	Y41	0.50	Y	All (NSD)

Chemtech Environmental Limited

ADDITIONAL INFORMATION

Notes

Opinions and interpretations expressed herein are outside the UKAS accreditation scope.

Unless otherwise stated, Chemtech Environmental Ltd was not responsible for sampling.

All testing carried out at Unit 6 Parkhead, Stanley, DH9 7YB, except for subcontracted testing.

Methods, procedures and performance data are available on request.

Results reported herein relate only to the material supplied to the laboratory.

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Samples will be disposed of 6 weeks from initial receipt unless otherwise instructed.

For soils and solids, all results are reported on a dry basis. Samples dried at no more than 30°C in a drying cabinet.

Analytical results are inclusive of stones, where applicable.