

B. Site Photographs, In-situ testing, Lab testing, Peat Coring

- B.1 Peat Core Logs
- B.2 Peat Core Photos
- B.3 Hand Shear Vane Results
- B.4 Laboratory Testing Results

Peat Core Descriptions - South Kyle 2 Windfarm



Location ID	Top depth	Bottom depth	Log	Sample	Notes
T3	0.00	0.30	Soft dark brown plastic fibrous PEAT (H6/B5)		
	0.30	0.50	Firm dark brown spongy fibrous PEAT (H6/B5)		
	0.50	0.90	Soft brown plastic pseudo-fibrous PEAT (H7/B6)	T3 (0.00m - 0.9m)	
T9	0.00	0.30	Soft dark brown spongy fibrous PEAT (H4/B3)		
	0.30	0.80	Firm brown plastic pseudo-fibrous PEAT (H7/B2)	PP-802 (0.00m - 0.8m)	
T1	0.00	0.40	Soft brown sponge fibrous PEAT (H6/B5)		
	0.40	0.65	Firm dark brown plastic pseudo-fibrous PEAT (H7/B4)	PP-72 (0.00m - 0.65m)	
T8	0.00	0.40	Soft dark brown plastic pseudo-fibrous PEAT (H6/B2)		
	0.40	1.10	Soft brown plastic pseudo-fibrous PEAT (H7/B6)	PP-692 (0.00m - 1.10m)	
T7	0.00	0.30	Soft brown plastic pseudo-fibrous PEAT (H5/B2)		
	0.30	0.80	Soft brown plastic pseudo-fibrous PEAT (H7/B6)		
	0.80	1.00	Very soft dark brown plastic amorphous PEAT (H9/B2)	PP-595 (0.00m - 1.00m)	
T6	0.00	0.20	Soft brown spongy fibrous PEAT (H3/B2)		
	0.20	0.50	Soft brown plastic pseudo-fibrous PEAT (H7/B3)		
T10	0.00	0.20	Soft brown spongy fibrous PEAT (H5/B5)		
	0.20	0.70	Firm brown plastic pseudo-fibrous PEAT (H7/B3)		
Track 1 (PP-1044)	0.00	0.10	Firm brown spongy fibrous PEAT (H2/B6)		
	0.10	0.80	Firm brown spongy fibrous PEAT (H5/B5)		
	0.80	1.20	Soft brown plastic pseudo-fibrous PEAT (H6/B4)		
	1.20	1.80	Soft black plastic pseudo-fibrous PEAT (H7/B3)		
Track 2 (PP-1064)	0.00	0.80	Soft brown spongy fibrous PEAT (H6/B5)		Highly disturbed
Track 3 (PP-1434)	0.00	0.80	Soft brown spongy fibrous PEAT (H4/B5)		

T01 (0-0.65mbgl)



T03 (0-0.90mbgl)



T06 (0-0.50mbgl)



T7 (0-1.00mbgl)



T8 (0-1.10mbgl)



T9 (0-0.80mbgl)



T10 (0-0.70mbgl)



Track 1 (0-1.00mbgl)



Track 1 (1.00 – 1.80mbgl)



Track 2 (0-0.80mbgl)



Track 3 (0-1.00mbgl)



Track 3 (1.00-1.80mbgl)



Track 4 (0-0.80mbgl)



Project Name: South Kyle 2 Windfarm
 Project ID : 14805UKC



HSV Results		Corrected Hand Shear Vane Results	
Location	Depth	Peak	Residual
T3	0.5	14	9
T3	1	11	8
T3	1.5	10	7
T3	2	16	11
T9	0.5	23	9
T1	0.5	10	7
T8	0.5	52	42
T8	1	65	34
T7	0.5	24	12
T7	1	25	10
T10	0.5	21	11
T6	0.5	16	14
Track 1	0.5	14	8
Track 1	1	17	6
Track 1	1.5	19	7
Track 2	0.5	12	4
Track 3	0.5	25	9
Track 3	1	20	10
Track 3	1.5	23	14
Track 4	0.5	14	6

LABORATORY TEST CERTIFICATE

10 Queenslie Point
Queenslie Industrial Estate
120 Stepps Road
Glasgow
G33 3NQ

Certificate No : 23/1293 - 01-1
To : Alasdair Ellis
Client : **The Natural Power Consultants**
The Green House
Forrest Estate
Dalry
Castle Douglas
DG7 3XS

Tel: 0141 774 4032

email: info@mattest.org
Website: www.mattest.org

LABORATORY TESTING OF SOIL

Introduction

We refer to samples taken from South Kyle 2 and delivered to our laboratory on 27th November 2023.

Material & Source

Sample Reference : See Report Plates
Sampled By : Client
Sampling Certificate : Not Supplied
Location : See Report Plates
Description : See Page 2
Date Sampled : Not Supplied
Date Tested : 27th November 2023 Onwards
Source : 14805UKC - South Kyle 2

Test Results

As Detailed On Page 2 to Page 4 inclusive

Comments

The results contained in this report relate to the sample(s) as received
Opinions and interpretations expressed herein are outside the scope of UKAS accreditation
This report should not be reproduced except in full without the written approval of the laboratory
All remaining samples for this project will be disposed of 28 days after issue of this test certificate

Remarks

Approved for Issue



T McLelland (Director)

Date 11/12/2023

BOREHOLE	SAMPLE	DEPTH (m)	SAMPLE DESCRIPTION
PP-72 (T01)	B	0.00-0.65	Black PEAT (Von Post Classification - H5)
PP-595 (T07)	B	0.00-1.00	Black PEAT (Von Post Classification - H6)
PP-692 (T08)	B	0.00-1.10	Brown PEAT (Von Post Classification - H7)
PP-802 (T09)	B	0.00-0.80	Brown PEAT (Von Post Classification - H7)
T03	B	0.00-0.90	Brown PEAT (Von Post Classification - H7)

SUMMARY OF SAMPLE DESCRIPTIONS

BOREHOLE	SAMPLE	DEPTH (m)	WATER CONTENT (%)
PP-72	B	0.00-0.65	537
PP-595	B	0.00-1.00	426
PP-692	B	0.00-1.10	906
PP-802	B	0.00-0.80	659
T03	B	0.00-0.90	726

Tested in accordance with BS 1377 - 2 : 2022 : Clause 4.1

SUMMARY OF WATER CONTENT TEST RESULTS

BOREHOLE	SAMPLE	DEPTH (m)	WATER CONTENT (%)	BULK DENSITY (Mg/m ³)	DRY DENSITY (Mg/m ³)
PP-72	B	0.00-0.65	537	0.99	0.16
PP-595	B	0.00-1.00	426	1.04	0.20
PP-692	B	0.00-1.10	906	0.97	0.10
PP-802	B	0.00-0.80	659	0.99	0.13
T03	B	0.00-0.90	726	0.98	0.12

Tested in accordance with BS 1377 - 2 : 2022 : Clause 8
Bulk Density : Linear Measurement

**SUMMARY OF WATER CONTENT
AND BULK DENSITY TEST RESULTS**



DETS

Certificate of Analysis

Certificate Number 23-28658

Issued: 13-Dec-23

Client MATTest Ltd.
10 Queenslie Point
120 Stepps Road
Glasgow
G33 3NQ

Our Reference 23-28658

Client Reference 23/1293

Order No MATSC5521

Contract Title South Kyle 2

Description 5 Soil samples.

Date Received 06-Dec-23

Date Started 06-Dec-23

Date Completed 13-Dec-23

Test Procedures Identified by prefix DETSn (details on request).

Notes Opinions and interpretations are outside the laboratory's scope of ISO 17025 accreditation. 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 By



Kirk Bridgewood
General Manager



2139



Summary of Chemical Analysis

Soil Samples

Our Ref 23-28658
 Client Ref 23/1293
 Contract Title South Kyle 2

Lab No	2272524	2272525	2272526	2272527	2272528
Sample ID	T07	T01	T08	T09	T03
Depth	0.00-1.00	0.00-0.65	0.00-1.10	0.00-0.80	0.00-0.90
Other ID					
Sample Type	SOIL	SOIL	SOIL	SOIL	SOIL
Sampling Date	13/11/2023	08/11/2023	08/11/2023	08/11/2023	30/10/2023
Sampling Time	n/s	n/s	n/s	n/s	n/s

Test	Method	LOD	Units					
Inorganics								
Carbon, Total	DETSC 2084*	0.5	%	38	33	35	43	37
Total Organic Carbon	DETSC 2084#	0.5	%	37	32	35	43	39

Information in Support of the Analytical Results

Our Ref 23-28658
 Client Ref 23/1293
 Contract South Kyle 2

Containers Received & Deviating Samples

Lab No	Sample ID	Date		Holding time exceeded for tests	Inappropriate container for tests
		Sampled	Containers Received		
2272524	PP-595 0.00-1.00 SOIL	13/11/23	PT 1L	Carbon, Total (14 days)	
2272525	PP-72 0.00-0.65 SOIL	08/11/23	PT 1L	Carbon, Total (14 days)	
2272526	PP-692 0.00-1.10 SOIL	08/11/23	PT 1L	Carbon, Total (14 days)	
2272527	PP-802 0.00-0.80 SOIL	08/11/23	PT 1L	Carbon, Total (14 days)	
2272528	T03 0.00-0.90 SOIL	30/10/23	PT 1L	Carbon, Total (14 days), Organic Matter (Auto) (28 days)	

Key: P-Plastic T-Tub

DETS cannot be held responsible for the integrity of samples received whereby the laboratory did not undertake the sampling. In this instance samples received may be deviating. Deviating Sample criteria are based on British and International standards and laboratory trials in conjunction with the UKAS note 'Guidance on Deviating Samples'. All samples received are listed above. However, those samples that have additional comments in relation to hold time, inappropriate containers etc are deviating due to the reasons stated. This means that the analysis is accredited where applicable, but results may be compromised due to sample deviations. If no sampled date (soils) or date+time (waters) has been supplied then samples are deviating. However, if you are able to supply a sampled date (and time for waters) this will prevent samples being reported as deviating where specific hold times are not exceeded and where the container supplied is suitable.

Soil Analysis Notes

Inorganic soil analysis was carried out on a dried sample, crushed to pass a 425µm sieve, in accordance with BS1377.

Organic soil analysis was carried out on an 'as received' sample. Organics results are corrected for moisture and expressed on a dry weight basis.

The Loss on Drying, used to express organics analysis on an air dried basis, is carried out at a temperature of 28°C +/-2°C.

Disposal

From the issue date of this test certificate, samples will be held for the following times prior to disposal :-

Soils - 1 month, Liquids - 2 weeks, Asbestos (test portion) - 6 months

End of Report



Creating a better environment



[naturalpower.com](https://www.naturalpower.com)
sayhello@naturalpower.com



For full details on our ISO and other certifications, please visit our website.

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