

GALETECH
ENERGY SERVICES

Islandmore Wind Farm

Environmental Impact Assessment Report

Annex 6.1: Geotechnical & Peat Stability Report

Islandmore Wind Farm Limited

FEHILY TIMONEY

DESIGNING AND DELIVERING
A SUSTAINABLE FUTURE

ISLANDMORE WIND FARM

GEOTECHNICAL AND PEAT STABILITY REPORT

Prepared for: **Galetech Energy Services Ltd**

GALETECH ENERGY SERVICES

Date: **August 2026**

Document No:
P23215-FT-EGT-XX-RP-GE-0001

Unit 6, Bagenalstown Industrial Park, Bagenalstown,
Co. Carlow, R21 XW81, Ireland
T: +353 59 9723800 E: info@ftco.ie

CORK | DUBLIN | CARLOW

www.fehilytimoney.ie

GEOTECHNICAL & PEAT STABILITY ASSESSMENT REPORT
ISLANDMORE WIND FARM

User is responsible for Checking the Revision Status of this Document

Rev. No.	Description of Changes	Prepared by:	Checked by:	Approved by:	Date:
0	Draft for Comment	IH	ATC	TC	01.05.2026
1	Reissue following layout changes	IH	ATC	TC	22.07.2026
2	Final	IH	ATC	TC	21.08.2026

Client: Galetech Energy Services Ltd

Keywords: Geotechnical, Peat Stability, Peat Failure, Risk Assessment

Abstract: Fehily Timoney and Company (FT) were engaged by Galetech Energy Services (GES) to undertake a geotechnical assessment of the proposed Islandmore wind farm site with respect to peat stability. As part of the geotechnical assessment of the proposed project, FT completed a walkover survey at the Site as well as a ground investigation comprising boreholes and trial pits. The findings of the geotechnical and peat stability assessment showed that the Site has an acceptable margin of safety and is suitable for the proposed project.

TABLE OF CONTENTS

1. NON-TECHNICAL SUMMARY 1

2. INTRODUCTION 3

2.1 Fehily Timoney and Company 3
2.2 Project Description 3
2.3 Peat Stability Assessment Methodology 4
2.4 Peat Failure Definition 6
2.5 Main Approaches to Assessing Peat Stability 6
2.6 Peat Stability Assessment – Deterministic Approach 7
2.7 Applicability of the Factor of Safety (Deterministic) Approach for Peat Slopes 7
2.8 Assessment of Intense Rainfall and Extreme Dry Events on the Peat Slope 8

3. DESK STUDY 9

3.1 Desk Study 9
3.2 Soils, Subsoil & Bedrock 9
3.3 Previous Failures 9

4. FINDINGS OF SITE RECONNAISSANCE 10

4.1 Site Reconnaissance 10
4.2 Findings of Site Reconnaissance 10

5. GROUND INVESTIGATION 12

5.1 Summary of Ground Conditions 12
5.2 Summary of Laboratory Tests 12
5.3 Summary of Geotechnical Parameters 13

6. PEAT DEPTHS, STRENGTH & SLOPE AT PROPOSED INFRASTRUCTURE LOCATIONS 14

6.1 Peat Depth 14
6.2 Peat Strength 14
6.3 Slope Angle 14
6.4 Summary of Findings 14

7. PEAT STABILITY ASSESSMENTS 17

7.1 Methodology for Peat Stability Assessment 17

7.2 Analysis to Determine Factor of Safety (Deterministic Approach) 19
7.3 Results of Analysis 21
7.3.1 Undrained Analysis for the Peat 21
7.3.2 Drained Analysis for the Peat 22
8. PEAT STABILITY RISK ASSESSMENT 25
8.1 Summary of Risk Assessment Results 25
9. INDICATIVE FOUNDATION TYPE AND FOUNDATION DEPTH FOR TURBINES 27
9.1 Summary 27
10. FOUNDING DETAILS FOR OTHER INFRASTRUCTURE ELEMENTS 29
10.1 Access Tracks 29
10.2 Crane Hardstands 29
10.3 Substation Foundations & Platforms 29
10.4 Construction Compound Platform 30
11. SUMMARY AND RECOMMENDATIONS 31
11.1 Summary 31
11.2 Recommendations 32
12. REFERENCES 33

DRAWINGS

P23-215-0600-0001: Peat Depth
P23-215-0600-0002: Construction Buffer Zone Plan
P23-215-0600-0003: Ground Investigation Location Plan
P23-215-0600-0004: Factor of Safety Plan – Short Term Critical Condition (Undrained)

LIST OF APPENDICES

Appendix A: Photos from Site Walkover
Appendix B: Peat Stability Risk Register
Appendix C: Calculated FoS for Peat Slopes on Site
Appendix D: Methodology for Peat Stability Risk Assessment
Appendix E: Ground Investigation (April 2025) - IDL Factual Report

LIST OF FIGURES

Figure 2.1: Methodology for Peat Stability Assessment 5
Figure 2.2: Peat Slope Showing Balance of Forces to Maintain Stability 7
Figure 6.1: Undrained Shear Strength (c_u) Profile for Peat with Depth 16

LIST OF TABLES

Table 5.1: Laboratory Testing 13
Table 5-2: Summary of Geotechnical Parameters 13
Table 6.1: Peat Depth & Slope Angle at Proposed Infrastructure Locations 15
Table 7.1: List of Effective Cohesion and Friction Angle Values for Peat 18
Table 7.2: Factor of Safety Limits for Slopes 19
Table 7.3: Factor of Safety Results (Undrained Condition) 21
Table 7.4: Factor of Safety Results Access Tracks (Undrained Condition) 22
Table 7.5: Factor of Safety Results Peat Storage Areas (Undrained Condition) 22
Table 7.6: Factor of Safety Results (Drained Conditions) 23
Table 7.7: Factor of Safety Results Access Tracks (Drained Condition) 23
Table 7.8: Factor of Safety Results Peat Storage Areas (Drained Condition) 24
Table 8.1: Risk Rating Legend 25
Table 8.2: Summary of Peat Stability Risk Register 26
Table 9-1: Summary of Indicative Turbine Foundation Type and Founding Depths 27

1. NON-TECHNICAL SUMMARY

Fehily Timoney and Company (FT) were engaged by Galetech Energy Services (GES) to undertake a geotechnical and peat stability assessment of the proposed Islandmore wind farm site. In accordance with planning guidelines compiled by the Department of the Housing, Planning and Local Government (Draft Revised Wind Energy Development Guidelines, DoHPLG, 2019), where peat >0.5m in thickness is present on a proposed wind farm development, a peat stability assessment is required.

A walkover including intrusive peat depth probing, desk study, stability analysis and risk assessment was carried out to assess the susceptibility of the Site to peat failure following the principles in Peat Landslide Hazard and Risk Assessments: Best Practice Guide for Proposed Electricity Generation Developments (PLHRAG, Scottish Government, 2017).

The findings, which involved a stability analysis of 163 locations, show that the Site has an acceptable margin of safety and is suitable for the proposed project. The findings include recommendations and control measures for construction work in peat lands to ensure that all works adhere to an acceptable standard of safety.

The proposed project comprises 10 no. wind turbines and associated infrastructure.

The Site is relatively flat-lying with drainage channels running typically east-west where present. The land uses and types within the Site are a mixture of bare cutover and cutaway peat, re-vegetation of bare peat, forestry, and agricultural fields. The wider landscape comprises a mosaic of peat bogs, commercial forestry and agricultural scrub; with pockets of improved agricultural pasture generally limited to areas to the southwest of Ballaghaderreen and west and northwest of the town of Frenchpark.

A walkover including intrusive peat depth probing, a ground investigation comprising trial pits, desk study, stability analysis and risk assessment was carried out to assess the susceptibility of the Site to peat failure following the principles in Peat Landslide Hazard and Risk Assessments: Best Practice Guide for Proposed Electricity Generation Developments (PLHRAG, 2nd Edition, 2017).

Peat depth recorded during the site walkovers and from the ground investigation ranged from 0.0 to +7.2m with an average peat depth of 1.8m. 40% of the probes recorded peat depths of less than 1.0m, with 60% of peat depth probes recorded peat depths of less than 2.0m and 73% of peat depth probes recorded peat depths of less than 3.0m. A number of localised readings recorded peat depths from 3.5 to 7.2m.

Slope inclinations at the main infrastructure locations range from 0 to 6 degrees. The flat topography/nature of the terrain on the Site reflects the low risk of peat failure. Ground conditions comprised mainly of peat overlying lacustrine clay overlying fluvioglacial sands and gravel.

The purpose of the stability analysis was to determine the stability i.e. Factor of Safety (FoS), of the peat slopes. The FoS provides a direct measure of the degree of stability of a peat slope. A FoS of less than 1.0 indicates that a slope is unstable; a FoS of greater than 1.0 indicates a stable slope. An acceptable FoS for slopes is generally taken as a minimum of 1.3. The stability analysis for this project, which analysed the turbine locations, access tracks and substation, resulted in FoS above the minimum acceptable value of 1.3 and hence the Site has a satisfactory margin of safety.

The risk assessment uses the results of the stability analysis in combination with qualitative factors, which cannot be reasonably included in a stability calculation but nevertheless may affect the occurrence of peat instability, to assess the risk of peat failure at the Site. The results of the risk assessment are given in Appendix

B. A construction buffer zone plan based on qualitative factors identified during the site walkover is included as Drawing P23-215-0600-0002.

The findings of the peat assessment (which combines the FoS and the risk assessment), which involved analysis of 163 no. locations, showed that the proposed development areas have an acceptable margin of safety and that the Site is suitable for the proposed project. Notwithstanding the above, the management of peat stability and appropriate construction practices will be inherent in the construction phase of the wind farm to ensure peat failures do not occur on the Site.

In summary, the Site has an acceptable margin of safety and is considered to be at **low** risk of peat failure providing appropriate mitigation measures and construction controls are implemented and is suitable for wind farm development.

2. INTRODUCTION

2.1 Fehily Timoney and Company

Fehily Timoney and Company (FT) is an Irish engineering, environmental science and planning consultancy with offices in Cork, Dublin and Carlow. The practice was established in 1990 and currently has c.110 members of staff, including engineers, scientists, planners and technical support staff. FT deliver projects in Ireland and internationally in our core competency areas of Waste Management, Environment and Energy, Civils Infrastructure, Planning and GIS and Data Management.

FT have been involved in over 100 wind farm developments in both Ireland and the UK at various stages of development i.e. preliminary feasibility, planning, design, construction, and operational stage and have established themselves as one of the leading engineering consultancies in peat stability assessment, geohazard mapping in peat land areas, investigation of peat failures and site assessment of peat.

This Report was written by Ian Higgins (FT Technical Director, PGeo, MSc in Geotechnical Engineering) Ian is a Technical Director with Fehily Timoney and has over 25 years' experience in geotechnical engineering.

2.2 Project Description

FT was engaged in September 2023 by Galetech Energy Services (GES) to undertake a Geotechnical & Peat Stability Assessment of the proposed Islandmore wind farm site (the 'Site').

The proposed Islandmore wind farm is located c. 2km north of Ballaghaderreen, Co. Roscommon c. 13km east of Charlestown (County Mayo) and c. 6km southwest of Gorteen (County Sligo). .

The Site comprises an area of approximately 1.82km^2. The surrounding landscape is predominately flat with land-use comprising forestry and cutaway peatland.

The Proposed Project will comprise the following:

(1) 10 no. wind turbines and all associated hard-standing areas

(2) 1 no. borrow pit

(3) 1 no. 110kV electrical substation

(4) 2 no. temporary construction compounds

(5) Provision of new site access tracks and associated drainage

(6) The storage, as required, of excavated material at dedicated spoil deposition areas

(7) All works associated with the connection of the proposed wind farm to the national electricity grid

(8) New access junctions, improvements, and temporary modifications to existing public road infrastructure to facilitate delivery of abnormal loads and construction access

(9) All associated site development works

2.3 Peat Stability Assessment Methodology

FT undertook this assessment following the principles in Peat Landslide Hazard and Risk Assessments: Best Practice Guide for Proposed Electricity Generation Developments (2nd edition, PLHRAG, 2017). The Peat Landslide Hazard and Risk Assessment Guide (PLHRAG) is used in this report as it provides best practice methods to identify, mitigate and manage peat slide hazards and associated risks in respect of consent applications for electricity generation projects.

The aforementioned best practice guide was produced following peat failures in the Shetland Islands, Scotland in September 2003 but more pertinently following the peat failure in October 2003, during the construction of a wind farm at Derrybrien, County Galway, Ireland.

This peat stability assessment has been undertaken taking into account peat failures that have occurred on peatland sites (such as recent failures at Shass Mountain 2020, Co. Leitrim and Meenbog 2020, Co. Donegal). The lessons learned from both peat slide events have been incorporated into the design of this project and the construction methodologies to be implemented. The Meenbog failure occurred during the construction of a section of floating track on sidelong ground in an area of weak peat. The slope angles on the Site are lower than those at Meenbog, and no significant areas of sidelong ground are present. It is important that the existing site drainage is maintained during construction to avoid a similar failure to that on Shass Mountain, which occurred following heavy rainfall, and this is referenced in the Risk Assessments.

A constraints study was initially undertaken by the Environmental, Hydrogeological and Ecological members of the design team to determine the developable area on the Site, prior to the site reconnaissance by engineering geologists/geotechnical engineers from FT. The extent of the peat stability analysis by FT has been undertaken in accordance with guidance within PLHRAG (2017) to investigate peat slopes that have the potential to impact on the proposed project, as applicable. Sufficient peat depth data has been recorded during the site walkovers to enable the characterisation of the peat depth across the Site, with additional detail at infrastructure locations. The peat stability assessment is undertaken within the proposed project to identify peat slope at risk from the proposed project, and to identify peat slopes that may pose a risk to the proposed project.

The geotechnical and peat stability assessment at the site included the following activities:

(1) Desk study.

(2) Site reconnaissance including shear strength and peat depth measurements undertaken following initial constraints study (by design team) to determine the proposed construction envelope within the Site, i.e., the area within the overall site where development is possible following multidisciplinary review and assessment of constraints (refer to Chapter 3 of the EIAR).

(3) Peat stability assessment of the peat slopes on the Site using a deterministic and qualitative approach.

(4) Peat contour depth plan – compiled based on the peat depth probes carried out across the Site by FT (2023, 2024 and 2025).

(5) Factor of safety plan – compiled for the short-term critical condition (undrained) for 163 no. FoS points analysed along the proposed infrastructure envelope on the Site.

(6) Construction buffer zone plan – identifies areas with an elevated or higher construction risk where mitigation/control measures will need to be implemented during construction to minimise the potential risks and ensure they are kept within an acceptable range.

(7) A peat stability risk register was compiled to assess the potential design/construction risks at the infrastructure locations and determine adequate mitigation/control measures for each location to minimise the potential risks and ensure they are kept within an acceptable range, where necessary.

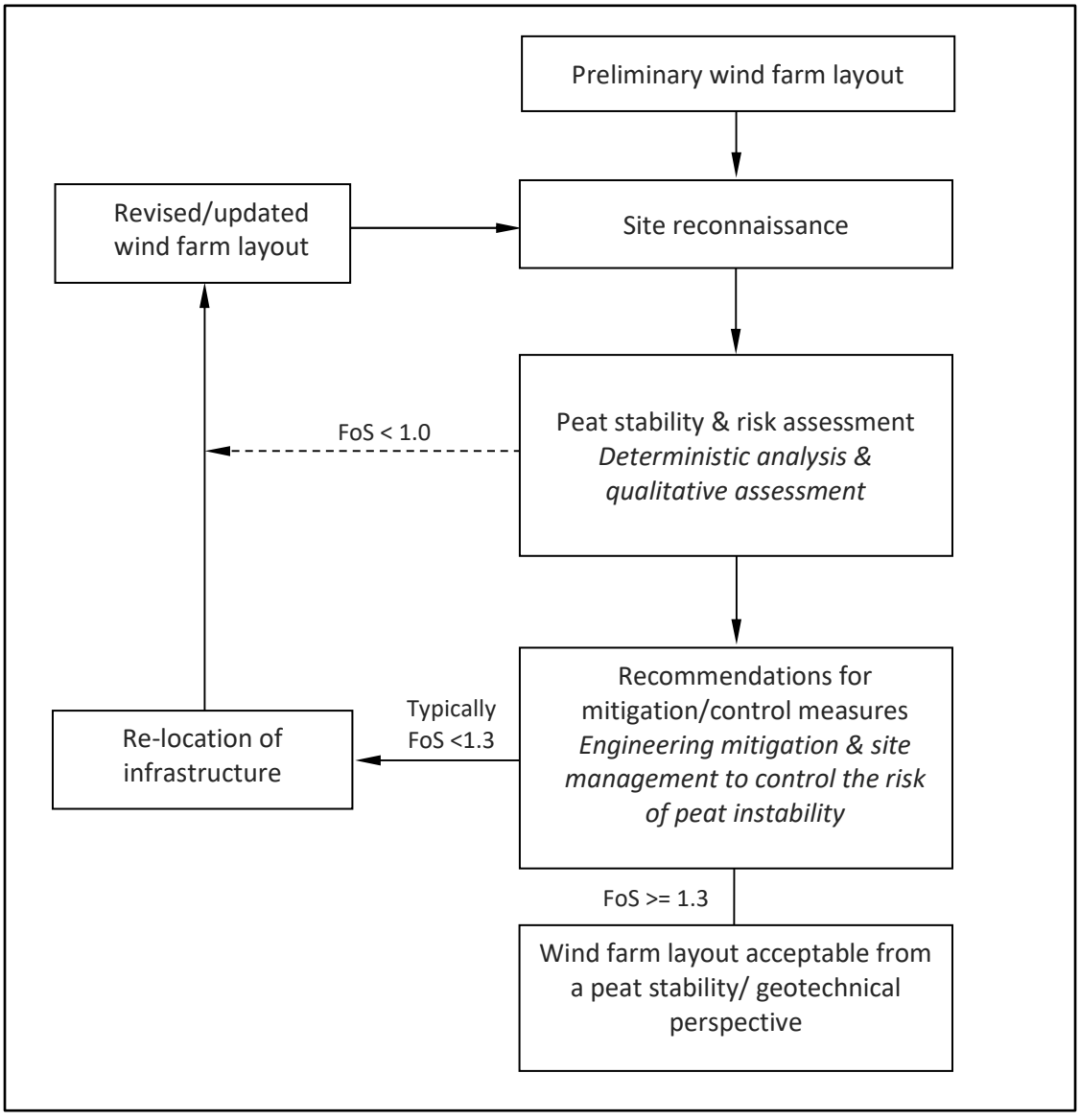
(8) Review of ground investigation carried out at the Site by Irish Drilling Ltd (IDL).

(9) Preliminary assessment of foundation type for turbines.

(10) Commentary of founding details for other infrastructure elements such as access tracks, crane hardstands, substation & construction compound platforms and met mast foundation.

A flow diagram showing the general methodology for the peat stability assessment is shown in Figure 2.1. The methodology illustrates the optimisation of the wind farm layout based on the findings from the site reconnaissance and stability analysis and subsequent feedback.

Figure 2.1: Methodology for Peat Stability Assessment



*An FoS of between 1.0 and 1.3 does not mean that a failure will occur, but that the area requires attention. Mitigation measures can be provided for areas with an FoS of between 1.0 and 1.3 to reduce the risk of failure.

As for all construction projects, a detailed engineering construction design must be carried out by the appointed construction stage designer prior to any construction work commencing on a site. This must take account of the consented project details and any conditions imposed by that consent. This must include a confirmatory

peat stability assessment to account for any changes in the environment which may have occurred in the time leading up to the commencement of construction, and a peat and spoil management plan to allow for the most appropriate geotechnical and environmental led solutions to be developed for the management of peat and spoil.

2.4 Peat Failure Definition

Peat failure in this report refers to a significant mass movement of a body of peat that would have an adverse impact on the proposed project or the surrounding environment. Peat failure excludes localised movement of peat that would occur below an access track, creep movement or erosion type events.

The potential for peat failure at the Site is examined with respect to wind farm construction and associated activity.

2.5 Main Approaches to Assessing Peat Stability

The main approaches for assessing peat stability for wind farm developments include the following:

(1) Geomorphological

(2) Qualitative (judgement)

(3) Index/Probabilistic (probability)

(4) Deterministic (factor of safety)

Approaches (1) to (3) listed above are considered subjective and do not provide a definitive indication of stability; in addition, a high level of judgement/experience is required which makes it difficult to relate the findings to real conditions. FT apply a more objective approach, the deterministic approach (as discussed in Section 2.6).

As part of FT's deterministic approach, a qualitative risk assessment is also carried out taking into account qualitative factors, which cannot necessarily be quantified, such as the presence of mechanically cut peat, quaking peat, bog pools, sub peat water flow, slope characteristics and numerous other factors. The qualitative factors used in the risk assessment are compiled based on FT's experience of assessments and construction in peat land sites and peat failures throughout Ireland and the UK. FT have been involved with in excess of 100 wind farm developments across Ireland and the UK at various stages of development, from preliminary feasibility stage through planning and from scheme development at tender design and detailed design stage, through to the construction and operational stages. This approach follows the guidelines for geotechnical risk management as given in Clayton (2001), as referenced in the best practice for Peat Landslide Hazard and Risk Assessment Guide (PLHRAG, 2017), and takes into account the approach of MacCulloch (2005).

The risk assessment uses the results of the deterministic approach in combination with qualitative factors, which cannot be reasonably included in a stability calculation but nevertheless may affect the occurrence of peat instability to assess the risk of instability on a peat land site.

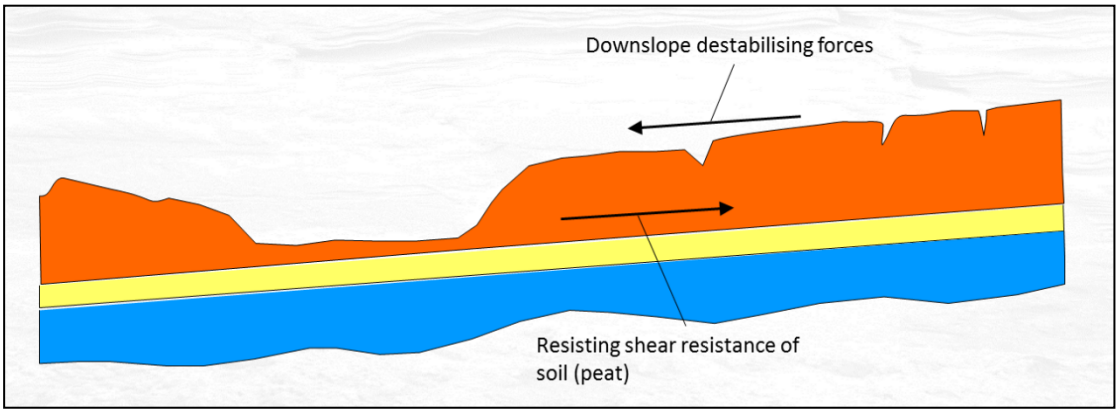
2.6 Peat Stability Assessment – Deterministic Approach

The peat stability assessment is carried out across a wide area of peatland to determine the stability of peat slopes and to identify areas of peatland that are suitable for development; this allows the layout of infrastructure on a particular wind farm site to be optimised. The assessment provides a numerical value (factor of safety) of the stability of individual parcels of peatland. The findings of the assessment discriminate between areas of stable and unstable peat, and areas of marginal stability where restrictions may apply. This allows for the identification of the most suitable locations for turbines, access tracks and infrastructure.

A deterministic assessment requires geotechnical information and site characteristics which are obtained from desk study and site walkover, e.g. properties of peat/soil/rock, slope geometry, depth of peat, underlying strata, groundwater, etc. An adverse combination of the factors listed above could potentially result in instability. Using the information above, a factor of safety is calculated for the stability of individual parcels of peatland on a site (as discussed in Section 7).

The factor of safety is a measure of the stability of a particular slope. For any slope, the degree of stability depends on the balance of forces between the weight of the soil/peat working downslope (destabilising force) and the inherent strength of the peat/soil (shear resistance) to resist the downslope weight, see Figure 2.2.

Figure 2.2: Peat Slope Showing Balance of Forces to Maintain Stability



The factor of safety provides a direct measure of the degree of stability of a slope and is the ratio of the shear resistance over the downslope destabilising force. Provided the available shear resistance is greater than the downslope destabilising force then the factor of safety will be greater than 1.0 and the slope will remain stable. If the factor of safety is less than 1.0 the slope is unstable and liable to fail. The acceptable range for factor of safety is typically from 1.3 to 1.4.

2.7 Applicability of the Factor of Safety (Deterministic) Approach for Peat Slopes

The factor of safety approach is a standard engineering approach in assessing slopes which is applied to many engineering materials, such as peat, soil, rock, etc.

The factor of safety approach is included in the Peat Landslide Hazard and Risk Assessments Best Practice Guide for Proposed Electricity Generation Developments (PLHRAG, 2017); see Section 5.3.1 of the guide. This guide provides best practice methods to identify, mitigate and manage peat slide hazards and associated risks in respect of consent applications for electricity generation projects.

Furthermore, the best practice guide notes that the results from the factor of safety approach 'has provided the most informative results' with respect to analysing peat stability (Section 5.3.1 of the guide).

The factor of safety approach in this report includes undrained (short-term stability) and drained (long-term stability) analyses. The undrained condition is the critical condition for the proposed project. The purpose of the drained analysis is to identify the relative susceptibility of rainfall-induced failures at the Site.

Notwithstanding the above, the stability analysis used by FT in this report also includes qualitative factors to determine the potential for peat stability i.e. the analysis used does not solely rely on the factor of safety approach.

The deterministic analysis is considered an acceptable engineering design approach. This concurs with the best practice guide referenced above.

2.8 Assessment of Intense Rainfall and Extreme Dry Events on the Peat Slope

The deterministic approach carried out by FT examines intense rainfall and extreme dry events. The deterministic approach includes and undrained (short-term stability) and drained (long-term stability) analysis to assess the factor of safety for the peat slopes against a peat failure.

The drained loading condition applies in the long-term. This condition examines the effect of the change in groundwater level as a result of rainfall on the existing stability of the natural peat slopes. For the drained analysis the level of the water table above the failure surface is required to calculate the factor of safety for the peat slope.

In order to represent varying water levels within the peat slopes, a sensitivity analysis is carried out which assesses varying water level in the peat slopes i.e. water levels ranging from 0 to 100% of the peat depth is conducted, where 0% equates to the peat being completely dry and 100% equates to the peat being fully saturated, which is typically the worst case.

By carrying out such a sensitivity analysis with varying water level in the peat slopes, the effects of intense rainfall and extreme dry events are considered and analysed. The results of which are presented in Section 7 of this report.

3. DESK STUDY

3.1 Desk Study

The main relevant sources of interest with respect to the Site include:

- Geological plans and Geological Survey of Ireland database
- Ordnance survey plans
- Literature review of peat failures

The Geological Survey of Ireland online dataset viewer (GSI, 2026) and geological plans (GSI, 2005) for the Site were used to verify the soil and bedrock conditions.

The Ordnance Survey plans were reviewed to determine if any notable features or areas of particular interest (from a geotechnical point of view) are present on the Site.

The desk study also includes a review of both published literature and GSI online dataset viewer (GSI, 2026) on peat failures/landslides in the vicinity of the Site.

3.2 Soils, Subsoil & Bedrock

A review of the Geological Survey of Ireland online database and published documents from GSI was carried out.

The GSI subsoils maps indicates that the Site is underlain by a combination of predominantly cut over raised peat with small pockets of till (sandy) derived from Lower Paleozoic and Devonian Sandstone.

In relation to bedrock, the Site and surrounding area is predominantly underlain by the Moygara Formation, a red conglomerate and pebbly sandstone. The southern portion of the Site is underlain by the Bockagh Member, an andesitic lava. Several faults are shown on the geological plans running in an NNW/SSE direction through the site.

No karst features were identified on the survey area. The nearest karst feature was recorded circa 4km to the northwest of the Site and is described as a spring.

No geological heritage sites are noted within 5km of the Site.

3.3 Previous Failures

There are no recorded peat failures within the Site (GSI, 2026). The nearest landslide is record 17km northeast of the Site. The landslide susceptibility of the Site was classified by the GSI (2026) as low to moderately low susceptibility, which is expected given the flat terrain present.

The presence, or otherwise, of relict peat failures or clustering of relict failures within an area is an indicator that particular site conditions exist that pre-dispose a site to failure or not as the case may be. Hence based on the historical data reviewed and the terrain and ground conditions present on the Site it can be concluded that conditions in the area of the Site have a limited potential of peat failure.

4. FINDINGS OF SITE RECONNAISSANCE

4.1 Site Reconnaissance

As part of the assessment of the potential for peat failure at the Site, FT carried out a site reconnaissance in conjunction with the desk study review described in Section 3. This comprised walkover inspections of the Site with recording of salient geomorphological features with respect to the proposed project which included peat depth and preliminary assessment of peat strength. General photographs of the Site are included at the end of the main text. The information gathered from these site visits provide sufficient information for a site-wide assessment of the extent, depth and strength of peat present at the proposed project.

The following salient geomorphological features were considered:

- Active, incipient or relict instability (where present) within the peat deposits
- Presence of shallow valley or drainage line
- Wet areas
- Any change in vegetation
- Peat depth
- Slope inclination and break in slope

The method adopted for carrying out the site reconnaissance relied on experienced practitioners carrying out a visual assessment of the Site supplemented with measurement of slope inclinations.

4.2 Findings of Site Reconnaissance

The site reconnaissance comprised a walkover inspection of the Site undertaken in August 2024, March 2025 and January 2026. Weather conditions for the site visit ranged from dry to wet.

The main findings of the site walkover of the Site are as follows:

(1) The Site is typically covered in a layer of peat and relatively flat. Peat depths vary across the Site depending on mainly topography. Generally deeper peat was encountered in the flatter areas of the Site with thinner peat on the few areas of higher ground. Bare cutover and cutaway peat, re-vegetation of bare peat, forestry and agricultural fields are present across the Site (see Appendix A).

(2) A total of 205 no. peat depth probes were carried out on the Site. Peat depth recorded during the site walkovers and from the ground investigation ranged from 0.0 to >7.2m with an average peat depth of 1.8m (Drawing P23-215-600-0001). 73% of peat depth probes recorded peat depths of less than 3.0m. A number of localised readings recorded peat depths from 3.5 to 7.2m.

(3) The peat depths recorded at the turbine locations varied from 1.1 to >7.2m with an average depth of 3.8m.

(4) With respect to the new proposed access tracks, peat depths are typically less than 2.5m with localised depths of up to 5.0m recorded.

(5) The access tracks for the Proposed Project comprise of the upgrade of existing public roads and the construction of new access tracks. The construction of new proposed access tracks will be carried out

using either a floating or an excavate & replace construction technique which involves the removal and replacement of peat or soft ground where encountered.

(6) Slope angles at the turbine locations ranged from 1 to 8 degrees. These slope angle readings were obtained using a combination of readings taken during the site reconnaissance by FT using handheld equipment, such as the Silva Clino Master which has an accuracy of +/- 0.25 degrees and from contour survey plans for the Site.

(7) The slope angle quoted typically reflects the slope within the footprint of each infrastructure location. The flat topography/nature of the terrain on the Site highlights the low risk of peat failure.

(8) Localised areas of ponded water were recorded. This is not unexpected given the ground conditions and the flat terrain present across the Site.

(9) No evidence of past failures or any significant signs of peat instability were noted on the Site.

(10) A summary of the site walkover findings for the Site are as follows:

(a) The Site is typically covered in a layer of peat with typically flat terrain and open peatland. Peat depths recorded across the site ranged from 0.0 to >7.2m with an average depth of 1.8m.

(b) A construction buffer zone plan has been produced for the Site (Drawing P23-215-0600-0002). This shows areas on the Site where no development is advised and areas with an elevated or higher construction risk. The above identified buffer areas are based on qualitative factors identified during the walkover survey e.g. relatively deep peat, quaking peat, mechanically cut peat, recent peat landslide, etc.

(c) The results of the peat depth probing, shear strength testing of the peat and qualitative factors identified on the Site have been used in the stability and risk assessments, see Sections 6, 7 and 8 of this report for details.

(d) Based on the findings from the walkover survey, the Proposed Project is considered to have a **low** risk of peat failure.

5. GROUND INVESTIGATION

Ground investigations in the form of trial pits were carried out at the Site by Irish Drilling Ltd. (IDL) in March 2025. The ground investigations by IDL comprised a total of 13 no. trial pits and 2 no. rotary cores with associated laboratory testing.

The laboratory testing included the following:

- Moisture Content
- Atterberg Limits
- Particle Size Distribution – Wet Sieving and Hydrometer

The trial pits logs, photographs and associated laboratory testing are included within Appendix E of this report.

The purpose of the ground investigation was to assess the ground conditions at the main infrastructure locations and potential borrow pit locations across the Site. A ground investigation location plan is included as Drawing P23-215-0600-0003 in this report.

5.1 Summary of Ground Conditions

The ground conditions at the Site can be typically categorised into the following deposits:

Peat – Typically described as soft black amorphous to fibrous Peat. Peat thicknesses ranged from 0.3m to >4.0m from trial pits.

Alluvium – grey, soft to firm slightly sandy slightly gravelly SILT with rare cobbles. Recorded below the peat layer in TP03 (base of layer not proven). Recorded below the peat in TPT08 between 1.5 and 2.1m bgl.

Granular Glacial Till – Typically described as grey slightly sandy fine to GRAVEL with frequent cobbles, or as very silty very gravelly medium to coarse SAND with occasional cobbles. The thickness of the layer is variable across the Site.

Cohesive Glacial Till – described as a stiff light grey CLAY in RC02, the only location this material was recorded.

Groundwater was recorded in nine of the thirteen trial pits on the Site and varied between 1.3 and 3.6m bgl.

5.2 Summary of Laboratory Tests

Following completion of intrusive site investigations by IDL laboratory testing was scheduled by FT and undertaken by IDL. Soil testing was carried out in accordance with BS1377 (1990) - *Methods of Test for Soils for Civil Engineering Purposes* in IDL's Materials Laboratory, accredited in accordance with the Irish National Accreditation Board (INAB).

The samples of the overburden material were analysed for a range of parameters which included Particle Size Distribution (PSD), Moisture Content and Atterberg Limits.

The results are summarised in Table 5.1. Atterberg limit tests carried out on the samples classify the material as Clay of low to high plasticity, or non-plastic (Silt). No elevated sulphate levels were detected in the samples tested. Samples of the cohesive materials were low plasticity or non-plastic.

Table 5.1: Laboratory Testing

Type	N	Min	Max	Remarks
Natural Moisture Content (%)	8	15	25	Typical % lower from gravel dominated soil and higher for silt dominated soil.
Atterberg Limits	1			Single result of 11, low plasticity
Particle Size Distribution	7	-	-	% passing 63 µm ranged from 8 to 59%

5.3 Summary of Geotechnical Parameters

Table 5-2 contains characteristic geotechnical parameters for the main material types likely to be encountered on the Site. Where direct measurement of parameters has not been carried out, established correlations with measured properties have been used to derive values. Characteristic values are defined as a cautious estimate of the value affecting the occurrence of limit state based on clause 2.4.5.2 from Eurocode 7.

Table 5-2: Summary of Geotechnical Parameters

Material Type/Strata	Unit Weight	Geotechnical Parameters		
		Undrained Parameters	Drained Parameters	
	γ (kN/m^3)	c_u (kPa)	ϕ' (°)	c' (kPa)
Peat	11	6 (3)	25	4
Alluvium	18	20	26	0
Granular Glacial Till	20	-	32	0

Notes
Note (1) The above parameters are indicative only and have been derived based on experience and from a review of the ground investigation carried out at the Site.
Note (2) Where direct measurement of parameters has not been carried out, established correlations with measured properties have been used to derive values.
Note (3) A lower bound undrained shear strength, c_u for the peat of 6kPa was selected. The lowest recorded value on the Site was 5kPa hence a value of 6kPa is a conservative value.

6. PEAT DEPTHS, STRENGTH & SLOPE AT PROPOSED INFRASTRUCTURE LOCATIONS

As part of the site walkover, peat depth, in-situ peat strength and slope angles were recorded at various locations across the Site.

6.1 Peat Depth

Peat depth probes were carried out at/near to proposed turbine locations and access tracks and other main infrastructure elements. At turbine locations 5 probes were carried out around the turbine location, and an average peat depth was calculated.

6.2 Peat Strength

The strength testing was carried out in-situ using a Geonor H-60 Hand-Field Vane Tester. From FT's experience hand vanes give indicative results for in-situ strength of peat and would be considered best practice for the field assessment of peat strength. Strength testing was carried out at selected locations across the Site to provide representative coverage of indicative peat strengths. The results of the vane testing with depth are presented in Figure 6.1.

6.3 Slope Angle

The slope angles at each of the main infrastructure locations were obtained using a combination of readings taken during the site reconnaissance by FT using handheld equipment, such as the Silva Clino Master and from contour survey plans for the Site.

The slope angle quoted typically reflects the slope within the footprint of each infrastructure location. It should be noted that slope angles derived from contour survey plans would be considered approximate, as such surveys are dependent on the density of survey data and do not always reflect local variations in ground topography. Slope angles recorded during the site reconnaissance by FT using handheld equipment would generally be deemed more accurate and representative of local topography.

6.4 Summary of Findings

Based on the peat depths recorded across the Site by FT and the trial pits excavated by IDL, the peat varied in depth from 0.0 to >7.2m with an average depth of 1.8m. All peat depth probes carried out on the Site have been utilised to produce a peat depth contour plan for the Site (Drawing P23-215-0600-0001).

A summary of the peat depths at the proposed infrastructure locations is given in Table 6.1. The data presented in Table 6.1 is used in the peat stability assessment of the Site.

Table 6.1: Peat Depth & Slope Angle at Proposed Infrastructure Locations

Turbine	Easting	Northing	Peat Depth Range (m) (1)	Average Peat Depth (m)	Slope Angle (°) (2)
T01	561862	800538	3.0-4.5	4.0	3
T02	562401	800480	2.0-3.0	2.8	4
T03	562695	800222	2.0-2.8	2.45	3
T04	562316	799576	2.3-5.0	3.7	3
T05	561920	799411	0.3-1.1	0.6	3
T06	561124	799382	4.0-5.0	4.7	3
T07	562209	798866	1.5-3.0	2.2	5
T08	562021	798429	2.5-2.9	2.65	0.5
T09	562413	798339	>7.2	>7.2	1
T10	561925	797528	3.0-3.8	3.2	1
Substation	561180	799024	0.0-1.7	1.1	2
Construction Compound (T10)	561816	797365	0.0-0.5	0.25	1
Construction Compound (T08)	562314	798532	1.5-2.8	2.25	1

Note (1) Based on probe results from the site walkovers. The range of peat depths for the infrastructure locations are typically based on a 10m grid carried out around the infrastructure element, where accessible.

Note (2) The slope angles at each of the main infrastructure locations were obtained using a combination of readings taken during the site reconnaissance by FT using handheld equipment, such as the Silva Clino Master (which has an accuracy of +/- 0.25 degrees) and from contour survey plans for the Site. The slope angle quoted typically reflects the slope within the footprint of each infrastructure location.

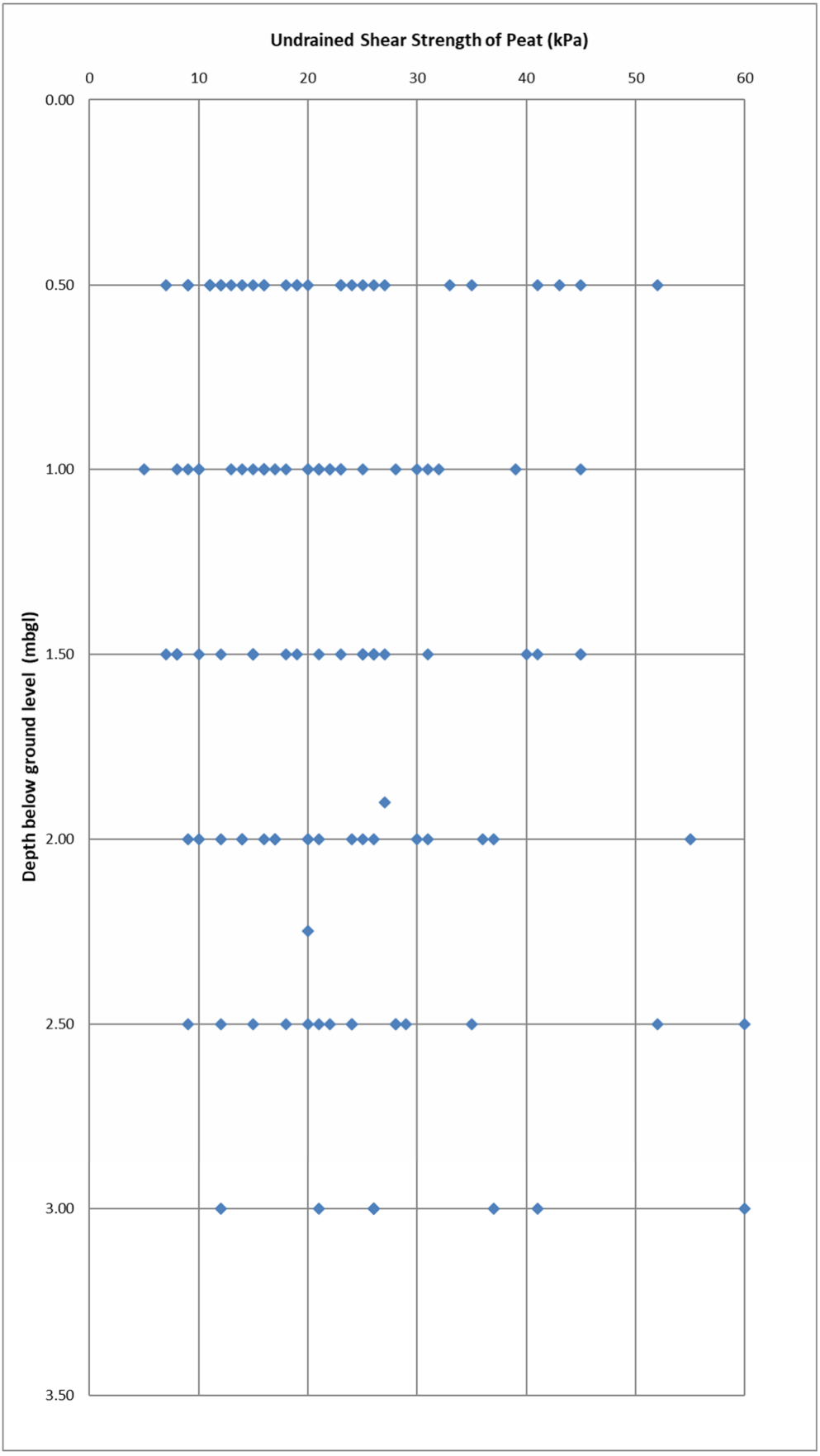
Note (3) The data presented in the Table above is used in the peat stability assessment of the Site.

In addition to probing, in-situ shear vane testing was carried out as part of the ground investigation. Strength testing was carried out at selected locations across the Site to provide representative coverage of indicative peat strengths. The results of the vane testing with depth are presented in Figure 6.1.

The hand vane results indicate undrained shear strengths in the range 5 to 60kPa, with an average value of about 20kPa. The strengths recorded would be typical of well drained peat as is present on the Site. The lowest value was recorded to the west of T08, in an area where peat storage is proposed.

Peat strength at sites of known peat failures (assuming undrained loading failure) are generally very low, for example the undrained shear strength at the Derrybrien failure (AGEC, 2004) as derived from back-analysis, was estimated at 2.5kPa. The recorded undrained strength at the Site is greater than the lower bound values for Derrybrien indicating that there is no close correlation to the peat conditions at the Derrybrien site and that there is significantly less likelihood of failure on the Site.

Figure 6.1: Undrained Shear Strength (c_u) Profile for Peat with Depth



7. PEAT STABILITY ASSESSMENTS

The peat stability assessment includes an assessment of the stability of the natural peat slopes for individual parcels across the Site including at the turbine locations and along the proposed access tracks. The assessment also analyses the stability of the natural peat slopes with a surcharge loading of 10kPa, equivalent to placing 1m of stockpiled peat on the surface of the peat slope, or a 0.5m thick layer of granular fill for an access track.

7.1 Methodology for Peat Stability Assessment

Stability of a peat slope is dependent on several factors working in combination. The main factors that influence peat stability are slope angle, shear strength of peat, depth of peat, pore water pressure and loading conditions.

An adverse combination of factors could potentially result in peat sliding. An adverse condition of one of the above-mentioned factors alone is unlikely to result in peat failure. The infinite slope model (Skempton and DeLory, 1957) is used to combine these factors to determine a factor of safety for peat sliding. This model is based on a translational slide, which is a reasonable representation of the dominant mode of movement for peat failures.

To assess the factor of safety for a peat slide, an undrained (short-term stability) and drained (long-term stability) analysis has been undertaken to determine the stability of the peat slopes on the Site.

1. The undrained loading condition applies in the short-term during construction and until construction induced pore water pressures dissipate.

2. The drained loading condition applies in the long-term. The condition examines the effect of the change in groundwater level as a result of rainfall on the existing stability of the natural peat slopes.

Undrained shear strength values (c_u) for peat are used for the total stress analysis. Based on the findings of the 2003 Derrybrien failure and other failures in peat, undrained loading during construction was found to be the critical failure mechanism.

A drained analysis requires effective cohesion (c') and effective friction angle (ø') values for the calculations. These values can be difficult to obtain because of disturbance experienced when sampling peat and the difficulties in interpreting test results due to the excessive strain induced within the peat. To determine suitable drained strength values a review of published information on peat was carried out. Table 7.1 shows a summary of the published information on peat together with drained strength values.

From Table 7.1 the values for c' ranged from 1.1 to 8.74kPa and ø' ranged from 21.6 to 43°. The average c' and ø' values are 4.5kPa and 30° respectively. Based on the above, it was considered to adopt a conservative approach and to use design values below the averages. For design the following general drained strength values have been used for the Site:

c' = 4kPa
$ø'$ = 25°

Table 7.1: List of Effective Cohesion and Friction Angle Values for Peat

Reference	Cohesion, c' (kPa)	Friction Angle, ø' (degs)	Testing Apparatus/ Comments
Hanrahan et al (1967)	5 to 7	36 to 43	From triaxial apparatus
Rowe and Mylleville (1996)	2.5	28	From simple shear apparatus
Landva (1980)	2 to 4	27.1 to 32.5	Mainly ring shear apparatus for normal stress greater than 13kPa
	5 to 6	-	At zero normal stress
Carling (1986)	6.5	0	-
Farrell and Hebib (1998)	0	38	From ring shear and shear box apparatus. Results are not considered representative.
	0.61	31	From direct simple shear (DSS) apparatus. Result considered too low therefore DSS not considered appropriate
Rowe, Maclean and Soderman (1984)	1.1	26	From simple shear apparatus
	3	27	From DSS apparatus
McGreever and Farrell (1988)	6	38	From triaxial apparatus using soil with 20% organic content
	6	31	From shear box apparatus using soil with 20% organic content
Hungr and Evans (1985)	3.3	-	Back-analysed from failure
Dykes and Kirk (2006)	3.2	30.4	Test within acrotelm
Dykes and Kirk (2006)	4	28.8	Test within catotelm
Warburton et al (2003)	5	23.9	Test in basal peat
Warburton et al (2003)	8.74	21.6	Test using fibrous peat
Hendry et al (2012)	0	31	Remoulded test specimen
Komatsu et al (2011)	8	34	Remoulded test specimen
Zwanenburg et al (2012)	2.3	32.3	From DSS apparatus
Den Haan & Grognet (2014)	-	37.4	From large DSS apparatus
O'Kelly & Zhang (2013)	0	28.9 to 30.3	Tests carried out on reconstituted, undisturbed and blended peat samples

7.2 Analysis to Determine Factor of Safety (Deterministic Approach)

The purpose of the analysis was to determine the Factor of Safety (FoS) of the peat slopes using infinite slope analysis. The analysis was carried out at the turbine locations, along the proposed access tracks and at various locations across the Site.

The FoS provides a direct measure of the degree of stability of the slope. A FoS of less than unity indicates that a slope is unstable, a FoS of greater than unity indicates a stable slope.

The acceptable safe range for FoS typically ranges from 1.3 to 1.4. The previous code of practice for earthworks BS 6031:1981 (BSI, 1981), provided advice on design of earthworks slopes. It stated that for a first-time failure with a good standard of site investigation the design FoS should be greater than 1.3.

As a general guide the FoS limits for peat slopes in this report are summarised in Table 7.2.

Table 7.2: Factor of Safety Limits for Slopes

Factor of Safety (FoS)	Degree of Stability
Less than 1.0	Unstable (red)
Between 1.0 and 1.3	Marginally stable (yellow)
1.3 or greater	Acceptable (green)

Eurocode 7 (EC7) (IS EN 1997-1:2005) now serves as the reference document and the basis for design geotechnical engineering works. The design philosophy used in EC7 applies partial factors to soil parameters, actions and resistances. Unlike the traditional approach, EC7 does not provide a direct measure of stability, since global Factors of Safety are not used.

As such, and in order to provide a direct measure of the level of safety on a site, EC7 partial factors have not been used in this stability assessment. The results are given in terms of FoS.

A lower bound undrained shear strength, c_u for the peat of 6kPa was selected for the assessment based on the c_u values recorded at the Site. It should be noted that a c_u of 6kPa for the peat is considered a conservative value for the analysis and is not representative of all peat present across the Site. In reality the peat generally has a higher undrained strength.

The formula used to determine the factor of safety for the undrained condition in the peat (Bromhead, 1986) is as follows:

$$F = \frac{c_u}{\gamma z \sin\alpha \cos\alpha}$$

Where:

- F = Factor of Safety
- c_u = Undrained strength
- γ = Bulk unit weight of material
- z = Depth to failure plane assumed as depth of peat

α = Slope angle

The formula used to determine the factor of safety for the drained condition in the peat (Bromhead, 1986) is as follows:

$$F = \frac{c' + (\gamma z - \gamma_w h_w)\cos^2 \alpha \tan \phi'}{\gamma z \sin \alpha \cos \alpha}$$

Where:

F = Factor of Safety
c' = Effective cohesion
γ = Bulk unit weight of material
z = Depth to failure plane assumed as depth of peat
γ_w = Unit weight of water
h_w = Height of water table above failure plane
α = Slope angle
ϕ' = Effective friction angle

For the drained analysis the level of the water table above the failure surface is required to calculate the factor of safety for the slope. Since the water level in blanket peat can be variable and can be recharged by rainfall, it is not feasible to establish its precise location throughout the Site. Therefore, a sensitivity analysis using water level ranging between 0% and 100% of the peat depth was conducted, where 0% equates to the peat being completely dry and 100% equates to the peat being fully saturated.

The following general assumptions were used in the analysis of peat slopes at each location:

(1) Peat depths are based on the maximum peat depth recorded at each location from the walkover surveys and ground investigation.

(2) The slope angles used in the peat stability assessment were obtained using a combination of readings taken during the site reconnaissance by FT using handheld equipment and from contour survey plans for the Site. It should be noted that slope angles derived from contour survey plans would be considered approximate, as such surveys are dependent on the density of survey data and do not always reflect local variations in ground topography.

(3) Slope angle at base of sliding assumed to be parallel to ground surface.

(4) A lower bound undrained shear strength, c_u for the peat of 6kPa was selected for the assessment. The lowest recorded value on the Site during the site walkover was 5kPa, located to the west of T08 within the proposed peat storage area. It should be noted that a c_u of 6kPa for the peat is considered a conservative value for the analysis and is not representative of all peat present across the Site. In reality, the peat has a significantly higher average undrained strength as a result of the drainage and extraction works which have been carried out on the Site.

For the stability analysis two load conditions were examined, namely

Condition (1): no surcharge loading
Condition (2): surcharge of 10 kPa, equivalent to 1m of stockpiled peat assumed as a worst case (1.5m, 15kPa in peat deposition areas).

7.3 Results of Analysis

7.3.1 Undrained Analysis for the Peat

The results of the undrained analysis for the natural peat slopes are presented in Appendix C and the results of the undrained analysis for the most critical load case (load condition 2) are shown on Drawing P23-215-0600-0004. The undrained analysis for load condition 2 is considered the most critical load case as most peat failures occur in the short term upon loading of the peat surface. The results from the main infrastructure locations are summarised in Table 7.3.

The calculated FoS for load condition 1 is in excess of 1.30 for each of the infrastructure locations (163 no. locations) analysed with a range of FoS of 2.03 to 687.58, indicating a low risk of peat instability.

The calculated FoS for load condition 2 is in excess of 1.30 for each of the infrastructure locations (163 no. locations) analysed with a range of FoS of 1.41 to 62.51, indicating a low risk of peat instability.

Table 7.3: Factor of Safety Results (Undrained Condition)

Turbine No./Waypoint	Easting	Northing	Factor of Safety for Load Condition	
			Condition (1)	Condition (2)
T01	561862	800538	**2.55**	**2.09**
T02	562401	800480	**2.87**	**2.16**
T03	562695	800222	**4.10**	**3.02**
T04	562316	799576	**2.30**	**1.91**
T05	561920	799411	**22.92**	**13.75**
T06	561124	799382	**2.30**	**1.91**
T07	562209	798866	**2.30**	**1.73**
T08	562021	798429	**7.68**	**3.64**
T09	562413	798339	**2.39**	**2.10**
T10	561925	797528	**12.28**	**9.05**
Substation	561180	799024	**4.31**	**2.87**
Construction Compound (T10)	561816	797365	**9.55**	**7.47**
Construction Compound (T08)	562314	798532	**3.08**	**2.27**

Table 7.4: Factor of Safety Results Access Tracks (Undrained Condition)

Turbine No./Waypoint	Easting	Northing	Factor of Safety for Load Condition	
			Condition (1)	Condition (2)
T01 to T02 (PP06)	Varies		2.87	2.16
T02 to T03 (PP11)	Varies		2.16	1.72
T03 to T04 (PP14)	Varies		2.22	1.60
T04 to T05 (PP20)	Varies		2.87	2.16
T05 to T07 (PP30)	Varies		5.90	1.97
T07 to T06 (PP48)	Varies		2.39	1.98
T07 to T09 (PP53)	Varies		3.35	1.89
T09 to T08 (PP85)	Varies		4.78	4.19
T09 to T10 (PP75)	Varies		2.48	1.65

Table 7.5: Factor of Safety Results Peat Storage Areas (Undrained Condition)

Location	Easting	Northing	Factor of Safety for Load Condition	
			Condition (1)	Condition (2)
Peat Storage Substation	Varies		5.77	2.31
Peat Storage T04	Varies		2.40	1.87
Peat Storage T06	Varies		2.03	1.57
Peat Storage T07	Varies		3.70	2.80
Peat Storage T08	Varies		24.56	18.09
Peat Storage T09	Varies		2.50	2.05

7.3.2 Drained Analysis for the Peat

The results of the drained analysis for the peat are presented in Appendix C. The results from the main infrastructure locations are summarised in Table 7.6. As stated previously, the drained loading condition examines the effect of rainfall and water on the existing stability of the natural peat slopes.

The calculated FoS for load condition 1 is in excess of 1.30 for each of the locations (163 no. locations) analysed with a range of FoS of 1.44 to 511.82, indicating a low risk of peat instability.

The calculated FoS for load condition 2 is in excess of 1.30 for each of the locations (163 no. locations) analysed with a range of FoS of 2.30 to 95.11, indicating a low risk of peat instability.

Table 7.6: Factor of Safety Results (Drained Conditions)

Turbine No./Waypoint	Easting	Northing	Factor of Safety for Load Condition	
			Condition (1)	Condition (2)
T01	561862	800538	**1.70**	**3.01**
T02	562401	800480	**1.92**	**3.10**
T03	562695	800222	**2.73**	**4.36**
T04	562316	799576	**1.53**	**2.76**
T05	561920	799411	**15.28**	**19.86**
T06	561124	799382	**1.53**	**2.76**
T07	562209	798866	**1.54**	**2.48**
T08	562021	798429	**5.12**	**5.23**
T09	562413	798339	**1.59**	**3.03**
T10	561925	797528	**7.90**	**12.73**
Substation	561180	799024	**2.87**	**4.14**
Construction Compound (T10)	561816	797365	**6.37**	**10.79**
Construction Compound (T08)	562314	798532	**8.72**	**8.18**

Table 7.7: Factor of Safety Results Access Tracks (Drained Condition)

Turbine No./Waypoint	Easting	Northing	Factor of Safety for Load Condition	
			Condition (1)	Condition (2)
T01 to T02 (PP06)	Varies		**1.92**	**3.10**
T02 to T03 (PP11)	Varies		**1.44**	**2.48**
T03 to T04 (PP14)	Varies		**1.48**	**2.30**
T04 to T05 (PP20)	Varies		**1.92**	**3.10**
T05 to T07 (PP30)	Varies		**3.93**	**2.77**
T07 to T06 (PP48)	Varies		**1.59**	**2.85**
T07 to T09 (PP53)	Varies		**2.23**	**2.70**
T09 to T08 (PP58)	Varies		**6.37**	**12.11**
T09 to T10 (PP75)	Varies		**1.65**	**2.37**

Table 7.8: Factor of Safety Results Peat Storage Areas (Drained Condition)

Location	Easting	Northing	Factor of Safety for Load Condition	
			Condition (1)	Condition (2)
Peat Storage Substation	Varies		8.28	5.98
Peat Storage T04	Varies		1.60	1.70
Peat Storage T06	Varies		6.68	6.38
Peat Storage T07	Varies		2.47	4.04
Peat Storage T08	Varies		69.80	65.50
Peat Storage T09	Varies		10.56	10.26

8. PEAT STABILITY RISK ASSESSMENT

A peat stability risk assessment was carried out for the main infrastructure elements at the Site. This approach takes into account guidelines for geotechnical/peat stability risk assessments as given in PLHRAG (2017) and MacCulloch (2005).

The risk assessment uses the results of the stability analysis (deterministic approach) in combination with qualitative factors, which cannot be reasonably included in a stability calculation but nevertheless may affect the occurrence of peat instability, to assess the risk for each infrastructure element.

For each of the main infrastructure elements, a risk rating (product of probability and impact) is calculated and rated as shown in Table 8.1. Where a subsection is rated 'Medium' or 'High', control measures are required to reduce the risk to at least a 'Low' risk rating. Where a subsection is rated 'Low' or 'Negligible', only routine control measures are required.

Table 8.1: Risk Rating Legend

17 to 25	High: avoid works in area or significant control measures required
11 to 16	Medium: notable control measures required
5 to 10	Low: only routine control measures required
1 to 4	Negligible: none or only routine control measures required

A full methodology for the peat stability risk assessment is given in Appendix D.

8.1 Summary of Risk Assessment Results

The results of the peat stability risk assessment for potential peat failure at the main infrastructure elements is presented as a Geotechnical Risk Register in Appendix B and summarised in Table 8.2.

The risk rating for each infrastructure element at the proposed project is designated 'Low' or 'Negligible' following some mitigation/control measures being implemented. Sections of access tracks to the nearest infrastructure element will be subject to the same mitigation/control measures that apply to the nearest infrastructure element.

Details of the required mitigation/control measures can be found in the Geotechnical Risk Register for each infrastructure element (Appendix B) and are summarised below:

- Detailed ground investigation to confirm peat, mineral soil and bedrock condition and properties.
- Use of experienced geotechnical staff for site investigation.
- Excavations will require temporary support and regular inspection.
- Side casting of excavated material only in designated areas.
- No temporary stockpiling of materials on in-situ peat.
- Maintain hydrology of area as far as possible by maintaining existing drains to prevent the build-up of water pressures in the peat, leading to the peat becoming "buoyant".
- Use of experienced contractors and trained operators to carry out the work.
- Monitoring upslope and downslope of open excavations.
- Limits on the length of excavation (10m) left open before backfilling.

Table 8.2: Summary of Peat Stability Risk Register

Infrastructure	Pre-Control Measure Implementation Risk Rating	Pre-Control Measure Implementation Risk Rating Category	Notable Control Measures Required	Post-Control Measure Implementation Risk Rating	Post-Control Measure Implementation Risk Rating Category
T01	Low	5 to 10	Yes	Negligible	1 to 4
T02	Negligible	1 to 4	Yes	Negligible	1 to 4
T03	Negligible	1 to 4	Yes	Negligible	1 to 4
T04	Medium	11 to 16	Yes	Low	5 to 10
T05	Negligible	1 to 4	No	Negligible	1 to 4
T06	Negligible	1 to 4	Yes	Negligible	1 to 4
T07	Negligible	1 to 4	Yes	Negligible	1 to 4
T08	Negligible	1 to 4	Yes	Negligible	1 to 4
T09	Low	5 to 10	Yes	Negligible	1 to 4
T10	Negligible	1 to 4	No	Negligible	1 to 4
Substation	Low	5 to 10	No	Negligible	1 to 4
Construction Compound (T10)	Negligible	1 to 4	Yes	Negligible	1 to 4
Construction Compound (T08)	Negligible	1 to 4	Yes	Negligible	1 to 4
Access Track T01 to T02	Medium	11 to 16	Yes	Low	5 to 10
Access Track T02 to T03	Low	5 to 10	Yes	Negligible	1 to 4
Access Track T03 to T04	Low	5 to 10	No	Negligible	1 to 4
Access Track T04 to T05	Low	5 to 10	No	Negligible	1 to 4
Access Track T05 to T07	Low	5 to 10	Yes	Negligible	1 to 4
Access Track T07 to T06	Negligible	1 to 4	Yes	Negligible	1 to 4
Access Track T07 to T09	Medium	11 to 16	Yes	Low	5 to 10
Access Track T09 to T08	Medium	11 to 16	Yes	Low	5 to 10
Access Track T09 to T10	Low	5 to 10	No	Negligible	1 to 4

9. INDICATIVE FOUNDATION TYPE AND FOUNDATION DEPTH FOR TURBINES

9.1 Summary

Based on a review of the ground investigation information for the Site, a preliminary assessment of the likely foundation type and founding depths for each turbine location was carried out, where possible. A summary of this assessment is provided in Table 9-1.

Table 9-1: Summary of Indicative Turbine Foundation Type and Founding Depths

Turbine No.	Turbine Foundation Type	Relevant GI	Indicative founding depth (m bgl)	Comment
T01	Piled/Gravity Foundation	Peat probes/ Trial Pits	>4.5	The site investigation works carried out to date indicate that a piled or gravity foundation will be suitable.
T02	Gravity Foundation	Peat probes/ Trial Pits	>3.0	The site investigation works carried out to date indicate that a gravity foundation will be suitable.
T03	Gravity Foundation	Peat probes/ Trial Pits	>3.0	
T04	Gravity/Piled Foundation	Peat probes/ Trial Pits	>4.0	The site investigation works carried out to date indicate that a piled or gravity foundation will be suitable.
T05	Gravity Foundation	Peat probes/ Trial Pits	3.0	The site investigation works carried out to date indicate that a gravity foundation will be suitable.
T06	Gravity/Piled Foundation	Peat probes/ Trial Pits	3.0	The site investigation works carried out to date indicate that a piled or gravity foundation will be suitable.
T07	Gravity Foundation	Peat probes/ Trial Pits	>3.0	The site investigation works carried out to date indicate that a gravity foundation will be suitable.
T08	Gravity Foundation	Peat probes/ Trial Pits	>4.0	
T09	Piled Foundation	Peat probes/ Trial Pits/ Borehole	>5.0	The site investigation works carried out to date indicate that a piled foundation will be required.

Turbine No.	Turbine Foundation Type	Relevant GI	Indicative founding depth (m bgl)	Comment
T10	Gravity/Piled Foundation	Peat probes/ Trial Pits	>3.0	The site investigation works carried out to date indicate that a piled or gravity foundation will be suitable.
Substation	Gravity Foundation	Peat probes/ Trial Pits	1.5	The site investigation works carried out to date indicate that a gravity foundation will be suitable.

It should be noted that confirmatory ground investigation will be carried out prior to construction at each turbine location in the form of a borehole with in-situ SPT testing at 1m intervals in the overburden and follow-on rotary core through bedrock to confirm the foundation types and founding stratums assumed in Table 9-1. It is likely that following the completion of further ground investigation prior to construction that the majority of the turbine bases will be deemed suitable for gravity type foundations.

For gravity type turbine foundations, where the depth of excavation exceeds the required founding depth for the proposed turbine base, up-fill material consisting of granular fill (6N) shall be used to backfill the excavation to the required founding depth.

For the piled turbine foundations, a typical piling type and configuration will be up to 16 no. 1200mm diameter rotary bored piles.

10. FOUNDING DETAILS FOR OTHER INFRASTRUCTURE ELEMENTS

This section provides a summary of the founding details for various elements of the proposed infrastructure across the Site. The detailed methodologies for the construction of these elements of the proposed project are included in Chapter 3 of the EIAR.

10.1 Access Tracks

Floating access tracks are the predominant road and track construction type proposed for the Site which given the ground conditions and type of terrain present is deemed an appropriate construction approach.

The total length of the new proposed access tracks to be constructed on the Site is 4.0km.

The access tracks will be constructed using a floating construction methodology. The typical make-up of the floated access tracks is a minimum stone thickness of 1000mm. The requirement for a layer of geotextile and geogrid and the necessary stone thickness will be confirmed at detailed design stage.

10.2 Crane Hardstands

The crane hardstands will be constructed using the founded technique (i.e. not floated technique). The exception to this will be the hardstand at T09, which will be piled due to the depth of peat at this location.

Crane hardstands are constructed using compacted Class 1/6F material on a suitable sub-formation to achieve the required bearing resistance. The hardstands will be designed for the most critical loading combinations from the crane.

The hardstands will require to be founded on competent material underlying the peat deposits. The founding levels for the hardstands will be variable across the Site and will be determined at pre-construction stage.

The typical make-up of the hardstands will include a minimum of 1000mm of granular stone fill with possibly a layer of geotextile and/or geogrid, if deemed necessary by the Designer.

10.3 Substation Foundations & Platforms

The onsite substation platform will be constructed using the founded technique (i.e. not floated technique). The substation foundations may comprise strip/raft foundations under the main footprint of the building with possibly a basement/pit for cable connections.

Substation platforms are constructed using compacted Class 1/6F material in accordance with Eirgrid/ESB network requirements on a suitable sub-formation to achieve the required bearing resistance.

The substation platform will require to be founded on competent material underlying the peat deposits.

Given the ground conditions present at the proposed substation, it is envisaged that the foundations will require to be founded on glacial till. The peat will not be a suitable founding stratum for the substation foundations.

Typical founding depth for substation platforms is likely to be 1.5-2.0m.

The typical make-up of the substation platform will require approximately 1.5-2.5m of granular stone fill with possibly a layer of geotextile and/or geogrid. At the underside of the substation foundations, a layer of structural up-fill (class 6N/6P) in accordance with Eirgrid requirements will likely be required.

10.4 Construction Compound Platform

The construction compound platform will be constructed using the floated technique to minimise excavation volumes.

The construction compound platform will be constructed using compacted Class 1/6F material on a suitable sub-formation to achieve the required bearing resistance.

The typical make-up of the construction compound platform will include up to 1000mm of granular stone fill with a layer of geotextile and geogrid. The floated option will require at least one layer of geogrid to support the platform.

11. SUMMARY AND RECOMMENDATIONS

11.1 Summary

The following summary is given.

FT was engaged by GES to undertake a geotechnical and peat stability assessment of the Site.

The findings of the peat assessment showed that the Site has an acceptable margin of safety and is suitable for the proposed project. The findings include recommendations and control measures for construction work in peat lands to ensure that all works adhere to an acceptable standard of safety.

The Site, which is typically flat, consists predominantly of bare locally re-vegetated cut-away peat and forestry.

Peat thicknesses recorded during the site walkover and from the ground investigation ranged from 0.0 to +7.2m with an average peat depth of 1.8m. 40% of the probes recorded peat depths of less than 1.0m, with 60% of peat depth probes recorded peat depths of less than 2.0m and 73% of peat depth probes recorded peat depths of less than 3.0m. A number of localised readings recorded peat depths from 3.5 to 7.2m.

Slope inclinations at the main infrastructure locations range from 0 to 6 degrees.

An analysis of peat sliding was carried out at the main infrastructure locations across the Site for both the undrained and drained conditions. The purpose of the analysis was to determine the Factor of Safety (FoS) of the peat slopes.

An undrained analysis was carried out, which applies in the short-term during construction. For the undrained condition, the calculated FoS for load conditions (1) and (2) for the locations analysed, showed that all locations have an acceptable FoS of greater than 1.3, indicating a low risk of peat failure. The undrained analysis would be considered the most critical condition for the peat slopes.

A drained analysis was also carried out, which examined the effect of in particular, rainfall on the existing stability of the natural peat slopes on the Site. For the drained condition, the calculated FoS for load conditions (1) & (2) for the locations analysed, showed that all infrastructure locations have an acceptable FoS of greater than 1.3.

The peat stability risk assessment at each infrastructure location identified a number of mitigation/control measures to reduce the potential risk of peat failure. Sections of access tracks to the nearest infrastructure element should be subject to the same mitigation/control measures that apply to the nearest infrastructure element. See Appendix B for details of the required mitigation/control measures for each infrastructure element.

In summary, the findings of the peat assessment showed that the Site has an acceptable margin of safety, is suitable for the proposed project and is considered to be at **low** risk of peat failure. The findings include recommendations and control measures for construction work in peat lands to ensure that all works adhere to an acceptable standard of safety.

11.2 Recommendations

The following recommendations are given.

Notwithstanding that the Site has an acceptable margin of safety a number of mitigation/control measures are given to ensure that all works adhere to an acceptable standard of safety for work in peatlands. Mitigation/control measures identified for each of the infrastructure elements in the risk assessment will be taken into account and implemented throughout design and construction works (Appendix B).

To minimise the risk of construction activity causing potential peat instability the Construction Method Statements (CMSs) for the project will take into account, but not be limited, to the recommendations above. This will ensure that best practice guidance regarding the management of peat stability will be inherent in the construction phase.

12. REFERENCES

Applied Ground Engineering Consultants (AGEC) (2004). Derrybrien Wind Farm Final Report on Landslide of October 2003.

British Standards Institute (1981). BS 6031:1981 Code of practice for earthworks.

Bromhead, E.N. (1986). The Stability of Slopes.

Carling, P.A. (1986). Peat slides in Teesdale and Weardale, northern Pennines, July 1983: Description and failure mechanisms. Earth Surface Processes and Landforms, 11.

Clayton, C.R.I. (2001). Managing Geotechnical Risk. Institution of Civil Engineers, London.

Den Haan EJ and Grognet M (2014). A large direct simple shear device for the testing of peat at low stresses. Géotechnique Letters 4(4): 283–288, http://dx.doi.org/10.1680/geolett. 14.00033.

Dykes, A.P. and Kirk, K.J. (2006). Slope instability and mass movements in peat deposits. In Martini, I.P., Martinez Cortizas, A. and Chesworth, W. (Eds.) Peatlands: Evolution and Records of Environmental and Climatic Changes. Elsevier, Amsterdam.

Farrell, E.R. & Hebib, S. (1998). The determination of the geotechnical parameters of organic soils. Proceedings of International Symposium on problematic soils, IS-TOHOKU 98, Sendai, Japan.

Geological Survey of Ireland (2005). Sheet 11 Geology of South Mayo.

Geological Survey of Ireland (2006). Landslides in Ireland. Geological Survey of Ireland -Irish Landslides Group. July 2006.

Geological Survey of Ireland (2026). Online dataset public viewer http://spatial.dcenr.gov.ie/imf/imf.jsp?site=GSI_Simple

Hanrahan, E.T., Dunne, J.M. and Sodha, V.G. (1967). Shear strength of peat. Proc. Geot. Conf., Oslo, Vol. 1.

Hendrick, E. (1990). A Bog Flow at Bellacorrick Forest, Co. Mayo. Irish Forestry, Volume 47 (1): pp 32-44.

Hendry MT, Sharma JS, Martin CD and Barbour SL (2012). Effect of fibre content and structure on anisotropic elastic stiffness and shear strength of peat. Canadian Geotechnical Journal 49(4): 403–415, http://dx.doi.org/10.1139/t2012-003.

Hungr, O. and Evans, S.G. (1985). An example of a peat flow near Prince Rupert, British Columbia. Canadian Geotechnical Journal, 22.

Komatsu J, Oikawa H, Tsushima M and Igarashi M (2011). Ring shear test on peat. In Proceedings of the 21st International Offshore and Polar Engineering Conference, Maui, Hawaii, USA (Chung JS, Hong SY, Langen I and Prinsenberg SJ (eds)). International Society of Offshore and Polar Engineers, Cupertino, CA, USA, vol. 2, pp. 393–396.

Landva, A.O. (1980). Vane testing in peat. Canadian Geotechnical Journal, 17(1).

MacCulloch, F. (2005). Guidelines for the Risk Management of Peat Slips on the Construction of Low Volume/Low Cost Roads over Peat. RoadEx 11 Northern Periphery.

McGeever J. and Farrell E. (1988). The shear strength of an organic silt. Proc. 2nd Baltic Conf., 1, Tallin USSR.

O'Kelly BC and Zhang L (2013). Consolidated-drained triaxial compression testing of peat. Geotechnical Testing Journal 36(3): 310–321, http://dx.doi.org/10.1520/ GTJ20120053.

PLHRAG (2017). Peat Landslide Hazard and Risk Assessments: Best Practice Guide for Proposed Electricity Generation Developments. Prepared for Energy Consents Unit Scottish Government, 2nd Edition. Dated April 2017.

Skempton, A. W. and DeLory, F. A. (1957). Stability of natural slopes in London Clay. Proc 4th Int. Conf. On Soil Mechanics and Foundation Engineering, Rotterdam, vol. 2, pp.72-78.

Warburton, J., Higgett, D. and Mills, A. (2003). Anatomy of a Pennine Peat Slide. Earth Surface Processes and Landforms.

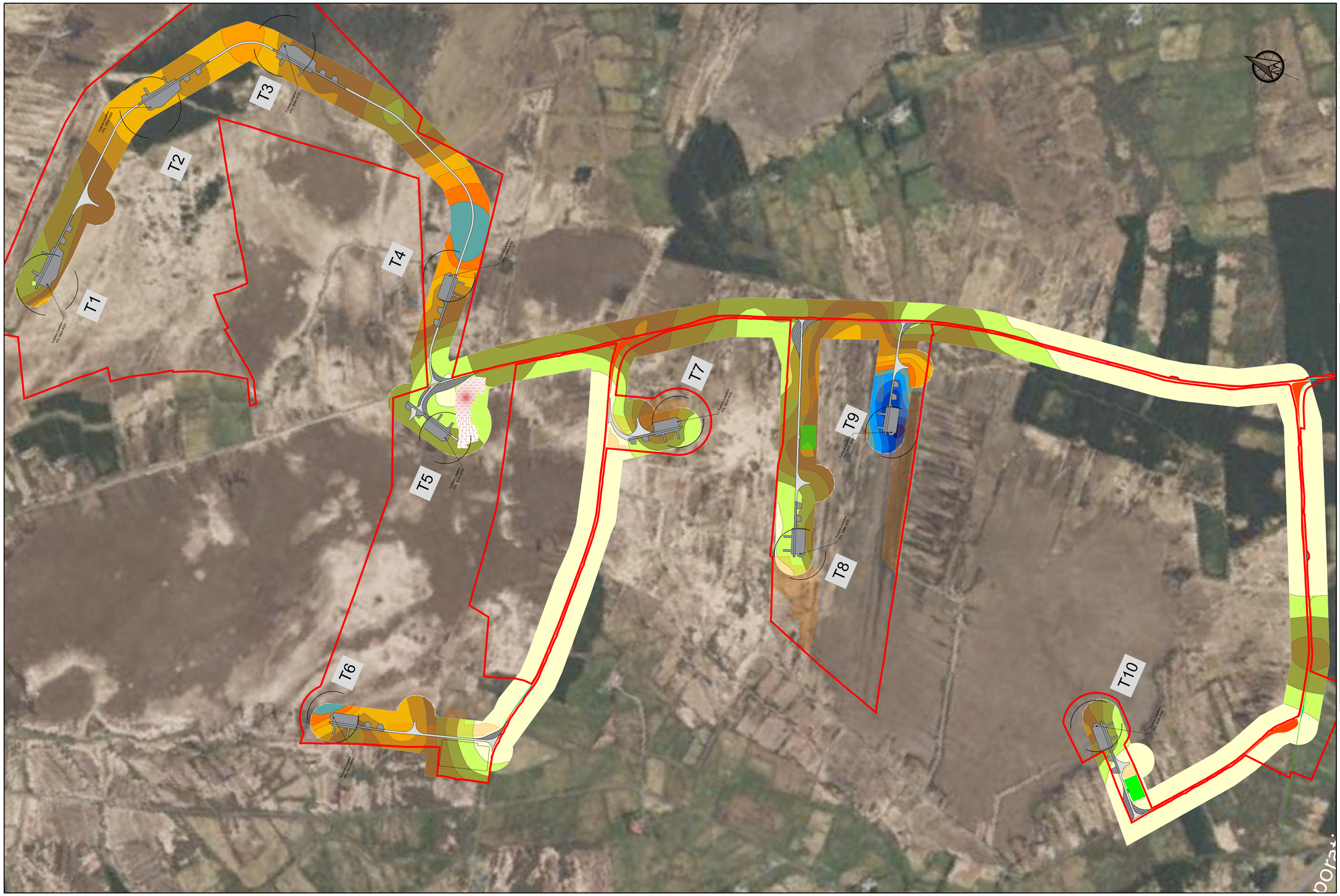
Warburton, J., Holden, J. and Mills, A. J. (2003). Hydrological controls of surficial mass movements in peat. Earth-Science Reviews 67 (2004), pp. 139-156.

Zwanenburg C, Den Haan EJ, Kruse GAM and Koelewijn AR (2012). Failure of a trial embankment on peat in Booneschans, the Netherlands. Géotechnique 62(6): 479–490, http://dx.doi.org/10.1680/geot.9.P.094.

FEHILY TIMONEY

DESIGNING AND DELIVERING
A SUSTAINABLE FUTURE

DRAWINGS



PLAN

Scale 1:5000

If Applicable : Tailte Éireann Licence No. CYAL50368274 © Ordnance Survey Ireland and Government of Ireland

FEHILY TIMONEY
Cork | Dublin | Carlow
www.fehilytimoney.ie

No part of this document may be reproduced or transmitted in any form or stored in any retrieval system of any nature without the written permission of Fehily Timoney & Company as copyright holder except as agreed for use on the project for which the document was originally issued. Do not scale. Use figured dimensions only. If in doubt - Ask!

Rev.	Description	App By	Date
P01	ISSUE FOR INFORMATION	BDH	22.04.26

PROJECT: ISLANDMORE WIND FARM

CLIENT: GALETECH ENERGY SERVICES

SHEET: PEAT DEPTH CONTOUR PLAN

Date 22.04.26	Project number P23-215	Scale (@ A1) 1:5000	
Drawn by IS	Drawing Number P23-215-0600-0001		Rev P01
Checked by IH	(Sheet set subset 0600)		

O:\ACAD\2023\P23-215\P23-215-0600-0001

20 August 2026



Legend:

- EIAR Study Boundary
- Peat Storage Area
- Proposed Temporary Construction Compound
- Proposed Borrow Pit
- Proposed Substation Area
- Proposed Turbine & Hardstanding

Construction Buffer Zone Legend:

- Watercourses / Lakes with 50m Buffer
- Buffer Zone to areas of deep, soft, peat. Works in this area to be limited in extent and subject to appropriate mitigation measures.

0m 50m 100m 150m 200m 250m 300m 350m 400m 450m 500m

Scale 1:5000

PLAN

Scale 1:5000

If Applicable : Tailte Éireann Licence No. CYAL50368274 © Ordnance Survey Ireland and Government of Ireland

FEHILY TIMONEY

Cork | Dublin | Carlow

www.fehilytimoney.ie

No part of this document may be reproduced or transmitted in any form or stored in any retrieval system of any nature without the written permission of Fehily Timoney & Company as copyright holder except as agreed for use on the project for which the document was originally issued. Do not scale. Use figured dimensions only. If in doubt - Ask!

Rev.	Description	App By	Date
P01	ISSUE FOR INFORMATION	BDH	22.04.26

PROJECT

ISLANDMORE WIND FARM

CLIENT

GALETECH ENERGY SERVICES

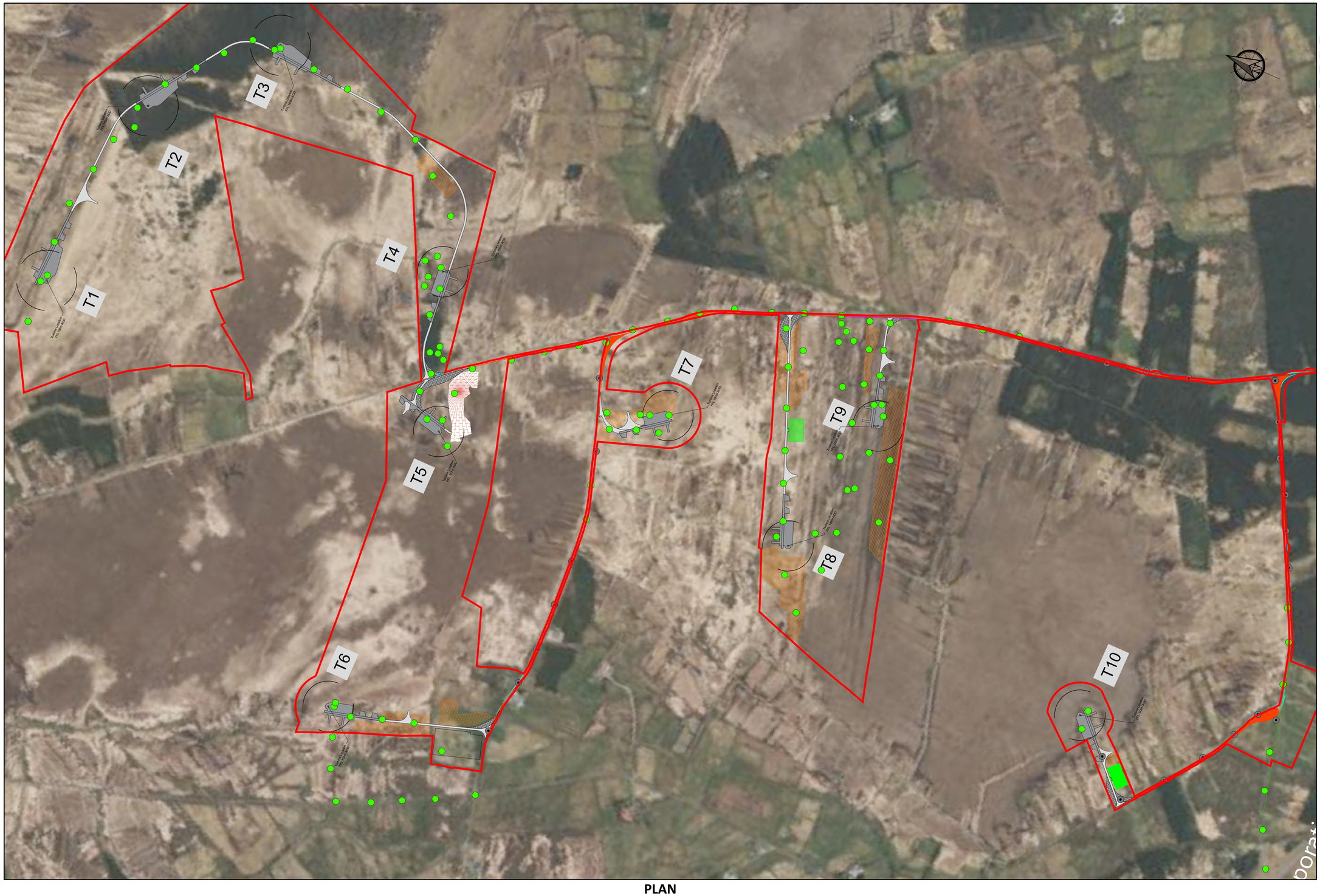
SHEET

CONSTRUCTION BUFFER ZONE

Date 22.04.26	Project number P23-215	Scale (@ A1) 1:5000	
Drawn by IS	Drawing Number P23-215-0600-0002		Rev P01
Checked by IH	*(Sheet set subset 0600)*		

O:\ACAD\2023\P23-215\P23-215-0600-0002

20 August 2026



Legend:

- EIAR Study Boundary
- Peat Storage Area
- Proposed Temporary Construction Compound
- Proposed Borrow Pit
- Proposed Substation Area
- Proposed Turbine & Hardstanding
- TDR Route

Factor of Safety Legend:

- 0 < 1.0
- ≥ 1.0 < 1.3
- ≥ 1.3

Increasing Stability

No Peat Recorded
At This Location

0m 50m 100m 150m 200m 250m 300m 350m 400m 450m 500m

Scale 1:5000

PLAN

Scale 1:5000

If Applicable : Tailte Éireann Licence No. CYAL50368274 © Ordnance Survey Ireland and Government of Ireland

FEHILY TIMONEY
Cork | Dublin | Carlow
www.fehilytimoney.ie

No part of this document may be reproduced or transmitted in any form or stored in any retrieval system of any nature without the written permission of Fehily Timoney & Company as copyright holder except as agreed for use on the project for which the document was originally issued. Do not scale. Use figured dimensions only. If in doubt - Ask!

Rev.	Description	App By	Date
P01	ISSUE FOR INFORMATION	BDH	22.04.26

PROJECT: ISLANDMORE WIND FARM

CLIENT: GALETECH ENERGY SERVICES

SHEET: FACTOR OF SAFETY PLAN

Date 22.04.26	Project number P23-215	Scale (@ A1) 1:5000	
Drawn by IS	Drawing Number P23-215-0600-0003		Rev P01
Checked by IH	(Sheet set subset 0600)		

O:\ACAD\2023\P23-215\P23-215-0600-0003

20 August 2026



Legend:

- EIAR Study Boundary
- Peat Storage Area
- Proposed Temporary Construction Compound
- Proposed Borrow Pit
- Proposed Substation Area
- Proposed Turbine & Hardstanding
- TPxx — Proposed Trial Pit
- RCxx — Proposed Rotary Core

0m 50m 100m 150m 200m 250m 300m 350m 400m 450m 500m

Scale 1:5000

PLAN

Scale 1:5000

If Applicable : Tailte Éireann Licence No. CYAL50368274 © Ordnance Survey Ireland and Government of Ireland

FEHILY TIMONEY

Cork | Dublin | Carlow

www.fehilytimoney.ie

No part of this document may be reproduced or transmitted in any form or stored in any retrieval system of any nature without the written permission of Fehily Timoney & Company as copyright holder except as agreed for use on the project for which the document was originally issued. Do not scale. Use figured dimensions only. If in doubt - Ask!

Rev.	Description	App By	Date
P01	ISSUE FOR INFORMATION	BDH	22.04.26

PROJECT: ISLANDMORE WIND FARM

CLIENT: GALETECH ENERGY SERVICES

SHEET: GROUND INVESTIGATION LOCATION PLAN

Date 22.04.26	Project number P23-215	Scale (@ A1) 1:5000	
Drawn by IS	Drawing Number P23-215-0600-0004		Rev P01
Checked by IH	(Sheet set subset 0600)		

O:\ACAD\2023\P23-215\P23-215-0600-0004

20 August 2026

FEHILY TIMONEY

DESIGNING AND DELIVERING
A SUSTAINABLE FUTURE

APPENDIX A

Photos from Site Walkover



Photo 1: Open peatland to the west of T05



Photo 2: Rock exposure south of T05



Photo 3: Location of T09 (Peat Depth of +7.0m Recorded)

FEHILY TIMONEY

DESIGNING AND DELIVERING
A SUSTAINABLE FUTURE

APPENDIX B

Peat Stability Risk Registers

Islandmore Wind Farm - Peat Stability Risk Register (Rev 0)

Location:	Turbine T01

Grid Reference (Eastings, Northings):	561862	800538
Distance to Watercourse (m)	50 - 100	
Min & Max Measured Peat Depth (m):	3.0-4.5	
Control Required:	Yes	

		Pre-Control Measure Implementation						Post-Control Measure Implementation			
Ref.	Contributory/Qualitative Factors to Potential Peat Failure	Prob (Note 2)	Impact (Note 3)	Risk	Risk Rating	Control Required	Control measures to be implemented during construction	Prob (Note 2)	Impact (Note 3)	Risk	Risk Rating
1	FOS = 2.09 (u), 1.70 (d)	1	3	3	Negligible	No	See Below	1	3	3	Negligible
2	Evidence of sub peat water flow	1	3	3	Negligible	No		1	3	3	Negligible
3	Evidence of surface water flow	3	3	9	Low	Yes		1	3	3	Negligible
4	Evidence of previous failures/slips	0	3	0	Not Applicable	No		0	3	0	Not Applicable
5	Type of vegetation	2	3	6	Low	No		1	3	3	Negligible
6	General slope characteristics upslope/downslope from infrastructure location	2	3	6	Low	No		1	3	3	Negligible
7	Evidence of very soft/soft clay at base of peat	0	3	0	Not Applicable	No		0	3	0	Not Applicable
8	Evidence of mechanically cut peat	0	3	0	Not Applicable	No		0	3	0	Not Applicable
9	Evidence of quaking or buoyant peat	2	3	6	Low	No		1	3	3	Negligible
10	Evidence of bog pools	0	3	0	Not Applicable	No		0	3	0	Not Applicable
11	Relatively deep peat	3	3	9	Low	Yes		1	3	3	Negligible

	Control Measures to be Implemented Prior to/and During Construction for **Turbine T01**
i	Due to relatively deep peat at this turbine location, additional construction measures such as the following may be required: - excavation side walls to be supported (e.g. boulders, sheet piles) or excavation face battered to a shallow angle - temporary works designer may be required to provide excavation support design -daily detailed inspection of excavation faces -potential for greater water inflow into excavation requiring removal of water using pumping -increased exclusion zone around excavation to avoid accidental loading of crest of slope
ii	Maintain hydrology of area as far as possible;
iii	Use of experienced geotechnical staff for site investigation;
iv	Use of experienced contractors and trained operators to carry out the work;
v	Detailed ground investigation to determine peat, mineral soil and bedrock condition and properties.
vi	Inspection & approval of turbine base sub-formation by a competent person where a gravity type foundation base is constructed.
vii	Movement monitoring posts to be installed upslope of the turbine/hardstand excavation and monitored on a regular basis

Note
(1) FOS abbreviations are: u: FOS for undrained analysis, d: FOS for drained analysis.
(2) Probability assessed as per Table A and B of Appendix E.
(3) Impact based on distance of infrastructure element to nearest watercourse.

Islandmore Wind Farm - Peat Stability Risk Register (Rev 0)

Location:	Turbine T02

Grid Reference (Eastings, Northings):	562401	800480
Distance to Watercourse (m)	100 - 150	
Min & Max Measured Peat Depth (m):	2.0-3.0	
Control Required:	Yes	

		Pre-Control Measure Implementation						Post-Control Measure Implementation			
Ref.	Contributory/Qualitative Factors to Potential Peat Failure	Prob (Note 2)	Impact (Note 3)	Risk	Risk Rating	Control Required	Control measures to be implemented during construction	Prob (Note 2)	Impact (Note 3)	Risk	Risk Rating
1	FOS = 2.16 (u), 1.93 (d)	1	2	2	Negligible	No	See Below	1	2	2	Negligible
2	Evidence of sub peat water flow	1	2	2	Negligible	No		1	2	2	Negligible
3	Evidence of surface water flow	2	2	4	Negligible	No		2	2	4	Negligible
4	Evidence of previous failures/slips	0	2	0	Not Applicable	No		0	2	0	Not Applicable
5	Type of vegetation	2	2	4	Negligible	No		2	2	4	Negligible
6	General slope characteristics upslope/downslope from infrastructure location	2	2	4	Negligible	No		2	2	4	Negligible
7	Evidence of very soft/soft clay at base of peat	0	2	0	Not Applicable	No		0	2	0	Not Applicable
8	Evidence of mechanically cut peat	0	2	0	Not Applicable	No		0	2	0	Not Applicable
9	Evidence of quaking or buoyant peat	0	2	0	Not Applicable	No		0	2	0	Not Applicable
10	Evidence of bog pools	0	2	0	Not Applicable	No		0	2	0	Not Applicable
11	Relatively deep peat	2	2	4	Negligible	Yes		0	2	0	Not Applicable

	Control Measures to be Implemented Prior to/and During Construction for **Turbine T02**
i	Due to relatively deep peat at this turbine location, additional construction measures such as the following may be required: - excavation side walls to be supported (e.g. boulders, sheet piles) or excavation face battered to a shallow angle - temporary works designer may be required to provide excavation support design -daily detailed inspection of excavation faces -potential for greater water inflow into excavation requiring removal of water using pumping -increased exclusion zone around excavation to avoid accidental loading of crest of slope
ii	Maintain hydrology of area as far as possible;
iii	Use of experienced geotechnical staff for site investigation;
iv	Use of experienced contractors and trained operators to carry out the work;
v	Detailed ground investigation to determine peat, mineral soil and bedrock condition and properties.
vi	Inspection & approval of turbine base sub-formation by a competent person where a gravity type foundation base is constructed.
vii	Movement monitoring posts to be installed upslope of the turbine/hardstand excavation and monitored on a regular basis

Note
(1) FOS abbreviations are: u: FOS for undrained analysis, d: FOS for drained analysis.
(2) Probability assessed as per Table A and B of Appendix E.
(3) Impact based on distance of infrastructure element to nearest watercourse.

Islandmore Wind Farm - Peat Stability Risk Register (Rev 0)

Location:	Turbine T03

Grid Reference (Eastings, Northings):	562695	800222
Distance to Watercourse (m)	> 150	
Min & Max Measured Peat Depth (m):	2.0-2.8	
Control Required:	No	

		Pre-Control Measure Implementation						Post-Control Measure Implementation			
Ref.	Contributory/Qualitative Factors to Potential Peat Failure	Prob (Note 2)	Impact (Note 3)	Risk	Risk Rating	Control Required	Control measures to be implemented during construction	Prob (Note 2)	Impact (Note 3)	Risk	Risk Rating
1	FOS = 3.02 (u), 2.73 (d)	1	1	1	Negligible	No	See Below	1	1	1	Negligible
2	Evidence of sub peat water flow	1	1	1	Negligible	No		1	1	1	Negligible
3	Evidence of surface water flow	2	1	2	Negligible	No		2	1	2	Negligible
4	Evidence of previous failures/slips	0	1	0	Not Applicable	No		0	1	0	Not Applicable
5	Type of vegetation	2	1	2	Negligible	No		2	1	2	Negligible
6	General slope characteristics upslope/downslope from infrastructure location	2	1	2	Negligible	No		2	1	2	Negligible
7	Evidence of very soft/soft clay at base of peat	0	1	0	Not Applicable	No		0	1	0	Not Applicable
8	Evidence of mechanically cut peat	0	1	0	Not Applicable	No		0	1	0	Not Applicable
9	Evidence of quaking or buoyant peat	0	1	0	Not Applicable	No		0	1	0	Not Applicable
10	Evidence of bog pools	0	1	0	Not Applicable	No		0	1	0	Not Applicable
11	Relatively deep peat	2	1	2	Negligible	No		0	1	0	Not Applicable

	Control Measures to be Implemented Prior to/and During Construction for **Turbine T03**
i	Maintain hydrology of area as far as possible;
ii	Use of experienced geotechnical staff for site investigation;
iii	Use of experienced contractors and trained operators to carry out the work;
iv	Detailed ground investigation to determine peat, mineral soil and bedrock condition and properties.
v	Inspection & approval of turbine base sub-formation by a competent person where a gravity type foundation base is constructed.
vi	Movement monitoring posts to be installed upslope of the turbine/harsdtand excavation and monitored on a regular basis

Note
(1) FOS abbreviations are: u: FOS for undrained analysis, d: FOS for drained analysis.
(2) Probability assessed as per Table A and B of Appendix E.
(3) Impact based on distance of infrastructure element to nearest watercourse.

Islandmore Wind Farm - Peat Stability Risk Register (Rev 0)

Location:	Turbine T04

Grid Reference (Eastings, Northings):	562316	799576
Distance to Watercourse (m)	50 - 100	
Min & Max Measured Peat Depth (m):	2.3-5.0	
Control Required:	Yes	

		Pre-Control Measure Implementation						Post-Control Measure Implementation			
Ref.	Contributory/Qualitative Factors to Potential Peat Failure	Prob (Note 2)	Impact (Note 3)	Risk	Risk Rating	Control Required	Control measures to be implemented during construction	Prob (Note 2)	Impact (Note 3)	Risk	Risk Rating
1	FOS = 1.91 (u), 1.53 (d)	1	3	3	Negligible	No	See Below	1	3	3	Negligible
2	Evidence of sub peat water flow	1	3	3	Negligible	No		1	3	3	Negligible
3	Evidence of surface water flow	2	3	6	Low	No		2	3	6	Low
4	Evidence of previous failures/slips	0	3	0	Not Applicable	No		0	3	0	Not Applicable
5	Type of vegetation	2	3	6	Low	No		2	3	6	Low
6	General slope characteristics upslope/downslope from infrastructure location	2	3	6	Low	No		2	3	6	Low
7	Evidence of very soft/soft clay at base of peat	0	3	0	Not Applicable	No		0	3	0	Not Applicable
8	Evidence of mechanically cut peat	0	3	0	Not Applicable	No		0	3	0	Not Applicable
9	Evidence of quaking or buoyant peat	0	3	0	Not Applicable	No		0	3	0	Not Applicable
10	Evidence of bog pools	0	3	0	Not Applicable	No		0	3	0	Not Applicable
11	Relatively deep peat	4	3	12	Medium	Yes		2	3	6	Low

	Control Measures to be Implemented Prior to/and During Construction for **Turbine T04**
i	Due to relatively deep peat at this turbine location, additional construction measures such as the following may be required: - excavation side walls to be supported (e.g. boulders, sheet piles) or excavation face battered to a shallow angle - temporary works designer may be required to provide excavation support design -daily detailed inspection of excavation faces -potential for greater water inflow into excavation requiring removal of water using pumping -increased exclusion zone around excavation to avoid accidental loading of crest of slope
ii	Maintain hydrology of area as far as possible;
iii	Use of experienced geotechnical staff for site investigation;
iv	Use of experienced contractors and trained operators to carry out the work;
v	Detailed ground investigation to determine peat, mineral soil and bedrock condition and properties.
vi	Inspection & approval of turbine base sub-formation by a competent person where a gravity type foundation base is constructed.
vii	Movement monitoring posts to be installed upslope of the turbine/hardstand excavation and monitored on a regular basis

Note
(1) FOS abbreviations are: u: FOS for undrained analysis, d: FOS for drained analysis.
(2) Probability assessed as per Table A and B of Appendix E.
(3) Impact based on distance of infrastructure element to nearest watercourse.

Islandmore Wind Farm - Peat Stability Risk Register (Rev 0)

Location:	**Turbine T05**

Grid Reference (Eastings, Northings):	**561920**	**799411**
Distance to Watercourse (m)	**> 150**	
Min & Max Measured Peat Depth (m):	**0.3-1.1**	
Control Required:	**No**	

		Pre-Control Measure Implementation						Post-Control Measure Implementation			
Ref.	Contributory/Qualitative Factors to Potential Peat Failure	Prob (Note 2)	Impact (Note 3)	Risk	Risk Rating	Control Required	Control measures to be implemented during construction	Prob (Note 2)	Impact (Note 3)	Risk	Risk Rating
1	FOS = 5.47 (u), 6.96 (d)	1	1	1	Negligible	No	See Below	1	1	1	Negligible
2	Evidence of sub peat water flow	1	1	1	Negligible	No		1	1	1	Negligible
3	Evidence of surface water flow	2	1	2	Negligible	No		2	1	2	Negligible
4	Evidence of previous failures/slips	0	1	0	Not Applicable	No		0	1	0	Not Applicable
5	Type of vegetation	2	1	2	Negligible	No		2	1	2	Negligible
6	General slope characteristics upslope/downslope from infrastructure location	2	1	2	Negligible	No		2	1	2	Negligible
7	Evidence of very soft/soft clay at base of peat	0	1	0	Not Applicable	No		0	1	0	Not Applicable
8	Evidence of mechanically cut peat	0	1	0	Not Applicable	No		0	1	0	Not Applicable
9	Evidence of quaking or buoyant peat	0	1	0	Not Applicable	No		0	1	0	Not Applicable
10	Evidence of bog pools	0	1	0	Not Applicable	No		0	1	0	Not Applicable
11	Other	0	1	0	Not Applicable	No		0	1	0	Not Applicable

	Control Measures to be Implemented Prior to/and During Construction for **Turbine T05**
i	Maintain hydrology of area as far as possible;
ii	Use of experienced geotechnical staff for site investigation;
iii	Use of experienced contractors and trained operators to carry out the work;
iv	Detailed ground investigation to determine peat, mineral soil and bedrock condition and properties.
v	Inspection & approval of turbine base sub-formation by a competent person where a gravity type foundation base is constructed.
vi	Movement monitoring posts to be installed upslope of the turbine/harsdtand excavation and monitored on a regular basis

Note
(1) FOS abbreviations are: u: FOS for undrained analysis, d: FOS for drained analysis.
(2) Probability assessed as per Table A and B of Appendix E.
(3) Impact based on distance of infrastructure element to nearest watercourse.

Islandmore Wind Farm - Peat Stability Risk Register (Rev 0)

Location:	Turbine T06

Grid Reference (Eastings, Northings):	561124	799382
Distance to Watercourse (m)	> 150	
Min & Max Measured Peat Depth (m):	4.5-5.0	
Control Required:	Yes	

		Pre-Control Measure Implementation						Post-Control Measure Implementation			
Ref.	Contributory/Qualitative Factors to Potential Peat Failure	Prob (Note 2)	Impact (Note 3)	Risk	Risk Rating	Control Required	Control measures to be implemented during construction	Prob (Note 2)	Impact (Note 3)	Risk	Risk Rating
1	FOS = 1.91 (u), 1.53 (d)	1	1	1	Negligible	No	See Below	1	1	1	Negligible
2	Evidence of sub peat water flow	1	1	1	Negligible	No		1	1	1	Negligible
3	Evidence of surface water flow	2	1	2	Negligible	No		2	1	2	Negligible
4	Evidence of previous failures/slips	0	1	0	Not Applicable	No		0	1	0	Not Applicable
5	Type of vegetation	2	1	2	Negligible	No		2	1	2	Negligible
6	General slope characteristics upslope/downslope from infrastructure location	2	1	2	Negligible	No		2	1	2	Negligible
7	Evidence of very soft/soft clay at base of peat	0	1	0	Not Applicable	No		0	1	0	Not Applicable
8	Evidence of mechanically cut peat	0	1	0	Not Applicable	No		0	1	0	Not Applicable
9	Evidence of quaking or buoyant peat	0	1	0	Not Applicable	No		0	1	0	Not Applicable
10	Evidence of bog pools	0	1	0	Not Applicable	No		0	1	0	Not Applicable
11	Relatively deep peat	4	1	4	Negligible	Yes		2	1	2	Negligible

	Control Measures to be Implemented Prior to/and During Construction for **Turbine T06**
i	Due to relatively deep peat at this turbine location, additional construction measures such as the following may be required: - excavation side walls to be supported (e.g. boulders, sheet piles) or excavation face battered to a shallow angle - temporary works designer may be required to provide excavation support design -daily detailed inspection of excavation faces -potential for greater water inflow into excavation requiring removal of water using pumping -increased exclusion zone around excavation to avoid accidental loading of crest of slope
ii	Maintain hydrology of area as far as possible;
iii	Use of experienced geotechnical staff for site investigation;
iv	Use of experienced contractors and trained operators to carry out the work;
v	Detailed ground investigation to determine peat, mineral soil and bedrock condition and properties.
vi	Inspection & approval of turbine base sub-formation by a competent person where a gravity type foundation base is constructed.
vii	Movement monitoring posts to be installed upslope of the turbine/hardstand excavation and monitored on a regular basis

Note
(1) FOS abbreviations are: u: FOS for undrained analysis, d: FOS for drained analysis.
(2) Probability assessed as per Table A and B of Appendix E.
(3) Impact based on distance of infrastructure element to nearest watercourse.

Islandmore Wind Farm - Peat Stability Risk Register (Rev 0)

Location:	Turbine T07

Grid Reference (Eastings, Northings):	562209	798866
Distance to Watercourse (m)	> 150	
Min & Max Measured Peat Depth (m):	1.5-3.0	
Control Required:	Yes	

		Pre-Control Measure Implementation						Post-Control Measure Implementation			
Ref.	Contributory/Qualitative Factors to Potential Peat Failure	Prob (Note 2)	Impact (Note 3)	Risk	Risk Rating	Control Required	Control measures to be implemented during construction	Prob (Note 2)	Impact (Note 3)	Risk	Risk Rating
1	FOS = 1.73 (u), 1.54 (d)	1	1	1	Negligible	No	See Below	1	1	1	Negligible
2	Evidence of sub peat water flow	1	1	1	Negligible	No		1	1	1	Negligible
3	Evidence of surface water flow	2	1	2	Negligible	No		2	1	2	Negligible
4	Evidence of previous failures/slips	0	1	0	Not Applicable	No		0	1	0	Not Applicable
5	Type of vegetation	2	1	2	Negligible	No		2	1	2	Negligible
6	General slope characteristics upslope/downslope from infrastructure location	2	1	2	Negligible	No		2	1	2	Negligible
7	Evidence of very soft/soft clay at base of peat	0	1	0	Not Applicable	No		0	1	0	Not Applicable
8	Evidence of mechanically cut peat	0	1	0	Not Applicable	No		0	1	0	Not Applicable
9	Evidence of quaking or buoyant peat	0	1	0	Not Applicable	No		0	1	0	Not Applicable
10	Evidence of bog pools	0	1	0	Not Applicable	No		0	1	0	Not Applicable
11	Relatively deep peat	2	1	2	Negligible	Yes		1	1	1	Negligible

	Control Measures to be Implemented Prior to/and During Construction for **Turbine T07**
i	Due to relatively deep peat at this turbine location, additional construction measures such as the following may be required: - excavation side walls to be supported (e.g. boulders, sheet piles) or excavation face battered to a shallow angle - temporary works designer may be required to provide excavation support design -daily detailed inspection of excavation faces -potential for greater water inflow into excavation requiring removal of water using pumping -increased exclusion zone around excavation to avoid accidental loading of crest of slope
ii	Maintain hydrology of area as far as possible;
iii	Use of experienced geotechnical staff for site investigation;
iv	Use of experienced contractors and trained operators to carry out the work;
v	Detailed ground investigation to determine peat, mineral soil and bedrock condition and properties.
vi	Inspection & approval of turbine base sub-formation by a competent person where a gravity type foundation base is constructed.
vii	Movement monitoring posts to be installed upslope of the turbine/hardstand excavation and monitored on a regular basis

Note
(1) FOS abbreviations are: u: FOS for undrained analysis, d: FOS for drained analysis.
(2) Probability assessed as per Table A and B of Appendix E.
(3) Impact based on distance of infrastructure element to nearest watercourse.

Islandmore Wind Farm - Peat Stability Risk Register (Rev 0)

Location:	Turbine T08

Grid Reference (Eastings, Northings):	562021	798429
Distance to Watercourse (m)	> 150	
Min & Max Measured Peat Depth (m):	3.0-3.8	
Control Required:	Yes	

		Pre-Control Measure Implementation						Post-Control Measure Implementation			
Ref.	Contributory/Qualitative Factors to Potential Peat Failure	Prob (Note 2)	Impact (Note 3)	Risk	Risk Rating	Control Required	Control measures to be implemented during construction	Prob (Note 2)	Impact (Note 3)	Risk	Risk Rating
1	FOS = 14.32 (u), 12.06 (d)	1	1	1	Negligible	No	See Below	1	1	1	Negligible
2	Evidence of sub peat water flow	1	1	1	Negligible	No		1	1	1	Negligible
3	Evidence of surface water flow	2	1	2	Negligible	No		2	1	2	Negligible
4	Evidence of previous failures/slips	0	1	0	Not Applicable	No		0	1	0	Not Applicable
5	Type of vegetation	2	1	2	Negligible	No		2	1	2	Negligible
6	General slope characteristics upslope/downslope from infrastructure location	2	1	2	Negligible	No		2	1	2	Negligible
7	Evidence of very soft/soft clay at base of peat	0	1	0	Not Applicable	No		0	1	0	Not Applicable
8	Evidence of mechanically cut peat	0	1	0	Not Applicable	No		0	1	0	Not Applicable
9	Evidence of quaking or buoyant peat	0	1	0	Not Applicable	No		0	1	0	Not Applicable
10	Evidence of bog pools	0	1	0	Not Applicable	No		0	1	0	Not Applicable
11	Relatively deep peat	3	1	3	Negligible	Yes		2	1	2	Negligible

	Control Measures to be Implemented Prior to/and During Construction for **Turbine T08**
i	Due to relatively deep peat at this turbine location, additional construction measures such as the following may be required: - excavation side walls to be supported (e.g. boulders, sheet piles) or excavation face battered to a shallow angle - temporary works designer may be required to provide excavation support design -daily detailed inspection of excavation faces -potential for greater water inflow into excavation requiring removal of water using pumping -increased exclusion zone around excavation to avoid accidental loading of crest of slope
ii	Maintain hydrology of area as far as possible;
iii	Use of experienced geotechnical staff for site investigation;
iv	Use of experienced contractors and trained operators to carry out the work;
v	Detailed ground investigation to determine peat, mineral soil and bedrock condition and properties.
vi	Inspection & approval of turbine base sub-formation by a competent person where a gravity type foundation base is constructed.
vii	Movement monitoring posts to be installed upslope of the turbine/hardstand excavation and monitored on a regular basis

Note
(1) FOS abbreviations are: u: FOS for undrained analysis, d: FOS for drained analysis.
(2) Probability assessed as per Table A and B of Appendix E.
(3) Impact based on distance of infrastructure element to nearest watercourse.

Islandmore Wind Farm - Peat Stability Risk Register (Rev 0)

Location:	Turbine T09

Grid Reference (Eastings, Northings):	562413	798339
Distance to Watercourse (m)	> 150	
Min & Max Measured Peat Depth (m):	>7.2	
Control Required:	Yes	

		Pre-Control Measure Implementation						Post-Control Measure Implementation			
Ref.	Contributory/Qualitative Factors to Potential Peat Failure	Prob (Note 2)	Impact (Note 3)	Risk	Risk Rating	Control Required	Control measures to be implemented during construction	Prob (Note 2)	Impact (Note 3)	Risk	Risk Rating
1	FOS = 3.18 (u), 11.29 (d)	1	1	1	Negligible	No	See Below	1	1	1	Negligible
2	Evidence of sub peat water flow	1	1	1	Negligible	No		1	1	1	Negligible
3	Evidence of surface water flow	2	1	2	Negligible	No		2	1	2	Negligible
4	Evidence of previous failures/slips	0	1	0	Not Applicable	No		0	1	0	Not Applicable
5	Type of vegetation	2	1	2	Negligible	No		2	1	2	Negligible
6	General slope characteristics upslope/downslope from infrastructure location	2	1	2	Negligible	No		2	1	2	Negligible
7	Evidence of very soft/soft clay at base of peat	0	1	0	Not Applicable	No		0	1	0	Not Applicable
8	Evidence of mechanically cut peat	0	1	0	Not Applicable	No		0	1	0	Not Applicable
9	Evidence of quaking or buoyant peat	0	1	0	Not Applicable	No		0	1	0	Not Applicable
10	Evidence of bog pools	0	1	0	Not Applicable	No		0	1	0	Not Applicable
11	Relatively deep peat	5	1	5	Low	Yes		3	1	3	Negligible

	Control Measures to be Implemented Prior to/and During Construction for **Turbine T09**
i	Due to deep peat at this turbine location, additional construction measures such as the following may be required: - excavation side walls to be supported (e.g. boulders, sheet piles) or excavation face battered to a shallow angle - temporary works designer may be required to provide excavation support design -daily detailed inspection of excavation faces -potential for greater water inflow into excavation requiring removal of water using pumping -increased exclusion zone around excavation to avoid accidental loading of crest of slope
ii	Maintain hydrology of area as far as possible;
iii	Use of experienced geotechnical staff for site investigation;
iv	Use of experienced contractors and trained operators to carry out the work;
v	Detailed ground investigation to determine peat, mineral soil and bedrock condition and properties.
vi	Inspection & approval of turbine base sub-formation by a competent person where a gravity type foundation base is constructed.
vii	Movement monitoring posts to be installed upslope of the turbine/hardstand excavation and monitored on a regular basis
viii	Depth of peat will require piled turbine base and hardstand

Note
(1) FOS abbreviations are: u: FOS for undrained analysis, d: FOS for drained analysis.
(2) Probability assessed as per Table A and B of Appendix E.
(3) Impact based on distance of infrastructure element to nearest watercourse.

Islandmore Wind Farm - Peat Stability Risk Register (Rev 0)

Location:	Turbine T10

Grid Reference (Eastings, Northings):	561925	797528
Distance to Watercourse (m)	> 150	
Min & Max Measured Peat Depth (m):	2.2-2.9	
Control Required:	No	

		Pre-Control Measure Implementation						Post-Control Measure Implementation			
Ref.	Contributory/Qualitative Factors to Potential Peat Failure	Prob (Note 2)	Impact (Note 3)	Risk	Risk Rating	Control Required	Control measures to be implemented during construction	Prob (Note 2)	Impact (Note 3)	Risk	Risk Rating
1	FOS = 8.82 (u), 7.90 (d)	1	1	1	Negligible	No	See Below	1	1	1	Negligible
2	Evidence of sub peat water flow	1	1	1	Negligible	No		1	1	1	Negligible
3	Evidence of surface water flow	2	1	2	Negligible	No		2	1	2	Negligible
4	Evidence of previous failures/slips	0	1	0	Not Applicable	No		0	1	0	Not Applicable
5	Type of vegetation	2	1	2	Negligible	No		2	1	2	Negligible
6	General slope characteristics upslope/downslope from infrastructure location	2	1	2	Negligible	No		2	1	2	Negligible
7	Evidence of very soft/soft clay at base of peat	0	1	0	Not Applicable	No		0	1	0	Not Applicable
8	Evidence of mechanically cut peat	0	1	0	Not Applicable	No		0	1	0	Not Applicable
9	Evidence of quaking or buoyant peat	0	1	0	Not Applicable	No		0	1	0	Not Applicable
10	Evidence of bog pools	0	1	0	Not Applicable	No		0	1	0	Not Applicable
11	Relatively deep peat	2	1	2	Negligible	No		1	1	1	Negligible

	Control Measures to be Implemented Prior to/and During Construction for **Turbine T10**
i	Due to relatively deep peat at this turbine location, additional construction measures such as the following may be required: - excavation side walls to be supported (e.g. boulders, sheet piles) or excavation face battered to a shallow angle - temporary works designer may be required to provide excavation support design -daily detailed inspection of excavation faces -potential for greater water inflow into excavation requiring removal of water using pumping -increased exclusion zone around excavation to avoid accidental loading of crest of slope
ii	Maintain hydrology of area as far as possible;
iii	Use of experienced geotechnical staff for site investigation;
iv	Use of experienced contractors and trained operators to carry out the work;
v	Detailed ground investigation to determine peat, mineral soil and bedrock condition and properties.
vi	Inspection & approval of turbine base sub-formation by a competent person where a gravity type foundation base is constructed.
vii	Movement monitoring posts to be installed upslope of the turbine/hardstand excavation and monitored on a regular basis

Note
(1) FOS abbreviations are: u: FOS for undrained analysis, d: FOS for drained analysis.
(2) Probability assessed as per Table A and B of Appendix E.
(3) Impact based on distance of infrastructure element to nearest watercourse.

Islandmore Wind Farm - Peat Stability Risk Register (Rev 0)

Location:	Substation

Grid Reference (Eastings, Northings):	561180	799024
Distance to Watercourse (m)	< 50	
Min & Max Measured Peat Depth (m):	0.5-2.9	
Control Required:	No	

		Pre-Control Measure Implementation						Post-Control Measure Implementation			
Ref.	Contributory/Qualitative Factors to Potential Peat Failure	Prob (Note 2)	Impact (Note 3)	Risk	Risk Rating	Control Required	Control measures to be implemented during construction	Prob (Note 2)	Impact (Note 3)	Risk	Risk Rating
1	FOS = 2.87 (u), 2.87 (d)	1	4	4	Negligible	No	See Below	1	4	4	Negligible
2	Evidence of sub peat water flow	1	4	4	Negligible	No		1	4	4	Negligible
3	Evidence of surface water flow	2	4	8	Low	No		1	4	4	Negligible
4	Evidence of previous failures/slips	0	4	0	Not Applicable	No		0	4	0	Not Applicable
5	Type of vegetation	2	4	8	Low	No		1	4	4	Negligible
6	General slope characteristics upslope/downslope from infrastructure location	1	4	4	Negligible	No		1	4	4	Negligible
7	Evidence of very soft/soft clay at base of peat	0	4	0	Not Applicable	No		0	4	0	Not Applicable
8	Evidence of mechanically cut peat	0	4	0	Not Applicable	No		0	4	0	Not Applicable
9	Evidence of quaking or buoyant peat	0	4	0	Not Applicable	No		0	4	0	Not Applicable
10	Evidence of bog pools	0	4	0	Not Applicable	No		0	4	0	Not Applicable
11	Other	0	4	0	Not Applicable	No		0	4	0	Not Applicable

	Control Measures to be Implemented Prior to/and During Construction for **Substation**
i	Maintain hydrology of area as far as possible;
ii	Use of experienced geotechnical staff for site investigation;
iii	Use of experienced contractors and trained operators to carry out the work;
iv	Detailed ground investigation to determine peat, mineral soil and bedrock condition and properties.
v	Inspection & approval of sub-formation by a competent person where a gravity type foundation is constructed.
vi	Movement monitoring posts to be installed upslope of the turbine/harsdtand excavation and monitored on a regular basis

Note
(1) FOS abbreviations are: u: FOS for undrained analysis, d: FOS for drained analysis.
(2) Probability assessed as per Table A and B of Appendix E.
(3) Impact based on distance of infrastructure element to nearest watercourse.

Islandmore Wind Farm - Peat Stability Risk Register (Rev 0)

Location:	Const. Comp. (T10)

Grid Reference (Eastings, Northings):	561816	797365
Distance to Watercourse (m)	> 150	
Min & Max Measured Peat Depth (m):	2.7-3.6	
Control Required:	No	

		Pre-Control Measure Implementation						Post-Control Measure Implementation			
Ref.	Contributory/Qualitative Factors to Potential Peat Failure	Prob (Note 2)	Impact (Note 3)	Risk	Risk Rating	Control Required	Control measures to be implemented during construction	Prob (Note 2)	Impact (Note 3)	Risk	Risk Rating
1	FOS = 7.47 (u), 6.37 (d)	1	1	1	Negligible	No	See Below	1	1	1	Negligible
2	Evidence of sub peat water flow	1	1	1	Negligible	No		1	1	1	Negligible
3	Evidence of surface water flow	1	1	1	Negligible	No		1	1	1	Negligible
4	Evidence of previous failures/slips	0	1	0	Not Applicable	No		0	1	0	Not Applicable
5	Type of vegetation	2	1	2	Negligible	No		2	1	2	Negligible
6	General slope characteristics upslope/downslope from infrastructure location	1	1	1	Negligible	No		1	1	1	Negligible
7	Evidence of very soft/soft clay at base of peat	0	1	0	Not Applicable	No		0	1	0	Not Applicable
8	Evidence of mechanically cut peat	0	1	0	Not Applicable	No		0	1	0	Not Applicable
9	Evidence of quaking or buoyant peat	0	1	0	Not Applicable	No		0	1	0	Not Applicable
10	Evidence of bog pools	0	1	0	Not Applicable	No		0	1	0	Not Applicable
11	Other	2	1	2	Negligible	No		1	1	1	Negligible

	Control Measures to be Implemented Prior to/and During Construction for **Construction Compound (T10)**
i	Maintain hydrology of area as far as possible;
ii	Use of experienced geotechnical staff for site investigation;
iii	Use of experienced contractors and trained operators to carry out the work;
iv	Detailed ground investigation to determine peat, mineral soil and bedrock condition and properties.
v	Inspection & approval of turbine base sub-formation by a competent person where a gravity type foundation base is constructed.
vi	Movement monitoring posts to be installed upslope of the turbine/hardtand and monitored on a regular basis

Note
(1) FOS abbreviations are: u: FOS for undrained analysis, d: FOS for drained analysis.
(2) Probability assessed as per Table A and B of Appendix E.
(3) Impact based on distance of infrastructure element to nearest watercourse.

Islandmore Wind Farm - Peat Stability Risk Register (Rev 0)

Location:	Const. Comp. (T08)

Grid Reference (Eastings, Northings):	561816	797365
Distance to Watercourse (m)	> 150	
Min & Max Measured Peat Depth (m):	1.5-2.8	
Control Required:	No	

		Pre-Control Measure Implementation						Post-Control Measure Implementation			
Ref.	Contributory/Qualitative Factors to Potential Peat Failure	Prob (Note 2)	Impact (Note 3)	Risk	Risk Rating	Control Required	Control measures to be implemented during construction	Prob (Note 2)	Impact (Note 3)	Risk	Risk Rating
1	FOS = 2.27 (u), 8.17 (d)	1	1	1	Negligible	No	See Below	1	1	1	Negligible
2	Evidence of sub peat water flow	1	1	1	Negligible	No		1	1	1	Negligible
3	Evidence of surface water flow	1	1	1	Negligible	No		1	1	1	Negligible
4	Evidence of previous failures/slips	0	1	0	Not Applicable	No		0	1	0	Not Applicable
5	Type of vegetation	2	1	2	Negligible	No		2	1	2	Negligible
6	General slope characteristics upslope/downslope from infrastructure location	1	1	1	Negligible	No		1	1	1	Negligible
7	Evidence of very soft/soft clay at base of peat	0	1	0	Not Applicable	No		0	1	0	Not Applicable
8	Evidence of mechanically cut peat	0	1	0	Not Applicable	No		0	1	0	Not Applicable
9	Evidence of quaking or buoyant peat	0	1	0	Not Applicable	No		0	1	0	Not Applicable
10	Evidence of bog pools	0	1	0	Not Applicable	No		0	1	0	Not Applicable
11	Other	2	1	2	Negligible	No		1	1	1	Negligible

	Control Measures to be Implemented Prior to/and During Construction for **Construction Compound (T08)**
i	Maintain hydrology of area as far as possible;
ii	Use of experienced geotechnical staff for site investigation;
iii	Use of experienced contractors and trained operators to carry out the work;
iv	Detailed ground investigation to determine peat, mineral soil and bedrock condition and properties.
v	Inspection & approval of turbine base sub-formation by a competent person where a gravity type foundation base is constructed.
vi	Movement monitoring posts to be installed upslope of the turbine/hardtand and monitored on a regular basis

Note
(1) FOS abbreviations are: u: FOS for undrained analysis, d: FOS for drained analysis.
(2) Probability assessed as per Table A and B of Appendix E.
(3) Impact based on distance of infrastructure element to nearest watercourse.

Islandmore Wind Farm - Peat Stability Risk Register (Rev 0)

Location:	Access Track T01 to T02

Grid Reference (Eastings, Northings):	**Varies**
Distance to Watercourse (m)	**< 50**
Min & Max Measured Peat Depth (m):	**1.0-4.5**
Control Required:	**Yes**

		Pre-Control Measure Implementation						Post-Control Measure Implementation			
Ref.	Contributory/Qualitative Factors to Potential Peat Failure	Prob (Note 2)	Impact (Note 3)	Risk	Risk Rating	Control Required	Control measures to be implemented during construction	Prob (Note 2)	Impact (Note 3)	Risk	Risk Rating
1	FOS = 2.16 (u), 1.92 (d)	1	4	4	Negligible	No	See Below	1	4	4	Negligible
2	Evidence of sub peat water flow	1	4	4	Negligible	No		1	4	4	Negligible
3	Evidence of surface water flow	3	4	12	Medium	Yes		2	4	8	Low
4	Evidence of previous failures/slips	0	4	0	Not Applicable	No		0	4	0	Not Applicable
5	Type of vegetation	2	4	8	Low	No		1	4	4	Negligible
6	General slope characteristics upslope/downslope from infrastructure location	2	4	8	Low	No		1	4	4	Negligible
7	Evidence of very soft/soft clay at base of peat	0	4	0	Not Applicable	No		0	4	0	Not Applicable
8	Evidence of mechanically cut peat	0	4	0	Not Applicable	No		0	4	0	Not Applicable
9	Evidence of quaking or buoyant peat	3	4	12	Medium	No		2	4	8	Low
10	Evidence of bog pools	0	4	0	Not Applicable	No		0	4	0	Not Applicable
11	Relatively deep peat	3	4	12	Medium	Yes		1	4	4	Negligible

	Control Measures to be Implemented Prior to/and During Construction for **Access Track T01 to T02**
i	Maintain hydrology of area as far as possible;
ii	Use of experienced geotechnical staff for site investigation;
iii	Use of experienced contractors and trained operators to carry out the work;
iv	Detailed ground investigation to determine peat, mineral soil and bedrock condition and properties.
v	Movement monitoring posts to be installed upslope of the floating road and monitored on a regular basis

Note
(1) FOS abbreviations are: u: FOS for undrained analysis, d: FOS for drained analysis.
(2) Probability assessed as per Table A and B of Appendix D in PSA.
(3) Impact based on distance of infrastructure element to nearest watercourse.

Islandmore Wind Farm - Peat Stability Risk Register (Rev 0)

Location:	Access Track T02 to T03

Grid Reference (Eastings, Northings):	**Varies**
Distance to Watercourse (m)	**100 - 150**
Min & Max Measured Peat Depth (m):	**2.5-4.0**
Control Required:	**Yes**

		Pre-Control Measure Implementation						Post-Control Measure Implementation			
Ref.	Contributory/Qualitative Factors to Potential Peat Failure	Prob (Note 2)	Impact (Note 3)	Risk	Risk Rating	Control Required	Control measures to be implemented during construction	Prob (Note 2)	Impact (Note 3)	Risk	Risk Rating
1	FOS = 1.72 (u), 1.44 (d)	1	2	2	Negligible	No	See Below	1	2	2	Negligible
2	Evidence of sub peat water flow	1	2	2	Negligible	No		1	2	2	Negligible
3	Evidence of surface water flow	2	2	4	Negligible	No		1	2	2	Negligible
4	Evidence of previous failures/slips	0	2	0	Not Applicable	No		0	2	0	Not Applicable
5	Type of vegetation	2	2	4	Negligible	No		1	2	2	Negligible
6	General slope characteristics upslope/downslope from infrastructure location	2	2	4	Negligible	No		1	2	2	Negligible
7	Evidence of very soft/soft clay at base of peat	0	2	0	Not Applicable	No		0	2	0	Not Applicable
8	Evidence of mechanically cut peat	0	2	0	Not Applicable	No		0	2	0	Not Applicable
9	Evidence of quaking or buoyant peat	0	2	0	Not Applicable	No		0	2	0	Not Applicable
10	Evidence of bog pools	0	2	0	Not Applicable	No		0	2	0	Not Applicable
11	Relatively deep peat	3	2	6	Low	Yes		1	2	2	Negligible

	Control Measures to be Implemented Prior to/and During Construction for **Access Track T02 to T03**
i	Maintain hydrology of area as far as possible;
ii	Use of experienced geotechnical staff for site investigation;
iii	Use of experienced contractors and trained operators to carry out the work;
iv	Detailed ground investigation to determine peat, mineral soil and bedrock condition and properties.
v	Movement monitoring posts to be installed upslope of the floating road and monitored on a regular basis

Note
(1) FOS abbreviations are: u: FOS for undrained analysis, d: FOS for drained analysis.
(2) Probability assessed as per Table A and B of Appendix D in PSA.
(3) Impact based on distance of infrastructure element to nearest watercourse.

Islandmore Wind Farm - Peat Stability Risk Register (Rev 0)

Location:	Access Track T03 to T04

Grid Reference (Eastings, Northings):	**Varies**
Distance to Watercourse (m)	**100 - 150**
Min & Max Measured Peat Depth (m):	**1.2-5.0**
Control Required:	**No**

		Pre-Control Measure Implementation						Post-Control Measure Implementation			
Ref.	Contributory/Qualitative Factors to Potential Peat Failure	Prob (Note 2)	Impact (Note 3)	Risk	Risk Rating	Control Required	Control measures to be implemented during construction	Prob (Note 2)	Impact (Note 3)	Risk	Risk Rating
1	FOS = 1.60 (u), 1.48 (d)	1	2	2	Negligible	No	See Below	1	2	2	Negligible
2	Evidence of sub peat water flow	1	2	2	Negligible	No		1	2	2	Negligible
3	Evidence of surface water flow	2	2	4	Negligible	No		1	2	2	Negligible
4	Evidence of previous failures/slips	0	2	0	Not Applicable	No		0	2	0	Not Applicable
5	Type of vegetation	2	2	4	Negligible	No		1	2	2	Negligible
6	General slope characteristics upslope/downslope from infrastructure location	2	2	4	Negligible	No		1	2	2	Negligible
7	Evidence of very soft/soft clay at base of peat	0	2	0	Not Applicable	No		0	2	0	Not Applicable
8	Evidence of mechanically cut peat	0	2	0	Not Applicable	No		0	2	0	Not Applicable
9	Evidence of quaking or buoyant peat	0	2	0	Not Applicable	No		0	2	0	Not Applicable
10	Evidence of bog pools	0	2	0	Not Applicable	No		0	2	0	Not Applicable
11	Relatively deep peat	3	2	6	Low	No		1	2	2	Negligible

	Control Measures to be Implemented Prior to/and During Construction for **Access Track T03 to T04**
i	Maintain hydrology of area as far as possible;
ii	Use of experienced geotechnical staff for site investigation;
iii	Use of experienced contractors and trained operators to carry out the work;
iv	Detailed ground investigation to determine peat, mineral soil and bedrock condition and properties.
v	Movement monitoring posts to be installed upslope of the floating road and monitored on a regular basis
vi	Movement monitoring posts to be installed upslope of the turbine/hardstand excavation and monitored on a regular basis

Note
(1) FOS abbreviations are: u: FOS for undrained analysis, d: FOS for drained analysis.
(2) Probability assessed as per Table A and B of Appendix D in PSA.
(3) Impact based on distance of infrastructure element to nearest watercourse.

Islandmore Wind Farm - Peat Stability Risk Register (Rev 0)

Location:	Access Track T04 to T05

Grid Reference (Eastings, Northings):	**Varies**
Distance to Watercourse (m)	**50 - 100**
Min & Max Measured Peat Depth (m):	**0.4-3.6**
Control Required:	**Yes**

		Pre-Control Measure Implementation						Post-Control Measure Implementation			
Ref.	Contributory/Qualitative Factors to Potential Peat Failure	Prob (Note 2)	Impact (Note 3)	Risk	Risk Rating	Control Required	Control measures to be implemented during construction	Prob (Note 2)	Impact (Note 3)	Risk	Risk Rating
1	FOS = 2.16 (u), 1.92 (d)	1	3	3	Negligible	No	See Below	1	3	3	Negligible
2	Evidence of sub peat water flow	1	3	3	Negligible	No		1	3	3	Negligible
3	Evidence of surface water flow	2	3	6	Low	No		1	3	3	Negligible
4	Evidence of previous failures/slips	0	3	0	Not Applicable	No		0	3	0	Not Applicable
5	Type of vegetation	2	3	6	Low	No		1	3	3	Negligible
6	General slope characteristics upslope/downslope from infrastructure location	2	3	6	Low	No		1	3	3	Negligible
7	Evidence of very soft/soft clay at base of peat	0	3	0	Not Applicable	No		0	3	0	Not Applicable
8	Evidence of mechanically cut peat	0	3	0	Not Applicable	No		0	3	0	Not Applicable
9	Evidence of quaking or buoyant peat	0	3	0	Not Applicable	No		0	3	0	Not Applicable
10	Evidence of bog pools	0	3	0	Not Applicable	No		0	3	0	Not Applicable
11	Relatively deep peat	3	3	9	Low	No		1	3	3	Negligible

	Control Measures to be Implemented Prior to/and During Construction for **Access Track T04 to T05**
i	Maintain hydrology of area as far as possible;
ii	Use of experienced geotechnical staff for site investigation;
iii	Use of experienced contractors and trained operators to carry out the work;
iv	Detailed ground investigation to determine peat, mineral soil and bedrock condition and properties.
v	Movement monitoring posts to be installed upslope of the floating road and monitored on a regular basis

Note
(1) FOS abbreviations are: u: FOS for undrained analysis, d: FOS for drained analysis.
(2) Probability assessed as per Table A and B of Appendix D in PSA.
(3) Impact based on distance of infrastructure element to nearest watercourse.

Islandmore Wind Farm - Peat Stability Risk Register (Rev 0)

Location:	Access Track T05 to T07

Grid Reference (Eastings, Northings):	**Varies**
Distance to Watercourse (m)	**> 150**
Min & Max Measured Peat Depth (m):	**0.8-3.1**
Control Required:	**Yes**

		Pre-Control Measure Implementation						Post-Control Measure Implementation			
Ref.	Contributory/Qualitative Factors to Potential Peat Failure	Prob (Note 2)	Impact (Note 3)	Risk	Risk Rating	Control Required	Control measures to be implemented during construction	Prob (Note 2)	Impact (Note 3)	Risk	Risk Rating
1	FOS = 1.97 (u), 2.40 (d)	1	1	1	Negligible	No	See Below	1	1	1	Negligible
2	Evidence of sub peat water flow	1	1	1	Negligible	No		1	1	1	Negligible
3	Evidence of surface water flow	2	1	2	Negligible	No		1	1	1	Negligible
4	Evidence of previous failures/slips	0	1	0	Not Applicable	No		0	1	0	Not Applicable
5	Type of vegetation	2	1	2	Negligible	No		1	1	1	Negligible
6	General slope characteristics upslope/downslope from infrastructure location	2	1	2	Negligible	No		1	1	1	Negligible
7	Evidence of very soft/soft clay at base of peat	0	1	0	Not Applicable	No		0	1	0	Not Applicable
8	Evidence of mechanically cut peat	0	1	0	Not Applicable	No		0	1	0	Not Applicable
9	Evidence of quaking or buoyant peat	0	1	0	Not Applicable	No		0	1	0	Not Applicable
10	Evidence of bog pools	0	1	0	Not Applicable	No		0	1	0	Not Applicable
11	Relatively deep peat	3	1	3	Negligible	No		1	1	1	Negligible

	Control Measures to be Implemented Prior to/and During Construction for **Access Track T05 to T07**
i	Maintain hydrology of area as far as possible;
ii	Use of experienced geotechnical staff for site investigation;
iii	Use of experienced contractors and trained operators to carry out the work;
iv	Detailed ground investigation to determine peat, mineral soil and bedrock condition and properties.
v	Movement monitoring posts to be installed upslope of the floating road and monitored on a regular basis
vi	No sidecasting of material alongside public road

Note
(1) FOS abbreviations are: u: FOS for undrained analysis, d: FOS for drained analysis.
(2) Probability assessed as per Table A and B of Appendix D in PSA.
(3) Impact based on distance of infrastructure element to nearest watercourse.

Islandmore Wind Farm - Peat Stability Risk Register (Rev 0)

Location:	Access Track T07 to T06

Grid Reference (Eastings, Northings):	**Varies**
Distance to Watercourse (m)	**50 - 100**
Min & Max Measured Peat Depth (m):	**0-4.8**
Control Required:	**Yes**

		Pre-Control Measure Implementation						Post-Control Measure Implementation			
Ref.	Contributory/Qualitative Factors to Potential Peat Failure	Prob (Note 2)	Impact (Note 3)	Risk	Risk Rating	Control Required	Control measures to be implemented during construction	Prob (Note 2)	Impact (Note 3)	Risk	Risk Rating
1	FOS = 1.98 (u), 1.59 (d)	1	3	3	Negligible	No		1	3	3	Negligible
2	Evidence of sub peat water flow	1	3	3	Negligible	No		1	3	3	Negligible
3	Evidence of surface water flow	2	3	6	Low	No		1	3	3	Negligible
4	Evidence of previous failures/slips	0	3	0	Not Applicable	No		0	3	0	Not Applicable
5	Type of vegetation	2	3	6	Low	No		1	3	3	Negligible
6	General slope characteristics upslope/downslope from infrastructure location	2	3	6	Low	No	See Below	1	3	3	Negligible
7	Evidence of very soft/soft clay at base of peat	0	3	0	Not Applicable	No		0	3	0	Not Applicable
8	Evidence of mechanically cut peat	0	3	0	Not Applicable	No		0	3	0	Not Applicable
9	Evidence of quaking or buoyant peat	0	3	0	Not Applicable	No		0	3	0	Not Applicable
10	Evidence of bog pools	0	3	0	Not Applicable	No		0	3	0	Not Applicable
11	Relatively deep peat	3	3	9	Low	No		1	3	3	Negligible

	Control Measures to be Implemented Prior to/and During Construction for **Access Track T07 to T06**
i	Maintain hydrology of area as far as possible;
ii	Use of experienced geotechnical staff for site investigation;
iii	Use of experienced contractors and trained operators to carry out the work;
iv	Detailed ground investigation to determine peat, mineral soil and bedrock condition and properties.
v	Movement monitoring posts to be installed upslope of the floating road and monitored on a regular basis
vi	No sidecasting of material alongside public road

Note
(1) FOS abbreviations are: u: FOS for undrained analysis, d: FOS for drained analysis.
(2) Probability assessed as per Table A and B of Appendix D in PSA.
(3) Impact based on distance of infrastructure element to nearest watercourse.

Islandmore Wind Farm - Peat Stability Risk Register (Rev 0)

Location:	Access track T07 to T09

Grid Reference (Eastings, Northings):	**Varies**
Distance to Watercourse (m)	**< 50**
Min & Max Measured Peat Depth (m):	**0.8-7.2**
Control Required:	**No**

		Pre-Control Measure Implementation						Post-Control Measure Implementation			
Ref.	Contributory/Qualitative Factors to Potential Peat Failure	Prob (Note 2)	Impact (Note 3)	Risk	Risk Rating	Control Required	Control measures to be implemented during construction	Prob (Note 2)	Impact (Note 3)	Risk	Risk Rating
1	FOS = 1.89 (u), 2.23 (d)	1	4	4	Negligible	No	See Below	1	4	4	Negligible
2	Evidence of sub peat water flow	1	4	4	Negligible	No		1	4	4	Negligible
3	Evidence of surface water flow	2	4	8	Low	No		1	4	4	Negligible
4	Evidence of previous failures/slips	0	4	0	Not Applicable	No		0	4	0	Not Applicable
5	Type of vegetation	2	4	8	Low	No		1	4	4	Negligible
6	General slope characteristics upslope/downslope from infrastructure location	2	4	8	Low	No		1	4	4	Negligible
7	Evidence of very soft/soft clay at base of peat	0	4	0	Not Applicable	No		0	4	0	Not Applicable
8	Evidence of mechanically cut peat	0	4	0	Not Applicable	No		0	4	0	Not Applicable
9	Evidence of quaking or buoyant peat	0	4	0	Not Applicable	No		0	4	0	Not Applicable
10	Evidence of bog pools	0	4	0	Not Applicable	No		0	4	0	Not Applicable
11	Relatively deep peat	4	4	16	Medium	No		2	4	8	Low

	Control Measures to be Implemented Prior to/and During Construction for **Access Track T07 to T09**
i	Maintain hydrology of area as far as possible;
ii	Use of experienced geotechnical staff for site investigation;
iii	Use of experienced contractors and trained operators to carry out the work;
iv	Detailed ground investigation to determine peat, mineral soil and bedrock condition and properties.
v	Movement monitoring posts to be installed upslope of the floating road and monitored on a regular basis
vi	No sidecasting of material alongside public road

Note
(1) FOS abbreviations are: u: FOS for undrained analysis, d: FOS for drained analysis.
(2) Probability assessed as per Table A and B of Appendix D in PSA.
(3) Impact based on distance of infrastructure element to nearest watercourse.

Islandmore Wind Farm - Peat Stability Risk Register (Rev 0)

Location:	Access Track T09 to T08

Grid Reference (Eastings, Northings):	**Varies**
Distance to Watercourse (m)	**> 150**
Min & Max Measured Peat Depth (m):	**3.0-7.2**
Control Required:	**No**

		Pre-Control Measure Implementation						Post-Control Measure Implementation			
Ref.	Contributory/Qualitative Factors to Potential Peat Failure	Prob (Note 2)	Impact (Note 3)	Risk	Risk Rating	Control Required	Control measures to be implemented during construction	Prob (Note 2)	Impact (Note 3)	Risk	Risk Rating
1	FOS = 4.19 (u), 6.37 (d)	1	4	4	Negligible	No	See Below	1	4	4	Negligible
2	Evidence of sub peat water flow	1	4	4	Negligible	No		1	4	4	Negligible
3	Evidence of surface water flow	2	4	8	Low	No		1	4	4	Negligible
4	Evidence of previous failures/slips	0	4	0	Not Applicable	No		0	4	0	Not Applicable
5	Type of vegetation	2	4	8	Low	No		1	4	4	Negligible
6	General slope characteristics upslope/downslope from infrastructure location	2	4	8	Low	No		1	4	4	Negligible
7	Evidence of very soft/soft clay at base of peat	0	4	0	Not Applicable	No		0	4	0	Not Applicable
8	Evidence of mechanically cut peat	0	4	0	Not Applicable	No		0	4	0	Not Applicable
9	Evidence of quaking or buoyant peat	0	4	0	Not Applicable	No		0	4	0	Not Applicable
10	Evidence of bog pools	0	4	0	Not Applicable	No		0	4	0	Not Applicable
11	Relatively deep peat	4	4	16	Medium	No		2	4	8	Low

	Control Measures to be Implemented Prior to/and During Construction for **Access Track T09 to T08**
i	Maintain hydrology of area as far as possible;
ii	Use of experienced geotechnical staff for site investigation;
iii	Use of experienced contractors and trained operators to carry out the work;
iv	Detailed ground investigation to determine peat, mineral soil and bedrock condition and properties.
v	Movement monitoring posts to be installed upslope of the floating road and monitored on a regular basis

Note
(1) FOS abbreviations are: u: FOS for undrained analysis, d: FOS for drained analysis.
(2) Probability assessed as per Table A and B of Appendix D in PSA.
(3) Impact based on distance of infrastructure element to nearest watercourse.

Islandmore Wind Farm - Peat Stability Risk Register (Rev 0)

Location:	Access Track T09 to T10

Grid Reference (Eastings, Northings):	**Varies**
Distance to Watercourse (m)	**< 50**
Min & Max Measured Peat Depth (m):	**0.0-3.0**
Control Required:	**No**

		Pre-Control Measure Implementation						Post-Control Measure Implementation			
Ref.	Contributory/Qualitative Factors to Potential Peat Failure	Prob (Note 2)	Impact (Note 3)	Risk	Risk Rating	Control Required	Control measures to be implemented during construction	Prob (Note 2)	Impact (Note 3)	Risk	Risk Rating
1	FOS = 1.65 (u), 1.65 (d)	1	4	4	Negligible	No		1	4	4	Negligible
2	Evidence of sub peat water flow	1	4	4	Negligible	No		1	4	4	Negligible
3	Evidence of surface water flow	2	4	8	Low	No		1	4	4	Negligible
4	Evidence of previous failures/slips	0	4	0	Not Applicable	No		0	4	0	Not Applicable
5	Type of vegetation	2	4	8	Low	No		1	4	4	Negligible
6	General slope characteristics upslope/downslope from infrastructure location	2	4	8	Low	No	See Below	1	4	4	Negligible
7	Evidence of very soft/soft clay at base of peat	0	4	0	Not Applicable	No		0	4	0	Not Applicable
8	Evidence of mechanically cut peat	0	4	0	Not Applicable	No		0	4	0	Not Applicable
9	Evidence of quaking or buoyant peat	0	4	0	Not Applicable	No		0	4	0	Not Applicable
10	Evidence of bog pools	0	4	0	Not Applicable	No		0	4	0	Not Applicable
11	Relatively deep peat	2	4	8	Low	No		1	4	4	Negligible

	Control Measures to be Implemented Prior to/and During Construction for **Access Track T09 to T10**
i	Maintain hydrology of area as far as possible;
ii	Use of experienced geotechnical staff for site investigation;
iii	Use of experienced contractors and trained operators to carry out the work;
iv	Detailed ground investigation to determine peat, mineral soil and bedrock condition and properties.
v	Movement monitoring posts to be installed upslope of the floating road and monitored on a regular basis
vi	No sidecasting of material alongside public road

Note
(1) FOS abbreviations are: u: FOS for undrained analysis, d: FOS for drained analysis.
(2) Probability assessed as per Table A and B of Appendix D in PSA.
(3) Impact based on distance of infrastructure element to nearest watercourse.

FEHILY TIMONEY

DESIGNING AND DELIVERING
A SUSTAINABLE FUTURE

APPENDIX C

Calculated FOS for Peat Slopes on Site

Calculated FoS of Natural Peat Slopes for Islandmore Wind Farm - Undrained Analysis

Turbine No./Waypoint	Easting	Northing	Slope	Undrained shear strength	Bulk unit weight of Peat	Peat Depth	Surcharge Equivalent Placed Fill Depth (m)	Factor of Safety for Load Condition	
			β (deg)	c_u (kPa)	γ (kN/m^3)	(m)	Condition (2)	Condition (1)	Condition (2)
T01	561862	800538	3	6	10	4.5	5.5	**2.55**	**2.09**
T02	562401	800479	4	6	10	3.0	4.0	**2.87**	**2.16**
T03	562694	800221	3	6	10	2.8	3.8	**4.10**	**3.02**
T04	562316	799575	3	6	10	5.0	6.0	**2.30**	**1.91**
T05	561919	799411	1	6	10	1.5	2.5	**22.92**	**13.75**
T06	561124	799381	3	6	10	5.0	6.0	**2.30**	**1.91**
T07	562209	798866	5	6	10	3.0	4.0	**2.30**	**1.73**
T08	562020	798429	5	6	10	0.9	1.9	**7.68**	**3.64**
T09	562413	798338	2	6	10	7.2	8.2	**2.39**	**2.10**
T10	561923	797527	1	6	10	2.8	3.8	**12.28**	**9.05**
Substation	561138	799054	4	6	10	2.0	3.0	**4.31**	**2.87**
Construction Compound (T10)	562610	798520	1	6	10	3.6	4.6	**9.55**	**7.47**
PP01	561741	800539	3	6	10	4.0	5.0	**2.87**	**2.30**
PP02	561853	800552	0.5	6	10	1.0	2.0	**68.76**	**34.38**
PP03	561965	800561	0.5	6	10	1.7	2.7	**40.45**	**25.47**
PP04	562076	800567	5	6	10	1.8	2.8	**3.84**	**2.47**
PP05	562186	800545	4	6	10	2.1	3.1	**4.11**	**2.78**
PP06	562281	800528	4	6	10	3.0	4.0	**2.87**	**2.16**
PP07	562385	800504	4	6	10	3.5	4.5	**2.46**	**1.92**
PP08	562473	800462	4	6	10	3.0	4.0	**2.87**	**2.16**
PP09	562548	800403	4	6	10	2.8	3.8	**3.08**	**2.27**
PP10	562614	800351	4	6	10	3.5	4.5	**2.46**	**1.92**
PP11	562677	800295	4	6	10	4.0	5.0	**2.16**	**1.72**
PP12	562687	800218	4	6	10	2.5	3.5	**3.45**	**2.46**
PP13	562672	800113	6	6	10	2.2	3.2	**2.62**	**1.80**
PP14	562660	800009	6	6	10	2.6	3.6	**2.22**	**1.60**
PP15	562641	799902	7	6	10	1.2	2.2	**4.13**	**2.25**
PP16	562610	799787	6	6	10	2.0	3.0	**2.89**	**1.92**
PP17	562540	799705	4	6	10	3.6	4.6	**2.40**	**1.87**
PP18	562461	799617	3	6	10	5.0	6.5	**2.30**	**1.77**
PP19	562324	799585	3	6	10	3.6	4.6	**3.19**	**2.50**
PP20	562196	799561	4	6	10	3.0	4.0	**2.87**	**2.16**
PP21	562053	799493	3	6	10	0.4	1.4	**28.70**	**8.20**
PP22	562030	799414	5	6	10	0.4	1.4	**17.28**	**4.94**
PP23	561893	799374	4	6	10	1.5	2.5	**5.75**	**3.45**
PP24	562110	799397	4	6	10	1.2	2.2	**7.19**	**3.92**
PP25	562174	799311	4	6	10	1.3	2.3	**6.63**	**3.75**
PP26	562230	799240	8	6	10	0.8	1.8	**5.44**	**2.42**
PP27	562283	799161	6	6	10	1.1	2.1	**5.25**	**2.75**
PP28	562320	799097	6	6	10	1.6	2.6	**3.61**	**2.22**
PP29	562226	799075	8	No peat recorded at this location					
PP30	562149	799019	12	6	10	0.5	2.0	**5.90**	**1.48**
PP31	562181	798935	3	6	10	3.1	4.6	**3.70**	**2.50**
PP32	562211	798864	5	6	10	1.0	2.0	**6.91**	**3.46**
PP33	562043	799003	4	No peat recorded at this location					
PP34	561954	798979	4	6	10	0.5	1.5	**17.24**	**5.75**
PP35	561864	798953	2	6	10	0.4	1.4	**43.01**	**12.29**
PP36	561746	798943	1	No peat recorded at this location					
PP37	561621	798938	1	No peat recorded at this location					
PP38	561492	798934	1	No peat recorded at this location					
PP39	561390	798941	12	No peat recorded at this location					
PP40	561239	798962		No peat recorded at this location					
PP41	561067	798924	4	6	10	2.9	3.9	**2.97**	**2.21**
PP42	561014	799018	4	6	10	2.0	3.0	**4.31**	**2.87**
PP43	560974	799098	4	6	10	2.0	3.0	**4.31**	**2.87**
PP44	560935	799172	3	6	10	1.2	2.2	**9.57**	**5.22**
PP45	560899	799259	3	6	10	2.0	3.0	**5.74**	**3.83**
PP46	560974	799308	3	6	10	3.0	4.0	**3.83**	**2.87**
PP47	561053	799338	3	6	10	2.0	3.0	**5.74**	**3.83**
PP48	561141	799368	3	6	10	4.8	5.8	**2.39**	**1.98**
PP49	562381	799046	3	6	10	2.7	3.7	**4.25**	**3.10**
PP50	562440	798970	1	6	10	1.8	2.8	**38.20**	**24.56**
PP51	562495	798900	1	6	10	1.7	2.7	**40.45**	**25.47**
PP52	562543	798819	3	6	10	0.8	1.8	**14.35**	**6.38**
PP53	562575	798724	8	6	10	1.3	2.3	**3.35**	**1.89**
PP54	562609	798643	3	6	10	1.8	2.8	**6.38**	**4.10**
PP55	562644	798550	3	6	10	2.6	3.6	**4.42**	**3.19**
PP56	562661	798474	1	6	10	3.0	4.0	**22.92**	**17.19**
PP58	562442	798337	1	6	10	7.2	8.2	**9.55**	**8.39**
PP60	562748	798279	1	6	10	1.6	2.6	**42.97**	**26.45**
PP61	562764	798187	1	6	10	0.6	1.6	**114.60**	**42.97**
PP62	562786	798090	5	6	10	0.6	1.6	**11.52**	**4.32**
PP63	562800	797974	1	No peat recorded at this location					
PP64	562817	797846	1	No peat recorded at this location					
PP65	562841	797741	1	No peat recorded at this location					
PP66	562870	797629	1	No peat recorded at this location					
PP68	562958	797414	1	No peat recorded at this location					
PP69	562860	797362	1	No peat recorded at this location					
PP70	562772	797318	1	No peat recorded at this location					
PP71	562689	797264	1	No peat recorded at this location					
PP72	562601	797223	1	No peat recorded at this location					
PP73	562514	797176	1	No peat recorded at this location					
PP74	562414	797136	6	6	10	1.0	2.0	**5.77**	**2.89**
PP75	562331	797095	7	6	10	2.0	3.0	**2.48**	**1.65**
PP76	562221	797063	5	6	10	0.9	1.9	**7.68**	**3.64**
PP77	562120	797092	10	No peat recorded at this location					
PP78	562044	797128	4	No peat recorded at this location					
PP79	561954	797180	5	No peat recorded at this location					
PP80	561856	797250	6	No peat recorded at this location					

Calculated FoS of Natural Peat Slopes for Islandmore Wind Farm - Undrained Analysis

Turbine No./Waypoint	Easting	Northing	Slope	Undrained shear strength	Bulk unit weight of Peat	Peat Depth	Surcharge Equivalent Placed Fill Depth (m)	Factor of Safety for Load Condition	
			β (deg)	c_u (kPa)	γ (kN/m^3)	(m)	Condition (2)	Condition (1)	Condition (2)
PP81	561761	797336	8	No peat recorded at this location					
PP82	561847	797428	5	No peat recorded at this location					
PP83	561943	797512	1	6	10	0.9	1.9	**76.40**	**36.19**
PP84	562106	798324	1	6	10	3.0	4.0	**11.46**	**8.60**
PP85	562234	798328	1	6	10	7.2	8.2	**4.78**	**4.19**
PP86	562337	798332	1	6	10	6.0	7.0	**5.73**	**4.91**
PPSS01	561158	798972	9	6	10	0.5	1.5	**7.77**	**2.59**
PPSS02	561138	799054	4	6	10	1.7	2.7	**4.96**	**3.15**
PPSS03	561208	799075	6	6	10	1.0	2.5	**5.77**	**2.31**
PPSS04	561234	799000	6	No peat recorded at this location					
APP023	562126	797041	7	No peat recorded at this location					
APP024	562040	797022	6	6	10	0.4	1.4	**14.43**	**4.12**
APP025	561940	796992	6	6	10	0.4	1.4	**14.43**	**4.12**
APP026	561842	796954	1	6	10	0.4	1.4	**171.90**	**49.11**
APP027	561749	796904	6	6	10	0.4	1.4	**14.43**	**4.12**
APP028	561669	796846	1	6	10	0.2	1.2	**343.79**	**57.30**
APP029	561573	796778	10	6	10	0.2	1.2	**17.54**	**2.92**
APP030	561480	796717	1	6	10	1.0	2.0	**68.76**	**34.38**
APP031	561392	796666	5	6	10	1.0	2.0	**6.91**	**3.46**
APP032	561283	796607	4	6	10	0.7	1.7	**12.32**	**5.07**
APP033	561197	796553	10	No peat recorded at this location					
APP034	561237	796425	1	6	10	0.4	1.4	**171.90**	**49.11**
APP035	561318	796252	3	6	10	0.2	1.2	**57.40**	**9.57**
APP036	561439	796130	5	6	10	0.2	1.2	**34.55**	**5.76**
APP037	561556	795984	5	6	10	0.2	1.2	**34.55**	**5.76**
APP038	561696	795852	5	6	10	0.3	1.3	**23.04**	**5.32**
APP039	561808	795701	3	6	10	0.3	1.3	**38.27**	**8.83**
APP040	561889	795572	3	6	10	0.3	1.3	**38.27**	**8.83**
APP041	561980	795399	1	6	10	0.1	1.1	**687.58**	**62.51**
APP042	562106	795489	1	6	10	0.2	1.2	**343.79**	**57.30**
APP043	562155	795613	1	6	10	0.3	1.3	**229.19**	**52.89**
APP044	562245	795731	1	6	10	0.6	1.6	**114.60**	**42.97**
APP045	562329	795787	1	No peat recorded at this location					
APP050	561177	799153	3	6	10	3.0	4.5	**3.83**	**2.55**
APP051	561151	799235	5	6	10	3.4	4.9	**2.03**	**1.41**
APP052	561123	799316	1	6	10	1.4	2.4	**49.11**	**28.65**
APP053	562100	799478	3	6	10	0.6	1.6	**19.13**	**7.18**
APP054	562129	799501	3	6	10	0.3	1.3	**38.27**	**8.83**
APP055	562104	799519	1	6	10	0.8	1.8	**85.95**	**38.20**
APP056	562271	799564	4	6	10	1.9	2.9	**4.54**	**2.97**
APP057	562261	799605	3	6	10	3.5	4.5	**3.28**	**2.55**
APP059	562324	799631	1	6	10	4.2	5.2	**16.37**	**13.22**
APP060	562348	799606	4	6	10	2.3	3.3	**3.75**	**2.61**
APP061	562576	798527	1	6	10	3.6	4.6	**19.10**	**14.95**
APP062	562595	798492	1	6	10	2.7	3.7	**25.47**	**18.58**
APP063	562624	798541	1	6	10	3.5	4.5	**19.65**	**15.28**
APP064	562591	798445	1	6	10	1.8	2.8	**38.20**	**24.56**
APP065	562500	798419	1	6	10	5.0	6.0	**13.75**	**11.46**
APP066	562392	798406	1	6	10	3.5	4.5	**19.65**	**15.28**
APP067	562296	798399	1	6	10	3.0	4.0	**22.92**	**17.19**
APP068	562222	798344	1	6	10	2.8	3.8	**24.56**	**18.09**
APP069	562080	798376	1	6	10	3.5	4.5	**19.65**	**15.28**
APP070	562516	798605	1	6	10	3.1	4.6	**22.18**	**14.95**
APP071	562470	798469	1	6	10	5.4	6.4	**12.73**	**10.74**
APP072	561865	798336	1	6	10	2.8	4.3	**24.56**	**15.99**
APP073	562177	798232	3	6	10	4.6	6.1	**2.50**	**1.88**
APP074	562342	798272	1	6	10	4.6	6.1	**14.95**	**11.27**
2026									
APP001	561998	799501	1	6	10	0.6	1.6	**57.31**	**21.49**
APP002	561937	799453	1	6	10	0.7	1.7	**49.12**	**20.23**
APP003	562111	798995	5	6	10	0.2	1.2	**34.55**	**5.76**
APP004	562139	798928	3	6	10	1.2	2.2	**9.57**	**5.22**
APP005	562156	798869	3	6	10	1.4	2.4	**8.20**	**4.78**
APP006	562552	798671	1	6	10	0.4	1.4	**85.96**	**24.56**
APP007	562460	798624	1	6	10	1.0	2.0	**34.38**	**17.19**
APP008	562357	798583	2	6	10	1.5	2.5	**11.47**	**6.88**
APP009	562251	798540	4	6	10	2.8	3.8	**3.08**	**2.27**
APP010	562169	798508	10	6	10	0.6	1.6	**5.85**	**2.19**
APP011	562076	798468	6	6	10	1.0	2.0	**5.77**	**2.89**
APP012S	562678	798421	1	6	10	0.4	1.4	**85.96**	**24.56**
APP012N	562030	798467	1	6	10	1.1	2.1	**31.26**	**16.37**
APP013	562604	798408	1	6	10	4.0	5.0	**8.60**	**6.88**
APP014	562538	798390	1	6	10	7.0	8.0	**4.91**	**4.30**
APP015	562460	798372	2	6	10	6.0	7.0	**2.87**	**2.46**
APP016	561945	798405	8	6	10	0.3	1.8	**14.51**	**2.42**

Notes:

(1) Assuming a bulk unit weight for peat of 10kN/m^3

(2) Assuming a surcharge equivalent to fill depth of 1m of peat i.e. 10kPa.

(3) Slope inclination (β) based on site readings and site contour plans.

(4) A lower bound undrained shear strength, cu for the peat of 6kPa was selected for the assessment. It should be noted that a cu of 6kPa for the peat is considered a conservative value for the analysis and is not representative of all peat present across the site. In reality the peat has a significantly higher undrained strength.

(5) Peat depths based on probes carried out by FT.

(6) For load conditions see report text.

Calculated FoS of Natural Peat Slopes for Islandmore Wind Farm - Drained Analysis

Turbine No./Waypoint	Slope	Design c'	Bulk unit weight of Peat	Unit weight of Water	Depth of In situ Peat	Friction Angle	Surcharge Equivalent Placed Fill	Equivalent Total Depth of Peat (m)	Factor of Safety for Load Condition	
	α (deg)	c' (kPa)	γ (kN/m^3)	γ_w (kN/m^3)	(m)	ø' (deg)	Condition (2)	Condition (2)	Condition (1)	Condition (2)
									100% Water	100% Water
T01	3	4	10.0	10.0	4.5	25	1.0	5.5	**1.70**	**3.01**
T02	4	4	10.0	10.0	3.0	25	1.0	4.0	**1.92**	**3.10**
T03	3	4	10.0	10.0	2.8	25	1.0	3.8	**2.73**	**4.36**
T04	3	4	10.0	10.0	5.0	25	1.0	6.0	**1.53**	**2.76**
T05	1	4	10.0	10.0	1.5	25	1.0	2.5	**15.28**	**19.86**
T06	3	4	10.0	10.0	5.0	25	1.0	6.0	**1.53**	**2.76**
T07	5	4	10.0	10.0	3.0	25	1.0	4.0	**1.54**	**2.48**
T08	5	4	10.0	10.0	0.9	25	1.0	1.9	**5.12**	**5.23**
T09	2	4	10.0	10.0	7.2	25	1.0	8.2	**1.59**	**3.03**
T10	1	4	10.0	10.0	2.9	25	1.0	3.9	**7.90**	**12.73**
Substation	4	4	10.0	10.0	2.0	25	1.0	3.0	**2.87**	**4.14**
Construction Compound (T10)	1	4	10.0	10.0	3.6	25	1.0	4.6	**6.37**	**10.79**
PP01	3	4	10.0	10.0	4.0	25	1.0	5.0	**1.91**	**3.31**
PP02	0.5	4	10.0	10.0	1.0	25	1.0	2.0	**45.84**	**49.64**
PP03	0.5	4	10.0	10.0	1.7	25	1.0	2.7	**26.96**	**36.77**
PP04	5	4	10.0	10.0	1.8	25	1.0	2.8	**2.56**	**3.55**
PP05	4	4	10.0	10.0	2.1	25	1.0	3.1	**2.74**	**4.01**
PP06	4	4	10.0	10.0	3.0	25	1.0	4.0	**1.92**	**3.10**
PP07	4	4	10.0	10.0	3.5	25	1.0	4.5	**1.64**	**2.76**
PP08	4	4	10.0	10.0	3.0	25	1.0	4.0	**1.92**	**3.10**
PP09	4	4	10.0	10.0	2.8	25	1.0	3.8	**2.05**	**3.27**
PP10	4	4	10.0	10.0	3.5	25	1.0	4.5	**1.64**	**2.76**
PP11	4	4	10.0	10.0	4.0	25	1.0	5.0	**1.44**	**2.48**
PP12	4	4	10.0	10.0	2.5	25	1.0	3.5	**2.30**	**3.55**
PP13	6	4	10.0	10.0	2.2	25	1.0	3.2	**1.75**	**2.59**
PP14	6	4	10.0	10.0	2.6	25	1.0	3.6	**1.48**	**2.30**
PP15	7	4	10.0	10.0	1.2	25	1.0	2.2	**2.76**	**3.23**
PP16	6	4	10.0	10.0	2.0	25	1.0	3.0	**1.92**	**2.76**
PP17	4	4	10.0	10.0	3.6	25	1.0	4.6	**1.60**	**2.70**
PP18	3	4	10.0	10.0	5.0	25	1.5	6.5	**1.53**	**3.23**
PP19	3	4	10.0	10.0	3.6	25	1.0	4.6	**2.13**	**3.60**
PP20	4	4	10.0	10.0	3.0	25	1.0	4.0	**1.92**	**3.10**
PP21	3	4	10.0	10.0	0.4	25	1.0	1.4	**19.13**	**11.82**
PP22	5	4	10.0	10.0	0.4	25	1.0	1.4	**11.52**	**7.10**
PP23	4	4	10.0	10.0	1.5	25	1.0	2.5	**3.83**	**4.97**
PP24	4	4	10.0	10.0	1.2	25	1.0	2.2	**4.79**	**5.64**
PP25	4	4	10.0	10.0	1.3	25	1.0	2.3	**4.42**	**5.40**
PP26	8	4	10.0	10.0	0.8	25	1.0	1.8	**3.63**	**3.46**
PP27	6	4	10.0	10.0	1.1	25	1.0	2.1	**3.50**	**3.94**
PP28	6	4	10.0	10.0	1.6	25	1.0	2.6	**2.40**	**3.19**
PP29	8	No peat recorded at this location								
PP30	12	4	10.0	10.0	0.5	25	1.5	2.0	**3.93**	**2.63**
PP31	3	4	10.0	10.0	3.1	25	1.5	4.6	**2.47**	**4.57**
PP32	5	4	10.0	10.0	1.0	25	1.0	2.0	**4.61**	**4.97**
PP33	4	No peat recorded at this location								
PP34	4	4	10.0	10.0	0.5	25	1.0	1.5	**11.50**	**8.28**
PP35	2	4	10.0	10.0	0.4	25	1.0	1.4	**28.67**	**17.73**
PP36	1	No peat recorded at this location								
PP37	1	No peat recorded at this location								
PP38	1	No peat recorded at this location								
PP39	12	No peat recorded at this location								
PP40		No peat recorded at this location								
PP41	4	4	10.0	10.0	2.9	25	1.0	3.9	**1.98**	**3.18**
PP42	4	4	10.0	10.0	2.0	25	1.0	3.0	**2.87**	**4.14**
PP43	4	4	10.0	10.0	2.0	25	1.0	3.0	**2.87**	**4.14**
PP44	3	4	10.0	10.0	1.2	25	1.0	2.2	**6.38**	**7.52**
PP45	3	4	10.0	10.0	2.0	25	1.0	3.0	**3.83**	**5.52**
PP46	3	4	10.0	10.0	3.0	25	1.0	4.0	**2.55**	**4.14**
PP47	3	4	10.0	10.0	2.0	25	1.0	3.0	**3.83**	**5.52**
PP48	3	4	10.0	10.0	4.8	25	1.0	5.8	**1.59**	**2.85**
PP49	3	4	10.0	10.0	2.7	25	1.0	3.7	**2.83**	**4.47**
PP50	1	4	10.0	10.0	1.8	25	1.0	2.8	**25.47**	**35.45**
PP51	1	4	10.0	10.0	1.7	25	1.0	2.7	**26.96**	**36.77**
PP52	3	4	10.0	10.0	0.8	25	1.0	1.8	**9.57**	**9.20**
PP53	8	4	10.0	10.0	1.3	25	1.0	2.3	**2.23**	**2.70**
PP54	3	4	10.0	10.0	1.8	25	1.0	2.8	**4.25**	**5.91**
PP55	3	4	10.0	10.0	2.6	25	1.0	3.6	**2.94**	**4.60**
PP56	1	4	10.0	10.0	3.0	25	1.0	4.0	**15.28**	**24.82**
PP58	1	4	10.0	10.0	7.2	25	1.0	8.2	**6.37**	**12.11**
PP60	1	4	10.0	10.0	1.6	25	1.0	2.6	**28.65**	**38.18**
PP61	1	4	10.0	10.0	0.6	25	1.0	1.6	**76.40**	**62.05**
PP62	5	4	10.0	10.0	0.6	25	1.0	1.6	**7.68**	**6.21**
PP63	1	No peat recorded at this location								
PP64	1	No peat recorded at this location								
PP65	1	No peat recorded at this location								
PP66	1	No peat recorded at this location								
PP68	1	No peat recorded at this location								
PP69	1	No peat recorded at this location								
PP70	1	No peat recorded at this location								
PP71	1	No peat recorded at this location								
PP72	1	No peat recorded at this location								
PP73	1	No peat recorded at this location								
PP74	6	4	10.0	10.0	1.0	25	1.0	2.0	**3.85**	**4.14**
PP75	7	4	10.0	10.0	2.0	25	1.0	3.0	**1.65**	**2.37**
PP76	5	4	10.0	10.0	0.9	25	1.0	1.9	**5.12**	**5.23**
PP77	10	No peat recorded at this location								
PP78	4	No peat recorded at this location								
PP79	5	No peat recorded at this location								
PP80	6	No peat recorded at this location								
PP81	8	No peat recorded at this location								
PP82	5	No peat recorded at this location								

Calculated FoS of Natural Peat Slopes for Islandmore Wind Farm - Drained Analysis

Turbine No./Waypoint	Slope	Design c'	Bulk unit weight of Peat	Unit weight of Water	Depth of In situ Peat	Friction Angle	Surcharge Equivalent Placed Fill	Equivalent Total Depth of Peat (m)	Factor of Safety for Load Condition	
	α (deg)	c' (kPa)	γ (kN/m^3)	γ_w (kN/m^3)	(m)	ø' (deg)	Condition (2)	Condition (2)	Condition (1)	Condition (2)
									100% Water	100% Water
PP83	1	4	10.0	10.0	0.9	25	1.0	1.9	**50.93**	**52.25**
PP84	1	4	10.0	10.0	3.0	25	1.0	4.0	**34.36**	**32.45**
PP85	1	4	10.0	10.0	7.2	25	1.0	8.2	**29.90**	**29.51**
PP86	1	4	10.0	10.0	6.0	25	1.0	7.0	**30.54**	**29.99**
PPSS01	9	4	10.0	10.0	0.5	25	1.0	1.5	**8.12**	**4.67**
PPSS02	4	4	10.0	10.0	1.7	25	1.0	2.7	**10.05**	**8.80**
PPSS03	6	4	10.0	10.0	1.0	25	1.5	2.5	**8.28**	**5.98**
PPSS04	6	No peat recorded at this location								
APP023	7	No peat recorded at this location								
APP024	6	4	10.0	10.0	0.4	25	1.0	1.4	**14.06**	**7.19**
APP025	6	4	10.0	10.0	0.4	25	1.0	1.4	**14.06**	**7.19**
APP026	1	4	10.0	10.0	0.4	25	1.0	1.4	**168.03**	**86.18**
APP027	6	4	10.0	10.0	0.4	25	1.0	1.4	**14.06**	**7.19**
APP028	1	4	10.0	10.0	0.2	25	1.0	1.2	**282.63**	**91.63**
APP029	10	4	10.0	10.0	0.2	25	1.0	1.2	**14.34**	**4.59**
APP030	1	4	10.0	10.0	1.0	25	1.0	2.0	**99.27**	**76.35**
APP031	5	4	10.0	10.0	1.0	25	1.0	2.0	**9.94**	**7.63**
APP032	4	4	10.0	10.0	0.7	25	1.0	1.7	**14.88**	**10.05**
APP033	10	No peat recorded at this location								
APP034	1	4	10.0	10.0	0.4	25	1.0	1.4	**168.03**	**86.18**
APP035	3	4	10.0	10.0	0.2	25	1.0	1.2	**47.16**	**15.28**
APP036	5	4	10.0	10.0	0.2	25	1.0	1.2	**28.37**	**9.17**
APP037	5	4	10.0	10.0	0.2	25	1.0	1.2	**28.37**	**9.17**
APP038	5	4	10.0	10.0	0.3	25	1.0	1.3	**20.69**	**8.87**
APP039	3	4	10.0	10.0	0.3	25	1.0	1.3	**34.41**	**14.78**
APP040	3	4	10.0	10.0	0.3	25	1.0	1.3	**34.41**	**14.78**
APP041	1	4	10.0	10.0	0.1	25	1.0	1.1	**511.82**	**95.11**
APP042	1	4	10.0	10.0	0.2	25	1.0	1.2	**282.63**	**91.63**
APP043	1	4	10.0	10.0	0.3	25	1.0	1.3	**206.23**	**88.69**
APP044	1	4	10.0	10.0	0.6	25	1.0	1.6	**129.83**	**82.08**
APP045	1	No peat recorded at this location								
APP050	3	4	10.0	10.0	3.0	25	1.0	4.0	**11.45**	**10.81**
APP051	5	4	10.0	10.0	3.4	25	1.0	4.4	**6.68**	**6.38**
APP052	1	4	10.0	10.0	1.4	25	1.0	2.4	**86.18**	**72.53**
APP053	3	4	10.0	10.0	0.6	25	1.0	1.6	**21.65**	**13.68**
APP054	3	4	10.0	10.0	0.3	25	1.0	1.3	**34.41**	**14.78**
APP055	1	4	10.0	10.0	0.8	25	1.0	1.8	**110.73**	**78.90**
APP056	4	4	10.0	10.0	1.9	25	1.0	2.9	**9.69**	**8.65**
APP057	3	4	10.0	10.0	3.5	25	1.0	4.5	**11.08**	**10.60**
APP059	1	4	10.0	10.0	4.2	25	1.0	5.2	**64.35**	**62.25**
APP060	4	4	10.0	10.0	2.3	25	1.0	3.3	**9.17**	**8.41**
APP061	1	4	10.0	10.0	3.6	25	1.0	4.6	**66.17**	**63.40**
APP062	1	4	10.0	10.0	2.7	25	1.0	3.7	**70.41**	**65.82**
APP063	1	4	10.0	10.0	3.5	25	1.0	4.5	**66.53**	**63.62**
APP064	1	4	10.0	10.0	1.8	25	1.0	2.8	**78.90**	**69.80**
APP065	1	4	10.0	10.0	5.0	25	1.0	6.0	**62.60**	**61.07**
APP066	1	4	10.0	10.0	3.5	25	1.0	4.5	**66.53**	**63.62**
APP067	1	4	10.0	10.0	3.0	25	1.0	4.0	**68.71**	**64.89**
APP068	1	4	10.0	10.0	2.8	25	1.0	3.8	**69.80**	**65.50**
APP069	1	4	10.0	10.0	3.5	25	1.0	4.5	**66.53**	**63.62**
APP070	1	4	10.0	10.0	3.1	25	1.5	4.6	**68.22**	**63.40**
APP071	1	4	10.0	10.0	5.4	25	1.0	6.4	**61.92**	**60.60**
APP072	1	4	10.0	10.0	2.8	25	1.5	4.3	**69.80**	**64.09**
APP073	3	4	10.0	10.0	4.6	25	1.5	6.1	**10.56**	**10.15**
APP074	1	4	10.0	10.0	4.6	25	1.5	6.1	**63.40**	**60.95**
2026										
APP001	1	4	10.0	10.0	0.6	25	1.0	1.6	**64.92**	**41.04**
APP002	1	4	10.0	10.0	0.7	25	1.0	1.7	**59.46**	**40.20**
APP003	5	4	10.0	10.0	0.2	25	1.0	1.2	**28.37**	**9.17**
APP004	3	4	10.0	10.0	1.2	25	1.0	2.2	**15.28**	**12.38**
APP005	3	4	10.0	10.0	1.4	25	1.0	2.4	**14.36**	**12.09**
APP006	1	4	10.0	10.0	0.4	25	1.0	1.4	**84.02**	**43.09**
APP007	1	4	10.0	10.0	1.0	25	1.0	2.0	**49.64**	**38.18**
APP008	2	4	10.0	10.0	1.5	25	1.0	2.5	**21.00**	**17.94**
APP009	4	4	10.0	10.0	2.8	25	1.0	3.8	**8.72**	**8.18**
APP010	10	4	10.0	10.0	0.6	25	1.0	1.6	**6.54**	**4.11**
APP011	6	4	10.0	10.0	1.0	25	1.0	2.0	**8.28**	**6.36**
APP012S	1	4	10.0	10.0	0.4	25	1.0	1.4	**84.02**	**43.09**
APP012N	1	4	10.0	10.0	1.1	25	1.0	2.1	**47.55**	**37.63**
APP013	1	4	10.0	10.0	4.0	25	1.0	5.0	**32.45**	**31.30**
APP014	1	4	10.0	10.0	7.0	25	1.0	8.0	**29.99**	**29.58**
APP015	2	4	10.0	10.0	6.0	25	1.0	7.0	**15.26**	**14.99**
APP016	8	4	10.0	10.0	0.3	25	1.5	1.8	**12.99**	**4.93**
								Minimum =	**1.44**	**2.30**
								Maximum =	**511.82**	**95.11**
								Average =	**34.11**	**22.65**

Notes:

(1) Assuming a bulk unit weight of peat of 10 (kN/m^3)

(2) Assuming a surcharge equivalent to fill depth of 1.0m.

(3) Slope inclination (β) based on site readings and contour survey plans of site.

(4) FoS is based on slope inclination and shear test results obtained from published data.

(5) Peat depths based on probes carried out by FT.

(6) For load conditions see Report text.

(7) Minimum acceptable factor of safety required of 1.3 for first-time failures based on BS: 6031:1981 Code of practice for Earthworks.

FEHILY TIMONEY

DESIGNING AND DELIVERING
A SUSTAINABLE FUTURE

APPENDIX D

Methodology for Peat Stability Risk Assessment

Methodology for Peat Stability Risk Assessment

A peat stability risk assessment was carried out for each of the main infrastructure elements at the proposed project. This approach takes into account guidelines for geotechnical/peat stability risk assessments as given in PLHRAG (2nd Edition, 2017) and MacCulloch (2005). The degree of risk is determined as a Risk Rating (R), which is the product of probability (P) and impact (I). How these factors are determined and applied in the analysis is described below.

The main approaches for assessing peat stability include the following:

(a) Geomorphological

(b) Qualitative (judgement)

(c) Index/Probabilistic (probability)

(d) Deterministic (factor of safety)

Approaches (a) to (c) listed above would be considered subjective and do not provide a definitive indication of stability; in addition, a high level of judgement/experience is required which makes it difficult to relate the findings to real conditions. FT apply a more objective approach, the deterministic approach. As part of FT's deterministic approach, a qualitative risk assessment is also carried out taking into account qualitative factors, which cannot necessarily be quantified.

Probability

The likelihood of a peat failure occurring was assessed based on the results of both the quantitative results of stability calculations (deterministic approach using factors of safety) and the assessment of the severity of several qualitative factors which cannot be reasonably included in a stability calculation but nevertheless may affect the occurrence of peat instability.

The qualitative factors used in the risk assessment are outlined in Table A and have been compiled based on FT's experience of assessments and construction in peat land sites and peat failures throughout Ireland and the UK.

Table A: Qualitative Factors used to Assess Potential for Peat Failure

Qualitative Factor	Type of Feature/Indicator for each Qualitative Factor (1)	Explanation/Description of Qualitative Factor
Evidence of sub peat water flow	No	Based on site walkover observations. Sub peat water flow generally occurs in the form of natural piping at the base of peat. Where there is a constriction or blockage in natural pipes a build-up of water can occur at the base of the peat causing a reduction in effective stress at the base of the peat resulting in failure; this is particularly critical during periods of intense rainfall.
	Possibly	
	Probably	
	Yes	

Qualitative Factor	Type of Feature/Indicator for each Qualitative Factor [1]	Explanation/Description of Qualitative Factor
Evidence of surface water flow	Dry	Based on site walkover observations. The presence of surface water flow indicates if peat in an area is well drained or saturated and if any additional loading from the ponding of surface water onto the peat is likely.
	Localised/Flowing in drains	
	Ponded in drains	
	Springs/surface water	
Evidence of previous failures/slips	No	Based on site walkover observations. The presence of clustering of relict failures may indicate that particular pre-existing site conditions predispose a site to failure.
	In general area	
	On site	
	Within 500m of location	
Type of vegetation	Grass/Crops	Based on site walkover observations. The type of vegetation present indicates if peat in an area is well drained, saturated, etc. Vegetation that indicates wetter ground may also indicate softer underlying peat deposits.
	Improved Grass/Dry Heather	
	Wet Grassland/Juncus (Rushes)	
	Wetlands Sphagnum (Peat moss)	
General slope characteristics upslope/downslope from infrastructure location	Concave	Based on site walkover observations. Slope morphology in the area of the infrastructure location is an important factor. A number of recorded peat failures have occurred in close proximity to a convex break in slope.
	Planar to concave	
	Planar to convex	
	Convex	
Evidence of very soft/soft clay at base of peat	No	Based on inspection of exposures in general area from site walkover. Several reported peat failures identify the presence of a weak layer at the base of the peat along which shear failure has occurred.
	Yes	
Evidence of mechanically cut peat	No	Based on site walkover observations. Mechanically cut peat typically cut using a ‘sausage’ machine to extract

Qualitative Factor	Type of Feature/Indicator for each Qualitative Factor (1)	Explanation/Description of Qualitative Factor
	Yes	peat for harvesting. Areas which have been cut in this manner have been linked to peat instability. The mechanical cuts can notably reduce the intrinsic strength of the peat and also allow ingress of rainfall/surface water.
Evidence of quaking or buoyant peat	No	Based on site walkover observations. Quaking/buoyant peat is indicative of highly saturated peat, which would generally be considered to have a low strength. Quaking peat is a feature on sites that have been previously linked with peat instability.
	Yes	
Evidence of bog pools	No	Based on site walkover observations. Bog pools are generally an indicator of areas of weak, saturated peat. Commonly where there are open areas of water within peat these can be interconnected, with the result that there may be sub-surface bodies of water. The presence of bog pools has been previously linked with peat instability.
	Yes	
Other	Varies	In addition to the above features/ indicators and based on site recordings the following are some of the features which may be identified: Excessively deep peat, weak peat, overly steep slope angles, etc.

Note (1) The list of features/indicators for each qualitative factor are given in increasing order of probability of leading to peat instability/failure.

It should be noted that the presence of one of the qualitative factors alone from Table A is unlikely to lead to peat instability/failure. Peat instability/failure at a site is generally the combination of a number of these factors occurring at the same time at a particular location. The probability rating assigned to the quantitative and qualitative factors is judged on a 5-point scale from 1 (indicating negligible or no probability of failure) to 5 (indicating a very likely failure), as outlined in Table B.

Table B: Probability Scale

Scale	Factor of Safety	Probability
1	1.30 or greater	Negligible/None
2	1.29 to 1.20	Unlikely
3	1.19 to 1.11	Likely
4	1.01 to 1.10	Probable
5	≤1.0	Very Likely

Scale	Likelihood of Qualitative Factor leading to Peat Failure	Probability of Failure
1	Negligible/None	Least
2	Unlikely	
3	Probable	
4	Likely	
5	Very Likely	Greatest

Impact

The severity of the risk is also assessed qualitatively in terms of impact. The impact of a peat failure on the environment within and beyond the immediate wind farm site is assessed based on the potential travel distance of a peat failure. Where a peat failure enters a watercourse, it can travel a considerable distance downstream. Therefore, the proximity of a potential peat failure to a drainage course is a significant indicator of the likely potential impact.

The risk is determined based on the combination of hazard and impact. A qualitative scale has been derived for the impact of the hazard based on distance of infrastructure element to a watercourse (Table C).

The location of watercourses is based on topographic maps and supplemented by site observations from walkover survey. Note that not all water courses are shown on maps.

Table C: Impact Scale

Scale	Criteria	Impact
1	Proposed infrastructure element greater than 150m of watercourse	Negligible/None
2	Proposed infrastructure element within 150 to 101m of watercourse	Low
3	Proposed infrastructure element within 100 to 51m of watercourse	Medium

4	Proposed infrastructure element within 50 m of watercourse	High
5	Proposed infrastructure element within 50 m of watercourse, in an environmentally sensitive area	Extremely High

Risk Rating

The degree of risk is determined as the product of probability (P) and impact (I), which gives the Risk Rating (R) as follows:

The Risk Rating is calculated from: R = P x I

Due to the 5-point scales used to assess Probability and Impact, the Risk Rating can range from 1 to 25 as shown in Table D.

Table D: Qualitative Risk Rating

		Probability				
		1	**2**	**3**	**4**	**5**
Impact	**5**	5	10	15	20	25
	4	4	8	12	16	20
	3	3	6	9	12	15
	2	2	4	6	8	10
	1	1	2	3	4	5

Risk Rating & Control Measures	
17 to 25	High: avoid working in area or significant control measures required
11 to 16	Medium: notable control measures required
5 to 10	Low: only routine control measures required
1 to 4	Negligible: none or only routine control measures required

The risk rating is calculated individually for each contributory factor. Control measures are required to reduce the risk to at least a 'Low' risk rating. The control measures in response to the qualitative risk ratings are included in the peat stability risk registers for each main infrastructure element in Appendix B.

The risk rating is calculated individually for each contributory factor. Control measures are required to reduce the risk to at least a 'Low' risk rating.

FEHILY TIMONEY

DESIGNING AND DELIVERING
A SUSTAINABLE FUTURE

APPENDIX E

Ground Investigation (April 2025) – IDL Factual Report

IRISH DRILLING LIMITED

LOUGHREA, CO. GALWAY, IRELAND

CONTRACT DRILLING
SITE INVESTIGATION

Phone: (091) 841 274
Fax: (091) 880 861

email: info@irishdrilling.ie

ISLANDMORE WIND FARM

GROUND INVESTIGATION FACTUAL REPORT

Galetech Energy Services,
Clondargan,
Stradone,
Co. Cavan.
H12 NV06

FTCO,
Bagenalstown Industrial Park,
Bagenalstown,
Co. Carlow,
R21 XW81.

	Prepared by	Approved by	Rev. Issue Date:	Revision No.
	Ronan Killeen	Declan Joyce	28th May 2025	24 _RN _101/01
Signature				

FOREWORD

The borehole and trial pit records have been compiled from an examination of the samples by a Geotechnical Engineer and from the Drillers' descriptions.

The report presents an opinion on the configuration of the strata within the site based on the borehole and trial pit results. The assumptions, though reasonable, are given for guidance only and no liability can be accepted for changes in conditions not revealed by the boreholes and trial pits.

The fieldwork was carried out in accordance with IS EN 1997-2 and BS5930:2015+A1:2020 Code of Practice for Ground Investigations with precedence given to IS EN 1997-2 where applicable.

Contents:

1.0	Introduction	Page 1
2.0	The Site & Geology	Page 1
3.0	Fieldwork	Page 1
4.0	Laboratory Testing	Page 4

Book 1 of 1

Appendix 1	Borehole Records (Rotary Core)
Appendix 2	Trial Pit Records
Appendix 3	Laboratory Test Results
Appendix 4	Trial Pit Photographs
Appendix 5	Rotary Core Photographs
Appendix 6	Site Plans
Appendix 7	Digital Data (AGS)

1 Introduction.

Irish Drilling Ltd. (IDL) was instructed by FTCO Consulting Engineers, on behalf of Galetech Energy Services, to carry out a site investigation at the site of the proposed Islandmore Wind Farm.

This site investigation was carried out to provide detailed factual geotechnical information of the underlying ground conditions at the site.

The fieldwork commenced on March 26th 2025 and was completed on April 1st 2025.

2 Site & Geology

The site is located north of Ballaghaderreen, County Roscommon.

The fieldwork was carried out predominantly on agricultural lands, forested lands and/or boglands. Weather conditions in general were quite variable with the majority of the fieldwork carried out over a typical winter/spring period in Ireland.

Site Plans, prepared by the client's representatives to show approximate fieldwork locations, are included with this report as Appendix 6.

The following were the main published information sources used:
Geological Map of Ireland: 1:500,000 scale map series.

Site investigation data is available as point source data along the proposed route, and the majority of the ground in between the points can only be assumed to follow the characteristics of the nearest available data.

Overview of Subsoil Geology

Peat:

The deposition of peat occurred in post-glacial periods and is generally associated with the start of warmer and wetter climatic conditions. Peat is an unconsolidated usually dark brown to black organic material comprising a mixture of decomposed and undecomposed plant matter that accumulated in an acidic waterlogged environment. Peat has an extremely high-water content generally averaging over 90% by volume.

Glacial Till:

Glacial Till is what was often referred to as Boulder Clay. It is a diverse material that is largely deposited sub-glacially and has a wide range of characteristics due to the variety of parent materials and different processes of deposition. Tills are tightly packed, unsorted, heterogeneous, unbedded, and can have a wide range of particle sizes and types, which are often but not exclusively angular or sub-angular.

The type of parent material plays a critical role in providing the particles that create different subsoil permeability with sandstones giving rise to a high proportion of sand sized grains in the till matrix.

Made Ground:

Made Ground is material which has been purposefully emplaced by humans.

Solid Geology

The Geological Map of Ireland: (GSI 1:500,000 scale map series) indicate that the site is predominantly underlain by sandstone and siltstone of the Silurian Formation.

3 Fieldwork.

3.1 Fieldwork Plant:

The following plant was mobilised to site by IDL to carry out fieldwork operations:
1nr. Hitachi Zaxis 130Tracked Excavator.
1nr. GT1100 GoTract Rotary Core Drilling Rig.
1nr. Yanmarr All-Terrain Support Vehicle.
1nr. HQ Rotary Core Drill String.
1nr. Honda Water Supply Pump.
1nr. Drilling Water Recirculation Tank Syatem.

Fieldwork carried out to date has included the following:

3.2 Fieldwork Operations:

A general summary of fieldwork operations carried out to date includes the following:

- Completion of 2nr Rotary Core Boreholes.
- Excavation of 13nr Trial Pits.
- Installation of 2nr 50mm diameter standpipes at borehole locations.

3.3 Rotary Core Boreholes:

Two rotary core boreholes were carried out to establish overburden conditions and rockhead and to establish the nature and integrity of the underlying rock.

HQ drill strings ((64mm core diameter, 96mm hole diameter), using wireline drilling techniques, were then used to recover soil and rock core samples at the borehole locations.

The boreholes were carried out to a depth of 15.00m below ground level. The boreholes were carried out to target depths as instructed by the client representatives. Target depths were established by the client's representatives based on bedrock quality and bedrock depths encountered.

A water based flush system was used as the drilling medium while a biodegradable polymer gel was also used where necessary to aid the drilling and soil / rock recovery process.

The samples were stored in wooden boxes and returned to the laboratory where there were logged and photographed by a Geotechnical Engineer and presented for testing.

A 50mm diameter standpipe was installed in the following rotary core boreholes and as instructed by the Client's Engineer, to allow for monitoring of groundwater levels over a prolonged period of time:
RC-01
RC-02

Detailed engineering logs for the rotary core boreholes completed are included with this report in Appendix 1.

3.4 Trial Pits:

Thirteen trial pits were excavated on site using a 13T wide-tracked excavator.

The pits were logged and photographed by an Engineer with observations made on ground conditions, pit stability, water ingress and services encountered.

The pits were excavated to depths ranging from 2.40m to 4.30m below ground level. Trial pits were terminated in general once target depths were achieved and/or due to pit stability issues encountered and for further details on pit terminations please refer to the trial pit logs included as Appendix 2.

Small and bulk disturbed soil samples were recovered at each change in strata and returned to the laboratory and presented for testing.

Detailed engineering logs for the trial pits completed are included with this report in Appendix 2.

3.5 General Summary:

The borehole and trial pit locations were set out using a Trimble CU Bluetooth GPS Surveying Unit and the co-ordinates are included on the logs presented in the appendices.

All fieldwork co-ordinates were recorded by the client's representatives and are reported to Irish Transverse Mercator (ITM).

Ground conditions encountered during the completion of the fieldwork were typical and as expected for this region and predominantly consisted of Peat overlying Glacial Tills overlying bedrock.

The Glacial Tills in general consisted of brown silty sands and gravels with cobbles and boulders and/or brown slightly gravelly sandy silt with cobbles and boulders.

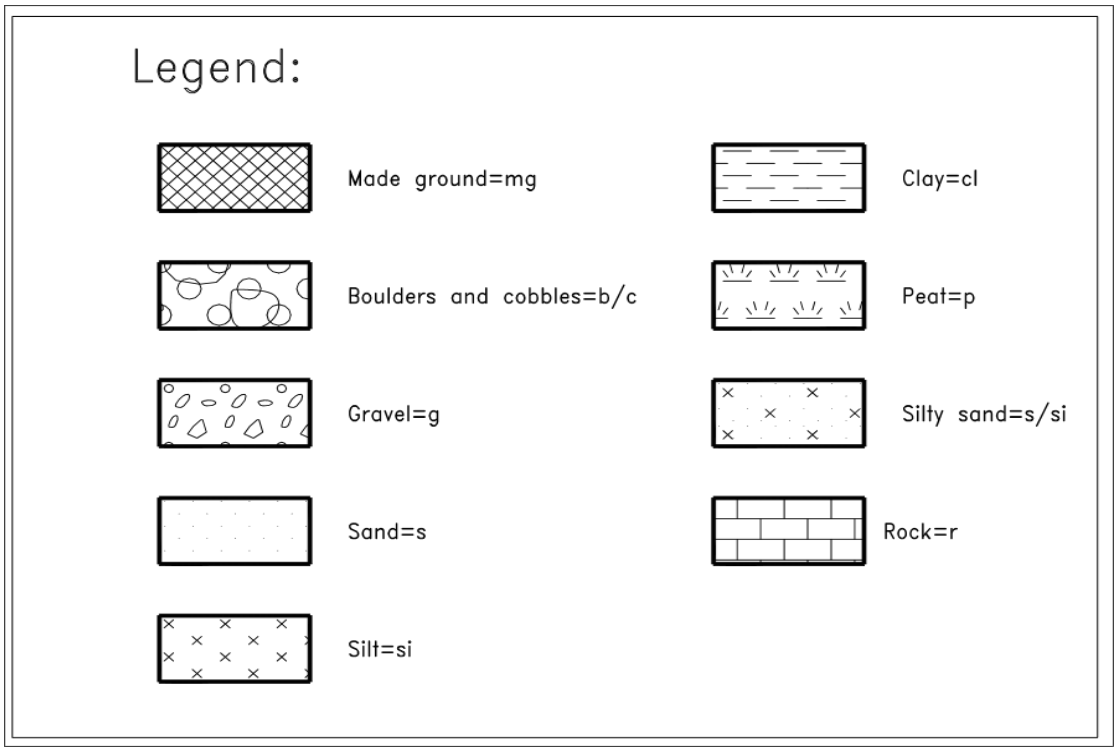
Peat was encountered in many of the fieldwork locations at depths ranging from 0.30m to 4.00m below ground level.

Intact bedrock was encountered in the boreholes at depths ranging from 6.80m to 7.40m below ground level. Weathered bedrock was also encountered in the boreholes at shallower depths.

Bedrock is predominantly described as very strong locally strong thinly laminated fine and medium-grained sandstone.

For detailed descriptions of bedrock and ground conditions encountered please refer to the engineering logs included in the appendices of this report.

The following Key Legend Table details the symbology used on the engineering logs to describe ground conditions encountered:



The fieldwork was carried out in accordance with IS EN 1997-2 and BS5930:2015+A1:2020 Code of Practice for Site Investigations with precedence given to IS EN 1997-2 where applicable.

6.4 Laboratory Testing

Representative samples recovered from the boreholes and trial pits were scheduled for testing in the laboratory.

The test schedules were prepared by the Client's Engineer and included the following tests on bulk disturbed soil samples:

Test Type:	Number
Moisture Content	08
Atterberg Limits	02
Particle Size Distribution	07
Sedimentation	02
Organic Content	05
Chemical (Sulphate Water Gravimetric)	05
Chemical (Sulphate Total)	05

The test schedules were carried out predominantly at the IDL Laboratory located at Loughrea, County Galway.

A number of specialist tests not available at the IDL laboratory were carried out by designated laboratories on a subcontract basis as follows:

Laboratory chemical tests were carried out by ALS Ltd., Hawarden, UK.

Soil samples in general were recovered from the excavation of trial pits. Rock core samples were recovered from the completion of rotary core boreholes and the records of all laboratory test results are included with this report as Appendix 3.

The soil and rock descriptions as noted on the borehole and trial pit logs are in general visual descriptions as observed and logged by our Engineers and are described in accordance with IS EN 1997-2 and BS5930:2015+A1:2020 Code of Practice for Site Investigations.

Soils descriptions (cohesive or otherwise) are also initially assessed based on the texture and 'feel' of the soil materials as witnessed by our Geotechnical Engineers and in accordance with IS EN 1997-2 and BS5930:2015+A1:2020.

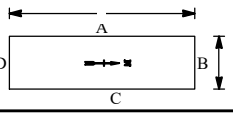
Where laboratory classification tests have been carried out on soil and/or rock samples then these visual descriptions have been amended accordingly to take into account the results of these classification tests.

The records of all fieldwork, laboratory test results and photographs are included in the appendices of this Factual Report.

Ronan Killeen
Chartered Engineer
Irish Drilling Limited
May 28th 2025

Appendix 1
Trial Pit Records

PROJECT: Islandmore Wind Farm	**TRIALPIT: TP-SS01**
LOCATION: Co Roscommon	**Sheet 1 of 1**
CLIENT: Galetech	**Co-ordinates: E 561,136.5 N 799,052.5**
ENGINEER: FTCO	**Rig: Hitachi Zaxis LCN 130**
Ground level: 157.74m O.D.	**Rev:**
GROUNDWATER	**DATE: 27.3.25**
Water strikes: **Rose to after:**	**PIT DIRECTION: 0°**
1st: dry	**PIT DIMENSION: 5.00m * 1.20**
2nd:	**LOGGED BY: DF**
3rd:	Shoring/Support: N/A
	Stability: Pit stable.



Depth (m)	Date	Water	Samples	Depth (m)	SPT (N) / In Situ Vane Tests	LEGEND	Elevation m O.D.	Depth (m)	DESCRIPTION	Instrument/ Backfill
0									Grass over soft brownish black fibrous PEAT. H3.	
							155.99	1.75		
2			B 1	1.85-2.05					Grey slightly silty coarse SAND with rare cobbles. Cobbles are angular.	
							155.64	2.10		
			B 2	2.50-2.70					Purplish brown gravelly very silty fine and medium SAND with frequent cobbles. Gravel is angular to subangular fine to coarse. Cobbles are subangular.	
3		▼					154.74	3.00		
									Angular to subangular COBBLES and BOULDERS with a sandy silty infill.	
							154.04	3.70		
									END	
4										
5										

Remarks: Rapid ingress of water at 3.00m bgl. TP terminated at 3.70m bgl on REs instruction. TP backfilled with arisings.

Scale: 1:25

Irish drilling LTD

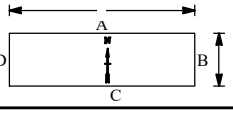
Ph.
Fax

TRIALPIT ISLANDMORE WF TPS FILE 1 APRIL 11 2025.GPJ ID GINT AGS 4_0_4.GDT 28/5/25

PROJECT: Islandmore Wind Farm	**TRIALPIT: TP-SS02**
LOCATION: Co Roscommon	**Sheet 1 of 1**
CLIENT: Galetech	**Co-ordinates: E 561,231.9 N 799,003.1**
ENGINEER: FTCO	**Rig: Hitachi Zaxis LCN 130**
Ground level: 160.74m O.D.	**Rev:**
GROUNDWATER	**DATE: 27.3.25**

Water strikes: **Rose to after:**
1st: dry
2nd:
3rd:

PIT DIRECTION: 90°
PIT DIMENSION: 4.00m * 1.20
LOGGED BY: DF



Shoring/Support: N/A
Stability: Pit unstable. Sidewall collapse from 1.80m bgl.

Depth (m)	Date	Water	Samples	Depth (m)	SPT (N) / In Situ Vane Tests	LEGEND	Elevation m O.D.	Depth (m)	DESCRIPTION	Instrument/ Backfill
0										
							160.34	0.40	Grass over plastic black amorphus PEAT. H9.	
			B 1 D 2	0.60-0.80 0.60-0.80			159.64	1.10	Stiff dark brown slightly gravelly sandy peaty SILT with occasional cobbles. Cobbles are angular.	
1										
			B 3	1.60-1.80			158.64	2.10	Reddish brown very silty very gravelly fine and medium SAND with frequent cobbles. Gravel is angular to subrounded fine to coarse. Cobbles are subangular to subrounded. 1.80: becoming wet increase of gravel and content with depth.	
2										
			B 4	2.30-2.50			158.14	2.60	Wet reddish brown sandy COBBLES and BOULDERS. Boulders are up to 400mm in length.	
									END	
3										
4										
5										

Remarks: Ingress of water at 1.80m bgl. TP terminated at 2.60m bgl. Obstruction as possible rock. TP backfilled with arisings.

Scale: 1:25

Irish drilling LTD

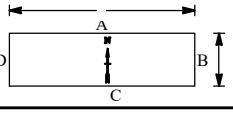
Ph.
Fax

TRIALPIT ISLANDMORE WF TPS FILE 1 APRIL 11 2025.GPJ ID GINT AGS 4_0_4.GDT 28/5/25

PROJECT: Islandmore Wind Farm	**TRIALPIT: TP-T01**
LOCATION: Co Roscommon	**Sheet 1 of 1**
CLIENT: Galetech	**Co-ordinates:** E 561,810.4 N 800,559.2 — **Rig: Hitachi Zaxis LCN 130**
ENGINEER: FTCO	**Rev:**
Ground level: 147.61m O.D.	**DATE: 28.3.25**

GROUNDWATER
Water strikes: **Rose to after:**
1st: 2.00m **20min** **1.80m**
2nd:
3rd:

PIT DIRECTION: 90°
PIT DIMENSION: 3.70m * 1.20
LOGGED BY: DF



Shoring/Support: N/A
Stability: Pit unstable. Sidewall collapse from 1.80m to 3.50m bgl.

Depth (m)	Date	Water	Samples	Depth (m)	SPT (N) / In Situ Vane Tests	LEGEND	Elevation m O.D.	Depth (m)	DESCRIPTION	Instrument/ Backfill
0									Heather over soft brown fibrous PEAT. H3.	
							146.01	1.60		
									Angular and flat COBBLES and BOULDERS.	
		1					145.81	1.80		
									Wet light grey brown very silty very gravelly medium SAND with occasional cobbles. Gravel is subangular fine to medium. Cobbles are angular.	
2			B 1 D 2	2.00-2.20 2.00-2.20						
3			B 3 D 4	3.00-3.20 3.00-3.20						
									3.50: becoming firm.	
			B 5 D 6	3.70-3.90 3.70-3.90						
4							143.51	4.10		
									END	
5										

Remarks: Seepage of water at 1.80m bgl. TP terminated at 4.10m bgl. Unable to progress TP - sidewall collapse. TP backfilled with arisings.

Scale: 1:25

Irish drilling LTD

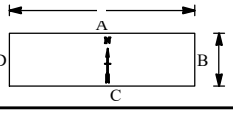
Ph.
Fax

TRIALPIT ISLANDMORE WF TPS FILE 1 APRIL 11 2025.GPJ ID GINT AGS 4_0_4.GDT 28/5/25

PROJECT: Islandmore Wind Farm	**TRIALPIT: TP-T02**
LOCATION: Co Roscommon	**Sheet 1 of 1**
CLIENT: Galetech	**Co-ordinates:** E 562,297.1 N 800,494.9 — **Rig: Hitachi Zaxis LCN 130**
ENGINEER: FTCO	**Rev:**
Ground level: 161.07m O.D.	**DATE: 28.3.25**

GROUNDWATER
Water strikes: **Rose to after:**
1st: dry
2nd:
3rd:

PIT DIRECTION: 90°
PIT DIMENSION: 3.60m * 1.30
LOGGED BY: DF



Shoring/Support: N/A
Stability: Pit unstable. Sidewall collapse.

Depth (m)	Date	Water	Samples	Depth (m)	SPT (N) / In Situ Vane Tests	LEGEND	Elevation m O.D.	Depth (m)	DESCRIPTION	Instrument/ Backfill
0									Grass over soft wet brown fibrous PEAT. H3.	
			B 1	1.70-1.90						
3							157.97	3.10		
						END				

Remarks: TP dry on excavation. TP terminated at 3.10m bgl. Unable to progress TP - sidewall collapse. TP backfilled with arisings.

Scale: 1:25

Irish drilling LTD

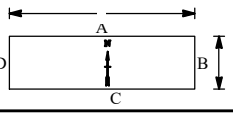
Ph.
Fax

TRIALPIT ISLANDMORE WF TPS FILE 1 APRIL 11 2025.GPJ ID GINT AGS 4_0_4.GDT 28/5/25

PROJECT: Islandmore Wind Farm	**TRIALPIT: TP-T03**
LOCATION: Co Roscommon	**Sheet 1 of 1**
CLIENT: Galetech	**Co-ordinates: E 562,660.4 N 800,189.5**
ENGINEER: FTCO	**Rig: Hitachi Zaxis LCN 130**
Ground level: 167.52m O.D.	**Rev:**
GROUNDWATER	**DATE: 28.3.25**

Water strikes: **Rose to after:**
1st: dry
2nd:
3rd:

PIT DIRECTION: 90°
PIT DIMENSION: 4.20m * 1.30
LOGGED BY: DF



Shoring/Support: N/A
Stability: Pit unstable. Sidewall collapse.

Depth (m)	Date	Water	Samples	Depth (m)	SPT (N) / In Situ Vane Tests	LEGEND	Elevation m O.D.	Depth (m)	DESCRIPTION	Instrument/ Backfill
0									Heather over soft brown fibrous PEAT. H2.	
1			B 1	1.50-1.70						
2							165.02	2.50		
			B 2	2.70-2.90					Soft grey slightly gravelly sandy SILT with decaying organic material. Gravel is angular to rounded fine to coarse.	
			D 3	2.70-2.90						
3			B 4	3.00-3.20			164.52	3.00		
									Firm purplish grey slightly sandy slightly gravelly SILT with rare cobbles. Gravel is angular to subangular medium to coarse. Cobbles are angular.	
							164.12	3.40		
4						END				
5										

Remarks: TP dry on excavation. TP terminated at 3.40m bgl. Unable to progress TP - sidewall collapse. TP backfilled with arisings.

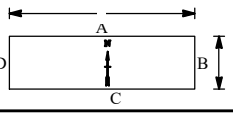
Scale: 1:25

Irish drilling LTD

Ph.
Fax

TRIALPIT ISLANDMORE WF TPS FILE 1 APRIL 11 2025.GPJ ID GINT AGS 4_0_4.GDT 28/5/25

PROJECT: Islandmore Wind Farm	**TRIALPIT: TP-T04**
LOCATION: Co Roscommon	**Sheet 1 of 1**
CLIENT: Galetech	**Co-ordinates: E 562,299.2 N 799,594.7**
ENGINEER: FTCO	**Rig: Hitachi Zaxis LCN 130**
Ground level: 155.03m O.D.	**Rev:**
GROUNDWATER	**DATE: 26.3.25**
Water strikes: **Rose to after:**	**PIT DIRECTION: 90°**
1st: dry	**PIT DIMENSION: 4.80m * 1.20**
2nd:	**LOGGED BY: DF**
3rd:	Shoring/Support: N/A
	Stability: Pit stable.



Depth (m)	Date	Water	Samples	Depth (m)	SPT (N) / In Situ Vane Tests	LEGEND	Elevation m O.D.	Depth (m)	DESCRIPTION	Instrument/ Backfill
0									Soft brown fibrous PEAT. H2.	
			B 1	0.80-0.90						
1										
			B 2	1.70-1.80						
			D 3	1.70-1.80						
2										
			B 4	2.70-2.80						
3		▼					151.43	3.60		
									Wet grey slightly gravelly silty fine to medium SAND with occasional cobbles. Gravel is angular to subrounded fine to coarse. Cobbles are subangular.	
4							150.73	4.30		
									END	
5										

Remarks: Ingress of water at 3.60m bgl. TP terminated at 4.30m bgl on REs instruction. TP backfilled with arisings.

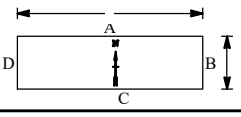
Scale: 1:25

Irish drilling LTD

Ph.
Fax

TRIALPIT ISLANDMORE WF TPS FILE 1 APRIL 11 2025.GPJ ID GINT AGS 4_0_4.GDT 28/5/25

PROJECT: Islandmore Wind Farm	**TRIALPIT: TP-T05**
LOCATION: Co Roscommon	**Sheet 1 of 1**
CLIENT: Galetech	**Co-ordinates: E 561,951.8 N 799,408.9**
ENGINEER: FTCO	**Rig: Hitachi Zaxis LCN 130**
Ground level: 166.55m O.D.	**Rev:**
GROUNDWATER	**DATE: 26.3.25**
Water strikes: **Rose to after:**	**PIT DIRECTION: 90°**
1st: dry	**PIT DIMENSION: 4.20m * 1.30**
2nd:	**LOGGED BY: DF**
3rd:	



Shoring/Support: N/A
Stability: Pit stable.

Depth (m)	Date	Water	Samples	Depth (m)	SPT (N) / In Situ Vane Tests	LEGEND	Elevation m O.D.	Depth (m)	DESCRIPTION	Instrument/ Backfill
0										
							165.55	1.00	Heather over soft brown fibrous PEAT.	
1			B 1 D 2	1.00-1.20 1.00-1.20			165.25	1.30	Stiff brown fibrous SILT with frequent cobbles. Cobbles are subrounded.	
		1 2	B 3	1.50-1.70			164.85	1.70	Damp grey coarse SAND and subrounded to rounded fine to coarse GRAVEL with frequent cobbles. Cobbles are subrounded.	
2			B 4	2.20-2.40			164.05	2.50	Reddish brown silty very sandy subrounded to rounded fine to coarse GRAVEL with frequent cobbles.	
3			B 5	3.00-3.20			162.25	4.30	Purplish brown slightly gravelly silty fine to medium SAND with frequent cobbles. Gravel is subangular to subrounded fine to coarse. Cobbles are subangular to subrounded.	
4									**END**	
5										

Remarks: Seepage of water at 130m bgl. Ingress of water at 1.50m bgl. TP terminated at 4.30m bgl on REs instruction. TP backfilled with arisings.

Scale: 1:25

Irish drilling LTD

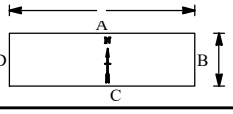
Ph.
Fax

TRIALPIT ISLANDMORE WF TPS FILE 1 APRIL 11 2025.GPJ ID GINT AGS 4_0_4.GDT 28/5/25

PROJECT: Islandmore Wind Farm		**TRIALPIT: TP-T06**
LOCATION: Co Roscommon		**Sheet 1 of 1**
CLIENT: Galetech	**Co-ordinates:**	**Rig: Hitachi Zaxis LCN 130**
ENGINEER: FTCO	**E 561,103.1 N 799,374.6**	**Rev:**
Ground level: 152.85m O.D.		**DATE: 27.3.25**

GROUNDWATER
Water strikes: **Rose to after:**
1st: **dry**
2nd:
3rd:

PIT DIRECTION: 90°
PIT DIMENSION: 4.20m * 1.30
LOGGED BY: DF



Shoring/Support: N/A
Stability: Pit unstable. Sidewall collapse.

Depth (m)	Date	Water	Samples	Depth (m)	SPT (N) / In Situ Vane Tests	LEGEND	Elevation m O.D.	Depth (m)	DESCRIPTION	Instrument/ Backfill
0									Heather over soft wet brown fibrous PEAT.	
1			B 1	1.00-1.20						
2										
3							149.85	3.00		
						END				
4										
5										

Remarks: TP wet. TP terminated at 3.00m bgl. Unable to progress TP - sidewall collapse. TP backfilled with arisings.

Scale: 1:25

Irish drilling LTD

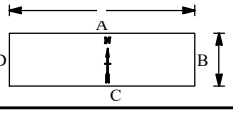
Ph.
Fax

TRIALPIT ISLANDMORE WF TPS FILE 1 APRIL 11 2025.GPJ ID GINT AGS 4_0_4.GDT 28/5/25

PROJECT: Islandmore Wind Farm	**TRIALPIT: TP-T07**
LOCATION: Co Roscommon	**Sheet 1 of 1**
CLIENT: Galetech	**Co-ordinates:**
ENGINEER: FTCO	**E 562,175.7 N 798,906.9**
	Rig: Hitachi Zaxis LCN 130
	Rev:
Ground level: 161.19m O.D.	**DATE: 27.3.25**

GROUNDWATER
Water strikes: **Rose to after:**
1st: dry
2nd:
3rd:

PIT DIRECTION: 90°
PIT DIMENSION: 4.50m * 1.20
LOGGED BY: DF



Shoring/Support: N/A
Stability: Pit unstable. Sidewall collapse.

Depth (m)	Date	Water	Samples	Depth (m)	SPT (N) / In Situ Vane Tests	LEGEND	Elevation m O.D.	Depth (m)	DESCRIPTION	Instrument/ Backfill
0									Heather over soft brown fibrous PEAT. H2.	
1										
			B 1	1.60-1.80						
2										
							158.19	3.00		
3			B 2	3.00-3.20					Grey slightly silty gravelly medium to coarse SAND with occasional cobbles. Gravel is angular to subangular fine to coarse. Cobbles are angular.	
							157.89	3.30		
						END				
4										
5										

Remarks: TP dry on excavation. TP terminated at 3.30m bgl. Unable to progress TP - sidewall collapse. TP backfilled with arisings.

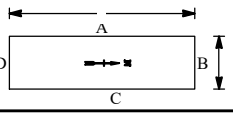
Scale: 1:25

Irish drilling LTD

Ph.
Fax

TRIALPIT ISLANDMORE WF TPS FILE 1 APRIL 11 2025.GPJ ID GINT AGS 4_0_4.GDT 28/5/25

PROJECT: Islandmore Wind Farm	**TRIALPIT: TP-T08**
LOCATION: Co Roscommon	**Sheet 1 of 1**
CLIENT: Galetech	**Co-ordinates: E 561,986.1 N 798,345.6**
ENGINEER: FTCO	**Rig: Hitachi Zaxis LCN 130**
Ground level: 145.56m O.D.	**Rev:**
GROUNDWATER	**DATE: 27.3.25**
Water strikes: **Rose to after:**	**PIT DIRECTION: 0°**
1st: dry	**PIT DIMENSION: 4.00m * 1.20**
2nd:	**LOGGED BY: DF**
3rd:	



Shoring/Support: N/A
Stability: Pit unstable. Sidewall collapse from 2.10m bgl.

Depth (m)	Date	Water	Samples	Depth (m)	SPT (N) / In Situ Vane Tests	LEGEND	Elevation m O.D.	Depth (m)	DESCRIPTION	Instrument/ Backfill
0									Heather over soft brown fibrous PEAT. H2.	
							144.06	1.50		
			B 1 D 2	1.60-1.80 1.60-1.80					Soft grey sandy SILT with frequent cobbles. Sand is coarse. Cobbles are subrounded.	
2							143.46	2.10		
			B 3	2.40-2.80					Wet grey slightly sandy subangular fine to coarse GRAVEL with frequent cobbles. Cobbles are subangular. 2.70-3.10: with increase of cobble size and quantity.	
3							142.46	3.10		
			B 4	3.40-3.60					Wet grey brown silty very sandy angular to subangular fine to coarse GRAVEL with frequent cobbles and occasional boulders. Cobbles are angular to subangular. Boulders are subangular.	
4							141.56	4.00		
									END	
5										

Remarks: Slight ingress of water at 1.00m bgl. TP terminated at 4.00m bgl. Unable to progress TP - sidewall collapse. TP backfilled with arisings.

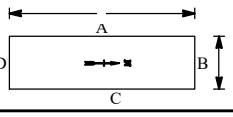
Scale: 1:25

Irish drilling LTD

Ph.
Fax

TRIALPIT ISLANDMORE WF TPS FILE 1 APRIL 11 2025.GPJ ID GINT AGS 4_0_4.GDT 28/5/25

PROJECT: Islandmore Wind Farm	**TRIALPIT: TP-T08BP**
LOCATION: Co Roscommon	**Sheet 1 of 1**
CLIENT: Galetech	**Co-ordinates: E 562,037.3 N 798,471.3**
ENGINEER: FTCO	**Rig: Hitachi Zaxis LCN 130**
Ground level: 150.73m O.D.	**Rev:**
GROUNDWATER	**DATE: 27.3.25**
Water strikes: **Rose to after:**	**PIT DIRECTION: 0°**
1st: dry	**PIT DIMENSION: 3.90m * 1.20**
2nd:	**LOGGED BY: DF**
3rd:	Shoring/Support: N/A Stability: Pit stable.



Depth (m)	Date	Water	Samples	Depth (m)	SPT (N) / In Situ Vane Tests	LEGEND	Elevation m O.D.	Depth (m)	DESCRIPTION	Instrument/ Backfill
0							150.43	0.30	Soft brown fibrous PEAT with large boulders.	
			B 1	0.70-0.90			149.53	1.20	Flat angular and tabular COBBLES and BOULDERS with a sandy silty infill.	
1										
			B 2	1.40-1.60			148.33	2.40	Wet grey brown silty very sandy angular to subangular fine to coarse GRAVEL with frequent cobbles. Cobbles are angular to subangular.	
2										
									END	
3										
4										
5										

Remarks: TP wet. TP terminated at 2.40m bgl. Obstruction as possible rock. TP backfilled with arisings.

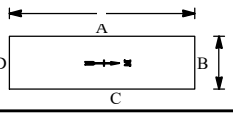
Scale: 1:25

Irish drilling LTD

Ph.
Fax

TRIALPIT ISLANDMORE WF TPS FILE 1 APRIL 11 2025.GPJ ID GINT AGS 4_0_4.GDT 28/5/25

PROJECT: Islandmore Wind Farm	**TRIALPIT: TP-T09**
LOCATION: Co Roscommon	**Sheet 1 of 1**
CLIENT: Galetech	**Co-ordinates: E 562,504.9 N 798,356.0**
ENGINEER: FTCO	**Rig: Hitachi Zaxis LCN 130**
Ground level: 140.54m O.D.	**Rev:**
GROUNDWATER	**DATE: 27.3.25**
Water strikes: **Rose to after:**	**PIT DIRECTION: 0°**
1st: dry	**PIT DIMENSION: 4.50m * 1.20**
2nd:	**LOGGED BY: DF**
3rd:	



Shoring/Support: N/A
Stability: Pit unstable. Sidewall collapse from 4.00m bgl.

Depth (m)	Date	Water	Samples	Depth (m)	SPT (N) / In Situ Vane Tests	LEGEND	Elevation m O.D.	Depth (m)	DESCRIPTION	Instrument/ Backfill
0									Reeds over soft brown fibrous PEAT. H2.	
1			B 1	1.50-1.70						
2		▼1								
3			B 2	3.30-3.50						
4						END	136.54	4.00		
5										

Remarks: Rapid ingress of water at 1.90m bgl. TP terminated at 4.00m bgl. Unable to progress TP - sidewall collapse. TP backfilled with arisings.

Scale: 1:25

Irish drilling LTD

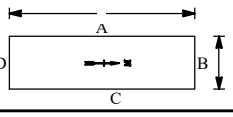
Ph.
Fax

TRIALPIT ISLANDMORE WF TPS FILE 1 APRIL 11 2025.GPJ ID GINT AGS 4_0_4.GDT 28/5/25

PROJECT: Islandmore Wind Farm		**TRIALPIT: TP-T10**
LOCATION: Co Roscommon		**Sheet 1 of 1**
CLIENT: Galetech	**Co-ordinates:**	**Rig: Hitachi Zaxis LCN 130**
ENGINEER: FTCO	**E 561,929.5 N 797,514.1**	**Rev:**
Ground level: 142.80m O.D.		**DATE: 28.3.25**

GROUNDWATER
Water strikes: **Rose to after:**
1st: dry
2nd:
3rd:

PIT DIRECTION: 0°
PIT DIMENSION: 3.80m * 1.20
LOGGED BY: DF



Shoring/Support: N/A
Stability: Pit unstable. Sidewall collapse.

Depth (m)	Date	Water	Samples	Depth (m)	SPT (N) / In Situ Vane Tests	LEGEND	Elevation m O.D.	Depth (m)	DESCRIPTION	Instrument/ Backfill
0									Heather over soft wet brown fibrous PEAT. H2.	
							140.20	2.60		
						END				

Remarks: TP wet. TP terminated at 2.60m bgl. Unable to progress TP - sidewall collapse. TP backfilled with arisings.

Scale: 1:25

Irish drilling LTD

Ph.
Fax

TRIALPIT ISLANDMORE WF TPS FILE 1 APRIL 11 2025.GPJ ID GINT AGS 4_0_4.GDT 28/5/25

Appendix 2
Borehole Records
(Rotary Core)

Irish drilling LTD

DRILLHOLE LOG

Project	Location	DRILLHOLE No
Islandmore Wind Farm	Co Roscommon	**RC-01**

Job No	Date	Ground Level (m OD)	Co-Ordinates ()
2025RN101	31-03-25 01-04-25	169.74	E 562,065.0 N 799,402.8

Engineer	Sheet	Status
FTCO	1 of 2	FINAL

RUN DETAILS						STRATA			
Depth Date	TCR (SCR) RQD	(SPT) Fracture Index	Red'cd Level	Legend	Depth (Thick- ness)	DESCRIPTION Discontinuities	Detail	Main	Instrument/ Backfill
0.00			169.44		0.30	0.00 - 2.00 : overburden.		TOPSOIL: Grass over firm dark blackish brown SILT with many vertical rootlets.	
	55 -				(1.70)			Subrounded to subangular fine to coarse assorted brown sandstone and grey siltstone GRAVEL.	
2.00			167.74		2.00	2.00 - 6.80 Non-intact as weathered rock.		Weathered rock. Strong to locally medium strong and weak massive reddish brown slightly sandy fine grained matrix with subrounded fine to coarse gravel sized inclusions as fine to coarse conglomerate recovered as angular fine to coarse gravel and cobble sized clasts with some reddish brown silt. Weak along inclusions.	
	100 (29) -								
3.50									
	100 (52) -								
4.00					(4.80)				
	100 (80) 23	NI							
5.20									
	100 (90) 36								
6.70			162.94		6.80				
	100 (70) 25				(1.70)	becoming weak and medium strong. 6.80 - 8.50 DISC, closely spaced, locally very closely spaced, dipping 10 to 12°, stepped, rough, with 0.5 to 2mm thick reddish brown silt smear.		Very strong locally strong thinly laminated reddish brown fine and medium grained SANDSTONE.	
		18							

Drilling Progress and Water Observations

Date	Time	Depth	Casing Depth	Casing Dia	Core Dia mm	Water Strike	Water Standing
			2.00	96			

Rotary Flush

From (m)	To (m)	Type	Return (%)
0	15	Water	100

GENERAL REMARKS

BH terminated at 15.00m bgl on REs instruction.
50mm standpipe installed.

All dimensions in metres Scale 1:50	Client: Galetech	Method/ Plant Used: CS-14		Driller: JP	Logged By: EAT

IDL AGS4 UK DH (SPTS) ISLANDMORE WF RC FILE 1 APRIL 16 2025.GPJ ID GINT AGS 4_0_4.GDT 28/5/25

Irish drilling LTD

DRILLHOLE LOG

Project	Location	DRILLHOLE No
Islandmore Wind Farm	Co Roscommon	**RC-01**

Job No	Date	Ground Level (m OD)	Co-Ordinates ()
2025RN101	31-03-25 01-04-25	169.74	E 562,065.0 N 799,402.8

Engineer	Sheet	Status
FTCO	2 of 2	FINAL

RUN DETAILS					STRATA			
Depth Date	TCR (SCR) RQD	(SPT) Fracture Index	Red'cd Level	Legend	Depth (Thick- ness)	DESCRIPTION Discontinuities / Detail	Main	Instrument / Backfill
8.20						7.95 - 7.95 medium strong.	Very strong locally strong thinly laminated reddish brown fine and medium grained SANDSTONE. *(continued)*	
			161.24		8.50	8.50 - 15.00 Non-intact as weathered rock.	Weathered rock. Strong to locally medium strong and weak massive reddish brown slightly sandy fine grained matrix with subrounded fine to coarse gravel sized inclusions as fine to coarse conglomerate recovered as angular fine to coarse gravel and cobble sized clasts with some reddish brown silt. Weak along inclusions.	
	100 (70) 38	NI						
9.70								
	100 (67) 51							
11.20								
	100 (73) -				(6.50)			
12.70		NI						
	100 (44) 14					with much reddish brown silt.		
14.20								
	100 (70) 46							
15.00			154.74		15.00			

31.03

Drilling Progress and Water Observations

Date	Time	Depth	Casing Depth	Casing Dia	Core Dia mm	Water Strike	Water Standing
31/03/25	16.00	15.00					

Rotary Flush

From (m)	To (m)	Type	Return (%)

GENERAL REMARKS

BH terminated at 15.00m bgl on REs instruction.
50mm standpipe installed.

All dimensions in metres Scale 1:50	Client: Galetech	Method/ Plant Used: CS-14		Driller: JP	Logged By: EAT

IDL AGS4 UK DH (SPTS) ISLANDMORE WF RC FILE 1 APRIL 16 2025.GPJ ID GINT AGS 4_0_4.GDT 28/5/25

Irish drilling LTD

DRILLHOLE LOG

Project	Location	DRILLHOLE No
Islandmore Wind Farm	Co Roscommon	**RC-02**

Job No	Date	Ground Level (m OD)	Co-Ordinates ()
2025RN101	01-04-25 01-04-25	140.71	E 562,511.3 N 798,356.8

Engineer	Sheet	Status
FTCO	1 of 2	FINAL

RUN DETAILS						STRATA			
Depth Date	TCR (SCR) RQD	(SPT) Fracture Index	Red'cd Level	Legend	Depth (Thick- ness)	DESCRIPTION Discontinuities	Detail	Main	Instrument/ Backfill
0.00						0.00 - 7.40 : overburden.		Plastic black amorphous PEAT	
	15 - -								
2.00		2.00 (0)			(3.80)				
	27 - -								
3.50		3.50 (0)	136.91		3.80				
								Stiff light grey CLAY.	
	40 - -				(1.20)				
5.00		5.00 (38/150mm)	135.71		5.00			Weathered rock. Strong to weak thinly bedded grey fine grained sandstone recovered as angular fine to coarse gravel sized clasts with some grey silty fine sand.	
	20 - -				(2.40)				
6.50		6.50 (50/225mm)							
	73 (24) 10		133.31		7.40				
						7.40 - 8.00 Non-intact as weathered rock.		Very strong locally strong and extremely strong thinly bedded grey fine grained SANDSTONE. Sequence coarsening down.	
8.00		NI							

Drilling Progress and Water Observations

Date	Time	Depth	Casing Depth	Casing Dia	Core Dia mm	Water Strike	Water Standing
			5.00	96			

Rotary Flush

From (m)	To (m)	Type	Return (%)
0	5	Water	100
5	15	Water	0

GENERAL REMARKS

BH terminated at 15.00m bgl on REs instruction. BH backfilled.

All dimensions in metres Scale 1:50	Client: Galetech	Method/ Plant Used CS-14		Driller JP	Logged By EAT

IDL AGS4 UK DH (SPTS) ISLANDMORE WF RC FILE 1 APRIL 16 2025.GPJ ID GINT AGS 4_0_4.GDT 28/5/25

Irish drilling LTD

DRILLHOLE LOG

Project	Location	DRILLHOLE No
Islandmore Wind Farm	Co Roscommon	**RC-02**

Job No	Date	Ground Level (m OD)	Co-Ordinates ()
2025RN101	01-04-25 01-04-25	140.71	E 562,511.3 N 798,356.8

Engineer	Sheet	Status
FTCO	2 of 2	FINAL

RUN DETAILS					STRATA			
Depth Date	TCR (SCR) RQD	(SPT) Fracture Index	Red'cd Level	Legend	Depth (Thick- ness)	DESCRIPTION Discontinuities Detail	Main	Instrument/ Backfill
	100 (87) 77	3				8.00 - 15.00 DISC, medium spaced, locally closely spaced, dipping 10 to 12°, stepped, smooth, with 0.5 to 2mm thick pinkish brown silt smear.	Very strong locally strong and extremely strong thinly bedded grey fine grained SANDSTONE. Sequence coarsening down. *(continued)*	
9.50		2						
	100 (98) 96					becoming reddish brown.		
		3						
11.00					(7.60)			
	100 (91) 90	4						
12.50						12.20 - 12.20 strong fine grained conglomeratic.		
		4						
	100 (96) 95							
		3						
14.00								
	100 (98) 98	2						
01.04 15.00			125.71		15.00			

Drilling Progress and Water Observations								Rotary Flush				GENERAL REMARKS
Date	Time	Depth	Casing Depth	Casing Dia	Core Dia mm	Water Strike	Water Standing	From (m)	To (m)	Type	Return (%)	
01/04/25	16.00	15.00										BH terminated at 15.00m bgl on REs instruction. BH backfilled.

All dimensions in metres Scale 1:50	Client: Galetech	Method/ Plant Used CS-14		Driller JP	Logged By EAT

IDL AGS4 UK DH (SPTS) ISLANDMORE WF RC FILE 1 APRIL 16 2025.GPJ ID GINT AGS 4_0_4.GDT 28/5/25

Appendix 3
Laboratory Test Results

Project ID	2025RN101		Client	Galetech	Remarks
Project Name	Islandmore Wind Farm		Due Date	14/04/2025 14:17	
Schedule ID	2025RN101_1		Scheduled Date	14/04/2025 14:17	

Sample Details							Classification						Chemical / Concrete								Compaction					Compressibility				Strength (Total)						Shear			Rock		Other
Location	Depth (m)	Base Depth	Sample Type	Sample Ref	Date Sampled	Storage	Moisture Content	Atterberg 4 Point	Particle Density by G	Particle Density by S	Particle Size Distribu	Hydrometer	Organic Content	Loss On Ignition	Sulphate Total	Sulphate Water Grav	Carbonate Titration	ph	Chloride Content	Chloride Content Acid	Compaction Light	Compaction Heavy	Compaction Vibrating	Moisture Condition V	Moisture Condition R	CBR	Consolidation	Pressures	Swelling Pressure Te	Laboratory Vane test	Small Direct Shearbo	Ring shear Test	Triaxial Quick Undrai	(Specify Cell Pressur	Triaxial UU Multi Sta	Triaxial UU Multi Spe	Consolidated Drained	Consolidated Undrain	Consolidated Undrain	Rock Uniaxial compr	Point Load	Subcontracted Testin
TP-SS01	1.85	2.05	B	1	27/03/25								1		1	1																									ALS 250501-104
TP-SS01	2.50	2.70	B	2	27/03/25		1				1																														
TP-SS02	0.60	0.80	B	1	27/03/25								1		1	1																									ALS 250501-104
TP-SS02	0.60	0.80	D	2	27/03/25		1	1																																
TP-SS02	1.60	1.80	B	3	27/03/25		1				1																														
TP-SS02	2.30	2.50	B	4	27/03/25																																				
TP-T01	2.00	2.20	B	1	28/03/25						1	1																													
TP-T01	2.00	2.20	D	2	28/03/25		1	1																																
TP-T01	3.00	3.20	B	3	28/03/25																																				
TP-T01	3.00	3.20	D	4	28/03/25																																				
TP-T01	3.70	3.90	B	5	28/03/25																																				
TP-T01	3.70	3.90	D	6	28/03/25																																				
TP-T02	1.70	1.90	B	1	28/03/25																																				
TP-T03	1.50	1.70	B	1	28/03/25																																				
TP-T03	2.70	2.90	B	2	28/03/25																																				
TP-T03	2.70	2.90	D	3	28/03/25								1		1	1																									ALS 250501-104
TP-T03	3.00	3.20	B	4	28/03/25		1				1	1																													
TP-T04	0.80	0.90	B	1	25/03/25																																				
TP-T04	1.70	1.80	B	2	25/03/25																																				
TP-T04	1.70	1.80	D	3	25/03/25																																				
TP-T04	2.70	2.80	B	4	25/03/25																																				
TP-T05	1.00	1.20	B	1	26/03/25																																				
TP-T05	1.00	1.20	D	2	26/03/25								1		1	1																									ALS 250501-104
TP-T05	1.50	1.70	B	3	26/03/25																																				
TP-T05	2.20	2.40	B	4	26/03/25		1				1																														
TP-T05	3.00	3.20	B	5	26/03/25																																				
TP-T06	1.00	1.20	B	1	27/03/25																																				
TP-T07	1.60	1.80	B	1	27/03/25																																				
TP-T07	3.00	3.20	B	2	27/03/25																																				
TP-T08	1.60	1.80	B	1	27/03/25																																				
TP-T08	1.60	1.80	D	2	27/03/25																																				
TP-T08	2.40	2.80	B	3	27/03/25								1		1	1																									ALS 250501-104
TP-T08	3.40	3.60	B	4	27/03/25		1				1																														
TP-T08BP	0.70	0.90	B	1	27/03/25																																				
TP-T08BP	1.40	1.60	B	2	27/03/25		1				1																														
TP-T09	1.50	1.70	B	1	27/03/25																																				
TP-T09	3.30	3.50	B	2	27/03/25																																				
Tests completed							8	2	0	0	7	2	5	0	5	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

0 = test scheduled,
1 = test completed as scheduled,
0* = sample not suitable for scheduled test

Summary of Classification Test Results

Project No.	Project Name
2025RN101	Islandmore Wind Farm

Hole No.	Sample Ref	Top	Base	Type		Soil Description	Density bulk Mg/m3	Density dry Mg/m3	w %	Passing 425µm %	LL %	PL %	PI %	Particle density Mg/m3	Remarks
TP-SS01	2	2.50	2.70	B		Red gravelly very silty medium SAND.			21.0	65					
TP-SS02	2	0.60	0.80	D		Brown slightly gravelly sandy SILT.			19.0	68					NP
TP-SS02	3	1.60	1.80	B		Brown very silty very gravelly medium SAND.			25.0	50					
TP-T01	2	2.00	2.20	D		Light brown very gravelly very silty medium SAND.			15.0		29	18	11		CL
TP-T03	4	3.00	3.20	B		Greyish-red slightly gravelly slightly sandy SILT. Sand is medium.			25.0	82					
TP-T05	4	2.20	2.40	B		Red silty very sandy medium and coarse GRAVEL.			22.0	18					
TP-T08	4	3.40	3.60	B		Light brown silty very sandy medium and coarse GRAVEL.			12.0	21					
TP-T08BP	2	1.40	1.60	B		Reddish-brown silty very sandy medium GRAVEL. Sand is medium.			18.0	39					

All tests performed in accordance with BS1377:1990 unless specified otherwise

Key w = water content, LL = Liquid Limit, PL = Plastic Limit, PI = Plasticity Index

Density test: Linear measurement unless : wd - water displacement; wi - immersion in water

Liquid Limit: 4pt cone unless : 1pt - single point test; NP - Non Plastic

Particle density: sp - small pyknometer; gj - gas jar

Date Printed: 27/05/2025 15:22

QC From No: R1

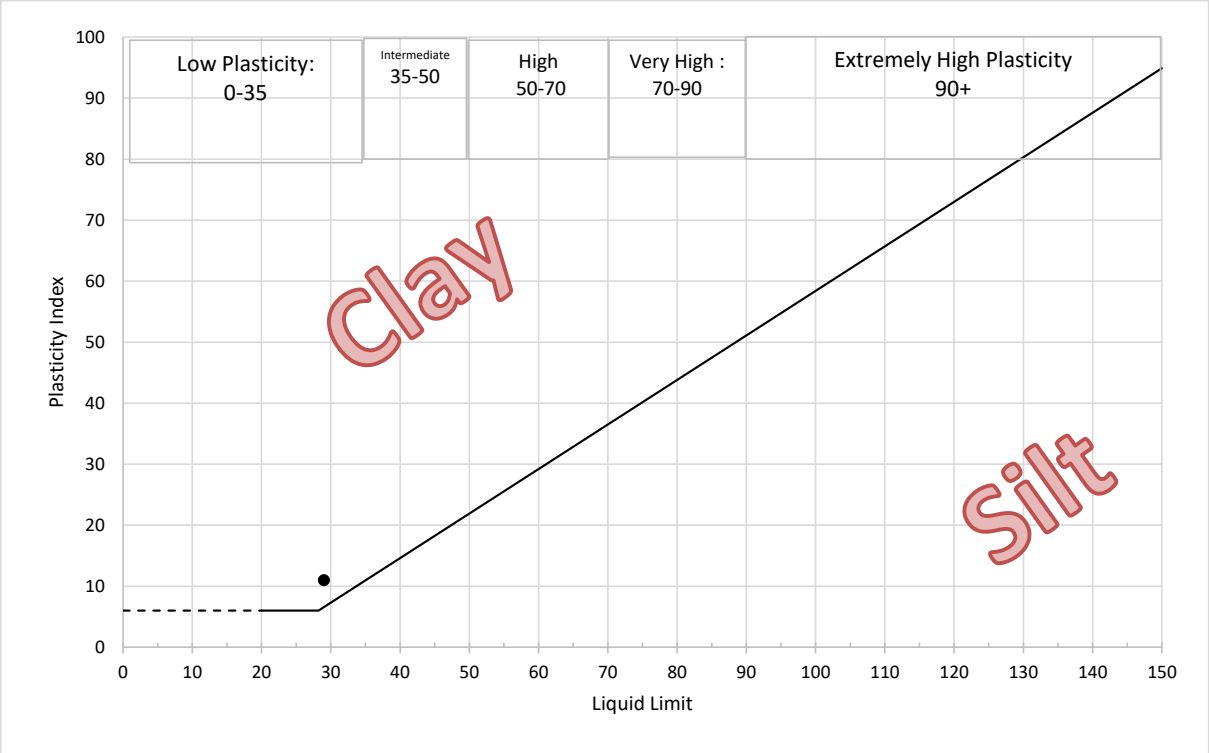
Approved By: DCD

Table 1 sheet 1

Tested in: Irish Drilling Ltd.(IDL), Old Galway Road, Loughrea, Co. Galway, Ireland. H62VX39

Approved Signatures: Dympna Darcy (DCD) Lab Manager, Declan Joyce (DJ) Chartered Geotechnical Engineer, Ronan Killeen (RK) Quality Manager.

	Plasticity (A-Line) Chart	Project Number
Project Name:	**Islandmore Wind Farm**	
Location:		2025RN101



Abreviations in the remarks column of the Classification Summary Sheet: C = Clay, M = Silt

Plasticity abeviations: L = Low, I = Intermediate = H = High, V = Very High, E = Extremely High.

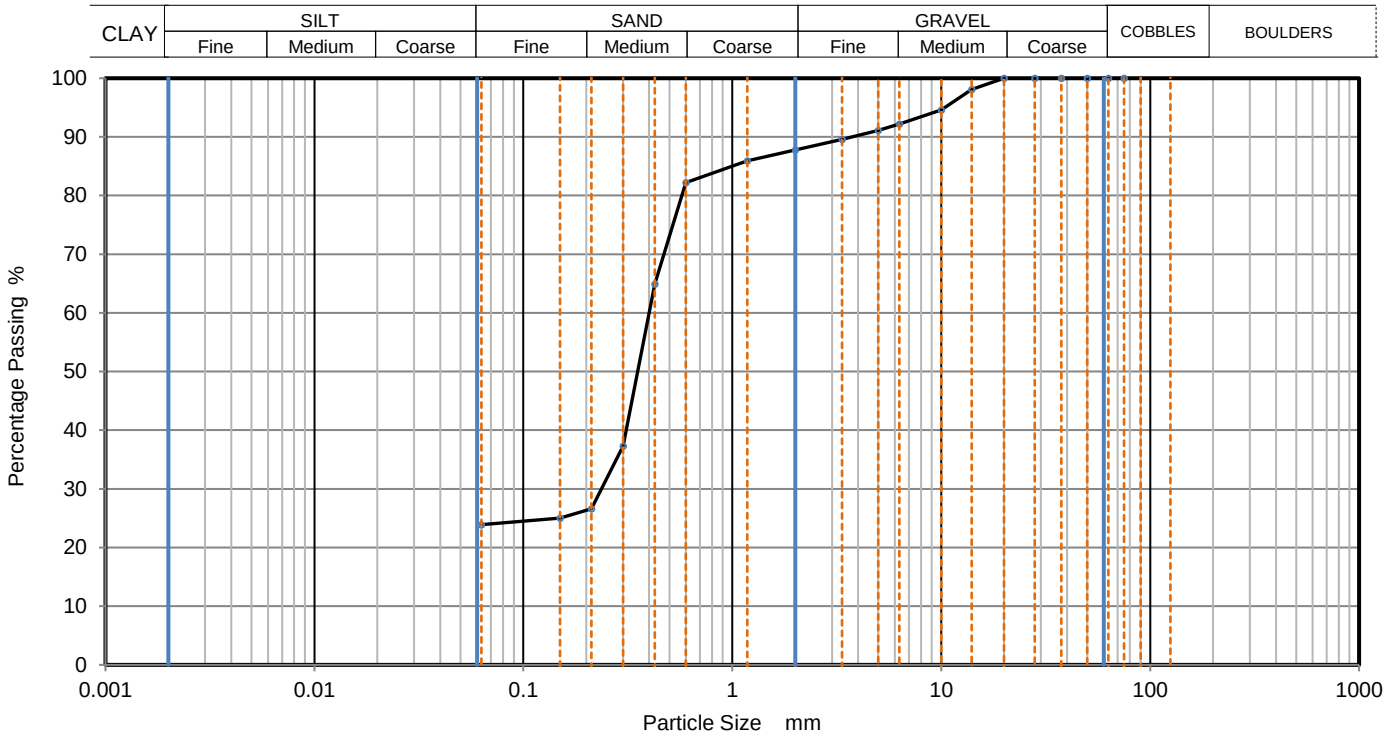
The letter O is added to the symbol of any material containing a significant proportion of organic material.

Chart taken from BS5930: 2010

QC Form: R1

PARTICLE SIZE DISTRIBUTION

				Job Ref	**2025RN101**
				Borehole/Pit No.	TP-SS01
Site Name	Islandmore Wind Farm			Sample No.	2
Soil Description	Red gravelly very silty medium SAND.			Depth, m	2.50
Specimen Reference		Specimen Depth	m	Sample Type	B
Test Method	BS1377:Part 2:1990, clause 9.2			KeyLAB ID	IDL12025041419



Sieving		Sedimentation	
Particle Size mm	% Passing	Particle Size mm	% Passing
75	100		
63	100		
50	100		
37.5	100		
28	100		
20	100		
14	98		
10	95		
6.3	92		
5	91		
3.35	90		
2	88		
1.18	86		
0.6	82		
0.425	65		
0.3	37		
0.212	27		
0.15	25		
0.063	24		

Dry Mass of sample, g	731

Sample Proportions	% dry mass
Very coarse	0
Gravel	12
Sand	64
Fines <0.063mm	24

Grading Analysis		
D100	mm	
D60	mm	0.399
D30	mm	0.237
D10	mm	
Uniformity Coefficient		
Curvature Coefficient		

Remarks

Preparation and testing in accordance with BS1377 unless noted below

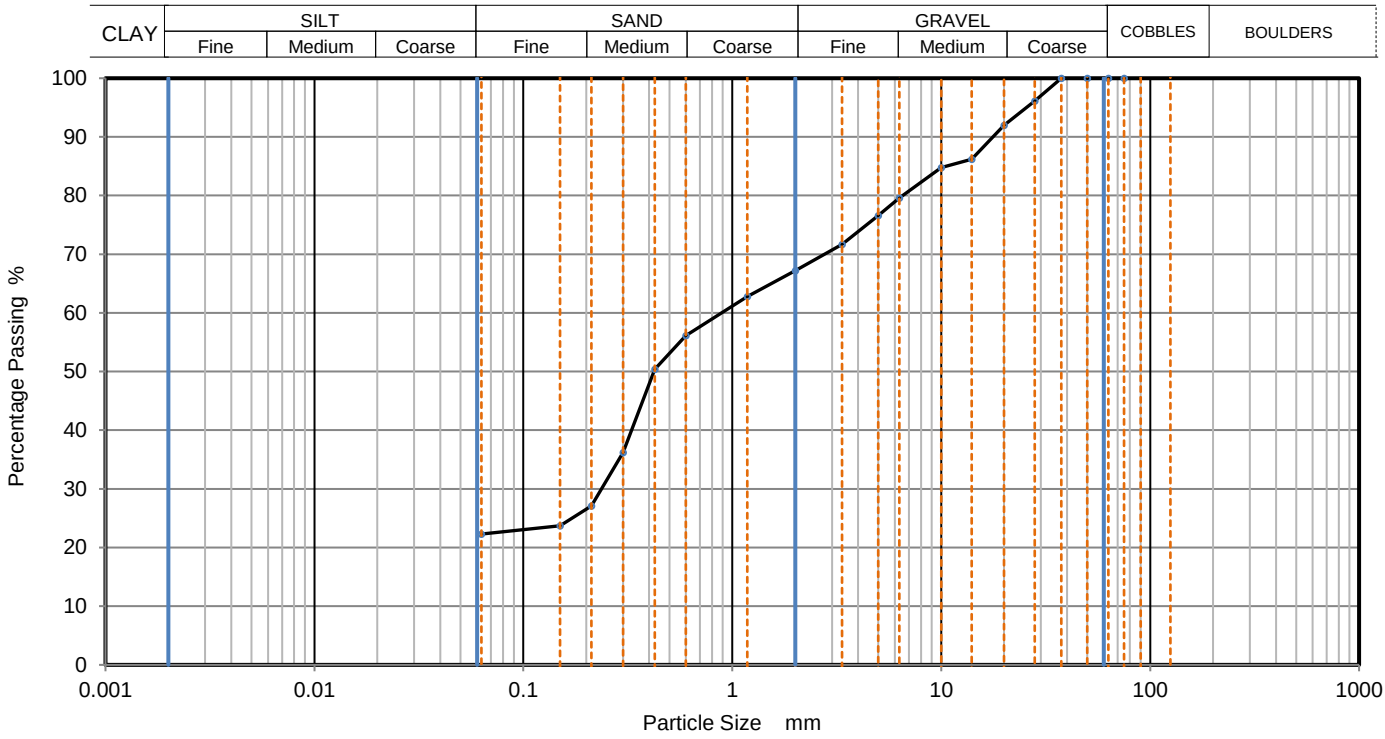
Operator	Checked	Approved	Sheet printed	
		Dympna Darcy B.Sc.	27/05/2025 15:23	**1** QC From No:R2

Tested in: Irish Drilling Ltd.(IDL), Old Galway Road, Loughrea, Co. Galway, Ireland. H62VX39

Approved Signatures: Dympna Darcy (DCD) Lab Manager, Declan Joyce (DJ) Chartered Geotechnical Engineer, Ronan Killeen (RK) Quality Manager.

PARTICLE SIZE DISTRIBUTION

				Job Ref	**2025RN101**
				Borehole/Pit No.	TP-SS02
Site Name	Islandmore Wind Farm			Sample No.	3
Soil Description	Brown very silty very gravelly medium SAND.			Depth, m	1.60
Specimen Reference		Specimen Depth	m	Sample Type	B
Test Method	BS1377:Part 2:1990, clause 9.2			KeyLAB ID	IDL12025041422



Sieving		Sedimentation	
Particle Size mm	% Passing	Particle Size mm	% Passing
75	100		
63	100		
50	100		
37.5	100		
28	96		
20	92		
14	86		
10	85		
6.3	80		
5	77		
3.35	72		
2	67		
1.18	63		
0.6	56		
0.425	50		
0.3	36		
0.212	27		
0.15	24		
0.063	22		

Dry Mass of sample, g	696

Sample Proportions	% dry mass
Very coarse	0
Gravel	33
Sand	45
Fines <0.063mm	22

Grading Analysis		
D100	mm	
D60	mm	0.891
D30	mm	0.237
D10	mm	
Uniformity Coefficient		
Curvature Coefficient		

Remarks

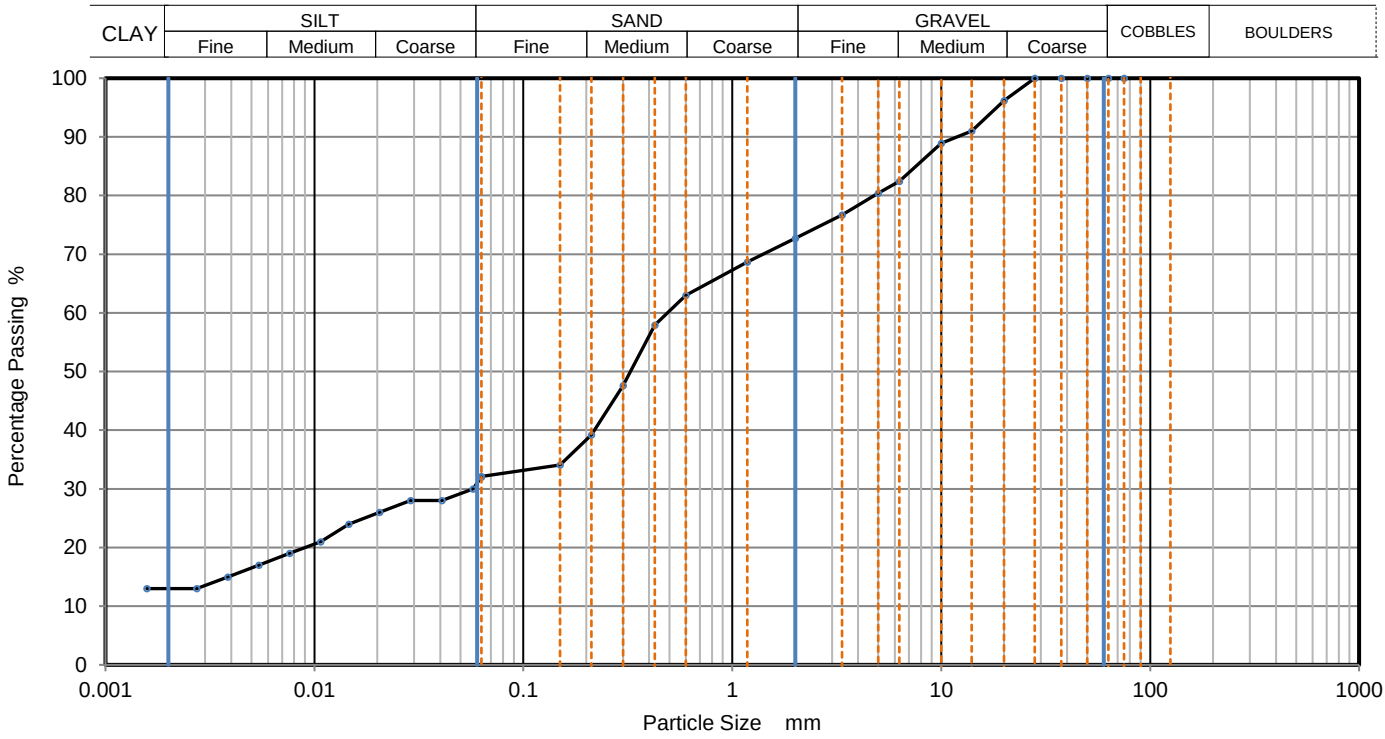
Preparation and testing in accordance with BS1377 unless noted below

Operator	Checked	Approved	Sheet printed	
		Dympna Darcy B.Sc.	27/05/2025 15:23	**1** QC From No:R2

Tested in: Irish Drilling Ltd.(IDL), Old Galway Road, Loughrea, Co. Galway, Ireland. H62VX39

Approved Signatures: Dympna Darcy (DCD) Lab Manager, Declan Joyce (DJ) Chartered Geotechnical Engineer, Ronan Killeen (RK) Quality Manager.

IRISH DRILLING LIMITED	**PARTICLE SIZE DISTRIBUTION**			Job Ref	**2025RN101**
				Borehole/Pit No.	TP-T01
Site Name	Islandmore Wind Farm			Sample No.	1
Soil Description	Light brown very gravelly very silty medium SAND.			Depth, m	2.00
Specimen Reference		Specimen Depth	m	Sample Type	B
Test Method	BS1377:Part 2:1990, clauses 9.2 and 9.5			KeyLAB ID	IDL12025041424



Sieving		Sedimentation	
Particle Size mm	% Passing	Particle Size mm	% Passing
		0.0630	32
		0.0574	30
75	100	0.0408	28
63	100	0.0288	28
50	100	0.0205	26
37.5	100	0.0146	24
28	100	0.0107	21
20	96	0.0076	19
14	91	0.0054	17
10	89	0.0038	15
6.3	82	0.0027	13
5	80	0.0016	13
3.35	77		
2	73		
1.18	69		
0.6	63	Particle density (assumed)	
0.425	58	2.65	Mg/m3
0.3	48		
0.212	39		
0.15	34		
0.063	32		

Dry Mass of sample, g	778

Sample Proportions	% dry mass
Very coarse	0
Gravel	27
Sand	41
Silt	19
Clay	13

Grading Analysis		
D100	mm	
D60	mm	0.489
D30	mm	0.0575
D10	mm	
Uniformity Coefficient		
Curvature Coefficient		

Remarks

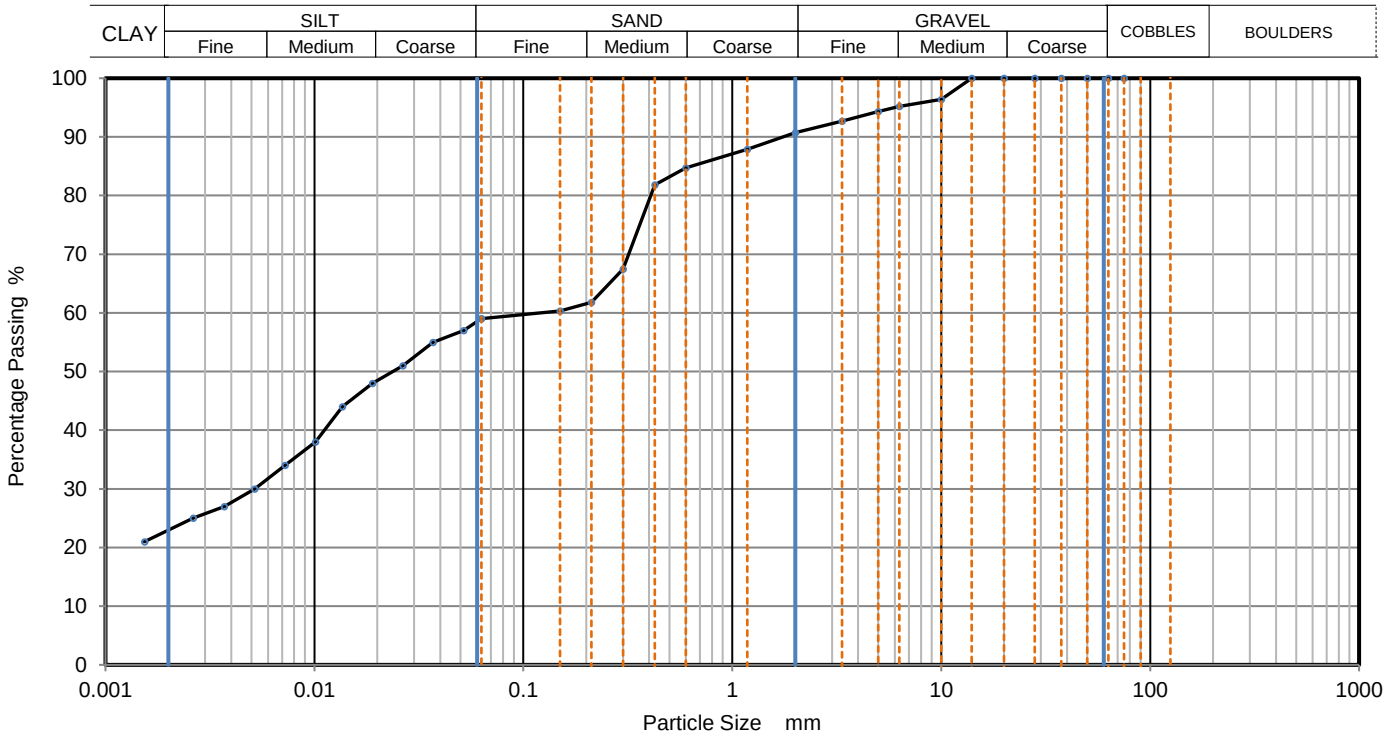
Preparation and testing in accordance with BS1377 unless noted below

Operator	Checked	Approved	Sheet printed	
		Dympna Darcy B.Sc.	27/05/2025 15:23	**1** QC From No:R2

Tested in: Irish Drilling Ltd.(IDL), Old Galway Road, Loughrea, Co. Galway, Ireland. H62VX39

Approved Signatures: Dympna Darcy (DCD) Lab Manager, Declan Joyce (DJ) Chartered Geotechnical Engineer, Ronan Killeen (RK) Quality Manager.

IRISH DRILLING LIMITED	**PARTICLE SIZE DISTRIBUTION**			Job Ref	**2025RN101**
				Borehole/Pit No.	TP-T03
Site Name	Islandmore Wind Farm			Sample No.	4
Soil Description	Greyish-red slightly gravelly slightly sandy SILT. Sand is medium.			Depth, m	3.00
Specimen Reference		Specimen Depth	m	Sample Type	B
Test Method	BS1377:Part 2:1990, clauses 9.2 and 9.5			KeyLAB ID	IDL12025041434



Sieving		Sedimentation	
Particle Size mm	% Passing	Particle Size mm	% Passing
		0.0630	59
		0.0519	57
75	100	0.0369	55
63	100	0.0265	51
50	100	0.0190	48
37.5	100	0.0136	44
28	100	0.0101	38
20	100	0.0072	34
14	100	0.0052	30
10	96	0.0037	27
6.3	95	0.0026	25
5	94	0.0015	21
3.35	93		
2	91		
1.18	88		
0.6	85	Particle density (assumed)	
0.425	82	2.65	Mg/m3
0.3	68		
0.212	62		
0.15	60		
0.063	59		

Dry Mass of sample, g	714

Sample Proportions	% dry mass
Very coarse	0
Gravel	9
Sand	32
Silt	36
Clay	23

Grading Analysis		
D100	mm	
D60	mm	0.126
D30	mm	0.00497
D10	mm	
Uniformity Coefficient		
Curvature Coefficient		

Remarks

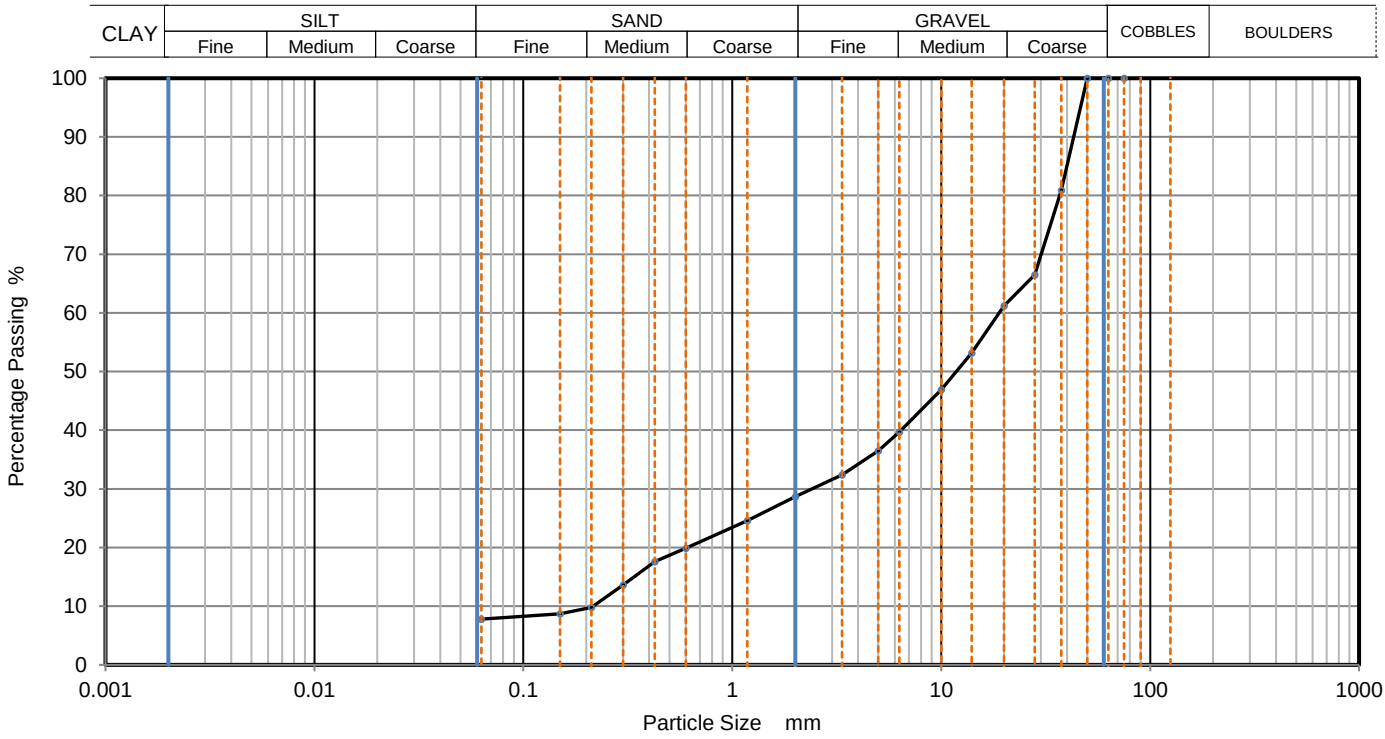
Preparation and testing in accordance with BS1377 unless noted below

Operator	Checked	Approved	Sheet printed	
		Dympna Darcy B.Sc.	27/05/2025 15:23	**1** QC From No:R2

Tested in: Irish Drilling Ltd.(IDL), Old Galway Road, Loughrea, Co. Galway, Ireland. H62VX39

Approved Signatures: Dympna Darcy (DCD) Lab Manager, Declan Joyce (DJ) Chartered Geotechnical Engineer, Ronan Killeen (RK) Quality Manager.

IRISH DRILLING LIMITED	**PARTICLE SIZE DISTRIBUTION**			Job Ref	**2025RN101**
				Borehole/Pit No.	TP-T05
Site Name	Islandmore Wind Farm			Sample No.	4
Soil Description	Red silty very sandy medium and coarse GRAVEL.			Depth, m	2.20
Specimen Reference		Specimen Depth	m	Sample Type	B
Test Method	BS1377:Part 2:1990, clause 9.2			KeyLAB ID	IDL12025041442



Sieving		Sedimentation	
Particle Size mm	% Passing	Particle Size mm	% Passing
75	100		
63	100		
50	100		
37.5	81		
28	67		
20	61		
14	53		
10	47		
6.3	40		
5	37		
3.35	32		
2	29		
1.18	25		
0.6	20		
0.425	18		
0.3	14		
0.212	10		
0.15	9		
0.063	8		

Dry Mass of sample, g	709

Sample Proportions	% dry mass
Very coarse	0
Gravel	71
Sand	21
Fines <0.063mm	8

Grading Analysis		
D100	mm	
D60	mm	18.9
D30	mm	2.41
D10	mm	0.215
Uniformity Coefficient		88
Curvature Coefficient		1.4

Remarks

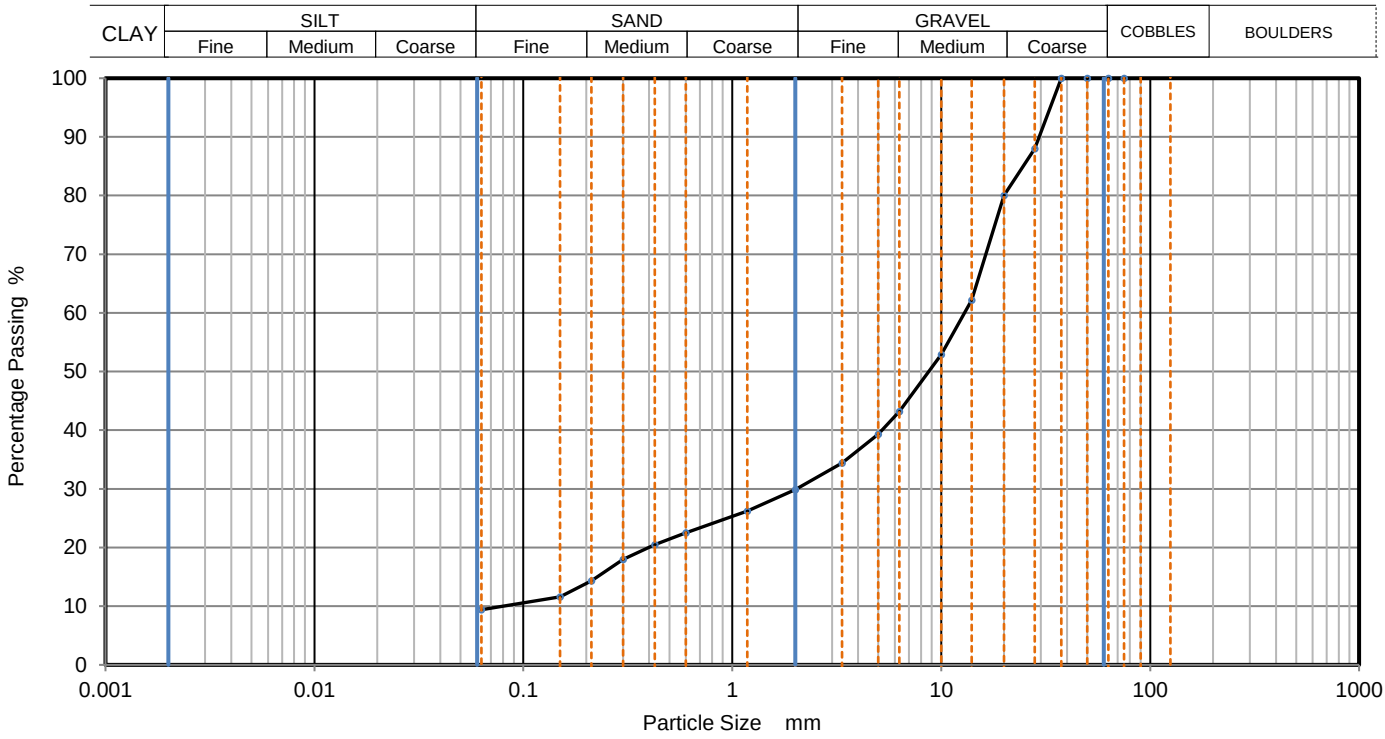
Preparation and testing in accordance with BS1377 unless noted below

Operator	Checked	Approved	Sheet printed	
		Dympna Darcy B.Sc.	27/05/2025 15:23	**1** QC From No:R2

Tested in: Irish Drilling Ltd.(IDL), Old Galway Road, Loughrea, Co. Galway, Ireland. H62VX39

Approved Signatures: Dympna Darcy (DCD) Lab Manager, Declan Joyce (DJ) Chartered Geotechnical Engineer, Ronan Killeen (RK) Quality Manager.

IRISH DRILLING LIMITED	**PARTICLE SIZE DISTRIBUTION**			Job Ref	**2025RN101**
				Borehole/Pit No.	TP-T08
Site Name	Islandmore Wind Farm			Sample No.	4
Soil Description	Light brown silty very sandy medium and coarse GRAVEL.			Depth, m	3.40
Specimen Reference		Specimen Depth	m	Sample Type	B
Test Method	BS1377:Part 2:1990, clause 9.2			KeyLAB ID	IDL12025041450



Sieving		Sedimentation	
Particle Size mm	% Passing	Particle Size mm	% Passing
75	100		
63	100		
50	100		
37.5	100		
28	88		
20	80		
14	62		
10	53		
6.3	43		
5	39		
3.35	34		
2	30		
1.18	26		
0.6	23		
0.425	21		
0.3	18		
0.212	14		
0.15	12		
0.063	9		

Dry Mass of sample, g	727

Sample Proportions	% dry mass
Very coarse	0
Gravel	70
Sand	21
Fines <0.063mm	9

Grading Analysis		
D100	mm	
D60	mm	12.9
D30	mm	2.02
D10	mm	0.079
Uniformity Coefficient		160
Curvature Coefficient		4

Remarks

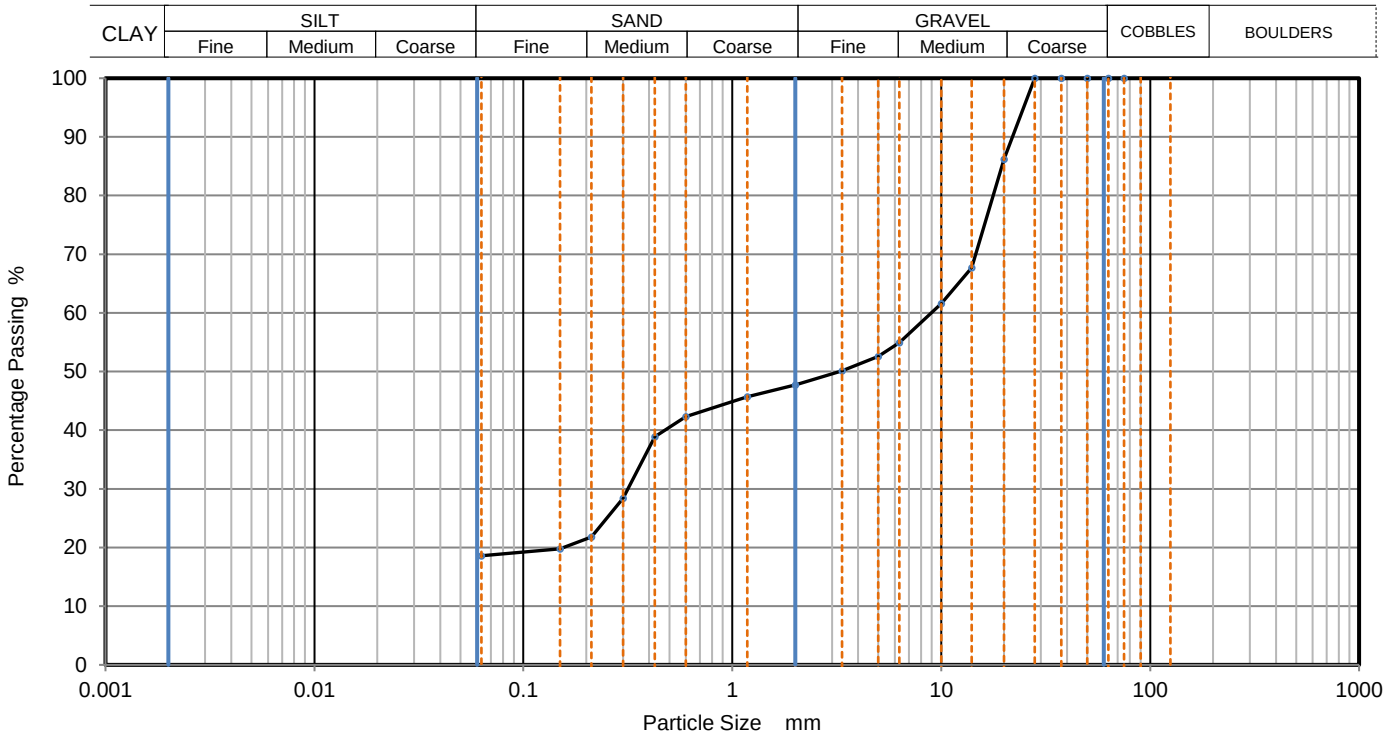
Preparation and testing in accordance with BS1377 unless noted below

Operator	Checked	Approved	Sheet printed	
		Dympna Darcy B.Sc.	27/05/2025 15:23	**1** QC From No:R2

Tested in: Irish Drilling Ltd.(IDL), Old Galway Road, Loughrea, Co. Galway, Ireland. H62VX39

Approved Signatures: Dympna Darcy (DCD) Lab Manager, Declan Joyce (DJ) Chartered Geotechnical Engineer, Ronan Killeen (RK) Quality Manager.

IRISH DRILLING LIMITED	**PARTICLE SIZE DISTRIBUTION**			Job Ref	**2025RN101**
				Borehole/Pit No.	TP-T08BP
Site Name	Islandmore Wind Farm			Sample No.	2
Soil Description	Reddish-brown silty very sandy medium GRAVEL. Sand is medium.			Depth, m	1.40
Specimen Reference		Specimen Depth	m	Sample Type	B
Test Method	BS1377:Part 2:1990, clause 9.2			KeyLAB ID	IDL12025041452



Sieving		Sedimentation	
Particle Size mm	% Passing	Particle Size mm	% Passing
75	100		
63	100		
50	100		
37.5	100		
28	100		
20	86		
14	68		
10	62		
6.3	55		
5	53		
3.35	50		
2	48		
1.18	46		
0.6	42		
0.425	39		
0.3	28		
0.212	22		
0.15	20		
0.063	19		

Dry Mass of sample, g	789

Sample Proportions	% dry mass
Very coarse	0
Gravel	52
Sand	29
Fines <0.063mm	19

Grading Analysis		
D100	mm	
D60	mm	8.97
D30	mm	0.316
D10	mm	
Uniformity Coefficient		
Curvature Coefficient		

Remarks

Preparation and testing in accordance with BS1377 unless noted below

Operator	Checked	Approved	Sheet printed	
		Dympna Darcy B.Sc.	27/05/2025 15:23	**1** QC From No:R2

Tested in: Irish Drilling Ltd.(IDL), Old Galway Road, Loughrea, Co. Galway, Ireland. H62VX39

Approved Signatures: Dympna Darcy (DCD) Lab Manager, Declan Joyce (DJ) Chartered Geotechnical Engineer, Ronan Killeen (RK) Quality Manager.

Unit 7-8 Hawarden Business Park
Manor Road (off Manor Lane)
Hawarden
Deeside
CH5 3US
Tel: (01244) 528777
email: hawardencustomerservices@alsglobal.com
Website: www.alsenvironmental.co.uk

Irish Drilling Limited
Old Galway Road
Loughrea
Co. Galway

Attention: Dympna Darcy

CERTIFICATE OF ANALYSIS

Date of report Generation:	08 May 2025
Customer:	Irish Drilling Limited
Sample Delivery Group (SDG):	250501-104
Your Reference:	2025RN101
Location:	Islandmore Wind Farm
Report No:	764262
Order Number:	PKB21437

We received 5 samples on Thursday May 01, 2025 and 5 of these samples were scheduled for analysis which was completed on Thursday May 08, 2025. Accredited laboratory tests are defined within the report, but opinions, interpretations and on-site data expressed herein are outside the scope of ISO 17025 accreditation.

Should this report require incorporation into client reports, it must be used in its entirety and not simply with the data sections alone.

Chemical testing (unless subcontracted) performed at ALS Laboratories (UK) Limited Hawarden.

All sample data is provided by the customer. The reported results relate to the sample supplied, and on the basis that this data is correct.
Incorrect sampling dates and/or sample information will affect the validity of results.
The customer is not permitted to reproduce this report except in full without the approval of the laboratory.

Approved By:

Justin Keeton
Business Unit Leader - Land

1291

Received Sample Overview

Lab Sample No(s)	Customer Sample Ref.	AGS Ref.	Depth (m)	Sampled Date
31455110	TP-SS01	B1	1.85 - 2.05	27/03/2025
31455113	TP-SS02	B1	0.60 - 0.80	27/03/2025
31455116	TP-T03	D3	2.70 - 2.80	28/03/2025
31455119	TP-T05	D2	1.00 - 1.20	26/03/2025
31455121	TP-T08	B3	2.40 - 2.80	27/03/2025

Only received samples which have had analysis scheduled will be shown on the following pages.

CERTIFICATE OF ANALYSIS

SDG: 250501-104 **Report Number:** 764262 **Superseded Report:**
Client Ref.: 2025RN101 **Location:** Islandmore Wind Farm

Results Legend

X Test

N No Determination Possible

Sample Types -
S - Soil/Solid
UNS - Unspecified Solid
GW - Ground Water
SW - Surface Water
LE - Land Leachate
PL - Prepared Leachate
PR - Process Water
SA - Saline Water
TE - Trade Effluent
TS - Treated Sewage
US - Untreated Sewage
RE - Recreational Water
DW - Drinking Water
Non-regulatory
UNL - Unspecified Liquid
SL - Sludge
G - Gas
OTH - Other

			Lab Sample No(s)	Customer Sample Reference	AGS Reference	Depth (m)	Container	Sample Type
			31455110	TP-SS01	B1	1.85 - 2.05	1kg TUB with Handle (ALE260)	S
			31455113	TP-SS02	B1	0.60 - 0.80	1kg TUB with Handle (ALE260)	S
			31455116	TP-T03	D3	2.70 - 2.80	250g Amber Jar (ALE210)	S
			31455119	TP-T05	D2	1.00 - 1.20	1kg TUB with Handle (ALE260)	S
			31455121	TP-T08	B3	2.40 - 2.80	1kg TUB with Handle (ALE260)	S
Anions by Kone (soil)	All	NDPs: 0 Tests: 5	X	X	X	X	X	
Sample description	All	NDPs: 0 Tests: 5	X	X	X	X	X	
Total Organic Carbon	All	NDPs: 0 Tests: 5	X	X	X	X	X	
Total Sulphate	All	NDPs: 0 Tests: 5	X	X	X	X	X	

Sample Descriptions

Grain Sizes

very fine	<0.063mm	fine	0.063mm - 0.1mm	medium	0.1mm - 2mm	coarse	2mm - 10mm	very coarse	>10mm

Lab Sample No(s)	Customer Sample Ref.	Depth (m)	Colour	Description	Inclusions	Inclusions 2
31455110	TP-SS01	1.85 - 2.05	Grey	Sandy Loam	Stones	None
31455113	TP-SS02	0.60 - 0.80	Dark Brown	Loamy Sand	Stones	None
31455116	TP-T03	2.70 - 2.80	Light Brown	Sandy Clay Loam	Stones	Vegetation
31455119	TP-T05	1.00 - 1.20	Dark Brown	Sandy Loam	Stones	Vegetation
31455121	TP-T08	2.40 - 2.80	Dark Brown	Sand	Stones	None

These descriptions are only intended to act as a cross check if sample identities are questioned, and to provide a log of sample matrices with respect to MCERTS validation. They are not intended as full geological descriptions.

We are accredited to MCERTS for sand, clay and loam/topsoil, or any of these materials - whether these are derived from naturally ocurring soil profiles, or from fill/made ground, as long as these materials constitute the major part of the sample.

Other coarse granular materials such as concrete, gravel and brick are not accredited if they comprise the major part of the sample.

Validated

CERTIFICATE OF ANALYSIS

SDG: 250501-104 **Report Number:** 764262 **Superseded Report:**
Client Ref.: 2025RN101 **Location:** Islandmore Wind Farm

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
***	6:2 FTAB (see appendix)
1-4♦§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	TP-SS01	TP-SS02	TP-T03	TP-T05	TP-T08
			Depth (m)	1.85 - 2.05	0.60 - 0.80	2.70 - 2.80	1.00 - 1.20	2.40 - 2.80
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	27/03/2025	27/03/2025	28/03/2025	26/03/2025	27/03/2025
			Sample Time	.	.	.	.	.
			Date Received	01/05/2025	01/05/2025	01/05/2025	01/05/2025	01/05/2025
			SDG Ref	250501-104	250501-104	250501-104	250501-104	250501-104
			Lab Sample No.(s)	31455110	31455113	31455116	31455119	31455121
			AGS Reference	B1	B1	D3	D2	B3
Moisture Content Ratio (% of as received sample)	%	PM024		12	12	16	21	15
Soil Organic Matter (SOM)	<0.35 %	TM132		<0.35 @ #	1.76 @ #	0.533 @ #	2.64 @ #	0.412 @ #
Sulphate, Total	<48 mg/kg	TM221		240 M	<48 M	<48 M	<48 M	<48 M
Water Soluble Sulphate as SO4 2:1 Extract	<0.004 g/l	TM243		0.104 @ M	<0.004 @ M	0.028 @ M	0.0067 @ M	0.0064 @ M

Table of Results - Appendix

Method No	Description
PM024	Soil preparation including homogenisation, moisture, screens of soils for Asbestos Containing Material
TM132	ELTRA CS800 Operators Guide
TM221	Determination of Acid Extractable Sulphate in Soils by ICP OES
TM243	Mixed Anions In Soils By Kone

NA = not applicable.

Chemical testing (unless subcontracted) performed at ALS Laboratories (UK) Limited Hawarden (Method codes TM).

CERTIFICATE OF ANALYSIS

SDG: 250501-104 **Report Number:** 764262 **Superseded Report:**
Client Ref.: 2025RN101 **Location:** Islandmore Wind Farm

Test Completion Dates

Lab Sample No(s)	31455110	31455113	31455116	31455119	31455121
Customer Sample Ref.	TP-SS01	TP-SS02	TP-T03	TP-T05	TP-T08
AGS Ref.	B1	B1	D3	D2	B3
Depth	1.85 - 2.05	0.60 - 0.80	2.70 - 2.80	1.00 - 1.20	2.40 - 2.80
Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
Anions by Kone (soil)	08-May-2025	07-May-2025	08-May-2025	08-May-2025	07-May-2025
Sample description	02-May-2025	02-May-2025	02-May-2025	02-May-2025	02-May-2025
Total Organic Carbon	07-May-2025	07-May-2025	07-May-2025	07-May-2025	07-May-2025
Total Sulphate	08-May-2025	08-May-2025	08-May-2025	08-May-2025	08-May-2025

Appendix

General

1. Results are expressed on a dry weight basis (dried at 35ºC) for all soil analyses except for the following: NRA and CEN Leach tests, flash point LOI, pH, ammonium as NH4 by the BRE method, VOC TICs and SVOC TICs.

2. If sufficient sample is received a sub sample will be retained free of charge for 15 days after analysis is completed (e-mailed) for all sample types unless the sample is destroyed on testing. The prepared soil sub sample that is analysed for asbestos will be retained for a period of 6 months after the analysis date. All bulk samples will be retained for a period of 6 months after the analysis date. All samples received and not scheduled will be disposed of 15 days after the date of receipt unless we are instructed to the contrary. Once the initial period has expired, a storage charge will be applied for each month or part thereof until the client cancels the request for sample storage. ALS reserve the right to charge for samples received and stored but not analysed.

3. With respect to turnaround, we will always endeavour to meet client requirements wherever possible, but turnaround times cannot be absolutely guaranteed due to so many variables beyond our control.

4. We take responsibility for any test performed by sub-contractors (marked with an asterisk). We endeavour to use UKAS/MCERTS Accredited Laboratories, who either complete a quality questionnaire or are audited by ourselves. For some determinands there are no UKAS/MCERTS Accredited Laboratories, in this instance a laboratory with a known track record will be utilised.

5. If no separate volatile sample is supplied by the client, or if a headspace or sediment is present in the volatile sample, the integrity of the data may be compromised.
This will be flagged up as an invalid VOC on the test schedule and the result marked as deviating on the test certificate.

6. NDP - No determination possible due to insufficient/unsuitable sample.

7. Results relate only to the items tested.

8. LoDs (Limit of Detection) for wet tests reported on a dry weight basis are not corrected for moisture content.

9. **Surrogate recoveries** - Surrogates are added to your sample to monitor recovery of the test requested. A % recovery is reported, results are not corrected for the recovery measured. Typical recoveries for organics tests are 70-130%. Recoveries in soils are affected by organic rich or clay rich matrices. Waters can be affected by remediation fluids or high amounts of sediment. Test results are only ever reported if all of the associated quality checks pass; it is assumed that all recoveries outside of the values above are due to matrix affect.

10. Stones/debris are not routinely removed. We always endeavour to take a representative sub sample from the received sample.

11. In certain circumstances the method detection limit may be elevated due to the sample being outside the calibration range. Other factors that may contribute to this include possible interferences. In both cases the sample would be diluted which would cause the method detection limit to be raised.

12. For dried and crushed preparations of soils volatile loss may occur -
e.g volatile mercury.

13. For leachate preparations other than Zero Headspace Extraction (ZHE) volatile loss may occur.

14. For the BSEN 12457-3 two batch process to allow the cumulative release to be calculated, the volume of the leachate produced is measured and filtered for all tests. We therefore cannot carry out any unfiltered analysis.
The tests affected include volatiles GCFID/GCMS and all subcontracted analysis.

15. Analysis and identification of specific compounds using GCFID is by retention time only, and we routinely calibrate and quantify for benzene, toluene, ethylbenzenes and xylenes (BTEX). For total volatiles in the C5-C12 range, the total area of the chromatogram is integrated and expressed as ug/kg or ug/l.
Although this analysis is commonly used for the quantification of gasoline range organics (GRO), the system will also detect other compounds such as chlorinated solvents, and this may lead to a falsely high result with respect to hydrocarbons only.
It is not possible to specifically identify these non-hydrocarbons, as standards are not routinely run for any other compounds, and for more definitive identification, volatiles by GCMS should be utilised.

16. We are accredited to MCERTS for sand, clay and loam/topsoil, or any of these materials - whether these are derived from naturally occurring soil profiles, or from fill/made ground, as long as these materials constitute the major part of the sample. Other coarse granular material such as concrete, gravel and brick are not accredited if they comprise the major part of the sample.

17 Data retention. All records, communications and reports pertaining to the analysis are archived for seven years from the date of issue of the final report.

18. **Tentatively Identified Compounds (TICs)** are non-target peaks in VOC and SVOC analysis. All non-target peaks detected with a concentration above the LoD are subjected to a mass spectral library search. Non-target peaks with a library search confidence of >75% are reported based on the best mass spectral library match. When a non-target peak with a library search confidence of <75% is detected it is reported as “mixed hydrocarbons”. Non-target compounds identified from the scan data are semi-quantified relative to one of the deuterated internal standards, under the same chromatographic conditions as the target compounds. This result is reported as a semi-quantitative value and reported as Tentatively Identified Compounds (TICs). TICs are outside the scope of UKAS accreditation and are not moisture corrected.

19. **Sample Deviations**

If a sample is classed as deviated then the associated results may be compromised.

1	**Container with Headspace provided for volatiles analysis**
2	**Incorrect container received**
3	**Deviation from method**
4	**Matrix interference**
♦	**Sample holding time exceeded in laboratory**
@	**Sample holding time exceeded due to late arrival of instructions or samples**
§	**Sampled on date not provided**

20. **Asbestos**

When requested, the individual sub sample scheduled will be analysed in house for the presence of asbestos fibres and asbestos containing material by our documented in house method TM048 based on HSG 248 (2021), which is accredited to ISO17025. If a specific asbestos fibre type is not found this will be reported as “Not detected”. If no asbestos fibre types are found all will be reported as “Not detected” and the sub sample analysed deemed to be clear of asbestos. If an asbestos fibre type is found it will be reported as detected (for each fibre type found). Testing can be carried out on asbestos positive samples, but, due to Health and Safety considerations, may be replaced by alternative tests or reported as No Determination Possible (NDP). The quantity of asbestos present is not determined unless specifically requested.

If during the search of the two ‘pinch’ samples by PLM only 1 or 2 fibres or fibre bundles are seen and identified as asbestos, the term ‘trace asbestos identified’ is reported.

Identification of Asbestos in Bulk Materials & Soils

The results for identification of asbestos in bulk materials and soils are obtained from supplied bulk materials and soils which have been examined to determine the presence of asbestos fibres using ALS (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining, based on HSG 248 (2021).

The results for identification of asbestos in soils are obtained from a homogenised sub sample which has been examined to determine the presence of asbestos fibres using ALS (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining.

Asbestos Type	Common Name
Chrysotile	White Asbestos
Amosite	Brown Asbestos
Crocidolite	Blue Asbestos
Fibrous Actinolite	-
Fibrous Anthophyllite	-
Fibrous Tremolite	-

Visual Estimation Of Fibre Content

Estimation of fibre content is not permitted as part of our UKAS accredited test other than: - Trace - Where only one or two asbestos fibres were identified.

Respirable Fibres

Respirable fibres are defined as fibres of <3 µm diameter, longer than 5 µm and with aspect ratios of at least 3:1 that can be inhaled into the lower regions of the lung and are generally acknowledged to be most important predictor of hazard and risk for cancers of the lung.
Potentially respirable fibres are identified by using a Phase Contrast Microscope.

Further guidance on typical asbestos fibre content of manufactured products can be found in HSG 264.
The identification of asbestos containing materials and soils falls within our schedule of tests for which we hold UKAS accreditation, however opinions, interpretations and all other information contained in the report are outside the scope of UKAS accreditation.

21. 6:2 FTAB

Recovery of 6:2 FTAB in the quality control samples has been observed to be <50% of the target value. Please note the 6:2 FTAB result is supplied as indicative only.

Appendix 4
Photographs (Trial Pits)



Figure 1 H:\2025\25RN101 Islandmore WF\T08bp...jpg



Figure 3 H:\2025\25RN101 Islandmore WF\T08bp.jpg



Figure 2 H:\2025\25RN101 Islandmore WF\T08bp..jpg



Figure 4 H:\2025\25RN101 Islandmore WF\Tpss01isl...jpg



Figure 5 H:\2025\25RN101 Islandmore WF\Tpss01isl..jpg



Figure 7 H:\2025\25RN101 Islandmore WF\Tpss02isl...jpg



Figure 6 H:\2025\25RN101 Islandmore WF\Tpss01isl.jpg



Figure 8 H:\2025\25RN101 Islandmore WF\Tpss02isl..jpg



Figure 9 H:\2025\25RN101 Islandmore WF\Tpss02isl.jpg



Figure 11 H:\2025\25RN101 Islandmore WF\Tpt01..jpg



Figure 10 H:\2025\25RN101 Islandmore WF\Tpt01...jpg



Figure 12 H:\2025\25RN101 Islandmore WF\Tpt01.jpg



Figure 13 H:\2025\25RN101 Islandmore WF\Tpt02...jpg



Figure 15 H:\2025\25RN101 Islandmore WF\Tpt02.jpg



Figure 14 H:\2025\25RN101 Islandmore WF\Tpt02..jpg



Figure 16 H:\2025\25RN101 Islandmore WF\Tpt03...jpg



Figure 17 H:\2025\25RN101 Islandmore WF\Tpt03..jpg



Figure 19 H:\2025\25RN101 Islandmore WF\Tpt04...jpg



Figure 18 H:\2025\25RN101 Islandmore WF\Tpt03.jpg



Figure 20 H:\2025\25RN101 Islandmore WF\Tpt04..jpg



Figure 21 H:\2025\25RN101 Islandmore WF\Tpt04.jpg



Figure 23 H:\2025\25RN101 Islandmore WF\Tpt05..jpg



Figure 22 H:\2025\25RN101 Islandmore WF\Tpt05...jpg

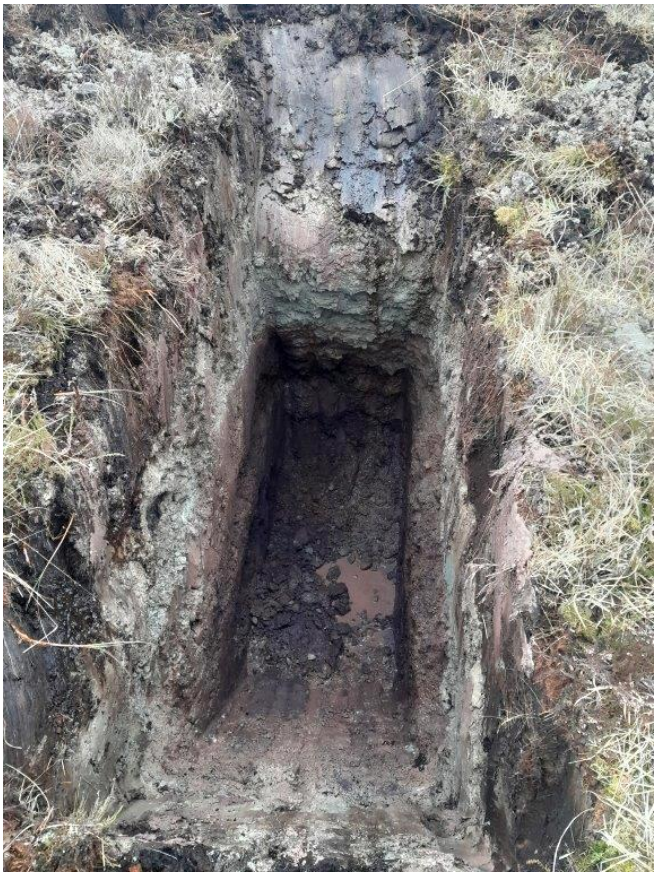


Figure 24 H:\2025\25RN101 Islandmore WF\Tpt05.jpg



Figure 25 H:\2025\25RN101 Islandmore WF\Tpt06...jpg



Figure 27 H:\2025\25RN101 Islandmore WF\Tpt06.jpg



Figure 26 H:\2025\25RN101 Islandmore WF\Tpt06..jpg



Figure 28 H:\2025\25RN101 Islandmore WF\Tpt07...jpg



Figure 29 H:\2025\25RN101 Islandmore WF\Tpt07..jpg



Figure 31 H:\2025\25RN101 Islandmore WF\Tpt08....jpg



Figure 30 H:\2025\25RN101 Islandmore WF\Tpt07.jpg



Figure 32 H:\2025\25RN101 Islandmore WF\Tpt08..jpg



Figure 33 H:\2025\25RN101 Islandmore WF\Tpt08.jpg



Figure 35 H:\2025\25RN101 Islandmore WF\Tpt09..jpg



Figure 34 H:\2025\25RN101 Islandmore WF\Tpt09...jpg



Figure 36 H:\2025\25RN101 Islandmore WF\Tpt09.jpg



Figure 37 H:\2025\25RN101 Islandmore WF\Tpt10...jpg



Figure 39 H:\2025\25RN101 Islandmore WF\Tpt10.jpg



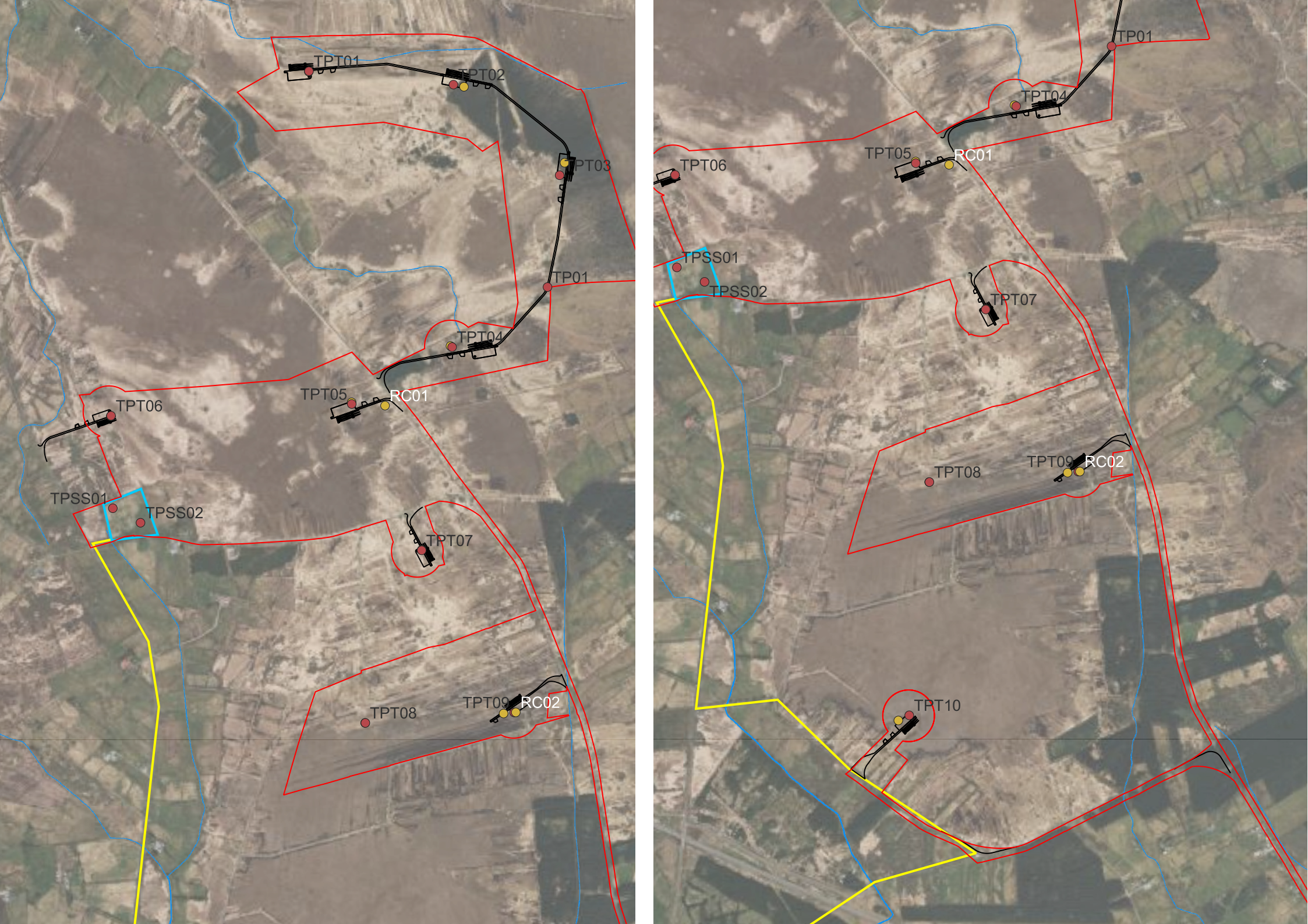
Figure 38 H:\2025\25RN101 Islandmore WF\Tpt10..jpg

Appendix 5
Photographs (Rotary Core)


Islandmore
Windfarm,
Co. Roscommon
2025 RN 101
RC 0 1
Box
1 2 3
Islandmore
Windfarm,
Co. Roscommon
2025 RN 101
RC 0 1
Box
4 5 6


Islandmore
Windfarm,
Co. Roscommon
2025 RN 101
RC 02
Box
1 2 3
Islandmore
Windfarm,
Co. Roscommon
2025 RN 101
RC 02
Box
4

Appendix 6
Site Plans


TPT01
TPT02
TPT03
TP01
TPT04
TPT05
RC01
TPT06
TPSS01
TPSS02
TPT07
TPT08
TPT09
RC02
TPT10

FEHILY TIMONEY

DESIGNING AND DELIVERING
A SUSTAINABLE FUTURE

www.fehilytimoney.ie



GALETECH
ENERGY SERVICES