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Gortyrahilly Wind Farm, Co. Cork
Site Investigation Report **FINAL**
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1. Introduction

1.1 Background

Minerex Environmental Ltd (MEL) has been commissioned by Jennings O'Donovan & Partners (JOD, the Client) on behalf of FuturEnergy Ireland and SSE (the Developer/s) to assess the geological site characteristics in relation to the planning application for Gortyrahilly Windfarm (GWF, the development), Co. Cork.

1.2 Purpose

Site Investigation for the purposes of assessing ground conditions at EIA design phase of a proposed wind farm development, Gortyrahilly Wind Farm, Co. Cork. Assessing ground conditions in terms of peat and slope stability risk, subsoil and geological characterisation and classification.

1.3 Scope of Works – Tender

The scope of works was initially specified by the Developer at tender phase. The scope of works for ground investigations at tender included the following works;

- Peat probing (50 m grid), 50 ha
- Trial pits, 35 no.
- Shear vane tests, 25 no.
- Number of groundwater monitoring wells, 5 no.
- SI report with detailed findings, records and interpretation

Provisional works included;

- Gouge auger samples
- Boreholes up to 15 m, 5 no.
- Ground penetrating radar surveys (5 days)

In consultation with the Client and Developer the scope of works was adapted to the site based on observations made by desk study and initial site walk overs and assessments. The actual completed scope of works is detailed in **Section 2**.

This work has been carried out in unison with the EIAR for the proposed development. Therefore, this report will be appended to **EIAR Chapter 8 - Soils & Geology** as part of the planning application for the proposed development. The EIAR tender scope includes for a stand alone Peat Stability Report as well as stand alone Site Investigation report, however the two will be merged in this Site Investigation report. This is done with a view streamlining the site geological assessment.

Further to the above, the geological or environmental setting of the site will be described in detail in **EIAR Chapter 8 – Soil & Geology** with appended maps and graphics for reference. This report will refer and summarise the EIAR chapter/s to avoid duplication of information or graphics. This report will also reference **EIAR Chapter 9 – Hydrology & Hydrogeology** in relation to groundwater.

1.4 Statement of Authority

Minerex Environmental Ltd. (MEL) is an independent, Irish owned consultancy providing environmental services in the hydrogeological and environmental disciplines. The company was established in 1994 and continues to thrive, providing consultancy to clients in both the public & private sectors. More information can be found at www.minerex.ie. The principal members of the MEL EIA team involved in this assessment include the following persons;

- Cecil Shine – B.Sc. (Geology), M.Sc (Water & Soil), PGeo, EurGeol – Technical Director and Project Director – Experince; >25 years.
- Sven Klinkenbergh – B.Sc (Environmental Science), P.G.Dip (Environmental Protection) – Associate, Project Manager and EIA Lead Author – Experience; 10 years
- Jen Caleno – B.Sc (Geology), M.Sc (Geoscience) – Project Technician – Experience; 5 years
- Dr. Chris Fennel – B.A.Mod (Environmental Science) Ph.D (Civil Structural and Environmental Engineering) – Project Technician – Experience; 3 years.

2. Site Investigation Works & Methods

2.1 Scope of Works – Completed

The completed scope of works included;

- Peat depth probing, 378 no. sampling locations.
- Trial pits, 37 no.
- Sub-soil sampling and Particle Size Distribution analysis, 4 no.
- Shear vane tests, 10 no.
- Drilling – Rotary Core, 3 no.
- Drill core sample analysisz. Point Load (PL) and Unconfined Compression Test (UCS).

2.2 Peat & Slope Stability Risk Assessment Methodology

2.2.1 Peat depth probing & topography assessments

Peat depth probing and gouge coring surveys were undertaken at the site including at each proposed potential turbine location, and at proposed locations for other infrastructure including an Energy Storage Unit where access permitted.

Depth probing was conducted using a fibreglass depth probe and at each survey point the depth of peat, local incline (incline within a c. 5-10 m radius of the survey point) and grid reference (Irish Grid) were recorded. Notes on observations were also recorded including time of taking photographs, presence of drains etc.

2.2.2 Peat gouge coring & qualitative assessments

Gouge coring of peat was carried out to a limited extent (peat depth generally shallow). Peat quality assessment were made at existing cuttings and during trial pitting.

2.2.3 Piezometer installation & groundwater assessments

Not applicable. Peat depth at the site observed to be shallow generally at the site.

2.2.4 Topography & substrate topology

Using available topographical data provided for the site and peat thickness / depth data obtained during MEL surveys, the topology (characteristics of a surface) of the substrate underlying the peat on site was assessed and cross sections generated to evaluate variance from the surface topology.

2.2.5 Peat stability numerical assessment

This stability assessment has been undertaken using a relatively simple infinite slope stability approach (Boylan, N, and Long, M, 2012) (derived from Bromhead's formula (Scottish Gov., 2017)), as follows;

$$FoS = \frac{cu}{yz \sin\alpha \cos\alpha}$$

For the purpose of this assessment, the above formula will be referred to as the *FoS Formula*.

Qualifying peat stability at all peat survey points was done using the following parameters;

Table 1: Formula Parameters & Symbols

Symbol	Description	Unit
FoS	Factor of Safety	FoS
c_u	Effective cohesion or Undrained Shear Strength	kPa
y	Bulk Unit Weight of Peat	kN/m3
z	Depth to failure plain	m
α	Slope Angle	Degrees

The Factor of Safety (FoS) result will range from 0 to infinity, however the following ranges are prescribed ratings as follows;

Table 2: Factor of Safety (FoS) Classifications (Scottish Gov., 2017)

Description	FoS Value Range	Classification
Stable	>1.3	Acceptable
Marginally Stable	1.0 > < 1.3	Acceptable
Unstable	<1.0	Unacceptable

As per the guidance listed in Section 2 of this report, FoS values of 1.0 or greater are considered acceptable in terms of peat stability (Scottish Gov., 2017).

The assessment has been completed on the basis of 2 no. scenarios, which are as follows;

1. Scenario A – Peat stability in terms of the receiving environment as is, that is using the depth of peat observed and recorded during site surveys.
2. Scenario B – Peat stability in terms of the in situ peat with 1m fill (presumed peat) placed on top, that is using the depth of peat observed and recorded during site surveys plus 1 metre fill (depth + 1.0m). This is the assessment worst case scenario and this will be used to assess stability at proposed infrastructure locations.

Undrained shear strength (effective cohesion) (c_u) has been derived by means of assessing moisture content results, that is; there is a correlation between peat moisture content and shear strength (effective cohesion). Shear vane testing has been carried out on the site however, shear vane test, or in situ barrel shear tests are not considered representative of shear strength characteristics of the peat being assessed in terms of stability assessment given numerous flaws with the test itself, namely; the shear vane test evaluates the shear strength where by the force is exerted in a vertical and cylindrical plane, which is not indicative of forces at play with respect slope stability or mass movement; and fibres and roots within the peat will effect the test itself, potentially exaggerating, or giving misleading data. The following graph presents conceptual shear strength values for peat (Boylan N, Jennings P & Long M., 2008).

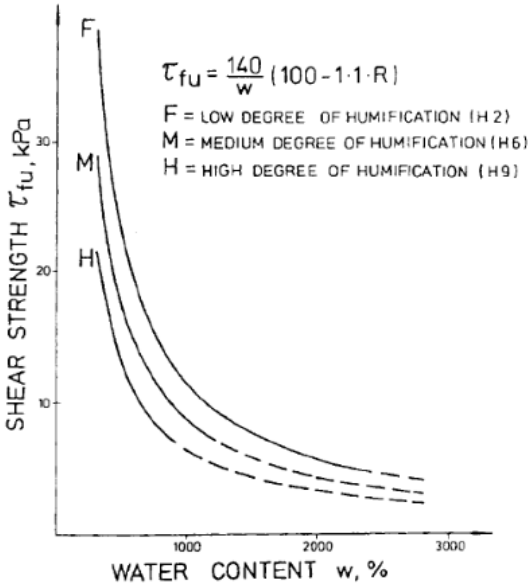

Figure 1: Correlation Between Moisture Content and Shear Strength of Peat (N. Boylan, P. Jennings & M. Long, 2008)

The following table presents the typical minimum, average and maximum moisture content which been used to determine indicative shear strength values for the Site.

Table 3: Peat Moisture Content Range & Indicative Shear Strength

Category	Moisture Content (%)	Indicative Shear Strength (kPa)
Minimum	200	>20
Average	750	10-20
Maximum	1500	<10

For the purpose of assessing peat stability for the Site a conservative undrained shear strength (effective cohesion) value will be used in numerical assessments; i.e. 3.5 kPa.

In situ bulk density (kg/m^3), or bulk unit weight (kN/m^3) of peat (y) is typically within the range of 900-1100 kg/m^3 (Munro R, 2004), or 8.8-10.8kN/m^3. For the purpose of assessing peat stability for the Site a conservative bulk unit weight value will be used in numerical assessments i.e. 11kN/m^3.

The depth to failure plane (z) is presumed to be thickness or depth of peat at any given sampling point being assessed, however it should be noted that the failure plane can potentially be within peat (peat on peat movement), or the substrate i.e. weathered rock or underlying soils.

Slope angle (α) is presumed to be topographical incline measured on site / evaluated using high resolution elevation data at any given sampling point being assessed, however it should be noted that the slope angle (α) relates to the failure plane angle, which is presumed to be the peat and substrate interface, and which is presumed to be parallel to the surface when using FoS Formula (Infinite Slope Formula). In reality the underlying substrate is unlikely to be parallel to the surface topology.

It should be noted that FoS Formula does not account for forces related to the toe and head of an area or mass of soil with the potential for mass movement, that is; in reality the Infinite Slope formula will likely exaggerate stability conditions negatively.

The following table lists parameter values, including inferred conservative parameter values used in numerical assessments.

Table 4: Formula Parameters, Symbols & Inferred Conservative Values

Symbol	Description	Value	Unit
c_u	Effective cohesion	3.5	kPa
y	Bulk Unit Weight of Peat	11	kN/m3
z	Depth to failure plain	Depth of Peat	m
α	Slope Angle	Surface Topography	Degrees

2.2.6 Risk Matrices & Ranking

In assessing the risk in relation to peat stability on site it is important to rate the risk in terms of the hazard, the likelihood and the consequences if any such issue should arise. Therefore, the slope stability risk assessment considers the following parameters, which are assessed by means of a series of risk matrices (Scottish Gov., 2017).

Table 5: Parameters Included In Risk Matrices and Assessed

Category	Description
Landslide History	Considers the likelihood of landslide events occurring based on the history of the site, including the current site use.
Factor of Safety	As described above, includes the following; • Peat depth • Peat quality / condition • Moisture content • Incline (surface topography) • Shear strength • Bulk unit weight of peat
Substrate Topology	Identifying and qualifying variance in substrate topology and qualifying variance from theory underlining the stability formula used i.e. Infinite Slope (Parallel and no foot and head forces)
Significance of Receptor	Qualifying potential receptors in terms of significance.
Distance to Receptor	Qualifying localised proposed development areas in terms of distance to nearest receptor.

Considering the above parameters, the stability assessment follows the following steps;

1. FoS_{RAW} - Assess the site in terms of soil stability using the FoS Formula and calculate a Factor of Safety (FoS) using the *raw* data. This step is considered as preparation of the data obtained for the site i.e. translating the data to a value related to stability, and is not considered the final output of the stability assessment.
2. $FoS_{ADJUSTED}$ - Assess the FoS_{RAW} values in terms of suitability of the application of FoS Formula by considering the history of landslides in relation to the proposed site, and the topology of the substrate compared to the surface topology of the site. This is done by means of a risk matrix which qualifies the point, and also applies a coefficient for the next risk assessment step.
3. Risk Ranking RR_{SF} - The $FoS_{ADJUSTED}$ data is assessed in terms of significance of associated receptor. This is done by means of a risk matrix which qualifies the point, and also applies a coefficient for the next risk assessment step.
4. Risk Ranking RR_D – The RR_{SF} data is assessed in terms of distance to associated receptor. This is done by means of a risk matrix which qualifies the point.

Results and conclusions made by means of the above risk assessment are viewed as two tiered, that is;

1. The likelihood of a stability issue or landslide while considering the significance of the receptor (RR_{SF}).
2. The consequence of a stability issue or landslide while considering the distance to the receptor (RR_{D}).

For example; (1) The risk of a stability issues or landslide occurring at location X and impacting on receptor Y is negligible. (2) Considering the short distance from location X to receptor Y, in the unlikely event that an issue did arise the risk of adverse impacts effecting receptor Y is moderate.

Risk Matrices are presented in **Appendix I**.

2.2.7 Interpretation of Results.

Results of the numerical stability risk assessment are modelled / mapped and interrogated in the context of site topography, site conditions, the proposed development and receptor sensitivity and susceptibility. Interpretation of results in the context of the development, activity and any potential consequences is an important step of the slope stability risk assessment. It is important to consider groups of data sets and site specific dynamics at a particular location (for example; at a proposed turbine location) and to qualitatively risk assess stability in the context of all observed site characteristics, including; topography, substrate topology, geology, hydrogeology, and hydrology, etc. For example; data might indicate a single point of unacceptable FoS / stability, however this needs to be considered in context of neighbouring data and actual site conditions, such as the presence of deep peat within a localised basin confined by shallow bedrock at the surface at neighbouring points, that is; deep, "unstable" peat (by numerical model) observed to be confined by shallow bedrock does not equate to an elevated risk of a catastrophic landslide event occurring, but does equate to potential localised stability issues arising if excavating at that particular location with deep peat.

In turn, any potential stability hazard must be considered in risk assessments in terms of potential consequences to receptors, and not simply likelihood of a stability issues arising. For example; in an area with low risk in terms of stability or Factor of Safety (FoS), but immediately and directly upgradient of a sensitive receptor such as a surface water body, in the unlikely event (low risk = acceptable FoS) that a significant stability issue should arise, due to the proximity to the receiving receptor the consequences of such an event have the potential to be significant.

The following table presents the interpretation of stability risk assessment data in the context of stability, or factor of safety (FoS) (Adjusted, Scenario B) at each significant development infrastructure unit.

2.3 Subsoil & Slope Stability Risk Assessment Methodology

2.3.1 Subsoil stability numerical assessment

This stability assessment has been undertaken in a similar manner to the peat stability assessment. However, due to the limited data available (compared to number of peat depth probing locations) qualifying stability in subsoils at the Site will infer data obtained at nearest neighbour trial pit locations.

Subsoils observed on site generally are classified as follows;

- Clayey, silty, sandy, GRAVEL (or TILL) with coobles and boulders.

The undrained shear strength observed in till subsoils at the Site ranged from 15 to 180kPa (**Appendix B**). This data is not considered highly reliable due to numerous site specific factors including particle size distribution of subsoils, particularly with high gravel / cobble content in this instance.

The undrained shear strength for inorganic silty sandy soils is typically in the range of 50 to 75kPa but is highly variable depending on the particular particle sizes and their character comprising the soil. It should be noted saturation / pore water pressure can also dramatically impact and reduce shear strength, or cohesion values in soils.

For the purpose of assessing subsoil stability for the Site a conservative undrained shear strength (effective cohesion) value will be used in numerical assessments; i.e. 40 kPa.

In situ bulk density (kg/m^3), or bulk unit weight (kN/m^3) of soils/subsoils (y), namely silty sandy subsoils, is typically within the range of 2500 to 2700 kg/m^3, or 24.5 to 26.5 kN/m^3. For the purpose of assessing subsoil stability for the Site a conservative bulk unit weight value will be used in numerical assessments i.e. 27 .0 kN/m^3.

The depth to failure plane (z) is presumed to be thickness or depth of subsoils at any given sampling point being assessed. However, subsoil depths will be inferred in areas of the site with limited data. It should be noted that the failure plane can potentially be within subsoils (subsoil on subsoil movement), or the substrate i.e. weathered bedrock. In relation to the Site specifically, it is important to note the presence of iron pan. Iron pan is a layer of oxidised iron within the subsoil. The iron pan layer is relatively impermeable which can impede or significantly alter groundwater movement in the subsoils. Under the right circumstances the iron pan layer can therefore can become a slip or failure plane. In such instances the failure plane has the potential to parallel to the overlying topography.

Slope angle (α) is presumed to be topographical incline measured on site / evaluated using high resolution elevation data at any given sampling point being assessed, however it should be noted that the slope angle (α) relates to the failure plane angle, which is presumed to be the peat and substrate interface, and which is presumed to be parallel to the surface when using FoS Formula (Infinite Slope Formula). In reality the underlying substrate (bedrock) is unlikely to be parallel to the surface topology. However, considering the presence of iron pan in subsoils at the site it is important to consider the potential for parallel failure planes when assessing stability at the site.

It should be noted that FoS Formula does not account for forces related to the toe and head of an area or mass of soil with the potential for mass movement, that is; in reality the Infinite Slope formula will likely exaggerate stability conditions negatively.

The following table lists parameter values, including inferred conservative parameter values used in numerical assessments.

Table 6: Formula Parameters, Symbols & Inferred Conservative Values

Symbol	Description	Value	Unit
c_u	Effective cohesion	40	kPa
y	Bulk Unit Weight of Peat	27.0	kN/m3
z	Depth to failure plain	Depth of subsoil to bedrock	m
α	Slope Angle	Surface Topography	Degrees

2.3.2 Risk Matrices & Ranking

In assessing the risk in relation to subsoil stability on site it is important to rate the risk in terms of the hazard, the likelihood and the consequences if any such issue should arise. Therefore, the slope stability risk assessment considers the following parameters, which are assessed by means of a series of risk matrices (Scottish Gov., 2017).

Table 7: Parameters Included In Risk Matrices and Assessed

Category	Description
Landslide History	Considers the likelihood of landslide events occurring based on the history of the site, including the current site use.
Factor of Safety	As described above, includes the following;

Category	Description
	• Subsoil depth (to failure plain) • Subsoil composition (PSD) • Moisture content • Incline (surface topography) • Shear strength • Bulk unit weight of subsoil
Substrate Topology	Identifying and qualifying variance in substrate topology and qualifying variance from theory underlining the stability formula used i.e. Infinite Slope (Parallel and no foot and head forces) **For the purposes of considering worst case conditions (the potential for iron pan and parallel failure plains), substrate topology is considered parallel.**
Significance of Receptor	Qualifying potential receptors in terms of significance.
Distance to Receptor	Qualifying localised proposed development areas in terms of distance to nearest receptor.

Considering the above parameters, the stability assessment follows the following steps;

5. FoS_{RAW} - Assess the site in terms of soil stability using the FoS Formula and calculate a Factor of Safety (FoS) using the *raw* data. This step is considered as preparation of the data obtained for the site i.e. translating the data to a value related to stability, and is not considered the final output of the stability assessment.
6. $FoS_{ADJUSTED}$ - Assess the FoS_{RAW} values in terms of suitability of the application of FoS Formula by considering the history of landslides in relation to the proposed site, and the topology of the substrate compared to the surface topology of the site. This is done by means of a risk matrix which qualifies the point, and also applies a coefficient for the next risk assessment step.
7. Risk Ranking RR_{SF} - The $FoS_{ADJUSTED}$ data is assessed in terms of significance of associated receptor. This is done by means of a risk matrix which qualifies the point, and also applies a coefficient for the next risk assessment step.
8. Risk Ranking RR_D – The RR_{SF} data is assessed in terms of distance to associated receptor. This is done by means of a risk matrix which qualifies the point.

Results and conclusions made by means of the above risk assessment are viewed as two tiered, that is;

3. The likelihood of a stability issue or landslide while considering the significance of the receptor (RR_{SF}).
4. The consequence of a stability issue or landslide while considering the distance to the receptor (RR_D).

For example; (1) The risk of a stability issues or landslide occurring at location X and impacting on receptor Y is negligible. (2) Considering the short distance from location X to receptor Y, in the unlikely event that an issue did arise the risk of adverse impacts effecting receptor Y is moderate.

Risk Matrices are presented in **Appendix I**.

3. Baseline Conditions

3.1 Site Description & History

There is one recorded landslide events in close proximity to the Site (GSI, Accessed 2021).

There were no indications of stability issues or mass movement observed on the Site during site surveys.

Deep (c. 5m in places) drainage channels eroded into underlying tills are observed in the west / north west area of the site.

The Site is mapped as having areas ranging from Low Risk to High Risk in terms of Landslide Stability, that is; full spectrum of slope stability risk categories (GSI, ND). Larger areas of High Risk landslide susceptibility are associated with relatively expansive steep slopes.

Refer to EIAR baseline section for further information (**Chapter 8: Soils and Geology**).

3.2 Site Geology

Consultation with Geological Survey Ireland Spatial Resources (GSI) indicates that the bedrock at 1:1,000,000 scale the Site is underlain by;

- Bird Hill Formation (BH) - Purple siltstone & fine sandstone. Purple-red, fine-grained sandstone and subordinate lightly calcretised purple siltstone. The sandstone is weakly parallel-laminated and contains small-scale cross-lamination. The sandstones are thinly interbedded with siltstones.
- Caha Mountain Formation (CM) - Purple & green sandstone & siltstone. The sandstone bodies show low angle cross stratification and usually have erosive bases, cutting into underlying fine grained material.
- Gortanimill Formation (GM) - Sandstone and siltstone. Medium- to fine-grained green sandstone with some red siltstone.

The region contains a multitude of complex geological features however, there are no mapped faults or other significant features underlying the area of the Site.

Rocky outcrops are common within the Site Boundary.

Refer to EIAR baseline section for further information (**Chapter 8: Soils and Geology**).

3.3 Site Soils & Subsoils

Consultation with available maps (GSI) indicate that the soil type across the entire area of the Site, and the general area in the region is Blanket Peat and Loamy Drift (Peaty Soil) with several significant areas mapped as being Bedrock at Surface.

Peat depths observed on the Site are generally shallow with the exception of isolated pockets of deeper peat, however depths at most sampling points are within the range of 0.0-0.5 m and areas with deeper, particularly extremely deep peat have been avoided in terms of the Development footprint. Peat depths are mapped and presented in **Appendix A**.

Peat quality assessment (by gouge coring / trial pitting / observations at cut locations) indicate relatively moderate to high Von Post values (generally H5 to H8) across the Site.

Refer to EIAR baseline section for further information (**Chapter 8: Soils and Geology**).

3.4 Topography & Substrate Topology

The topography at and in the immediate area surrounding the Site is highly variable with multiple peaks, ridges with variable elevations and inclines. At lower elevations the topography is relatively flat or comprising of low magnitude inclines, however at mid and high elevation relative to the Site, steep high magnitude inclines are common place.

Site observations indicate that the substrate topology varies significantly to surface topology. Highest rates of variance are associated with areas which include deeper peat, that is; areas of deeper peat are contained with "pockets" delineated by areas or ridges of shallow bedrock. Areas with generally shallower peat have less variance from the substrate however such areas are indicatively low risk in terms of stability given the peat is shallow.

3.5 Hydrology & Climate

Several mapped rivers run through and directly adjacent to the Site. Extensive constructed drainage channels associated with forestry, agriculture and peat cutting activities exist at the site.

Refer to EIAR baseline section for further information (**Chapter 9: Hydrology and Hydrogeology**).

3.6 Receptors

Receptors associated with the Development footprint are generally limited to non-critical infrastructure and water bodies.

Receptors associated with the proposed development, that is; streams, rivers, lakes and groundwater, are considered highly sensitive receptors considering;

- High or good WFD status and objective to protect same.
- Moderate WFD status and objective to restore same to at least good status by 2021.
- The numerous downgradient designations (sensitive protected areas) associated with each of the two associated catchments and the sensitive habitats and species associated with same.
- Designation of some downgradient surface water bodies and all groundwater bodies as sources of drinking water.

Ultimately, all surface water and groundwater associated with the Site is considered sensitive and must be protected.

There is one location whereby the receptor is identified as dwellings and agricultural buildings (north of T12). The receptor/s in this instance are considered highly sensitive and c. 200m downgradient of the Development footprint with mapped High risk landslide susceptibility between the footprint and the receptor.

Risk to receptors must consider both the hazard, and likelihood of adversely impacting on any given sensitive receptor, and therefore parameters such as; distance from potential source of hazard to receptor, pathway directness and/or connectivity, and assimilative capacity of the receiving water body should also be considered.

Distance of proposed turbine and hard stand areas have been assessed in terms of distance to associates receptors (surface water features), the results for which are presented in **Appendix I.**

Refer to EIAR baseline section for further information (**Chapter 9: Hydrology and Hydrogeology**).

4. Site Investigation Data & Results

4.1 Peat Depth Data

Approximately 380 no. peat depth probe locations were assessed at the Site.

Georeferenced and categorized peat depth locations are presented in **Appendix A**.

Peat depth data is presented in **Appendix B**.

Number of probe locations by Depth Category are presented in **Table 8**;

Table 8: Peat Depth Probe Points per Depth Category

Peat Depth Category	No.
A – Rock (0.00-0.01 m)	84
B – Very Shallow (0.01-0.5 m)	226
C – Shallow (0.5-2.0 m)	54
D – Moderately Deep (2.0-3.5m)	12
E – Deep (3.5-5.0 m)	0
F – Very Deep (>5.0 m)	0

4.2 Trial Pit Data

A total of 37 no. Trial Pits were completed, logged and sampled at the Site.

Trial Pit and Borehole locations are presented in **Appendix C**.

Trial Pit Logs are presented in **Appendix D**. Trial Pit and Site Investigation Photos are presented in **Appendix E**.

A total of 4 no subsoil samples were obtained from the Site and tested for particle size distribution (PSD).

Subsoil laboratory certificates are presented in **Appendix G**.

Particle Size Distribution (PSD) Soil Description results for subsoils (BS 1377 : Part 2 : 1990 : Clause 9) at the site are presented in **Table 9**. Note; cobble size particles observed on trial pit log sheets.

Table 9: Reported Subsoil Description (PSD)

Sample ID	Cobbles (%)	Gravel (%)	Sand (%)	Silt & Clay (%)	Description
TP08-A1 (SS1)	0.0	85.0	10.0	5.0	Silty/clayey sandy GRAVEL
TP13-A1 (SS1)	0.0	70.0	16.0	14.0	Silty/clayey sandy GRAVEL
TP24-A1 (SS1)	0.0	58.0	22.0	19.0	Silty/clayey, very sandy GRAVEL
TP30-A1 (SS1)	0.0	55.0	21.0	24.0	Very silty/clayey, very sandy GRAVEL

Iron pan was observed in several trial pits as listed in **Appendix H**, and presented in **Appendix C, Appendix D** and **Appendix E**.

4.3 Borehole Data

A total of 3 no. rotary core boreholes were completed, logged, and sampled at the Site.

Borehole logs are presented in **Appendix F**.

Drill logs indicate that;

- Bedrock underlying the site is described as SILTSTONE (BH01, BH02, BH03)
- Bedrock is relatively unweathered at each drilling location at the Site.
- Driller notes water strike at BH01G at 4m bGL likley perched groundwater on top of unweathered bedrock. .

Siltstone is mainly comprised of silt-sized particles. Silt-sized particles range between 0.002 and 0.063 millimeters in diameter (BS 5930). They are intermediate in size between coarse clay on the small side and fine sand on the large side.

Bedrock cores obtained were tested for Unconfined Compressive Strength (UCS), and Point Load Strength (PL).

Rock core testing laboratory certificates are presented in **Appendix G**.

Unconfined Compressive Strength (UCS) results presented in **Table 10** indicate bedrock underlying the site is considered weak.

Table 10: Bedrock Core Laboratory Strength Testing Results

Parameter	(Unit)	BH01	BH02	BH03
UCS Results	*Kn*	56.7	71.5	30.6
UCS Results	*MPa*	12.57	15.77	6.77
Rock Strength (UCS MPa)	*BS EN ISO 14689*	Weak	Weak	Weak

4.4 Peat Stability Risk Assessment Results

Review of peat stability assessment result data and maps as presented in **Appendix I** indicate that the factor of safety is generally acceptable and very low to low stability risk across the site with the exception of minor isolated areas or pockets of deeper peat.

Summary of risk at the site under varying conditions and scenarios is presented in in the following tables.

Table 11: Factor of Safety (Adjusted) at Peat Probe Locations

	Acceptable	Marginally Stable	Unstable
FoS (Adj.) Scenario A	370	2	5
FoS (Adj.) Scenario B	328	34	15

Table 12: Risk Ranking (Distance) at Peat Probe Locations

	Very Low	Low	Moderate	High
RR (Dist.) Scenario A	264	94	19	0
RR (Dist.) Scenario B	236	101	37	3

Areas of elevated stability risk, even at a localised scale, are considered geo-hazards requiring mitigation. Geo-hazards are presented in **Appendix H**.

4.5 Peat Stability Risk Assessment Interpretation

The following table presents the interpretation of stability risk assessment data in the context of stability, or factor of safety (FoS) (Adjusted, Scenario B) at each significant development infrastructure unit.

Table 13: Peat Stability Risk Assessment – Factor of Safety (Adjusted)(Scenario B) at Main Infrastructure Units

Turbine No. / Unit	FoS_{ADJ} (Factor of Safety adjusted according considering site specific conditions)	Geo-Hazard / Comment (Important to consider when carrying out detailed design and pre construction planning)
T1	Data indicates peat stability is acceptable, with the exception of minor isolated* pockets of deeper peat (marginally acceptable / unstable at localised scale). *Confined by shallow bedrock / bedrock outcrops. Surface topography varies greatly from substrate topology.	Steep incline, deep till deposits, iron pan and high risk landslide susceptibility downgradient (N / NW) of the proposed turbine location. Potential for deeper peat in isolated pockets / troughs. Potential for localised stability issues.
T2	Data indicates peat stability is acceptable.	Steep incline, deep till deposits, iron pan and high risk landslide susceptibility downgradient (N / NW) of the proposed turbine location. Potential for deeper peat in isolated pockets / troughs. Potential for localised stability issues.
T3	Data indicates peat stability is acceptable.	Potential for localised stability issues.
T4	Data indicates peat stability is acceptable, with the exception of isolated pockets of deeper peat (marginally acceptable / unstable at localised scale).	Potential for deeper peat in isolated pockets / troughs. Potential for localised stability issues.
T5	Data indicates peat stability is acceptable.	Potential for localised stability issues.
T6	Data indicates peat stability is acceptable, with the exception of isolated pockets of deeper peat (marginally acceptable at localised scale).	Potential for deeper peat in isolated pockets / troughs. Potential for localised stability issues.
T7	Data indicates peat stability is acceptable, with the exception of isolated pockets of deeper peat (marginally acceptable at localised scale).	Potential for localised stability issues.
T8	Data indicates peat stability is acceptable.	Potential for localised stability issues.
T9	Data indicates peat stability is acceptable.	Potential for localised stability issues.
T10	Data indicates peat stability is acceptable.	Potential for localised stability issues.
T11	Data indicates peat stability is acceptable, with the exception of isolated pockets of deeper peat (marginally acceptable at localised scale).	Potential for deeper peat in isolated pockets / troughs. Potential for localised stability issues.
T12	Data indicates peat stability is acceptable, with the exception of isolated pockets of deeper peat (marginally acceptable / unstable at localised scale).	Steep incline, and high risk landslide susceptibility downgradient (N / NW) of the proposed turbine location. Potential for deeper peat in isolated

Turbine No. / Unit	FoS_{ADJ} (Factor of Safety adjusted according considering site specific conditions)	Geo-Hazard / Comment (Important to consider when carrying out detailed design and pre construction planning)
		pockets / troughs. Potential for localised stability issues.
T13	Data indicates peat stability is acceptable, with the exception of isolated pockets of deeper peat (marginally acceptable / unstable at localised scale).	Potential for deeper peat in isolated pockets / troughs. Potential for localised stability issues.
T14	Data at this location is inferred based on neighbouring peat data and on site observations. Land is reconstituted agricultural land to the south, and blanket peat to the north of the of the associated river. Data indicates peat stability is acceptable.	Potential for localised stability issues. Proximity to surface water receptor.
Substation	Data indicates peat stability is acceptable.	Potential for localised stability issues.
Met Mast	Data indicates peat stability is acceptable, with the exception of isolated pockets of deeper peat (marginally acceptable / unstable at localised scale).	Steep incline, deep till deposits, iron pan and high risk landslide susceptibility downgradient (N / NW) of the proposed turbine location. Potential for localised stability issues.
Borrow Pit A	Borrow Pit Location A (Between T2 and T3) = Data indicates peat stability is acceptable.	Potential for localised stability issues.
Borrow Pit B	Borrow Pit Location B (Between T6 and T11) = Data indicates peat stability is acceptable, with the exception of isolated pockets of deeper peat (marginally acceptable at localised scale).	Potential for deeper peat in isolated pockets / troughs. Potential for localised stability issues.

The following table presents the interpretation of stability risk assessment data in the context of stability, or factor of safety (FoS) (Adjusted, Scenario B) at each significant development infrastructure unit.

Table 14: Peat Stability Risk Assessment – Factor of Safety (Adjusted)(Scenario B) at Main Infrastructure Units

Turbine No. / Unit	RR_D (Ranked Risk considering Distance to Sensitive Receptors)	Receptor / Comment
T1	Very Low with isolated pockets associated with localised elevated stability risk.	Drainage / Surface Water
T2	Very Low with isolated pockets associated with localised elevated stability risk.	Drainage / Surface Water
T3	Very Low	Drainage / Surface Water
T4	Very Low - with isolated pockets associated with localised elevated stability risk.	Drainage / Surface Water
T5	Very Low - with isolated pockets associated with localised elevated stability risk.	Drainage / Surface Water
T6	Low - with isolated pockets associated with localised elevated stability risk.	Drainage / Surface Water
T7	Low	Drainage / Surface Water
T8	Very Low	Drainage / Surface Water
T9	Very Low	Drainage / Surface Water
T10	Very Low - with isolated pockets associated with localised elevated stability risk.	Drainage / Surface Water
T11	Low - with isolated pockets associated with localised elevated stability risk.	Drainage / Surface Water
T12	Moderate to High. Elevated risk driven by sensitivity of and proximity to receptor.	**Dwelling / farm yard c. 200m downgradient. Drainage / Surface Water**
T13	Very Low to Low at the hardstand area, to Moderate, with minor area High downgradient - with isolated pockets associated with localised elevated stability risk. Elevated risk driven by proximity to receptor.	Drainage / Surface Water
T14	Very Low to High. Data at this location is inferred based on neighbouring peat data and on site observations. To the north / west of the associated river data indicates Low to High stability risk. To the south / east of the associated river data indicates relatively lower risk.	Drainage / Surface Water – 0m.
Substation	Very Low to Moderate	Drainage / Surface Water
Met Mast	Low to Moderate - with isolated pockets associated with localised elevated stability risk.	Drainage / Surface Water
Borrow Pit A	Similar to T3	Drainage / Surface Water
Borrow Pit B	Similar to T6 and T11	Drainage channels through area.

4.6 Subsoil Stability Risk Assessment Results

Review of subsoil stability assessment result data and maps as presented in **Appendix I** indicate that the factor of safety is generally acceptable and very low to low stability risk across the site (areas assessed / trial pit locations*) with the exception of minor isolated areas of steeper inclines and deeper till deposits (inferred*).

Summary of risk at the site under varying conditions and scenarios is presented in the following tables.

Table 15: Factor of Safety (Adjusted) at Trial Pit Locations

	Acceptable	Marginally Stable	Unstable
FoS (Adj.) Scenario A	37	0	0
FoS (Adj.) Scenario B	37	0	0

Table 16: Risk Ranking (Distance) at Trial Pit Locations

	Very Low	Low	Moderate	High
RR (Dist.) Scenario A	28	9	0	0
RR (Dist.) Scenario B	28	9	0	0

Based on the inferred conservative values applied to the above stability risk assessment, the factor of safety is highly dependent on cohesive strength, which in turn is highly dependent on hydrogeological characteristics including pore water pressure. **Figure 2** presents potential varying Factors of Safety for subsoils at the Site depending on varying cohesive strength and depths to failure plane.

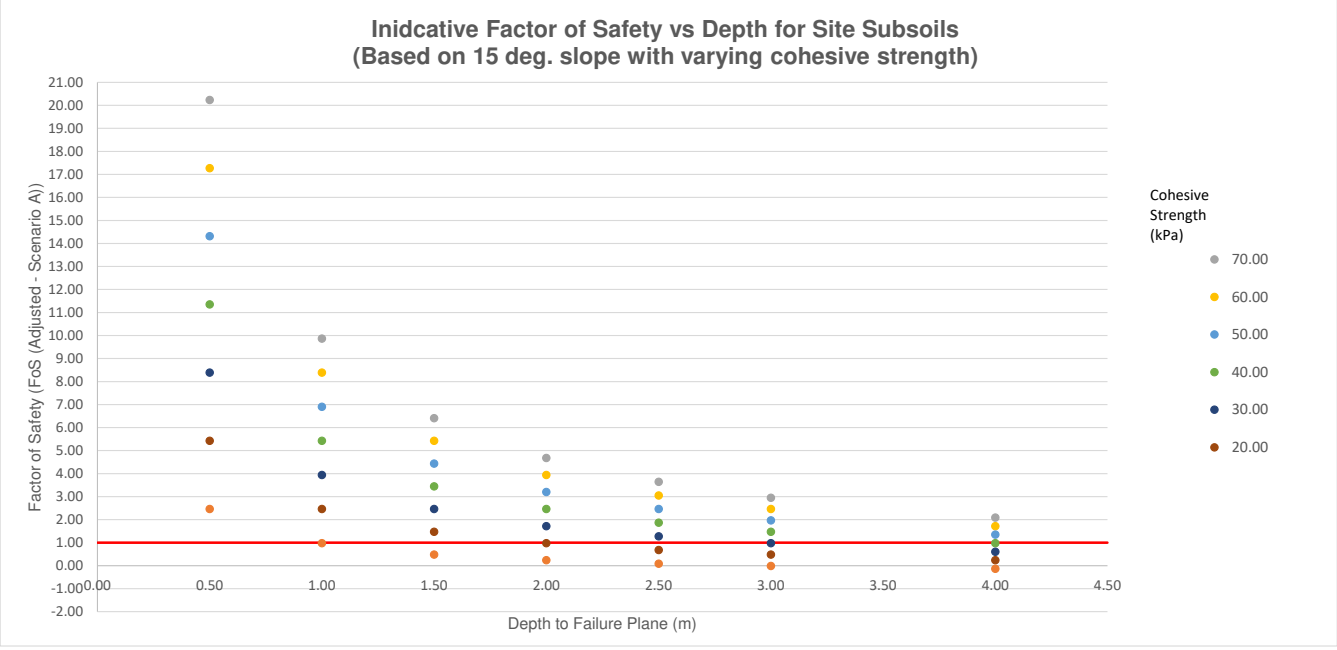

Figure 2: Correlation Between Factor of Safety, Cohesive Strength and Depth of Subsoils

Observations made during site walk overs include deep deposits of till in the north wester area of the site. Iron pan was also observed in trial pits in those areas. The area is also extensively modified in term of constructed drainage for agricultural purposes.

Areas with potentially deep till deposits, steep incline (c. >15 degrees), potential for iron pan, and enhanced opportunity for recharge to groundwater are considered to have elevated Moderate to High risk in terms of subsoil soil stability.

Areas of elevated stability risk, even at a localised scale, are considered geo-hazards requiring mitigation. Geo-hazards are presented in **Appendix H**.

4.7 Peat Stability Risk Assessment Interpretation

The following table presents the interpretation of stability risk assessment data in the context of stability, or factor of safety (FoS) (Adjusted, Scenario B) at each significant development infrastructure unit.

Table 17: Subsoil Stability Risk Assessment – Risk Ranking (Distance)(Scenario B) at Main Infrastructure Units

Turbine No. / Unit	RR_D (Ranked Risk considering Distance to Sensitive Receptors)	Geo-Hazard / Comment
T1	Low (Inferred)	Close proximity to geohazard. Steep incline, deep till deposits, iron pan and high risk landslide susceptibility downgradient (N / NW) of the proposed turbine location. Potential for deeper peat in isolated pockets / troughs. Potential for localised stability issues.
T2	Low	Close proximity to geohazard. Steep incline, deep till deposits, iron pan and high risk landslide susceptibility downgradient (N / NW) of the proposed turbine location. Potential for deeper peat in isolated pockets / troughs. Potential for localised stability issues.
T3	Very Low	Potential for localised stability issues.
T4	Low (Inferred)	Potential for deeper peat in isolated pockets / troughs. Potential for localised stability issues.
T5	Low (Inferred)	Potential for localised stability issues.
T6	Low (Inferred)	Potential for deeper peat in isolated pockets / troughs. Potential for localised stability issues.
T7	Very Low	Potential for localised stability issues.
T8	Very Low	Potential for localised stability issues.
T9	Very Low	Potential for localised stability issues.
T10	Very Low	Potential for localised stability issues.
T11	Low to Moderate	Close proximity to receptor; SW. Potential for deeper peat in isolated pockets / troughs. Potential for localised stability issues.
T12	Low to Moderate	Close proximity to highly sensitive receptor; dwelling / farm. Close proximity to geohazard. Steep incline, and high risk landslide susceptibility downgradient (N / NW) of the proposed turbine location. Potential for deeper peat in isolated pockets / troughs. Potential for localised stability issues.
T13	Low to Moderate	Close proximity to receptor; SW. Potential for deeper peat in isolated pockets / troughs. Potential for localised stability issues.
T14	Low to Moderate	Potential for localised stability issues.

Turbine No. / Unit	RR_D (Ranked Risk considering Distance to Sensitive Receptors)	Geo-Hazard / Comment
	Data at this location is inferred based on neighbouring peat data and on site observations.	
Substation	Very Low (Inferred)	Bedrock outcrop. Potential for localised stability issues.
Met Mast	Low	Close proximity to geohazard. Steep incline, deep till deposits, iron pan and high risk landslide susceptibility downgradient (N / NW) of the proposed turbine location. Potential for localised stability issues.
Borrow Pit A	Very Low	Potential for localised stability issues.
Borrow Pit B	Low (Inferred)	Potential for deeper peat in isolated pockets / troughs. Potential for localised stability issues.

5. Conclusions

Peat Stability

Peat depth across the site is generally shallow with the exception of isolated pockets of deeper peat delineated by shallow subsoils and/or bedrock at or near the surface. There was no deep or very deep peat observed at the site.

The Factor of Safety (Adjusted) (Scenario B i.e. 1m surcharge) at peat probe locations is generally Acceptable with the exception of marginally stable / unstable point locations associated with deeper peat and/or steeper inclines.

The Risk Ranking (Distance) Scenario B i.e. 1m surcharge) at peat probe locations is generally Very Low to Low with the exception of Moderate or High risk point locations associated with deeper peat and/or steeper inclines and/or close proximity to sensitive receptors.

Subsoil Stability

Subsoils underlying the site are characterized generally as clayey sandy GRAVEL or TILL.

The Factor of Safety (Adjusted) (Scenario B i.e. 1m surcharge) at trial pit locations is generally Acceptable with no exception of marginally stable / unstable point locations.

The Risk Ranking (Distance) Scenario B i.e. 1m surcharge) at trial pit locations is generally Very Low to Low with no exceptions of Moderate or High risk point locations.

Elevated risk is identified (inferred) in areas possessing deeper tills and steep inclines, particularly in areas with potential for iron pan and hydrogeological impacts.

Rock Strength

Bedrock is relatively unweathered.

Bedrock strength at the Site is reported as Weak.

Geo-Hazards

A register of Geo-Hazards is mapped and presented in **Appendix H**.

6. Caveats & Recommendations

The risk of landslides occurring on the proposed site under worst case scenario conditions (Conservative values and Scenario B (+1m)) has been determined to be generally **very low to low** however, the following points should be noted;

- The low risk classification is largely driven by shallow peat depths at sampling points associated with proposed infrastructure locations, and by the undulating nature of the substrate topology, however the potential for deeper areas of peat suggests that soil stability at a highly localized scale may give rise to some difficulty e.g. collapse of side walls in excavations, and subsidence over time under newly installed floating hardstands (on peat), etc. Such potential issues give rise to the need for vigilance during and after the construction phase of the proposed development and it is recommended that all works are supervised and moniroed by a competent person (Geotechnical Engineer) through out the construction phase, and that the site is monitored at a reasonable frequency during the operational phase of the proposed development. The frequency of monitoring during the operational phase will be conducted at a high frequency (e.g. weekly) during the initial months, and will reduce (e.g. monthly) gradually over the following year minimum, or until site conditions are observed to be stable.

- The purpose of this report is to assess the proposed infrastructure units associated with the proposed development. The proposed site contains some existing infrastructure including roads and cosntructed drainage. Furrhermore the site area, relataive to the development footrpint is large. The assessment/s reported here are limited to sampling point locations which have been executed to assess the proposed locations of new infrastructure units. The proposed site is mapped as having areas classified as high risk in terms of landslide susceptibility however, although stability would likely be an issue in these areas, the footprint of the existing and proposed development does not include these higher risk areas.

- It is recommeended that the development layout avoids areas classifiied as having high stability risk per this report or the GSI Landslide Susceptibility model. Furthermore, any potential impacts to hydrogeological conditions at high risk areas should be avoided. Through EIA, constraint identifcation and design process, the development footrpint avoids areas of unacceptable risk, however this will include all aspects of the development including; vehicle movements, personell movements, temporray storage, etc. In other words, the dveelopment (includng construction activities) will be limited to the development footprint as far as practical, and otherwise will avoid areas of elevated risk. Furthermore, high risk or high susceptability areas are asscoated with steep inclines, for example: excavated material including broken rock, or boulder, if managed poorly has the potential to role down a steep inlince to a highly sensitive receptor (a dwelling / farm yard in the case of T13). Managament of of excavation araisings or any bulk material or equipment will consider proximity to these areas or geo-constraints, and developer's or sub-contractors method statement and risk assessments will incorporate this into operational and health and safety mitigation measures.

- Considering the variability of subsoil depths, bedrock depths and low rock strength, and in line with infrastructure manufacturer specification, further Site Investigation tailored to specifying turbine and infrastructure foundation design on a case by case basis might be required, particularly in areas adjacent to mapped high risk landslide susceptbility areas (GSI). This will be done in conjunction with or in adherance with turbine manufacturers and their specifications for particular infratructure units.

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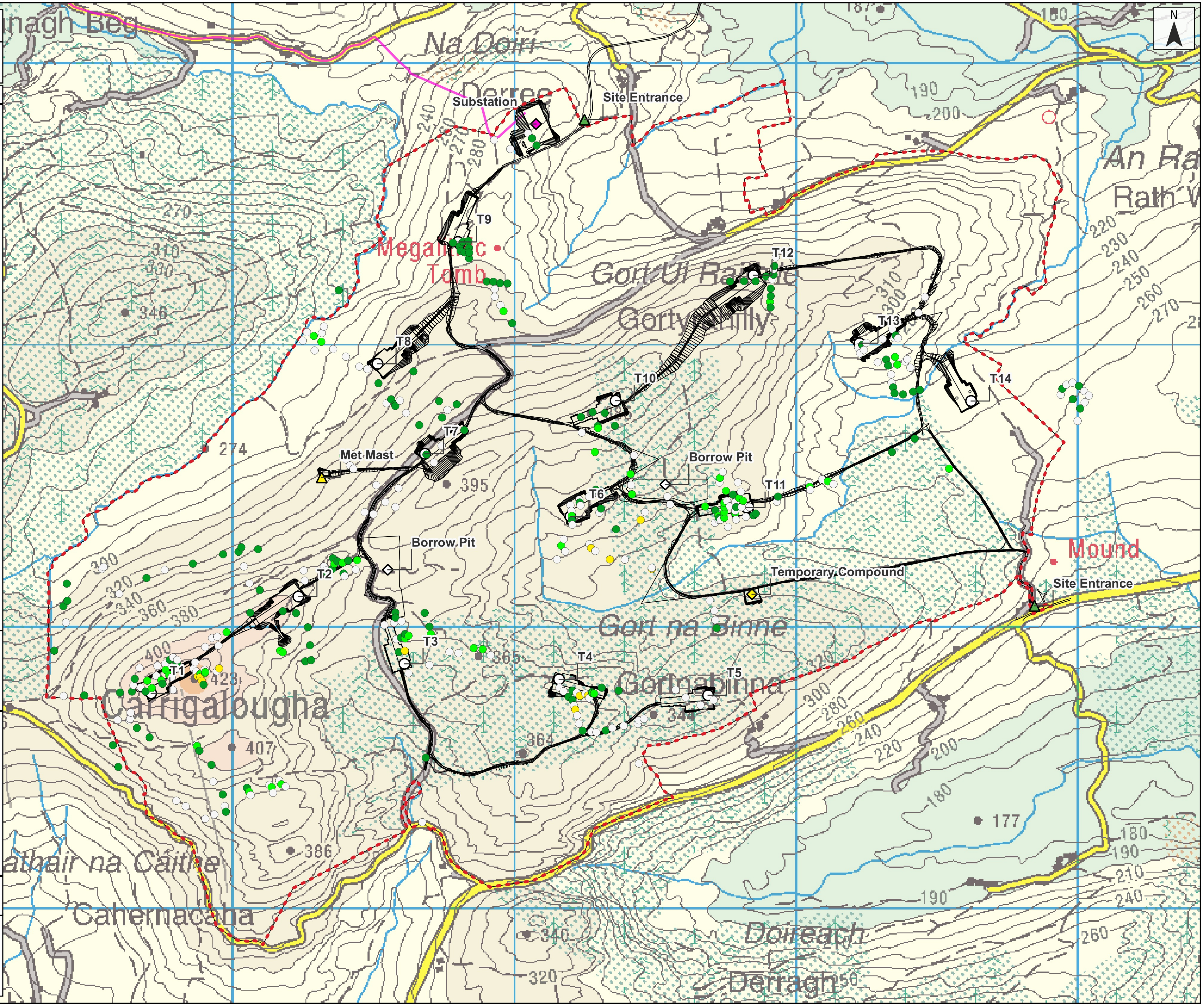
Appendix A

Appendix A-1
Gortyrahilly Wind Farm, Co. Cork

Peat Depth Probing Locations
Entire Site Overview



Legend

Development Layout

Site Investigation

3188-A1-GWF Peat Data
- 0.0 - 0.1m
- 0.1 - 0.5m
- 0.5 - 2.0m
- 2.0 - 3.5m

WF

Ancillary
- Proposed Turbine Locations
- Proposed Borrow Pits
- Site_Entrances
- Proposed On-Site Substation
- Proposed Temporary Construction Compound
- Proposed Met Mast
- 603679 GWF Redline Boundary
- Site Infrastructure

UGC
- Under Ground Cable (UGC)

Project: Gortyrahilly Wind Farm
Projection: ITM
Drawn by: Sven K.
Version: 05/04/2022

References/Sources:
Environmental Protection Agency (EPA)
Geological Services Ireland (GSI)
Bing Aerial / GeoHive / Open Street Map / Google Roads
GDEM Elevation Contours
Fehily Timoney (2019) Surrounding Wind Turbines and Wind Energy Designations

Note: Data points presented are georeferenced using open source data and/or a handheld GPS. This drawing / map is considered a conceptual model with reasonable accuracy for the purposes of environmental assessment. This drawing should not be relied upon for detailed design puporses.

Scale: 0 100 200 300 400 500 m

Minerex Environmental RSK

Appendix A-2
Gortyrahilly Wind Farm, Co. Cork

Peat Depth Probing Locations
Tile 1

Legend

Development Layout

WF

Ancillary
- Proposed Turbine Locations
- Proposed Borrow Pits
- Proposed Met Mast
- 603679 GWF Redline Boundary
- Site Infrastructure

Site Investigation

3188-A1-GWF Peat Data
- 0.0 - 0.1m
- 0.1 - 0.5m
- 0.5 - 2.0m
- 2.0 - 3.5m

Base Maps
- GDEM 10 m Contours

Bing Aerial

Project: Gortyrahilly Wind Farm

Projection: ITM

Drawn by: Sven K.

Version: 05/04/2022

References/Sources:
Environmental Protection Agency (EPA)
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Scale:
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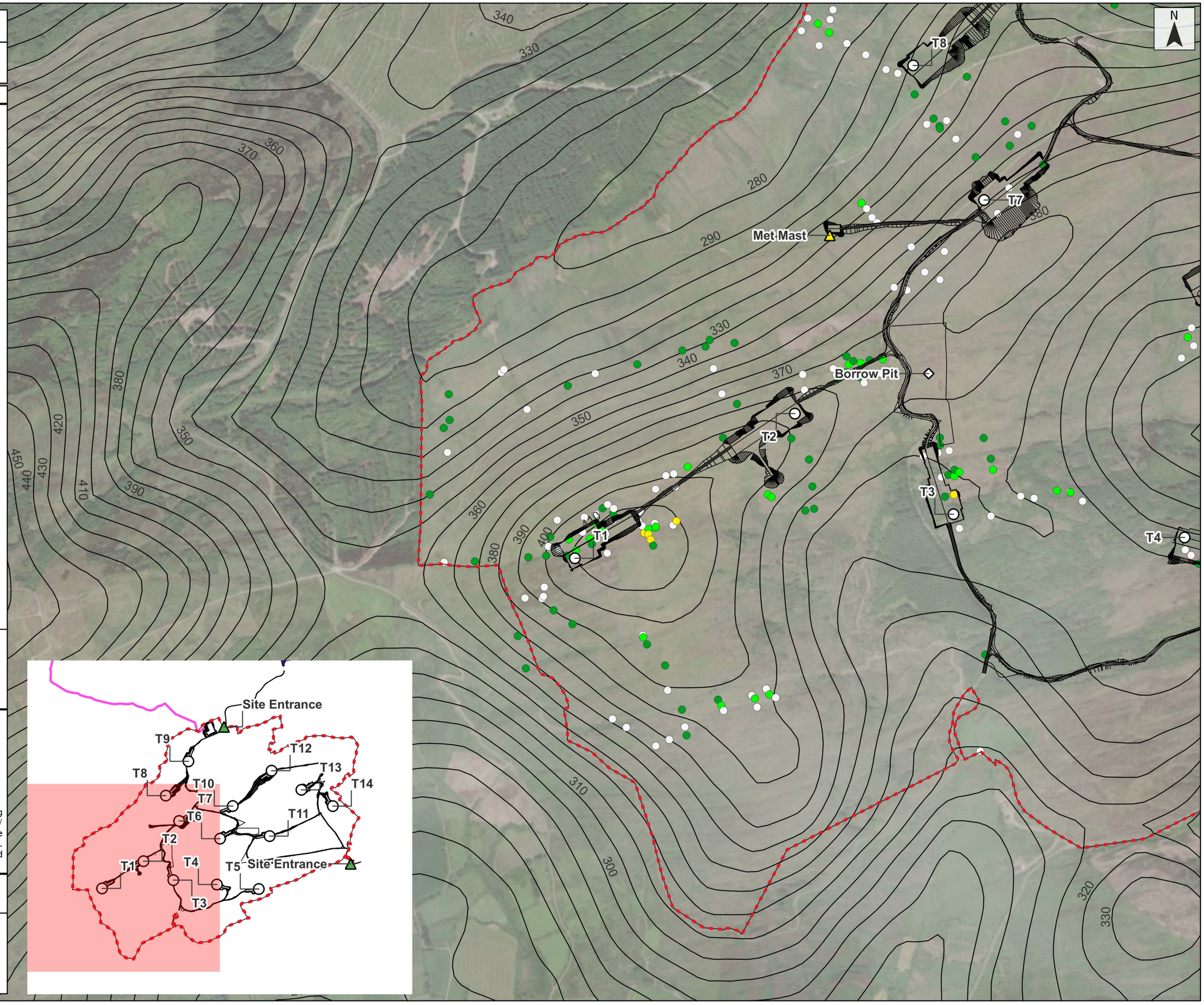
Minerex Environmental RSK



Appendix A-3
Gortyrahilly Wind Farm, Co. Cork

Peat Depth Probing Locations
Tile 2

Legend

Development Layout

WF

Ancillary
- Proposed Turbine Locations
- Proposed Borrow Pits
- Site_Entrances
- Proposed On-Site Substation
- Proposed Temporary Construction Compound
- Proposed Met Mast
- 603679 GWF Redline Boundary
- Site Infrastructure

UGC
- Under Ground Cable (UGC)

Site Investigation

3188-A1-GWF Peat Data
- 0.0 - 0.1m
- 0.1 - 0.5m
- 0.5 - 2.0m
- 2.0 - 3.5m

Base Maps
- GDEM 10 m Contours

Bing Aerial

Project: Gortyrahilly Wind Farm

Projection: ITM

Drawn by: Sven K.

Version: 05/04/2022

References/Sources:
Environmental Protection Agency (EPA)
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Bing Aerial / GeoHive / Open Street Map / Google Roads
GDEM Elevation Contours
Fehily Timoney (2019) Surrounding Wind Turbines and Wind Energy Designations

Note: Data points presented are georeferenced using open source data and/or a handheld GPS. This drawing / map is considered a conceptual model with reasonable accuracy for the purposes of environmental assessment. This drawing should not be relied upon for detailed design puporses.

Scale:
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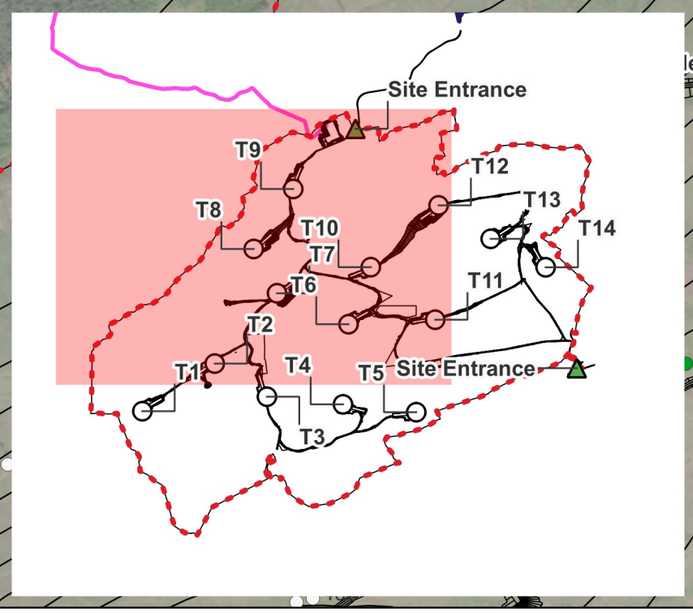
Minerex Environmental
RSK



N

Substation
Site Entrance
T9
T12
T8
T10
T7
Borrow Pit
T6
T11
Borrow Pit
Temporary Compound
210
220
230
240
250
260
270
280
290
330
340
350
360
320
330
380
370

Appendix A-4
Gortyrahilly Wind Farm, Co. Cork

Peat Depth Probing Locations
Tile 3

Legend

Development Layout

WF

Ancillary
- Proposed Turbine Locations
- Proposed Borrow Pits
- Site_Entrances
- Proposed On-Site Substation
- Proposed Temporary Construction Compound
- Proposed Met Mast
- 603679 GWF Redline Boundary
- Site Infrastructure

UGC
- Under Ground Cable (UGC)

Site Investigation

3188-A1-GWF Peat Data
- 0.0 - 0.1m
- 0.1 - 0.5m
- 0.5 - 2.0m
- 2.0 - 3.5m

Base Maps
- GDEM 10 m Contours

Bing Aerial

Project: Gortyrahilly Wind Farm

Projection: ITM

Drawn by: Sven K.

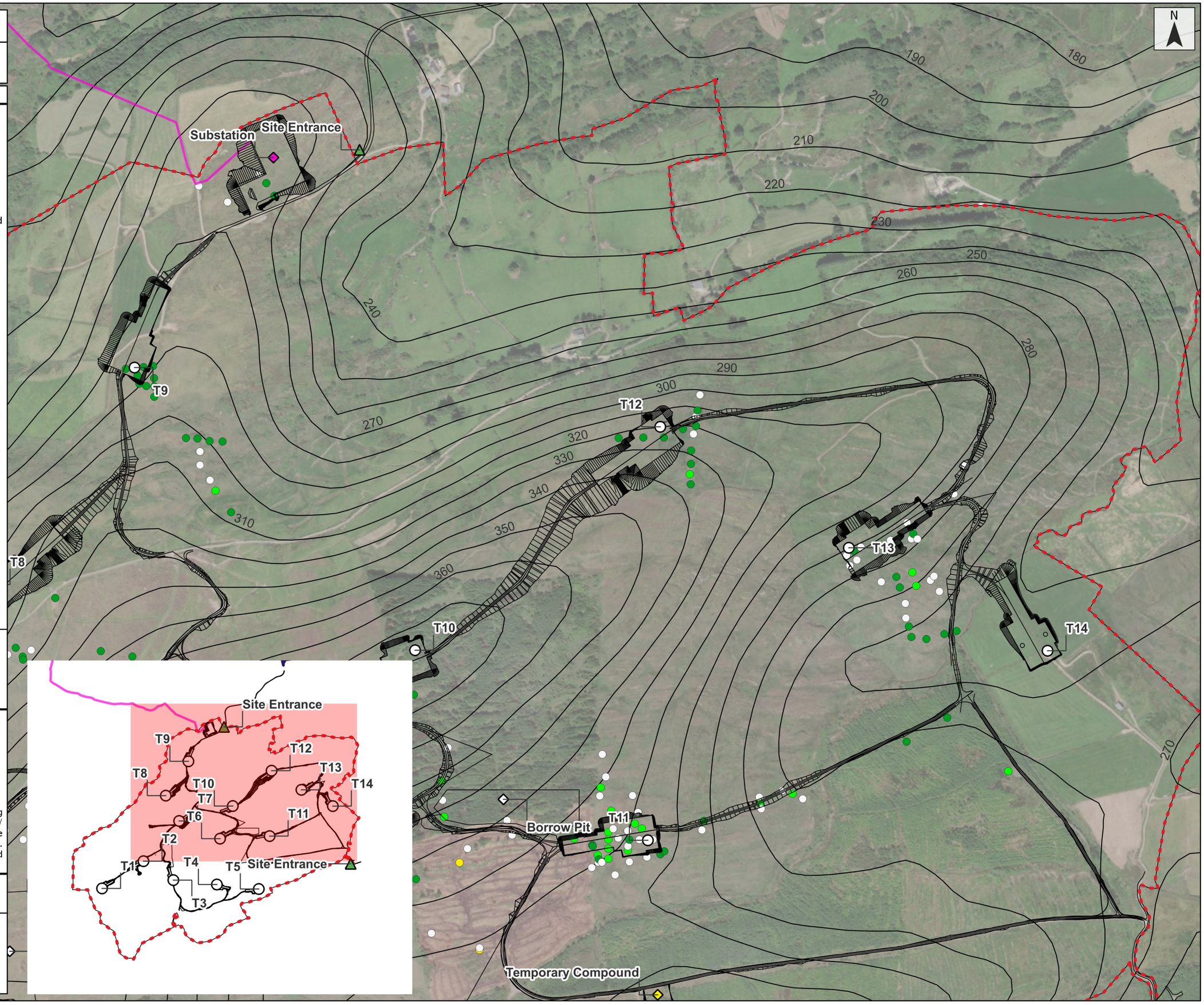
Version: 05/04/2022

References/Sources:
Environmental Protection Agency (EPA)
Geological Services Ireland (GSI)
Bing Aerial / GeoHive / Open Street Map / Google Roads
GDEM Elevation Contours
Fehily Timoney (2019) Surrounding Wind Turbines and Wind Energy Designations

Note: Data points presented are georeferenced using open source data and/or a handheld GPS. This drawing / map is considered a conceptual model with reasonable accuracy for the purposes of environmental assessment. This drawing should not be relied upon for detailed design puporses.

Scale:
0 0.1 0.2 km

Minerex Environmental RSK



Appendix A-5
Gortyrahilly Wind Farm, Co. Cork

Peat Depth Probing Locations
Tile 4

Legend

Development Layout

WF

Ancillary
- Proposed Turbine Locations
- Proposed Borrow Pits
- Proposed Temporary Construction Compound
- Proposed Met Mast
- 603679 GWF Redline Boundary
- Site Infrastructure

Site Investigation

3188-A1-GWF Peat Data
- 0.0 - 0.1m
- 0.1 - 0.5m
- 0.5 - 2.0m
- 2.0 - 3.5m

Base Maps
- GDEM 10 m Contours

Bing Aerial

Project: Gortyrahilly Wind Farm

Projection: ITM

Drawn by: Sven K.

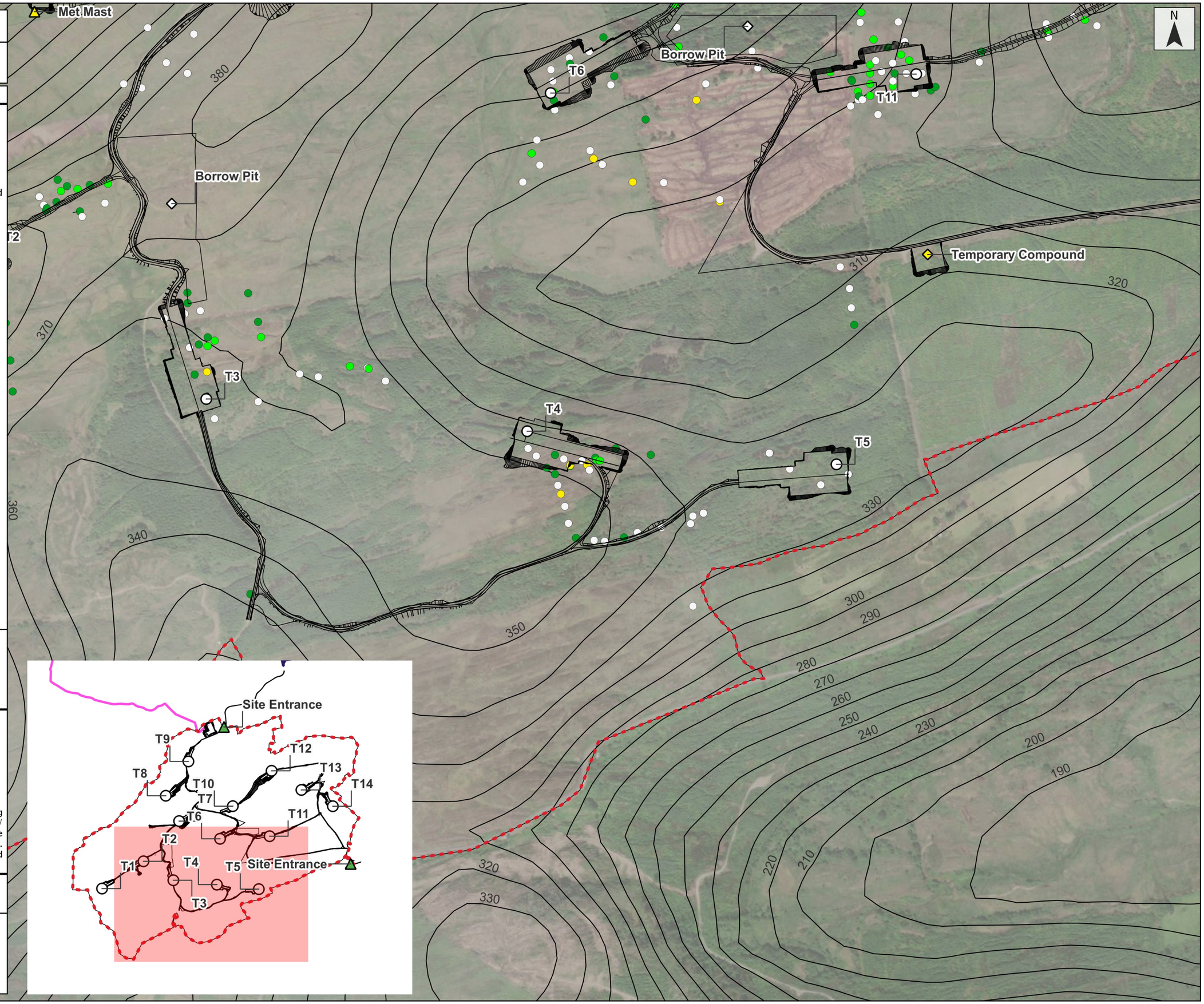
Version: 05/04/2022

References/Sources:
Environmental Protection Agency (EPA)
Geological Services Ireland (GSI)
Bing Aerial / GeoHive / Open Street Map / Google Roads
GDEM Elevation Contours
Fehily Timoney (2019) Surrounding Wind Turbines and Wind Energy Designations

Note: Data points presented are georeferenced using open source data and/or a handheld GPS. This drawing / map is considered a conceptual model with reasonable accuracy for the purposes of environmental assessment. This drawing should not be relied upon for detailed design puporses.

Scale:
0 0.1 0.2 km

Minerex Environmental RSK



Appendix B

SI Appendix B (a) - Peat Survey Database

Gortyrahilly WF, Co. Cork

Prepared by: SK 29/08/2022
Mineerex File Ref.: 3006-011.xls

Sample / Test Category	Sample / Test Point ID No.	Turbine Association	ITM Easting	ITM Northing	Thickness / Depth of peat	Classification of Thickness / Depth of peat	Local Incline (c.5m rad.)	Surface Elevation (GDEM)	Substrate Elevation (GDEM - Peat Depth)
							(GDEM)		
					m		*Degrees*		
Depth Probe	DP001	T2	514335.48	571975.38	0.50	B - Very Shallow (0.01-0.5m)	13.63752842	364.31	363.11
Depth Probe	DP002		514368.47	572133.34	0.50	B - Very Shallow (0.01-0.5m)	10.74874496	363.04	360.94
Depth Probe	DP003	T1	514369.47	571814.41	0.00	A - Rock (0.0m)	8.671253204	363.04	359.24
Depth Probe	DP004		514377.47	572075.35	0.10	B - Very Shallow (0.01-0.5m)	13.23828793	364.31	362.66
Depth Probe	DP005		514380.47	572213.32	0.20	B - Very Shallow (0.01-0.5m)	7.328478813	362.15	360.00
Depth Probe	DP006		514382.47	572152.34	0.40	B - Very Shallow (0.01-0.5m)	9.221405983	361.06	359.21
Depth Probe	DP007	T1	514442.45	571816.41	0.20	B - Very Shallow (0.01-0.5m)	10.49540424	361.06	359.21
Depth Probe	DP008		514505.44	572265.31	0.10	B - Very Shallow (0.01-0.5m)	10.57092953	361.62	360.32
Depth Probe	DP009		514511.44	572272.31	0.10	B - Very Shallow (0.01-0.5m)	10.57092953	361.62	360.37
Depth Probe	DP010	T1	514544.43	571639.45	0.20	B - Very Shallow (0.01-0.5m)	14.181036	360.05	357.75
Depth Probe	DP011	T1	514561.43	571729.43	0.00	A - Rock (0.0m)	12.2533865	364.97	362.12
Depth Probe	DP012	T1	514563.43	571562.46	0.20	B - Very Shallow (0.01-0.5m)	16.19501686	363.48	360.68
Depth Probe	DP013		514566.43	572177.33	0.10	B - Very Shallow (0.01-0.5m)	13.50068378	363.48	361.48
Depth Probe	DP014	T1	514569.43	571826.41	0.50	B - Very Shallow (0.01-0.5m)	9.61329937	366.34	364.84
Depth Probe	DP015	T1	514602.42	571728.43	0.10	B - Very Shallow (0.01-0.5m)	11.61142349	366.34	365.94
Depth Probe	DP016	T1	514605.42	571733.43	0.00	A - Rock (0.0m)	11.61142349	366.34	365.44
Depth Probe	DP017	T1	514607.42	571755.42	0.10	B - Very Shallow (0.01-0.5m)	9.901521683	363.48	362.08
Depth Probe	DP018	T1	514612	571830	0.50	B - Very Shallow (0.01-0.5m)	8.851368904	366.56	365.56
Depth Probe	DP019	T1	514617.1	571852.08	0.00	A - Rock (0.0m)	10.61084747	366.56	364.66
Depth Probe	DP020	T1	514621.45	571875.01	0.15	B - Very Shallow (0.01-0.5m)	12.80841351	366.56	364.16
Depth Probe	DP021	T1	514629.41	571700.43	0.50	B - Very Shallow (0.01-0.5m)	11.5958643	367.56	365.06
Depth Probe	DP022	T1	514638.29	571914.64	0.00	A - Rock (0.0m)	13.62177467	367.56	365.96
Depth Probe	DP023	T1	514642.64	571844.97	0.00	A - Rock (0.0m)	9.322705269	363.13	362.53
Depth Probe	DP024	T1	514660	571830	0.50	B - Very Shallow (0.01-0.5m)	8.45779705	360.66	360.06
Depth Probe	DP025		514663.41	572233.32	0.30	B - Very Shallow (0.01-0.5m)	13.80265999	361.36	361.16
Depth Probe	DP026	T1	514666.01	571868.63	1.00	C - Shallow (0.5-2.0m)	9.046014786	361.36	359.66
Depth Probe	DP027	T1	514674.4	571667.44	0.50	B - Very Shallow (0.01-0.5m)	10.26723289	361.36	360.16
Depth Probe	DP028	T1	514682.56	571842.65	0.60	C - Shallow (0.5-2.0m)	5.981483936	364.05	362.60
Depth Probe	DP029	T1	514698.43	571885.94	0.00	A - Rock (0.0m)	8.881988525	364.05	363.95
Depth Probe	DP030	T1	514702.37	571921.31	0.00	A - Rock (0.0m)	11.32929325	363.13	362.03
Depth Probe	DP031	T1	514715.86	571870.07	1.10	C - Shallow (0.5-2.0m)	9.065828323	359.84	359.64
Depth Probe	DP032	T1	514720.39	571857.4	0.20	B - Very Shallow (0.01-0.5m)	6.09664011	359.84	358.89
Depth Probe	DP033		514728.39	572262.31	0.10	B - Very Shallow (0.01-0.5m)	14.11036205	357.34	356.24
Depth Probe	DP034	T1	514729.65	571928.86	0.00	A - Rock (0.0m)	12.47283459	370.46	370.06
Depth Probe	DP035	T1	514731.4	571906.87	1.20	C - Shallow (0.5-2.0m)	11.06115246	370.46	369.66
Depth Probe	DP036	T1	514743.3	571890.04	1.50	C - Shallow (0.5-2.0m)	8.706787109	372.46	371.16
Depth Probe	DP037	T1	514746.2	571942.65	0.40	B - Very Shallow (0.01-0.5m)	12.44247532	372.46	370.36
Depth Probe	DP038	T1	514753.17	571881.04	0.00	A - Rock (0.0m)	5.724436283	372.46	372.31
Depth Probe	DP039	T1	514757	571836	0.05	B - Very Shallow (0.01-0.5m)	4.100651264	372.46	372.36
Depth Probe	DP040	T1	514757.96	571951.65	0.00	A - Rock (0.0m)	11.88343811	367.93	366.43
Depth Probe	DP041	T1	514769.38	571442.49	0.10	B - Very Shallow (0.01-0.5m)	15.35416794	367.93	365.83
Depth Probe	DP042	T1	514770.15	571913.62	0.00	A - Rock (0.0m)	9.632390976	368.71	366.81
Depth Probe	DP043	T1	514771.02	571930.75	0.20	B - Very Shallow (0.01-0.5m)	11.0523262	368.71	366.91
Depth Probe	DP044	T1	514772.33	571942.22	0.00	A - Rock (0.0m)	11.0523262	366.56	364.26
Depth Probe	DP045	T1	514802.37	571422.49	0.00	A - Rock (0.0m)	14.71449852	366.15	364.95
Depth Probe	DP046		514828.37	572284.31	0.50	B - Very Shallow (0.01-0.5m)	14.75984097	367.93	366.93
Depth Probe	DP047	T1	514830.75	571911.88	0.00	A - Rock (0.0m)	6.697873592	367.93	367.93
Depth Probe	DP048	T1	514835.97	571934.38	0.00	A - Rock (0.0m)	8.252165794	366.90	365.40
Depth Probe	DP049	T1	514840	571901	0.00	A - Rock (0.0m)	6.697873592	366.90	366.80
Depth Probe	DP050	T1	514841.37	571641.44	0.10	B - Very Shallow (0.01-0.5m)	4.242060184	363.65	362.50
Depth Probe	DP051	T1	514842.37	571636.45	1.00	C - Shallow (0.5-2.0m)	4.242060184	374.27	371.87
Depth Probe	DP052	T1	514845	571884	3.50	D - Moderately Deep (2.0-3.5m)	2.643830776	375.83	373.73
Depth Probe	DP053	T1	514851.36	571619.45	0.20	B - Very Shallow (0.01-0.5m)	4.878229618	373.67	373.07
Depth Probe	DP054	T1	514855	571893	2.00	C - Shallow (0.5-2.0m)	2.643830776	371.74	370.64

SI Appendix B (a) - Peat Survey Database

Gortyrahilly WF, Co. Cork

Prepared by: SK 29/08/2022
Mineerex File Ref.: 3006-011.xls

Sample / Test Category	Sample / Test Point ID No.	Turbine Association	ITM Easting	ITM Northing	Thickness / Depth of peat	Classification of Thickness / Depth of peat	Local Incline (c.5m rad.)	Surface Elevation (GDEM)	Substrate Elevation (GDEM - Peat Depth)
							(GDEM)		
					m		*Degrees*		
Depth Probe	DP055	T1	514855	571881	3.50	D - Moderately Deep (2.0-3.5m)	2.643830776	371.74	370.84
Depth Probe	DP056	T1	514860	571868	3.50	D - Moderately Deep (2.0-3.5m)	2.643830776	369.74	368.84
Depth Probe	DP057	T1	514866	571854	0.20	B - Very Shallow (0.01-0.5m)	1.689691424	369.74	369.54
Depth Probe	DP058	T1	514870	571907	0.00	A - Rock (0.0m)	5.269693375	366.07	366.02
Depth Probe	DP059	T1	514871.36	571896.39	1.00	C - Shallow (0.5-2.0m)	2.643830776	366.07	365.77
Depth Probe	DP060	T1	514871.68	571988.23	0.00	A - Rock (0.0m)	10.0065937	369.74	368.44
Depth Probe	DP061	T1	514872	571899	0.80	C - Shallow (0.5-2.0m)	5.269693375	369.74	369.14
Depth Probe	DP062	T1	514872.36	571378.5	0.00	A - Rock (0.0m)	14.01988697	367.59	367.19
Depth Probe	DP063	T1	514894.36	571569.46	0.20	B - Very Shallow (0.01-0.5m)	5.967031956	376.66	374.76
Depth Probe	DP064	T1	514896.24	572020.12	0.00	A - Rock (0.0m)	10.09867191	377.74	377.54
Depth Probe	DP065	T1	514900.35	571510.47	0.10	B - Very Shallow (0.01-0.5m)	8.791462898	378.20	378.10
Depth Probe	DP066	T1	514904.35	571393.5	0.10	B - Very Shallow (0.01-0.5m)	10.66705799	372.20	371.60
Depth Probe	DP067	T1	514913.35	571902.39	0.00	A - Rock (0.0m)	6.822252274	370.02	367.22
Depth Probe	DP068	T1	514914.86	572024.66	0.00	A - Rock (0.0m)	10.09867191	367.00	365.80
Depth Probe	DP069	T1	514918.85	571993.16	0.00	A - Rock (0.0m)	6.091109276	370.02	370.02
Depth Probe	DP070	T1	514921.35	571912.39	2.80	D - Moderately Deep (2.0-3.5m)	7.819504261	374.62	371.82
Depth Probe	DP071	T1	514934.35	571464.48	0.40	B - Very Shallow (0.01-0.5m)	8.888768196	374.62	371.72
Depth Probe	DP072	T2	514935.35	572317.3	0.20	B - Very Shallow (0.01-0.5m)	13.82907104	374.62	374.52
Depth Probe	DP073	T1	514941.34	571423.49	0.10	B - Very Shallow (0.01-0.5m)	7.450731277	376.15	376.05
Depth Probe	DP074	T1	514945.34	571403.5	0.30	B - Very Shallow (0.01-0.5m)	7.972794056	356.76	355.26
Depth Probe	DP075	T1	514948	572041	0.60	C - Shallow (0.5-2.0m)	5.652444363	358.11	354.81
Depth Probe	DP076	T2	514990.34	572326.3	0.20	B - Very Shallow (0.01-0.5m)	12.0371685	358.11	355.26
Depth Probe	DP077	T2	515000.34	572342.29	0.20	B - Very Shallow (0.01-0.5m)	12.0371685	356.92	353.57
Depth Probe	DP078	T2	515009.33	572274.31	0.00	A - Rock (0.0m)	16.44506073	356.92	353.47
Depth Probe	DP079	T1	515020.12	571488.17	0.20	B - Very Shallow (0.01-0.5m)	7.462193489	355.60	354.05
Depth Probe	DP080	T1	515028	571474	1.00	C - Shallow (0.5-2.0m)	2.219667196	355.31	353.41
Depth Probe	DP081	T2	515029.33	572214.32	0.00	A - Rock (0.0m)	16.81183434	347.23	342.93
Depth Probe	DP082	T2	515032	572110	0.30	B - Very Shallow (0.01-0.5m)	10.26541805	347.23	343.33
Depth Probe	DP083	T1	515033.33	571462.19	0.10	B - Very Shallow (0.01-0.5m)	2.219667196	348.73	348.43
Depth Probe	DP084	T2	515059.32	572335.29	0.20	B - Very Shallow (0.01-0.5m)	12.61814785	348.73	348.68
Depth Probe	DP085	T2	515065.32	572190.32	0.20	B - Very Shallow (0.01-0.5m)	15.65145874	350.13	349.03
Depth Probe	DP086	T1	515100.42	571498.51	0.00	A - Rock (0.0m)	4.534740925	351.78	351.68
Depth Probe	DP087	T1	515107.68	571490.97	1.50	C - Shallow (0.5-2.0m)	4.534740925	351.78	349.78
Depth Probe	DP088	T1	515112.9	571470.36	0.00	A - Rock (0.0m)	0.715986609	351.78	348.83
Depth Probe	DP089	T1	515134.82	571514.05	0.00	A - Rock (0.0m)	7.172436237	350.73	346.03
Depth Probe	DP090	T2	515138.31	571975.37	0.80	C - Shallow (0.5-2.0m)	10.84523964	350.73	345.03
Depth Probe	DP091	T1	515142.08	571500.55	0.60	C - Shallow (0.5-2.0m)	4.3437953	346.92	345.02
Depth Probe	DP092	T2	515147.3	571969.37	1.80	C - Shallow (0.5-2.0m)	10.84523964	362.06	361.86
Depth Probe	DP093	T2	515147.3	572115.34	0.30	B - Very Shallow (0.01-0.5m)	4.779313087	362.06	362.01
Depth Probe	DP094	T1	515157.32	571493.14	0.00	A - Rock (0.0m)	5.305436611	360.88	360.78
Depth Probe	DP095	T2	515194.29	572108.34	0.30	B - Very Shallow (0.01-0.5m)	6.132333755	360.16	359.76
Depth Probe	DP096		515218.29	573076.13	0.00	A - Rock (0.0m)	4.667114735	361.27	359.37
Depth Probe	DP097	T2	515221.5	572260.21	0.00	A - Rock (0.0m)	14.4499197	360.46	357.61
Depth Probe	DP098	T2	515225.5	572223.81	0.00	A - Rock (0.0m)	9.863109589	360.46	357.66
Depth Probe	DP099	T2	515227.29	571937.38	0.20	B - Very Shallow (0.01-0.5m)	9.927916527	361.27	360.02
Depth Probe	DP100		515233.29	573106.13	0.00	A - Rock (0.0m)	4.854307175	370.94	369.94
Depth Probe	DP101	T2	515236.28	572058.35	0.20	B - Very Shallow (0.01-0.5m)	7.792792797	367.34	365.99
Depth Probe	DP102	T2	515244.28	571994.37	0.20	B - Very Shallow (0.01-0.5m)	11.42707157	367.34	367.04
Depth Probe	DP103	T2	515248.28	571941.38	0.20	B - Very Shallow (0.01-0.5m)	9.043945313	367.34	366.74
Depth Probe	DP104		515257.29	573093.13	1.00	C - Shallow (0.5-2.0m)	2.611457348	367.34	366.44
Depth Probe	DP105		515260.28	573041.14	0.10	B - Very Shallow (0.01-0.5m)	3.198940516	367.34	366.54
Depth Probe	DP106		515284.28	573072.13	1.40	C - Shallow (0.5-2.0m)	3.501662493	367.34	365.94
Depth Probe	DP107		515286.28	573103.13	0.00	A - Rock (0.0m)	2.969684601	370.94	370.24
Depth Probe	DP108		515293.28	573126.12	0.00	A - Rock (0.0m)	1.122805476	367.84	367.14

SI Appendix B (a) - Peat Survey Database

Gortyrahilly WF, Co. Cork

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Sample / Test Category	Sample / Test Point ID No.	Turbine Association	ITM Easting	ITM Northing	Thickness / Depth of peat	Classification of Thickness / Depth of peat	Local Incline (c.5m rad.)	Surface Elevation (GDEM)	Substrate Elevation (GDEM - Peat Depth)
							(GDEM)		
					m		*Degrees*		
Depth Probe	DP109	T2	515293.82	572274.22	0.10	B - Very Shallow (0.01-0.5m)	11.20054626	367.84	367.79
Depth Probe	DP110	T2	515301.37	572259.89	0.10	B - Very Shallow (0.01-0.5m)	7.390695095	367.84	367.74
Depth Probe	DP111	T2	515305.29	572250.5	0.20	B - Very Shallow (0.01-0.5m)	4.811164856	367.00	366.60
Depth Probe	DP112	T2	515306.65	572254.57	0.40	B - Very Shallow (0.01-0.5m)	4.811164856	367.00	364.60
Depth Probe	DP113	T2	515323.27	572265.31	0.40	B - Very Shallow (0.01-0.5m)	5.504294395	367.00	366.20
Depth Probe	DP114	T2	515325.27	572303.3	0.20	B - Very Shallow (0.01-0.5m)	8.353871346	371.60	369.80
Depth Probe	DP115		515326.27	573046.14	0.10	B - Very Shallow (0.01-0.5m)	4.649487972	371.60	371.00
Depth Probe	DP116	T2	515330.81	572283.9	0.60	C - Shallow (0.5-2.0m)	5.504294395	371.60	371.60
Depth Probe	DP117	T2	515341.26	572292.3	0.40	B - Very Shallow (0.01-0.5m)	6.864428043	367.84	367.44
Depth Probe	DP118		515346.27	573255.09	0.30	B - Very Shallow (0.01-0.5m)	6.776210308	373.41	369.01
Depth Probe	DP119	T2	515359.26	572287.3	0.90	C - Shallow (0.5-2.0m)	3.62184453	373.41	368.71
Depth Probe	DP120	T8	515361	572667	0.70	C - Shallow (0.5-2.0m)	12.89427948	371.06	367.31
Depth Probe	DP121	T2	515363.26	572249.31	0.20	B - Very Shallow (0.01-0.5m)	1.604646683	368.73	366.53
Depth Probe	DP122	T2	515367.26	572240.31	0.10	B - Very Shallow (0.01-0.5m)	1.604646683	371.57	370.67
Depth Probe	DP123		515371.26	573019.14	0.10	B - Very Shallow (0.01-0.5m)	7.152704716	371.57	371.37
Depth Probe	DP124	T8	515373	572654	0.10	B - Very Shallow (0.01-0.5m)	12.37806988	372.12	372.02
Depth Probe	DP125	T2	515380.25	572294.3	0.40	B - Very Shallow (0.01-0.5m)	5.356054783	369.38	369.28
Depth Probe	DP126	T8	515386	572633	0.10	B - Very Shallow (0.01-0.5m)	12.53392792	369.38	367.48
Depth Probe	DP127	T8	515398	572621	0.10	B - Very Shallow (0.01-0.5m)	12.37495518	361.08	358.78
Depth Probe	DP128	T2	515406.25	572263.31	0.10	B - Very Shallow (0.01-0.5m)	1.186309814	362.85	362.25
Depth Probe	DP129	T2	515411.25	572296.3	0.60	C - Shallow (0.5-2.0m)	0.702189863	362.54	361.24
Depth Probe	DP130		515419.25	572984.15	0.00	A - Rock (0.0m)	8.055038452	362.54	359.64
Depth Probe	DP131	T8	515438.24	572467.26	0.10	B - Very Shallow (0.01-0.5m)	11.91311073	362.85	360.05
Depth Probe	DP132		515447.24	572975.15	0.10	B - Very Shallow (0.01-0.5m)	8.323712349	360.10	359.30
Depth Probe	DP133	T8	515469.24	572460.26	0.10	B - Very Shallow (0.01-0.5m)	11.39845467	363.87	363.47
Depth Probe	DP134	T8	515479.23	572563.24	0.10	B - Very Shallow (0.01-0.5m)	12.66908741	363.87	363.67
Depth Probe	DP135		515487.24	572925.16	0.20	B - Very Shallow (0.01-0.5m)	7.103421688	356.75	356.25
Depth Probe	DP136	T3	515507.82	572066.59	0.10	B - Very Shallow (0.01-0.5m)	3.574761152	338.23	336.83
Depth Probe	DP137	T8	515511.23	572503.26	0.10	B - Very Shallow (0.01-0.5m)	12.52410221	338.23	336.03
Depth Probe	DP138	T8	515516.23	572854.18	0.01	B - Very Shallow (0.01-0.5m)	8.184919357	338.23	335.63
Depth Probe	DP139	T8	515532.23	572867.68	0.40	B - Very Shallow (0.01-0.5m)	7.476594925	338.23	335.73
Depth Probe	DP140	T3	515542.53	572074.13	0.10	B - Very Shallow (0.01-0.5m)	3.605717182	339.35	336.75
Depth Probe	DP141	T8	515546.22	572850.18	0.30	B - Very Shallow (0.01-0.5m)	9.250297546	339.35	338.85
Depth Probe	DP142	T3	515547.22	572110.34	0.20	B - Very Shallow (0.01-0.5m)	3.853385687	339.35	338.85
Depth Probe	DP143	T8	515547.22	572485.26	0.10	B - Very Shallow (0.01-0.5m)	9.883249283	339.35	337.45
Depth Probe	DP144	T8	515547.22	572844.18	0.20	B - Very Shallow (0.01-0.5m)	9.250297546	341.49	339.39
Depth Probe	DP145	T3	515547.57	572092.44	0.40	B - Very Shallow (0.01-0.5m)	3.710549831	336.48	333.78
Depth Probe	DP146	T3	515550.83	572016.46	0.10	B - Very Shallow (0.01-0.5m)	2.00654912	336.43	334.83
Depth Probe	DP147	T8	515558.22	572552.24	0.10	B - Very Shallow (0.01-0.5m)	12.08006191	336.43	336.33
Depth Probe	DP148	T3	515559.54	571970.3	0.20	B - Very Shallow (0.01-0.5m)	1.901217818	334.93	334.43
Depth Probe	DP149	T8	515563.22	572863.18	0.10	B - Very Shallow (0.01-0.5m)	9.455897331	336.48	335.98
Depth Probe	DP150	T3	515566.84	572021.68	0.40	B - Very Shallow (0.01-0.5m)	2.1828444	336.43	336.33
Depth Probe	DP151	T3	515569.34	572079.37	0.10	B - Very Shallow (0.01-0.5m)	3.710549831	333.73	330.53
Depth Probe	DP152	T3	515580.66	571974.87	2.20	D - Moderately Deep (2.0-3.5m)	1.313004851	333.73	330.53
Depth Probe	DP153	T3	515581.75	572019.07	2.00	C - Shallow (0.5-2.0m)	2.1828444	333.73	329.23
Depth Probe	DP154	T3	515581.97	572034.09	0.20	B - Very Shallow (0.01-0.5m)	2.1828444	333.03	329.23
Depth Probe	DP155	T8	515585.21	572819.19	0.10	B - Very Shallow (0.01-0.5m)	10.32883739	333.79	329.39
Depth Probe	DP156	T3	515593.72	571894.75	0.05	B - Very Shallow (0.01-0.5m)	2.387359619	333.79	328.09
Depth Probe	DP157	T3	515593.94	572028.21	1.50	C - Shallow (0.5-2.0m)	1.902788162	332.87	330.57
Depth Probe	DP158		515611.21	572967.15	0.20	B - Very Shallow (0.01-0.5m)	6.611318588	332.36	330.46
Depth Probe	DP159	T8	515632.2	572776.2	0.20	B - Very Shallow (0.01-0.5m)	11.92472553	361.78	360.98
Depth Probe	DP160		515643	571366	0.05	B - Very Shallow (0.01-0.5m)	4.753334522	361.78	360.38
Depth Probe	DP161	T3	515651.2	572109.34	0.20	B - Very Shallow (0.01-0.5m)	2.708179474	365.22	365.12
Depth Probe	DP162		515655	571595	0.30	B - Very Shallow (0.01-0.5m)	6.384943008	365.22	364.12

SI Appendix B (a) - Peat Survey Database

Gortyrahilly WF, Co. Cork

Prepared by: SK 29/08/2022
Mineerex File Ref.: 3006-011.xls

Sample / Test Category	Sample / Test Point ID No.	Turbine Association	ITM Easting	ITM Northing	Thickness / Depth of peat	Classification of Thickness / Depth of peat	Local Incline (c.5m rad.)	Surface Elevation (GDEM)	Substrate Elevation (GDEM - Peat Depth)
							(GDEM)		
					m		*Degrees*		
Depth Probe	DP163	T8	515657.46	572671.69	0.20	B - Very Shallow (0.01-0.5m)	12.70077705	365.22	365.12
Depth Probe	DP164	T3	515668.19	572060.35	0.20	B - Very Shallow (0.01-0.5m)	2.731527328	359.48	359.48
Depth Probe	DP165	T3	515668.4	571923.93	0.10	B - Very Shallow (0.01-0.5m)	1.65616107	359.48	359.38
Depth Probe	DP166	T3	515673.19	572034.36	1.80	C - Shallow (0.5-2.0m)	1.082771659	358.09	357.79
Depth Probe	DP167	T8	515684.26	572642.8	0.10	B - Very Shallow (0.01-0.5m)	12.82458973	355.33	354.73
Depth Probe	DP168	T8	515702.19	572861.18	0.20	B - Very Shallow (0.01-0.5m)	10.07020855	361.12	361.02
Depth Probe	DP169	T8	515711.57	572703.1	0.10	B - Very Shallow (0.01-0.5m)	11.28621578	367.96	367.86
Depth Probe	DP170	T8	515713.19	572803.19	0.20	B - Very Shallow (0.01-0.5m)	10.60851192	366.78	366.68
Depth Probe	DP171	T8	515732.18	572830.18	0.10	B - Very Shallow (0.01-0.5m)	10.08773136	368.31	367.01
Depth Probe	DP172	T3	515739.18	571971.37	0.10	B - Very Shallow (0.01-0.5m)	1.518532515	355.15	353.85
Depth Probe	DP173	T9	515751.9	573424.05	0.20	B - Very Shallow (0.01-0.5m)	7.472838402	355.15	353.45
Depth Probe	DP174	T8	515765.17	572850.18	0.20	B - Very Shallow (0.01-0.5m)	9.556575775	355.29	353.09
Depth Probe	DP175	T3	515771.17	571966.37	0.10	B - Very Shallow (0.01-0.5m)	2.366403341	355.15	355.15
Depth Probe	DP176	T9	515775.53	573410.69	0.20	B - Very Shallow (0.01-0.5m)	7.06306076	353.43	353.33
Depth Probe	DP177	T9	515779	573394.42	0.20	B - Very Shallow (0.01-0.5m)	7.381493568	352.37	351.87
Depth Probe	DP178	T9	515787.52	573427.53	0.20	B - Very Shallow (0.01-0.5m)	7.06306076	351.46	351.36
Depth Probe	DP179	T8	515791.97	572758.43	0.15	B - Very Shallow (0.01-0.5m)	10.54808998	353.82	351.22
Depth Probe	DP180	T9	515792.95	573389.78	0.20	B - Very Shallow (0.01-0.5m)	7.319804192	310.09	309.79
Depth Probe	DP181	T9	515806.5	573429.85	0.20	B - Very Shallow (0.01-0.5m)	7.06306076	308.60	308.00
Depth Probe	DP182	T9	515808.44	573405.46	0.20	B - Very Shallow (0.01-0.5m)	7.319804192	305.25	304.25
Depth Probe	DP183	T9	515808.82	573368.29	0.20	B - Very Shallow (0.01-0.5m)	7.275404453	306.68	304.38
Depth Probe	DP184	T9	515809.21	573388.81	0.20	B - Very Shallow (0.01-0.5m)	5.975247383	306.68	302.88
Depth Probe	DP185	T3	515825.16	571984.37	0.60	C - Shallow (0.5-2.0m)	5.714210987	305.28	301.53
Depth Probe	DP186	T3	515855.15	571981.37	0.10	B - Very Shallow (0.01-0.5m)	6.964007854	305.28	302.28
Depth Probe	DP187	T3	515857.15	571980.37	0.60	C - Shallow (0.5-2.0m)	6.964007854	305.25	302.55
Depth Probe	DP188	T9	515872.15	573286.08	0.30	B - Very Shallow (0.01-0.5m)	7.068373203	305.01	303.91
Depth Probe	DP189	T3	515886.14	571959.37	0.10	B - Very Shallow (0.01-0.5m)	8.090484619	306.13	302.28
Depth Probe	DP190	T9	515895.15	573285.08	0.20	B - Very Shallow (0.01-0.5m)	7.19000721	369.74	368.34
Depth Probe	DP191		515897.8	573788.6	0.00	A - Rock (0.0m)	3.686229706	368.37	367.87
Depth Probe	DP192	T9	515900.15	573232.1	0.10	B - Very Shallow (0.01-0.5m)	7.209232807	370.38	368.43
Depth Probe	DP193	T9	515900.15	573259.09	0.00	A - Rock (0.0m)	7.137913704	368.37	367.42
Depth Probe	DP194	T9	515919.14	573280.09	0.20	B - Very Shallow (0.01-0.5m)	7.279232502	368.37	367.87
Depth Probe	DP195	T9	515920.14	573202.1	0.00	A - Rock (0.0m)	7.120646	366.64	364.34
Depth Probe	DP196	T9	515931.14	573181.11	1.00	C - Shallow (0.5-2.0m)	6.971013546	366.64	364.14
Depth Probe	DP197	T9	515945.14	573279.09	0.20	B - Very Shallow (0.01-0.5m)	7.969639778	366.64	364.74
Depth Probe	DP198		515955.27	573756.67	0.00	A - Rock (0.0m)	1.742388248	366.64	366.54
Depth Probe	DP199	T9	515962.13	573138.12	0.20	B - Very Shallow (0.01-0.5m)	7.55779171	364.82	364.72
Depth Probe	DP200		516018.36	573812.59	0.10	B - Very Shallow (0.01-0.5m)	3.823080778	366.15	364.25
Depth Probe	DP201		516032.49	573794.4	0.40	B - Very Shallow (0.01-0.5m)	5.080574036	364.67	364.62
Depth Probe	DP202		516048.55	573769.24	0.20	B - Very Shallow (0.01-0.5m)	7.338634491	364.67	363.52
Depth Probe	DP203	T6	516121.1	572299.3	0.00	A - Rock (0.0m)	6.585697651	370.99	370.39
Depth Probe	DP204	T4	516130	571844	0.00	A - Rock (0.0m)	8.793807983	371.89	370.79
Depth Probe	DP205	T6	516136.09	572348.29	1.00	C - Shallow (0.5-2.0m)	7.481557369	371.89	371.39
Depth Probe	DP206	T4	516144	571831	0.10	B - Very Shallow (0.01-0.5m)	5.285321236	369.43	367.43
Depth Probe	DP207	T6	516145.09	572371.28	0.10	B - Very Shallow (0.01-0.5m)	7.822175026	369.43	368.83
Depth Probe	DP208	T6	516150.09	572328.29	0.10	B - Very Shallow (0.01-0.5m)	7.925721169	376.15	375.20
Depth Probe	DP209	T4	516162	571811	0.50	B - Very Shallow (0.01-0.5m)	5.790176868	376.15	374.35
Depth Probe	DP210	T6	516169.12	572491.41	0.05	B - Very Shallow (0.01-0.5m)	7.206728458	376.15	375.05
Depth Probe	DP211	T6	516172.41	572472.06	0.05	B - Very Shallow (0.01-0.5m)	7.206728458	373.92	371.62
Depth Probe	DP212	T6	516173.57	572453.87	0.60	C - Shallow (0.5-2.0m)	7.785173893	373.92	373.02
Depth Probe	DP213	T6	516173.95	572438.97	0.20	B - Very Shallow (0.01-0.5m)	7.726138115	373.92	373.92
Depth Probe	DP214	T6	516175.7	572422.52	0.00	A - Rock (0.0m)	7.726138115	374.03	373.53
Depth Probe	DP215	T4	516176	571800	0.20	B - Very Shallow (0.01-0.5m)	4.480079174	376.83	375.93
Depth Probe	DP216	T4	516176	571833	0.20	B - Very Shallow (0.01-0.5m)	5.790176868	376.80	374.30

SI Appendix B (a) - Peat Survey Database

Gortyrahilly WF, Co. Cork

Prepared by: SK 29/08/2022
Mineerex File Ref.: 3006-011.xls

Sample / Test Category	Sample / Test Point ID No.	Turbine Association	ITM Easting	ITM Northing	Thickness / Depth of peat	Classification of Thickness / Depth of peat	Local Incline (c.5m rad.)	Surface Elevation (GDEM)	Substrate Elevation (GDEM - Peat Depth)
							(GDEM)		
					m		*Degrees*		
Depth Probe	DP217	T4	516181	571781	0.10	B - Very Shallow (0.01-0.5m)	4.480079174	379.13	378.73
Depth Probe	DP218	T4	516186	571766	2.20	D - Moderately Deep (2.0-3.5m)	3.68399024	379.13	378.93
Depth Probe	DP219	T4	516191	571826	0.00	A - Rock (0.0m)	5.790176868	379.13	378.63
Depth Probe	DP220	T4	516193	571745	0.10	B - Very Shallow (0.01-0.5m)	2.43707037	342.27	341.22
Depth Probe	DP221	T4	516199	571716	0.05	B - Very Shallow (0.01-0.5m)	2.43707037	341.49	341.39
Depth Probe	DP222	T6	516200.47	572511.73	0.10	B - Very Shallow (0.01-0.5m)	7.676163673	341.49	340.59
Depth Probe	DP223	T6	516201.63	572501.47	0.50	B - Very Shallow (0.01-0.5m)	7.676163673	344.50	344.00
Depth Probe	DP224	T4	516202	571814	1.50	C - Shallow (0.5-2.0m)	6.278404236	342.27	341.32
Depth Probe	DP225	T4	516202	571815	3.00	D - Moderately Deep (2.0-3.5m)	6.278404236	342.27	340.37
Depth Probe	DP226	T6	516204.53	572490.83	0.00	A - Rock (0.0m)	7.853738785	343.01	341.41
Depth Probe	DP227	T10	516206.41	572805.45	0.50	B - Very Shallow (0.01-0.5m)	6.462008476	344.50	344.50
Depth Probe	DP228	T10	516208.79	572749.76	0.10	B - Very Shallow (0.01-0.5m)	3.519578934	331.24	329.14
Depth Probe	DP229	T4	516212	571691	0.30	B - Very Shallow (0.01-0.5m)	2.440073252	332.87	330.47
Depth Probe	DP230	T4	516222	571823	0.10	B - Very Shallow (0.01-0.5m)	6.940914154	331.42	329.62
Depth Probe	DP231	T4	516231	571816	2.20	D - Moderately Deep (2.0-3.5m)	7.747647762	331.24	329.34
Depth Probe	DP232	T6	516234.67	572522.31	0.00	A - Rock (0.0m)	8.073299408	329.35	327.75
Depth Probe	DP233	T4	516235	571807	0.00	A - Rock (0.0m)	7.747647762	329.21	327.61
Depth Probe	DP234	T6	516236.07	572353.28	0.00	A - Rock (0.0m)	8.675478935	326.00	324.00
Depth Probe	DP235	T6	516242.07	572339.29	2.20	D - Moderately Deep (2.0-3.5m)	8.796183586	328.60	327.10
Depth Probe	DP236	T4	516243	571687	0.10	B - Very Shallow (0.01-0.5m)	2.440073252	328.60	327.70
Depth Probe	DP237	T4	516245	571828	0.50	B - Very Shallow (0.01-0.5m)	7.747647762	327.71	326.51
Depth Probe	DP238	T4	516247	571824	1.00	C - Shallow (0.5-2.0m)	5.808549404	327.71	327.01
Depth Probe	DP239	T10	516247.39	572822.02	0.50	B - Very Shallow (0.01-0.5m)	2.483276606	329.79	329.39
Depth Probe	DP240	T4	516252	571823	2.00	C - Shallow (0.5-2.0m)	5.808549404	330.70	328.05
Depth Probe	DP241	T4	516253	571823	1.00	C - Shallow (0.5-2.0m)	5.808549404	331.62	329.62
Depth Probe	DP242	T10	516255.38	572680.69	1.20	C - Shallow (0.5-2.0m)	8.222197533	304.27	301.77
Depth Probe	DP243	T6	516257.07	572329.29	0.00	A - Rock (0.0m)	8.01441288	305.06	301.86
Depth Probe	DP244	T6	516258.86	572546.71	0.20	B - Very Shallow (0.01-0.5m)	8.153766632	305.06	303.56
Depth Probe	DP245	T4	516261.06	571685.43	0.10	B - Very Shallow (0.01-0.5m)	4.716444969	304.09	299.89
Depth Probe	DP246	T10	516265.83	572773.23	0.20	B - Very Shallow (0.01-0.5m)	3.409513474	303.30	298.30
Depth Probe	DP247	T10	516266.99	572765.49	0.60	C - Shallow (0.5-2.0m)	3.409513474	297.69	296.39
Depth Probe	DP248	T6	516271.63	572465.4	0.10	B - Very Shallow (0.01-0.5m)	7.749595165	298.04	295.84
Depth Probe	DP249	T6	516277.44	572480.12	0.50	B - Very Shallow (0.01-0.5m)	8.028281212	306.82	303.97
Depth Probe	DP250	T4	516280	571844	0.20	B - Very Shallow (0.01-0.5m)	8.572918892	302.60	302.60
Depth Probe	DP251	T10	516290.61	572818.92	0.20	B - Very Shallow (0.01-0.5m)	1.145451546	302.60	302.00
Depth Probe	DP252	T4	516294	571692	0.20	B - Very Shallow (0.01-0.5m)	4.90761137	301.32	301.02
Depth Probe	DP253	T6	516309.05	572299.29	3.00	D - Moderately Deep (2.0-3.5m)	6.247334003	307.17	306.27
Depth Probe	DP254	T4	516317.05	571700.42	0.10	B - Very Shallow (0.01-0.5m)	5.459080219	355.65	355.60
Depth Probe	DP255	T10	516327.01	572774.01	0.30	B - Very Shallow (0.01-0.5m)	4.906589031	356.30	353.40
Depth Probe	DP256	T6	516331.05	572406.27	0.50	B - Very Shallow (0.01-0.5m)	6.680482864	320.29	320.19
Depth Probe	DP257	T4	516340	571833	0.20	B - Very Shallow (0.01-0.5m)	6.458789349	322.20	321.90
Depth Probe	DP258	T4	516358.04	571708.42	0.00	A - Rock (0.0m)	5.025134563	322.20	321.10
Depth Probe	DP259	T6	516362.04	572298.29	0.10	B - Very Shallow (0.01-0.5m)	5.364169121	324.41	323.01
Depth Probe	DP260	T6	516382.38	572602.11	0.60	C - Shallow (0.5-2.0m)	8.459296227	322.46	322.36
Depth Probe	DP261	T6	516384.31	572563.79	0.00	A - Rock (0.0m)	8.471039772	359.11	357.61
Depth Probe	DP262	T6	516387.41	572530.5	1.00	C - Shallow (0.5-2.0m)	8.361226082	359.11	357.61
Depth Probe	DP263	T6	516395.15	572668.68	0.00	A - Rock (0.0m)	8.804580688	359.11	358.61
Depth Probe	DP264	T4	516408.03	571715.42	0.10	B - Very Shallow (0.01-0.5m)	3.347083807	360.48	359.18
Depth Probe	DP265	T4	516412.03	571574.45	0.10	B - Very Shallow (0.01-0.5m)	11.07051849	359.43	357.03
Depth Probe	DP266	T4	516412.03	571728.42	0.10	B - Very Shallow (0.01-0.5m)	1.1683954	358.25	356.15
Depth Probe	DP267	T6	516418.03	572439.26	2.60	D - Moderately Deep (2.0-3.5m)	6.042483807	363.17	362.07
Depth Probe	DP268	T4	516430.03	571733.42	0.10	B - Very Shallow (0.01-0.5m)	1.1683954	297.69	296.19
Depth Probe	DP269	T6	516434.03	572467.26	0.00	A - Rock (0.0m)	6.35787487	297.69	296.59
Depth Probe	DP270	T6	516458.02	572265.3	2.90	D - Moderately Deep (2.0-3.5m)	4.215157986	297.69	296.59

SI Appendix B (a) - Peat Survey Database

Gortyrahilly WF, Co. Cork

Prepared by: SK 29/08/2022
Mineerex File Ref.: 3006-011.xls

Sample / Test Category	Sample / Test Point ID No.	Turbine Association	ITM Easting	ITM Northing	Thickness / Depth of peat	Classification of Thickness / Depth of peat	Local Incline (c.5m rad.)	Surface Elevation (GDEM)	Substrate Elevation (GDEM - Peat Depth)
							(GDEM)		
					m		*Degrees*		
Depth Probe	DP271	T6	516458.02	572269.3	0.00	A - Rock (0.0m)	4.215157986	297.69	296.29
Depth Probe	DP272	T6	516513.01	572523.25	0.00	A - Rock (0.0m)	6.995988846	296.93	296.83
Depth Probe	DP273	T6	516523.01	572494.25	0.10	B - Very Shallow (0.01-0.5m)	6.845310211	296.93	295.43
Depth Probe	DP274	T5	516542.81	571836.08	0.00	A - Rock (0.0m)	5.997124672	296.93	295.13
Depth Probe	DP275	T5	516577.64	571808.79	0.00	A - Rock (0.0m)	3.916102409	296.93	296.83
Depth Probe	DP276	T5	516630.77	571781.8	0.00	A - Rock (0.0m)	1.824308515	296.93	296.73
Depth Probe	DP277	T11	516646.98	572487.25	2.00	C - Shallow (0.5-2.0m)	5.038897514	296.21	295.21
Depth Probe	DP278		516663.98	572154.32	0.10	B - Very Shallow (0.01-0.5m)	6.068204403	296.21	295.71
Depth Probe	DP279	T5	516677.72	571800.05	0.00	A - Rock (0.0m)	1.76113677	296.21	296.21
Depth Probe	DP280		516679.97	572117.33	0.10	B - Very Shallow (0.01-0.5m)	6.52324295	296.08	295.13
Depth Probe	DP281	T11	516681.97	572429.26	0.00	A - Rock (0.0m)	5.422397137	296.08	295.08
Depth Probe	DP282		516682.97	572084.34	0.10	B - Very Shallow (0.01-0.5m)	6.881349564	296.08	295.98
Depth Probe	DP283	T11	516682.98	572474.25	0.50	B - Very Shallow (0.01-0.5m)	4.841876507	295.07	294.97
Depth Probe	DP284	T11	516683.97	572472.26	0.50	B - Very Shallow (0.01-0.5m)	4.796021461	295.07	293.47
Depth Probe	DP285		516687.97	572055.35	0.20	B - Very Shallow (0.01-0.5m)	7.36180687	295.46	295.41
Depth Probe	DP286	T11	516694	572454	1.80	C - Shallow (0.5-2.0m)	5.295378685	295.46	295.16
Depth Probe	DP287	T11	516695	572440	0.10	B - Very Shallow (0.01-0.5m)	5.785228729	296.08	294.98
Depth Probe	DP288	T11	516696	572446	0.50	B - Very Shallow (0.01-0.5m)	5.295378685	296.08	295.03
Depth Probe	DP289	T11	516697.97	572572.23	0.10	B - Very Shallow (0.01-0.5m)	6.886060238	297.04	296.24
Depth Probe	DP290	T11	516699.97	572589.23	1.80	C - Shallow (0.5-2.0m)	6.886060238	295.27	294.37
Depth Probe	DP291	T11	516702.08	572439.93	0.00	A - Rock (0.0m)	5.994998455	295.27	293.37
Depth Probe	DP292	T11	516702.97	572655.22	0.10	B - Very Shallow (0.01-0.5m)	7.998033047	294.52	290.22
Depth Probe	DP293	T11	516709.97	572610.23	0.00	A - Rock (0.0m)	7.635109901	294.52	290.02
Depth Probe	DP294	T11	516715	572447	0.60	C - Shallow (0.5-2.0m)	5.372542858	305.92	304.47
Depth Probe	DP295	T11	516715	572467	1.10	C - Shallow (0.5-2.0m)	5.372542858	305.92	305.52
Depth Probe	DP296	T11	516715	572485	1.50	C - Shallow (0.5-2.0m)	4.796021461	304.35	304.15
Depth Probe	DP297	T11	516715	572500	1.50	C - Shallow (0.5-2.0m)	4.796021461	303.10	303.10
Depth Probe	DP298	T11	516720.9	572542.94	0.80	C - Shallow (0.5-2.0m)	6.014891624	304.66	303.66
Depth Probe	DP299	T11	516724.78	572506.93	0.00	A - Rock (0.0m)	4.93759203	306.82	303.12
Depth Probe	DP300	T11	516728.59	572414.77	0.00	A - Rock (0.0m)	5.994998455	306.82	303.32
Depth Probe	DP301	T11	516734.98	572488.17	0.00	A - Rock (0.0m)	4.937470913	306.82	305.72
Depth Probe	DP302	T12	516735.56	573286.02	0.30	B - Very Shallow (0.01-0.5m)	14.37418938	306.82	306.72
Depth Probe	DP303	T11	516746.07	572529.38	0.20	B - Very Shallow (0.01-0.5m)	5.61640358	305.83	302.93
Depth Probe	DP304	T11	516753.81	572502.67	0.00	A - Rock (0.0m)	5.61640358	305.83	304.33
Depth Probe	DP305	T11	516753.99	572463.2	1.00	C - Shallow (0.5-2.0m)	6.187883377	303.36	302.36
Depth Probe	DP306	T11	516754.14	572472.06	0.00	A - Rock (0.0m)	5.659658909	302.05	301.75
Depth Probe	DP307	T11	516757	572485	0.30	B - Very Shallow (0.01-0.5m)	5.659658909	304.71	303.71
Depth Probe	DP308	T11	516757.04	572440.85	0.00	A - Rock (0.0m)	6.025743484	304.71	303.61
Depth Probe	DP309	T11	516763.43	572573.08	0.00	A - Rock (0.0m)	7.356761932	304.71	304.51
Depth Probe	DP310	T11	516768.14	572517	0.60	C - Shallow (0.5-2.0m)	5.806556225	377.21	377.11
Depth Probe	DP311	T11	516774.34	572539.45	0.00	A - Rock (0.0m)	6.784794331	377.53	376.53
Depth Probe	DP312	T11	516777	572485	0.10	B - Very Shallow (0.01-0.5m)	5.661455631	377.53	376.33
Depth Probe	DP313	T11	516782.08	572507.32	0.60	C - Shallow (0.5-2.0m)	5.806556225	376.92	374.22
Depth Probe	DP314	T12	516784.96	573287.08	0.40	B - Very Shallow (0.01-0.5m)	15.80003357	377.10	377.00
Depth Probe	DP315	T11	516792.17	572450.29	0.00	A - Rock (0.0m)	5.785002708	377.10	377.00
Depth Probe	DP316	T11	516803.92	572485.27	0.00	A - Rock (0.0m)	5.521930218	377.40	376.60
Depth Probe	DP317	T11	516819	572456	0.20	B - Very Shallow (0.01-0.5m)	5.474979401	377.40	377.40
Depth Probe	DP318	T12	516825.95	573287.08	0.20	B - Very Shallow (0.01-0.5m)	15.19100094	378.04	377.74
Depth Probe	DP319	T11	516826.85	572461.9	0.20	B - Very Shallow (0.01-0.5m)	5.474979401	377.72	374.12
Depth Probe	DP320	T12	516863.94	573304.08	0.20	B - Very Shallow (0.01-0.5m)	11.93583202	377.72	375.22
Depth Probe	DP321	T12	516877.63	573213.88	0.60	C - Shallow (0.5-2.0m)	6.985575199	377.68	376.08
Depth Probe	DP322	T12	516879.57	573193.75	0.20	B - Very Shallow (0.01-0.5m)	6.987257004	377.68	375.88
Depth Probe	DP323	T12	516880.01	573234.5	0.30	B - Very Shallow (0.01-0.5m)	8.744002342	377.45	377.25
Depth Probe	DP324	T12	516880.34	573261.12	0.30	B - Very Shallow (0.01-0.5m)	9.778476715	377.59	377.59

SI Appendix B (a) - Peat Survey Database

Gortyrahilly WF, Co. Cork

Prepared by: SK 29/08/2022
Mineerex File Ref.: 3006-011.xls

Sample / Test Category	Sample / Test Point ID No.	Turbine Association	ITM Easting	ITM Northing	Thickness / Depth of peat	Classification of Thickness / Depth of peat	Local Incline (c.5m rad.)	Surface Elevation (GDEM)	Substrate Elevation (GDEM - Peat Depth)
							(GDEM)		
					m		*Degrees*		
Depth Probe	DP325	T12	516884.94	573294.08	0.10	B - Very Shallow (0.01-0.5m)	12.1943922	377.59	377.19
Depth Probe	DP326	T12	516889.94	573310.07	0.20	B - Very Shallow (0.01-0.5m)	12.1943922	376.95	375.85
Depth Probe	DP327	T12	516889.94	573329.07	0.10	B - Very Shallow (0.01-0.5m)	14.3563242	374.66	374.56
Depth Probe	DP328	T12	516892.93	573341.07	0.20	B - Very Shallow (0.01-0.5m)	14.3563242	374.14	373.64
Depth Probe	DP329	T12	516897.93	573372.06	0.05	B - Very Shallow (0.01-0.5m)	15.63198757	376.61	376.61
Depth Probe	DP330	T11	516901.93	572504.28	0.00	A - Rock (0.0m)	8.504455566	375.70	374.20
Depth Probe	DP331	T11	516905.92	572522.42	0.30	B - Very Shallow (0.01-0.5m)	8.504455566	369.61	368.41
Depth Probe	DP332	T11	517016.37	572569.88	0.00	A - Rock (0.0m)	6.039927959	366.63	364.53
Depth Probe	DP333	T11	517018.26	572556.82	0.70	C - Shallow (0.5-2.0m)	5.855574131	367.00	364.70
Depth Probe	DP334	T11	517020.29	572546.52	0.00	A - Rock (0.0m)	5.855574131	366.63	366.23
Depth Probe	DP335	T11	517062.46	572583.24	0.00	A - Rock (0.0m)	5.743189812	366.63	366.63
Depth Probe	DP336	T11	517082.7	572576.56	1.00	C - Shallow (0.5-2.0m)	5.743189812	366.63	366.53
Depth Probe	DP337	T11	517103.17	572566.4	0.00	A - Rock (0.0m)	3.531184673	368.71	368.66
Depth Probe	DP338	T13	517190.69	573051.9	0.10	B - Very Shallow (0.01-0.5m)	10.34671116	368.71	368.66
Depth Probe	DP339	T13	517197.08	573031.58	0.00	A - Rock (0.0m)	9.726441383	368.71	368.61
Depth Probe	DP340	T13	517205	573061	0.20	B - Very Shallow (0.01-0.5m)	9.91559124	368.71	368.11
Depth Probe	DP341	T13	517211.16	573042.76	0.10	B - Very Shallow (0.01-0.5m)	9.726441383	366.09	365.99
Depth Probe	DP342	T13	517219.28	573068.16	0.10	B - Very Shallow (0.01-0.5m)	9.483478546	366.09	366.09
Depth Probe	DP343	T13	517259.85	572999.14	0.10	B - Very Shallow (0.01-0.5m)	9.162700653	363.12	363.02
Depth Probe	DP344	T13	517278	573082	0.10	B - Very Shallow (0.01-0.5m)	9.469892502	365.27	365.07
Depth Probe	DP345	T13	517289.85	573009.14	0.20	B - Very Shallow (0.01-0.5m)	8.993080139	367.40	367.30
Depth Probe	DP346	T13	517296.85	572988.14	0.40	B - Very Shallow (0.01-0.5m)	8.993080139	360.48	358.48
Depth Probe	DP347	T13	517307.84	572956.15	0.10	B - Very Shallow (0.01-0.5m)	8.89960289	361.68	361.68
Depth Probe	DP348	T13	517308.84	572927.15	0.10	B - Very Shallow (0.01-0.5m)	8.236968994	360.32	359.12
Depth Probe	DP349		517310.34	572680.5	0.50	B - Very Shallow (0.01-0.5m)	4.929596901	361.79	361.79
Depth Probe	DP350	T13	517311.3	573116.93	0.00	A - Rock (0.0m)	10.4966383	360.32	359.12
Depth Probe	DP351	T13	517314.84	572910.16	0.40	B - Very Shallow (0.01-0.5m)	5.996011257	360.32	360.32
Depth Probe	DP352	T13	517319.84	572889.16	0.30	B - Very Shallow (0.01-0.5m)	6.406159878	358.47	357.67
Depth Probe	DP353	T13	517320	573085	0.00	A - Rock (0.0m)	9.235265732	358.47	358.37
Depth Probe	DP354	T13	517321.84	573018.13	0.90	C - Shallow (0.5-2.0m)	9.906367302	359.43	359.23
Depth Probe	DP355	T13	517323.64	573094.86	0.30	B - Very Shallow (0.01-0.5m)	9.889965057	359.43	355.93
Depth Probe	DP356	T13	517329.51	572991.23	0.60	C - Shallow (0.5-2.0m)	9.273030281	358.25	358.25
Depth Probe	DP357	T13	517331.91	573084.7	0.00	A - Rock (0.0m)	9.889965057	377.59	377.59
Depth Probe	DP358	T13	517349.83	572885.16	0.50	B - Very Shallow (0.01-0.5m)	4.24516201	379.59	379.49
Depth Probe	DP359	T13	517357.83	573002.14	0.10	B - Very Shallow (0.01-0.5m)	8.850007057	379.59	379.59
Depth Probe	DP360	T13	517365.13	573010.6	0.10	B - Very Shallow (0.01-0.5m)	8.850007057	378.25	378.05
Depth Probe	DP361	T13	517375.83	572980.14	0.10	B - Very Shallow (0.01-0.5m)	7.707629681	378.25	378.25
Depth Probe	DP362	T13	517385.83	572895.16	0.20	B - Very Shallow (0.01-0.5m)	4.391385555	376.48	375.38
Depth Probe	DP363		517391.5	572728.35	0.30	B - Very Shallow (0.01-0.5m)	6.212251186	378.04	378.04
Depth Probe	DP364	T13	517404.78	573174.84	0.00	A - Rock (0.0m)	11.79362011	379.48	379.48
Depth Probe	DP365	T13	517409.82	572901.16	0.50	B - Very Shallow (0.01-0.5m)	4.391385555	380.74	379.64
Depth Probe	DP366	T13	517427.71	573231.44	0.00	A - Rock (0.0m)	11.15951729	380.74	379.14
Depth Probe	DP367		517513.27	572621.5	0.60	C - Shallow (0.5-2.0m)	2.706806183	381.46	379.16
Depth Probe	DP368	T14	517909.71	572884.16	0.10	B - Very Shallow (0.01-0.5m)	3.761085749	381.46	381.46
Depth Probe	DP369	T14	517915.71	572905.16	0.20	B - Very Shallow (0.01-0.5m)	4.69237566	381.46	381.46
Depth Probe	DP370	T14	517929.71	572920.15	0.10	B - Very Shallow (0.01-0.5m)	4.400215149	380.74	378.14
Depth Probe	DP371	T14	517951.7	572927.15	0.10	B - Very Shallow (0.01-0.5m)	5.440964699	380.74	378.84
Depth Probe	DP372	T14	517952.7	572868.16	0.50	B - Very Shallow (0.01-0.5m)	3.811831713	380.74	380.74
Depth Probe	DP373	T14	517969.7	572791.18	0.10	B - Very Shallow (0.01-0.5m)	1.530826926	380.75	380.15
Depth Probe	DP374	T14	517974.7	572915.15	0.20	B - Very Shallow (0.01-0.5m)	4.675237656	379.59	379.49
Depth Probe	DP375	T14	517978.7	572835.17	0.40	B - Very Shallow (0.01-0.5m)	2.406682968	379.59	379.59
Depth Probe	DP376	T14	517992.7	572897.16	0.05	B - Very Shallow (0.01-0.5m)	4.63267231	373.51	373.41
Depth Probe	DP377	T14	517994.69	572857.17	0.10	B - Very Shallow (0.01-0.5m)	2.406682968	372.13	372.13
Depth Probe	DP378	T14	518009.69	572881.16	0.10	B - Very Shallow (0.01-0.5m)	2.613565922	373.51	373.41

SI Appendix B (b) - Peat Survey Database Subsoil Survey Database

Database (Data obtained on site)

Prepared by: SK 31/08/2021
Mineerex File Ref.: 3188-011.xls

Sample / Test Date	Sample / Test Category	Sample / Test Point ID No.	ITM Easting	ITM Northing	Depth of Peat/Soil	Depth of Soil / Subsoil to Bedrock or End of Hole (EoH)	Depth to Bedrock	Local Incline (c.5m rad.) GDEM	Surface Elevation (GDEM)	Substrate Elevation (GDEM - Peat Depth)	Surface Elevation (Topo)	Substrate Elevation (Topo - Peat Depth)	Order	EOH Description	Subsoil sampled	Indication of Iron Pan	Note	Shear Vane Test Depth	Shear Vane No. 1	Shear Vane No. 2	Shear Vane No. 3	Shear Vane Average
dd/mm/yy						*m*		*Degrees*			*m*	*m*						*m*	*kPa*	*kPa*	*kPa*	*kPa*
31/05/2021	Trial Pit	TP001	517203	573067	0.2	1.50	1.50	10	369.14	369.14				Bedrock	-		Additional DO = 0.1, 0.2. Rock outcrops in adjacent areas.					#DIV/0!
31/05/2021	Trial Pit	TP002	517261	573080	0.2	2.40	2.40	10	369.67	369.57				Bedrock	-							#DIV/0!
31/05/2021	Trial Pit	TP003	517319	573103	0.2	3.00	>3.0	9	368.56	368.56				Boulders	-							#DIV/0!
31/05/2021	Trial Pit	TP004	517335	573407	0.3	1.50	>1.5	5	372.97	372.57				Weathered bedrock, sha	-							#DIV/0!
31/05/2021	Trial Pit	TP005	517242	573402	0.2	1.30	>1.3	8	372.97	372.97				Weathered bedrock, sha	-							#DIV/0!
31/05/2021	Trial Pit	TP006	516864	573398	0.2	1.20	>1.2	18	372.97	372.39				Boulders / Weathered be	-							#DIV/0!
31/05/2021	Trial Pit	TP007	516844	573349	0.3	0.70	0.70	18	376.33	376.33				Bedrock	-							#DIV/0!
31/05/2021	Trial Pit	TP008	516838	573309	0.2	1.50	1.50	12	374.22	374.02				Bedrock	Yes			0.50	85	40	120	81.7
31/05/2021	Trial Pit	TP009	516267	572798	0.2	0.50	0.50	1	375.25	374.85				Bedrock	-							#DIV/0!
31/05/2021	Trial Pit	TP010	516227	572773	0.5	1.90	>1.9	3	377.73	377.73				Boulders / Weathered be	-		Rock at exposed ridges					#DIV/0!
31/05/2021	Trial Pit	TP011	516247	572555	0.4	1.50	1.50	8	377.73	376.33				Bedrock	-		Rock at surface <10 distance					#DIV/0!
31/05/2021	Trial Pit	TP012	516235	572514	0.8	0.90	0.90	8	377.73	377.73				Bedrock	-		High rock face adjacent					#DIV/0!
31/05/2021	Trial Pit	TP013	515735	572748	0.15	1.50	>1.5	11	368.71	368.61				Boulders / Weathered be	Yes			0.50	35	15	70	40.0
31/05/2021	Trial Pit	TP014	515696	572719	0.3	2.50	>2.5	12	367.40	367.30				Boulders	-	Yes	Indication of Iron Pan at 1.3mbGL					#DIV/0!
01/06/2021	Trial Pit	TP015	515517	572081	0.2	3.20	>3.2	4	365.27	363.97				Boulders / Weathered be	-		Peat probing adjacent = 0.1, 0.1, 0.1, 0.4, 0.3					#DIV/0!
01/06/2021	Trial Pit	TP016	515539	572016	0.1	1.50	>1.5	2	365.88	363.08				Boulders / Weathered be	-		Area of cuut peat, adjacent uncut peat = 2-2.5m					#DIV/0!
01/06/2021	Trial Pit	TP017	515229	572236	1.5	1.50	1.50	12	352.68	352.68				Bedrock	-		Shaley bedrock at 1.5-1.7mbGL. Cut peat area, rock ridges a					#DIV/0!
01/06/2021	Trial Pit	TP018	515190	572174	0.1	0.10	0.10	8	354.57	354.57	364.00	363.90	7.00	Bedrock	-		On ridge track to T2					#DIV/0!
01/06/2021	Trial Pit	TP019	515016	572084	0.2	1.00	1.00	8	357.08	357.08	363.75	362.75	6.00	Boulders / Weathered be	-		Depth 0.6-1.0 = shaley weathered rock.					#DIV/0!
01/06/2021	Trial Pit	TP020	514874	571970	0.15	0.50	0.50	10	361.12	361.12	367.00	366.50	5.00	Bedrock	-							#DIV/0!
01/06/2021	Trial Pit	TP021	514908	572015	0.1	1.00	>1.0	9	363.25	363.25	368.00	367.00	3.00	Boulders / Weathered be	-							#DIV/0!
01/06/2021	Trial Pit	TP022	515125	572137	0.2	0.40	>0.4	5	363.25	363.25	368.25	367.85	2.00	Boulders / Weathered be	-							#DIV/0!
01/06/2021	Trial Pit	TP023	515327	572283	0.9	1.60	1.60	6	365.22	363.22	370.50	368.90	1.00	Bedrock	-		DP 0.1, 1.0, 1.0, 0.6,1.1					#DIV/0!
01/06/2021	Trial Pit	TP024	515600	573015	0.3	2.80	>2.8	6	366.92	366.32				Boulders	Yes	Yes		0.75	180	80	90	116.7
01/06/2021	Trial Pit	TP025	515489	572983	0.15	2.40	>2.4	8	366.92	366.92				Boulders	-	Yes						#DIV/0!
01/06/2021	Trial Pit	TP026	515521	573065	0.2	2.50	>2.5	9	365.13	365.03				Boulders	-	Yes						#DIV/0!
01/06/2021	Trial Pit	TP027	515609	573106	0.4	2.00	>2.0	8	361.12	361.12				Boulders	-							#DIV/0!
01/06/2021	Trial Pit	TP028	515406	572625	0.1	2.50	>2.5	13	361.12	359.12				Boulders	-	Yes	DPs: 0.7, 0.1, 0.1, 0.1					#DIV/0!
01/06/2021	Trial Pit	TP029	515762	573427	0	2.50	>2.5	7	363.10	360.41				Boulders	-	Yes	Made ground, orange staining, see photos					#DIV/0!
01/06/2021	Trial Pit	TP030	515806	573553	0.2	2.40	>2.4	7	365.13	363.33				Boulders	Yes			1.00	20	80	85	61.7
02/06/2021	Trial Pit	TP031	516702	572493	1.5	1.50	1.50	5	365.13	363.93				Boulders / Weathered be	-		Very thin till layer between peat and rock. DPs 1.1,1.5,1.2,0.6					#DIV/0!
02/06/2021	Trial Pit	TP032	516760	572489	0.3	1.20	1.20	6	368.47	368.47				Bedrock	-		DPs 0.3,0.1					#DIV/0!
02/06/2021	Trial Pit	TP033	516809	572464	0.3	0.50	0.50	5	368.47	368.47				Boulders / Weathered be	-		DPs 0.2					#DIV/0!
02/06/2021	Trial Pit	TP034	516730	572462	1	1.10	1.10	6	370.87	370.87				Boulders / Weathered be	-		Varying peat depth within TP, 0.6-1.0					#DIV/0!
02/06/2021	Trial Pit	TP035	516692	572463	2.1	2.20	2.20	5	370.26	370.16				Boulders / Weathered be	-		DPs 1.8,0.5,0.1					#DIV/0!
02/06/2021	Trial Pit	TP036	517472	572284	0.3	1.00	1.00	5	366.77	366.47				Boulders / Weathered be	-		Rock adjacent					#DIV/0!
02/06/2021	Trial Pit	TP037	517627	572841	0	2.80	>2.8	3	366.77	366.17				Boulders	-	Yes	Made					#DIV/0!

SI Appendix B - Peat Survey Database

Gortyrahilly WF, Co. Cork

Prepared by: SK
Mineerex File Ref.: 3006-011.xls

Sample / Test Category	Sample / Test Point ID No.	ITM Easting	ITM Northing	Thickness / Depth of peat	Classification of Thickness / Depth of peat	Local Incline (c.5m rad.)
						(GDEM)
				m		*Degrees*
Depth Probe	DP001	514335.48	571975.38	0.50	B - Very Shallow (0.01-0.5m)	13.63752842
Depth Probe	DP002	514368.47	572133.34	0.50	B - Very Shallow (0.01-0.5m)	10.74874496
Depth Probe	DP003	514369.47	571814.41	0.00	A - Rock (0.0m)	8.671253204
Depth Probe	DP004	514377.47	572075.35	0.10	B - Very Shallow (0.01-0.5m)	13.23828793
Depth Probe	DP005	514380.47	572213.32	0.20	B - Very Shallow (0.01-0.5m)	7.328478813
Depth Probe	DP006	514382.47	572152.34	0.40	B - Very Shallow (0.01-0.5m)	9.221405983
Depth Probe	DP007	514442.45	571816.41	0.20	B - Very Shallow (0.01-0.5m)	10.49540424
Depth Probe	DP008	514505.44	572265.31	0.10	B - Very Shallow (0.01-0.5m)	10.57092953
Depth Probe	DP009	514511.44	572272.31	0.10	B - Very Shallow (0.01-0.5m)	10.57092953
Depth Probe	DP010	514544.43	571639.45	0.20	B - Very Shallow (0.01-0.5m)	14.181036
Depth Probe	DP011	514561.43	571729.43	0.00	A - Rock (0.0m)	12.2533865
Depth Probe	DP012	514563.43	571562.46	0.20	B - Very Shallow (0.01-0.5m)	16.19501686
Depth Probe	DP013	514566.43	572177.33	0.10	B - Very Shallow (0.01-0.5m)	13.50068378
Depth Probe	DP014	514569.43	571826.41	0.50	B - Very Shallow (0.01-0.5m)	9.61329937
Depth Probe	DP015	514602.42	571728.43	0.10	B - Very Shallow (0.01-0.5m)	11.61142349
Depth Probe	DP016	514605.42	571733.43	0.00	A - Rock (0.0m)	11.61142349
Depth Probe	DP017	514607.42	571755.42	0.10	B - Very Shallow (0.01-0.5m)	9.901521683
Depth Probe	DP018	514612	571830	0.50	B - Very Shallow (0.01-0.5m)	8.851368904
Depth Probe	DP019	514617.1	571852.08	0.00	A - Rock (0.0m)	10.61084747
Depth Probe	DP020	514621.45	571875.01	0.15	B - Very Shallow (0.01-0.5m)	12.80841351
Depth Probe	DP021	514629.41	571700.43	0.50	B - Very Shallow (0.01-0.5m)	11.5958643
Depth Probe	DP022	514638.29	571914.64	0.00	A - Rock (0.0m)	13.62177467
Depth Probe	DP023	514642.64	571844.97	0.00	A - Rock (0.0m)	9.322705269
Depth Probe	DP024	514660	571830	0.50	B - Very Shallow (0.01-0.5m)	8.45779705
Depth Probe	DP025	514663.41	572233.32	0.30	B - Very Shallow (0.01-0.5m)	13.80265999
Depth Probe	DP026	514666.01	571868.63	1.00	C - Shallow (0.5-2.0m)	9.046014786
Depth Probe	DP027	514674.4	571667.44	0.50	B - Very Shallow (0.01-0.5m)	10.26723289
Depth Probe	DP028	514682.56	571842.65	0.60	C - Shallow (0.5-2.0m)	5.981483936
Depth Probe	DP029	514698.43	571885.94	0.00	A - Rock (0.0m)	8.881988525
Depth Probe	DP030	514702.37	571921.31	0.00	A - Rock (0.0m)	11.32929325
Depth Probe	DP031	514715.86	571870.07	1.10	C - Shallow (0.5-2.0m)	9.065828323
Depth Probe	DP032	514720.39	571857.4	0.20	B - Very Shallow (0.01-0.5m)	6.09664011
Depth Probe	DP033	514728.39	572262.31	0.10	B - Very Shallow (0.01-0.5m)	14.11036205
Depth Probe	DP034	514729.65	571928.86	0.00	A - Rock (0.0m)	12.47283459
Depth Probe	DP035	514731.4	571906.87	1.20	C - Shallow (0.5-2.0m)	11.06115246
Depth Probe	DP036	514743.3	571890.04	1.50	C - Shallow (0.5-2.0m)	8.706787109
Depth Probe	DP037	514746.2	571942.65	0.40	B - Very Shallow (0.01-0.5m)	12.44247532
Depth Probe	DP038	514753.17	571881.04	0.00	A - Rock (0.0m)	5.724436283
Depth Probe	DP039	514757	571836	0.05	B - Very Shallow (0.01-0.5m)	4.100651264
Depth Probe	DP040	514757.96	571951.65	0.00	A - Rock (0.0m)	11.88343811
Depth Probe	DP041	514769.38	571442.49	0.10	B - Very Shallow (0.01-0.5m)	15.35416794
Depth Probe	DP042	514770.15	571913.62	0.00	A - Rock (0.0m)	9.632390976
Depth Probe	DP043	514771.02	571930.75	0.20	B - Very Shallow (0.01-0.5m)	11.0523262
Depth Probe	DP044	514772.33	571942.22	0.00	A - Rock (0.0m)	11.0523262
Depth Probe	DP045	514802.37	571422.49	0.00	A - Rock (0.0m)	14.71449852
Depth Probe	DP046	514828.37	572284.31	0.50	B - Very Shallow (0.01-0.5m)	14.75984097
Depth Probe	DP047	514830.75	571911.88	0.00	A - Rock (0.0m)	6.697873592
Depth Probe	DP048	514835.97	571934.38	0.00	A - Rock (0.0m)	8.252165794
Depth Probe	DP049	514840	571901	0.00	A - Rock (0.0m)	6.697873592
Depth Probe	DP050	514841.37	571641.44	0.10	B - Very Shallow (0.01-0.5m)	4.242060184
Depth Probe	DP051	514842.37	571636.45	1.00	C - Shallow (0.5-2.0m)	4.242060184
Depth Probe	DP052	514845	571884	3.50	D - Moderately Deep (2.0-3.5m)	2.643830776
Depth Probe	DP053	514851.36	571619.45	0.20	B - Very Shallow (0.01-0.5m)	4.878229618
Depth Probe	DP054	514855	571893	2.00	C - Shallow (0.5-2.0m)	2.643830776

SI Appendix B - Peat Survey Database

Gortyrahilly WF, Co. Cork

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Sample / Test Category	Sample / Test Point ID No.	ITM Easting	ITM Northing	Thickness / Depth of peat	Classification of Thickness / Depth of peat	Local Incline (c.5m rad.)
						(GDEM)
				m		*Degrees*
Depth Probe	DP055	514855	571881	3.50	D - Moderately Deep (2.0-3.5m)	2.643830776
Depth Probe	DP056	514860	571868	3.50	D - Moderately Deep (2.0-3.5m)	2.643830776
Depth Probe	DP057	514866	571854	0.20	B - Very Shallow (0.01-0.5m)	1.689691424
Depth Probe	DP058	514870	571907	0.00	A - Rock (0.0m)	5.269693375
Depth Probe	DP059	514871.36	571896.39	1.00	C - Shallow (0.5-2.0m)	2.643830776
Depth Probe	DP060	514871.68	571988.23	0.00	A - Rock (0.0m)	10.0065937
Depth Probe	DP061	514872	571899	0.80	C - Shallow (0.5-2.0m)	5.269693375
Depth Probe	DP062	514872.36	571378.5	0.00	A - Rock (0.0m)	14.01988697
Depth Probe	DP063	514894.36	571569.46	0.20	B - Very Shallow (0.01-0.5m)	5.967031956
Depth Probe	DP064	514896.24	572020.12	0.00	A - Rock (0.0m)	10.09867191
Depth Probe	DP065	514900.35	571510.47	0.10	B - Very Shallow (0.01-0.5m)	8.791462898
Depth Probe	DP066	514904.35	571393.5	0.10	B - Very Shallow (0.01-0.5m)	10.66705799
Depth Probe	DP067	514913.35	571902.39	0.00	A - Rock (0.0m)	6.822252274
Depth Probe	DP068	514914.86	572024.66	0.00	A - Rock (0.0m)	10.09867191
Depth Probe	DP069	514918.85	571993.16	0.00	A - Rock (0.0m)	6.091109276
Depth Probe	DP070	514921.35	571912.39	2.80	D - Moderately Deep (2.0-3.5m)	7.819504261
Depth Probe	DP071	514934.35	571464.48	0.40	B - Very Shallow (0.01-0.5m)	8.888768196
Depth Probe	DP072	514935.35	572317.3	0.20	B - Very Shallow (0.01-0.5m)	13.82907104
Depth Probe	DP073	514941.34	571423.49	0.10	B - Very Shallow (0.01-0.5m)	7.450731277
Depth Probe	DP074	514945.34	571403.5	0.30	B - Very Shallow (0.01-0.5m)	7.972794056
Depth Probe	DP075	514948	572041	0.60	C - Shallow (0.5-2.0m)	5.652444363
Depth Probe	DP076	514990.34	572326.3	0.20	B - Very Shallow (0.01-0.5m)	12.0371685
Depth Probe	DP077	515000.34	572342.29	0.20	B - Very Shallow (0.01-0.5m)	12.0371685
Depth Probe	DP078	515009.33	572274.31	0.00	A - Rock (0.0m)	16.44506073
Depth Probe	DP079	515020.12	571488.17	0.20	B - Very Shallow (0.01-0.5m)	7.462193489
Depth Probe	DP080	515028	571474	1.00	C - Shallow (0.5-2.0m)	2.219667196
Depth Probe	DP081	515029.33	572214.32	0.00	A - Rock (0.0m)	16.81183434
Depth Probe	DP082	515032	572110	0.30	B - Very Shallow (0.01-0.5m)	10.26541805
Depth Probe	DP083	515033.33	571462.19	0.10	B - Very Shallow (0.01-0.5m)	2.219667196
Depth Probe	DP084	515059.32	572335.29	0.20	B - Very Shallow (0.01-0.5m)	12.61814785
Depth Probe	DP085	515065.32	572190.32	0.20	B - Very Shallow (0.01-0.5m)	15.65145874
Depth Probe	DP086	515100.42	571498.51	0.00	A - Rock (0.0m)	4.534740925
Depth Probe	DP087	515107.68	571490.97	1.50	C - Shallow (0.5-2.0m)	4.534740925
Depth Probe	DP088	515112.9	571470.36	0.00	A - Rock (0.0m)	0.715986609
Depth Probe	DP089	515134.82	571514.05	0.00	A - Rock (0.0m)	7.172436237
Depth Probe	DP090	515138.31	571975.37	0.80	C - Shallow (0.5-2.0m)	10.84523964
Depth Probe	DP091	515142.08	571500.55	0.60	C - Shallow (0.5-2.0m)	4.3437953
Depth Probe	DP092	515147.3	571969.37	1.80	C - Shallow (0.5-2.0m)	10.84523964
Depth Probe	DP093	515147.3	572115.34	0.30	B - Very Shallow (0.01-0.5m)	4.779313087
Depth Probe	DP094	515157.32	571493.14	0.00	A - Rock (0.0m)	5.305436611
Depth Probe	DP095	515194.29	572108.34	0.30	B - Very Shallow (0.01-0.5m)	6.132333755
Depth Probe	DP096	515218.29	573076.13	0.00	A - Rock (0.0m)	4.667114735
Depth Probe	DP097	515221.5	572260.21	0.00	A - Rock (0.0m)	14.4499197
Depth Probe	DP098	515225.5	572223.81	0.00	A - Rock (0.0m)	9.863109589
Depth Probe	DP099	515227.29	571937.38	0.20	B - Very Shallow (0.01-0.5m)	9.927916527
Depth Probe	DP100	515233.29	573106.13	0.00	A - Rock (0.0m)	4.854307175
Depth Probe	DP101	515236.28	572058.35	0.20	B - Very Shallow (0.01-0.5m)	7.792792797
Depth Probe	DP102	515244.28	571994.37	0.20	B - Very Shallow (0.01-0.5m)	11.42707157
Depth Probe	DP103	515248.28	571941.38	0.20	B - Very Shallow (0.01-0.5m)	9.043945313
Depth Probe	DP104	515257.29	573093.13	1.00	C - Shallow (0.5-2.0m)	2.611457348
Depth Probe	DP105	515260.28	573041.14	0.10	B - Very Shallow (0.01-0.5m)	3.198940516
Depth Probe	DP106	515284.28	573072.13	1.40	C - Shallow (0.5-2.0m)	3.501662493
Depth Probe	DP107	515286.28	573103.13	0.00	A - Rock (0.0m)	2.969684601
Depth Probe	DP108	515293.28	573126.12	0.00	A - Rock (0.0m)	1.122805476

SI Appendix B - Peat Survey Database

Gortyrahilly WF, Co. Cork

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Sample / Test Category	Sample / Test Point ID No.	ITM Easting	ITM Northing	Thickness / Depth of peat	Classification of Thickness / Depth of peat	Local Incline (c.5m rad.)
						(GDEM)
				m		*Degrees*
Depth Probe	DP109	515293.82	572274.22	0.10	B - Very Shallow (0.01-0.5m)	11.20054626
Depth Probe	DP110	515301.37	572259.89	0.10	B - Very Shallow (0.01-0.5m)	7.390695095
Depth Probe	DP111	515305.29	572250.5	0.20	B - Very Shallow (0.01-0.5m)	4.811164856
Depth Probe	DP112	515306.65	572254.57	0.40	B - Very Shallow (0.01-0.5m)	4.811164856
Depth Probe	DP113	515323.27	572265.31	0.40	B - Very Shallow (0.01-0.5m)	5.504294395
Depth Probe	DP114	515325.27	572303.3	0.20	B - Very Shallow (0.01-0.5m)	8.353871346
Depth Probe	DP115	515326.27	573046.14	0.10	B - Very Shallow (0.01-0.5m)	4.649487972
Depth Probe	DP116	515330.81	572283.9	0.60	C - Shallow (0.5-2.0m)	5.504294395
Depth Probe	DP117	515341.26	572292.3	0.40	B - Very Shallow (0.01-0.5m)	6.864428043
Depth Probe	DP118	515346.27	573255.09	0.30	B - Very Shallow (0.01-0.5m)	6.776210308
Depth Probe	DP119	515359.26	572287.3	0.90	C - Shallow (0.5-2.0m)	3.62184453
Depth Probe	DP120	515361	572667	0.70	C - Shallow (0.5-2.0m)	12.89427948
Depth Probe	DP121	515363.26	572249.31	0.20	B - Very Shallow (0.01-0.5m)	1.604646683
Depth Probe	DP122	515367.26	572240.31	0.10	B - Very Shallow (0.01-0.5m)	1.604646683
Depth Probe	DP123	515371.26	573019.14	0.10	B - Very Shallow (0.01-0.5m)	7.152704716
Depth Probe	DP124	515373	572654	0.10	B - Very Shallow (0.01-0.5m)	12.37806988
Depth Probe	DP125	515380.25	572294.3	0.40	B - Very Shallow (0.01-0.5m)	5.356054783
Depth Probe	DP126	515386	572633	0.10	B - Very Shallow (0.01-0.5m)	12.53392792
Depth Probe	DP127	515398	572621	0.10	B - Very Shallow (0.01-0.5m)	12.37495518
Depth Probe	DP128	515406.25	572263.31	0.10	B - Very Shallow (0.01-0.5m)	1.186309814
Depth Probe	DP129	515411.25	572296.3	0.60	C - Shallow (0.5-2.0m)	0.702189863
Depth Probe	DP130	515419.25	572984.15	0.00	A - Rock (0.0m)	8.055038452
Depth Probe	DP131	515438.24	572467.26	0.10	B - Very Shallow (0.01-0.5m)	11.91311073
Depth Probe	DP132	515447.24	572975.15	0.10	B - Very Shallow (0.01-0.5m)	8.323712349
Depth Probe	DP133	515469.24	572460.26	0.10	B - Very Shallow (0.01-0.5m)	11.39845467
Depth Probe	DP134	515479.23	572563.24	0.10	B - Very Shallow (0.01-0.5m)	12.66908741
Depth Probe	DP135	515487.24	572925.16	0.20	B - Very Shallow (0.01-0.5m)	7.103421688
Depth Probe	DP136	515507.82	572066.59	0.10	B - Very Shallow (0.01-0.5m)	3.574761152
Depth Probe	DP137	515511.23	572503.26	0.10	B - Very Shallow (0.01-0.5m)	12.52410221
Depth Probe	DP138	515516.23	572854.18	0.01	B - Very Shallow (0.01-0.5m)	8.184919357
Depth Probe	DP139	515532.23	572867.68	0.40	B - Very Shallow (0.01-0.5m)	7.476594925
Depth Probe	DP140	515542.53	572074.13	0.10	B - Very Shallow (0.01-0.5m)	3.605717182
Depth Probe	DP141	515546.22	572850.18	0.30	B - Very Shallow (0.01-0.5m)	9.250297546
Depth Probe	DP142	515547.22	572110.34	0.20	B - Very Shallow (0.01-0.5m)	3.853385687
Depth Probe	DP143	515547.22	572485.26	0.10	B - Very Shallow (0.01-0.5m)	9.883249283
Depth Probe	DP144	515547.22	572844.18	0.20	B - Very Shallow (0.01-0.5m)	9.250297546
Depth Probe	DP145	515547.57	572092.44	0.40	B - Very Shallow (0.01-0.5m)	3.710549831
Depth Probe	DP146	515550.83	572016.46	0.10	B - Very Shallow (0.01-0.5m)	2.00654912
Depth Probe	DP147	515558.22	572552.24	0.10	B - Very Shallow (0.01-0.5m)	12.08006191
Depth Probe	DP148	515559.54	571970.3	0.20	B - Very Shallow (0.01-0.5m)	1.901217818
Depth Probe	DP149	515563.22	572863.18	0.10	B - Very Shallow (0.01-0.5m)	9.455897331
Depth Probe	DP150	515566.84	572021.68	0.40	B - Very Shallow (0.01-0.5m)	2.1828444
Depth Probe	DP151	515569.34	572079.37	0.10	B - Very Shallow (0.01-0.5m)	3.710549831
Depth Probe	DP152	515580.66	571974.87	2.20	D - Moderately Deep (2.0-3.5m)	1.313004851
Depth Probe	DP153	515581.75	572019.07	2.00	C - Shallow (0.5-2.0m)	2.1828444
Depth Probe	DP154	515581.97	572034.09	0.20	B - Very Shallow (0.01-0.5m)	2.1828444
Depth Probe	DP155	515585.21	572819.19	0.10	B - Very Shallow (0.01-0.5m)	10.32883739
Depth Probe	DP156	515593.72	571894.75	0.05	B - Very Shallow (0.01-0.5m)	2.387359619
Depth Probe	DP157	515593.94	572028.21	1.50	C - Shallow (0.5-2.0m)	1.902788162
Depth Probe	DP158	515611.21	572967.15	0.20	B - Very Shallow (0.01-0.5m)	6.611318588
Depth Probe	DP159	515632.2	572776.2	0.20	B - Very Shallow (0.01-0.5m)	11.92472553
Depth Probe	DP160	515643	571366	0.05	B - Very Shallow (0.01-0.5m)	4.753334522
Depth Probe	DP161	515651.2	572109.34	0.20	B - Very Shallow (0.01-0.5m)	2.708179474
Depth Probe	DP162	515655	571595	0.30	B - Very Shallow (0.01-0.5m)	6.384943008

SI Appendix B - Peat Survey Database

Gortyrahilly WF, Co. Cork

Prepared by: SK
Mineerex File Ref.: 3006-011.xls

Sample / Test Category	Sample / Test Point ID No.	ITM Easting	ITM Northing	Thickness / Depth of peat	Classification of Thickness / Depth of peat	Local Incline (c.5m rad.)
						(GDEM)
				m		*Degrees*
Depth Probe	DP163	515657.46	572671.69	0.20	B - Very Shallow (0.01-0.5m)	12.70077705
Depth Probe	DP164	515668.19	572060.35	0.20	B - Very Shallow (0.01-0.5m)	2.731527328
Depth Probe	DP165	515668.4	571923.93	0.10	B - Very Shallow (0.01-0.5m)	1.65616107
Depth Probe	DP166	515673.19	572034.36	1.80	C - Shallow (0.5-2.0m)	1.082771659
Depth Probe	DP167	515684.26	572642.8	0.10	B - Very Shallow (0.01-0.5m)	12.82458973
Depth Probe	DP168	515702.19	572861.18	0.20	B - Very Shallow (0.01-0.5m)	10.07020855
Depth Probe	DP169	515711.57	572703.1	0.10	B - Very Shallow (0.01-0.5m)	11.28621578
Depth Probe	DP170	515713.19	572803.19	0.20	B - Very Shallow (0.01-0.5m)	10.60851192
Depth Probe	DP171	515732.18	572830.18	0.10	B - Very Shallow (0.01-0.5m)	10.08773136
Depth Probe	DP172	515739.18	571971.37	0.10	B - Very Shallow (0.01-0.5m)	1.518532515
Depth Probe	DP173	515751.9	573424.05	0.20	B - Very Shallow (0.01-0.5m)	7.472838402
Depth Probe	DP174	515765.17	572850.18	0.20	B - Very Shallow (0.01-0.5m)	9.556575775
Depth Probe	DP175	515771.17	571966.37	0.10	B - Very Shallow (0.01-0.5m)	2.366403341
Depth Probe	DP176	515775.53	573410.69	0.20	B - Very Shallow (0.01-0.5m)	7.06306076
Depth Probe	DP177	515779	573394.42	0.20	B - Very Shallow (0.01-0.5m)	7.381493568
Depth Probe	DP178	515787.52	573427.53	0.20	B - Very Shallow (0.01-0.5m)	7.06306076
Depth Probe	DP179	515791.97	572758.43	0.15	B - Very Shallow (0.01-0.5m)	10.54808998
Depth Probe	DP180	515792.95	573389.78	0.20	B - Very Shallow (0.01-0.5m)	7.319804192
Depth Probe	DP181	515806.5	573429.85	0.20	B - Very Shallow (0.01-0.5m)	7.06306076
Depth Probe	DP182	515808.44	573405.46	0.20	B - Very Shallow (0.01-0.5m)	7.319804192
Depth Probe	DP183	515808.82	573368.29	0.20	B - Very Shallow (0.01-0.5m)	7.275404453
Depth Probe	DP184	515809.21	573388.81	0.20	B - Very Shallow (0.01-0.5m)	5.975247383
Depth Probe	DP185	515825.16	571984.37	0.60	C - Shallow (0.5-2.0m)	5.714210987
Depth Probe	DP186	515855.15	571981.37	0.10	B - Very Shallow (0.01-0.5m)	6.964007854
Depth Probe	DP187	515857.15	571980.37	0.60	C - Shallow (0.5-2.0m)	6.964007854
Depth Probe	DP188	515872.15	573286.08	0.30	B - Very Shallow (0.01-0.5m)	7.068373203
Depth Probe	DP189	515886.14	571959.37	0.10	B - Very Shallow (0.01-0.5m)	8.090484619
Depth Probe	DP190	515895.15	573285.08	0.20	B - Very Shallow (0.01-0.5m)	7.19000721
Depth Probe	DP191	515897.8	573788.6	0.00	A - Rock (0.0m)	3.686229706
Depth Probe	DP192	515900.15	573232.1	0.10	B - Very Shallow (0.01-0.5m)	7.209232807
Depth Probe	DP193	515900.15	573259.09	0.00	A - Rock (0.0m)	7.137913704
Depth Probe	DP194	515919.14	573280.09	0.20	B - Very Shallow (0.01-0.5m)	7.279232502
Depth Probe	DP195	515920.14	573202.1	0.00	A - Rock (0.0m)	7.120646
Depth Probe	DP196	515931.14	573181.11	1.00	C - Shallow (0.5-2.0m)	6.971013546
Depth Probe	DP197	515945.14	573279.09	0.20	B - Very Shallow (0.01-0.5m)	7.969639778
Depth Probe	DP198	515955.27	573756.67	0.00	A - Rock (0.0m)	1.742388248
Depth Probe	DP199	515962.13	573138.12	0.20	B - Very Shallow (0.01-0.5m)	7.55779171
Depth Probe	DP200	516018.36	573812.59	0.10	B - Very Shallow (0.01-0.5m)	3.823080778
Depth Probe	DP201	516032.49	573794.4	0.40	B - Very Shallow (0.01-0.5m)	5.080574036
Depth Probe	DP202	516048.55	573769.24	0.20	B - Very Shallow (0.01-0.5m)	7.338634491
Depth Probe	DP203	516121.1	572299.3	0.00	A - Rock (0.0m)	6.585697651
Depth Probe	DP204	516130	571844	0.00	A - Rock (0.0m)	8.793807983
Depth Probe	DP205	516136.09	572348.29	1.00	C - Shallow (0.5-2.0m)	7.481557369
Depth Probe	DP206	516144	571831	0.10	B - Very Shallow (0.01-0.5m)	5.285321236
Depth Probe	DP207	516145.09	572371.28	0.10	B - Very Shallow (0.01-0.5m)	7.822175026
Depth Probe	DP208	516150.09	572328.29	0.10	B - Very Shallow (0.01-0.5m)	7.925721169
Depth Probe	DP209	516162	571811	0.50	B - Very Shallow (0.01-0.5m)	5.790176868
Depth Probe	DP210	516169.12	572491.41	0.05	B - Very Shallow (0.01-0.5m)	7.206728458
Depth Probe	DP211	516172.41	572472.06	0.05	B - Very Shallow (0.01-0.5m)	7.206728458
Depth Probe	DP212	516173.57	572453.87	0.60	C - Shallow (0.5-2.0m)	7.785173893
Depth Probe	DP213	516173.95	572438.97	0.20	B - Very Shallow (0.01-0.5m)	7.726138115
Depth Probe	DP214	516175.7	572422.52	0.00	A - Rock (0.0m)	7.726138115
Depth Probe	DP215	516176	571800	0.20	B - Very Shallow (0.01-0.5m)	4.480079174
Depth Probe	DP216	516176	571833	0.20	B - Very Shallow (0.01-0.5m)	5.790176868

SI Appendix B - Peat Survey Database

Gortyrahilly WF, Co. Cork

Minerex Environmental

Prepared by: SK
Mineerex File Ref.: 3006-011.xls

Sample / Test Category	Sample / Test Point ID No.	ITM Easting	ITM Northing	Thickness / Depth of peat	Classification of Thickness / Depth of peat	Local Incline (c.5m rad.)
						(GDEM)
				m		*Degrees*
Depth Probe	DP217	516181	571781	0.10	B - Very Shallow (0.01-0.5m)	4.480079174
Depth Probe	DP218	516186	571766	2.20	D - Moderately Deep (2.0-3.5m)	3.68399024
Depth Probe	DP219	516191	571826	0.00	A - Rock (0.0m)	5.790176868
Depth Probe	DP220	516193	571745	0.10	B - Very Shallow (0.01-0.5m)	2.43707037
Depth Probe	DP221	516199	571716	0.05	B - Very Shallow (0.01-0.5m)	2.43707037
Depth Probe	DP222	516200.47	572511.73	0.10	B - Very Shallow (0.01-0.5m)	7.676163673
Depth Probe	DP223	516201.63	572501.47	0.50	B - Very Shallow (0.01-0.5m)	7.676163673
Depth Probe	DP224	516202	571814	1.50	C - Shallow (0.5-2.0m)	6.278404236
Depth Probe	DP225	516202	571815	3.00	D - Moderately Deep (2.0-3.5m)	6.278404236
Depth Probe	DP226	516204.53	572490.83	0.00	A - Rock (0.0m)	7.853738785
Depth Probe	DP227	516206.41	572805.45	0.50	B - Very Shallow (0.01-0.5m)	6.462008476
Depth Probe	DP228	516208.79	572749.76	0.10	B - Very Shallow (0.01-0.5m)	3.519578934
Depth Probe	DP229	516212	571691	0.30	B - Very Shallow (0.01-0.5m)	2.440073252
Depth Probe	DP230	516222	571823	0.10	B - Very Shallow (0.01-0.5m)	6.940914154
Depth Probe	DP231	516231	571816	2.20	D - Moderately Deep (2.0-3.5m)	7.747647762
Depth Probe	DP232	516234.67	572522.31	0.00	A - Rock (0.0m)	8.073299408
Depth Probe	DP233	516235	571807	0.00	A - Rock (0.0m)	7.747647762
Depth Probe	DP234	516236.07	572353.28	0.00	A - Rock (0.0m)	8.675478935
Depth Probe	DP235	516242.07	572339.29	2.20	D - Moderately Deep (2.0-3.5m)	8.796183586
Depth Probe	DP236	516243	571687	0.10	B - Very Shallow (0.01-0.5m)	2.440073252
Depth Probe	DP237	516245	571828	0.50	B - Very Shallow (0.01-0.5m)	7.747647762
Depth Probe	DP238	516247	571824	1.00	C - Shallow (0.5-2.0m)	5.808549404
Depth Probe	DP239	516247.39	572822.02	0.50	B - Very Shallow (0.01-0.5m)	2.483276606
Depth Probe	DP240	516252	571823	2.00	C - Shallow (0.5-2.0m)	5.808549404
Depth Probe	DP241	516253	571823	1.00	C - Shallow (0.5-2.0m)	5.808549404
Depth Probe	DP242	516255.38	572680.69	1.20	C - Shallow (0.5-2.0m)	8.222197533
Depth Probe	DP243	516257.07	572329.29	0.00	A - Rock (0.0m)	8.01441288
Depth Probe	DP244	516258.86	572546.71	0.20	B - Very Shallow (0.01-0.5m)	8.153766632
Depth Probe	DP245	516261.06	571685.43	0.10	B - Very Shallow (0.01-0.5m)	4.716444969
Depth Probe	DP246	516265.83	572773.23	0.20	B - Very Shallow (0.01-0.5m)	3.409513474
Depth Probe	DP247	516266.99	572765.49	0.60	C - Shallow (0.5-2.0m)	3.409513474
Depth Probe	DP248	516271.63	572465.4	0.10	B - Very Shallow (0.01-0.5m)	7.749595165
Depth Probe	DP249	516277.44	572480.12	0.50	B - Very Shallow (0.01-0.5m)	8.028281212
Depth Probe	DP250	516280	571844	0.20	B - Very Shallow (0.01-0.5m)	8.572918892
Depth Probe	DP251	516290.61	572818.92	0.20	B - Very Shallow (0.01-0.5m)	1.145451546
Depth Probe	DP252	516294	571692	0.20	B - Very Shallow (0.01-0.5m)	4.90761137
Depth Probe	DP253	516309.05	572299.29	3.00	D - Moderately Deep (2.0-3.5m)	6.247334003
Depth Probe	DP254	516317.05	571700.42	0.10	B - Very Shallow (0.01-0.5m)	5.459080219
Depth Probe	DP255	516327.01	572774.01	0.30	B - Very Shallow (0.01-0.5m)	4.906589031
Depth Probe	DP256	516331.05	572406.27	0.50	B - Very Shallow (0.01-0.5m)	6.680482864
Depth Probe	DP257	516340	571833	0.20	B - Very Shallow (0.01-0.5m)	6.458789349
Depth Probe	DP258	516358.04	571708.42	0.00	A - Rock (0.0m)	5.025134563

SI Appendix B - Peat Survey Database

Gortyrahilly WF, Co. Cork

Prepared by: SK
Mineerex File Ref.: 3006-011.xls

Sample / Test Category	Sample / Test Point ID No.	ITM Easting	ITM Northing	Thickness / Depth of peat	Classification of Thickness / Depth of peat	Local Incline (c.5m rad.)
						(GDEM)
				m		*Degrees*
Depth Probe	DP259	516362.04	572298.29	0.10	B - Very Shallow (0.01-0.5m)	5.364169121
Depth Probe	DP260	516382.38	572602.11	0.60	C - Shallow (0.5-2.0m)	8.459296227
Depth Probe	DP261	516384.31	572563.79	0.00	A - Rock (0.0m)	8.471039772
Depth Probe	DP262	516387.41	572530.5	1.00	C - Shallow (0.5-2.0m)	8.361226082
Depth Probe	DP263	516395.15	572668.68	0.00	A - Rock (0.0m)	8.804580688
Depth Probe	DP264	516408.03	571715.42	0.10	B - Very Shallow (0.01-0.5m)	3.347083807
Depth Probe	DP265	516412.03	571574.45	0.10	B - Very Shallow (0.01-0.5m)	11.07051849
Depth Probe	DP266	516412.03	571728.42	0.10	B - Very Shallow (0.01-0.5m)	1.1683954
Depth Probe	DP267	516418.03	572439.26	2.60	D - Moderately Deep (2.0-3.5m)	6.042483807
Depth Probe	DP268	516430.03	571733.42	0.10	B - Very Shallow (0.01-0.5m)	1.1683954
Depth Probe	DP269	516434.03	572467.26	0.00	A - Rock (0.0m)	6.35787487
Depth Probe	DP270	516458.02	572265.3	2.90	D - Moderately Deep (2.0-3.5m)	4.215157986
Depth Probe	DP271	516458.02	572269.3	0.00	A - Rock (0.0m)	4.215157986
Depth Probe	DP272	516513.01	572523.25	0.00	A - Rock (0.0m)	6.995988846
Depth Probe	DP273	516523.01	572494.25	0.10	B - Very Shallow (0.01-0.5m)	6.845310211
Depth Probe	DP274	516542.81	571836.08	0.00	A - Rock (0.0m)	5.997124672
Depth Probe	DP275	516577.64	571808.79	0.00	A - Rock (0.0m)	3.916102409
Depth Probe	DP276	516630.77	571781.8	0.00	A - Rock (0.0m)	1.824308515
Depth Probe	DP277	516646.98	572487.25	2.00	C - Shallow (0.5-2.0m)	5.038897514
Depth Probe	DP278	516663.98	572154.32	0.10	B - Very Shallow (0.01-0.5m)	6.068204403
Depth Probe	DP279	516677.72	571800.05	0.00	A - Rock (0.0m)	1.76113677
Depth Probe	DP280	516679.97	572117.33	0.10	B - Very Shallow (0.01-0.5m)	6.52324295
Depth Probe	DP281	516681.97	572429.26	0.00	A - Rock (0.0m)	5.422397137
Depth Probe	DP282	516682.97	572084.34	0.10	B - Very Shallow (0.01-0.5m)	6.881349564
Depth Probe	DP283	516682.98	572474.25	0.50	B - Very Shallow (0.01-0.5m)	4.841876507
Depth Probe	DP284	516683.97	572472.26	0.50	B - Very Shallow (0.01-0.5m)	4.796021461
Depth Probe	DP285	516687.97	572055.35	0.20	B - Very Shallow (0.01-0.5m)	7.36180687
Depth Probe	DP286	516694	572454	1.80	C - Shallow (0.5-2.0m)	5.295378685
Depth Probe	DP287	516695	572440	0.10	B - Very Shallow (0.01-0.5m)	5.785228729
Depth Probe	DP288	516696	572446	0.50	B - Very Shallow (0.01-0.5m)	5.295378685
Depth Probe	DP289	516697.97	572572.23	0.10	B - Very Shallow (0.01-0.5m)	6.886060238
Depth Probe	DP290	516699.97	572589.23	1.80	C - Shallow (0.5-2.0m)	6.886060238
Depth Probe	DP291	516702.08	572439.93	0.00	A - Rock (0.0m)	5.994998455
Depth Probe	DP292	516702.97	572655.22	0.10	B - Very Shallow (0.01-0.5m)	7.998033047
Depth Probe	DP293	516709.97	572610.23	0.00	A - Rock (0.0m)	7.635109901
Depth Probe	DP294	516715	572447	0.60	C - Shallow (0.5-2.0m)	5.372542858
Depth Probe	DP295	516715	572467	1.10	C - Shallow (0.5-2.0m)	5.372542858
Depth Probe	DP296	516715	572485	1.50	C - Shallow (0.5-2.0m)	4.796021461
Depth Probe	DP297	516715	572500	1.50	C - Shallow (0.5-2.0m)	4.796021461
Depth Probe	DP298	516720.9	572542.94	0.80	C - Shallow (0.5-2.0m)	6.014891624
Depth Probe	DP299	516724.78	572506.93	0.00	A - Rock (0.0m)	4.93759203
Depth Probe	DP300	516728.59	572414.77	0.00	A - Rock (0.0m)	5.994998455
Depth Probe	DP301	516734.98	572488.17	0.00	A - Rock (0.0m)	4.937470913
Depth Probe	DP302	516735.56	573286.02	0.30	B - Very Shallow (0.01-0.5m)	14.37418938
Depth Probe	DP303	516746.07	572529.38	0.20	B - Very Shallow (0.01-0.5m)	5.61640358
Depth Probe	DP304	516753.81	572502.67	0.00	A - Rock (0.0m)	5.61640358
Depth Probe	DP305	516753.99	572463.2	1.00	C - Shallow (0.5-2.0m)	6.187883377
Depth Probe	DP306	516754.14	572472.06	0.00	A - Rock (0.0m)	5.659658909
Depth Probe	DP307	516757	572485	0.30	B - Very Shallow (0.01-0.5m)	5.659658909
Depth Probe	DP308	516757.04	572440.85	0.00	A - Rock (0.0m)	6.025743484
Depth Probe	DP309	516763.43	572573.08	0.00	A - Rock (0.0m)	7.356761932
Depth Probe	DP310	516768.14	572517	0.60	C - Shallow (0.5-2.0m)	5.806556225
Depth Probe	DP311	516774.34	572539.45	0.00	A - Rock (0.0m)	6.784794331
Depth Probe	DP312	516777	572485	0.10	B - Very Shallow (0.01-0.5m)	5.661455631

SI Appendix B - Peat Survey Database

Gortyrahilly WF, Co. Cork

Minerex Environmental

Prepared by: SK
Mineerex File Ref.: 3006-011.xls

Sample / Test Category	Sample / Test Point ID No.	ITM Easting	ITM Northing	Thickness / Depth of peat	Classification of Thickness / Depth of peat	Local Incline (c.5m rad.)
						(GDEM)
				m		*Degrees*
Depth Probe	DP313	516782.08	572507.32	0.60	C - Shallow (0.5-2.0m)	5.806556225
Depth Probe	DP314	516784.96	573287.08	0.40	B - Very Shallow (0.01-0.5m)	15.80003357
Depth Probe	DP315	516792.17	572450.29	0.00	A - Rock (0.0m)	5.785002708
Depth Probe	DP316	516803.92	572485.27	0.00	A - Rock (0.0m)	5.521930218
Depth Probe	DP317	516819	572456	0.20	B - Very Shallow (0.01-0.5m)	5.474979401
Depth Probe	DP318	516825.95	573287.08	0.20	B - Very Shallow (0.01-0.5m)	15.19100094
Depth Probe	DP319	516826.85	572461.9	0.20	B - Very Shallow (0.01-0.5m)	5.474979401
Depth Probe	DP320	516863.94	573304.08	0.20	B - Very Shallow (0.01-0.5m)	11.93583202
Depth Probe	DP321	516877.63	573213.88	0.60	C - Shallow (0.5-2.0m)	6.985575199
Depth Probe	DP322	516879.57	573193.75	0.20	B - Very Shallow (0.01-0.5m)	6.987257004
Depth Probe	DP323	516880.01	573234.5	0.30	B - Very Shallow (0.01-0.5m)	8.744002342
Depth Probe	DP324	516880.34	573261.12	0.30	B - Very Shallow (0.01-0.5m)	9.778476715
Depth Probe	DP325	516884.94	573294.08	0.10	B - Very Shallow (0.01-0.5m)	12.1943922
Depth Probe	DP326	516889.94	573310.07	0.20	B - Very Shallow (0.01-0.5m)	12.1943922
Depth Probe	DP327	516889.94	573329.07	0.10	B - Very Shallow (0.01-0.5m)	14.3563242
Depth Probe	DP328	516892.93	573341.07	0.20	B - Very Shallow (0.01-0.5m)	14.3563242
Depth Probe	DP329	516897.93	573372.06	0.05	B - Very Shallow (0.01-0.5m)	15.63198757
Depth Probe	DP330	516901.93	572504.28	0.00	A - Rock (0.0m)	8.504455566
Depth Probe	DP331	516905.92	572522.42	0.30	B - Very Shallow (0.01-0.5m)	8.504455566
Depth Probe	DP332	517016.37	572569.88	0.00	A - Rock (0.0m)	6.039927959
Depth Probe	DP333	517018.26	572556.82	0.70	C - Shallow (0.5-2.0m)	5.855574131
Depth Probe	DP334	517020.29	572546.52	0.00	A - Rock (0.0m)	5.855574131
Depth Probe	DP335	517062.46	572583.24	0.00	A - Rock (0.0m)	5.743189812
Depth Probe	DP336	517082.7	572576.56	1.00	C - Shallow (0.5-2.0m)	5.743189812
Depth Probe	DP337	517103.17	572566.4	0.00	A - Rock (0.0m)	3.531184673
Depth Probe	DP338	517190.69	573051.9	0.10	B - Very Shallow (0.01-0.5m)	10.34671116
Depth Probe	DP339	517197.08	573031.58	0.00	A - Rock (0.0m)	9.726441383
Depth Probe	DP340	517205	573061	0.20	B - Very Shallow (0.01-0.5m)	9.91559124
Depth Probe	DP341	517211.16	573042.76	0.10	B - Very Shallow (0.01-0.5m)	9.726441383
Depth Probe	DP342	517219.28	573068.16	0.10	B - Very Shallow (0.01-0.5m)	9.483478546
Depth Probe	DP343	517259.85	572999.14	0.10	B - Very Shallow (0.01-0.5m)	9.162700653
Depth Probe	DP344	517278	573082	0.10	B - Very Shallow (0.01-0.5m)	9.469892502
Depth Probe	DP345	517289.85	573009.14	0.20	B - Very Shallow (0.01-0.5m)	8.993080139
Depth Probe	DP346	517296.85	572988.14	0.40	B - Very Shallow (0.01-0.5m)	8.993080139
Depth Probe	DP347	517307.84	572956.15	0.10	B - Very Shallow (0.01-0.5m)	8.89960289
Depth Probe	DP348	517308.84	572927.15	0.10	B - Very Shallow (0.01-0.5m)	8.236968994
Depth Probe	DP349	517310.34	572680.5	0.50	B - Very Shallow (0.01-0.5m)	4.929596901
Depth Probe	DP350	517311.3	573116.93	0.00	A - Rock (0.0m)	10.4966383
Depth Probe	DP351	517314.84	572910.16	0.40	B - Very Shallow (0.01-0.5m)	5.996011257
Depth Probe	DP352	517319.84	572889.16	0.30	B - Very Shallow (0.01-0.5m)	6.406159878
Depth Probe	DP353	517320	573085	0.00	A - Rock (0.0m)	9.235265732
Depth Probe	DP354	517321.84	573018.13	0.90	C - Shallow (0.5-2.0m)	9.906367302
Depth Probe	DP355	517323.64	573094.86	0.30	B - Very Shallow (0.01-0.5m)	9.889965057
Depth Probe	DP356	517329.51	572991.23	0.60	C - Shallow (0.5-2.0m)	9.273030281
Depth Probe	DP357	517331.91	573084.7	0.00	A - Rock (0.0m)	9.889965057
Depth Probe	DP358	517349.83	572885.16	0.50	B - Very Shallow (0.01-0.5m)	4.24516201
Depth Probe	DP359	517357.83	573002.14	0.10	B - Very Shallow (0.01-0.5m)	8.850007057
Depth Probe	DP360	517365.13	573010.6	0.10	B - Very Shallow (0.01-0.5m)	8.850007057
Depth Probe	DP361	517375.83	572980.14	0.10	B - Very Shallow (0.01-0.5m)	7.707629681
Depth Probe	DP362	517385.83	572895.16	0.20	B - Very Shallow (0.01-0.5m)	4.391385555
Depth Probe	DP363	517391.5	572728.35	0.30	B - Very Shallow (0.01-0.5m)	6.212251186
Depth Probe	DP364	517404.78	573174.84	0.00	A - Rock (0.0m)	11.79362011
Depth Probe	DP365	517409.82	572901.16	0.50	B - Very Shallow (0.01-0.5m)	4.391385555
Depth Probe	DP366	517427.71	573231.44	0.00	A - Rock (0.0m)	11.15951729

SI Appendix B - Peat Survey Database

Gortyrahilly WF, Co. Cork

Prepared by: SK
Mineerex File Ref.: 3006-011.xls

Sample / Test Category	Sample / Test Point ID No.	ITM Easting	ITM Northing	Thickness / Depth of peat	Classification of Thickness / Depth of peat	Local Incline (c.5m rad.)
						(GDEM)
				m		*Degrees*
Depth Probe	DP367	517513.27	572621.5	0.60	C - Shallow (0.5-2.0m)	2.706806183
Depth Probe	DP368	517909.71	572884.16	0.10	B - Very Shallow (0.01-0.5m)	3.761085749
Depth Probe	DP369	517915.71	572905.16	0.20	B - Very Shallow (0.01-0.5m)	4.69237566
Depth Probe	DP370	517929.71	572920.15	0.10	B - Very Shallow (0.01-0.5m)	4.400215149
Depth Probe	DP371	517951.7	572927.15	0.10	B - Very Shallow (0.01-0.5m)	5.440964699
Depth Probe	DP372	517952.7	572868.16	0.50	B - Very Shallow (0.01-0.5m)	3.811831713
Depth Probe	DP373	517969.7	572791.18	0.10	B - Very Shallow (0.01-0.5m)	1.530826926
Depth Probe	DP374	517974.7	572915.15	0.20	B - Very Shallow (0.01-0.5m)	4.675237656
Depth Probe	DP375	517978.7	572835.17	0.40	B - Very Shallow (0.01-0.5m)	2.406682968
Depth Probe	DP376	517992.7	572897.16	0.05	B - Very Shallow (0.01-0.5m)	4.63267231
Depth Probe	DP377	517994.69	572857.17	0.10	B - Very Shallow (0.01-0.5m)	2.406682968
Depth Probe	DP378	518009.69	572881.16	0.10	B - Very Shallow (0.01-0.5m)	2.613565922

SI Appendix B - Peat Survey Database

Gortyrahilly WF, Co. Cork

Prepared by: SK
Mineerex File Ref.: 3006-011.xls

Sample / Test Category	Sample / Test Point ID No.	ITM Easting	ITM Northing	Thickness / Depth of peat	Classification of Thickness / Depth of peat	Local Incline (c.5m rad.)
						(GDEM)
				m		*Degrees*

Appendix C

Appendix C
Gortyrahilly Wind Farm, Co. Cork

Trial Pit & Borehole Locations
Site Overview

Legend

Development Layout

Site Investigation

- GWF Borehole Locations

3188-A1 Soil - SI Trial Pit Data

- Yes, Iron Pan Present
- No, Iron Pan Not Present

WF

Ancillary

- Proposed Turbine Locations
- Proposed Borrow Pits
- Site_Entrances
- Proposed On-Site Substation
- Proposed Temporary Construction Compound
- Proposed Met Mast
- 603679 GWF Redline Boundary
- Site Infrastructure

UGC

- Under Ground Cable (UGC)

Hydrology

- WFD_RiverWaterbodies

Site Drainage

Site Drainage

- Mapped River Corrected
- Significant Drain
- Minor Drain

Project: Gortyrahilly Wind Farm

Projection: ITM

Drawn by: Sven K.

Version: 05/04/2022

References/Sources:
Environmental Protection Agency (EPA)
Geological Services Ireland (GSI)
Bing Aerial / GeoHive / Open Street Map / Google Roads
GDEM Elevation Contours
Fehily Timoney (2019) Surrounding Wind Turbines and Wind Energy Designations

Note: Data points presented are georeferenced using open source data and/or a handheld GPS. This drawing / map is considered a conceptual model with reasonable accuracy for the purposes of environmental assessment. This drawing should not be relied upon for detailed design puporses.

Scale:
0 100 200 300 400 500 m

Minerex Environmental
RSK

N

Site Entrance
GWF BH03
TP030
T9
TP029
TP006
TP004
TP005
TP007
TP008
T12
T13
TP002
TP003
TP001
TP027
TP026
TP024
TP025
T8
T10
T14
TP037
TP009
TP010
T7
TP013
TP014
Met Mast
TP028
TP011
T6
TP012
Borrow Pit
TP031
TP032
T11
TP035
TP034
TP033
TP023
TP017
TP018
GWF BH02
Borrow Pit
TP022
TP021
TP019
TP020
TP015
T3
TP016
T1
T4
T5
GWF BH01
Temporary Compound
TP036
Site Entrance

Appendix D

GORTYRAHILLY WF

Borehole/ Trial Pit Design & Completion	Soil (S) / Water (W) / Vapour (V) Sampling: Sample number & interval (mbGL) *(Sample 10 kg minimum)* — Red line = Single channel sample (from field); Blue line = Composite sample (generated in office or lab); Green line = Grab sample (acquired on site)	Non-Natural Ground Percentage (see * below)	PID (ppm) Bagged sample (BS); Trial Pit Wall (TPW); Soil Core (SC); BH Arisings (BHA); Trial Pit Clumps (TPC)	Odour strength & description (none, weak, moderate, strong)	Groundwater occurrence (See legend for symbols used for dry, damp and wet)	Depth in metres below ground level, also (maODM) & [*Thickness*]	Geology (graphical log)	Geological description	Natural / Made
N/A		N/A	N/A			0.0		**PEAT/PEATY SOIL.** Medium Brown	N
								PEAT/PEATY SOIL. Dark Brown	N
						0.5		Sandy Gravelly **CLAY** w/ Cobbles. Medium Brown	N
						1.0		Sandy Gravelly **CLAY** w/ Cobbles. Grey Blue	N
						1.5		**EOH –** Weathered Bedrock / Boulders	
						2.0			
						2.5			
						3.0			
						3.5			
						4.0			

INVESTIGATION POINT LOG NUMBER	TP001
Client, Project, Location	JOD (Coillte), Gortyrahilly WF , Cork
Minerex work item	A1
Page No.	1 of 1
Date & time drilled / formed:	31/05/2021
Logged by (drawn by) [checked by]:	SK
Drilling / Trial pitting co. & equipment	Excavator
Minerex Doc. Ref.	3188-A1-008.ppt
Irish Transverse Mercator (ITM)**	517203, 573067

* Non-natural material %s with total % in ( )

NON-DEGRADABLE % (ND): 1 = **Brick**, 2 = **Concrete**, 3 = **Glass**, 4 = **Ceramic tiles,** 5 = **ACMs** (asbestos containing materials such as roof tiles, piping). 6 = **Blue Bangor slate.**

DEGRADABLE % (D): 7 = **Plastic**, 8 = **Metal**, 9 = **Wood / Organic / Leaves / Twigs / Peat**, 10 = **Ash & Clinker**, 11 = **Charcoal**, 12 = **Tarmacadam**, 13 = **Leather, 14 = Coal Tar**

**1-From hand held GPS, 2-Estimated from google maps or 3-Surveyed with theodolite.

A DOMINANT GEOLOGICAL COMPONENT: Clay, Silt, Sand, Gravel, Cobble, Boulder deposit

B NON-DOMINANT GEOLOGICAL COMPONENT: Clay - Silt - Sand Gravel - Cobble - Boulder

C COLOUR: **- Brown** (LB, MB, DB) **- Grey** (LG, MG, DG) **- Mustard - Beige (tan) - Olive - Mottled - Orange**

D STIFFNESS: VST - V. Soft; ST = Soft; F = Firm; S = Stiff; VS = V. Stiff)

E LAYER ID, RECOVERY & STONE: % recovery; % >10mm stone

F NN or N

Minerex Environmental

Write additional help notes on macropores, mottling etc as space allows

F Interpretation

NN = Non-natural ground (fill / made up ground / disturbed natural); **N** = Natural ground)

Borehole/ Trial Pit Design & Completion	Soil (S) / Water (W) / Vapour (V) Sampling					Depth in metres below ground level, also (maODM) & [*Thickness*]	Geology (graphical log)	INVESTIGATION POINT LOG NUMBER	TP002	
	Sample number & interval (mbGL) *(Sample 10 kg minimum)* Red line = Single channel sample (from field) Blue line = Composite sample (generated in office or lab) Green line = Grab sample (acquired on site)	Non-Natural Ground Percentage	PID (ppm) Bagged sample (BS); Trial Pit Wall (TPW); Soil Core (SC); BH Arisings (BHA); Trial Pit Clumps (TPC)	Odour strength & description (none, weak, moderate, strong)	Groundwater occurrence (See legend for symbols used for dry, damp and wet)			Client, Project, Location	JOD (Coillte), Gortyrahilly WF , Cork	
								Minerex work item	A1	
								Page No.	1 of 1	
								Date & time drilled / formed:	31/05/2021	
								Logged by (drawn by) [checked by]:	SK	
								Drilling / Trial pitting co. & equipment	Excavator	
								Minerex Doc. Ref.	3188-A1-008.ppt	
								Irish Transverse Mercator (ITM)**	517261, 573080	
								Geological description		Natural / Made
N/A		N/A	N/A					**PEAT/PEATY SOIL.** Dark Brown		N
								Sandy Gravelly **CLAY.** Medium Brown		N
						0.5				N
						1.0		Sandy **GRAVEL** / **TILL** w/ Cobbles and Boulders. Blue Grey.		N
						1.5				
						2.0				
						2.5		**EOH –** Weathered Bedrock / Boulders		
						3.0				
						3.5				
						4.0				

* Unreliable data. Indication only.

** From hand held GPS

A DOMINANT GEOLOGICAL COMPONENT: Clay, Silt, Sand, Gravel, Cobble, Boulder deposit

B NON-DOMINANT GEOLOGICAL COMPONENT: Clay - Silt - Sand Gravel - Cobble - Boulder

C COLOUR: **- Brown** (LB, MB, DB) **- Grey** (LG, MG, DG) **- Mustard - Beige (tan) - Olive - Mottled - Orange**

D STIFFNESS: VST - V. Soft; ST = Soft; F = Firm; S = Stiff; VS = V. Stiff)

E LAYER ID, RECOVERY & STONE: % recovery; % >10mm stone

F NN or N

Minerex Environmental

Write additional help notes on macropores, mottling etc as space allows

F Interpretation

NN = Non-natural ground (fill / made up ground / disturbed natural); **N** = Natural ground)

Borehole/ Trial Pit Design & Completion	Soil (S) / Water (W) / Vapour (V) Sampling					Depth in metres below ground level, also (maODM) & [*Thickness*]	Geology (graphical log)	INVESTIGATION POINT LOG NUMBER	TP003	
	Sample number & interval (mbGL) *(Sample 10 kg minimum)* Red line = Single channel sample (from field) Blue line = Composite sample (generated in office or lab) Green line = Grab sample (acquired on site)	Non-Natural Ground Percentage	PID (ppm) Bagged sample (BS); Trial Pit Wall (TPW); Soil Core (SC); BH Arisings (BHA); Trial Pit Clumps (TPC)	Odour strength & description (none, weak, moderate, strong)	Groundwater occurrence (See legend for symbols used for dry, damp and wet)			Client, Project, Location	JOD (Coillte), Gortyrahilly WF , Cork	
								Minerex work item	A1	
								Page No.	1 of 1	
								Date & time drilled / formed:	31/0/2021	
								Logged by (drawn by) [checked by]:	SK	
								Drilling / Trial pitting co. & equipment	Excavator	
								Minerex Doc. Ref.	3188-A1-008.ppt	
								Irish Transverse Mercator (ITM)**	517319, 573103	
								Geological description		Natural / Made
N/A		N/A	N/A					**PEAT/PEATY SOIL.** Dark Brown		N
								Sandy Gravelly **CLAY.** Medium Brown		N
						0.5		Sandy **GRAVEL** / **TILL** w/ Cobbles and Boulders. Blue Grey / Purple Grey.		N
						1.0				N
						1.5				
						2.0				
						2.5				
						3.0		**EOH –** Boulders		
						3.5				
						4.0				

* Unreliable data. Indication only.

** From hand held GPS

A DOMINANT GEOLOGICAL COMPONENT: Clay, Silt, Sand, Gravel, Cobble, Boulder deposit

B NON-DOMINANT GEOLOGICAL COMPONENT: Clay - Silt - Sand Gravel - Cobble - Boulder

C COLOUR: - Brown (LB, MB, DB) - Grey (LG, MG, DG) - Mustard - Beige (tan) - Olive - Mottled - Orange

D STIFFNESS: VST - V. Soft; ST = Soft; F = Firm; S = Stiff; VS = V. Stiff)

E LAYER ID, RECOVERY & STONE: % recovery; % >10mm stone

F NN or N

Minerex Environmental

Write additional help notes on macropores, mottling etc as space allows

F Interpretation

NN = Non-natural ground (fill / made up ground / disturbed natural); **N** = Natural ground)

Borehole/ Trial Pit Design & Completion	Soil (S) / Water (W) / Vapour (V) Sampling: Sample number & interval (mbGL) *(Sample 10 kg minimum)* — Red line = Single channel sample (from field); Blue line = Composite sample (generated in office or lab); Green line = Grab sample (acquired on site)	Non-Natural Ground Percentage	PID (ppm) Bagged sample (BS); Trial Pit Wall (TPW); Soil Core (SC); BH Arisings (BHA); Trial Pit Clumps (TPC)	Odour strength & description (none, weak, moderate, strong)	Groundwater occurrence (See legend for symbols used for dry, damp and wet)	Depth in metres below ground level, also (maODM) & [*Thickness*]	Geology (graphical log)	Geological description	Natural / Made
N/A		N/A	N/A			0		**PEAT/PEATY SOIL.** Dark Brown	N
									N
						0.5		Sandy Gravelly **CLAY.** Medium Brown	N
						1.0		Weathered **ROCK** with sand, gravel, cobbles, boulders. Angular / shaley.	N
						1.5		**EOH –** Boulders	
						2.0			
						2.5			
						3.0			
						3.5			
						4.0			

INVESTIGATION POINT LOG NUMBER	TP004
Client, Project, Location	JOD (Coillte), Gortyrahilly WF , Cork
Minerex work item	A1
Page No.	1 of 1
Date & time drilled / formed:	31/0/2021
Logged by (drawn by) [checked by]:	SK
Drilling / Trial pitting co. & equipment	Excavator
Minerex Doc. Ref.	3188-A1-008.ppt
Irish Transverse Mercator (ITM)**	517335, 573407

* Unreliable data. Indication only.

** From hand held GPS

A DOMINANT GEOLOGICAL COMPONENT: Clay, Silt, Sand, Gravel, Cobble, Boulder deposit

B NON-DOMINANT GEOLOGICAL COMPONENT: Clay - Silt - Sand Gravel - Cobble - Boulder

C COLOUR: - Brown (LB, MB, DB) - Grey (LG, MG, DG) - Mustard - Beige (tan) - Olive - Mottled - Orange

D STIFFNESS: VST - V. Soft; ST = Soft; F = Firm; S = Stiff; VS = V. Stiff)

E LAYER ID, RECOVERY & STONE: % recovery; % >10mm stone

F NN or N

Minerex Environmental

Write additional help notes on macropores, mottling etc as space allows

F Interpretation

NN = Non-natural ground (fill / made up ground / disturbed natural); **N** = Natural ground)

Borehole/ Trial Pit Design & Completion	Soil (S) / Water (W) / Vapour (V) Sampling: Sample number & interval (mbGL) *(Sample 10 kg minimum)* — Red line = Single channel sample (from field); Blue line = Composite sample (generated in office or lab); Green line = Grab sample (acquired on site)	Non-Natural Ground Percentage	PID (ppm) Bagged sample (BS); Trial Pit Wall (TPW); Soil Core (SC); BH Arisings (BHA); Trial Pit Clumps (TPC)	Odour strength & description (none, weak, moderate, strong)	Groundwater occurrence (See legend for symbols used for dry, damp and wet)	Depth in metres below ground level, also (maODM) & [*Thickness*]	Geology (graphical log)	Geological description	Natural / Made
N/A		N/A	N/A			0.0		**PEAT/PEATY SOIL.** Dark Brown	N
									N
						0.5		Sandy Gravelly **CLAY** w/ cobbles**.** Medium Brown	N
						1.0		Weathered **ROCK** with sand, gravel, cobbles, boulders. Angular / shaley.	N
						1.5		**EOH –** Boulders	
						2.0			
						2.5			
						3.0			
						3.5			
						4.0			

INVESTIGATION POINT LOG NUMBER	TP005
Client, Project, Location	JOD (Coillte), Gortyrahilly WF , Cork
Minerex work item	A1
Page No.	1 of 1
Date & time drilled / formed:	31/0/2021
Logged by (drawn by) [checked by]:	SK
Drilling / Trial pitting co. & equipment	Excavator
Minerex Doc. Ref.	3188-A1-008.ppt
Irish Transverse Mercator (ITM)**	5147242, 573402

* Unreliable data. Indication only.

** From hand held GPS

A DOMINANT GEOLOGICAL COMPONENT: Clay, Silt, Sand, Gravel, Cobble, Boulder deposit

B NON-DOMINANT GEOLOGICAL COMPONENT: Clay - Silt - Sand Gravel - Cobble - Boulder

C COLOUR: **- Brown** (LB, MB, DB) **- Grey** (LG, MG, DG) **- Mustard - Beige (tan) - Olive - Mottled - Orange**

D STIFFNESS: VST - V. Soft; ST = Soft; F = Firm; S = Stiff; VS = V. Stiff)

E LAYER ID, RECOVERY & STONE: % recovery; % >10mm stone

F NN or N

F Interpretation

NN = Non-natural ground (fill / made up ground / disturbed natural); **N** = Natural ground)

Minerex Environmental

Write additional help notes on macropores, mottling etc as space allows

Borehole/ Trial Pit Design & Completion	Soil (S) / Water (W) / Vapour (V) Sampling					Depth in metres below ground level, also (maODM) & [*Thickness*]	Geology (graphical log)	INVESTIGATION POINT LOG NUMBER	TP006	
	Sample number & interval (mbGL) *(Sample 10 kg minimum)* Red line = Single channel sample (from field) Blue line = Composite sample (generated in office or lab) Green line = Grab sample (acquired on site)	Non-Natural Ground Percentage	PID (ppm) Bagged sample (BS); Trial Pit Wall (TPW); Soil Core (SC); BH Arisings (BHA); Trial Pit Clumps (TPC)	Odour strength & description (none, weak, moderate, strong)	Groundwater occurrence (See legend for symbols used for dry, damp and wet)			Client, Project, Location	JOD (Coillte), Gortyrahilly WF , Cork	
								Minerex work item	A1	
								Page No.	1 of 1	
								Date & time drilled / formed:	31/0/2021	
								Logged by (drawn by) [checked by]:	SK	
								Drilling / Trial pitting co. & equipment	Excavator	
								Minerex Doc. Ref.	3188-A1-008.ppt	
								Irish Transverse Mercator (ITM)**	516864, 573398	
								Geological description		Natural / Made
N/A		N/A	N/A			0		**PEAT/PEATY SOIL.** Dark Brown		N
								Sandy Gravelly **CLAY** w/ cobbles**.** Medium Brown		N
						0.5				N
								Clayey, Sandy **GRAVEL** / **TILL** w/ Cobbles and Boulders**. Grey**.		N
						1.0				
								EOH – Weathered Bedrock / Boulders		
						1.5				
						2.0				
						2.5				
						3.0				
						3.5				
						4.0				

* Unreliable data. Indication only.

** From hand held GPS

A DOMINANT GEOLOGICAL COMPONENT: Clay, Silt, Sand, Gravel, Cobble, Boulder deposit

B NON-DOMINANT GEOLOGICAL COMPONENT: Clay - Silt - Sand Gravel - Cobble - Boulder

C COLOUR: **- Brown** (LB, MB, DB) **- Grey** (LG, MG, DG) **- Mustard - Beige (tan) - Olive - Mottled - Orange**

D STIFFNESS: VST - V. Soft; ST = Soft; F = Firm; S = Stiff; VS = V. Stiff)

E LAYER ID, RECOVERY & STONE: % recovery; % >10mm stone

F NN or N

Minerex Environmental

Write additional help notes on macropores, mottling etc as space allows

F Interpretation

NN = Non-natural ground (fill / made up ground / disturbed natural); **N** = Natural ground)

Borehole/ Trial Pit Design & Completion	Soil (S) / Water (W) / Vapour (V) Sampling					Depth in metres below ground level, also (maODM) & [*Thickness*]	Geology (graphical log)	INVESTIGATION POINT LOG NUMBER	TP007	
	Sample number & interval (mbGL) *(Sample 10 kg minimum)* Red line = Single channel sample (from field) Blue line = Composite sample (generated in office or lab) Green line = Grab sample (acquired on site)	Non-Natural Ground Percentage	PID (ppm) Bagged sample (BS); Trial Pit Wall (TPW); Soil Core (SC); BH Arisings (BHA); Trial Pit Clumps (TPC)	Odour strength & description (none, weak, moderate, strong)	Groundwater occurrence (See legend for symbols used for dry, damp and wet)			Client, Project, Location	JOD (Coillte), Gortyrahilly WF , Cork	
								Minerex work item	A1	
								Page No.	1 of 1	
								Date & time drilled / formed:	31/0/2021	
								Logged by (drawn by) [checked by]:	SK	
								Drilling / Trial pitting co. & equipment	Excavator	
								Minerex Doc. Ref.	3188-A1-008.ppt	
								Irish Transverse Mercator (ITM)**	516844, 573349	
								Geological description		Natural / Made
N/A		N/A	N/A					**PEAT/PEATY SOIL.** Dark Brown		N
										N
								Sandy Gravelly **CLAY** w/ cobbles**.** Medium Brown		N
						0.5				
								EOH – Weathered Bedrock / Boulders		N
						1.0				
						1.5				
						2.0				
						2.5				
						3.0				
						3.5				
						4.0				

* Unreliable data. Indication only.

** From hand held GPS

A DOMINANT GEOLOGICAL COMPONENT: Clay, Silt, Sand, Gravel, Cobble, Boulder deposit

B NON-DOMINANT GEOLOGICAL COMPONENT: Clay - Silt - Sand Gravel - Cobble - Boulder

C COLOUR: **- Brown** (LB, MB, DB) **- Grey** (LG, MG, DG) **- Mustard - Beige (tan) - Olive - Mottled - Orange**

D STIFFNESS: VST - V. Soft; ST = Soft; F = Firm; S = Stiff; VS = V. Stiff)

E LAYER ID, RECOVERY & STONE: % recovery; % >10mm stone

F NN or N

Minerex Environmental

Write additional help notes on macropores, mottling etc as space allows

F Interpretation

NN = Non-natural ground (fill / made up ground / disturbed natural); **N** = Natural ground)

Borehole/ Trial Pit Design & Completion	Soil (S) / Water (W) / Vapour (V) Sampling					Depth in metres below ground level, also (maODM) & [*Thickness*]	Geology (graphical log)	INVESTIGATION POINT LOG NUMBER	TP008	
	Sample number & interval (mbGL) *(Sample 10 kg minimum)* Red line = Single channel sample (from field) Blue line = Composite sample (generated in office or lab) Green line = Grab sample (acquired on site)	Non-Natural Ground Percentage	PID (ppm) Bagged sample (BS); Trial Pit Wall (TPW); Soil Core (SC); BH Arisings (BHA); Trial Pit Clumps (TPC)	Odour strength & description (none, weak, moderate, strong)	Groundwater occurrence (See legend for symbols used for dry, damp and wet)			Client, Project, Location	JOD (Coillte), Gortyrahilly WF , Cork	
								Minerex work item	A1	
								Page No.	1 of 1	
								Date & time drilled / formed:	31/0/2021	
								Logged by (drawn by) [checked by]:	SK	
								Drilling / Trial pitting co. & equipment	Excavator	
								Minerex Doc. Ref.	3188-A1-008.ppt	
								Irish Transverse Mercator (ITM)**	516844, 573349	
								Geological description		Natural / Made
N/A		N/A	N/A					**PEAT/PEATY SOIL.** Dark Brown		N
										N
								Sandy Gravelly **CLAY** w/ cobbles**.** Medium Brown		N
						0.5				
								EOH – Weathered Bedrock / Boulders		
						1.0				N
						1.5				
						2.0				
						2.5				
						3.0				
						3.5				
						4.0				

* Unreliable data. Indication only.

** From hand held GPS

A DOMINANT GEOLOGICAL COMPONENT: Clay, Silt, Sand, Gravel, Cobble, Boulder deposit

B NON-DOMINANT GEOLOGICAL COMPONENT: Clay - Silt - Sand Gravel - Cobble - Boulder

C COLOUR: **- Brown** (LB, MB, DB) **- Grey** (LG, MG, DG) **- Mustard - Beige (tan) - Olive - Mottled - Orange**

D STIFFNESS: VST - V. Soft; ST = Soft; F = Firm; S = Stiff; VS = V. Stiff)

E LAYER ID, RECOVERY & STONE: % recovery; % >10mm stone

F NN or N

Minerex Environmental

Write additional help notes on macropores, mottling etc as space allows

F Interpretation

NN = Non-natural ground (fill / made up ground / disturbed natural); **N** = Natural ground)

Borehole/ Trial Pit Design & Completion	Soil (S) / Water (W) / Vapour (V) Sampling					Depth in metres below ground level, also (maODM) & [*Thickness*]	Geology (graphical log)	INVESTIGATION POINT LOG NUMBER	TP009	
	Sample number & interval (mbGL) *(Sample 10 kg minimum)* Red line = Single channel sample (from field) Blue line = Composite sample (generated in office or lab) Green line = Grab sample (acquired on site)	Non-Natural Ground Percentage	PID (ppm) Bagged sample (BS); Trial Pit Wall (TPW); Soil Core (SC); BH Arisings (BHA); Trial Pit Clumps (TPC)	Odour strength & description (none, weak, moderate, strong)	Groundwater occurrence (See legend for symbols used for dry, damp and wet)			Client, Project, Location	JOD (Coillte), Gortyrahilly WF , Cork	
								Minerex work item	A1	
								Page No.	1 of 1	
								Date & time drilled / formed:	31/0/2021	
								Logged by (drawn by) [checked by]:	SK	
								Drilling / Trial pitting co. & equipment	Excavator	
								Minerex Doc. Ref.	3188-A1-008.ppt	
								Irish Transverse Mercator (ITM)**	516267, 572798	
								Geological description		Natural / Made
N/A		N/A	N/A					**PEAT/PEATY SOIL.** Dark Brown		N
								Sandy Gravelly **CLAY** w/ cobbles**.** Medium Brown		N
						0.5		Weathered Bedrock. Angular / Sheley.		N
								EOH – Weathered Bedrock		
						1.0				
						1.5				
						2.0				
						2.5				
						3.0				
						3.5				
						4.0				

* Unreliable data. Indication only.

** From hand held GPS

A DOMINANT GEOLOGICAL COMPONENT: Clay, Silt, Sand, Gravel, Cobble, Boulder deposit

B NON-DOMINANT GEOLOGICAL COMPONENT: Clay - Silt - Sand Gravel - Cobble - Boulder

C COLOUR: **- Brown** (LB, MB, DB) **- Grey** (LG, MG, DG) **- Mustard - Beige (tan) - Olive - Mottled - Orange**

D STIFFNESS: VST - V. Soft; ST = Soft; F = Firm; S = Stiff; VS = V. Stiff)

E LAYER ID, RECOVERY & STONE: % recovery; % >10mm stone

F NN or N

Minerex Environmental

Write additional help notes on macropores, mottling etc as space allows

F Interpretation

NN = Non-natural ground (fill / made up ground / disturbed natural); **N** = Natural ground)

Borehole/ Trial Pit Design & Completion	Soil (S) / Water (W) / Vapour (V) Sampling					Depth in metres below ground level, also (maODM) & [*Thickness*]	Geology (graphical log)	INVESTIGATION POINT LOG NUMBER	TP010	
	Sample number & interval (mbGL) *(Sample 10 kg minimum)* Red line = Single channel sample (from field) Blue line = Composite sample (generated in office or lab) Green line = Grab sample (acquired on site)	Non-Natural Ground Percentage	PID (ppm) Bagged sample (BS); Trial Pit Wall (TPW); Soil Core (SC); BH Arisings (BHA); Trial Pit Clumps (TPC)	Odour strength & description (none, weak, moderate, strong)	Groundwater occurrence (See legend for symbols used for dry, damp and wet)			Client, Project, Location	JOD (Coillte), Gortyrahilly WF , Cork	
								Minerex work item	A1	
								Page No.	1 of 1	
								Date & time drilled / formed:	31/0/2021	
								Logged by (drawn by) [checked by]:	SK	
								Drilling / Trial pitting co. & equipment	Excavator	
								Minerex Doc. Ref.	3188-A1-008.ppt	
								Irish Transverse Mercator (ITM)**	516227, 572773	
								Geological description		Natural / Made
N/A		N/A	N/A			0.0		**PEAT/PEATY SOIL.** Dark Brown		N
										N
						0.5		Sandy GVAVEL / TILL w/ cobbles. Medium Brown		
						1.0				
						1.5				
						2.0		Weathered Bedrock. Angular / Shaley.		
								EOH – Weathered Bedrock		
						2.5				
						3.0				
						3.5				
						4.0				

* Unreliable data. Indication only.

** From hand held GPS

A DOMINANT GEOLOGICAL COMPONENT: Clay, Silt, Sand, Gravel, Cobble, Boulder deposit

B NON-DOMINANT GEOLOGICAL COMPONENT: Clay - Silt - Sand Gravel - Cobble - Boulder

C COLOUR: **- Brown** (LB, MB, DB) **- Grey** (LG, MG, DG) **- Mustard - Beige (tan) - Olive - Mottled - Orange**

D STIFFNESS: VST - V. Soft; ST = Soft; F = Firm; S = Stiff; VS = V. Stiff)

E LAYER ID, RECOVERY & STONE: % recovery; % >10mm stone

F NN or N

Minerex Environmental

Write additional help notes on macropores, mottling etc as space allows

F Interpretation

NN = Non-natural ground (fill / made up ground / disturbed natural); **N** = Natural ground)

Borehole/ Trial Pit Design & Completion	Soil (S) / Water (W) / Vapour (V) Sampling					Depth in metres below ground level, also (maODM) & [*Thickness*]	Geology (graphical log)	INVESTIGATION POINT LOG NUMBER: TP011	
	Sample number & interval (mbGL) *(Sample 10 kg minimum)* Red line = Single channel sample (from field) Blue line = Composite sample (generated in office or lab) Green line = Grab sample (acquired on site)	Non-Natural Ground Percentage	PID (ppm) Bagged sample (BS); Trial Pit Wall (TPW); Soil Core (SC); BH Arisings (BHA); Trial Pit Clumps (TPC)	Odour strength & description (none, weak, moderate, strong)	Groundwater occurrence (See legend for symbols used for dry, damp and wet)			Client, Project, Location: JOD (Coillte), Gortyrahilly WF , Cork	
								Minerex work item: A1	
								Page No.: 1 of 1	
								Date & time drilled / formed: 31/0/2021	
								Logged by (drawn by) [checked by]: SK	
								Drilling / Trial pitting co. & equipment: Excavator	
								Minerex Doc. Ref.: 3188-A1-008.ppt	
								Irish Transverse Mercator (ITM)**: 516247, 572555	
								Geological description	Natural / Made
N/A		N/A	N/A					**PEAT/PEATY SOIL.** Dark Brown	N
									N
						0.5		Clayey Sandy GVAVEL / TILL w/ cobbles. Medium Brown	
						1.0		Reddish brown clayey (potentially iron)	
						1.5		**EOH –** Weathered Bedrock	
						2.0			
						2.5			
						3.0			
						3.5			
						4.0			

* Unreliable data. Indication only.

** From hand held GPS

A DOMINANT GEOLOGICAL COMPONENT: Clay, Silt, Sand, Gravel, Cobble, Boulder deposit

B NON-DOMINANT GEOLOGICAL COMPONENT: Clay - Silt - Sand Gravel - Cobble - Boulder

C COLOUR: **- Brown** (LB, MB, DB) **- Grey** (LG, MG, DG) **- Mustard - Beige (tan) - Olive - Mottled - Orange**

D STIFFNESS: VST - V. Soft; ST = Soft; F = Firm; S = Stiff; VS = V. Stiff)

E LAYER ID, RECOVERY & STONE: % recovery; % >10mm stone

F NN or N

Minerex Environmental

Write additional help notes on macropores, mottling etc as space allows

F Interpretation

NN = Non-natural ground (fill / made up ground / disturbed natural); **N** = Natural ground)

Borehole/ Trial Pit Design & Completion	Soil (S) / Water (W) / Vapour (V) Sampling					Depth in metres below ground level, also (maODM) & [*Thickness*]	Geology (graphical log)	INVESTIGATION POINT LOG NUMBER	TP012	
	Sample number & interval (mbGL) *(Sample 10 kg minimum)* Red line = Single channel sample (from field) Blue line = Composite sample (generated in office or lab) Green line = Grab sample (acquired on site)	Non-Natural Ground Percentage	PID (ppm) Bagged sample (BS); Trial Pit Wall (TPW); Soil Core (SC); BH Arisings (BHA); Trial Pit Clumps (TPC)	Odour strength & description (none, weak, moderate, strong)	Groundwater occurrence (See legend for symbols used for dry, damp and wet)			Client, Project, Location	JOD (Coillte), Gortyrahilly WF , Cork	
								Minerex work item	A1	
								Page No.	1 of 1	
								Date & time drilled / formed:	31/0/2021	
								Logged by (drawn by) [checked by]:	SK	
								Drilling / Trial pitting co. & equipment	Excavator	
								Minerex Doc. Ref.	3188-A1-008.ppt	
								Irish Transverse Mercator (ITM)**	516235, 572514	
								Geological description		Natural / Made
N/A		N/A	N/A			0.0		**PEAT/PEATY SOIL.** Dark Brown		N
										N
						0.5		Sandy CLAY, Brown		
						1.0		**EOH –** Bedrock		
						1.5				
						2.0				
						2.5				
						3.0				
						3.5				
						4.0				

* Unreliable data. Indication only.

** From hand held GPS

A DOMINANT GEOLOGICAL COMPONENT: Clay, Silt, Sand, Gravel, Cobble, Boulder deposit

B NON-DOMINANT GEOLOGICAL COMPONENT: Clay - Silt - Sand Gravel - Cobble - Boulder

C COLOUR: - Brown (LB, MB, DB) - Grey (LG, MG, DG) - Mustard - Beige (tan) - Olive - Mottled - Orange

D STIFFNESS: VST - V. Soft; ST = Soft; F = Firm; S = Stiff; VS = V. Stiff)

E LAYER ID, RECOVERY & STONE: % recovery; % >10mm stone

F NN or N

F Interpretation

NN = Non-natural ground (fill / made up ground / disturbed natural); N = Natural ground)

Minerex Environmental

Write additional help notes on macropores, mottling etc as space allows

Borehole/ Trial Pit Design & Completion	Soil (S) / Water (W) / Vapour (V) Sampling					Depth in metres below ground level, also (maODM) & [*Thickness*]	Geology (graphical log)	INVESTIGATION POINT LOG NUMBER	TP013	
	Sample number & interval (mbGL) *(Sample 10 kg minimum)* Red line = Single channel sample (from field) Blue line = Composite sample (generated in office or lab) Green line = Grab sample (acquired on site)	Non-Natural Ground Percentage	PID (ppm) Bagged sample (BS); Trial Pit Wall (TPW); Soil Core (SC); BH Arisings (BHA); Trial Pit Clumps (TPC)	Odour strength & description (none, weak, moderate, strong)	Groundwater occurrence (See legend for symbols used for dry, damp and wet)			Client, Project, Location	JOD (Coillte), Gortyrahilly WF , Cork	
								Minerex work item	A1	
								Page No.	1 of 1	
								Date & time drilled / formed:	31/0/2021	
								Logged by (drawn by) [checked by]:	SK	
								Drilling / Trial pitting co. & equipment	Excavator	
								Minerex Doc. Ref.	3188-A1-008.ppt	
								Irish Transverse Mercator (ITM)**	515735, 572748	
								Geological description		Natural / Made
N/A		N/A	N/A					**PEAT/PEATY SOIL.** Dark Brown		N
								Sandy CLAY		N
	SS1					0.5		Clayey Sandy GVAVEL / TILL w/ cobbles and boulder. **Purple**		
						1.0				
						1.5		**EOH –** Boulders		
						2.0				
						2.5				
						3.0				
						3.5				
						4.0				

* Unreliable data. Indication only.

** From hand held GPS

A DOMINANT GEOLOGICAL COMPONENT: Clay, Silt, Sand, Gravel, Cobble, Boulder deposit

B NON-DOMINANT GEOLOGICAL COMPONENT: Clay - Silt - Sand Gravel - Cobble - Boulder

C COLOUR: **- Brown** (LB, MB, DB) **- Grey** (LG, MG, DG) **- Mustard - Beige (tan) - Olive - Mottled - Orange**

D STIFFNESS: VST - V. Soft; ST = Soft; F = Firm; S = Stiff; VS = V. Stiff)

E LAYER ID, RECOVERY & STONE: % recovery; % >10mm stone

F NN or N

Minerex Environmental

Write additional help notes on macropores, mottling etc as space allows

F Interpretation

NN = Non-natural ground (fill / made up ground / disturbed natural); **N** = Natural ground)

Borehole/ Trial Pit Design & Completion	Soil (S) / Water (W) / Vapour (V) Sampling					Depth in metres below ground level, also (maODM) & [*Thickness*]	Geology (graphical log)	INVESTIGATION POINT LOG NUMBER	TP014	
	Sample number & interval (mbGL) *(Sample 10 kg minimum)* Red line = Single channel sample (from field) Blue line = Composite sample (generated in office or lab) Green line = Grab sample (acquired on site)	Non-Natural Ground Percentage	PID (ppm) Bagged sample (BS); Trial Pit Wall (TPW); Soil Core (SC); BH Arisings (BHA); Trial Pit Clumps (TPC)	Odour strength & description (none, weak, moderate, strong)	Groundwater occurrence (See legend for symbols used for dry, damp and wet)			Client, Project, Location	JOD (Coillte), Gortyrahilly WF , Cork	
								Minerex work item	A1	
								Page No.	1 of 1	
								Date & time drilled / formed:	31/0/2021	
								Logged by (drawn by) [checked by]:	SK	
								Drilling / Trial pitting co. & equipment	Excavator	
								Minerex Doc. Ref.	3188-A1-008.ppt	
								Irish Transverse Mercator (ITM)**	515696, 572719	
								Geological description		Natural / Made
N/A		N/A	N/A					**PEAT/PEATY SOIL.** Dark Brown		N
								Sandy CLAY, Orange		N
								Sandy CLAY, Grey		
						0.5		Clayey Sandy GVAVEL / TILL w/ cobbles and boulder**. Purple**		
						1.0		Iron Pan		
						1.5				
						2.0		**EOH –** Boulders		
						2.5				
						3.0				
						3.5				
						4.0				

* Unreliable data. Indication only.

** From hand held GPS

A DOMINANT GEOLOGICAL COMPONENT: Clay, Silt, Sand, Gravel, Cobble, Boulder deposit

B NON-DOMINANT GEOLOGICAL COMPONENT: Clay - Silt - Sand Gravel - Cobble - Boulder

C COLOUR: **- Brown** (LB, MB, DB) **- Grey** (LG, MG, DG) **- Mustard - Beige (tan) - Olive - Mottled - Orange**

D STIFFNESS: VST - V. Soft; ST = Soft; F = Firm; S = Stiff; VS = V. Stiff)

E LAYER ID, RECOVERY & STONE: % recovery; % >10mm stone

F NN or N

Minerex Environmental

Write additional help notes on macropores, mottling etc as space allows

F Interpretation

NN = Non-natural ground (fill / made up ground / disturbed natural); **N** = Natural ground)

Borehole/ Trial Pit Design & Completion	Soil (S) / Water (W) / Vapour (V) Sampling					Depth in metres below ground level, also (maODM) & [*Thickness*]	Geology (graphical log)	INVESTIGATION POINT LOG NUMBER	TP015
								Client, Project, Location	JOD (Coillte), Gortyrahilly WF , Cork
								Minerex work item	A1
								Page No.	1 of 1
								Date & time drilled / formed:	01/06/2021
								Logged by (drawn by) [checked by]:	SK
								Drilling / Trial pitting co. & equipment	Excavator
								Minerex Doc. Ref.	3188-A1-008.ppt
								Irish Transverse Mercator (ITM)**	515517, 572081
								Geological description	Natural / Made
N/A		N/A	N/A					**PEAT/PEATY SOIL.** Dark Brown	N
								Sandy CLAY, Grey	N
						0.5		Clayey Sandy GVAVEL / TILL w/ cobbles and boulder**. Purple**	
						1.0			
						1.5			
						2.0		Bigger Boulders	
						2.5			
						3.0		**EOH –** Boulders	
						3.5			
						4.0			

Sample number & interval (mbGL) *(Sample 10 kg minimum)*

Red line = Single channel sample (from field)

Blue line = Composite sample (generated in office or lab)

Green line = Grab sample (acquired on site)

Non-Natural Ground Percentage

PID (ppm) Bagged sample (BS); Trial Pit Wall (TPW); Soil Core (SC); BH Arisings (BHA); Trial Pit Clumps (TPC)

Odour strength & description (none, weak, moderate, strong)

Groundwater occurrence (See legend for symbols used for dry, damp and wet)

* Unreliable data. Indication only.

** From hand held GPS

A DOMINANT GEOLOGICAL COMPONENT: Clay, Silt, Sand, Gravel, Cobble, Boulder deposit

B NON-DOMINANT GEOLOGICAL COMPONENT: Clay - Silt - Sand Gravel - Cobble - Boulder

C COLOUR: **- Brown** (LB, MB, DB) **- Grey** (LG, MG, DG) **- Mustard - Beige (tan) - Olive - Mottled - Orange**

D STIFFNESS: VST - V. Soft; ST = Soft; F = Firm; S = Stiff; VS = V. Stiff)

E LAYER ID, RECOVERY & STONE: % recovery; % >10mm stone

F NN or N

F Interpretation

NN = Non-natural ground (fill / made up ground / disturbed natural); **N** = Natural ground)

Minerex Environmental

Write additional help notes on macropores, mottling etc as space allows

Borehole/ Trial Pit Design & Completion	Soil (S) / Water (W) / Vapour (V) Sampling					Depth in metres below ground level, also (maODM) & [*Thickness*]	Geology (graphical log)	INVESTIGATION POINT LOG NUMBER	TP016
	Sample number & interval (mbGL) *(Sample 10 kg minimum)* Red line = Single channel sample (from field) Blue line = Composite sample (generated in office or lab) Green line = Grab sample (acquired on site)	Non-Natural Ground Percentage	PID (ppm) Bagged sample (BS); Trial Pit Wall (TPW); Soil Core (SC); BH Arisings (BHA); Trial Pit Clumps (TPC)	Odour strength & description (none, weak, moderate, strong)	Groundwater occurrence (See legend for symbols used for dry, damp and wet)			Client, Project, Location	JOD (Coillte), Gortyrahilly WF , Cork
								Minerex work item	A1
								Page No.	1 of 1
								Date & time drilled / formed:	01/06/2021
								Logged by (drawn by) [checked by]:	SK
								Drilling / Trial pitting co. & equipment	Excavator
								Minerex Doc. Ref.	3188-A1-008.ppt
								Irish Transverse Mercator (ITM)**	515539, 572016
								Geological description	Natural / Made
N/A		N/A	N/A					**PEAT/PEATY SOIL.** Dark Brown	N
								Sandy CLAY, Medium Brown	
						0.5		Clayey Sandy GVAVEL / TILL w/ cobbles and boulder. Purple	
						1.0		Bigger Boulders	
						1.5		**EOH –** Boulders	
						2.0			
						2.5			
						3.0			
						3.5			
						4.0			

* Unreliable data. Indication only.

** From hand held GPS

A DOMINANT GEOLOGICAL COMPONENT: Clay, Silt, Sand, Gravel, Cobble, Boulder deposit

B NON-DOMINANT GEOLOGICAL COMPONENT: Clay - Silt - Sand Gravel - Cobble - Boulder

C COLOUR: **- Brown** (LB, MB, DB) **- Grey** (LG, MG, DG) **- Mustard - Beige (tan) - Olive - Mottled - Orange**

D STIFFNESS: VST - V. Soft; ST = Soft; F = Firm; S = Stiff; VS = V. Stiff)

E LAYER ID, RECOVERY & STONE: % recovery; % >10mm stone

F NN or N

Minerex Environmental

Write additional help notes on macropores, mottling etc as space allows

F Interpretation

NN = Non-natural ground (fill / made up ground / disturbed natural); **N** = Natural ground)

Borehole/ Trial Pit Design & Completion	Soil (S) / Water (W) / Vapour (V) Sampling					Depth in metres below ground level, also (maODM) & [*Thickness*]	Geology (graphical log)	INVESTIGATION POINT LOG NUMBER	TP017	
	Sample number & interval (mbGL) *(Sample 10 kg minimum)* Red line = Single channel sample (from field) Blue line = Composite sample (generated in office or lab) Green line = Grab sample (acquired on site)	Non-Natural Ground Percentage	PID (ppm) Bagged sample (BS); Trial Pit Wall (TPW); Soil Core (SC); BH Arisings (BHA); Trial Pit Clumps (TPC)	Odour strength & description (none, weak, moderate, strong)	Groundwater occurrence (See legend for symbols used for dry, damp and wet)			Client, Project, Location	JOD (Coillte), Gortyrahilly WF , Cork	
								Minerex work item	A1	
								Page No.	1 of 1	
								Date & time drilled / formed:	01/06/2021	
								Logged by (drawn by) [checked by]:	SK	
								Drilling / Trial pitting co. & equipment	Excavator	
								Minerex Doc. Ref.	3188-A1-008.ppt	
								Irish Transverse Mercator (ITM)**	515229, 572236	
								Geological description		Natural / Made
N/A		N/A	N/A			0.0		**PEAT. Acrotelm.** Brown		N
						0.5		**PEAT. Catotelm.** Dark Brown		
						1.0				
						1.5		Weathered Bedrock, Purple, Shaley.		
						2.0		**EOH –** Bedrock		
						2.5				
						3.0				
						3.5				
						4.0				

* Unreliable data. Indication only.

** From hand held GPS

A DOMINANT GEOLOGICAL COMPONENT: Clay, Silt, Sand, Gravel, Cobble, Boulder deposit

B NON-DOMINANT GEOLOGICAL COMPONENT: Clay - Silt - Sand Gravel - Cobble - Boulder

C COLOUR: **- Brown** (LB, MB, DB) **- Grey** (LG, MG, DG) **- Mustard - Beige (tan) - Olive - Mottled - Orange**

D STIFFNESS: VST - V. Soft; ST = Soft; F = Firm; S = Stiff; VS = V. Stiff)

E LAYER ID, RECOVERY & STONE: % recovery; % >10mm stone

F NN or N

Minerex Environmental

Write additional help notes on macropores, mottling etc as space allows

F Interpretation

NN = Non-natural ground (fill / made up ground / disturbed natural); **N** = Natural ground)

Borehole/ Trial Pit Design & Completion	Soil (S) / Water (W) / Vapour (V) Sampling					Depth in metres below ground level, also (maODM) & [*Thickness*]	Geology (graphical log)	INVESTIGATION POINT LOG NUMBER	TP018	
	Sample number & interval (mbGL) *(Sample 10 kg minimum)* Red line = Single channel sample (from field) Blue line = Composite sample (generated in office or lab) Green line = Grab sample (acquired on site)	Non-Natural Ground Percentage	PID (ppm) Bagged sample (BS); Trial Pit Wall (TPW); Soil Core (SC); BH Arisings (BHA); Trial Pit Clumps (TPC)	Odour strength & description (none, weak, moderate, strong)	Groundwater occurrence (See legend for symbols used for dry, damp and wet)			Client, Project, Location	JOD (Coillte), Gortyrahilly WF , Cork	
								Minerex work item	A1	
								Page No.	1 of 1	
								Date & time drilled / formed:	01/06/2021	
								Logged by (drawn by) [checked by]:	SK	
								Drilling / Trial pitting co. & equipment	Excavator	
								Minerex Doc. Ref.	3188-A1-008.ppt	
								Irish Transverse Mercator (ITM)**	515190, 572174	
								Geological description		Natural / Made
N/A		N/A	N/A					**PEAT/PEATY SOIL.** Dark Brown **EOH –** Weathered Bedrock		N
						0.5				
						1.0				
						1.5				
						2.0				
						2.5				
						3.0				
						3.5				
						4.0				

* Unreliable data. Indication only.

** From hand held GPS

A DOMINANT GEOLOGICAL COMPONENT: Clay, Silt, Sand, Gravel, Cobble, Boulder deposit

B NON-DOMINANT GEOLOGICAL COMPONENT: Clay - Silt - Sand Gravel - Cobble - Boulder

C COLOUR: **- Brown** (LB, MB, DB) **- Grey** (LG, MG, DG) **- Mustard - Beige (tan) - Olive - Mottled - Orange**

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E LAYER ID, RECOVERY & STONE: % recovery; % >10mm stone

F NN or N

Minerex Environmental

Write additional help notes on macropores, mottling etc as space allows

F Interpretation

NN = Non-natural ground (fill / made up ground / disturbed natural); **N** = Natural ground)

Borehole/ Trial Pit Design & Completion	Soil (S) / Water (W) / Vapour (V) Sampling					Depth in metres below ground level, also (maODM) & [*Thickness*]	Geology (graphical log)	INVESTIGATION POINT LOG NUMBER	TP019	
	Sample number & interval (mbGL) *(Sample 10 kg minimum)* Red line = Single channel sample (from field) Blue line = Composite sample (generated in office or lab) Green line = Grab sample (acquired on site)	Non-Natural Ground Percentage	PID (ppm) Bagged sample (BS); Trial Pit Wall (TPW); Soil Core (SC); BH Arisings (BHA); Trial Pit Clumps (TPC)	Odour strength & description (none, weak, moderate, strong)	Groundwater occurrence (See legend for symbols used for dry, damp and wet)			Client, Project, Location	JOD (Coillte), Gortyrahilly WF , Cork	
								Minerex work item	A1	
								Page No.	1 of 1	
								Date & time drilled / formed:	01/06/2021	
								Logged by (drawn by) [checked by]:	SK	
								Drilling / Trial pitting co. & equipment	Excavator	
								Minerex Doc. Ref.	3188-A1-008.ppt	
								Irish Transverse Mercator (ITM)**	515016, 572084	
								Geological description		Natural / Made
N/A		N/A	N/A					**PEAT/PEATY SOIL.** Dark Brown		N
								Sandy Gravelly **CLAY** w/ cobbles**.** Medium Brown		
						0.5				
								Weathered Bedrock, Purple, Shaley		
						1.0		**EOH –** Weathered Bedrock		
						1.5				
						2.0				
						2.5				
						3.0				
						3.5				
						4.0				

* Unreliable data. Indication only.

** From hand held GPS

A DOMINANT GEOLOGICAL COMPONENT: Clay, Silt, Sand, Gravel, Cobble, Boulder deposit

B NON-DOMINANT GEOLOGICAL COMPONENT: Clay - Silt - Sand Gravel - Cobble - Boulder

C COLOUR: **- Brown** (LB, MB, DB) **- Grey** (LG, MG, DG) **- Mustard - Beige (tan) - Olive - Mottled - Orange**

D STIFFNESS: VST - V. Soft; ST = Soft; F = Firm; S = Stiff; VS = V. Stiff)

E LAYER ID, RECOVERY & STONE: % recovery; % >10mm stone

F NN or N

Minerex Environmental

Write additional help notes on macropores, mottling etc as space allows

F Interpretation

NN = Non-natural ground (fill / made up ground / disturbed natural); **N** = Natural ground)

Borehole/ Trial Pit Design & Completion	Soil (S) / Water (W) / Vapour (V) Sampling					Depth in metres below ground level, also (maODM) & [*Thickness*]	Geology (graphical log)	INVESTIGATION POINT LOG NUMBER	TP020	
	Sample number & interval (mbGL) *(Sample 10 kg minimum)* Red line = Single channel sample (from field) Blue line = Composite sample (generated in office or lab) Green line = Grab sample (acquired on site)	Non-Natural Ground Percentage	PID (ppm) Bagged sample (BS); Trial Pit Wall (TPW); Soil Core (SC); BH Arisings (BHA); Trial Pit Clumps (TPC)	Odour strength & description (none, weak, moderate, strong)	Groundwater occurrence (See legend for symbols used for dry, damp and wet)			Client, Project, Location	JOD (Coillte), Gortyrahilly WF , Cork	
								Minerex work item	A1	
								Page No.	1 of 1	
								Date & time drilled / formed:	01/06/2021	
								Logged by (drawn by) [checked by]:	SK	
								Drilling / Trial pitting co. & equipment	Excavator	
								Minerex Doc. Ref.	3188-A1-008.ppt	
								Irish Transverse Mercator (ITM)**	514874, 571970	
								Geological description		Natural / Made
N/A		N/A	N/A					**PEAT/PEATY SOIL.** Dark Brown		N
								Sandy Gravelly **CLAY** w/ cobbles**.** Medium Brown		
						0.5		**EOH –** Weathered Bedrock, Purple		
						1.0				
						1.5				
						2.0				
						2.5				
						3.0				
						3.5				
						4.0				

* Unreliable data. Indication only.

** From hand held GPS

A DOMINANT GEOLOGICAL COMPONENT: Clay, Silt, Sand, Gravel, Cobble, Boulder deposit

B NON-DOMINANT GEOLOGICAL COMPONENT: Clay - Silt - Sand Gravel - Cobble - Boulder

C COLOUR: **- Brown** (LB, MB, DB) **- Grey** (LG, MG, DG) **- Mustard - Beige (tan) - Olive - Mottled - Orange**

D STIFFNESS: VST - V. Soft; ST = Soft; F = Firm; S = Stiff; VS = V. Stiff)

E LAYER ID, RECOVERY & STONE: % recovery; % >10mm stone

F NN or N

Minerex Environmental

Write additional help notes on macropores, mottling etc as space allows

F Interpretation

NN = Non-natural ground (fill / made up ground / disturbed natural); **N** = Natural ground)

Borehole/ Trial Pit Design & Completion	Soil (S) / Water (W) / Vapour (V) Sampling					Depth in metres below ground level, also (maODM) & [*Thickness*]	Geology (graphical log)	INVESTIGATION POINT LOG NUMBER	TP021	
	Sample number & interval (mbGL) *(Sample 10 kg minimum)* Red line = Single channel sample (from field) Blue line = Composite sample (generated in office or lab) Green line = Grab sample (acquired on site)	Non-Natural Ground Percentage	PID (ppm) Bagged sample (BS); Trial Pit Wall (TPW); Soil Core (SC); BH Arisings (BHA); Trial Pit Clumps (TPC)	Odour strength & description (none, weak, moderate, strong)	Groundwater occurrence (See legend for symbols used for dry, damp and wet)			Client, Project, Location	JOD (Coillte), Gortyrahilly WF , Cork	
								Minerex work item	A1	
								Page No.	1 of 1	
								Date & time drilled / formed:	01/06/2021	
								Logged by (drawn by) [checked by]:	SK	
								Drilling / Trial pitting co. & equipment	Excavator	
								Minerex Doc. Ref.	3188-A1-008.ppt	
								Irish Transverse Mercator (ITM)**	514908, 572015	
								Geological description		Natural / Made
N/A		N/A	N/A					**PEAT/PEATY SOIL.** Dark Brown		N
								Sandy GRAVEL / TILL w/ cobbles. Brown		
						0.5		Weathered BEDROCK, Purple, Shaley		
						1.0		**EOH –** Weathered Bedrock, Purple		
						1.5				
						2.0				
						2.5				
						3.0				
						3.5				
						4.0				

* Unreliable data. Indication only.

** From hand held GPS

A	B	C	D	E	F
DOMINANT GEOLOGICAL COMPONENT Clay, Silt, Sand, Gravel, Cobble, Boulder deposit	**NON-DOMINANT GEOLOGICAL** COMPONENT Clay - Silt - Sand Gravel - Cobble - Boulder	**COLOUR** **- Brown** (LB, MB, DB) **- Grey** (LG, MG, DG) **- Mustard** **- Beige (tan)** **- Olive** **- Mottled** **- Orange**	**STIFFNESS** VST - V. Soft ST = Soft F = Firm S = Stiff VS = V. Stiff)	**LAYER ID, RECOVERY & STONE** % recovery % >10mm stone	**NN or N**

Minerex Environmental

Write additional help notes on macropores, mottling etc as space allows

F Interpretation

NN = Non-natural ground (fill / made up ground / disturbed natural); **N** = Natural ground)

Borehole/ Trial Pit Design & Completion	Soil (S) / Water (W) / Vapour (V) Sampling					Depth in metres below ground level, also (maODM) & [*Thickness*]	Geology (graphical log)	INVESTIGATION POINT LOG NUMBER	TP022	
	Sample number & interval (mbGL) *(Sample 10 kg minimum)* Red line = Single channel sample (from field) Blue line = Composite sample (generated in office or lab) Green line = Grab sample (acquired on site)	Non-Natural Ground Percentage	PID (ppm) Bagged sample (BS); Trial Pit Wall (TPW); Soil Core (SC); BH Arisings (BHA); Trial Pit Clumps (TPC)	Odour strength & description (none, weak, moderate, strong)	Groundwater occurrence (See legend for symbols used for dry, damp and wet)			Client, Project, Location	JOD (Coillte), Gortyrahilly WF , Cork	
								Minerex work item	A1	
								Page No.	1 of 1	
								Date & time drilled / formed:	01/06/2021	
								Logged by (drawn by) [checked by]:	SK	
								Drilling / Trial pitting co. & equipment	Excavator	
								Minerex Doc. Ref.	3188-A1-008.ppt	
								Irish Transverse Mercator (ITM)**	515125, 572137	
								Geological description		Natural / Made
N/A		N/A	N/A					**PEAT/PEATY SOIL.** Dark Brown		N
								Sandy GRAVEL / TILL w/ cobbles. Grey Brown		
						0.5		Weathered BEDROCK, Purple, Shaley		
								EOH – Weathered Bedrock, Purple		
						1.0				
						1.5				
						2.0				
						2.5				
						3.0				
						3.5				
						4.0				

* Unreliable data. Indication only.

** From hand held GPS

A DOMINANT GEOLOGICAL COMPONENT: Clay, Silt, Sand, Gravel, Cobble, Boulder deposit

B NON-DOMINANT GEOLOGICAL COMPONENT: Clay - Silt - Sand Gravel - Cobble - Boulder

C COLOUR: **- Brown** (LB, MB, DB) **- Grey** (LG, MG, DG) **- Mustard - Beige (tan) - Olive - Mottled - Orange**

D STIFFNESS: VST - V. Soft; ST = Soft; F = Firm; S = Stiff; VS = V. Stiff)

E LAYER ID, RECOVERY & STONE: % recovery; % >10mm stone

F NN or N

Minerex Environmental

Write additional help notes on macropores, mottling etc as space allows

F Interpretation

NN = Non-natural ground (fill / made up ground / disturbed natural); **N** = Natural ground)

Borehole/ Trial Pit Design & Completion	Soil (S) / Water (W) / Vapour (V) Sampling					Depth in metres below ground level, also (maODM) & [*Thickness*]	Geology (graphical log)	INVESTIGATION POINT LOG NUMBER	TP023	
	Sample number & interval (mbGL) *(Sample 10 kg minimum)* Red line = Single channel sample (from field) Blue line = Composite sample (generated in office or lab) Green line = Grab sample (acquired on site)	Non-Natural Ground Percentage	PID (ppm) Bagged sample (BS); Trial Pit Wall (TPW); Soil Core (SC); BH Arisings (BHA); Trial Pit Clumps (TPC)	Odour strength & description (none, weak, moderate, strong)	Groundwater occurrence (See legend for symbols used for dry, damp and wet)			Client, Project, Location	JOD (Coillte), Gortyrahilly WF , Cork	
								Minerex work item	A1	
								Page No.	1 of 1	
								Date & time drilled / formed:	01/06/2021	
								Logged by (drawn by) [checked by]:	SK	
								Drilling / Trial pitting co. & equipment	Excavator	
								Minerex Doc. Ref.	3188-A1-008.ppt	
								Irish Transverse Mercator (ITM)**	515327, 572283	
								Geological description		Natural / Made
N/A		N/A	N/A			0.0		**PEAT. Acrotelm.** Brown		N
						0.5		**PEAT. Catotelm**. Dark Brown		
						1.0		Sandy GRAVEL / TILL w/ cobbles.		
						1.5		Weathered BEDROCK, Shaley		
						2.0		**EOH –** Weathered Bedrock		
						2.5				
						3.0				
						3.5				
						4.0				

* Unreliable data. Indication only.

** From hand held GPS

A DOMINANT GEOLOGICAL COMPONENT: Clay, Silt, Sand, Gravel, Cobble, Boulder deposit

B NON-DOMINANT GEOLOGICAL COMPONENT: Clay - Silt - Sand Gravel - Cobble - Boulder

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F Interpretation

NN = Non-natural ground (fill / made up ground / disturbed natural); **N** = Natural ground)

Borehole/ Trial Pit Design & Completion	Soil (S) / Water (W) / Vapour (V) Sampling					Depth in metres below ground level, also (maODM) & [*Thickness*]	Geology (graphical log)	INVESTIGATION POINT LOG NUMBER	TP024	
	Sample number & interval (mbGL) *(Sample 10 kg minimum)* Red line = Single channel sample (from field) Blue line = Composite sample (generated in office or lab) Green line = Grab sample (acquired on site)	Non-Natural Ground Percentage	PID (ppm) Bagged sample (BS); Trial Pit Wall (TPW); Soil Core (SC); BH Arisings (BHA); Trial Pit Clumps (TPC)	Odour strength & description (none, weak, moderate, strong)	Groundwater occurrence (See legend for symbols used for dry, damp and wet)			Client, Project, Location	JOD (Coillte), Gortyrahilly WF , Cork	
								Minerex work item	A1	
								Page No.	1 of 1	
								Date & time drilled / formed:	01/06/2021	
								Logged by (drawn by) [checked by]:	SK	
								Drilling / Trial pitting co. & equipment	Excavator	
								Minerex Doc. Ref.	3188-A1-008.ppt	
								Irish Transverse Mercator (ITM)**	515600, 573015	
								Geological description		Natural / Made
N/A		N/A	N/A					**PEAT/PEATY SOIL.** Dark Brown		N
								Sandy CLAY w/ cobbles. Medium Brown.		
						0.5		Sandy GRAVEL / TILL w/ cobbles and boulders. Grey Blue.		
						1.0				
						1.5		**Iron Pan**		
	SS1					2.0		Bigger boulders.		
						2.5				
						3.0		**EOH –** Boulders		
						3.5				
						4.0				

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** From hand held GPS

A DOMINANT GEOLOGICAL COMPONENT: Clay, Silt, Sand, Gravel, Cobble, Boulder deposit

B NON-DOMINANT GEOLOGICAL COMPONENT: Clay - Silt - Sand Gravel - Cobble - Boulder

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F NN or N

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Minerex Environmental

Write additional help notes on macropores, mottling etc as space allows

Borehole/ Trial Pit Design & Completion	Soil (S) / Water (W) / Vapour (V) Sampling					Depth in metres below ground level, also (maODM) & [*Thickness*]	Geology (graphical log)	INVESTIGATION POINT LOG NUMBER	TP025	
	Sample number & interval (mbGL) *(Sample 10 kg minimum)* Red line = Single channel sample (from field) Blue line = Composite sample (generated in office or lab) Green line = Grab sample (acquired on site)	Non-Natural Ground Percentage	PID (ppm) Bagged sample (BS); Trial Pit Wall (TPW); Soil Core (SC); BH Arisings (BHA); Trial Pit Clumps (TPC)	Odour strength & description (none, weak, moderate, strong)	Groundwater occurrence (See legend for symbols used for dry, damp and wet)			Client, Project, Location	JOD (Coillte), Gortyrahilly WF , Cork	
								Minerex work item	A1	
								Page No.	1 of 1	
								Date & time drilled / formed:	01/06/2021	
								Logged by (drawn by) [checked by]:	SK	
								Drilling / Trial pitting co. & equipment	Excavator	
								Minerex Doc. Ref.	3188-A1-008.ppt	
								Irish Transverse Mercator (ITM)**	515489, 572983	
								Geological description		Natural / Made
N/A		N/A	N/A					**PEAT/PEATY SOIL.** Dark Brown		N
								Sandy CLAY w/ cobbles. Medium Brown.		
						0.5		Sandy GRAVEL / TILL w/ cobbles and boulders. Grey Blue.		
						1.0				
						1.5		**Iron Pan**		
						2.0		Bigger boulders.		
						2.5		**EOH –** Boulders		
						3.0				
						3.5				
						4.0				

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** From hand held GPS

A DOMINANT GEOLOGICAL COMPONENT: Clay, Silt, Sand, Gravel, Cobble, Boulder deposit

B NON-DOMINANT GEOLOGICAL COMPONENT: Clay - Silt - Sand Gravel - Cobble - Boulder

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F NN or N

Minerex Environmental

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NN = Non-natural ground (fill / made up ground / disturbed natural); **N** = Natural ground)

Borehole/ Trial Pit Design & Completion	Soil (S) / Water (W) / Vapour (V) Sampling					Depth in metres below ground level, also (maODM) & [*Thickness*]	Geology (graphical log)	INVESTIGATION POINT LOG NUMBER	TP026	
	Sample number & interval (mbGL) *(Sample 10 kg minimum)* Red line = Single channel sample (from field) Blue line = Composite sample (generated in office or lab) Green line = Grab sample (acquired on site)	Non-Natural Ground Percentage	PID (ppm) Bagged sample (BS); Trial Pit Wall (TPW); Soil Core (SC); BH Arisings (BHA); Trial Pit Clumps (TPC)	Odour strength & description (none, weak, moderate, strong)	Groundwater occurrence (See legend for symbols used for dry, damp and wet)			Client, Project, Location	JOD (Coillte), Gortyrahilly WF , Cork	
								Minerex work item	A1	
								Page No.	1 of 1	
								Date & time drilled / formed:	01/06/2021	
								Logged by (drawn by) [checked by]:	SK	
								Drilling / Trial pitting co. & equipment	Excavator	
								Minerex Doc. Ref.	3188-A1-008.ppt	
								Irish Transverse Mercator (ITM)**	515521, 573065	
								Geological description		Natural / Made
N/A		N/A	N/A					**PEAT/PEATY SOIL.** Dark Brown		N
								Clayey Sandy GRAVEL / TILL w/ cobbles and boulders. Orange (**Iron Pan ?**)		
					Dry!	0.5		Clayey Sandy GRAVEL / TILL w/ cobbles and boulders. Pale Brown Grey		
								Clayey Sandy GRAVEL / TILL w/ cobbles and boulders. Blue Grey		
					Dry!	1.0				
						1.5				
						2.0				
					Dry!	2.5		**EOH –** Boulders		
						3.0				
						3.5				
						4.0				

* Unreliable data. Indication only.

** From hand held GPS

A DOMINANT GEOLOGICAL COMPONENT: Clay, Silt, Sand, Gravel, Cobble, Boulder deposit

B NON-DOMINANT GEOLOGICAL COMPONENT: Clay - Silt - Sand Gravel - Cobble - Boulder

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D STIFFNESS: VST - V. Soft; ST = Soft; F = Firm; S = Stiff; VS = V. Stiff)

E LAYER ID, RECOVERY & STONE: % recovery; % >10mm stone

F NN or N

Minerex Environmental

Write additional help notes on macropores, mottling etc as space allows

F Interpretation

NN = Non-natural ground (fill / made up ground / disturbed natural); **N** = Natural ground)

Borehole/ Trial Pit Design & Completion	Soil (S) / Water (W) / Vapour (V) Sampling					Depth in metres below ground level, also (maODM) & [*Thickness*]	Geology (graphical log)	Geological description	Natural / Made
	Sample number & interval (mbGL) *(Sample 10 kg minimum)* Red line = Single channel sample (from field) Blue line = Composite sample (generated in office or lab) Green line = Grab sample (acquired on site)	Non-Natural Ground Percentage	PID (ppm) Bagged sample (BS); Trial Pit Wall (TPW); Soil Core (SC); BH Arisings (BHA); Trial Pit Clumps (TPC)	Odour strength & description (none, weak, moderate, strong)	Groundwater occurrence (See legend for symbols used for dry, damp and wet)				
N/A		N/A	N/A					**PEAT/PEATY SOIL.** Dark Brown	N
						0.5		Sandy CLAY w/ gravel, cobbles and boulders. Medium Brown. Big Boulder	
						1.0			
						1.5		Clayey Sandy GRAVEL / TILL w/ cobbles and boulders. Blue Grey	
						2.0		**EOH –** Boulders	
						2.5			
						3.0			
						3.5			
						4.0			

INVESTIGATION POINT LOG NUMBER	TP027	
Client, Project, Location	JOD (Coillte), Gortyrahilly WF , Cork	
Minerex work item	A1	
Page No.	1 of 1	
Date & time drilled / formed:	01/06/2021	
Logged by (drawn by) [checked by]:	SK	
Drilling / Trial pitting co. & equipment	Excavator	
Minerex Doc. Ref.	3188-A1-008.ppt	
Irish Transverse Mercator (ITM)**	515609, 573106	

* Unreliable data. Indication only.

** From hand held GPS

A DOMINANT GEOLOGICAL COMPONENT: Clay, Silt, Sand, Gravel, Cobble, Boulder deposit

B NON-DOMINANT GEOLOGICAL COMPONENT: Clay - Silt - Sand Gravel - Cobble - Boulder

C COLOUR: **- Brown** (LB, MB, DB) **- Grey** (LG, MG, DG) **- Mustard - Beige (tan) - Olive - Mottled - Orange**

D STIFFNESS: VST - V. Soft; ST = Soft; F = Firm; S = Stiff; VS = V. Stiff)

E LAYER ID, RECOVERY & STONE: % recovery; % >10mm stone

F NN or N

F Interpretation

NN = Non-natural ground (fill / made up ground / disturbed natural); **N** = Natural ground)

Minerex Environmental

Write additional help notes on macropores, mottling etc as space allows

Borehole/ Trial Pit Design & Completion	Soil (S) / Water (W) / Vapour (V) Sampling					Depth in metres below ground level, also (maODM) & [*Thickness*]	Geology (graphical log)	INVESTIGATION POINT LOG NUMBER	TP028	
	Sample number & interval (mbGL) *(Sample 10 kg minimum)* Red line = Single channel sample (from field) Blue line = Composite sample (generated in office or lab) Green line = Grab sample (acquired on site)	Non-Natural Ground Percentage	PID (ppm) Bagged sample (BS); Trial Pit Wall (TPW); Soil Core (SC); BH Arisings (BHA); Trial Pit Clumps (TPC)	Odour strength & description (none, weak, moderate, strong)	Groundwater occurrence (See legend for symbols used for dry, damp and wet)			Client, Project, Location	JOD (Coillte), Gortyrahilly WF , Cork	
								Minerex work item	A1	
								Page No.	1 of 1	
								Date & time drilled / formed:	01/06/2021	
								Logged by (drawn by) [checked by]:	SK	
								Drilling / Trial pitting co. & equipment	Excavator	
								Minerex Doc. Ref.	3188-A1-008.ppt	
								Irish Transverse Mercator (ITM)**	515406, 572625	
								Geological description		Natural / Made
N/A		N/A	N/A					**PEAT/PEATY SOIL.** Dark Brown		N
								Sandy CLAY w/ gravel, cobbles and boulders. Medium Brown.		
						0.5		Clayey Sandy GRAVEL / TILL w/ cobbles and boulders. Dark Purple Brown		
						1.0		**Iron Pan**		
						1.5		More cobbles and boulders		
						2.0				
						2.5		**EOH –** Boulders		
						3.0				
						3.5				
						4.0				

* Unreliable data. Indication only.

** From hand held GPS

A DOMINANT GEOLOGICAL COMPONENT: Clay, Silt, Sand, Gravel, Cobble, Boulder deposit

B NON-DOMINANT GEOLOGICAL COMPONENT: Clay - Silt - Sand Gravel - Cobble - Boulder

C COLOUR: **- Brown** (LB, MB, DB) **- Grey** (LG, MG, DG) **- Mustard - Beige (tan) - Olive - Mottled - Orange**

D STIFFNESS: VST - V. Soft; ST = Soft; F = Firm; S = Stiff; VS = V. Stiff)

E LAYER ID, RECOVERY & STONE: % recovery; % >10mm stone

F NN or N

Minerex Environmental

Write additional help notes on macropores, mottling etc as space allows

F Interpretation

NN = Non-natural ground (fill / made up ground / disturbed natural); **N** = Natural ground)

Borehole/ Trial Pit Design & Completion	Soil (S) / Water (W) / Vapour (V) Sampling					Depth in metres below ground level, also (maODM) & [*Thickness*]	Geology (graphical log)	INVESTIGATION POINT LOG NUMBER	TP029	
	Sample number & interval (mbGL) *(Sample 10 kg minimum)* Red line = Single channel sample (from field) Blue line = Composite sample (generated in office or lab) Green line = Grab sample (acquired on site)	Non-Natural Ground Percentage	PID (ppm) Bagged sample (BS); Trial Pit Wall (TPW); Soil Core (SC); BH Arisings (BHA); Trial Pit Clumps (TPC)	Odour strength & description (none, weak, moderate, strong)	Groundwater occurrence (See legend for symbols used for dry, damp and wet)			Client, Project, Location	JOD (Coillte), Gortyrahilly WF , Cork	
								Minerex work item	A1	
								Page No.	1 of 1	
								Date & time drilled / formed:	01/06/2021	
								Logged by (drawn by) [checked by]:	SK	
								Drilling / Trial pitting co. & equipment	Excavator	
								Minerex Doc. Ref.	3188-A1-008.ppt	
								Irish Transverse Mercator (ITM)**	515762, 573427	
								Geological description		Natural / Made
N/A		N/A	N/A					**PEAT/PEATY SOIL.** Dark Brown		Made
								Sandy Gravelly CLAY w/ cobbles and boulders. Orange (**Iron Pan ?**).		Made
						0.5		Sandy Gravelly CLAY w/ cobbles and boulders. Blue Grey.		
						1.0		Sandy Gravelly CLAY w/ cobbles and boulders. Orange Brown.		
						1.5		Sandy Gravelly CLAY w/ cobbles and boulders. Blue Grey.		
						2.0				
						2.5		**EOH**		
						3.0				
						3.5				
						4.0				

* Unreliable data. Indication only.

** From hand held GPS

A DOMINANT GEOLOGICAL COMPONENT: Clay, Silt, Sand, Gravel, Cobble, Boulder deposit

B NON-DOMINANT GEOLOGICAL COMPONENT: Clay - Silt - Sand Gravel - Cobble - Boulder

C COLOUR: **- Brown** (LB, MB, DB) **- Grey** (LG, MG, DG) **- Mustard - Beige (tan) - Olive - Mottled - Orange**

D STIFFNESS: VST - V. Soft; ST = Soft; F = Firm; S = Stiff; VS = V. Stiff)

E LAYER ID, RECOVERY & STONE: % recovery; % >10mm stone

F NN or N

Minerex Environmental

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F Interpretation

NN = Non-natural ground (fill / made up ground / disturbed natural); **N** = Natural ground)

Borehole/ Trial Pit Design & Completion	Soil (S) / Water (W) / Vapour (V) Sampling					Depth in metres below ground level, also (maODM) & [*Thickness*]	Geology (graphical log)	INVESTIGATION POINT LOG NUMBER	TP030
								Client, Project, Location	JOD (Coillte), Gortyrahilly WF , Cork
								Minerex work item	A1
								Page No.	1 of 1
								Date & time drilled / formed:	01/06/2021
								Logged by (drawn by) [checked by]:	SK
								Drilling / Trial pitting co. & equipment	Excavator
								Minerex Doc. Ref.	3188-A1-008.ppt
								Irish Transverse Mercator (ITM)**	515806, 573553
	Sample number & interval (mbGL) *(Sample 10 kg minimum)* **Red line** = Single channel sample (from field) **Blue line** = Composite sample (generated in office or lab) **Green line** = Grab sample (acquired on site)	**Non-Natural Ground Percentage**	**PID (ppm)** Bagged sample (BS); Trial Pit Wall (TPW); Soil Core (SC); BH Arisings (BHA); Trial Pit Clumps (TPC)	**Odour** strength & description (none, weak, moderate, strong)	**Groundwater** occurrence (See legend for symbols used for dry, damp and wet)			**Geological description**	**Natural / Made**
N/A		N/A	N/A					**PEAT/PEATY SOIL.** Dark Brown	Made
								Sandy Gravelly CLAY w/ cobbles and boulders. Dark Brown.	
						0.5		Clayey Sandy GRAVEL / TILL w/ cobbles and boulders. Puprle Grey.	
	SS1					1.0			
						1.5			
						2.0		Big Boulders	
						2.5		**EOH –** Big Boulders	
						3.0			
						3.5			
						4.0			

* Unreliable data. Indication only.

** From hand held GPS

A DOMINANT GEOLOGICAL COMPONENT: Clay, Silt, Sand, Gravel, Cobble, Boulder deposit

B NON-DOMINANT GEOLOGICAL COMPONENT: Clay - Silt - Sand Gravel - Cobble - Boulder

C COLOUR: **- Brown** (LB, MB, DB) **- Grey** (LG, MG, DG) **- Mustard - Beige (tan) - Olive - Mottled - Orange**

D STIFFNESS: VST - V. Soft; ST = Soft; F = Firm; S = Stiff; VS = V. Stiff)

E LAYER ID, RECOVERY & STONE: % recovery; % >10mm stone

F NN or N

F Interpretation

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Minerex Environmental

Write additional help notes on macropores, mottling etc as space allows

Borehole/ Trial Pit Design & Completion	Soil (S) / Water (W) / Vapour (V) Sampling					Depth in metres below ground level, also (maODM) & [*Thickness*]	Geology (graphical log)	INVESTIGATION POINT LOG NUMBER	TP031	
	Sample number & interval (mbGL) *(Sample 10 kg minimum)* Red line = Single channel sample (from field) Blue line = Composite sample (generated in office or lab) Green line = Grab sample (acquired on site)	Non-Natural Ground Percentage	PID (ppm) Bagged sample (BS); Trial Pit Wall (TPW); Soil Core (SC); BH Arisings (BHA); Trial Pit Clumps (TPC)	Odour strength & description (none, weak, moderate, strong)	Groundwater occurrence (See legend for symbols used for dry, damp and wet)			Client, Project, Location	JOD (Coillte), Gortyrahilly WF , Cork	
								Minerex work item	A1	
								Page No.	1 of 1	
								Date & time drilled / formed:	01/06/2021	
								Logged by (drawn by) [checked by]:	SK	
								Drilling / Trial pitting co. & equipment	Excavator	
								Minerex Doc. Ref.	3188-A1-008.ppt	
								Irish Transverse Mercator (ITM)**	516702, 572493	
								Geological description		Natural / Made
N/A		N/A	N/A			0.0		**PEAT. Acrotelm.** Brown		N
						0.5		**PEAT. Catotelm.** Dark Brown. H6/7		
						1.0				
						1.5		Very thin layer of TILL.		
								Weathered Bedrock. Big Boulders		
						2.0		**EOH –** Big Boulders		
						2.5				
						3.0				
						3.5				
						4.0				

* Unreliable data. Indication only.

** From hand held GPS

A DOMINANT GEOLOGICAL COMPONENT: Clay, Silt, Sand, Gravel, Cobble, Boulder deposit

B NON-DOMINANT GEOLOGICAL COMPONENT: Clay - Silt - Sand Gravel - Cobble - Boulder

C COLOUR: **- Brown** (LB, MB, DB) **- Grey** (LG, MG, DG) **- Mustard - Beige (tan) - Olive - Mottled - Orange**

D STIFFNESS: VST - V. Soft; ST = Soft; F = Firm; S = Stiff; VS = V. Stiff)

E LAYER ID, RECOVERY & STONE: % recovery; % >10mm stone

F NN or N

Minerex Environmental

Write additional help notes on macropores, mottling etc as space allows

F Interpretation

NN = Non-natural ground (fill / made up ground / disturbed natural); **N** = Natural ground)

Borehole/ Trial Pit Design & Completion	Soil (S) / Water (W) / Vapour (V) Sampling					Depth in metres below ground level, also (maODM) & [*Thickness*]	Geology (graphical log)	INVESTIGATION POINT LOG NUMBER	TP032	
	Sample number & interval (mbGL) *(Sample 10 kg minimum)* Red line = Single channel sample (from field) Blue line = Composite sample (generated in office or lab) Green line = Grab sample (acquired on site)	Non-Natural Ground Percentage	PID (ppm) Bagged sample (BS); Trial Pit Wall (TPW); Soil Core (SC); BH Arisings (BHA); Trial Pit Clumps (TPC)	Odour strength & description (none, weak, moderate, strong)	Groundwater occurrence (See legend for symbols used for dry, damp and wet)			Client, Project, Location	JOD (Coillte), Gortyrahilly WF , Cork	
								Minerex work item	A1	
								Page No.	1 of 1	
								Date & time drilled / formed:	01/06/2021	
								Logged by (drawn by) [checked by]:	SK	
								Drilling / Trial pitting co. & equipment	Excavator	
								Minerex Doc. Ref.	3188-A1-008.ppt	
								Irish Transverse Mercator (ITM)**	516760, 572489	
								Geological description		Natural / Made
N/A		N/A	N/A					**PEAT. Acrotelm.** Brown		N
								PEAT. Catotelm. Dark Brown.		
								Sandy Gravelly CLAY. Brown.		
						0.5				
								Clayey Sandy GRAVEL w cobble and boulders. Grey.		
						1.0				
								EOH – Bedrock. Purple		
						1.5				
						2.0				
						2.5				
						3.0				
						3.5				
						4.0				

* Unreliable data. Indication only.

** From hand held GPS

A DOMINANT GEOLOGICAL COMPONENT: Clay, Silt, Sand, Gravel, Cobble, Boulder deposit

B NON-DOMINANT GEOLOGICAL COMPONENT: Clay - Silt - Sand Gravel - Cobble - Boulder

C COLOUR: **- Brown** (LB, MB, DB) **- Grey** (LG, MG, DG) **- Mustard - Beige (tan) - Olive - Mottled - Orange**

D STIFFNESS: VST - V. Soft; ST = Soft; F = Firm; S = Stiff; VS = V. Stiff)

E LAYER ID, RECOVERY & STONE: % recovery; % >10mm stone

F NN or N

Minerex Environmental

Write additional help notes on macropores, mottling etc as space allows

F Interpretation

NN = Non-natural ground (fill / made up ground / disturbed natural); **N** = Natural ground)

Borehole/ Trial Pit Design & Completion	Soil (S) / Water (W) / Vapour (V) Sampling					Depth in metres below ground level, also (maODM) & [*Thickness*]	Geology (graphical log)	INVESTIGATION POINT LOG NUMBER	TP033	
	Sample number & interval (mbGL) *(Sample 10 kg minimum)* Red line = Single channel sample (from field) Blue line = Composite sample (generated in office or lab) Green line = Grab sample (acquired on site)	Non-Natural Ground Percentage	PID (ppm) Bagged sample (BS); Trial Pit Wall (TPW); Soil Core (SC); BH Arisings (BHA); Trial Pit Clumps (TPC)	Odour strength & description (none, weak, moderate, strong)	Groundwater occurrence (See legend for symbols used for dry, damp and wet)			Client, Project, Location	JOD (Coillte), Gortyrahilly WF , Cork	
								Minerex work item	A1	
								Page No.	1 of 1	
								Date & time drilled / formed:	01/06/2021	
								Logged by (drawn by) [checked by]:	SK	
								Drilling / Trial pitting co. & equipment	Excavator	
								Minerex Doc. Ref.	3188-A1-008.ppt	
								Irish Transverse Mercator (ITM)**	516809, 572464	
								Geological description		Natural / Made
N/A		N/A	N/A					**PEAT/PEATY SOIL.** Dark Brown		N
								Clayey Sandy GRAVEL / TILL w cobble and boulders. Medium Brown.		
						0.5		Weathered Bedrock. Blue Purple. Shaley.		
								EOH – Weathered Bedrock. Blue Purple. Shaley.		
						1.0				
						1.5				
						2.0				
						2.5				
						3.0				
						3.5				
						4.0				

* Unreliable data. Indication only.

** From hand held GPS

A DOMINANT GEOLOGICAL COMPONENT: Clay, Silt, Sand, Gravel, Cobble, Boulder deposit

B NON-DOMINANT GEOLOGICAL COMPONENT: Clay - Silt - Sand Gravel - Cobble - Boulder

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E LAYER ID, RECOVERY & STONE: % recovery; % >10mm stone

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F Interpretation

NN = Non-natural ground (fill / made up ground / disturbed natural); **N** = Natural ground)

Borehole/ Trial Pit Design & Completion	Soil (S) / Water (W) / Vapour (V) Sampling					Depth in metres below ground level, also (maODM) & [*Thickness*]	Geology (graphical log)	INVESTIGATION POINT LOG NUMBER: TP034	
	Sample number & interval (mbGL) *(Sample 10 kg minimum)* Red line = Single channel sample (from field) Blue line = Composite sample (generated in office or lab) Green line = Grab sample (acquired on site)	Non-Natural Ground Percentage	PID (ppm) Bagged sample (BS); Trial Pit Wall (TPW); Soil Core (SC); BH Arisings (BHA); Trial Pit Clumps (TPC)	Odour strength & description (none, weak, moderate, strong)	Groundwater occurrence (See legend for symbols used for dry, damp and wet)			Client, Project, Location: JOD (Coillte), Gortyrahilly WF , Cork	
								Minerex work item: A1	
								Page No.: 1 of 1	
								Date & time drilled / formed: 02/06/2021	
								Logged by (drawn by) [checked by]: SK	
								Drilling / Trial pitting co. & equipment: Excavator	
								Minerex Doc. Ref.: 3188-A1-008.ppt	
								Irish Transverse Mercator (ITM)**: 516730, 572462	
								Geological description	Natural / Made
N/A		N/A	N/A			0.0		**PEAT. Acrotelm.** Brown	N
						0.5		**PEAT. Catotelm.** Dark Brown. H6/7	
						1.0		Clayey Sandy GRAVEL / TILL w cobble and boulders. Medium Brown.	
								Weathered Bedrock. Big Boulders	
						1.5		**EOH –** Weathered Bedrock	
						2.0			
						2.5			
						3.0			
						3.5			
						4.0			

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** From hand held GPS

A DOMINANT GEOLOGICAL COMPONENT: Clay, Silt, Sand, Gravel, Cobble, Boulder deposit

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Borehole/ Trial Pit Design & Completion	Soil (S) / Water (W) / Vapour (V) Sampling					Depth in metres below ground level, also (maODM) & [*Thickness*]	Geology (graphical log)	INVESTIGATION POINT LOG NUMBER	TP035	
	Sample number & interval (mbGL) *(Sample 10 kg minimum)* Red line = Single channel sample (from field) Blue line = Composite sample (generated in office or lab) Green line = Grab sample (acquired on site)	Non-Natural Ground Percentage	PID (ppm) Bagged sample (BS); Trial Pit Wall (TPW); Soil Core (SC); BH Arisings (BHA); Trial Pit Clumps (TPC)	Odour strength & description (none, weak, moderate, strong)	Groundwater occurrence (See legend for symbols used for dry, damp and wet)			Client, Project, Location	JOD (Coillte), Gortyrahilly WF , Cork	
								Minerex work item	A1	
								Page No.	1 of 1	
								Date & time drilled / formed:	02/06/2021	
								Logged by (drawn by) [checked by]:	SK	
								Drilling / Trial pitting co. & equipment	Excavator	
								Minerex Doc. Ref.	3188-A1-008.ppt	
								Irish Transverse Mercator (ITM)**	516692, 572463	
								Geological description		Natural / Made
N/A		N/A	N/A			0.0		**PEAT. Acrotelm.** Brown		N
						0.5		**PEAT. Catotelm.** Dark Brown.		
						1.0		Weathered Bedrock. Big Boulders		
						2.0		Clayey Sandy GRAVEL / TILL w cobble and boulders. Medium Brown Grey.		
								Weathered Bedrock		
						2.5		**EOH –** Weathered Bedrock		
						3.0				
						3.5				
						4.0				

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** From hand held GPS

A DOMINANT GEOLOGICAL COMPONENT: Clay, Silt, Sand, Gravel, Cobble, Boulder deposit

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Borehole/ Trial Pit Design & Completion	Soil (S) / Water (W) / Vapour (V) Sampling					Depth in metres below ground level, also (maODM) & [*Thickness*]	Geology (graphical log)	INVESTIGATION POINT LOG NUMBER	TP036	
	Sample number & interval (mbGL) *(Sample 10 kg minimum)* Red line = Single channel sample (from field) Blue line = Composite sample (generated in office or lab) Green line = Grab sample (acquired on site)	Non-Natural Ground Percentage	PID (ppm) Bagged sample (BS); Trial Pit Wall (TPW); Soil Core (SC); BH Arisings (BHA); Trial Pit Clumps (TPC)	Odour strength & description (none, weak, moderate, strong)	Groundwater occurrence (See legend for symbols used for dry, damp and wet)			Client, Project, Location	JOD (Coillte), Gortyrahilly WF , Cork	
								Minerex work item	A1	
								Page No.	1 of 1	
								Date & time drilled / formed:	02/06/2021	
								Logged by (drawn by) [checked by]:	SK	
								Drilling / Trial pitting co. & equipment	Excavator	
								Minerex Doc. Ref.	3188-A1-008.ppt	
								Irish Transverse Mercator (ITM)**	517472, 572284	
								Geological description		Natural / Made
N/A		N/A	N/A			0		**PEAT/PEATY SOIL** w gravels and cobbles. Dark Brown		N
						0.5		Clayey Sandy GRAVEL / TILL w cobble and boulders. Medium Brown Grey.		
						1.0		Weathered Bedrock. Big Boulders, shaley.		
						1.5		**EOH –** Weathered Bedrock		
						2.0				
						2.5				
						3.0				
						3.5				
						4.0				

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** From hand held GPS

A DOMINANT GEOLOGICAL COMPONENT: Clay, Silt, Sand, Gravel, Cobble, Boulder deposit

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Borehole/ Trial Pit Design & Completion	Soil (S) / Water (W) / Vapour (V) Sampling					Depth in metres below ground level, also (maODM) & [*Thickness*]	Geology (graphical log)	INVESTIGATION POINT LOG NUMBER	TP037	
	Sample number & interval (mbGL) *(Sample 10 kg minimum)* Red line = Single channel sample (from field) Blue line = Composite sample (generated in office or lab) Green line = Grab sample (acquired on site)	Non-Natural Ground Percentage	PID (ppm) Bagged sample (BS); Trial Pit Wall (TPW); Soil Core (SC); BH Arisings (BHA); Trial Pit Clumps (TPC)	Odour strength & description (none, weak, moderate, strong)	Groundwater occurrence (See legend for symbols used for dry, damp and wet)			Client, Project, Location	JOD (Coillte), Gortyrahilly WF , Cork	
								Minerex work item	A1	
								Page No.	1 of 1	
								Date & time drilled / formed:	02/06/2021	
								Logged by (drawn by) [checked by]:	SK	
								Drilling / Trial pitting co. & equipment	Excavator	
								Minerex Doc. Ref.	3188-A1-008.ppt	
								Irish Transverse Mercator (ITM)**	517627, 572841	
								Geological description		Natural / Made
N/A		N/A	N/A			0.5		Clayey Sandy GRAVEL / TILL w cobbles. Brown Grey. Water in due to drain / saturated area near surface.		MADE
						1.0				
						1.5		Clayey Sandy GRAVEL / TILL w cobbles. Brown Grey. Iron Pan		N
						2.0				
						2.5				
						3.0		**EOH –** Boulders		
						3.5				
						4.0				

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** From hand held GPS

A DOMINANT GEOLOGICAL COMPONENT: Clay, Silt, Sand, Gravel, Cobble, Boulder deposit

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F NN or N

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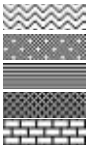
GENERAL LEGEND, ABBREVIATIONS AND INSTALLATION DETAILS

BEDROCK

Metamorphic bedrock
Igneous bedrock
Mudstone / Shale bedrock
Siltstone / Sandstone bedrock
Limestone bedrock



COLOUR

Brown (Light, medium, dark)
Grey (Light, medium, dark)
Mustard
Beige (tan)
Olive
Mottled
Orange

GRAIN SIZE (Soil)

Clay (% of)	C(20)
Silt (% of)	St(20)
Sand (% of)	Sd(20)
Gravel (% of)	G(20)
Sand (Fine to Medium)	Sd_{F-M}
Gravel (Fine to Coarse Subangular to angular)	$G_{F-C\ SA-A}$

MONITORING POINT COMPLETIONS

TS/C1/PH1	Terminal Site/Couple no./Phreatic no.
PR/C2/P2	Peat Repository/Couple no./Piezometer no.
H7	Von Post humification scale
	Push-on cap
	Screen
	Casing
	Porous tip
	Drive cone
P1 PH1	Piezometer no. and Phreatic tube no.
	Bentonite pellets
	Cement-Bentonite grout
	Gravel pack, nominal 2-5mm in diameter
	Damp, wet and water strike respectively
1/2/03	Static water table (with date measured and hours since installation)

PLAN SKETCHES

PWS1	Hand dug trial pits / Shallow pit excavations (JCB)
TP1	Percussion Window Sampler (PWS) boreholes
100 BG	FID/PID in ppm Hydrocarbons with BG = background
99.791	Reduced levels - maOD Malin
	Oil pipeline
	Storage tanks (Overground and underground)

OVERBURDEN

(Description uses BS 5930 and GSI guidelines)

BOULDER(S) (>200mm)

COBBLES (60 to 200mm)

GRAVEL (Homogeneous larger sized particles from 2 to 60 mm)

SAND (General, if without grain size description) Particle sizes: 2 to 0.06mm. Three sub-categories distinguishable to the eye)

Coarse **SAND** (2-0.6mm)

Medium **SAND** (0.6-0.2mm)

Fine **SAND** (0.2-0.06mm)

SILT (0.06 - 0.002mm)

CLAYS (<0.002mm)

CONCRETE

TARMACADAM

CRUSHED STONE or AGGREGATE

LANDFILL (eg plastic, glass, wood, domestic waste, concrete etc.)

FILL OR BACKFILLED GROUND (unspecified)

COLLAPSED FORMATION (with possible voids) or **DRILL CHIPPINGS / MATERIAL RETURNED BY AIR FLUSH DRILLING**

LOSS (Blank - white)

TOP SOIL

PEAT (General) (with descriptions such as colour, plant remains evident, distinct H_2S smell etc) (H (Von Post) value associated commonly)

MONITORING POINT DESIGN FOR PEAT SUBSOILS

Push-on, female cap

The cap is loosely fitted to allow easy removal. The piezometer is labelled using indellible ink inside and outside the cap. A small hole is drilled in the side to enable air movement in and out of the piezometer.

Casing up-stand

The upstand is the height of the casing above ground level in meters. The height depends on local groundwater and surface water circumstances. The piezometer number is scrapped onto the side of the casing near the cap as with time the writing on the cap wears off. Upstands vary from 0.3 to 1.0m in height. The convention is allow a higher upstand for those piezometers positioned at a higher level.

Casing

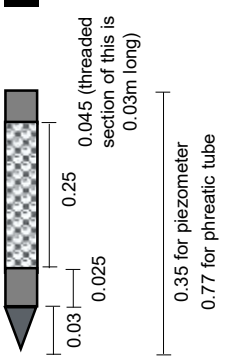
The casing is black or dark grey coloured, flush-threaded, uPVC. The OD is 26.80mm and the ID is 18.40. The casing is flush-threaded to the piezometer tip.

Tube or Piezometer tip

This section is installed opposite the required formation. There are two sections to the piezometer tip. The inner tube section is 18.40mm ID, white in colour and involves extruded microporous polyethylene. The outer comprises grey or black coloured uPVC with 10 x 0.013m diameter holes per 0.10m of piezometer tip. Therefore the surface area exposed to the formation (peat) is small. The piezometer tube tip is flush-threaded, either male or female, to the piezometer casing. Threaded part is 0.03m long. The phreatic tube tip is longer than the piezometer tube tip to allow for greater water level fluctuations.

Drive cone

This is grey coloured, solid, uPVC, pushed or screwed into the tube or piezometer tip. No glue has been used. If the ground is soft, a push-in button cap may be used instead of a drive cone.



NOTES:-

The phreatic tubes are pushed by hand into the peat. The piezometers are pushed or driven into the peat and mineral soil after a narrow diameter hole has been formed using overburden drilling (Cobra or Percussion Window Sampler) / coring equipment (Gouge corer). The tubes and piezometers have three main functions: water table measurements, water sampling, permeability measurements.

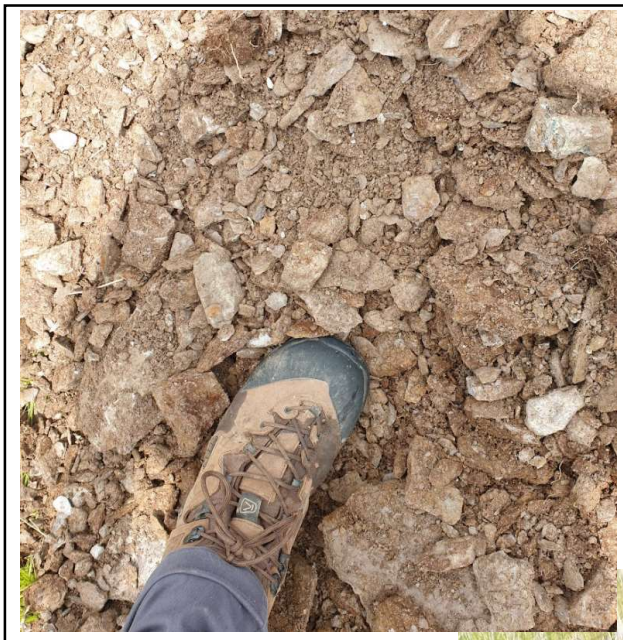
Minerex Environmental

Appendix E

Gortyrahilly WF, Co. Cork

SI Trial Pit Photos


40LCV



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No Photo

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Appendix F

KEY TO SYMBOLS ON EXPLORATORY HOLE RECORDS

All linear dimensions are in metres or millimetres

DESCRIPTIONS

**	Drillers Description
Friable	Easily crumbled

SAMPLES

U( )	Undisturbed 102mm diameter sample, ( ) denotes number of blows to drive sampler
U( )F, U( )P	F- not recovered, P-partially recovered
U38	Undisturbed 38mm diameter sample
P(F), (P)	Piston sample - disturbed
B	Bulk sample - disturbed
D	Jar Sample - disturbed
W	Water Sample
CBR	California Bearing Ratio mould sample
ES	Chemical Sample for Contamination Analysis
SPTLS	Standard Penetration Test S lump sample from split sampler

CORE RECOVERY AND ROCK QUALITY

TCR	Total Core Recovery (% of Core Run)
SCR	Solid Core Recovery (length of core having at least one full diameter as % of core run)
RQD	Rock Quality Designation (length of solid core greater than 100mm as % of core run)

Where there is insufficient space for the TCR, SCR and RQD, the results may be found in the remarks column

If	Fracture Spacing in mm (Minimum/Average/Maximum) NI - non intact, NR - no recovery
AZCL	Assumed Zone of Core Loss
NI	Non intact

GROUNDWATER

▽	Groundwater strike
▼	Groundwater level after standing period
Date/Water	Date of shift (day/month)/Depth to water at end of previous shift shown above the date and depth to water at beginning of shift given below the date

INSITU TESTING

S	Standard Penetration Test - split barrel sampler
C	Standard Penetration Test - solid 60^o cone
SW	Self Weight Penetration
Ivp, HVp (R)	In Situ Vane Test, Hand Vane Test (R) demonstrates remoulded strength
K(F), (C), (R), (P)	Permeability Test
HP	Hand Penetrometer Test

MEASURED PROPERTIES

N	Standard Penetration Test - blows required to drive 300mm after seating drive
x/y	Denotes x blows for y mm within the Standard Penetration Test
x*/y	Denotes x blows for y mm within the seating drive
c_u	Undrained Shear Strength (kN/m^2)
CBR	California Bearing Ratio

ROTARY DRILLING SIZES

Index Letter	Nominal Diameter (mm)	
	Borehole	Core
N	75	54
H	99	76
P	120	92
S	146	113

Priority Geotechnical Ltd. Tel: 021 4631600 Fax: 021 4638690 www.prioritygeotechnical.ie	Drilled By: GW Logged By: EK	Borehole No. **BH01G** Sheet 1 of 1

Project Name:	Gortyrahily and Inchamore Wind Farms	**Project No.** P21139	**Co-ords:**	**Hole Type** RC
Location:	Gortyrahily, Co.Cork. Inchamore, Co.Cork		**Level:** m OD	**Scale** 1:50
Client:	Minerex Environmental		**Dates:** 08/06/2021	08/06/2021

Well	Water Strike (m)	Depth (m)	Type /Fs (min, max, avg)	Coring (%) TCR	SCR	RQD	Depth (m) / Fl (/m)	Level (mOD)	Legend	Stratum Description
							0.90			Driller describes MADE GROUND boulders
		N=1 (1,0/0,0,1,0) (C)								Driller describes PEAT
		N=3 (1,0/0,1,1,1) (C)								
	▼									
		~~0 (75 for 0mm/0~~ for 0mm) (C)					4.50			
		4.50 - 5.90	75mm 550mm 200mm	100	61	36	5/m			Lithology: Red moderately weak SILTSTONE. Weathering: Core is relatively unweathered. Fractures: Tow sets identified. Set one has a dip of 50-60 degrees, an undulating rough fracture surface and has close to medium spacing. Set two has a dip of 10-20 degrees, an undulating rough fracture surface and medium spacing. Details: No oxidation discolouration marks seen. Clay smearing seen on core.
		5.90 - 7.50	40mm 200mm 150mm	100	41	13	15/m			
		7.50 - 9.00	40mm 170mm 100mm	100	44	7	7/m			
							9.00			End of Borehole at 9.000m

Groundwater:

Struck (m bgl)	Level (m bgl)	After (min)	Sealed	Comment
4.00				Groundwater strike at 4m bgl. Refer to shift

Hole Information:

Hole Depth (m bgl)	Hole Dia (mm)	Casing Dia (mm)
9.00	76	131

Equipment: Soilmec PSM

Method: Compressed air mist.

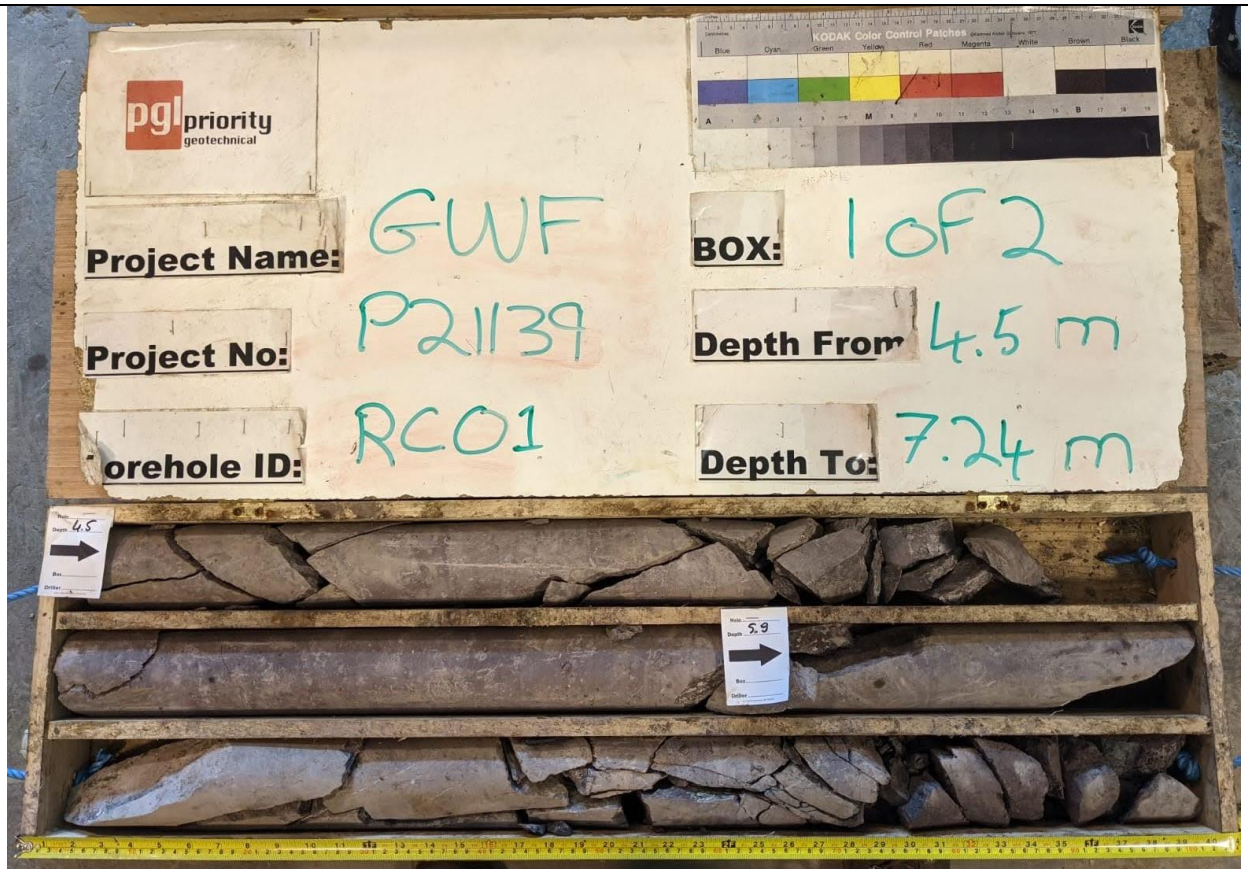
Remarks:

Borehole terminated at 9m bgl.

Shift Data:

Groundwater (m bgl)	Shift	Hole Depth (m bgl)	Remarks
	08/06/2021 08:00	0.00	Start of shift.
4	08/06/2021 18:00	9.00	End of borehole.

Photographic Record



Number:	**RC01**	**Project**	Gortyrahilly Wind Farm	
		Project No	P21139	
		Engineer	Minerex	

Priority Geotechnical Ltd. Tel: 021 4631600 Fax: 021 4638690 www.prioritygeotechnical.ie	Drilled By: GW Logged By: EK	Borehole No. **BH02G** Sheet 1 of 1

Project Name:	Gortyrahily and Inchamore Wind Farms	**Project No.** P21139	**Co-ords:**	**Hole Type** RC
Location:	Gortyrahily, Co.Cork. Inchamore, Co.Cork		**Level:** m OD	**Scale** 1:50
Client:	Minerex Environmental		**Dates:** 09/06/2021	09/06/2021

Well	Water Strike (m)	Depth (m)	Type /Fs (min, max, avg)	Coring (%) TCR	SCR	RQD	Depth (m) / Fl (/m)	Level (mOD)	Legend	Stratum Description
										Driller describes PEAT.
		~~0 (75 for 0mm/0~~ for 0mm) (C) 0.40 - 1.80	10mm 60mm 35mm	100	43	0	0.40 6/m			Lithology: Red moderately weak SILTSTONE. Weathering: Core is relatively unweathered. Fractures: One set identified. Set one has a dip of 60 degrees, an undulating rough fracture surface and close to medium spacing. Details: No bedding or oxidation marks
		1.80 - 3.40	70mm 450mm 100mm	100	74	44	4/m 3.40			End of Borehole at 3.400m

Groundwater:					Hole Information:			Equipment:	Soilmec PSM
Struck (m bgl)	Level (m bgl)	After (min)	Sealed	Comment	Hole Depth (m bgl)	Hole Dia (mm)	Casing Dia (mm)	Method:	Compressed air mist.
				None encountered.	3.40	76	131		

Remarks:

Borehole terminated at 3.4m bgl.

Shift Data:

Groundwater (m bgl)	Shift	Hole Depth (m bgl)	Remarks
	09/06/2021 08:00	0.00	Start of shift.
	09/06/2021 18:00	3.40	End of borehole.

Photographic Record

Number:	**RC02**	**Project**	Gortyrahilly Wind Farm	
		Project No	P21139	
		Engineer	Minerex	

Priority Geotechnical Ltd. Tel: 021 4631600 Fax: 021 4638690 www.prioritygeotechnical.ie	Drilled By: GW Logged By: EK	Borehole No. **BH03G** Sheet 1 of 1

Project Name:	Gortyrahily and Inchamore Wind Farms	**Project No.** P21139	**Co-ords:**	**Hole Type** RC
Location:	Gortyrahily, Co.Cork. Inchamore, Co.Cork		**Level:** m OD	**Scale** 1:50
Client:	Minerex Environmental		**Dates:** 09/06/2021	09/06/2021

Well	Water Strike (m)	Depth (m)	Type /Fs (min, max, avg)	Coring (%) TCR	SCR	RQD	Depth (m) / FI (/m)	Level (mOD)	Legend	Stratum Description
		0.00 - 1.50	80mm 360mm 150mm	100	93	13	7/m			Lithology: Green moderately weak SILTSTONE. Weathering: Core is relatively unweathered. Fractures: One set identified. Set one has a dip of 45 degrees, an undulating rough fracture surface and close to medium spacing. Details: Clay smearing seen but no oxidation discolouration.
		1.50 - 2.70	210mm 500mm 300mm	100	78	38	3/m			
		2.70 - 3.60	230mm 590mm 400mm	100	89	63	1/m			
							3.60			End of Borehole at 3.600m

1 2 3 4 5 6 7 8 9

Groundwater:

Struck (m bgl)	Level (m bgl)	After (min)	Sealed	Comment
				None encountered.

Hole Information:

Hole Depth (m bgl)	Hole Dia (mm)	Casing Dia (mm)
3.60	76	131

Equipment:	Soilmec PSM
Method:	Compressed air mist.

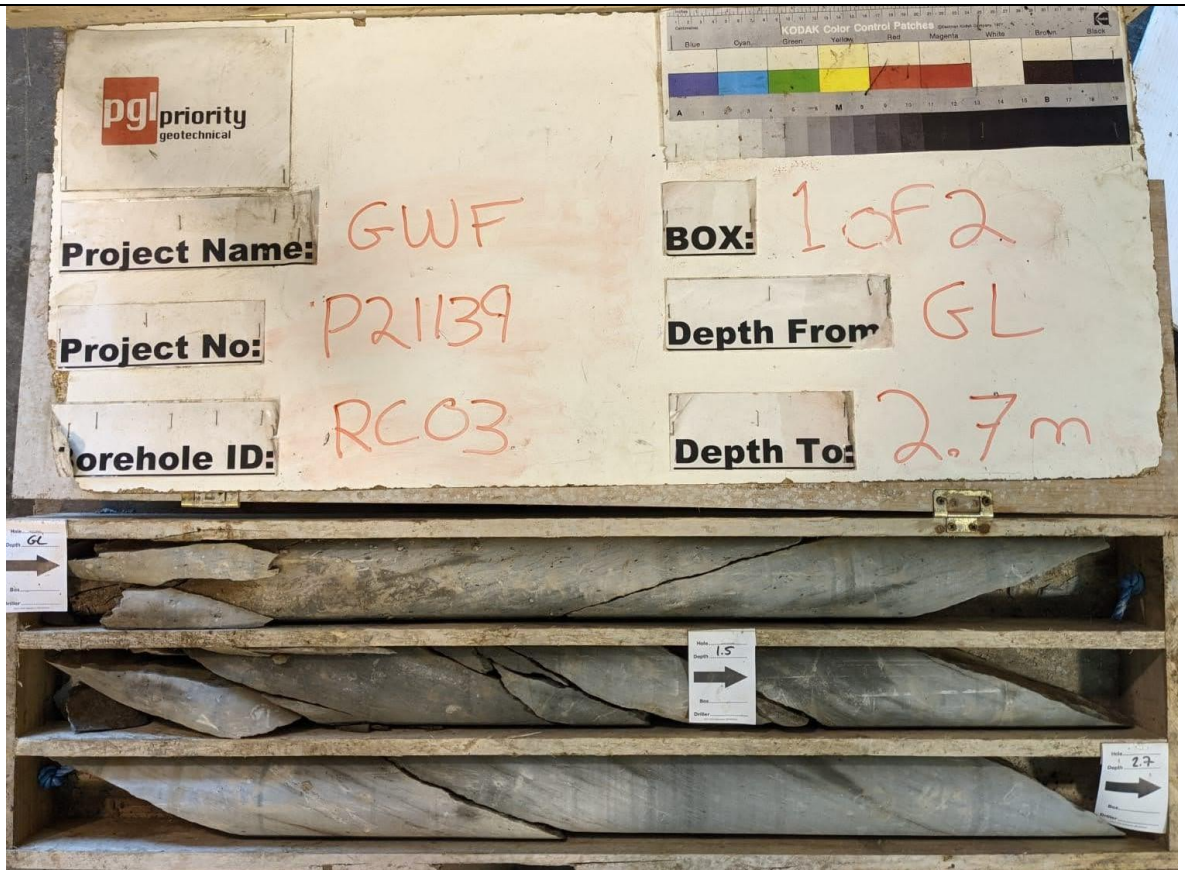
Remarks:

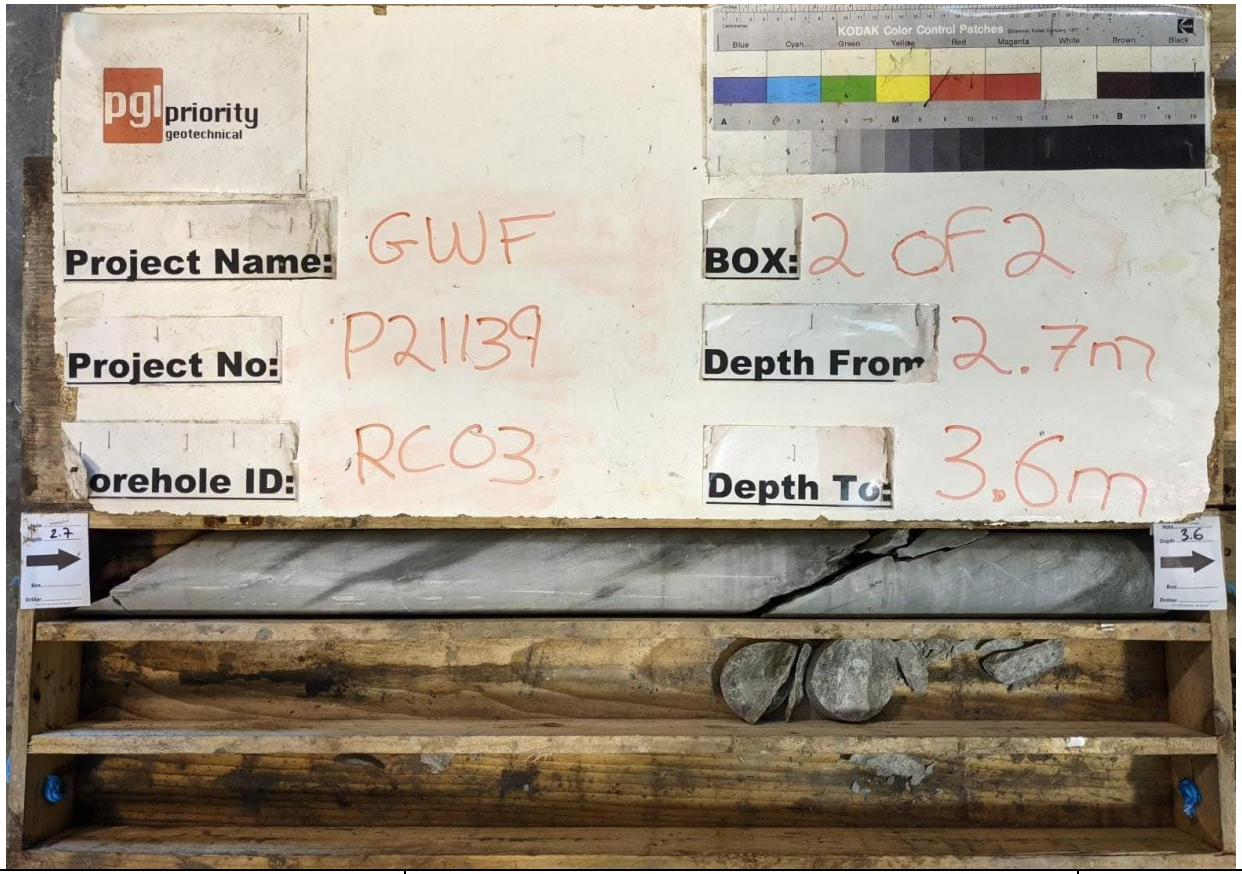
Borehole terminated at 3.6m bgl.

Shift Data:

Groundwater (m bgl)	Shift	Hole Depth (m bgl)	Remarks
	09/06/2021 08:00	0.00	Start of shift.
	09/06/2021 18:00	3.60	End of borehole.

Photographic Record





Number:	**RC03**	**Project**	Gortyrahilly Wind Farm	
		Project No	P21139	
		Engineer	Minerex	

KEY TO SYMBOLS - LABORATORY TEST RESULT

U	Undisturbed Sample	
P	Piston Sample	
TWS	Thin Wall Sample	
B	Bulk Sample - Disturbed	
D	Jar Sample - Disturbed	
W	Water Sample	
pH	Acidity/Alkalinity Index	
SO_3	% - Total Sulphate Content (acid soluble)	
SO_3	g/ltr - Water Soluble Sulphate (Water or 2:1 Aqueous Soil Extract)	
+	Calcareous Reaction	
Cl	Chloride Content	
PI	Plasticity Index	
<425	% of material in sample passing 425 micron sieve	
LL	Liquid Limit	
PL	Plastic Limit	
MC	Water Content	
NP	Non Plastic	
Yb	Bulk Density	
Yd	Dry Density	
Ps	Particle Density	
U/D	Undrained/Drained Triaxial	
U/C	Unconsolidated/Consolidated Triaxial	
T/M	Single Stage/Multistage Triaxial	
100/38	Sample Diameter (mm)	
REM	Remoulded Triaxial Test Specimen	
TST	Triaxial Suction Test	
V	Vane Test	
DSB	Drained Shear Box	
RSB	Residual Shear Box	
RS	Ring Shear	
σ_3	Cell Pressure	
σ_1-σ_3	Deviator Stress	
c	Cohesion	
c_	Effective Cohesion Intercept	
ϕ	Angle of Shearing Resistance - Degrees	
ϕ_	Effective Angle of Shearing Resistance	
εf	Strain at Failure	
*	Failed under 1st Load	
**	Failed under 2nd Load	
#	Untestable	
##	Excessive Strain	
p_o	Effective Overburden Pressure	
m_v	Coefficient of Volume Decrease	
c_v	Coefficient of Consolidation	
Opt	Optimum	
Nat	Natural	
Std	Standard Compaction - 2.5kg Rammer	(¶ CBR)
Hvy	Heavy Compaction - 4.5kg Rammer	(§ CBR)
Vib	Vibratory Compaction	
CBR	California Bearing Ratio	
Sat m.c.	Saturation Moisture Content	
MCV	Moisture Condition Value	

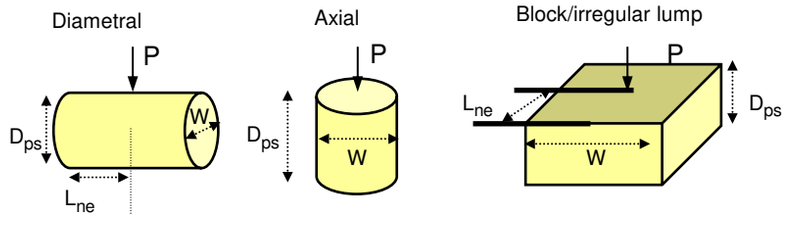
Point Load Strength Index Tests
Summary of Results

Project No.: P21139

Project Name: Gortyrahilly W.F

Borehole No.	Sample			Specimen		Rock Type and Test condition	Test Type see ISRM		Failure Valid (Y/N)	Dimensions				Force P	Equivalent diameter, De	Point Load Strength Index		Remarks (including water content if measured)
	Depth	Ref.	Type	Ref.	Depth		Type (D, A, I, B)	Direction (L, P or U)		Lne	W	Dps	Dps'			I_s	$I_{s(50)}$	
	m				m					mm	mm	mm	mm	kN	mm	MPa	MPa	
BH01G	4.92	RC	C			PURE SILTSTONE	D	U	YES	85.0	76.0	76.0	65.0	17.0	70.3	3.4	4.0	Undulated Rough
BH01G	6.12	RC	C			PURE SILTSTONE	D	U	YES	40.0	76.0	76.0	35.0	20.1	51.6	7.5	7.6	Undulated Rough
BH01G	8.70	RC	C			PURE SILTSTONE	D	U	YES	68.0	76.0	76.0	67.0	9.4	71.4	1.8	2.2	Undulated Rough
BH02G	1.69	RC	C			PURE SILTSTONE	D	U	YES	24.0	76.0	76.0	63.0	8.7	69.2	1.8	2.1	Undulated Rough
BH02G	3.28	RC	C			PURE SILTSTONE	D	U	YES	78.0	76.0	76.0	68.0	2.1	71.9	0.4	0.5	Undulated Rough
BH03G	0.85	RC	C			GREEN SILTSTONE	D	U	YES	35.0	76.0	76.0	18.0	22.7	37.0	16.6	14.5	Undulated Rough
BH03G	1.95	RC	C			GREEN SILTSTONE	D	U	YES	43.0	76.0	76.0	19.0	23.8	38.0	16.5	14.6	Undulated Rough
BH03G	3.55	RC	C			GREEN SILTSTONE	D	U	YES	20.0	76.0	76.0	17.0	18.3	35.9	14.2	12.2	Undulated Rough

Test Type
D - Diametral, A - Axial, I - Irregular Lump, B - Block
Direction
L - parallel to planes of weakness
P - perpendicular to planes of weakness
U - unknown or random
Dimensions
Dps - Distance between platens (platen separation)
Dps' - at failure (see ISRM note 6)
Lne - Length from platens to nearest free end
W - Width of shortest dimension perpendicular to load, P



Test performed in accordance with ISRM Suggested Methods : 2007, unless noted otherwise
Detailed legend for test and dimensions, based on ISRM, is shown above.
Size factor, F = $(De/50)^{0.45}$ for all tests.

Date Printed	Approved By	Table
20/08/2021	Cilla	1
		sheet 1

Unconfined Compressive Strength, UCS

Job Name	**Gortyrahilly W.F**	
Job Number	**P21139**	
Borehole:	**BH01G**	
Depth:	**5.68**	**m**
Rock Type	**PURPLE SILTSTONE**	
Bulk Density	**2.69**	**Mg/m3**
Load at Failure, P	**56.7**	**kN**
Stress at Failure	**12.57**	**MPa**

Failure mode

Unconfined Compressive Strength, UCS

Job Name	**Gortyrahilly W.F**	
Job Number	**P21139**	
Borehole:	**BH02G**	
Depth:	**2.66**	**m**
Rock Type	**PURPLE SILTSTONE**	
Bulk Density	**2.71**	**Mg/m3**
Load at Failure, P	**71.5**	**kN**
Stress at Failure	**15.77**	**MPa**

Failure mode

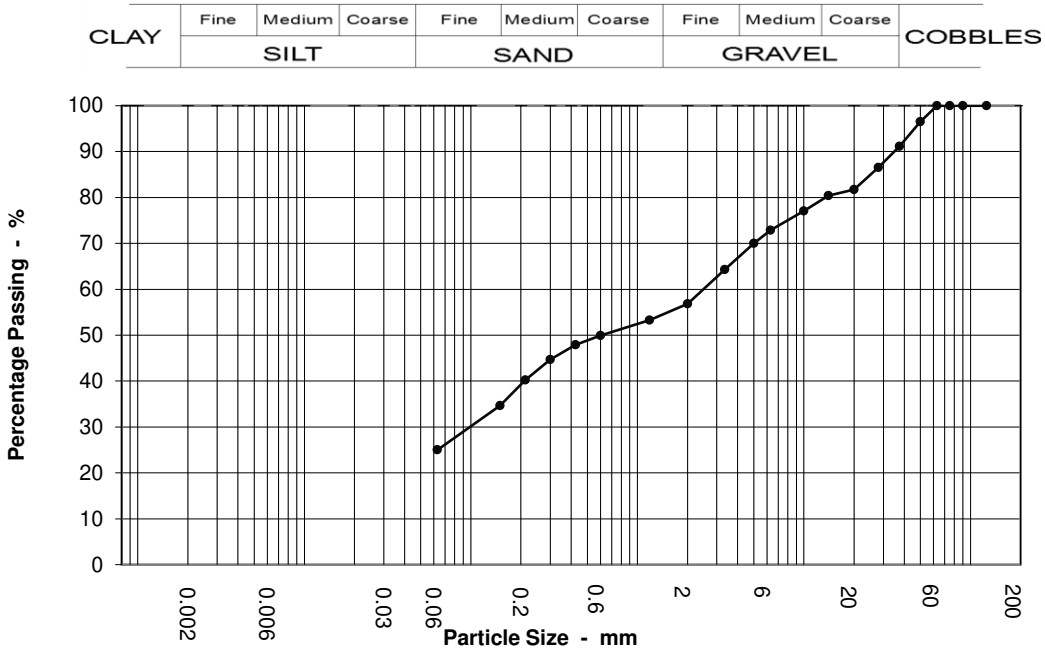
Unconfined Compressive Strength, UCS

Job Name	**Gortyrahilly W.F**	
Job Number	**P21139**	
Borehole:	**BH03G**	
Depth:	**2.4**	**m**
Rock Type	**PURPLE SILTSONE**	
Bulk Density	**2.68**	**Mg/m3**
Load at Failure, P	**30.6**	**kN**
Stress at Failure	**6.77**	**MPa**

Failure mode

Appendix G

pgl priority geotechnical	**PARTICLE SIZE DISTRIBUTION** **BS 1377 : Part 2 : 1990 : Clause 9**	**Job Ref**	**P21139**
		Borehole / Pit No	TP03A2
Location	**Gortyrahilly and Inchamore W.F**	Sample No	
		Depth	0.00 m
Soil Description	Very clayey very sandy GRAVEL	Sample type	B



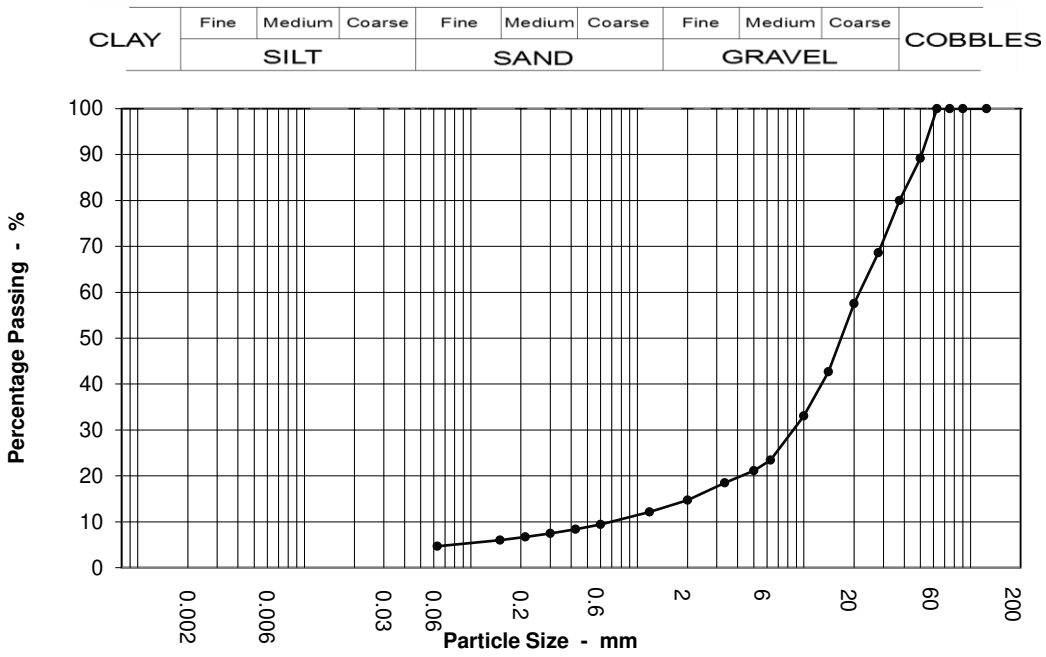
Sieving		Sedimentation	
Particle Size mm	% Passing	Particle Size mm	% Passing
125	100		
90	100		
75	100		
63	100		
50	97		
37.5	91		
28	87		
20	82		
14	80		
10	77		
6.3	73		
5	70		
3.35	64		
2	57		
1.18	53		
0.6	50		
0.425	48		
0.3	45		
0.212	40		
0.15	35		
0.063	25		

Test Method	
BS 1377 : Part 2 : 1990	
Sieving	Clause 9.3
Sedimentation	N/A

Sample Proportions	
Cobbles	0.0
Gravel	43.0
Sand	32.0
Silt & Clay	25.0

Grading Analysis	
D100	63.00
D60	2.49
D10	
Uniformity Coefficient	

pgl priority geotechnical	**PARTICLE SIZE DISTRIBUTION** **BS 1377 : Part 2 : 1990 : Clause 9**	**Job Ref**	**P21139**
		Borehole / Pit No	TP08A1
Location	**Gortyrahilly and Inchamore W.F**	Sample No	
		Depth	0.00 m
Soil Description	Clayey sandy GRAVEL	Sample type	B



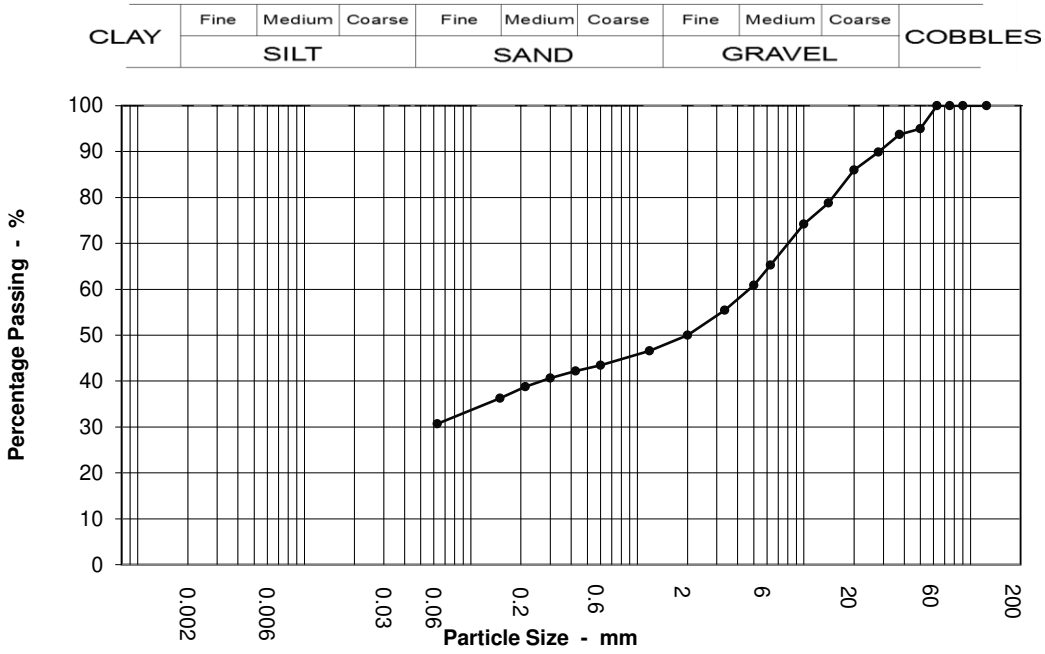
Sieving		Sedimentation	
Particle Size mm	% Passing	Particle Size mm	% Passing
125	100		
90	100		
75	100		
63	100		
50	89		
37.5	80		
28	69		
20	58		
14	43		
10	33		
6.3	23		
5	21		
3.35	18		
2	15		
1.18	12		
0.6	9		
0.425	8		
0.3	7		
0.212	7		
0.15	6		
0.063	5		

Test Method	
BS 1377 : Part 2 : 1990	
Sieving	Clause 9.3
Sedimentation	N/A

Sample Proportions	
Cobbles	0.0
Gravel	85.0
Sand	10.0
Silt & Clay	5.0

Grading Analysis	
D100	63.00
D60	21.50
D10	0.70
Uniformity Coefficient	31.00

pgl priority geotechnical	**PARTICLE SIZE DISTRIBUTION** **BS 1377 : Part 2 : 1990 : Clause 9**	**Job Ref**	**P21139**
		Borehole / Pit No	TP08A2
Location	**Gortyrahilly and Inchamore W.F**	Sample No	
		Depth	0.00 m
Soil Description	Slightly sandy gravelly CLAY	Sample type	B



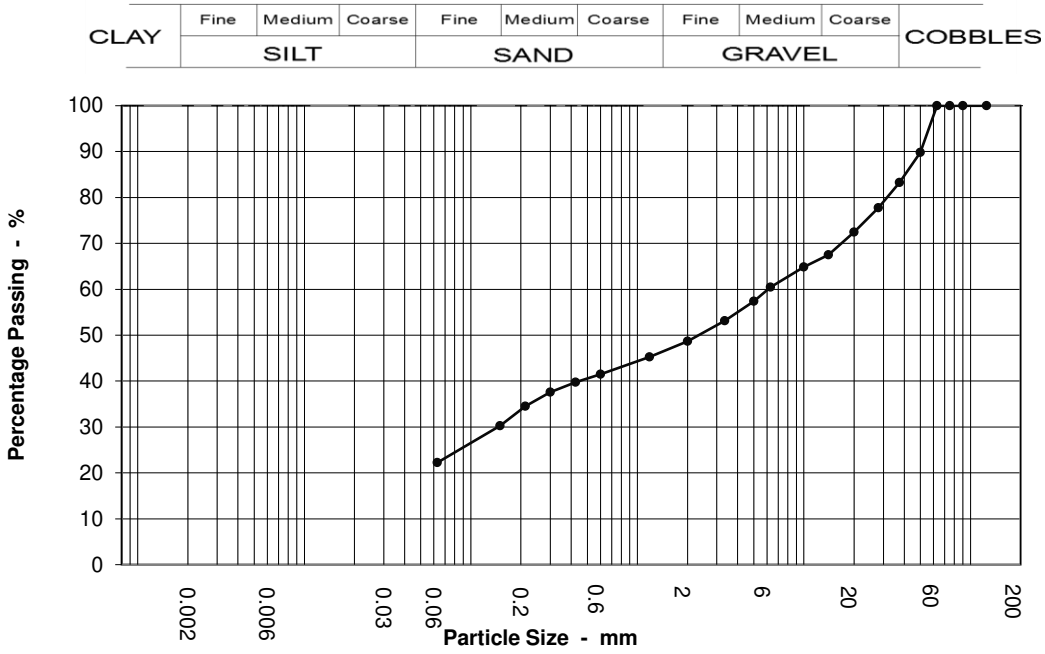
Sieving		Sedimentation	
Particle Size mm	% Passing	Particle Size mm	% Passing
125	100		
90	100		
75	100		
63	100		
50	95		
37.5	94		
28	90		
20	86		
14	79		
10	74		
6.3	65		
5	61		
3.35	55		
2	50		
1.18	47		
0.6	43		
0.425	42		
0.3	41		
0.212	39		
0.15	36		
0.063	31		

Test Method	
BS 1377 : Part 2 : 1990	
Sieving	Clause 9.3
Sedimentation	N/A

Sample Proportions	
Cobbles	0.0
Gravel	50.0
Sand	19.0
Silt & Clay	31.0

Grading Analysis	
D100	63.00
D60	4.68
D10	
Uniformity Coefficient	

pgl priority geotechnical	**PARTICLE SIZE DISTRIBUTION** **BS 1377 : Part 2 : 1990 : Clause 9**	**Job Ref**	**P21139**
		Borehole / Pit No	TP11A2
Location	**Gortyrahilly and Inchamore W.F**	Sample No	
		Depth	0.00 m
Soil Description	Very clayey very sandy GRAVEL	Sample type	B



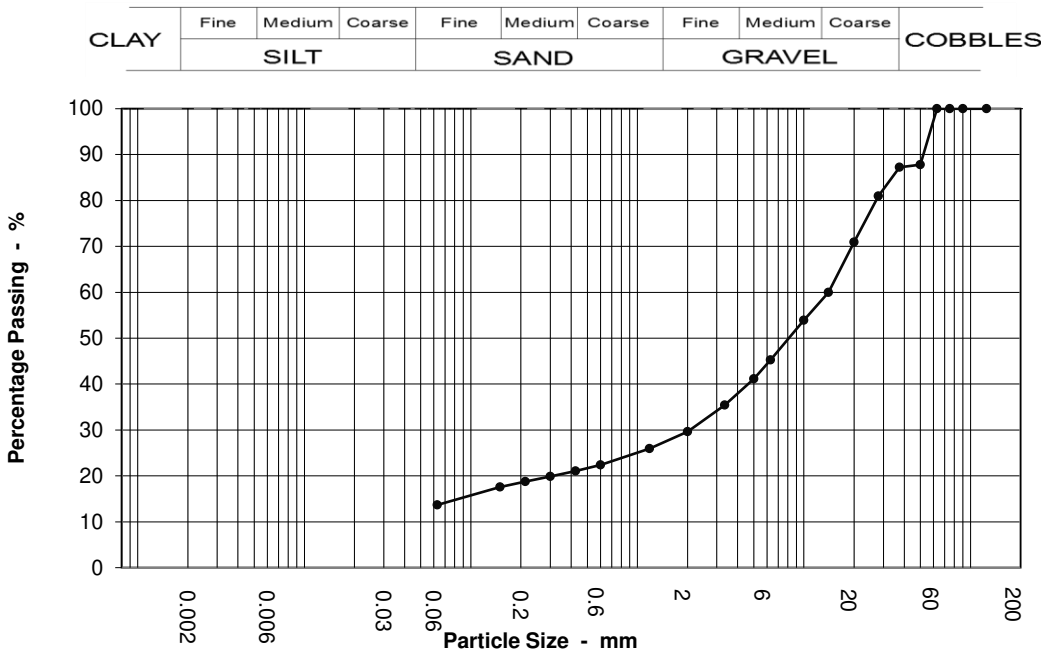
Sieving		Sedimentation	
Particle Size mm	% Passing	Particle Size mm	% Passing
125	100		
90	100		
75	100		
63	100		
50	90		
37.5	83		
28	78		
20	72		
14	67		
10	65		
6.3	60		
5	57		
3.35	53		
2	49		
1.18	45		
0.6	41		
0.425	40		
0.3	38		
0.212	34		
0.15	30		
0.063	22		

Test Method	
BS 1377 : Part 2 : 1990	
Sieving	Clause 9.3
Sedimentation	N/A

Sample Proportions	
Cobbles	0.0
Gravel	51.0
Sand	26.0
Silt & Clay	22.0

Grading Analysis	
D100	63.00
D60	6.08
D10	
Uniformity Coefficient	

pgl priority geotechnical	**PARTICLE SIZE DISTRIBUTION** **BS 1377 : Part 2 : 1990 : Clause 9**	**Job Ref**	**P21139**
		Borehole / Pit No	TP13A1
Location	**Gortyrahilly and Inchamore W.F**	Sample No	
		Depth	0.00 m
Soil Description	Clayey sandy GRAVEL	Sample type	B



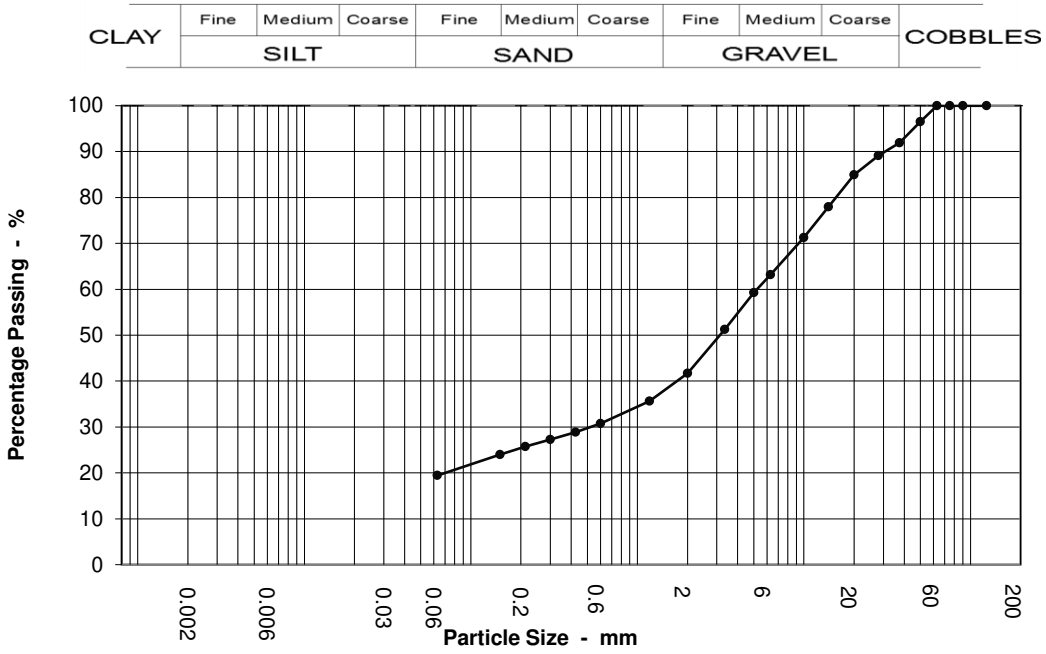
Sieving		Sedimentation	
Particle Size mm	% Passing	Particle Size mm	% Passing
125	100		
90	100		
75	100		
63	100		
50	88		
37.5	87		
28	81		
20	71		
14	60		
10	54		
6.3	45		
5	41		
3.35	35		
2	30		
1.18	26		
0.6	22		
0.425	21		
0.3	20		
0.212	19		
0.15	18		
0.063	14		

Test Method	
BS 1377 : Part 2 : 1990	
Sieving	Clause 9.3
Sedimentation	N/A

Sample Proportions	
Cobbles	0.0
Gravel	70.0
Sand	16.0
Silt & Clay	14.0

Grading Analysis	
D100	63.00
D60	14.00
D10	
Uniformity Coefficient	

pgl priority geotechnical	**PARTICLE SIZE DISTRIBUTION** **BS 1377 : Part 2 : 1990 : Clause 9**	**Job Ref**	**P21139**
		Borehole / Pit No	TP24A1
Location	**Gortyrahilly and Inchamore W.F**	Sample No	
		Depth	0.00 m
Soil Description	Clayey very sandy GRAVEL	Sample type	B



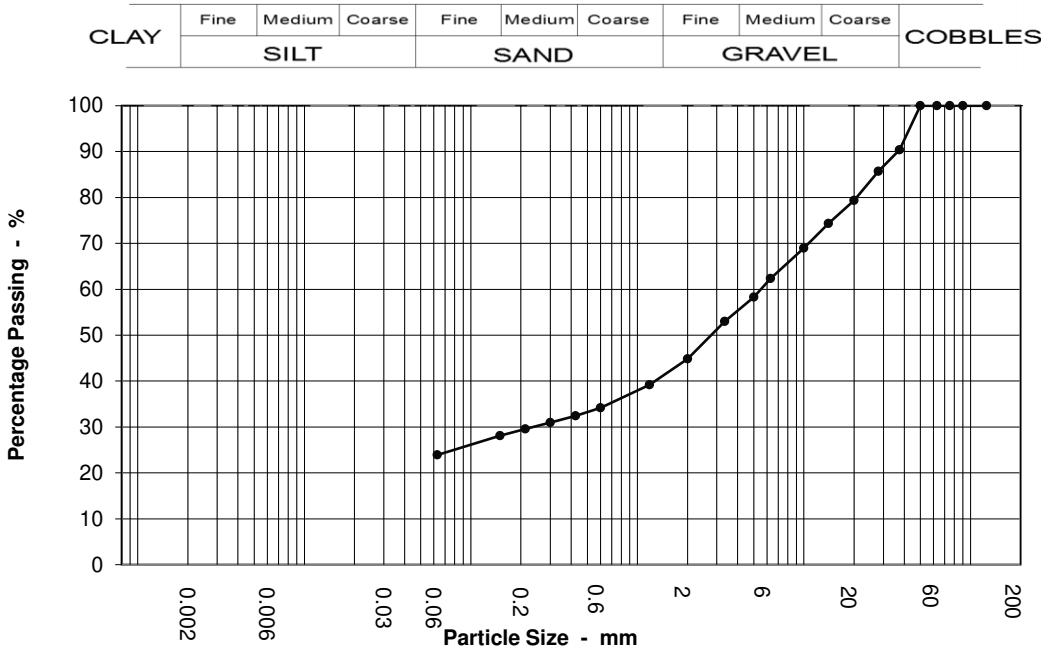
Sieving		Sedimentation	
Particle Size mm	% Passing	Particle Size mm	% Passing
125	100		
90	100		
75	100		
63	100		
50	97		
37.5	92		
28	89		
20	85		
14	78		
10	71		
6.3	63		
5	59		
3.35	51		
2	42		
1.18	36		
0.6	31		
0.425	29		
0.3	27		
0.212	26		
0.15	24		
0.063	19		

Test Method	
BS 1377 : Part 2 : 1990	
Sieving	Clause 9.3
Sedimentation	N/A

Sample Proportions	
Cobbles	0.0
Gravel	58.0
Sand	22.0
Silt & Clay	19.0

Grading Analysis	
D100	63.00
D60	5.21
D10	
Uniformity Coefficient	

pgl priority geotechnical	**PARTICLE SIZE DISTRIBUTION** **BS 1377 : Part 2 : 1990 : Clause 9**	**Job Ref**	**P21139**
		Borehole / Pit No	TP30A1
Location	**Gortyrahilly and Inchamore W.F**	Sample No	
		Depth	0.00 m
Soil Description	Very clayey very sandy GRAVEL	Sample type	B



Sieving		Sedimentation	
Particle Size mm	% Passing	Particle Size mm	% Passing
125	100		
90	100		
75	100		
63	100		
50	100		
37.5	90		
28	86		
20	79		
14	74		
10	69		
6.3	62		
5	58		
3.35	53		
2	45		
1.18	39		
0.6	34		
0.425	32		
0.3	31		
0.212	30		
0.15	28		
0.063	24		

Test Method	
BS 1377 : Part 2 : 1990	
Sieving	Clause 9.3
Sedimentation	N/A

Sample Proportions	
Cobbles	0.0
Gravel	55.0
Sand	21.0
Silt & Clay	24.0

Grading Analysis	
D100	50.00
D60	5.51
D10	
Uniformity Coefficient	

Appendix H

Appendix H (a)
Gortyrahilly Wind Farm, Co. Cork

Geo-Hazards Wind Farm Overview

Legend

Site Investigation
Trial Pits - With Iron Pan
- Yes

Peat Stability Risk - RR(D) Scen. B.
- Very Low
- Low
- Moderate
- High

Subsoil Stability Risk - RR(D) Scen. B.
- Very Low
- Moderate

Development Layout

WF
- Proposed Turbine Locations
- 603679 GWF Redline Boundary
- Site Infrastructure

Ancillary
603679 Google Rd Clip
Band 1 (Red)
255
0

Receptors
- Receptors - High Importance and Sensitivity

Hydrology
- WFD River Waterbodies
- Deep Eroded Drainage Channel

Site Drainage
- Mapped River Corrected
- Significant Drain
- Minor Drain
- Mapped River Diverted
- Natural Stilling Pond

Topography
- 603679 GSI Bedrock Outcrop (2018) Clipped
- Bedrock Outcrop Observed

Geology
- 10 m GDEM Contours

Landslide Susceptibility
- High
- Moderately High

Project: Gortyrahilly Wind Farm

Projection: ITM

Drawn by: Sven K.

Version: 29/08/2022

References/Sources:
Environmental Protection Agency (EPA)
Geological Services Ireland (GSI)
Bing Aerial / GeoHive / Open Street Map / Google Roads
GDEM Elevation Contours
Fehily Timoney (2019) Surrounding Wind Turbines and Wind Energy Designations

Note: Data points presented are georeferenced using open source data and/or a handheld GPS. This drawing / map is considered a conceptual model with reasonable accuracy for the purposes of environmental assessment. This drawing should not be relied upon for detailed design purposes.

Scale:
0 100 200 300 400 500 m

Minerex Environmental RSK

N

Sub-Station
Farm Yard & Dwellings
Met Mast
Borrow Pit
Borrow Pit
T1
T2
T3
T4
T5
T6
T7
T8
T9
T10
T11
T12
T13
T14
TP024
TP025
TP026
TP028
TP029
TP014
TP037

Appendix H (b)
Gortyrahilly Wind Farm, Co. Cork

Geo-Hazards Western / North Western Area of the Site

Western / North Western area of site referred to re. elevated stability risk in deeper tills.
Areas possess steep incline, deep tills, hydrological/hydrogeological modification, deeply eroded drainage channels, high landslide sysceptibility (GSI), iron pan.

Legend

Site Investigation

Trial Pits - With Iron Pan
- Yes

Peat Stability Risk - RR(D) Scen. B.
- Very Low
- Low
- Moderate
- High

Subsoil Stability Risk - RR(D) Scen. B.
- Very Low

Development Layout

WF
- Proposed Turbine Locations
- 603679 GWF Redline Boundary
- Site Infrastructure

Ancillary

603679 Google Rd Clip
Band 1 (Red)
255
0

Hydrology
- WFD River Waterbodies
- Deep Eroded Drainage Channel

Site Drainage
- Significant Drain
- Minor Drain
- Natural Stilling Pond

Topography
- 603679 GSI Bedrock Outcrop (2018) Clipped
- Bedrock Outcrop Observed

Geology
- 10 m GDEM Contours

Landslide Susceptibility
- High
- Moderately High

Project: Gortyrahilly Wind Farm

Projection: ITM

Drawn by: Sven K.

Version: 29/08/2022

References/Sources:
Environmental Protection Agency (EPA)
Geological Services Ireland (GSI)
Bing Aerial / GeoHive / Open Street Map / Google Roads
GDEM Elevation Contours
Fehily Timoney (2019) Surrounding Wind Turbines and Wind Energy Designations

Note: Data points presented are georeferenced using open source data and/or a handheld GPS. This drawing / map is considered a conceptual model with reasonable accuracy for the purposes of environmental assessment. This drawing should not be relied upon for detailed design purporses.

Scale:
0 0.1 0.2 km

Minerex Environmental
RSK

N

T1 T2 T3 T4 T7 T8
TP025 TP026 TP024 TP014 TP028
Met Mast
Borrow Pit
340 280 290 310 320 330 340 350 360 370 380 300 380 390 400

Appendix H (c)
Gortyrahilly Wind Farm, Co. Cork

Geo-Hazards Eastern / South Eastern Area of the Site

Legend

Site Investigation

Trial Pits - With Iron Pan
- Yes

Peat Stability Risk - RR(D) Scen. B.
- Very Low
- Low
- Moderate
- High

Subsoil Stability Risk - RR(D) Scen. B.
- Very Low
- Moderate

Development Layout

WF
- Proposed Turbine Locations
- 603679 GWF Redline Boundary
- Site Infrastructure

Ancillary

603679 Google Rd Clip
Band 1 (Red)
255
0

Receptors
- Receptors - High Importance and Sensitivity

Hydrology
- WFD River Waterbodies

Site Drainage
- Mapped River Corrected
- Significant Drain
- Minor Drain
- Mapped River Diverted

Topography
- 603679 GSI Bedrock Outcrop (2018) Clipped
- Bedrock Outcrop Observed

Geology
- 10 m GDEM Contours

Landslide Susceptibility
- High
- Moderately High

Project: Gortyrahilly Wind Farm

Projection: ITM

Drawn by: Sven K.

Version: 29/08/2022

References/Sources:
Environmental Protection Agency (EPA)
Geological Services Ireland (GSI)
Bing Aerial / GeoHive / Open Street Map / Google Roads
GDEM Elevation Contours
Fehily Timoney (2019) Surrounding Wind Turbines and Wind Energy Designations

Note: Data points presented are georeferenced using open source data and/or a handheld GPS. This drawing / map is considered a conceptual model with reasonable accuracy for the purposes of environmental assessment. This drawing should not be relied upon for detailed design purposes.

Scale:
0 0.1 0.2 km

Minerex Environmental
RSK

Location of highly sensitive receptor (dwelling / farm yard) c. 200 m distance downgradient from T12

Western / North Western area of site referred to re. elevated stability risk in deeper tills.
Areas possess steep incline, potential for deep tills, hydrological/hydrogeological modification, deeply eroded drainage channels, high landslide sysceptibility (GSI), potential for iron pan.

Elevated stability risk due to geo-hazards - pockets deep peat, steep inclince etc, and proximity to sensitive receptors (yard / dwelling).

Elevated stability risk due to potential for pockets of deeper peat, and proximity to sensitive receptors (surface water)

Farm Yard & Dwellings

T10 T11 T12 T13 T14 T6 TP037

Borrow Pit

River Douglas

230 240 250 260 270 280 290 300 310 320 330 340 350 360 370 270

N

Appendix I

Appendix I
Stability Risk Matrices and Ratings.

Minerex Environmental

Accounting for Landslide History and Substrate Topology with a view to adjusting calculated FoS (FoS Adjustment = μ_{STop} * μ_{His})		Landslide History (μ_{His})		
		No History of Landslides in the vicinity of site.	Some instances of landslides in the vicinity of site	Recorded landslides occerences within the site
Substrate Topology Characteristics (μ_{Topo})	μ	1	2	4
Substrate is parallel to surface topology.	4	FoS -0.25	FoS - 0.5	FoS - 0.5
Substrate varies from surface topology to a minor extent.	2	FoS + 0.0	FoS -0.25	FoS - 0.5
Substrate varies from surface topology to a significant extent.	1	FoS + 0.25	FoS + 0.0	FoS -0.25

FoS Adjustment Coefficient (μ)			
4	8	16
2	4	8
1	2	4

Ranking Risk re Potential for Adverse Consequences on Sensitive Receptors (RR_{SF} = μ_{FoS} * μ_{SF})		FoS re Slope Stability (μ_{FoS})		
		Acceptable (FoS = >1.3)	Marginally Stable (Acceptable) (FoS = 1-1.3)	Unstable (FoS = <1)
Significant Feature (μ_{SF})	μ	1	2	4
Non-critical infrastructure.	1	Neg.	Neg.	Low
Sensitive receptors e.g. surface water feature	2	Neg.	Low	Mod.
Community, dwellings and buildings.	4	Low	Mod.	High

RR_{SF} Coefficient (μ)		
1	2	4
2	4	8
4	8	16

Acounting for distance to Sensitive Receptors (RR_D = μ_{RRSF} * $\mu_{Dist.}$)		Distance to Sig. Feature ($\mu_{Dist.}$)		
		>150m	50-150m	<50m
Risk Ranking re Significant Feature (μ_{RRSF})	μ	1	2	4
Neg. (RR_{SF} = 1-2)	1	Neg.	Low	Mod.
Low (RR_{SF} = 4)	2	Low	Mod.	High
Mod. (RR_{SF} = 8)	4	Mod.	High	High
High (RR_{SF} = 16)	8	High	High	High

RR_D Coefficient (μ)		
1	2	4
2	4	8
4	8	16
8	16	32

SI Appendix B (a) - Peat Survey Database

Gortyrahilly WF, Co. Cork

Prepared by: SK 29/08/2022
Minerex File Ref.: 3006-011.xls

Appendix I - Peat & Slope Stability Risk Assessment

Prepared by: Sven Klinkenbergh Date: 31/08/2021
Mineerex File Ref.: 3188-A1- GWF-011.xls

										Parameter Values				Scenario A	Scenario B	Precalculated trigometric values				Scenario A		Scenario B				Scenario A		Scenario B			Scenario A		Scenario B				Scenario A	Scenario B
Sample / Test Category	Sample / Test Point ID No.	Turbine Association	ITM Easting	ITM Northing	Thickness / Depth of peat	Classification of Thickness / Depth of peat	Local Incline (c.5m rad.)	Surface Elevation (GDEM)	Substrate Elevation (GDEM - Peat Depth)	Slope Angle	Slope Angle (For Excel Formula)	Undrained Shear Strenght (Conservative Value)	Bulk Unit weight of Peat (Conservative Value)	Depth to failure plane i.e. Peat Depth	Surcharge Equivalent Placed Fill Depth i.e. +1m	Sin(α)	Cos(α)	$Cos^2(α)$	Tan(Ø')	FoS_{RAW} Factor of Safety (FoS) for Peat Stability	COEFFICIENT	FoS_{RAW} Factor of Safety (FoS) for Peat Stability	COEFFICIENT	FoS Adjustment Coefficient	FoS Adjustment Value	FoS_{ADJ} Adjusted Factor of Safety (FoS) for Peat Stability	COEFFICIENT	FoS_{ADJ} Adjusted Factor of Safety (FoS) for Peat Stability	COEFFICIENT	Significant Feature Ranking Cefficient	RR_{SF} Ranking Risk re Potential for Adverse Consequences on Sensitive Receptors	COEFFICIENT	RR_{SF} Ranking Risk re Potential for Adverse Consequences on Sensitive Receptors	COEFFICIENT	Distance to Sensitive Receptor	Distance to Sensitive Receptor Coefficient	RR_D Risk Ranking Acounting for Distance to Sensitive Receptors	RR_D Risk Ranking Acounting for Distance to Sensitive Receptors
							(GDEM)			α	α	c'	y	z	z					$FoS = \frac{c_u}{\gamma z \sin\alpha \cos\alpha}$						$FoS = \frac{c_u}{\gamma z \sin\alpha \cos\alpha}$ + Adjustment Value				μ_{SF}						$\mu_{Dist.}$		
					m		Degrees			Degrees	Radians	kPa	kN/m3	m	m	#	#	#	#	FoS	μ	FoS	μ	μ	#	FoS	μ	FoS	μ	μ	RR-SF	μ	RR-SF	μ	m	μ	RR-D	RR-D
Depth Probe	DP001	T2	514335.48	571975.38	0.50	B - Very Shallow (0.01-0.5m)	13.63752842	364.31	363.11	13.63753	0.23802	3.5	11	0.50	1.50	0.2358	0.9718	0.9444	0.4663	2.78	1.0	0.93	4.0	2.0	0.0	2.78	1.0	0.93	4.0	2.0	2.0	1.0	8.0	4.0	13.6	4.0	4.0	16.0
Depth Probe	DP002		514368.47	572133.34	0.50	B - Very Shallow (0.01-0.5m)	10.74874496	363.04	360.94	10.74874	0.187601	3.5	11	0.50	1.50	0.1865	0.9825	0.9652	0.4663	3.47	1.0	1.16	2.0	2.0	0.0	3.47	1.0	1.16	2.0	2.0	2.0	1.0	4.0	2.0	46.8	4.0	4.0	8.0
Depth Probe	DP003	T1	514369.47	571814.41	0.00	A - Rock (0.0m)	8.671253204	363.04	359.24	8.671253	0.151342	3.5	11	0.00	1.00	0.1508	0.9886	0.9773	0.4663	2134.85	1.0	2.13	1.0	2.0	0.0	2134.85	1.0	2.13	1.0	2.0	2.0	1.0	2.0	1.0	90.2	2.0	2.0	2.0
Depth Probe	DP004		514377.47	572075.35	0.10	B - Very Shallow (0.01-0.5m)	13.23828793	364.31	362.66	13.23829	0.231052	3.5	11	0.10	1.10	0.2290	0.9734	0.9476	0.4663	14.27	1.0	1.30	2.0	2.0	0.0	14.27	1.0	1.30	2.0	2.0	2.0	1.0	4.0	2.0	55.5	2.0	2.0	4.0
Depth Probe	DP005		514380.47	572213.32	0.20	B - Very Shallow (0.01-0.5m)	7.328478813	362.15	360.00	7.328479	0.127906	3.5	11	0.20	1.20	0.1276	0.9918	0.9837	0.4663	12.57	1.0	2.10	1.0	2.0	0.0	12.57	1.0	2.10	1.0	2.0	2.0	1.0	2.0	1.0	60.9	2.0	2.0	2.0
Depth Probe	DP006		514382.47	572152.34	0.40	B - Very Shallow (0.01-0.5m)	9.221405983	361.06	359.21	0.1	0.001745	3.5	11	0.40	1.40	0.0017	1.0000	1.0000	0.4663	455.76	1.0	130.22	1.0	2.0	0.0	455.76	1.0	130.22	1.0	2.0	2.0	1.0	2.0	1.0	59.0	2.0	2.0	2.0
Depth Probe	DP007	T1	514442.45	571816.41	0.20	B - Very Shallow (0.01-0.5m)	10.49540424	361.06	359.21	0.1	0.001745	3.5	11	0.20	1.20	0.0017	1.0000	1.0000	0.4663	911.53	1.0	151.92	1.0	2.0	0.0	911.53	1.0	151.92	1.0	2.0	2.0	1.0	2.0	1.0	141.7	2.0	2.0	2.0
Depth Probe	DP008		514505.44	572265.31	0.10	B - Very Shallow (0.01-0.5m)	10.57092953	361.62	360.32	10.57093	0.184498	3.5	11	0.10	1.10	0.1835	0.9830	0.9663	0.4663	17.64	1.0	1.60	1.0	2.0	0.0	17.64	1.0	1.60	1.0	2.0	2.0	1.0	2.0	1.0	122.2	2.0	2.0	2.0
Depth Probe	DP009		514511.44	572272.31	0.10	B - Very Shallow (0.01-0.5m)	10.57092953	361.62	360.37	10.57093	0.184498	3.5	11	0.10	1.10	0.1835	0.9830	0.9663	0.4663	17.64	1.0	1.60	1.0	2.0	0.0	17.64	1.0	1.60	1.0	2.0	2.0	1.0	2.0	1.0	119.8	2.0	2.0	2.0
Depth Probe	DP010	T1	514544.43	571639.45	0.20	B - Very Shallow (0.01-0.5m)	14.181036	360.05	357.75	14.18104	0.247506	3.5	11	0.20	1.20	0.2450	0.9695	0.9400	0.4663	6.70	1.0	1.12	2.0	2.0	0.0	6.70	1.0	1.12	2.0	2.0	2.0	1.0	4.0	2.0	268.5	1.0	1.0	2.0
Depth Probe	DP011	T1	514561.43	571729.43	0.00	A - Rock (0.0m)	12.2533865	364.97	362.12	12.25339	0.213862	3.5	11	0.00	1.00	0.2122	0.9772	0.9550	0.4663	1534.14	1.0	1.53	1.0	2.0	0.0	1534.14	1.0	1.53	1.0	2.0	2.0	1.0	2.0	1.0	288.9	1.0	1.0	1.0
Depth Probe	DP012	T1	514563.43	571562.46	0.20	B - Very Shallow (0.01-0.5m)	16.19501686	363.48	360.68	16.19502	0.282656	3.5	11	0.20	1.20	0.2789	0.9603	0.9222	0.4663	5.94	1.0	0.99	4.0	2.0	0.0	5.94	1.0	0.99	4.0	2.0	2.0	1.0	8.0	4.0	227.8	1.0	1.0	4.0
Depth Probe	DP013		514566.43	572177.33	0.10	B - Very Shallow (0.01-0.5m)	13.50068378	363.48	361.48	13.50068	0.235631	3.5	11	0.10	1.10	0.2335	0.9724	0.9455	0.4663	14.02	1.0	1.27	2.0	2.0	0.0	14.02	1.0	1.27	2.0	2.0	2.0	1.0	4.0	2.0	229.2	1.0	1.0	2.0
Depth Probe	DP014	T1	514569.43	571826.41	0.50	B - Very Shallow (0.01-0.5m)	9.61329937	366.34	364.84	9.613299	0.167784	3.5	11	0.50	1.50	0.1670	0.9860	0.9721	0.4663	3.86	1.0	1.29	2.0	2.0	0.0	3.86	1.0	1.29	2.0	2.0	2.0	1.0	4.0	2.0	255.6	1.0	1.0	2.0
Depth Probe	DP015	T1	514602.42	571728.43	0.10	B - Very Shallow (0.01-0.5m)	11.61142349	366.34	365.94	0.1	0.001745	3.5	11	0.10	1.10	0.0017	1.0000	1.0000	0.4663	1823.05	1.0	165.73	1.0	2.0	0.0	1823.05	1.0	165.73	1.0	2.0	2.0	1.0	2.0	1.0	324.1	1.0	1.0	1.0
Depth Probe	DP016	T1	514605.42	571733.43	0.00	A - Rock (0.0m)	11.61142349	366.34	365.44	11.61142	0.202658	3.5	11	0.00	1.00	0.2013	0.9795	0.9595	0.4663	1613.87	1.0	1.61	1.0	2.0	0.0	1613.87	1.0	1.61	1.0	2.0	2.0	1.0	2.0	1.0	324.3	1.0	1.0	1.0
Depth Probe	DP017	T1	514607.42	571755.42	0.10	B - Very Shallow (0.01-0.5m)	9.901521683	363.48	362.08	9.901522	0.172814	3.5	11	0.10	1.10	0.1720	0.9851	0.9704	0.4663	18.78	1.0	1.71	1.0	2.0	0.0	18.78	1.0	1.71	1.0	2.0	2.0	1.0	2.0	1.0	316.0	1.0	1.0	1.0
Depth Probe	DP018	T1	514612	571830	0.50	B - Very Shallow (0.01-0.5m)	8.851368904	366.56	365.56	8.851369	0.154486	3.5	11	0.50	1.50	0.1539	0.9881	0.9763	0.4663	4.19	1.0	1.40	1.0	2.0	0.0	4.19	1.0	1.40	1.0	2.0	2.0	1.0	2.0	1.0	296.3	1.0	1.0	1.0
Depth Probe	DP019	T1	514617.1	571852.08	0.00	A - Rock (0.0m)	10.61084747	366.56	364.66	10.61085	0.185194	3.5	11	0.00	1.00	0.1841	0.9829	0.9661	0.4663	1758.02	1.0	1.76	1.0	2.0	0.0	1758.02	1.0	1.76	1.0	2.0	2.0	1.0	2.0	1.0	297.5	1.0	1.0	1.0
Depth Probe	DP020	T1	514621.45	571875.01	0.15	B - Very Shallow (0.01-0.5m)	12.80841351	366.56	364.16	12.80841	0.223549	3.5	11	0.15	1.15	0.2217	0.9751	0.9509	0.4663	9.81	1.0	1.28	2.0	2.0	0.0	9.81	1.0	1.28	2.0	2.0	2.0	1.0	4.0	2.0	299.7	1.0	1.0	2.0
Depth Probe	DP021	T1	514629.41	571700.43	0.50	B - Very Shallow (0.01-0.5m)	11.5958643	367.56	365.06	11.59586	0.202386	3.5	11	0.50	1.50	0.2010	0.9796	0.9596	0.4663	3.23	1.0	1.08	2.0	2.0	0.0	3.23	1.0	1.08	2.0	2.0	2.0	1.0	4.0	2.0	361.7	1.0	1.0	2.0
Depth Probe	DP022	T1	514638.29	571914.64	0.00	A - Rock (0.0m)	13.62177467	367.56	365.96	13.62177	0.237745	3.5	11	0.00	1.00	0.2355	0.9719	0.9445	0.4663	1390.13	1.0	1.39	1.0	2.0	0.0	1390.13	1.0	1.39	1.0	2.0	2.0	1.0	2.0	1.0	317.0	1.0	1.0	1.0
Depth Probe	DP023	T1	514642.64	571844.97	0.00	A - Rock (0.0m)	9.322705269	363.13	362.53	9.322705	0.162712	3.5	11	0.00	1.00	0.1620	0.9868	0.9738	0.4663	1990.44	1.0	1.99	1.0	2.0	0.0	1990.44	1.0	1.99	1.0	2.0	2.0	1.0	2.0	1.0	323.8	1.0	1.0	1.0
Depth Probe	DP024	T1	514660	571830	0.50	B - Very Shallow (0.01-0.5m)	8.45779705	360.66	360.06	8.457797	0.147616	3.5	11	0.50	1.50	0.1471	0.9891	0.9784	0.4663	4.37	1.0	1.46	1.0	2.0	0.0	4.37	1.0	1.46	1.0	2.0	2.0	1.0	2.0	1.0	343.4	1.0	1.0	1.0
Depth Probe	DP025		514663.41	572233.32	0.30	B - Very Shallow (0.01-0.5m)	13.80265999	361.36	361.16	13.80266	0.240902	3.5	11	0.30	1.30	0.2386	0.9711	0.9431	0.4663	4.58	1.0	1.06	2.0	2.0	0.0	4.58	1.0	1.06	2.0	2.0	2.0	1.0	4.0	2.0	254.6	1.0	1.0	2.0
Depth Probe	DP026	T1	514666.01	571868.63	1.00	C - Shallow (0.5-2.0m)	9.046014786	361.36	359.66	9.046015	0.157883	3.5	11	1.00	2.00	0.1572	0.9876	0.9753	0.4663	2.05	1.0	1.02	2.0	2.0	0.0	2.05	1.0	1.02	2.0	2.0	2.0	1.0	4.0	2.0	344.6	1.0	1.0	2.0
Depth Probe	DP027	T1	514674.4	571667.44	0.50	B - Very Shallow (0.01-0.5m)	10.26723289	361.36	360.16	10.26723	0.179197	3.5	11	0.50	1.50	0.1782	0.9840	0.9682	0.4663	3.63	1.0	1.21	2.0	2.0	0.0	3.63	1.0	1.21	2.0	2.0	2.0	1.0	4.0	2.0	379.9	1.0	1.0	2.0
Depth Probe	DP028	T1	514682.56	571842.65	0.60	C - Shallow (0.5-2.0m)	5.981483936	364.05	362.60	5.981484	0.104397	3.5	11	0.60	1.60	0.1042	0.9946	0.9891	0.4663	5.12	1.0	1.92	1.0	2.0	0.0	5.12	1.0	1.92	1.0	2.0	2.0	1.0	2.0	1.0	363.7	1.0	1.0	1.0
Depth Probe	DP029	T1	514698.43	571885.94	0.00	A - Rock (0.0m)	8.881988525	364.05	363.95	8.881989	0.15502	3.5	11	0.00	1.00	0.1544	0.9880	0.9762	0.4663	2085.78	1.0	2.08	1.0	2.0	0.0	2085.78	1.0	2.08	1.0	2.0	2.0	1.0	2.0	1.0	376.3	1.0	1.0	1.0
Depth Probe	DP030	T1	514702.37	571921.31	0.00	A - Rock (0.0m)	11.32929325	363.13	362.03	11.32929	0.197733	3.5	11	0.00	1.00	0.1964	0.9805	0.9614	0.4663	1651.87	1.0	1.65	1.0	2.0	0.0	1651.87	1.0	1.65	1.0	2.0	2.0	1.0	2.0	1.0	381.4	1.0	1.0	1.0
Depth Probe	DP031	T1	514715.86	571870.07	1.10	C - Shallow (0.5-2.0m)	9.065828323	359.84	359.64	9.065828	0.158229	3.5	11	1.10	2.10	0.1576	0.9875	0.9752	0.4663	1.86	1.0	0.97	4.0	2.0	0.0	1.86	1.0	0.97	4.0	2.0	2.0	1.0	8.0	4.0	394.3	1.0	1.0	4.0
Depth Probe	DP032	T1	514720.39	571857.4	0.20	B - Very Shallow (0.01-0.5m)	6.09664011	359.84	358.89	6.09664	0.106406	3.5	11	0.20	1.20	0.1062	0.9943	0.9887	0.4663	15.06	1.0	2.51	1.0	2.0	0.0	15.06	1.0	2.51	1.0	2.0	2.0	1.0	2.0	1.0	399.7	1.0	1.0	1.0
Depth Probe	DP033		514728.39	572262.31	0.10	B - Very Shallow (0.01-0.5m)	14.11036205	357.34	356.24	14.11036	0.246272	3.5	11	0.10	1.10	0.2438	0.9698	0.9406	0.4663	13.46	1.0	1.22	2.0	2.0	0.0	13.46	1.0	1.22	2.0	2.0	2.0	1.0	4.0	2.0	288.1	1.0	1.0	2.0
Depth Probe	DP034	T1	514729.65	571928.86	0.00	A - Rock (0.0m)	12.47283459	370.46	370.06	12.47283	0.217692	3.5	11	0.00	1.00	0.2160	0.9764	0.9534	0.4663	1508.83	1.0	1.51	1.0	2.0	0.0	1508.83	1.0	1.51	1.0	2.0	2.0	1.0	2.0	1.0	409.3	1.0	1.0	1.0
Depth Probe	DP035	T1	514731.4	571906.87	1.20	C - Shallow (0.5-2.0m)	11.06115246	370.46	369.66	11.06115	0.193054	3.5	11	1.20	2.20	0.1919	0.9814	0.9632	0.4663	1.41	1.0	0.77	4.0	2.0	0.0	1.41	1.0	0.77	4.0	2.0	2.0	1.0	8.0	4.0	409.6	1.0	1.0	4.0
Depth Probe	DP036	T1	514743.3	571890.04	1.50	C - Shallow (0.5-2.0m)	8.706787109	372.46	371.16	8.706787	0.151962	3.5	11	1.50	2.50	0.1514	0.9885	0.9771	0.4663	1.42	1.0	0.85	4.0	2.0	0.0	1.42	1.0	0.85	4.0	2.0	2.0	1.0	8.0	4.0	421.2	1.0	1.0	4.0
Depth Probe	DP037	T1	514746.2	571942.65	0.40	B - Very Shallow (0.01-0.5m)	12.44247532	372.46	370.36	12.44248	0.217162	3.5	11	0.40	1.40	0.2155	0.9765	0.9536	0.4663	3.78	1.0	1.08	2.0	2.0	0.0	3.78	1.0	1.08	2.0	2.0	2.0	1.0	4.0	2.0	424.6	1.0	1.0	2.0
Depth Probe	DP038	T1	514753.17	571881.04	0.00	A - Rock (0.0m)	5.724436283	372.46	372.31	5.724436	0.09991	3.5	11	0.00	1.00	0.0997	0.9950	0.9901	0.4663	3205.97	1.0	3.20	1.0	2.0	0.0	3205.97	1.0	3.20	1.0	2.0	2.0	1.0	2.0	1.0	431.2	1.0	1.0	1.0
Depth Probe	DP039	T1	514757	571836	0.05	B - Very Shallow (0.01-0.5m)	4.100651264	372.46	372.36	0.1	0.001745	3.5	11	0.05	1.05	0.0017	1.0000	1.0000	0.4663	3646.10	1.0	173.62	1.0	2.0	0.0	3646.10	1.0	173.62	1.0	2.0	2.0	1.0	2.0	1.0	438.4	1.0	1.0	1.0
Depth Probe	DP040	T1	514757.96	571951.65	0.00	A - Rock (0.0m)	11.88343811	367.93	366.43	11.88344	0.207405	3.5	11	0.00	1.00	0.2059	0.9786	0.9576	0.4663	1579.00	1.0	1.58	1.0	2.0	0.0	1579.00	1.0	1.58	1.0	2.0	2.0	1.0	2.0	1.0	435.8	1.0	1.0	1.0
Depth Probe	DP041	T1	514769.38	571442.49	0.10	B - Very Shallow (0.01-0.5m)	15.35416794	367.93	365.83	15.35417	0.267981	3.5	11	0.10	1.10	0.2648	0.9643	0.9299	0.4663	12.46	1.0	1.13	2.0	2.0	0.0	12.46	1.0	1.13	2.0	2.0	2.0	1.0	4.0	2.0	389.3	1.0	1.0	2.0
Depth Probe	DP042	T1	514770.15	571913.62	0.00	A - Rock (0.0m)	9.632390976	368.71	366.81	9.632391	0.168117	3.5	11	0.00	1.00	0.1673	0.9859	0.9720	0.4663	1928.76	1.0	1.93	1.0	2.0	0.0	1928.76	1.0	1.93	1.0	2.0	2.0	1.0	2.0	1.0	448.6	1.0	1.0	1.0
Depth Probe	DP043	T1	514771.02	571930.75	0.20	B - Very Shallow (0.01-0.5m)	11.0523262	368.71	366.91	11.05233	0.192899	3.5	11	0.20	1.20	0.1917	0.9815	0.9632	0.4663	8.46	1.0	1.41	1.0	2.0	0.0	8.46	1.0	1.41	1.0	2.0	2.0	1.0	2.0	1.0	450.3	1.0	1.0	1.0
Depth Probe	DP044	T1	514772.33	571942.22	0.00	A - Rock (0.0m)	11.0523262	366.56	364.26	11.05233	0.192899	3.5	11	0.00	1.00	0.1917	0.9815	0.9632	0.4663	1691.11	1.0	1.69	1.0	2.0	0.0	1691.11	1.0	1.69	1.0	2.0	2.0	1.0	2.0	1.0	450.7	1.0	1.0	1.0
Depth Probe	DP045	T1	514802.37	571422.49	0.00	A - Rock (0.0m)	14.71449852	366.15	364.95	14.7145	0.256816	3.5	11	0.00	1.00	0.2540	0.9672	0.9355	0.4663	1295.15	1.0	1.29	2.0	2.0	0.0	1295.15	1.0	1.29	2.0	2.0	2.0	1.0	4.0	2.0	422.0	1.0	1.0	2.0
Depth Probe	DP046		514828.37	572284.31	0.50	B - Very Shallow (0.01-0.5m)	14.75984097	367.93	366.93	0.1	0.001745	3.5	11	0.50	1.50	0.0017	1.0000	1.0000	0.4663	364.61	1.0	121.54	1.0	2.0	0.0	364.61	1.0	121.54	1.0	2.0	2.0	1.0	2.0	1.0	330.8	1.0	1.0	1.0
Depth Probe	DP047	T1	514830.75	571911.88	0.00	A - Rock (0.0m)	6.697873592	367.93	367.93	0.1	0.001745	3.5	11	0.001	1.00	0.0017	1.0000	1.0000	0.4663	182305.12	1.0	182.12	1.0	2.0	0.0	182305.12	1.0	182.12	1.0	2.0	2.0	1.0	2.0	1.0	509.0	1.0	1.0	1.0
Depth Probe	DP048	T1	514835.97	571934.38	0.00	A - Rock (0.0m)	8.252165794	366.90	365.40	8.252166	0.144027	3.5	11	0.00	1.00	0.1435	0.9896	0.9794	0.4663	2240.02	1.0	2.24	1.0	2.0	0.0	2240.02	1.0	2.24	1.0	2.0	2.0	1.0	2.0	1.0	514.7	1.0	1.0	1.0
Depth Probe	DP049	T1	514840	571901	0.00	A - Rock (0.0m)	6.697873592	366.90	366.80	6.697874	0.1169	3.5	11	0.00	1.00	0.1166	0.9932	0.9864	0.4663	2746.79	1.0	2.74	1.0	2.0	0.0	2746.79	1.0	2.74	1.0	2.0	2.0	1.0	2.0	1.0	518.0	1.0	1.0	1.0
Depth Probe	DP050	T1	514841.37	571641.44	0.10	B - Very Shallow (0.01-0.5m)	4.242060184	363.65	362.50	4.24206	0.074038	3.5	11	0.10	1.10	0.0740	0.9973	0.9945	0.4663	43.13	1.0	3.92	1.0	2.0	0.0	43.13	1.0	3.92	1.0	2.0	2.0	1.0	2.0	1.0	508.5	1.0	1.0	1.0
Depth Probe	DP051	T1	514842.37	571636.45	1.00	C - Shallow (0.5-2.0m)	4.242060184	374.27	371.87	4.24206	0.074038	3.5	11	1.00	2.00	0.0740	0.9973	0.9945	0.4663	4.31	1.0	2.16	1.0	2.0	0.0	4.31	1.0	2.16	1.0	2.0	2.0	1.0	2.0	1.0	507.3	1.0	1.0	1.0
Depth Probe	DP052	T1	514845	571884	3.50	D - Moderately Deep (2.0-3.5m)	2.643830776	375.83	373.73	2.643831	0.046144	3.5	11	3.50	4.50	0.0461	0.9989	0.9979	0.4663	1.97	1.0	1.53	1.0	2.0	0.0	1.97	1.0	1.53	1.0	2.0	2.0	1.0	2.0	1.0	522.9	1.0	1.0	1.0
Depth Probe	DP053	T1	514851.36	571619.45	0.20	B - Very Shallow (0.01-0.5m)	4.878229618	373.67	373.07	4.87823	0.085141	3.5	11	0.20	1.20	0.0850	0.9964	0.9928	0.4663	18.78	1.0	3.13	1.0	2.0	0.0	18.78	1.0	3.13	1.0	2.0	2.0	1.0	2.0	1.0	508.8	1.0	1.0	1.0
Depth Probe	DP054	T1	514855	571893	2.00	C - Shallow (0.5-2.0m)	2.643830776	371.74	370.64	2.643831	0.046144	3.5	11	2.00	3.00	0.0461	0.9989	0.9979	0.4663	3.45	1.0	2.30	1.0	2.0	0.0	3.45	1.0	2.30	1.0	2.0	2.0	1.0	2.0	1.0	532.9	1.0	1.0	1.0
Depth Probe	DP055	T1	514855	571881	3.50	D - Moderately Deep (2.0-3.5m)	2.643830776	371.74	370.84	2.643831	0.046144	3.5	11	3.50	4.50	0.0461	0.9989	0.9979	0.4663	1.97	1.0	1.53	1.0	2.0	0.0	1.97	1.0	1.53	1.0	2.0	2.0	1.0	2.0	1.0	533.0	1.0	1.0	1.0
Depth Probe	DP056	T1	514860	571868	3.50	D - Moderately Deep (2.0-3.5m)	2.643830776	369.74	368.84	2.643831	0.046144	3.5	11	3.50	4.50	0.0461	0.9989	0.9979	0.4663	1.97	1.0	1.53	1.0	2.0	0.0	1.97	1.0	1.53	1.0	2.0	2.0	1.0	2.0	1.0	538.4	1.0	1.0	1.0
Depth Probe	DP057	T1	514866	571854	0.20	B - Very Shallow (0.01-0.5m)	1.689691424	369.74	369.54	0.1	0.001745	3.5	11	0.20	1.20	0.0017	1.0000	1.0000	0.4663	911.53	1.0	151.92	1.0	2.0	0.0	911.53	1.0	151.92	1.0	2.0	2.0	1.0	2.0	1.0	545.2	1.0	1.0	1.0
Depth Probe	DP058	T1	514870	571907	0.00	A - Rock (0.0m)	5.269693375	366.07	366.02	5.269693	0.091973	3.5	11	0.00	1.00	0.0918	0.9958	0.9916	0.4663	3479.08	1.0	3.48	1.0	2.0	0.0	3479.08	1.0	3.48	1.0	2.0	2.0	1.0	2.0	1.0	548.1	1.0	1.0	1.0
Depth Probe	DP059	T1	514871.36	571896.39	1.00	C - Shallow (0.5-2.0m)	2.643830776	366.07	365.77	2.643831	0.046144	3.5	11	1.00	2.00	0.0461	0.9989	0.9979	0.4663	6.91	1.0	3.45	1.0	2.0	0.0	6.91	1.0	3.45	1.0	2.0	2.0	1.0	2.0	1.0	549.3	1.0	1.0	1.0
Depth Probe	DP060	T1	514871.68	571988.23	0.00	A - Rock (0.0m)	10.0065937	369.74	368.44	10.00659	0.174648	3.5	11	0.00	1.00	0.1738	0.9848	0.9698	0.4663	1859.43	1.0	1.86	1.0	2.0	0.0	1859.43	1.0	1.86	1.0	2.0	2.0	1.0	2.0	1.0	548.8	1.0	1.0	1.0
Depth Probe	DP061	T1	514872	571899	0.80	C - Shallow (0.5-2.0m)	5.269693375	369.74	369.14	5.269693	0.091973	3.5	11	0.80	1.80	0.0918	0.9958	0.9916	0.4663	4.35	1.0	1.93	1.0	2.0	0.0	4.35	1.0	1.93	1.0	2.0	2.0	1.0	2.0	1.0	549.9	1.0	1.0	1.0
Depth Probe	DP062	T1	514872.36	571378.5	0.00	A - Rock (0.0m)	14.01988697	367.59	367.19	14.01989	0.244693	3.5	11	0.00	1.00	0.2423	0.9702	0.9413	0.4663	1353.72	1.0	1.35	1.0	2.0	0.0	1353.72	1.0	1.35	1.0	2.0	2.0	1.0	2.0	1.0	494.0	1.0	1.0	1.0
Depth Probe	DP063	T1	514894.36	571569.46	0.20	B - Very Shallow (0.01-0.5m)	5.967031956	376.66	374.76	0.1	0.001745	3.5	11	0.20	1.20	0.0017	1.0000	1.0000	0.4663	911.53	1.0	151.92	1.0	2.0	0.0	911.53	1.0	151.92	1.0	2.0	2.0	1.0	2.0	1.0	533.4	1.0	1.0	1.0
Depth Probe	DP064	T1	514896.24	572020.12	0.00	A - Rock (0.0m)	10.09867191	377.74	377.54	10.09867	0.176255	3.5	11	0.00	1.00	0.1753	0.9845	0.9693	0.4663	1843.17	1.0	1.84	1.0	2.0	0.0	1843.17	1.0	1.84	1.0	2.0	2.0	1.0	2.0	1.0	570.2	1.0	1.0	1.0
Depth Probe	DP065	T1	514900.35	571510.47	0.10	B - Very Shallow (0.01-0.5m)	8.791462898	378.20	378.10	8.791463	0.15344	3.5	11	0.10	1.10	0.1528	0.9883	0.9766	0.4663	21.07	1.0	1.92	1.0	2.0	0.0	21.07	1.0	1.92	1.0	2.0	2.0	1.0	2.0	1.0	526.7	1.0	1.0	1.0
Depth Probe	DP066	T1	514904.35	571393.5	0.10	B - Very Shallow (0.01-0.5m)	10.66705799	372.20	371.60	10.66706	0.186175	3.5	11	0.10	1.10	0.1851	0.9827	0.9657	0.4663	17.49	1.0	1.59	1.0	2.0	0.0	17.49	1.0	1.59	1.0	2.0	2.0	1.0	2.0	1.0	525.1	1.0	1.0	1.0
Depth Probe	DP067	T1	514913.35	571902.39	0.00	A - Rock (0.0m)	6.822252274	370.02	367.22	6.822252	0.119071	3.5	11	0.00	1.00	0.1188	0.9929	0.9859	0.4663	2697.63	1.0	2.69	1.0	2.0	0.0	2697.63	1.0	2.69	1.0	2.0	2.0	1.0	2.0	1.0	591.3	1.0	1.0	1.0
Depth Probe	DP068	T1	514914.86	572024.66	0.00	A - Rock (0.0m)	10.09867191	367.00	365.80	10.09867	0.176255	3.5	11	0.00	1.00	0.1753	0.9845	0.9693	0.4663	1843.17	1.0	1.84	1.0	2.0	0.0	1843.17	1.0	1.84	1.0	2.0	2.0	1.0	2.0	1.0	580.8	1.0	1.0	1.0
Depth Probe	DP069	T1	514918.85	571993.16	0.00	A - Rock (0.0m)	6.091109276	370.02	370.02	6.091109	0.10631	3.5	11	0.001	1.00	0.1061	0.9944	0.9887	0.4663	3015.63	1.0	3.01	1.0	2.0	0.0	3015.63	1.0	3.01	1.0	2.0	2.0	1.0	2.0	1.0	595.8	1.0	1.0	1.0
Depth Probe	DP070	T1	514921.35	571912.39	2.80	D - Moderately Deep (2.0-3.5m)	7.819504261	374.62	371.82	7.819504	0.136476	3.5	11	2.80	3.80	0.1361	0.9907	0.9815	0.4663	0.84	4.0	0.62	4.0	2.0	0.0	0.84	4.0	0.62	4.0	2.0	8.0	4.0	8.0	4.0	599.6	1.0	4.0	4.0
Depth Probe	DP071	T1	514934.35	571464.48	0.40	B - Very Shallow (0.01-0.5m)	8.888768196	374.62	371.72	8.888768	0.155138	3.5	11	0.40	1.40	0.1545	0.9880	0.9761	0.4663	5.21	1.0	1.49	1.0	2.0	0.0	5.21	1.0	1.49	1.0	2.0	2.0	1.0	2.0	1.0	555.3	1.0	1.0	1.0
Depth Probe	DP072	T2	514935.35	572317.3	0.20	B - Very Shallow (0.01-0.5m)	13.82907104	374.62	374.52	13.82907	0.241363	3.5	11	0.20	1.20	0.2390	0.9710	0.9429	0.4663	6.85	1.0	1.14	2.0	2.0	0.0	6.85	1.0	1.14	2.0	2.0	2.0	1.0	4.0	2.0	341.6	1.0	1.0	2.0
Depth Probe	DP073	T1	514941.34	571423.49	0.10	B - Very Shallow (0.01-0.5m)	7.450731277	376.15	376.05	7.450731	0.13004	3.5	11	0.10	1.10	0.1297	0.9916	0.9832	0.4663	24.75	1.0	2.25	1.0	2.0	0.0	24.75	1.0	2.25	1.0	2.0	2.0	1.0	2.0	1.0	561.0	1.0	1.0	1.0
Depth Probe	DP074	T1	514945.34	571403.5	0.30	B - Very Shallow (0.01-0.5m)	7.972794056	356.76	355.26	0.1	0.001745	3.5	11	0.30	1.30	0.0017	1.0000	1.0000	0.4663	607.68	1.0	140.23	1.0	2.0	0.0	607.68	1.0	140.23	1.0	2.0	2.0	1.0	2.0	1.0	565.5	1.0	1.0	1.0
Depth Probe	DP075	T1	514948	572041	0.60	C - Shallow (0.5-2.0m)	5.652444363	358.11	354.81	5.652444	0.098654	3.5	11	0.60	1.60	0.0985	0.9951	0.9903	0.4663	5.41	1.0	2.03	1.0	2.0	0.0	5.41	1.0	2.03	1.0	2.0	2.0	1.0	2.0	1.0	595.6	1.0	1.0	1.0
Depth Probe	DP076	T2	514990.34	572326.3	0.20	B - Very Shallow (0.01-0.5m)	12.0371685	358.11	355.26	12.03717	0.210088	3.5	11	0.20	1.20	0.2085	0.9780	0.9565	0.4663	7.80	1.0	1.30	1.0	2.0	0.0	7.80	1.0	1.30	1.0	2.0	2.0	1.0	2.0	1.0	362.2	1.0	1.0	1.0
Depth Probe	DP077	T2	515000.34	572342.29	0.20	B - Very Shallow (0.01-0.5m)	12.0371685	356.92	353.57	12.03717	0.210088	3.5	11	0.20	1.20	0.2085	0.9780	0.9565	0.4663	7.80	1.0	1.30	1.0	2.0	0.0	7.80	1.0	1.30	1.0	2.0	2.0	1.0	2.0	1.0	354.7	1.0	1.0	1.0
Depth Probe	DP078	T2	515009.33	572274.31	0.00	A - Rock (0.0m)	16.44506073	356.92	353.47	16.44506	0.28702	3.5	11	0.00	1.00	0.2831	0.9591	0.9199	0.4663	1171.88	1.0	1.17	2.0	2.0	0.0	1171.88	1.0	1.17	2.0	2.0	2.0	1.0	4.0	2.0	416.3	1.0	1.0	2.0
Depth Probe	DP079	T1	515020.12	571488.17	0.20	B - Very Shallow (0.01-0.5m)	7.462193489	355.60	354.05	7.462193	0.13024	3.5	11	0.20	1.20	0.1299	0.9915	0.9831	0.4663	12.35	1.0	2.06	1.0	2.0	0.0	12.35	1.0	2.06	1.0	2.0	2.0	1.0	2.0	1.0	519.0	1.0	1.0	1.0
Depth Probe	DP080	T1	515028	571474	1.00	C - Shallow (0.5-2.0m)	2.219667196	355.31	353.41	0.1	0.001745	3.5	11	1.00	2.00	0.0017	1.0000	1.0000	0.4663	182.31	1.0	91.15	1.0	2.0	0.0	182.31	1.0	91.15	1.0	2.0	2.0	1.0	2.0	1.0	516.9	1.0	1.0	1.0
Depth Probe	DP081	T2	515029.33	572214.32	0.00	A - Rock (0.0m)	16.81183434	347.23	342.93	0.1	0.001745	3.5	11	0.00	1.00	0.0017	1.0000	1.0000	0.4663	182305.12	1.0	182.12	1.0	2.0	0.0	182305.12	1.0	182.12	1.0	2.0	2.0	1.0	2.0	1.0	478.1	1.0	1.0	1.0
Depth Probe	DP082	T2	515032	572110	0.30	B - Very Shallow (0.01-0.5m)	10.26541805	347.23	343.33	0.1	0.001745	3.5	11	0.30	1.30	0.0017	1.0000	1.0000	0.4663	607.68	1.0	140.23	1.0	2.0	0.0	607.68	1.0	140.23	1.0	2.0	2.0	1.0	2.0	1.0	569.7	1.0	1.0	1.0
Depth Probe	DP083	T1	515033.33	571462.19	0.10	B - Very Shallow (0.01-0.5m)	2.219667196	348.73	348.43	0.1	0.001745	3.5	11	0.10	1.10	0.0017	1.0000	1.0000	0.4663	1823.05	1.0	165.73	1.0	2.0	0.0	1823.05	1.0	165.73	1.0	2.0	2.0	1.0	2.0	1.0	516.6	1.0	1.0	1.0
Depth Probe	DP084	T2	515059.32	572335.29	0.20	B - Very Shallow (0.01-0.5m)	12.61814785	348.73	348.68	12.61815	0.220228	3.5	11	0.20	1.20	0.2185	0.9758	0.9523	0.4663	7.46	1.0	1.24	2.0	2.0	0.0	7.46	1.0	1.24	2.0	2.0	2.0	1.0	4.0	2.0	395.0	1.0	1.0	2.0
Depth Probe	DP085	T2	515065.32	572190.32	0.20	B - Very Shallow (0.01-0.5m)	15.65145874	350.13	349.03	15.65146	0.273169	3.5	11	0.20	1.20	0.2698	0.9629	0.9272	0.4663	6.12	1.0	1.02	2.0	2.0	0.0	6.12	1.0	1.02	2.0	2.0	2.0	1.0	4.0	2.0	517.2	1.0	1.0	2.0
Depth Probe	DP086	T1	515100.42	571498.51	0.00	A - Rock (0.0m)	4.534740925	351.78	351.68	4.534741	0.079146	3.5	11	0.00	1.00	0.0791	0.9969	0.9937	0.4663	4037.02	1.0	4.03	1.0	2.0	0.0	4037.02	1.0	4.03	1.0	2.0	2.0	1.0	2.0	1.0	440.6	1.0	1.0	1.0
Depth Probe	DP087	T1	515107.68	571490.97	1.50	C - Shallow (0.5-2.0m)	4.534740925	351.78	349.78	4.534741	0.079146	3.5	11	1.50	2.50	0.0791	0.9969	0.9937	0.4663	2.69	1.0	1.61	1.0	2.0	0.0	2.69	1.0	1.61	1.0	2.0	2.0	1.0	2.0	1.0	437.0	1.0	1.0	1.0
Depth Probe	DP088	T1	515112.9	571470.36	0.00	A - Rock (0.0m)	0.715986609	351.78	348.83	0.715987	0.012496	3.5	11	0.00	1.00	0.0125	0.9999	0.9998	0.4663	25464.68	1.0	25.44	1.0	2.0	0.0	25464.68	1.0	25.44	1.0	2.0	2.0	1.0	2.0	1.0	441.1	1.0	1.0	1.0
Depth Probe	DP089	T1	515134.82	571514.05	0.00	A - Rock (0.0m)	7.172436237	350.73	346.03	0.1	0.001745	3.5	11	0.00	1.00	0.0017	1.0000	1.0000	0.4663	182305.12	1.0	182.12	1.0	2.0	0.0	182305.12	1.0	182.12	1.0	2.0	2.0	1.0	2.0	1.0	402.9	1.0	1.0	1.0
Depth Probe	DP090	T2	515138.31	571975.37	0.80	C - Shallow (0.5-2.0m)	10.84523964	350.73	345.03	0.1	0.001745	3.5	11	0.80	1.80	0.0017	1.0000	1.0000	0.4663	227.88	1.0	101.28	1.0	2.0	0.0	227.88	1.0	101.28	1.0	2.0	2.0	1.0	2.0	1.0	478.1	1.0	1.0	1.0
Depth Probe	DP091	T1	515142.08	571500.55	0.60	C - Shallow (0.5-2.0m)	4.3437953	346.92	345.02	4.343795	0.075814	3.5	11	0.60	1.60	0.0757	0.9971	0.9943	0.4663	7.02	1.0	2.63	1.0	2.0	0.0	7.02	1.0	2.63	1.0	2.0	2.0	1.0	2.0	1.0	401.7	1.0	1.0	1.0
Depth Probe	DP092	T2	515147.3	571969.37	1.80	C - Shallow (0.5-2.0m)	10.84523964	362.06	361.86	10.84524	0.189285	3.5	11	1.80	2.80	0.1882	0.9821	0.9646	0.4663	0.96	4.0	0.61	4.0	2.0	0.0	0.96	4.0	0.61	4.0	2.0	8.0	4.0	8.0	4.0	467.3	1.0	4.0	4.0
Depth Probe	DP093	T2	515147.3	572115.34	0.30	B - Very Shallow (0.01-0.5m)	4.779313087	362.06	362.01	4.779313	0.083415	3.5	11	0.30	1.30	0.0833	0.9965	0.9931	0.4663	12.77	1.0	2.95	1.0	2.0	0.0	12.77	1.0	2.95	1.0	2.0	2.0	1.0	2.0	1.0	571.9	1.0	1.0	1.0
Depth Probe	DP094	T1	515157.32	571493.14	0.00	A - Rock (0.0m)	5.305436611	360.88	360.78	5.305437	0.092597	3.5	11	0.00	1.00	0.0925	0.9957	0.9915	0.4663	3455.91	1.0	3.45	1.0	2.0	0.0	3455.91	1.0	3.45	1.0	2.0	2.0	1.0	2.0	1.0	391.2	1.0	1.0	1.0
Depth Probe	DP095	T2	515194.29	572108.34	0.30	B - Very Shallow (0.01-0.5m)	6.132333755	360.16	359.76	6.132334	0.107029	3.5	11	0.30	1.30	0.1068	0.9943	0.9886	0.4663	9.99	1.0	2.30	1.0	2.0	0.0	9.99	1.0	2.30	1.0	2.0	2.0	1.0	2.0	1.0	537.9	1.0	1.0	1.0
Depth Probe	DP096		515218.29	573076.13	0.00	A - Rock (0.0m)	4.667114735	361.27	359.37	4.667115	0.081457	3.5	11	0.00	1.00	0.0814	0.9967	0.9934	0.4663	3923.49	1.0	3.92	1.0	2.0	0.0	3923.49	1.0	3.92	1.0	2.0	2.0	1.0	2.0	1.0	16.4	4.0	4.0	4.0
Depth Probe	DP097	T2	515221.5	572260.21	0.00	A - Rock (0.0m)	14.4499197	360.46	357.61	14.44992	0.252199	3.5	11	0.00	1.00	0.2495	0.9684	0.9377	0.4663	1316.76	1.0	1.32	1.0	2.0	0.0	1316.76	1.0	1.32	1.0	2.0	2.0	1.0	2.0	1.0	553.6	1.0	1.0	1.0
Depth Probe	DP098	T2	515225.5	572223.81	0.00	A - Rock (0.0m)	9.863109589	360.46	357.66	9.86311	0.172144	3.5	11	0.00	1.00	0.1713	0.9852	0.9707	0.4663	1885.38	1.0	1.88	1.0	2.0	0.0	1885.38	1.0	1.88	1.0	2.0	2.0	1.0	2.0	1.0	584.4	1.0	1.0	1.0
Depth Probe	DP099	T2	515227.29	571937.38	0.20	B - Very Shallow (0.01-0.5m)	9.927916527	361.27	360.02	9.927917	0.173275	3.5	11	0.20	1.20	0.1724	0.9850	0.9703	0.4663	9.37	1.0	1.56	1.0	2.0	0.0	9.37	1.0	1.56	1.0	2.0	2.0	1.0	2.0	1.0	386.3	1.0	1.0	1.0
Depth Probe	DP100		515233.29	573106.13	0.00	A - Rock (0.0m)	4.854307175	370.94	369.94	4.854307	0.084724	3.5	11	0.00	1.00	0.0846	0.9964	0.9928	0.4663	3773.56	1.0	3.77	1.0	2.0	0.0	3773.56	1.0	3.77	1.0	2.0	2.0	1.0	2.0	1.0	13.9	4.0	4.0	4.0
Depth Probe	DP101	T2	515236.28	572058.35	0.20	B - Very Shallow (0.01-0.5m)	7.792792797	367.34	365.99	7.792793	0.13601	3.5	11	0.20	1.20	0.1356	0.9908	0.9816	0.4663	11.84	1.0	1.97	1.0	2.0	0.0	11.84	1.0	1.97	1.0	2.0	2.0	1.0	2.0	1.0	472.9	1.0	1.0	1.0
Depth Probe	DP102	T2	515244.28	571994.37	0.20	B - Very Shallow (0.01-0.5m)	11.42707157	367.34	367.04	0.1	0.001745	3.5	11	0.20	1.20	0.0017	1.0000	1.0000	0.4663	911.53	1.0	151.92	1.0	2.0	0.0	911.53	1.0	151.92	1.0	2.0	2.0	1.0	2.0	1.0	416.9	1.0	1.0	1.0
Depth Probe	DP103	T2	515248.28	571941.38	0.20	B - Very Shallow (0.01-0.5m)	9.043945313	367.34	366.74	9.043945	0.157847	3.5	11	0.20	1.20	0.1572	0.9876	0.9753	0.4663	10.25	1.0	1.71	1.0	2.0	0.0	10.25	1.0	1.71	1.0	2.0	2.0	1.0	2.0	1.0	374.3	1.0	1.0	1.0
Depth Probe	DP104		515257.29	573093.13	1.00	C - Shallow (0.5-2.0m)	2.611457348	367.34	366.44	2.611457	0.045579	3.5	11	1.00	2.00	0.0456	0.9990	0.9979	0.4663	6.99	1.0	3.50	1.0	2.0	0.0	6.99	1.0	3.50	1.0	2.0	2.0	1.0	2.0	1.0	39.4	4.0	4.0	4.0
Depth Probe	DP105		515260.28	573041.14	0.10	B - Very Shallow (0.01-0.5m)	3.198940516	367.34	366.54	3.198941	0.055832	3.5	11	0.10	1.10	0.0558	0.9984	0.9969	0.4663	57.11	1.0	5.19	1.0	2.0	0.0	57.11	1.0	5.19	1.0	2.0	2.0	1.0	2.0	1.0	70.9	2.0	2.0	2.0
Depth Probe	DP106		515284.28	573072.13	1.40	C - Shallow (0.5-2.0m)	3.501662493	367.34	365.94	3.501662	0.061116	3.5	11	1.40	2.40	0.0611	0.9981	0.9963	0.4663	3.73	1.0	2.17	1.0	2.0	0.0	3.73	1.0	2.17	1.0	2.0	2.0	1.0	2.0	1.0	73.6	2.0	2.0	2.0
Depth Probe	DP107		515286.28	573103.13	0.00	A - Rock (0.0m)	2.969684601	370.94	370.24	2.969685	0.051831	3.5	11	0.00	1.00	0.0518	0.9987	0.9973	0.4663	6149.87	1.0	6.14	1.0	2.0	0.0	6149.87	1.0	6.14	1.0	2.0	2.0	1.0	2.0	1.0	53.3	2.0	2.0	2.0
Depth Probe	DP108		515293.28	573126.12	0.00	A - Rock (0.0m)	1.122805476	367.84	367.14	1.122805	0.019597	3.5	11	0.00	1.00	0.0196	0.9998	0.9996	0.4663	16240.70	1.0	16.22	1.0	2.0	0.0	16240.70	1.0	16.22	1.0	2.0	2.0	1.0	2.0	1.0	29.4	4.0	4.0	4.0
Depth Probe	DP109	T2	515293.82	572274.22	0.10	B - Very Shallow (0.01-0.5m)	11.20054626	367.84	367.79	11.20055	0.195486	3.5	11	0.10	1.10	0.1942	0.9810	0.9623	0.4663	16.70	1.0	1.52	1.0	2.0	0.0	16.70	1.0	1.52	1.0	2.0	2.0	1.0	2.0	1.0	593.0	1.0	1.0	1.0
Depth Probe	DP110	T2	515301.37	572259.89	0.10	B - Very Shallow (0.01-0.5m)	7.390695095	367.84	367.74	7.390695	0.128992	3.5	11	0.10	1.10	0.1286	0.9917	0.9835	0.4663	24.94	1.0	2.27	1.0	2.0	0.0	24.94	1.0	2.27	1.0	2.0	2.0	1.0	2.0	1.0	608.4	1.0	1.0	1.0
Depth Probe	DP111	T2	515305.29	572250.5	0.20	B - Very Shallow (0.01-0.5m)	4.811164856	367.00	366.60	4.811165	0.083971	3.5	11	0.20	1.20	0.0839	0.9965	0.9930	0.4663	19.04	1.0	3.17	1.0	2.0	0.0	19.04	1.0	3.17	1.0	2.0	2.0	1.0	2.0	1.0	614.2	1.0	1.0	1.0

SI Appendix B (a) - Peat Survey Database

Gortyrahilly WF, Co. Cork

Prepared by: SK 29/08/2022
Minerex File Ref.: 3006-011.xls

Appendix I - Peat & Slope Stability Risk Assessment

Prepared by: Sven Klinkenbergh Date: 31/08/2021
Minerex File Ref.: 3188-A1- GWF-011.xls

										Parameter Values				Scenario A	Scenario B	Precalculated trigometric values				Scenario A		Scenario B				Scenario A		Scenario B			Scenario A		Scenario B				Scenario A	Scenario B
Sample / Test Category	Sample / Test Point ID No.	Turbine Association	ITM Easting	ITM Northing	Thickness / Depth of peat	Classification of Thickness / Depth of peat	Local Incline (c.5m rad.)	Surface Elevation (GDEM)	Substrate Elevation (GDEM - Peat Depth)	Slope Angle	Slope Angle (For Excel Formula)	Undrained Shear Strenght (Conservative Value)	Bulk Unit weight of Peat (Conservative Value)	Depth to failure plane i.e. Peat Depth	Surcharge Equivalent Placed Fill Depth i.e. +1m	Sin(α)	Cos(α)	Cos^2(α)	Tan(Ø°)	FoS$_{RAW}$ Factor of Safety (FoS) for Peat Stability	COEFFICIENT	FoS$_{RAW}$ Factor of Safety (FoS) for Peat Stability	COEFFICIENT	FoS Adjustment Coefficient	FoS Adjustment Value	FoS$_{ADJ}$ Adjusted Factor of Safety (FoS) for Peat Stability	COEFFICIENT	FoS$_{ADJ}$ Adjusted Factor of Safety (FoS) for Peat Stability	COEFFICIENT	Significant Feature Ranking Cefficient	RR$_{SF}$ Ranking Risk re Potential for Adverse Consequences on Sensitive Receptors	COEFFICIENT	RR$_{SF}$ Ranking Risk re Potential for Adverse Consequences on Sensitive Receptors	COEFFICIENT	Distance to Sensitive Receptor	Distance to Sensitive Receptor Coefficient	RR$_D$ Risk Ranking Acounting for Distance to Sensitive Receptors	RR$_D$ Risk Ranking Acounting for Distance to Sensitive Receptors
							(GDEM)			α	α	c'	y	z	z					$FoS = \frac{c_u}{yz \sin\alpha \cos\alpha}$						$FoS = \frac{c_u}{yz \sin\alpha \cos\alpha}$ + Adjustment Value				μ$_{SF}$						μ$_{Dist.}$		
					m		Degrees			Degrees	Radians	kPa	kN/m3	m	m	#	#	#	#	FoS	μ	FoS	μ	μ	#	FoS	μ	FoS	μ	μ	RR-SF	μ	RR-SF	μ	m	μ	RR-D	RR-D
Depth Probe	DP112	T2	515306.65	572254.57	0.40	B - Very Shallow (0.01-0.5m)	4.811164856	367.00	364.60	4.811165	0.083971	3.5	11	0.40	1.40	0.0839	0.9965	0.9930	0.4663	9.52	1.0	2.72	1.0	2.0	0.0	9.52	1.0	2.72	1.0	2.0	2.0	1.0	2.0	1.0	615.9	1.0	1.0	1.0
Depth Probe	DP113	T2	515323.27	572265.31	0.40	B - Very Shallow (0.01-0.5m)	5.504294395	367.00	366.20	5.504294	0.096068	3.5	11	0.40	1.40	0.0959	0.9954	0.9908	0.4663	8.33	1.0	2.38	1.0	2.0	0.0	8.33	1.0	2.38	1.0	2.0	2.0	1.0	2.0	1.0	620.6	1.0	1.0	1.0
Depth Probe	DP114	T2	515325.27	572303.3	0.20	B - Very Shallow (0.01-0.5m)	8.353871346	371.60	369.80	8.353871	0.145803	3.5	11	0.20	1.20	0.1453	0.9894	0.9789	0.4663	11.07	1.0	1.84	1.0	2.0	0.0	11.07	1.0	1.84	1.0	2.0	2.0	1.0	2.0	1.0	597.2	1.0	1.0	1.0
Depth Probe	DP115		515326.27	573046.14	0.10	B - Very Shallow (0.01-0.5m)	4.649487972	371.60	371.00	4.649488	0.081149	3.5	11	0.10	1.10	0.0811	0.9967	0.9934	0.4663	39.38	1.0	3.58	1.0	2.0	0.0	39.38	1.0	3.58	1.0	2.0	2.0	1.0	2.0	1.0	111.4	2.0	2.0	2.0
Depth Probe	DP116	T2	515330.81	572283.9	0.60	C - Shallow (0.5-2.0m)	5.504294395	371.60	371.60	5.504294	0.096068	3.5	11	0.600	1.60	0.0959	0.9954	0.9908	0.4663	5.55	1.0	2.08	1.0	2.0	0.0	5.55	1.0	2.08	1.0	2.0	2.0	1.0	2.0	1.0	613.9	1.0	1.0	1.0
Depth Probe	DP117	T2	515341.26	572292.3	0.40	B - Very Shallow (0.01-0.5m)	6.864428043	367.84	367.44	6.864428	0.119807	3.5	11	0.40	1.40	0.1195	0.9928	0.9857	0.4663	6.70	1.0	1.92	1.0	2.0	0.0	6.70	1.0	1.92	1.0	2.0	2.0	1.0	2.0	1.0	616.5	1.0	1.0	1.0
Depth Probe	DP118		515346.27	573255.09	0.30	B - Very Shallow (0.01-0.5m)	6.776210308	373.41	369.01	6.77621	0.118267	3.5	11	0.30	1.30	0.1180	0.9930	0.9861	0.4663	9.05	1.0	2.09	1.0	2.0	0.0	9.05	1.0	2.09	1.0	2.0	2.0	1.0	2.0	1.0	46.4	4.0	4.0	4.0
Depth Probe	DP119	T2	515359.26	572287.3	0.90	C - Shallow (0.5-2.0m)	3.62184453	373.41	368.71	3.621845	0.063213	3.5	11	0.90	1.90	0.0632	0.9980	0.9960	0.4663	5.61	1.0	2.66	1.0	2.0	0.0	5.61	1.0	2.66	1.0	2.0	2.0	1.0	2.0	1.0	633.6	1.0	1.0	1.0
Depth Probe	DP120	T8	515361	572667	0.70	C - Shallow (0.5-2.0m)	12.89427948	371.06	367.31	12.89428	0.225048	3.5	11	0.70	1.70	0.2232	0.9748	0.9502	0.4663	2.09	1.0	0.86	4.0	2.0	0.0	2.09	1.0	0.86	4.0	2.0	2.0	1.0	8.0	4.0	361.7	1.0	1.0	4.0
Depth Probe	DP121	T2	515363.26	572249.31	0.20	B - Very Shallow (0.01-0.5m)	1.604646683	368.73	366.53	1.604647	0.028006	3.5	11	0.20	1.20	0.0280	0.9996	0.9992	0.4663	56.83	1.0	9.47	1.0	2.0	0.0	56.83	1.0	9.47	1.0	2.0	2.0	1.0	2.0	1.0	596.6	1.0	1.0	1.0
Depth Probe	DP122	T2	515367.26	572240.31	0.10	B - Very Shallow (0.01-0.5m)	1.604646683	371.57	370.67	1.604647	0.028006	3.5	11	0.10	1.10	0.0280	0.9996	0.9992	0.4663	113.67	1.0	10.33	1.0	2.0	0.0	113.67	1.0	10.33	1.0	2.0	2.0	1.0	2.0	1.0	586.9	1.0	1.0	1.0
Depth Probe	DP123		515371.26	573019.14	0.10	B - Very Shallow (0.01-0.5m)	7.152704716	371.57	371.37	7.152705	0.124838	3.5	11	0.10	1.10	0.1245	0.9922	0.9845	0.4663	25.75	1.0	2.34	1.0	2.0	0.0	25.75	1.0	2.34	1.0	2.0	2.0	1.0	2.0	1.0	152.7	1.0	1.0	1.0
Depth Probe	DP124	T8	515373	572654	0.10	B - Very Shallow (0.01-0.5m)	12.37806988	372.12	372.02	12.37807	0.216038	3.5	11	0.10	1.10	0.2144	0.9768	0.9540	0.4663	15.20	1.0	1.38	1.0	2.0	0.0	15.20	1.0	1.38	1.0	2.0	2.0	1.0	2.0	1.0	379.2	1.0	1.0	1.0
Depth Probe	DP125	T2	515380.25	572294.3	0.40	B - Very Shallow (0.01-0.5m)	5.356054783	369.38	369.28	5.356055	0.093481	3.5	11	0.40	1.40	0.0933	0.9956	0.9913	0.4663	8.56	1.0	2.45	1.0	2.0	0.0	8.56	1.0	2.45	1.0	2.0	2.0	1.0	2.0	1.0	636.8	1.0	1.0	1.0
Depth Probe	DP126	T8	515386	572633	0.10	B - Very Shallow (0.01-0.5m)	12.53392792	369.38	367.48	12.53393	0.218758	3.5	11	0.10	1.10	0.2170	0.9762	0.9529	0.4663	15.02	1.0	1.37	1.0	2.0	0.0	15.02	1.0	1.37	1.0	2.0	2.0	1.0	2.0	1.0	402.6	1.0	1.0	1.0
Depth Probe	DP127	T8	515398	572621	0.10	B - Very Shallow (0.01-0.5m)	12.37495518	361.08	358.78	12.37496	0.215984	3.5	11	0.10	1.10	0.2143	0.9768	0.9541	0.4663	15.20	1.0	1.38	1.0	2.0	0.0	15.20	1.0	1.38	1.0	2.0	2.0	1.0	2.0	1.0	419.5	1.0	1.0	1.0
Depth Probe	DP128	T2	515406.25	572263.31	0.10	B - Very Shallow (0.01-0.5m)	1.186309814	362.85	362.25	1.18631	0.020705	3.5	11	0.10	1.10	0.0207	0.9998	0.9996	0.4663	153.72	1.0	13.97	1.0	2.0	0.0	153.72	1.0	13.97	1.0	2.0	2.0	1.0	2.0	1.0	601.6	1.0	1.0	1.0
Depth Probe	DP129	T2	515411.25	572296.3	0.60	C - Shallow (0.5-2.0m)	0.702189863	362.54	361.24	0.70219	0.012256	3.5	11	0.60	1.60	0.0123	0.9999	0.9998	0.4663	43.27	1.0	16.23	1.0	2.0	0.0	43.27	1.0	16.23	1.0	2.0	2.0	1.0	2.0	1.0	633.4	1.0	1.0	1.0
Depth Probe	DP130		515419.25	572984.15	0.00	A - Rock (0.0m)	8.055038452	362.54	359.64	8.055038	0.140587	3.5	11	0.00	1.00	0.1401	0.9901	0.9804	0.4663	2293.34	1.0	2.29	1.0	2.0	0.0	2293.34	1.0	2.29	1.0	2.0	2.0	1.0	2.0	1.0	205.8	1.0	1.0	1.0
Depth Probe	DP131	T8	515438.24	572467.26	0.10	B - Very Shallow (0.01-0.5m)	11.91311073	362.85	360.05	11.91311	0.207923	3.5	11	0.10	1.10	0.2064	0.9785	0.9574	0.4663	15.75	1.0	1.43	1.0	2.0	0.0	15.75	1.0	1.43	1.0	2.0	2.0	1.0	2.0	1.0	557.2	1.0	1.0	1.0
Depth Probe	DP132		515447.24	572975.15	0.10	B - Very Shallow (0.01-0.5m)	8.323712349	360.10	359.30	8.323712	0.145276	3.5	11	0.10	1.10	0.1448	0.9895	0.9790	0.4663	22.21	1.0	2.02	1.0	2.0	0.0	22.21	1.0	2.02	1.0	2.0	2.0	1.0	2.0	1.0	228.8	1.0	1.0	1.0
Depth Probe	DP133	T8	515469.24	572460.26	0.10	B - Very Shallow (0.01-0.5m)	11.39845467	363.87	363.47	11.39845	0.198941	3.5	11	0.10	1.10	0.1976	0.9803	0.9609	0.4663	16.42	1.0	1.49	1.0	2.0	0.0	16.42	1.0	1.49	1.0	2.0	2.0	1.0	2.0	1.0	573.8	1.0	1.0	1.0
Depth Probe	DP134	T8	515479.23	572563.24	0.10	B - Very Shallow (0.01-0.5m)	12.66908741	363.87	363.67	12.66909	0.221117	3.5	11	0.10	1.10	0.2193	0.9757	0.9519	0.4663	14.87	1.0	1.35	1.0	2.0	0.0	14.87	1.0	1.35	1.0	2.0	2.0	1.0	2.0	1.0	518.9	1.0	1.0	1.0
Depth Probe	DP135		515487.24	572925.16	0.20	B - Very Shallow (0.01-0.5m)	7.103421688	356.75	356.25	7.103422	0.123978	3.5	11	0.20	1.20	0.1237	0.9923	0.9847	0.4663	12.96	1.0	2.16	1.0	2.0	0.0	12.96	1.0	2.16	1.0	2.0	2.0	1.0	2.0	1.0	292.7	1.0	1.0	1.0
Depth Probe	DP136	T3	515507.82	572066.59	0.10	B - Very Shallow (0.01-0.5m)	3.574761152	338.23	336.83	3.574761	0.062391	3.5	11	0.10	1.10	0.0624	0.9981	0.9961	0.4663	51.13	1.0	4.65	1.0	2.0	0.0	51.13	1.0	4.65	1.0	2.0	2.0	1.0	2.0	1.0	396.5	1.0	1.0	1.0
Depth Probe	DP137	T8	515511.23	572503.26	0.10	B - Very Shallow (0.01-0.5m)	12.52410221	338.23	336.03	12.5241	0.218587	3.5	11	0.10	1.10	0.2169	0.9762	0.9530	0.4663	15.03	1.0	1.37	1.0	2.0	0.0	15.03	1.0	1.37	1.0	2.0	2.0	1.0	2.0	1.0	524.8	1.0	1.0	1.0
Depth Probe	DP138	T8	515516.23	572854.18	0.01	B - Very Shallow (0.01-0.5m)	8.184919357	338.23	335.63	8.184919	0.142854	3.5	11	0.01	1.01	0.1424	0.9898	0.9797	0.4663	225.79	1.0	2.24	1.0	2.0	0.0	225.79	1.0	2.24	1.0	2.0	2.0	1.0	2.0	1.0	367.5	1.0	1.0	1.0
Depth Probe	DP139	T8	515532.23	572867.68	0.40	B - Very Shallow (0.01-0.5m)	7.476594925	338.23	335.73	7.476595	0.130491	3.5	11	0.40	1.40	0.1301	0.9915	0.9831	0.4663	6.17	1.0	1.76	1.0	2.0	0.0	6.17	1.0	1.76	1.0	2.0	2.0	1.0	2.0	1.0	365.7	1.0	1.0	1.0
Depth Probe	DP140	T3	515542.53	572074.13	0.10	B - Very Shallow (0.01-0.5m)	3.605717182	339.35	336.75	3.605717	0.062932	3.5	11	0.10	1.10	0.0629	0.9980	0.9960	0.4663	50.69	1.0	4.61	1.0	2.0	0.0	50.69	1.0	4.61	1.0	2.0	2.0	1.0	2.0	1.0	403.4	1.0	1.0	1.0
Depth Probe	DP141	T8	515546.22	572850.18	0.30	B - Very Shallow (0.01-0.5m)	9.250297546	339.35	338.85	9.250298	0.161448	3.5	11	0.30	1.30	0.1607	0.9870	0.9742	0.4663	6.68	1.0	1.54	1.0	2.0	0.0	6.68	1.0	1.54	1.0	2.0	2.0	1.0	2.0	1.0	388.0	1.0	1.0	1.0
Depth Probe	DP142	T3	515547.22	572110.34	0.20	B - Very Shallow (0.01-0.5m)	3.853385687	339.35	338.85	3.853386	0.067254	3.5	11	0.20	1.20	0.0672	0.9977	0.9955	0.4663	23.73	1.0	3.95	1.0	2.0	0.0	23.73	1.0	3.95	1.0	2.0	2.0	1.0	2.0	1.0	439.5	1.0	1.0	1.0
Depth Probe	DP143	T8	515547.22	572485.26	0.10	B - Very Shallow (0.01-0.5m)	9.883249283	339.35	337.45	9.883249	0.172495	3.5	11	0.10	1.10	0.1716	0.9852	0.9705	0.4663	18.82	1.0	1.71	1.0	2.0	0.0	18.82	1.0	1.71	1.0	2.0	2.0	1.0	2.0	1.0	492.4	1.0	1.0	1.0
Depth Probe	DP144	T8	515547.22	572844.18	0.20	B - Very Shallow (0.01-0.5m)	9.250297546	341.49	339.39	9.250298	0.161448	3.5	11	0.20	1.20	0.1607	0.9870	0.9742	0.4663	10.03	1.0	1.67	1.0	2.0	0.0	10.03	1.0	1.67	1.0	2.0	2.0	1.0	2.0	1.0	393.5	1.0	1.0	1.0
Depth Probe	DP145	T3	515547.57	572092.44	0.40	B - Very Shallow (0.01-0.5m)	3.710549831	336.48	333.78	3.71055	0.064761	3.5	11	0.40	1.40	0.0647	0.9979	0.9958	0.4663	12.32	1.0	3.52	1.0	2.0	0.0	12.32	1.0	3.52	1.0	2.0	2.0	1.0	2.0	1.0	421.6	1.0	1.0	1.0
Depth Probe	DP146	T3	515550.83	572016.46	0.10	B - Very Shallow (0.01-0.5m)	2.00654912	336.43	334.83	2.006549	0.035021	3.5	11	0.10	1.10	0.0350	0.9994	0.9988	0.4663	90.93	1.0	8.27	1.0	2.0	0.0	90.93	1.0	8.27	1.0	2.0	2.0	1.0	2.0	1.0	345.6	1.0	1.0	1.0
Depth Probe	DP147	T8	515558.22	572552.24	0.10	B - Very Shallow (0.01-0.5m)	12.08006191	336.43	336.33	12.08006	0.210837	3.5	11	0.10	1.10	0.2093	0.9779	0.9562	0.4663	15.55	1.0	1.41	1.0	2.0	0.0	15.55	1.0	1.41	1.0	2.0	2.0	1.0	2.0	1.0	472.9	1.0	1.0	1.0
Depth Probe	DP148	T3	515559.54	571970.3	0.20	B - Very Shallow (0.01-0.5m)	1.901217818	334.93	334.43	1.901218	0.033183	3.5	11	0.20	1.20	0.0332	0.9994	0.9989	0.4663	47.98	1.0	8.00	1.0	2.0	0.0	47.98	1.0	8.00	1.0	2.0	2.0	1.0	2.0	1.0	299.7	1.0	1.0	1.0
Depth Probe	DP149	T8	515563.22	572863.18	0.10	B - Very Shallow (0.01-0.5m)	9.455897331	336.48	335.98	9.455897	0.165037	3.5	11	0.10	1.10	0.1643	0.9864	0.9730	0.4663	19.63	1.0	1.78	1.0	2.0	0.0	19.63	1.0	1.78	1.0	2.0	2.0	1.0	2.0	1.0	387.8	1.0	1.0	1.0
Depth Probe	DP150	T3	515566.84	572021.68	0.40	B - Very Shallow (0.01-0.5m)	2.1828444	336.43	336.33	2.182844	0.038098	3.5	11	0.40	1.40	0.0381	0.9993	0.9985	0.4663	20.90	1.0	5.97	1.0	2.0	0.0	20.90	1.0	5.97	1.0	2.0	2.0	1.0	2.0	1.0	351.3	1.0	1.0	1.0
Depth Probe	DP151	T3	515569.34	572079.37	0.10	B - Very Shallow (0.01-0.5m)	3.710549831	333.73	330.53	3.71055	0.064761	3.5	11	0.10	1.10	0.0647	0.9979	0.9958	0.4663	49.27	1.0	4.48	1.0	2.0	0.0	49.27	1.0	4.48	1.0	2.0	2.0	1.0	2.0	1.0	409.1	1.0	1.0	1.0
Depth Probe	DP152	T3	515580.66	571974.87	2.20	D - Moderately Deep (2.0-3.5m)	1.313004851	333.73	330.53	1.78	0.031067	3.5	11	2.20	3.20	0.0311	0.9995	0.9990	0.4663	4.66	1.0	3.20	1.0	2.0	0.0	4.66	1.0	3.20	1.0	2.0	2.0	1.0	2.0	1.0	305.7	1.0	1.0	1.0
Depth Probe	DP153	T3	515581.75	572019.07	2.00	C - Shallow (0.5-2.0m)	2.1828444	333.73	329.23	2.182844	0.038098	3.5	11	2.00	3.00	0.0381	0.9993	0.9985	0.4663	4.18	1.0	2.79	1.0	2.0	0.0	4.18	1.0	2.79	1.0	2.0	2.0	1.0	2.0	1.0	349.8	1.0	1.0	1.0
Depth Probe	DP154	T3	515581.97	572034.09	0.20	B - Very Shallow (0.01-0.5m)	2.1828444	333.03	329.23	2.182844	0.038098	3.5	11	0.20	1.20	0.0381	0.9993	0.9985	0.4663	41.80	1.0	6.97	1.0	2.0	0.0	41.80	1.0	6.97	1.0	2.0	2.0	1.0	2.0	1.0	364.8	1.0	1.0	1.0
Depth Probe	DP155	T8	515585.21	572819.19	0.10	B - Very Shallow (0.01-0.5m)	10.32883739	333.79	329.39	10.32884	0.180272	3.5	11	0.10	1.10	0.1793	0.9838	0.9679	0.4663	18.04	1.0	1.64	1.0	2.0	0.0	18.04	1.0	1.64	1.0	2.0	2.0	1.0	2.0	1.0	436.1	1.0	1.0	1.0
Depth Probe	DP156	T3	515593.72	571894.75	0.05	B - Very Shallow (0.01-0.5m)	2.387359619	333.79	328.09	2.38736	0.041667	3.5	11	0.05	1.05	0.0417	0.9991	0.9983	0.4663	152.90	1.0	7.28	1.0	2.0	0.0	152.90	1.0	7.28	1.0	2.0	2.0	1.0	2.0	1.0	228.4	1.0	1.0	1.0
Depth Probe	DP157	T3	515593.94	572028.21	1.50	C - Shallow (0.5-2.0m)	1.902788162	332.87	330.57	1.902788	0.03321	3.5	11	1.50	2.50	0.0332	0.9994	0.9989	0.4663	6.39	1.0	3.84	1.0	2.0	0.0	6.39	1.0	3.84	1.0	2.0	2.0	1.0	2.0	1.0	360.2	1.0	1.0	1.0
Depth Probe	DP158		515611.21	572967.15	0.20	B - Very Shallow (0.01-0.5m)	6.611318588	332.36	330.46	6.611319	0.115389	3.5	11	0.20	1.20	0.1151	0.9934	0.9867	0.4663	13.91	1.0	2.32	1.0	2.0	0.0	13.91	1.0	2.32	1.0	2.0	2.0	1.0	2.0	1.0	335.1	1.0	1.0	1.0
Depth Probe	DP159	T8	515632.2	572776.2	0.20	B - Very Shallow (0.01-0.5m)	11.92472553	361.78	360.98	11.92473	0.208126	3.5	11	0.20	1.20	0.2066	0.9784	0.9573	0.4663	7.87	1.0	1.31	1.0	2.0	0.0	7.87	1.0	1.31	1.0	2.0	2.0	1.0	2.0	1.0	407.4	1.0	1.0	1.0
Depth Probe	DP160		515643	571366	0.05	B - Very Shallow (0.01-0.5m)	4.753334522	361.78	360.38	4.753335	0.082961	3.5	11	0.05	1.05	0.0829	0.9966	0.9931	0.4663	77.06	1.0	3.67	1.0	2.0	0.0	77.06	1.0	3.67	1.0	2.0	2.0	1.0	2.0	1.0	34.6	4.0	4.0	4.0
Depth Probe	DP161	T3	515651.2	572109.34	0.20	B - Very Shallow (0.01-0.5m)	2.708179474	365.22	365.12	2.708179	0.047267	3.5	11	0.20	1.20	0.0472	0.9989	0.9978	0.4663	33.71	1.0	5.62	1.0	2.0	0.0	33.71	1.0	5.62	1.0	2.0	2.0	1.0	2.0	1.0	423.8	1.0	1.0	1.0
Depth Probe	DP162		515655	571595	0.30	B - Very Shallow (0.01-0.5m)	6.384943008	365.22	364.12	6.384943	0.111438	3.5	11	0.30	1.30	0.1112	0.9938	0.9876	0.4663	9.60	1.0	2.21	1.0	2.0	0.0	9.60	1.0	2.21	1.0	2.0	2.0	1.0	2.0	1.0	56.1	2.0	2.0	2.0
Depth Probe	DP163	T8	515657.46	572671.69	0.20	B - Very Shallow (0.01-0.5m)	12.70077705	365.22	365.12	12.70078	0.22167	3.5	11	0.20	1.20	0.2199	0.9755	0.9517	0.4663	7.42	1.0	1.24	2.0	2.0	0.0	7.42	1.0	1.24	2.0	2.0	2.0	1.0	4.0	2.0	377.0	1.0	1.0	2.0
Depth Probe	DP164	T3	515668.19	572060.35	0.20	B - Very Shallow (0.01-0.5m)	2.731527328	359.48	359.48	2.731527	0.047674	3.5	11	0.200	1.20	0.0477	0.9989	0.9977	0.4663	33.42	1.0	5.57	1.0	2.0	0.0	33.42	1.0	5.57	1.0	2.0	2.0	1.0	2.0	1.0	407.4	1.0	1.0	1.0
Depth Probe	DP165	T3	515668.4	571923.93	0.10	B - Very Shallow (0.01-0.5m)	1.65616107	359.48	359.38	1.656161	0.028905	3.5	11	0.10	1.10	0.0289	0.9996	0.9992	0.4663	110.14	1.0	10.01	1.0	2.0	0.0	110.14	1.0	10.01	1.0	2.0	2.0	1.0	2.0	1.0	278.9	1.0	1.0	1.0
Depth Probe	DP166	T3	515673.19	572034.36	1.80	C - Shallow (0.5-2.0m)	1.082771659	358.09	357.79	1.082772	0.018898	3.5	11	1.80	2.80	0.0189	0.9998	0.9996	0.4663	9.36	1.0	6.01	1.0	2.0	0.0	9.36	1.0	6.01	1.0	2.0	2.0	1.0	2.0	1.0	384.3	1.0	1.0	1.0
Depth Probe	DP167	T8	515684.26	572642.8	0.10	B - Very Shallow (0.01-0.5m)	12.82458973	355.33	354.73	12.82459	0.223831	3.5	11	0.10	1.10	0.2220	0.9751	0.9507	0.4663	14.70	1.0	1.34	1.0	2.0	0.0	14.70	1.0	1.34	1.0	2.0	2.0	1.0	2.0	1.0	348.4	1.0	1.0	1.0
Depth Probe	DP168	T8	515702.19	572861.18	0.20	B - Very Shallow (0.01-0.5m)	10.07020855	361.12	361.02	10.07021	0.175758	3.5	11	0.20	1.20	0.1749	0.9846	0.9694	0.4663	9.24	1.0	1.54	1.0	2.0	0.0	9.24	1.0	1.54	1.0	2.0	2.0	1.0	2.0	1.0	365.8	1.0	1.0	1.0
Depth Probe	DP169	T8	515711.57	572703.1	0.10	B - Very Shallow (0.01-0.5m)	11.28621578	367.96	367.86	0.1	0.001745	3.5	11	0.10	1.10	0.0017	1.0000	1.0000	0.4663	1823.05	1.0	165.73	1.0	2.0	0.0	1823.05	1.0	165.73	1.0	2.0	2.0	1.0	2.0	1.0	322.0	1.0	1.0	1.0
Depth Probe	DP170	T8	515713.19	572803.19	0.20	B - Very Shallow (0.01-0.5m)	10.60851192	366.78	366.68	10.60851	0.185153	3.5	11	0.20	1.20	0.1841	0.9829	0.9661	0.4663	8.79	1.0	1.47	1.0	2.0	0.0	8.79	1.0	1.47	1.0	2.0	2.0	1.0	2.0	1.0	334.7	1.0	1.0	1.0
Depth Probe	DP171	T8	515732.18	572830.18	0.10	B - Very Shallow (0.01-0.5m)	10.08773136	368.31	367.01	0.1	0.001745	3.5	11	0.10	1.10	0.0017	1.0000	1.0000	0.4663	1823.05	1.0	165.73	1.0	2.0	0.0	1823.05	1.0	165.73	1.0	2.0	2.0	1.0	2.0	1.0	325.9	1.0	1.0	1.0
Depth Probe	DP172	T3	515739.18	571971.37	0.10	B - Very Shallow (0.01-0.5m)	1.518532515	355.15	353.85	1.518533	0.026503	3.5	11	0.10	1.10	0.0265	0.9996	0.9993	0.4663	120.11	1.0	10.92	1.0	2.0	0.0	120.11	1.0	10.92	1.0	2.0	2.0	1.0	2.0	1.0	353.3	1.0	1.0	1.0
Depth Probe	DP173	T9	515751.9	573424.05	0.20	B - Very Shallow (0.01-0.5m)	7.472838402	355.15	353.45	7.472838	0.130426	3.5	11	0.20	1.20	0.1301	0.9915	0.9831	0.4663	12.34	1.0	2.06	1.0	2.0	0.0	12.34	1.0	2.06	1.0	2.0	2.0	1.0	2.0	1.0	241.0	1.0	1.0	1.0
Depth Probe	DP174	T8	515765.17	572850.18	0.20	B - Very Shallow (0.01-0.5m)	9.556575775	355.29	353.09	9.556576	0.166794	3.5	11	0.20	1.20	0.1660	0.9861	0.9724	0.4663	9.72	1.0	1.62	1.0	2.0	0.0	9.72	1.0	1.62	1.0	2.0	2.0	1.0	2.0	1.0	304.6	1.0	1.0	1.0
Depth Probe	DP175	T3	515771.17	571966.37	0.10	B - Very Shallow (0.01-0.5m)	2.366403341	355.15	355.15	2.366403	0.041302	3.5	11	0.100	1.10	0.0413	0.9991	0.9983	0.4663	77.13	1.0	7.01	1.0	2.0	0.0	77.13	1.0	7.01	1.0	2.0	2.0	1.0	2.0	1.0	361.4	1.0	1.0	1.0
Depth Probe	DP176	T9	515775.53	573410.69	0.20	B - Very Shallow (0.01-0.5m)	7.06306076	353.43	353.33	7.063061	0.123274	3.5	11	0.20	1.20	0.1230	0.9924	0.9849	0.4663	13.04	1.0	2.17	1.0	2.0	0.0	13.04	1.0	2.17	1.0	2.0	2.0	1.0	2.0	1.0	267.1	1.0	1.0	1.0
Depth Probe	DP177	T9	515779	573394.42	0.20	B - Very Shallow (0.01-0.5m)	7.381493568	352.37	351.87	7.381494	0.128831	3.5	11	0.20	1.20	0.1285	0.9917	0.9835	0.4663	12.49	1.0	2.08	1.0	2.0	0.0	12.49	1.0	2.08	1.0	2.0	2.0	1.0	2.0	1.0	273.0	1.0	1.0	1.0
Depth Probe	DP178	T9	515787.52	573427.53	0.20	B - Very Shallow (0.01-0.5m)	7.06306076	351.46	351.36	7.063061	0.123274	3.5	11	0.20	1.20	0.1230	0.9924	0.9849	0.4663	13.04	1.0	2.17	1.0	2.0	0.0	13.04	1.0	2.17	1.0	2.0	2.0	1.0	2.0	1.0	275.3	1.0	1.0	1.0
Depth Probe	DP179	T8	515791.97	572758.43	0.15	B - Very Shallow (0.01-0.5m)	10.54808998	353.82	351.22	10.54809	0.184099	3.5	11	0.15	1.15	0.1831	0.9831	0.9665	0.4663	11.79	1.0	1.54	1.0	2.0	0.0	11.79	1.0	1.54	1.0	2.0	2.0	1.0	2.0	1.0	247.2	1.0	1.0	1.0
Depth Probe	DP180	T9	515792.95	573389.78	0.20	B - Very Shallow (0.01-0.5m)	7.319804192	310.09	309.79	7.319804	0.127755	3.5	11	0.20	1.20	0.1274	0.9919	0.9838	0.4663	12.59	1.0	2.10	1.0	2.0	0.0	12.59	1.0	2.10	1.0	2.0	2.0	1.0	2.0	1.0	287.6	1.0	1.0	1.0
Depth Probe	DP181	T9	515806.5	573429.85	0.20	B - Very Shallow (0.01-0.5m)	7.06306076	308.60	308.00	7.063061	0.123274	3.5	11	0.20	1.20	0.1230	0.9924	0.9849	0.4663	13.04	1.0	2.17	1.0	2.0	0.0	13.04	1.0	2.17	1.0	2.0	2.0	1.0	2.0	1.0	293.7	1.0	1.0	1.0
Depth Probe	DP182	T9	515808.44	573405.46	0.20	B - Very Shallow (0.01-0.5m)	7.319804192	305.25	304.25	0.1	0.001745	3.5	11	0.20	1.20	0.0017	1.0000	1.0000	0.4663	911.53	1.0	151.92	1.0	2.0	0.0	911.53	1.0	151.92	1.0	2.0	2.0	1.0	2.0	1.0	294.1	1.0	1.0	1.0
Depth Probe	DP183	T9	515808.82	573368.29	0.20	B - Very Shallow (0.01-0.5m)	7.275404453	306.68	304.38	0.1	0.001745	3.5	11	0.20	1.20	0.0017	1.0000	1.0000	0.4663	911.53	1.0	151.92	1.0	2.0	0.0	911.53	1.0	151.92	1.0	2.0	2.0	1.0	2.0	1.0	267.5	1.0	1.0	1.0
Depth Probe	DP184	T9	515809.21	573388.81	0.20	B - Very Shallow (0.01-0.5m)	5.975247383	306.68	302.88	5.975247	0.104288	3.5	11	0.20	1.20	0.1041	0.9946	0.9892	0.4663	15.37	1.0	2.56	1.0	2.0	0.0	15.37	1.0	2.56	1.0	2.0	2.0	1.0	2.0	1.0	281.5	1.0	1.0	1.0
Depth Probe	DP185	T3	515825.16	571984.37	0.60	C - Shallow (0.5-2.0m)	5.714210987	305.28	301.53	5.714211	0.099732	3.5	11	0.60	1.60	0.0996	0.9950	0.9901	0.4663	5.35	1.0	2.01	1.0	2.0	0.0	5.35	1.0	2.01	1.0	2.0	2.0	1.0	2.0	1.0	306.8	1.0	1.0	1.0
Depth Probe	DP186	T3	515855.15	571981.37	0.10	B - Very Shallow (0.01-0.5m)	6.964007854	305.28	302.28	6.964008	0.121545	3.5	11	0.10	1.10	0.1212	0.9926	0.9853	0.4663	26.44	1.0	2.40	1.0	2.0	0.0	26.44	1.0	2.40	1.0	2.0	2.0	1.0	2.0	1.0	285.2	1.0	1.0	1.0
Depth Probe	DP187	T3	515857.15	571980.37	0.60	C - Shallow (0.5-2.0m)	6.964007854	305.25	302.55	6.964008	0.121545	3.5	11	0.60	1.60	0.1212	0.9926	0.9853	0.4663	4.41	1.0	1.65	1.0	2.0	0.0	4.41	1.0	1.65	1.0	2.0	2.0	1.0	2.0	1.0	284.3	1.0	1.0	1.0
Depth Probe	DP188	T9	515872.15	573286.08	0.30	B - Very Shallow (0.01-0.5m)	7.068373203	305.01	303.91	0.1	0.001745	3.5	11	0.30	1.30	0.0017	1.0000	1.0000	0.4663	607.68	1.0	140.23	1.0	2.0	0.0	607.68	1.0	140.23	1.0	2.0	2.0	1.0	2.0	1.0	166.3	1.0	1.0	1.0
Depth Probe	DP189	T3	515886.14	571959.37	0.10	B - Very Shallow (0.01-0.5m)	8.090484619	306.13	302.28	0.1	0.001745	3.5	11	0.10	1.10	0.0017	1.0000	1.0000	0.4663	1823.05	1.0	165.73	1.0	2.0	0.0	1823.05	1.0	165.73	1.0	2.0	2.0	1.0	2.0	1.0	278.4	1.0	1.0	1.0
Depth Probe	DP190	T9	515895.15	573285.08	0.20	B - Very Shallow (0.01-0.5m)	7.19000721	369.74	368.34	7.190007	0.125489	3.5	11	0.20	1.20	0.1252	0.9921	0.9843	0.4663	12.81	1.0	2.14	1.0	2.0	0.0	12.81	1.0	2.14	1.0	2.0	2.0	1.0	2.0	1.0	147.7	2.0	2.0	2.0
Depth Probe	DP191		515897.8	573788.6	0.00	A - Rock (0.0m)	3.686229706	368.37	367.87	3.68623	0.064337	3.5	11	0.00	1.00	0.0643	0.9979	0.9959	0.4663	4959.24	1.0	4.95	1.0	2.0	0.0	4959.24	1.0	4.95	1.0	2.0	2.0	1.0	2.0	1.0	338.1	1.0	1.0	1.0
Depth Probe	DP192	T9	515900.15	573232.1	0.10	B - Very Shallow (0.01-0.5m)	7.209232807	370.38	368.43	7.209233	0.125825	3.5	11	0.10	1.10	0.1255	0.9921	0.9843	0.4663	25.56	1.0	2.32	1.0	2.0	0.0	25.56	1.0	2.32	1.0	2.0	2.0	1.0	2.0	1.0	115.0	2.0	2.0	2.0
Depth Probe	DP193	T9	515900.15	573259.09	0.00	A - Rock (0.0m)	7.137913704	368.37	367.42	7.137914	0.12458	3.5	11	0.00	1.00	0.1243	0.9922	0.9846	0.4663	2580.65	1.0	2.58	1.0	2.0	0.0	2580.65	1.0	2.58	1.0	2.0	2.0	1.0	2.0	1.0	127.8	2.0	2.0	2.0
Depth Probe	DP194	T9	515919.14	573280.09	0.20	B - Very Shallow (0.01-0.5m)	7.279232502	368.37	367.87	7.279233	0.127047	3.5	11	0.20	1.20	0.1267	0.9919	0.9839	0.4663	12.66	1.0	2.11	1.0	2.0	0.0	12.66	1.0	2.11	1.0	2.0	2.0	1.0	2.0	1.0	126.9	2.0	2.0	2.0
Depth Probe	DP195	T9	515920.14	573202.1	0.00	A - Rock (0.0m)	7.120646	366.64	364.34	7.120646	0.124279	3.5	11	0.00	1.00	0.1240	0.9923	0.9846	0.4663	2586.78	1.0	2.58	1.0	2.0	0.0	2586.78	1.0	2.58	1.0	2.0	2.0	1.0	2.0	1.0	87.3	2.0	2.0	2.0
Depth Probe	DP196	T9	515931.14	573181.11	1.00	C - Shallow (0.5-2.0m)	6.971013546	366.64	364.14	6.971014	0.121667	3.5	11	1.00	2.00	0.1214	0.9926	0.9853	0.4663	2.64	1.0	1.32	1.0	2.0	0.0	2.64	1.0	1.32	1.0	2.0	2.0	1.0	2.0	1.0	75.4	2.0	2.0	2.0
Depth Probe	DP197	T9	515945.14	573279.09	0.20	B - Very Shallow (0.01-0.5m)	7.969639778	366.64	364.74	7.96964	0.139096	3.5	11	0.20	1.20	0.1386	0.9903	0.9808	0.4663	11.59	1.0	1.93	1.0	2.0	0.0	11.59	1.0	1.93	1.0	2.0	2.0	1.0	2.0	1.0	109.8	2.0	2.0	2.0
Depth Probe	DP198		515955.27	573756.67	0.00	A - Rock (0.0m)	1.742388248	366.64	366.54	1.742388	0.03041	3.5	11	0.00	1.00	0.0304	0.9995	0.9991	0.4663	10469.38	1.0	10.46	1.0	2.0	0.0	10469.38	1.0	10.46	1.0	2.0	2.0	1.0	2.0	1.0	363.4	1.0	1.0	1.0
Depth Probe	DP199	T9	515962.13	573138.12	0.20	B - Very Shallow (0.01-0.5m)	7.55779171	364.82	364.72	7.557792	0.131908	3.5	11	0.20	1.20	0.1315	0.9913	0.9827	0.4663	12.20	1.0	2.03	1.0	2.0	0.0	12.20	1.0	2.03	1.0	2.0	2.0	1.0	2.0	1.0	66.5	2.0	2.0	2.0
Depth Probe	DP200		516018.36	573812.59	0.10	B - Very Shallow (0.01-0.5m)	3.823080778	366.15	364.25	3.823081	0.066725	3.5	11	0.10	1.10	0.0667	0.9978	0.9956	0.4663	47.83	1.0	4.35	1.0	2.0	0.0	47.83	1.0	4.35	1.0	2.0	2.0	1.0	2.0	1.0	328.8	1.0	1.0	1.0
Depth Probe	DP201		516032.49	573794.4	0.40	B - Very Shallow (0.01-0.5m)	5.080574036	364.67	364.62	5.080574	0.088673	3.5	11	0.40	1.40	0.0886	0.9961	0.9922	0.4663	9.02	1.0	2.58	1.0	2.0	0.0	9.02	1.0	2.58	1.0	2.0	2.0	1.0	2.0	1.0	307.5	1.0	1.0	1.0
Depth Probe	DP202		516048.55	573769.24	0.20	B - Very Shallow (0.01-0.5m)	7.338634491	364.67	363.52	7.338634	0.128083	3.5	11	0.20	1.20	0.1277	0.9918	0.9837	0.4663	12.56	1.0	2.09	1.0	2.0	0.0	12.56	1.0	2.09	1.0	2.0	2.0	1.0	2.0	1.0	281.5	1.0	1.0	1.0
Depth Probe	DP203	T6	516121.1	572299.3	0.00	A - Rock (0.0m)	6.585697651	370.99	370.39	6.585698	0.114942	3.5	11	0.00	1.00	0.1147	0.9934	0.9868	0.4663	2792.72	1.0	2.79	1.0	2.0	0.0	2792.72	1.0	2.79	1.0	2.0	2.0	1.0	2.0	1.0	54.5	2.0	2.0	2.0
Depth Probe	DP204	T4	516130	571844	0.00	A - Rock (0.0m)	8.793807983	371.89	370.79	8.793808	0.153481	3.5	11	0.00	1.00	0.1529	0.9882	0.9766	0.4663	2106.02	1.0	2.10	1.0	2.0	0.0	2106.02	1.0	2.10	1.0	2.0	2.0	1.0	2.0	1.0	300.8	1.0	1.0	1.0
Depth Probe	DP205	T6	516136.09	572348.29	1.00	C - Shallow (0.5-2.0m)	7.481557369	371.89	371.39	7.481557	0.130578	3.5	11	1.00	2.00	0.1302	0.9915	0.9830	0.4663	2.46	1.0	1.23	2.0	2.0	0.0	2.46	1.0	1.23	2.0	2.0	2.0	1.0	4.0	2.0	78.8	2.0	2.0	4.0
Depth Probe	DP206	T4	516144	571831	0.10	B - Very Shallow (0.01-0.5m)	5.285321236	369.43	367.43	5.285321	0.092246	3.5	11	0.10	1.10	0.0921	0.9957	0.9915	0.4663	34.69	1.0	3.15	1.0	2.0	0.0	34.69	1.0	3.15	1.0	2.0	2.0	1.0	2.0	1.0	307.5	1.0	1.0	1.0
Depth Probe	DP207	T6	516145.09	572371.28	0.10	B - Very Shallow (0.01-0.5m)	7.822175026	369.43	368.83	7.822175	0.136523	3.5	11	0.10	1.10	0.1361	0.9907	0.9815	0.4663	23.60	1.0	2.15	1.0	2.0	0.0	23.60	1.0	2.15	1.0	2.0	2.0	1.0	2.0	1.0	95.2	2.0	2.0	2.0
Depth Probe	DP208	T6	516150.09	572328.29	0.10	B - Very Shallow (0.01-0.5m)	7.925721169	376.15	375.20	7.925721	0.13833	3.5	11	0.10	1.10	0.1379	0.9904	0.9810	0.4663	23.30	1.0	2.12	1.0	2.0	0.0	23.30	1.0	2.12	1.0	2.0	2.0	1.0	2.0	1.0	86.6	2.0	2.0	2.0
Depth Probe	DP209	T4	516162	571811	0.50	B - Very Shallow (0.01-0.5m)	5.790176868	376.15	374.35	5.790177	0.101058	3.5	11	0.50	1.50	0.1009	0.9949	0.9898	0.4663	6.34	1.0	2.11	1.0	2.0	0.0	6.34	1.0	2.11	1.0	2.0	2.0	1.0	2.0	1.0	320.0	1.0	1.0	1.0
Depth Probe	DP210	T6	516169.12	572491.41	0.05	B - Very Shallow (0.01-0.5m)	7.206728458	376.15	375.05	7.206728	0.125781	3.5	11	0.05	1.05	0.1254	0.9921	0.9843	0.4663	51.13	1.0	2.43	1.0	2.0	0.0	51.13	1.0	2.43	1.0	2.0	2.0	1.0	2.0	1.0	113.2	2.0	2.0	2.0
Depth Probe	DP211	T6	516172.41	572472.06	0.05	B - Very Shallow (0.01-0.5m)	7.206728458	373.92	371.62	7.206728	0.125781	3.5	11	0.05	1.05	0.1254	0.9921	0.9843	0.4663	51.13	1.0	2.43	1.0	2.0	0.0	51.13	1.0	2.43	1.0	2.0	2.0	1.0	2.0	1.0	118.2	2.0	2.0	2.0
Depth Probe	DP212	T6	516173.57	572453.87	0.60	C - Shallow (0.5-2.0m)	7.785173893	373.92	373.02	7.785174	0.135877	3.5	11	0.60	1.60	0.1355	0.9908	0.9817	0.4663	3.95	1.0	1.48	1.0	2.0	0.0	3.95	1.0	1.48	1.0	2.0	2.0	1.0	2.0	1.0	119.7	2.0	2.0	2.0
Depth Probe	DP213	T6	516173.95	572438.97	0.20	B - Very Shallow (0.01-0.5m)	7.726138115	373.92	373.92	0.1	0.001745	3.5	11	0.200	1.20	0.0017	1.0000	1.0000	0.4663	911.53	1.0	151.92	1.0	2.0	0.0	911.53	1.0	151.92	1.0	2.0	2.0	1.0	2.0	1.0	121.4	2.0	2.0	2.0
Depth Probe	DP214	T6	516175.7	572422.52	0.00	A - Rock (0.0m)	7.726138115	374.03	373.53	7.726138	0.134847	3.5	11	0.00	1.00	0.1344	0.9909	0.9819	0.4663	2388.43	1.0	2.39	1.0	2.0	0.0	2388.43	1.0	2.39	1.0	2.0	2.0	1.0	2.0	1.0	126.1	2.0	2.0	2.0
Depth Probe	DP215	T4	516176	571800	0.20	B - Very Shallow (0.01-0.5m)	4.480079174	376.83	375.93	4.480079	0.078192	3.5	11	0.20	1.20	0.0781	0.9969	0.9939	0.4663	20.43	1.0	3.40	1.0	2.0	0.0	20.43	1.0	3.40	1.0	2.0	2.0	1.0	2.0	1.0	326.5	1.0	1.0	1.0
Depth Probe	DP216	T4	516176	571833	0.20	B - Very Shallow (0.01-0.5m)	5.790176868	376.80	374.30	5.790177	0.101058	3.5	11	0.20	1.20	0.1009	0.9949	0.9898	0.4663	15.85	1.0	2.64	1.0	2.0	0.0	15.85	1.0	2.64	1.0	2.0	2.0	1.0	2.0	1.0	294.7	1.0	1.0	1.0
Depth Probe	DP217	T4	516181	571781	0.10	B - Very Shallow (0.01-0.5m)	4.480079174	379.13	378.73	4.480079	0.078192	3.5	11	0.10	1.10	0.0781	0.9969	0.9939	0.4663	40.86	1.0	3.71	1.0	2.0	0.0	40.86	1.0	3.71	1.0	2.0	2.0	1.0	2.0	1.0	343.6	1.0	1.0	1.0
Depth Probe	DP218	T4	516186	571766	2.20	D - Moderately Deep (2.0-3.5m)	3.68399024	379.13	378.93	3.68399	0.064298	3.5	11	2.20	3.20	0.0643	0.9979	0.9959	0.4663	2.26	1.0	1.55	1.0	2.0	0.0	2.26	1.0	1.55	1.0	2.0	2.0	1.0	2.0	1.0	357.1	1.0	1.0	1.0
Depth Probe	DP219	T4	516191	571826	0.00	A - Rock (0.0m)	5.790176868	379.13	378.63	5.790177	0.101058	3.5	11	0.00	1.00	0.1009	0.9949	0.9898	0.4663	3170.06	1.0	3.17	1.0	2.0	0.0	3170.06	1.0	3.17	1.0	2.0	2.0	1.0	2.0	1.0	297.5	1.0	1.0	1.0
Depth Probe	DP220	T4	516193	571745	0.10	B - Very Shallow (0.01-0.5m)	2.43707037	342.27	341.22	2.43707	0.042535	3.5	11	0.10	1.10	0.0425	0.9991	0.9982	0.4663	74.90	1.0	6.81	1.0	2.0	0.0	74.90	1.0	6.81	1.0	2.0	2.0	1.0	2.0	1.0	376.3	1.0	1.0	1.0
Depth Probe	DP221	T4	516199	571716	0.05	B - Very Shallow (0.01-0.5m)	2.43707037	341.49	341.39	2.43707	0.042535	3.5	11	0.05	1.05	0.0425	0.9991	0.9982	0.4663	149.79	1.0	7.13	1.0	2.0	0.0	149.79	1.0	7.13	1.0	2.0	2.0	1.0	2.0	1.0	403.9	1.0	1.0	1.0
Depth Probe	DP222	T6	516200.47	572511.73	0.10	B - Very Shallow (0.01-0.5m)	7.676163673	341.49	340.59	7.676164	0.133974	3.5	11	0.10	1.10	0.1336	0.9910	0.9822	0.4663	24.04	1.0	2.19	1.0	2.0	0.0	24.04	1.0	2.19	1.0	2.0	2.0	1.0	2.0	1.0	145.9	2.0	2.0	2.0

SI Appendix B (a) - Peat Survey Database

Gortyrahilly WF, Co. Cork

Prepared by: SK 29/08/2022
Mineerex File Ref.: 3006-011.xls

Appendix I - Peat & Slope Stability Risk Assessment

Prepared by: Sven Klinkenbergh Date: 31/08/2021
Mineerex File Ref.: 3188-A1- GWF-011.xls

										Parameter Values				Scenario A	Scenario B	Precalculated trigometric values				Scenario A		Scenario B				Scenario A		Scenario B			Scenario A		Scenario B				Scenario A	Scenario B
Sample / Test Category	Sample / Test Point ID No.	Turbine Association	ITM Easting	ITM Northing	Thickness / Depth of peat	Classification of Thickness / Depth of peat	Local Incline (c.5m rad.)	Surface Elevation (GDEM)	Substrate Elevation (GDEM - Peat Depth)	Slope Angle	Slope Angle (For Excel Formula)	Undrained Shear Strenght (Conservative Value)	Bulk Unit weight of Peat (Conservative Value)	Depth to failure plane i.e. Peat Depth	Surcharge Equivalent Placed Fill Depth i.e. +1m	$\sin(\alpha)$	$\cos(\alpha)$	$\cos^2(\alpha)$	Tan(Ø')	FoS_{RAW} Factor of Safety (FoS) for Peat Stability	COEFFICIENT	FoS_{RAW} Factor of Safety (FoS) for Peat Stability	COEFFICIENT	FoS Adjustment Coefficient	FoS Adjustment Value	FoS_{ADJ} Adjusted Factor of Safety (FoS) for Peat Stability	COEFFICIENT	FoS_{ADJ} Adjusted Factor of Safety (FoS) for Peat Stability	COEFFICIENT	Significant Feature Ranking Cefficient	RR_{SF} Ranking Risk re Potential for Adverse Consequences on Sensitive Receptors	COEFFICIENT	RR_{SF} Ranking Risk re Potential for Adverse Consequences on Sensitive Receptors	COEFFICIENT	Distance to Sensitive Receptor	Distance to Sensitive Receptor Coefficient	RR_D Risk Ranking Acounting for Distance to Sensitive Receptors	RR_D Risk Ranking Acounting for Distance to Sensitive Receptors
							(GDEM)			α	α	c'	y	z	z					$FoS = \frac{c_u}{yz \sin\alpha \cos\alpha}$						$FoS = \frac{c_u}{yz \sin\alpha \cos\alpha}$ + Adjustment Value				μ_{SF}						$\mu_{Dist.}$		
					m		Degrees			Degrees	Radians	kPa	kN/m3	m	m	#	#	#	#	FoS	μ	FoS	μ	μ	#	FoS	μ	FoS	μ	μ	RR-SF	μ	RR-SF	μ	m	μ	RR-D	RR-D
Depth Probe	DP223	T6	516201.63	572501.47	0.50	B - Very Shallow (0.01-0.5m)	7.676163673	344.50	344.00	7.676164	0.133974	3.5	11	0.50	1.50	0.1336	0.9910	0.9822	0.4663	4.81	1.0	1.60	1.0	2.0	0.0	4.81	1.0	1.60	1.0	2.0	2.0	1.0	2.0	1.0	146.0	2.0	2.0	2.0
Depth Probe	DP224	T4	516202	571814	1.50	C - Shallow (0.5-2.0m)	6.278404236	342.27	341.32	6.278404	0.109579	3.5	11	1.50	2.50	0.1094	0.9940	0.9880	0.4663	1.95	1.0	1.17	2.0	2.0	0.0	1.95	1.0	1.17	2.0	2.0	2.0	1.0	4.0	2.0	306.9	1.0	1.0	2.0
Depth Probe	DP225	T4	516202	571815	3.00	D - Moderately Deep (2.0-3.5m)	6.278404236	342.27	340.37	6.278404	0.109579	3.5	11	3.00	4.00	0.1094	0.9940	0.9880	0.4663	0.98	4.0	0.73	4.0	2.0	0.0	0.98	4.0	0.73	4.0	2.0	8.0	4.0	8.0	4.0	305.9	1.0	4.0	4.0
Depth Probe	DP226	T6	516204.53	572490.83	0.00	A - Rock (0.0m)	7.853738785	343.01	341.41	7.853739	0.137074	3.5	11	0.00	1.00	0.1366	0.9906	0.9813	0.4663	2350.58	1.0	2.35	1.0	2.0	0.0	2350.58	1.0	2.35	1.0	2.0	2.0	1.0	2.0	1.0	148.6	2.0	2.0	2.0
Depth Probe	DP227	T10	516206.41	572805.45	0.50	B - Very Shallow (0.01-0.5m)	6.462008476	344.50	344.50	6.462008	0.112783	3.5	11	0.500	1.50	0.1125	0.9936	0.9873	0.4663	5.69	1.0	1.90	1.0	2.0	0.0	5.69	1.0	1.90	1.0	2.0	2.0	1.0	2.0	1.0	199.4	1.0	1.0	1.0
Depth Probe	DP228	T10	516208.79	572749.76	0.10	B - Very Shallow (0.01-0.5m)	3.519578934	331.24	329.14	3.519579	0.061428	3.5	11	0.10	1.10	0.0614	0.9981	0.9962	0.4663	51.93	1.0	4.72	1.0	2.0	0.0	51.93	1.0	4.72	1.0	2.0	2.0	1.0	2.0	1.0	180.6	1.0	1.0	1.0
Depth Probe	DP229	T4	516212	571691	0.30	B - Very Shallow (0.01-0.5m)	2.440073252	332.87	330.47	2.440073	0.042587	3.5	11	0.30	1.30	0.0426	0.9991	0.9982	0.4663	24.93	1.0	5.75	1.0	2.0	0.0	24.93	1.0	5.75	1.0	2.0	2.0	1.0	2.0	1.0	426.9	1.0	1.0	1.0
Depth Probe	DP230	T4	516222	571823	0.10	B - Very Shallow (0.01-0.5m)	6.940914154	331.42	329.62	6.940914	0.121142	3.5	11	0.10	1.10	0.1208	0.9927	0.9854	0.4663	26.52	1.0	2.41	1.0	2.0	0.0	26.52	1.0	2.41	1.0	2.0	2.0	1.0	2.0	1.0	294.7	1.0	1.0	1.0
Depth Probe	DP231	T4	516231	571816	2.20	D - Moderately Deep (2.0-3.5m)	7.747647762	331.24	329.34	7.747648	0.135222	3.5	11	2.20	3.20	0.1348	0.9909	0.9818	0.4663	1.08	2.0	0.74	4.0	2.0	0.0	1.08	2.0	0.74	4.0	2.0	4.0	2.0	8.0	4.0	300.5	1.0	2.0	4.0
Depth Probe	DP232	T6	516234.67	572522.31	0.00	A - Rock (0.0m)	8.073299408	329.35	327.75	8.073299	0.140906	3.5	11	0.00	1.00	0.1404	0.9901	0.9803	0.4663	2288.29	1.0	2.29	1.0	2.0	0.0	2288.29	1.0	2.29	1.0	2.0	2.0	1.0	2.0	1.0	181.3	1.0	1.0	1.0
Depth Probe	DP233	T4	516235	571807	0.00	A - Rock (0.0m)	7.747647762	329.21	327.61	7.747648	0.135222	3.5	11	0.00	1.00	0.1348	0.9909	0.9818	0.4663	2381.96	1.0	2.38	1.0	2.0	0.0	2381.96	1.0	2.38	1.0	2.0	2.0	1.0	2.0	1.0	309.1	1.0	1.0	1.0
Depth Probe	DP234	T6	516236.07	572353.28	0.00	A - Rock (0.0m)	8.675478935	326.00	324.00	8.675479	0.151416	3.5	11	0.00	1.00	0.1508	0.9886	0.9772	0.4663	2133.85	1.0	2.13	1.0	2.0	0.0	2133.85	1.0	2.13	1.0	2.0	2.0	1.0	2.0	1.0	175.8	1.0	1.0	1.0
Depth Probe	DP235	T6	516242.07	572339.29	2.20	D - Moderately Deep (2.0-3.5m)	8.796183586	328.60	327.10	8.796184	0.153522	3.5	11	2.20	3.20	0.1529	0.9882	0.9766	0.4663	0.96	4.0	0.66	4.0	2.0	0.0	0.96	4.0	0.66	4.0	2.0	8.0	4.0	8.0	4.0	179.3	1.0	4.0	4.0
Depth Probe	DP236	T4	516243	571687	0.10	B - Very Shallow (0.01-0.5m)	2.440073252	328.60	327.70	2.440073	0.042587	3.5	11	0.10	1.10	0.0426	0.9991	0.9982	0.4663	74.80	1.0	6.80	1.0	2.0	0.0	74.80	1.0	6.80	1.0	2.0	2.0	1.0	2.0	1.0	428.4	1.0	1.0	1.0
Depth Probe	DP237	T4	516245	571828	0.50	B - Very Shallow (0.01-0.5m)	7.747647762	327.71	326.51	7.747648	0.135222	3.5	11	0.50	1.50	0.1348	0.9909	0.9818	0.4663	4.76	1.0	1.59	1.0	2.0	0.0	4.76	1.0	1.59	1.0	2.0	2.0	1.0	2.0	1.0	287.4	1.0	1.0	1.0
Depth Probe	DP238	T4	516247	571824	1.00	C - Shallow (0.5-2.0m)	5.808549404	327.71	327.01	5.808549	0.101378	3.5	11	1.00	2.00	0.1012	0.9949	0.9898	0.4663	3.16	1.0	1.58	1.0	2.0	0.0	3.16	1.0	1.58	1.0	2.0	2.0	1.0	2.0	1.0	291.3	1.0	1.0	1.0
Depth Probe	DP239	T10	516247.39	572822.02	0.50	B - Very Shallow (0.01-0.5m)	2.483276606	329.79	329.39	2.483277	0.043341	3.5	11	0.50	1.50	0.0433	0.9991	0.9981	0.4663	14.70	1.0	4.90	1.0	2.0	0.0	14.70	1.0	4.90	1.0	2.0	2.0	1.0	2.0	1.0	243.3	1.0	1.0	1.0
Depth Probe	DP240	T4	516252	571823	2.00	C - Shallow (0.5-2.0m)	5.808549404	330.70	328.05	5.808549	0.101378	3.5	11	2.00	3.00	0.1012	0.9949	0.9898	0.4663	1.58	1.0	1.05	2.0	2.0	0.0	1.58	1.0	1.05	2.0	2.0	2.0	1.0	4.0	2.0	292.1	1.0	1.0	2.0
Depth Probe	DP241	T4	516253	571823	1.00	C - Shallow (0.5-2.0m)	5.808549404	331.62	329.62	5.808549	0.101378	3.5	11	1.00	2.00	0.1012	0.9949	0.9898	0.4663	3.16	1.0	1.58	1.0	2.0	0.0	3.16	1.0	1.58	1.0	2.0	2.0	1.0	2.0	1.0	292.1	1.0	1.0	1.0
Depth Probe	DP242	T10	516255.38	572680.69	1.20	C - Shallow (0.5-2.0m)	8.222197533	304.27	301.77	8.222198	0.143504	3.5	11	1.20	2.20	0.1430	0.9897	0.9795	0.4663	1.87	1.0	1.02	2.0	2.0	0.0	1.87	1.0	1.02	2.0	2.0	2.0	1.0	4.0	2.0	213.5	1.0	1.0	2.0
Depth Probe	DP243	T6	516257.07	572329.29	0.00	A - Rock (0.0m)	8.01441288	305.06	301.86	0.1	0.001745	3.5	11	0.00	1.00	0.0017	1.0000	1.0000	0.4663	182305.12	1.0	182.12	1.0	2.0	0.0	182305.12	1.0	182.12	1.0	2.0	2.0	1.0	2.0	1.0	193.0	1.0	1.0	1.0
Depth Probe	DP244	T6	516258.86	572546.71	0.20	B - Very Shallow (0.01-0.5m)	8.153766632	305.06	303.56	0.1	0.001745	3.5	11	0.20	1.20	0.0017	1.0000	1.0000	0.4663	911.53	1.0	151.92	1.0	2.0	0.0	911.53	1.0	151.92	1.0	2.0	2.0	1.0	2.0	1.0	209.7	1.0	1.0	1.0
Depth Probe	DP245	T4	516261.06	571685.43	0.10	B - Very Shallow (0.01-0.5m)	4.716444969	304.09	299.89	4.716445	0.082317	3.5	11	0.10	1.10	0.0822	0.9966	0.9932	0.4663	38.83	1.0	3.53	1.0	2.0	0.0	38.83	1.0	3.53	1.0	2.0	2.0	1.0	2.0	1.0	429.5	1.0	1.0	1.0
Depth Probe	DP246	T10	516265.83	572773.23	0.20	B - Very Shallow (0.01-0.5m)	3.409513474	303.30	298.30	0.1	0.001745	3.5	11	0.20	1.20	0.0017	1.0000	1.0000	0.4663	911.53	1.0	151.92	1.0	2.0	0.0	911.53	1.0	151.92	1.0	2.0	2.0	1.0	2.0	1.0	241.8	1.0	1.0	1.0
Depth Probe	DP247	T10	516266.99	572765.49	0.60	C - Shallow (0.5-2.0m)	3.409513474	297.69	296.39	3.409513	0.059507	3.5	11	0.60	1.60	0.0595	0.9982	0.9965	0.4663	8.93	1.0	3.35	1.0	2.0	0.0	8.93	1.0	3.35	1.0	2.0	2.0	1.0	2.0	1.0	240.9	1.0	1.0	1.0
Depth Probe	DP248	T6	516271.63	572465.4	0.10	B - Very Shallow (0.01-0.5m)	7.749595165	298.04	295.84	7.749595	0.135256	3.5	11	0.10	1.10	0.1348	0.9909	0.9818	0.4663	23.81	1.0	2.16	1.0	2.0	0.0	23.81	1.0	2.16	1.0	2.0	2.0	1.0	2.0	1.0	217.4	1.0	1.0	1.0
Depth Probe	DP249	T6	516277.44	572480.12	0.50	B - Very Shallow (0.01-0.5m)	8.028281212	306.82	303.97	8.028281	0.14012	3.5	11	0.50	1.50	0.1397	0.9902	0.9805	0.4663	4.60	1.0	1.53	1.0	2.0	0.0	4.60	1.0	1.53	1.0	2.0	2.0	1.0	2.0	1.0	221.9	1.0	1.0	1.0
Depth Probe	DP250	T4	516280	571844	0.20	B - Very Shallow (0.01-0.5m)	8.572918892	302.60	302.60	8.572919	0.149626	3.5	11	0.200	1.20	0.1491	0.9888	0.9778	0.4663	10.79	1.0	1.80	1.0	2.0	0.0	10.79	1.0	1.80	1.0	2.0	2.0	1.0	2.0	1.0	271.6	1.0	1.0	1.0
Depth Probe	DP251	T10	516290.61	572818.92	0.20	B - Very Shallow (0.01-0.5m)	1.145451546	302.60	302.00	1.145452	0.019992	3.5	11	0.20	1.20	0.0200	0.9998	0.9996	0.4663	79.60	1.0	13.27	1.0	2.0	0.0	79.60	1.0	13.27	1.0	2.0	2.0	1.0	2.0	1.0	280.8	1.0	1.0	1.0
Depth Probe	DP252	T4	516294	571692	0.20	B - Very Shallow (0.01-0.5m)	4.90761137	301.32	301.02	4.907611	0.085654	3.5	11	0.20	1.20	0.0855	0.9963	0.9927	0.4663	18.66	1.0	3.11	1.0	2.0	0.0	18.66	1.0	3.11	1.0	2.0	2.0	1.0	2.0	1.0	424.2	1.0	1.0	1.0
Depth Probe	DP253	T6	516309.05	572299.29	3.00	D - Moderately Deep (2.0-3.5m)	6.247334003	307.17	306.27	6.247334	0.109037	3.5	11	3.00	4.00	0.1088	0.9941	0.9882	0.4663	0.98	4.0	0.74	4.0	2.0	0.0	0.98	4.0	0.74	4.0	2.0	8.0	4.0	8.0	4.0	168.8	1.0	4.0	4.0
Depth Probe	DP254	T4	516317.05	571700.42	0.10	B - Very Shallow (0.01-0.5m)	5.459080219	355.65	355.60	5.45908	0.095279	3.5	11	0.10	1.10	0.0951	0.9955	0.9909	0.4663	33.60	1.0	3.05	1.0	2.0	0.0	33.60	1.0	3.05	1.0	2.0	2.0	1.0	2.0	1.0	417.1	1.0	1.0	1.0
Depth Probe	DP255	T10	516327.01	572774.01	0.30	B - Very Shallow (0.01-0.5m)	4.906589031	356.30	353.40	4.906589	0.085636	3.5	11	0.30	1.30	0.0855	0.9963	0.9927	0.4663	12.45	1.0	2.87	1.0	2.0	0.0	12.45	1.0	2.87	1.0	2.0	2.0	1.0	2.0	1.0	301.3	1.0	1.0	1.0
Depth Probe	DP256	T6	516331.05	572406.27	0.50	B - Very Shallow (0.01-0.5m)	6.680482864	320.29	320.19	6.680483	0.116596	3.5	11	0.50	1.50	0.1163	0.9932	0.9865	0.4663	5.51	1.0	1.84	1.0	2.0	0.0	5.51	1.0	1.84	1.0	2.0	2.0	1.0	2.0	1.0	259.6	1.0	1.0	1.0
Depth Probe	DP257	T4	516340	571833	0.20	B - Very Shallow (0.01-0.5m)	6.458789349	322.20	321.90	6.458789	0.112727	3.5	11	0.20	1.20	0.1125	0.9937	0.9873	0.4663	14.23	1.0	2.37	1.0	2.0	0.0	14.23	1.0	2.37	1.0	2.0	2.0	1.0	2.0	1.0	289.0	1.0	1.0	1.0
Depth Probe	DP258	T4	516358.04	571708.42	0.00	A - Rock (0.0m)	5.025134563	322.20	321.10	5.025135	0.087705	3.5	11	0.00	1.00	0.0876	0.9962	0.9923	0.4663	3646.53	1.0	3.64	1.0	2.0	0.0	3646.53	1.0	3.64	1.0	2.0	2.0	1.0	2.0	1.0	414.7	1.0	1.0	1.0
Depth Probe	DP259	T6	516362.04	572298.29	0.10	B - Very Shallow (0.01-0.5m)	5.364169121	324.41	323.01	5.364169	0.093622	3.5	11	0.10	1.10	0.0935	0.9956	0.9913	0.4663	34.19	1.0	3.11	1.0	2.0	0.0	34.19	1.0	3.11	1.0	2.0	2.0	1.0	2.0	1.0	147.6	2.0	2.0	2.0
Depth Probe	DP260	T6	516382.38	572602.11	0.60	C - Shallow (0.5-2.0m)	8.459296227	322.46	322.36	8.459296	0.147643	3.5	11	0.60	1.60	0.1471	0.9891	0.9784	0.4663	3.64	1.0	1.37	1.0	2.0	0.0	3.64	1.0	1.37	1.0	2.0	2.0	1.0	2.0	1.0	342.6	1.0	1.0	1.0
Depth Probe	DP261	T6	516384.31	572563.79	0.00	A - Rock (0.0m)	8.471039772	359.11	357.61	8.47104	0.147848	3.5	11	0.00	1.00	0.1473	0.9891	0.9783	0.4663	2183.78	1.0	2.18	1.0	2.0	0.0	2183.78	1.0	2.18	1.0	2.0	2.0	1.0	2.0	1.0	336.1	1.0	1.0	1.0
Depth Probe	DP262	T6	516387.41	572530.5	1.00	C - Shallow (0.5-2.0m)	8.361226082	359.11	357.61	8.361226	0.145931	3.5	11	1.00	2.00	0.1454	0.9894	0.9789	0.4663	2.21	1.0	1.11	2.0	2.0	0.0	2.21	1.0	1.11	2.0	2.0	2.0	1.0	4.0	2.0	333.7	1.0	1.0	2.0
Depth Probe	DP263	T6	516395.15	572668.68	0.00	A - Rock (0.0m)	8.804580688	359.11	358.61	8.804581	0.153669	3.5	11	0.00	1.00	0.1531	0.9882	0.9766	0.4663	2103.53	1.0	2.10	1.0	2.0	0.0	2103.53	1.0	2.10	1.0	2.0	2.0	1.0	2.0	1.0	351.9	1.0	1.0	1.0
Depth Probe	DP264	T4	516408.03	571715.42	0.10	B - Very Shallow (0.01-0.5m)	3.347083807	360.48	359.18	3.347084	0.058418	3.5	11	0.10	1.10	0.0584	0.9983	0.9966	0.4663	54.59	1.0	4.96	1.0	2.0	0.0	54.59	1.0	4.96	1.0	2.0	2.0	1.0	2.0	1.0	420.1	1.0	1.0	1.0
Depth Probe	DP265	T4	516412.03	571574.45	0.10	B - Very Shallow (0.01-0.5m)	11.07051849	359.43	357.03	11.07052	0.193217	3.5	11	0.10	1.10	0.1920	0.9814	0.9631	0.4663	16.88	1.0	1.53	1.0	2.0	0.0	16.88	1.0	1.53	1.0	2.0	2.0	1.0	2.0	1.0	369.6	1.0	1.0	1.0
Depth Probe	DP266	T4	516412.03	571728.42	0.10	B - Very Shallow (0.01-0.5m)	1.1683954	358.25	356.15	1.168395	0.020392	3.5	11	0.10	1.10	0.0204	0.9998	0.9996	0.4663	156.07	1.0	14.19	1.0	2.0	0.0	156.07	1.0	14.19	1.0	2.0	2.0	1.0	2.0	1.0	408.7	1.0	1.0	1.0
Depth Probe	DP267	T6	516418.03	572439.26	2.60	D - Moderately Deep (2.0-3.5m)	6.042483807	363.17	362.07	6.042484	0.105461	3.5	11	2.60	3.60	0.1053	0.9944	0.9889	0.4663	1.17	2.0	0.84	4.0	2.0	0.0	1.17	2.0	0.84	4.0	2.0	4.0	2.0	8.0	4.0	255.9	1.0	2.0	4.0
Depth Probe	DP268	T4	516430.03	571733.42	0.10	B - Very Shallow (0.01-0.5m)	1.1683954	297.69	296.19	1.168395	0.020392	3.5	11	0.10	1.10	0.0204	0.9998	0.9996	0.4663	156.07	1.0	14.19	1.0	2.0	0.0	156.07	1.0	14.19	1.0	2.0	2.0	1.0	2.0	1.0	409.1	1.0	1.0	1.0
Depth Probe	DP269	T6	516434.03	572467.26	0.00	A - Rock (0.0m)	6.35787487	297.69	296.59	6.357875	0.110966	3.5	11	0.00	1.00	0.1107	0.9938	0.9877	0.4663	2891.06	1.0	2.89	1.0	2.0	0.0	2891.06	1.0	2.89	1.0	2.0	2.0	1.0	2.0	1.0	268.7	1.0	1.0	1.0
Depth Probe	DP270	T6	516458.02	572265.3	2.90	D - Moderately Deep (2.0-3.5m)	4.215157986	297.69	296.59	4.215158	0.073568	3.5	11	2.90	3.90	0.0735	0.9973	0.9946	0.4663	1.50	1.0	1.11	2.0	2.0	0.0	1.50	1.0	1.11	2.0	2.0	2.0	1.0	4.0	2.0	83.1	2.0	2.0	4.0
Depth Probe	DP271	T6	516458.02	572269.3	0.00	A - Rock (0.0m)	4.215157986	297.69	296.29	4.215158	0.073568	3.5	11	0.00	1.00	0.0735	0.9973	0.9946	0.4663	4340.63	1.0	4.34	1.0	2.0	0.0	4340.63	1.0	4.34	1.0	2.0	2.0	1.0	2.0	1.0	86.2	2.0	2.0	2.0
Depth Probe	DP272	T6	516513.01	572523.25	0.00	A - Rock (0.0m)	6.995988846	296.93	296.83	6.995989	0.122103	3.5	11	0.00	1.00	0.1218	0.9926	0.9852	0.4663	2631.93	1.0	2.63	1.0	2.0	0.0	2631.93	1.0	2.63	1.0	2.0	2.0	1.0	2.0	1.0	263.8	1.0	1.0	1.0
Depth Probe	DP273	T6	516523.01	572494.25	0.10	B - Very Shallow (0.01-0.5m)	6.845310211	296.93	295.43	6.84531	0.119473	3.5	11	0.10	1.10	0.1192	0.9929	0.9858	0.4663	26.89	1.0	2.44	1.0	2.0	0.0	26.89	1.0	2.44	1.0	2.0	2.0	1.0	2.0	1.0	236.0	1.0	1.0	1.0
Depth Probe	DP274	T5	516542.81	571836.08	0.00	A - Rock (0.0m)	5.997124672	296.93	295.13	5.997125	0.10467	3.5	11	0.00	1.00	0.1045	0.9945	0.9891	0.4663	3062.19	1.0	3.06	1.0	2.0	0.0	3062.19	1.0	3.06	1.0	2.0	2.0	1.0	2.0	1.0	348.7	1.0	1.0	1.0
Depth Probe	DP275	T5	516577.64	571808.79	0.00	A - Rock (0.0m)	3.916102409	296.93	296.83	3.916102	0.068349	3.5	11	0.00	1.00	0.0683	0.9977	0.9953	0.4663	4669.79	1.0	4.67	1.0	2.0	0.0	4669.79	1.0	4.67	1.0	2.0	2.0	1.0	2.0	1.0	385.3	1.0	1.0	1.0
Depth Probe	DP276	T5	516630.77	571781.8	0.00	A - Rock (0.0m)	1.824308515	296.93	296.73	1.824309	0.03184	3.5	11	0.00	1.00	0.0318	0.9995	0.9990	0.4663	9999.85	1.0	9.99	1.0	2.0	0.0	9999.85	1.0	9.99	1.0	2.0	2.0	1.0	2.0	1.0	429.5	1.0	1.0	1.0
Depth Probe	DP277	T11	516646.98	572487.25	2.00	C - Shallow (0.5-2.0m)	5.038897514	296.21	295.21	5.038898	0.087945	3.5	11	2.00	3.00	0.0878	0.9961	0.9923	0.4663	1.82	1.0	1.21	2.0	2.0	0.0	1.82	1.0	1.21	2.0	2.0	2.0	1.0	4.0	2.0	159.3	1.0	1.0	2.0
Depth Probe	DP278		516663.98	572154.32	0.10	B - Very Shallow (0.01-0.5m)	6.068204403	296.21	295.71	6.068204	0.10591	3.5	11	0.10	1.10	0.1057	0.9944	0.9888	0.4663	30.27	1.0	2.75	1.0	2.0	0.0	30.27	1.0	2.75	1.0	2.0	2.0	1.0	2.0	1.0	119.6	2.0	2.0	2.0
Depth Probe	DP279	T5	516677.72	571800.05	0.00	A - Rock (0.0m)	1.76113677	296.21	296.21	1.761137	0.030738	3.5	11	0.001	1.00	0.0307	0.9995	0.9991	0.4663	10358.06	1.0	10.35	1.0	2.0	0.0	10358.06	1.0	10.35	1.0	2.0	2.0	1.0	2.0	1.0	433.1	1.0	1.0	1.0
Depth Probe	DP280		516679.97	572117.33	0.10	B - Very Shallow (0.01-0.5m)	6.52324295	296.08	295.13	6.523243	0.113852	3.5	11	0.10	1.10	0.1136	0.9935	0.9871	0.4663	28.19	1.0	2.56	1.0	2.0	0.0	28.19	1.0	2.56	1.0	2.0	2.0	1.0	2.0	1.0	159.2	1.0	1.0	1.0
Depth Probe	DP281	T11	516681.97	572429.26	0.00	A - Rock (0.0m)	5.422397137	296.08	295.08	5.422397	0.094639	3.5	11	0.00	1.00	0.0945	0.9955	0.9911	0.4663	3382.23	1.0	3.38	1.0	2.0	0.0	3382.23	1.0	3.38	1.0	2.0	2.0	1.0	2.0	1.0	92.5	2.0	2.0	2.0
Depth Probe	DP282		516682.97	572084.34	0.10	B - Very Shallow (0.01-0.5m)	6.881349564	296.08	295.98	6.88135	0.120102	3.5	11	0.10	1.10	0.1198	0.9928	0.9856	0.4663	26.75	1.0	2.43	1.0	2.0	0.0	26.75	1.0	2.43	1.0	2.0	2.0	1.0	2.0	1.0	185.2	1.0	1.0	1.0
Depth Probe	DP283	T11	516682.98	572474.25	0.50	B - Very Shallow (0.01-0.5m)	4.841876507	295.07	294.97	4.841877	0.084507	3.5	11	0.50	1.50	0.0844	0.9964	0.9929	0.4663	7.57	1.0	2.52	1.0	2.0	0.0	7.57	1.0	2.52	1.0	2.0	2.0	1.0	2.0	1.0	133.8	2.0	2.0	2.0
Depth Probe	DP284	T11	516683.97	572472.26	0.50	B - Very Shallow (0.01-0.5m)	4.796021461	295.07	293.47	4.796021	0.083706	3.5	11	0.50	1.50	0.0836	0.9965	0.9930	0.4663	7.64	1.0	2.55	1.0	2.0	0.0	7.64	1.0	2.55	1.0	2.0	2.0	1.0	2.0	1.0	131.6	2.0	2.0	2.0
Depth Probe	DP285		516687.97	572055.35	0.20	B - Very Shallow (0.01-0.5m)	7.36180687	295.46	295.41	7.361807	0.128488	3.5	11	0.20	1.20	0.1281	0.9918	0.9836	0.4663	12.52	1.0	2.09	1.0	2.0	0.0	12.52	1.0	2.09	1.0	2.0	2.0	1.0	2.0	1.0	210.0	1.0	1.0	1.0
Depth Probe	DP286	T11	516694	572454	1.80	C - Shallow (0.5-2.0m)	5.295378685	295.46	295.16	5.295379	0.092422	3.5	11	1.80	2.80	0.0923	0.9957	0.9915	0.4663	1.92	1.0	1.24	2.0	2.0	0.0	1.92	1.0	1.24	2.0	2.0	2.0	1.0	4.0	2.0	111.2	2.0	2.0	4.0
Depth Probe	DP287	T11	516695	572440	0.10	B - Very Shallow (0.01-0.5m)	5.785228729	296.08	294.98	5.785229	0.100971	3.5	11	0.10	1.10	0.1008	0.9949	0.9898	0.4663	31.73	1.0	2.88	1.0	2.0	0.0	31.73	1.0	2.88	1.0	2.0	2.0	1.0	2.0	1.0	97.5	2.0	2.0	2.0
Depth Probe	DP288	T11	516696	572446	0.50	B - Very Shallow (0.01-0.5m)	5.295378685	296.08	295.03	5.295379	0.092422	3.5	11	0.50	1.50	0.0923	0.9957	0.9915	0.4663	6.92	1.0	2.31	1.0	2.0	0.0	6.92	1.0	2.31	1.0	2.0	2.0	1.0	2.0	1.0	103.0	2.0	2.0	2.0
Depth Probe	DP289	T11	516697.97	572572.23	0.10	B - Very Shallow (0.01-0.5m)	6.886060238	297.04	296.24	6.88606	0.120184	3.5	11	0.10	1.10	0.1199	0.9928	0.9856	0.4663	26.73	1.0	2.43	1.0	2.0	0.0	26.73	1.0	2.43	1.0	2.0	2.0	1.0	2.0	1.0	226.8	1.0	1.0	1.0
Depth Probe	DP290	T11	516699.97	572589.23	1.80	C - Shallow (0.5-2.0m)	6.886060238	295.27	294.37	6.88606	0.120184	3.5	11	1.80	2.80	0.1199	0.9928	0.9856	0.4663	1.49	1.0	0.95	4.0	2.0	0.0	1.49	1.0	0.95	4.0	2.0	2.0	1.0	8.0	4.0	243.4	1.0	1.0	4.0
Depth Probe	DP291	T11	516702.08	572439.93	0.00	A - Rock (0.0m)	5.994998455	295.27	293.37	5.994998	0.104632	3.5	11	0.00	1.00	0.1044	0.9945	0.9891	0.4663	3063.26	1.0	3.06	1.0	2.0	0.0	3063.26	1.0	3.06	1.0	2.0	2.0	1.0	2.0	1.0	95.6	2.0	2.0	2.0
Depth Probe	DP292	T11	516702.97	572655.22	0.10	B - Very Shallow (0.01-0.5m)	7.998033047	294.52	290.22	7.998033	0.139592	3.5	11	0.10	1.10	0.1391	0.9903	0.9806	0.4663	23.09	1.0	2.10	1.0	2.0	0.0	23.09	1.0	2.10	1.0	2.0	2.0	1.0	2.0	1.0	308.8	1.0	1.0	1.0
Depth Probe	DP293	T11	516709.97	572610.23	0.00	A - Rock (0.0m)	7.635109901	294.52	290.02	7.63511	0.133258	3.5	11	0.00	1.00	0.1329	0.9911	0.9823	0.4663	2416.22	1.0	2.41	1.0	2.0	0.0	2416.22	1.0	2.41	1.0	2.0	2.0	1.0	2.0	1.0	263.4	1.0	1.0	1.0
Depth Probe	DP294	T11	516715	572447	0.60	C - Shallow (0.5-2.0m)	5.372542858	305.92	304.47	5.372543	0.093769	3.5	11	0.60	1.60	0.0936	0.9956	0.9912	0.4663	5.69	1.0	2.13	1.0	2.0	0.0	5.69	1.0	2.13	1.0	2.0	2.0	1.0	2.0	1.0	100.4	2.0	2.0	2.0
Depth Probe	DP295	T11	516715	572467	1.10	C - Shallow (0.5-2.0m)	5.372542858	305.92	305.52	5.372543	0.093769	3.5	11	1.10	2.10	0.0936	0.9956	0.9912	0.4663	3.10	1.0	1.63	1.0	2.0	0.0	3.10	1.0	1.63	1.0	2.0	2.0	1.0	2.0	1.0	120.3	2.0	2.0	2.0
Depth Probe	DP296	T11	516715	572485	1.50	C - Shallow (0.5-2.0m)	4.796021461	304.35	304.15	4.796021	0.083706	3.5	11	1.50	2.50	0.0836	0.9965	0.9930	0.4663	2.55	1.0	1.53	1.0	2.0	0.0	2.55	1.0	1.53	1.0	2.0	2.0	1.0	2.0	1.0	138.3	2.0	2.0	2.0
Depth Probe	DP297	T11	516715	572500	1.50	C - Shallow (0.5-2.0m)	4.796021461	303.10	303.10	4.796021	0.083706	3.5	11	1.500	2.50	0.0836	0.9965	0.9930	0.4663	2.55	1.0	1.53	1.0	2.0	0.0	2.55	1.0	1.53	1.0	2.0	2.0	1.0	2.0	1.0	153.2	1.0	1.0	1.0
Depth Probe	DP298	T11	516720.9	572542.94	0.80	C - Shallow (0.5-2.0m)	6.014891624	304.66	303.66	6.014892	0.10498	3.5	11	0.80	1.80	0.1048	0.9945	0.9890	0.4663	3.82	1.0	1.70	1.0	2.0	0.0	3.82	1.0	1.70	1.0	2.0	2.0	1.0	2.0	1.0	195.4	1.0	1.0	1.0
Depth Probe	DP299	T11	516724.78	572506.93	0.00	A - Rock (0.0m)	4.93759203	306.82	303.12	4.937592	0.086177	3.5	11	0.00	1.00	0.0861	0.9963	0.9926	0.4663	3710.52	1.0	3.71	1.0	2.0	0.0	3710.52	1.0	3.71	1.0	2.0	2.0	1.0	2.0	1.0	159.2	1.0	1.0	1.0
Depth Probe	DP300	T11	516728.59	572414.77	0.00	A - Rock (0.0m)	5.994998455	306.82	303.32	5.994998	0.104632	3.5	11	0.00	1.00	0.1044	0.9945	0.9891	0.4663	3063.26	1.0	3.06	1.0	2.0	0.0	3063.26	1.0	3.06	1.0	2.0	2.0	1.0	2.0	1.0	67.1	2.0	2.0	2.0
Depth Probe	DP301	T11	516734.98	572488.17	0.00	A - Rock (0.0m)	4.937470913	306.82	305.72	4.937471	0.086175	3.5	11	0.00	1.00	0.0861	0.9963	0.9926	0.4663	3710.61	1.0	3.71	1.0	2.0	0.0	3710.61	1.0	3.71	1.0	2.0	2.0	1.0	2.0	1.0	139.4	2.0	2.0	2.0
Depth Probe	DP302	T12	516735.56	573286.02	0.30	B - Very Shallow (0.01-0.5m)	14.37418938	306.82	306.72	14.37419	0.250877	3.5	11	0.30	1.30	0.2483	0.9687	0.9384	0.4663	4.41	1.0	1.02	2.0	2.0	0.0	4.41	1.0	1.02	2.0	**4.0**	4.0	2.0	8.0	4.0	**200.0**	1.0	2.0	4.0
Depth Probe	DP303	T11	516746.07	572529.38	0.20	B - Very Shallow (0.01-0.5m)	5.61640358	305.83	302.93	5.616404	0.098025	3.5	11	0.20	1.20	0.0979	0.9952	0.9904	0.4663	16.33	1.0	2.72	1.0	2.0	0.0	16.33	1.0	2.72	1.0	2.0	2.0	1.0	2.0	1.0	179.4	1.0	1.0	1.0
Depth Probe	DP304	T11	516753.81	572502.67	0.00	A - Rock (0.0m)	5.61640358	305.83	304.33	5.616404	0.098025	3.5	11	0.00	1.00	0.0979	0.9952	0.9904	0.4663	3266.82	1.0	3.26	1.0	2.0	0.0	3266.82	1.0	3.26	1.0	2.0	2.0	1.0	2.0	1.0	152.0	1.0	1.0	1.0
Depth Probe	DP305	T11	516753.99	572463.2	1.00	C - Shallow (0.5-2.0m)	6.187883377	303.36	302.36	6.187883	0.107999	3.5	11	1.00	2.00	0.1078	0.9942	0.9884	0.4663	2.97	1.0	1.48	1.0	2.0	0.0	2.97	1.0	1.48	1.0	2.0	2.0	1.0	2.0	1.0	112.7	2.0	2.0	2.0
Depth Probe	DP306	T11	516754.14	572472.06	0.00	A - Rock (0.0m)	5.659658909	302.05	301.75	5.659659	0.09878	3.5	11	0.00	1.00	0.0986	0.9951	0.9903	0.4663	3242.18	1.0	3.24	1.0	2.0	0.0	3242.18	1.0	3.24	1.0	2.0	2.0	1.0	2.0	1.0	121.5	2.0	2.0	2.0
Depth Probe	DP307	T11	516757	572485	0.30	B - Very Shallow (0.01-0.5m)	5.659658909	304.71	303.71	5.659659	0.09878	3.5	11	0.30	1.30	0.0986	0.9951	0.9903	0.4663	10.81	1.0	2.49	1.0	2.0	0.0	10.81	1.0	2.49	1.0	2.0	2.0	1.0	2.0	1.0	134.1	2.0	2.0	2.0
Depth Probe	DP308	T11	516757.04	572440.85	0.00	A - Rock (0.0m)	6.025743484	304.71	303.61	6.025743	0.105169	3.5	11	0.00	1.00	0.1050	0.9945	0.9890	0.4663	3047.86	1.0	3.04	1.0	2.0	0.0	3047.86	1.0	3.04	1.0	2.0	2.0	1.0	2.0	1.0	90.1	2.0	2.0	2.0
Depth Probe	DP309	T11	516763.43	572573.08	0.00	A - Rock (0.0m)	7.356761932	304.71	304.51	7.356762	0.1284	3.5	11	0.00	1.00	0.1280	0.9918	0.9836	0.4663	2505.50	1.0	2.50	1.0	2.0	0.0	2505.50	1.0	2.50	1.0	2.0	2.0	1.0	2.0	1.0	221.7	1.0	1.0	1.0
Depth Probe	DP310	T11	516768.14	572517	0.60	C - Shallow (0.5-2.0m)	5.806556225	377.21	377.11	5.806556	0.101344	3.5	11	0.60	1.60	0.1012	0.9949	0.9898	0.4663	5.27	1.0	1.98	1.0	2.0	0.0	5.27	1.0	1.98	1.0	2.0	2.0	1.0	2.0	1.0	165.6	1.0	1.0	1.0
Depth Probe	DP311	T11	516774.34	572539.45	0.00	A - Rock (0.0m)	6.784794331	377.53	376.53	0.1	0.001745	3.5	11	0.00	1.00	0.0017	1.0000	1.0000	0.4663	182305.12	1.0	182.12	1.0	2.0	0.0	182305.12	1.0	182.12	1.0	2.0	2.0	1.0	2.0	1.0	188.2	1.0	1.0	1.0
Depth Probe	DP312	T11	516777	572485	0.10	B - Very Shallow (0.01-0.5m)	5.661455631	377.53	376.33	0.1	0.001745	3.5	11	0.10	1.10	0.0017	1.0000	1.0000	0.4663	1823.05	1.0	165.73	1.0	2.0	0.0	1823.05	1.0	165.73	1.0	2.0	2.0	1.0	2.0	1.0	133.9	2.0	2.0	2.0
Depth Probe	DP313	T11	516782.08	572507.32	0.60	C - Shallow (0.5-2.0m)	5.806556225	376.92	374.22	0.1	0.001745	3.5	11	0.60	1.60	0.0017	1.0000	1.0000	0.4663	303.84	1.0	113.94	1.0	2.0	0.0	303.84	1.0	113.94	1.0	2.0	2.0	1.0	2.0	1.0	156.5	1.0	1.0	1.0
Depth Probe	DP314	T12	516784.96	573287.08	0.40	B - Very Shallow (0.01-0.5m)	15.80003357	377.10	377.00	15.80003	0.275763	3.5	11	0.40	1.40	0.2723	0.9622	0.9259	0.4663	3.04	1.0	0.87	4.0	2.0	0.0	3.04	1.0	0.87	4.0	**4.0**	4.0	2.0	16.0	8.0	**200.0**	1.0	2.0	8.0
Depth Probe	DP315	T11	516792.17	572450.29	0.00	A - Rock (0.0m)	5.785002708	377.10	377.00	5.785003	0.100967	3.5	11	0.00	1.00	0.1008	0.9949	0.9898	0.4663	3172.85	1.0	3.17	1.0	2.0	0.0	3172.85	1.0	3.17	1.0	2.0	2.0	1.0	2.0	1.0	100.2	2.0	2.0	2.0
Depth Probe	DP316	T11	516803.92	572485.27	0.00	A - Rock (0.0m)	5.521930218	377.40	376.60	0.1	0.001745	3.5	11	0.00	1.00	0.0017	1.0000	1.0000	0.4663	182305.12	1.0	182.12	1.0	2.0	0.0	182305.12	1.0	182.12	1.0	2.0	2.0	1.0	2.0	1.0	131.4	2.0	2.0	2.0
Depth Probe	DP317	T11	516819	572456	0.20	B - Very Shallow (0.01-0.5m)	5.474979401	377.40	377.40	0.1	0.001745	3.5	11	0.200	1.20	0.0017	1.0000	1.0000	0.4663	911.53	1.0	151.92	1.0	2.0	0.0	911.53	1.0	151.92	1.0	2.0	2.0	1.0	2.0	1.0	100.7	2.0	2.0	2.0
Depth Probe	DP318	T12	516825.95	573287.08	0.20	B - Very Shallow (0.01-0.5m)	15.19100094	378.04	377.74	15.191	0.265133	3.5	11	0.20	1.20	0.2620	0.9651	0.9313	0.4663	6.29	1.0	1.05	2.0	2.0	0.0	6.29	1.0	1.05	2.0	**4.0**	4.0	2.0	8.0	4.0	**200.0**	1.0	2.0	4.0
Depth Probe	DP319	T11	516826.85	572461.9	0.20	B - Very Shallow (0.01-0.5m)	5.474979401	377.72	374.12	5.474979	0.095556	3.5	11	0.20	1.20	0.0954	0.9954	0.9909	0.4663	16.75	1.0	2.79	1.0	2.0	0.0	16.75	1.0	2.79	1.0	2.0	2.0	1.0	2.0	1.0	106.4	2.0	2.0	2.0
Depth Probe	DP320	T12	516863.94	573304.08	0.20	B - Very Shallow (0.01-0.5m)	11.93583202	377.72	375.22	11.93583	0.20832	3.5	11	0.20	1.20	0.2068	0.9784	0.9572	0.4663	7.86	1.0	1.31	1.0	2.0	0.0	7.86	1.0	1.31	1.0	**4.0**	4.0	2.0	4.0	2.0	**200.0**	1.0	2.0	2.0
Depth Probe	DP321	T12	516877.63	573213.88	0.60	C - Shallow (0.5-2.0m)	6.985575199	377.68	376.08	6.985575	0.121921	3.5	11	0.60	1.60	0.1216	0.9926	0.9852	0.4663	4.39	1.0	1.65	1.0	2.0	0.0	4.39	1.0	1.65	1.0	**4.0**	4.0	2.0	4.0	2.0	**200.0**	1.0	2.0	2.0
Depth Probe	DP322	T12	516879.57	573193.75	0.20	B - Very Shallow (0.01-0.5m)	6.987257004	377.68	375.88	6.987257	0.121951	3.5	11	0.20	1.20	0.1216	0.9926	0.9852	0.4663	13.18	1.0	2.20	1.0	2.0	0.0	13.18	1.0	2.20	1.0	**4.0**	4.0	2.0	4.0	2.0	**200.0**	1.0	2.0	2.0
Depth Probe	DP323	T12	516880.01	573234.5	0.30	B - Very Shallow (0.01-0.5m)	8.744002342	377.45	377.25	8.744002	0.152612	3.5	11	0.30	1.30	0.1520	0.9884	0.9769	0.4663	7.06	1.0	1.63	1.0	2.0	0.0	7.06	1.0	1.63	1.0	**4.0**	4.0	2.0	4.0	2.0	**200.0**	1.0	2.0	2.0
Depth Probe	DP324	T12	516880.34	573261.12	0.30	B - Very Shallow (0.01-0.5m)	9.778476715	377.59	377.59	9.778477	0.170667	3.5	11	0.300	1.30	0.1698	0.9855	0.9712	0.4663	6.34	1.0	1.46	1.0	2.0	0.0	6.34	1.0	1.46	1.0	**4.0**	4.0	2.0	4.0	2.0	**200.0**	1.0	2.0	2.0

SI Appendix B (a) - Peat Survey Database

Gortyrahilly WF, Co. Cork

Prepared by: SK 29/08/2022
Mineerex File Ref.: 3006-011.xls

Appendix I - Peat & Slope Stability Risk Assessment

Prepared by: Sven Klinkenbergh Date: 31/08/2021
Mineerex File Ref.: 3188-A1- GWF-011.xls

Sample / Test Category	Sample / Test Point ID No.	Turbine Association	ITM Easting	ITM Northing	Thickness / Depth of peat	Classification of Thickness / Depth of peat	Local Incline (c.5m rad.) (GDEM)	Surface Elevation (GDEM)	Substrate Elevation (GDEM - Peat Depth)	Parameter Values: Slope Angle α	Slope Angle (For Excel Formula) α	Undrained Shear Strenght (Conservative Value) c'	Bulk Unit weight of Peat (Conservative Value) γ	Scenario A: Depth to failure plane i.e. Peat Depth z	Scenario B: Surcharge Equivalent Placed Fill Depth i.e. +1m z	Precalculated trigometric values: Sin(α)	Cos(α)	Cos²(α)	Tan(Ø')	Scenario A: FoS_{RAW} Factor of Safety (FoS) for Peat Stability	COEFFICIENT	Scenario B: FoS_{RAW} Factor of Safety (FoS) for Peat Stability	COEFFICIENT	FoS Adjustment Coefficient	FoS Adjustment Value	Scenario A: FoS_{ADJ} Adjusted Factor of Safety (FoS) for Peat Stability	COEFFICIENT	Scenario B: FoS_{ADJ} Adjusted Factor of Safety (FoS) for Peat Stability	COEFFICIENT	Significant Feature Ranking Cefficient	Scenario A: RR_{SF} Ranking Risk re Potential for Adverse Consequences on Sensitive Receptors	COEFFICIENT	Scenario B: RR_{SF} Ranking Risk re Potential for Adverse Consequences on Sensitive Receptors	COEFFICIENT	Distance to Sensitive Receptor	Distance to Sensitive Receptor Coefficient	Scenario A: RR_D Risk Ranking Acounting for Distance to Sensitive Receptors	Scenario B: RR_D Risk Ranking Acounting for Distance to Sensitive Receptors
							$FoS = \frac{c_u}{\gamma z \sin\alpha \cos\alpha}$																		$FoS = \frac{c_u}{\gamma z \sin\alpha \cos\alpha}$ + Adjustment Value				μ_{SF}					$\mu_{Dist.}$		
					m		Degrees			Degrees	Radians	kPa	kN/m3	m	m	#	#	#	#	FoS	μ	FoS	μ	μ	#	FoS	μ	FoS	μ	μ	RR-SF	μ	RR-SF	μ	m	μ	RR-D	RR-D
Depth Probe	DP325	T12	516884.94	573294.08	0.10	B - Very Shallow (0.01-0.5m)	12.1943922	377.59	377.19	12.19439	0.212832	3.5	11	0.10	1.10	0.2112	0.9774	0.9554	0.4663	15.41	1.0	1.40	1.0	2.0	0.0	15.41	1.0	1.40	1.0	4.0	4.0	2.0	4.0	2.0	200.0	1.0	2.0	2.0
Depth Probe	DP326	T12	516889.94	573310.07	0.20	B - Very Shallow (0.01-0.5m)	12.1943922	376.95	375.85	12.19439	0.212832	3.5	11	0.20	1.20	0.2112	0.9774	0.9554	0.4663	7.71	1.0	1.28	2.0	2.0	0.0	7.71	1.0	1.28	2.0	4.0	4.0	2.0	8.0	4.0	200.0	1.0	2.0	4.0
Depth Probe	DP327	T12	516889.94	573329.07	0.10	B - Very Shallow (0.01-0.5m)	14.3563242	374.66	374.56	14.35632	0.250565	3.5	11	0.10	1.10	0.2480	0.9688	0.9385	0.4663	13.25	1.0	1.20	2.0	2.0	0.0	13.25	1.0	1.20	2.0	4.0	4.0	2.0	8.0	4.0	200.0	1.0	2.0	4.0
Depth Probe	DP328	T12	516892.93	573341.07	0.20	B - Very Shallow (0.01-0.5m)	14.3563242	374.14	373.64	14.35632	0.250565	3.5	11	0.20	1.20	0.2480	0.9688	0.9385	0.4663	6.62	1.0	1.10	2.0	2.0	0.0	6.62	1.0	1.10	2.0	4.0	4.0	2.0	8.0	4.0	200.0	1.0	2.0	4.0
Depth Probe	DP329	T12	516897.93	573372.06	0.05	B - Very Shallow (0.01-0.5m)	15.63198757	376.61	376.61	15.63199	0.27283	3.5	11	0.050	1.05	0.2695	0.9630	0.9274	0.4663	24.52	1.0	1.17	2.0	2.0	0.0	24.52	1.0	1.17	2.0	4.0	4.0	2.0	8.0	4.0	200.0	1.0	2.0	4.0
Depth Probe	DP330	T11	516901.93	572504.28	0.00	A - Rock (0.0m)	8.504455566	375.70	374.20	8.504456	0.148431	3.5	11	0.00	1.00	0.1479	0.9890	0.9781	0.4663	2175.45	1.0	2.17	1.0	2.0	0.0	2175.45	1.0	2.17	1.0	2.0	2.0	1.0	2.0	1.0	139.5	2.0	2.0	2.0
Depth Probe	DP331	T11	516905.92	572522.42	0.30	B - Very Shallow (0.01-0.5m)	8.504455566	369.61	368.41	8.504456	0.148431	3.5	11	0.30	1.30	0.1479	0.9890	0.9781	0.4663	7.25	1.0	1.67	1.0	2.0	0.0	7.25	1.0	1.67	1.0	2.0	2.0	1.0	2.0	1.0	157.8	1.0	1.0	1.0
Depth Probe	DP332	T11	517016.37	572569.88	0.00	A - Rock (0.0m)	6.039927959	366.63	364.53	6.039928	0.105417	3.5	11	0.00	1.00	0.1052	0.9944	0.9889	0.4663	3040.80	1.0	3.04	1.0	2.0	0.0	3040.80	1.0	3.04	1.0	2.0	2.0	1.0	2.0	1.0	111.2	2.0	2.0	2.0
Depth Probe	DP333	T11	517018.26	572556.82	0.70	C - Shallow (0.5-2.0m)	5.855574131	367.00	364.70	5.855574	0.102199	3.5	11	0.70	1.70	0.1020	0.9948	0.9896	0.4663	4.48	1.0	1.84	1.0	2.0	0.0	4.48	1.0	1.84	1.0	2.0	2.0	1.0	2.0	1.0	112.7	2.0	2.0	2.0
Depth Probe	DP334	T11	517020.29	572546.52	0.00	A - Rock (0.0m)	5.855574131	366.63	366.23	5.855574	0.102199	3.5	11	0.00	1.00	0.1020	0.9948	0.9896	0.4663	3135.14	1.0	3.13	1.0	2.0	0.0	3135.14	1.0	3.13	1.0	2.0	2.0	1.0	2.0	1.0	106.2	2.0	2.0	2.0
Depth Probe	DP335	T11	517062.46	572583.24	0.00	A - Rock (0.0m)	5.743189812	366.63	366.63	5.74319	0.100238	3.5	11	0.001	1.00	0.1001	0.9950	0.9900	0.4663	3195.64	1.0	3.19	1.0	2.0	0.0	3195.64	1.0	3.19	1.0	2.0	2.0	1.0	2.0	1.0	63.5	2.0	2.0	2.0
Depth Probe	DP336	T11	517082.7	572576.56	1.00	C - Shallow (0.5-2.0m)	5.743189812	366.63	366.53	5.74319	0.100238	3.5	11	1.00	2.00	0.1001	0.9950	0.9900	0.4663	3.20	1.0	1.60	1.0	2.0	0.0	3.20	1.0	1.60	1.0	2.0	2.0	1.0	2.0	1.0	45.3	4.0	4.0	4.0
Depth Probe	DP337	T11	517103.17	572566.4	0.00	A - Rock (0.0m)	3.531184673	368.71	368.66	3.531185	0.061631	3.5	11	0.00	1.00	0.0616	0.9981	0.9962	0.4663	5175.80	1.0	5.17	1.0	2.0	0.0	5175.80	1.0	5.17	1.0	2.0	2.0	1.0	2.0	1.0	32.0	4.0	4.0	4.0
Depth Probe	DP338	T13	517190.69	573051.9	0.10	B - Very Shallow (0.01-0.5m)	10.34671116	368.71	368.66	10.34671	0.180584	3.5	11	0.10	1.10	0.1796	0.9837	0.9677	0.4663	18.01	1.0	1.64	1.0	2.0	0.0	18.01	1.0	1.64	1.0	2.0	2.0	1.0	2.0	1.0	84.4	2.0	2.0	2.0
Depth Probe	DP339	T13	517197.08	573031.58	0.00	A - Rock (0.0m)	9.726441383	368.71	368.61	9.726441	0.169758	3.5	11	0.00	1.00	0.1689	0.9856	0.9715	0.4663	1910.82	1.0	1.91	1.0	2.0	0.0	1910.82	1.0	1.91	1.0	2.0	2.0	1.0	2.0	1.0	92.2	2.0	2.0	2.0
Depth Probe	DP340	T13	517205	573061	0.20	B - Very Shallow (0.01-0.5m)	9.91559124	368.71	368.11	9.915591	0.17306	3.5	11	0.20	1.20	0.1722	0.9851	0.9703	0.4663	9.38	1.0	1.56	1.0	2.0	0.0	9.38	1.0	1.56	1.0	2.0	2.0	1.0	2.0	1.0	99.4	2.0	2.0	2.0
Depth Probe	DP341	T13	517211.16	573042.76	0.10	B - Very Shallow (0.01-0.5m)	9.726441383	366.09	365.99	9.726441	0.169758	3.5	11	0.10	1.10	0.1689	0.9856	0.9715	0.4663	19.11	1.0	1.74	1.0	2.0	0.0	19.11	1.0	1.74	1.0	2.0	2.0	1.0	2.0	1.0	104.9	2.0	2.0	2.0
Depth Probe	DP342	T13	517219.28	573068.16	0.10	B - Very Shallow (0.01-0.5m)	9.483478546	366.09	366.09	9.483479	0.165518	3.5	11	0.100	1.10	0.1648	0.9863	0.9729	0.4663	19.58	1.0	1.78	1.0	2.0	0.0	19.58	1.0	1.78	1.0	2.0	2.0	1.0	2.0	1.0	114.7	2.0	2.0	2.0
Depth Probe	DP343	T13	517259.85	572999.14	0.10	B - Very Shallow (0.01-0.5m)	9.162700653	363.12	363.02	9.162701	0.159919	3.5	11	0.10	1.10	0.1592	0.9872	0.9746	0.4663	20.24	1.0	1.84	1.0	2.0	0.0	20.24	1.0	1.84	1.0	2.0	2.0	1.0	2.0	1.0	122.6	2.0	2.0	2.0
Depth Probe	DP344	T13	517278	573082	0.10	B - Very Shallow (0.01-0.5m)	9.469892502	365.27	365.07	9.469893	0.165281	3.5	11	0.10	1.10	0.1645	0.9864	0.9729	0.4663	19.61	1.0	1.78	1.0	2.0	0.0	19.61	1.0	1.78	1.0	2.0	2.0	1.0	2.0	1.0	174.9	1.0	1.0	1.0
Depth Probe	DP345	T13	517289.85	573009.14	0.20	B - Very Shallow (0.01-0.5m)	8.993080139	367.40	367.30	8.99308	0.156959	3.5	11	0.20	1.20	0.1563	0.9877	0.9756	0.4663	10.30	1.0	1.72	1.0	2.0	0.0	10.30	1.0	1.72	1.0	2.0	2.0	1.0	2.0	1.0	132.5	2.0	2.0	2.0
Depth Probe	DP346	T13	517296.85	572988.14	0.40	B - Very Shallow (0.01-0.5m)	8.993080139	360.48	360.08	8.99308	0.156959	3.5	11	0.40	1.40	0.1563	0.9877	0.9756	0.4663	5.19	1.0	1.47	1.0	2.0	0.0	5.19	1.0	1.47	1.0	2.0	2.0	1.0	2.0	1.0	111.8	2.0	2.0	2.0
Depth Probe	DP347	T13	517307.84	572956.15	0.10	B - Very Shallow (0.01-0.5m)	8.89960289	361.68	361.68	8.899603	0.155327	3.5	11	0.100	1.10	0.1547	0.9880	0.9761	0.4663	20.82	1.0	1.89	1.0	2.0	0.0	20.82	1.0	1.89	1.0	2.0	2.0	1.0	2.0	1.0	81.6	2.0	2.0	2.0
Depth Probe	DP348	T13	517308.84	572927.15	0.10	B - Very Shallow (0.01-0.5m)	8.236968994	360.32	359.12	8.236969	0.143762	3.5	11	0.10	1.10	0.1433	0.9897	0.9795	0.4663	22.44	1.0	2.04	1.0	2.0	0.0	22.44	1.0	2.04	1.0	2.0	2.0	1.0	2.0	1.0	54.1	2.0	2.0	2.0
Depth Probe	DP349		517310.34	572680.5	0.50	B - Very Shallow (0.01-0.5m)	4.929596901	361.79	361.79	4.929597	0.086038	3.5	11	0.500	1.50	0.0859	0.9963	0.9926	0.4663	7.43	1.0	2.48	1.0	2.0	0.0	7.43	1.0	2.48	1.0	2.0	2.0	1.0	2.0	1.0	124.4	2.0	2.0	2.0
Depth Probe	DP350	T13	517311.3	573116.93	0.00	A - Rock (0.0m)	10.4966383	360.32	359.12	10.49664	0.183201	3.5	11	0.00	1.00	0.1822	0.9833	0.9668	0.4663	1776.27	1.0	1.77	1.0	2.0	0.0	1776.27	1.0	1.77	1.0	2.0	2.0	1.0	2.0	1.0	200.8	1.0	1.0	1.0
Depth Probe	DP351	T13	517314.84	572910.16	0.40	B - Very Shallow (0.01-0.5m)	5.996011257	360.32	360.32	5.996011	0.10465	3.5	11	0.400	1.40	0.1045	0.9945	0.9891	0.4663	7.66	1.0	2.19	1.0	2.0	0.0	7.66	1.0	2.19	1.0	2.0	2.0	1.0	2.0	1.0	42.0	4.0	4.0	4.0
Depth Probe	DP352	T13	517319.84	572889.16	0.30	B - Very Shallow (0.01-0.5m)	6.406159878	358.47	357.67	6.40616	0.111809	3.5	11	0.30	1.30	0.1116	0.9938	0.9876	0.4663	9.57	1.0	2.21	1.0	2.0	0.0	9.57	1.0	2.21	1.0	2.0	2.0	1.0	2.0	1.0	22.8	4.0	4.0	4.0
Depth Probe	DP353	T13	517320	573085	0.00	A - Rock (0.0m)	9.235265732	358.47	358.37	0.1	0.001745	3.5	11	0.00	1.00	0.0017	1.0000	1.0000	0.4663	182305.12	1.0	182.12	1.0	2.0	0.0	182305.12	1.0	182.12	1.0	2.0	2.0	1.0	2.0	1.0	175.7	1.0	1.0	1.0
Depth Probe	DP354	T13	517321.84	573018.13	0.90	C - Shallow (0.5-2.0m)	9.906367302	359.43	359.23	9.906367	0.172899	3.5	11	0.90	1.90	0.1720	0.9851	0.9704	0.4663	2.09	1.0	0.99	4.0	2.0	0.0	2.09	1.0	0.99	4.0	2.0	2.0	1.0	8.0	4.0	136.5	2.0	2.0	8.0
Depth Probe	DP355	T13	517323.64	573094.86	0.30	B - Very Shallow (0.01-0.5m)	9.889965057	359.43	355.93	9.889965	0.172612	3.5	11	0.30	1.30	0.1718	0.9851	0.9705	0.4663	6.27	1.0	1.45	1.0	2.0	0.0	6.27	1.0	1.45	1.0	2.0	2.0	1.0	2.0	1.0	177.9	1.0	1.0	1.0
Depth Probe	DP356	T13	517329.51	572991.23	0.60	C - Shallow (0.5-2.0m)	9.273030281	358.25	358.25	9.27303	0.161845	3.5	11	0.600	1.60	0.1611	0.9869	0.9740	0.4663	3.33	1.0	1.25	2.0	2.0	0.0	3.33	1.0	1.25	2.0	2.0	2.0	1.0	4.0	2.0	118.7	2.0	2.0	4.0
Depth Probe	DP357	T13	517331.91	573084.7	0.00	A - Rock (0.0m)	9.889965057	377.59	377.59	0.1	0.001745	3.5	11	0.001	1.00	0.0017	1.0000	1.0000	0.4663	182305.12	1.0	182.12	1.0	2.0	0.0	182305.12	1.0	182.12	1.0	2.0	2.0	1.0	2.0	1.0	165.4	1.0	1.0	1.0
Depth Probe	DP358	T13	517349.83	572885.16	0.50	B - Very Shallow (0.01-0.5m)	4.24516201	379.59	379.49	4.245162	0.074092	3.5	11	0.50	1.50	0.0740	0.9973	0.9945	0.4663	8.62	1.0	2.87	1.0	2.0	0.0	8.62	1.0	2.87	1.0	2.0	2.0	1.0	2.0	1.0	21.4	4.0	4.0	4.0
Depth Probe	DP359	T13	517357.83	573002.14	0.10	B - Very Shallow (0.01-0.5m)	8.850007057	379.59	379.59	8.850007	0.154462	3.5	11	0.100	1.10	0.1538	0.9881	0.9763	0.4663	20.93	1.0	1.90	1.0	2.0	0.0	20.93	1.0	1.90	1.0	2.0	2.0	1.0	2.0	1.0	97.3	2.0	2.0	2.0
Depth Probe	DP360	T13	517365.13	573010.6	0.10	B - Very Shallow (0.01-0.5m)	8.850007057	378.25	378.05	8.850007	0.154462	3.5	11	0.10	1.10	0.1538	0.9881	0.9763	0.4663	20.93	1.0	1.90	1.0	2.0	0.0	20.93	1.0	1.90	1.0	2.0	2.0	1.0	2.0	1.0	95.8	2.0	2.0	2.0
Depth Probe	DP361	T13	517375.83	572980.14	0.10	B - Very Shallow (0.01-0.5m)	7.707629681	378.25	378.25	7.70763	0.134524	3.5	11	0.100	1.10	0.1341	0.9910	0.9820	0.4663	23.94	1.0	2.18	1.0	2.0	0.0	23.94	1.0	2.18	1.0	2.0	2.0	1.0	2.0	1.0	71.4	2.0	2.0	2.0
Depth Probe	DP362	T13	517385.83	572895.16	0.20	B - Very Shallow (0.01-0.5m)	4.391385555	376.48	375.38	4.391386	0.076644	3.5	11	0.20	1.20	0.0766	0.9971	0.9941	0.4663	20.84	1.0	3.47	1.0	2.0	0.0	20.84	1.0	3.47	1.0	2.0	2.0	1.0	2.0	1.0	18.4	4.0	4.0	4.0
Depth Probe	DP363		517391.5	572728.35	0.30	B - Very Shallow (0.01-0.5m)	6.212251186	378.04	378.04	6.212251	0.108424	3.5	11	0.300	1.30	0.1082	0.9941	0.9883	0.4663	9.86	1.0	2.28	1.0	2.0	0.0	9.86	1.0	2.28	1.0	2.0	2.0	1.0	2.0	1.0	92.5	2.0	2.0	2.0
Depth Probe	DP364	T13	517404.78	573174.84	0.00	A - Rock (0.0m)	11.79362011	379.48	379.48	11.79362	0.205838	3.5	11	0.001	1.00	0.2044	0.9789	0.9582	0.4663	1590.33	1.0	1.59	1.0	2.0	0.0	1590.33	1.0	1.59	1.0	2.0	2.0	1.0	2.0	1.0	166.5	1.0	1.0	1.0
Depth Probe	DP365	T13	517409.82	572901.16	0.50	B - Very Shallow (0.01-0.5m)	4.391385555	380.74	379.64	4.391386	0.076644	3.5	11	0.50	1.50	0.0766	0.9971	0.9941	0.4663	8.34	1.0	2.78	1.0	2.0	0.0	8.34	1.0	2.78	1.0	2.0	2.0	1.0	2.0	1.0	8.0	4.0	4.0	4.0
Depth Probe	DP366	T13	517427.71	573231.44	0.00	A - Rock (0.0m)	11.15951729	380.74	379.14	11.15952	0.194777	3.5	11	0.00	1.00	0.1935	0.9811	0.9625	0.4663	1675.68	1.0	1.67	1.0	2.0	0.0	1675.68	1.0	1.67	1.0	2.0	2.0	1.0	2.0	1.0	193.7	1.0	1.0	1.0
Depth Probe	DP367	T14	517515.71	572621.5	0.60	C - Shallow (0.5-2.0m)	2.706806183	381.46	379.16	2.706806	0.047243	3.5	11	0.60	1.60	0.0472	0.9978	0.9956	0.4663	11.24	1.0	4.20	1.0	2.0	0.0	11.24	1.0	4.20	1.0	2.0	2.0	1.0	2.0	1.0	245.0	1.0	1.0	1.0
Depth Probe	DP368	T14	517909.71	572884.16	0.10	B - Very Shallow (0.01-0.5m)	3.761085749	381.46	381.46	0.1	0.001745	3.5	11	0.100	1.10	0.0017	1.0000	1.0000	0.4663	1823.05	1.0	165.73	1.0	2.0	0.0	1823.05	1.0	165.73	1.0	2.0	2.0	1.0	2.0	1.0	316.9	1.0	1.0	1.0
Depth Probe	DP369	T14	517915.71	572905.16	0.20	B - Very Shallow (0.01-0.5m)	4.692375566	381.46	381.46	4.692376	0.081897	3.5	11	0.200	1.20	0.0818	0.9966	0.9933	0.4663	19.51	1.0	3.25	1.0	2.0	0.0	19.51	1.0	3.25	1.0	2.0	2.0	1.0	2.0	1.0	319.6	1.0	1.0	1.0
Depth Probe	DP370	T14	517929.71	572920.15	0.10	B - Very Shallow (0.01-0.5m)	4.400215149	380.74	378.14	4.400215	0.076798	3.5	11	0.10	1.10	0.0767	0.9971	0.9941	0.4663	41.59	1.0	3.78	1.0	2.0	0.0	41.59	1.0	3.78	1.0	2.0	2.0	1.0	2.0	1.0	318.2	1.0	1.0	1.0
Depth Probe	DP371	T14	517951.7	572927.15	0.10	B - Very Shallow (0.01-0.5m)	5.440964699	380.74	378.84	5.440965	0.094963	3.5	11	0.10	1.10	0.0948	0.9955	0.9910	0.4663	33.71	1.0	3.06	1.0	2.0	0.0	33.71	1.0	3.06	1.0	2.0	2.0	1.0	2.0	1.0	329.4	1.0	1.0	1.0
Depth Probe	DP372	T14	517952.7	572868.16	0.50	B - Very Shallow (0.01-0.5m)	3.811831713	380.74	380.74	0.1	0.001745	3.5	11	0.500	1.50	0.0017	1.0000	1.0000	0.4663	364.61	1.0	121.54	1.0	2.0	0.0	364.61	1.0	121.54	1.0	2.0	2.0	1.0	2.0	1.0	282.4	1.0	1.0	1.0
Depth Probe	DP373	T14	517969.7	572791.18	0.10	B - Very Shallow (0.01-0.5m)	1.530826926	380.75	380.15	0.1	0.001745	3.5	11	0.10	1.10	0.0017	1.0000	1.0000	0.4663	1823.05	1.0	165.73	1.0	2.0	0.0	1823.05	1.0	165.73	1.0	2.0	2.0	1.0	2.0	1.0	206.3	1.0	1.0	1.0
Depth Probe	DP374	T14	517974.7	572915.15	0.20	B - Very Shallow (0.01-0.5m)	4.675237656	379.59	379.49	0.1	0.001745	3.5	11	0.20	1.20	0.0017	1.0000	1.0000	0.4663	911.53	1.0	151.92	1.0	2.0	0.0	911.53	1.0	151.92	1.0	2.0	2.0	1.0	2.0	1.0	317.9	1.0	1.0	1.0
Depth Probe	DP375	T14	517978.7	572835.17	0.40	B - Very Shallow (0.01-0.5m)	2.406682968	379.59	379.59	2.406683	0.042005	3.5	11	0.400	1.40	0.0420	0.9991	0.9982	0.4663	18.96	1.0	5.42	1.0	2.0	0.0	18.96	1.0	5.42	1.0	2.0	2.0	1.0	2.0	1.0	241.6	1.0	1.0	1.0
Depth Probe	DP376	T14	517992.7	572897.16	0.05	B - Very Shallow (0.01-0.5m)	4.63267231	373.51	373.41	4.632672	0.080855	3.5	11	0.05	1.05	0.0808	0.9967	0.9935	0.4663	79.05	1.0	3.76	1.0	2.0	0.0	79.05	1.0	3.76	1.0	2.0	2.0	1.0	2.0	1.0	295.4	1.0	1.0	1.0
Depth Probe	DP377	T14	517994.69	572857.17	0.10	B - Very Shallow (0.01-0.5m)	2.406682968	372.13	372.13	2.406683	0.042005	3.5	11	0.100	1.10	0.0420	0.9991	0.9982	0.4663	75.84	1.0	6.89	1.0	2.0	0.0	75.84	1.0	6.89	1.0	2.0	2.0	1.0	2.0	1.0	256.6	1.0	1.0	1.0
Depth Probe	DP378	T14	518009.69	572881.16	0.10	B - Very Shallow (0.01-0.5m)	2.613565922	373.51	373.41	2.613566	0.045615	3.5	11	0.10	1.10	0.0456	0.9990	0.9979	0.4663	69.85	1.0	6.35	1.0	2.0	0.0	69.85	1.0	6.35	1.0	2.0	2.0	1.0	2.0	1.0	275.6	1.0	1.0	1.0

SI Appendix B (b) - Peat Survey Database Subsoil Survey Database

Database (Data obtained on site)

Minerex Environmental

RSK

Prepared by: SK 31/08/2021
Mineerex File Ref.: 3188-011.xls

Appendix I (c) - Subsoil & Slope Stability Risk Assessment

Prepared by: SK 31/08/2021
Mineerex File Ref.: 3188-011.xls

Minerex Environmental

RSK

Sample / Test Date	Sample / Test Category	Sample / Test Point ID No.	ITM Easting	ITM Northing	Depth of Peat/Soil	Depth of Soil / Subsoil to Bedrock or End of Hole (EoH)	Depth to Bedrock	Local Incline (c.5m rad.) GDEM	Surface Elevation (GDEM)	Substrate Elevation (GDEM - Peat Depth)	EOH Description	Subsoil sampled	Indication of Iron Pan	Parameter Values: Slope Angle (For Excel Formula)	Slope Angle	Undrained Shear Strenght (Conservative Value)	Bulk Unit weight of Peat (Conservative Value)	Depth to failure plane i.e. Peat Depth	Surcharge Equivalent Placed Fill Depth i.e. +1m	Scenario A: FoS_{RAW} Factor of Safety (FoS) for Peat Stability	COEFFICIENT	Scenario B: FoS_{RAW} Factor of Safety (FoS) for Peat Stability	COEFFICIENT	FoS Adjustment Coefficient	FoS Adjustment Value	Scenario A: FoS_{ADJ} Adjusted Factor of Safety (FoS) for Peat Stability	COEFFICIENT	Scenario B: FoS_{ADJ} Adjusted Factor of Safety (FoS) for Peat Stability	COEFFICIENT	Significant Feature Ranking Cefficient	Scenario A: RR_{SF} Ranking Risk re Potential for Adverse Consequences on Sensitive Receptors	COEFFICIENT	Scenario B: RR_{SF} Ranking Risk re Potential for Adverse Consequences on Sensitive Receptors	COEFFICIENT	Distance to Sensitive	Distance to Sensitive Receptor Coefficient	Scenario A: RR_D Risk Ranking Acounting for Distance to Sensitive Receptors	Scenario B: RR_D Risk Ranking Acounting for Distance to Sensitive Receptors
														α	α	c'	γ	z	z	$FoS = \frac{c_u}{\gamma z \sin\alpha \cos\alpha}$						$FoS = \frac{c_u}{\gamma z \sin\alpha \cos\alpha}$ + Adjustment Value															
dd/mm/yy						m		Degrees						Degrees	Radians	kPa	kN/m3	m	m	FoS	μ	FoS	μ	μ	#	FoS	μ	FoS	μ	μ	RR-SF	μ	RR-SF	μ	μ	μ	RR-D	RR-D
31/05/2021	Trial Pit	TP001	517203	573067	0.2	1.50	1.50	10	369.14	369.14	Bedrock	-		9.915591	0.17306	30	27	1.500	2.50	4.37	1.0	2.62	1.0	4.0	-0.5	3.87	1.0	2.12	1.0	2.0	2.0	1.0	2.0	1.0	98.4	2.0	2.0	2.0
31/05/2021	Trial Pit	TP002	517261	573080	0.2	2.40	2.40	10	369.67	369.57	Bedrock	-		9.547894	0.166642	40	27	2.40	3.40	3.77	1.0	2.66	1.0	4.0	-0.5	3.27	1.0	2.16	1.0	2.0	2.0	1.0	2.0	1.0	157.9	1.0	1.0	1.0
31/05/2021	Trial Pit	TP003	517319	573103	0.2	3.00	>3.0	9	368.56	368.56	Boulders	-		9.235266	0.161186	40	27	3.000	4.00	3.12	1.0	2.34	1.0	4.0	-0.5	2.62	1.0	1.84	1.0	2.0	2.0	1.0	2.0	1.0	186.4	1.0	1.0	1.0
31/05/2021	Trial Pit	TP004	517335	573407	0.3	1.50	>1.5	5	372.97	372.57	Weathered bedrock, sha	-		5.024948	0.087702	40	27	1.50	2.50	11.32	1.0	6.79	1.0	4.0	-0.5	10.82	1.0	6.29	1.0	2.0	2.0	1.0	2.0	1.0	386.8	1.0	1.0	1.0
31/05/2021	Trial Pit	TP005	517242	573402	0.2	1.30	>1.3	8	372.97	372.97	Weathered bedrock, sha	-		7.702123	0.134427	40	27	1.300	2.30	8.58	1.0	4.85	1.0	4.0	-0.5	8.08	1.0	4.35	1.0	2.0	2.0	1.0	2.0	1.0	331.4	1.0	1.0	1.0
31/05/2021	Trial Pit	TP006	516864	573398	0.2	1.20	>1.2	18	372.97	372.39	Boulders / Weathered be	-		18.41695	0.321436	40	27	1.20	2.20	4.12	1.0	2.25	1.0	4.0	-0.5	3.62	1.0	1.75	1.0	4.0	4.0	2.0	4.0	2.0	361.3	1.0	2.0	2.0
31/05/2021	Trial Pit	TP007	516844	573349	0.3	0.70	0.70	18	376.33	376.33	Bedrock	-		18.34363	0.320157	40	27	0.700	1.70	7.08	1.0	2.92	1.0	4.0	-0.5	6.58	1.0	2.42	1.0	4.0	4.0	2.0	4.0	2.0	337.6	1.0	2.0	2.0
31/05/2021	Trial Pit	TP008	516838	573309	0.2	1.50	1.50	12	374.22	374.02	Bedrock	Yes		12.24975	0.213798	40	27	1.50	2.50	4.76	1.0	2.86	1.0	4.0	-0.5	4.26	1.0	2.36	1.0	4.0	4.0	2.0	4.0	2.0	315.4	1.0	2.0	2.0
31/05/2021	Trial Pit	TP009	516267	572798	0.2	0.50	0.50	1	375.25	374.85	Bedrock	-		0.735219	0.012832	40	27	0.50	1.50	230.93	1.0	76.98	1.0	4.0	-0.5	230.43	1.0	76.48	1.0	2.0	2.0	1.0	2.0	1.0	250.9	1.0	1.0	1.0
31/05/2021	Trial Pit	TP010	516227	572773	0.5	1.90	>1.9	3	377.73	377.73	Boulders / Weathered be	-		3.203995	0.05592	40	27	1.900	2.90	13.97	1.0	9.15	1.0	4.0	-0.5	13.47	1.0	8.65	1.0	2.0	2.0	1.0	2.0	1.0	204.7	1.0	1.0	1.0
31/05/2021	Trial Pit	TP011	516247	572555	0.4	1.50	1.50	8	377.73	376.33	Bedrock	-		8.153767	0.14231	40	27	1.50	2.50	7.03	1.0	4.22	1.0	4.0	-0.5	6.53	1.0	3.72	1.0	2.0	2.0	1.0	2.0	1.0	199.8	1.0	1.0	1.0
31/05/2021	Trial Pit	TP012	516235	572514	0.8	0.90	0.90	8	377.73	377.73	Bedrock	-		8.073299	0.140906	40	27	0.900	1.90	11.84	1.0	5.61	1.0	4.0	-0.5	11.34	1.0	5.11	1.0	2.0	2.0	1.0	2.0	1.0	180.4	1.0	1.0	1.0
31/05/2021	Trial Pit	TP013	515735	572748	0.15	1.50	>1.5	11	368.71	368.61	Boulders / Weathered be	Yes		10.56201	0.184342	40	27	1.50	2.50	5.48	1.0	3.29	1.0	4.0	-0.5	4.98	1.0	2.79	1.0	2.0	2.0	1.0	2.0	1.0	301.5	1.0	1.0	1.0
31/05/2021	Trial Pit	TP014	515696	572719	0.3	2.50	>2.5	12	367.40	367.30	Boulders	-	Yes	11.98605	0.209196	40	27	2.50	3.50	2.92	1.0	2.08	1.0	4.0	-0.5	2.42	1.0	1.58	1.0	2.0	2.0	1.0	2.0	1.0	337.8	1.0	1.0	1.0
01/06/2021	Trial Pit	TP015	515517	572081	0.2	3.20	>3.2	4	365.27	363.97	Boulders / Weathered be	-		3.980799	0.069478	40	27	3.20	4.20	6.68	1.0	5.09	1.0	4.0	-0.5	6.18	1.0	4.59	1.0	2.0	2.0	1.0	2.0	1.0	411.1	1.0	1.0	1.0
01/06/2021	Trial Pit	TP016	515539	572016	0.1	1.50	>1.5	2	365.88	363.08	Boulders / Weathered be	-		2.006549	0.035021	40	27	1.50	2.50	28.22	1.0	16.93	1.0	4.0	-0.5	27.72	1.0	16.43	1.0	2.0	2.0	1.0	2.0	1.0	345.3	1.0	1.0	1.0
01/06/2021	Trial Pit	TP017	515229	572236	1.5	1.50	1.50	12	352.68	352.68	Bedrock	-		12.46168	0.217497	40	27	1.500	2.50	4.69	1.0	2.81	1.0	4.0	-0.5	4.19	1.0	2.31	1.0	2.0	2.0	1.0	2.0	1.0	577.1	1.0	1.0	1.0
01/06/2021	Trial Pit	TP018	515190	572174	0.1	0.10	0.10	8	354.57	354.57	Bedrock	-		7.933714	0.138469	40	27	0.100	1.10	108.37	1.0	9.85	1.0	4.0	-0.5	107.87	1.0	9.35	1.0	2.0	2.0	1.0	2.0	1.0	594.9	1.0	1.0	1.0
01/06/2021	Trial Pit	TP019	515016	572084	0.2	1.00	1.00	8	357.08	357.08	Boulders / Weathered be	-		8.223817	0.143533	40	27	1.000	2.00	10.46	1.0	5.23	1.0	4.0	-0.5	9.96	1.0	4.73	1.0	2.0	2.0	1.0	2.0	1.0	585.5	1.0	1.0	1.0
01/06/2021	Trial Pit	TP020	514874	571970	0.15	0.50	0.50	10	361.12	361.12	Bedrock	-		9.74498	0.170082	40	27	0.500	1.50	17.76	1.0	5.92	1.0	4.0	-0.5	17.26	1.0	5.42	1.0	2.0	2.0	1.0	2.0	1.0	551.5	1.0	1.0	1.0
01/06/2021	Trial Pit	TP021	514908	572015	0.1	1.00	>1.0	9	363.25	363.25	Boulders / Weathered be	-		8.597129	0.150048	40	27	1.000	2.00	10.02	1.0	5.01	1.0	4.0	-0.5	9.52	1.0	4.51	1.0	2.0	2.0	1.0	2.0	1.0	582.3	1.0	1.0	1.0
01/06/2021	Trial Pit	TP022	515125	572137	0.2	0.40	>0.4	5	363.25	363.25	Boulders / Weathered be	-		4.779313	0.083415	40	27	0.400	1.40	44.61	1.0	12.75	1.0	4.0	-0.5	44.11	1.0	12.25	1.0	2.0	2.0	1.0	2.0	1.0	594.4	1.0	1.0	1.0
01/06/2021	Trial Pit	TP023	515327	572283	0.9	1.60	1.60	6	365.22	363.22	Bedrock	-		6.360683	0.111015	40	27	1.60	2.60	8.41	1.0	5.18	1.0	4.0	-0.5	7.91	1.0	4.68	1.0	2.0	2.0	1.0	2.0	1.0	611.6	1.0	1.0	1.0
01/06/2021	Trial Pit	TP024	515600	573015	0.3	2.80	>2.8	6	366.92	366.32	Boulders	Yes	Yes	6.360683	0.111015	40	27	2.80	3.80	4.81	1.0	3.54	1.0	4.0	-0.5	4.31	1.0	3.04	1.0	2.0	2.0	1.0	2.0	1.0	294.0	1.0	1.0	1.0
01/06/2021	Trial Pit	TP025	515489	572983	0.15	2.40	>2.4	8	366.92	366.92	Boulders	-	Yes	7.554993	0.13186	40	27	2.400	3.40	4.74	1.0	3.34	1.0	4.0	-0.5	4.24	1.0	2.84	1.0	2.0	2.0	1.0	2.0	1.0	247.4	1.0	1.0	1.0
01/06/2021	Trial Pit	TP026	515521	573065	0.2	2.50	>2.5	9	365.13	365.03	Boulders	-	Yes	8.610702	0.150285	40	27	2.50	3.50	4.00	1.0	2.86	1.0	4.0	-0.5	3.50	1.0	2.36	1.0	2.0	2.0	1.0	2.0	1.0	202.1	1.0	1.0	1.0
01/06/2021	Trial Pit	TP027	515609	573106	0.4	2.00	>2.0	8	361.12	361.12	Boulders	-		7.861733	0.137213	40	27	2.000	3.00	5.47	1.0	3.64	1.0	4.0	-0.5	4.97	1.0	3.14	1.0	2.0	2.0	1.0	2.0	1.0	252.1	1.0	1.0	1.0
01/06/2021	Trial Pit	TP028	515406	572625	0.1	2.50	>2.5	13	361.12	359.12	Boulders	-	Yes	12.53393	0.218758	40	27	2.50	3.50	2.80	1.0	2.00	1.0	4.0	-0.5	2.30	1.0	1.50	1.0	2.0	2.0	1.0	2.0	1.0	423.1	1.0	1.0	1.0
01/06/2021	Trial Pit	TP029	515762	573427	0	2.50	>2.5	7	363.10	360.41	Boulders	-	Yes	6.538161	0.114112	40	27	2.50	3.50	5.24	1.0	3.74	1.0	4.0	-0.5	4.74	1.0	3.24	1.0	2.0	2.0	1.0	2.0	1.0	250.3	1.0	1.0	1.0
01/06/2021	Trial Pit	TP030	515806	573553	0.2	2.40	>2.4	7	365.13	363.33	Boulders	Yes		6.772884	0.118209	40	27	2.40	3.40	5.27	1.0	3.72	1.0	4.0	-0.5	4.77	1.0	3.22	1.0	2.0	2.0	1.0	2.0	1.0	295.7	1.0	1.0	1.0
02/06/2021	Trial Pit	TP031	516702	572493	1.5	1.50	1.50	5	365.13	363.93	Boulders / Weathered be	-		4.796021	0.083706	40	27	1.50	2.50	11.85	1.0	7.11	1.0	4.0	-0.5	11.35	1.0	6.61	1.0	2.0	2.0	1.0	2.0	1.0	147.7	2.0	2.0	2.0
02/06/2021	Trial Pit	TP032	516760	572489	0.3	1.20	1.20	6	368.47	368.47	Bedrock	-		5.659659	0.09878	40	27	1.200	2.20	12.58	1.0	6.86	1.0	4.0	-0.5	12.08	1.0	6.36	1.0	2.0	2.0	1.0	2.0	1.0	137.8	2.0	2.0	2.0
02/06/2021	Trial Pit	TP033	516809	572464	0.3	0.50	0.50	5	368.47	368.47	Boulders / Weathered be	-		5.474979	0.095556	40	27	0.500	1.50	31.20	1.0	10.40	1.0	4.0	-0.5	30.70	1.0	9.90	1.0	2.0	2.0	1.0	2.0	1.0	109.6	2.0	2.0	2.0
02/06/2021	Trial Pit	TP034	516730	572462	1	1.10	1.10	6	370.87	370.87	Boulders / Weathered be	-		0.1	0.001745	40	27	1.100	2.10	771.66	1.0	404.20	1.0	4.0	-0.5	771.16	1.0	403.70	1.0	2.0	2.0	1.0	2.0	1.0	114.0	2.0	2.0	2.0
02/06/2021	Trial Pit	TP035	516692	572463	2.1	2.20	2.20	5	370.26	370.16	Boulders / Weathered be	-		5.295379	0.092422	40	27	2.20	3.20	7.33	1.0	5.04	1.0	4.0	-0.5	6.83	1.0	4.54	1.0	2.0	2.0	1.0	2.0	1.0	120.4	2.0	2.0	2.0
02/06/2021	Trial Pit	TP036	517472	572284	0.3	1.00	1.00	3	366.77	366.47	Boulders / Weathered be	-		5.276716	0.092096	40	27	1.00	2.00	16.18	1.0	8.09	1.0	4.0	-0.5	15.68	1.0	7.59	1.0	2.0	2.0	1.0	2.0	1.0	261.6	1.0	1.0	1.0
02/06/2021	Trial Pit	TP037	517627	572841	0	2.80	>2.8	3	366.77	366.17	Boulders	-	Yes	3.220255	0.056204	40	27	2.80	3.80	9.43	1.0	6.95	1.0	4.0	-0.5	8.93	1.0	6.45	1.0	2.0	2.0	1.0	2.0	1.0	205.8	1.0	1.0	1.0