

Appendix 8A

Northwest Geotech Ltd, 2024 Ground Investigation Report



Ground Investigation Report
Ballinlee Wind Farm

Client: Greensource

Client's Representative: Malachy Walsh & Partners

Report No.: 24-772

Date: August 2024

Status: Final For Issue

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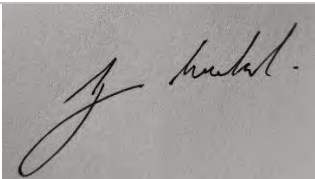
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Document Control Sheet

Report No.:		24-772			
Project Title:		Ballinlee Wind Farm			
Client:		Greensource			
Client's Representative:		Malachy Walsh & Partners			
Revision:	A00	Status:	Final	Issue Date:	22 nd Aug 2024
Prepared by:			Reviewed and approved by:		
					
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The works were conducted in accordance with:

UK Specification for Ground Investigation 2nd Edition, published by ICE Publishing (2022)

British Standards Institute (2015) BS 5930:2015+A1:2020, Code of practice for site investigations.

BS EN 1997-2: 2007: Eurocode 7 - Geotechnical design - Part 2 Ground investigation and testing.

Geotechnical Society of Ireland (2016), Specification & Related Documents for Ground Investigation in Ireland

Laboratory testing was conducted in accordance with:

British Standards Institute BS 1377:1990 parts 2, 4, 5, 7 and 9

METHODS OF DESCRIBING SOILS AND ROCKS

Soil and rock descriptions are based on the guidance in BS5930:2015, The Code of Practice for Site Investigation.

Abbreviations used on exploratory hole logs	
U	Nominal 100mm diameter undisturbed open tube sample (thick walled sampler).
UT	Nominal 100mm diameter undisturbed open tube sample (thin walled sampler).
P	Nominal 100mm diameter undisturbed piston sample.
B	Bulk disturbed sample.
LB	Large bulk disturbed sample.
D	Small disturbed sample.
C	Core sub-sample (displayed in the Field Records column on the logs).
L	Liner sample from dynamic sampled borehole.
W	Water sample.
ES / EW	Soil sample for environmental testing / Water sample for environmental testing.
SPT (s)	Standard penetration test using a split spoon sampler (small disturbed sample obtained).
SPT (c)	Standard penetration test using 60 degree solid cone.
(x,x/x,x,x,x)	Blows per increment during the standard penetration test. The initial two values relate to the seating drive (150mm) and the remaining four to the 75mm increments of the test length.
(Y for Z/ Y for Z)	Incomplete standard penetration test where the full test length was not achieved. The blows 'X' represent the total blows for the given seating or test length 'Z' (mm).
N=X	SPT blow count 'N' given by the summation of the blows 'X' required to drive the full test length (300mm).
HVP / HVR	In situ hand vane test result (HVP) and vane test residual result (HVR). Results presented in kPa.
V	Shear vane test (borehole). Shear strength stated in kPa.
VR	V: undisturbed vane shear strength VR: remoulded vane shear strength
Soil consistency description	In cohesive soils, where samples are disturbed and there are no suitable laboratory tests, N values may be used to indicate consistency on borehole logs – a median relationship of $N_{x5}=C_u$ is used (as set out in Stroud & Butler 1975).
dd-mm-yyyy	Date at the end and start of shifts, shown at the relevant borehole depth. Corresponding casing and water depths shown in the adjacent columns.
▽	Water strike: initial depth of strike.
▼	Water strike: depth water rose to.
Abbreviations relating to rock core – reference Clause 36.4.4 of BS 5930: 2015	
TCR (%)	Total Core Recovery: Ratio of rock/soil core recovered (both solid and non-intact) to the total length of core run.
SCR (%)	Solid Core Recovery: Ratio of solid core to the total length of core run. Solid core has a full diameter, uninterrupted by natural discontinuities, but not necessarily a full circumference and is measured along the core axis between natural fractures.
RQD (%)	Rock Quality Designation: Ratio of total length of solid core pieces greater than 100mm to the total length of core run.
FI	Fracture Index: Number of natural discontinuities per metre over an indicated length of core of similar intensity of fracturing.
NI	Non Intact: Used where the rock material was recovered fragmented, for example as fine to coarse gravel size particles.
AZCL	Assessed zone of core loss: The estimated depth range where core was not recovered.
DIF	Drilling induced fracture: A fracture of non-geological origin brought about by the rock coring.
(xxx/xxx/xxx)	Spacing between discontinuities (minimum/average/maximum) measured in millimetres.

Ballinlee Wind Farm

1 EXECUTIVE SUMMARY

On the instructions of MWP, (“the Client’s Representative”), acting on the behalf of Green Source (“the Client”), a ground investigation was undertaken at the above location to provide geotechnical and environmental information for input to the design and construction of a proposed Win Farm development.

This report details the work carried out on site, it contains a description of the site, the works undertaken and the exploratory hole logs.

All information given in this report is based upon the ground conditions encountered during the site investigation works. However, there may be conditions at the site that have not been taken into account, such as unpredictable soil strata, contaminant concentrations, and water conditions between or below exploratory holes. It should be noted that groundwater levels usually vary due to seasonal and/or other effects and may at times differ to those recorded during the investigation. No responsibility can be taken for conditions not encountered through the scope of work commissioned, for example between exploratory hole points, or beneath the termination depths achieved.

This report was prepared by Northwest Geotech Ltd for the use of the Client and the Client’s Representative in response to a particular set of instructions. Any other parties using the information contained in this report do so at their own risk and any duty of care to those parties is excluded.

2 SCOPE

The extent of the investigation, as instructed by the Client’s Representative, included trial pits, soil logging, and the preparation of a factual report on the findings.

3 DESCRIPTION OF SITE

As shown on the site location plan in Appendix A, the works were conducted predominantly on agricultural land in the Ballinlee area of County Limerick. The site spreads from just above Dromin Road in the south moving north between Bruff and Athlacca Village ending in fields south of the R516 Road.

4 SITE OPERATIONS

4.1 Summary of site works

Site operations, which were conducted between 6th and 9th August 2024, comprised:

- Twenty-four machine dug trial pits

The exploratory holes were located as instructed by the Client's Representative, as shown on the exploratory hole location plan in Appendix A.

4.2 Trial Pits

Twenty-four trial pits were excavated using a 3t tracked excavator fitted with a 400mm wide bucket, to depths of up to 2.70m...

Any water strikes encountered during excavation were recorded along with any changes in their levels as the excavation proceeded. The stability of the trial pit walls was noted on completion.

Appendix B presents the trial pit logs with photographs of the pits and arising provided in Appendix C.

5 GROUND CONDITIONS

5.1 General geology of the area

Published geological mapping indicate the superficial deposits underlying the site comprise Glacial Till with localised pockets of alluvium. These deposits are underlain by limestone and shale of the Ballysteen Formation.

5.2 Ground types encountered during investigation of the site

A summary of the ground types encountered in the exploratory holes is listed below, in approximate stratigraphic order:

- **Topsoil:** encountered typically in 200-400mm thickness across the site.
- **Recent deposits (peat):** encountered in TP01, TP02, TP04 as spongy dark brown amorphous peat in 0.25m-0.80m.
- **Glacial Till:** sandy gravelly clay, frequently with low to medium cobble and boulder content, typically firm or stiff in upper horizons, becoming very stiff with increasing depth.

5.3 Groundwater

Groundwater was encountered as seepage at depths of 1.40m and 2.20m in trial pits TP04 and TP16.

Details of the individual groundwater strikes, along with any relative changes in levels as works proceeded, are presented on the exploratory hole logs for each location.

Seasonal variation in groundwater levels should also be factored into design considerations.

6 REFERENCES

Geotechnical Society of Ireland (2016), Specification & Related Documents for Ground Investigation in Ireland

IS EN 1997-2: 2007: Eurocode 7 - Geotechnical design - Part 2 Ground investigation and testing. National Standards Authority of Ireland.

BS 5930: 2015+A1:2020: Code of practice for ground investigations. British Standards Institution.

BS EN ISO 14688-1:2018: Geotechnical investigation and testing. Identification and classification of soil. Part 1 Identification and description.

BS EN ISO 14688-2:2018: Geotechnical investigation and testing. Identification and classification of soil. Part 2 Principles for a classification.

BS 1377: 1990: Methods of test for soils for civil engineering purposes. British Standards Institution.



APPENDIX A

Site and Exploratory Hole Location Plans



APPENDIX B

Trial Pit Logs



Machine : 3T Komatsu Method : Trial Pit					Dimensions		Ground Level (mOD)		Site Ballinlee Wind Farm		Trial Pit Number BP03	
					Location 560141 E 632891 N		Dates 07/08/2024		Client Green Source		Job Number 24-0772	
									Engineer		Sheet 1/1	
Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description				Legend	Water	
					(0.20) 0.20 (1.20) 1.40	TOPSOIL Very stiff orangish brown slightly sandy slightly gravelly CLAY with low cobble and boulder content. Sand is fine to coarse. Gravel is subangular to subrounded fine to coarse. Boulders are >300mm. Complete at 1.40m						
						Remarks No groundwater encountered Trial pit stable Terminated on refusal on possible rockhead						
						Scale (approx) 1:50		Logged By PM		Figure No. 24-0772.BP03		

						Site Ballinlee Wind Farm		Trial Pit Number BP04	
Machine : 3T Komatsu Method : Trial Pit		Dimensions		Ground Level (mOD)		Client Green Source		Job Number 24-0772	
		Location 560311 E 632949 N		Dates 07/08/2024		Engineer		Sheet 1/1	
Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description		Legend	Water
					(0.20) 0.20 (0.20) 0.40	TOPSOIL Stiff orangish brown slightly sandy slightly gravelly CLAY with low cobble and boulder content. Sand is fine to coarse. Gravel is subangular to subrounded fine to coarse. Complete at 0.40m			
						Remarks Trial pit stable No groundwater encountered Terminated on refusal on rockhead Scale (approx) 1:50 Logged By PM Figure No. 24-0772.BP04			

						Site Ballinlee Wind Farm		Trial Pit Number BP101	
Machine : 3T Komatsu Method : Trial Pit		Dimensions		Ground Level (mOD)		Client Green Source		Job Number 24-0772	
		Location 559647 E 637063 N		Dates 07/08/2024		Engineer		Sheet 1/1	
Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description		Legend	Water
					(0.20) 0.20 (0.40) 0.60	TOPSOIL Stiff orangish brown slightly sandy slightly gravelly CLAY with low cobble and boulder content. Sand is fine to coarse. Gravel is subangular to subrounded fine to coarse. Complete at 0.60m			
						Remarks Trial pit stable No groundwater encountered Terminated on refusal on rockhead			
						Scale (approx) 1:50		Logged By	



Machine : 3T Komatsu Method : Trial Pit						Dimensions		Ground Level (mOD)		Site Ballinlee Wind Farm		Trial Pit Number BP102	
						Location 559679 E 637161 N		Dates 06/08/2024		Client Green Source		Job Number 24-0772	
										Engineer		Sheet 1/1	
Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water					
					(0.20) 0.20 (0.50) 0.70	TOPSOIL Very stiff orangish brown slightly sandy slightly gravelly CLAY. Sand is fine to coarse. Gravel is subangular to subrounded fine to coarse. Complete at 0.70m							
						Remarks Trial pit stable No groundwater encountered Terminated on refusal on rockhead							
						Scale (approx) 1:50	Logged By PM	Figure No. 24-0772.BP102					

						Site Ballinlee Wind Farm		Trial Pit Number BR02	
Machine : 3T Komatsu Method : Trial Pit		Dimensions		Ground Level (mOD)		Client Green Source		Job Number 24-0772	
		Location 559787 E 636585 N		Dates 07/08/2024		Engineer		Sheet 1/1	
Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water	
					(0.40)	TOPSOIL			
					0.40	Firm orangish brown slightly sandy gravelly CLAY/SILT with low cobble and boulder content. Sand is fine to coarse. Gravel is subangular to subrounded fine to coarse.			
					(2.10)				
					2.50				
						Complete at 2.50m			
						Remarks			
						Trial pit stable No groundwater encountered Terminated due to max. reach of excavator			
						Scale (approx)		Logged By	
1:50		PM		24-0772.BR02					

						Site Ballinlee Wind Farm		Trial Pit Number SS	
Machine : 3T Kabotka Method : Trial Pit		Dimensions		Ground Level (mOD)		Client Green Source		Job Number 24-0772	
		Location 559931 E 634648 N		Dates 09/08/2024		Engineer		Sheet 1/1	
Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water	
					(0.20) 0.20 (1.10) 1.30	TOPSOIL Very stiff orangish brown slightly sandy gravelly CLAY with medium cobble and boulder content. Sand is fine to coarse. Gravel is subangular to subrounded fine to coarse. Complete at 1.30m	 		
						Remarks Trial pit stable No groundwater encountered Terminated on refusal on boulders			
						Scale (approx) 1:50		Logged By PM	



Machine : 3T Komatsu Method : Trial Pit					Dimensions		Ground Level (mOD)		Site Ballinlee Wind Farm		Trial Pit Number TP01	
					Location 559058 E 636920 N		Dates 06/08/2024		Client Green Source		Job Number 24-0772	
									Engineer		Sheet 1/1	
Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description				Legend	Water	
					(0.20) 0.20	TOPSOIL						
					(0.50) 0.70	Soft to firm greyish brown slightly sandy slightly gravelly silty CLAY. Sand is fine to coarse. Gravel is subangular to subrounded fine to coarse.						
					(0.80) 1.50	Spongy dark brown amorphous PEAT.						
					(1.20) 2.70	Very soft brownish grey slightly sandy SILT with shells. Sand is fine.						
						Complete at 2.70m						
						Remarks Trial pit stable Terminated due to max. reach of excavator No groundwater encountered						
						Scale (approx) 1:50		Logged By PM		Figure No. 24-0772.TP01		

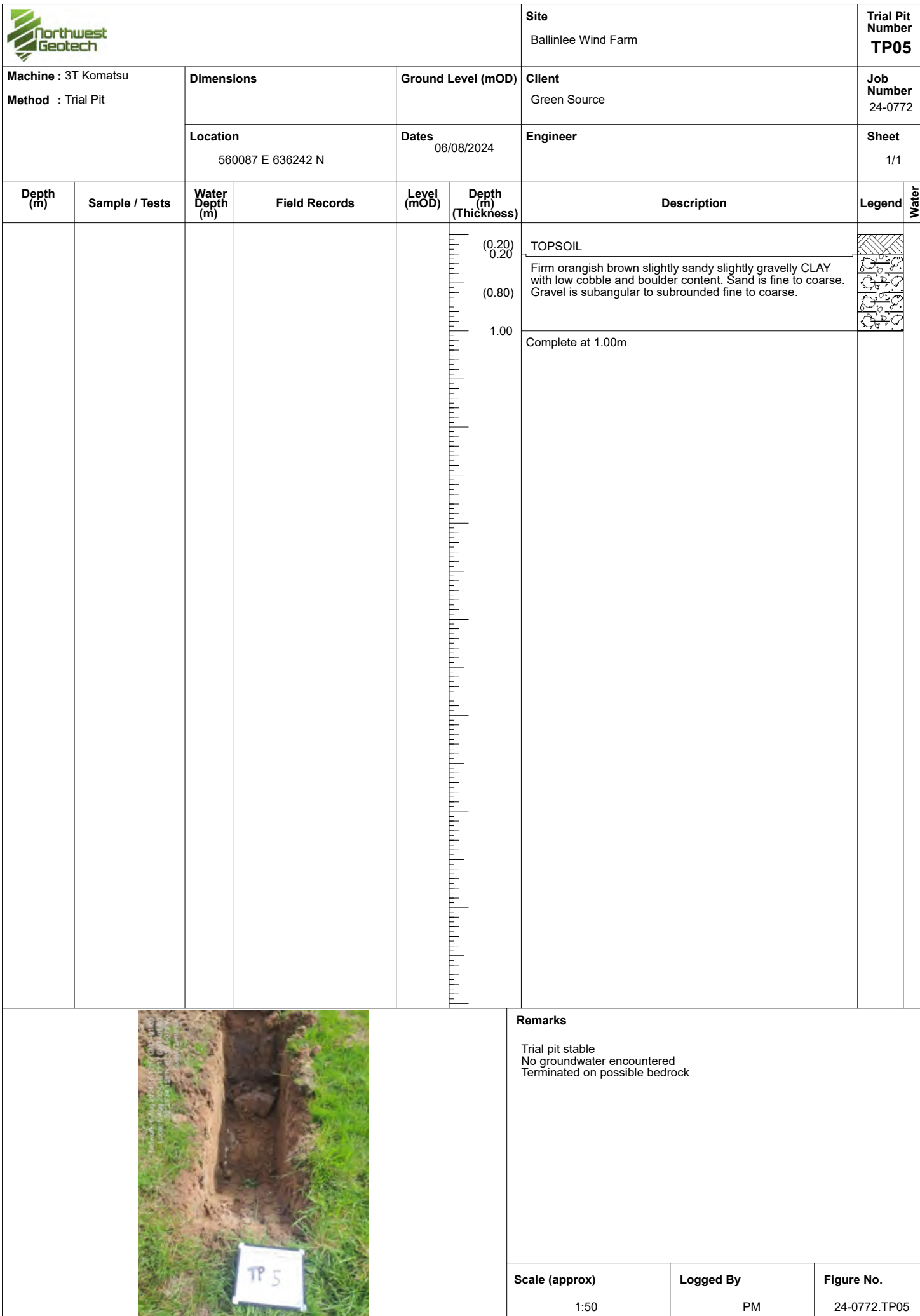


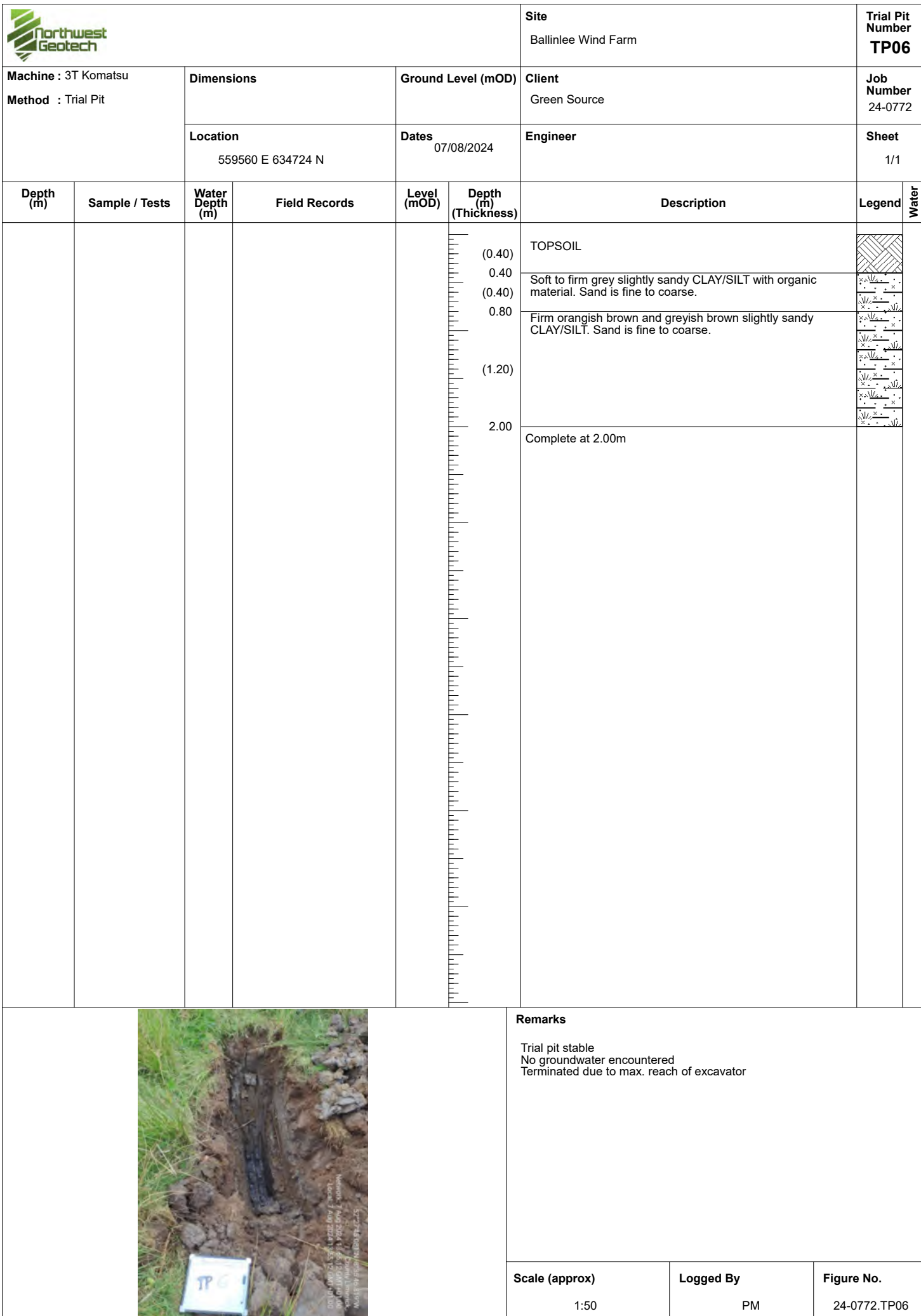
						Site Ballinlee Wind Farm		Trial Pit Number TP02	
Machine : 3T Komatsu Method : Trial Pit		Dimensions		Ground Level (mOD)		Client Green Source		Job Number 24-0772	
		Location 558653 E 636820 N		Dates 06/08/2024		Engineer		Sheet 1/1	
Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description		Legend	Water
					0.15	TOPSOIL			
					0.15	Firm greyish brown slightly sandy slightly gravelly CLAY. Sand is fine to coarse. Gravel is subangular to subrounded fine to coarse.			
					0.20				
					0.35				
					0.25				
					0.60	Spongy dark brown amorphous PEAT.			
					0.70	Firm brown very sandy clayey SILT with organic material. Sand is fine to coarse.			
					1.30	Very soft bluish grey CLAY.			
					(1.40)				
					2.70	Complete at 2.70m			
						Remarks Trial pit stable Terminated due to max. reach of excavator No groundwater encountered			
						Scale (approx) 1:50	Logged By PM	Figure No. 24-0772.TP02	

						Site Ballinlee Wind Farm		Trial Pit Number TP03	
Machine : 3T Komatsu Method : Trial Pit		Dimensions		Ground Level (mOD)		Client Green Source		Job Number 24-0772	
		Location 558492 E 636464 N		Dates 06/08/2024		Engineer		Sheet 1/1	
Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water	
					(0.30)	TOPSOIL			
					0.30	Soft to firm dark brown peaty SILT.			
					(0.30)	Firm grey and brown slightly sandy gravelly CLAY with medium cobble and boulder content. Sand is fine to coarse. Gravel is subangular to subrounded fine to coarse. (Boulders are 400mm)			
					0.60				
					(0.50)				
					1.10				
					(1.60)	Soft to firm bluish grey slightly sandy slightly gravelly silty CLAY with medium cobble and boulder content. Sand is fine to coarse. Gravel is subangular to subrounded fine to coarse.			
					2.70	Complete at 2.70m			
				</					



Northwest Geotech						Site Ballinlee Wind Farm		Trial Pit Number TP04			
Machine : 3T Komatsu Method : Trial Pit		Dimensions		Ground Level (mOD)		Client Green Source		Job Number 24-0772			
		Location 559730 E 636213 N		Dates 06/08/2024		Engineer		Sheet 1/1			
Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description		Legend	Water		
			Seepage (1) at 1.40m.		(0.20) 0.20	TOPSOIL					
					(1.00)	Soft to firm orangish brown and grey slightly sandy silty CLAY with organic material. Sand is fine to coarse.					
					1.20 (0.30) 1.50	Spongy dark brown amorphous PEAT.			▽1		
					(1.10)	Very soft bluish grey slightly sandy slightly gravelly CLAY with low cobble and boulder content. Sand is fine to coarse. Gravel is subangular to subrounded fine to coarse.					
					2.60	Complete at 2.60m					
Northwest Geotech						Remarks Trail pit stable Terminated due to max. reach of excavator					
						Scale (approx)		Logged By		Figure No.	
						1:50		PM		24-0772.TP04	







Machine : 3T Kubotka Method : Trial Pit						Dimensions		Ground Level (mOD)		Site Ballinlee Wind Farm		Trial Pit Number TP07	
						Location 559634 E 634297 N		Dates 09/08/2024		Client Green Source		Job Number 24-0772	
										Engineer		Sheet 1/1	
Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water					
					(0.20) 0.20 (1.00) 1.20 (0.80) 2.00	TOPSOIL Firm to stiff orangish brown slightly sandy gravelly CLAY with low cobble and boulder content. Sand is fine to coarse. Gravel is subangular to subrounded fine to coarse. Firm to stiff orangish brown slightly gravelly very sandy CLAY with low cobble and boulder content and pockets of orangish brown very silty fine to coarse sand. Sand is fine to coarse. Gravel is subangular to subrounded fine to coarse. Complete at 2.00m							
						Remarks Trial pit stable No groundwater encountered Terminated on refusal							
						Scale (approx) 1:50		Logged By PM		Figure No. 24-0772.TP07			



Machine : 3T Kabotka Method : Trial Pit						Dimensions		Ground Level (mOD)		Site Ballinlee Wind Farm		Trial Pit Number TP09	
						Location 559987 E 633565 N		Dates 09/08/2024		Client Green Source		Job Number 24-0772	
										Engineer		Sheet 1/1	
Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water					
					(0.25) 0.25	TOPSOIL							
					(0.95)	Very stiff orangish brown slightly sandy gravelly CLAY/SILT with medium cobble and boulder content. Sand is fine to coarse. Gravel is subangular to subrounded fine to coarse.							
					1.20 (0.60)	Firm orangish brown slightly gravelly very sandy CLAY/SILT with medium cobble and boulder content. Sand is fine to coarse. Gravel is subangular to subrounded fine to coarse.							
					1.80	Complete at 1.80m							
						Remarks Trial pit stable No groundwater encountered Terminated on large boulders (approx 400mm)							
						Scale (approx) 1:50		Logged By PM		Figure No. 24-0772.TP09			

						Site Ballinlee Wind Farm		Trial Pit Number TP12
Machine : 3T Komatsu Method : Trial Pit		Dimensions		Ground Level (mOD)		Client Green Source		Job Number 24-0772
		Location 560537 E 634455 N		Dates 07/08/2024		Engineer		Sheet 1/1
Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
					(0.25)	TOPSOIL		
					0.25			
					(0.45)	Stiff orangish brown slightly sandy slightly gravelly CLAY with low cobble and boulder content. Sand is fine to coarse. Gravel is subangular to subrounded fine to coarse.		
					0.70			
					(1.00)	Firm orangish brown slightly sandy slightly gravelly CLAY with low cobble and boulder content. Sand is fine to coarse. Gravel is subangular to subrounded fine to coarse.		
					1.70			
						Complete at 1.70m		
						Remarks Trail pit stable No groundwater encountered Terminated on refusal on boulders		
						Scale (approx) 1:50	Logged By PM	Figure No. 24-0772.TP12



Machine : 3T komatsu Method : Trial Pit						Dimensions		Ground Level (mOD)		Site Ballinlee Wind Farm		Trial Pit Number TP13	
						Location 560781 E 634491 N		Dates 06/08/2024		Client Green Source		Job Number 24-0772	
								Engineer		Sheet 1/1			
Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water					
					(0.30) 0.30	TOPSOIL							
					(2.20)	Very stiff orangish brown slightly sandy slightly gravelly CLAY with low cobble and boulder content. Sand is fine to coarse. Gravel is angular fine to coarse.							
					2.50	Complete at 2.50m							

Remarks

Trial pit stable
No groundwater encountered
Terminated due to max. reach of excavator

Scale (approx)

1:50

Logged By

PM

Figure No.

24-0772.TP13



Machine : 3T Komatsu Method : Trial Pit						Dimensions		Ground Level (mOD)		Site Ballinlee Wind Farm		Trial Pit Number TP14	
						Location 561146 E 634426 N		Dates 06/08/2024		Client Green Source		Job Number 24-0772	
										Engineer		Sheet 1/1	
Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water					
					(0.20) 0.20 (2.00) 2.20	TOPSOIL Stiff to very stiff orangish brown slightly sandy slightly gravelly CLAY with low cobble and boulder content. Sand is fine to coarse. Gravel is subangular to subrounded fine to coarse. Complete at 2.20m							
						Remarks Trial pit stable No groundwater encountered Terminated on refusal on boulders							
						Scale (approx) 1:50		Logged By PM		Figure No. 24-0772.TP14			



Machine : 3T Komatsu Method : Trial Pit						Dimensions		Ground Level (mOD)		Site Ballinlee Wind Farm		Trial Pit Number TP15	
						Location 561420 E 634567 N		Dates 06/08/2024		Client Green Source		Job Number 24-0772	
										Engineer		Sheet 1/1	
Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water					
					(0.25) 0.25 (1.95) 2.20	TOPSOIL Very stiff orangish brown slightly sandy slightly gravelly CLAY with medium cobble and boulder content. Sand is fine to coarse. Gravel is subangular to subrounded fine to coarse. Complete at 2.20m							
						Remarks Trial pit stable No groundwater encountered Terminated on refusal							
						Scale (approx) 1:50		Logged By PM		Figure No. 24-0772.TP15			

						Site Ballinlee Wind Farm		Trial Pit Number TP16			
Machine : 3T Komatsu Method : Trial Pit		Dimensions		Ground Level (mOD)		Client Green Source		Job Number 24-0772			
		Location 560782 E 633920 N		Dates 07/08/2024		Engineer		Sheet 1/1			
Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water			
			Seepage (1) at 2.20m.		(0.20) 0.20	TOPSOIL		V1			
					(0.70)	Very stiff orangish brown slightly sandy gravelly CLAY with low cobble content. Sand is fine to coarse. Gravel is subangular to subrounded fine to coarse.					
					0.90 (0.30) 1.20	Firm bluish grey very sandy SILT with lenses of fine sand.					
					(1.00)	Soft to firm orangish brown and bluish grey slightly sandy gravelly CLAY with low cobble and boulder content. Sand is fine to coarse. Gravel is subangular to subrounded fine to coarse.					
					2.20	Complete at 2.20m					
						Remarks Trial pit stable Terminated due to max. reach of excavator					
						Scale (approx) 1:50		Logged By PM		Figure No. 24-0772.TP16	

						Site Ballinlee Wind Farm		Trial Pit Number TP17	
Machine : 3T Komatsu Method : Trial Pit		Dimensions		Ground Level (mOD)		Client Green Source		Job Number 24-0772	
		Location 561194 E 633933 N		Dates 07/08/2024		Engineer		Sheet 1/1	
Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water	
					(0.20) 0.20 (1.20) 1.40	TOPSOIL Very stiff orangish brown slightly sandy slightly gravelly CLAY with low cobble and boulder content. Sand is fine to coarse. Gravel is subangular to subrounded fine to coarse. Complete at 1.40m			
						Remarks Trial pit stable No groundwater encountered Trial pit abandoned due to livestock			
						Scale (approx) 1:50		Logged By PM	



APPENDIX C

Trial Pit Photos



Trial Pit: BP03



Trial Pit: BP03



Trial Pit: BP04



Trial Pit: BP04



Trial Pit: BP04



Trial Pit: BP101



Trial Pit: BP101



Trial Pit: BP102



Trial Pit: BP102



Trial Pit: BR01



Trial Pit: BR01



Trial Pit: BR01



Trial Pit: BR01



Trial Pit: BR02



Trial Pit: SS



Trial Pit: SS



Trial Pit: TP01



Trial Pit: TP01



Trial Pit: TP02



Trial Pit: TP02



Trial Pit: TP02



Trial Pit: TP02



Trial Pit: TP03



Trial Pit: TP03



Trial Pit: TP04



Trial Pit: TP04



Trial Pit: TP05



Trial Pit: TP05



Trial Pit: TP06



Trial Pit: TP06



Trial Pit: TP07



Trial Pit: TP07



Trial Pit: TP08



Trial Pit: TP08



Trial Pit: TP09



Trial Pit: TP09



Trial Pit: TP10



Trial Pit: TP10



Trial Pit: TP11



Trial Pit: TP11



Trial Pit: TP12



Trial Pit: TP12



Trial Pit: TP13



Trial Pit: TP13



Trial Pit: TP14



Trial Pit: TP14



Trial Pit: TP15



Trial Pit: TP15



Trial Pit: TP16



Trial Pit: TP16



Trial Pit: TP17



Trial Pit: TP17