APPENDIX 2.4.1 met and a problem of the problem of

Peat Probing Survey
Drehid, County Kildare
Prepared for TES Ltd.



Project R07/06

Number:

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brg®

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1. <u>Introduction (Figure 1)</u>

B.R.G. Ltd was contracted by TES Ltd. to carry out a probing survey to test the depth of peat and soft clay along the route of the proposed road to the proposed landfill site at Drehid, Co. Kildare. The objective of the survey was to define the thickness of soft peat and clay along this route.

The work was carried out by B.R.G. Ltd. over 7 days (27th, 29th, 30th April, 2nd, 3rd, 7th, 8th May), with breaks due to access and surveying delays. The data is presented as:

- A summary log of each hole with penetration rates
- A map of locations
- Schematic sections along the route

2. Methodology

A petrol driven, 2-stroke, Pionjar percussion drill was used to drill the holes. The drill drives 20mm steel rods connected to a 25mm diameter (ID) 'flow-through' sampler. The sampler was retrieved and logged at each metre. The soil horizons were logged to BS5930:1999 standard.

A Pionjar drill operates using a very rapid percussive action and therefore it is not possible to give a blow count to gauge the penetration resistance. A note was kept of the visual estimation of penetration rates. A pocket penetrometer was used on each soil horizon with the results noted in the log.

All probe sites were located using a Garmin handheld GPS72 unit. Nominal accuracy of +/-5m was obtained at most sites, however when the Garmin measurement obviously strayed from the surveyors centre line, the point was brought to that line. Four extra probing sites were also completed next to trial pits at the request of the Site Engineer.

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3. Results

The south-western first few hundred metres of line cross an area of pasture fields before rising up to an area of virgin bog. The virgin bog extends almost to PP19, after which the rest of the site to the east and north is cut away bog, with scrub forestry.

The peat covers almost the whole site to the east and north of PP10 and varies in thickness from 0.1-7.7m. The underlying layer is principally very soft clay with varying sand/silt gravel content. The basal/refusal layer is principally gravel.

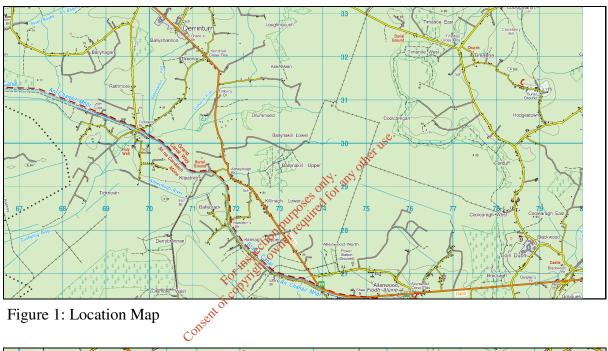


Figure 1: Location Map

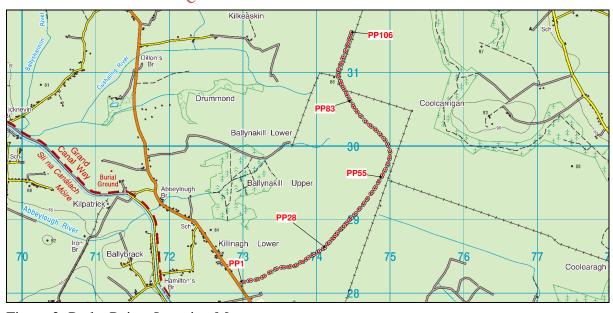
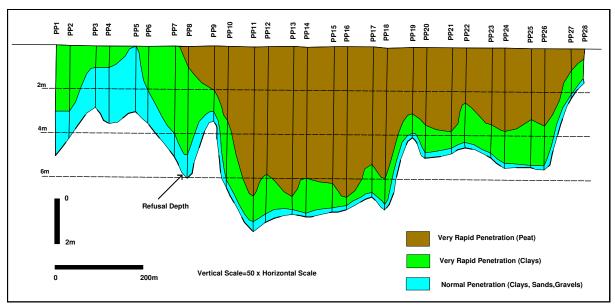


Figure 2: Probe Points Location Map

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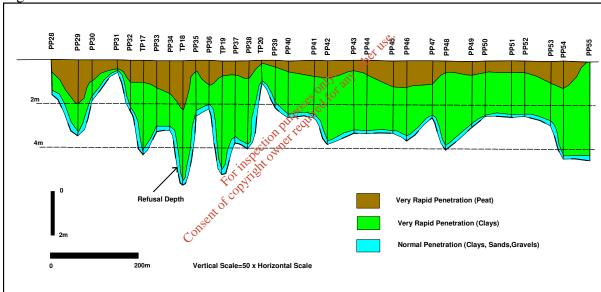


Figure 4: Section PP28-PP55

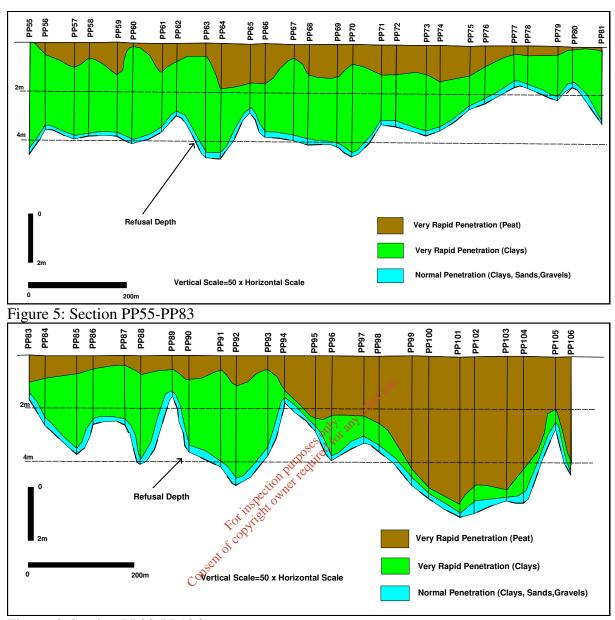


Figure 6: Section PP83-PP106

Appendix

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Probe	Elev	East	North	From	То	Description	Strength KN/m2	Penetration
PP1	89	272995	228142					
				0	1	Soft pale brown pebbly CLAY	0	Very Rapid
				1	2	Soft pale yellow/brown sandy CLAY with occ. Sub-rounded GRAVEL	6	Very Rapid
				2	3	Very soft pale brown CLAY slightly wet occ. GRAVEL	0	Very Rapid
				3	4	Firm fine pale brown SAND with GRAVEL at base	22	Normal/Slow
				4	5	Stiff dark brown sandy GRAVEL	25	Slow/refuse
PP2	82	273025	228145					
				0	1	Soft pale brown pebbly CLAY	0	Very Rapid
				1	2	Soft pale brown sandy CLAY	0	Very Rapid
				2	3	Soft pale brown CLAY	0	Very Rapid
				3	4	Firm fine pale brown SAND	21	Rapid/normal
				4	4.2	Dark brown shaley LST & dark brown sandy GRAVEL	>45	Slow/refuse
PP3	84	273087	228161			other		
				0	1	Pale brown grey gravelly	0	Very Rapid
				1	2	Pale brown clayey GRAVEL	30	Normal/slow
				2	2.8	Stiff dark brown subrounded gravelly CLAY	25	Slow/refuse
PP4	79	273121	228167	کی	in de			
				0 ,	्रि	Pale brown sandy CLAY	10	Normal
				101	2	Grey/brown medium SAND	10	Normal
			C	115ET 2	3	Dark brown/grey gravelly sticky CLAY	>45	Slow
				3	3.6	Stiff dark grey/brown sandy gravelly CLAY	>45	Slow/refuse
PP5	86	273185	228176					
				0	1	Grey/brown sandy GRAVEL	20	Slow
				1	2	Soft clayey part gravelly SAND	0	Slow/fast
				2	3	Stiff dark grey gravelly CLAY angular LST fragments	>45	Slow/refuse
PP6	82	273217	228186					
				0	1	Soft grey/brown sandy gravelly CLAY	0	Very Rapid
				1	2	Soft/firm pale grey sandy GRAVEL angular frags	15	Very Rapid
				2	3	Medium pale grey sandy GRAVEL angular frags	25	Normal
_				3	3.5	Firm dark grey sandy gravelly CLAY	>45	Slow/refuse

Probe	Elev	East	North	From	То	Description	Strength KN/m2	Penetration
PP7	71	273273	228208					
				0	1	Soft sandy gravelly CLAY	0	Very Rapid
				1	2	Soft pale grey gravelly CLAY	0	Very Rapid
				2	3	Soft pale grey gravelly SAND	0	Very Rapid
				3	4	Soft pale grey gravelly SAND	5	Very Rapid
				4	5	Grey wet gravelly SAND	35	Slow/refuse
PP8	79	273305	228228					
				0	1	Spongy dark brown PEAT	0	Very Rapid
				1	2	Soft grey plastic CLAY with angular GRAVEL	0	Very Rapid
				2	3	Soft to firm pale grey fine gravelly CLAY	10	Normal
				3	4	Soft to firm pale grey fine gravelly CLAY	10	Normal
				4	5	Soft to firm pale grey fine gravelly CLAY	15	Normal
				5	6	Fine grey/green plastic sandy CLAY	20	Slow
PP9	83	273366	228270			iter		
_				0	1	Firm dark brown PEAT with	0	Very Rapid
				1	2	Firm dark brown PEAT with wood fibres	0	Very Rapid
				2	in 3 per	Firm dark brown PEAT with wood fibres	0	Very Rapid
				350	3.4	Fine grey soft CLAY to stiff sandy CLAY at base	10	Fast/refuse
PP10	74	273395	228283	aser				
			Ö	0	1	Firm brown PEAT with bog oak fibres	0	Very Rapid
				1	2	Firm brown PEAT with bog oak fibres	0	Very Rapid
				2	3.4	Spongy brown PEAT with bog oak fibres	0	Very Rapid
				3.4	6.1	Soft grey plastic gravelly CLAY	12	Normal
				6.1	6.4	Stiff grey silty CLAY	>45	Normal/refuse
PP11	88	273448	228317					
				0	6.8	Firm brown Peat	0	Very Rapid
				6.8	8.4	Soft pale grey CLAY gravelly at base	35	Normal/refuse
PP12	89	273470	228326					
				0	5.8	Firm dark brown PEAT	0	Very Rapid
				5.8	7.6	Soft pale grey sandy CLAY	10	Very Rapid
				7.6	8	Firm pale grey Gravelly CLAY	>45	Normal/refuse

Probe	Elev	East	North	From	То	Description	Strength KN/m2	Penetration
PP13	82	273533	228343					
				0	6.8	Spongy dark brown PEAT	0	Very Rapid
				6.8	7.6	Soft to firm pale grey gravelly CLAY	25	Normal/refuse
PP14	89	273570	228345					
				0	6	Spongy dark brown PEAT	0	Very Rapid
				6	7.7	Soft to firm pale grey CLAY gravelly at base	25	Normal/refuse
PP15	84	273625	228348					
				0	6.2	Spongy dark brown PEAT	0	Very Rapid
				6.2	7.5	Soft to firm pale grey sandy CLAY	>45	Normal/refuse
PP16	84	273656	228357					
				0	6.8	Dark brown PEAT bog oak at 3.8m	0	Very Rapid
				6.8	7	Pale grey soft CLAY	10	Normal
				7	7.4	Firm weathered shaley LST	>45	Refuse
PP17	85	273715	228361			A USE		
				0	5.3	Spongy dark Nown PEAT	0	Very Rapid
				5.3	6.6	Soft pale grey CLAY	10	Very Rapid
				6.6	6.8	Firm shaley broken LST	>45	Refuse
PP18	91	273742	228377			Dulkedill		
				0	6	Spongy dark brown PEAT	0	Very Rapid
				6	7.2	Soft pale grey sandy CLAY	15	Normal
				3	\$1.4°	Stiff pale gray part gravelly CLAY	35	Refuse
PP19	79	273789	228412	ento				
			C	0	3	Spongy dark brown PEAT	0	Very Rapid
				3	4	Soft pale grey sandy CLAY	25	Normal/refuse
PP20	82	273827	228418					
		1		0	3.5	Spongy dark brown PEAT	0	Very Rapid
				3.5	5	Soft pale grey sandy CLAY	30	Normal/refuse
PP21	81	273868	228453				_	
				0	3.8	Spongy dark brown PEAT	0	Very Rapid
				3.8	4.8	Soft pale grey sandy CLAY	25	Normal/refuse
PP22	80	273898	228476	_	0.5	O constant to the SPEAT	0	Mar David
				0	2.5	Spongy dark brown PEAT	0	Very Rapid
DDCC	07	070045	000500	2.5	4.5	Soft pale grey sandy CLAY	30	Normal/refuse
PP23	87	273945	228503	0	3.5	Spongy dark brown DEAT	0	Vory Boold
				3.5	4.8	Spongy dark brown PEAT Soft pale grey sandy CLAY	30	Very Rapid Normal
				4.8	5	Pale grey hard broken LST (reef)	>45	Refuse

Probe	Elev	East	North	From	То	Description	Strength KN/m2	Penetration
PP24	81	273976	228520					
				0	3.8	Spongy wet brown PEAT	0	Very Rapid
				3.8	5.3	Soft pale grey CLAY	16	Rapid/normal
				5.3	5.4	Stiff angular gravelly sticky CLAY	>45	Slow/refuse
PP25	80	274026	228550					
				0	3.2	Spongy wet brown PEAT	0	Very Rapid
				3.2	5.3	Soft to stiff pale grey CLAY	25	Rapid/normal
				5.3	5.4	Stiff gravelly CLAY	>45	Slow/refuse
PP26	84	274051	228568					
				0	3.5	Spongy wet brown PEAT	0	Very Rapid
				3.5	5.3	Soft to firm pale grey CLAY	15	Rapid/normal
				5.3	5.5	Firm pale grey gravelly CLAY	30	Slow/refuse
PP27	84	274101	228598					
				0	1	Spongy wet brown PEAT	0	Very Rapid
				1	2.1	Pale grey soft CLAY	0	Rapid/normal
				2.1	2.2	Firm/stiff grey gravelly CLAY	35	Slow/refuse
PP28	83	274126	228616			of 11 ³⁶		
				0	0.5	Fibrous wet brown PEAT	0	Very Rapid
				0.5	1.4	Soft to firm sticky gravelly CLAY	10	Rapid/normal
				1.4	1.5	Firmbale grey subrounded gravelly CLAY	25	Slow/refuse
PP29	82	274161	228663		. aspe	Oth		
				040	1.9	Fibrous wet brown PEAT	0	Very Rapid
				1.9	3.3	Pale grey soft CLAY	0	Rapid/normal
			c ^c	15.3.3	3.4	Pale grey gravelly CLAY, subangular gravels	25	Slow/refuse
PP30	82	274185	228683					
				0	0.9	Fibrous wet brown PEAT	0	Very Rapid
				0.9	1.7	Pale grey soft/firm CLAY	0	Rapid/normal
				1.7	1.8	Sticky plastic grey gravelly (angular) CLAY	>45	Slow/refuse
PP31	83	274218	228726					
				0	0.4	Spongy wet brown PEAT	0	Very Rapid
				0.4	0.5	Dry gravelly CLAY	45	Slow/refuse
PP32	83	274246	228750					
				0	1	Spongy wet brown PEAT	0	Very Rapid
				1	2.1	Pale grey soft CLAY	0	Rapid/normal
				2.1	2.3	Pale grey angular gravelly CLAY	45	Slow/refuse
PP33	82	274282	228791					
				0	1.2	Spongy wet brown PEAT	0	Very Rapid
				1.2	3	Soft plastic CLAY	0	Rapid/normal
				3	3.2	Firm pale grey gravelly CLAY	40	Slow/refuse

Probe	Elev	East	North	From	То	Description	Strength KN/m2	Penetration
PP34	77	274297	228817					
				0	1.4	Spongy wet brown PEAT	0	Very Rapid
				1.4	3	Pale grey soft CLAY	0	Rapid/normal
				3	3.2	Pale grey firm gravelly CLAY	20	Slow/refuse
TP17	79	274265	228778					
				0	1	Spongy wet brown PEAT	0	Very Rapid
				1	4.1	Soft pale grey sandy CLAY	0	Rapid/normal
				4.1	4.3	Pale grey fractured limestone	>45	Slow/refuse
TP18	82	274332	228854					
				0	2.3	Spongy wet brown PEAT	0	Very Rapid
				2.3	5.5	Soft pale grey CLAY	0	Rapid/normal
				5.5	5.7	Pale grey gravelly CLAY	45	Slow/refuse
PP35	85	274346	228863					
				0	0.5	Spongy brown PEAT	0	Very Rapid
				0.5	2.4	Soft pale grey CLAY	0	Very Rapid
				2.4	2.5	Firm pale grey gravelly CLAY	>45	Normal/refuse
PP36	87	274369	228888			or list		
				0	1.2	Spongy brown PEAT	0	Very Rapid
				1.2	2.1	Soft pale grey plastic CLAY	0	Very Rapid
				2.1	2.2	Dark grey angular GRAVEL	>45	Normal/refuse
PP37	84	274405	228930		ني	ioner i		
				0	.Q.7	Spongy brown PEAT	0	Very Rapid
				0.70	3.6	Soft pale grey CLAY	0	Very Rapid
				3.6	3.7	Pale grey clayey GRAVEL	>45	Normal/refuse
PP38	85	274426	2289519	N.S.C				
				0	0.8	Spongy brown woody PEAT	0	Very Rapid
				0.8	3.8	Soft pale grey CLAY with GRAVEL at base	0	Very Rapid
				3.8	4	Pale grey clayey GRAVEL	12.5	Normal/refuse
PP39	82	274464	228996					
				0	0.3	Spongy brown PEAT	0	Very Rapid
				0.3	1.9	Soft pale grey/brown sandy CLAY	0	Very Rapid
				1.9	2.1	Pale grey/brown clayey GRAVEL	>45	Normal/refuse
PP40	85	274486	229018					
				0	0.5	Spongy brown PEAT	0	Very Rapid
				0.5	2.4	Soft pale grey/brown sticky CLAY	5	Very Rapid
				2.4	2.6	Pale grey/brown clayey GRAVEL	>45	Normal/refuse

Probe	Elev	East	North	From	То	Description	Strength KN/m2	Penetration
PP41	82	274526	229060					
				0	0.7	Spongy brown PEAT	0	Very Rapid
				0.7	2.4	Soft pale grey/brown plastic silty CLAY	0	Very Rapid
				2.4	2.6	Pale grey clayey angular GRAVEL	25	Normal/refuse
PP42	87	274549	229079					
				0	8.0	Spongy brown PEAT	0	Very Rapid
				0.8	3.7	Soft pale grey CLAY	0	Very Rapid
				3.7	3.8	Pale grey clayey angular GRAVEL	35	Normal/refuse
PP43	84	274586	229131					
				0	0.4	Spongy brown PEAT	0	Very Rapid
				0.4	3.2	Soft pale brown gritty CLAY	0	Very Rapid
				3.2	3.3	Pale grey clayey angular GRAVEL	>45	Normal/refuse
PP44	77	274604	229149			50-1		
				0	0.7	Spongy brown PEAT	0	Very Rapid
				0.7	3.2	Pale orange/brown sandy	0	Very Rapid
				3.2	3.3	Pale of wet clayey GRAVEL	>45	Normal/refuse
PP45	86	274644	229196			ton period		
				0	1.2	Spongy brown PEAT	0	Very Rapid
				1.2	3.2	Soft pale grey plastic CLAY	0	Very Rapid
				3.2	3.3	Pale grey fine GRAVEL with CLAY	15	Normal/refuse
PP46	84	274660	229222	nse.				
				0	1.2	Spongy brown PEAT	0	Very Rapid
				1.2	3.4	Soft pale grey/brown CLAY	0	Very Rapid
				3.4	3.6	Pale grey angular GRAVEL	>45	Normal/refuse
PP47	84	274696	229267					
				0	1	Spongy brown PEAT	0	Very Rapid
				1	2.4	Pale green/grey soft sticky CLAY	0	Very Rapid
				2.4	2.6	Grey shaley angular LST fragments	>45	Normal/refuse
PP48	80	274709	229285					
				0	0.5	Spongy brown PEAT	0	Very Rapid
				0.5	3.8	Soft pale brown/grey sandy to gravelly CLAY	15	Very Rapid
				3.8	4	Pale grey/brown clayey GRAVEL	25	Normal/refuse

Probe	Elev	East	North	From	То	Description	Strength KN/m2	Penetration
PP49	87	274747	229344					
				0	0.6	Spongy brown PEAT	0	Very Rapid
				0.6	2.9	Pale grey silty CLAY	0	Very Rapid
				2.9	3	Pale grey clayey GRAVEL	>45	Normal/refuse
PP50	88	274768	229365					
				0	0.5	Spongy brown PEAT	0	Very Rapid
				0.5	2.4	Soft pale grey CLAY	0	Very Rapid
DDC4				2.4	2.5	Pale grey firm clayey GRAVEL	15	Normal/refuse
PP51	87	274800	229415					
				0	0.5	Spongy brown PEAT	0	Very Rapid
				0.5	2.4	Soft pale grey CLAY	0	Very Rapid
				2.4	2.5	Grey limestone subrounded GRAVEL	>45	Normal/refuse
PP52	86	274817	229441					
				0	0.5	Spongy brown PEAT	0	Very Rapid
				0.5	2.4	Soft pale grey plastic CLAY	0	Very Rapid
				2.4	2.5	Pale grey angular LST cobble	>45	Normal/refuse
PP53	86	274848	229495			oses a to		
				0	1	Spongy brown PEAT	0	Very Rapid
				1	2.7	Soft pale grey CLAY with minor GRAVEL	0	Very Rapid
				2.7	\$19 219	Firm pale grey clayey GRAVEL	>45	Normal/refuse
TP19	88	274389	228911	sent of c				
			cs	0 D	0.7	Spongy brown PEAT	0	Very Rapid
				0.7	5	Soft pale grey CLAY with GRAVEL at base	0	Very Rapid
				5	5.2	Firm pale grey clayey GRAVEL	>45	Normal/refuse
TP20	83	274456	228989					
				0	0.1	Firm brown PEAT	0	Very Rapid
				0.05	0.9	Firm pale grey clayey GRAVEL	15	Normal
				0.9	1	Firm pale grey GRAVEL with minor CLAY	30	Normal/refuse
PP54	82	274862	229521					
				0.0	1.2	Firm brown PEAT	0	Very Rapid
				1.2	4.3	Soft pale grey CLAY with GRAVEL at base	10	Very Rapid
				4.3	4.4	Firm pale grey CLAY with subounded GRAVEL	>45	Normal/refuse

Probe	Elev	East	North	From	То	Description	Strength KN/m2	Penetration
PP55	89	274892	229573					
				0.0	4.3	Dry subrounded pale grey gravelly CLAY	5	Normal
				4.3	4.5	Pale grey sandy GRAVEL	>45	Refuse
PP56	101	274906	229600					
				0.0	0.5	Firm dark brown PEAT	0	Very Rapid
				0.5	3.3	Soft pale grey plastic CLAY	0	Very Rapid
				3.3	3.5	Firm pale grey plastic subrounded gravelly CLAY	>45	Normal/refuse
PP57	75	274935	229653					
				0.0	1.0	Firm dark brown PEAT	0	Very Rapid
				1.0	3.7	Soft pale grey CLAY	0	Very Rapid
				3.7	3.9	Firm pale grey subrounded gravelly CLAY	35	Normal/refuse
PP58	81	274949	229679					
				0.0	0.6	Firm dark brown PEAT	0	Very Rapid
				0.6	3.6	Soft pale grey CLAY	0	Very Rapid
				3.6	3.8	Firm pale grey/brown sandy GRAVEL	>45	Normal/refuse
PP59	82	274973	229734			Only and		
				0.0	1.3	Firm dark brown PEAT	0	Very Rapid
				1.3	3.7	Soft pale grey CLAY	0	Very Rapid
				3.7	3.8	Street Firm pale grey clayey GRAVEL	30	Normal/slow
PP60	80	274984	229762	çc	i rijes			
				0.0		Fibrous dark brown PEAT	0	Very Rapid
				QXT'	3.9	Soft pale grey gravelly CLAY	0	Very Rapid
			C	3.9	4.1	Firm pale grey gravelly CLAY	15	Normal/refuse
PP61	81	275000	229820					
				0.0	1.2	Firm dark brown PEAT	0	Very Rapid
				1.2	3.4	Soft pale grey gravelly CLAY	0	Very Rapid
				3.4	3.6	Firm angular pale grey GRAVEL	>45	Normal/refuse
PP62	74	275007	229849					
				0.0	0.7	Firm dark brown PEAT	0	Very Rapid
				0.7	2.7	Soft pale grey CLAY	0	Very Rapid
				2.7	2.9	Firm pale grey gravelly CLAY	15	Normal/refuse
PP63	83	275010	229909					
				0.0	0.5	Firm dark brown PEAT	0	Very Rapid
				0.5	4.4	Soft pale grey plastic CLAY	0	Very Rapid
				4.4	4.7	Firm pale grey gravelly CLAY	15	Normal/refuse

Probe	Elev	East	North	From	То	Description	Strength KN/m2	Penetration
PP64	85	275006	229938					
				0.0	1.8	Firm dark brown PEAT	0	Very Rapid
				1.8	4.4	Soft pale grey CLAY	0	Very Rapid
				4.4	4.7	Firm pale grey clayey GRAVEL	>45	Normal/refuse
PP65	79	274989	229996					
				0.0	1.6	Firm dark brown PEAT	0	Very Rapid
				1.6	2.5	Soft pale grey CLAY	0	Very Rapid
				2.5	2.7	Firm pale grey shaley lst GRAVEL	>45	Normal/refuse
PP66	86	274977	230023					
				0.0	1.6	Firm dark brown PEAT	0	Very Rapid
				1.6	3.6	Soft pale grey CLAY	0	Very Rapid
				3.6	3.8	Firm pale grey gravelly CLAY	15	Normal/refuse
PP67	87	274946	230074					
				0.0	0.5	Firm dark brown PEAT	0	Very Rapid
				0.5	3.7	Soft pale grey©LAY	0	Very Rapid
				3.7	3.9	Firm pale grey gravelly CLAY	>45	Normal/refuse
PP68	74	274928	230099			ges ed to		
				0.0	1.3	Firm dark brown PEAT	0	Very Rapid
				1.3	3.9	Soft pale grey CLAY	0	Very Rapid
				3.9	OR HIS	Pale grey subrounded GRAVEL	>45	Normal/refuse
PP69	83	274889	230144	ې د	96,			
				Qx0	1.3	Firm dark brown PEAT	0	Very Rapid
			cs	1.3	3.9	Soft pale grey CLAY	0	Very Rapid
				3.9	4.2	Firm pale grey gravelly CLAY	15	Normal/refuse
PP70	86	274867	230165					
				0.0	0.8	Firm dark brown PEAT, bog oak fragments	0	Very Rapid
				0.8	4.4	Soft pale grey CLAY	0	Very Rapid
				4.4	4.6	Firm pale grey clayey GRAVEL	>45	Normal/refuse
PP71	83	274824	230207					
				0.0	1.2	Firm dark brown PEAT, bog oak fragments	0	Very Rapid
				1.2	2.9	Soft pale grey CLAY	0	Very Rapid
				2.9	3.2	Firm pale grey subrounded GRAVEL	>45	Normal/refuse

Probe	Elev	East	North	From	То	Description	Strength KN/m2	Penetration
PP72	93	274802	230227					
				0.0	1.2	Firm dark brown PEAT, bog oak fragments	0	Very Rapid
				1.2	3.1	Soft pale grey CLAY	0	Very Rapid
				3.1	3.3	Firm pale grey coarse SAND	25	Normal/refuse
PP73	88	274755	230264					
				0.0	1.2	Firm dark brown PEAT	0	Very Rapid
				1.2	3.5	Soft pale grey CLAY	0	Very Rapid
				3.5	3.7	Firm pale grey sandy GRAVEL	15	Normal/refuse
PP74	87	274732	230283					
				0.0	1.5	Firm dark brown PEAT	0	Very Rapid
				1.5	3.3	Soft pale grey CLAY with GRAVEL at base	0	Very Rapid
				3.3	3.5	Firm pale grey clayey GRAVEL	>45	Normal/refuse
PP75	86	274687	230322			£ 1150°		
				0.0	1.2	Firm dark brown PEAT	0	Very Rapid
				1.2	2.4	Soft pale grey sticky CLAY	0	Very Rapid
				2.4	2.6	Firm pale grey clayey	>45	Normal/refuse
PP76	88	274665	230343			On or lost		
				0.0	0.8	Firm dark brown PEAT	0	Very Rapid
				0.8	200		0	Very Rapid
				2.15	2.3	Firm pale grey clayey GRAVEL	>45	Normal/refuse
PP77	87	274624	230387	NSEL!				
				0.0	0.3	Firm dark brown PEAT	0	Very Rapid
				0.3	1.4	Soft pale grey CLAY	0	Very Rapid
				1.4	1.6	Firm pale grey subrounded GRAVEL (lst)	>45	Normal/refuse
PP78	85	274604	230409					
				0.0	0.4	Firm dark brown PEAT	0	Very Rapid
				0.4	1.5	Soft pale brown CLAY	0	Very Rapid
				1.5	1.7	Firm pale grey subrounded GRAVEL (lst)	>45	Normal/refuse
PP79	70	274568	230457					
		1		0.0	0.3	Firm dark brown PEAT	0	Very Rapid
				0.3	1.9	Soft pale brown CLAY	0	Very Rapid
				1.9	2.2	Firm pale orange/brown sandy GRAVEL	>45	Normal/refuse

Probe	Elev	East	North	From	То	Description	Strength KN/m2	Penetration
PP80	90	274550	230481					
				0.0	0.1	Fibrous dark brown PEAT	0	Very Rapid
				0.1	1.5	Soft pale grey CLAY	0	Very Rapid
				1.5	1.6	Firm pale grey clayey GRAVEL	30	Normal/refuse
PP81	75	274516	230530					
				0.0	0.2	Firm dark brown PEAT	0	Very Rapid
				0.2	3.0	Soft pale grey/brown CLAY	10	Very Rapid
				3.0	3.2	Firm pale grey gravelly CLAY	>45	Normal/refuse
PP82	87	274500	230556					
				0.0	0.4	Firm dark brown PEAT	0	Very Rapid
				0.4	3.2	Soft pale grey subangular clayey GRAVEL	0	Very Rapid
				3.2	3.4	Firm pale grey subangular GRAVEL	>45	Normal/refuse
PP83	91	274469	230607			50-1		
				0.0	1.0	Firm dark brown PEAT	0	Very Rapid
				1.0	1.4	Soft pale greyfine gravelly	0	Very Rapid
				1.4	1.6	Firm pale grey subangular GRAVEL	>45	Normal/refuse
PP84	85	274453	230633		,	ron et roux		
				0.0	0.8	Firm dark brown PEAT	0	Very Rapid
				0.8	3.2°	Soft pale grey CLAY with gravel	0	Very Rapid
			<u>^</u>	15 21.2	2.6	Firm pale grey wet subangular GRAVEL	25	Normal/refuse
PP85	84	274426	230686					
				0.0	0.7	Firm dark brown PEAT	0	Very Rapid
				0.7	3.5	Soft pale grey CLAY	0	Very Rapid
				3.5	3.7	Firm pale grey wet clayey GRAVEL	20	Normal/refuse
PP86	81	274412	230713					
				0.0	0.5	Firm dark brown PEAT	0	Very Rapid
				0.5	2.4	Soft to firm pale grey CLAY	20	Very Rapid
				2.4	2.6	Firm pale grey dry gravelly CLAY	>45	Normal/refuse
PP87	84	274385	230766					
				0.0	0.4	Firm dark brown PEAT	0	Very Rapid
				0.4	2.4	Soft pale grey sandy CLAY	5	Very Rapid
				2.4	2.6	Firm pale grey subrounded gravelly CLAY	40	Normal/refuse

Probe	Elev	East	North	From	То	Description	Strength KN/m2	Penetration
PP88	81	274372	230793					
				0.0	0.7	Firm dark brown PEAT	0	Very Rapid
				0.7	4.0	Soft pale grey CLAY with gravel	0	Very Rapid
				4.0	4.1	Firm subangular pale grey clayey GRAVEL	35	Normal/refuse
PP89	81	274348	230848					
				0.0	1.0	Firm dark brown PEAT	0	Very Rapid
				1.0	1.3	Soft pale grey plastic CLAY	0	Very Rapid
				1.3	1.5	Firm pale grey subrounded GRAVEL	>45	Normal/refuse
PP90	85	274336	230876					
				0.0	1.0	Firm dark brown PEAT	0	Very Rapid
				1.0	3.4	Soft pale grey CLAY	0	Very Rapid
				3.4	3.6	Firm pale grey wet clayey subrounded GRAVEL	15	Normal/refuse
PP91	84	274312	230931					
				0.0	0.5	Firm dark brown PEAT	0	Very Rapid
				0.5	4.0	Soft pale gey CLAY	0	Very Rapid
				4.0	4.1	Firm pale grey gravelly CLAY	40	Normal/slow
				4.1	4.2	Firm pale grey wet GRAVEL	>45	Normal/refuse
PP92	84	274301	230959		ل	son et le		
_				0.0	1.2	Firm dark brown PEAT	0	Very Rapid
				1.2	4.6	Soft pale grey plastic CLAY	0	Very Rapid
				4.6	4.9	Firm pale grey gravelly CLAY	15	Normal/refuse
PP93	85	274303	231015	N.Se				
)	0.0	0.5	Firm dark brown PEAT	0	Very Rapid
				0.5	3.5	Soft pale grey CLAY	0	Very Rapid
				3.5	3.7	Firm pale grey gravelly CLAY	20	Normal/refuse
PP94	78	274313	231043					
				0.0	1.4	Fibrous dark brown PEAT	0	Very Rapid
				1.4	1.6	Firm pale grey gravelly CLAY	>45	Normal/refuse
PP95	85	274333	231100					
				0.0	2.4	Firm dark brown PEAT	0	Very Rapid
				2.4	2.6	Firm pale grey gravelly CLAY	0	Very Rapid
				2.6	2.8	Firm pale grey subrounded GRAVEL	15	Normal/refuse
PP96	84	274342	231128					
		1		0.0	2.2	Firm dark brown PEAT	0	Very Rapid
				2.2	3.8	Soft pale grey CLAY	25	Rapid/Normal
				3.8	3.9	Firm pale grey gravelly CLAY	>45	Normal/refuse

Probe	Elev	East	North	From	То	Description	Strength KN/m2	Penetration
PP97	84	274362	231185					
				0.0	2.2	Firm dark brown PEAT	0	Very Rapid
				2.2	3.0	Soft pale grey CLAY	0	Very Rapid
				3.0	3.2	Firm pale grey fine GRAVEL	1.5	Normal/refuse
PP98	85	274372	231213					
				0.0	2.5	Firm dark brown PEAT	0	Very Rapid
				2.5	3.5	Firm pale grey gravelly CLAY	20	Rapid/Normal
				3.5	3.6	Fine mixed colour GRAVEL	>45	Normal/refuse
PP99	82	274392	231270					
				0.0	4.2	Firm dark brown PEAT	0	Very Rapid
				4.2	4.6	Soft pale grey sandy CLAY	0	Very Rapid
				4.6	4.8	Firm pale grey wet GRAVEL	>45	Normal/refuse
PP100	84	274401	231298					
				0.0	5.0	Firm dark brown PEAT	0	Very Rapid
				5.0	5.2	Dark grey subangular GRAVEL	25	Normal/refuse
PP101	86	274421	231355			at use		
				0.0	5.5	Firm dark brown PEAT	0	Very Rapid
				5.5	6.0	Pale of the GRAVEL	0	Normal/refuse
PP102	81	274431	231383			ito ited		
				0.0	4.8	N Firm dark brown PEAT	0	Very Rapid
				4.8	5.4	Soft pale greybrown CLAY	0	Very Rapid
				5.4	5.9	Firm pale grey gravelly CLAY	25	Normal/refuse
PP103	84	274451	231440	ور	· %			
				<u>@</u> 00	5.0	Firm dark brown PEAT	0	Very Rapid
			ĊS	₹ 5.0	5.2	Soft pale grey CLAY	0	Very Rapid
				5.2	5.4	Firm pale grey gravelly CLAY	25	Normal/refuse
PP104	82	274461	231468					
				0.0	4.2	Firm dark brown PEAT	0	Very Rapid
				4.2	5.0	Soft pale grey CLAY	0	Very Rapid
				5.0	5.5	Firm pale grey GRAVEL	30	Normal/refuse
PP105	79	274478	231526					
				0.0	2.0	Firm dark brown PEAT	0	Very Rapid
				2.0	2.4	Firm pale grey sandy GRAVEL	25	Normal
				2.4	2.6	Firm grey sandy subangular GRAVEL	>45	Normal/refuse
PP106	84	274485	231555					
				0.0	4.0	Firm dark brown PEAT	0	Very Rapid
				4.0	4.2	Firm grey SAND	25	Very Rapid
				4.2	4.4	Firm sandy subangular GRAVEL	1.5	Normal/refuse