



<div><div><div>British Geological Survey</div><div>NATURAL ENVIRONMENT RESEARCH COUNCIL</div></div></div>						Site M1 WIDENING JUNCTION 21 TO 30 PRELIMINARY GI - CONTRACT 2		Borehole Number RC1227			
Machine: Flush : Core Dia: mm Method :			Casing Diameter 140mm cased to 7.50m			Ground Level (mOD) 98.80		Client Highways Agency		Job Number WAL060099	
			Location 445417 E 367735 N			Dates 28/11/2006-30/11/2006		Engineer Arup		Sheet 1/3	
Depth (m)	TCR	SCR	RQD	FI	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water	
0.00	PIT		0	0	Groundwater was not apparent during boring(1) at 0.00m.			Inspection Pit.		V1	
	O/H		0	0			(1.20)				
1.20						97.60	1.20	Open Hole. For likely material description, see cable percussion borehole CP1227.			
	67	16	0	0	28/11/2006: 28/11/2006: 28/11/2006: 29/11/2006:		(9.80)				
<div>Remarks</div> <div>Prior to boring a Cable Avoidance Tool (CAT) survey was carried out. An inspection pit was hand-dug to 1.20m depth and rescanned using the CAT to check for services. Services were not located. ;The borehole was backfilled on completion with grout.;</div>											
									Scale (approx) 1:50	Logged By TL	
									Figure No.		

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Depth (m)	TCR	SCR	RQD	FI	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water	
11.00			0	0		87.80	11.00 (9.80)	Assumed zone of core loss.			
11.50	100	51	29	0		87.30	11.50 (0.50)	Generally moderately weak (variably weak to moderately strong); grey brown and dark grey thinly colour laminated SILTSTONE. Grey brown discolouration penetrating throughout; frequent orange brown surface discolouration. Fractures: locally extremely closely spaced irregular fracturing; horizontal, extremely closely to closely spaced, smooth, planar, occasionally stepped; vertical, smooth, planar; others irregular, apparently random strike.	XXXXXXXXXX		
12.50-12.61			0	0	/41,50 SPT 0°/0 91/112	86.15	12.65 (1.15)	Moderately strong to strong light blue grey SILTSTONE with frequent thin black wispy laminae. Fractures: horizontal, very closely to closely spaced, smooth, planar; rare vertical, planar.	XXXXXXXXXX		
12.95			0	0	P1	85.35	13.45 (0.80)	Generally moderately weak (variably weak to moderately strong) grey MUDSTONE. Frequent orange brown discolouration penetrating up to 3mm on fracture surfaces throughout strata. Fractures: horizontal, extremely closely to closely spaced, smooth, planar; subvertical, closely spaced, planar; others irregular, apparently random strike.	XXXXXXXXXX		
13.45	100	8	0	0	/29,47,50 29/11/2006:			At 14.80m; very thin bed of moderately strong ironstone.	XXXXXXXXXX		
14.00			0	0	29/11/2006: 126/179		(2.35)		XXXXXXXXXX		
14.00-14.18					29/11/2006:				XXXXXXXXXX		
14.70	91	57	12	0	30/11/2006:				XXXXXXXXXX		
15.50-15.66			0	0	/25,48,27 SPT 0°/0 100/160	83.00	15.80	Weak to moderately weak grey and light grey thinly colour laminated MUDSTONE. Occasional orange brown discolouration on fracture surfaces. Fractures: horizontal to subhorizontal (0 degrees to 15 degrees), very closely to medium spaced, smooth, planar, tight, vertical rough, undulating to irregular.	XXXXXXXXXX		
16.10	97	74	46	0	P2				XXXXXXXXXX		
17.00-17.09					/47,50 SPT 0°/0 97/92		(4.50)		XXXXXXXXXX		
17.35	87	67	32	0	P3				XXXXXXXXXX		
18.50-18.59					/41,50 SPT 0°/0 91/85				XXXXXXXXXX		
19.15	80	25	17	0	P4				XXXXXXXXXX		
20.00									XXXXXXXXXX		
Remarks								Scale (approx) 1:50	Logged By TL	Figure No.	



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Depth (m)	TCR	SCR	RQD	FI	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
20.00-20.04			0	0	SPT 0'/0 50/40 P5	78.50	(4.50) 20.30			
20.10 20.30			0	0			(1.20)	Between 20.30m and 20.65m; non-intact, recovered as clay Weak to moderately weak dark grey to black slightly carbonaceous MUDSTONE. Fractures: subhorizontal (5 degrees to 10 degrees), closely spaced, smooth, planar; subvertical (65 degrees), smooth, planar; others horizontal to vertical, irregular, apparently random strike.		
20.65					30/11/2006: 30/11/2006:	77.30	21.50	Complete at 21.50m		
Remarks						Scale (approx) 1:50		Logged By TL		Figure No.