



 British Geological Survey NATURAL ENVIRONMENT RESEARCH COUNCIL						Site M1 WIDENING JUNCTION 21 TO 30 PRELIMINARY GI- CONTRACT 2		Borehole Number RC1197		
Machine: Flush : Core Dia: mm Method :		Casing Diameter 140mm cased to 3.00m		Ground Level (mOD) 148.25		Client Highways Agency		Job Number WAL060099A		
		Location 444824 E 358657 N		Dates 08/11/2006- 09/11/2006		Engineer Arup		Sheet 1/2		
Depth (m)	TCR	SCR	RQD	FI	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
0.00			0	0	Groundwater was not apparent during boring(1) at 0.00m. B		(0.50)	MADE GROUND. Dark brown very clayey very gravelly sand with occasional rootlets. Gravel is angular to subangular fine to coarse of sandstone and mudstone.		√1
0.00-0.50	62	0	0	0		147.75	0.50	From 0.10m to 0.30m: rough, with some orange staining and occasional clay infill <1mm thick, very widely spaced.		
1.00-1.20					B	147.05	(0.70)	MADE GROUND. Firm light grey brown gravelly clay. Gravel is angular to subangular of sandstone and mudstone.		
1.20							1.20	MADE GROUND. Firm and stiff, occasionally friable grey and light brown slightly sandy, slightly gravelly clay. Sand is fine and medium. Gravel is subangular to subrounded fine to coarse of mudstone, coal, sandstone and siltstone. With occasional cobbles of mudstone.		
	97	0	0	0				From 1.20m to 1.75m; assumed zone of core loss.		
2.70-3.15					3.5/11,15,8,12 SPT N=46					
2.70					D6					
2.70	50	0	0	0						
4.20-4.65					1.3/5,6,6,8 SPT N=25					
4.20					D7					
4.20	97	0	0	0			(7.50)	From 4.95m to 5.75m; assumed zone of core loss.		
5.70-6.15					1/2,5,6,6 SPT N=19					
5.70					D8					
5.70	53	0	0	0						
7.20-7.65					4,8/8,10,11,16 SPT N=45					
7.20					D9			From 7.20m to 7.90m; assumed zone of core loss.		
7.20										
	99	36	10	0						
8.70-9.15					1/1,2,3,5 SPT N=11					
8.70					D10	139.55	8.70	Firm to stiff yellow brown with some light grey mottling, gravelly CLAY. Gravel is subangular to subrounded, fine to coarse of mudstone.		
8.70			0	0			(0.90)			
						138.65	9.60	Moderately strong locally weak light yellow brown and grey fine grained SANDSTONE. Discontinuities: extremely closely to medium spaced, horizontal and subhorizontal;		
9.60	93	86	35	0						
Remarks								Scale (approx)	Logged By	
								1:50	OP	
								Figure No.		



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Depth (m)	TCR	SCR	RQD	FI	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
10.15 10.20 10.20-10.30					P1 25/50 SPT 25'/75 50/22			rough, commonly stained black and orange. Vertical and subvertical, persistence within the core generally 100mm to 300mm. Rough with some orange staining with occasional clay infill <1mm thick. 65 degrees, rough, stained black. SANDSTONE (as next sheet)		
	98	87	55	0						
11.70 11.70-11.79 11.70					25/50 SPT 25'/75 50/19 D11			From 11.50m to 11.61m; assumed zone of core loss. From 11.80m to 11.90m; extremely closely to very closely spaced thin laminae of carbonaceous siltstone.		
	91	91	74	0						
13.20 13.20-13.29 13.20-13.46					25/50 08/11/2006: DRY 08/11/2006: SPT 25'/75 50/18 U2 08/11/2006: 09/11/2006: U3			From 12.95m to 13.10m; extremely closely to very closely spaced thin laminae of black carbonaceous siltstone. From 13.70m; occasional fine and medium gravel sized vugs.		
	96	87	63	0			(8.10)			
14.47-14.70 14.70										
	85	67	39	0						
16.20 16.25					P4			From 16.70m to 17.05m; extremely closely to very closely spaced thin laminae of black carbonaceous siltstone. From 17.07m to 17.30m; assumed zone of core loss.		
	80	38	0	0						
17.70						130.55	17.70	Recovered as firm grey with some orange and black mottling, slightly gravelly CLAY. Gravel is angular and subangular, fine to coarse of coal and mudstone. With cobble sized pockets of pulverised coal. Possible From 17.70m to 18.00m; assumed zone of core loss.		
			0	0			(0.85)			
18.55 18.75 18.88					P5 09/11/2006: 09/11/2006:	129.70	18.55	Weak, variably very weak to moderately weak grey MUDSTONE with occasional fossil plant remains. Discontinuities: vertical and subvertical, rough with some brown surface discolouration. To 18.75m; microfractured with occasional clay coating <1mm. From 18.75m; extremely closely to very closely spaced, subhorizontal, smooth, occasional clay coating.		
			0	0			(0.65)			
						129.05	19.20	Complete at 19.20m		
Remarks								Scale (approx) 1:50	Logged By OP	Figure No.