
 British Geological Survey NATURAL ENVIRONMENT RESEARCH COUNCIL							Site M1 WIDENING JUNCTION 21 TO 30 PRELIMINARY GI-CONTRACT 2		Borehole Number RC1230	
Machine: Flush : Core Dia: mm Method :		Casing Diameter 140mm cased to 3.00m		Ground Level (mOD) 107.30		Client Highways Agency		Job Number WAL060099A		
		Location 445158 E 368689 N		Dates 06/09/2006		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.			Open Hole.		▽1
			0	0						
1.20							(3.00)			
	96	66	0	0						
3.00			0	0		104.30	3.00	Very weak black carbonaceous MUDSTONE. Thinly interlaminated with very weak brittle black coal. Apparently extremely closely fractured. Generally recovered non-intact as clayey angular to subangular fine to coarse gravel.		
3.45			0	0		103.85	(0.45)			
4.05					P1 12/16.35 SPT 12'/75 51/95			Generally weak (variably very weak) grey SILTSTONE with occasional (locally frequent) black carbonised plant remains (up to 8mmx15mm). Weathering: Yellow brown discolouration penetrating up to 2mm. Fractures: Horizontal (0 degrees to 15 degrees) closely spaced, smooth, undulating, frequently irregular, others very closely spaced and irregular. Apparently random strike. Between 3.45m and 4.00m; recovered as very stiff very closely fissured silt/clay. Fissures infilled up to 2mm with yellow brown silt.		
4.50	96	73	0	0						
4.50-4.67										
4.50										
	83	73	26	0	P2 8/35 SPT 8'/75 35/30					
5.60									(4.15)	
6.00-6.11					P3 11/35 SPT 11'/75 35/40					
6.00										
6.35										
	98	87	39	0						
7.50-7.62					C4 /35 SPT 0'/0 35/40 C5			Generally moderately weak (variably weak) light grey frequently colour laminated dark grey SILTSTONE. Variably grading in thin and medium beds to moderately weak fine to grained sandstone. Fractures are horizontal (0 to 15 degrees) closely and medium spaced, smooth, planar, undulating and moderately open. Between 7.60m and 9.00m occasional orange brown discolouration on fracture surfaces.		
7.50			0	0					7.60	
7.60						99.70				
	97	97	51	0						
8.45-8.65										
8.80-8.84										
8.80										
9.00-9.22										
	97	84	36	0				Between 9.40m and 9.65m; convergence of subvertical fractures at 100 degrees.		
Remarks								Scale (approx) 1:50	Logged By TL	
								Figure No.		



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Core Dia: mm		Location 445158 E 368689 N		Dates 06/09/2006		Engineer Arup		Sheet 2/2		
Depth (m)	TCR	SCR	RQD	FI	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
10.30 10.30-10.39 10.30			0	0	4/35 SPT 4'75 35/10 P6					
11.15 11.30			0	0			(7.20)	Between 11.15m and 11.30m; non-intact.		
	98	87	18	0						
11.80 11.90-12.18			0	0	C7			Between 12.25m and 12.50m; non-intact.		
12.25 12.50			0	0						
			0	0						
13.45-13.60 13.80					C8			Between 13.80m and 14.80m; bedding plane inclined at 40 degrees; fractures are subhorizontal (35 degrees to 40 degrees), closely spaced, smooth, undulating and open.		
	100	95	15	0						
14.80 15.10					P9	92.50	14.80	Weak and moderately weak light and dark grey thinly colour laminated SILTSTONE with rare thin beds (80mm) of moderately strong grey thinly laminated fine grained sandstone with frequent thick laminae and medium to coarse gravel size nodules of ironstone. Bedding plane varies from 0 degrees to 20 degrees. Fractures: Horizontal (10 to 20 degrees), very closely and closely spaced, smooth, undulating, very tight to open, subvertical, smooth, planar and generally very open.		
	100	100	0	0			(3.10)	At 16.60m; thick lamination (20m) ironstone.		
17.35 17.80 17.80-18.00 17.90			0	0	P10 C11	89.40	17.90	Between 17.30m and 17.40m; thin bed moderately strong sandstone. Between 17.60m and 17.75m; thin bed moderately strong sandstone.		
							(1.20)	Weak light and dark grey thinly to thickly colour laminated SILTSTONE with rare thick laminae and rounded medium gravel size ironstone nodules. Fractures: Horizontal (0 to 10 degrees) extremely closely spaced and very closely spaced, smooth, planar, incipient to open and subvertical (55 degrees).		
19.45					P12 06/09/2006: 06/09/2006:	88.20 87.30	19.10 20.00	Weak dark brown grey thinly laminated MUDSTONE. Fractures: horizontal (10-15 degrees) extremely closely to very closely spaced, smooth, planar, often irregular, incipient, others subvertical and vertical smooth, planar, open.		
Remarks								Scale (approx) 1:50	Logged By TL	
								Figure No.		