
 British Geological Survey NATURAL ENVIRONMENT RESEARCH COUNCIL						Site M1 WIDENING JUNCTION 21 TO 30 PRELIMINARY GI- CONTRACT 2			Borehole Number RC1199	
Machine: Flush : Core Dia: mm Method :		Casing Diameter 140mm cased to 3.00m		Ground Level (mOD) 168.20		Client Highways Agency		Job Number WAL060099		
		Location 444946 E 359585 N		Dates 11/09/2006		Engineer Arup		Sheet 1/2		
Depth (m)	TCR	SCR	RQD	FI	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
0.00	PIT		0	0	Groundwater was not apparent during boring(1) at 0.00m.			OPEN HOLE		▽1
	OH		0	0			(1.40)			
1.20					P1	166.80	1.40	Generally moderately weak (variably weak) light brown frequently speckled black weathered fine and medium grained SANDSTONE. Frequent dark red brown and black discolouration on fracture surfaces, occasional weak. Fractures, horizontal (0 to 15 degrees), very closely and closely spaced rough, planar, occasionally undulating, moderately open to open, occasionally with slightly silty fine to medium sand infill up to 2mm, subvertical (75 to 85 degrees) smooth, planar and undulating, tight to moderately open.		
1.40	100	78	0	0						
2.25					P2		(2.70)	At 2.65m; horizontal fracture with 2mm of soft grey clay infill. From 3.00m to 3.45m; no recovery		
2.10	85	80	6	0						
2.85					P3			Weak light grey brown thinly laminated fine grained Between 4.10m and 4.50m; very frequent, very thin black wispy non-persistent interlaminae. Between 4.50m and 6.00m; thinly colour laminated brown and black. weathered SANDSTONE. Occasional orange brown Between 4.90m and 5.50m; grading to siltstone. discoloration penetrating up to 15mm. Fractures, horizontal (0-10degrees), very closely and closely spaced, smooth, planar, undulating and stepped, tight to moderately open, subvertical (70-75 degrees), smooth, planar, tight to moderately open, other random, irregular.		
3.00			0	0						
3.60					P4			Very weak and weak light green grey thinly to thickly laminated MUDSTONE. Orange brown discolouration on At 6.35m; 25mm bed moderately weak weathered sandstone. Fractures, horizontal, extremely closely and very closely spaced, smooth, planar, subvertical to vertical (70-85 degrees), smooth planar and irregular, other irregular, random.		
4.25	100	81	0	0						
4.10					P5			Generally very weak (variably weak) dark blue grey thinly to Between 7.30m and 7.40m; thin beds strong ironstone. thickly laminated MUDSTONE with occasional very thin and thin beds of strong light brown ironstone. Fractures, horizontal, extremely closely and very closely spaced (7/20/30), smooth, planar to irregular, very frequent others extremely closely spaced irregular random. Occasional brown discolouration on fracture surfaces. At 8.25m; very thin bed strong ironstone.		
5.60										
6.00-6.11					11.4/ SPT 15'/110		6.00	Generally moderately weak (variably weak) light brown very thinly colour and cross colour laminated black lightly weathered SILTSTONE. Orange and brown black discolouration on fracture surfaces, fractures, horizontal (0-10 degrees) very closely and closely spaced (40/110/240) smooth, planar and undulating, vertical (80-85 degrees), smooth, planar, moderately open to very open. Between 8.70m and 9.00m; grading to fine grained sandstone.		
6.00			0	0						
7.00	100	100	17	0			7.00			
7.50							(1.35)			
			0	0						
8.35							8.35			
8.70-9.00	95	84	23	0						
9.00							(2.85)			
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	
10.10			0	0	P6		(2.85)				
11.20						157.00	11.20	Generally moderately weak (variably weak to moderately strong) light brown becoming light and dark grey very thin laminated fine grained SANDSTONE. Heavy orange brown and dark brown discolouration on fracture surfaces penetrating up to 30mm. Fractures, horizontal (0 to 10 degrees), very closely and closely spaced (20/65/220), smooth, planar and undulating to irregular, moderately open, vertical (75-90 degrees), smooth planar, becoming irregular, very open to tight.			
11.60	88	84	55	0	P7						
12.00	Sample / Tests		Casing Depth (m)	Water Depth (m)			(2.70)				
12.78-13.00	C8										
						154.30	13.90	Weak to moderately weak grey thickly laminated MUDSTONE. Fractures, horizontal, very closely and closely spaced (35/110/200) smooth, planar and undulating, open, subvertical (70 degrees), smooth, undulating, tight.			
14.70-14.90	C9										
					11/09/2006:	153.20	15.00	Complete at 15.00m			
					11/09/2006:						
Remarks										Scale (approx) 1:50	Logged By TL
										Figure No.	