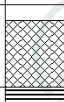


 <b>British Geological Survey</b> <small>NATURAL ENVIRONMENT RESEARCH COUNCIL</small>						<b>Site</b> M1 WIDENING JUNCTION 21 TO 30 PRELIMINARY GI- CONTRACT 2			<b>Borehole Number</b> <b>RC1194</b>	
<b>Machine:</b> <b>Flush :</b> <b>Core Dia: mm</b> <b>Method :</b>		<b>Casing Diameter</b> 140mm cased to 17.50m		<b>Ground Level (mOD)</b> 122.65		<b>Client</b> Highways Agency		<b>Job Number</b> WAL060099		
		<b>Location</b> 444665 E 357882 N		<b>Dates</b> 26/09/2006- 16/10/2006		<b>Engineer</b> Arup		<b>Sheet</b> 1/4		
<b>Depth (m)</b>	<b>TCR</b>	<b>SCR</b>	<b>RQD</b>	<b>FI</b>	<b>Field Records</b>	<b>Level (mOD)</b>	<b>Depth (m) (Thickness)</b>	<b>Description</b>	<b>Legend</b>	<b>Water</b>
0.00	PIT		0	0	Groundwater was not apparent during boring(1) at 0.00m.			Inspection Pit.		V1
	OH		0	0			(1.20)			
1.20						121.45	1.20	Open Hole.		
<b>Remarks</b>										
								<b>Scale (approx)</b> 1:50	<b>Logged By</b> SM	
								<b>Figure No.</b>		

British Geological Survey NATURAL ENVIRONMENT RESEARCH COUNCIL						Site M1 WIDENING JUNCTION 21 TO 30 PRELIMINARY GI - CONTRACT 2		Borehole Number <b>RC1194</b>			
Machine: Flush : Core Dia: mm Method :			Casing Diameter 140mm cased to 17.50m  Location 444665 E 357882 N			Ground Level (mOD) 122.65  Dates 26/09/2006-16/10/2006		Client Highways Agency  Engineer Arup		Job Number WAL060099  Sheet 2/4	
Depth (m)	TCR	SCR	RQD	FI	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water	
	37	0	0	0			(17.80)	Open hole (as previous sheet)			
19.00					26/09/2006:	103.65	19.00	Poor recovery. Recovered as approximately 0.40m of mottled grey clay with sand and subangular fine and medium gravel sized fragments of mudstone. With 0.15m of weak thinly laminated black coal with some extremely closely spaced thin laminae of dark grey mudstone.			
	93	93	53	0	26/09/2006: 26/09/2006: 10/10/2006:		(1.50)				
Remarks									Scale (approx) 1:50	Logged By SM	
									Figure No.		



British Geological Survey NATURAL ENVIRONMENT RESEARCH COUNCIL						Site M1 WIDENING JUNCTION 21 TO 30 PRELIMINARY GI - CONTRACT 2		Borehole Number RC1194				
Machine: Flush : Core Dia: mm Method :			Casing Diameter 140mm cased to 17.50m			Ground Level (mOD) 122.65		Client Highways Agency		Job Number WAL060099		
			Location 444665 E 357882 N			Dates 26/09/2006-16/10/2006		Engineer Arup		Sheet 3/4		
Depth (m)	TCR	SCR	RQD	FI	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water		
20.50 20.50-20.80	90	72	42	0	12.13/24.33 SPT 57/150	102.15	(1.50) 20.50	Weak thinly laminated grey MUDSTONE with closely to At 20.50m; poor recovery possibly due to SPT. medium spaced thin beds of moderately weak thinly laminated light grey SILTSTONE with occasional coarse Between 21.00m and 21.15m; with closely spaced thin laminae of coal. ironstone gravel. Fractures are generally subhorizontal, closely spaced, tight, undulating and smooth.  At 21.70m; 20mm band of weak black coal. Between 21.72m and 21.77m; very closely spaced horizontal fractures infilled up to 4mm with soft grey clay. At 22.00m; poor recovery, possibly due to SPT.  Between 23.00m and 24.50m; predominantly thin to medium beds of siltstone.  From 25.20m to 25.60m; possible zone of core loss.  Moderately weak thinly to thickly laminated dark grey At 26.70m; fracturing probably due to SPT. carbonaceous MUDSTONE. Fractures are horizontal, very closely to closely spaced, generally open, planar and smooth  Moderately weak thinly to thickly laminated black COAL. Fractures are horizontal, very closely to closely spaced, generally tight, planar and smooth.  Moderately weak laminated to very thinly bedded light grey MUDSTONE with occasional coarse ironstone gravel. With rare carbonised plant remains. Fractures are subhorizontal closely to medium spaced, generally open, planar and smooth. Occasionally infilled up to 3mm with soft grey clay.				
21.60				P1								
22.00				18.25/50 10/10/2006:								
22.00-22.17	100	100	49	0	10/10/2006: SPT 50/22 10/10/2006:							
23.00					11/10/2006:							
23.30	86	86	40	0	11/10/2006: 11/10/2006: 12/10/2006: U2	(6.05)						
24.50 24.50-24.65	80	80	60	0	25/58 SPT 25'/75 58/75							
25.20			0	0								
26.35	100	100	36	0		96.10	26.55					
26.70 26.70-26.85 27.05	100	100	73	0	25/50 SPT 25'/75 50/73 P3		(1.05) 27.60 (0.15) 27.75					
28.20 28.65			0	0	P4		(2.35)					
29.20 29.70	100	100	63	0	12/10/2006:21.10m 12/10/2006:23.60m 13/10/2006:							
Remarks											Scale (approx) 1:50	
									Figure No.			

<div><div>British Geological Survey NATURAL ENVIRONMENT RESEARCH COUNCIL</div></div>						Site M1 WIDENING JUNCTION 21 TO 30 PRELIMINARY GI - CONTRACT 2		Borehole Number RC1194		
Machine: Flush : Core Dia: mm Method :			Casing Diameter 140mm cased to 17.50m  Location 444665 E 357882 N		Ground Level (mOD) 122.65  Dates 26/09/2006-16/10/2006		Client Highways Agency  Engineer Arup		Job Number WAL060099  Sheet 4/4	
Depth (m)	TCR	SCR	RQD	FI	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
30.30-30.60	97	97	70	0	U5	92.55	(2.35) 30.10	Moderately strong thin to thickly laminated light grey SILTSTONE. Fractures are subhorizontal, closely to medium spaced, generally open, planar and slightly rough.	XX	