







 British Geological Survey NATURAL ENVIRONMENT RESEARCH COUNCIL						Site M1 WIDENING JUNCTION 21 TO 30 PRELIMINARY GI - CONTRACT 2			Borehole Number RC1209		
Machine: Flush : Core Dia: mm Method :			Casing Diameter 140mm cased to 1.50m			Ground Level (mOD) 168.30		Client Highways Agency		Job Number WAL060099	
			Location 445074 E 361838 N			Dates 23/10/2006		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. C101 C102			MADE GROUND. Light brown slightly clayey very gravelly sand with occasional rootlets. Gravel is subrounded to rounded fine and medium of sandstone and mudstone.		V1	
0.20											
0.50		20	0	0		0	(1.50)				
1.00					C103						
1.50-1.88	64	0	0	0	25/7,6,7,7 SPT 25'/75 N=27	166.80	1.50	Poor recovery. MADE GROUND. Recovered as yellow brown slightly sandy subangular to subrounded fine to coarse gravel and occasional cobbles of sandstone. Sand is fine and medium with occasional pieces of metal 85mm x 50mm x 50mm.			
1.50							(1.50)				
3.00-3.38	41	0	0	0	25/5,5,6,4 SPT 25'/75 N=20	165.30	3.00	MADE GROUND. Stiff mottled grey brown and orange slightly sandy fissured clay. Sand is fine.			
3.00							(0.90)				
3.90	40	19	0	0	25/7,8,7,9 SPT 25'/75 N=31	164.40	3.90	Poor recovery. Possible MADE GROUND. Recovered as subangular to subrounded gravel sized fragments of sandstone. Possible			
4.75-5.13							(1.85)				
4.75											
5.00	77	62	18	0	25/9,8,8,8 SPT 25'/75 N=33	162.55	5.75	Very weak thinly laminated dark grey black carbonaceous MUDSTONE, locally interlaminated with soft clay. Fractures are subhorizontal, very closely to closely spaced generally tight, planar and smooth. Between 6.70m and 6.80m; very weak black coal			
6.00-6.38							(1.70)				
6.00											
7.10	72	72	22	0	P1	160.85 160.60	7.45 (0.25) 7.70	Very weak thinly laminated black COAL. Fractures are subhorizontal and subvertical, very closely spaced, tight, planar and smooth. Very weak laminated to very thinly bedded dark grey carbonaceous MUDSTONE. Locally a stiff clay with very weak lithorelics of mudstone. Fractures are randomly orientated, very closely, generally tight, planar and smooth. Between 8.70m and 8.76m; moderately weak At 9.55m; ironstone fragments up to 30mm			
8.55											
8.70							(2.30)				
10.00	37	0	0	0		158.30	10.00				
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 RC1209	
Machine: Flush : Core Dia: mm Method :		Casing Diameter 140mm cased to 1.50m		Ground Level (mOD) 168.30		Client Highways Agency		Job Number WAL060099		
		Location 445074 E 361838 N		Dates 23/10/2006		Engineer Arup		Sheet 2/2		
Depth (m)	TCR	SCR	RQD	FI	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
10.00-10.38	73	65	26	0	SPT 25'/75 N=41		(2.00)	Poor recovery. Recovered as stiff grey friable CLAY with fragments of mudstone and ironstone and coal band approximately 100mm thick. Possible mine workings.		
11.50 11.50-11.66	95	57	41	0	25/34.50 SPT 25'/75 84/86	156.30	12.00	Weak to moderately weak laminated to very thinly bedded dark grey carbonaceous MUDSTONE. Locally a stiff clay. Fractures are subhorizontal and subvertical with iron staining penetrating up to 15mm.		
13.20 13.20-13.58			0	0	25/8,11,11,8 SPT 25'/75 N=38	154.55	13.75	Between 13.20m and 13.75m; firm grey and black clay with mudstone lithorelics and thin laminae of coal		
14.00 14.20	90	90	32	0	P2			Weak to moderately weak thinly to thickly laminated light and dark grey MUDSTONE. Slightly weathered. Fractures are subhorizontal and subvertical very closely to closely spaced, slightly open, planar and smooth with iron staining on fracture surfaces.		
14.75 14.75-15.13	100	63	25	0	25/8,14,12,18 SPT 25'/75 N=52		(4.05)	Between 14.90m and 15.60m; with extremely closely spaced thin to thick laminae of light grey siltstone		
16.30	Sample / Tests		Casing Depth (m)	Water Depth (m)						
17.15	P3									
					23/10/2006: DRY	150.50	17.80	Complete at 17.80m		
					23/10/2006:					
					23/10/2006:					
Remarks								Scale (approx) 1:50	Logged By SM	
								Figure No.		