

	iritish Geologic ATURAL ENVIR		E y					Site M1 WIDENING JUNCTION 21 TO 30 PRELIMINARY GI- CONTRACT 2	Boref Numb RC11	er
Machine: Flush :				Diamete I0mm cas	er sed to 6.00m		Level (mOD) 60.80	Client Highways Agency	Job Numb	
Core Dia: mi	m		Locatio	\n		Dates		Engineer	Sheet	
Method :				// 4982 E 3	59135 N	06/11/2006- 07/11/2006		Arup	1/3	
Depth (m)	TCR	SCR	RQD	FI	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
00			0	0	Groundwater was not apparent during boring(1) at 0.00m.			Inspection Pit.		∇1
			0	0	-		(1.20)			
20						159.60	1.20	Open Hole.		
00					D1					
			(0)	(می						
00					D2					
00	56	38	0	0	D3		(4.80)			
						18				
00					D4					
00					D5	154.80	6.00	No recovery.		
50			0	0		154.30	6.50	MADE GROUND. Soft to firm light grey brown mottled blac	k >>>>>	3
70 00-7.24 00	93	80	45	0	/10,31,49,10 SPT 0*/0 100/236	154.10	6.70	slightly gravelly clay. Gravel is subrounded coarse of sandstone, with cobble size fragment of timber.		
			0	0			(1.05)	Moderately strong light grey brown fine to medium grained SANDSTONE with very narrow dark brown wispy interlaminae. With orange brown discolouration. Fractures: horizontal, very closely to closely spaced, rough, planar and		
75-8.05 75					U1	153.05	7.75	undulating. Moderately strong to strong light grey brown fine and		
50-8.66 50	77	60	53	0	/36,52,12 SPT 0*/0			dark brown wispy interlaminae widely very thinly and thinly interbedded with weak thinly laminated dark grey mudstone. Weathering: occasional orange brown discolouration penetrating up to 50mm; black discolouration on fracture		
50 85			0	0	100/157			surfaces. Fractures: horizontal, medium spaced, rough, planar, open. Between 8.50m and 8.85m; assumed zone of core loss.		
	98	81	73	0				Between 9.25m and 9.45m; weak mudstone.		
) በቤ 10 ሜ E	30	91	'		U2					
}.88-10.35 Remarks					⁰²		<u> </u>	Scale (approx	Logge	ed
								1:50	TL	
								Figure		



British Geological Survey NATURAL ENVIRONMENT RESEARCH COUNCIL							Site M1 WIDENING JUNCTION 21 TO 30 PRELIMINARY GI- CONTRACT 2		ole er 98	
Machine:			Casing	Diamete	r	Ground	Level (mOD)	Client	Job Numbe	
lush :			14	0mm cas	ed to 6.00m	,	160.80	Highways Agency	WAL060	
Core Dia: mr	m		Locatio	n		Dates		Engineer	Sheet	_
Method :			44	4982 E 3	59135 N		3/11/2006- 7/11/2006	Arup	2/3	
Depth (m)	TCR	SCR	RQD	FI	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
10.00-10.18	83	75	65	0	SPT 0'/0 100/177			At 10.50m; occasional well rounded medium and coarse gravel size dissolution vugs.		
1.50 1.50-11.62 2.05-12.45	95	72	54	0	/39,61 SPT 0*/0 100/115 U3		(6.05)	Between 11.35m and 11.55m; weak mudstone.		
3.00 3.00-13.12 3.50-13.80 3.80	93	24	0	0	/46,54 SPT 0'/0 100/119 U4	147.00	13.80	Weak thinly to thickly laminated grey and grey brown MUDSTONE. Fractures: generally horizontal and subhorizontal, very closely spaced, irregular.		
4.30 4.50			0	0	P5 /25,47,28 06/11/2006:	146.05				
4.75 4.50-14.69					06/11/2006: SPT 0*/0 100/187 06/11/2006:	140.00	(0.55)	Moderately weak thinly laminated dark grey black carbonaceous MUDSTONE with rare orange brown surface discolouration. Fractures: horizontal, very closely to closely spaced, smooth, planar; subvertical, smooth, planar.		
	91	47	15	0	07/11/2006:	145.50 145.35 145.10	15.45	Recovered as grey black slightly clayey subangular fine to coarse gravel of coal, sandstone and carbonaceous MUDSTONE (possibly broken ground/collapsed workings).		
						145.10	15.70	Weak brittle black COAL. Generally non-intact.		
6.00 6.00-16.16 6.05			0	0	/29,49,22 SPT 0*/0 100/163 P6		(1.20)	Very weak dark grey MUDSTONE with rare thin interlaminations of weak black coal.		
6.90						143.90	16.90	At 16.70m; subrounded coarse gravel size ironstone nodule.	******	
7.40 7.50 7.50-17.65 7.80	97	59	0 23 0	0 0	/37,59,4 SPT 0*/0		(1.80)	Moderately weak to moderately strong light grey SILTSTON with very frequent black carbonised fossil plant remains. Fractures: horizontal, closely spaced, smooth, planar; subvertical, smooth, planar and undulating; frequent others, irregular, apparently random strike.	x x x x x x x x x	
7.90			0	0	100/150 P7		(1.00)	Between 18.00m and 18.45m; 1 no vertical fracture, smooth, planar.		
8.70	95	85	77	0	DO.	142.10	18.70	Generally moderately strong (variably strong) light and dark	******	
9.00-19.09 9.60-19.80	80	29	27	0	P8 /40,60 SPT 0°/0 100/94 U9			grey thinfy cross colour laminated SILTSTONE, with orange brown surface discolouration. Fractures: horizontal, closely and medium spaced, smooth, planar, open; subvertical, smooth, planar, open.		
Remarks							(2.50)	Scale (approx	*****	d
								(6)		
								1:50 Figure	TL No	
								Figure		



(!!!!) (British Geologica ATURAL ENVIRO		-	ı				Site M1 WIDENING JUNCTION 21 TO 30 PRELIMINARY GI- CONTRACT 2	Boreh Numbe RC11	er
Machine:				Diamete Omm cas	er sed to 6.00m	Ground Level (mOD) 160.80		Client Highways Agency		er 009
Method : Depth TCR SCR			Location 444982 E 359135 N			Dates 06/11/2006- 07/11/2006		Engineer Arup		
Depth (m)	TCR	SCR	RQD	FI	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
20.35 20.50 20.50-20.50			0	0	P10 /100 SPT 0*/0 100/0	(e	(2.50)	Between 20.20m and 20.50m; medium bed of strong light grey brown fine grained sandstone with occasional black carbonised fossil plant remains.	X X X X X X X X X X X X X X X X X X X	
21.20	57	40	0	0	P11	139.60	21.20	Generally moderately strong (variably moderately weak) thinly laminated dark grey MUDSTONE with rare black carbonised fossil plant remains.	******	
21.90 22.00 22.00-22.08			0	0	/95,5 SPT 0'/0 100/75		(2.50)	Between 22.80m and 23.50m; assumed zone of core loss.		
23.50 23.50-23.62	96	76	59	0	/51,49 SPT 0*/0	137.10	23.70			
24.10-24.35			0	0	U12		(1.00)	Moderately weak to moderately strong grey MUDSTONE with frequent black carbonised fossil plant remains and occasional subrounded coarse gravel size ironstone nodules. Fractures: horizontal, medium spaced, smooth, planar; vertical, rough, planar.		
24.70 25.00 25.00-25.23 25.20	94	60	37	0	/25,30,44,1 SPT 0'/0 100/225 P13	136.10	24.70	Moderately weak to moderately strong thinly laminated dark grey MUDSTONE with rare very thin beds of strong brown ironstone. Fractures: horizontal, closely to medium spaced, smooth, planar; subvertical, smooth, planar; others irregular, apparently random strike.		
26 50	100	80	58	0			(3.30)	Between 25.95m and 26.10m; locally carbonaceous.		
26.50 26.50-26.61	Sample A	0	Casing Depth (m)	Water Depth (m)	/49,51			Between 26.85m and 27.60m; variably grading to siltstone.		
27.25-27.50	100/112 U14	!			07/11/2006:	132.80	28.00			
55)					07/11/2006:			Complete at 28.00m		
Remarks							-	Scale (approx) Logge By	d
								1:50 Figure	TL No.	