
 British Geological Survey NATURAL ENVIRONMENT RESEARCH COUNCIL						Site Nottinghamshire/ Derbyshire COA NMCS2 Upgrade		Borehole Number M39			
Machine: Flush : Core Dia: mm Method :			Casing Diameter			Ground Level (mOD) 65.63		Client Highways Agency		Job Number F11451	
			Location 445012.59 E 372919.47 N			Dates 23/08/1999- 25/08/1999		Engineer WSP Environmental Ltd		Sheet 1/2	
Depth (m)	TCR	SCR	RQD	FI	Field Records	Level (mOD)	Depth (m) (Thickness)	Description		Legend	Water
1.10	10	0	0	98		65.43	(0.20) 0.20	TOPSOIL.			
							(0.90)	MADE GROUND: Orangish brown and grey sandy clay with much fine to coarse angular to subrounded gravel sized fragments of sandstone, mudstone and limestone.			
2.10-2.55	74	0	0	98	1,1/1,3,3,3 SPT N=10	64.53	1.10	MADE GROUND: Brown very sandy clay with much fine to coarse angular and subangular gravel sized fragments of mudstone, limestone, sandstone, quartz and coal.			
2.55							(1.00)				
3.10-3.55	22	0	0	98	1,3/3,2,2,4 SPT N=11	63.53	2.10	MADE GROUND: Dark grey slightly sandy clay with some fine and medium angular and subangular gravel sized fragments of carbonaceous mudstone.			
3.55							(1.45)	---from 2.95m with much fine to coarse angular gravel			
4.10-4.55	100	0	0	98	1,4/5,7,6,6 SPT N=24	62.08	3.55	MADE GROUND: Dark brownish grey very clayey coarse angular gravel sized fragments of limestone with some cobbles.			
4.55							(0.55)			61.53	4.10
5.10-5.55	100	0	0	98	3,2/1,0,1,1 SPT N=3		(2.90)	---from 5.35m becomes light orangish brown mottled grey with occasional cobbles			
5.55											
6.10-6.55	100	0	0	98	2,3/3,6,6,9 SPT N=24						
6.55											
7.10-7.25	34	0	0	98	25,0/50,0,0,0 23/08/1999:6.50m	58.63	7.00	MADE GROUND: Dark greyish brown very clayey coarse angular and subangular gravel and cobble sized fragments of sandstone, mudstone and brick.			
7.25							(1.10)				
8.10-8.55	100	0	0	98	2,4/6,7,7,7 SPT N=27	57.53	8.10 (0.27)	MADE GROUND: Dark greyish brown very sandy clay with some fine and medium subangular and subrounded gravel sized fragments of sandstone, mudstone and coal.			
8.55							8.37				
9.60-10.05	37	0	0	98	1,1/1,1,2,4 SPT N=8		(1.23)	MADE GROUND: Brown mottled grey black and orange sandy clay with occasional to some fine and medium angular to subrounded gravel sized fragments of sandstone, mudstone, siltstone, quartz and coal with some root and rootlet traces with grey gleying. ---from 9.20m with much fine to coarse gravel			
10.05										56.03	9.60
Remarks 1. Inspection pit excavated to 1.10m. 2. Borehole complete at 20.00m. 3. Borehole backfilled with grout. 4. Marker Post Ref 234/7 S.											
										Scale (approx) 1:50	Logged By NBR
Figure No.											



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Depth (m)	TCR	SCR	RQD	FI	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water	
11.10-11.55	100	0	0	98	2,2/2,3,4,5 SPT N=14		(1.87)	---from 11.00m with some gravel			
11.55						54.16	11.47	Stiff dark grey and grey slightly sandy CLAY. (Completely Weathered Mudstone) (Coal Measures)			
							(0.78)				
12.60-13.05	100	0	0	98	5,11/15,15,15,14 SPT N=59	53.38	12.25	Very stiff grey indistinctly thinly laminated slightly sandy CLAY with some fine and medium gravel sized mudstone lithorelicts. (Completely to Highly Weathered Mudstone) (Coal Measures)			
13.05							(2.45)				
14.10-14.55	100	0	0	25	3,5/7,8,8,9 SPT N=32						
14.55						50.93	14.70	Grey thinly laminated subhorizontal very thinly and thinly bedded subhorizontal highly weathered MUDSTONE, very weak with extremely closely spaced subhorizontal and random fractures tight smooth irregular clay smeared. (Coal Measures)			
	76	0	0	98			(0.90)				
15.60-16.05					1,1/1,6,9,15 24/08/1999:14.45m	50.03	15.60	Light grey slightly sandy CLAY with much fine and medium angular to subrounded gravel sized fragments of mudstone. (Workings?) (Coal Measures)			
16.05					24/08/1999: SPT N=31 24/08/1999:100000.00m		(1.40)				
	100	23	0	98	25/08/1999:						
17.10-17.48					9,9/11,13,26,0 SPT 50/225	48.63	17.00	Black/dark grey very clayey slightly sandy gravel sized fragments of carbonaceous MUDSTONE and coal. (Workings?) (Coal Measures)			
17.47			0	25			(0.86)				
17.86	100	44	0	25		47.77	17.86	Dark grey thinly laminated subhorizontal very thinly bedded subhorizontal slightly weathered carbonaceous MUDSTONE, weak and moderately weak with very closely and extremely closely spaced subhorizontal fractures, open smooth planar. (Coal Measures)			
18.15							(0.99)				
18.60-18.90	98	81	0	25	7,11/20,31,0,0 SPT 51/150			---from 18.60m becomes moderately weathered with open irregular random fractures with clay infilling			
18.90						46.78	18.85	Grey thinly laminated subhorizontal very thinly bedded subhorizontal moderately weathered MUDSTONE weak with extremely closely and very closely spaced subhorizontal to inclined fractures tight smooth planar and irregular clay smeared. (Coal Measures)			
					25/08/1999:12.50m		(1.15)				
					25/08/1999:	45.63	20.00				
Remarks									Scale (approx)		Logged By
									1:50		