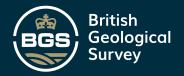


	British Geological Survey NATURAL BRYIRONHENT RESEARCH COUNCIL							Site Nottinghamshire/ Derbyshire COA NMCS2 Upgrade	Borehole Number M47	
Machine: Flush : Core Dia: mm Method :			Casing Diameter  Location 445011.23 E 361733.3 N			Ground Level (mOD) 160.65  Dates 01/09/1999- 02/09/1999		Client Highways Agency	Job Number F11451 Sheet	
								Engineer WSP Environmental Ltd		
Depth (m)	TCR	SCR	RQD	FI	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend Mater	
0.00-0.30 0.30-0.70	40	0	0	98	D01 0 blows D02 0 blows	160.35	(0.30)	TOPSOIL.  MADE GROUND: Dark grey and brown very sandy clay with much fine and medium angular and subangular gravel sized fragments of coal, slag, glass, sandstone, mudstone and quartz.	(8)	
1.70-2.15	0	0	0	97	2,4/4,4,4,5 SPT N=17	158.95		No recovery. Grey silty weathered MUDSTONE. (Driller's description) (Coal Measures)		
2.15 2.70-3.15 3.15	100	0	0	98	3,4/4,5,8,11 SPT N=28	157.95	(1.00)	Light grey slightly sandy CLAY with much fine to coarse angular and subangular mudstone lithorelicts. (Completely Weathered Mudstone) (Coal Measures)		
	100	68	51	98	4,21/30,20,0,0 01/09/1999:0.00m		(1.52)	from 3.70m to 3.95m dark grey with much gravel of coal		
3.97 3.70-3.97 4.11	95	87	77	0 4	02/09/1999: SPT 50/121	156.43	4.22	Light grey thinly laminated subhorizontal thinly and thickly bedded subhorizontal slightly weathered fine grained SANDSTONE moderately weak to moderately strong locally strong with closely and medium spaced subhorizontal fractures open rough planar. (Coal Measures)	(8)	
5.05			0	14			(1.93)			
6.05 6.20	100	75	26	6		154.50	6.15	Light grey thinly laminated subhorizontal very thinly and thinly bedded subhorizontal slightly weathered SILTSTONE, weak and moderately weak with very closely and closely spaced subhorizontal fractures open smooth undulose and planar. (Coal Measures) below 6.00m locally with strong interbeds of sandstone/sandy siltstone		
7.05 7.55 7.70	91	32	0	99			(2.18)			
8.33			0	98		152.32	8.33	Soft grey sandy CLAY with much fine to coarse angular and subangular gravel of mudstone. (Workings?) (Coal Measures)		
9.20	57	6	0	0		K	(2.00)	(WedSures)	(3)	
Remarks			0	99			- - - - - - - -	Saala	Logged	
		ated to 0.	70m. 2. E	3orehole	complete at 15.00m.	3. Boreho	ole installed wit	th 50mm gas pipe at 15.00m. 4. Marker PostRef Scale (approx)  1:50  Figure N	NBR	



	British Geologica MATURAL ENVIRO			591			Site  Nottinghamshire/ Derbyshire COA NMCS2 Upgrade		Borehole Number M47		
Machine: Flush :			Casing Diameter			Ground Level (mOD)  160.65  Dates 01/09/1999- 02/09/1999		Client Highways Agency		Job Number F11451	
Core Dia: mm Method :			Locatio		E 361733.3 N			Engineer WSP Environmental Ltd	Sheet 2/2		
Depth (m)	TCR	SCR	RQD	FI	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legeno	Water	
10.35 10.40 10.60 10.70 11.35 11.55 12.20 12.50 13.60 13.70	85	58	0 0 41 0 0 35 0	98 0 98 7 0 11 25 0 3	02/09/1999:8.35m 02/09/1999:	150.32 150.25	(1.15) 11.55 11.55 12. 13.60	Black highly weathered COAL, very weak with extremely closely spaced subhorizontal and subvertical fractures tight smooth planar. (Coal Measures)  Light grey thinly and medium bedded subhorizontal highly weathered fossiliferous SILTSTONE, weak with medium and closely spaced subhorizontal fractures open rough irregular. (Seatearth) (Coal Measures)  —from 11.35m completely weathered  Grey thinly cross laminated subhorizontal thinly and very thinly bedded subhorizontal slightly weathered fine and medium grained SANDSTONE, weak and moderately weak with very closely and closely spaced subhorizontal fractures open rough planar and medium spaced inclined fractures open rough planar iron stained. (Coal Measures)  —from 12.80m with medium spaced subhorizontal fractures open clay infilled  Grey thinly laminated inclined highly weathered MUDSTONE, very weak and weak with extremely closely spaced random fractures open smooth irregular. (Coal Measures)  —from 14.60m fractures become very closely spaced open inclined rough irregular  —from 14.90m non intact  Complete at 15.00m			
Remarks								Scale (approx)	Logge By	ed	
								(approx) 1:50	By		
								Figure		$\dashv$	