



<div><div><div>British Geological Survey</div><div>NATURAL ENVIRONMENT RESEARCH COUNCIL</div></div></div>						Site Nottinghamshire/ Derbyshire COA NMCS2 Upgrade		Borehole Number M42		
Machine:		Casing Diameter		Ground Level (mOD)		Client		Job Number		
Flush :				87.59		Highways Agency		F11451		
Core Dia: mm		Location		Dates		Engineer		Sheet		
Method :		445167.41 E 369019.03 N		15/09/1999-16/09/1999		WSP Environmental Ltd		1/2		
Depth (m)	TCR	SCR	RQD	FI	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
0.00-0.70					D01 0 blows		(0.70)	MADE GROUND: Grey slightly sandy medium and coarse angular gravel sized fragments of limestone.		
0.70-0.80	64	9	0	99	3,6/7,11,10,12 D02 0 blows SPT N=40	86.89	0.70	Grey thinly laminated subhorizontal slightly and moderately weathered MUDSTONE, weak locally moderately weak with extremely closely and very closely spaced subhorizontal and random fractures open and tight smooth planar and irregular clay smeared. (Coal Measures)		
0.80-1.25										
1.25										
2.00-2.38	87	59	0	25	13,11/13,16,21,0 SPT 50/225					
2.37										
3.00-3.45	67	33	18	25	9,16/17,10,11,11 SPT 25*/145 N=49		(5.30)			
3.45										
4.00-4.45	100	53	0	25	3,8/9,13,16,13 SPT 51/295					
4.45										
5.00-5.24	100	49	0	9	4,11/33,17,0,0 SPT 50/90					
5.24			0	99						
5.55	100	100	46	6						
6.00	89	85	70	8		81.59	6.00	Light grey thinly and medium bedded subhorizontal slightly weathered silty fossiliferous MUDSTONE, moderately weak with closely and medium spaced subhorizontal to inclined fractures open rough irregular. (Coal Measures)		
6.65										
8.00	82	3	0	99		80.59	7.00	Grey thinly laminated thinly and medium bedded subhorizontal moderately weathered MUDSTONE, weak locally moderately weak closely and medium spaced subhorizontal fractures open rough irregular. (Coal Measures)  ---from 7.75m becomes dark grey carbonaceous mudstone  ---from 8.20m to 9.40m with occasional coarse gravel sized ironstone nodules, mudstone becomes highly weathered with extremely closely spaced random fractures tight smooth irregular  ---from 8.90m to 9.40m fractures become open, clay smeared		
	83	21	9	3			(2.40)			
9.40			0	99						
9.80			0	25		78.19	9.40 (0.40)	Dark grey thinly laminated subhorizontal thinly bedded subhorizontal slightly weathered carbonaceous MUDSTONE, weak and moderately weak with closely and very closely spaced subhorizontal fractures open smooth		
10.05										
Remarks 1. Inspection pit excavated to 0.80m. 2. Borehole complete at 12.00m. 3. Borehole backfilled with arisings. 4. Marker Post Ref 230/7 -50S.								Scale (approx) 1:50	Logged By NBR	Figure No.



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		Location 445167.41 E 369019.03 N		Dates 15/09/1999- 16/09/1999		Engineer WSP Environmental Ltd		Sheet 2/2		
Depth (m)	TCR	SCR	RQD	FI	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
			0	98		77.79 77.54	(0.25) 9.80 10.05 (0.60)	planar. (Coal Measures) Black slightly and moderately weathered COAL, weak non intact. (Coal Measures)		
10.65	100	0	0	0		76.94	10.65	Grey thinly laminated subhorizontal thinly and medium bedded subhorizontal highly weathered MUDSTONE, very weak and weak with extremely closely spaced subhorizontal and random fractures tight smooth irregular and planar clay smeared. (Coal Measures)		
10.85					15/09/1999:10.30m 16/09/1999:		(1.35)	Firm to stiff grey indistinctly thinly laminated CLAY with occasional fine subangular mudstone lithorelicts. (Completely Weathered Mudstone) ---from 11.50m becomes stiff		
					16/09/1999:100000.00m 16/09/1999:	75.59 12.00		Complete at 12.00m		
Remarks								Scale (approx) 1:50	Logged By NBR	
								Figure No.		