

Appendix D BGS Borehole Records

SECTION OF *B.H. Kellyville Invov.*

BGS REGISTRATION NO

NZ 27 SE 158

PAGE NO. 1

[Dyke Pit. S. 113]

Surface Level _____ O.D.

Communicated *British Geological Survey* by *Boring & Sinkings No 1239* *British Geological Survey*

Date of boring or sinking *1760* Borer _____

One-inch Map *15* Six-inch Map (County and Half-Quarter Sheet) *North = N 86 SW*

	Thickness.		Depth from Surface.	
	feet.	ins.	feet.	ins.
Black soil		4		4
Stony clay	1	2 6	1	2 10
Sand channel with water		2 8	1	5 6
Soft blue and brown ramble		6	2	0 0
White peat with water	2	5 3	4	5 3
COAL, foul		9	5	0 0
Grey metal		9	5	0 9
Greenish grey metal girdles or lumps	3	0 9	8	1 6
Blue metal		1 0	8	2 6
COAL, mixed with black metal		6	8	3 0
Black grey metal		1 0	8	4 0
Grey metal	2	2 0	11	0 0
White peat	1	0 0	12	0 0
Strong peat mixed with whin		1 6	12	1 6
A grey cashy parting		6	12	2 0
White and grey peat	1	2 0	13	4 0
Blue grey peat		3 6	14	1 6
COAL		7	14	2 1
Black grey metal		1 9	14	3 10
COAL, hard fcaul slaty		11	14	4 9
Grey metal and metal stone girdles or catheads with some black metal partings	6	0 9	20	5 6
Thready whin		6	21	0 0
Quality peat, with water	1	0 0	22	0 0
White and grey peat, with a mixture of whin girdles or lumps and water	6	1 6	28	1 6
Grey metal stone with peat girdles		3 0	28	4 6
Grey and blue metal		4 6	29	3 0

G
F REQ

E = Ryhope Lick C.P.

Brought forward...

Black metal

1 0

29 3 0

Grey and white post, with whin girdles or

lumps

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2 1 0

31 5 0

Blue metal, with whin girdles or lumps

1 2 0

33 1 0

Black metal

HMMB 697

1 4 0

34 5 0

COAL

10

34 5 10

Black metal, scored with coal

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4

35 0 2

Blue and grey metal girdles or lumps

5 0

35 5 2

Grey and white post

1 0 0

36 5 2

Grey and white post with a mixture of whin

girdles, partings and water

1 0 0

37 5 2

Grey and white post partings and water

1 2 10

4 5 2

44 1 2

COAL

5' 0"

COAL, but rather foul

1' 0"

Grey metal

4"

COAL, foul

4"

Upper or

COAL,

8"

Noble Main

1 3 2

45 5 4

COAL, foul

4"

Coal

Black metal mixed

with coal

4"

HMM 699

COAL, foul

1' 2"

In grey metal

8

45 5 0

3 6

275

N237SW/86S

THE CEMENTATION Co. Ltd.

BOREHOLE No. 45-86S

SOIL MECHANICS SECTION

CONTRACT	Tyne Tunnel Approach Road, (A.I. Link)	REPORT No.	4969/DA
Bored for	Northumberland County Council, Newcastle-upon-Tyne.	Ground Level	217.6 O.D.
Site Address	Holystons, Mr. Backworth, Northumberland.	Boring Commenced	20. 6. 66.
Type and Dia. of Boring	Shell and Auger 8 ins.	Boring Completed	21. 9. 66.
			Rotary 4 $\frac{3}{4}$ ins.

Water Strikes		Water Levels Recorded During Boring							
1. NONE	Hole Depth								
1.	Casing Depth								
1.	Water Level								

Remarks

Description	Scale 1 inch = 5 ft.		Samples & S.P.T.				
	Depth	Legend	Ref No.	Type	Depth	N blows/ft	
Topsoil.	1'0"		18436	J	0'6"		
Firm to stiff brown mottled sandy clay.	7'0"		18437	U	2'6"-4'0"		
			18438	J	5'0"		
			18439	U	8'0"-9'6"		
Stiff grey boulder clay.	7'0"		18440	J	11'0"		
			18441	U	13'0"-14'6"		
			18442	J	16'0"		
			18443	U	18'0"-19'6"		
			18444	J	21'0"		
			18445	U	23'0"-24'6"		
			18446	J	26'0"		
			18447	U	28'0"-29'6"		
			18448	J	31'0"		
			18449	U	33'0"-34'6"		
40'0"		18450	J	36'0"			
		18451	U	38'0"-39'6"			

Code: U—Undisturbed Sample D—Large Disturbed Sample J—Jar Sample W—Water Sample

Unless classification tests have been made and the results are included in this Report, the descriptions of strata given above have been obtained by visual inspection in accordance with British Standard Code of Practice CP 2:301 (1957) Soil Investigations. To ensure agreement as to interpretation, clients are encouraged to check descriptions against the samples submitted.

NZ37SW/865

THE CEMENTATION Co. Ltd.

BOREHOLE No. 45. 865

SOIL MECHANICS SECTION

Continuation Sheet No. 1.

CONTRACT Tyne Tunnel Approach Road, (A.I. Link)

REPORT No. 4969/DA.

Description	Scale 1 inch = 5 ft		Samples & S.P.T		
	Depth	Legend	Ref. No.	Type	Depth
sandstone boulder.	41'9"		18452	J	40'6"
stiff grey boulder clay (boulder 3'9" - 44'10")			<u>Core Recovery</u>		
			41'0" to 51'0" : 9'10"		98%
brown and grey fissured sandstone.	50'10"				
brown and grey fissured sandstone with thin coal veins.	53'17" 54'2"		51'0" to 57'6" : 6'6"		100%
brown fissured sandstone.					
			57'6" to 67'0" : 9'0"		95%
			67'0" to 74'0" : 6'5"		92%
grey clayey silt with siltstone.	74'5"				
grey fine-grained sandstone with siltstone bands.	75'5" 75'11"		74'0" to 80'8" : 6'8"		100%
grey coarse-grained sandstone with siltstone bands.	78'4"				
grey sandstone with thin coal veins.					
	83'4"				
old workings (?)					
	87'11"		80'8" to 92'6" : 6'0"		51%

U—Undisturbed Sample D—Large Disturbed Sample J—Jar Sample W—Water Sample

Unless classification tests have been made and the results are included in this Report, the descriptions of strata given above have been determined in accordance with British Standard Code of Practice CP 20:1 (1957) Site Investigations. It is the client's responsibility to ensure that the samples submitted are representative of the strata against which they are intended to be used.

N237SW/86S

THE CEMENTATION Co. Ltd.

BOREHOLE No. 45.

86S

SOIL MECHANICS SECTION

Continuation Sheet No. 2.

TRACT Tynes Tunnel Approach Road, (A.I. Link)

REPORT NO. 4969/DA.

Description	Scale 1 inch = 5 ft		Samples & S.P.T.			
	Depth	Length	Ref. No.	Type	Depth	Blows ft
1 (cont'd)						
clay. siltstone with bands of fine bed sandstone.	96'6"					
	97'2"		92'6" to 97'0" : 4'6" =			100%
			97'0" to 107'0" : 9'8" =			97%
	107'0"					

U—Undisturbed Sample D—Large Disturbed Sample J—Jar Sample W—Water Sample

Unless classification tests have been made and the results are included in this Report, the descriptions of strata given above have been obtained by observation in accordance with British Standard Code of Practice CP 2001 (1957) for Test Pittings. To ensure agreement as to interpretation, classification should be made on sections against the samples submitted.

SECTION OF

Backworth "D" Pit

BGS REGISTRATION NO

NZ 27 SE 150

PAGE NO. 1

Ventilating shaft: chimneys open, no fan

Bornys & Sinkings No 33

Surface Level 200ft O.D.

Communicated by

Date of boring or sinking 1884 Borer

One-inch Map 15 Six-inch Map (County and Half-Quarter Sheet) South n 86 N.W.

	Thickness.		Depth from Surface.	
	feet.	ins.	feet.	ins.
Outset	1	.	1	.
Yellow clay	2	.	1	2
One day	1	4	1	3
Leafy peat	1	2	3	.
Blue metal	5	.	3	5
Bedstone & coal	1	2	4	2
Shill stone	1	8	5	10
White peat & whin	3	.	5	3
Metal parting	4	.	5	4
Scummy peat	4	2	6	2
Blue metal	3	2	6	5
Coal	9	.	7	3
Shill stone	3	2	7	3
Scummy peat & ptgs	1	5	9	2
Coal	1	3	9	4
Shill stone	1	5	11	3
Dark metal & ironstone balls	2	4	11	5
Coal	4	.	11	5
Blue metal & ironstone balls	1	4	13	4
Grey metal stone	1	4	15	2
White peat & whin	4	6	19	2
Dark metal	2	9	19	5
COAL 1' 0"	2	9	20	2
Band 16"				
COAL 1' 5"				
Peat & whin dyers	1	4	22	.
Blackstone	3	.	22	3
Blue metal	1	2	23	5

Brought forward:-

	Thickness.		Depth from Surface. 1911	
	feet.	ins.	feet.	ins.
Black stone	A.		23	5
<u>COAL</u>		9	24	3
Grey metal stone	3	5	24	8
Post	3	2	31	8
Black stone	1	6	32	2
Blue metal	4		32	2
<u>COAL</u>		3	32	5
Blue metal & post girdles	1	3	33	8
Post with within	1	5	35	8
Blue metal	1	1	36	2
Black stone	1	1	37	3
<u>COAL</u>		6	37	4
Thill stone		8	37	4
Post girdles & padings	4	3	45	1
Blue metal	4	2	46	
<u>COAL</u>	6'	2"		
Band		4"		
<u>COAL</u> course	3'	0"		
Thill stone	1'	0"		
<u>COAL</u> course	2'	6"		
Thill stone			48	4
Blue metal			49	1
" + post girdles	3	1	52	2
Scummy post	1	-	53	2
Blue metal stone	2	2	55	4
<u>COAL</u> Metal coal	2	10	56	10
Thill stone	3		56	3
Blue metal stone	4	4	60	4
<u>COAL</u> Stone coal	1	8	60	5
Thill stone	1		61	10
Post girdles & metal pgs	2		63	10
Blue metal & sandstone balls	4		63	4
Scummy post	2		65	4
Blue metal	5	6	66	4
<u>COAL</u>	6		66	4

SECTION OF

Six-inch Map (County and Quarter Sheet)

Backworth D Pit (Contd)

NORTH 1 D N 86 NW

BGS REGISTRATION NO

NZ 27 SE 150

PAGE NO. 3

Thickness.

feet. ins.

Depth from Surface.

feet. ins.

Brought forward:

	Thickness.	Depth from Surface.
	feet. ins.	feet. ins.
Shill stone	1 5	66 4 10
White post & whin	4 2 4	68 3 10
<u>COAL</u> Yard	2 6	73 2 8
Black stone	2	73 2 10
Shill stone	4 10	73 2 10
Dk blue metal	1 5 2	74 1 8
White post	1	76 10
<u>COAL</u> + old stone	1 6	76 1 10
● Shill stone	2	76 3 4
Blue metal	5 10	76 5 4
" " stone	3	77 5 2
Grey "	4 2	78 2 2
Blue "	1 6	82 4 2
<u>COAL</u> Band	} Bensham	4 1 84 2 9
Band		
<u>COAL</u> Band		
Shill stone	1 2	85 4 9
● Post girdles & metal ptgs	3 6	86 2 3
Shill stone	1 11	87 3 2
Blue metal + post girdles	3 3	87 3 2
White post & ptgs.	12 1 10	91 2
Blue metal	1 8	102 2
Grey	} How Main	4 8 102 2 4
<u>COAL</u>		
Metal band		
<u>COAL</u>		
Shill stone	1	105 2 4
Grey metal + post girdles	3 3 6	108 5 10
Whin dyers	3 6	109 2 4
Metal parting	1	109 3 4
Post & metal partings	7 4	117 1 4
Grey post	1	117 2 4

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BGS REGISTRATION NO
NZ 27 SE 1 50

Thickness. 193 Depth from Surface.
feet. ins. feet. ins.

PAGE NO. 4

Brought forward.

		Thickness.	Depth from Surface.
		feet. ins.	feet. ins.
White post		1 4 4	117 2 4
Whin		3 2	119 . 8
Blue metal		3 2	119 3 10
White post		1 1 6	120 1 .
Grey post		4 4 10	121 2 6
White " + pgs.		1 . .	129 1 4
" " " Whin		2 . .	130 1 4
Post		4 4 10	132 1 4
Blue metal	Heavy Ms.	5 2	137 . 2
<u>COAL</u>		6	137 5 4
Grey thull stone		4 .	137 5 10
<u>COAL</u>		4	138 3 10
White thull stone		1 2 6	138 4 2
Grey post + blue metal		1 2 .	140 . 8
Blue metal + post guide		1 5 .	141 2 8
Grey post		4 9	143 1 8
White "		1 3	144 . 5
Strong blue metal		5 .	144 1 8
<u>COAL</u>	3' 2"		145 . 8
Band	2' 6"	Supposed Beamant	1 . 8 146 1 4
<u>COAL</u>	1' 0"		

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