RECORD OF BOREHOLE NO. 561A

Ground level : 420.3ft. above O.D. Newlyn (4.7.63)

Dia. of boring : 8in. to 5ft. NX (3½in. core) to 70ft.

Type of boring : Post-hole Auger and Rotary Core Drilling

Lining tubes : NX (3in.) to 20ft.

SK45NW 225

4498 5707

Daily Progress	Core Recovery or Samples: Depth	Core Recovery or Samples: Percentage or Type	Change of Strata: Legend	Change of Strata: Depth	Change of Strata: O.D. Level	Description of Strata	
	1'6" - 3'0"	U(4)		1'0"	419.3	TOPSOIL	
29.4.63	3'0" - 5'0"	D		5'0"	415.3	Stiff mottled grey and brown silty CLAY, with mudstone fragments	
	10'0"	50%		9'9"	410.5	Weathered pale green-grey MUDSTONE	
				10'2"	410.0	Bright COAL	
				11'0"	409.3	Pale green-grey SEATEARTH, abundant plant remains. Core broken	
	20'0"	58%		15'0"	405.3	Ironstained incipient vertical fissured irregularly laminated grey fine SANDSTONE; partly ironstained bedding planes	
				20'0"	400.3	Weathered, ironstained low angled fissured grey MUDSTONE, increasingly more broken with depth	
30.4.63	30'0"	90%		27'0"	approx. 393.3	Irregularly laminated, false bedded, pale greenish-brown fine SANDSTONE with near vertical ironstained fissuring; 22ft.6in. to 23ft.6in. slightly coarser, muddy thereafter	
	40'0"	80%				Broken, ironstained, fissured grey MUDSTONE with ironstones, bedding planes part ironstained; 34ft. to 40ft. laminated and clayey; 45ft. to 46ft. massive and laminated; broken with ironstones towards base	COAL MEASURES
	50'0"	85%		49'10"	370.5		
				50'6"	369.8	Pitchy COAL with pyrites	
				50'9"	369.5	Coaly SHALE	
				57'0"	363.3	Vertically fissured dark greenish-grey SEATEARTH; 6in. coaly clay at top; more soapy at 58ft. with ironstone	
				58'0"	362.3	Green-grey sandy MUDSTONE with plant remains	
1.5.63	60'0"	95%		59'6"	360.8	Dull COAL	
				64'0"	approx. 356.3	Green-grey SEATEARTH with almost vertical fissures, soapy at top, grading in depth to mudstone	
2.5.63	70'0"	97%		70'0"	350.3	Grey MUDSTONE; ironstone at 67ft. and few plant remains	

SK45 NW1

RECORD OF BOREHOLE NO. F561B/1

Ground level : 389.7 ft. above O.D.Newlyn (8.7.69.) Dia. of boring : 8in.

Type of boring : Shell and Auger Lining tubes : Nil.

SK45NW 225

Daily Progress	Core Recovery or Samples: Depth	Core Recovery or Samples: Percentage or Type	Change of Strata: Legend	Change of Strata: Depth	Change of Strata: O.D. Level	Description of Strata	
				1'6"	382.2	TOPSOIL	
	2'0"	D				Firm mottled grey and brown sandy silty CLAY	
				6'0"	377.7		
	8'0"	D				Stiff mottled grey and brown silty CLAY	COAL MEASURES
				10'0"	379.7		
	11'0"	D				Weathered grey SHALE	
				13'0"	376.7		
	13'6"	D		18'0"	369.7	Stiff mottled grey and brown silty CLAY with shale fragments	
2.5.69.				16'0"	367.7	COAL	

Key to type of sample :
U (4) — 4 in. dia. undisturbed sample.
U (1½) — 1½ in. dia. " "
D — disturbed sample.
BD — bulk disturbed sample.
W — water sample.
S ( ) — standard penetration test.
C ( ) — dynamic cone penetration test.
No. in brackets gives No. of blows/12 in. penetration.

Remarks : (Observations on ground-water, etc.)

Ground-water was first encountered at a depth of 6ft. below ground level. Sample of ground-water taken.

MINISTRY OF TRANSPORT
LONDON-YORKSHIRE MOTORWAY
TROWELL TO BARLBOROUGH SECTION

Soils No : S/3847

FIG.171

GEORGE WIMPEY & CO., LTD. CENTRAL LABORATORY HAYES

RECORD OF BOREHOLE NO. P561B/□

Ground level : 383.7ft. above O.D. Newlyn (8.7.63)

Dia. of boring : NX (2⅛in.core)

Type of boring : Rotary Core Drilling

Lining tubes : NX (3in.) to 20ft.

SK45NW 225

Daily Progress	Core Recovery or Samples: Depth	Core Recovery or Samples: Percentage or Type	Change of Strata: Legend	Change of Strata: Depth	Change of Strata: O.D. Level	Description of Strata	
	0'0"						
		Non Coring		10'0"	373.7		
	12'0"			13'6"	370.2	Weathered and ironstained grey SHALE, becoming dark grey towards base	
				16'0"	367.7	COAL	
		90%		22'0"	361.7	Grey shaly SEATEARTH, grading to mudstone	
	24'0"			23'9"	359.9	Broken grey MUDSTONE, sandy laminae at base	
		75%		33'0"	350.7	Grey medium to fine SANDSTONE, partly laminated, becoming argillaceous with depth	COAL MEASURES
	36'0"			36'0"	347.7	Grey shaly MUDSTONE	
	40'0"	45%		41'0"	342.7	Dark grey SHALE with occasional ironstones; mussels at 36ft.3in.	
3.5.63	50'0"	80%		50'0"	333.7	Grey MUDSTONE with numerous plant remains, becoming massive from 42ft.6in. with sparse plant remains	

Key to type of sample :
U (4) — 4 in. dia. undisturbed sample.
U (1½) — 1½ in. dia. " "
D — disturbed sample.
BD — bulk disturbed sample.
W — water sample.
S ( ) — standard penetration test.
C ( ) — dynamic cone penetration test.
No. in brackets gives No. of blows/12 in. penetration.

Remarks : (Observations on ground-water, etc.)

MINISTRY OF TRANSPORT
LONDON-YORKSHIRE MOTORWAY
TROWELL TO BARLBOROUGH SECTION

Soils No : S/3547

FIG.172

GEORGE WIMPEY & CO., LTD. CENTRAL LABORATORY HAYES

GEOLOGICAL SURVEY OF GREAT BRITAIN

RECORD OF SHAFT OR BORE FOR MINERALS

Name of Shaft or Bore given by Geological Survey: 561A

Name and Number given by owner:

For whom made

Town or Village ..... County .....

Exact site ..... (Attach a tracing from a map, or a sketch-map, if possible.)

Purpose for which made

Ground Level at shaft bore relative to O.D. ..... If not ground level give O.D. of beginning of shaft bore .....

Made by ..... Date of sinking .....

Information from ..... Date received .....

Examined by .....

(For Survey use only)

6-inch Map Registered No. 45NW SK45NW 225

Nat. Grid Reference 44948 5707

1"N.S. Map No.	1"O.S. Map No.	Confidential or not

(For Survey use only) Geological Classification	Description of Strata	Thickness Ft	Thickness In.	Depth Ft	Depth In.
				5	0
	Mudstone, grey, very weathered, with ironstone nodules.				
	50% of core missing.	4	9	9	9
	Coal.	0	3	10	0
	Mudstone, grey, soft, friable, irregularly bedded.	1	0	11	0
	Sandstone, pale grey - buff, fine grained, with carbonaceous - micaceous partings. Rusty staining on cracks and joints. Abundant plant fragments.	1	6	12	6
	Mudstone, grey, brown in parts. Soft, broken.	0	6	13	0
	Fragments of Sandstone, silty mudstone and ironstone. (Core fragmentary)	7	0	20	0
	Sandstone, grey - buff, fine grained, with carbonaceous micaceous partings and wispy cement bedding.				
	Mudstone, grey, silty, with micaceous Rusty staining on joints and bedding planes. Sporadic ironstone bands. Core fragmentary.	10	0	30	0
	Mudstone, grey, silty, with pale grey siltstone laminae.	17	0	47	0
	Mudstone, grey, with 2" ironstone band at 48'6".	2	10	49	10
	Coal.	0	8	50	6
	Seatearth mudstone, grey, with lustrous surfaces and rootlets.	0	6	51	0
	Seatearth Siltstone, grey, with bands of lustrous mudstone. Very hard in parts. Rootlets and ironstone nodules throughout.	6	0	57	0
	Coal.	1	6	58	6
	Mudstone, grey, silty, ironstone in parts. Ironstone nodules.	6	6	65	0
	Mudstone, grey, broken.	0	6	65	6

DS98293/1 P585 4m 11/61 XL

DS98293/1 P585 4m 11/61 XL

Name of Shaft or Bore given by Geological Survey: 561A.

6-inch Map Registered No. SK45NW 225

Geological Classification	Description of Strata	Thickness Ft	Thickness in.	Depth Ft	Depth in.
	B/S.			65	6
	mudstone, grey, silty, finely laced, with sparse plant fragments.	2	0	67	6
	mudstone, grey, with ironstone nodules.	1	6	69	0
	ironstone	0	6	69	6
	mudstone, many dark grey, fissile, brittle, mussels.				
	Base of Hole.				

1598293/2 P585 4m 11/61 XL

GEOLOGICAL SURVEY OF GREAT BRITAIN

RECORD OF SHAFT OR BORE FOR MINERALS

(For Survey use only)

6-inch Map Registered No. SK45NW 225

Nat. Grid Reference

1"N.S.Map No.	1"O.S.Map No.	Confidential or not

Name of Shaft or Bore given by Geological Survey: London - Yorkshire Motorway. Bh. No 561B.

Name and Number given by owner:

For whom made

Town or Village County

Exact site (Attach a tracing from a map, or a sketch-map, if possible.)

Purpose for which made

Ground Level at shaft bore relative to O.D. If not ground level give O.D. of beginning of shaft bore

Made by Date of sinking 1963

Information from Bor Samples. Date received 1963

Examined by D. V. Smith

SPECIMEN NUMBERS AND ADDITIONAL NOTES

(For Survey use only) GEOLOGICAL CLASSIFICATION	DESCRIPTION OF STRATA	THICKNESS Ft	THICKNESS in.	DEPTH Ft	DEPTH in.
	Clay, grey-brown, with rootlets.			2	0
	Limestone, grey.			8	0
	Limestone, grey, with silty laminae.			11	0
	Limestone, grey-brown, soft.			13	6
Permian.	Coal, bright.			15	0

GEOLOGICAL SURVEY OF GREAT BRITAIN

RECORD OF SHAFT OR BORE FOR MINERALS

Name of Shaft or Bore given by Geological Survey: P5618.

6-inch Map Registered No. SK45NW 225

Name and Number given by owner:

Nat. Grid Reference

For whom made

Town or Village ... County

Exact site ... (Attach a tracing from a map, or a sketch-map, if possible.)

1"N.S. Map No.	1"O.S. Map No.	Confidential or not

Purpose for which made

Ground Level at shaft/bore relative to O.D. ... If not ground level give O.D. of beginning of shaft/bore

Made by ... Date of sinking 1963

Information from Cons.

Date received 1963

Examined by D. V. Frost.

SPECIMEN NUMBERS AND ADDITIONAL NOTES

(For Survey use only) Geological Classification	Description of Strata	Thickness Ft	Thickness In.	Depth Ft	Depth In.
				10	0
	Mudstone, grey, silty, with ironstone.	2	0	12	0
	Mudstone, grey and pale grey, listric (i.e. grey mudstone fragments in a pale grey mudstone matrix. Typical Dunsil Roof)	1	11	13	
Dunsil.	Coal.	1	9	15	
	Seatearth mudstone, brown, listric, with rootlets, becomes darker to base.	3	4	19	
	Mudstone, grey, listric with carbonaceous material.	3	0	22	0
	Siltstone, dark grey, with carbonaceous fragments	2	0	24	
	Sandstone, pale grey, fine grained, micaceous, with carbonaceous - micaceous and silty mudstone partings - parted 12"	3	0	27	
	Mudstone, grey, silty, with siltstone bands	1	6	28	
	Siltstone, grey, with sandy bands and laminae.	5	6	34	
	Mudstone, grey, silty.	2	0	36	
	Mudstone, grey, with ironstone	0	6	36	
	Mudstone, dark grey, silty at top, becoming black, carbonaceous to base. Ironstone bands, mussel fragments.	4	0	40	
	[illegible]				

D598293/1 P585 4m 11/61XL

Name of Shaft or Bore given by Geological Survey: P561B.

6-inch Map Registered No. SK45NW225

Geological Classification	Description of Strata	Thickness Ft	Thickness in.	Depth Ft	Depth in.
	Brought forward.			40	6
	Seatearth Mudstone, grey, with rootlets.	0	6	41	0
	Seatearth Siltstone, grey-green, with ironstone nodules below 42'	2	0	43	0
	Siltstone, grey, with sporadic green coloration. Ironstone nodules. Carbonaceous plant fragments.	7	0	50	0
	Base of Hole.				

DS98293/2 PS65 4m 11/61 XL