131 OCT 1974 SK 47 SE/34 I.G.S.

FORM P 70
SERIES 680

6-INCH MAP	B/H REGD. No.
(County, Sheet and Qtr.)	
SK 47 SE 34 (Nat. Grid, Sheet & Qtr.)	35

Attach tracing from a map or sketch map if possible

Section of Markham No.8 (L.19's) U.G. Borehole

Purpose To prove the Threequarters Seam and roof measures

Exact Site E. 445 407 metres
N. 373 348 metres

Level at which ~~shaft~~ bore ~~drift~~ commenced relative to O.D. 1,307·3ft. B.O.D. m or ft*
(Floor of First Piper)

Date of sinking or boring 21· 9.73 – 2·11.73

Sinker or borer N.C.B. (F. Gerrard)

Cores examined by P.K. Boam

*Delete as appropriate

GEOLOGICAL CLASSIFICATION	NATURE OF STRATA	THICKNESS m or ft*	THICKNESS cm or in*	DEPTH m or ft*	DEPTH cm or in*
	Start of cores			50	0
Mudstone	slightly silty medium grey, laminated, locally fissile; abundantly wormy; non-marine lamellibranchs including Naiadites, Anthracosia rarely with both valves; occasional ironstone patches	3	6		
	passage			53	6
Mudstone	dark fissile; abundant large non-marine lamellibranchs including carbinated Carbonicola to 56/3; less common 56/3 to 58/6; rarely in situ; ostracods at 54/6, 55/0; wormy throughout; shelly ironstone 58/6 to 58/9, 59/10 to 60/ ; lighter grey 60/0 – 63/0 with rare non-marine lamellibranchs and shelly ironstones	10	0		
	passage			63	6
Mudstone	dark fissile, carbonaceous; fish at 64/6; ostracods including Geisina and ?Carbonita sporadic throughout; ironstones with possible fish scale and impressions 65/2 to 65/4 non-marine lamellibranchs abundant below 67/1 mainly carbonated	6	6		
				70	0
Cockleshell Seam	part core and fragments of fusainous, bright coal; pyritis; (driller's record)	1	0		
				71	0
Seat Earth	Mudstone dark, listric, rooty; becoming silty downwards ironstone nodules in basal 0/4	1	8		
	sharp			72	8
Seat Earth	Siltstone sandy, rooty, Stigmaria; basal 0/2 ironstone	2	0		
				74	8

FORM P.71
SERIES 660

COMMERCIAL IN CONFIDENCE

6-INCH MAP	6-
SK47SE/34	

Section of Markham No.8 (L.19's) U.G. Borehole

*Delete as appropriate

GEOLOGICAL CLASSIFICATION	NATURE OF STRATA	THICKNESS m or ft*	THICKNESS cm or in*	DEPTH m or ft*	DEPTH cm or in*
				74	8
Siltstone	fine and sandstone fine, variously inclined layers; root-disturbed to 76/8, rhythmic layers of ½ cm units 76/8 to 77/8, variously inclined with diastems 77/8 to base; small-scale load casts in basal 1/11 and diastems; small sand-filled burrows in basal 0/4	4	11		
				79	7
Ironstone		0	1		
				79	8
Siltstone	fine with sandstone fine laminae and lenticular sandstone layers interbedded with sandstone fine beds 0/1 to 0/3 thick; rib and furrow structure, regular thin ironstone beds in siltstone; u-shaped burrows in sand-stone rich beds with preferred orientation at 80/10, micaceous planty planes at sandy horizons with rare plants	4	1		
	rapid passage			83	9
Sandstone	medium to coarse, rib and furrow; micaceous planty planes; soft sediment pellets, basal worm tracks with sandy infilling	1	1		
	sharp			84	10
Siltstone	fine and sandstone; lenticular sandstone layers and laminae and thin bands; ironstone layers; micaceous planty planes in sandy beds with soft sediment pellets; burrows in sandy beds	3	3		
				88	1
Ironstone		0	1		
				88	2
Sandstone	medium, rib & furrow, micaceous planty planes and soft sediment pellets	0	11		
	sharp			89	1
Siltstone	fine with sandstone fine; mainly thin elongated ripple marks; micaceous planty planes; basally iron-rich	1	1		
				90	2
Sandstone	fine with siltstone fine; inclined layers; ripple drift; micaceous planty planes	0	4		
				90	6
Sandstone	fine to medium, well cemented; rib and furrow structure; coaly plants; fusain pockets, soft sediment pellets, micaceous planty planes, thin ironstone bands, silt-stone fine 96/7 - 96/10 with casts of burrows;	9	4		
				99	10

FORM P 71
SERIES 1580

COMMERCIAL IN CONFIDENCE

6-INCH MAP: SK 47 SE/34

B/H

Section of Markham No.8 (L.19's) U.G. Borehole

*Delete as appropriate

GEOLOGICAL CLASSIFICATION	NATURE OF STRATA	THICKNESS m or ft*	THICKNESS cm or in*	DEPTH m or ft*	DEPTH cm or in*
				99	10
Sandstone	medium massive, well cemented, siltstone flake breccia at 100/6 and 101/0; ironstone 100/11 - 101/0; basal elongated burrows sharp	1	5	101	3
Siltstone	fine and sandstone fine; connected lenticular sandstone ripple marks, basal burrows, iron-rich patches	0	4	101	7
Sandstone	medium, rib and furrow; micaceous planty planes, basal tracks; bioturbation contact	1	5	103	0
Sandstone	fine with siltstone fine; discontinuous laminae, diastems; basally iron-rich; micaceous planty planes; abundant small vertical burrows erosive	1	8	104	8
Sandstone	medium-fine, rib and furrow; micaceous planty planes; erosion surfaces 106/5 and 107/10; locally canky	4	6	109	2
Siltstone	fine to medium, laminated, with sandstone fine bands	0	5	109	7
Sandstone	fine to medium, rib and furrow	0	4	109	11
Siltstone	fine with thin disconnected lenticular sandstone ripple marks and thin rippled sandstone bands up to 0/3	3	5	113	4
Sandstone	medium, well cemented; rib and furrow; soft sediment pellets in basal 0/2	0	10	114	2
Siltstone	fine with sandstone fine; lenticular ripple marks; rib and furrow sandstone bands up to 0/4 thick sharp	4	1	118	3
Sandstone	medium, rib and furrow erosive	1	3	119	6
Siltstone	fine, with thin disconnected sandstone fine ripple marks, increasing in amplitude to base	3	11	123	5

ORM P 71
FRIES 650

COMMERCIAL IN CONFIDENCE

1974

6-INCH MAP: SK 47 SE/34 — R/H

Section of Markham No.8 (L.19's) U.G. Borehole

*Delete as appropriate

GEOLOGICAL CLASSIFICATION	NATURE OF STRATA	THICKNESS m or ft*	THICKNESS cm or in*	DEPTH m or ft*	DEPTH cm or in*
				123	5
Sandstone	medium with discontinuous siltstone laminae, diastems; micaceous planty planes, soft sediment pellets	1	2		
	passage			124	7
Siltstone	fine with sandstone fine; disconnected lenticular ripple marks	6	2		
				130	9
Coal	bright fragmented - driller's record	0	10		
				131	7
Seat Earth	Mudstone silty in top 0/4; brown, listric, with sphaerosiderite	1	10		
				133	5
Seat Earth	Siltstone brown, rooty, muddy at base	1	11		
				135	4
Seat Earth	Siltstone coarse, rooty, sphaerosiderite; micaceous	1	6		
				136	10
Siltstone	medium with sandstone fine; thin lenticular ripple marks, numerous sandstone fine load casts towards base; basal 0/2 rib and furrow sandstone	1	2		
				138	0
Sandstone	medium; slurry; minor load casts	1	5		
				139	5
Sandstone	fine with siltstone fine, contorted bedding; Calamites	0	9		
				140	2
Siltstone	fine to medium with sandstone fine; lenticular ripple marks; pouches, load casts; rib and furrow sandstone 42/6 to 43/3 and 44/0 to 46/0, carbonate cemented	9	8		
				149	10
Sandstone	medium with siltstone fine, rib and furrow with siltstone drapes towards top	0	4		
				150	2
Siltstone	medium with sandstone fine laminae and rare lenticular ripple marks; abundantly wormy with burrows	3	3		
	sharp			153	5

FORM P 71
SERIES 660

COMMERCIAL IN CONFIDENCE

6-INCH MAP: SK47SE/34

Section of Markham No.8 (L.19's) U.G. Borehole

*Delete as appropriate

GEOLOGICAL CLASSIFICATION	NATURE OF STRATA	THICKNESS m or ft*	THICKNESS cm or in*	DEPTH m or ft*	DEPTH cm or in*
				153	5
Sandstone	medium with discontinuous siltstone laminae; basally rib and furrow, micaceous planty planes	0	8		
	erosive			154	1
Siltstone	fine locally muddy; sandstone fine lenticular ripple marks increasing downwards; thin sandstone bands 57/11 to 58/4; ironstone breccia 59/7 to 59/8; burrows locally abundant	6	6		
				160	7
	* CORE BOXED 160/7 - 165/5½				
* Mudstone,	slightly silty, carbonaceous in basal 0/0½	0	8		
	detached, fitting			161	3
THREEQUARTERS	coal, dirty 0/5 coal, bright 0/11 attaching cylinders coal, bright 0/6 fragments coal, bright 0/11 coal, dull 0/0½ attaching cylinders coal, bright 0/2½ 3/0 Recovery 95% Dip less than 2°	3	0		
	detached, fitting			164	3
* Seat Earth	Siltstone	1	2½		
				165	5½
Seat Earth	Siltstone sandy, rooty, Stigmaria, sphaerosiderite	1	2½		
				166	8
Seat Earth	Mudstone dark, rooty; locally silty and micaceous, occasional horizontal plants and stem guilielmites	1	4		
				168	0
Coal	bright	0	1½		
				168	1½
Seat Earth	Mudstone silty listric, rooty; vitrain pocket at 68/6	1	10½		
	passage			170	0
Seat Earth	Siltstone medium, roots, Stigmaria; immature downwards; disseminated pyrite film on some roots	8	4		
	sharp			178	4

FORM V. 71
Scale 660

COMMERCIAL IN C...
13 OCT 1914

6-INCH MAP: SK47SE/34 | B/H

Section of Markham No.8 (L.19's) U.G. Borehole

*Delete as appropriate

GEOLOGICAL CLASSIFICATION	NATURE OF STRATA	THICKNESS m or ft*	THICKNESS cm or in*	DEPTH m or ft*	DEPTH cm or in*
				178	4
Sandstone	fine, rib and furrow:well cemented; planty planes, clay pellets	1	4		
				179	8
Siltstone	fine, poorly laminated, medium-grey; rare plant stems along bedding; ironstone bands; small vertical burrows locally abundant, some associated, iron-rich 82/3 to 82/9, some micaceous planty planes; slightly sandy below 82/9	5	4		
				185	0
	Base of Borehole				

COMMERCIAL IN CONFIDENCE 31 OCT 1974

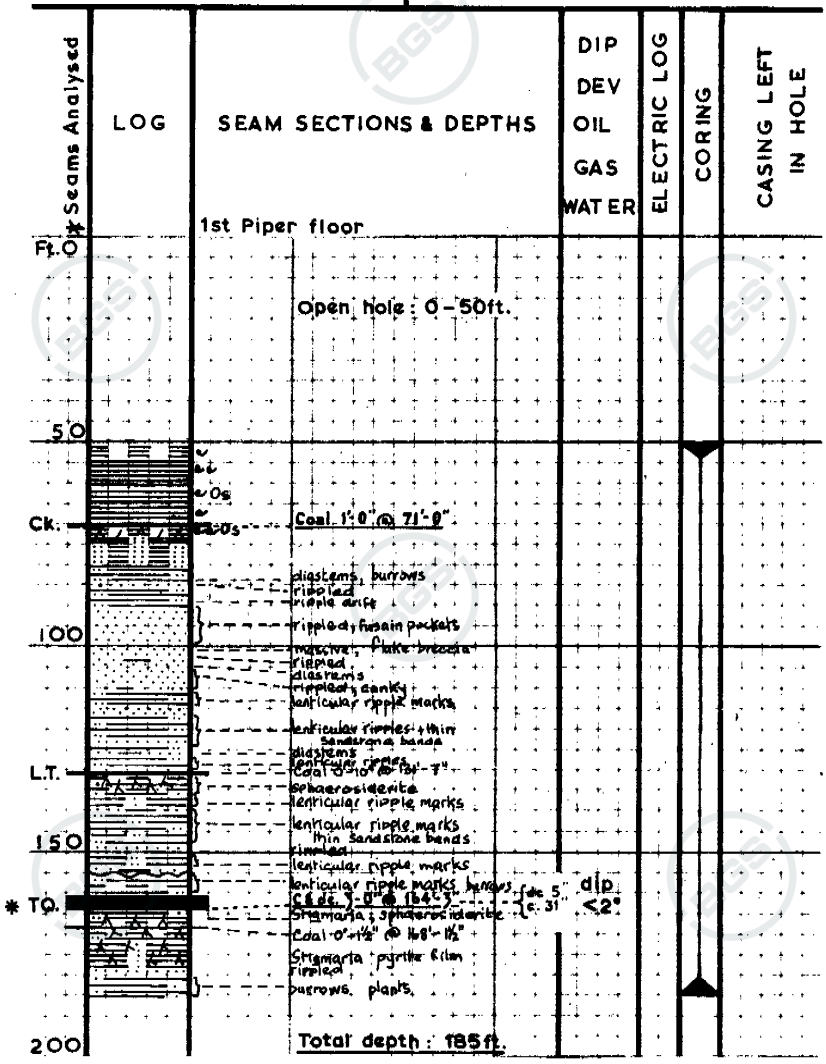
35 | SK 47 S.E. 134 | 35

MARKHAM COLLIERY

No.8 (L.19's) FIRST PIPER Downbore

E 445 407 M | DATE Sept.– Nov. 1973

N 373 348 M | STARTING LEVEL 1307·3 ft. B.O.D



Cores examined by : P.K.Boam

Drawn by : P.K.Boam