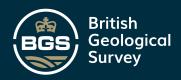


		BC
QUARTER SHEET	SK47SW	
BH REGISTRATION	NUMBER 260-274	
(Delete as appropriate)	! toc hissing!	BOS
PECOPOS E	MITERED & HED BY WALLING	FORD





Communicated by W.S.) One-inch Map (N.S.) HEIGHT ABOVE O.D. DIP OF STRATA	of sinking Map 26 N SK	w. 4
Settle of declare of May No 2 No 9 Marklan Marshare from NES EXPLOS NOT and plans to DURRY ZAND	Thickness. Yards, foot,	Depth from Surface. ins. Yards. feet, ins.
No. 2 = (0) and (0) Soil (groot)	12000	
100 = (d).	,,	6 1 2 6
Der P 1.111 53 fellow Clay	42	9 6 19 3
Estphalier Slaley Grey Bind		7 6 10 10 3
B. Coal ans (Ingerior)		5 6 2 3
Corel (good)		5 6 2 8
Grey Clurch.		6 10 31 6
" Bend	3 1	
Lask "	15	11. 25 2 5 5 25 2 10
Coul Danty		8 3
Clurch	1 2	1 27 2 3
Denay Rock		8 30 2 10
Clone Bind		4 31 93 2
Coal (Good) with from line	3	5 34 102 7
Coal. Good		8 34 103
Clunch		2 74 2 2
Coal Soundor		6. 246 2 11.
Soft Clanch.	,	6 35 15
Strong "		10 16 108 3
" Bind	٠ ره	6 39 12 9
Plock.	12	6. 41 (2.3 8
Dark frey Bud	6 2	2 407 146
Black Bind	/	48 2 5
Coul. (Bright) Mosse.		11. 49 . 4
Clurch Soft	2 1	3 49 1 3
Rock with Came Bed.	4 2	9 50 8
Waste climal	2	- 6, , 8
Stone Bind		73 62 - 5
Black Bind	3-	3 66



	arteham No. 2	47 Sbc
	ate of sinking	
One-inch Map (N.S.) Six-in	nch Map	
HEIGHT ABOVE O.D. DIP OF STRATA		20
/	Thickness. Yards. feet, ins.	Depth from Surface. Yards, feet, ins.
Blue Bud		80 . 11
Park .	3 6	82 2 5
While Clunch		84 20
Alue bind	8 2 6	93 16
Coal (Bright)	13	9: 29.
Sofe- Church	13	941.
Stone "	124	96 . 4
Coal + Bats	4.	96 - 1
Clurch	12-	97 28
Cank	10	98 1 4
Sime Buid	1	18 2 3
Cank.	1.9	100
Black Buil	3	100 . 3
Blul Buid with Somotine	Rado 6 - 9	106 1
Clurch with Coal pipes	2 94	107 . 4.
Store bind . Cank bulls	9.8	116 19
Back " Strong	9.	116 19
Cank	1	116 2 8
Plack bind	10 1 2	127 . 10
Coal Good - Bright	24	128 . 2
Clunch	211.	129 . 1
Coul Good - Brifac	1 4	129 1 5
Clunch Sobe	9	129 2 2
Rock - Stone Rind	6 2	136 2 6
Coal Sufering	7 - 3	142 19
clunch with look propes	5- 11.	145 1 8 145 1 8
Cool & Balt side	1 2 3	150 1 5
Cline Rud - Rock Cank Blue sud	2 14	156 2 6
Coal Bright	1 6	157 1.
Climak Brust	10 13	169 . 3
W B & L (2)-14886-8000-12.8 Clural Sino Bind + Book	2 2	172 1 3
Step Ising Tropic	4	172 2 9



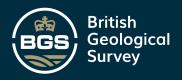
SECTION OF Strata	_ at Masks	01/2			4	# 1
	COUN		WIN	June	2) []	
			7			12
Communicated by		of sinking				7
One-inch Map (N.S.)	Six-inch	мар				L
HEIGHT ABOVE O.D. DIN	P OF STRATA	Thic	kness.		Depth fro	m Su
		Yards.	feet.	ins.	Yards.	feet.
tophalian B. Stone Buil				•	179	.
Rock		F	2	.	182	2
Blue Rend		2	/	2	185	١.
Dark "		2-		•	187	
Come buther Inserin	v (2-		187	2
Clunch (Simp)	<i>'</i>)	I.	0	3	189	
Stine tind wer	1 B. A. Soul		1	7	198	/
Gray Rock Sh		2-3	2	7	222	1
	~7	4	1	6	222	1
Black Bind		2-	2	3	225	-
Rock Clamy Grey Bend	•	4		<u></u>	279	2
		7		3	230	,
Black "					230	,
Coal (danky)				7	230	2
Clunch				-ی	236	
Glong Buil		اسکه	2	7	·	1
Stone a w	The Rose bund	2	- /	3	238	2
Grey .	. Locustine la	Ko	2	4	209	-
- and Fairly good			1	بغمي	240	-
Stone Clunch	The Cank Balls	5	2	10	246	1
Coal worken at co got	on Colly Stavel		2	86	252	1
Clunck Sind		3	2	6	256	2
	Hone Bind	3	2	23	265	100
Stone (very strong	1		2-	7.	267	-
Gray Time "		/3 2	-	6	2.86	
Black " Store "		1	· 	9	289	(
Strong Dind	30	,	2	8	291	1
Cone (banky) con				8	291	-
Blue Bird Can Dark n	 8	5-7	1,	6	308	
_ Coal. (fauly)				4	308	1
		1		6	11	2
Church				100	314.	1/
Chunch Store Buil 1. (x)-14838-9000-19-8		5-	-	4	314.	1



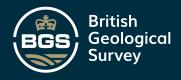
section of Strata at M	OUNTY Der	byohirt	9	
	ate of sinking		<u> </u>	
Communicated by Six-i	nch Map	SKU	7/569	NEW
One-inch Map (N.S.) Six-i HEIGHT ABOVE O.D. DIP OF STRATA.			` \	
HEIGHT ABOVE O.D. DIP OF STRAIR.		kness.	Depth fr	om Surfac
seel-ulan !	Yards.	feet, ins.	- 11	
B Coul r Bali		6	3 nep	
Stine Band with rock bann	as &	2 2	323	
Blue "		2 6	82-cx	
Coul Top Hard	2-	. 6	326	
Time Clunch	-	- 6		478 8
" Bind	2	, 3	331	
Blue "	2	2-	مره وح	_ .
Black "		18	3324	2
" Line		6.	3540	'1 1
Coal Cannel		2		
Dark bat		2]]	1 1
_	,	1 10	336	, ,
Stine Clunch				
" Bend - Cank	7	1	3 2424	0 8
Text frey .	2	19	346	2
Black Ball		フ		
Coal Fairly port		1-	347	
Clurch	. 3	16	350	1 1
Stone bind	/	2.	35-2-	- 11
Strong "	•	2 4	35-5-	. 3
" " + rock bank	. /	6	356	. 9
" "	4	. 8	160	1
_ Coal fairly good		1 10	361	. 3
Lope- Clunch		16	361	1 9
Chronel "	2	. 3	11	2
Rock At	2-	. 3		2
strong Bird	2-	. 6	368	7
Coal - Die	ى - ك	. "	373	2 2
Clunch		' 93	377	1 2
Strong build with irenstine		ا مرا سو	378	12
Dark Blue Buist	44	3	388	2-
Cool (Good " Bosget)		9	309	1
Rock with cank Balls	2-	-	394	1
Dan Grey Bud with rock land	lo 4	1 / 2		

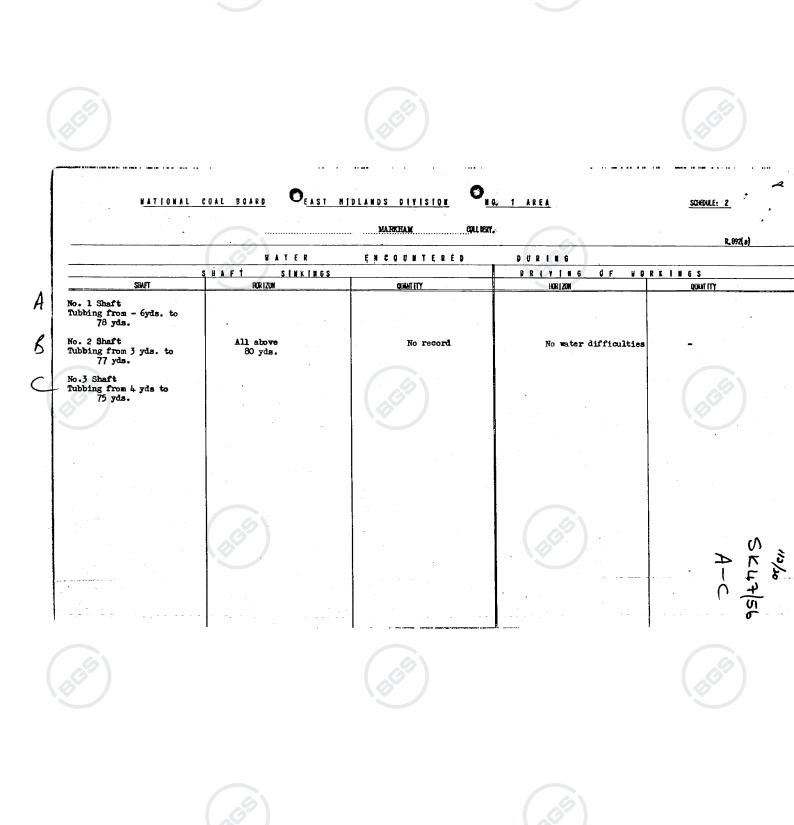


5 SECTION OF Strata	At Markhaw No. COUNTY Derly	phil		
Communicated by	Date of sinking			
One-inch Map (N.S.)	Six-inch Map		\	
HEIGHT ABOVE O.D. DIP O	F STRATA			<u>~</u>
	Thicks	ess.	Depth fro	,
phalian of his			401	Ī
· wask some	9		401	,
Coal (Good - Bright)		2 2	402	
Black bind		2 10	404	
Cannel Pal		2 2	عده مد	۔
Dark brid		, 3	406	,
Carriel (Inferior)		7	406	,
Grey bind		2 9	408	,
Black "		, 6	408	æ
Sine.		, ,	410	
Pock		. 11	410	
Sine Bind		21	412	•
Dark.		, ,	. 4/13	2-
_Coal (love - boshl)	5 .	4	appe	•
Coal (food - broshle Clunch Dark	2	. 9	416	1
Blue Bind	i	2 S-	418	
Blackshall - Carmel		5-	418	•
Dark bind		9	48	,
Coal (dany)		8	418	2
Dara batt		4.	418	2
Clunch (light)		. 4	420	
Clurch (dark)		26	420	2
Book leddy	4 4	-9	425	2
Coal (Grod - Bright)		9	426	1
Clurch Nock Blue bind Storm		3	429	
Black Shall r Coal		6	421	2
Clurch Rock with band Blue bind	de 2		433	2
Oral . Make		6	436	
Clurch Blue bud	4	1 6	437	2
Bock Sine bud	,,,	8	443	!



SECTION OF Strate	Cou	Khaw Win	thys.	tajen	2
Communicated by		of sinking_	69	11 6	/
		мар	SKUR	360	3
One-inch Map (N.S.) HEIGHT ABOVE O.D.	•				J
HEIGHT ABOVE U.D.	DIP OF STRATA		kness.	Depth fro	m S
tophalian		Yards.	feet, ins.		fee
_ Coal_ (good)			6.	24524	
Clunck			7	454	/
Coal (food)	(80)		4	454	١,
Church .			2 3	41-5-	
⊘ .			13	45-5	,
_Cool (from)			12	416	
Poek		ام	2 11	461	
Dark bine		.7		464	ı
	<i>v</i>	14	2-8	469	
Stone "			16	•	1
Coal (good)	1		4	469	
Ball	Bottom Ell Coal			469	7
Coal (good)			1 5	470	-
Porch.		5-	1 3	475	,
Blue bin	ed Strong	2	. 7	478	
Stone "	, + Poer band	4	111	482	:
,, ,,		3	27	486	
Dork "		9	2	496	
Simo els	? 		. 2	497	
-ohovi -	Time buil			498	-
A. Dank -ble				503	7
Nast ou	the F	- ک		5-04	
19 ask to	nise .	3	15	207	
Rock -	Stime buck	2	, 10	509	2
Black	" with thello		2 5.	- 5/2	2
Black Dark Grey	e modello	· I	- 5	570	2
Pluck	"	. 2	2- 10	523	2
Grey Du Black		3	. 0 8	531	
	- Bright		17.	5-31	2
Clod			"	532	
Ball			15	532-	
Coal with hard	l Causes		2 0%	5-82	
Chad	with Streats of and		11	5-33	
(x)-14836-3000-18-3 Coul Soft.			12	5 50 T	2
(" En ma	(243 0	hanges)		LS. 1903	1

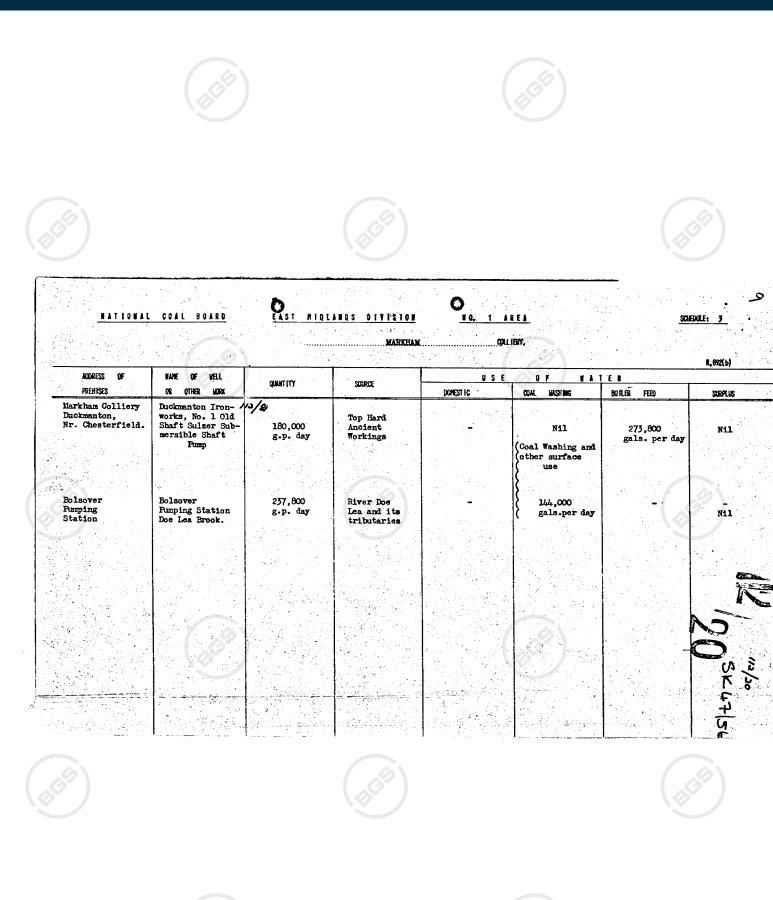




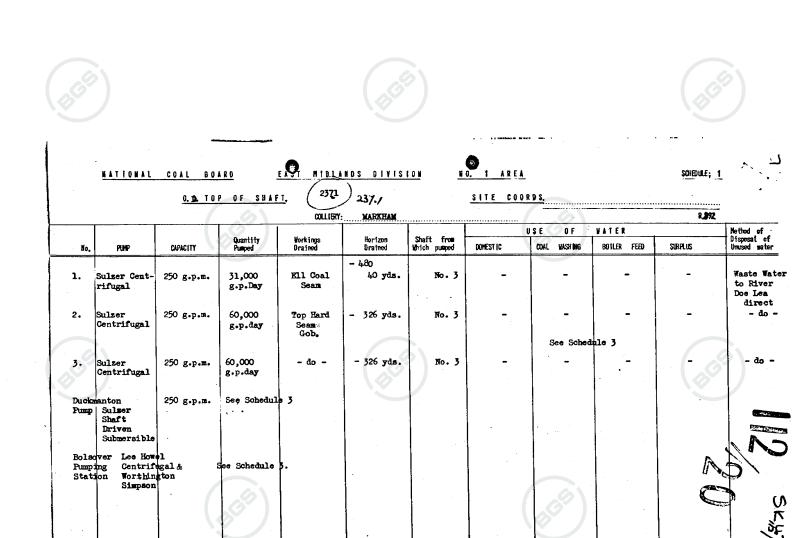


١0 NATIONAL COAL BOARD (Required for General Top Hard Seam Name of Colliery: Markham No. 2 Sample No.: 25 Date of Sampling: 31/10/51Date submitted for Analysis: 31/10/51 Possible Sources of Pollution: intended Use: For Hydraulic conveyance of coal (Markham Ell) COLDITIONS AT TIME OF AUMLYSIS Suspended Matter. 25 Annearance: Turbid Appearance after Fittration: Very slightly turbid.
Colour - Hazen Units Iron in Suspended Flatter (as Fo) 3 011: N11 Colour: minus 0.2 Langelier Saturation Index: DH Value: 7.2 PROBABLE CONCINATIONS ANALYSIS OF FILTERED WATER Parts per million Calcium (as Ca) 1540 Ferrous Sulphate iron Oxide (as Fe203): : :grestum (as mg): 764 745 Calcium Carbonate: Iron (as Fe): Sodium (as Na): Calcium Sulphate: 835 3 (as S102): Calcium Chloride: 2759 10 Magnesium Carbonate: Chlorides (as C1): 21,948 Sulphates (as SO4): Magnesium Sulphate: Hagnesium Chlorice: 2995 Nitrates (as N): Magnesium Nitrate: Free Carbon Dioxide (as CO2): 1-2 Sodium Carbonate: Total Alkalinity (as CaCO3): Total Acidity (as CaCO3): Sodium Sulphate: 29606 Sodium Chloride: Total Dissolved Solids (dried at 180°C): 37359 Sodium Nitrate: Total Dissolved Solids after ignition: Total Hardness (as CaCO3): 7000 745 0 0.0 Temporary Hardness (as CaCO3) Permane, t Hardness (as CaCU3): 6255 p Hardness due to Caleium (as CaCO3): 3850 p.p.J. R. 80 Hardness due to riagnestum (as CaCO):3150 p.,.u. /over



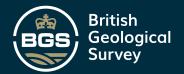












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NATIONAL COAL BOARD

EAST MIDLANDS DIVISION

HU, TAREA

SCHEDULE:

MARKHAM COLLIE

OHNENTS ON WATER PROBLEMS IN WORKINGS.

R,892 (c)

The four Markham Shafts were sunk due South of Seymour old Colliery, Blackshale, Deep Hard, Ell Coal, andTop Hard Seam have been extensively worked. On the Seymour Carrier Water pressure up to 400lbs. per sq. inch. is adequately held by stout barriers in the Top Hard Seam. This necessitated great care in the formation of barriers and later in the projection of workings of lower seams. The major portion of Top Hard development was due south to the Palterton Area and now that all Top Hard is exhausted Palterton Water make has built up until at some 50ft. deep in the shaft the water reached Markham No. 2 Pumps. Little trouble is experienced in lower seams, indeed the Blackshale is very dry.

Due to feed water shortage for internal use Karkham Unit installed a Sulzer Submersible Fump in Duckmanton Iron Works, old Top
Hard Shaft and this water pumped and delivered to Markham Reservoir under Automatic Control is of excellent quality. The installation
of this Fumping Station relieved the adjacent Arkwright Colliery of much of this surplus water. Such has been the water shortage
at Markham that Fumps have had to be installed near Bolsover to pump from the River Doe Lea before this was further polluted by
industrial effluent downstream.

25/th/26



NAL COAL BOARD ÉA _I ST H	LISIS OF WATER SAMEL General Accessmen		47/56
ame of Colliery: 27/12/51 Date submitted for And estible Sources of Pollution:	•	Gond. Semple No.:	1 4 4 0
Required in connection was	th pumping.		1
Turbid	Suspended matter.		p.p.M.
innearance:	Iron in Suspended Hatter (as Fo)	-	p. p
oppearance after Filtration:	Oil:		p. p. ■.
Cotour: Hazen Units	Langelier Saturation Index:	Minus 0,2	en e
pH Value: 7.2	PROPABLE	CONE INATIONS	
ANALYSIS OF FILTERED WATER Parts	per million	-	
5280	Silica:	10	
Calcium (as Ca)	iron Oxide (as Fe203):	0.4	
ingresium (as mg):	Calcium Carbonate:	105	
irin (as re/:	Calcium Sulphate:	286	
Sodium (as Na): 24.176	Calcium Chloride:	14.277	
SQ (as \$102): 10		•	
Chlorides (as C1): 49,560	Magnesium Carbonate:		•
202	Magnesium Sutphate:		
Sulphates (as SO4):		4,277	
Nitrates (as N):	Hagnesium Chlorice:	-	
Free Carbon Dioxide (as CO _Z):	. * Magnesium Nitrate:		
Total Alkalinity (as CaCO3): 105	Sodium Carbonate:		
	Sodium Sulphate:		
Total Acidity (as CaCO3): 81,000	Sodium Chloride:	61,427	
Total Dissolved Solids (dried at 180°C):	Sodium Nitrate:		
Total Dissolved Solids after ignition:			.]
Total Hardness (as			• • •
Temporary Horoness	(as CaCO ₃) 105 pp.5	(6)	į į
Permane t Hardness	(as CaCU3): 17,595 p.p.m.		
Namena due to Cale	dum (as CaCOη): 13,200 ρ.ρ.Δ.		
R. 802 Hardness due to magn	nesium (as CaCO): 4,500 p.p.m.		



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SK47/56

1.1.1290

CALLED CARRY

The total solid content of the water is much the same as Sea.

Water, but I see no reason why it should not be used for Hydraulic conveyance of the coal if the coal is sprayed on elevators and pipe line flushed out after use with cleaner water.