John C. Moore Corporation, Rochester, N. Y. Binder and holes in leaves Patented.

HOORE'S MODERN HETHODS

Form 180 Blue

Shathern Coal, Coke +: M.C. #9

Sec. 17

Mi. + 84, S-4

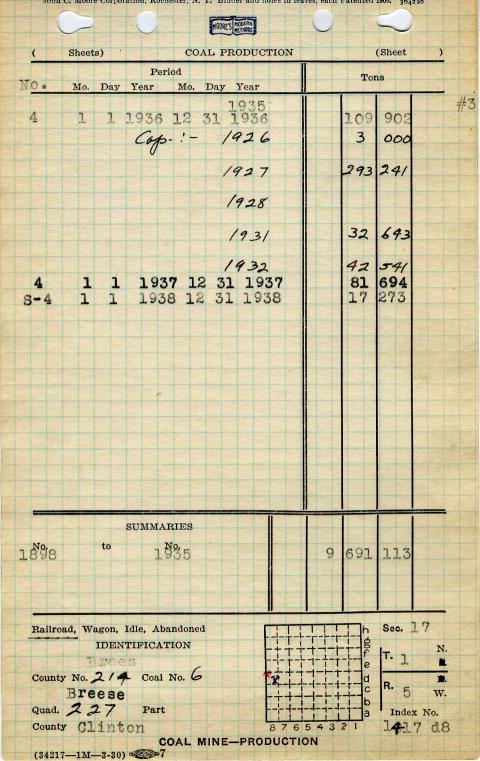
BM 47

S-H

214

R. 5 4

Index Na



7 F 2 2 3 4 4 5 6 6 7 7 8 8	Date 189 Bade Date	7			al na s Coa	me l Re	or nuport	ou mbe	55 PER	АТО	ne 0. 7					& Nan			
2 3 4 5 6	Bade:		Or	igin	al na s Coa		or nu port ATEI	mbe 19	55 PER	<b>i M</b> ATO	ne 0. 7								
2 3 4 5 6		n	Or	igin inois	al na s Coa		ATEI	R OI	ER	АТО		4 <sup>N</sup>	0.	9		Nan	ne o	or N	о.
2 3 4 5 6		n	1015	inoi	s Coa		ATEI	R OI	ER	АТО		4				Nan	ne d	or N	0.
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	Coun						C	oal :	10000		+-				e				
	Coal	Repo	ort N	0					6	世	#		-		c	R.			E. V.
	Quad											-4-			b	In	dex	No	-
	Coun	ty (	CLI	NT	ON					8	7 6	5 4	3	2 1	Ja				

N



(35031C. More Compration, Rochester, N. Y. Binder and holes in leaves, each Patented 1966,

Mine Name or No. New	v Baden	Mine Ad	dress New Boden
Operator Southern	Coal	Coke no	19 Mining Co
Main Office Address	319 N	1 4th	St
	2	t ho	vis
Location of Mine:			
Township Name		Count	
Section No	_Township		N S Range W
Indicate location of min in plat ( N	e and position of section belo lorth	of R. R.	5W-Ja
			Comment the
			Kindly state number of feet from quarter section lines:
			5 O from N. line
			from E. line
Southern R.R.			from S. line
	1		#
			Idle entire year 19 Yes
			Abandoned (date) 19
So	outh		
Surface landing is	feet above	sea level or	aboutfeet (above)
(below) railroad station	at		(nearest town).
Depth to top of coal is	3/1 fe	et.	
Average thickness of coa	al is	feet	6inches.
C	Do not fill in b	elow this line	e de la companya de
Coal Bed Name Bell			Survey No.
County Clinton			Index No

V-MINE LOCATION SHEET.



## LOCATION AND ELEVATION

Location:

side Southern, C.R. L&P.

side Highway No.

R. R.

R. R.

on top. map		-	Location	sheet	
Elevation: Method,	1.	Est.		)	ft. 452
	2.	Inst.	(kind_	PT	, 452.9ft.

	2. Inst.	(kind /	T		, 452.9	ft.
Ву				Data sheet		
	DE	PTH				
Authority				To coal		_ft.
Authority			R	tail to rail		_ft.
	Top of	coal above	e rail. (1	Est. Rule)		_ft.
				To coal	319	_ft.
A	LTITUDE OF	TOP OF C	OAL			
By estim	ated data				+33	
By instr	umental data				134	_ft.
	Thic	kness				
Max. /6	8 in. Min.	8.	4 in. Av	rer. 100	in. 7	8
		GEOLOGICA	L DATA			
Mine notes, date	1907	1918				
	19/2					

Coop No. 84 Pyr. inv. Coal Ash inv.

	CITEMICE	IL DAIA	13 (13)
Analyses Face	U. I. 5073-4	B. M. Bur Mine Bull 22 B. M.	Others 947
Car	U. I.	B. M. (3)	Others
Org. Sulf	U. I.	B. M.	Others
Ash fusion	U. I.	B. M.	Others
Ash anal.	U. I.	В, М.	Others
	U. I.	B. M.	Others
Classification			

Classification

Misc. tests: Coking. Cleaning Boiler

Published descriptions:-

Railroad, Wagon, Idle, Abandoned

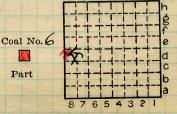
### IDENTIFICATION

County No. 214 Coal Rept No S3

County

Quad. 227-Breese

Part



Sec. 17

Index No.

1417.80

COAL MINE LOCATION AND DATA

(34215—1M—3-30) 7

Clinton



#### Location and Elevation Data

	Location and E	levation Data	
Location:	Exact	Approximate	e
(Anr	proximate only if no trace		
	linton County	Mine Notes	ists)
Location by	Thort Winds	MANUTER MOTOR	
Data	Dept Mines M.	inerals _	
Date		k No Pag	ge
Looseleaf ref	• • • • • • • • • • • • • • • • • • • •		
Map files No			
	Description of	of location	
	Position in sec., 1	4 sec., 40 acres	
	et from North line		
5175			Sec. 17
	et from East line)		7
	1/4 See	The state of the s	T 1 N.
2600 fe	et from South line	PC T	S.
	or from Bouth imo		R B.
			5 w.
fe	et from West line	<del></del>	J
		Farm	
			•••••
Other degenintion.	Belleville - Breese Folio	No	•••••
Other description.			0 1
	# 1.	Company Southe	rn. Coal,
Auer	.#/2/1897	Coke. &	M. Co.
aden			
449			
		No9	
SOUTHERN		County No 2. 1. 4.	
	The second second		
() () k			
*	Elevation	ft.	
457 · ·	Зу	and the second	
	nsit, alidade, hand level		
•••••	• • • • • • • • • • • • • • • • • • • •	• • • • • • • • • • • • • • • • • • • •	
Elevation of			
	bove ground		
	Notebook		
Looseleaf ref			
Description of item	n: (drill hole, mine, etc.)		
	• • • • • • • • • • • • • • • • • • • •		
County	Quadrangle	Index No.	10
Clinton	Breese	1017	d8
13488—1M—9-36			

Operator, Mine, Location in	# UU	120000	oal Coke MAhang	ng Co	Date T.	Tuly	16, 1 R. 5	931
			i Room 11, 3	rdwe	t 94	A SOU	th. (	over
GRAPH			DESCRIPTION				SAMPLED	)) /
In.		No.	No. (Note chara	cter and	thickness of	roof)	>	nches
		15	Limeston	11	/ /		5 1	0. +
		13	1		0,1		50	AF.
		9	Top of S	eam	91		5'	756
			(15) Clay and	Rinte	0"+0	40		
			(14) Pyrite 1					
				16,				
			114 Charcoal	18				
		12	11) Pyrite	8				
			191 Rivita 18	1/2" Cra	1, '8 ch	accas	/	
			(8) Pyrita 1	2				
		11	17) Charcoal					
		4			equilar			
		9	(5) Sulphur	1/2				
		8	(3) Clay 1/16					
			2 Clay 1/8					
		7	(1) FI(Note chara	cter and	thickness o	f floor)		
					ess of coal			
		6						
		5	Condition,		Time,	hr.	min.	
		4	Wt. Gross,	lbs.	Net,	lbs		
		3	What Nos. shipped					
		2						
			Excluded from samp	le: No.				
	Total Control	1	Sample represents		in.		tons.	
(1 divis	ion	3 in.)	Impurities? How d	they oc	ccur!			
Sample 1	Vo. 11	111	Can No. P	7	Lab	. No.		
	11	1 1 1 A			Lab			
Collector,	E V		icholson		1		Survey N	10.
Mine,	vew	004	en Co.		100	Index	INO.	

R.\_\_COAL SAMPLE SHEET.



COAL MINE NOTES.

TOWN New Boden MAP No. # 1011 COUNTY Clinton R. 5W T. /N s. 17 NW,5W 1417 OPERATOR Southern Goal & Mining Co.

OFFICE St. Louis Mo. MINE \* 9

Loads four tracks TIPPLE

ENGINES

use chain grate stakers. BOILERS

DRUM SHAFT

HAULAGE Electric and mules cars Wooden Wide and shallow, capacity 3 tons.

VENTILATION

DRAINAGE

SPRINKLING

WORKING SYSTEM MINING METHODS

Sullivan Pick machine.

SIZE OF ENTRIES-MAIN 20' CROSS SIZE OF PILLARS-MAIN CROSS

SHAFT

AMOUNT OF TIMBERING

PROPORTION OF COAL UTILIZED

AMOUNT AND CHARACTER OF WASTE

ACREAGE OF COAL MINED

ACREAGE OF COAL REMAINING

PROPORTION OF MINE RUN AND SCREENED COAL

METHOD OF SIZING

PER CENT

SIZES

PROPORTION AND SIZE OF WASHED COAL

DAILY OUTPUT 2000 tons. Max. to date. 12-13-07 2257 tons.

CHAIN

UTILIZATION

MARKETS

FREIGHT RATES

SELLING PRICES AT MINE

COAL LAND OWNED LEASED COST OF LAND OWNED

LEASED

Additional notes measure ments of coal Grout NB. 1. P25"
Wheeler NB. 141, P66 Very Full notes by D

HELD IN FEE HELD IN FEE

RESCREENED

Letter bury

Very Full notes by Dewolf NB66 P. 2 to 4

ROOM 30x300 + NECK

ROOM 30'

BARRIER

SIZE



COAL MINE NOTES.

OPERATOR Southern Coals Mining Co MINE #9 1417

ENTRANCE Shoff. NAME OF COAL BED \*6
ELEVATION 4.54

THICKNESS OF COAL

ELEVATION 454 THICKNESS OF COAL DEPTH TO FLOOR 326 MAX. 9' MIN. 7/2' AV.

LOCATION OF SECTION 13th room of 6th West. of main southwest.

. SECTION.	
	In.
Top of Goal	2/2
	1/8
	15
	1/4
	13
	- 1/4
	19/2
	1/2
	5/2
	13/4
Bottom Cool	17/2
Fire clay	
Tape 8 - 0 T	otal 74 1/8
	Top of Coal Charcool Parting Coal Blue slote & Sulphur Coal Blue Slate and Sulphur Coal Sulphur Coal Blue Band Bottom Coal Fire clay

SECTION

TIME EXPOSED 45min. 51/4"
NOT SHIPPED 10 17/4

NOT INCLUDED 10

PHYSICAL PROPERTIES BY NUMBERS

See . Wheeler.

ROOF Slate

FLOOR Fire Clay 2 to 3'

DIP

FAULTS, ETC. Foult occures see Wheeler.

GAS

COLLECTOR

Wheeler. Grout

REFERENCE

N.B. 141:66, 7:25

DATE 1417 /2-/7-07



Mine Name or No., New Baden 3/4 mile R from New Baden Operator, 191 Southern Coal Coke & Mg Co Sec. 17 Operator, 191 R.R. ft. Jabove, Entrance, Shaft Elev., 452 below. Depth to be coal, top SURFACE DATA. See A. Topography, Level B. Surficial materials. (1) Character, (3) Effect on mining and shaft-sinking, of former (2) Thickness, drainage lines, underground water strata, etc. The e is a heavy sandstone about 90 feet down which has given considerable trouble because of water which it contains. The shaft burst during the last winter near the position of this stratum and let considerable water in the mine. See C. Outerops. (1) Character, See (2) Structure. See (3) Fossil horizons. See Collection No., (4) Evidences of subsidence, See D. Note collection of mine maps, drill records and shaft logs. See drill record sheet, E. Notes on surrounding area, Survey No. Coal bed name: Local, Sept 11, 1918 Collector, Cady Index No. 417 Mine, New Baden Co. Clinton

L.—SURFACE SHEET (Geol.)

	MOORE'S HOURE HE HOUSE IN THE REAL PROPERTY HELTHOUSE IN THE REAL PROPERTY HELTHOUSE	atenteu	1906. 218834	
F.	Thickness of rock above bed worked,			
	(1) Important variations,			
		See		
G.	Note presence of strata having important effect on mining,			
	(I) D. W.	See		
	(1) Position,			
	(2) Character,			1
	<ul><li>(3) Persistence,</li><li>(4) Other workable coal beds,</li></ul>			
	(4) Other workable coar beds,	See		
II		Dee		
11.	Cap rock, Limestone (1) Thickness, 15 - 20'(in shaft)		SECTION	
	(1) Thickness, 15 - 20'(in shaft) (2) Height above coal, 1" to 6 ft	Ft. In.	Name Index	Sym.
	See X - I			
I.				
11	(1) Thickness, (2) Contact with coal,			
01	od to 6-8" Bk slate to 6' av, 18-36"			
011				
out.	(3) Horizontal variation, Bk slate pinches under clod and limestone			•
	Draw slate. (1) Thickness, (2) Contacts			
	None			
	(3) Persistence,			
K.	Coal bed: Max. 108 Min. 84 Av. 100 inches			
	(1) Benches, Three			
	(a) Position, Top, 18" middle 5"			
	bottom 18"			
	(b) Persistence, Persistent			
	See			
	(2) Bedded impurities, kind, position in benches, persis-			
	tence, ease of separation. Blue band			
av,	about 18" up 1 -12" thick. Occasional			
	is of clay between what in other			
	s would be drift and block coal and			
	T top coal. See			
	(3) Irregularities in continuity of bed (due to deposition,			
	erosion, or movement,			
Seve	eral faults WNW- ESE See X-/			
	(a) Effect on mining,			
-	See J			
	ector, Cady Sept 11.1918 Coal: S		The second	
	New Baden Co. Chinton Index I - UNDERGROUND SHEET (Geof.)	No.	1417	

MOORE'S MODERN

INDEX

H

The greater part of the mine has a limestone cap-rock similar to that in other mines in the Belleville district. The cap rock seems to be somewhat different from that in other parts of the district, however, in being interbedded with thin weak layers, so that in parts of the mine the limestone lies in beds a foot or so thick. The lower bed where this is the case is difficult to hold especially along the entrys where it has been exposed for some time.

I

Immediately underlying the caprock, whether above black slate or coal is a layer of clod or rather soft limy shale, in places almost a lm st, This is in places only an inch or so thick or just a parting between the coal and rock. Elsewhere it may be 6-8 inches thick. This comes down with the coal, or where the black slate is present forms an insecure layer between the cap rock and slate that makes it impossible to hold the latter.

The slate is commonly 18 -30 inches thck. In places it is as much as 5 - 6 feet, and generally this is where the coal is thickest, tho according to Mr Vlosak thick coal is found also under the limestone. The slate is invariably full of slips showing internal adjustments since deposition, possibly due to shrinkage.

K-3

The mine is crossed by a number (6?) faults in which the off set is about the thickness of the bed, and the up throw on the south side. The fault plane dips to the north in a number of them at an agle of about 45 degrees. The faults all run about 15 north of west but on the east side of the mine trend more directly east. They run about at rt angles to the genera dip

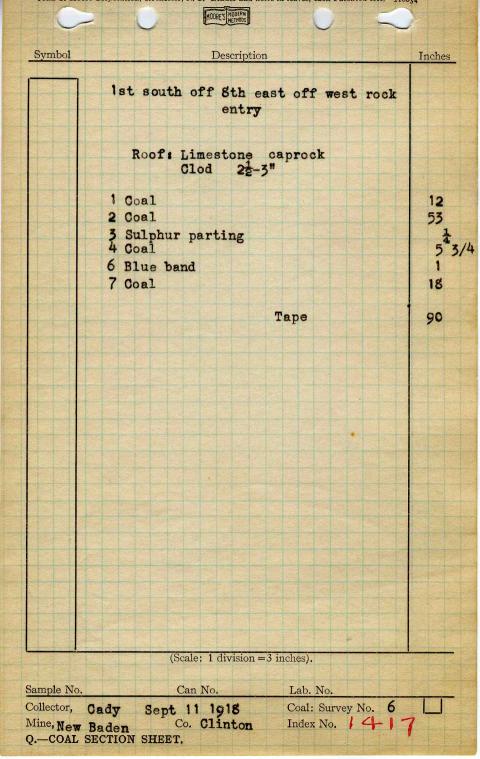
X.—EXTRA SHEET No.

INDEX

K-1

The coal in the New Baden mine does not show clearly the several divisions into benches noted near Belleville and at Mascoutah. They recognize in this mine only top middle and bottom benches. However examination of the face shows that the other subdivisions are certainly present. That is there is a thin bench just below the top coal which corresponds to the "9inch", and at the bottom of this bench is very commonly a dirt or clay or sulphur parting. Below this is a layer of rather dirty coal possibly about 24" thick which corresponds to the drift coal at Mascoutah. This is commonly separated from the underlying bench by sulphur or clay. The underlying bench is about 2 ft thick and may be regarded as the "block coal". This has below it generally a sulphur parting, which overlies a thin coal bed 3-4" thick. The blue band is found below this. and at the bottom is the bottom coal. At the bottom of the bottom bench is commonly a layer of "black jack" or hard mother coal apparently impregnated with sulphur. This in places is reported to reach a thickness of Q 12-18 inches rising nearly to the blue band. It is generally only 1-12" thick. In machine mining the machines generally cut above this black jack

This layer of black jack is rather common in the Belleville district. I believe it has been present more or less in all the mi es visited.



					HETHODS				-		
K.		sical charac									
		Relative 1		-	op co	al co	nsider	ed th	e be	st	
		Lustra									
	(c)	Lustre, Fracture,	opper	part	OI I	naare	bench	dull	est		
	STATE STATE STATE	Texture,							See		
		purities in	coal, oth	er than	bedded	, Fe	w clay	slin	8		
	(a)	Kind,						T-F			
	(b)	Position a	nd persis	stence,							
	(c)	Rejected,		1-1-		Ease of	separation				
Т	Plant	(1) Materi	01 _						See		
1.		ickness,	A PARTY OF	ire							
	(3) Var	1	Seve	ral:	reet						
	(4) Not	te characte	er, condi	tion, te	ndency	to heav	e, relation	to une	dercutt	ing con	n
		mercial val	lue.								100 miles
4											
			-								
1	TI								See		
	(5) Cla	y sample N	No.			L	ocation,				
М.	Stratigr										
	(1) Fos	siliferous h	orizons t	indergr	ound,						
	Coll	lection No.				1	ocation,				
	Con	10000011 140.					ocation,				
N.	Notes of	n effect of	deep dril	lling in	coal mi	ne areas.					

Collector, Cady Sept 11.1918

Mine, New Baden Co. Clinton
N.—UNDERGROUND SHEET (Geol.)

Coal: Survey No. 6 Index No. 1417

See

(8713-200-7-18)

12.

## UNDERGROUND DATA

F.	Thickness of rock above bed worked,			
	(1) Important variations, See 109			
		See		
G.	Note presence of strata having important effect on mining	g.		
	Black Slate	See	Sheet 6	
	(1) Position, Between Ls.+ Coal.			
	(2) Character, Black sheety slate (3) Persistence, On part of West side.			
	(4) Other workable coal beds,			
		See		
H.			SECTION	
	(1) Thickness, See 109.	Ft. In.	Name Index	Sym
	(2) Height above coal,			
	See Sheet 6			
I.				
	(1) Thickness, See log. (2) Contact with coal,			
	(3) Horizontal variation,			
	Constant. See			
J.	Draw slate. (1) Thickness, 2"-6" (2) Contacts			
	Clod.			
	(3) Persistence Over mine			
K.				
	(1) Benches, See Sections.			
	(a) Position, Sheets 4x5			
	(b) Persistence,			
	See			
	(2) Bedded impurities, kind, position in benches, persist-			
	ence, ease of separation.			
	See Sections Sheets 4x5.			
	<b>医性性性激素性医性性性性炎 医</b>			
	Control of the contro			
	See			
	(3) Irregularities in continuity of bed (due to deposition,			
	erosion, or movement).  See Sheefs.			
F	(a) Effect on mining, 1,2,3,4,5.		W	
	wilts effect grades. See			
	140110	te No.	and the sales if	
	ne, 9 Co. Christian Co	o-op. N	0.84	
M.	-UNDERGROUND SHEET (Geol.)			



# PYRITE

See Extra Sheet No.

- GEOLOGICAL OCCURRENCE
- parting above the 4-inch bench, but also to some extent in the blue band , between block and drift coals and at the top of drift. A few balls in top cl
- 2. Size of Masses Plates rarely over 12" thick, commonly 2 3/4" thick, probable av, about 2" for the mine
- 3. Measurements to determine amount

0.	Location in mine	I	2	3	4	5	T	otal	Px3	P
111		CP	C P	CP	C P	C P	Coal	Pyrite	1 43	%
1 1	Rm 28 8th E W.R	1021	14	1			102	1	2/4	5 75
2 3	S 8th E W.roc	k 901	3/4	1	0	0	450	1.25	3 75	80
4	S 8th E W. roc		0	14148	12	0	420	2.60	7.80	1.80
5 4	S 5th W E. roc	k 861	0	14	1 8	14	420	1. 12	3 36	76
		rk96	ď	4	8	4	96	12	26	40
	m 22 ditto	1	1 2	1	0	14	420	2 25	5 75	1 4
	m 32 Main E rk	102	1	0	0	0	510	1 50	1 50	. 88
			1				Jan d	60	1 06	100
0 1		rk	8	8	18	1	408	1.02	. 50	. 40
	Motes E roc	K11024	- 0			4	1710	71.50	4.70	, 85
#	Totes						14	Total verage		8.07

5. Samples.

Label No. | Location in mine | Analyses, etc.

6. Notes

Collector Cady

Mine New Baden

Date

Operator Southern C C & M No.

Co Clinton

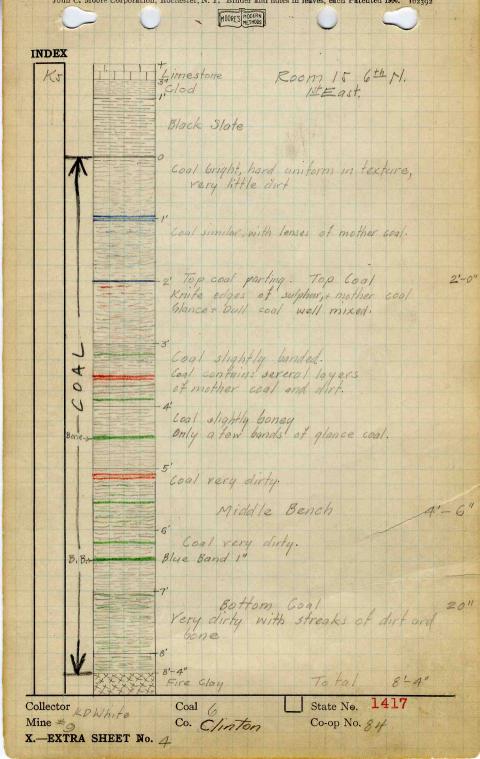
Sept 11, 1918

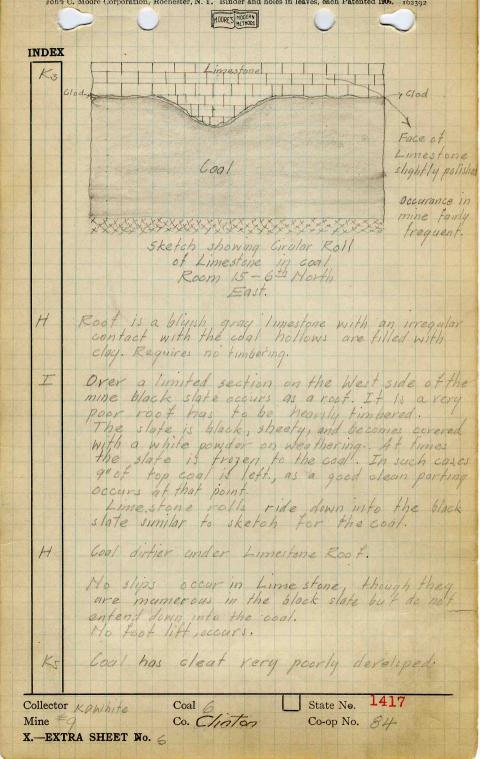
Index No.

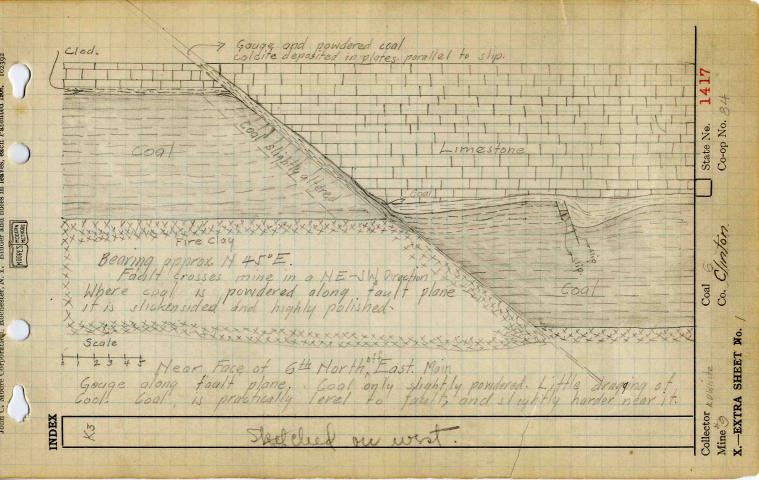
Coal No.

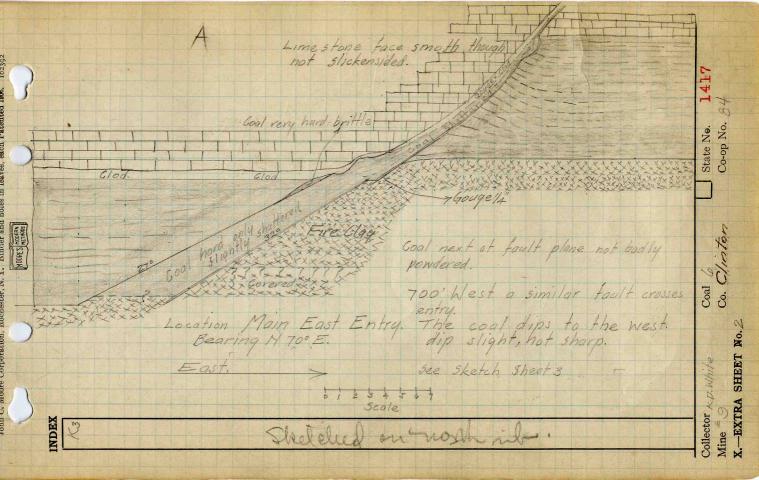
	£			0		MOORE'S MODE METHO	RN				
					Under	GROUND I	DATA (con	nt'd.)			
K.	(5)	Ph	ysical cha	racter c	of coal i	n benche	s,				
		(a)	Relative	hardne	ss,						
								4			
		(b)	Lustre,	Brigh	1 to a	411					
		(0)	Fracture	'Irrag	cilarily	hackly	to slig	h + /4	conci	boidal.	
		(d)	Fracture Texture purities in	Satin	u to	Bande	1.	1		See	
	(6)	Im	purities in	n coal.	ther th	an bedde	d,				
		(a)	Kind, Position	ertica	1 3001	pher 5	trank	and	11/2/	- 6011	/ -
		(b)	Position	and pe	rsistenc	e, Tra	aulas -	11101	parpar	ir vark	
						21149	jujar				
		(c)	Rejected	1,			Ease of	separat	ion,		
										See	
	Floo	or:	(1) Mate	erial –		» /					
	(2)	Th	ickness		ire	clay					
	(2)	Va.	riotion	6 +							
	(3)	V cl.	riation .	onstar	24						
	(4)	No			dition,	tendency	to heave	e, relat	ion to	undercut	ting com-
			mercial	value.							
	F/0	001	e a	light	gray	fire	clay,	that	slack	son	confact
	with	+	he gir	in	3mai	11 piec	es! 54	n face	2 5 12	ockald	with
	deno	sit	ion of	solua	hla e	1/4 1	74/2	y no	caro	חמן מחם	carponi
	alon	+	remains	1	Lear	ac V	ery by	nd hu	12	mat.	confact with carboni or
	10111	ar	COMA	whh	ad.		7	1917		2401	
	1	71 6	511	1044	eu ·						
										See	
	(5)	Cla	y sample	No			T	ocation			
	(3)	Cia	y sample	110.				70Ca 6:01	100		
*	Q.										
VI.	. Stra							111			
	(1)	Fos	siliferous	horizon	s under	ground,					
		Col	lection N	o.			L	ocation	1,		
٧.	Not	es c	n effect o	of deep	drilling	in coal m	ine areas				
					421.						
										See	
,	11	,	ni i		Cal	10			1 0		417
	llector		1/1/		Coal					e No. 1	
	ine, 9					Vinto	7		Co-c	op. No.	84.
٧.	-UNI	DEI	RGROUN	D SHE	EET (G	eol.)					

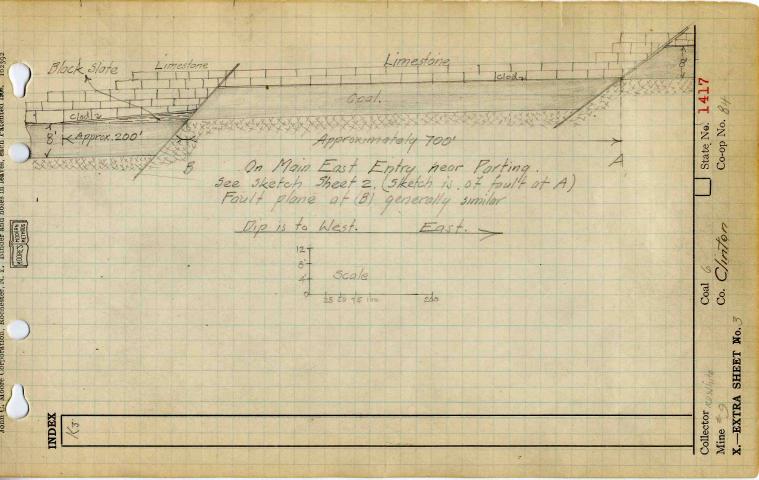
7 स्थ













### COAL MINING INVESTIGATIONS COOPERATIVE AGREEMENT

Mine Name or No., 9 1/2<sub>mile</sub> S.E<sub>from</sub> New Baden

Operator, 191 Southern Coal & Mining Co.

drainage lines, underground water strata, etc.

Operator, 191

Entrance, ShaftElev., Depth to bottom coal,

Α. Topography

(2) Thickness,

(1) Character B. Surficial materials,

{ above, below, SURFACE DATA.

(3) Effect on mining and shaft-sinking, of former

R. R.

See

See

See

See

See

See

C. Outcrops, (1) Character,

(2) Structure,

(3) Fossil horizons Collection No.,

(4) Evidences of subsidence,

Note collection of mine maps, drill records and shaft logs.

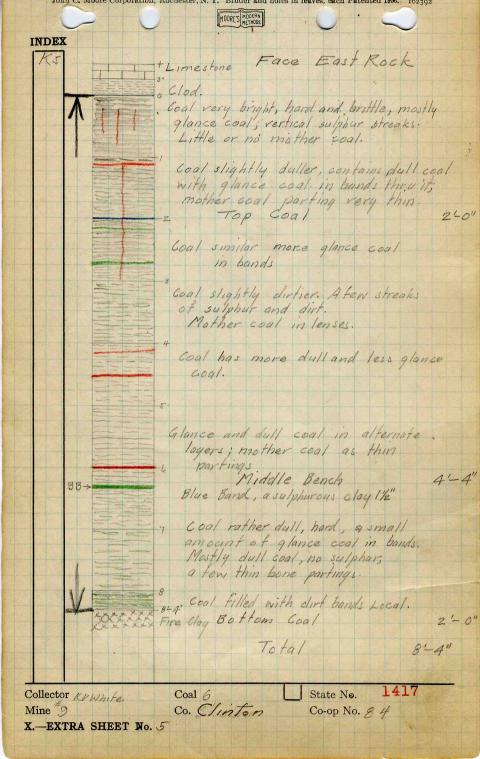
See drill record sheet.

Notes on surrounding area,

Recently took 20 bbls. oil from Junction City mine and are trying to refine. Use some for lubrication.

See Coal bed name: Local, Collector, H. Kay Survey State No. 1417.04 Mine. Co-op. No. 84 Co. L.—SURFACE SHEET (Geol.)

Operator, Mine, Southern no Located. Location in mine, GRAPHIC SECTION DESCRIPTION OF SECTION (AT POINT SAMPLED) In. No. No. (Note character and thickness of roof) Inches 14 141/5 24 3635 48 60 96 (Note character and thickness of floor) Total thickness of coal Condition, Time, hr. min. Wt. Gross, Net, lbs. 1bs. What Nos. shipped by Co.? Excluded from sample: No. Sample represents Impurities? How do they occur? Sample No. Can No. Lab. No. Collector, Coal: Survey No. Mine. Index No. R.—COAL SAMPLE SHEET.





### COAL MINING INVESTIGATION

COOPERATIVE AGREEMENT

Coale Mining Co., Date, July Operator, Southern Mine, //o Location in mine, FACE Location in mine, TALE OF E as Total (vertical) depth from surface at point of sampling,

In describing the beds and character of the members, note any member that is rejected by the miner. Note all clay and sulphur partings, whatever their thickness. Exclude from sample all clay and sulphur partings \( \frac{3}{8} \) inch thick or over (and even those of less thickness if they are rejected at mine or tipple).

SECTION OF BED AT POINT SAMPLED.

No.	DESCRIPTION.	FEET.	INCHES.
X <sub>1</sub>	Braf- Lime stone		
×2	God		3.7
3	Goal-Hard-fairly c	lean 1	2,
4	Pyrite		014
5	Coal - Hard dirty		8 11
X 6	Bone 1 mothers 1	nord 3	1/2
X 8	Coal-ratherdirty-1	101113	2 + 1
7 9	Blue band - Coal-cleanexcept bottom	510	1114 100
10	Floor-fireclay.	3111	19 904
11	1100.		
12	Top coal about 2 f	+ thic	k.
13			
14		11444	
15	56		
16			
17	Тота	coal=8	40
Is coal wet or			S
Time exposed	l, hours,	40	minutes.
Weight,	60 gross,	1,14	net.
		rite & B	
norizon	The state of the s	riteinve	ertstreat
	pped? 3,4,5,49.		
what are exc	cluded from the sample? 1, 2, 6,	Coal bed, # 6	
		rest railway static	on.
Town, 1/0	Raden Mine, No. 9		hern Coale
Sample	IN LIGHTON IN THE THE	3 4 No. M	MACH
I.—COAL SA	AMPLE SHEET. Sampler.	100.	十二十
	Nebe	12 Dm1	th
#50	73		
	· · · · · · · · · · · · · · · · · · ·		

# MODES MODERN METHODS

John C. Moore Corporation, Mochester, N.

### COAL MINING INVESTIGATION

COOPERATIVE AGREEMENT

Operator, Southern Call + Min CoDate,
Mine, # Located / miles\* Fromt New Badlen
Location in mine, Face of 12t North West Entry
Total (vertical) depth from surface at point of sampling,

128 ft.

In describing the beds and character of the members, note any member that is rejected by the miner. Note all clay and sulphur partings, whatever their thickness. Exclude from sample all clay and sulphur partings \( \frac{3}{3} \) inch thick or over (and even those of less thickness if they are rejected at mine or tipple).

SECTION OF BED AT POINT SAMPLED.

No.	DESCRIPTION.	FEET.	INCHES.
X	Black to proof - black	5 6 6 6	
$\times_2$	TOPCOAL-A-GOUT	810	
3	Cola 1-fairly clean-har	8-2	72
X 4	Purite & bone		368
5	Coal-dirty	3	1 70
X6	Bone- blue band		18
7	Coal	1	9
8			
9	Floor fire clay		
10	Floor fire clay		1
11			7
12			
13			
14 15	57		
16			
17			
	Coahotal,	7	7 1
Is coal wet or			
Time exposed	hours,	)	minutes.
Weight,	55 pross,		net.
What are the	impurities, and how do they occur? bone &	pyri	tell
horiz	ontally bedded - litt	10 1	200
What are ship	oped? 0/5,/		4 7 3
What are excl	luded from the sample? 1, 2, 4, 6.	#/	- A Company of the Co
	Coal be		Lumin
Town No.	*Direction (N., NE., etc.). †Nearest rai	Co.	Mern Coal
SAMPLE N	1000	and	Min. Co.
	MPLE SHEET. Sampler.	No.	1417
		NPBF	The second of the second
好	5074 SMITH		* - A CHICAPARATESE
7' '			

nd holes in leaves, each Patented 1906. COAL MINING INVESTIGATION COOPERATIVE AGREEMENT 191 2\_ Mine, 7 Location in mine, Total (vertical) depth from surface at point of sampling, In describing the beds and character of the members, note any member that is rejected by the miner. Note all clay and sulphur partings, whatever their thickness. Exclude from sample all clay and sulphur partings inch thick or over (and even those of less thickness if they are rejected at mine or tipple). SECTION OF BED AT POINT SAMPLED DESCRIPTION No. FEET INCHES 11 12 13 14 15 16 17 TOTAL, Is coal wet or dry? Time exposed, minutes. hours, Weight, gross, What are the impurities, and how do they occur? What are shipped? What are excluded from the sample: Coal bed. 7 \*Direction (N., NE., etc.). †Nearest railway station Mine, Can No. I.—COAL SAMPLE SHEET. Sampler.



Symbol Description Inches (1 division=3 in.) USBM, Bull 72, p491-2

NEW BADEN. SOUTHERN No. 9 MINE.

Sample.—Bituminous coal; Illinois field; (Illinois No. 24) analyses Nos. 2854, 2855 (p. 83).

Mine.—Southern No. 9, a shaft mine at New Baden, on the Southern Railway.

Coal bed.—Herrin coal (Belleville, No. 6) of the United States Geological Survey. Carboniferous age, Carbondale formation. It here lies nearly horizontal, with a general northeast dip. Its average thickness at this mine is 7 feet 6 inches. The roof is limestone and black shale, the shale where present underlying the limestone; the floor is a hard, fine, gray clay. Depth of shaft, 320 feet.

Two sections were measured and sampled by J. W. Groves and W. J. von Borries on February 1, 1906, as noted below:

Sections of coal bed in Southern mine No. 9, near New Baden.

ection	GERMANTOWN, SOUTHERN NO. 16 MINE.	B
aboratory No	2854	2855
Top coal	visus (62 lovi siculiti) ; bloil stoutili Akoo suomir ri, in.	Ft. in.
Coal		a1 2
Sulphur	13: 41: -30 1	0
Coal	0 8	1 10
Coal		CHO OTE
Mother coal	CONTRACT DESIGNATION OF THE SECOND OF THE SE	1 6
Shale and sulphur	One of the test of the second	0
CUal -	Just 318 Mode Shirls And the word water to 10 5	1 5
Coal		a0 1
Mother coal	PARTICULAR COLUMN COLUM	0 5
Blue band and sulph	nur	ao i
		1 5
Coal	s on D brings M. 1946, as shown brianci	
Blue band.	1 8	
Coal	unered ha write the old arthurst he had fore to the of 6	
Sulphur	0 1	[3. · ] · ·
Coal	0 6	
Blackjack	a0 1	
loor, fire clay.	0 4	Can to with
Thickness of section.		dada lors
Thickness of coal san	npled	8 6 7

a Not included in sample.

Section A (sample 2854) was measured in an entry 400 feet northwest of the shaft, in north entry 1, off west entry 1.

Section B (sample 2855) was measured in a room 600 feet northeast of the shaft, in room 4, off east entry 1, off north entry 1.

For results of tests of this coal, see mention of specific tests as follows—steaming tests: U. S. Geol. Survey Bull. 332, p. 98; Bureau of Mines Bull. 23, pp. 61, 157; producer-gas tests: U. S. Geol. Survey Bull. 332, p. 99; Bureau of Mines Bull. 13, pp. 121, 273; washing tests: U. S. Geol. Survey Bull. 332, p. 99; Bull. 336, pp. 14; coking tests: U. S. Geol. Survey Bull. 332, p. 99; Bull. 336, pp. 22, 28, 38.

For chemical analyses see part I of this bulletin, p. 83; also U. S. Geol. Survey

Bull. 332, p. 98.

Collector,

Co. Clinton Index No. 1417.04

Coal: Survey No. 6

Operator, Mine, Sout Sec. Located, Location in mine, GRAPHIC SECTION DESCRIPTION OF SECTION (AT POINT SAMPLED) In. No. No. (Note character and thickness of roof) Inches 36 1/8 367/8 97/6 45 45/8 48 501/8 503/6 603/8 801/2 94118 95118 991/8 (Note character and thickness of floor) Hovi, Frical thickness of coal. Condition, Time, hr. min. Wt. Gross, Net, lbs. 1bs. What Nos. shipped by Co.? Excluded from sample: No. Sample represents Impurities? How do they occur? Sample No. Can No. Lab. No. Collector, Coal: Survey No. Mine. Index No. R.—COAL SAMPLE SHEET.

17- IN-5W · Clinton County New Baden: -Southern Coala Coke Mining Co. Main office, 100 W. Main St.; Belleville,
320' to top of rain at shaft
Workings: 1 Mile W. of shaft. 11/4 " 5 = " " 11/2 11 = 11 11 Appears to be slight dip to E.

To the S. W. from shaft is a grade

rising to the S. W. about 1/2 mile from

shaft it commences parhaps rises

20 t' in 1/4 mile then flattens off

again. again Several faults in mine, maximum displacement-8±ft, or about Thick noss of coal. Down throw on the N. Tranton: About in 1915+ that last mina was worked. Avistun. tep coal, as near as could be learn