

Company Cabot Oil and Gas Corporation
 Address P.O. Box 628 - Charleston W. Va. 25322
 Farm Black Betsy Land Co.
 Tract _____ Acres 2,500 Lease No. 3-468
 Well (Farm) No. 1 Serial No. 1067
 Elevation (Spirit Level) 622.80
 Quadrangle Winfield SE
 County Putnam District Pocatalico
 Engineer Ray Boston
 Engineer's Registration No. _____
 File No. _____ Drawing No. _____
 Date 9-22-42 Scale 1" = 1320'

STATE OF WEST VIRGINIA
 DEPARTMENT OF MINES
 OIL AND GAS DIVISION
 CHARLESTON

WELL LOCATION MAP
 FILE NO. PUT-207-Frac.

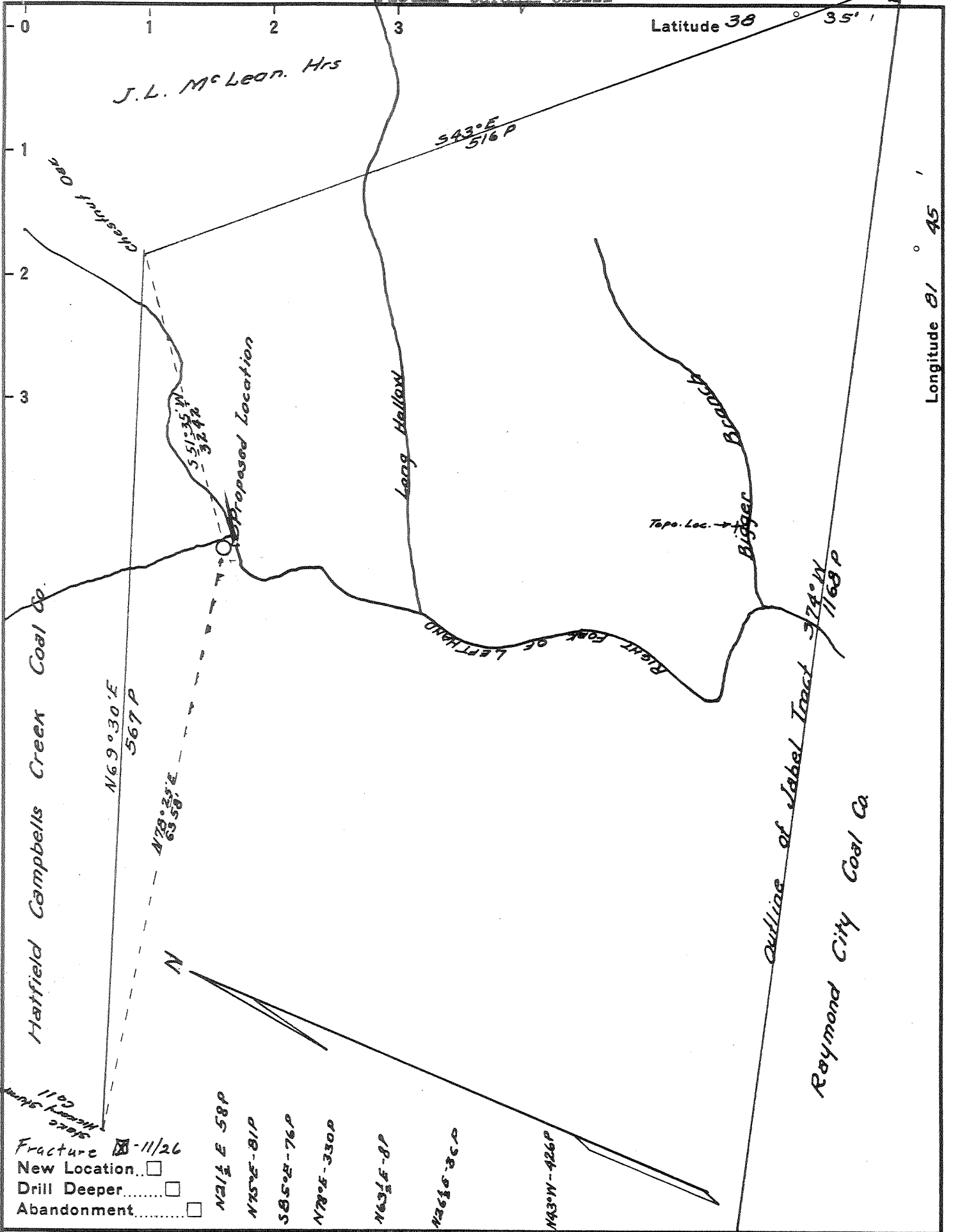
+ Denotes location of well on United States Topographic Maps, scale 1 to 62,500, latitude and longitude lines being represented by border lines as shown.

- Denotes one inch spaces on border line of original tracing.

MAY 29 1984

47-079

PUT-207 FRAC.



- Fracture -11/26
- New Location
- Drill Deeper
- Abandonment

Company Cabot Oil and Gas Corporation
 Address P.O. Box 628 - Charleston W.Va. 25322
 Farm Block Betsy Land Co.
 Tract _____ Acres 2.500 Lease No. 3-468
 Well (Farm) No. 1 Serial No. 1067
 Elevation (Spirit Level) 622.80
 Quadrangle Winfield
 County Putnam District Pocatalico
 Engineer Roy Burton
 Engineer's Registration No. _____
 File No. _____ Drawing No. _____
 Date 9-22-42 Scale 1" = 1320'

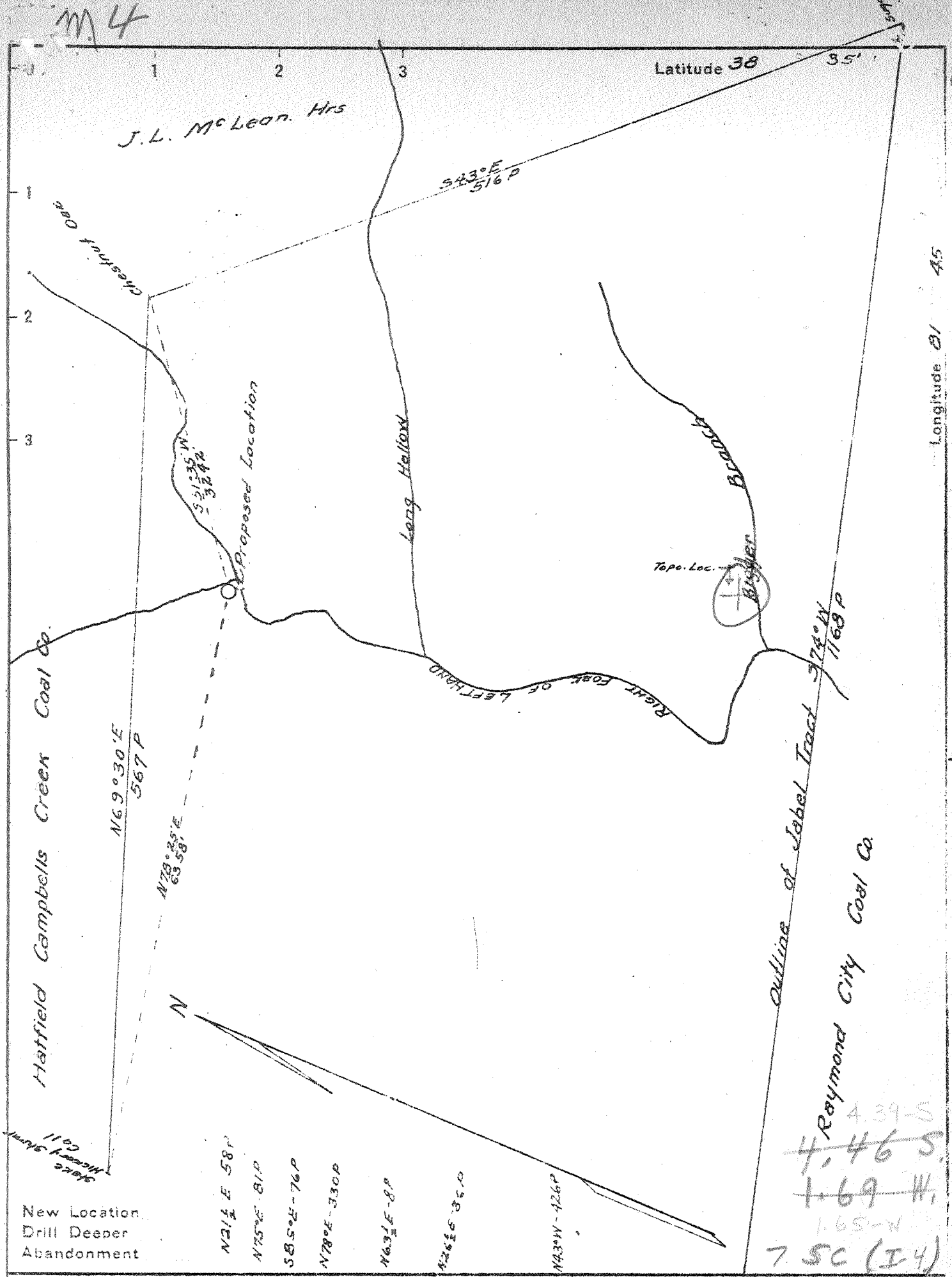
STATE OF WEST VIRGINIA
 DEPARTMENT OF MINES
 OIL AND GAS DIVISION
 CHARLESTON

WELL LOCATION MAP
 FILE NO. PUT-207-Frac.

+ Denotes location of well on United States Topographic Maps, scale 1 to 62,500, latitude and longitude lines being represented by border lines as shown.

- Denotes one inch spaces on border line of original tracing.

NOV 29 1982
 47-079



New Location
Drill Deeper
Abandonment

- N 1 1/2° E 58 P
- N 75° E 81 P
- S 85° E - 76 P
- N 78° E - 330 P
- N 63 1/2° E - 8 P
- N 26 1/2° E 35.0
- N 43° W - 42.6 P

4.39-S
~~4.46 S~~
1.69 W
1.65-W
7.50 (I-4)

Company Godfrey L. Cabot Inc
 Address 902 Union Bldg. Charleston, W. Va.
 Farm Block Betsy Land Co.
 Tract _____ Acres 2500 Lease No. 3-468
 Well (Farm) No. 1 Serial No. 1067
 Elevation (Spirit Level) 622.80
 Quadrangle Winfield SE
 County Putnam District Pocatalico
 Engineer Ray Houston
 Engineer's Registration No. _____
 File No. _____ Drawing No. _____
 Date 9-22-42 Scale 1" = 1320'

STATE OF WEST VIRGINIA
DEPARTMENT OF MINES
OIL AND GAS DIVISION
CHARLESTON

WELL LOCATION MAP
FILE NO. PUT-207-D

+ Denotes location of well on United States Topographic Maps, scale 1 to 62,500, latitude and longitude lines being represented by border lines as shown.
 - Denotes one inch spaces on border line of original tracing.

Not in Vol. XVI

Deep Well ✓

WEST VIRGINIA DEPARTMENT OF MINES
OIL & GAS DIVISION
W E L L R E C O R D

Permit No. Put 207		Gas Well
Winfield Quad.		CASING & TUBING
Company	Godfrey L. Cabot, Inc.	20" 21' 21'
Address	Charleston, W.Va.	13 3/8 460 460
Farm	Black Betsey Coal Co. Acres --	10 1/2 1525 1525
Location	--	16 85 85
Well No	1 Ser 1067 Elev. 623	3 1/2 1690 1690
District	Pocatalico Putnam County	Bottom joint welded.
Surface		E.W. Line pipe as
Mineral		tubing.
Commenced	Oct. 5, 1942	
Completed	Oct. 30, 1942	10 1/2 x 12" casing shoe
Date shot	Acidizing-11-2-42; 11-4-42	Tubed and shut in
	2000 Gals. Depth 1616 to 1675	11-2-42
Flow	B. Acidizing 622 M 1 hr. after blowing	
	After acidizing 232 M (1 day A.A.)	Gas anchor Packer
Rock Pressure	750 lbs. 15 hrs. Big Lime	3 x 11 1/2 x 7" x 16"
Water	1309'	Depth 1600, Anchor 3"
		Perf. top 1662 1690
		1681 1690

Sand	0	20	
White Slate	20	75	
Red Rock	75	150	
Sand	150	165	
Red Rock	165	240	
White Slate	240	260	
Red Rock	260	275	
White Slate	275	290	
Sand	290	320	
Red Rock	320	365	
Slate, White	365	410	
Sand	410	495	
Slate, White	495	536	
Sand, White	536	548	
Coal	548	552	
White Slate	552	625	
Lime	625	645	
White Slate	645	701	
Sand	701	835	
Slate & Shells	835	900	
Sand	900	935	
Slate, Black	935	950	
Lime, Shells & Slate	950	1160	
Sand	1160	1171	
Slate & Shells	1171	1238	
Sand - <i>Small</i>	1238	1520	
Slate - <i>P. Cave</i>	1520	1526	
Big Lime	1526	1790-1740	
TOTAL DEPTH	1740	1790	

GAUGES

10-26-42	1636-38	Gas no Gauge at well
	1652	Gas. No Gauge at well
	1663	445M

Shut in for rock pressure test.

10-29-42	15 hr. R.P. 750#	
10-30-42	1666 557 M	
	1667 504 M	Probably not blown down
	1675 474 M	
	1690 T.D. 474 M	

WEST VIRGINIA DEPARTMENT OF MINES
OIL & GAS DIVISION
W E L L R E C O R D

Permit No. Put 207 D		Gas Well
Winfield Quad.		CASING & TUBING
Company	Godfrey L. Cabot, Inc.	
Address	Charleston, W. Va.	8" 24# 1878 1878
Farm	Black Botsey Land Company Acres	7" 24# 4570 4570
Location		
Well No.	1-serial 1067 Elev. 623	B.H. Packer
District	Pocatalico Putnam County	and Screw Down Packer
Commenced	July 28, 1952	at 1730
Completed	Sept. 22, 1952	
Volume	4,700 MCF 30 min after shot	B.H. Packer
Rock Pressure	Oriskany 1295' 20 hrs.	at 4570'
Date shot	9-23-52 Depth 4653 to 4674 with 40 qts.	
	B.S. 2,186 M; 30 Min. A.S. 4,700 MCF	
Water	1785' H.F.;	See original well record for other casing.

DRILLED DEEPER

Deepening started at 1691'

Big Lime	1526	1740
Big Injun	1740	1795
Slate	1795	1817
Broken Lime	1817	1842
Lime	1842	1932
Slate & Shells	1932	2189
Brown Shale	2189	2211
Berea	2211	2225
Slate & Shells	2225	3152
Brown Shale - 441	3152	3231
Slate & Shells	3231	3415
Brown Shale - 813	3415	3518
Slate & Shells	3518	3690
Brown Shale	3690	3753
White Slate	3753	3812
Brown Shale	3812	3895
Slate & Shells - 818	3895	4054
Brown Shale	4054	4080
White Slate	4080	4327
Brown Shale	4327	4547
Corniferous	4547	4653
Oriskany	4653	

T.D. 4674

Gas 3430' 56 MCF

Gas 3741 increased to 76 MCF

Gas 4665-4668; 2,992 MCF

Producing Sand Record

Oriskany 4665 to 4668 2,992 MCF

4547 523 <hr style="width: 50%; margin: 0 auto;"/> 3924	4653 623 <hr style="width: 50%; margin: 0 auto;"/> 4030
---	---

475

F-35
(Rev 6-61)



RECEIVED

AUG 22 1984

DEPT. OF MINES

State of West Virginia

Department of Mines

OIL & GAS DIVISION Oil and Gas Division

WELL OPERATOR'S REPORT

OF

DRILLING, FRACTURING AND/OR STIMULATING, OR PHYSICAL CHANGE

Date August 14, 1984

Operator's

Well No. #1

Farm Black Betsy

API No. 47 - 079 - 0207-FRAC

WELL TYPE: Oil ___ / Gas XX / Liquid Injection ___ / Waste Disposal ___ /
(If "Gas," Production XX / Underground Storage ___ / Deep ___ / Shallow XX /)

LOCATION: Elevation: 622.90 Watershed Heizer Creek

District: Pocatalico County Putnam Quadrangle Winfield

COMPANY Cabot Oil & Gas Corporation of WV

ADDRESS Box 628, Charleston, WV 25322

DESIGNATED AGENT Robert E. Horrell

ADDRESS Box 628, Charleston, WV 25322

SURFACE OWNER P. Benjamin Grosscup, Jr., &
P. Benjamin Grosscup, III

ADDRESS 37 Woodland Ave., Greensburg, PA 15601

MINERAL RIGHTS OWNER Cabot Oil & Gas Corp. of WV

ADDRESS Box 628, Charleston, WV 25322

OIL AND GAS INSPECTOR FOR THIS WORK Jerry

Holcomb ADDRESS RR #1, Box 28, Hamlin, WV

25523

PERMIT ISSUED 5/22/84

~~WORKOVER~~
~~DRILLING~~ COMMENCED 6/14/84

~~WORKOVER~~
~~DRILLING~~ COMPLETED 8/2/84

IF APPLICABLE: PLUGGING OF DRY HOLE ON
CONTINUOUS PROGRESSION FROM DRILLING OR
REWORKING. VERBAL PERMISSION OBTAINED
ON

Casing & Tubing	Used in Drilling	Left in Well	Cement fill up Cu. ft.
Size 20-16 Cord.			
13-10"			
9 5/8			
8 5/8			
7	squeeze cemented (see details)		
5 1/2			
4 1/2			
3			
1 1/2	3823.00	3823.00	
Liners used			

GEOLOGICAL TARGET FORMATION Huron Shale Depth 3690-4080 feet

Depth of completed well 3862 feet Rotary XX / Cable Tools

Water strata depth: Fresh feet; Salt feet

Coal seam depths: Is coal being mined in the area?

OPEN FLOW DATA

Producing formation Devonian Shale Pay zone depth 2225-3849 feet

Gas: Initial open flow - - Mcf/d Oil: Initial open flow - - Bbl/d

4 hr. Final open flow 180 Mcf/d Final open flow - - Bbl/d

Time of open flow between initial and final tests - - hours

Static rock pressure 725 psig (surface measurement) after - - hours shut in

(If applicable due to multiple completion--)

Second producing formation Pay zone depth feet

Gas: Initial open flow Mcf/d Oil: Initial open flow Bbl/d

Final open flow Mcf/d Oil: Final open flow Bbl/d

Time of open flow between initial and final tests hours

Static rock pressure psig (surface measurement) after hours shut in

SEP 24 1984

DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC.

RIH w/1-1/2" tbg. and set 7" RBP @ 4540'. Perforated 12 holes from 4055-4058'. Cement 7" w/95 sks. 50/50 poz, Class A w/6# coalite/sk. 6% salt, 2% CaCl₂ and 3/4 of 1% D-31. Shot four squeeze perfs @ 4040'. RIH w/128 jts. of 3-1/2" tbg. and 7" cement retainer. Retainer set @ 4007'. Pumped 5 bbls. of gelled water and 105 sks. 50/50 poz, Class A 10% salt. 3% CaCl₂, 3/4 of 1% D-31. R/U McCullough and shot 4 squeeze perfs @ 3705'. RIH w/117 jts. 3-1/2" tbg. and set 7" cement retainer @ 3664'. Pumped thru 3-1/2" tbg. 8 bbls. gelled H₂O and 62 sks. 50/50 poz, Class A, 10% salt, 2% CaCl₂ and 0.75% D-31. Shot 4 squeeze perfs @ 3646'. R/U B. J. Hughes. Pumped 42 sks. 50/50 poz, Class A 10% salt, 3% CaCl₂, 0.75% D-31. Drilled out cement and retainer @ 3664'. Milling on cement retainer @ 4024'. Twisted off - left 6-1/2 bladed mill and 4DC in hole - could not recover top of fish @ 3884'. Oriskany plugged and abandoned. Perforated w/3-1/8" Dyna jet @ 3430', 3432', 3448', 3450', 3459'

WELL LOG *work over TD*

*Perf 3430-59
3541, 3739
3818-3860*

FORMATION	COLOR	HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS Including indication of all fresh and salt water, coal, oil and gas
			3541', 3739'	3857-3860', 3818-38', 3846', 3853, 3859',	(10 holes). RIH w/7" RTTS and 111 jts. of 3-1/2" tbg. Set pkr. @ 3387'. Loaded backside w/24,000 SCF N ₂ @ 600 psi. Pumped 500 gals. 15% HCL down 3-1/2" tbg. Loaded 3-1/2" w/N ₂ and B/D @ 3010 psi. ISIP 1390#, after 5 min. - 1300#, 15 min. - 1110#. Pumped 1,000,000 SCF N ₂ @ 32,000 SCF/min. Foam fraced w/3-1/2" w/440 bbls. of 75 quality foam and 300 sks. of 20/40 sand as follows: 2500 gals. foam pad, 5,000 gals. 20/40 @ 1#/gal., 5,000 gals. @ 2#/gal., 6,000 gals. @ 2-1/2#/gal. Flushed w/30 bbls. foam and 15 bbls. H ₂ O. Total 160 bbls. of H ₂ O and acid. Average foam rate 36 BPM. Average H ₂ O rate 9 BPM. Average N ₂ rate 15,900 SCF/min. ISIP 1220#, after 5 min. - 510#, 10 min. - 450#, 15 min. - 420#. Opened well @ 7:00 p.m. thru 1/8" choke. Tripped out of hole w/3-1/2" tbg. Ran 113 jts. of 1-1/2", 2.7# tbg. Total of 3823'. Mud anchor set @ 3838' K.B. Seating nipple set @ 3806' K.B.
					See attached original well record.

(Attach separate sheets as necessary)

CABOT OIL & GAS CORPORATION OF WEST VIRGINIA

Well Operator

By: Robert E. Horrell

Date: Robert E. Horrell

Note: Regulation 2.02(i) provides as follows:
"The term 'log' or 'well log' shall mean a systematic detailed geological record of all formations, including all encountered in the drilling of a well."

079 2070

WELL RECORD

SERIAL NO. 1067 OPERATING DISTRICT FN
 FARM Black Betsey Land Co. No. 1 LEASE NO.
 COUNTY Putnam TAX DISTRICT Pocatalico STATE W. Va.
 DRILLING COMMENCED See note DRILLING COMPLETED

ROCK PRESSURE RECORD				PRODUCING SAND RECORD			
Big Line	Sand	720 lbs.	15 hrs.	Big Line (depleted)	Sand, from 1636 to 1662	Init. Prod. 454	M. C. F. G.
Oriskany	Sand	1295 lbs.	20 hrs.	Oriskany	Sand, from 4665 to 4668	Init. Prod. 2,992	M. C. F. G.
	Sand	lbs.	hrs.		Sand, from to	Init. Prod.	M. C. F. G.

OPEN FLOW				CASING RECORD				
Time, Condition: Oriskany; 30 Min. A.S.				SIZE	WEIGHT	USED IN DRILLING	LEFT IN WELL	HOW CASING SET
10ths	Water	inch opening		20"	35.57	21	21	DH Packer & Screw Down Packer O 1730. B.H. Packer.
Volume	Mercury in	M. C. F.		16"	63.72	85	85	
24 HOUR PRODUCTION TEST AFTER TUBING				13"	48	460	460	
M. C. F. Line Pressure				10"	35.75	1557	1557	
Bbls. Oil in 24 Hours				8"	247	1878	1878	
TUBED AND SHUT IN Date				7"	247	4570	4570	

SHOOTING RECORD			
Perf. Top	Bottom	Perf. Top	Bottom
Acid Shot with 40 qts. from 4653 to 4674 Date 9-23-52			
Gauge Before { Acid Shot 2,106 M Gauge 30 Min. After { Acid Shot 4,700			

FORMATION	COLOR	TOP	BOTTOM	STEEL LINE MEASUREMENTS	HARD OR SOFT	OIL, GAS OR WATER	DEPTH FOUND	REMARKS
Sand		0	20					NOTE: Drilled from surface to 1690; 10/5/52 to 10/30/52, by C. L. Sample. Drilled from 1690 to 4674 by W. L. Heester, Spencer, W. 7/28/52 to 9/22/52. Big Line acidized with 2000 gals. O.F. one day after acidizing 232 Mcf. Big Line depleted and Big Line rights transferred to United Fuel for storage purposes.
White Slate		20	75					
Red Rock		75	150					
Sand		150	165					
Red Rock		165	240					
White Slate		240	260					
Red Rock		260	275					
White Slate		275	290					
Sand		290	320					
Red Rock		320	365					
Slate, White		365	410					
Sand		410	495					
Slate, White		495	536					
Sand, White		536	548					
Coal		548	552					
White Slate		552	625					
Lime		625	645					
White Slate		645	701					
Sand		701	835					
Slate & Shells		835	900					
Sand		900	935					
Slate, Black		935	950					
Lime, Shells & Slate		950	1160					
Sand		1160	1171					
Slate & Shells		1171	1238					
Sand		1238	1520			Water	1309	
Slate		1520	1526					
Big Line		1526	1690					
Big Line		1526	1740					
Big Injun		1740	1795			Water	1705 Hole full.	
Slate		1795	1817					
Broken Lime		1817	1842					
Lime		1842	1932					
Slate & Shells		1932	2169					
Brown Shale		2169	2211					

RECEIVED

AUG 22 1984

OIL & GAS DIVISION DEPT. OF MINES

over

SEP 24 1984

FORMATION	COLOR	TOP	BOTTOM	STEEL LINE MEASUREMENTS	HARD OR SOFT	OIL, GAS OR WATER	DEPTH FOUND	REMARKS
rea		2211	2225					
ate & Shells		2225	3152					
own Shale		3152	3231					
ate & Shells		3231	3415					
own Shale		3415	3518			Gas	3430	56 Mcf.
ate & Shell		3518	3690			Gas	3711	Increased to 76 Mcf.
own Shale		3690	3753					
ite Slate		3753	3812					
own Shale		3812	3895					
ate & Shells		3895	4054					
own Shale		4054	4080					
ite Slate		4080	4327					
own Shale		4327	4545					
orniferous		4545	3653	4613		Gas	4665-4668; 2,992 Mcf.	
riskany		4653		4672				
otal Depth			4674					

TOTAL DEPTH

DATE

APPROVED

FOREMAN



1) Date: March 23, 19 84
 2) Operator's Well No. Black Betsy #1
 3) API Well No. 47 State 079 County 0207-FRAC Permit

STATE OF WEST VIRGINIA
 DEPARTMENT OF MINES, OIL AND GAS DIVISION
 APPLICATION FOR A WELL WORK PERMIT

- 4) WELL TYPE: A Oil / Gas X /
 B (If "Gas", Production / Underground storage / Deep / Shallow X /)
- 5) LOCATION: Elevation: 622.80' Watershed: Heizer Creek
 District: Pocatallico County: Putnam Quadrangle: Winfield
- 6) WELL OPERATOR Cabot Oil & Gas Corp. of WV 7) DESIGNATED AGENT Robert E. Horrell
 Address P.O. Box 628 Address P.O. Box 628
Charleston, WV 25322 Charleston, WV 25322
- 8) OIL & GAS INSPECTOR TO BE NOTIFIED 9) DRILLING CONTRACTOR:
 Name Jerry Holcomb Name UNKNOWN
 Address Box 5 B Address
Indore, WV 25111 587-7299
- 10) PROPOSED WELL WORK: Drill / Drill deeper / Redrill / Stimulate X OIL & GAS DIVISION
 Plug off old formation / Perforate new formation X / 1 1/2" DEPT. OF MINES
 Other physical change in well (specify) Isolate Oriskany with tubing and packer
- 11) GEOLOGICAL TARGET FORMATION, Huron Shale
- 12) Estimated depth of completed well, 4674 feet
 13) Approximate trata depths: Fresh, N/A feet; salt, 1309 feet.
 14) Approximate coal seam depths: 548 Is coal being mined in the area? Yes / No X
- 15) CASING AND TUBING PROGRAM **WORKOVER**

RECEIVED
 MAR 27 1984

CASING OR TUBING TYPE	Size	SPECIFICATIONS			FOOTAGE INTERVALS		CEMENT FILL-UP OR SACKS (Cubic feet)	PACKERS
		Grade	Weight per ft.	New	Used	For drilling		
Conductor	20"		35			PRESENT	21	Kinds Baker
Fresh water	16		64			PRESENT	85	Model D-1 1/2"
Coal	13		48			PRESENT	460	Sizes 2-3/8 x 7"
Intermediate	10		36			PRESENT	1557	Proposed @ approx
Production	8		24			PRESENT	1878	Depths set 4075'
Tubing	7		24			PRESENT	4570	
Liners	1 1/2"							Perforations:
tubing	2 3/8" 1 1/2"		4.6	X		PROPOSED	4050	Top Bottom
			4.6	X		PROPOSED	4650	

SEE REVERSE

OFFICE USE ONLY
 DRILLING PERMIT

Permit number 47-079-0207-FRAC Date May 22, 19 84

This permit covering the well operator and well location shown below is evidence of permission granted to drill in accordance with the pertinent legal requirements subject to the conditions contained herein and on the reverse hereof. Notification must be given to the District Oil and Gas Inspector, (Refer to No. 8) Prior to the construction of roads, locations and pits for any permitted work. In addition, the well operator or his contractor shall notify the proper district oil and gas inspector 24 hours before actual permitted work has commenced.)

The permitted work is as described in the Notice and Application, plat, and reclamation plan, subject to any modifications and conditions specified on the reverse hereof.
 Permit expires May 22, 1986 unless well work is commenced prior to that date and prosecuted with due diligence.

Bond: BLANKET	Agent: <u>LS</u>	Plat: <u>MH</u>	Casing: <u>MH</u>	Fee: <u>013-726</u>
-------------------------	---------------------	--------------------	----------------------	------------------------

[Signature]
 Administrator, Office of Oil and Gas

OFFICE USE ONLY

PERMIT MODIFICATIONS AND CONDITIONS (IF ANY) TO THE PROPOSED WELL WORK

PROPOSED WORK ORDER

1) Log Well

2) Squeeze Cement 7" through Huron Shale (50' below to 200' above)

3) Perforate & Stimulate Huron

4) Run tubing & packer

5) Produce Oriskany & Huron separately

OFFICE USE ONLY

This part of Form IV-2(b) is to record the dates of certain occurrences and any follow-up inspections.

	<u>Date</u>	<u>Date(s)</u>
Application received		
Well work started	"	"
Completion of the drilling process	"	"
Well Record received	"	"
Reclamation completed	"	"

OTHER INSPECTIONS

Reason: _____

Reason: _____



1) Date: November 16, 19 82

2) Operator's Well No. Black Setsy #1

3) API Well No. 47 079 0207-PRAG
State County Permit

DRILLING CONTRACTOR:

STATE OF WEST VIRGINIA
DEPARTMENT OF MINES, OIL AND GAS DIVISION

Unknown

OIL AND GAS WELL PERMIT APPLICATION

- 4) WELL TYPE: A Oil / Gas /
B (If "Gas", Production / Underground storage / Deep / Shallow /)
- 5) LOCATION: Elevation: 622.80' / Watershed: Heizer Creek
District: Pocatalico / County: Putnam / Quadrangle: Winfield
- 6) WELL OPERATOR Cabot Oil & Gas Corp. / 11) DESIGNATED AGENT H. BAIRD WHITEHEAD
Address P.O. Box 628 / Address P.O. Box 628
Charleston, WV 25322 / Charleston, WV 25322
- 7) OIL & GAS ROYALTY OWNER Cabot Oil & Gas Corp. / 12) COAL OPERATOR NOT OPERATED
Address P.O. Box 628 / Address _____
Charleston, WV 25322 / _____
- 8) SURFACE OWNER Benjamin Grosscup / 13) COAL OWNER(S) WITH DECLARATION ON RECORD:
Address Box 433 / Name I. V. Cunningham
Gate Mills, OH 44040 / Address 431 McKinley Ave.
2,495.8 / Charleston, WV 25314
- 9) FIELD SALE (IF MADE) TO: / Name _____
Address N/A / Address _____
- 10) OIL & GAS INSPECTOR TO BE NOTIFIED / Name Kenneth Butcher
Address RFD #1, Barboursville, WV 25504 / Address _____
304-736-4885 / _____
- 15) PROPOSED WORK: Drill / Drill deeper / Redrill / Fracture or stimulate /
Plug off old formation / Perforate new formation /
Other physical change in well (specify) _____
- 16) GEOLOGICAL TARGET FORMATION, Brown Shale
- 17) Estimated depth of completed well, 4500 feet
- 18) Approximate water strata depths: Fresh, N/A feet; salt, 1309 feet.
- 19) Approximate coal seam depths: 548' / Is coal being mined in the area? Yes / No /

RECEIVED
NOV 2 1982

OIL & GAS DIVISION
DEPT. OF MINES

20) CASING AND TUBING PROGRAM (WORKOVER)

CASING OR TUBING TYPE	SPECIFICATIONS					FOOTAGE INTERVALS		CEMENT FILL-UP OR SACKS (Cubic feet)	PACKERS	
	Size	Grade	Weight per ft.	New	Used	For drilling	Left in well			
Conductor	20"		35				21			Kinds
Fresh water	16		64				85			
Coal	13		48				460			Sizes
Intermediate	10		36				1557			
Production	8		24				1878			Depths set
Tubing	7		24				4570			
Liners										Perforations:
Tubing	2"		4.6				4400	PROPOSED		Top Bottom

- 21) EXTRACTION RIGHTS
Check and provide one of the following:
 Included is the lease or leases or other continuing contract or contracts by which I hold the right to extract oil or gas.
 The requirement of Code 22-4-1-(c) (1) through (4). (See reverse side for specifics.)
- 22) ROYALTY PROVISIONS
Is the right to extract, produce or market the oil or gas based upon a lease or other continuing contract or contracts providing for flat well royalty or any similar provision for compensation to the owner of the oil or gas in place which is not inherently related to the volume of oil or gas so extracted, produced or marketed? Yes No
- If the answer above is No, nothing additional is needed. If the answer is Yes, you may use Affidavit Form IV-60.

23) Required Copies (See reverse side.)
24) Copies of this Permit Application and the enclosed plat and reclamation plan have been mailed by registered mail or delivered by hand to the above named coal operator, coal owner(s), and coal lessee on or before the day of the mailing or delivery of this Permit Application to the Department of Mines at Charleston, West Virginia.

Notary: Small L. Perkins
My Commission Expires March 1, 1986

Signed: Robert E. Harnell
Its: District Production Superintendent

OFFICE USE ONLY
DRILLING PERMIT

Permit number 47-079-0107-PRAG / Date November 26, 19 82

This permit covering the well operator and well location shown below is evidence of permission granted to drill in accordance with the pertinent legal requirements subject to the conditions contained herein and on the reverse hereof. **Notification must be given to the District Oil and Gas Inspector.** (Refer to No. 10) Prior to the construction of roads, locations and pits for any permitted work. In addition, the well operator or his contractor shall notify the proper district oil and gas inspector 24 hours before actual permitted work has commenced.)

Permit expires _____ unless drilling is commenced prior to that date and prosecuted with due diligence.

Bond:	Agent:	Plat:	Casing	Fee
-------	--------	-------	--------	-----

Administrator, Office of Oil and Gas