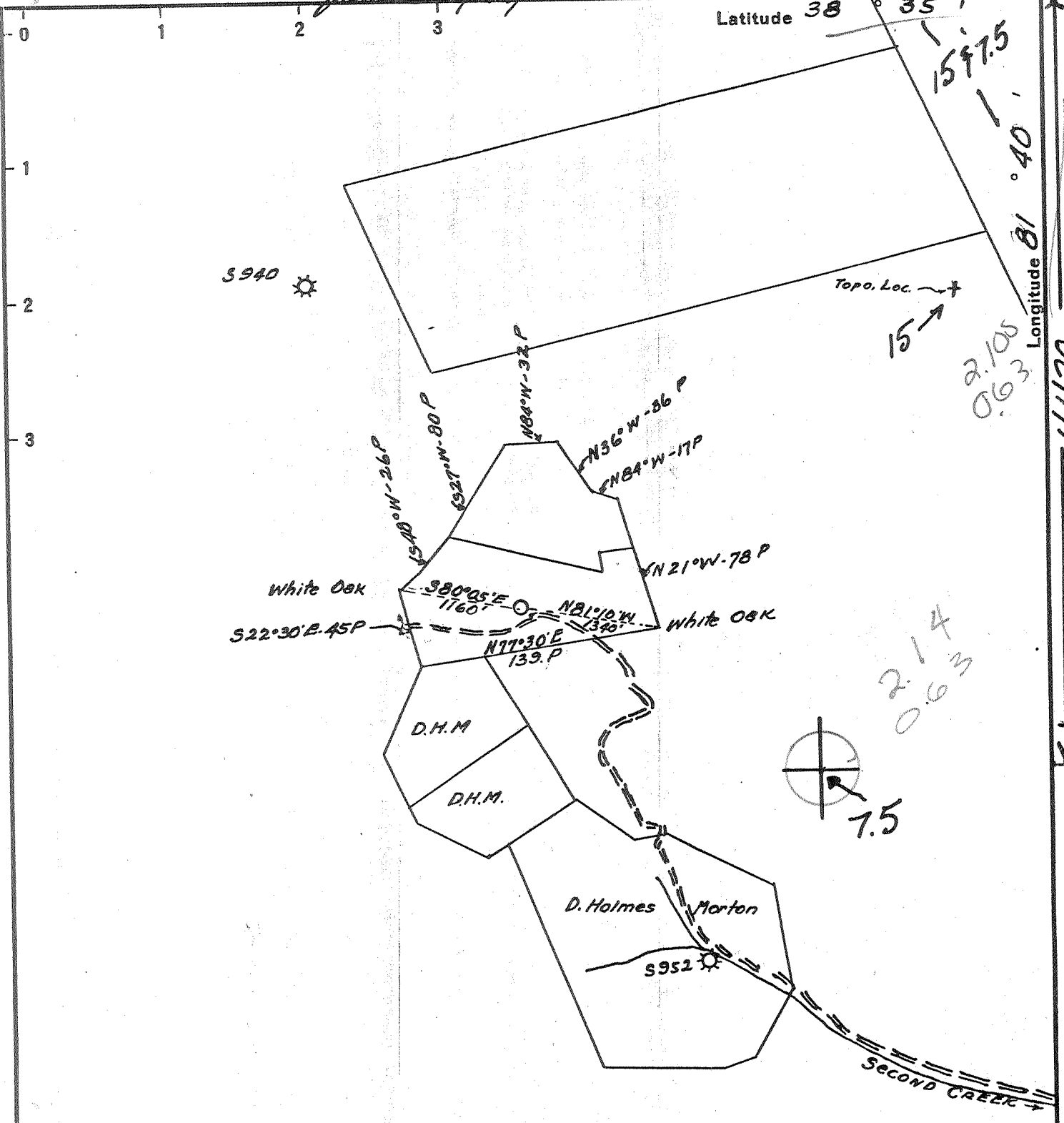


Jamie 8/22/88

3480
Latitude 38° 35'



Frac. - 9/12/88
 New Location
 Drill Deeper
 Abandonment

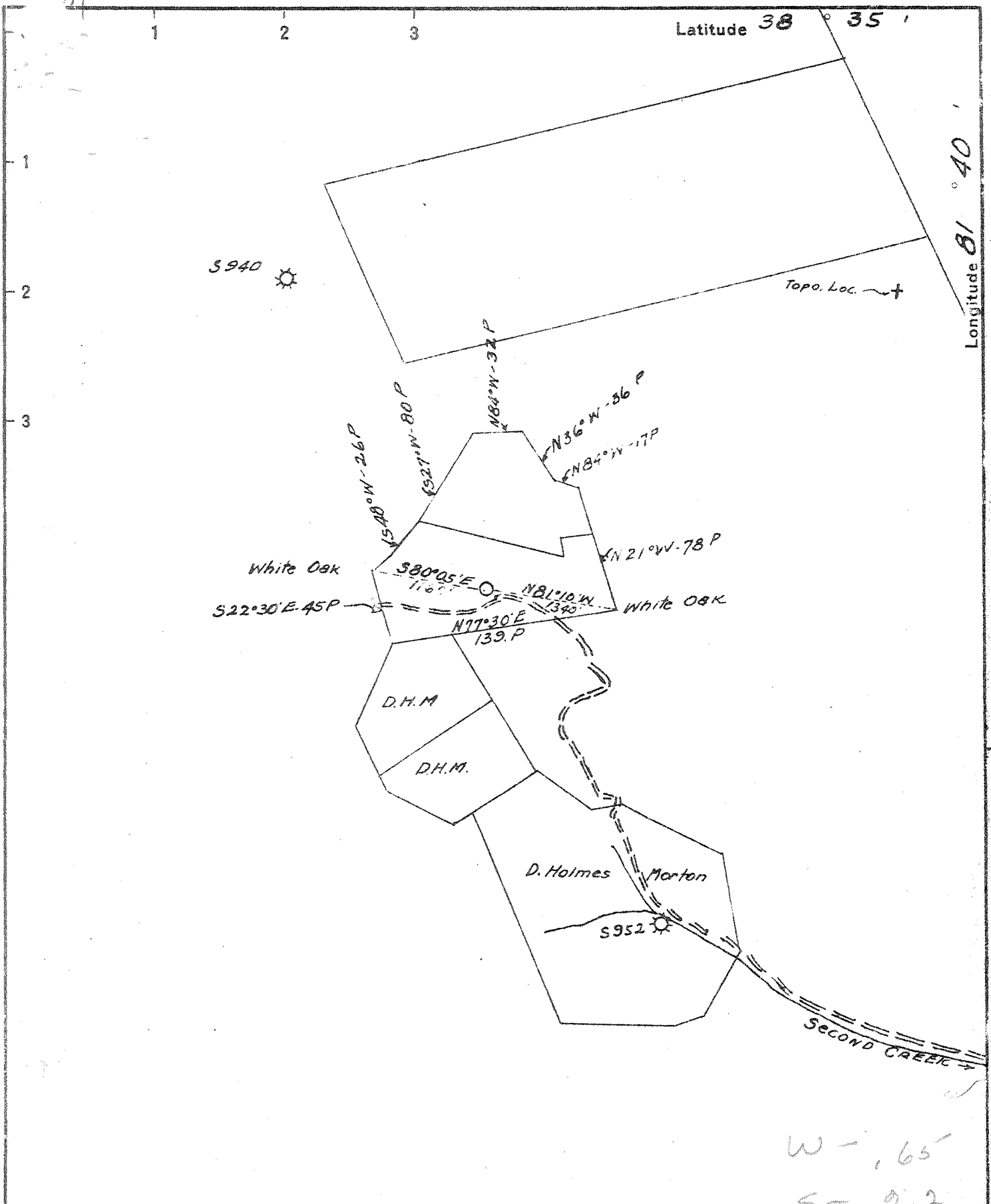
Company *Cabot Oil & Gas of W.V.*
 Address *PO BOX 1473 CHARLESTON WVA 25325*
 Farm *Edna Asbury etal*
 Tract _____ Acres *77* Lease No. *3-418*
 Well (Farm) No. *1* Serial No. *980*
 Elevation (Spirit Level) _____
 Quadrangle *KENNA S.W.15 Sissonville*
 County *HANAWHA* District *POCA*
 Engineer *Roy Bolton*
 Engineer's Registration No. *975*
 File No. _____ Drawing No. _____
 Date *April 16 1941* Scale *1"=1320'*

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

WELL LOCATION MAP
 FILE NO. *KAN-813-Frac.*
60947-039-0813-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.

SEP 19 1988

OWWO DEEPWELL
 6-6 Elk-Pra (Sissonville) (192)



W - .65
S - 2.2

New Location
 Drill Deeper
 Abandonment

Company GODFREY L. CABOT INC
 Address 600 UNION BLDG. CHARLESTON W.V.
 Farm Edna Asbury et al
 Tract _____ Acres 77 Lease No. 3-418
 Well (Farm) No. 1 Serial No. 980
 Elevation (Spirit Level) _____
 Quadrangle KENNA S.W.
 County KANAWHA District POCA
 Engineer Roy Boston
 Engineer's Registration No. 975
 File No. _____ Drawing No. _____
 Date April 16 1941 Scale 1" = 1320'

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

WELL LOCATION MAP
 FILE NO. KAN-813

+ 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.

Deep well ✓

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

Permit No. Kan-813
Kenna S.W. Quad
Company
Address
Farm
Well No.
District
Commenced
Completed
Shot
Flow
Volume

Godfrey L. Cabot, Inc.
Charleston, W. Va.
Emmett Bowen
1 Serial No. 980 Elev. 1021.66
Poca Kanawha County
May 12, 1941
August 21, 1941
August 22, 1941 Depth 5263
After cleaning out one day
1,754 M.C.F.

Gas Well

Casing & Tubing
10 $\frac{1}{2}$ 984 984
8-5/8 2223 --
7 5149 5149
2-3/8 5346 5310
Tubed & Shut In 8-25-41
Perf. top 5263
Perf. bot. 5271
Perf. top 5311
Perf. bot. 5317

Flag Rock	0	15	Sand	5278	5286
Red Rock	15	60	Lime	5286	5298
Sand	60	95	Sand	5298	5310
Red Rock	95	130	Lime	5310	5320S.L.
White Slate	130	190	Total Depth		5320S.L.
Red Rock	190	305	Gauges in Oriskany Sand		Before Shot
Slate & Shell	305	480	8-9	5241-5242	327M
Red Rock	480	490	8-12		5242 328M
Slate	490	505			5243 520M
Red Rock	505	532			5244 671M
White Slate	532	595			5245 948M
Red Rock	595	615			5246 858M
White Slate	615	640			5260 858M
Sand	640	656	8-13		5253 783M
Red Rock	656	715			5256 783M
Dark Slate	715	724	8-14		5258 735M
Red Rock	724	765		5258-5260	811M
Black Slate	765	775	8-15		5262 811M
Slate & Shell	775	812			5269 799M
Red Rock	812	845	8-16		5272 782M
Slate & Shell	845	865			5276 776M
Sand	865	875			5281 765M
Black Slate	875	890	8-17		6283 771M
Red Rock	890	905			5284 759M
Slate & Shell	905	940	8-18		5286 759M
Sand	940	987			5289 703M
Slate	987	1040			5291 697M
Sand	1040	1055			5292 697M
Slate & Shell	1055	1160			5295 691M
Sand	1160	1235			5300 703M
Slate & Shell	1235	1275	8-18		5301 703M
Sand	1275	1295	8-18		5320 684M
Slate	1295	1305			
Sand	1305	1332	Gauges in Oriskany Sand		After Shot
Black Slate	1332	1440	8-22	5 Min. A.S.	2,834M
Slate & Shell	1440	1565		10 Min. A.S.	2,700M
✓ Salt Sand	1565	1880		15 Min. A.S.	2,616M
✓ Maxton Sand	1880	2007		20 Min. A.S.	2,578M
✓ Big Lime	2007	2151		40 Min. A.S.	2,439M
✓ Injun Sand	2151	2199			
Slate & Shell	2199	2212			
Lime	2212	2235			
Slate & Shell	2235	2595			
✓ Brown Shale	2595	2614			
✓ Berea G it	2614	2626			
Slate & Shell	2626	3830			
Brown Shale	3830	3880			
Slate & Shell	3880	4110			
Brown Shale	4110	4140			
Slate & Shell	4140	4245			
Brown Shale	4245	4430			
White Shale	4430	4467			
White Slate	4467	4790			
✓ Brown Shale	4790	5070			
✓ Black Shale	5070	5129			
✓ Corniferous Lime	5129	5238			S*L.
✓ Oriskany Sand	5238	5275			
✓ Lime	5275	5278			

WR-35

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JAN 13 1989

12-Sep-88
 API # 47-039-00813 F

State of West Virginia
 DEPARTMENT OF ENERGY
 DIVISION OF OIL & GAS
 DEPARTMENT OF ENERGY Division of Oil and Gas

Well Operator's Report of Well Work

Farm name: FRANCISCO, BERTHA B. Operator Well No.: EMMETT BOWEN #1

LOCATION: Elevation: 1021.66' Quadrangle: SISSONVILLE

District: POCA County: KANAWHA
 Latitude: 11420 Feet South of 38 Deg. 35 Min. 0 Sec.
 Longitude: 3480 Feet West of 81 Deg. 40 Min. 0 Sec.

Company: CABOT OIL & GAS CORPORATION
 P. O. Box 1473
 Charleston, WV 25325

Agent: Thomas H. Blake

Inspector: Carlos Hively
 Permit Issued: 9/12/88
 Well Work Commenced: 9/21/88
 Well Work Completed: 10/1/88
 Verbal Plugging
 Permission granted on: N/A
 Rotary Cable Rig
 Total Depth (feet) 5130 PBTD
 Fresh water depths (ft) N/A
 Salt water depths (ft) N/A
 Is coal being mined in area (Y/N): N
 Coal Depths (ft): N/A

Casing & Tubing	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
Size 7"	5149'	5149'	150 sk 50/50 50 sk CL-A 35 sk w/ 2% gel 15 sk CL-A
1-1/2"		4421'	

OPEN FLOW DATA

Producing formation Devonian Shale/Berea Pay zone depth (ft) 3370'-4422'
2616'-2624'
 Gas: Initial open flow 0 MCF/d Oil: Initial open flow 0 Bbl/d
 Final open flow 603 MCF/d Final open flow 0 Bbl/d
 Time of open flow between initial and final tests 6 Hours
 Static rock Pressure 683 psig (surface pressure) after 720 Hours

Second Producing formation Pay zone depth (ft)
 Gas: Initial open flow MCF/d Oil: Initial open flow Bbl/d
 Final open flow MCF/d Final open flow Bbl/d
 Time of open flow between initial and final tests Hours
 Static rock Pressure psig (surface pressure) after Hours

NOTE: ON BACK OF THIS FORM BUT THE FOLLOWING: 1). DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2). THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE.

For: CABOT OIL & GAS CORPORATION
 By: Thomas H. Blake
 Date: 1/11/89

JAN 23 1989

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

Squeezed 7" csg w/ 250 sks. Perf Devonian Shale 3370'-4422' OA. B/D w/ 2000 gal 7.5% HCl, 77,355 scf N₂ @ 14,000 scfm. Performed 200,000 scf minifrac. Treat w/ 158,000# 20/40 sand, 318 bbls gelled H₂O & N₂ in foam. ISIP 2190 psi. Perf Berea 2616'-2624'. B/D w/ 1000 gal 15% HCl & 32,350 scf N₂ @ 9240 scfm. BDP 3500 psi. ISIP 1700 psi w/ N₂. Treat w/ 50,000# 20/40 sand in foam.

FORMATION

TOP

BOTTOM

REWORK OF WELL

RECEIVED
JAN 13 1989
DIVISION OF OIL & GAS
DEPARTMENT OF ENERGY

7615

THE E-S MAIL

**STATE OF WEST VIRGINIA
 DEPARTMENT OF ENERGY, DIVISION OF OIL AND GAS
 WELL WORK PERMIT APPLICATION**

- 1) Well Operator: CABOT OIL & GAS CORPORATION OF WV 8150, 9, 608
- 2) Operator's Well Number: Emmitt Bowen #1 3) Elevation: 1021.66'
- 4) Well type: (a) Oil ___ / or Gas X /
 (b) If Gas: Production X / Underground Storage ___ /
 Deep ___ / Shallow X /
- 5) Proposed Target Formation(s): Berea, Devonian Shale
- 6) Proposed Total Depth: 5320 feet
- 7) Approximate fresh water strata depths: 100' to Surface, 965'
- 8) Approximate salt water depths: 1585'
- 9) Approximate coal seam depths: None located
- 10) Does land contain coal seams tributary to active mine? Yes ___ / No X /
- 11) Proposed Well Work: Recompletion of Oriskany Well to the Devonian Shale and Beria Sandstone.
- 12)

CASING AND TUBING PROGRAM

TYPE	SPECIFICATIONS		FOOTAGE INTERVALS		CEMENT	
	Size	Grade	Weight per ft.	For drilling		Left in well
Conductor	10-3/4		35.75	984	984	-
Fresh Water						
Coal						
Intermediate	8-5/8		25.55	2223	-	30 sks Aqua Gel
Production	7		24	5149	5149	60 sks Aqua Gel 4 sks Fibrotex
Tubing	2-3/8		3.75	5346	5310	
Liners						

PACKERS : Kind Special Oriskany B. H. Packer
 Sizes 7" OD
 Depths set 5149'

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For Division of Oil and Gas Use Only
 DIVISION OF OIL & GAS
 DEPARTMENT OF ENERGY

Fee(s) paid: Well Work Permit Reclamation Fund WPCP
 Plat WW-9 WW-2B Bond 50 Blanket Agent
 (Type)

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AUG 22 1988

DIVISION OF OIL & GAS
DEPARTMENT OF ENERGY

1) Date: August 18, 1988
2) Operator's well number
Emmitt Bowen #1
3) API Well No: 47 - 039 - 0813 FRAC
State - County - Permit

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

NOTICE AND APPLICATION FOR A WELL WORK PERMIT

- 4) Surface Owner(s) to be served:
- (a) Name Berth B. Francisco
 - Address 4554 Big Tyler Rd.
Charleston, WV 25312
 - (b) Name _____
 - Address _____
 - (c) Name _____
 - Address _____
- 5) (a) Coal Operator:
- Name Not Operated
 - Address _____
 - (b) Coal Owner(s) with Declaration
 - Name Berth B. Francisco
 - Address 4554 Bir Tyler Rd.
Charleston, WV 25312
 - Name _____
 - Address _____
 - (c) Coal Lessee with Declaration
 - Name _____
 - Address _____
- 6) Inspector Carlos W. Hively
- Address 223 Pinch Ridge Rd.
Elkview, WV 25071
 - Telephone (304)-965-6069

TO THE PERSON(S) NAMED ABOVE TAKE NOTICE THAT:

Included is the lease or leases or other continuing contract or contracts by which I hold the right to extract oil and gas OR
X Included is the information required by Chapter 22B, Article 1, Section 8(d) of the Code of West Virginia (see page 2)

I certify that as required under Chapter 22B of the West Virginia Code I have served copies of this notice and application, a location plat, and accompanying documents pages 1 through _____ on the above named parties, by:

- _____ Personal Service (Affidavit attached)
- X Certified Mail (Postmarked postal receipt attached)
- _____ Publication (Notice of Publication attached)

I have read and understand Chapter 22B and 38 CSR 11-18, and I agree to the terms and conditions of any permit issued under this application. I certify under penalty of law that I have personally examined and am familiar with the information submitted on this application form and all attachments, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete.

I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

Well Operator CAROL OIL & GAS CORPORATION OF WV
By: Thomas A. Stone
Its: Drilling Superintendent
Address P. O. Box 1473
Charleston, WV 25325
Telephone (304) 347-1600

Subscribed and sworn before me this 19th day of August, 1988

Lorena Miller Notary Public
My commission expires March 5, 1989