

Coal: No Commercial Coal.

Minimum Error of Closure 1' in 200'

Source of Elevation Taken from H.N.G. Co. Well #83 (Penzoil #2)

Elev. 774' ground.

I, the undersigned, hereby certify that this map is correct to the best of my knowledge and belief and shows all the information required by paragraph 6 of the rules and regulations of the oil and gas section of the mining laws of West Virginia.

- Fracture.....
- New Location.....
- Drill Deeper.....
- Abandonment.....

Signed: A.C. Hilbert

Map No. N37 Squares: N S 6 E W 6

Company Penzoil Company
 Address P.O. Box 1588, Parkersburg, W. Va.
 Farm J. D. Mc Reynolds
 Tract _____ Acres 1500 Lease No. 10480
 Well (Farm) No. W-1 Serial No. 28
 Elevation (Spirit Level) 816.20' ground
 Quadrangle CENTERPOINT
 County Doddridge District Grant
 Engineer A.C. Hilbert
 Engineer's Registration No. 2534
 File No. 1112 Drawing No. _____
 Date Sept. 15, 1964 Scale 1" = 800'

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

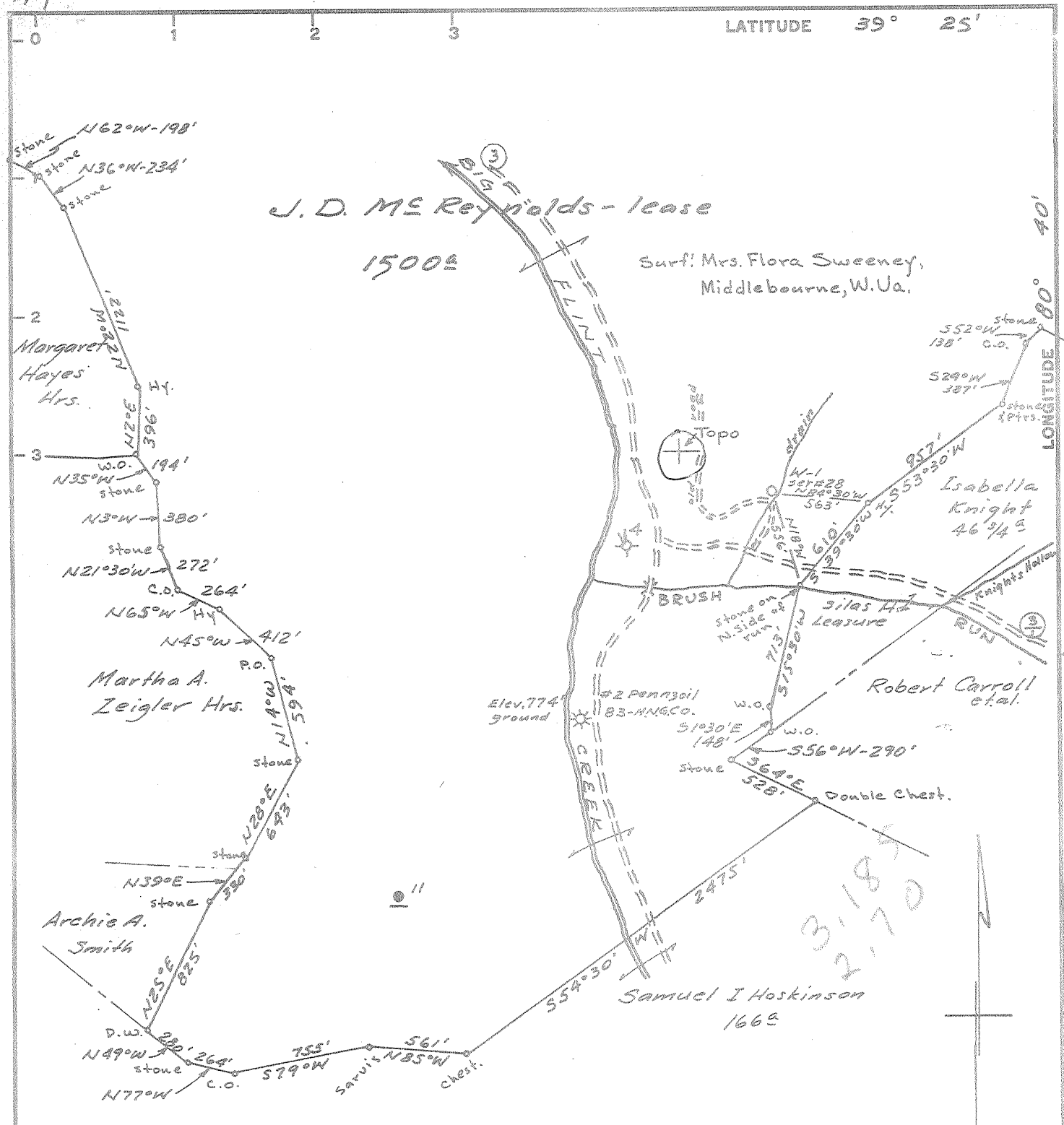
WELL LOCATION MAP

FILE NO. DOD-1182-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.

47-017



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Source of Elevation Taken from H.N.G. Co. Well # 83 (Pennzoil #2)

Elev. 774' ground.

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Signed: A.C. Hilbert

Map No. N37 Squares: N S G E W 6

Company WOLF'S HEAD OIL REFINING CO. INC.
 Address P.O. Box 1588, Parkersburg, W.Va.
 Farm J. D. McReynolds
 Tract _____ Acres 1500 Lease No. 10480
 Well (Farm) No. W-1 Serial No. 28
 Elevation (Spirit Level) 816.20' ground
 Quadrangle CENTERPOINT - WC
 County Doddridge District Grant
 Engineer A.C. Hilbert
 Engineer's Registration No. 2534
 File No. 1112 Drawing No. _____
 Date Sept. 15, 1964 Scale 1" = 800'

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

WELL LOCATION MAP

FILE NO. DOD-1182

† 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.



1) Date: October 12, 1984
 2) Operator's Well No. J. D. McReynolds No. W-1
 3) API Well No. 47 - 017 - 1182 - FRAC
 State County Permit

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

- 4) WELL TYPE: A Oil / Gas _____
 B (If "Gas", Production _____ / Underground storage _____ / Deep _____ / Shallow _____)
- 5) LOCATION: Elevation: 816.20 Watershed: Flint Creek
 District: Grant County: Doddridge Quadrangle: Smithburg
- 6) WELL OPERATOR Pennzoil Company 7) DESIGNATED AGENT James A. Crews
 Address P. O. Box 1588 Address P. O. Box 1588
Parkersburg, W. Va. 26101 Parkersburg, W. Va.
- 8) OIL & GAS INSPECTOR TO BE NOTIFIED 9) DRILLING CONTRACTOR:
 Name Harold Mike Underwood Name _____
 Address Route 2 - Box 114 Address _____
Salem, W. Va. 26426
- 10) PROPOSED WELL WORK: Drill _____ / Drill deeper _____ / Redrill _____ / Stimulate /
 Plug off old formation _____ / Perforate new formation _____
 Other physical change in well (specify) _____
- 11) GEOLOGICAL TARGET FORMATION, Big Injun
- 12) Estimated depth of completed well, 2700 feet
 13) Approximate trata depths: Fresh, _____ feet; salt, _____ feet.
 14) Approximate coal seam depths: _____ Is coal being mined in the area? Yes _____ / No

15) CASING AND TUBING PROGRAM

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									Kinds
Fresh water									Sizes
Coal									Depths set
Intermediate									Perforations:
Production									Top Bottom
Tubing									
Liners									

See Well Record

RECEIVED
 OCT 18 1984
 OIL & GAS DIVISION
 DEPT. OF MINES

OFFICE USE ONLY
 DRILLING PERMIT

Permit number 47-017-1182-FRAC Date November 21, 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 November 21, 1986 unless well work is commenced prior to that date and prosecuted with due diligence.

Bond:	Agent:	Plat:	Casing	Fee
<u>112</u>	<u>TS</u>	<u>MU</u>	<u>MU</u>	<u>16166</u>

Margaret J. Hesse
 Administrator, Office of Oil and Gas

NOTE: Keep one copy of this permit posted at the drilling location.

See the reverse side of the APPLICANT'S COPY for instructions to the well operator.

File



STATE OF WEST VIRGINIA
DEPARTMENT OF MINES
OIL AND GAS DIVISION 6

Rotary
Spudder
Cable Tools
Storage

Quadrangle CENTERPOINT

Permit No. DOD-1182

WELL RECORD

Oil or Gas Well _____ (KIND)

Company WOLF'S HEAD OIL REFINING COMPANY, INC.
Address P. O. Box 1588, Parkersburg, W. Va.
Farm J. D. McReynolds Acres 1,500
Location (waters) Flint Creek
Well No. W-1 Elev. 816.20
District Grant County Doddridge
The surface of tract is owned in fee by Mrs. Flora Sweeney
Address Middlebourne, W. Va.
Mineral rights are owned by Stewart McReynolds, et al.
P. O. Box 169 Address Clarksburg, W. Va. - 26302
Drilling commenced October 4, 1964
Drilling completed October 18, 1964
Date Shot - From To
With
Open Flow /10ths Water in Inch
/10ths Merc. in Inch
Volume Drilled with Rotary Cu. Ft.
Rock Pressure lbs. hrs.
Oil bbls., 1st 24 hrs.

Casing and Tubing	Used in Drilling	Left in Well	Packers
Size			
16			Kind of Packer
13			Steel Shoe
10			Float Collar
8 5/8"	63.49'	63.49'	Guide Shoe
8 5/8"	167.47'	167.47'	5 1/2"
8 5/8"	2721.27'	2721.27'	5 1/2"
3			Depth set
2			226'
Liners Used			2675'
			2698'
			Perf. top
			Perf. bottom
			Perf. top
			Perf. bottom

CASING CEMENTED 8 5/8" SIZE 226 No. Ft. 10/5/64 Date
5 1/2" 2700 10/19/64

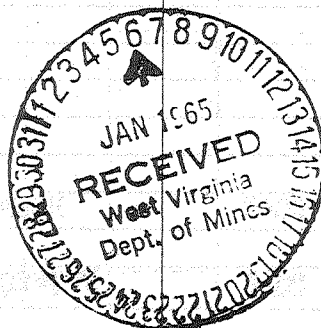
COAL WAS ENCOUNTERED AT - FEET INCHES
FEET INCHES FEET INCHES
FEET INCHES FEET INCHES

WELL FRACTURED 11/24/64 - Used: 55,000 Lbs. 20-40 Sand, 932 Bbls. Water, 300 Gals MCA Acid, 400 Lbs. WAC-8, 50 Gals. Morflo, 35 Gals. Aqua Frac and 10 Gals. Hyflo

RESULT AFTER TREATMENT Gas - 100,000 Cu. Ft.
Oil - 30 Bbls.
ROCK PRESSURE AFTER TREATMENT 440 Lbs.

Fresh Water Feet Salt Water Feet

Formation	Color	Hard or Soft	Top	Bottom	Oil, Gas or Water	Depth	Remarks
SEE OTHER SIDE FOR FORMATION RECORD							



FORMATION RECORD

KIND	TOP	BOTTOM	STEEL LINE MEAS.	TEST	KIND	TOP	BOTTOM	STEEL LINE MEAS.	TEST
Blue Shale	0	45			Gordan Sand	2580	2590		
Sand	45	65			Oil	2580	2590		
Shale	65	75			Sand	2590	2605		
Red Rock	75	80			Shale	2605	2700		
Shale	80	100							
Lime & Sand	100	125			5-1/2" Casing		2700		
Sand	125	180							
Red Rock	180	190			TOTAL DEPTH		2700	2700	
Sand	190	270	226						
Red Rock	270	315							
Sandy Lime	315	355							
Shale	355	450							
Sand	450	610							
Sandy Shale	610	820							
Red Rock	820	865							
Sand	865	900							
Red Rock	900	935							
Lime	935	980							
Shale	980	1005							
Sandy Lime	1005	1020							
Sand & Shale	1020	1310							
Sand	1310	1440							
Shale	1440	1460							
Sand	1460	1490							
Sandy Shale	1490	1595							
Sand	1595	1630							
Shale & Sand	1630	1690							
Red Rock	1690	1735							
Little Lime	1735	1765							
Blue Monday	1765	1787							
Oil	1770	1785		Show					
Big Lime	1787	1850							
Big Injun	1850	2005							
Oil & Gas	1870	1895		Show					
Shale	2005	2150							
Sand & Shale	2150	2563							
Gordon Stray	2563	2573							
Oil	2563	2573		Show					
Slate Break	2573	2580							
				(OVER)					

Date January 5, 19 64

APPROVED WOLF'S HEAD OIL REFINING COMPANY, INC. Owner

By George W. Willsman
George W. Willsman, (Title) Agent