

Minimum Error of Closure 1" in 200'

Source of Elevation Wm Kaufman Well #4, Elev. 1080'

floor

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.

Signed: A.C. Hillbert

Map No. 52

Squares: N S 47 E W 37

Company Pennzoil Company
Wolfshead Oil Refining Co. Inc.
 Address P.O. Box 1588, Parkersburg, W.Va.
 Farm Wm Kaufman
 Tract _____ Acres 800 Lease No. 81219
 Well (Farm) No. W-19 Serial No. 26
 Elevation (Spirit Level) 1060.85' ground
 Quadrangle SPENCER SE
 County ROANE District Smithfield
 Engineer A.C. Hillbert
 Engineer's Registration No. 2534
 File No. 1357 Drawing No. _____
 Date May 4, 1964 Scale 1" = 800'

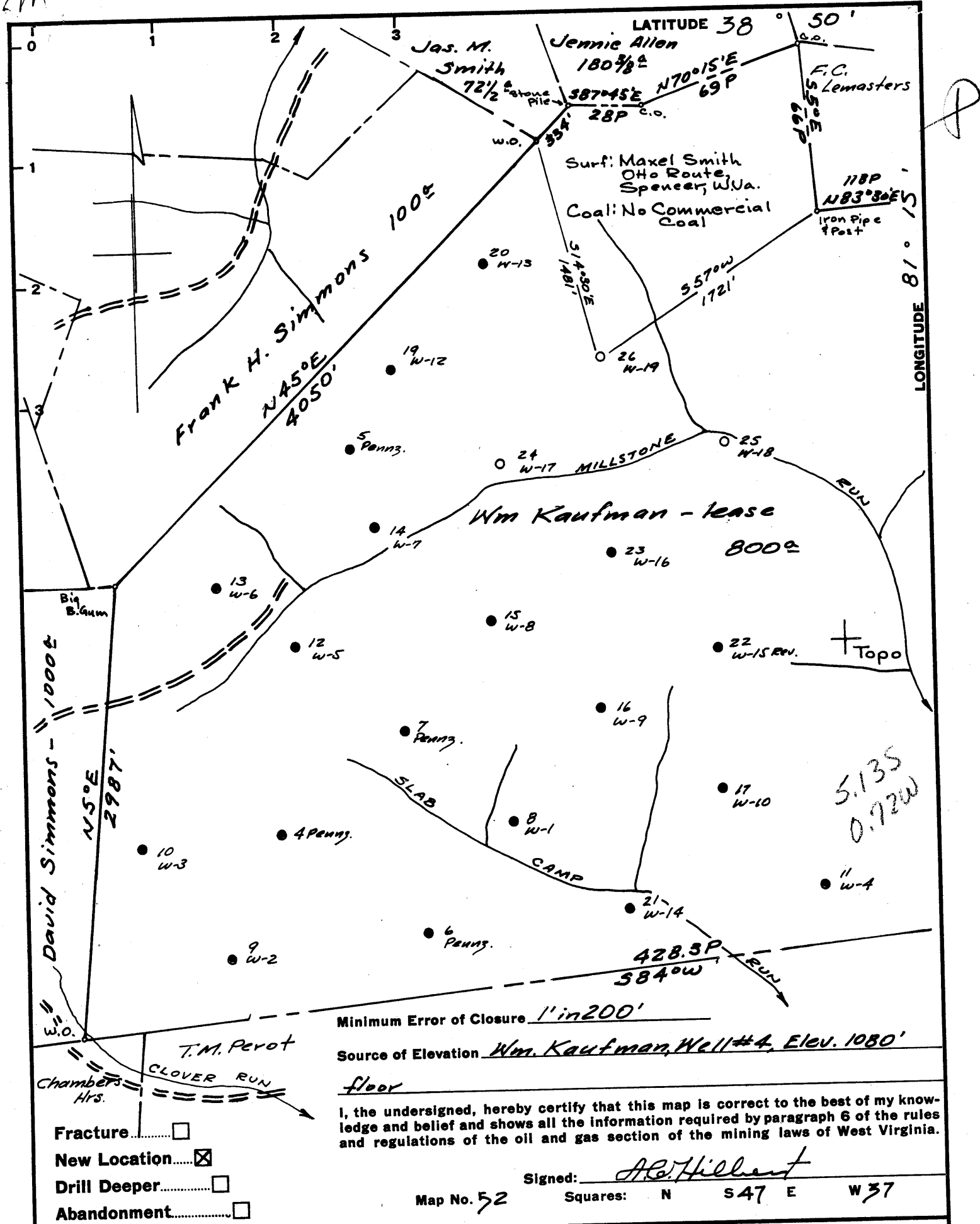
STATE OF WEST VIRGINIA
 DEPARTMENT OF MINES
 OIL AND GAS DIVISION
 CHARLESTON

WELL LOCATION MAP

FILE NO. Ro-1056-Trace

+ 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.



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 Source of Elevation Wm. Kaufman, Well #4, Elev. 1080' floor

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STATE OF WEST VIRGINIA
DEPARTMENT OF MINES
OIL AND GAS DIVISION 10

Quadrangle SPENCER

Permit No. ROA-1056

WELL RECORD

Oil or Gas Well Oil & Gas
(KIND)

Company WOLF'S HEAD OIL REFINING COMPANY, INC.
Address P. O. Box 1588, Parkersburg, W. Va.
Farm Wm. Kaufman Acres 800
Location (waters) Millstone Run
Well No. W-19 Elev. 1060.85
District Smithfield County Roane
The surface of tract is owned in fee by Maxel Smith
Otto Route Address Spencer, W. Va.
Mineral rights are owned by Alfred M. Oppenheimer, II,
300 South Lang Avenue Address Pittsburgh 8, Pa.
Drilling commenced June 12, 1964
Drilling completed June 19, 1964
Date Shot - From To
With

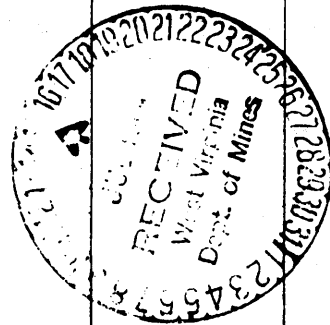
Casing and Tubing	Used in Drilling	Left in Well	Packers
Size			
16			Kind of Packer
13			Steel Shoe
10 3/4"OD	9'	9'	Float Collar
8 5/8"OD	466'	466'	Guide Shoe
6 5/8"			Size of
4 1/2"OD			4 1/2" OD
Tally	2286'	2286'	Depth set
S.L.M.	2272'	2272'	2248'
2 3/8"OD	2251.83'	2251.83'	2272'
Liners Used			Perf. top
			Perf. bottom
			Perf. top
			Perf. bottom

Open Flow /10ths Water in _____ Inch
/10ths Merc. in _____ Inch
Volume Drilled w/Rotary (Show Only) Cu. Ft.
Rock Pressure No Test lbs. _____ hrs.
Oil _____ bbls., 1st 24 hrs.
WELL ACIDIZED _____

Surface to:
CASING CEMENTED 8 5/8" SIZE 454 No. Ft. 6/13/64 Date
4 1/2" 2272 6/20/64
COAL WAS ENCOUNTERED AT - FEET _____ INCHES
FEET _____ INCHES FEET _____ INCHES
FEET _____ INCHES FEET _____ INCHES

WELL FRACTURED 6/27/64 - Used: 1,050 Bbls. Water, 46,000 # Sand, 300 Gal. BDA Acid, 175# J-98, 350# J-84, 20 Gal. Deterger and 35 Gal. Freflo
RESULT AFTER TREATMENT Gas - 50,000 Cu. Ft.
Oil - 25 Bbls.
ROCK PRESSURE AFTER TREATMENT 400 Lbs.
Fresh Water - Feet - Salt Water - Feet

Formation	Color	Hard or Soft	Top	Bottom	Oil, Gas or Water	Depth	Remarks
Top Soil			0	10			
Conductor				9			
Red Rock			10	20			
Slate			20	85			
Sand			85	200			
Slate			200	230			
Red Rock			230	265			
Slate			265	295			
Sand			295	395			
Slate			395	420			
Red Rock			420	430			
Sand			430	470			
Slate			470	485			
Red Rock			485	495			
Slate			495	515			
Red Rock			515	525			
Slate			525	675			
Red Rock			675	735			
Sand			735	765			
Red Rock			765	815			
Slate			815	840			
Sand			840	905			
Red Rock			905	925			
Slate			925	965			
Red Rock			965	985			
Slate			985	1245			
Sand			1245	1350			
Slate			1350	1375			
Sand			1375	1400			



Formation	Color	Hard or Soft	Top 10	Bottom	Oil, Gas or Water	Depth Found	Remarks
Slate			1400	1570			
Sand			1570	1620			
Slate			1620	1730			
Sand			1730	1760			
Slate			1760	1805			
Sand			1805	1920			
Slate			1920	1990			
Sand			1990	2027			
Little Lime			2027	2062			Water
Pencil Cave			2062	2078			
Big Lime			2078	2193	Oil & Gas	2115-2120	Show Only
Keener			2193	2202			
Big Injun			2202	2235			
Pay			2206	2216			
Slate			2235	2277			Show
4 1/2" Casing				2272			
TOTAL DEPTH				2277			

Date July 13, 19 64

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

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



STATE OF WEST VIRGINIA
DEPARTMENT OF MINES

RECEIVED
OCT 17 1972

Oil and Gas Division

OIL AND GAS WELL PERMIT APPLICATION

TO THE DEPARTMENT OF MINES,
Charleston, W. Va.

DATE October 13, 1972

Surface Owner Maxel Smith

Company Pennzoil Company

Address Otto Route, Spencer, W. Va.

Address Parkersburg, West Virginia 26101

Mineral Owner Alfred M. Oppenheimer II

Farm Wm. Kaufman Acres 800

Address 300 S. Lang Ave.

Location (waters) Millstone Run

Address Pittsburgh, Pa. 15200

Well No. W-19 Elevation 1060.85'

Coal Owner _____

District Smithfield County Roane

Coal Operator NO COMMERCIAL COAL

Quadrangle Spencer

Address _____

in accordance with Chapter 22
of the Code of West Virginia is hereby approved
for fracturing. This permit shall expire if
operations have not commenced by February 18, 1973

Robert L. Todd
Deputy Director of Oil & Gas Division

INSPECTOR TO BE NOTIFIED Fred Burdette
Sissonville, WV. PH: 984-9263

GENTLEMEN:

The undersigned well operator is entitled to drill upon the above named farm or tract of land for oil and gas, having fee title thereto, (or as the case may be) under grant or lease dated October 16, 1915 by M. Oppenheimer et al made to Carter Oil Co. and recorded on the _____ day of _____ 19____, in _____ County, Book 28 Page 268

_____ NEW WELL _____ DRILL DEEPER _____ REDRILL X ~~FRACTURE~~ OR STIMULATE
_____ OIL AND GAS WELL ORIGINALLY DRILLED BEFORE JUNE 5, 1969.

The enclosed plat was prepared by a registered engineer or licensed land surveyor and all coal owners and/or operators have been notified as of the above date.

The above named coal owners and/or operator are hereby notified that any objection they wish to make, or are required to make by Section 3 of the Code, must be received by, or filed with the Department of Mines within ten (10) days. *

Copies of this notice and the enclosed plat were mailed by registered mail, or delivered to the above named coal operators or coal owners at their above shown respective address _____ day _____ before, or on the same day with the mailing or delivery of this copy to the Department of Mines at Charleston, West Virginia.

Very truly yours, PENNZOIL COMPANY
(Sign Name) Curtis A. Lucas
Well Operator Curtis A. Lucas, Surveyor

Address _____
of _____
Well Operator _____
P. O. Box 1588
Street
Parkersburg,
City or Town
West Virginia 26101
State

*SECTION 3 If no objections are filed or found by the Department of mines, within said period of ten days from the receipt of notice and plat by the department of mines, to said proposed location, the department shall forthwith issue to the well operator a permit reciting the filing of such plat, that no objections have been made by the coal operators or found thereto by the department and that the same is approved and the well operator authorized to proceed.

BLANKET BOND

**THIS IS AN ESTIMATE ONLY
ACTUAL INFORMATION WILL BE SUBMITTED ON OG-10 UPON COMPLETION**

PROPOSED WORK ORDER TO _____ DRILL _____ DEEPEN ~~FRAC~~ STIMULATE _____
 DRILLING CONTRACTOR: (If Known) RESPONSIBLE AGENT:
 NAME Hank Pence NAME PENNZOIL COMPANY
 ADDRESS _____ ADDRESS Parkersburg, West Virginia 26101
 TELEPHONE _____ TELEPHONE 422-6565
 ESTIMATED DEPTH OF COMPLETED WELL: 2277 ROTARY _____ CABLE TOOLS
 PROPOSED GEOLOGICAL FORMATION: Big Injun
 TYPE OF WELL: OIL GAS _____ COMB. _____ STORAGE _____ DISPOSAL _____
 RECYCLING _____ WATER FLOOD _____ OTHER _____

TENTATIVE CASING PROGRAM:

CASING AND TUBING SIZE	USED FOR DRILLING	LEFT IN WELL	CEMENT FILL UP OR SACKS - CUBIC FT.
20 - 16			
13 - 10 <u>10-3/4</u>	<u>9</u>	<u>9</u>	
9 - 5/8			
8 - 5/8	<u>466</u>	<u>466</u>	
7			
5 1/2			
4 1/2	<u>2272</u>	<u>2272</u>	
3			Perf. Top
2			Perf. Bottom
Liners			Perf. Top
			Perf. Bottom

APPROXIMATE FRESH WATER DEPTHS _____ FEET _____ SALT WATER _____ FEET _____
 APPROXIMATE COAL DEPTHS _____
 IS COAL BEING MINED IN THE AREA? none BY WHOM? _____

TO DRILL:

SUBMIT FIVE (5) COPIES OF OG - 1, \$100.00 PERMIT FEE, PERFORMANCE BOND AND PERMANENT COPY OF PLAT.

TO DRILL DEEPER OR REDRILL:

SUBMIT FIVE (5) COPIES OF OG - 1, SHOWING ORIGINAL PERMIT NUMBER AND PERFORMANCE BOND. ON WELLS DRILLED PRIOR TO 1929, A PERMANENT COPY OF THE PLAT AND THE ORIGINAL WELL RECORD MUST ALSO BE SUBMITTED.

TO FRACTURE - STIMULATE:

OIL AND/OR GAS WELL ORIGINALLY DRILLED BEFORE JUNE 5, 1929, FIVE (5) COPIES OG - 1, PERFORMANCE BOND, PERMANENT PLAT AND ORIGINAL WELL RECORD.

OIL AND/OR GAS WELL ORIGINALLY DRILLED ON AND/OR AFTER JUNE 5, 1929, FIVE COPIES OG - 1, SHOWING ORIGINAL PERMIT NUMBER, AND PERFORMANCE BOND.

Required forms must be filed within ninety (90) days of completion for bond release. Inspector to be notified twenty-four (24) hours in advance.

The following waiver must be completed by the coal operator if the permit is to be issued within ten days of receipt thereof.

WAIVER: I the undersigned, Agent for _____ Coal Company, Owner or Operator of the coal under this lease have examined and place on our mine maps this proposed well location.

We the _____ Coal Company have no objections to said well being drilled at this location, providing operator has complied with all rules and regulations in Articles 4, 5, and 7, Chapter 22 of the West Virginia Code.

For Coal Company

Official Title