



**CERTIFICATE**

"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."  
 Minimum degree of accuracy is one part in 200  
 Signed Frank E. Barker LLS # 289

- NEW LOCATION
- RECONDITION
- DRILL DEEPER
- ABANDONMENT

COMPANY KAISER EXPLORATION & MINING CO.  
 ADDRESS P.O. BOX 537 RIDLEY, W. VA.  
 FARM FRED B SAYRE ETAL  
 MAP --- ACRES 115 LIASE NO. ---  
 WELL (FARM) NO. 1 SERIAL NO. SE  
 ELEVATION (SPIRIT LEVEL) 756.63  
 QUADRANGLE COTTAGEVILLE 7 1/2 RAVENSWOOD 15  
 COUNTY JACKSON DISTRICT RIPLEY  
 POINT OF PROVEN ELEVATION USCG BM SHOWN ABOVE EL 715  
 FILE NO. 6 DRAWING NO. 1" = 500 FT  
 DATE APRIL 8, 1978 SCALE

STATE OF WEST VIRGINIA  
 DEPARTMENT OF MINES  
 OIL AND GAS DIVISION  
 CHARLESTON  
 WELL LOCATION MAP  
 FILE NO. JAC - 1428  
035  
 + 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. 47-035  
 - DENOTES ONE INCH SPACES ON BORDER LINE OF ORIGINAL TRACING.



STATE OF WEST VIRGINIA  
DEPARTMENT OF MINES

Oil and Gas Division

WELL RECORD 14

Quadrangle Cottageville 15'

Permit No. JAC-1428  
47-035

Rotary XXX Oil \_\_\_\_\_  
Cable \_\_\_\_\_ Gas XXXXX  
Recycling \_\_\_\_\_ Comb. \_\_\_\_\_  
Water Flood \_\_\_\_\_ Storage \_\_\_\_\_  
Disposal \_\_\_\_\_ (Kind) \_\_\_\_\_

Company Kaiser Exploration and Mining Company  
Address P. O. Box 537, Ripley, WV 25271  
Farm Fred B. Sayre Acres 115  
Location (waters) Isaac's Run  
Well No. KEM-#2 Elev. 761.78  
District Ripley County Jackson  
The surface of tract is owned in fee by Fred B. Sayre & Orville Sayre  
Address 340 N. Church St. & 406 N. Church St. Ripley  
Mineral rights are owned by Same  
Address Same  
Drilling Commenced 8/3/78  
Drilling Completed 8/12/78  
Initial open flow 0 cu. ft. \_\_\_\_\_ bbls.  
Final production 250 cu. ft. per day \_\_\_\_\_ bbls.  
Well open \_\_\_\_\_ hrs. before test 1660 RP.

Casing and Tubing	Used in Drilling	Left in Well	Cement fill up Cu. ft. (Sks.)
Size			
20-16			
Cond.			
13-10"			
9 5/8	241	241	100 Sax-to surface
8 5/8			
7	2473	2473	125 Sax-1073'
5 1/2			
4 1/2	4891	4891	150 Sax-1591'
3			
2			
Liners Used			

Well treatment details:

Attach copy of cementing record.

Perforated Oriskany at 4763-65, 4788-90 with 32 Omega Jet shots.

Halliburton fractured Oriskany using 4500# 80/100 sand and 17,500# 20/40 sand. Total Fluid: 850 BBL.

Coal was encountered at \_\_\_\_\_ Feet \_\_\_\_\_ Inches  
Fresh water \_\_\_\_\_ Feet \_\_\_\_\_ Salt Water \_\_\_\_\_ Feet \_\_\_\_\_  
Producing Sand Oriskany Depth 4763-65 4788-90

Formation	Color	Hard or Soft	Top Feet	Bottom Feet	Oil, Gas or Water	* Remarks
Soil			0	20		
Siltstone			20	50		
Shale			50	80		
Sand			80	210		
Shale			210	335		
Sand			335	355		
Red Rock			355	385		
Sand			385	395		
Red Rock			395	430		
Sand			430	460		
Red Rock			460	575		
Sand			575	620		
Shale			620	720		
Sand			720	795		
Shale			795	890		
Sand			890	910		
Shale			910	1110		
Salt Sand			1110	1205		
Shale			1205	1240		
Broken Sand			1240	1310		
Shale			1310	1685		
Maxton Sand			1685	1790		
Shale			1790	1798		

(over)

\* Indicates Electric Log tops in the remarks section.

Formation	Color	Hard or Soft	Top Feet <i>14</i>	Bottom Feet	Oil, Gas or Water	* Remarks
Big L.S.			1798	1920		
Shale			1920	1945		
Injun			1945	2015		
Shale			2015	2065		
Sand			2065	2095		
Shale			2095	2400		
Coffee Shale			2400	2422		
Berea			2422	2436		
Shale			2436	3618		
Brown Shale			3618	4448		
Marcellus			4448	4675		
Onondaga L.S.			4675	4750		
Oriskany			4750	4808		
Helderberg L.S.			4808	4911		
Total Depth			4911			

Date January 4 19 79

APPROVED *R.A.P.* Owner

By Operations Manager  
(Title)

[08-78]

WILLIAMS, LAWRENCE ANDERSON STEEL SERVICE, 101 E. BROADWAY, PHOENIX

WELL TYPE: Oil \_\_\_ / Gas X / Liquid Injection \_\_\_ / Waste Disposal \_\_\_  
 (If "Gas", Production X / Underground storage \_\_\_ / Deep \_\_\_ / Shallow \_\_\_)  
 LOCATION: Elevation: 761.78 Watershed: Isaac's Run  
 District: Ripley County: Jackson Gasplant: Cottageville (7.5')

WELL OPERATOR Kaiser Exploration and Mining Co. DESIGNATED AGENT SAME  
 Address P. O. Box 8 Address \_\_\_\_\_  
Ravenswood, WV 26164

PERMITTED WORK: Drill \_\_\_ / Convert \_\_\_ / Drill deeper \_\_\_ / Re-drill \_\_\_ / Fracture or stimulate \_\_\_  
 Plug off old formation X / Perforate new formation X **RECEIVED**  
 Other physical change in well (specify) \_\_\_\_\_  
 FEB 9 - 1982

PERMIT ISSUED ON April 7, 1978 OIL AND GAS DIVISION  
 OIL & GAS INSPECTOR FILE NO. WORK WV DEPARTMENT OF MINES  
 IF APPLICABLE: PLUGGING OF DRY HOLE OR CONTINUOUS PROGRESSION FROM DRILLING OR REWORKING. VERBAL PERMISSION OBTAINED Name Richard Morris (354-7259)  
 Address P. O. Box 372  
Grantsville, WV

GEOLOGICAL TARGET FORMATION: Plugged Oriskany; Frac'd Dev. Br. Shale OLD Depth 4911 feet  
 NEW Depth of completed well, 4200' (KB) feet Rotary \_\_\_ / Cable Tools \_\_\_  
 Water strata depth: Fresh, \_\_\_ feet; salt, \_\_\_ feet.  
 Coal seam depths: NONE Is coal being mined in the area? NO  
 Plug Back Work was commenced July 17, 1979, and completed July 19, 1979

CASING AND TUBING PROGRAM: See previous well record filed upon Oriskany completion.

CASING OR TUBING TYPE	SPECIFICATIONS				FOOTAGE INTERVALS		CEMENT FILL-UP OR SACKS (Cubic feet)	PACKERS
	Size	Grade	Weight per ft	New	Used	For drilling		
Conductor								Minds
Fresh water								
Coal								Sizes
Intermediate								
Production								Booths set
Tubing								
Miners								Perforations: Br. Shale
								Top Bottom
								3970 4093

OPEN FLOW DATA  
 OLD Producing formation Devonian Oriskany Sandstone OLD Pay zone depth \_\_\_\_\_ feet  
 Gas: Initial open flow, 0 Mcf/d Oil: Initial open flow, 0 bbl/d  
 Final open flow, 250 Mcf/d Final open flow, 0 bbl/d  
 Time of open flow between initial and final tests, N/A hours  
 Static rock pressure, 1660 psig (surface measurement) after N/A hours shut in

[If applicable for multiple completion--]  
 Second producing formation Devonian Brown Shale Pay zone depth \_\_\_\_\_ feet  
 Gas: Initial open flow, 0 Mcf/d Oil: Initial open flow, 0 bbl/d  
 Final open flow, 85 Mcf/d Final open flow, 0 bbl/d  
 Time of open flow between initial and final tests, N/A hours  
 Static rock pressure, 600 psig (surface measurement) after 24 hours shut in





STATE OF WEST VIRGINIA  
DEPARTMENT OF MINES

RECEIVED  
APR 6 1978

OIL & GAS DIVISION  
DEPT. OF MINES

Oil and Gas Division

OIL AND GAS WELL PERMIT APPLICATION

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

DATE 4 April 1978

Surface Owner Fred B. Sayre & Orville Sayre  
Address 340 N. Church St & 406 N. Church St, Ripley

Company KAISER EXPLORATION & MINING COMPANY  
Address P. O. Box 537, Ripley, WV 25271

Mineral Owner Fred B. Sayre & Orville Sayre  
Address Same as above

Farm Fred B. Sayre Acres 115  
Location (waters) Isaacs Run

Coal Owner Same as above

Well No. 1 Elevation 761.78

Address \_\_\_\_\_

District Ripley County Jackson

Coal Operator None

Quadrangle Cottageville

Address \_\_\_\_\_

THIS PERMIT MUST BE POSTED AT THE WELL SITE

If provisions being in accordance with Chapter 22,  
of the W. Va. Code, the location is hereby approved

for drilling. This permit shall expire if  
operations have not commenced by 8-7-78

INSPECTOR  
TO BE NOTIFIED Richard Morris

ADDRESS P.O. Box 372, Grantsville, WV

PHONE 354-7259

[Signature]  
Deputy Director - Oil & Gas Division

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 7 March 1978 by Fred B. & Audrey L. Sayre made to Kaiser Exploration & Mining Co and recorded on the 6th day of Dec. 1977, in Jackson County, Book 146 Page 159

XXX NEW WELL \_\_\_\_\_ DRILL DEEPER \_\_\_\_\_ REDRILL \_\_\_\_\_ 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, KAISER EXPLORATION & MINING COMPANY

PLEASE SUBMIT COPIES OF ALL  
GEOPHYSICAL LOGS DIRECTLY TO:

(Sign Name) R. A. Pryce  
Well Operator  
R. A. Pryce, Operations Manager  
P. O. Box 537

W. VA. OIL & GAS CONSERVATION COMMISSION  
1613 WASHINGTON STREET, EAST  
CHARLESTON, WEST VIRGINIA 25311

Address  
of  
all Operator

Street  
Ripley  
City or Town  
West Virginia 25271  
State

BLANKET BOND

\*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.

JAC-1428 1428 PERMIT NUMBER

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

PROPOSED WORK ORDER TO XXX DRILL \_\_\_\_\_ DEEPEN \_\_\_\_\_ FRACTURE-STIMULATE \_\_\_\_\_  
 DRILLING CONTRACTOR: (If Known) \_\_\_\_\_ RESPONSIBLE AGENT: \_\_\_\_\_  
 NAME Not Known at Present NAME Robert A. Pryce  
 ADDRESS \_\_\_\_\_ ADDRESS P.O. Box 537, Ripley, WV 25271  
 TELEPHONE \_\_\_\_\_ TELEPHONE 372-2827  
 ESTIMATED DEPTH OF COMPLETED WELL: 4800' ROTARY XXX CABLE TOOLS \_\_\_\_\_  
 PROPOSED GEOLOGICAL FORMATION: Oriskany  
 TYPE OF WELL: OIL \_\_\_\_\_ GAS XXX 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			
9 - 5/8			
8 - 5/8	200	200	100 sacks to surface
7	2430	2430	75 sacks = 625 feet
5 1/2			
4 1/2	4800	4800	125 sacks = 1500 feet
3			Perf. Top
2			Perf. Bottom
Liners			Perf. Top
			Perf. Bottom

APPROXIMATE FRESH WATER DEPTHS \_\_\_\_\_ FEET SALT WATER \_\_\_\_\_ FEET  
 APPROXIMATE COAL DEPTHS Not Anticipated  
 IS COAL BEING MINED IN THE AREA? No 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