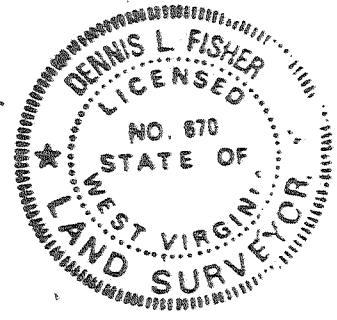


[SURFACE : H.I. FRANKLIN
MINERAL : H.I. FRANKLIN]



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 Dennis L. Fisher LLS #670

- NEW LOCATION
- RECONDITION
- DRILL DEEPER
- ABANDONMENT

COMPANY KAISER EXPLORATION & MINING COMPANY 4605
 ADDRESS PO BOX #8, RAVENSWOOD, WEST VIRGINIA 26164
 NAME H. I. FRANKLIN
 MAP _____ ACRES 51 LEASE NO. _____
 WELL (FAIR) NO. _____ SERIAL NO. KEM 90
 ELEVATION (SPIRIT LEVEL) 742'
 QUADRANGLE SANDYVILLE, T.S. MIN. 598 U2 DW,
 COUNTY JACKSON DISTRICT RAVENSWOOD 2
 POINT OF PROVEN ELEVATION SPOT ELEV. 1007' ON KNOLL
1500' EAST OF PROPOSED LOCATION
 FILE NO. _____ DRAWING NO. _____
 DATE APRIL 14, 1981 SCALE 1" = 500'

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

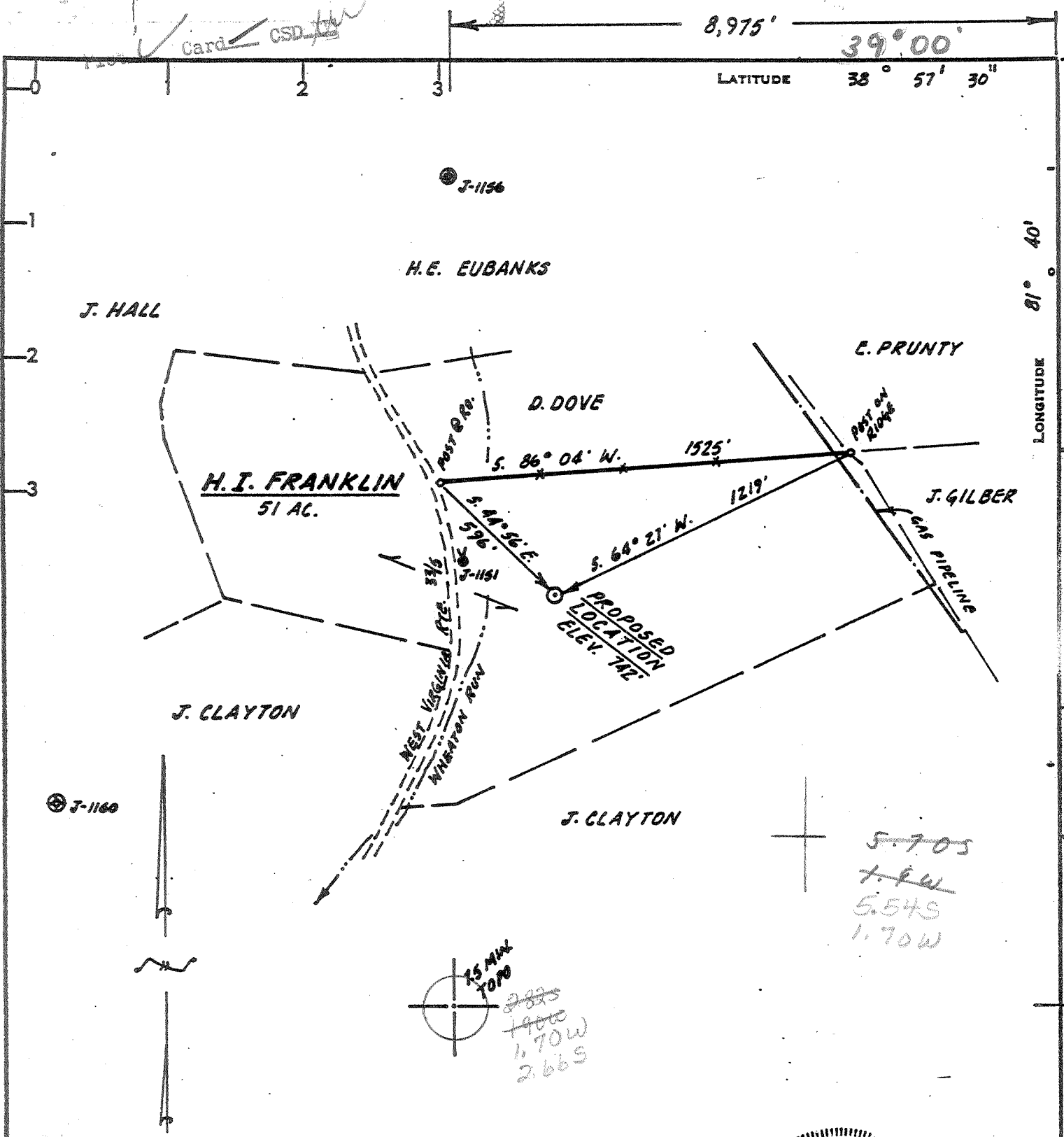
WELL LOCATION MAP

FILE NO. 035-1574-F

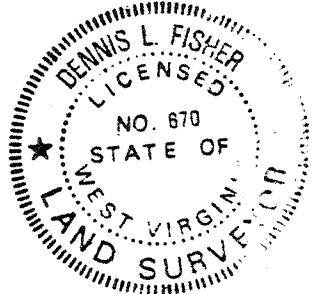
+ DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS. SCALE 1 TO 625 LATITUDE AND LONGITUDE LINES BEING REPRESENTED BY BORDER LINES AS SHOWN.

- DENOTES ONE INCH SPACES ON BORDER LINE OF ORIGINAL TRACING.

-OWWO- DEEP WELL 6-6 at Ravenwood (324)



[SURFACE : H. I. FRANKLIN
MINERAL : H. I. FRANKLIN]



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 Dennis L. Fisher

LLS #670

- NEW LOCATION
- RECONDITION
- DRILL DEEPER
- ABANDONMENT

COMPANY KAISER EXPLORATION & MINING COMPANY
 ADDRESS PO BOX #8, RAVENSWOOD, WEST VIRGINIA 26164
 FARM H. I. FRANKLIN
 MAP _____ ACRES 51 LEASE NO. _____
 WELL (FARM) NO. _____ SERIAL NO. KEM 90
 ELEVATION (SPIRIT LEVEL) 742'
 QUADRANGLE SANDYVILLE, 7.5 MIN. Ripley NW
 COUNTY JACKSON DISTRICT RAVENSWOOD
 POINT OF PROVEN ELEVATION SPOT ELEV. 1007' ON KNOLL
1300' EAST OF PROPOSED LOCATION
 FILE NO. _____ DRAWING NO. _____
 DATE APRIL 14, 1981 SCALE 1" = 500'

STATE OF WEST VIRGINIA
 DEPARTMENT OF MINES
 OIL AND GAS DIVISION
 CHARLESTON
 WELL LOCATION MAP
 FILE NO. 47-035-1574

+ DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS. SCALE 1 TO 24,000. LATITUDE AND LONGITUDE LINES BEING REPRESENTED BY BORDER LINES AS SHOWN.
 - DENOTES ONE INCH SPACES ON BORDER LINE OF ORIGINAL TRACING.

DEEP - 6-6 Elk-Pocahontas (324) Arisk (4952) APR 28 1981



IV-35
(Rev 8-81)

State of West Virginia
Department of Mines
Oil and Gas Division

Date June 24, 1986
Operator's Well No. KEM #90
Farm Franklin
API No. 47 - 035 - 1574-F

WELL OPERATOR'S REPORT
OF
DRILLING, FRACTURING AND/OR STIMULATING, OR PHYSICAL CHANGE

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

LOCATION: Elevation: 742' Watershed Wheaton Run
District: Ravenswood County Jackson Quadrangle Sandyville

COMPANY Kaiser Exploration and Mining Company
ADDRESS P. O. Box 8, Ravenswood, WV 26164
DESIGNATED AGENT R. A. Pryce
ADDRESS Same
SURFACE OWNER H. I. Franklin
ADDRESS Rt. 1, Box 169, Ravenswood, WV 26164
MINERAL RIGHTS OWNER Same
ADDRESS _____
OIL AND GAS INSPECTOR FOR THIS WORK Jerry Iephabock
ADDRESS Rt. 1, Box 101A, Ripley, WV
PERMIT ISSUED 3/11/86
DRILLING COMMENCED 4/26/81 | 5/7/86
DRILLING COMPLETED 5/03/81 | 6/5/86
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 Cond.			
13-10"			
9 5/8			
8 5/8			
7			
5 1/2			
4 1/2			
3			
2			
Liners used			

GEOLOGICAL TARGET FORMATION Oriskany Depth 4906 feet
Depth of completed well 4906 feet Rotary X / Cable Tools _____
Water strata depth: Fresh _____ feet; Salt _____ feet
Coal seam depths: -- Is coal being mined in the area? No

OPEN FLOW DATA

Producing formation Brown Shale Pay zone depth 3955'-4089 feet
Gas: Initial open flow -- Mcf/d Oil: Initial open flow -- Bbl/d
Final open flow *1000 Mcf/d Final open flow -- Bbl/d
Time of open flow between initial and final tests -- hours
Static rock pressure *1000 psig (surface measurement) after 4 hours shut in
(If applicable due to multiple completion--)

Second producing formation Berea Pay zone depth 2368'-2372 feet
Gas: Initial open flow -- Mcf/d Oil: Initial open flow -- Bbl/d
Final open flow *1000 Mcf/d Oil: Final open flow -- Bbl/d
Time of open flow between initial and final tests _____ hours
Static rock pressure *1000 psig (surface measurement) after 4 hours shut in

*Open flows and static pressures are commingled. Oriskany is still producing.
(Continue on reverse side)

new zones completed

OCT 27 1986

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

- 5/7/86: Young perforated Brown Shale from ^{Berea} 3955'-4089' with 20 holes.
- 5/22/86: NOWSCO fractured the Brown Shale with 75 quality foam. Total nitrogen: 625,000 SCF, total fluid: 260 bbl. Treated at 2500 psig, ISIP: 1500 psig; 5 min SIP: 1350 psig.
- 6/5/86: Young perforated Berea from 2368'-2372' with 16 shots.
- 6/5/86: NOWSCO fractured Berea with 75% foam. Total nitrogen: 670000 SCF, total 20/40 sand: 60,000#; total fluid: 278 bbl; treated at: 2250 psig; ISIP: 1780 psig; 5 min SIP: 1600 psig.

WELL LOG

FORMATION	COLOR	HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS
					Including indication of all fresh and salt water, coal, oil and gas
See original OG-10					

(Attach separate sheets as necessary)

KAISER EXPLORATION AND MINING COMPANY

Well Operator

By:

RA P

Date:

June 24, 1986

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 coal, encountered in the drilling of a well."

STATE OF WEST VIRGINIA
DEPARTMENT OF MINES
Oil and Gas Division

WELL RECORD

Quadrangle Sandyville

Permit No. JAC-1574

Rotary X Oil _____
Cable _____ Gas X
Recycling _____ Comb. _____
Water Flood _____ Storage _____
Disposal _____ (Kind) _____

Company <u>Kaiser Exploration and Mining Company</u> Address <u>P. O. Box 8, Ravenswood, WV 26164</u> Farm <u>H. I. Franklin</u> Acres <u>51</u> Location (waters) <u>Wheaton Run</u> Well No. <u>KEM #90</u> Elev. <u>742</u> District <u>Ravenswood</u> County <u>Jackson</u> The surface of tract is owned in fee by <u>H. I. Franklin</u> Address <u>Rt. 1, Box 169, Ravenswood, WV 26164</u> Mineral rights are owned by <u>Same</u> Address <u>Same</u> Drilling Commenced <u>4/26/81</u> Drilling Completed <u>5/03/81</u> Initial open flow <u>Trace</u> cu. ft. -- bbls. Final production <u>200,000</u> cu. ft. per day -- bbls. Well open <u>3</u> hrs. before test <u>1800</u> RP.	Casing and Tubing Size 20-16 Cond.	Used in Drilling	Left in Well	Cement fill up Cu. ft. (Sks.)
	13-10" 10 3/4"	258' (KB)	258' (KB)	150 sks class A (to surface)
	9 5/8			
	7	2162' (KB)	2162' (KB)	65 sks 50/50 pozmi 100 sks class A
	5 1/2			
	4 1/2	4892' (KB)	4892' (KB)	275 sks 50/50 pozmi
	3			
	2		4809' (KB)	
	Liners Used			

Attach copy of cementing record.

5/5/81: Perforated Oriskany Sandstone from 4821'-4829' (KB) and 4837'-4841' (KB) with 3 holes/ft, 36 holes, 3 1/2" strip; hydrofractured w/15,000# 80/100 sand, 45,000# of 20/40 sand, 839 bbl of water, and 50,000 SCF of nitrogen, on 5/6/81.

Coal was encountered at -- Feet -- Inches
 Fresh water -- Feet -- Salt Water -- Feet
 Producing Sand Oriskany Sandstone Depth 4821'-4841' (KB)

Formation	Color	Hard or Soft	Top Feet	Bottom Feet	Oil, Gas or Water	* Remarks
*All formation tops taken from electric logs depths						
Sand & Shale			0	70		
Shale			70	128		
Shaley Sand			128	296		
Sand			296	368		
Shale			368	442		
Sandy Shale			442	555		
Sand			555	622		
Shale			622	696		
Sand			696	730		
Shale			730	741		
Sand			741	775		
Shale			775	814		
Shale & Sand			814	1072		
Sand			1072	1136		
Shale			1136	1170		
Sand			1170	1198		
Sand & Shale			1198	1320		
Salt Sands			1320	1453		
Shale			1453	1539		
Maxton Sand			1539	1573		
Shale			1573	1664		

(over)

* Indicates Electric Log tops in the remarks section.

DEC 13 1981

Formation	Color	Hard or Soft	Top Feet	Bottom Feet	Oil, Gas or Water	Remarks
Big Lime (Greenbrier)			1664	1882		
Shale			1882	1907		
Injun Sand			1907	2012		
Shale			2012	2340		
Coffee Shale (Sunbury)			2340	2370		
Berea Sand			2370	2378	Show/Gas	
Shale			2378	3568		
Brown Shale			3568	4095	Show/Gas	
Shale			4095	4499		
Marcellus Shale			4499	4718		
Onondaga Lime (Corniferous)			4718	4818		
Oriskany Sand			4818	4862	Show/Gas	
<u>Heiderberg</u>			4862	4906		
Total Depth			<u>4906</u>			

Date August 26 19 81

APPROVED *W. A. P.* (Signature)

By General Manager
(Title)

RECEIVED
FEB 27 1986
DIVISION OF OIL & GAS
DEPARTMENT OF ENERGY



1) Date: February 18, 1986
2) Operator's Well No. KEM #90, Franklin
3) API Well No. 47 035 1574-F
State County Permit

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

- 4) WELL TYPE. A Oil / Gas X /
B (If "Gas", Production X / Underground storage / Deep X / Shallow)
- 5) LOCATION: Elevation: 742' Watershed: Wheaton Run
District: Ravenswood, 465 County: Jackson Quadrangle: Sandyville
- 6) WELL OPERATOR Kaiser Exploration and Mining Company CODE: 25330 7) DESIGNATED AGENT R. A. Pryce
Address P. O. Box 8 Address Same
Ravenswood, WV 26164
- 8) OIL & GAS INSPECTOR TO BE NOTIFIED Name Jerry Tephabock
Address Rt. 1, Box 101A
Ripley, WV 25271
- 9) DRILLING CONTRACTOR: Name Kaiser Company Tools
Address P. O. Box 8
Ravenswood, WV 26164
- 10) PROPOSED WELL WORK: Drill / Drill deeper / Redrill / Stimulate X /
Plug off old formation / Perforate new formation X / 441
Other physical change in well (specify) Perforate, stimulate Brown Shale & Berea;
- 11) GEOLOGICAL TARGET FORMATION, commingle zones with Oriskany
- 12) Estimated depth of completed well, 4860' feet
13) Approximate strata depths: Fresh, N/A feet; salt, N/A feet.
14) Approximate coal seam depths: None Is coal being mined in the area? Yes / No X
- 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	10 3/4	H-40	32.75	X		258' (KB)	258' (KB)	150 sks	
Coal									Sizes
Intermediate	7	K-55	20	X		2162' (KB)	2162' (KB)	165 sks	
Production	4 1/2	N-80	11.6	X			4892' (KB)	275 sks	Depths set
Tubing	2 3/8	J-55	4.6	X			4809' (KB)		
Lin.									Perforations
									Top Bottom

OFFICE USE ONLY
DRILLING PERMIT

Permit number 47-035-1574-Frac Date March 11 1986

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 March 11, 1988 unless well work is commenced prior to that date and prosecuted with due diligence.

Bond:	Agent: <u>AD</u>	Plat: <u>AS</u>	Casing: <u>AS</u>	Fee: <u>969579</u>	WPCP: <u>FRAC TANK</u>	S&E: <u>AS</u>	Other:
-------	------------------	-----------------	-------------------	--------------------	------------------------	----------------	--------

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

[Signature]
Director, Division of Oil and Gas



STATE OF WEST VIRGINIA
DEPARTMENT OF MINES

RECEIVED
APR 15 1981
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 April 15, 1981

Surface Owner H. I. Franklin
Address Rt. 1, Box 169, Ravenswood, WV 26164
Mineral Owner Same
Address _____
Coal Owner Same
Address _____
Coal Operator None
Address _____

Company Kaiser Exploration and Mining Company
Address P. O. Box 8, Ravenswood, WV 26164
Farm H. I. Franklin Acres 51
Location (waters) Wheaton Run
Well No. KEM #90 Elevation 742'
District Ravenswood County Jackson
Quadrangle Sandyville, 7.5 min.

THIS PERMIT MUST BE POSTED AT THE WELL SITE

All 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 12-16-81

[Signature]
Deputy Director - Oil & Gas Division

INSPECTOR

TO BE NOTIFIED Richard Morris

ADDRESS P. O. Box 372, Grantsville, WV

PHONE 354-7259

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 31 1978 by William and Hazel Franklin made to Kaiser Exploration and Mining Co and recorded on the 16th day of November 1978, in Jackson County, Book 150 Page 333

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.

PLEASE SUBMIT COPIES OF ALL
GEOPHYSICAL LOGS DIRECTLY TO:

WEST VIRGINIA GEOLOGICAL AND
ECONOMIC SURVEY
P. O. BOX 879
MORGANTOWN, WEST VIRGINIA 26505
AC-304 - 292-6331

Address
of
Well Operator

Very truly yours,

(Sign Name) RA Preece / dc

Well Operator

Kaiser Exploration and Mining Company

P. O. Box 8

Street

Ravenswood

City or Town

West Virginia 26164

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.

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

PROPOSED WORK ORDER TO X DRILL DEEPEN FRACTURE-STIMULATE

DRILLING CONTRACTOR: (If Known)

RESPONSIBLE AGENT:

NAME Clint Hurt & Associates, Inc.

NAME Robert A. Pryce

ADDRESS P. O. Box 388, Elkview, WV 25071

ADDRESS P. O. Box 8, Ravenswood, WV 26164

TELEPHONE 273-5371

TELEPHONE 273-5371

ESTIMATED DEPTH OF COMPLETED WELL: 4952'

ROTARY X CABLE TOOLS

PROPOSED GEOLOGICAL FORMATION: Oriskany

TYPE OF WELL: OIL GAS X 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 10 3/4	250'	250'	Cement to surface
8 - 5/8			
7	2425'	2425'	125 sks = 570 feet
5 1/2			
4 1/2	4952'	4952'	125 sks = 1500 feet
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