

J.M. MARKEY
 177Ac. Part 40% A.
 Surface - KENNETH POWELL

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 J. B. Shuck, P.E. 4596

- NEW LOCATION
- RECONDITION
- DRILL DEEPER
- ABANDONMENT

Company: HEWLETT OIL COMPANY
 Address: P.O. Box 237 GLENVILLE, W.VA. 26351
 Name: J.M. MARKEY
 Acres: 197 Lease No.: _____
 Well Name: THREE Serial No.: _____
 Elevation (Spirit Level): 1130'
 Quadrangle: WEST UNION 7S & 15' SE
 County: DOORIDGE District: CENTRAL
 Point of Proven Elevation: B.M. ON Train bridge EL 866'
 File No.: _____ Drawing No.: _____
 Date: 8-18-78 Scale: 1"=500'

STATE OF WEST VIRGINIA
 DEPARTMENT OF MINES
 OIL AND GAS DIVISION
 CHARLESTON
WELL LOCATION MAP
 FILE NO. 017-2818

+ 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.
 BEPEA 2700
 - DENOTES ONE INCH SPACES ON BORDER LINE OF ORIGINAL TRACING.

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

WELL OPERATOR'S REPORT 7
OF
DRILLING, FRACTURING AND/OR STIMULATING, OR PHYSICAL CHANGE

WELL TYPE: Oil X / Gas X / Liquid Injection _____ / Waste Disposal _____
(If "Gas", Production X / Underground storage _____ / Deep _____ / Shallow _____)
LOCATION: Elevation: 1130' Watershed: Doe Run
District: West Union County: Doddridge Quadrangle: West Union, W.V. 7 1/2'
WELL OPERATOR Key Oil Company J.N. Markey #3
Address Glenville, WV DESIGNATED AGENT Warren R. Haught
Address Smithville, WV 26178

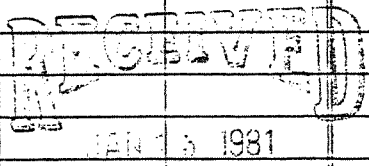
PERMITTED WORK: Drill X / Convert _____ / Drill deeper _____ / Redrill _____ / Fracture or stimulate _____
Plug off old formation _____ / Perforate new formation _____
Other physical change in well (specify) _____

PERMIT ISSUED ON August 28, 1980, OIL & GAS INSPECTOR FOR THIS WORK:
(IF APPLICABLE: PLUGGING OF DRY HOLE ON CONTINUOUS PROGRESSION FROM DRILLING OR REWORKING. VERBAL PERMISSION OBTAINED) Name Paul Garrett
Address Clarksburg, W.V.

GEOLOGICAL TARGET FORMATION: Weir & Big Injun Depth 2215-2280 feet
Depth of completed well, 2600 feet Rotary X / Cable Tools _____
Water strata depth: Fresh, _____ feet; salt, _____ feet.
Coal seam depths: None Is coal being mined in the area? No
Work was commenced September 30, 1980, and completed October 15, 1980

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	Kind	Depth
Conductor										
Fresh water	8 5/8	K-55	20#	X		825	825	120 sacks		
Coal										Sizes
Intermediate										
Production	4 1/2	J-55	10.5#	X			2549	150 sacks		Depth sec
Tubing										
Liners										Perforations:
										Top Bottom
										2225 2595



OPEN FLOW DATA

Producing formation Weir & Big Injun DEPT. OF MINES Pay zone depth 2215-2280 feet
Gas: Initial open flow, _____ Mcf/d Oil: Initial open flow, _____ Bbl/d
" Final open flow, 385 Mcf/d Final open flow, 2 Bbl/d
Time of open flow between initial and final tests, 8 hours
Static rock pressure, 720 psig (surface measurement) after 12 hours shut in
[If applicable due to multiple completion--]
Second producing formation _____ Pay zone depth _____ feet
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 measurement) after _____ hours shut in

(Continue on reverse side)

JAN 26 1981

[08-78]

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

Hydra fraced by Halliburton--10-15-80--566 Bbls. water
500 Gal. Acid 20/40 Mesh Sand 40,000 Lbs.

Perforations: 10- 2225-2235
14- 2575-2595

WELL LOG

FORMATION	Color	Hard or Soft	Top Feet	Bottom Feet	Remarks Including indication of all fresh and salt water, coal, oil and gas
Surface Pipe			0	825	
Slate			825	860	
Red Rock			860	883	
Slate			883	989	
Red Rock			989	1020	
Slate/Red Rock			102	1078	
Red Rock			1078	1095	
Sand			1095	1102	
Slate			1102	1171	
Red Rock			1171	1199	
Slate			1199	1218	
Red rock			1218	1219	
Slate			1219	1225	
Sand			1225	1275	
Shale			1275	1325	
Sand			1325	1340	
Shale			1340	1425	
Sand			1425	1545	
Shale			1545	1600	
Sand			1600	1650	
Slate			1650	1724	
Sand			1724	1753	
Slate			1753	1800	
Sand/Slate			1800	1894	
Sand			1894	1942	
Slate			1942	1966	
Sand/Shale			1966	1989	
Sand			1989	2014	
Slate			2014	2035	
Dand			2035	2090	
L. Lime			2090	2107	
Slate			2107	2127	
B. Lime			2127	2215	
Sand			2215	2280	
Shale			2280	2325	
Sand			2325	2345	
Shale			2345	2380	
Sand <i>w BR</i>			2380	2600	T.D.

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."

Key Oil Company
Well Operator

By *Thomas P. Houghton*

Its Agent



STATE OF WEST VIRGINIA
DEPARTMENT OF MINES

Oil and Gas Division

RECEIVED

JUL 29 1980

OIL & GAS DIVISION
DEPT. OF MINES

OIL AND GAS WELL PERMIT APPLICATION

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

DATE August 21, 1978

Surface Owner Kenneth Powell

Company Key Oil Company

Address West Union, WV

Address Glenville, WV

Mineral Owner J. N. Markey hrs., et al

Farm J. N. Markey Acres 197

Address Lexington, Ky

Location (waters) Doe Run

Coal Owner same as minerals

Well No. 3 Elevation 1130

Address same as minerals

District West Union County Doddridge

Coal Operator none

Quadrangle West Union SE

Address _____

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 4-28-81.

Thomas E. Huggrey
Deputy Director - Oil & Gas Division

INSPECTOR
TO BE NOTIFIED Paul Carrett

ADDRESS Clarksburg, WV

PHONE 622-3871

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 March 17, 1978 by Markey Heirs made to Key Oil Company and recorded on the 12 day of July 1978 in Doddridge County, Book 104 Page 293

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) *Joe McLaughlin*
Well Operator

P. O. Box 239
Street

Glenville,
City or Town

West Virginia 26351
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

"I have read and understand the reclamation requirements as set forth in Chapter 22, Article 4, Section 12-b and will carry out the specified requirements."

Signed by *Joe McLaughlin*

47-017-2818 PERMIT NUMBER

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

PROPOSED WORK ORDER TO DRILL _____ DEEPEN _____ FRACTURE-STIMULATE _____
 DRILLING CONTRACTOR: (If Known) RESPONSIBLE AGENT:
 NAME Fox Drilling Company NAME Joe McLaughlin
 ADDRESS Glenville, WV ADDRESS Glenville, WV
 TELEPHONE 462-7353 TELEPHONE 462-5587
 ESTIMATED DEPTH OF COMPLETED WELL: 2700' ROTARY CABLE TOOLS _____
 PROPOSED GEOLOGICAL FORMATION: Berea
 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			
9 - 5/8			
8 - 5/8	640'		cement to surface
7			
5 1/2			
4 1/2	2700'		
3			Perf. Top
2			Perf. Bottom
Liners			Perf. Top
			Perf. Bottom

APPROXIMATE FRESH WATER DEPTHS 580 FEET _____ SALT WATER _____ FEET _____
 APPROXIMATE COAL DEPTHS none _____
 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