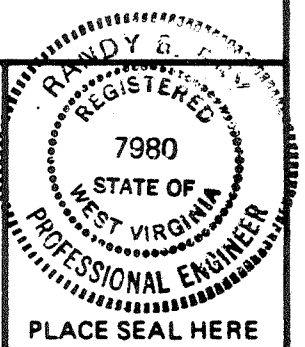


LONGITUDE 82°27'30"

FILE NO. _____
 DRAWING NO. 8260
 SCALE 1" = 400
 MINIMUM DEGREE OF ACCURACY 1:1000
 PROVEN SOURCE OF ELEVATION ROAD INTERS. SHOWN ABOVE AND ON U.S. TOPO MAP ELEV. 646.00

I THE UNDERSIGNED, HEREBY CERTIFY THAT THIS PLAT IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF AND SHOWS ALL THE INFORMATION REQUIRED BY LAW AND THE REGULATIONS ISSUED AND PRESCRIBED BY THE DEPARTMENT OF MINES.
 (SIGNED) _____
 R.P.E. # 7980 L.I.S. _____



(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS
 FORM IV-6 (8-78)



DATE SEPT. 14, 1982
 OPERATOR'S WELL NO. NO. 1
 API WELL NO. _____
47 - 099 - 1794
 STATE COUNTY PERMIT

STATE OF WEST VIRGINIA
 DEPARTMENT OF MINES
 OIL AND GAS DIVISION

WELL TYPE: OIL GAS _____ LIQUID INJECTION _____ WASTE DISPOSAL _____
 (IF "GAS,") PRODUCTION _____ STORAGE _____ DEEP _____ SHALLOW _____
 LOCATION: ELEVATION 883.00 WATER SHED GREENBRIER CREEK
 DISTRICT BUTLER DIST. COUNTY WAYNE
 QUADRANGLE WAYNE 15' W.C.
 SURFACE OWNER FLORENCE CRABTREE ACREAGE 87.6
 OIL & GAS ROYALTY OWNER FLORENCE CRABTREE LEASE ACREAGE 87.6
 LEASE NO. _____
 PROPOSED WORK: DRILL CONVERT _____ DRILL DEEPER _____ REDRILL _____ FRACTURE OR STIMULATE _____ PLUG OFF OLD FORMATION _____ PERFORATE NEW FORMATION _____ OTHER PHYSICAL CHANGE IN WELL (SPECIFY) _____

PLUG AND ABANDON _____ CLEAN OUT AND REPLUG _____
 TARGET FORMATION BEREA SAND ESTIMATED DEPTH 2100'
 WELL OPERATOR MILLS DRILLING COMP. INC. DESIGNATED AGENT HOWARD OSBURN
 ADDRESS BOX 65 ADDRESS BOX 65
WAYNE, W.VA. 25570 WAYNE, W.VA. 25570

OCT 18 1982

RECEIVED



IV-35
(Rev 8-81)

OCT 12 1983

Date Oct. 8, 1983
Operator's
Well No. 1
Farm Florence Eloise Crabtree
API No. 47-099 - 1794

RECEIVED

OIL & GAS DIVISION State of West Virginia
DEPT. OF MINES Department of Mines
Oil and Gas Division

OCT 27 1983

WELL OPERATOR'S REPORT
OF

OIL & GAS DIVISION DRILLING, FRACTURING AND/OR STIMULATING, OR PHYSICAL CHANGE
DEPT. OF MINES

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

LOCATION: Elevation: 833.00 Watershed Greenbrier Creek
District: Butler County Wayne Quadrangle Wayne

COMPANY Mills Drilling Company, Inc.

ADDRESS P.O. Box 65 Wayne, WV 25570

DESIGNATED AGENT Howard F. Osburn

ADDRESS P.O. Box 65 Wayne, WV 25570

SURFACE OWNER Florence Eloise Crabtree

ADDRESS Rt. #1 Fort Gay, WV 25514

MINERAL RIGHTS OWNER Same As Above

ADDRESS _____

OIL AND GAS INSPECTOR FOR THIS WORK _____

K.E. Butcher ADDRESS Barboursville, WV

PERMIT ISSUED Oct. 8, 1982

DRILLING COMMENCED Nov 11, 1982

DRILLING COMPLETED Apr. 23, 1983

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	265	265	Surface
7	1714	1714	BH Packer
5 1/2			
4 1/2	2200	2200	40 Sks.
3			
2	2200	2200	
Liners used			

GEOLOGICAL TARGET FORMATION Berea Sand Depth 2148-2156 feet

Depth of completed well 2203 feet Rotary - / Cable Tools X

Water strata depth: Fresh 130 feet; Salt 950 feet

Coal seam depths: _____ Is coal being mined in the area? No

OPEN FLOW DATA

Producing formation Berea Sand Pay zone depth 2148-56 feet

Gas: Initial open flow _____ Mcf/d Oil: Initial open flow 1/2 Bbl/d

Final open flow _____ Mcf/d Final open flow 2 Bbl/d

Time of open flow between initial and final tests 24 hours

Static rock pressure _____ psig (surface measurement) after _____ 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 Oil: 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)

NOV 07 1983

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

Perforated 2148-2152 and 2178-2183. Fractured 5-11-83 with 20,000# sand, 1680 ccf Nitrogen & 120 bbl Water. Fractured second time with 10,000# sand and 180 bbl water on 5-27-83.

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	red	soft	0	15	
Sand	yellow	soft	15	50	
Slate	blue	soft	50	60	
Sand	gray	soft	60	95	
Slate	blue	soft	95	125	
Sand	gray	soft	125	138	Fresh water @ 130'
Slate	blue	soft	138	260	
Sand	gray	soft	260	480	
Slate	blue	soft	480	538	
Sand	gray	soft	538	585	
Slate	blue	soft	585	595	
Sand	white	soft	595	630	
Slate	blue	soft	630	670	
Sand	white	soft	670	705	
Slate	blue	soft	705	825	
Sand	white	hard	825	885	
Slate	blue	soft	885	900	
Sand	white	hard	900	970	XXX Salt Water @ 950'
Slate	blue	soft	970	995	
Sand	white	hard	995	1140	
Slate	blue	soft	1140	1150	
Sand	white	hard	1150	1250	
Slate	blue	soft	1250	1260	
Sand	white	hard	1260	1300	
Slate	blue	soft	1300	1310	
Little Lime	shite	hard	1310	1343	
Slate	blue	soft	1343	1346	
Big Lime	white	hard	1346	1504	
Injun Sand	gray	hard	1504	1535	
Br. Sand	gray	soft	1535	1695	
Slate	blue	soft	1695	1710	
Shell	gray	hard	1710	1742	
Slate/Shell	gray	soft	1742	2136	
Coffee Shale	brown	soft	2136	2148	
Berea Sand	gray	hard	2148	2156	Show oil @ 2150
Slate/Shell	gray	hard	2156	2203 TD	Show gas @ 2184

(Attach separate sheets as necessary)

Mills Drilling Company, Inc.

Well Operator

By: Howard J. Delaney, Pres.

Date: Oct. 8, 1983

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 ~~and~~, encountered in the drilling of a well."



1) Date: October 7, 1982
 2) Operator's Well No. _____
 3) API Well No. 47 089 1794
 State _____ County _____ Permit _____

DRILLING CONTRACTOR:
Willie Drilling Co.
13370

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

OIL AND GAS WELL PERMIT APPLICATION

- 4) WELL TYPE: A Oil _____ / Gas _____ /
 B (If "Gas", Production _____ / Underground storage _____ / Deep _____ / Shallow _____)
- 5) LOCATION: Elevation: _____ Watershed: _____
 District: _____ County: _____ Quadrangle: _____
- 6) WELL OPERATOR _____ Address _____
 11) DESIGNATED AGENT _____ Address _____
- 7) OIL & GAS ROYALTY OWNER Lawrence Eloise Inabtree _____ Address _____
 12) COAL OPERATOR Coal Not Operator _____ Address _____
- 8) SURFACE OWNER _____ Address _____
 13) COAL OWNER(S) WITH DECLARATION ON RECORD:
 Name _____ Address _____
 Name _____ Address _____
- 9) FIELD SALE (IF MADE) TO: _____ Address _____
 14) COAL LESSEE WITH DECLARATION ON RECORD:
 Name _____ Address _____
- 10) OIL & GAS INSPECTOR TO BE NOTIFIED _____
 Name _____ Address _____
 Address _____

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 OIL & GAS DIVISION
 DEPT. OF MINES

- 15) PROPOSED WORK: Drill _____ / Drill deeper _____ / Redrill _____ / Fracture or stimulate _____ /
 Plug off old formation _____ / Perforate new formation _____ /
 Other physical change in well (specify) _____
- 16) GEOLOGICAL TARGET FORMATION, _____
- 17) Estimated depth of completed well, _____ feet
- 18) Approximate water strata depths: Fresh, _____ feet; salt, _____ feet.
- 19) Approximate coal seam depths: _____ Is coal being mined in the area? Yes _____ / No _____

20) 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										
Coal										Sizes
Intermediate										
Production										Depths set
Tubing										
Liners										Perforations: Top Bottom

- 21) EXTRACTION RIGHTS
 Check and provide one of the following:
 Included is the lease or leases or other continuing contract or contracts by which I hold the right to extract oil or gas.
 The requirement of Code 22-4-1-(c) (1) through (4). (See reverse side for specifics.)
- 22) ROYALTY PROVISIONS
 Is the right to extract, produce or market the oil or gas based upon a lease or other continuing contract or contracts providing for flat well royalty or any similar provision for compensation to the owner of the oil or gas in place which is not inherently related to the volume of oil or gas so extracted, produced or marketed? Yes No
- If the answer above is No, nothing additional is needed. If the answer is Yes, you may use Affidavit Form IV-60.
- 23) Required Copies (See reverse side.)
- 24) Copies of this Permit Application and the enclosed plat and reclamation plan have been mailed by registered mail or delivered by hand to the above named coal operator, coal owner(s), and coal lessee on or before the day of the mailing or delivery of this Permit Application to the Department of Mines at Charleston, West Virginia.

Notary: _____ Signed: _____
 My Commission Expires _____ Its: _____

OFFICE USE ONLY
 DRILLING PERMIT

Permit number 47-0 Date October 8 1982

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. 10) 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.)

Permit expires June 8, 1983 unless drilling is commenced prior to that date and prosecuted with due diligence.

Bond:	Agent:	Plat:	Casing	Fee

John B. Busselle
 Administrator, Office of Oil and Gas

Line Item Explanation

- 1) Date of Application
- 2) Your well name and number
- 3) To be filled out by office of oil & gas
- 4A) "Oil" means natural crude oil or petroleum and other hydrocarbons, regardless of gravity, which are produced at the well in liquid form by ordinary production methods and which are not the result of condensation of gas after it leaves underground reservoirs: "Gas" means all natural gas and all other fluid hydrocarbons not defined as oil.
- 4B) "Shallow well" means any well drilled and completed in a formation above the top of the uppermost member of the "Onondaga Group" or a depth less than six thousand feet, whichever is shallower.
"Deep well" means any well drilled and completed in a formation at or below the top of the uppermost member of the "Onondaga Group" or at a depth less than six thousand feet, whatever is shallower.
- 5) Where well is located
- 6) Before a permit can be issued in a corporation, company partnership, or fictitious name, the name must be registered with the Secretary of State Office
- 7) Use separate sheet if necessary
- 8) Present surface owner at time application is filed.
- 9) Optional
- 11) See Reg. 7.01 relating to code §22-4-1k
- 12) "Coal Operator" means any persons, firm, partnership, partnership association or corporation that proposes to or does operate a coal mine. See Note 24
- 13 & 14) As per §22-4-20; See Note 24
- 15) Work that will be attempted—A separate Form IV-2 shall not be required for fracturing or stimulating a well where fracturing or stimulating is to be part of the work for which a permit is sought and is noted as such on the Form IV-2 filed in connection therewith.
- 16) Anticipated formation for which well will be completed
- 17) Self explanatory
- 18) Depth to deepest freshwater, and shallowest salt water, taken from nearby wells corrected for differences in elevation
- 19) All coal seam depths
- 20) Proposed casing program and cementing refer to Code 22-4-5, 22-4-6, 22-4-7, 22-4-8, 22-4-8a Reg 9.01, 15.01, 15.02, 15.03, 15.04, 25.01, 25.02, 25.03, 25.04
- 21) Code 22-4-11(c) - In lieu of filing the lease or leases or other continuing contract or contracts, the applicant for a permit described herein may file the following:
 - (1) A brief description of the tract of land including the district and county wherein the tract is located;
 - (2) The identification of all parties to all leases or other continuing contractual agreements by which the right to extract, produce or market the oil or gas is claimed;
 - (3) The book and page number wherein each such lease or contract by which the right to extract, produce or market the oil or gas is recorded;
 - (4) A brief description of the royalty provisions of each such lease or contract.
- 22) Code 22-4-11(d) and 22-4-11(e).
- 23) Regulation 7.02 of the Department of Mines provides that the original and four copies of Form IV-2 must be filed with the Department, accompanied by (i) a plat in the form prescribed by Regulation 11, (ii) a bond in one of the forms prescribed by Regulation 12, or in lieu thereof the other security allowed by Code §22-4-2, (iii) Form IV-9, "Reclamation Plan", applicable to the reclamation required by Code §22-4-12b and Regulation 23, (iv) unless previously paid on the same well, the fee required by Code §22-4-12a, and (v) if applicable, the consent required by Code §22-4-8a from the owner of any water well or dwelling within 200 feet of the proposed well.
- 24) The above named coal operator, coal owner(s), and coal lessee are hereby notified that any objection they wish to make or are required to make by Code §22-4-3 must be filed with the Department of Mines within fifteen (15) days after the receipt of this Application by the Department.

.....

The following waiver must be completed by the coal operator and by any coal owner or coal lessee who has recorded a declaration under Code 22-4-20, if the permit is to be issued within fifteen (15) days of receipt thereof.

WAIVER

The undersigned coal operator _____ / owner X / lessee _____ / of the coal under this well location has examined this proposed well location. If a mine map exists which covers the area of the well location, the well location has been added to the mine map. The undersigned has no objection to the work proposed to be done at this location, provided, the well operator has complied with all applicable requirements of the West Virginia Code and the governing regulations.

Date: Oct 7, 19 82

By Elaine Crabtree
Its Owner