

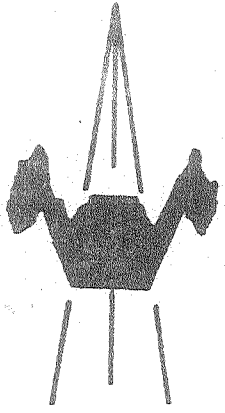
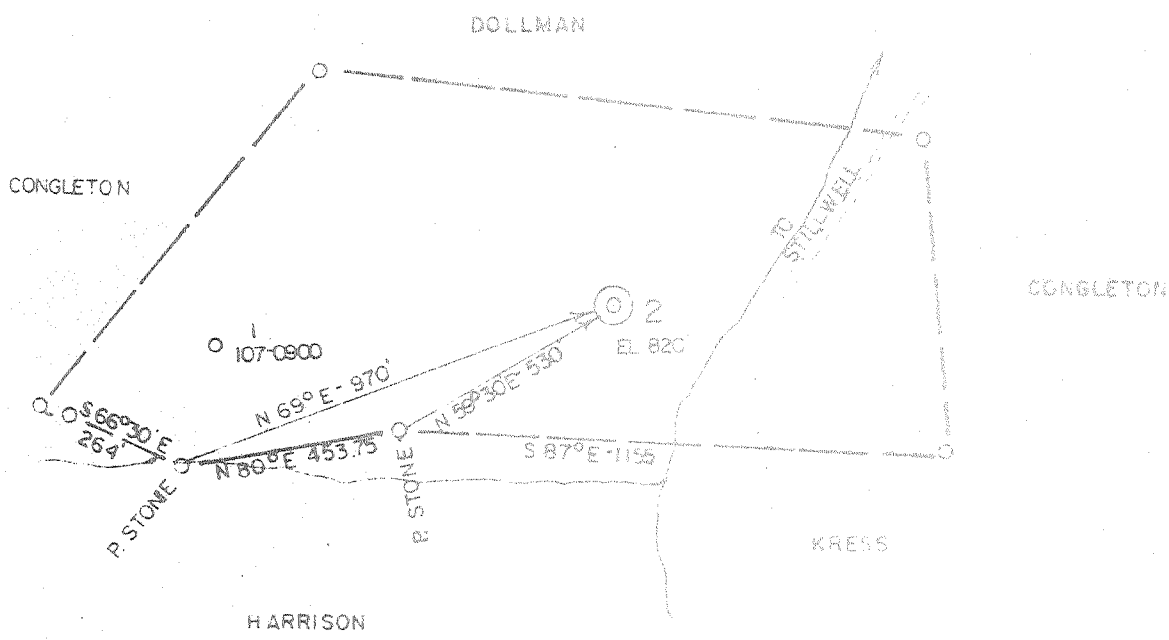
4600' SOUTH
8950' WEST

15
0.89S
1.70W

0.69S
1.70W

39 14 D
81 2155

Longitude 81° 20' 00"



ACCURACY: 1' / 200'

- New Location
- Drill Deeper
- Abandonment
- Fracture
- Redrill
- Other

Formation BEREA Oil
 Est. Depth 2500' Gas
 Other

Source of Elevation WELL 1 (890')
 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.

Chet Waterman

Company J & E DRILLING & DEV. CO.
 Address TRENTON, NJ
 Surface Owner FLOYD CALE
 Mineral Owner " "

Well No. 2 Acres 24.50
 Elevation 820'
 Quadrangle PETROLEUM Series 75' NC
 County WOOD District WALKER
 Date 3/12/80 Scale 1" = 400'

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

WELL LOCATION MAP
 47 - 107 - 0960
 STATE COUNTY PERMIT

+ Denotes location of well on United States Topographic Maps.
 Engineer CHET WATERMAN
 Engineer's Registration No. 3788 File No. 80-137

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

Date June 16th, 1980

FORM IV-35
(Obverse) 1980

Operator's
Well No. Two

[08-78]

WELL OPERATOR'S REPORT
OF

API Well No. 107 0960
State County Fern

OIL & GAS DRILLING, REWORKING AND/OR STIMULATING, OR PHYSICAL CHANGE

DEPT. OF MINES

WELL TYPE: Oil X / Gas ___ / Liquid Injection ___ / Waste Disposal ___
(If "Gas", Production ___ / Underground storage ___ / Deep ___ / Shallow ___)
LOCATION: Elevation: 830' Watershed: Branch Of Stillwell Creek
District: Walker County: Wood Quadrangle: Elizabeth

WELL OPERATOR Blue Spruce Oil & Gas Associates DESIGNATED AGENT J. & E. Drilling & Dev.
Address P.O. Box 5003# Trenton N.J. 08638 Address Pullman West Va P.O. Box 446
Phone 659-2823

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

PERMIT ISSUED ON Mar. 21st, 1980 OIL & GAS INSPECTOR FOR THIS WELL:
Name _____
Address _____

IF APPLICABLE: PLUGGING OF DRY HOLE OR CONTINUOUS PROGRESSION FROM DRILLING OR REWORKING. VERBAL PERMISSION OBTAINED _____
GEOLOGICAL TARGET FORMATION: Berea Depth 2280'
Depth of completed well, 2380 feet Rotary X / Cable Tools ___
Water strata depth: Fresh, None feet; salt, 1800' feet.
Coal seam depths: None Is coal being mined in the area? ___
Work was commenced 4/24/, 1980, and completed 4/30, 1980

CASING AND TUBING PROGRAM

CASING OR TUBING TYPE	SPECIFICATIONS				FOOTAGE INTERVALS		CEMENT FILLING OR SACKS (Cubic feet)	REMARKS
	Size	Grade	Weight per ft.	New	Used	For drilling		
Conductor	0							
Fresh water	8 5/8	24	625	X		269'	269'	To Surface
Intermediate								Sizes
Production	4 1/2	R.2	10.50	X			2380'	Appox 500' Fill up
Stringers							2380'	
								Perforations: 2283' - 2287'

OPEN FLOW DATA

Producing formation Berea Pay zone depth 2283'
Gas: Initial open flow, Show Mcf/d Oil: Initial open flow, Show Bbl/d
Final open flow, 30M Mcf/d Final open flow, 10 Bbl/d
Time of open flow between initial and final tests, 30 hours
Static rock pressure, _____ psig (surface measurement) after _____ hours shut in.
[If applicable due to multiple completion--]
Second producing formation _____ Pay zone depth _____
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.

JUL 25 1980

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

This well was fractured with 500 bbls water & 30,000 lbs sand treated at 1455 average psi.
500gal acid.

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	Top Soil	Soft	0'	10'	
R. Rock.	Red	Soft	10'	40'	
Wh. Slate	Wh.	Soft	40'	90'	
Red Rock	Red	Soft	90'	145'	
Bk. Slate	Bk.	Soft	145'	200'	
R. Rock	Red	Soft	200'	310'	
Wh. Slate	Wh.	Soft	310'	360'	
Red Rock	Red	Soft	360'	445'	
Bk. Slate	Bk.	Soft	445'	465'	
Sand	Wh.	Hard	465'	475'	
Red Rock	Red	Soft	475'	545'	
Bk. Slate	Bk.	Soft	545'	625'	
Red Rock	Red	Soft	625'	680'	
Sand	Wh.	Hard	680'	720'	
Bk. Slate	Bk.	Soft	720'	745'	
Red Rock	Red	Soft	745'	760'	
Bk. Slate	Bk.	Soft	760'	810'	
Sand	Wh.	Hard	810'	895'	
Red Rock	Red	Soft	895'	1000'	
Wh. Slate	Wh.	Soft	1000'	1030'	
Red Rock	Red	Soft	1030'	1080'	
Bk. Slate	Bk.	Soft	1080'	1100'	
Gy. Lime	Gy.	Hard	1100'	1135'	
Sand	Wh.	Hard	1135'	1165'	
Wh. Slate	Wh.	Soft	1165'	1205'	
Sand	Wh.	Hard	1205'	1335'	
Lime Shell's	Gy.	Hard	1335'	1395'	
Sand	Wh.	Hard	1395'	1560'	
Bk. Slate	Bk.	Soft	1560'	1720'	
Sand	Wh.	Hard	1720'	1900'	Hole Full Of Water 1800' To 1890
Bk. Slate	Bk.	Soft	1900'	2000'	
Sand	Wh.	Hard	2000'	2050'	
Bk. Slate	Bk.	Soft	2050'	2282'	Top Of Berea Sand show Of Oil
Sand <i>Berea</i>	Wh.	Hard	2282'	2286'	Bottom Of Berea Sand
Bk. Slate	Bk.	Soft	2286'	2380'	T.D.

(Attach separate sheets to complete as necessary)

Blue Spruce Oil & Gas Associates,
Well Operator

By J. & E. Drilling & Dev. Co.

Its Agent *Company to Company*
Gen. Partner

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."

[08-78]

OIL AND GAS WELL PERMIT APPLICATION

Operator's Well No. No-2
API Well No. 47-107-0960
State County Permit

WELL TYPE: Oil / Gas
(If "Gas", Production / Underground storage / Deep / Shallow)
LOCATION: Elevation: 820 Watershed: Stillwell Creek
District: Walker County: Wood Quadrangle: Elizabethth

WELL OPERATOR J. & E. Drilling & Dev. Co.
Address Post Office Box 5003#
Trenton N.J. 08638

DESIGNATED AGENT E. C. Currey Jr.
Address Pullman West Va. 26421

OIL & GAS ROYALTY OWNER Floyd J. Cale
Address Walker Rt #2

COAL OPERATOR None
Address: _____

Acreage 24 & 1/4

SURFACE OWNER Floyd J. Cale
Address Walker Rt. 2#

COAL OWNER(S) WITH DECLARATION ON RECORD
Name _____
Address _____
RECEIVED
MAR 21 1980

Acreage 24 & 1/4

FIELD SALE (IF MADE) TO:
Name _____
Address _____

Name _____
Address OIL & GAS DIVISION
DEPT. OF MINES

OIL & GAS INSPECTOR TO BE NOTIFIED
Name Paul Goodnight
Address _____
477-3660

COAL LESSEE WITH DECLARATION ON RECORD:
Name _____
Address _____

The undersigned well operator is entitled to operate for oil or gas purposes at the above location under a deed / lease / other contract / dated April, 1979, to the undersigned well operator from H.H. Elder

[If said deed, lease, or other contract has been recorded:]
Recorded on May 4th, 1979, in the office of the Clerk of the County Commission of Wood County, West Virginia, in Parkersburg Book 721 at page 671. A permit is requested as follows:

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

--planned as shown on the work order on the reverse side hereof.

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.

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.

PLEASE SUBMIT COPIES OF ALL GEOPHYSICAL LOGS DIRECTLY TO:
WEST VIRGINIA OIL AND GAS CONSERVATION COMMISSION
1675 WASHINGTON STREET EAST
CHARLESTON, WV 25311
TELEPHONE: (304) 346-3092

BLANKET BOND

J. & E. Drilling & Dev. Co.
Well Operator

By E. C. Currey Jr.
Its Agent Emory C. Currey

PROPOSED WORK ORDER

THIS IS AN ESTIMATE ONLY:
ACTUAL INFORMATION MUST BE SUBMITTED ON FORM IV-35 UPON COMPLETION

DRILLING CONTRACTOR (IF KNOWN) Not Known

Address _____

GEOLOGICAL TARGET FORMATION, Berea

Estimated depth of completed well, 2400 feet Rotary X / Cable tools _____ /

Approximate water strata depths: Fresh Surface feet; salt, _____ feet.

Approximate coal seam depths: None IS coal being mined in the area? Yes _____ / No _____ /

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		
Conductor								
Fresh water	8"			X		250'	250'	Fill to surface
Coal								
Intermediate								Sizes
Production	4 1/2"		10.50	X			2400'	Fill Approx 400' Depths set
Tubing								
Liners								Perforations:
								Top Bottom

NOTE: 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.

A separate Form IV-2 shall not be required for fracturing or stimulating a well where fracturing or stimulating is a part of the work for which a permit is sought and is noted as such on the Form IV-2 filed in connection therewith.

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 11-25-80

Robert L. [Signature]

Deputy Director - Oil & Gas Division

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:

W A I V E R

The undersigned coal operator _____ / owner _____ / 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: _____, 19____

By _____
Its _____