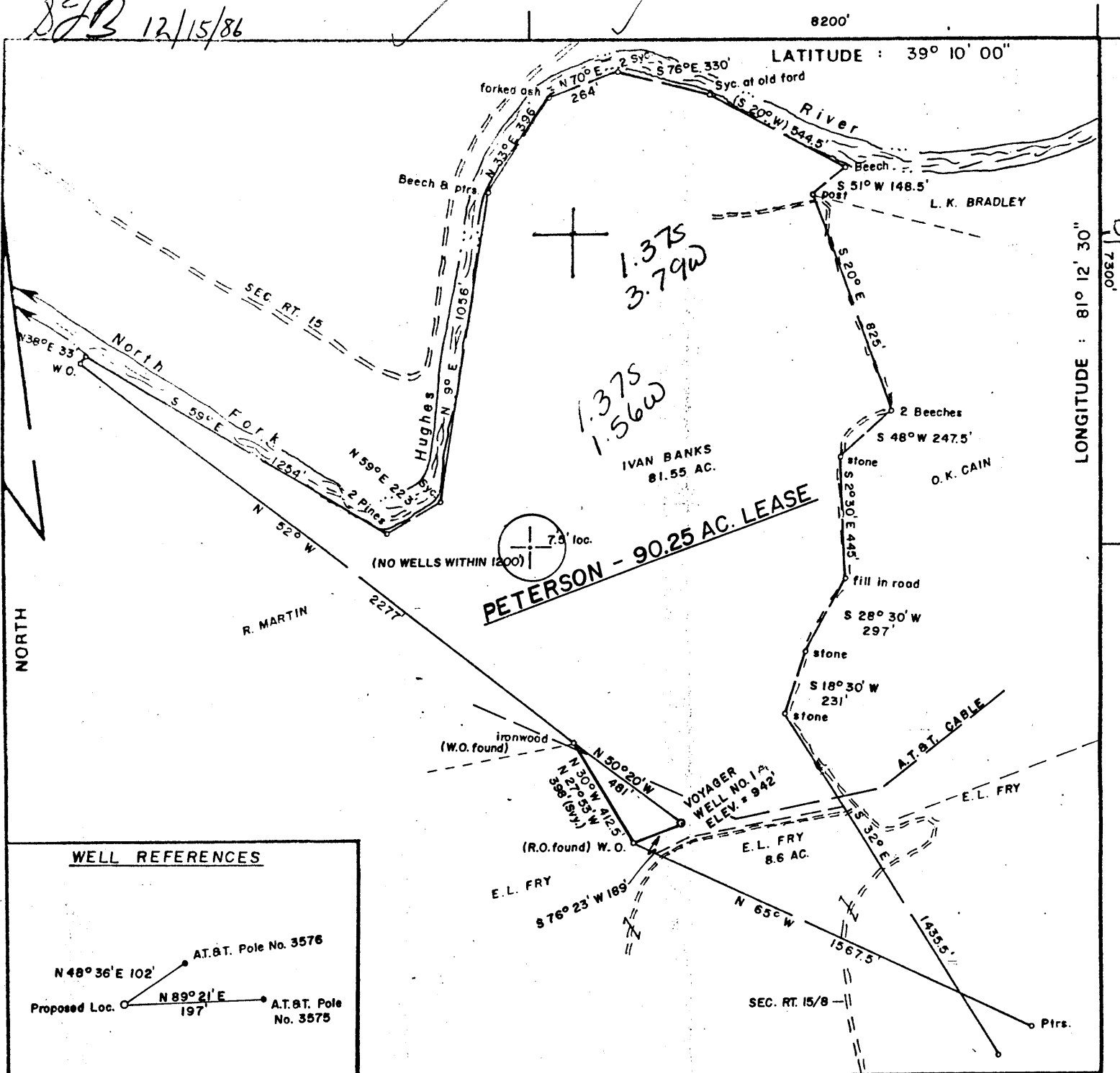


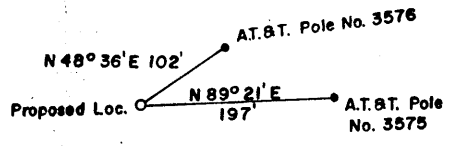
873 12/15/86



8200' LATITUDE : 39° 10' 00"

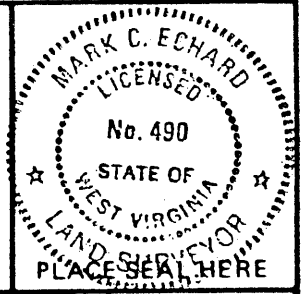
LONGITUDE : 81° 12' 30"

**WELL REFERENCES**



FILE NO. 12-14  
 DRAWING NO. \_\_\_\_\_  
 SCALE 1" = 500'  
 MINIMUM DEGREE OF ACCURACY 1/200  
 PROVEN SOURCE OF ELEVATION Junction of Roads S. of Location, ELEV.= 685'

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) Mark C. Echard  
 MARK C. ECHARD  
 R.P.E. \_\_\_\_\_ L.L.S. 490



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



DATE NOVEMBER 11, 1986  
 OPERATOR'S WELL NO. ONE-A  
 API WELL NO. 71541E  
47 - 085 - 7583  
 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 942' WATER SHED NORTH FORK HUGHES RIVER  
 DISTRICT GRANT 2 COUNTY RITCHIE  
 QUADRANGLE CAIRO 7.5' 275 057 WCV Harrisville  
 SURFACE OWNER IVAN BANKS ACREAGE 81.55  
 OIL & GAS ROYALTY OWNER CORA L. PETERSON, et al LEASE ACREAGE 90.25  
 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) \_\_\_\_\_

**DEC 23 1986**

PLUG AND ABANDON \_\_\_\_\_ CLEAN OUT AND REPLUG \_\_\_\_\_ 6-6 Gillespie Run (116)  
 TARGET FORMATION BEREA ESTIMATED DEPTH 2400  
 WELL OPERATOR VOYAGER OIL & GAS CORP DESIGNATED AGENT DAVID A. HANLON  
 ADDRESS P.O. BOX 183 711 ADDRESS 100 E. MAIN STREET  
RENO OHIO 45773 HARRISVILLE, WV. 26362



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

Perf: 1889' - 1897' w/16, .39" holes  
 Frac: 18,200 gal 40# Cross-Link Polymer, 365 sx sand  
 Breakdown: 1800 psig  
 Avg. Treat: 1550 psig @ 8 BPM  
 ISIP: 1320 psig

**RECEIVED**  
 JUN 29 1987

WELL LOG

DIVISION OF OIL & GAS  
 DEPARTMENT OF ENERGY

FORMATION	COLOR	HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS Including indication of all fresh and salt water, coal, oil and gas
(Surface to 1062' not logged)					
Shale, Siltstone, Coal			1062	1198	
Second Cow Run Sand			1198	1226	
Shale, Siltstone, Coal			1226	1257	
First Salt Sand			1257	1328	
Shale, Siltstone, Coal			1328	1375	
Second Salt Sand			1375	1421	
Shale, Siltstone, Coal			1421	1531	
Third Salt Sand			1531	1658	
Siltstone, Shale			1658	1689	
Maxton Sandstone			1689	1789	
Shale			1789	1791	
Greenbrier Limestone			1791	1837	
Greenbrier Sandstone			1837	1849	
Shale			1849	1853	
Big Injun Sandstone			1853	1948	
Shale, Siltstone			1948	T. D.	

Coals:

- 1143' - 1146'
- 1229' - 1231'
- 1304' - 1308'
- 1329' - 1332'
- 1347' - 1349'
- 1353' - 1355'
- 1368' - 1374'
- 1440' - 1443'
- 1445' - 1448'
- 1463' - 1465'
- 1505' - 1507'

Show of gas @ 1270'

Slight show of oil @ 1640'

Very Good show of Oil @ 1710'

No shows

Very good show of gas @ 1890'  
 Show of oil @ 1930'

Driller's T. D. 2042'

Logger's T. D. 2042'

(Attach separate sheets as necessary)

VOYAGER OIL & GAS CORPORATION

Well Operator

Richard Hudson

By:

*[Handwritten Signature]*

Date:

6/15/87

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 wells."



December 2, 1986

- 1) Date: \_\_\_\_\_, 1986
- 2) Operator's Well No. PETERSON #1A
- 3) API Well No. 47 - 085 - 7583  
State County Permit

**RECEIVED**  
DEC 11 1986

STATE OF WEST VIRGINIA BLANKET BOND  
DEPARTMENT OF ENERGY, OIL AND GAS DIVISION #B-004374-087-86

DIVISION OF OIL & GAS  
DEPARTMENT OF ENERGY

APPLICATION FOR A WELL WORK PERMIT

- 4) WELL TYPE: A Oil  Gas   
B (If "Gas", Production  / Underground storage \_\_\_\_\_ / Deep \_\_\_\_\_ / Shallow  )
- 5) LOCATION: Elevation: 942' Watershed: North Fork Hughes River  
District: Grant 2 County: Ritchie 085 Quadrangle: Cairo 7.5' 275
- 6) WELL OPERATOR VOYAGER OIL & GAS CODE: 51590 7) DESIGNATED AGENT DAVID G. HANLON  
Address P. O. Box 183 Address 108 E. Main Street  
Reno, OH 45773 Harrisville, WV 26362
- 8) OIL & GAS INSPECTOR TO BE NOTIFIED 9) DRILLING CONTRACTOR:  
Name Samuel Hersman Name FOUTS OPERATIONS, INC.  
Address P. O. Box 66 Address Route 2, Box 271  
Smithville, WV 26178 Glouster, OH 45732
- 10) PROPOSED WELL WORK: Drill  / Drill deeper \_\_\_\_\_ / Redrill \_\_\_\_\_ / Stimulate   
Plug off old formation \_\_\_\_\_ / Perforate new formation \_\_\_\_\_  
Other physical change in well (specify) \_\_\_\_\_
- 11) GEOLOGICAL TARGET FORMATION, Berea 30E
- 12) Estimated depth of completed well, 2400' feet
- 13) Approximate trata depths: Fresh, 397 60' feet; salt, 1300 feet.
- 14) Approximate coal seam depths: M/A Is coal being mined in the area? Yes \_\_\_\_\_ / No
- 15) CASING AND TUBING PROGRAM See 085-3160

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	7"			X		430-320'	430-320'	To surface	by rule 15.05
Coal									Sizes
Intermediate									Depths set
Production	4 1/2"		9.5#	X		2400'	2400'	As per	Rule <del>15.01</del>
Tubing								Rule	Perforations: <u>OR 240 SKS</u>
Liners									Top Bottom

OFFICE USE ONLY  
DRILLING PERMIT

Permit number 47-085-7583

December 17 1986  
Date

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 December 17, 1988 unless well work is commenced prior to that date and prosecuted with due diligence.

Bond: <input checked="" type="checkbox"/>	Agent: <u>AS</u>	Plat: <input checked="" type="checkbox"/>	Casing: <u>AS</u>	Fee: <u>1248, 249</u>	W&P: <input checked="" type="checkbox"/>	S&E: <input checked="" type="checkbox"/>	Other: <input checked="" type="checkbox"/>
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NOTE: Keep one copy of this permit posted at the drilling location.

Director, Division of Oil and Gas

File

See the reverse side of the APPLICANT'S COPY for instructions to the well operator.