



FILE NO. BK 73 P 54  
 DRAWING NO. \_\_\_\_\_  
 SCALE 1" = 500'  
 MINIMUM DEGREE OF ACCURACY 1-200'  
 PROVEN SOURCE OF ELEVATION USGS Road Forks  
N 29° 30' E - 2223' From loc.  
El 941.0'

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) C. S. Volley Jr.  
 R.P.E. \_\_\_\_\_ I.L.S. 92

PLACE SEAL HERE

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



DATE NOV 12, 1982  
 OPERATOR'S WELL NO. 942  
 API WELL NO. \_\_\_\_\_  
47 - 105 - 1017  
 STATE COUNTY PERMIT

STATE OF WEST VIRGINIA  
 DEPARTMENT OF MINES  
 OIL AND GAS DIVISION

WELL TYPE: OIL \_\_\_ GAS X LIQUID INJECTION \_\_\_ WASTE DISPOSAL \_\_\_  
 (IF "GAS,") PRODUCTION X STORAGE \_\_\_ DEEP \_\_\_ SHALLOW X  
 LOCATION: ELEVATION 1085.53' WATERSHED OIL ROCK RUN  
 DISTRICT CLAY COUNTY WIRT  
 QUADRANGLE GIRTA 7.5' Elizabeth 15' SE  
 SURFACE OWNER WESTVACD ACREAGE 187.5  
 OIL & GAS ROYALTY OWNER GLEN ROBERTS LEASE ACREAGE 188  
 LEASE NO. 1867  
 PROPOSED WORK: DRILL X 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 MARCELLUS ESTIMATED DEPTH 5200'  
 WELL OPERATOR BOV VALLEY PETRO. DESIGNATED AGENT W. E. STOVER  
 ADDRESS 600 COMMERCE SQUARE ADDRESS Box 235  
CHARLESTON WVA 25301 CULLODEN WVA 25510

**DEEP WELL**

DEC 6 1982

RECEIVED

JAN 5 - 1983

IV-35  
(Rev 8-81)

OIL AND GAS DIVISION  
WV DEPARTMENT OF MINES



State of West Virginia  
Department of Mines  
Oil and Gas Division

Date December 30, 1982

Operator's  
Well No. 942

Farm Robinson

API No. 47 - 105 - 1017

JAN 10 1983

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: 1085.53 Watershed Oil Rock Run  
District: Clay County Wirt Quadrangle Girta 7.5'

COMPANY Bow Valley Petroleum Inc.  
ADDRESS 600 Commerce Sq. Charleston, WV 25301  
DESIGNATED AGENT W. E. Stover  
ADDRESS Culloden, WV  
SURFACE OWNER Glen W. Roberts Estate  
ADDRESS Elizabeth, WV  
MINERAL RIGHTS OWNER West Virginia Pulp & Paper  
ADDRESS Parkersburg, WV  
OIL AND GAS INSPECTOR FOR THIS WORK Deo  
Mace ADDRESS Sandridge, WV  
PERMIT ISSUED 11-16-82  
DRILLING COMMENCED 12-3-82  
DRILLING COMPLETED 12-13-82  
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"	37	37	13 sks
9 5/8	251.20	251.20	100 sks
8 5/8			
7	2134.60	2134.60	150 sks
5 1/2			
4 1/2	5877.90	5877.90	280 sks
3			
2			
Liners used			

GEOLOGICAL TARGET FORMATION Devonian Shale Marcellus Depth \_\_\_\_\_ feet  
Depth of completed well 5867 feet Rotary x / Cable Tools \_\_\_\_\_  
Water strata depth: Fresh 97 feet; Salt \_\_\_\_\_ feet  
Coal seam depths: N/A Is coal being mined in the area? No

OPEN FLOW DATA  
Producing formation Devonian Shale Pay zone depth \_\_\_\_\_ feet  
Gas: Initial open flow \_\_\_\_\_ Mcf/d Oil: Initial open flow \_\_\_\_\_ Bbl/d  
Final open flow 289 Mcf/d Final open flow show Bbl/d  
Time of open flow between initial and final tests \_\_\_\_\_ hours  
Static rock pressure testing 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)

DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC.  
Well fraced in two stages; each stage consisting of 750,000 sft<sup>3</sup> N<sub>2</sub> with 500  
gallons of acid for initial breakdown.

WELL LOG

FORMATION	COLOR	HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS
Soil			0	6	Including indication of all fresh and salt water, coal, oil and gas
Alternating Sand & Shales			6	1870	
Big Lime			1870	2035	
Injun Sand			2035	2100	
Weir Shale			2100	2341	
Sunbury Shale			2341	2386	
Dev. Shale			2386	5750	

TD 5750

5750  
2386  
3364

2386  
1160  
3486

2386 → 3500 - Up. Dev. undiff.  
3500 → 4450 - Huron  
4450 → 4650 - Java  
4650 → 4950 - Angola  
4950 → 5275 - Rhinest.  
5275 → 5500 - Sonyea  
5500 → TD

(Attach separate sheets as necessary)

Bow Valley Petroleum Inc.  
Well Operator

By: Martin Combs

Date: December 30, 1982

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."



1) Date: November 16, 1982  
 2) Operator's Well No. 942  
 3) API Well No. 47 State 125 County 1017 Permit

DRILLING CONTRACTOR:

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

OIL AND GAS WELL PERMIT APPLICATION

- 4) WELL TYPE: A Oil \_\_\_\_\_ / Gas X /  
 B (If "Gas", Production X / Underground storage \_\_\_\_\_ / Deep \_\_\_\_\_ / Shallow X /)
- 5) LOCATION: Elevation: 1015.53 Watershed: OIL ROCK RUN  
 District: CIAG County: WIRT Quadrangle: GIRTH
- 6) WELL OPERATOR Bow Valley Pty, Inc 11) DESIGNATED AGENT W.A. STOVER  
 Address 600 Commercial St Address Box 235  
Charleston W.V. 25301 Charleston W.V.
- 7) OIL & GAS ROYALTY OWNER Sten W. Roberts Estate 12) COAL OPERATOR N/A  
 Address 1716-14 Address \_\_\_\_\_
- 8) SURFACE OWNER West Virginia Pulp & Paper 13) COAL OWNER(S) WITH DECLARATION ON RECORD:  
 Address Parkersburg Name \_\_\_\_\_  
W.V.A. Address \_\_\_\_\_  
 Acreage 187.5 Name \_\_\_\_\_  
 Address \_\_\_\_\_
- 9) FIELD SALE (IF MADE) TO:  
 Address \_\_\_\_\_
- 10) OIL & GAS INSPECTOR TO BE NOTIFIED  
 Name D. ... Address \_\_\_\_\_  
St. ...
- 15) PROPOSED WORK: Drill X / 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 X

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NOV 16 1982  
OIL & GAS DIVISION  
DEPT. OF MINES

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	13			X		30	30	To Surface	Kinds
Fresh water	2 1/2			X		250	250	Under pack	
Coal									Sizes
Intermediate	7		23	X		2000	2000	To Surface	
Production	4 1/2		125	X		5150	5150	260 S/K	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: Charles F. Roberts  
 My Commission Expires \_\_\_\_\_ Its: \_\_\_\_\_

OFFICE USE ONLY  
DRILLING PERMIT

Permit number \_\_\_\_\_ 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. 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 July 30, 1983 unless drilling is commenced prior to that date and prosecuted with due diligence.

Bond:	Agent:	Plat:	Casing	Fee
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Administrator, Office of Oil and Gas

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