



1) Date: NOVEMBER 16, 19 82
 2) Operator's # WI 014
 Well No. _____
 3) API Well No. 47 105 1013
 State _____ County _____ 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: 723.73 Watershed: LITTLE KANAWHA RIVER
 District: NEWARK County: Wirt Quadrangle: KANAWHA
- 6) WELL OPERATOR Bow Valley Pet. Inc 11) DESIGNATED AGENT W.E. STOVER
 Address 600 Commerce Sq Address P.O. Box 235
Charleston W.Va 25301 Culloden W.Va
- 7) OIL & GAS ROYALTY OWNER Glen W. Roberts Estate 12) COAL OPERATOR N/A
 Address ELIZABETH, W.Va Address _____
 Acreage 295
- 8) SURFACE OWNER West Virginia Pulp & Paper 13) COAL OWNER(S) WITH DECLARATION ON RECORD:
 Address PARKERSBURG Name _____
W.Va Address _____
 Acreage 295 Name _____
 Address _____
- 9) FIELD SALE (IF MADE) TO:
 Address _____
- 10) OIL & GAS INSPECTOR TO BE NOTIFIED
 Name MR Deo MACE
 Address Rt 1 Box 5
SANDRIDGE W.Va
- 14) COAL LESSEE WITH DECLARATION ON RECORD:
 Name _____
 Address _____
- 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, MARCELLUS Shale
- 17) Estimated depth of completed well, 5500 feet
- 18) Approximate water strata depths: Fresh, 85 feet; salt, NA feet.
- 19) Approximate coal seam depths: N/A Is coal being mined in the area? Yes _____ / No X /

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	9 5/8			X		250	250	100 SKS TO SURFACE	Sizes	
Coal										
Intermediate	7		23	X		1950	1950	125 SKS		
Production	4 1/2	J-55	10.5	X		5450	5450	270 SKS	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: _____
 My Commission Expires _____

Signed: Charlton B Roberts
 Its: Geologist

OFFICE USE ONLY

Permit number 47-105-1013 **DRILLING PERMIT** November 19 82
 Date 01/12/2024

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 19, 1983 unless drilling is commenced prior to that date and prosecuted with due diligence.

Bond: <u>Blanket</u>	Agent: <u>OK</u>	Plat: <u>M.A.</u>	Casing: <u>M.A.</u>	Fee: <u>411</u>
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[Signature]
 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

01/12/2024

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 _____

Line Item 21) - Pursuant to Code 22-4-11(c) the applicant, Bow Valley Petroleum, in lieu of filing the lease with the permit application, does hereby provide the following information:

- 1.) Steed tract is located in Newark District of Wirt County, West Virginia, containing 320 acres more or less and bounded on the
North by Little Kanawha Co. and Billy Huff
East by Little Kanawha River
South by Camp Barb 4-H Camp, Carl Thorn, Allen Ward, Amy King, Glen Gibson, and Harvey Morgan
West by Holmes Blair and Dwayne Thompson

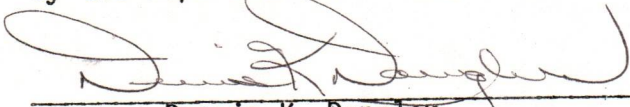
- 2.) Lessor - Glen W. Roberts (deceased)
Dorothy Parks Roberts (his wife)

Lessee - Flying Diamond Oil Corporation
Bow Valley Petroleum is successor in interest.

- 3.) Oil and Gas Lease is recorded in Wirt County Recorders office in Book 152 at Page 722.

- 4.) Landowners Royalty is 1/8 of all oil and/or gas produced.
Overriding Royalty is 4% of 8/8ths of all oil and/or gas produced.
Both are payable to Glen W. Roberts Estate.

I, Dennis K. Dangler, the undersigned, do hereby certify that the above provided information is correct and accurate to the best of my knowledge and belief and shows all the information required by law and regulations issued and prescribed by the Department of Mines.



Dennis K. Dangler
Land Manager

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NOV 16 1982
OIL & GAS DIVISION
DEPT. OF MINES

01/12/2024



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IV-35
(Rev 8-81)

JAN 5 - 1983

OIL AND GAS DIVISION
WV DEPARTMENT OF MINES

State of West Virginia
Department of Mines
Oil and Gas Division

Date December 29, 1982
Operator's _____
Well No. WI-014
Farm Steed
API No. 47 - 105 - 1013

WELL OPERATOR'S REPORT
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 X /)

LOCATION: Elevation: 723.73 Watershed Little Kanawha River
District: Newark County Wirt Quadrangle Kanawha 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"	32.30'	32.30'	15 sks
9 5/8	267.84	267.84	115 sks
8 5/8			
7	2013.80	2013.80	160 sks
5 1/2			
4 1/2	5225.95	5225.95	280 sks.
3			
2			
Liners used			

GEOLOGICAL TARGET FORMATION Devonian Shale Depth 2308'-5266' feet
Depth of completed well 5270 feet Rotary X / Cable Tools _____
Water strata depth: Fresh 98 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 2308'-5266' feet
Gas: Initial open flow _____ Mcf/d Oil: Initial open flow _____ Bbl/d
Final open flow 233 Mcf/d Final open flow show Bbl/d
Time of open flow between initial and final tests _____ hours
Static rock pressure 410 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)

WIRT-1013

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

Well fraced in two stages; each stage consisting of 750,000 sft³ of N₂ with 500 gallons of acid to initiate breakdown.

OIL AND GAS DIVISION
DEPARTMENT OF MINES

WELL LOG

FORMATION	COLOR	HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS Including indication of all fresh and salt water, coal, oil and gas
Shale & Red Rock			0	287	
Shale & Red Rock			287	1035	
Sand			1035	1045	
Shale			1045	1618	
Sand			1618	1820	
Shale			1820	5270 TD	
					Electric log tops
					Sunbury Shale 2245'-2305'

(Attach separate sheets as necessary)

Bow Valley Petroleum Inc.

Well Operator

By: Marcus Combs 01/12/2024

Date: 12/29/82

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."

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Date December 29, 1982
Operator's WI-014
Well No. _____
Farm Steed
API No. 47 - 105 - 1013

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

REVISED

WELL OPERATOR'S REPORT
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: 723.73' Watershed Little Kanawha River
District: Newark County Wirt Quadrangle Kanawha 7.5'

COMPANY Bow Valley Petroleum, Inc.
ADDRESS 600 Commerce Sq. Charleston, WV
DESIGNATED AGENT Robert Long
ADDRESS Culloden, WV.
SURFACE OWNER Glen W. Roberts Estate
ADDRESS Elizabeth, WV.
MINERAL RIGHTS OWNER WestVaco
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

Casing & Tubing	Used in Drilling	Left in Well	Cement fill up Cu. ft.
Size 20-16 Cond.			
13-10"	32.30	32.30	15sks
9 5/8	267.84	267.84	115sks
8 5/8			
7	2013.80	2013.80	160ksks
5 1/2			
4 1/2		5225/95	280sks
3			
2			
Liners used			

IF APPLICABLE: PLUGGING OF DRY HOLE ON CONTINUOUS PROGRESSION FROM DRILLING OR REWORKING. VERBAL PERMISSION OBTAINED ON _____

GEOLOGICAL TARGET FORMATION Devonian Shale Depth 2308'-5266' feet
Depth of completed well 5270' feet Rotary X / Cable Tools _____
Water strata depth: Fresh 98 feet; Salt _____ feet
Coal seam depths: N/A Is coal being mined in the area? _____

OPEN FLOW DATA
Producing formation Devonian Shale Pay zone depth 2308'-5266' feet
Gas: Initial open flow _____ Mcf/d Oil: Initial open flow _____ Bbl/d
Final open flow 233 Mcf/d Final open flow _____ Bbl/d
Time of open flow between initial and final tests _____ hours
Static rock pressure 410 psig (surface measurement) after _____ hours shut in
(If applicable due to multiple completion--)
Second producing formation _____ Pay zone depth 01/12/2024 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

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

2nd Stage (N₂ Frac)

Perforation Interval = 20 holes from 2235'-3427'
 1,000,000 5ft³ of N₂, 1000 gallons HCL (partial ballout)
 1st N₂ Injection Rate 56,000 5ft³/min. Breakdown = 2350'

1st Stage (N₂ Frac)

Perforation Interval = 26 holes from 3545'-5022'
 880,000 5ft³ of N₂, 1000 gallons HCL (partial ballout)
 N₂ Injection Rate 48,000 5ft³/min. Breakdown = 2500#

WELL LOG

FORMATION	COLOR	HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS Including indication of all fresh and salt water, coal, oil and gas
<u>Drillers Log</u>					
Shale & Red Rock			0	287	
Shale & Red Rock			287	1035	
Sand			1035	1045	
Shale			1045	1618	
Sand			1618	1820	
Shale			1820	5270 TD	
<u>Electric Log Tops</u>					
Elevation	723.73				
KB	733.73				
Salt Sand			510	630	
Maxon Sand			1616	1711	
Big Lime			1724	1795	
Injun Sand			1795	1829	
Weir Shale (Pocono)			1829	2260	
Sunbury Shale			2260	2304	
Berea Sand			2304	2307	
Upper Devonian Shale			2307	3256	
Huron Shale			3256	4522	
Rhinestreet Shale			4522	5270 TD	

(Attach separate sheets as necessary)

BOW VALLEY PETROLEUM, INC.

Well Operator

By: Marvin Combs 01/12/2024
 Date: December 29, 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 all, encountered in the drilling of a well."

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

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OIL AND GAS DIVISION
WV DEPARTMENT OF MINES

INSPECTOR'S WELL REPORT

Permit No. 105-1013

Oil or Gas Well _____
(KIND)

Company Bow Valley
 Address _____
 Farm S. Roberts
 Well No. W1 014
 District Nusank County Wit
 Drilling commenced 12.3.82
 Drilling completed _____ Total depth _____
 Date shot _____ Depth of shot _____
 Initial open flow _____ /10ths Water in _____ Inch
 Open flow after tubing _____ /10ths Merc. in _____ Inch
 Volume _____ Cu. Ft.
 Rock pressure _____ lbs. _____ hrs.
 Oil _____ bbls., 1st 24 hrs.
 Fresh water _____ feet _____ feet
 Salt water _____ feet _____ feet

CASING AND TUBING	USED IN DRILLING	LEFT IN WELL	PACKERS
Size			
16			Kind of Packer _____
13			
10			Size of _____
8 1/4			
6 5/8			Depth set _____
5 3/16			
3			Perf. top _____
2			Perf. bottom _____
Liners Used			Perf. top _____
			Perf. bottom _____

CASING CEMENTED _____ SIZE _____ No. FT. _____ Date _____
 NAME OF SERVICE COMPANY _____
 COAL WAS ENCOUNTERED AT _____ FEET _____ INCHES
 _____ FEET _____ INCHES FEET _____ INCHES
 _____ FEET _____ INCHES FEET _____ INCHES

Drillers' Names Ray Resources # 3

Remarks: _____

12-3-82
DATE

W. M. Mc 01/12/2024
DISTRICT WELL INSPECTOR

Form 26
2/16/82

STATE OF WEST VIRGINIA
DEPARTMENT OF MINES
OIL AND GAS WELLS DIVISION
INSPECTOR'S PLUGGING REPORT

Permit No. _____ Well No. _____

COMPANY _____ ADDRESS _____

FARM _____ DISTRICT _____ COUNTY _____

Filling Material Used _____

Liner	Location	Amount	Packer	Location		
PLUGS USED AND DEPTH PLACED			BRIDGES	CASING AND TUBING		
CEMENT-THICKNESS	WOOD-SIZE	LEAD	CONSTRUCTION-LOCATION	RECOVERED	SIZE	LOST

Drillers' Names _____

Remarks: _____

_____ DATE I hereby certify I visited the above well on this date.

01/12/2024

DISTRICT WELL INSPECTOR

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

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OIL AND GAS DIVISION
WV DEPARTMENT OF MINES

INSPECTOR'S WELL REPORT

Permit No. 105-1013

Oil or Gas Well
(KIND)

Company Bow Valley
 Address _____
 Farm G. Roberts
 Well No. W 1 014
 District Newark County Wirt
 Drilling commenced _____
 Drilling completed _____ Total depth _____
 Date shot _____ Depth of shot _____
 Initial open flow _____ /10ths Water in _____ Inch
 Open flow after tubing _____ /10ths Merc. in _____ Inch
 Volume _____ Cu. Ft.
 Rock pressure _____ lbs. _____ hrs.
 Oil _____ bbls., 1st 24 hrs.
 Fresh water _____ feet _____ feet
 Salt water _____ feet _____ feet

CASING AND TUBING	USED IN DRILLING	LEFT IN WELL	PACKERS
Size			
16			Kind of Packer
13			
10			Size of
8 1/4			
6 3/8			Depth set
5 3/16			
3			Perf. top
2			Perf. bottom
Liners Used			Perf. top
			Perf. bottom

CASING CEMENTED _____ SIZE _____ No. FT. _____ Date _____
 NAME OF SERVICE COMPANY _____
 COAL WAS ENCOUNTERED AT _____ FEET _____ INCHES
 _____ FEET _____ INCHES FEET _____ INCHES
 _____ FEET _____ INCHES FEET _____ INCHES

Drillers' Names Ray Resources #3

Remarks: 33' of 13 3/8 cemented by hand. 20 SACS.
267' " 9 5/8" " " Halibuton, 80 SACS, 12-4-82

12-6-82
DATE

U. M. Mace
DISTRICT WELL INSPECTOR

01/12/2024

B-11

OK

STATE OF WEST VIRGINIA
 DEPARTMENT OF MINES
 OIL AND GAS DIVISION
FINAL INSPECTION REQUEST
INSPECTOR'S COMPLIANCE REPORT

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 OCT 25 1983

OIL & GAS DIVISION
 DEPT. OF MINES

Permit No. 105-1013 County Wirt
 Company Bow Valley Petroleum, Inc. District Newark
 Inspector HOMER DOUGHERTY Farm Steed
 Date October 17, 1983 Well No. WI-014 Issued 11-19-82

RULE	DESCRIPTION	IN COMPLIANCE	
		Yes	No
23.06	Notification prior to starting work	_____	_____
25.04	Prepared before drilling to prevent waste	_____	_____
25.03	High-pressure drilling	_____	_____
16.01	Required permits at wellsite	_____	_____
15.03	Adequate fresh water casing	_____	_____
15.02	Adequate coal casing	_____	_____
15.01	Adequate production casing	_____	_____
15.04	Adequate cement strength	_____	_____
23.02	Maintained access roads	✓	_____
25.01	Necessary equipment to prevent waste	✓	_____
23.03	Reclaimed drilling site	✓	_____
23.04	Reclaimed drilling pits	✓	_____
23.05	No surface or underground pollution	✓	_____
7.05	Identification markings	✓	_____

COMMENTS: _____

Release

I have inspected the above well and have found it to be in compliance with the rules and regulations of the Office of Oil and Gas Department of Mines of the State of West Virginia, and the well can be released from the permitted work.

SIGNED: Homer H. Dougherty
 DATE: 10/20/83 01/12/2024



State of West Virginia

Department of Mines

Charleston 25305

WALTER N. MILLER
Director

JOHN D. ROCKEFELLER, IV.
Governor

November 18, 1983

Bow Valley Petroleum, Inc.
600 Commerce Square
Charleston, W. Va. 25301

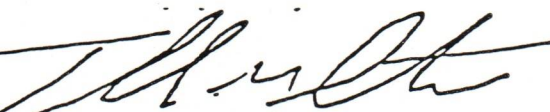
Gentlemen:

The required records and reports have been received in this office and the District Inspectors have submitted FINAL INSPECTIONS for the following wells listed below:

<u>PERMIT NUMBER</u>	<u>FARM AND WELL NUMBER</u>	<u>DISTRICT</u>
WIRT-1011	Little Kanawha Company, #WI-008	Newark
WIRT-1013	W.Va. Pulp & Paper/Glen W. Roberts Estate, #WI-014	Newark

In accordance with Chapter 22, Article 4, Section 2, the above captioned wells will remain under bond coverage for "life of wells." Reclamation requirements have been approved.

Very truly yours,


Theodore M. Streit, Administrator
Dept. Mines-Office of Oil & Gas

MS/r1

01/12/2024

1.0 API well number: (If not available, leave blank. 14 digits.) 47-105-1013

2.0 Type of determination being sought: (Use the codes found on the front of this form.) 107 Section of NGPA 3 Category Code MAR 1 1983

3.0 Depth of the deepest completion location: (Only needed if sections 103 or 107 in 2.0 above.) 5270

4.0 Name, address and code number of applicant: (35 letters per line maximum. If code number not available, leave blank.)
Bow Valley Petroleum Inc. 040189
Name 600 Commerce Square Bldg. Street
Charleston WV 25301
City State Zip Code

5.0 Location of this well: [Complete (a) or (b).]
(a) For onshore wells (35 letters maximum for field name.)
BURNING SPRINGS Field Name
WIRT W.VA. County State

(b) For OCS wells:
Area Name _____ Block Number _____
Date of Lease _____
Mo. Day Yr. OCS Lease Number _____

(c) Name and identification number of this well: (35 letters and digits maximum.)
STEED WI-014

(d) If code 4 or 5 in 2.0 above, name of the reservoir: (35 letters maximum.)

6.0 (a) Name and code number of the purchaser: (35 letters and digits maximum. If code number not available, leave blank.)
Columbia Gas Transmission Corporation 004030
Name Buyer Code

(b) Date of the contract:
Mo. Day Yr.

(c) Estimated annual production: _____ MMcf

	(a) Base Price (\$/MMBTU)	(b) Tax	(c) All Other Prices [Indicate (+) or (-)]	(d) Total of (a), (b) and (c)
7.0 Contract price: (As of filing date. Complete to 3 decimal places.)	<u>5.396</u>	<u>.806</u>	<u>---</u>	<u>6.202</u>
8.0 Maximum lawful rate: (As of filing date. Complete to 3 decimal places.)	<u>5.396</u>	<u>.806</u>	<u>---</u>	<u>6.202</u>

9.0 Person responsible for this application:
Agency Use Only
Date Received by Agency MAR 1 1983
Date Received by FERC _____
Robert N. Hart Name V.P. General Mgr. Title
Robert N. Hart Signature
Date Application is Completed _____ Filing Number _____

OIL & GAS DIVISION
DEPT. OF MINES

01/12/2024

JUN 20 1983

PARTICIPANTS:

WELL OPERATOR:

Bow Valley Petroleum Inc.

FIRST PURCHASER:

Columbia Gas Trans.

OTHER:

BUYER-SELLER CODE

Dev.

W. Va. Department of Mines, Oil & Gas Division

WELL DETERMINATION FILE NUMBER

830301-107-105-1013

Use Above File Number on all Communications
Relating to Determination of this Well

QUALIFIED

CHECK EACH ITEM AS COMPLETE OR NOTE WHAT IS MISSING

ITEM NO.

1. FERC -121 Items not completed - Line No. 20809

2. IV-1 Agent Robert N. Hart

3. IV-2 Well Permit

4. IV-6 Well Plat

5. IV-35 Well Record Drilling Deepening

6. IV-36 Gas-Oil Test: Gas Only Was Oil Produced? Ratio

7. IV-39 Annual Production years

8. IV-40 90 day Production Days off line:

9. IV-48 Application for certification. Complete?

10-17. IV Form 51 - 52 - 53 - 54 - (55) - 56 - 57 - 58 Complete? Affidavit Signed

18-28. Other: Survey Logs Geological Charts
Structure Map 1: 4000 Map Well Tabulations
Gas Analyses

(5) Date commenced: 12-3-82 Date completed 12-13-82 Deepened

(5) Production Depth: 2308 - 5266

(5) Production Formation: Devonian

(5) Final Open Flow: 233 mcf

(5) After Frac. R. P. 410 #

(6) Other Gas Test:

(7) Avg. Daily Gas from Annual Production:

(8) Avg. Daily Gas from 90-day ending w/1-120 days

(8) Line Pressure: PSIG from Daily Report

(5) Oil Production: From Completion Report

-17. Does lease inventory indicate enhanced recovery being done No

-17. Is affidavit signed? Notarized? 01/12/2024

Does official well record with the Department confirm the submitted information? Yes

Additional information Does computer program confirm?

Is Determination Objected to By Whom?

STATE APPLICATION FOR WELL CLASSIFICATION

WELL OPERATOR Bow Valley Petroleum Inc.
ADDRESS 600 Commerce Sq.
Charleston, WV 25301

DESIGNATED AGENT Robert N. Hart
ADDRESS 600 Commerce Sq.
Charleston, WV 25301.

Gas Purchase Contract No. and Date Being negotiated
(Month, day and year)

Meter Chart Code
Name of First Purchaser Columbia Gas Transmission Corporation
Box 1273
Charleston (Street or P. O. Box) 25325
(City) (State) (Zip Code)

FERC Seller Code 040189 FERC Buyer Code 004030

TYPE OF DETERMINATION BEING SOUGHT:

- (1) Initial determination (See FERC Form 121.) 107 Section of NGPA 3 Category Code
- (2) Determination that increased production is the result of enhanced recovery technology.
- (3) Determination of a seasonally affected well.

Robert Hart Vice President-General Manager
Name (Print) title
Robert Hart
Signature
600 Commerce Sq.
Street or P. O. Box
Charleston, WV 25301
City State (Zip Code)
304 344-8393
Area Phone Number
Code

(Certificate of Proof of Service to Purchaser)

Mailed copy to Columbia Gas Transmission - Contract DEpartment c/o Jackie Sydnor

(All of the above to be completed by the Operator/Applicant)

(To be completed by Jurisdictional Agency. Executed copy to be returned to Operator/Applicant and purchaser, if known).

The Department of Mines has received a request for certification of the above described well as meeting the requirements of Section under the Natural Gas Policy Act of 1976. (NGPA); or for determination that increased production is the result of enhanced recovery technology under Section 108 of (NGPA); or for determination of a seasonally affected well under Section 108 of (NGPA).

All interested parties are hereby notified that on the day of , 19 , at the office of the Oil and Gas Division in Charleston, West Virginia, or as soon thereafter as it may be heard, there will be a public hearing, if requested, or if objection is filed.

This Application is assigned File No. .

Initial review of information submitted indicates the well is. is not entitled to certification as claimed under the Natural Gas Policy Act (NGPA). A review of this evidence and any additional evidence will be made at the time appointed for a public hearing or as soon thereafter as the matter may be heard.

Unless objections are timely filed or a request for a hearing is made within fifteen (15) days, a hearing will not be held except on ex parte motion of the department and the matter will go to determination.

WEST VIRGINIA DEPARTMENT OF MINES

MAR 1 1983

Date received by Jurisdictional Agency

Director
By
Title 04/12/2024

Date 1-4-83
Operator's Well No. WI-014
API Well No.
47 - 105 - 1013
State County Permit

WELL CLASSIFICATION FORM
HIGH COST GAS WELL - DEVONIAN SHALE
NGPA Section 107

DESIGNATED AGENT Robert Hart
ADDRESS 600 Commerce Square
Charleston, WV 25301
LOCATION Elevation 723.73
Watershed LITTLE KANAWHA RIVER
Dist. NEWARK County WIRT Quad. KANAWHA
Gas Purchase Contract No. _____
Meter Chart Code _____
Date of Contract _____

WELL OPERATOR Bow Valley Petroleum Inc.
ADDRESS 600 Commerce Square
Charleston, WV 25301
GAS PURCHASER Columbia Gas Trans. Corp.
ADDRESS Box 1273
Charleston, WV 25325

* * * * *
Date surface drilling began: 12-3-82

Indicate the bottom hole pressure of the well and explain how this was calculated.

$$BHP_1 = PWH + PWH \left[2.71828 \left(\frac{GL}{53.34 \left[\frac{TWH + TBH}{2} + 460 \right]} \right) - 1 \right]$$

PWH - WELL HEAD PRESSURE
L - DEPTH TO MIDDLE OF PRODUCING FORM.
G - SPECIFIC GRAVITY OF THE GAS
TWH - TEMPERATURE AT WELL HEAD °F
TBH - TEMPERATURE BOTTOM HOLE °F

BHP₁ = 475.04

AFFIDAVIT

I, MARVIN COMBS, having been first sworn according to law, state that I have calculated the percentage of footage of the producing interval which is not Devonian Shale as indicated by a Gamma Ray index of less than 0.7 if a Gamma Ray log described in subparagraph (3)(i) or (3)(ii)(A) has been filed, or as indicated by the report described in subparagraph (3)(ii)(B); I have demonstrated that the percentage of potentially disqualifying non-shale footage is equal to or less than five (5) percent of the gross Devonian age interval; and I have no knowledge of any information not described in the application which is inconsistent with a conclusion that the well qualifies as a high-cost natural gas well.

Marvin Combs

STATE OF WEST VIRGINIA
COUNTY OF Kanawha, TO-WIT:

I, Helen Mae Brodgras, a Notary Public in and for the state and county aforesaid, do certify that Marvin Combs, whose name is signed to the writing above, bearing date the 4th day of January, 19 83, has acknowledged the same before me, in my county aforesaid.

Given under my hand and official seal this 4th day of January, 19 83.
My term of office expires on the 25th day of July, 19 88.

(NOTARIAL SEAL)

Helen Mae Brodgras
Notary Public

DEVONIAN SHALE GAMMA RAY LOG ANALYSIS
 APPLICATION FOR DETERMINATION OF THE MAXIMUM LAWFUL
 PRICE UNDER THE NATURAL GAS POLICY ACT

Operator: Bow Valley Petroleum

Agent: MARVIN COMBS

Type Determination being sought - 107 (Devonian Shale)

API Well No.: 47-105-1013

Well Name: STEED (ROBERTS)

West Virginia Office of Oil and Gas
 References: SJA File No.

County: WIRT

Vol. _____ Page _____ Line _____

I. NOTE: A Gamma Ray Log has been marked with the (a) Shale Base Line, (b) a line representing 0.7 x (Shale Base Line), (c) intervals with Gamma Ray units less than 0.7 x (Shale Base Line) and that log is included with this analysis.

II. Gamma Ray elevation indices:

A. Shale Base Line (API Units)

1. GR Value at Base Line = 130 * API Units
2. Remarks:

B. Gamma Ray Log Value at 0.7 x Value at Base Line

1. GR Value = 130 * API Units
2. Calculation: $0.7 \text{ (GR Value at Base Line)}$
 $0.7 \text{ (130 *)} = \underline{91}$ API Units

III. Intervals with GR index less than 0.7 x (Value at Base Line):

Interval		Thickness of Interval Feet	Feet of less than* 0.7 (Shale Base Line) Feet
From**	To***		
<u>5241'</u>	<u>2308'</u>	<u>2933'</u>	<u>5'</u>

Total Devonian Interval 2933'

Total Less Than 0.7 (Shale Base) 5'

% Less Than 0.7 (Shale Base Line) = $\frac{5}{2933} \times 100 = \underline{.17\%}$

*Marked on log included with analysis.

**Top of Devonian Section Recorded on First Interval in this Column 01/02/2024

***Lesser of TD or Bottom of Devonian Section Recorded as last Interval in this Column.

1.0 API well number: (If not available, leave blank. 14 digits.) 47-105-1013

2.0 Type of determination being sought: (Use the codes found on the front of this form.) 103
Section of NGPA _____ Category Code _____

3.0 Depth of the deepest completion location: (Only needed if sections 103 or 107 in 2.0 above.) 5270 feet

4.0 Name, address and code number of applicant: (35 letters per line maximum. If code number not available, leave blank.)
Bow Valley Petroleum Inc. 040189
Name _____
600 Commerce Square Bldg. _____
Street _____
Charleston WV 25301
City State Zip Code

5.0 Location of this well: [Complete (a) or (b).]
(a) For onshore wells (35 letters maximum for field name.)
BURNING SPRINGS
Field Name _____
WIET W.VA.
County State

(b) For OCS wells:
Area Name _____ Block Number _____
Date of Lease _____
Mo. Day Yr. _____ OCS Lease Number _____

(c) Name and identification number of this well: (35 letters and digits maximum.)
STEED WI-014

(d) If code 4 or 5 in 2.0 above, name of the reservoir: (35 letters maximum.)

6.0 (a) Name and code number of the purchaser: (35 letters and digits maximum. If code number not available, leave blank.)
Columbia Gas Transmission Corporation 004030
Name Buyer Code

(b) Date of the contract:
Mo. Day Yr. _____

(c) Estimated annual production: _____ MMcf

	(a) Base Price (\$/MMBTU)	(b) Tax	(c) All Other Prices [Indicate (+) or (-)]	(d) Total of (a), (b) and (c)
7.0 Contract price: (As of filing date. Complete to 3 decimal places.)	<u>2.698</u>	<u>.403</u>	<u>---</u>	<u>3.101</u>
8.0 Maximum lawful rate: (As of filing date. Complete to 3 decimal places.)	<u>2.698</u>	<u>.403</u>	<u>---</u>	<u>3.101</u>

9.0 Person responsible for this application:
Agency Use Only
Date Received by Juris. Agency **MAR 1 1983**
Date Received by FERC _____
Robert N. Hart V.P. General Mgr.
Name Title
Robert N. Hart V.P. GEN. MGR.
Signature
Date Application is Completed _____ Phone Number _____

U.S. DEPARTMENT OF ENERGY
Federal Energy Regulatory Commission
Washington, D.C. 20426

**APPLICATION FOR DETERMINATION OF THE MAXIMUM LAWFUL
PRICE UNDER THE NATURAL GAS POLICY ACT (NGPA)**
(Sections 102, 103, 107 and 108)

PLEASE READ BEFORE COMPLETING THIS FORM:

General Instructions:

Complete this form if you are applying for price classification under sections 102, 103, 107 or 108 of the NGPA. A separate application is required for each well. If any reservoir qualifies for a category which differs from the category applicable to the producing well, separate applications must be made for the producing well and the reservoir. Complete each appropriate item on the reverse side of this page. The code numbers used in items 4.0 and 6.0 can be obtained from the Buyer/Seller Code Book. If there is more than one purchaser or contract, identify the additional information in the space below. Enter any additional remarks in the space below.

Submit the completed application to the appropriate Jurisdictional Agency as listed in title 18 of the CFR, part 270.103. If there are any questions, call (202) 275-4539.

Specific Instructions for Item 2.0, Type of Determination:

<u>Section of NGPA</u>	<u>Category Code</u>	<u>Description</u>
102	1	New OCS Lease
102	2	New onshore well (2.5 mile test)
102	3	New onshore well (1,000 feet deeper test)
102	4	New onshore reservoir
102	5	New reservoir on old OCS Lease
103	-	New onshore production well
107	-	High cost natural gas
108	-	Stripper well

Other Purchasers/Contracts:

<u>Contract Date</u> (Mo. Day Yr.)	<u>Purchaser</u>	<u>Buyer Code</u>
_____	_____	_____
_____	_____	_____
_____	_____	_____

Remarks:

PARTICIPANTS:

DATE: JUN 20 1983

BUYER-SELLER CODE

WELL OPERATOR: Daw Valley Petroleum

040189

FIRST PURCHASER: Columbia Gas Trans

004030

OTHER: _____

1580'

~~Deferred 1984~~

~~* 22 - 103 - 105 - 1013~~

~~* 22 - 103 - 105 - 1013~~

W. Va. Department of Mines, Oil & Gas Division
 WELL DETERMINATION FILE NUMBER
83 03 01 - 103 - 105 - 1013
 Use Above File Number on all Communications
 Relating to Determination of this Well

APPROVED
 JUN -7 1984

CHECK EACH ITEM AS COMPLETE OR NOTE WHAT IS MISSING

ITEM NO.

1. FERC -121 Items not completed - Line No. 70, 80 C
2. IV-1 Agent Robert Hart
3. IV-2 Well Permit _____
4. IV-6 Well Plat
5. IV-35 Well Record Drilling Deepening
6. IV-36 Gas-Oil Test: Gas Only Was Oil Produced? Ratio _____
7. IV-39 Annual Production _____ years
8. IV-40 90 day Production _____ Days off line: _____
9. IV-48 Application for certification. Complete?
- 10-17. IV Form 51 - 52 - 53 - 54 - 55 - 56 - 57 - 58 Complete? _____ Affidavit Signed _____
- 18-28. Other: Survey _____ Logs _____ Geological Charts _____
 Structure Map _____ 1: 4000 Map _____ Well Tabulations _____
 Gas Analyses _____
- (5) Date commenced: 12-3-82 Date completed 12-13-82 Deepened
- (5) Production Depth: 2308 - 5266
- (5) Production Formation: Devonian
- (5) Final Open Flow: 233 mcf
- (5) After Frac. R. P. 410 #
- (6) Other Gas Test: _____
- (7) Avg. Daily Gas from Annual Production: _____
- (8) Avg. Daily Gas from 90-day ending w/1-120 days _____
- (8) Line Pressure: _____ PSIG from Daily Report _____
- (5) Oil Production: _____ From Completion Report _____
- 10-17. Does lease inventory indicate enhanced recovery being done No
- 10-17. Is affidavit signed? Notarized? 01/12/2024
- Does official well record with the Department confirm the submitted information? Yes
- Additional information _____ Does computer program confirm? _____
- Was Determination Objected to _____ By Whom? _____

Operator's Well No. WI-014
API Well No. 47 - 105 - 1013
State County Permit
Previous File No. (If Applicable)

STATE APPLICATION FOR WELL CLASSIFICATION

WELL OPERATOR Bow Valley Petroleum Inc.

DESIGNATED AGENT Robert N. Hart

ADDRESS 600 Commerce Sq.
Charleston, WV 25301

ADDRESS 600 Commerce Sq.
Charleston, WV 25301.

Gas Purchase Contract No. _____ and Date Being negotiated
(Month, day and year)

Meter Chart Code _____

Name of First Purchaser Columbia Gas Transmission Corporation
Box 1273
Charleston (Street or P. O. Box) WV 25325
(City) (State) (Zip Code)

FERC Seller Code 040189

FERC Buyer Code 004030

TYPE OF DETERMINATION BEING SOUGHT:

- (1) Initial determination (See FERC Form 121.) Section of NGPA 103 Category Code _____
- (2) Determination that increased production is the result of enhanced recovery technology.
- (3) Determination of a seasonally affected well.

Robert Hart Vice President-General Manager
Name (Print) Title

Signature _____
600 Commerce Sq.
Street or P. O. Box
Charleston, WV 25301
City State (Zip Code)
304 344-8393
Area Code Phone Number

(Certificate of Proof of Service to Purchaser)

Mailed copy to Columbia Gas Transmission - Contract Department c/o Jackie Sydnor

(All of the above to be completed by the Operator/Applicant)

(To be completed by Jurisdictional Agency. Executed copy to be returned to Operator/Applicant and purchaser, if known).

The Department of Mines has received a request, for certification of the above described well as meeting the requirements of Section _____ under the Natural Gas Policy Act of 1976, (NGPA); or for determination that increased production is the result of enhanced recovery technology under Section 108 of (NGPA); or for determination of a seasonally affected well under Section 108 of (NGPA).

All interested parties are hereby notified that on the _____ day of _____, 19____, at the office of the Oil and Gas Division in Charleston, West Virginia, or as soon thereafter as it may be heard, there will be a public hearing, if requested, or if objection is filed.

This Application is assigned File No. _____

Initial review of information submitted indicates the well is, is not entitled to certification as claimed under the Natural Gas Policy Act (NGPA). A review of this evidence and any additional evidence will be made at the time appointed for a public hearing or as soon thereafter as the matter may be heard.

Unless objections are timely filed or a request for a hearing is made within fifteen (15) days, a hearing will not be held except on ex parte motion of the department and the matter will go to determination.

WEST VIRGINIA DEPARTMENT OF MINES

MAR 1 1983

Date received by Jurisdictional Agency _____

Director
By [Signature]
Title [Signature] 01/12/2024

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

Date JAN. 4 1983

Operator's Well No. WI-014

API Well No. 47 - 105 - 1013
State County Permit

WELL CLASSIFICATION FORM
NEW ONSHORE PRODUCTION WELL
NGPA Section 103

DESIGNATED AGENT Robert Hart
ADDRESS 600 Commerce Sq.
Charleston, WV 25301

WELL OPERATOR Box Valley Petroleum Inc
ADDRESS 600 Commerce Sq.
Charleston, WV 25201

LOCATION: Elevation 723.73
Watershed LITTLE KANAWHA RIVER
Dist NEWARK County WVRT Quad KANAWHA

GAS PURCHASER Columbia Gas Trans. Corp.
ADDRESS Box 1273
Charleston, WV 25325

Gas Purchase Contract No. _____
Meter Chart Code _____
Date of Contract _____

* * * * *

Date surface drilling was begun: 12-3-82

Indicate the bottom hole pressure of the well and explain how this was calculated.

$BHP_2 = PWH + PWH \left[\frac{(0.0000347 \text{ G L})}{-1} \right]$ WHERE

0.0000347 IS A FACTOR TAKING INTO ACCOUNT TEMPERATURE AND SUPERCOMPRESSIBILITY.

$BHP_2 = 475.04$

- PWH - WELL HEAD PRESSURE
- L - DEPTH TO MIDDLE OF PRODUCING FORM.
- G - SPECIFIC GRAVITY OF THE GAS
- TWH - TEMPERATURE AT WELL HEAD OF
- TBH - TEMPERATURE BOTTOM HOLE OF

AFFIDAVIT

I, MARVIN COMBS, having been first sworn according to law state that surface drilling of the well for which this determination is sought was begun on or after February 19, 1977; the well satisfies applicable state or federal well spacing requirements and the well is not within a proration unit, in existence at the time surface drilling began, which was applicable to the reservoir from which gas is or will be produced and which applied to any other well producing gas in commercial quantities or on which surface drilling began on or after February 19, 1977, and which was capable of producing gas in commercial quantities. I state, further, that I have concluded, to the best of my information, knowledge and belief, that the well for which this determination is sought is a new onshore production well and that I am not aware of any information not described in the application which is inconsistent with this conclusion.

Marvin Combs

STATE OF West Virginia
COUNTY OF Kanawha TO WIT:

I, Helen Mae Snodgrass, a Notary Public in and for the state and county aforesaid, do certify that Marvin Combs, whose name is signed to the writing above, bearing date the 4th day of January, 1983, has acknowledged the same before me, in my county aforesaid.

Given under my hand and official seal this 4th day of January, 1983

My term of office expires on the 25th day of July, 191983

01/12/2024

Helen Mae Snodgrass
Notary Public.

[NOTARIAL SEAL]

FORM IV-1

DESIGNATION OF AGENT BY WELL OWNER OR OPERATOR

Well Operator / Owner / Bow Valley Petroleum Inc.
Address 600 Commerce Square
Charleston, West Va. 25301

Pursuant to the provisions of Code § 22-4-1k, and subject to the requirements of Regulation 7.01, the undersigned hereby designates the following person to be the agent of the undersigned for the purpose of receiving process, notices, orders and other communications which may be issued under Chapter 22 of the Code of West Virginia:

Designated Agent Robert Hart
Address 600 Commerce Square
Charleston, West Virginia 25301
Telephone 304 344-8393

The undersigned represents that said designated agent is a bona fide resident of the State of West Virginia, and has agreed to accept the designation. This designation applies to the following well all wells owned or operated by the undersigned in West Virginia
 the wells listed below (Use space below or reverse side or attach list)

[COMPLETE AS APPLICABLE]

The undersigned is hereby recording an existing designation of agent made prior to the initial adoption of Form IV-1.

The undersigned is proposing to own or operate wells in West Virginia for the first time, so that this designation should also be considered the registration by the undersigned with the Deputy Director.

The undersigned has owned and operated a well or wells in West Virginia since the year 19____, but has not heretofore appointed a designated agent.

This designation substitutes a new designated agent for the undersigned, who has owned or operated a well or wells in West Virginia since the year 19____. The present designated agent of the undersigned, who will continue as such, if he is able, until this new designation has been approved, is--

Agent being replaced _____
Address _____

Bow Valley Petroleum Inc.
Well Owner or Operator

By: R. N. Hart

Its: Vice President-General Manager

ACCEPTED this January 4, 1983
R. N. Hart
(Signature of designated agent)

01/12/2024

Taken, subscribed and sworn to before me this 4th day of January, 1983.
Notary Public Helen Mae Snodgrass My commission expires July 25, 1988, 19____

Well owner or operator must be a responsible officer of the corporation, trustee, individual or legally qualified representative of owner of the well(s).



REVISED

IV-35
(Rev 8-81)

Date December 29, 1982
Operator's
Well No. WI-014
Farm Steed
API No. 47 -105 - 1013

State of West Virginia
Department of Mines
Oil and Gas Division

WELL OPERATOR'S REPORT
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: 723-73' Watershed Little Kanawha River
District: Newark County Wirt Quadrangle Kanawha 7.5'

COMPANY Bow Valley Petroleum, Inc.
ADDRESS 600 Commerce Sq., Chas., WV, 25301
DESIGNATED AGENT Robert Long
ADDRESS Culloden, WV
SURFACE OWNER Glen W. Roberts Estate
ADDRESS Elizabeth, WV
MINERAL RIGHTS OWNER West Va Co.
ADDRESS Parkersburg, WV
OIL AND GAS INSPECTOR FOR THIS WORK Deo
Mace ADDRESS Sandridge, WV
PERMIT ISSUED November 16, 1982
DRILLING COMMENCED December 3, 1982
DRILLING COMPLETED December 13, 1982

Casing & Tubing	Used in Drilling	Left in Well	Cement fill up Cu. ft.
Size 20-16 Cond.			
13-10"	32.30	32.30	15 sks.
9 5/8	267.84	267.84	115 sks.
8 5/8			
7	2013.80	2013.80	160 sks.
5 1/2			
4 1/2		5225.95	280 sks.
3			
2			
Liners used			

IF APPLICABLE: PLUGGING OF DRY HOLE ON CONTINUOUS PROGRESSION FROM DRILLING OR REWORKING. VERBAL PERMISSION OBTAINED ON _____

GEOLOGICAL TARGET FORMATION Devonian Shale Depth 2308'-5266' feet
Depth of completed well 5270' feet Rotary X / Cable Tools _____
Water strata depth: Fresh 98 feet; Salt _____ feet
Coal seam depths: N/A Is coal being mined in the area? _____

OPEN FLOW DATA

Producing formation Devonian Shale Pay zone depth 2308'-5266' feet
Gas: Initial open flow _____ Mcf/d Oil: Initial open flow _____ Bbl/d
Final open flow 233 Mcf/d Final open flow _____ Bbl/d
Time of open flow between initial and final tests _____ hours
Static rock pressure 410 psig (surface measurement) after 8 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

01/12/2024

(Continue on reverse side)

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

1st Stage (N₂ Frac)

Perforation Interval = 26 holes from 3545'-5022'
 880,000 S Ft.³ of N₂, 1,000 gallons HCL (Partial
 ballout) N₂ Injection Rate 48,000 S Ft. /min. Breakdown = 2500#

2nd Stage (N₂ Frac)

Perforation Interval = 20 holes from 2235'-3427'
 1,000,000 S Ft.³ of N₂, 1,000 gallons HCL (Partial
 ballout) N₂ Injection Rate 56,000 S Ft.³/min. Breakdown = 2500#

WELL LOG

FORMATION	COLOR	HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS Including indication of all fresh and salt water, coal, oil and gas
<u>Drillers Log</u>					
Shale		and Red Rock	0	287	
Shale		and Red Rock	287	1035	
Sand			1035	1045	
Shale			1045	1618	
Sand			1618	1820	
Shale			1820	5270TD	
<u>Electric Log Tops</u>					
Elev.	723.73				
K.B.	733.73				
Salt Sand			510	630	
Maxon Sand			1616	1711	
Big Lime			1724	1795	
Injun Sand			1795	1829	
Weir Shale (Pocono)			1829	2260	
Sunbury Shale			2260	2304	
Berea Sand			2304	2307	
Upper Devonian Shale			2307	3256	
Huron Shale			3256	4522	
Rhinestreet Shale			4522	5270TD	

(Attach separate sheets as necessary)

BOW VALLEY PETROLEUM, INC.

Well Operator

01/12/2024

By:

Date: December 29, 1982

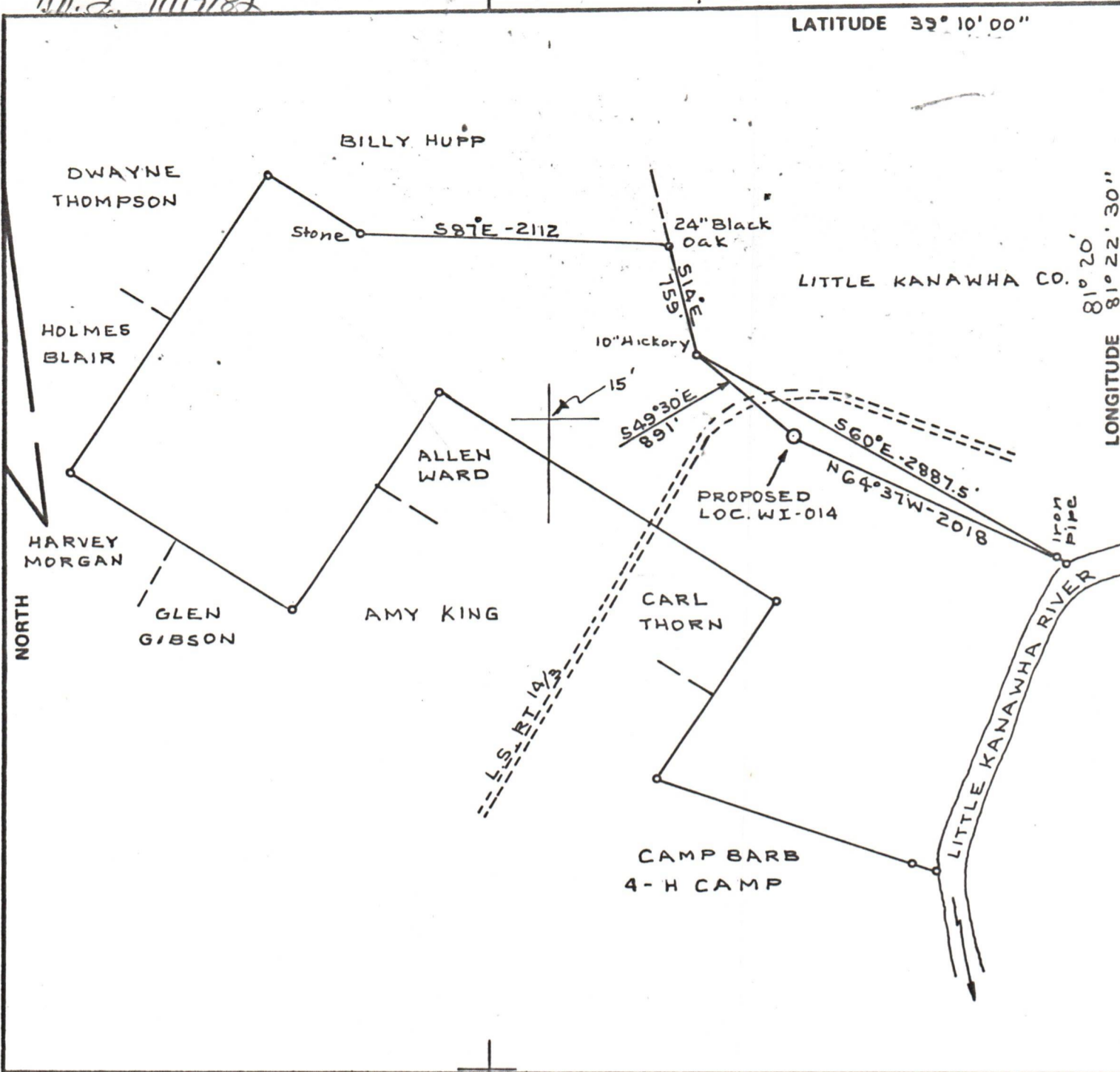
Note: Regulation 2.02(i) provides as follows:

"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."

M.A. 11/17/82

8850'

LATITUDE 39° 10' 00"



FILE NO. BK 73 P 58
 DRAWING NO. _____
 SCALE 1" = 1000'
 MINIMUM DEGREE OF ACCURACY 1-200'
 PROVEN SOURCE OF ELEVATION USGS TOP Knob
S.W. LOC EL. 832.0'

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. Valley Jr.
 R.P.E. _____ E.L.S. 92

PLACE SEAL HERE

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



DATE NOV 13, 1982
 OPERATOR'S WELL NO. WI-014
 API WELL NO. _____
47 - 105 - 1013
 STATE COUNTY PERMIT

STATE OF WEST VIRGINIA
 DEPARTMENT OF MINES
 OIL AND GAS DIVISION

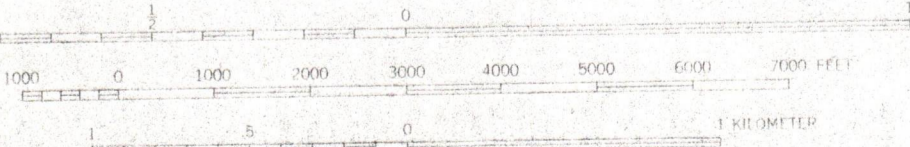
WELL TYPE: OIL ___ GAS X LIQUID INJECTION ___ WASTE DISPOSAL ___
 (IF "GAS,") PRODUCTION X STORAGE ___ DEEP ___ SHALLOW X
 LOCATION: ELEVATION 723.73 WATER SHED LITTLE KANAWHA RIVER
 DISTRICT NEWARK COUNTY WIRT
 QUADRANGLE KANAWHA 7.5
 SURFACE OWNER WESTVACO ACREAGE 295
 OIL & GAS ROYALTY OWNER GLEN W. ROBERTS, ESTATE LEASE ACREAGE 295
 LEASE NO. _____
 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 5500'
 WELL OPERATOR BPW VALLEY PETRO. DESIGNATED AGENT W.E. STOVER
 ADDRESS 600 COMMERCE SQUARE ADDRESS BOX 235
CHARLESTON WVA 25301 CULLODEN, WVA, 25510

01/12/2024



(ELIZABETH) ELIZABETH 5.7 MI. SPENCER (JUNC. U.S. 33) 31 MI

SCALE 1:24000



CONTOUR INTERVAL 20 FEET
DATUM IS MEAN SEA LEVEL

RECEIVED 01/12/2024
NOV 16 1982

OIL & GAS DIVISION
DEPT. OF MINES
QUADRANGLE LOCATION



DATE NOVEMBER 11, 1982
WELL NO. #W1014
API NO. 47-105-1013

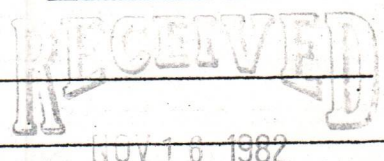
State of West Virginia
Department of Mines
Oil and Gas Division

CONSTRUCTION AND RECLAMATION PLAN

COMPANY NAME BOW VALLEY PETROLEUM, INC. DESIGNATED AGENT W.E. STOVER
Address 600 Commerce Sq., Address BOX 235
CHARLESTON, WV CULLODEN, WV
Telephone 304-344-8393 Telephone 304-562-3376
LANDOWNER WESTVALO CORP SOIL CONS. DISTRICT LITTLE KANAWHA
Revegetation to be carried out by BOW VALLEY PETROLEUM, INC. (Agent)

This plan has been reviewed by Little Kanawha SCD. All corrections and additions become a part of this plan: 11-12-82 (Date)
Jarrett Newton (SCD Agent)

ACCESS ROAD	LOCATION
Structure <u>CULVERT (18")</u> (A)	Structure <u>see sketch</u> (1)
Spacing _____	Material _____
Page Ref. Manual <u>2-8</u>	Page Ref. Manual _____
Structure _____ (B)	Structure _____ (2)
Spacing _____	Material _____
Page Ref. Manual _____	Page Ref. Manual _____
Structure _____ (C)	Structure <u>DEPT. OF MINES</u> (3)
Spacing _____	Material _____
Page Ref. Manual _____	Page Ref. Manual _____



All structures should be inspected regularly and repaired if necessary. All commercial timber is to be cut and stacked and all brush and small timber to be cut and removed from the site before dirt work begins.

REVEGETATION

Treatment Area I <u>4 II</u>	Treatment Area II
Lime <u>2</u> Tons/acre or correct to pH <u>6.5</u>	Lime _____ Tons/acre or correct to pH _____
Fertilizer <u>600</u> lbs/acre (10-20-20 or equivalent)	Fertilizer _____ lbs/acre (10-20-20 or equivalent)
Mulch <u>HAY</u> <u>1 1/2</u> Tons/acre	Mulch _____ Tons/acre
Seed* <u>KENTUCKY 31 FESCUE</u> <u>45</u> lbs/acre	Seed* _____ lbs/acre
<u>LADINO CLOVER</u> <u>3</u> lbs/acre	_____ lbs/acre
<u>RYE</u> <u>3</u> lbs/acre	_____ lbs/acre

*Inoculate all legumes such as vetch, trefoil and clovers with the proper bacterium. Inoculate with 3X recommended amount.

01/12/2024

PLAN PREPARED BY William F. Henrichs, III
ADDRESS 600 Commerce Square
CHARLESTON, WV
PHONE NO. 304-344-8393

NOTES: Please request landowners' cooperation to protect new seedling for one growing season. Attach separate sheets as necessary for comments.

ATTACH OR PHOTOCOPY SECTION OF
INVOLVED TOPOGRAPHIC MAP.
QUADRANGLE KANAWHA



LOCATION IS ON A SLIGHTLY SLOPING
PREVIOUSLY TIMBERED AREA. ACCESS
ROAD WILL BE CONSTRUCTED ACCORDING
TO SKETCH. NO MARKETABLE TIMBER
SHOULD BE DISTURBED.

WELL SITE PLAN

Sketch to include well location, existing access road, roads to be constructed, wellsite, drilling pits and necessary structures numbered or lettered to correspond with the first part of this plan. Include all natural drainage.

