





**PROPOSED WORK ORDER**

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

DRILLING CONTRACTOR (IF KNOWN) UNION DRILLING, INC.

Address P. O. Drawer 40  
Buckhannon, WV 26201

GEOLOGICAL TARGET FORMATION, Benson

Estimated depth of completed well, 3800 feet Rotary X / Cable tools \_\_\_\_\_ /

Approximate water strata depths: Fresh, ? feet; salt, ? feet.

Approximate coal seam depths: ? Is coal being mined in the area? Yes \_\_\_\_\_ / No X /

**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	11 3/4"			X		20'	20'		Kinds
Fresh Water									
Coal									Sizes
Intermediate	8 5/8"		23#	X		800'	800'	to surface	
Production	4 1/2"		10 1/2#	X			3800'	480 sks.	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 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.

**THIS PERMIT MUST BE POSTED AT THE WELL SITE.**  
**ALL PROVISIONS BEING IN ACCORDANCE WITH CHAPTER 22,**  
**ARTICLE 4 OF THE W. VA. CODE, THE LOCATION IS HEREBY**  
**APPROVED FOR** drilling **. THIS PERMIT SHALL EXPIRE**  
**IF OPERATIONS HAVE NOT COMMENCED BY** 4-12-83 **;**  
**BY** [Signature]

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 \_\_\_\_\_ / 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 \_\_\_\_\_

12/08/2023



IV-9  
(Rev 8-81)



State of West Virginia  
Department of Mines  
Oil and Gas Division

DATE 8-2-82  
WELL NO. 1806  
API NO. 47-upshur 2483

CONSTRUCTION AND RECLAMATION PLAN

COMPANY NAME UNION DRILLING, INC.  
P. O. DRAWER 40  
Address BUCKHANNON, W. VA. 26201  
Telephone 472-4610

DESIGNATED AGENT UNION DRILLING, INC.  
P. O. DRAWER 40  
Address BUCKHANNON, W. VA. 26201  
Telephone 472-4610

LANDOWNER C. ALBERT Mc QUAIN

SOIL CONS. DISTRICT \_\_\_\_\_

Revegetation to be carried out by UNION Drilling Inc. (Agent)

This plan has been reviewed by Tygart Valley SCD. All corrections and additions become a part of this plan: 8/7/82

(Date)  
Jean Freeman  
(SCD Agent)

ACCESS ROAD

LOCATION

Structure Culvert Pipe (12" Min) (A)  
Spacing At Natural Drains  
Page Ref. Manual \_\_\_\_\_

Structure Diversion Ditch (1)  
Material Earthen  
Page Ref. Manual \_\_\_\_\_

Structure Cross Drains (B)  
Spacing 250'  
Page Ref. Manual \_\_\_\_\_

Structure \_\_\_\_\_ (2)  
Material \_\_\_\_\_  
Page Ref. Manual AUG 11 1982

Structure Roadway Ditch (C)  
Spacing \_\_\_\_\_  
Page Ref. Manual \_\_\_\_\_

Structure \_\_\_\_\_  
Material \_\_\_\_\_  
Page Ref. Manual \_\_\_\_\_



OIL AND GAS DIVISION  
WV DEPARTMENT OF MINES

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

Treatment Area II

Lime 3 Tons/acre  
or correct to pH 6.5  
Fertilizer 600 lbs/acre  
(10-20-20 or equivalent)  
Mulch 2 Tons/acre  
Seed\* Ky 31 30 lbs/acre  
Birdsfoot 10 lbs/acre  
Domestic Rye 10 lbs/acre

Lime 3 Tons/acre  
or correct to pH 6.5  
Fertilizer 600 lbs/acre  
(10-20-20 or equivalent)  
Mulch 2 Tons/acre  
Seed\* Ky 31 30 lbs/acre  
Birdsfoot 10 lbs/acre  
Domestic Rye 10 lbs/acre

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

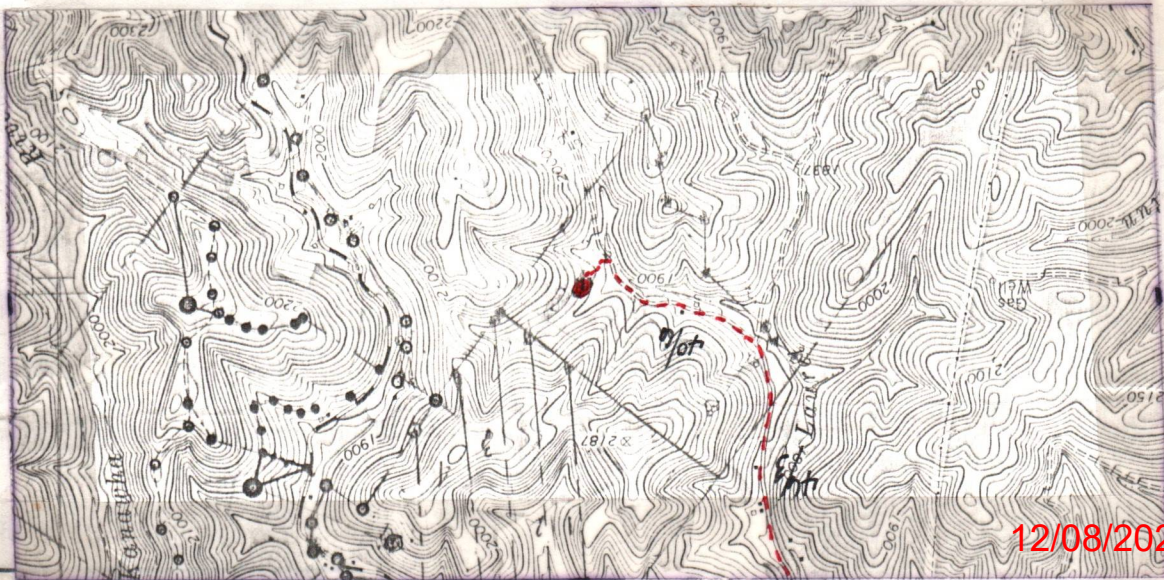
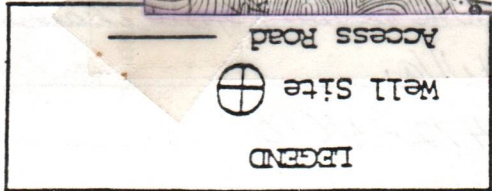
NOTES: Please request landowner's cooperation to protect new seedling for one growing season. Attach separate sheets as necessary for comments.

PLAN PREPARED BY Danny O'Malley 12/08/2023  
ADDRESS P.O. Drawer 40, Buckhannon  
WVa.  
PHONE NO. 472-4610

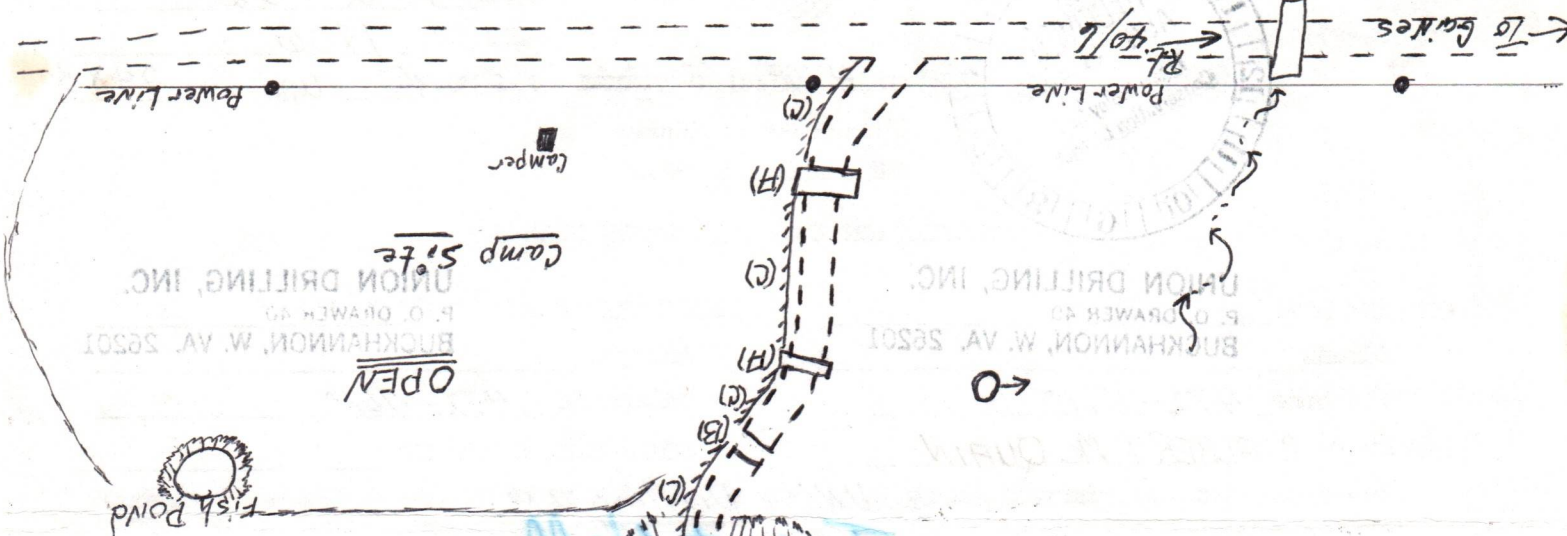
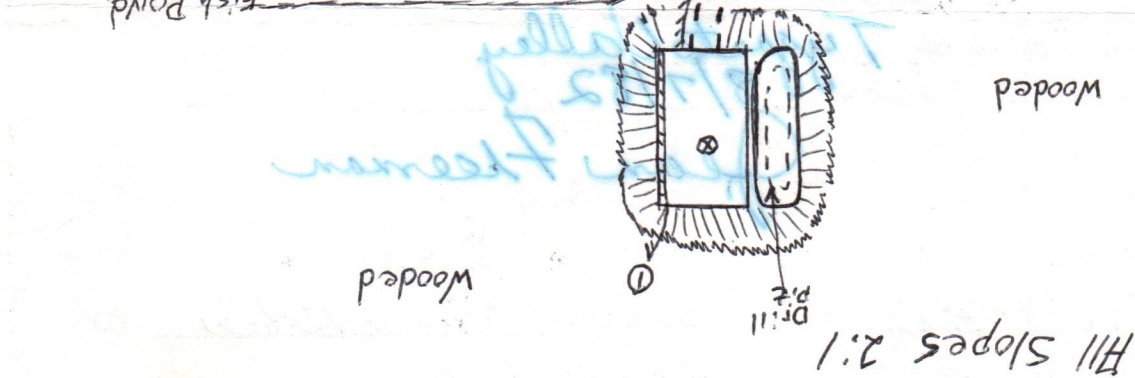
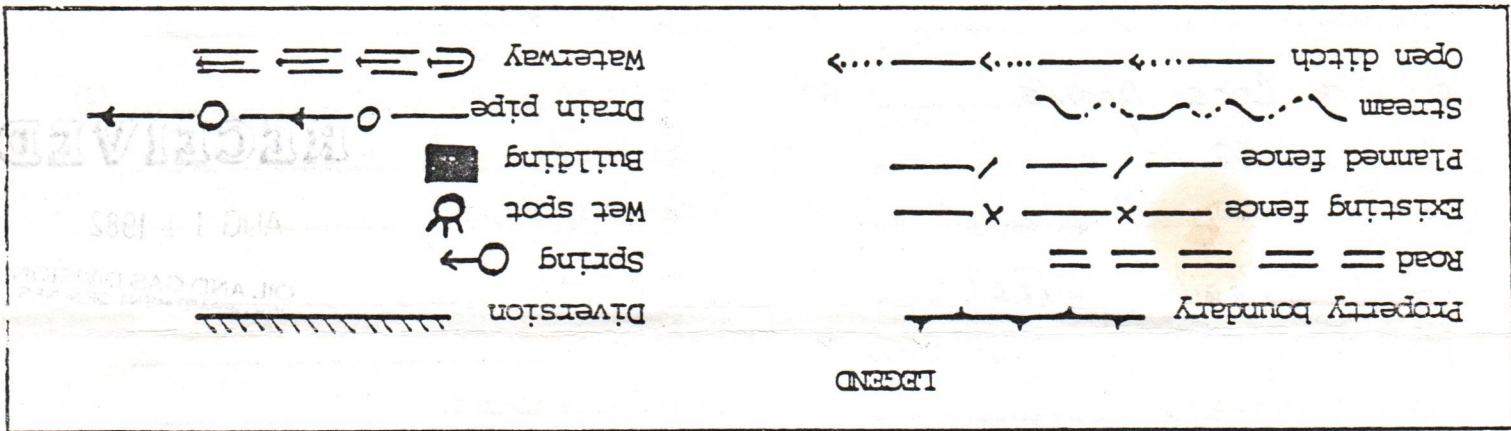


ATTACH OR PHOTOGRAPHY SECTION OF QUADRANGLE Rock Cave 7.6 INVOLVED TOPOGRAPHIC MAP.

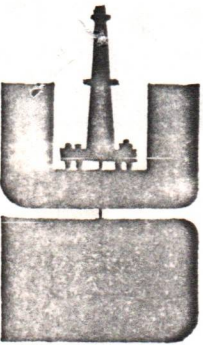
12/08/2023



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







**UNION DRILLING, INC.**

Drawer 40  
Buckhannon, WV 26201

DRILLING CONTRACTORS  
PRODUCERS OF OIL AND GAS

AFFIDAVIT

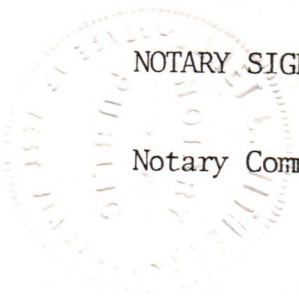
I, Joseph C. Pettey, Vice President of Production, Union Drilling, Inc., hereby verifies that the owner or owners of the mineral estate upon which this proposed well is to be located will receive a minimum of one-eighth (1/8) royalty payments for any gas or oil extracted therefrom. Copies of the Permit Application and the enclosed plat and reclamation plan have been mailed by registered mail or delivered by hand to the above-named coal operator, co-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.

7/23/82  
Date

Joseph C. Pettey  
Joseph C. Pettey, Vice President  
of Production

NOTARY SIGNATURE: Janet L. Withers  
Name: Janet L. Withers

Notary Commission expires: Oct 19, 1987



*Wyo-2483*

**RECEIVED**

JUL 26 1982

OIL & GAS DIVISION  
DEPT. OF MINES



12/08/2023



P 471 412 161  
RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED—  
NOT FOR INTERNATIONAL MAIL

(See Reverse)

Sent to Mr. S. Bayard Gum	
Street and No. 5639 Hughes Street	
P.O., State and ZIP Code Oscoda, MI 48750	
Postage	\$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to whom and Date Delivered	
Return Receipt Showing to whom, Date, and Address of Delivery	
TOTAL Postage and Fees	\$
Postmark or Date	7/27/84 Intent to Plug M-346



P 471 412 156  
RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED—  
NOT FOR INTERNATIONAL MAIL

(See Reverse)

Sent to Albert McQuain	
Street and No. 628 Pennsylvania Ave.	
P.O., State and ZIP Code Bridgeport, WV 26330	
Postage	\$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to whom and Date Delivered	
Return Receipt Showing to whom, Date, and Address of Delivery	
TOTAL Postage and Fees	\$
Postmark or Date	7/27/84 Intent to Plug M-346

12/08/2023

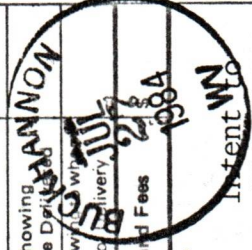


P 471 412 160  
RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED—  
NOT FOR INTERNATIONAL MAIL

(See Reverse)

Sent to Mrs. Russie Poling	
Street and No. 95 S. Kanawha Street	
P.O., State and ZIP Code Buckhannon, WV 26201	
Postage	\$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to whom and Date Delivered	
Return Receipt Showing to whom, Date, and Address of Delivery	
TOTAL Postage and Fees	\$
Postmark or Date	7/27/84 Intent to Plug M-346

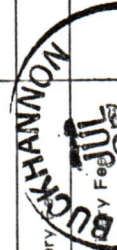


P 471 412 159  
RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED—  
NOT FOR INTERNATIONAL MAIL

(See Reverse)

Sent to Frank Williams, Sr.	
Street and No. 103 S. Florida St.	
P.O., State and ZIP Code Buckhannon WV	
Postage	\$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to whom and Date Delivered	
Return Receipt Showing to whom, Date, and Address of Delivery	
TOTAL Postage and Fees	\$
Postmark or Date	7/27/84 Intent to Plug



P 471 412 163  
RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED—  
NOT FOR INTERNATIONAL MAIL

(See Reverse)

Sent to Mr. Frank Williams, Sr.	
Street and No. 103 S. Florida Streets	
P.O., State and ZIP Code Buckhannon, WV 26201	
Postage	\$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to whom and Date Delivered	
Return Receipt Showing to whom, Date, and Address of Delivery	
TOTAL Postage and Fees	\$
Postmark or Date	7/27/84 Intent to Plug M-346



P 471 412 162  
RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED—  
NOT FOR INTERNATIONAL MAIL

(See Reverse)

Sent to Bethlehem Mines	
Street and No.	
P.O., State and ZIP Code Century, WV 26214	
Postage	\$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to whom and Date Delivered	
Return Receipt Showing to whom, Date, and Address of Delivery	
TOTAL Postage and Fees	\$
Postmark or Date	7/27/84 Intent to Plug M-346





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

Dowell Water Fractured 9/29/82

1678/82 Squaw 40,000 lbs Sand 415 Bbls. Water  
 2282/86 Bayard 40,000 lbs Sand 403 Bbls. Water  
 4065/69 Benson 40,000 lbs Sand 420 Bbls. Water

WELL LOG

FORMATION	COLOR	HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS
					Including indication of all fresh and salt water, coal, oil and gas
Fill & Loose Rock			0	4'	
Hard & Soft Shale			4'	13'	1 1/4" stream @ 28'
Sand & Shale			13'	207'	1 1/2" stream @ 90'
Coal			207'	209'	Coal @ 207'
Sand & Shale			209'	585'	1/2" stream @ 330'
Sand			585'	820'	1 1/2" stream @ 585'
Sand & Shale			820'	922'	
Coal			922'	925'	Coal @ 922'
Sand & Shale			925'	1417'	
Blue Monday			1417'	1486'	
Big Lime			1486'	1556'	
Big Injun			1556'	1685'	
Squaw			1685'	1719'	
Sand & Shale			1719'	2126'	
5th Sand			2126'	2194'	
Sand & Shale			2194'	2285'	
Bayard			2285'	2318'	
Sand & Shale			2318'	2382'	
Elizabeth			2382'	2431'	
Sand & Shale			2431'	2480'	
Warren			2480'	2510'	
Sand & Shale			2510'	3329'	
Bradford			3329'	3367'	
Sand & Shale			3367'	3599'	
Riley			3599'	3653'	
Sand & Shale			3653'	4062'	
Benson			4062'	4099'	
Sand & Shale			4099'	4116' TD	Show

(Attach separate sheets as necessary)

Union Drilling, Inc.

Well Operator

By: Joseph C. Pettey 12/08/2023  
 Date: Joseph C. Pettey, Vice President of Production

October 7, 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 ... encountered in the drilling of a well."



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IV-35  
(Rev 8-81)

OCT 29 1982

OIL AND GAS DIVISION  
WV DEPARTMENT OF MINES

State of West Virginia  
Department of Mines  
Oil and Gas Division

Date October 7, 1982  
Operator's Well No. 1-1806  
Farm UDI-Kuhns #1 (1806)  
API No. 47 - 097 - 2483

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: 1920' Watershed Laurel Run of Little Kanawha River  
District: Banks County Upshur Quadrangle Rock Cave

COMPANY Union Drilling, Inc.  
ADDRESS P O Drawer 40, Buckhannon WV 26201  
DESIGNATED AGENT Union Drilling, Inc.  
ADDRESS P O Drawer, Buckhannon WV 26201  
SURFACE OWNER Albert McQuain  
ADDRESS 628 Pennsylvania Ave., Bridgeport WV 26330  
MINERAL RIGHTS OWNER Union Drilling, Inc.  
ADDRESS P O Drawer 40, Buckhannon WV 26201  
OIL AND GAS INSPECTOR FOR THIS WORK Robert Stewart ADDRESS P O Box 345, Jane Lew WV 26378  
PERMIT ISSUED 7/26/82  
DRILLING COMMENCED 9/14/82  
DRILLING COMPLETED 9/21/82

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"	22'	22'	
9 5/8			
8 5/8	1032.05'	1032.05'	276
7			
5 1/2			
4 1/2	4104.90'	4104.90'	774
3			
2			
Liners used			

GEOLOGICAL TARGET FORMATION Benson Depth 4069 feet  
Depth of completed well 4116' feet Rotary x / Cable Tools \_\_\_\_\_  
Water strata depth: Fresh 330'<sup>28', 90'</sup>, 585' feet; Salt \_\_\_\_\_ feet  
Coal seam depths: 207', 922' Is coal being mined in the area? No

OPEN FLOW DATA

Producing formation Squaw Pay zone depth 1682' feet  
Gas: Initial open flow Show Mcf/d Oil: Initial open flow \_\_\_\_\_ Bbl/d  
Final open flow 70 Mcf/d Final open flow \_\_\_\_\_ Bbl/d  
Time of open flow between initial and final tests ? hours

Static rock pressure 400 psig (surface measurement) after 24 hours shut in  
(If applicable due to multiple completion--)

Second producing formation Bayard Pay zone depth 2286' feet  
Gas: Initial open flow Show Mcf/d Oil: Initial open flow \_\_\_\_\_ Bbl/d  
Final open flow 70 Mcf/d Oil: Final open flow \_\_\_\_\_ Bbl/d  
Time of open flow between initial and final tests ? hours

Static rock pressure 400 psig (surface measurement) after 24 hours shut in

(Continue on reverse side)

UPS-2493



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

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SEP 13 1982

OIL AND GAS DIVISION  
WV DEPARTMENT OF MINES

INSPECTOR'S WELL REPORT

Permit No. 097-2483

Oil or Gas Well GAS  
(KIND)

Company	CASING AND TUBING	USED IN DRILLING	LEFT IN WELL	PACKERS
<u>UNION DRILLING</u>				
Address <u>BUCKHANNON</u>	Size			
Farm <u>VDI-KUHNS</u>	16			Kind of Packer
Well No. <u>1-1806</u>	13			
District <u>BANKS</u> County <u>UPSHUR</u>	10			Size of
Drilling commenced <u>9-13-82</u>	8 1/4			
Drilling completed _____ Total depth _____	6 3/8			Depth set
Date shot _____ Depth of shot _____	5 3/16			
Initial open flow _____ /10ths Water in _____ Inch	3			Perf. top
Open flow after tubing _____ /10ths Merc. in _____ Inch	2			Perf. bottom
Volume _____ Cu. Ft.	Liners Used			Perf. top
Rock pressure _____ lbs. _____ hrs.				Perf. bottom
Oil _____ bbls., 1st 24 hrs.	CASING CEMENTED _____ SIZE _____ No. FT. _____ Date _____			
Fresh water _____ feet _____ feet	NAME OF SERVICE COMPANY _____			
Salt water _____ feet _____ feet	COAL WAS ENCOUNTERED AT _____ FEET _____ INCHES			
	_____ FEET _____ INCHES _____ FEET _____ INCHES			
	_____ FEET _____ INCHES _____ FEET _____ INCHES			

Drillers' Names UNION RIG - 11

Remarks:

move RIG SPUD

9-13-82  
DATE

Robert Stewart  
12/08/2023  
DISTRICT WELL INSPECTOR







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

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APR 22 1983

INSPECTOR'S WELL REPORT OIL & GAS DIVISION  
DEPT. OF MINES

Permit No. 097-2483

Oil or Gas Well \_\_\_\_\_  
(KIND)

Company <u>Union Drilling</u>	CASING AND TUBING	USED IN DRILLING	LEFT IN WELL	PACKERS
Address <u>Buck Hannon</u>	Size			
Farm <u>UDI-KUHNS</u>	16			Kind of Packer _____
Well No. <u>1-1806</u>	13			
District <u>BANKS</u> County <u>UPSHUR</u>	10			Size of _____
Drilling commenced <u>9-13-82</u>	8 1/4			
Drilling completed _____ Total depth _____	6 5/8			Depth set _____
Date shot _____ Depth of shot _____	5 3/16			
Initial open flow _____ /10ths Water in _____ Inch	3			Perf. top _____
Open flow after tubing _____ /10ths Merc. in _____ Inch	2			Perf. bottom _____
Volume _____ Cu. Ft.	Liners Used			Perf. top _____
Rock pressure _____ lbs. _____ hrs.				Perf. bottom _____
Oil _____ bbls., 1st 24 hrs.	CASING CEMENTED _____ SIZE _____ No. FT. _____ Date _____			
Fresh water _____ feet _____ feet	NAME OF SERVICE COMPANY _____			
Salt water _____ feet _____ feet	COAL WAS ENCOUNTERED AT _____ FEET _____ INCHES			
	_____ FEET _____ INCHES _____ FEET _____ INCHES			
	_____ FEET _____ INCHES _____ FEET _____ INCHES			

Drillers' Names \_\_\_\_\_

Remarks:  
PARTIAL BACK Filled

4-20-83  
DATE

Robert Stewart 12/08/2023  
DISTRICT WELL INSPECTOR







SUPPLEMENT TO WELL OPERATOR'S REPORT

Date October 7, 1982  
Operator's \_\_\_\_\_  
Well No. 1-1806  
Farm UDI-Kuhns #1 (1806)  
API NO. 47-097-2483

RECEIVED

OCT 29 1982

OIL AND GAS DIVISION  
WV DEPARTMENT OF MINES

Third producing formation Benson Pay zone depth 4069'

Gas: Initial open flow Show Mcf/d Oil: Initial open flow ----- Bbl/d

Final open flow 110 Mcf/d Final open flow ----- Bbl/d

Time of open flow between initial and final tests ? hours

Static rock pressure 400 psig(surface measurement) after 24 hours shut in

Fourth 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

Fifth 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

Sixth 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

12/08/2023

WS. 2473



RECEIVED  
JUL 30 1984



1) Date: July 23, 19 84  
2) Operator's Well No. 1 - 1806  
3) API Well No. 47 - 097 - 2483 - P  
State County Permit

OIL & GAS DIVISION  
DEPT. OF MINES  
STATE OF WEST VIRGINIA  
OFFICE OF OIL AND GAS, DEPARTMENT OF MINES

APPLICATION FOR A PERMIT TO PLUG AND ABANDON A WELL

- 4) WELL TYPE: A Oil \_\_\_\_\_ / Gas X \_\_\_\_\_ / Liquid injection \_\_\_\_\_ / Waste disposal \_\_\_\_\_  
 B (If "Gas", Production X \_\_\_\_\_ / Underground storage) \_\_\_\_\_ / Deep \_\_\_\_\_ Shallow X \_\_\_\_\_)
- 5) LOCATION: Elevation: 1920' Watershed: Laurel Run of Little Kanawha River  
 District: Banks / County: Upshur Quadrangle: Rock Cave
- 6) WELL OPERATOR Union Drilling, Inc. 50550 7) DESIGNATED AGENT Joseph C. Vanzant, Jr. 581  
 Address P. O. Drawer 40 Address P. O. Drawer 40  
Buckhannon, WV 26201 Buckhannon, WV 26201
- 8) OIL & GAS INSPECTOR TO BE NOTIFIED 9) PLUGGING CONTRACTOR  
 Name Phil Tracy 636-8798 Name Union Drilling, Inc.  
 Address Forest Festival Terrace #24 Address P. O. Drawer 40  
Elkins, WV 26241 Buckhannon, WV 26201

10) WORK ORDER: The work order for the manner of plugging this well is as follows:

0 - 1032' Gel  
 1032' - ~~1030~~ Cement  
~~1080~~ - ~~1640~~ Gel  
~~1140~~ - ~~1180~~ Cement  
 1180' - 1600' Gel  
 1600' - 1700' Cement  
 1700' - 2250' Gel  
 2200' - 2300' Cement  
 2300' - 4040' Gel  
 4040' - TD Cement

Estimated casing to be left in well:  
1032' cemented in  
2955' cemented in

Coal at 207/209'  
922/925'

OFFICE USE ONLY

PLUGGING PERMIT

Permit number 47-097-2483-P

August 16, 19 84  
Date

This permit covering the well operator and well location shown below is evidence of permission granted to plug 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 24 hours before actual permitted work has commenced.**

The permitted work is as described in the Notice and Application, plat, subject to any modifications and conditions on the reverse hereof.

Permit expires August 16, 1986 unless plugging is commenced prior to that date and prosecuted with due diligence.

Bond: <u>162</u> <b>BLANKET</b>	Agent: <u>lp</u>	Plat: <u>mw</u>	Casing: <u>my</u>	Fee: <u>NF</u>
------------------------------------	------------------	-----------------	-------------------	----------------

Michael Lewis  
Administrator, Office of Oil and Gas

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

File

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

12/08/2023



OFFICE USE ONLY

PERMIT MODIFICATIONS AND CONDITIONS (IF ANY) TO THE PROPOSED PLUGGING

1) WELL TYPE: 2) Or \_\_\_\_\_  
 3) LOCATION: 4) Elevation: \_\_\_\_\_  
 5) OPERATOR: \_\_\_\_\_  
 6) DESIGNATED AGENT: \_\_\_\_\_  
 7) CONTRACTOR: \_\_\_\_\_

OFFICE USE ONLY

This part of Form IV-4(b) is to record the dates of certain occurrences and any follow-up inspections.

	Date	Follow-up inspection(s)	Date(s)
Application received			
Plugging started		" "	
Plugging completed		" "	
Well Record received		" "	

OTHER INSPECTIONS

Reason: \_\_\_\_\_

Reason: \_\_\_\_\_

*Michael J. ...*  
 Administrator, Office of Oil and Gas

10	11	12	13	14	15	16	17	18	19	20



RECEIVED

JUL 30 1984



1) Date: July 23 1984
2) Operator's Well No. 1 - 1806
3) API Well No. 47 - 097 - 2483-P
State County Permit

OIL & GAS DIVISION
STATE OF WEST VIRGINIA
DEPT. OF MINES
OFFICE OF OIL AND GAS, DEPARTMENT OF MINES
NOTICE OF APPLICATION TO PLUG AND ABANDON A WELL

4) SURFACE OWNER(S) OF RECORD TO BE SERVED

- (i) Name Albert McQuain
Address 628 Pennsylvania Avenue
Bridgeport, WV 26330
(ii) Name
Address
(iii) Name
Address

5 (i) COAL OPERATOR
Address

5 (ii) COAL OWNER(S) WITH DECLARATION ON RECORD:
Name James LaRosa
Address 420 Buckhammon Pike
Clarksburg, WV 26301

5 (iii) COAL LESSEE WITH DECLARATION ON RECORD:
Name
Address

TO THE PERSON(S) NAMED ABOVE: You should have received this Form and the following documents:
(1) The Application to Plug and Abandon a Well on Form IV-4(B), which sets out the parties involved in the work, and describes the well and its location and the plugging work order; and
(2) The plat (surveyor's map) showing the well location on Form IV-6.

THE REASON YOU RECEIVED THESE DOCUMENTS IS THAT YOU HAVE RIGHTS REGARDING THE APPLICATION WHICH ARE SUMMARIZED IN THE "INSTRUCTIONS" ON THE REVERSE SIDE OF THE COPY OF THE APPLICATION (FORM IV-4(B)) DESIGNATED FOR YOU. HOWEVER, YOU ARE NOT REQUIRED TO TAKE ANY ACTION AT ALL.

Take notice that under Chapter 22 of the West Virginia Code, the undersigned well operator proposes to file or has filed this Notice and Application and accompanying documents for a Permit to plug and abandon a well with the Administrator of the Office of Oil and Gas, West Virginia Department of Mines, with respect to the well at the location described on the attached Application and depicted on the attached Form IV-6. Copies of this Notice, the Application, and the plat have been mailed by registered or certified mail or delivered by hand to the person(s) named above (or by publication in certain circumstances) on or before the day of mailing or delivery to the Administrator.

The truth of the information on the Notice and Application is verified and sworn to and the Notice is signed on behalf of the Well Operator in my County and State by

Joseph C. Pettey
this 123 day of July, 1984.
My commission expires March, 1991.

A. Bradford Zinnerman
Notary Public, Upshur County,
State of West Virginia

WELL OPERATOR UNION DRILLING, INC.

By Joseph C. Pettey
Its Joseph C. Pettey, Vice President
Of Production

Address P. O. Drawer 40
Buckhammon, WV 26201

Telephone 472-4610



FORM IV-4(A)  
reverse

I N S T R U C T I O N S   T O   A P P L I C A N T

CONCERNING THE LINE ITEMS:

- 1) Date of Notice.
- 2) Your well name and number.
- 3) To be filled out by the Office of Oil & Gas.
- 4) & 5) Use separate sheet if necessary.
- 4) Surface owner(s) of record to be served with Notice and Application. However, see also Code § 22-4-1m(b) if "more than three tenants in common or other co-owners of interest described in subsection (a) of this section hold interests in such lands".
- 5(i) ~~"Coal Operator" means any person, firm, partnership, partnership association or corporation that proposes to or does operate a coal mine.~~
- 5(ii, iii) See Code § 22-4-20.

CONCERNING THE REQUIRED COPIES FOR FILING AND SERVICE:

Filing. Code § 22-4-1k and Regulation 7.02 provide that the original and two copies of the Application must be filed with the Administrator, accompanied by (i) an original and four copies of the Notice, (ii) an original and four copies of a plat in the form prescribed by Regulation 11, and (iii) a bond in one of the forms prescribed by Regulation 12, or in lieu thereof the other security allowed by Code § 22-4-9.

Service. In addition, service must be made on the surface owner(s) and the person(s) with an interest in the coal. See Code §§ 22-4-1m and 22-4-9.

12/08/2023







INSPECTOR'S PERMIT SUMMARY FORM

WELL TYPE \_\_\_\_\_  
ELEVATION \_\_\_\_\_  
DISTRICT Banks  
QUADRANGLE \_\_\_\_\_  
COUNTY Upshar

API# 47- 97 - 2483 - P  
OPERATOR Union Drilling  
TELEPHONE \_\_\_\_\_  
FARM Maquain  
WELL # 1-1806

SURFACE OWNER \_\_\_\_\_ COMMENTS \_\_\_\_\_ TELEPHONE \_\_\_\_\_  
TARGET FORMATION \_\_\_\_\_ DATE APPLICATION RECEIVED \_\_\_\_\_  
DATE STARTED \_\_\_\_\_  
LOCATION \_\_\_\_\_ NOTIFIED \_\_\_\_\_ DRILLING COMMENCED \_\_\_\_\_

WATER DEPTHS \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_  
COAL DEPTHS \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_

CASING

Ran \_\_\_\_\_ feet of \_\_\_\_\_ "pipe on \_\_\_\_\_ with \_\_\_\_\_ fill up  
Ran \_\_\_\_\_ feet of \_\_\_\_\_ "pipe on \_\_\_\_\_ with \_\_\_\_\_ fill up  
Ran \_\_\_\_\_ feet of \_\_\_\_\_ "pipe on \_\_\_\_\_ with \_\_\_\_\_ fill up  
Ran \_\_\_\_\_ feet of \_\_\_\_\_ "pipe on \_\_\_\_\_ with \_\_\_\_\_ fill up

TD \_\_\_\_\_ feet on \_\_\_\_\_

PLUGGING

APR 15 1986

Type	From	To	Pipe Removed

Pit Discharge date: \_\_\_\_\_ Type \_\_\_\_\_  
Field analysis ph \_\_\_\_\_ fe \_\_\_\_\_ cl \_\_\_\_\_  
Well Record received \_\_\_\_\_

Date Released 4-11-86

Phillip Tracy 12/08/2023  
Inspector's signature



API# 47 \_\_\_\_\_ - \_\_\_\_\_

LIST ALL VISITS FOR THIS PERMIT

	DATE	TIME	PURPOSE	COMMENTS
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				

Notes





STATE OF WEST VIRGINIA  
 DEPARTMENT OF ENERGY  
 DIVISION OF OIL AND GAS  
 1615 Washington Street, East  
 Charleston, West Virginia 25311  
 Telephone: 348-3500

John Johnston  
 Director

ARCH A. MOORE, JR.  
 Governor

April 21, 1986

Union Drilling Incorporated  
 Post Office Drawer 40  
 Buckhannon, West Virginia 26201

In Re: Permit No: 47-097-2483-P  
 Farm: Albert McQuain  
 Well NO: 1-1806  
 District: Banks  
 County: Upshur  
 Issued: 8-16-84

Gentlemen:

The FINAL INSPECTION REPORT for the above captioned well has been received in this office. ONLY the Column checked below applies:

The well designated by the above captioned permit number has been released under XXXX your Blanket Bond.

Please return the enclosed cancelled single bond which covered the well designated by the above captioned permit number to the surety company that executed said bond in your behalf, in order that they may give you credit on their records.

Your well record was received and reclamation requirements approved. In accordance with Chapter 22B, Article 1, Section 26, the above captioned well will remain under bond coverage for life of the well.

Respectively,

Theodore M. Streit  
 Deputy Director--Inspection & Enforcement

TMS/ nw

12/08/2023





State of West Virginia

Department of Mines  
Oil and Gas Division  
Charleston 25305

WALTER N. MILLER  
DIRECTOR

THEODORE M. STREIT  
ADMINISTRATOR

July 18, 1983

Union Drilling, Inc.  
P. O. Drawer 40  
Buckhannon, W. Va. 26201

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>
UPS-1842-REN.	Tressie Allman, #1-1453	Banks
UPS-2444	Teal Queen, #1-1623	Warren
UPS-2448	Pansie & Orville Smallwood, #1-1582	Banks
UPS-2453	Thomas L. Stockert, #1-1600	Banks
UPS-2473	Ernest Samples, #2-1815	Banks
UPS-2483	Helen M. Kuhns, #1-1806	Banks
UPS-2500	Woody Lumber Company, #1-1667	Washington
UPS-2506	Patricia J. Pietro, #1-1832	Banks
UPS-2510	Lucile W. Mearns, #2-1740	Banks
UPS-2519	Retha A. Reynolds, #1-1614	Banks
UPS-2521	Burnside-UDI, #1-1844	Banks

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  
Office of Oil & Gas-Dept. Mines

TMS/

12/08/2023



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

RECEIVED

JUL - 5 1983

INSPECTOR'S WELL REPORT

OIL & GAS DIVISION  
DEPT. OF MINE

Permit No. 097-2483

Oil or Gas Well \_\_\_\_\_  
(KIND)

Company <u>UNION DRILLING</u>	CASING AND TUBING	USED IN DRILLING	LEFT IN WELL	PACKERS
Address _____	Size			Kind of Packer _____
Farm <u>UDI-KUHNS</u>	16			
Well No. <u>1-1806</u>	13			Size of _____
District <u>BANKS</u> County <u>UPSHUR</u>	10			
Drilling commenced _____	8 3/4			Depth set _____
Drilling completed <u>9-22-82</u> Total depth <u>4100</u>	6 3/4			
Date shot _____ Depth of shot _____	5 3/16			Perf. top _____
Initial open flow _____ /10ths Water in _____ Inch	3			Perf. bottom _____
Open flow after tubing _____ /10ths Merc. in _____ Inch	2			Perf. top _____
Volume _____ Cu. Ft.	Liners Used			Perf. bottom _____
Rock pressure _____ lbs. _____ hrs.	CASING CEMENTED _____ SIZE _____ No. FT. _____ Date _____			
Oil _____ bbls., 1st 24 hrs.	NAME OF SERVICE COMPANY _____			
Fresh water _____ feet _____ feet	COAL WAS ENCOUNTERED AT _____ FEET _____ INCHES			
Salt water _____ feet _____ feet	_____ FEET _____ INCHES _____ FEET _____ INCHES			
	_____ FEET _____ INCHES _____ FEET _____ INCHES			

Drillers' Names \_\_\_\_\_

Remarks: O.K. To Release

7-1-83

DATE

Robert Stewart 54

DISTRICT WELL INSPECTOR











PARTICIPANTS:

DATE:

FEB 14 1983

BUYER-SELLER CO

WELL OPERATOR: Union Drilling, Inc.

FIRST PURCHASER: Columbia Gas Trans. Corp.

019434

004030

OTHER: \_\_\_\_\_

1500'

Qual RSL

W. Va. Department of Mines, Oil & Gas Division  
 WELL DETERMINATION FILE NUMBER  
821022-103-097-2483  
 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. 7.0 + 8.0 b/c
- 2. IV-1 Agent  Joseph C. Petty
- 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: 9-14-82 Date completed 9-21-82 Deepened
- (5) Production Depth: 1682 2286
- (5) Production Formation: Squaw Bayard
- (5) Final Open Flow: 70 MCF
- (5) After Frac. R. P. 400# 24 hrs.
- (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?
- Does official well record with the Department confirm the submitted information? yes
- Additional information \_\_\_\_\_ Does computer program confirm? \_\_\_\_\_
- Was Determination Objected to \_\_\_\_\_ By Whom? \_\_\_\_\_

12/08/2023



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

Date October 21, 1982

Operator's Well No. 1 - 1806

API Well No. 47 - 097 - 2483  
State County Permit

WELL CLASSIFICATION FORM  
NEW ONSHORE PRODUCTION WELL

NGPA Section 103

DESIGNATED AGENT Union Drilling, Inc.

ADDRESS P. O. Drawer 40  
Buckhannon, WV 26201

WELL OPERATOR Union Drilling, Inc.

ADDRESS P. O. Drawer 40  
Buckhannon, WV 26201

LOCATION: Elevation 1920'

Watershed Laurel Run of Little Kanawha Rv.

Dist. Banks County Upshur Quad. Rock Cave

GAS PURCHASER Columbia Gas Transmission Corp.

ADDRESS P. O. Box 1273  
Charleston, WV 25325

Gas Purchase Contract No. \_\_\_\_\_

Meter Chart Code \_\_\_\_\_

Date of Contract \_\_\_\_\_

\*\*\*\*\*

Date surface drilling was begun 9/14/82

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

P = rock pressure of 400 psia  
L = depth to perforations 4068 feet  
G = gas gravity .635  
Avg T = .007 x L + 525

BHP = P x e (G x L / 53.34 x Avg T) or 435 psia

**AFFIDAVIT**

I, Joseph C. Pettey, 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.

Joseph C. Pettey  
Joseph C. Pettey, Vice President of Production

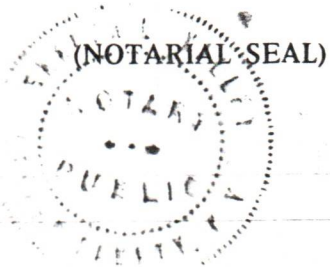
STATE OF WEST VIRGINIA,  
COUNTY OF UPSHUR, TO WIT

I, Sharon L. Kelley, a Notary Public in and for the state and county aforesaid, do certify that Joseph C. Pettey, whose name is signed to the writing above, bearing date the 21st day of October, 19 82, has acknowledged the same before me, in my county aforesaid.

Given under my hand and official seal this 21st day of October, 19 82.

My term of office expires on the 22nd day of May, 19 89.

12/08/2023



Sharon L. Kelley  
Notary Public







PARTICIPANTS:

DATE: OCT 26 1983

BUYER-SELLER CODE

WELL OPERATOR: Union Drilling, Inc.

019434

FIRST PURCHASER: Columbia Gas. Trans. Corp.

004030

OTHER: \_\_\_\_\_

W. Va. Department of Mines, Oil & Gas Division  
 WELL DETERMINATION FILE NUMBER  
<sup>2483</sup>  
830621-107-091-2485  
 Use Above File Number on all Communications  
 Relating to Determination of this Well

QUALIFIED  
Bayard, Benson only

CHECK EACH ITEM AS COMPLETE OR NOTE WHAT IS MISSING

ITEM NO.

- 1. FERC -121 / Items not completed - Line No. 7.0 + 8.0 Deregulated
- 2. IV-1 Agent / Joseph C. Yanzant
- 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: 9-14-82 Date completed 9-21-82 Deepened -
- (5) Production Depth: 1682, 2286
- (5) Production Formation: Squaw Bayard
- (5) Final Open Flow: 50 MCF
- (5) After Frac. R. P. 400# 24hrs
- (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? \_\_\_\_\_
- Does official well record with the Department confirm the submitted information? yes
- Additional information \_\_\_\_\_ Does computer program confirm? \_\_\_\_\_
- Was Determination Objected to \_\_\_\_\_ By Whom? \_\_\_\_\_

12/08/2023



WELL CLASSIFICATION FORM

HIGH COST GAS WELL - DEVONIAN SHALE

NGPA Section 107

DESIGNATED AGENT Joseph C. Vanzant, Jr.

ADDRESS P. O. Drawer 40  
Buckhannon, WV 26201

LOCATION Elevation 1920'  
Watershed Laurel Run of Little Kanawha River

Dist. Banks County Upshur Quad. Rock Cave

Gas Purchase  
Contract No. Being Prepared

Meter Chart Code 6R20123

Date of Contract \_\_\_\_\_

WELL OPERATOR Union Drilling, Inc.

ADDRESS P. O. Drawer 40  
Buckhannon, WV 26201

GAS PURCHASER Columbia Gas Trans. Corp.

ADDRESS P. O. Box 1273  
Charleston, WV 25325

\* \* \* \* \*

Date surface drilling began: 09/14/82

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

BHP =  $P \times e (G \times L / 53.34 \times \text{Avg } T)$

P = 400 psia

L = 4067 feet

G = .635

Avg T = .007 x L + 525

BHP = 435.087 psia

AFFIDAVIT

I, Joseph C. Pettey, 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.

Joseph C. Pettey  
Joseph C. Pettey, Vice President of Prod.

STATE OF WEST VIRGINIA

COUNTY OF Upshur, TO-WIT:

I, Sharon L. Stalnaker, a Notary Public in and for the state and county aforesaid, do certify that Joseph C. Pettey, whose name is signed to the writing above, bearing date the 8 day of June, 1983, has acknowledged the same before me, in my county aforesaid. 12/08/2023

Given under my hand and official seal this 8th day of June, 1983.  
My term of office expires on the 22nd day of May, 1989.



Sharon L. Stalnaker  
Notary Public



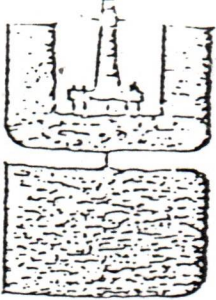
*[Faint, illegible text, likely bleed-through from the reverse side of the page]*

*[Handwritten signature]*

12/08/2023







DEVONIAN SHALE QUALIFICATION CALCULATION

1. Calculation of thickness of Devonian Interval:

Bottom of Devonian Interval	<u>4158</u>	ft.
Top of Devonian Interval	<u>2122</u>	ft.
Thickness of Devonian Interval	<u>2036</u>	ft.

2. Calculation of 0.7 Gamma Ray Index:

Shale Base Line	<u>221.69</u>	0-250 Scale /	<u>178.06</u>	60-210 Scale	API Units
0.7 Gamma Ray Index				0-250 /	60-210
70% of Shale Base Line =	<u>155.17</u>		<u>124.64</u>		API Units

3. Calculation of Disqualifying Footage:

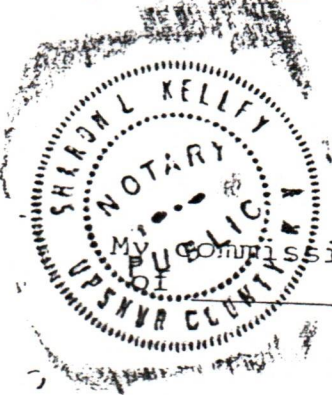
2036 ft. X 5% = 101.80 ft.

4. Actual footage < 0.7 Gamma Ray Index = 91.00 ft.

Using the above calculations, the UDI-Kuhns #1 - 1806 well qualifies as Devonian Shale. 47-097-2483

By [Signature]

Sworn to and acknowledged before me by George P. Dasher on this 8th day of June, 1983.



[Signature]  
Notary Public

My commission expires: the 22nd day of May, 1989.

COMMISSIONED AS  
SHARON L. KELLEY

12/08/2023



FERC Volumetric Percentage Calculations

Gas In Place = 43.56 x A x H x Phi x (1 - Sw) x Bg x R

Where : A = Drainage Area in Acres  
 H = Net Pay Thickness  
 Phi = Porosity  
 Sw = Water Saturation

Reservoir Pressure - Abandonment Pressure  
 Bg = -----  
 14.731

R = Recovery Factor

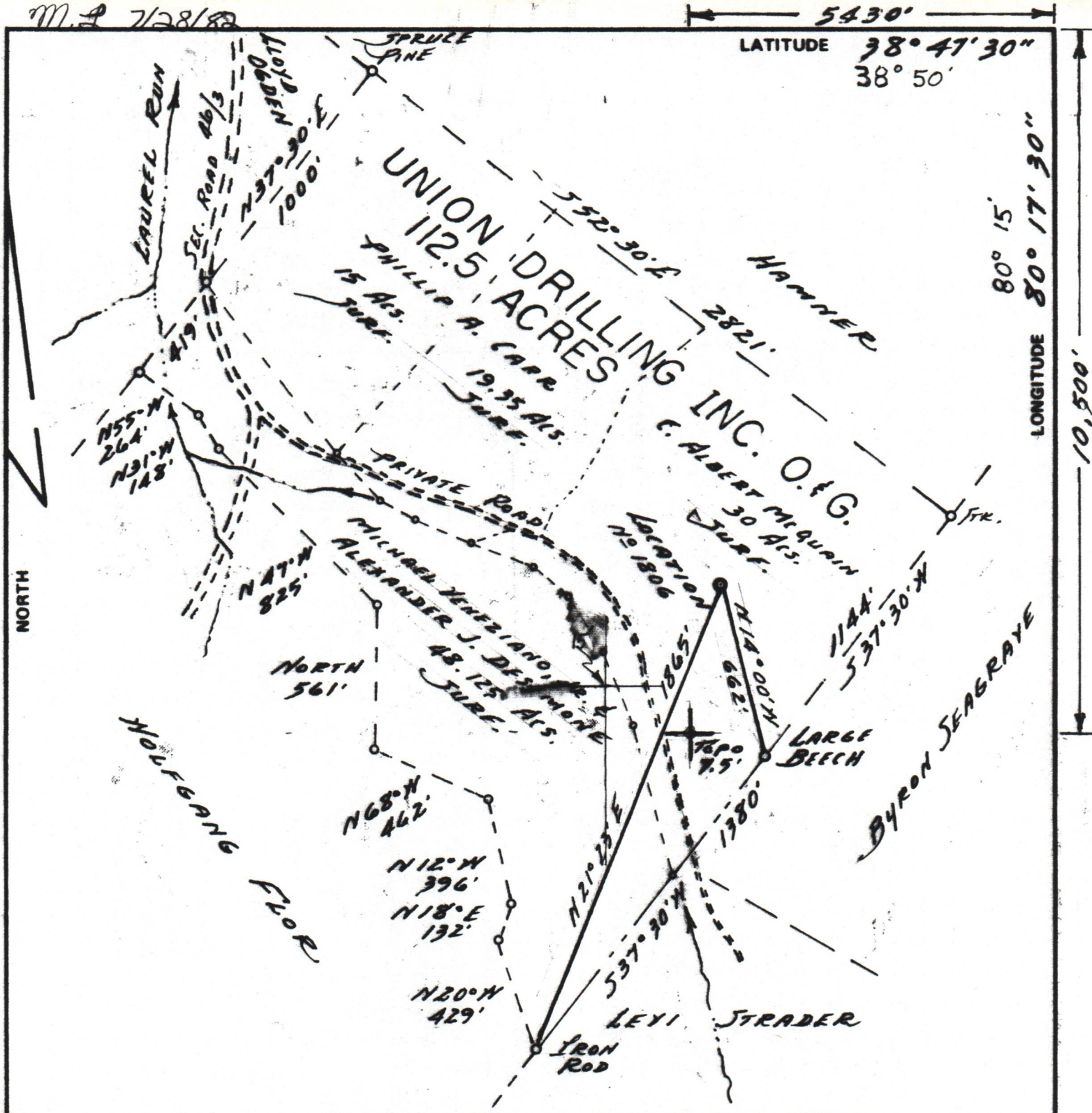
Estimation For Well Number WVG01806 API 47-097-2493

Formation	Form. Top (ft)	Thickness (ft)	Porosity (%)	Sw (%)	Res. Press (psi)	Aban. Press (psi)	Recovery (%)	Gas-In-Place (MCF)	Flow Percent (%)
SQUAM	1679.0	11.0	5.6	58.5	602	65	75	24,369	18.51
BAYARD	2285.0	18.0	6.0	58.2	814	83	75	58,566	44.59
BENSON	4077.0	9.0	5.6	58.5	1442	137	75	48,415	36.86
Total Gas-In-Place								131,349	

Assumed Drainage Area is 80 Acres.

12/08/2023





FILE NO. 1101-2-64  
 DRAWING NO. 82-22  
 SCALE 1" = 500'  
 MINIMUM DEGREE OF ACCURACY 1 IN 200  
 PROVEN SOURCE OF ELEVATION JCT. ROADS 4200' N.W. OF LOC. EL. 1741

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) Thomas F. Weaver, Jr.  
 R.P.E. \_\_\_\_\_ L.L.S. 410

PLACE SEAL HERE

STATE OF WEST VIRGINIA  
 DEPARTMENT OF MINES  
 OIL AND GAS DIVISION



DATE JULY 23, 19 82  
 OPERATOR'S WELL NO. 1-1806  
 API WELL NO. 47-097-2483-P  
 STATE COUNTY PERMIT

(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS  
 WELL TYPE: OIL \_\_\_ GAS  LIQUID INJECTION \_\_\_ WASTE DISPOSAL \_\_\_  
 (IF "GAS,") PRODUCTION  STORAGE \_\_\_ DEEP \_\_\_ SHALLOW   
 LOCATION: ELEVATION 1920 WATER SHED LAUREL RUN OF LITTLE KANAWHA RIVER  
 DISTRICT BANKS COUNTY UPSHUR  
 QUADRANGLE ROCK CAVE  
 SURFACE OWNER C. ALBERT McQUAIN ACREAGE 30  
 OIL & GAS ROYALTY OWNER UNION DRILLING, INC. LEASE ACREAGE 112.5 12/08/2023  
 LEASE NO. DEED - "KUNNS TRACT"  
 PROPOSED WORK: DRILL \_\_\_ CONVERT \_\_\_ DRILL DEEPER \_\_\_ REDRILL \_\_\_ FRACTURE OR STIMULATE \_\_\_ LUG OFF OLD FORMATION \_\_\_ PERFORATE NEW FORMATION \_\_\_ OTHER PHYSICAL CHANGE IN WELL (SPECIFY) \_\_\_\_\_  
 PLUG AND ABANDON  CLEAN OUT AND REPLUG \_\_\_  
 TARGET FORMATION BENSON ESTIMATED DEPTH 3800'  
 WELL OPERATOR UNION DRILLING, INC. DESIGNATED AGENT UNION DRILLING, INC.  
 ADDRESS P.O. DRAWER 40 BUCKHANNON, W.VA. 26201 ADDRESS P.O. DRAWER 40 BUCKHANNON, W.VA. 26201





STATE OF WEST VIRGINIA  
DEPARTMENT OF ENERGY  
DIVISION OF OIL AND GAS  
1615 Washington Street, East  
Charleston, West Virginia 25311  
Telephone: 348-3500

ARCH A. MOORE, JR.  
Governor

OOG-273-SM

10 September 1985

Mr. Joseph C. Petty  
Vice President of Production  
Union Drilling, Inc.  
Post Office Drawer 40  
Buckhannon, West Virginia 26201

Re: Plugging Affidavits for Wells Number 1806 and 1926

Dear Mr. Petty:

The above referenced plugging affidavits are being returned to you as they are incomplete and/or do not correspond with information submitted on the well record.

The affidavit for well number 1806 does not show whether the 8 5/8 inch casing was pulled or left in the well. The 4 1/2 inch casing also does not correspond with the well record which shows 4104 feet of 4 1/2 inch casing was put in the well but only 1200 feet pulled and 1396 feet left in the well totalling 2396 feet.

The affidavit for well number 1926 is incomplete and should show if the 8 5/8 inch casing was pulled or left in the well.

Please have the necessary corrections or additions made and resubmit at your earliest convenience. Should you have any questions, please feel free to contact me.

Sincerely,

A handwritten signature in cursive script that reads "Michael W. Lewis".

Michael W. Lewis, Engineer  
Division of Oil and Gas

MWL:skm

12/08/2023