

Date: June 5, 19 81

Operator's  
Well No. 4 - 1702 - UC

API Well No. 47 . 083 . 0487

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

State West Virginia County Randolph Permit  
Harry McMullan, Jr. Est. #4  
(1702-UC)

OIL AND GAS WELL PERMIT

WELL TYPE: Oil      / Gas   x   /  
(If "Gas", Production   x   / Underground storage      / Deep      / Shallow   x   /)

LOCATION: Elevation: 2922' Watershed: Cold Run of Middle Fork River  
District: Middle Fork County: Randolph Quadrangle: Cassity

WELL OPERATOR UNION DRILLING, INC. DESIGNATED AGENT UNION DRILLING, INC.  
Address P. O. Drawer 40 Address P. O. Drawer 40  
Buckhannon, WV 26201 Buckhannon, WV 26201

OIL & GAS ROYALTY OWNER Harry McMullan, Jr., Est. Harry McMullan, III, Agent COAL OPERATOR       
Address P. O. Box 8 Address       
Washington, NC 27889     

v-12 Acreage 461 COAL OWNER(S) WITH DECLARATION ON RECORD:  
SURFACE OWNER Harry McMullan, Jr., Est. Name AMAX COAL COMPANY  
Address SAME Address 105 S. Meridian St.  
Indianapolis, Ind. 46225

RECEIVED  
JUN - 9 1981

FIELD SALE (IF MADE) TO: Address       
Address Not Determined at this time  
Name     

OIL & GAS INSPECTOR TO BE NOTIFIED Name Internation Coal  
Name Robert Stewart (884-7782) Address Attn: Samuel D. Mason, Dir. of Field Service  
Address P. O. Box 345 Greenbirer Valley Building  
Jane Lew, WV 26378 119 West Washington St.  
Lewisburg, WV 26901

UDI Lease #1305  
The undersigned well operator is entitled to operate for oil or gas purposes at the above location under a deed      / lease   x    
other contract      / dated June 1, 19 80, to the undersigned well operator from Harry McMullan, Jr.,  
Estate to Union Drilling, Inc.  
(IF said deed, lease, or other contract has been recorded:)

Recorded on Feb. 4, 19 81, in the office of the Clerk of the County Commission of Randolph County, West  
West, in Deed Book 335 at page 614. A permit is requested as follows:

PROPOSED WORK: Drill   x   / Drill deeper      / Redrill      / Fracture or stimulate   x   /  
Plug off old formation      / Perforate new formation      /  
Other physical change in well (specify)       
      
      
      
      
      
—planned as shown on the work order on the reverse side hereof.

The above named coal operator, coal owner(s), and coal lessee are hereby notified that any objection they wish to make or are required to make by Code §22-4-3 must be filed with the Department of Mines within fifteen (15) days after the receipt of this Application by the Department.

Copies of this Permit Application and the enclosed plat and reclamation plan have been mailed by registered mail or delivered by hand to the above named coal operator, coal owner(s), and coal lessee on or before the day of the mailing or delivery of this Permit Application to the Department of Mines at Charleston, West Virginia.

PLEASE SUBMIT COPIES OF ALL GEOPHYSICAL LOGS DIRECTLY TO:  
WEST VIRGINIA OIL AND GAS CONSERVATION COMMISSION  
1615 WASHINGTON STREET EAST CHARLESTON, WV 25311  
TELEPHONE: (304) 348-3092

BLANKET BOND

03/15/2024

UNION DRILLING, INC.  
Well Operator  
By Joseph C. Pettey  
Its Joseph C. Pettey, Production Manager

**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, Elk

Estimated depth of completed well, 5200 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			New		Used		FOOTAGE INTERVALS		CEMENT FILL-UP OR SACKS (Cubic feet)	PACKERS
	Size	Grade	Weight per ft			For drilling	Left in well				
Conductor	11 3/4"			x		20'	20'				Kinds
Fresh Water											
Coal											Sizes
Intermediate	8 5/8"		23#	x		950'	950'			380 sks.	
Production	4 1/2"		10 1/2#	x		5200'	5100'			420 sks. or as needed. <i>by rule 15/01</i>	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, of the W. Va. Code, the location is hereby approved for drilling. This permit shall expire if operations have not commenced by 2-24-82.

*J. H. Huggins*  
Deputy Director - Oil & Gas Division

The following waiver must be completed by the coal operator and by any coal owner or coal lessee who has recorded a declaration under Code 22-4-20, if the permit is to be issued within fifteen (15) days of receipt thereof.

**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.

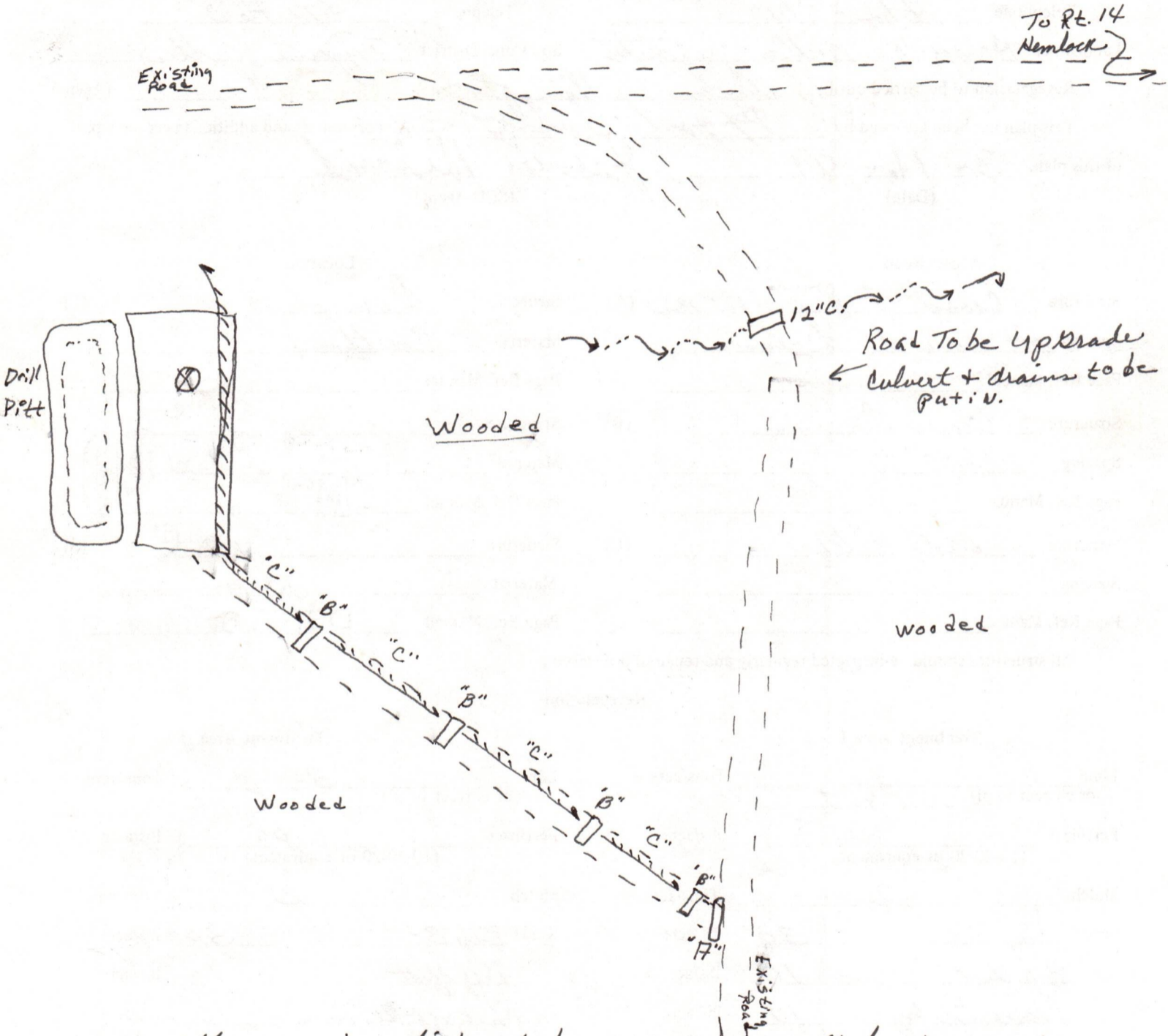
Date: \_\_\_\_\_, 19 \_\_\_\_\_

By \_\_\_\_\_  
Its \_\_\_\_\_

Well Site Plan

Legend:	Property Boundary		Diversion	
	Road		Spring	
	Existing Fence		Wet Spot	
	Planned Fence		Building	
	Stream		Drain Pipe	
	Open Ditch		Waterway	

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



Comments: All Commercial timber to be cut & stacked. All brush & small trees to be cut & removed from site before dirt work begins.

All slopes to be 2:1 ~~or~~ Roadway Grade  $\pm$  10%

Signature: Danny Morgan P.O. Drawer 40, Buckhannon W.Va. 2572-4610  
 Agent Address Phone Number

03/15/2024

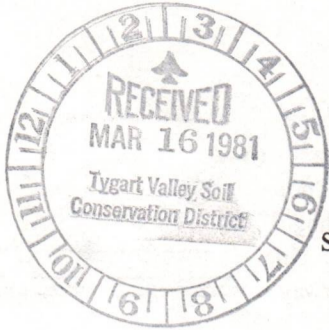
Please request landowners cooperation to protect new seeding for one growing season.

#4

Date 3 - 12 19 81

Well No. 1702

API No. 47 - Randolph Co. 0487  
State County Permit



Form IV-9 (01-80)

STATE OF WEST VIRGINIA  
OFFICE OF OIL AND GAS

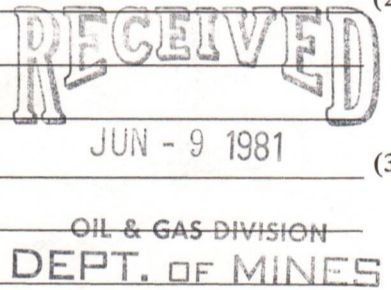
Company Name Union Drilling Inc. Designated Agent Union Drilling Inc.  
 Address P.O. Drawer 40 Buckhannon W. Va. Address P.O. Drawer 40 Buckhannon W. Va.  
 Telephone 472-4610 Telephone 472-4610  
 Landowner Harry M. Muller Jr. Estate Soil Cons. District Tygart Valley  
 Revegetation to be carried out by Union Drilling Inc. (Agent)  
 This plan has been reviewed by Tygart Valley SCD. All corrections and additions become a part  
 of this plan. 3-16-81 Junior Helrick  
 (Date) (SCD Agent)

Access Road

Structure Culvert Pipe (12" min) (A)  
 Spacing At natural drains  
 Page Ref. Manual \_\_\_\_\_  
 Structure Cross Drains (B)  
 Spacing 250' ±  
 Page Ref. Manual \_\_\_\_\_  
 Structure Road ditches (C)  
 Spacing \_\_\_\_\_  
 Page Ref. Manual \_\_\_\_\_

Location

Structure Excursion (1)  
 Material Earthen  
 Page Ref. Manual \_\_\_\_\_  
 Structure \_\_\_\_\_ (2)  
 Material \_\_\_\_\_  
 Page Ref. Manual \_\_\_\_\_  
 Structure \_\_\_\_\_ (3)  
 Material \_\_\_\_\_  
 Page Ref. Manual \_\_\_\_\_



All structures should be inspected regularly and repaired if necessary.

Revegetation

Treatment Area I

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  
Birdfoot 10 lbs/acre  
Domestic Rye 10 lbs/acre

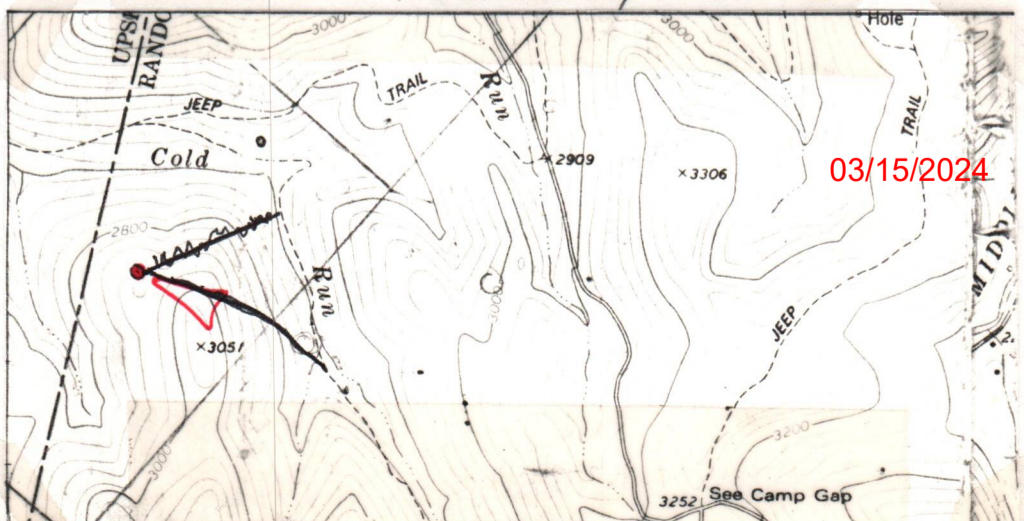
Treatment Area II

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  
Birdfoot 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.

Attach or photocopy section of involved Topographic map. Quadrangle Cassity 7.5

Legend: ⊕ Well Site  
— Access Road



**AMAX** COAL COMPANY  
A DIVISION OF AMAX INC.

105 SOUTH MERIDIAN STREET, INDIANAPOLIS, INDIANA 46225 • [317] 266-2626

June 16, 1981

RECEIVED

JUN 26 1981

OIL & GAS DIVISION  
DEPT. OF MINES

Rox-487

Department of Mines  
Oil and Gas Division  
1615 Washington Street, East  
Charleston, West Virginia 25311

Re: Union Drilling, Inc.  
No. 4 Harry McMullan, Jr. Est. (1702-UC)  
Middle Fork District  
Randolph Co., W. Virginia

Dear Sirs:

The AMAX Coal Company has received notification that a permit application is being filed to drill the above-mentioned well. The AMAX Coal Company will offer no objection to the drilling of this proposed well provided the applicant intends to drill the proposed well subject to the following conditions:

1. All drilling and casing of the well shall be done in compliance with the laws and regulations of the State of West Virginia for wells drilled through workable coal beds.

2. All workable coal seams regardless of depth shall be plugged in accordance with the rules and regulations of the State of West Virginia, specifically as outlined in Article 4, Chapter 22 of the West Virginia Code.

3. Union Drilling, Inc. - - will provide AMAX with a density and natural gamma ray log at a 5"=100' scale covering the interval from total depth to ground surface. In addition, one copy of any other geophysical log shall be sent to AMAX. However, AMAX Coal Company retains the option to run their own logs or have this service contracted out. Please contact Mr. David Darko (317/266-2633) for questions on this procedure.

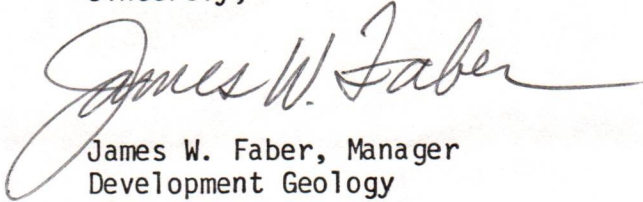
\* 3a. AMAX Coal Company would like permission to run logs on the coal section of this hole prior to casing being set. AMAX Coal Company would bear the logging costs and rig time costs for such service.

03/15/2024

Department of Mines  
Page Two  
June 16, 1981

4. Copies of the completion report, OG-10, and plugging affidavit, OG-8, if applicable, shall be sent to AMAX Coal Company, Attention: James W. Faber.

Sincerely,



James W. Faber, Manager  
Development Geology

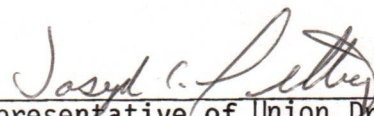
JWF/mdt

Enclosures

cc: Union Drilling, Inc.  
David Darko

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The above stipulations are agreed to as a condition for obtaining a drilling permit.



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Representative of Union Drilling, Inc..

6-25-81  
(Date)

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

Elk Stray - 5190'  
IOF = Show  
FOF = 400 mcf/d - 2 hrs.  
1050# Rock after 24 hrs.

Dowell Water Fractured 11/02/81  
Benson - 3636/40' - 45,000# Sand - 430 bbls water  
Elk - 4798/4800, 4806/10' - 45,000# Sand - 465 bbls water  
Elk Stray - 5172/90, 5180/82, 5186/90' - 45,000# Sand - 395 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
Top Soil			0	12	
Sand & Shale			12	200	
Coal			200	203	Coal @ 200-203'
Sand & Shale			203	330	
Coal			330	333	Coal @ 330-333'
Sand & Shale			333	1206	
Big Lime			1206	1298	
Big Injun			1298	1434	
Sand & Shale			1434	2049	
5th Sand			2049	2134	
Sand & Shale			2134	3646	
Benson			3646	3658	
Sand & Shale			3658	4804	
Elk			4804	4830	
Sand & Shale			4830	5146	
Elk Stray			5146	5218	
Sand & Shale			5218	5362 TD	

(Attach separate sheets as necessary)

UNION DRILLING, INC.

Well Operator \_\_\_\_\_

By: Joseph C. Petty 03/15/2024

Date: Joseph C. Petty, Vice President-Production

12/31/81

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."



Date 12/31/81  
 Operator's Well No. 1702-4C  
 Farm Harry McMullan 1702-4C  
 API No. 47 - 083 - 0487

**RECEIVED**

State of West Virginia  
 Department of Mines  
 Oil and Gas Division

JAN 7 - 1982

OIL AND GAS DIVISION WV DEPARTMENT OF MINES  
 WELL OPERATOR'S REPORT  
 OF  
 DRILLING, FRACTURING AND/OR STIMULATING, OR PHYSICAL CHANGE

WELL TYPE: Oil \_\_\_ / Gas XX / Liquid Injection \_\_\_ / Waste Disposal \_\_\_ /  
 (If "Gas," Production XX / Underground Storage \_\_\_ / Deep \_\_\_ / Shallow XX /)

LOCATION: Elevation: 2922' Watershed Cold Run of Middle Fork River  
 District: Middle Fork County Randolph Quadrangle Cassity

COMPANY Union Drilling, Inc.  
 ADDRESS P.O. Drawer 40, Buckhannon, WV 26201  
 DESIGNATED AGENT Union Drilling, Inc.  
 ADDRESS P.O. Drawer 40, Buckhannon, WV 26201  
 SURFACE OWNER Harry McMullan, Jr. Est.  
 ADDRESS P.O. Box 8, Washington, NC 27889  
 MINERAL RIGHTS OWNER (Same as above)  
 ADDRESS \_\_\_\_\_  
 OIL AND GAS INSPECTOR FOR THIS WORK Robert Stewart  
 ADDRESS P.O. Box 345, Jane Lew, WV  
 PERMIT ISSUED 06/09/81  
 DRILLING COMMENCED 10/15/81  
 DRILLING COMPLETED 10/20/81  
 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"			
9 5/8			
8 5/8	905.55	905.55	250 sks
7			
5 1/2			
4 1/2	5298.70	5298.70	450 sks
3			
2			
Liners used			

GEOLOGICAL TARGET FORMATION Elk Depth 5200 feet  
 Depth of completed well 5362 feet Rotary XX / Cable Tools \_\_\_\_\_  
 Water strata depth: Fresh --- feet; Salt --- feet  
 Coal seam depths: 200-203, 330-333' Is coal being mined in the area? no

OPEN FLOW DATA

Producing formation Benson Pay zone depth 3640 feet  
 Gas: Initial open flow Show Mcf/d Oil: Initial open flow none Bbl/d  
 Final open flow 398 Mcf/d Final open flow none Bbl/d  
 Time of open flow between initial and final tests 2 hours  
 Static rock pressure 1050 psig (surface measurement) after 24 hours shut in  
 (If applicable due to multiple completion--)  
 Second producing formation Elk Pay zone depth 4810 <sup>03/15/2024</sup> feet  
 Gas: Initial open flow Show Mcf/d Oil: Initial open flow none Bbl/d  
 Final open flow 400 Mcf/d Oil: Final open flow none Bbl/d  
 Time of open flow between initial and final tests 2 hours  
 Static rock pressure 1050 psig (surface measurement) after 24 hours shut in

(Continue on reverse side)



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

RECEIVED

OCT 19 1981

OIL AND GAS DIVISION  
WV DEPARTMENT OF MINES

INSPECTOR'S WELL REPORT

Permit No. 083-0487

Oil or Gas Well GAS  
(KIND)

Company	CASING AND TUBING	USED IN DRILLING	LEFT IN WELL	PACKERS
<u>UNION DRILLING</u>	Size			Kind of Packer
<u>BUCKHANNON</u>	16			
<u>HARRY McMullen</u>	13			
<u>4-1702-UC</u>	10			Size of
<u>MIDDLE FORK</u> County <u>RANDOLPH</u>	<u>8 7/8</u>		<u>906</u>	<u>245-SKS</u>
<u>10-14-81</u>	6 5/8			Depth set
	5 3/16			
	3			Perf. top
	2			Perf. bottom
	Liners Used			Perf. top
				Perf. bottom
	CASING CEMENTED <u>8 7/8</u> SIZE <u>906</u> No. FT. <u>10-16-81</u> Date			
	NAME OF SERVICE COMPANY <u>HALLIBURTON</u>			
	COAL WAS ENCOUNTERED AT _____ FEET _____ INCHES			
	_____ FEET _____ INCHES _____ FEET _____ INCHES			
	_____ FEET _____ INCHES _____ FEET _____ INCHES			

Drillers' Names J.W. JACK Rig 20

Remarks:

Cement to SURFACE

10-16-81

DATE

Robert Stewart

511

03/15/2024  
DISTRICT WELL INSPECTOR

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: \_\_\_\_\_

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

03/15/2024  
 \_\_\_\_\_  
 DISTRICT WELL INSPECTOR

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

RECEIVED

AUG 20 1982

OIL AND GAS DIVISION  
WV DEPARTMENT OF MINES

INSPECTOR'S WELL REPORT

Permit No. 083-0487

Oil or Gas Well GAS  
(KIND)

Company <u>UNION DRILLING INC</u>	CASING AND TUBING	USED IN DRILLING	Left in Well	PACKERS
Address <u>BUCK HANNON</u>				
Permit <u>HARRY McMullen</u>				
Well No. <u>4-1702-UC</u>				
District <u>MIDDLE FORK</u> County <u>RAUDOLPH</u>				
Drilling commenced <u>10-14-81</u>				
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 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 \_\_\_\_\_

Remarks: O.K. TO Release

8-18-82

Robert Stewart 03/15/2024

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

INSPECTOR'S PLUGGING REPORT

Well No. \_\_\_\_\_

COMPANY \_\_\_\_\_ ADDRESS \_\_\_\_\_

DISTRICT \_\_\_\_\_ COUNTY \_\_\_\_\_

Material Used \_\_\_\_\_

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

Inspector's Name: \_\_\_\_\_

Date: \_\_\_\_\_

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

03/15/2024



State of West Virginia

Department of Mines

Oil and Gas Division

Charleston 25305

WALTER N. MILLER  
DIRECTOR

THEODORE M. STREIT  
ADMINISTRATOR

September 20, 1982

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

Dear Sir:

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 NO.</u>	<u>FARM AND WELL NUMBER</u>	<u>DISTRICT</u>
CAB-G694	George Spurlock, Jr., #1	Union
CAB-G700	Hobert A. Jefferson, #1	Union
MAS-G265	Marie Jeffers, #1	Hannan
MAS-G266	Leslie F. McCoy, #1	Cooper
RAN-G487	Harry McMullan, Jr., Estate, #4-1702-UC	Middle Fork
RAN-G501	Harry McMullan, III, Agent, #5B-1704-U	Roaring Creek
RAN-G505	Harry McMullan, III, Agent, #8-B-1683-UC	Roaring Creek
RAN-G506	Harry McMullan, III, Agent, #6-B-1705-UC	Roaring Creek
RAN-G511	Harry McMullan, Jr. Estate, #20-1665-UC	Middle Fork
UPS-2313	Ita M. Gootee, Agent, #1-1730-U	Washington
UPS-2407	Hubert F. Hefner, #1-1749	Banks
UPS-2412	J. C. Eckess Heirs, #1-1727-U	Banks

In accordance with Chapter 22, Article 4, Section 2, the bond coverage for above captioned wells will stay in force for life of well. Reclamation requirements have been approved.

Very truly yours,

Theodore M. Streit

TMS:rl

03/15/2024

1.0 API well number: (If not available, leave blank. 14 digits.)	47-083-0487			
2.0 Type of determination being sought: (Use the codes found on the front of this form.)	103 Section of NGPA	n/a Category Code		
3.0 Depth of the deepest completion location: (Only needed if sections 103 or 107 in 2.0 above.)	5190 feet			
4.0 Name, address and code number of applicant: (35 letters per line maximum. If code number not available, leave blank.)	UNION DRILLING, INC. Name P. O. Drawer 40 Street Buckhannon City		WV State	26201 Zip Code
5.0 Location of this well: [Complete (a) or (b).] (a) For onshore wells (35 letters maximum for field name.)	Middle Fork District Field Name Randolph County		WV State	
(b) For OCS wells:	Area Name	Block Number	Date of Lease: Mo. Day Yr.	
(c) Name and identification number of this well: (35 letters and digits maximum.)	Harry McMullan #4C		OCS Lease Number 1702	
(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 Corp. Name		004030 Buyer Code	
(b) Date of the contract:	Mo. Day Yr.			
(c) Estimated annual production:	NOT IN PRODUCTION YET MMcf.			
7.0 Contract price: (As of filing date. Complete to 3 decimal places.)	(a) Base Price (\$/MMBTU) 2.608	(b) Tax -----	(c) All Other Prices [Indicate (+) or (-).] -----	(d) Total of (a), (b) and (c) 2.608
8.0 Maximum lawful rate: (As of filing date. Complete to 3 decimal places.)	2.608	-----	-----	2.608
9.0 Person responsible for this application:	Joseph C. Petty, Vice President of Production			
Agency Use Only	Name			
Date Received by Juris. Agency	Title			
APR 1 1982	Signature <i>Joseph C. Petty</i>			
Date Received by FERC	MAR 29 1982 Date Application is Completed		(304) 472-4610 Phone Number	

APR 1 1985

03/15/2024

PARTICIPANTS: DATE: \_\_\_\_\_ BUYER-SELLER CODE  
 WELL OPERATOR: Union Drilling, Inc. **SEP** 019434  
 FIRST PURCHASER: Columbia Gas Trans. Corp **9 1982** 004030  
 OTHER: \_\_\_\_\_

W. Va. Department of Mines, Oil & Gas Division  
 WELL DETERMINATION FILE NUMBER  
820401-103-083-0487  
 Use Above File Number on all Communications  
 Relating to Determination of this Well

1500' Radius  
Drilled  
**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 bc
  2. IV-1 Agent  K R. Ranson
  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: 10-15-81 Date completed 10-20-81 Deepened
  - (5) Production Depth: 3640 4810
  - (5) Production Formation: Benson, Elk
  - (5) Final Open Flow: 400 MCF
  - (5) After Frac. R. P. 1050# 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
  - 0-17. Does lease inventory indicate enhanced recovery being done NO
  - 0-17. Is affidavit signed?  Notarized?
  - Does official well record with the Department confirm the submitted information? 03/15/2024  
yes
  - Additional information  Does computer program confirm? \_\_\_\_\_
  - As Determination Objected to \_\_\_\_\_ By Whom? \_\_\_\_\_



STATE OF WEST VIRGINIA  
DEPARTMENT OF MINES,  
OIL AND GAS DIVISION  
WELL CLASSIFICATION FORM  
NEW ONSHORE PRODUCTION WELL  
NGPA Section 103

Date March 19, 1982

Operator's Well No. 4C - 1702

API Well No. 47 - 083 - 0487  
State County Permit

DESIGNATED AGENT UNION DRILLING, INC.

ADDRESS P. O. Drawer 40  
Buckhannon, WV 26201

LOCATION: Elevation 2922'

Watershed Cold Run of Middle Fork River

Dist Middle Fk. County Randolph Quad Cassity

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

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

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

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

\*\*\*\*\*

Date surface drilling was begun 6/9/81

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

$BHP = P_1 \times e^{(G \times L / 53.34 \times Avg. T)}$

$P_1 = 1050\# \quad G = 0.635 \quad L = 5190' \quad Avg. T = 007 L + 520^{\circ}R$

$BHP = 1165.95 \text{ psia}$

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 Prod.

STATE OF WEST VIRGINIA,

COUNTY OF UPSHUR, TO WIT

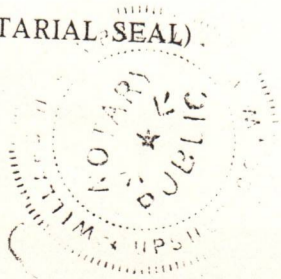
I, Michael H. Campbell, a Notary Public in and for the state and county aforesaid, do certify that Joseph C. Pettey, whose name is signed to the writing above, bearing date the 29th day of March, 1982, has acknowledged the same before me, in my county aforesaid.

Given under my hand and official seal this 29 day of March, 1982.

My term of office expires on the \_\_\_\_\_ day of 3/3, 1983.

03/15/2024

(NOTARIAL SEAL)



Michael H. Campbell  
Notary Public