



1) Date: September 8, 19 83
 2) Operator's Well No. 815
 3) API Well No. 47 013 3655
 State County Permit

STATE OF WEST VIRGINIA
 DEPARTMENT OF MINES, OIL AND GAS DIVISION
 APPLICATION FOR A WELL WORK PERMIT

- 4) WELL TYPE: A Oil / Gas / B (If "Gas", Production / Underground storage / Deep / Shallow)
 5) LOCATION: Elevation: 920.51' Watershed: Mushroom Run of W. Fk. of Little Kanawha
 District: Lee County: Calhoun Quadrange: 7.5' Arnoldsburg
 6) WELL OPERATOR Sterling Drilling & Prod. Co., Inc. DESIGNATED AGENT Harry L. Berger, Jr.
 Address 360 Madison Ave. Fifth Floor Address 710 Virginia St., E.
New York, New York 10017 Charleston, W.V. 25301
 8) OIL & GAS INSPECTOR TO BE NOTIFIED Name Deo Mace
 Address Rt. 1 Box 5
Sandridge, W.V. 25274
 9) DRILLING CONTRACTOR: Name UNKNOWN AT THIS TIME
 Address _____
 10) PROPOSED WELL WORK: Drill / Drill deeper / Redrill / Stimulate
 Plug off old formation / Perforate new formation
 Other physical change in well (specify) _____
 11) GEOLOGICAL TARGET FORMATION, BROWN SHALE
 12) Estimated depth of completed well, 5250 feet
 13) Approximate strata depths: Fresh, _____ feet; salt, _____ feet
 14) Approximate coal seam depths: 0 Is coal being mined in the area? Yes No

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 OIL & GAS DIVISION
 DEPT. OF MINES

15) 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									Kinds
Fresh water	9 5/8	LS	33#	X		200'	200'	To Surface	By Cuk was
Coal									Sizes
Intermediate	7"	J-55	20#	X		2155'	2155'	100 sks	
Production	4 1/2	ERW	10.5#	X			5250'	250 sks	Depths set
Tubing									
Liners									Perforations: Top Bottom

OFFICE USE ONLY
 DRILLING PERMIT

Permit number 47-013-3655 Date October 19 19 83

This permit covering the well operator and well location shown below is evidence of permission granted to drill in accordance with the pertinent legal requirements subject to the conditions contained herein and on the reverse hereof. **Notification must be given to the District Oil and Gas Inspector. (Refer to No. 8) Prior to the construction of roads, locations and pits for any permitted work.** In addition, the well operator or his contractor shall notify the proper district oil and gas inspector 24 hours before actual permitted work has commenced.)

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

Permit expires October 19, 1985 unless well work is commenced prior to that date and prosecuted with due diligence.

Bond: <u>BB</u>	Agent: <u>ol</u>	Plat: <u>[Signature]</u>	Casing: <u>[Signature]</u>	Fee <u>5556</u>
--------------------	---------------------	-----------------------------	-------------------------------	--------------------

[Signature]
 Administrator, Office of Oil and Gas

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

File

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

05/17/2024



OFFICE USE ONLY

PERMIT MODIFICATIONS AND CONDITIONS (IF ANY) TO THE PROPOSED WELL WORK

1) Date: _____
 2) Operator's Well No: _____
 3) API Well No: _____
 4) State: _____
 5) County: _____
 6) Well Operator: _____
 7) Location: _____
 8) Oil & Gas Inspector to be notified: _____
 9) Drilling Contractor: _____
 10) Proposed Well Work: _____
 11) Geological/Target Formation: _____
 12) Estimated depth of completed well: _____
 13) Appropriate state depth: _____
 14) Appropriate coal seam depth: _____
 15) CASING AND TUBING PROGRAM: _____

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OFFICE USE ONLY

This part of Form IV-2(b) is to record the dates of certain occurrences and any follow-up inspections.

Date	Date(s)
Application received	Follow-up inspection(s)
Well work started	"
Completion of the drilling process	"
Well Record received	"
Reclamation completed	"

OTHER INSPECTIONS

Reason: _____

Reason: _____

Bond:	Agent:	Date:	Check:	PR:
AB	AB	10/19/85		

05/17/2024

File



1) Date: September 8, 19 83
 2) Operator's Well No. 815
 3) API Well No. 47 013 3655
 State County Permit

STATE OF WEST VIRGINIA
 DEPARTMENT OF MINES, OIL AND GAS DIVISION
 APPLICATION FOR A WELL WORK PERMIT

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 Plug off old formation / Perforate new formation /
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 12) Estimated depth of completed well, 5250 feet
 13) Approximate strata depths: Fresh, _____ feet; salt, _____ feet.
 14) Approximate coal seam depths: 0 Is coal being mined in the area? Yes / No /

15) 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									Kinds	
Fresh water	<u>9 5/8</u>	<u>LS</u>	<u>33#</u>	<u>X</u>		<u>200'</u>	<u>200'</u>	<u>To Surface</u>		
Coal									Sizes	
Intermediate	<u>7"</u>	<u>J-55</u>	<u>20#</u>	<u>X</u>		<u>2155'</u>	<u>2155'</u>	<u>100 sks</u>		
Production	<u>4 1/2</u>	<u>ERW</u>	<u>10.5#</u>	<u>X</u>			<u>5250'</u>	<u>250 sks</u>	Depths set	
Tubing										
Liners									Perforations:	
									Top	Bottom

INSTRUCTIONS TO COAL OPERATOR, OWNER, OR LESSEE

The 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. October 19 83

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 the filing of the Application.

WAIVER

The undersigned coal operator October 19 1985 / 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: _____

05/17/2024 Coal Owner

1) Date: August 3, 19 83
2) Operator's Well No. 815
3) API Well No. 47 013 3655
State County Permit

STATE OF WEST VIRGINIA
DEPARTMENT OF MINES, OFFICE OF OIL & GAS
NOTICE OF APPLICATION FOR A WELL WORK PERMIT

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

(i) Name Emmons B. Smith
Address Rt. 3 Box 500
Arnoldsburg, W.V. 25234
(ii) Name _____
Address _____
(iii) Name _____
Address _____

5(i) COAL OPERATOR UNOPERATED
Address _____

5(ii) COAL OWNER(S) WITH DECLARATION ON RECORD:
Name UNKNOWN
Address _____

Name _____
Address _____

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

RECEIVED
SEP 30 1983
OIL & GAS DIVISION
DEPT. OF MINES

TO THE PERSON(S) NAMED ABOVE: You should have received this Form and the following documents:

- (1) The Application for a Well Work Permit on Form IV-2(B) (or Form IV-4 if the well is to be plugged, which sets out the parties involved in the drilling or other work, and describes the well and its location and, if applicable, the proposed casing and cementing program;
- (2) The plat (surveyor's map) showing the well location on Form IV-6; and
- (3) The Construction and Reclamation Plan on Form IV-9 (unless the well work is only to plug a well), which sets out the plan for erosion and sediment control and for reclamation for the site and access road.

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-2(B) OR FORM 4, 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 Well Work Permit with the Administrator of the Office of Oil and Gas, West Virginia Department of Mines, with respect to a well at the location described on attached Application and depicted on attached Form IV-6. Copies of this Notice, the Application, the plat, and the Construction and Reclamation Plan 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

WELL OPERATOR Sterling Drilling and Production Co., Inc.
By Harry L. Berger
Its Designated Agent
Address 710 Virginia St., E.
Charleston, W.V. 25301
Telephone 342 - 0121

Harry L. Berger, Jr.
this 3 day of August, 1983.
My commission expires May 10, 1989.
David M. Gillespie
Notary Public, Kanawha County,
State of West Virginia

6) 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.)

7) ROYALTY PROVISIONS

Is the right to extract, produce or market the oil or gas based upon a lease or leases or other 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 X

If the answer above is No, nothing additional is needed. If the answer is Yes, you may use Affidavit Form IV-60.

See the reverse side for line item instructions, and for instructions concerning the required copies of the Notice and Application, plat, and Construction and Reclamation Plan.

INSTRUCTIONS TO APPLICANT

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 § 22-4-1b(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.
- 6) See Code § 22-4-11(c). However, in lieu of filing the lease(s) or other continuing contract(s), the Applicant may fill out the information in the space provided below.
- 7) See Code § § 22-4-11(d, e).

CONCERNING THE REQUIRED COPIES FOR FILING AND SERVICE:

Filing. Code § 22-4-1k and Regulation 7.02 provide that the original and required copies of the Notice and Application must be filed with the Administrator, 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 § 22-4-1k(d) and the reclamation required by Code § 22-4-12b and Regulation 23, (iv) unless previously paid on the same well, the fees required by Code § 22-4-1a(c) and 22-3-12a, and (v) if applicable, the consent required by Code § 22-4-8a from the owner of any water well on dwelling within 200 feet of the proposed well.

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, 22-4-2, 22-4-2a, and 22-4-2b.

INFORMATION SUPPLIED UNDER CODE § 22-4-11(d)

IN LIEU OF FILING LEASE(S) AND OTHER CONTINUING CONTRACT(S)

Under the oath required to make the verification on the reverse side of this Notice, I depose and say that I am the person who signed the Notice for the Applicant, and that--

- (1) the tract of land is the same tract described in the Application to which this Notice applies, partly or wholly depicted in the accompanying plat, and described in the Construction and Reclamation Plan;
- (2) the parties and recordation data (if recorded) for lease(s) or other continuing contract(s) by which the Applicant claims the right to extract, produce or market the oil or gas are as follows:

<u>Grantor, lessor, etc.</u>	<u>Grantee, lessee, etc.</u>	<u>Royalty</u>	<u>Book Page</u>
O. Ray Reading Ray Grimm	Sterling Drilling and Production Co., Inc.	1/8 --	085 / 176

No. 173703

RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED—
NOT FOR INTERNATIONAL MAIL
(See Reverse)

SENT TO		EMMONS B. SMITH	
STREET AND NO.		RT 3 BOX 500	
P.O., STATE AND ZIP CODE		ARNOLDSTOWN, W.V. 25234	
POSTAGE		\$	
CONSULT POSTMASTER FOR FEES	CERTIFIED FEE	€	
	SPECIAL DELIVERY	€	
	RESTRICTED DELIVERY	€	
	OPTIONAL SERVICES RETURN RECEIPT SERVICE	SHOW TO WHOM AND DATE DELIVERED	€
		SHOW TO WHOM, DATE, AND ADDRESS OF DELIVERY	€
		SHOW TO WHOM AND DATE DELIVERED WITH RESTRICTED DELIVERY	€
		SHOW TO WHOM, DATE AND ADDRESS OF DELIVERY WITH RESTRICTED DELIVERY	€
TOTAL POSTAGE AND FEES		\$2.40	
POSTMARK OR DATE			

PS Form 3800, Apr. 1976



815
816
817

No. 173703

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	RESTRICTED DELIVERY	€	
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		SHOW TO WHOM, DATE, AND ADDRESS OF DELIVERY	€
		SHOW TO WHOM AND DATE DELIVERED WITH RESTRICTED DELIVERY	€
		SHOW TO WHOM, DATE AND ADDRESS OF DELIVERY WITH RESTRICTED DELIVERY	€
TOTAL POSTAGE AND FEES		\$2.40	
POSTMARK OR DATE			

PS Form 3800, Apr. 1976



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OIL & GAS DIVISION
DEPT. OF MINES

013-3655

05/17/2024

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JUL - 5 1984



IV-35 (Rev 8-81)

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

Date June 28, 2984 Operator's Well No. 815 Farm Reading API No. 47 - 013 - 3655

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: 920.15 Watershed Mushroom Run of Little Kanawha District: Lee County Calhoun Quadrangle Arnoldsburg 7 1/2'

COMPANY Sterling Drilling & Production Co., Inc.

ADDRESS 710 Virginia St., E, Charleston, WV 25301

DESIGNATED AGENT Harry L. Berger, Jr.

ADDRESS 710 Va. St., E. Charleston, WV 25301

SURFACE OWNER Emmons B. Smith

ADDRESS Rt 3, Box 500, Arnoldsburg, WV 25234

MINERAL RIGHTS OWNER Ray Grimm

ADDRESS Box 32, Otto Star Rd., Spencer, WV 25276

OIL AND GAS INSPECTOR FOR THIS WORK Deo

Mace ADDRESS Rt. 1, Box 5, Sandridge, WV 25274

PERMIT ISSUED October 19, 1983

DRILLING COMMENCED February 8, 1984

DRILLING COMPLETED February 15, 1984

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

Table with 4 columns: Casing & Tubing, Used in Drilling, Left in Well, Cement fill up Cu. ft. Rows include sizes 20-16, 13-10, 9 5/8, 8 5/8, 7, 5 1/2, 4 1/2, 3, 2, and Liners used.

GEOLOGICAL TARGET FORMATION Devonian Shale Depth 5250 feet

Depth of completed well 5190 feet Rotary X / Cable Tools

Water strata depth: Fresh 98 feet; Salt 820 feet

Coal seam depths: NONE Is coal being mined in the area? NO

OPEN FLOW DATA

Producing formation Devonian Shale 400 Pay zone depth 2897 - 4895 feet

Gas: Initial open flow 5 Mcf/d Oil: Initial open flow Bbl/d

Final open flow 504 Mcf/d Final open flow Show Bbl/d

Time of open flow between initial and final tests hours

Static rock pressure 850 psig (surface measurement) after 48 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

05/17/2024

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

Perforations:

1st Stage: 20 holes from 4214' to 4895'
2nd Stage: 25 holes from 3394' to 4056'
3rd Stage: 16 holes from 2897' to 3270'

Treatment:

1st Stage: 1000 gals of 15% HCl; 1584 MSCF of N₂
2nd Stage: 800 gals of 15% HCl; 1584 MSCF of N₂
3rd Stage: 700 gals of 15% HCl; 1400 MSCF of N₂

WELL LOG

FORMATION	COLOR	HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS
					Including indication of all fresh and salt water, coal, oil and gas
Soil			0	12	
Sandstone and Shale			12	805	Fresh water @ 98'
Sandstone			805	899	Salt water @ 820'
Shale			899	963	
Sandstone			963	1142	
Shale			1142	1179	
Sandstone			1179	1208	
Sandstone and Shale			1208	1514	
Salt Sand			1514	1683	
Shale			1683	1734	
25 Maxon			1734	1771	
Little Lime			1771	1814	
Pencil Cave			1814	1821	
45 Big Lime			1821	1966	
65 Big Injun			1966	2191	
Siltstone and Shale			2191	2296	
Sunbury Shale			2296	2314	
95 Berea			2314	2317	
Siltstone and Shale			2317	2904	
Shale			2904	4663	Gas Show 2897' - 3270'
Siltstone			4663	4695	3394' - 4056'
Shale			4695	4847	
Siltstone			4847	4916	
Shale			4916	5190	TD 5190

(Attach separate sheets as necessary)

Sterling Drilling and Production Co., Inc.
Well Operator

By: Harry J. Berger 05/17/2024
Date: 5-17-84

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."

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

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FEB 15 1984

INSPECTOR'S WELL REPORT

OIL & GAS DIVISION
DEPT. OF MINES

Permit No. 13-3655

Oil or Gas Well _____
(KIND)

Company <u>Sterling</u>	CASING AND TUBING	USED IN DRILLING	LEFT IN WELL	PACKERS
Address _____	Size			
Farm <u>Reading</u>	16			Kind of Packer _____
Well No. <u>815</u>	13			
District <u>See</u> County <u>Cal</u>	10			Size of _____
Drilling commenced <u>2-8-84</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 Hurst 8

Remarks: 210' of 9 5/8" 85 S&S cement Dowell 2-9-84.

2-9-84
DATE

Des M... 05/17/2024

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

DISTRICT WELL INSPECTOR
05/17/2024



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OCT 23 1984
OIL & GAS DIVISION
DEPT. OF MINES

State of West Virginia
Department of Mines
Oil and Gas Division
Charleston 25305

FINAL INSPECTION REPORT
INSPECTORS COMPLIANCE REPORT
July 25, 1984

COMPANY Sterling Drilling & Production PERMIT NO 013-3655
710 Virginia Street, East FARM & WELL NO Emmons Smith #815
Charleston, West Virginia 25301 DIST. & COUNTY Lee/Calhoun

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 Strenght	_____	_____
15.05	Cement Type	_____	_____
23.02	Maintained Access Roads	_____	_____
25.01	Necessary Equipment to Prevent Waste	_____	_____
23.04	Reclaimed Drilling Pits	_____	_____
23.05	No Surface or Underground Pollution	_____	_____
23.07	Requirements for Production & Gathering Pipelines	_____	_____
16.01	Well Records on Site	_____	_____
16.02	Well Records Filed	_____	_____
7.05	Identification Markings	_____	_____

I HAVE INSPECTED THE ABOVE CAPTIONED WELL AND RECOMMEND THAT IT BE RELEASED:

SIGNED Des mace
DATE 10-18-84

Your well record was received and reclamation requirements approved. In accordance with Chapter 22, Article 4, Section 2, the above well will remain under bond coverage for the life of the well.

T. L. v. B.
Administrator-Oil & Gas Division

December 20, 1984
DATE

APPLICATION FOR DETERMINATION OF THE MAXIMUM LAWFUL PRICE UNDER THE NATURAL GAS POLICY ACT (NGPA)

1.0 API well number: (If not assigned, leave blank. 14 digits.) 47 - 013 - 3655

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

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.)
Sterling Drilling and Production Co. Inc.
710 Virginia St. East, Arcade Building
Charleston, WV 25301

5.0 Location of this well: (Complete (a) or (b).)
(a) For onshore wells (35 letters maximum for field name.)
Lee District
Field Name
Calhoun
County
State WV
City _____ State _____ Zip Code _____
Area Name _____ Block Number _____
Date of Lease: _____
Mo. Dev Yr. OCS Lease Number _____
(c) Name and identification number of this well: (35 letters and digits maximum.)
Reading #815
(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.)
UNDEDICATED
Name
(b) Date of the contract: _____
Mo. Dev Yr. Buyer Code _____
(c) Estimated total annual production from the well: 15 Million Cubic Feet

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OIL & GAS DIVISION
DEPT. OF MINES
618084
Seller Code

	(a) Base Price	(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.) S/MMBTU	<u>5.798</u>	_____	_____	_____
8.0 Maximum lawful rate: (As of filing date. Complete to 3 decimal places.) S/MMBTU	<u>5.798</u>	_____	_____	_____

Agency Use Only

Date Received by JURS. JUL - 5 1984

Date Received by FERC _____

Harry L. Berger, Jr
Name
Harry L. Berger, Jr
Signature
June 28, 1984
Date Application is Completed

Designated Agent
Title
304-342-0121
Phone Number

FERC-121 (2-87)

05/17/2024

JUL 30 1984

COVER SHEET, STATE APPLICATION FOR WELL CLASSIFICATION

Date: June 28, 19 84

AGENCY USE ONLY

Applicant's Name: Sterling Drilling & Production Co., Inc.

WELL DETERMINATION FILE NUMBER

Address: 710 Virginia Street, E. Arcade Bldg
Charleston, WV 25301

840705-107-013-3655

Gas Purchaser Contract No. _____

Use Above File Number on all
Communications Relating to This Well

Date of Contract _____
(Month, day and year)

First Purchaser: UNDEDICATED

Designated Agent: Harry L. Berger, Jr.

Address: _____
(Street or P.O. Box)

Address: Sterling Drilling & Prod. Co., Inc.
710 Virginia St., E. Arcade Bldg.
Charleston, WV 25301

(City) (State) (Zip Code)

FERC Seller Code 018084

FERC Buyer Code _____

NAME AND TITLE OF PERSON TO WHOM QUESTIONS CONCERNING THIS APPLICATION SHALL
BE ADDRESSED:

Name: Harry L. Berger, Jr.
(Print)

Agent
(Title)

Signature: [Signature]

Address: Sterling Drilling & Prod. Co., Inc.
710 Virginia St., E., Arcade Bldg.
(Street or P.O. Box)

Charleston, WV 25301
(City) (State) (Zip Code)

Telephone: (304) 342-0121
(Area Code) (Phone Number)

(Certificate of Proof of Service to Purchaser)

NGPA Category Applied For

NGPA SECTION/SUBSECTION

- 102 New Natural Gas
- 102-2 2.5 Mile Test
- 102-3 1000 Foot Deeper Test
- 102-4 New Onshore Reservoir
- 103 New Onshore Production Well
- 103 New Onshore Production Well
- 107 High Cost Natural Gas
- 107-0 Deep (more than 15,000 feet)
- 107-1 Geopressured Brine
- 107-2 Coal Seams
- 107-3 Devonian Shale
- 107-5 Production enhancement
- 107-6 New Tight Formation
- 107-7 Recompletion Tight Formation

- 108 Stripper Well Natural Gas
- 108- Stripper Well
- 108-1 Seasonally Affected
- 108-2 Enhanced Recovery
- 108-3 Temporary Pressure Buildup

AGENCY USE ONLY

RECEIVED

JUL - 5 1984

OIL & GAS DIVISION
DEPT. OF MINES

05/17/2024

QUALIFIED

JUL 30 1984

Checklist of minimum Forms and Information needed to apply for each well classification.

Each is identified by an "Item No". The "Items" required are listed beneath each well classification.

FOR NEW ONSHORE WELL - Sec. 102 NGPA - More than 2.5 miles from a marker well.
Items - 1,2,3,4,5,6,8,9,21,22 - (17 & 18 Qualified)

FOR NEW ONSHORE WELL - Sec 102 NGPA - More than 1000' deeper than marker well.
Items - 1,2,3,4,5,6,8,10,21,22 (17 & 18 Qualified)

FOR NEW ONSHORE RESERVOIR WELL - Sec. 102 NGPA
Items - 1,2,3,4,5,6,8,11,19,20,23 - (17 & 18 Qualified)

FOR NEW ONSHORE PRODUCTION WELL - Sec 103 NGPA
Items - 1,2,3,4,5,6,8,12

FOR HIGH COST GAS - Sec. 107 NGPA
Items - 1,2,3,4,5,6,8,13,18 - (17 Qualified)

FOR STRIPPER WELLS - Sec. 108 NGPA
Items - 1,2,3,4,5,6,7,8,14 (27 If Available)

FOR STRIPPER WELLS - Sec 108 NGPA - Enhanced Recovery
Items - 8,15

FOR STRIPPER WELLS - Sec. 108 NGPA - Seasonally Affected
Items - 8,16,27

<u>ITEM NOS.</u>	<u>FORM NO.</u>	<u>DESCRIPTION</u>	<u>QTY</u>
1.	FERC 121		4
2.	IV-1	Operator Agent Certification	1
3.	IV-2	Well Permit Application	1
4.	IV-6	Well Plat	3
5.	IV-35	Well Operator's Drilling Report	3
6.	IV-36	Gas/Oil Ratio Test Report	1
7.	IV-39	Report of Production	2
8.	IV-48WC	State Application for Well Classification	4
9.	IV-51WC	Wells more than 2.5 miles from marker well	2
10.	IV-52WC	Wells more than 1000' deeper than marker well	2
11.	IV-53WC	New Onshore Reservoir Well	2
12.	IV-54WC	New Onshore Production Well	2
13.	IV-55WC	High Cost Natural Gas (Devonian Shale or New Tight Formation)	2
14.	IV-56WC	Stripper Well Classification	2
15.	IV-57WC	Stripper - Enhanced Recovery	2
16.	IV-58WC	Stripper - Seasonally Affected	2
17.	N/A	Directional Survey	1
18.	N/A	Electric Logs	1
19.	N/A	Subsurface Cross-Section Charts	2
20.	N/A	Formation Structure Map	2
21.	N/A	1:4000 Well Location Map	2
22.	N/A	Well Tabulation Sheet	2
23.	N/A	Gas Analysis	2
24.	N/A	Other	2
25.	N/A	Notice - Increase of Production	2
26.	N/A	Lease Inventory	2
27.	N/A	Tax records or verified copies of billing statements for appropriate period	2

05/17/2024

QUALIFIED

REPRODUCTION

DEPARTMENT OF MINES OIL AND GAS DIVISION

Operator's
Well No. _____ Reading #815

API Well No.

47 - 013 - 3655
State County Permit

WELL CLASSIFICATION FORM

HIGH COST GAS WELL - DEVONIAN SHALE

NGPA Section 107

DESIGNATED AGENT Harry L. Berger, Jr.

ADDRESS Arcade Building; 710 Virginia St., E.
Charleston, WV 25301

LOCATION Elevation 920.15

WELL OPERATOR Sterling Drilling and Production Watershed Mushroom Run of L. Kanawha

ADDRESS 710 Virginia St., East Co., Inc. Lee County Calhoun Quad. Arnbg 7½'
Charleston, WV 25301

Gas Purchase
Contract No. _____

GAS PURCHASER UNDEDICATED

Meter Chart Code _____

ADDRESS _____

Date of Contract _____

* * * * *

Date surface drilling began: February 8, 1984

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

Bottom Hole Pressure. PSIA -- Pf = Pwe XLGS

$t = 60 + (0.0075 \times 5190) + 459.67 = 559$. $X = \frac{1}{53.34} \times 559 = .0000335$

$Pf = 850 \times 2.7183 \times .0000335 \times 3896 \times 1690 \times 1.08 = 937$ PSIA

AFFIDAVIT

I, Harry L. Berger, Jr., 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.

Harry L. Berger, Jr.

STATE OF WEST VIRGINIA

COUNTY OF Kanawha, TO-WIT:

I, Jo Ann K. Brooks, a Notary Public in and for the state and county aforesaid, do certify that Harry L. Berger, Jr., whose name is signed to the writing above, bearing date the 28th day of June, 1984, has acknowledged the same before me, in my county aforesaid.

05/17/2024

Given under my hand and official seal this 28th day of June, 1984.
My term of office expires on the 27th day of October, 1991.

Jo Ann K. Brooks
Notary Public

(NOTARIAL SEAL)

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

Operator: _____ Agent: _____

Type Determination being sought - 107 (Devonian Shale)

API Well No.: 47-013-3655 Well Name: Reading #815

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

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 = 160 * API Units

2. Remarks: _____

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

1. GR Value = 112 * API Units

2. Calculation: $\frac{0.7 \text{ (GR Value at Base Line)}}{0.7 \text{ (160 *)}} = \underline{112}$ 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***		
2327	5208'	2881	103

Total Devonian Interval 2881

Total Less Than 0.7 (Shale Base)

103

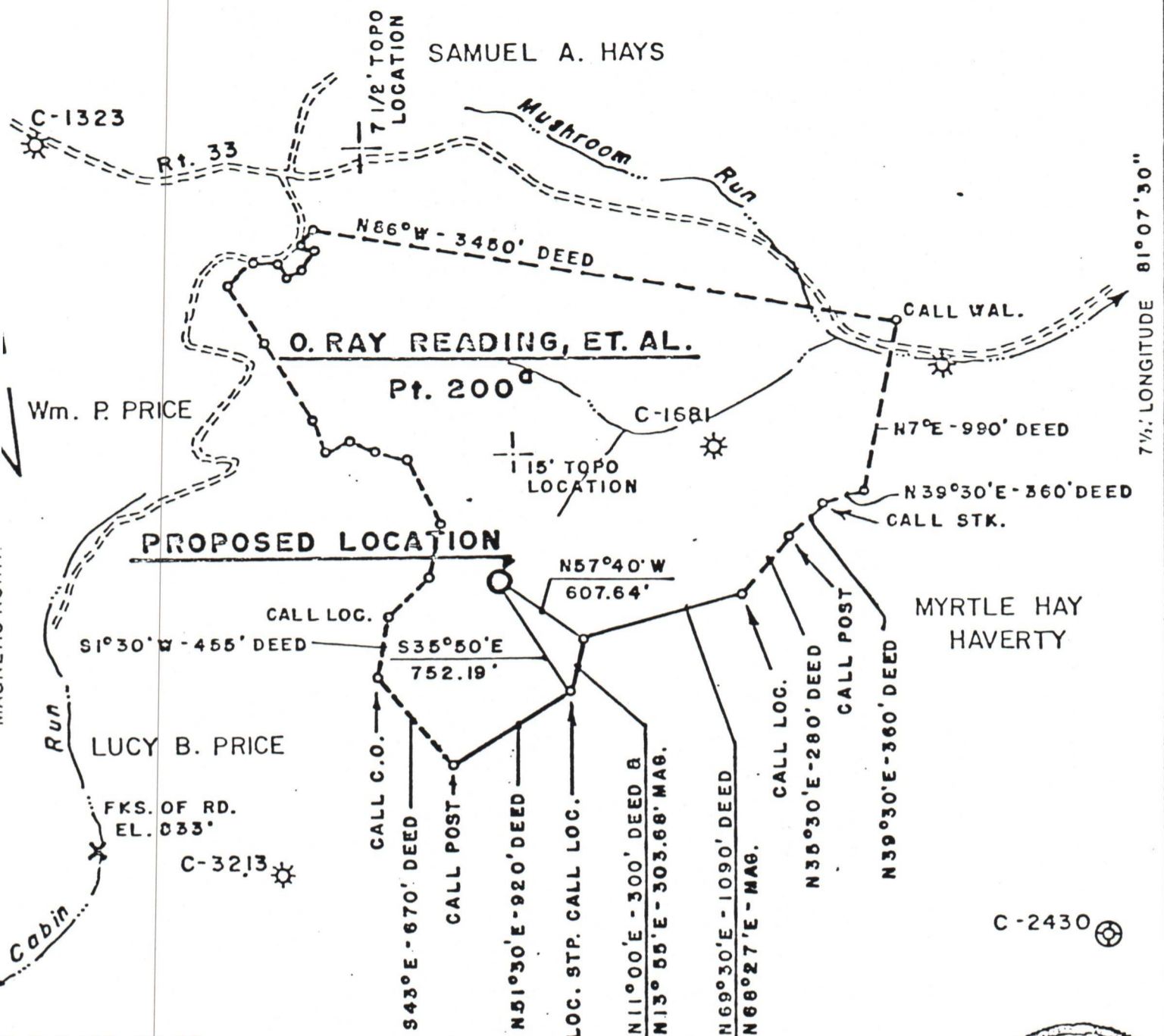
% Less Than 0.7 (Shale Base Line) = $\frac{0.357}{1} \times 100 = \underline{3.6\%}$ 05/17/2024

*Marked on log included with analysis.

**Top of Devonian Section. Recorded on First Interval in this Column.

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

15' LATITUDE 75° 50'
 7 1/2' LATITUDE 80° 47' 30"



N. B. H - 22, PG. 58
 FILE NO 042-166 NO. 1
 MAP NO. 58-C
 SCALE 1" = 1000'
 MINIMUM DEGREE OF ACCURACY 1:200
 PROVEN SOURCE OF ELEVATION U.S.G.S. DATA FKS. RD. SHOWN EL. 833'

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) Harry L. Berger, Jr.
 HARRY L. BERGER, JR. L.L.S. 248



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



DATE JULY 6, 19 88
 OPERATOR'S WELL NO. 815
 API WELL NO. EXP. 10/19/85
47 - 013 - 3655
 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 920.51' WATER SHED MUSHROOM RUN OF W. FK. OF L. KANAWHA RIVER
 DISTRICT LEE COUNTY CALHOUN
 QUADRANGLE 7 1/2' ARNOLDSBURG (ARNOLDSBURG S.W.)
 SURFACE OWNER EMMONS B. SMITH ACREAGE PT. 200
 OIL & GAS ROYALTY OWNER O. RAY READING, ET. AL. LEASE ACREAGE 200
 LEASE NO. 042-166
 PROPOSED WORK: DRILL X CONVERT ___ DRILL DEEPER ___ REDRILL ___ FRACTURE OR STIMULATE ___ PLUG OFF OLD FORMATION ___ PERFORATE NEW FORMATION ___ OTHER PHYSICAL CHANGE IN WELL (SPECIFY) ___

05/17/2024

PLUG AND ABANDON ___ CLEAN OUT AND REPLUG ___
 TARGET FORMATION BROWN SHALE ESTIMATED DEPTH 5250'
 OPERATOR STERLING DRILLING & PRODUCTION CO. INC. AGENT HARRY L. BERGER, JR.
 ADDRESS 360 MADISON AVE. - 5TH FLOOR ADDRESS 710 VIRGINIA ST. E.



IV-9
(Rev 8-81)

DATE 7-11-83

WELL NO. Reading # 815

State of West Virginia

API NO. 47-013-3655

Department of Mines

Oil and Gas Division

CONSTRUCTION AND RECLAMATION PLAN

COMPANY NAME Sterling Drilling & Prod. Co WELL OPERATOR Sterling Drilling & Prod

Address 360 Madison Ave.- NY, NY 10017 Address c/o H.L. Berger - Chars., WV

Telephone (212) 949-9100

Telephone (304) 342-0121

LANDOWNER Emmons B. Smith

SOIL CONS. DISTRICT Little Kanawha SCD

Revegetation to be carried out by Sterling Drilling & Prod. Co.-H.L. Berger (Agent)

This plan has been reviewed by Little Kanawha SCD. All corrections and additions become a part of this plan: 7-11-83

(Date)

Jarrett Newton
(SCD Agent)

RECEIVED

SEP 30 1983

ACCESS ROAD

LOCATION

Structure Culverts

(A)

Structure Diversion Ditch (1)

Spacing Side 32 x 16"

Material Earth

Page Ref. Manual 2-6

OIL & GAS DIVISION

Page Ref. Manual 2-10

DEPT. OF MINES

Structure Drainage Ditches (B)

Structure Rip-Rap (2)

Spacing Roadside

Material Rock

Page Ref. Manual 2-10

Page Ref. Manual 2-9

Structure Cross Ditches - Broad Based (C)

Structure _____ (3)

Spacing 180' for 5% grade

Material _____

Page Ref. Manual 2-4

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

Treatment Area II

Lime 2 Tons/acre
or correct to pH 6.5

Lime 2 Tons/acre
or correct to pH 6.5

Fertilizer 600 lbs/acre
(10-20-20 or equivalent)

Fertilizer 600 lbs/acre
(10-20-20 or equivalent)

Mulch Hay 2 Tons/acre

Mulch Hay 2 Tons/acre

Seed* Ky-31 40 lbs/acre

Seed* Ky-31 30 lbs/acre

Lespedeza Clover 4 lbs/acre

Lespedeza Clover 4 lbs/acre

_____ lbs/acre

Orchardgrass 10 lbs/acre

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

05/17/2024

Moore's Well Services, Inc.

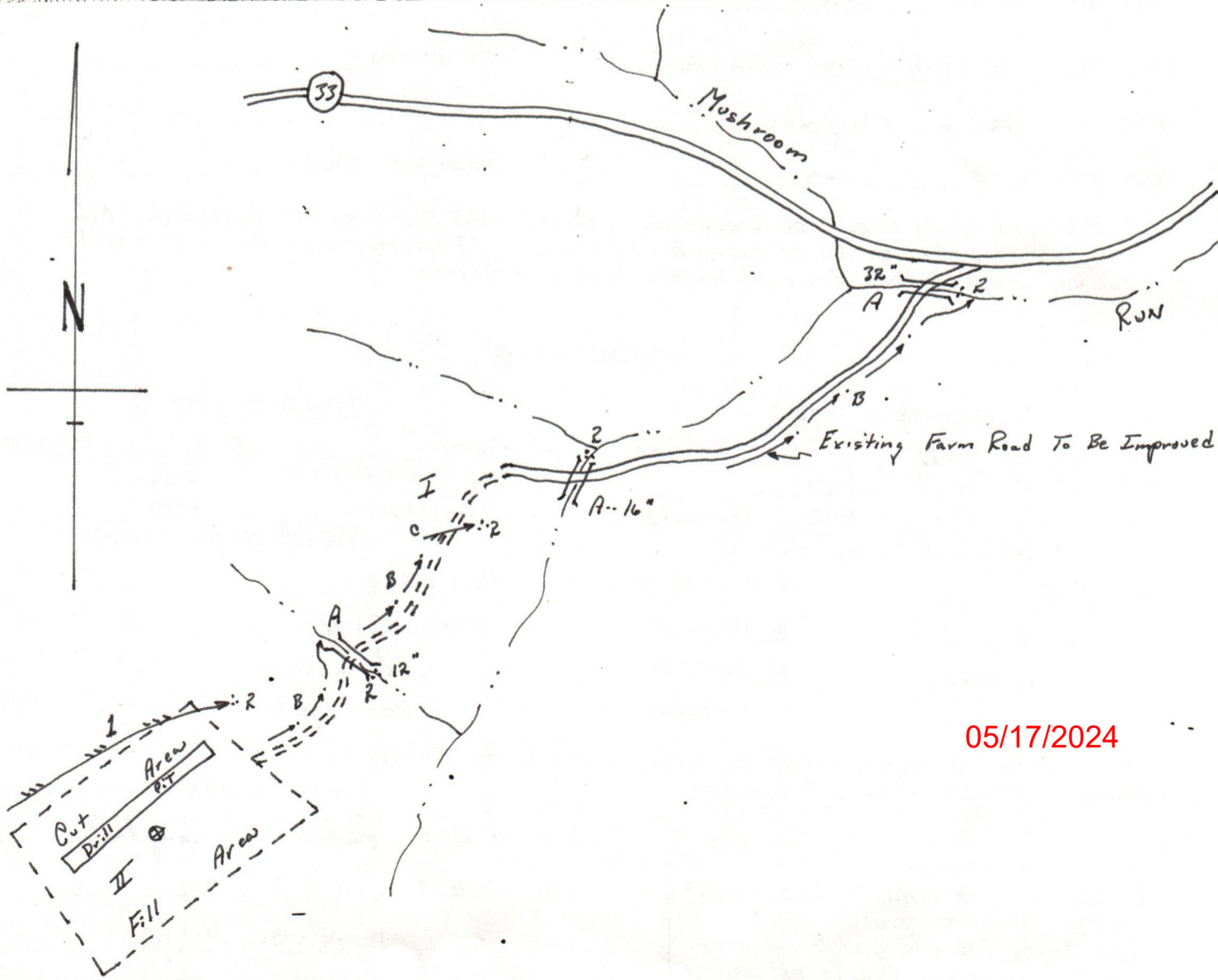
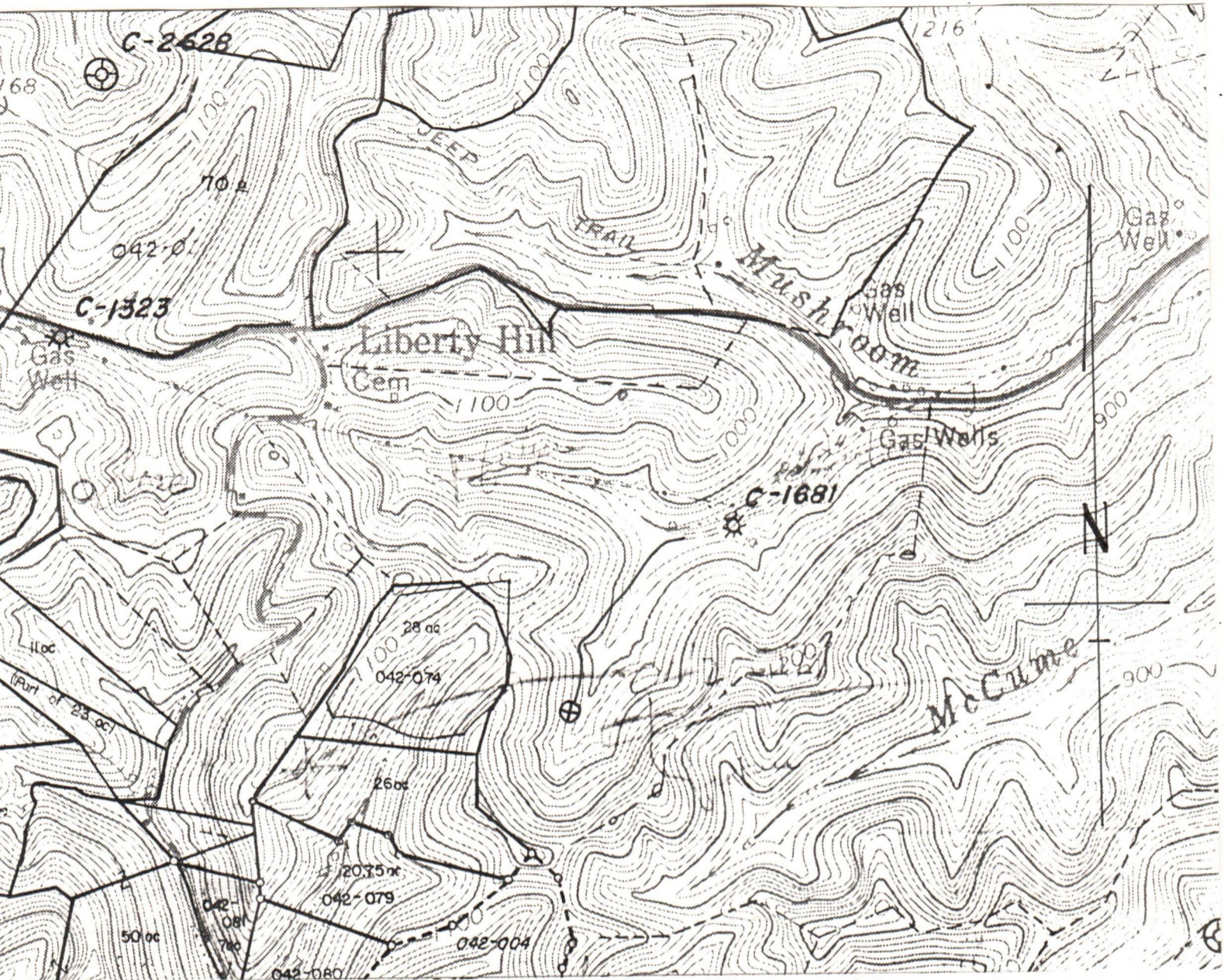
PLAN PREPARED BY Richard A. Campbell

ADDRESS Route 1 Box 30

Duck, WV 25063

PHONE NO. (304) 364-5780

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



05/17/2024