



1) Date: September 1, 19 83
 2) Operator's Well No. 839
 3) API Well No. 47 105 -2001- 110
 State County Permit

(CORRECTED PERMIT NUMBER)

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: 664.11' Watershed: Straight Fork & Little Kanawha River
 District: Burning Springs County: Wirt Quadrangle: 7.5' Annamoriah
- 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, 5000 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		
Conductor								Kinds
Fresh water	9 5/8	LS	33#	X		300'	300'	To Surface
Coal								Sizes
Intermediate	7"	J-55	20#	X		1825'	1825'	100 sks
Production	4 1/2	ERW	10.5#	X			5000'	250 sks
Tubing								Depths set
Liners								Perforations:
								Top Bottom

OFFICE USE ONLY
DRILLING PERMIT

Permit number 47-105-2001-1101 Date October 20 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 20, 1985 unless well work is commenced prior to that date and prosecuted with due diligence.

Bond: <u>BB</u>	Agent: <u>OK</u>	Plat: <u>[Signature]</u>	Casing: <u>[Signature]</u>	Fee: <u>5550</u>
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[Signature]
Administrator, Office of Oil and Gas

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



OFFICE USE ONLY

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

1) WELL LOCATION: 300' Elevation: 300' District: Putnam County, W.V. Waterbed: Straight Fork & Little Nicholas River

2) WELL OPERATOR: 300 Madison Ave. 10017 New York, New York

3) OIL & GAS INSPECTOR TO BE NOTIFIED: Name: Address: 10017 New York, New York

4) PROPOSED WELL WORK: Drill X Depth: 300' Purpose: new formation

5) GEOLOGICAL TARGET FORMATION: 500'

6) CASING AND TUBING PROGRAM: 12) Estimated depth of completed well: 300' 13) Approximate true depth: 300' 14) Approximate coal seam depths: 300'

TUBING TYPE	Casing or Tubing	Size	Grade	SPECIFICATIONS		Footage	Remarks
				Weight per ft.	Use		
Conductor	3 1/2"	12	LS	30	X	300'	To surface of hole
Intermediate	7"	12	LS	30	X	185'	100 sks
Production	4 1/2"	12	LS	30	X	500'	200 sks

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: _____

Board	Agent	Plan	Casing	Fee
BB	OK	OK	OK	OK

01/05/2024



1) Date: September 1, 19 83
2) Operator's Well No. 839
3) API Well No. 47 105 2001 1101
State County Permit

DRILLING CONTRACTOR:
UNKNOWN
AT THIS TIME

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

- 4) WELL TYPE: A Oil Gas X
B (If "Gas", Production X Underground storage Deep Shallow X)
- 5) LOCATION: Elevation: 664.11' Watershed: Straight Fork of Little Kanawha River
District: Burning Springs County: Wirt Quadrangle: 7.5' Annamoriah
- 6) WELL OPERATOR Sterling Drilling & Prod. Co., Inc 11) 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
- 7) OIL & GAS ROYALTY OWNER Parkersburg National Bank 12) COAL OPERATOR UNOPERATED
Address Parkersburg, W.V. 26101 Address
- 8) SURFACE OWNER Westvaco Corporation 13) COAL OWNER(S) WITH DECLARATION ON RECORD:
Address #2 Furguson Dr. Name UNKNOWN
Parkersburg, W.V. 26101 Attn. Steve Richards Address
Acreage 138.04 Name
Address Address
- 9) FIELD SALE (IF MADE) TO:
Address
- 10) OIL & GAS INSPECTOR TO BE NOTIFIED
Name Deo Mace Address Rt. 1 Box 5
Sandridge, W.V. 25274
- 15) PROPOSED WORK: Drill X Drill deeper Redrill Fracture or stimulate
Plug off old formation Perforate new formation
Other physical change in well (specify)
- 16) GEOLOGICAL TARGET FORMATION, Brown Shale
- 17) Estimated depth of completed well, 5000 feet
- 18) Approximate water strata depths: Fresh, feet; salt, feet.
- 19) Approximate coal seam depths: 0 Is coal being mined in the area? Yes / No X

RECEIVED
SEP 28 1983
OIL & GAS DIVISION
DEPT. OF MINES

20) CASING AND TUBING PROGRAM

CASING OR TUBING TYPE	SPECIFICATIONS					FOOTAGE INTERVALS		CEMENT FILL-UP OR SACKS (Cubic feet)	PACKERS
	Size	Grade	Weight per ft.	New	Used	For drilling	Left in well		
Conductor									Kinds
Fresh water	9 5/8	LS	33#	X		300'	300'	To Surface	
Coal									Sizes
Intermediate	7"	J-55	20#	X		1825'	1825'	100 sks	
Production	4 1/2	ERW	10.5#	X			5000'	250 sks	Dep hs set
Tubing									
Liners									Perforations: Top Bottom

- 21) EXTRACTION RIGHTS
Check and provide one of the following:
 Included is the lease or leases or other continuing contract or contracts by which I hold the right to extract oil or gas.
 The requirement of Code 22-4-1(c) (1) through (4). (See reverse side for specifics.)
- 22) ROYALTY PROVISIONS
Is the right to extract, produce or market the oil or gas based upon a lease or other continuing contract or contracts providing for flat well royalty or any similar provision for compensation to the owner of the oil or gas in place which is not inherently related to the volume of oil or gas so extracted, produced or marketed? Yes No
If the answer above is No, nothing additional is needed. If the answer is Yes, you may use Affidavit Form IV-60.
- 23) Required Copies (See reverse side.)
- 24) Copies of this Permit Application and the enclosed plat and reclamation plan have been mailed by registered mail or delivered by hand to the above named coal operator, coal owner(s), and coal lessee on or before the day of the mailing or delivery of this Permit Application to the Department of Mines at Charleston, West Virginia.
- Notary: David M. Gillespie Signed: Harry L. Berger, Jr.
My Commission Expires May 10, 1989 Its: Designated Agent 01/05/2024

OFFICE USE ONLY
DRILLING PERMIT

Permit number Date

This permit covering the well operator and well location shown below is evidence of permission granted to drill in accordance with the pertinent legal requirements subject to the conditions contained herein and on the reverse hereof. Notification must be given to the District Oil and Gas Inspector. (Refer to No. 10) Prior to the construction of roads, locations and pits for any permitted work. In addition, the well operator or his contractor shall notify the proper district oil and gas inspector 24 hours before actual permitted work has commenced.)

Permit expires unless drilling is commenced prior to that date and prosecuted with due diligence.

Bond:	Agent:	Plat:	Casing	Fee
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Line Item Explanation

- 1) Date of Application
- 2) Your well name and number
- 3) To be filled out by office of oil & gas
- 4A) "Oil" means natural crude oil or petroleum and other hydrocarbons, regardless of gravity, which are produced at the well in liquid form by ordinary production methods and which are not the result of condensation of gas after it leaves underground reservoirs: "Gas" means all natural gas and all other fluid hydrocarbons not defined as oil.
- 4B) "Shallow well" means any well drilled and completed in a formation above the top of the uppermost member of the "Onondaga Group" or a depth less than six thousand feet, whichever is shallower.
"Deep well" means any well drilled and completed in a formation at or below the top of the uppermost member of the "Onondaga Group" or at a depth less than six thousand feet, whatever is shallower.
- 5) Where well is located
- 6) Before a permit can be issued in a corporation, company partnership, or fictitious name, the name must be registered with the Secretary of State Office
- 7) Use separate sheet if necessary
- 8) Present surface owner at time application is filed.
- 9) Optional
- 11) See Reg. 7.01 relating to code §22-4-1k
- 12) "Coal Operator" means any persons, firm, partnership, partnership association or corporation that proposes to or does operate a coal mine. See Note 24
- 13 & 14) As per §22-4-20; See Note 24
- 15) Work that will be attempted—A separate Form IV-2 shall not be required for fracturing or stimulating a well where fracturing or stimulating is to be part of the work for which a permit is sought and is noted as such on the Form IV-2 filed in connection therewith.
- 16) Anticipated formation for which well will be completed
- 17) Self explanatory
- 18) Depth to deepest freshwater, and shallowest salt water, taken from nearby wells corrected for differences in elevation
- 19) All coal seam depths
- 20) Proposed casing program and cementing refer to Code 22-4-5, 22-4-6, 22-4-7, 22-4-8, 22-4-8a Reg 9.01, 15.01, 15.02, 15.03, 15.04, 25.01, 25.02, 25.03, 25.04
- 21) Code 22-4-11(c) - In lieu of filing the lease or leases or other continuing contract or contracts, the applicant for a permit described herein may file the following:
 - (1) A brief description of the tract of land including the district and county wherein the tract is located;
 - (2) The identification of all parties to all leases or other continuing contractual agreements by which the right to extract, produce or market the oil or gas is claimed;
 - (3) The book and page number wherein each such lease or contract by which the right to extract, produce or market the oil or gas is recorded;
 - (4) A brief description of the royalty provisions of each such lease or contract.
- 22) Code 22-4-11(d) and 22-4-11(e).
- 23) Regulation 7.02 of the Department of Mines provides that the original and four copies of Form IV-2 must be filed with the Department, accompanied by (i) a plat in the form prescribed by Regulation 11, (ii) a bond in one of the forms prescribed by Regulation 12, or in lieu thereof the other security allowed by Code §22-4-2, (iii) Form IV-9, "Reclamation Plan", applicable to the reclamation required by Code §22-4-12b and Regulation 23, (iv) unless previously paid on the same well, the fee required by Code §22-4-12a, and (v) if applicable, the consent required by Code §22-4-8a from the owner of any water well or dwelling within 200 feet of the proposed well.
- 24) **The above named coal operator, coal owner(s), and coal lessee are hereby notified that any objection they wish to make or are required to make by Code §22-4-3 must be filed with the Department of Mines within fifteen (15) days after the receipt of this Application by the Department.**

.....

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

01/05/2024

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.

1) Date: Sept. 1, 19 83

2) Operator's Well No. 839

3) API Well No. 47 105 -2001 1101
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 Westvaco Corp.
Address #2 Furguson Dr.
Parkersburg, W.V. 26101

(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 _____

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

Harry I. Berger, Jr.
this 1 day of Sept., 1983.
My commission expires May 10, 1989.

David M. Gillespie
Notary Public Kanawha County,
State of West Virginia

WELL OPERATOR Sterling Drilling & Prod. Co., Inc.

By Harry I. Berger, Jr.
Its Designated Agent
Address 710 Virginia St., E.
Charleston, W.V. 25301
Telephone 342 - 0121

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

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.

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 § 22-4-1b(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 § 22-4-3a 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 obverse 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>
Parkersburg Nat'l. Bank	Sterling Drilling and Production Co., Inc.	1/8	081/434



1) Date: September 1, 19 83
 2) Operator's Well No. 839
 3) API Well No. 47 105 2001
 State County Permit 1101

(CORRECTED PERMIT NUMBER)

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

- 4) WELL TYPE: A Oil _____ / Gas X /
 B (If "Gas", Production X / Underground storage _____ / Deep _____ / Shallow X /)
- 5) LOCATION: Elevation: 664.11' Watershed: Straight Fork & Little Kanawha River
 District: Burning Springs County: Wirt Quadrange: 7.5' Annamoriah
- 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 9) DRILLING CONTRACTOR:
 Name Deo Mace Name UNKNOWN AT THIS TIME
 Address Rt. 1 Box 5 Address _____
Sandridge, W.V. 25274
- 10) PROPOSED WELL WORK: Drill X / 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, 5000 feet
 13) Approximate trata depths: Fresh, _____ feet; salt, _____ feet.
 14) Approximate coal seam depths: 0 Is coal being mined in the area? Yes _____ / No X /

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		Kinds	Sizes
Conductor										
Fresh water	<u>9 5/8</u>	<u>LS</u>	<u>33#</u>	<u>X</u>		<u>300'</u>	<u>300'</u>	<u>To Surface</u>		
Coal										
Intermediate	<u>7"</u>	<u>J-55</u>	<u>20#</u>	<u>X</u>		<u>1825'</u>	<u>1825'</u>	<u>100 sks</u>		
Production	<u>4 1/2</u>	<u>ERW</u>	<u>10.5#</u>	<u>X</u>			<u>5000'</u>	<u>250 sks</u>		
Tubing										
Liners										

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 20

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 _____ / 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 _____

01/05/2024
Coal Owner



IV-9
(Rev 8-81)

DATE 8-27-83

WELL NO. Park Kershburg Bank # 839

State of West Virginia

API NO. 47 - 105 - 1101

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 Westvac Corp. 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: 9-1-83
(Date)

Jarrett Newton
(SCD Agent)

ACCESS ROAD

LOCATION

Structure Culvert (A)

Structure see sketch (1)

Spacing Size 12"

Material _____

Page Ref. Manual 2-8

Page Ref. Manual _____

RECEIVED
SEP 28 1983

Structure Drainage Ditches (B)

Structure Rip-Rap (2)

Spacing Roadside

Material Rock

Page Ref. Manual 2-12

Page Ref. Manual 2-9

OIL & GAS DIVISION
DEPT. OF MINES

Structure Cross Ditches (C)

Structure _____ (3)

Spacing _____

Material _____

Page Ref. Manual _____

Page Ref. Manual _____

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

REVEGETATION

Treatment Area I

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 30 lbs/acre

Seed* Ky-31 30 lbs/acre

Orchard grass 10 lbs/acre

Orchard grass 10 lbs/acre

Ladino Clover 4 lbs/acre

Ladino Clover 4 lbs/acre

01/05/2024

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

Moore's Well Services, Inc.

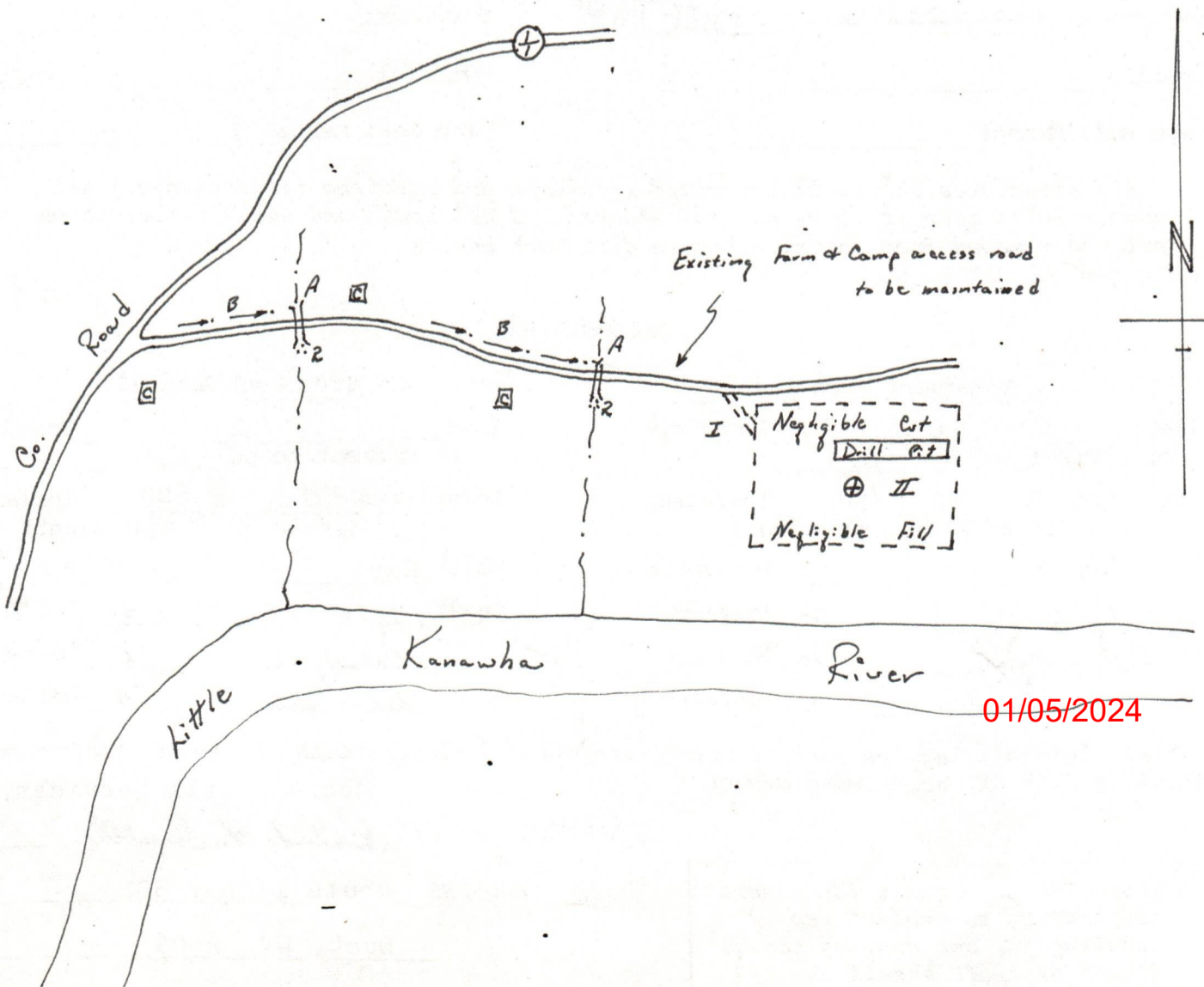
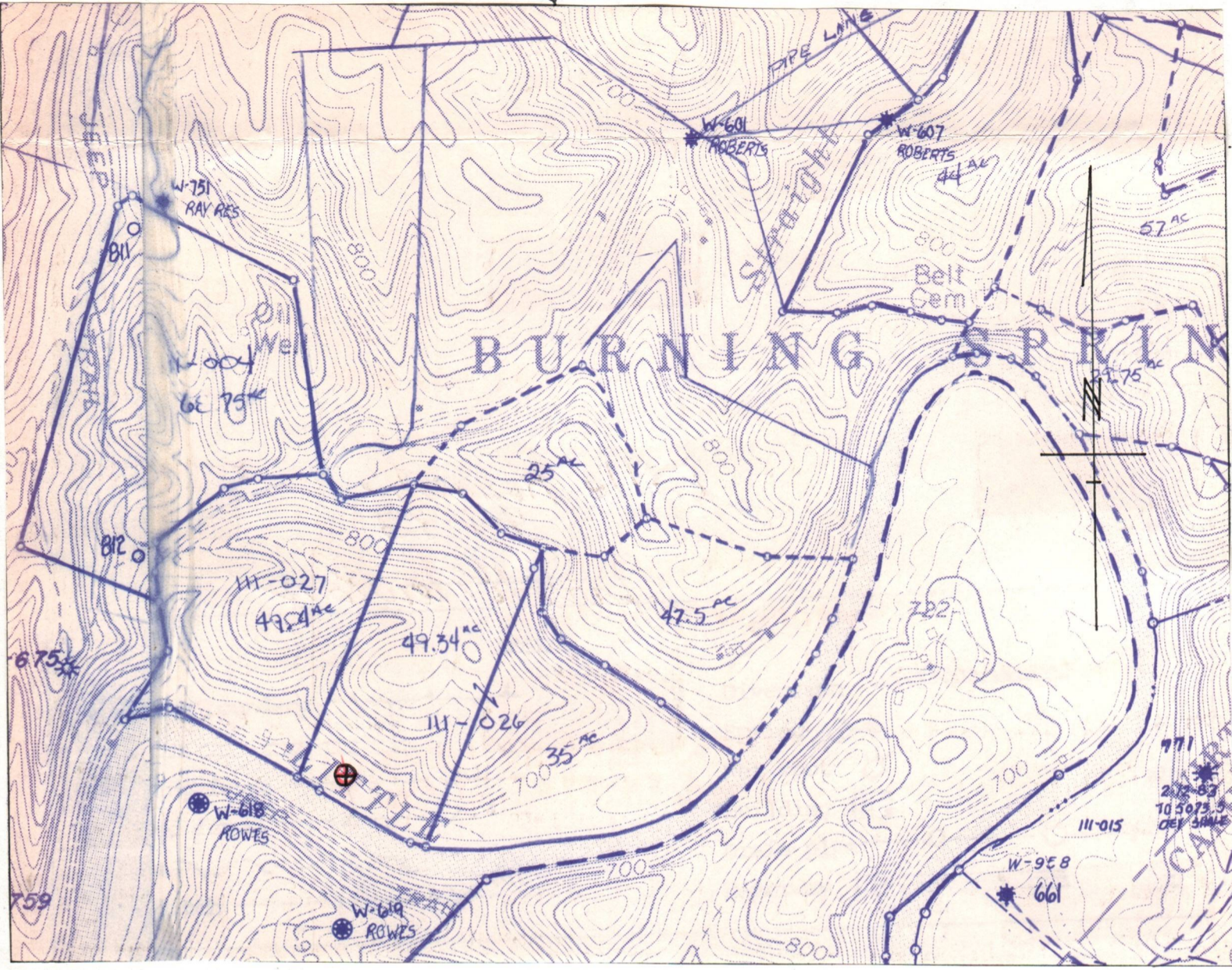
PLAN PREPARED BY Richard S. Campbell

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.



P 522 051 881

POSTAGE WILL BE PAID BY ADDRESSEE

NOT FOR INTERNATIONAL MAIL

(See Reverse)

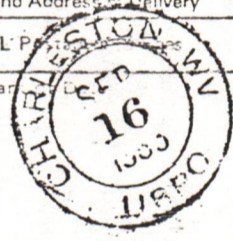
Sent to WESTVACO CORP.	
Street and No. #2 FURGUSON DR.	
P.O., State and ZIP Code PARKERSBURG, W.V. 26101	
Postage	\$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to whom and Date Delivered	
Return Receipt Showing to whom, Date, and Address of Delivery	
TOTAL POSTAGE	\$1.72
Postmark	



839
P 522 051 881

(See Reverse)

Sent to WESTVACO CORP.	
Street and No. #2 FURGUSON DR.	
P.O., State and ZIP Code PARKERSBURG, W.V. 26101	
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	\$1.72
Postmark	



PS Form 3800, Feb. 1982

105-~~2001~~¹¹⁰¹

RECEIVED
SEP 28 1983

OIL & GAS DIVISION
DEPT. OF MINES

01/05/2024

839, 840

P 522 056 692

RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED--
NOT FOR INTERNATIONAL MAIL

(See Reverse)

Sent to STEVE RICHARDS	
WESTVACO CORP.	
Street and No.	
*2 FURBUSDN DR.	
P.O., State and ZIP Code	
PARKERSBURG, W. V. 26101	
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	

PS Form 3800, Feb. 1982



01/05/2024



IV-35
(Rev 8-81)

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NOV 5 - 1984
OIL & GAS DIVISION
DEPT. OF MINES

State of West Virginia
Department of Mines
Oil and Gas Division

Date Oct. 24, 1984
Operator's Well No. 839
Farm Pkbg Nat'l Bank
API No. 47 - 105 - 1101

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: 664.11 Watershed Straight Fk & Little Kanawha River
District: Burning Springs County Wirt Quadrangle 7½ Annamoriah

COMPANY Sterling Drilling & Production Co., Inc.

ADDRESS 710 Virginia St., E, Charleston, WV

DESIGNATED AGENT Harry L. Berger, Jr. 25301

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

SURFACE OWNER Westvaco Corp.

ADDRESS Box 577, Rupert, WV 25984

MINERAL RIGHTS OWNER Pkbg Nat'l Bank

ADDRESS Parkersburg, WV 26101

OIL AND GAS INSPECTOR FOR THIS WORK Deo

MACE ADDRESS Rt 1, Bx 5 Sandridge, WV 25274

PERMIT ISSUED 10/20/83

DRILLING COMMENCED 7/9/84

DRILLING COMPLETED 7/15/84

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	298'	298'	120 sx
8 5/8			
7	1850'	1850'	160 sx
5 1/2			
4 1/2		5086	290 sx
3			
2			
Liners used			

GEOLOGICAL TARGET FORMATION Devonian Shale Depth 5000 feet

Depth of completed well 5135' KB feet Rotary x / Cable Tools

Water strata depth: Fresh 80 feet; Salt 620 feet

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

OPEN FLOW DATA

Producing formation Devonian Shale Pay zone depth 3117'-5102' feet

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

Final open flow 335 Mcf/d Final open flow Show Bbl/d

Time of open flow between initial and final tests 24.5 hours

Static rock pressure 895 psig (surface measurement) after 98 hours shut in

(If applicable due to multiple completion--)

Second producing formation Pay zone depth feet

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

Final open flow Mcf/d Oil: Final open flow Bbl/d

Time of open flow between initial and final tests hours

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

01/05/2024

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

Perforations:

1st stage: 27 holes from 4517' to 5102'
 2nd stage: 27 holes from 3788' to 4365'
 3rd stage: 26 holes from 3117' to 3686'

Treatment:

1st stage 1000 gals of 15% HCl; 1584 MSCF of N₂
 2nd stage 1000 gals of 15% HCl; 1584 MSCF of N₂
 3rd stage 1000 gals of 15% HCl; 1584 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
Sandstone and Shale			0	1350	all measurements 10' KB Fresh water @ 80' Salt water @ 620'
Salt Sand			1350	1395	
Shale			1395	1446	
Maxon			1446	1495	
Shale and Lime			1495	1547	
Big Lime			1547	1676	
Big Injun			1676	1708	
Siltstone and Shale			1708	2074	
Sunbury Shale			2074	2089	
Siltstone and Shale			2089	2581	
Shale			2581	4518	
Siltstone			4518	4534	
Shale			4534	5135	
					Top of Java Formation . 4283' Gas show 3117' - 3686' 3788' - 4365' 4517' - 5102' TD 5135'

(Attach separate sheets as necessary)

Sterling Drilling and Production Co., Inc. 01/05/2024
Well Operator

By: Harry J. Berger Jr
Date: October 24, 1984

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

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

RECEIVED

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INSPECTOR'S WELL REPORT

OIL & GAS DIVISION
DEPT. OF MINES

Permit No. 105-1101

Oil or Gas Well _____
(KIND)

Company Sterling Drilling & Prod
 Address Charleston, W.Va.
 Farm Parkersburg Nat. Bank
 Well No. 839
 District Burnings Springs County West
 Drilling commenced 7/16/84
 Drilling completed 7/22/84 Total depth 5100
 Date shot _____ Depth of shot _____
 Initial open flow _____ /10ths Water in _____ Inch
 Open flow after tubing _____ /10ths Merc. in _____ Inch
 Volume _____ Cu. Ft.
 Rock pressure _____ lbs. _____ hrs.
 Oil _____ bbls., 1st 24 hrs.
 Fresh water _____ feet _____ feet
 Salt water _____ feet _____ feet

CASING AND TUBING	USED IN DRILLING	LEFT IN WELL	PACKERS
Size			
16			Kind of Packer _____
13			
10			Size of _____
8 3/4			
6 3/4			Depth set _____
5 3/16			
4 1/2		5075	Perf. top _____
2			Perf. bottom _____
Liners Used			Perf. top _____
			Perf. bottom _____

CASING CEMENTED 4 1/2 SIZE 5075 No. FT. 7/22/84 Date
 NAME OF SERVICE COMPANY Dowell
 COAL WAS ENCOUNTERED AT _____ FEET _____ INCHES
 _____ FEET _____ INCHES FEET _____ INCHES
 _____ FEET _____ INCHES FEET _____ INCHES

Drillers' Names Randy Short Pushes Ronnie Costo

Hart Rig #80

Remarks: 7/22/84 F.D. of Well 5100 ft. Ran 5075 ft of 4 1/2" pipe and cemented with 290 sacks of 50/50 poz mix Plug down 9:00 P.M. by Dowell

7/23/84
DATE

Homer H. Drayton
DISTRICT WELL INSPECTOR
0105/2024

**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
01/05/2024

OG-11
B-3

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

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

Permit No. 105-1101

Oil or Gas Well _____
(KIND)

Company	CASING AND TUBING	USED IN DRILLING	LEFT IN WELL	PACKERS
<u>Sterling Drilling & Prod.</u>	Size			
<u>Charleston, W. Va.</u>	16			Kind of Packer _____
<u>Parkersburg Nat. Bank.</u>	13 ^{3/8}		<u>56 ft.</u>	
<u>Well No. 839</u>	10			Size of _____
<u>Burning Springs County West</u>	8 1/2 <u>9 5/8</u>		<u>312</u>	
<u>Drilling commenced 7/16/84</u>	6 3/4			Depth set _____
<u>Drilling completed _____ Total depth _____</u>	5 8/16 <u>7"</u>		<u>1862</u>	
<u>Date shot _____ Depth of shot _____</u>	3			Perf. top _____
<u>Initial open flow _____ /10ths Water in _____ Inch</u>	2			Perf. bottom _____
<u>Open flow after tubing _____ /10ths Merc. in _____ Inch</u>	Liners Used			Perf. top _____
<u>Volume _____ Cu. Ft.</u>				Perf. bottom _____
<u>Rock pressure _____ lbs. _____ hrs.</u>	CASING CEMENTED <u>9 5/8</u> SIZE <u>312</u> No. FT. <u>7/17/84</u> Date			
<u>Oil _____ bbls., 1st 24 hrs.</u>	NAME OF SERVICE COMPANY <u>Dowell</u>			
<u>Fresh water _____ feet _____ feet</u>	COAL WAS ENCOUNTERED AT _____ FEET _____ INCHES			
<u>Salt water _____ feet _____ feet</u>	_____ FEET _____ INCHES _____ FEET _____ INCHES			
	_____ FEET _____ INCHES _____ FEET _____ INCHES			

Drillers' Names Randy Short Pusher Ronnie Casto

Hurt Rig #8

Remarks: 7/16/84 moved on & started drilling. ran 56 ft of 13 3/8 conductor
Ran 312 ft of 9 5/8" surface pipe and cemented with 140 sacks neat
3% C.C. + 1/2 lb. of Celifake Plug down 4:00 AM 7/17/84 by Dowell
7/19/84 Ran 1862 ft of 7" pipe and cemented with 160 sack
neat 3% C.C. + 1/2 lb. of floccle Plug down 10:00 PM by Dowell.

7/23/84
DATE

Homer H. Dougherty
DISTRICT WELL INSPECTOR
04/05/2024

Form 26
2/16/82

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

Permit No. _____

Well No. _____

COMPANY _____ ADDRESS _____

FARM _____ DISTRICT _____ COUNTY _____

Filling Material Used _____

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

Drillers' Names _____

Remarks:

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

DISTRICT WELL INSPECTOR

01/05/2024

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

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OCT 2 - 1984

INSPECTOR'S WELL REPORT OIL & GAS DIVISION

DEPT. OF MINES

Permit No. 105-1101

Oil or Gas Well (KIND)

Company	Address	Farm	Well No.	District	Drilling commenced	Drilling completed	Date shot	Initial open flow	Open flow after tubing	Volume	Rock pressure	Oil	Fresh water	Salt water	CASING AND TUBING	USED IN DRILLING	LEFT IN WELL	PACKERS
															Size			Kind of Packer
<u>Sterling Drilling + Prod.</u>	<u>Charleston, W. VA.</u>	<u>Barbersburg National Bank</u>	<u>839</u>	<u>Burning Springs</u> County <u>West</u>											16			
															13			
															10			Size of
															8 1/4			
															6 5/8			Depth set
															5 3/16			
															3			Perf. top
															2			Perf. bottom
															Liners Used			Perf. top
																		Perf. bottom
															CASING CEMENTED _____ SIZE _____ No. FT. _____ Date _____			
															NAME OF SERVICE COMPANY _____			
															COAL WAS ENCOUNTERED AT _____ FEET _____ INCHES			
															_____ FEET _____ INCHES _____ FEET _____ INCHES			
															_____ FEET _____ INCHES _____ FEET _____ INCHES			

Drillers' Names Status report

Remarks: 9-24-84 - Inspected reclamation on road + location reclamation done, location + road seeded and mulched with straw by Ronald Lane Inc. can be released when grass grows.

9-24-84
DATE

Homer H. Doughty
DISTRICT WELL INSPECTOR
01/05/2024

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

INSPECTOR'S PLUGGING REPORT

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OCT 2 - 1982

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

01/05/2024

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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

COMPANY Sterling Drilling & Prod.
Charleston, W.V.A. 25301
710 Virginia St., East

PERMIT NO 47-105-1101
FARM & WELL NO Parkersburg National Bank, 839
DIST. & COUNTY B. Springs

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 Homer H. Dougherty
DATE 10/17/84

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.H. Webb
Administrator-Oil & Gas Division

January 18, 1985
DATE

TMS/nw

01/05/2024

ct

1.0 API well number: (If not assigned, leave blank. 14 digits.) 47 - 105 - 1101

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

3.0 Depth of the deepest completion location: (Only needed if sections 103 or 107 in 2.0 above.) 5135 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.
 Name: 710 Virginia St. East, Arcade Building
 Street: Charleston, WV 25301
 City: _____ State: _____ Zip Code: _____

5.0 Location of this well: (Complete (a) or (b).)
 (a) For onshore wells (35 letters maximum for field name.)
 Field Name: Burning Springs
 Wirt
 County: _____ State: WV

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

(c) Name and identification number of this well: (35 letters and digits maximum.)
Pkbg Nat'l Bank #839

(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: _____ Survey Code: _____

(b) Date of the contract:

 Mo. Day Yr.

(c) Estimated total annual production from the well:
10 Million Cubic Feet

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OIL & GAS DIV 18084
 DEPT. OF MINES
 Editor 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 8 6 6</u>	_____	_____	_____
8.0 Maximum lawful rate: (As of filing date. Complete to 3 decimal places.) S/MMBTU	<u>5 8 6 6</u>	_____	_____	_____

9.0 Person responsible for this application:

Agency Use Only

Date Received by Juris. Agency: NOV - 1 1984

Date Received by FERC: _____

Name: Harry L. Berger, Jr Designated Agent
 Title: _____

Signature: Harry L. Berger Jr
 Date: Oct. 24, 1984
 Date Application is Completed: _____

Phone Number: 304-342-0121

01/05/2024

NOV 29 1984

47-105-1101

COVER SHEET, STATE APPLICATION FOR WELL CLASSIFICATION

Date: Oct. 24, 19 84

AGENCY USE ONLY *De*

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

WELL DETERMINATION FILE NUMBER

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

841101 -107-105-1101

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.

Agent
(Title)

Signature: *Harry L. Berger Jr*
Sterling Drilling & Prod. Co., Inc.

Address: 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 Buildu

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OIL & GAS DIV.
DEPT. OF MINES

Date Received

AGENCY USE ONLY

QUALIFIED
01/05/2024

Determination Date

API Well No.

47 - 105 - 1101
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 664.11

WELL OPERATOR Sterling Drilling and Production Watershed St Fk & Little Kanawha River
Co., Inc.
ADDRESS 710 Virginia St., East
Charleston, WV 25301

Dist. Brng Spr County Wirt Quad. 7 1/2 Annamorh

Gas Purchase
Contract No. _____

GAS PURCHASER UNDEDICATED

Meter Chart Code _____

ADDRESS _____

Date of Contract _____

* * * * *

Date surface drilling began: 7/9/84

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

Bottom Hole Pressure. PSIA -- Pf = Pwe XLGS

$t = 60 + (0.0075 \times 5135) + 459.67 = 558 \cdot X = \frac{1}{53.34} \times 558 = .0000336$

$Pf = 895 \times 2.7183 \cdot 0.0000336 \times 4110 \times 1690 \times 1.08 = 992 \text{ PSIA}$

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)(1) 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

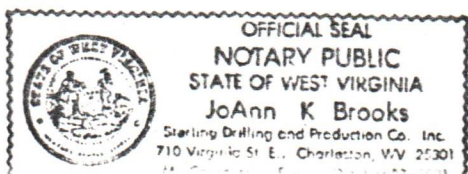
COUNTY OF Kanawha, TO-WIT:

I, JoAnn 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 24 day of October, 1984, has acknowledged the same before me, in my county aforesaid.

01/05/2024

Given under my hand and official seal this 24 day of October, 1984.
My term of office expires on the 29 day of October, 1991.

(NOTARIAL SEAL)



JoAnn K Brooks
Notary Public

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

Operator: STERLING Drilling & Prod. Co. Agent: HARRY L. BELGER, JR.
 Type Determination being sought - 107 (Devonian Shale)
 API Well No.: 47-105-1101 Well Name: Parkersburg No. 1 G. & S.
 West Virginia Office of Oil and Gas County: Wirt
 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 = 165 * API Units
2. Remarks:

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

1. GR Value = 115.5 * API Units
2. Calculation: $\frac{0.7 \text{ (GR Value at Base Line)}}{0.7 \text{ (165 *)}} = \underline{115.5}$ 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***		
2090	5122	3032	133

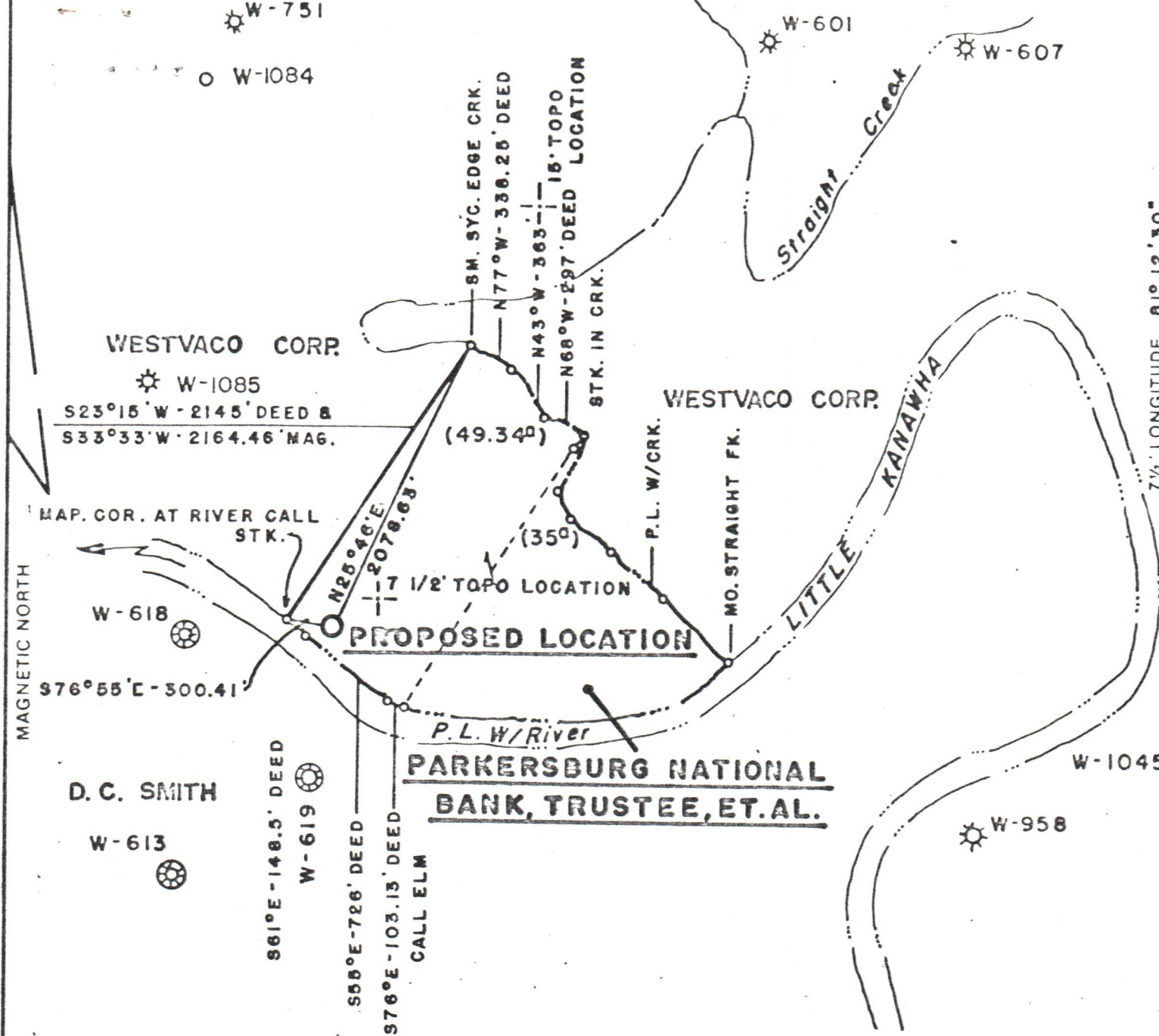
Total Devonian Interval 3032

Total Less Than 0.7 (Shale Base) 133

% Less Than 0.7 (Shale Base Line) = $\frac{0.0438}{1} \times 100 = \underline{4.4\%}$

01/05/2024

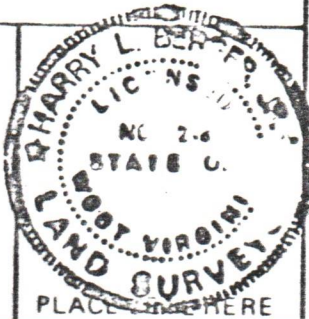
*Marked on log included with analysis.
 **Top of Devonian Section Recorded on First Interval in this Column.
 ***Lesser of TD or Bottom of Devonian Section Recorded as last Interval in this Column.



N.B. H-24, P6.28

FILE NO 111-026 NO.2
 MAP NO 58-A
 SCALE 1" = 1000'
 MINIMUM DEGREE OF ACCURACY 1:200
 PROVEN SOURCE OF ELEVATION U.S.G.S. DATA B.M. ROCK RUN EL. 649'

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
 (878)



DATE AUG. 19, 19 83
 OPERATOR'S WELL NO. 839
 API WELL NO. EXP. 10/20/85
47-105-1101
 STATE COUNTY PERMIT

STATE OF WEST VIRGINIA
 DEPARTMENT OF MINES
 OIL AND GAS DIVISION

WELL TYPE OIL GAS LIQUID INJECTION WASTE DISPOSAL
 (IF "GAS") PRODUCTION STORAGE DEEP SHALLOW
 LOCATION ELEVATION 664.11' WATERSHED STRAIGHT FORK & LITTLE KANAWHA RIVER
 DISTRICT BURNING SPRINGS COUNTY WIRT
 QUADRANGLE 7 1/2' ANNAMORIAN (ARNOLDSBURG N.W.)
 SURFACE OWNER WESTVACO CORP. ACREAGE 138.04
 OIL & GAS ROYALTY OWNER PARKERSBURG NAT. BANK LEASE ACREAGE 88
 LEASE NO. 111-026

01/05/2024

PROPOSED WORK DRILL CONVERT DRILL DEEPER REDRILL FRACTURE OR STIMULATE PLUG OFF OLD FORMATION PERFORATE NEW FORMATION OTHER PHYSICAL CHANGE IN WELL (SPECIFY) _____
 PLUG AND ABANDON CLEAN OUT AND REPLUG
 TARGET FORMATION BROWN SHALE ESTIMATED DEPTH 5000'
 OPERATOR STERLING DRILLING & PRODUCTION CO. INC AGENT HARRY L. BERGER
 ADDRESS 360 MADISON AVE - 5TH FLOOR ADDRESS 710 VIRGINIA ST. E. CHARLESTON, WV 25314
NEW YORK, N.Y. 10017



IV-35
(Rev 8-81)

Date Oct. 24, 1984

State of West Virginia
Department of Mines
Oil and Gas Division

Operator's
Well No. 839
Farm Pkbg Nat'l Bank
API No. 47 -105 -1101

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: 664.11 Watershed Straight Fk & Little Kanawha River
District: Burning Springs County Wirt Quadrangle 7 1/2' Annamoriah

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 Westvaco Corp.

ADDRESS Box 577, Rupert, WV 25984

MINERAL RIGHTS OWNER Pkbg Nat'l Bank

ADDRESS Parkersburg, WV 26101

OIL AND GAS INSPECTOR FOR THIS WORK Deo

MACE ADDRESS Rt 1, Bx 5 Sandridge, WV 25274

PERMIT ISSUED 10/20/83

DRILLING COMMENCED 7/9/84

DRILLING COMPLETED 7/15/84

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	298'	298'	120 sx
8 5/8			
7	1850'	1850'	160 sx
5 1/2			
4 1/2		5086	290 sx
3			
2			
Liners used			

GEOLOGICAL TARGET FORMATION Devonian Shale Depth 5000 feet

Depth of completed well 5135' KB feet Rotary x / Cable Tools

Water strata depth: Fresh 80 feet; Salt 620 feet

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

OPEN FLOW DATA

Producing formation Devonian Shale Pay zone depth 3117'-5102' feet

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

Final open flow 335 Mcf/d Final open flow Show Bbl/d

Time of open flow between initial and final tests 24.5 hours

Static rock pressure 895 psig (surface measurement) after 96 hours shut in

(If applicable due to multiple completion--)

01/05/2024

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

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

Perforations:

1st stage: 27 holes from 4517' to 5102'
 2nd stage: 27 holes from 3788' to 4365'
 3rd stage: 26 holes from 3117' to 3686'

Treatment:

1st stage 1000 gals of 15% HCl; 1584 MSCF of N₂
 2nd stage 1000 gals of 15% HCl; 1584 MSCF of N₂
 3rd stage 1000 gals of 15% HCl; 1584 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
Sandstone and Shale			0	1350	all measurements 10' KB Fresh water @ 80' Salt water @ 620'
Salt Sand			1350	1395	
Shale			1395	1446	
Maxon			1446	1495	
Shale and Lime			1495	1547	
Big Lime			1547	1676	
Big Injun			1676	1708	
Siltstone and Shale			1708	2074	Top of Java Formation 4283' Gas show 3117' - 3686' 3788' - 4365' 4517' - 5102' TD 5135'
Sunbury Shale			2074	2089	
Siltstone and Shale			2089	2581	
Shale			2581	4518	
Siltstone			4518	4534	
Shale			4534	5135	

(Attach separate sheets as necessary)

Sterling Drilling and Production Co., Inc.
Well Operator

By: Harry J. Berger
Date: October 24, 1984

01/05/2024

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