



1) Date: ~~XXXXX~~ Oct. 15, 1984
 2) Operator's Well No. JK-1100
 3) API Well No. 47 - 085 - 7211
 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: ~~851X~~ 825 Watershed: Bonds Creek
 District: Clay County: Ritchie Quadrangle: Ellenboro 7.5'
 6) WELL OPERATOR J & J Enterprises, Inc.
 Address P.O. Box 48
 Buckhannon, WV 26201 24150
 7) DESIGNATED AGENT Richard Reddecliff
 Address P.O. Box 48
 Buckhannon, WV 26201
 8) OIL & GAS INSPECTOR TO BE NOTIFIED
 Name Samual Hersman
 Address P.O. Box 66
 Smithville, WV 26178
 9) DRILLING CONTRACTOR:
 Name S.W. Jack Drilling, Co.
 Address P.O. Box 48
 Buckhannon, WV 26201
 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, Devonian Shale
 12) Estimated depth of completed well, ~~82X~~ 5995 feet
 13) Approximate strata depths: Fresh, 100 feet; salt, N/A feet
 14) Approximate coal seam depths: N/A Is coal being mined in the area? Yes / No /

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 OIL & GAS DIV.
 DEPT. OF MINES

15) CASING AND TUBING PROGRAM

CASING OR TUBING TYPE	SPECIFICATIONS					FOOTAGE INTERVALS		CEMENT MULL OR SACKS (Cubic feet)	PACKERS
	Size	Grade	Weight per ft.	New	Used	For drilling	Left in well		
Conductor	11 3/4	H-40	42	X		130'	130'	0 Sacks	NEAT
Fresh water	8 5/8	ERW	23	X		1225	1225	To Surface	NEAT
Coal	8 5/8	EFW	23	X	X	1225	1225	To Surface	NEAT
Intermediate									
Production	4 1/2	J-55	10.5	X		5995	5945	300 Sacks	Depths set
Tubing								or as required per rule 15-01	
Liners								Perforations:	Top Bottom

OFFICE USE ONLY
 DRILLING PERMIT

Permit number 47-085-7211

November 9, 1984
 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. 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 November 9, 1986 unless well work is commenced prior to that date and prosecuted with due diligence.

Bond:	Agent:	Plat:	Casing	Fee
82	JS	MU	MU	1840

Margaret J. Hassel
 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 OPERATOR: [Name], [Address], [City], [State], [Zip]

2) LOCATION: [County], [District], [Elevation], [Well No.], [Depth]

3) PROPOSED WELL WORK: [Type of work]

4) GEOLOGICAL TARGET FORMATION: [Formation Name]

5) APPROXIMATE COAL SEAM DEPTH: [Depth]

6) APPROXIMATE TRAP DEPTH: [Depth]

7) ESTIMATED DEPTH OF COMPLETED WELL: [Depth]

8) OTHER PHYSICAL CHANGES TO WELL (Specify): [Details]

9) PLUG OFF OLD FORMATION: [Details]

10) DESIGNATED AGENT: [Name], [Address], [City], [State], [Zip]

11) DRILLING CONTRACTOR: [Name], [Address], [City], [State], [Zip]

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		
Well work started		
Completion of the drilling process		
Well Record received		
Reclamation completed		

OTHER INSPECTIONS

Reason: _____

Reason: _____

Agent	Date	Case No.	File No.
[Name]	[Date]	[Case No.]	[File No.]

12/22/2023

IV-9
(Rev 8-81)



DATE October 4, 1984

WELL NO. JK-1100

API NO. 47-085-7211

State of West Virginia
Department of Mines
Oil and Gas Division

CONSTRUCTION AND RECLAMATION PLAN

COMPANY NAME J & J Enterprises, Inc.
Address P.O. B6x 48 Buckhannon, WV 26201
Telephone 304-472-9403

DESIGNATED AGENT Richard Reddcliff
Address P.O. Box 48 Buckhannon, WV 26201
Telephone 304-472-9403

LANDOWNER James Kiger
Revegetation to be carried out by J & J Enterprises, Inc. (Agent)

SOIL CONS. DISTRICT Little Kanawha

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

10/1/84
(Date)

Shelley Inlow
(SCD Agent)



ACCESS ROAD

LOCATION

OCT 23 1984

OIL & GAS DIV
DEPT. OF MINES

Structure Drainage Ditch (A)
Spacing To be constructed along road
Page Ref. Manual 2-12

Structure Diversion Ditch (1)
Material Earthen
Page Ref. Manual 2-12

Structure Cross Drain (B)
Spacing As per table 1 in manual (2-4)
Page Ref. Manual 2-1

Structure Rip-Rap (2)
Material Logs &/or Brush
Page Ref. Manual N/A

Structure _____ (C)
Spacing _____
Page Ref. Manual _____

Structure _____ (3)
Material _____
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 3 Tons/acre
or correct to pH 6.5
Fertilizer 600 lbs/acre
(10-20-20 or equivalent)
Mulch Hay 2 Tons/acre
Seed* KY-31 30 lbs/acre
Annual Rye 10 lbs/acre
Red Clover 5 lbs/acre

Lime 3 Tons/acre
or correct to pH 6.5
Fertilizer 600 lbs/acre
(10-20-20 or equivalent)
Mulch Hay 3 Tons/acre
Seed* Orchard Grass 30 lbs/acre
Ladino Clover 5 lbs/acre
Red Clover 5 lbs/acre

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

PLAN PREPARED BY Smith Land Surveying Co.



12/22/2023

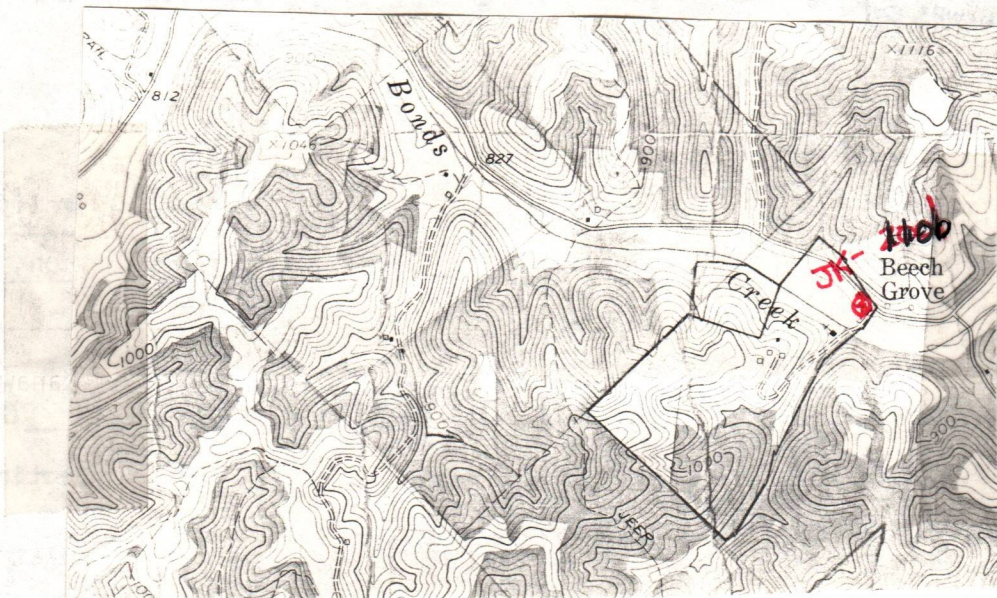
ADDRESS 111 South Street
Glenville, WV 26351

PHONE NO. 304-462-5634

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

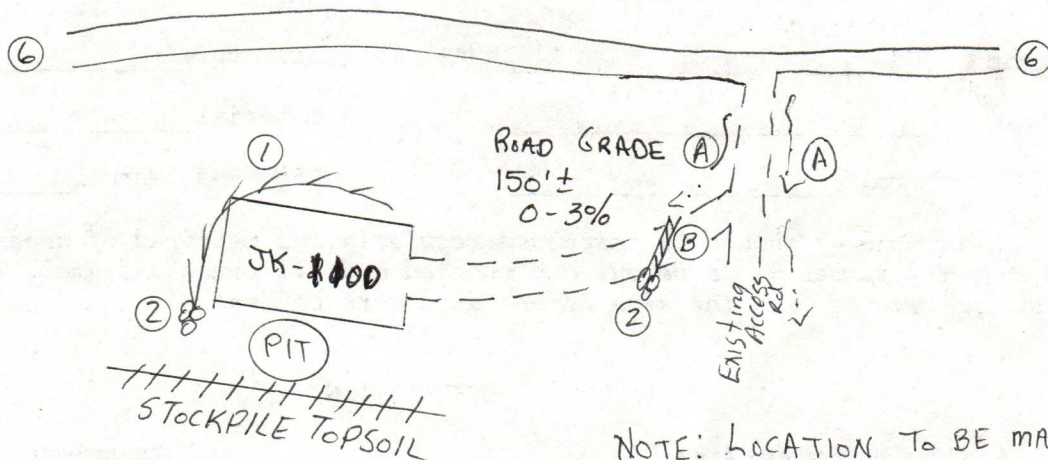
ATTACH OR PHOTOCOPY SECTION
OF INVOLVED TOPOGRAPHIC MAP.
QUADRANGLE Ellenboro 7.5'

LEGEND
WELL SITE  ACCESS ROAD 



WELL SITE PLAN







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


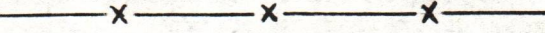






NOTE: LOCATION TO BE MADE
IN FLAT FIELD

Access road subject to change between company and land owner, or aquirement of right-of-way. If change is made , a revised reclamation plan will be submitted. All cuts 2:1 slope. All topsoil to be stockpiled and used in reclamation. All grades for roads and locations as well as sediment structures shown on drawing.

LEGEND

- DRAIN PIPE 
- ROAD 
- DIVERSION 
- WATERWAY 
- STREAM 
- OPEN DITCH 

- PROPERTY BOUNDARY  12/22/2023
- EXISTING FENCE 
- PLANNED FENCE 
- BUILDING 
- WET SPOT 
- SPRING 

SLS
SMITH LAND SURVEYING CO.
111 SOUTH ST.
GLENNVILLE, WV 26351

1) Date: October 15, 19 84
 2) Operator's Well No. JK-1100
 3) API Well No. 47-085-7211
 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 James H. & Ardeth M. Kiger
 Address Rt. 2 Box 90-A

(ii) Name Pennsboro, WV 26415
 Address _____

(iii) Name _____
 Address _____

5(i) COAL OPERATOR N/A
 Address _____

5(ii) COAL OWNER(S) WITH DECLARATION ON RECORD:
 Name N/A
 Address _____

P 574 016 019

RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED
 NOT FOR INTERNATIONAL MAIL

(See Reverse)

TO THE PERSON(S)

- (1) The App. to be p and des cementi
- (2) The pla
- (3) The Con plug a reclama

THE REASON WHICH ARE SUMMAR (FORM IV-2(B) OF ACTION AT ALL.

Take notice erator proposes for a Well Work Department of Mi and depicted on Construction and by hand to the before the day c

6) EXTRACTION RI

- Check and pro
- Included i
- I hold
- The requir

7) ROYALTY PROVI

Is the right or other cont for compensat to the volume of oil or gas so extracted, produced or marketed? Yes No

* U.S.G.P.O. 1983-403-517
PS Form 3800, Feb. 1982

Sent to <u>James H. Kiger</u>	
Street and No. <u>Rt. 2 Box 90-A</u>	
P.O., State and ZIP Code <u>Pennsboro, WV 26415</u>	
Postage	\$ <u>71</u>
Certified Fee	<u>75</u>
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to whom and Date Delivered	<u>60</u>
Return receipt showing to whom Date, and Address of Delivery	
TOTAL Postage and Fees	\$ <u>2.06</u>
Postmark or Date	<u>15 OCT 1984</u>

the following documents:

Form IV-4 if the well is drilling or other work, the proposed casing and

V-6; and a well work is only to it control and for

REGARDING THE APPLICATION COPY OF THE APPLICATION REQUIRED TO TAKE ANY

undersigned well op- accompanying documents Gas, West Virginia on attached Application ation, the plat, and the rtfied mail or delivered cumstances) on or

contracts by which side for specifics.)

on a lease or leases any similar provision ot inherently related

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.

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 Richard Reddecliff

this 15 day of Oct., 1984.
 My commission expires 12/7, 1992.

Gregory A. Smith
 Notary Public, Gilmer County,
 State of West Virginia

WELL

OPERATOR J & J Enterprises, Inc.

By Richard M. Reddecliff
 Its Designated Agent
 Address P.O. Box 48
Buckhannon, WV 26201
 Telephone 304-472-9403

12/22/2023

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 § 22-4-8a 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 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:

Grantor, lessor, etc.	Grantee, lessee, etc.	Royalty	Book Page
-----------------------	-----------------------	---------	-----------

William Heckart, et.al	J&J Enterprises, Inc.	1/8	173/344
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12/22/2023



1) Date: XOXOX Oct. 15, 1984
 2) Operator's Well No. JK-1100
 3) API Well No. 47 State County Permit
rec'd 10/23

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OCT 31 1984

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

**OIL & GAS DIVISION
DEPT. OF MINES**

- 4) WELL TYPE: A Oil / Gas
 B (If "Gas", Production X / Underground storage)
 5) LOCATION: Elevation: Watershed: Bonds Creek
 District: XOXOX 825 County: Quadrangle: Ellenboro 7.5"
 6) WELL OPERATOR: Clay
 Address: J & J Enterprises, Inc.
P.O. Box 48
Buckhannon, WV 26201
 7) DESIGNATED AGENT: Richard Reddick
 Address: P.O. Box 48
Buckhannon, WV 26201
 8) OIL & GAS INSPECTOR TO BE NOTIFIED
 Name: Samual Hersman
 Address: P.O. Box 66
Smithville, WV 26178
 9) DRILLING CONTRACTOR:
 Name: S.W. Jack Drilling, Co.
 Address: P.O. Box 48
Buckhannon, WV 26201
 10) PROPOSED WELL WORK: Drill / Drill deeper / Redrill / Stimulate X
 Plug off old formation / Perforate new formation
 Other physical change in well (specify)
 11) GEOLOGICAL TARGET FORMATION,
 12) Estimated depth of completed well, Devonian Shale feet
 13) Approximate trata depths: Fresh, 5988X 5995 feet; salt, N/A feet.
 14) Approximate coal seam depths: 100 feet; 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		
Conductor									
Fresh water	11 3/4	H-40	4.2	X		30	0	8 Sacks	Kinds
Coal	8 5/8	EPW	7.3	X		1225	1225	To Surface	Sizes
Intermediate	8 5/8	EPW	7.8	X		1225	1225	To Surface	
Production									
Tubing	4 1/2	J-55	11.5	X		5995	5945	300 Sacks	Depths set
Liners								or as required per rule 15-01	Perforations:
									Top
									Bottom

The law requires a comment period for surface owners. However, the permit can be issued in less than 15 days from the filing of the Application if the surface owner(s) of record sign(s) the following "Voluntary Statement of No Objection" on a facsimile of this surface owner's copy of the Application.

VOLUNTARY STATEMENT OF NO OBJECTION

I hereby state that I have read the instructions to surface owners on the reverse side of this Application for a Well Work Permit, and that I have received copies of (1) a Notice of Application for a Well Work Permit on Form IV-2(A), (2) an Application for a Well Work Permit on Form IV-2(B), (3) a survey plat on Form IV-6, and (4) a Construction and Reclamation Plan on Form IV-9, all for proposed well work on my surface land as described therein.
 I further state that I have no objection to the planned work described in these materials, and I have no objection to a permit being issued based on those materials.

(For execution by corporation, partnership, etc.)
 NAME:
 By
 Its Date

(For execution by natural persons)
James H. Kiger Date: 10-26-84
 (Signature)
ARDETH M. Kiger (deceased) Date:
 (Signature)

**INSTRUCTIONS TO SURFACE OWNERS
AND
EXPLANATION OF METHODS AND TIME LIMITS TO COMMENT
ON OIL AND GAS WELL WORK PERMIT**

The well operator named in the Notice and this Application and the attached materials is applying for a permit from the State to do oil or gas well drilling or other well work. You are being served with these materials because surface owners have the right to file comments before the permit is issued. (NOTE: If the surface tract is owned by more than three persons, in multiple heirship for example, then these materials were served on you because your name appeared on the Sheriff's tax ticket on the land or because you actually occupy the surface tract. In either case, you may be the only owner who will actually receive these materials.) See Chapter 22, Article 4 of the W. Va. Code. Permits are valid for 24 months.

If you do not own any interest in the surface tract, please forward these materials to the true owner immediately if you know who it is. Also, please notify the well operator named in the materials and the Administrator of the Office of Oil and Gas in the West Virginia Department of Mines immediately.

NOTE: You are not required to file any comment at all.

Where to file comments and obtain additional information:

Administrator of the Office of Oil and Gas
West Virginia Department of Mines
1615 Washington Street East
Charleston, West Virginia 25311
(304) 348-2057

Who may file comments? If you wish to file comments, you must be an owner of record of (1) an interest in the surface tract on which the well already is or is about to be located, or (2) an interest in any other surface tract under the same oil or gas lease which will be utilized for roads or other land disturbances.

Time limits for comments. The law requires these materials to be delivered on or before the date the operator files his Application. You have **FIFTEEN (15) DAYS** after the filing date to file your comments as provided in **Methods for Filing Comments** below. You may call the Administrator's office at the above telephone number to be sure of the date. However, if you have been contacted by the well operator, and if you have signed a "voluntary statement of no objection" to any of the planned work described in these materials, then the permit may be issued at any time.

Comments must be in writing. Your comments must include your name, address and telephone number, the well operator's name and well number, and the approximate location of the proposed well site including district and county from the application. You may add other documents, such as sketches, maps or photographs to support your comments.

Methods for filing comments. Comments must be filed in person or received in the mail at the Administrator's office by the time stated above. Check with your postmaster to ensure adequate delivery time or to arrange special expedited handling.

The Administrator for Oil and Gas has the power to deny or condition a well work permit based on your comments on the following grounds:

- "(1) The proposed well work will constitute a hazard to the safety of persons; or
- "(2) The plan for soil erosion and sediment control is not adequate or effective; or
- "(3) Damage would occur to publicly owned lands or resources; or
- "(4) The proposed well work fails to protect fresh water sources or supplies."

If you want a copy of the permit as it is finally issued, or a copy of the order denying the permit, you should request a copy from the Administrator.

List of Water Testing Laboratories. The Administrator maintains a list of water testing laboratories which you can hire to test your water to establish water quality prior to and after drilling. Contact the Administrator's office or an Oil and Gas Inspector to obtain a copy of the list.



35
8-81)

RECEIVED

APR 11 1985

OIL & GAS DIVISION
DEPT. OF MINES

State of West Virginia
Department of Mines
Oil and Gas Division

Date April 9, 1985
Operator's Well No. JK-1100
Farm Va. Williamson
API No. 47 - 085 - 7211

WELL OPERATOR'S REPORT
OF
DRILLING, FRACTURING AND/OR STIMULATING, OR PHYSICAL CHANGE

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

LOCATION: Elevation: 825 Watershed Bonds Creek
District: Clay County Ritchie Quadrangle Ellenboro 7.5

COMPANY J&J Enterprises, Inc.
ADDRESS P.O. Box 48, Buckhannon, WV 26201
DESIGNATED AGENT Richard Reddecliff
ADDRESS P.O. Box 48, Bukchannon, WV 26201
SURFACE OWNER James H. Kiger
ADDRESS Rt. # 2, Box 90-A, Pennsboro, WV 24415
MINERAL RIGHTS OWNER Virginia Williamson
ADDRESS _____
OIL AND GAS INSPECTOR FOR THIS WORK Samuel Hersman
ADDRESS P.O. Box 66, Smithville, WV 26178
PERMIT ISSUED 11/9/84
DRILLING COMMENCED 3/19/85
DRILLING COMPLETED 3/26/85
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"	30	0	0 sks.
9 5/8			
8 5/8	1356.70	1356.70	300 sks.
7			
5 1/2			
4 1/2	5789.21	5789.21	325 sks.
3			
2			
Liners used			

GEOLOGICAL TARGET FORMATION Devonian Shale Depth 5520 -5608 feet
Depth of completed well 5911 feet Rotary / Cable Tools
Water strata depth: Fresh 20,70,&125 feet; Salt 0 feet
Coal seam depths: 283-88,980-84,1256-60 Is coal being mined in the area? No

OPEN FLOW DATA
Producing formation Devonian Shale Pay zone depth 5520-5608 feet
Gas: Initial open flow _____ Mcf/d Oil: Initial open flow _____ Ebl/d
Combined Final open flow 467 Mcf/d Final open flow _____ Ebl/d
Time of open flow between initial and final tests 4 hours
Static rock pressure 1550 psig (surface measurement) after _____ hours shut in
(If applicable due to multiple completion--)
Second producing formation Benson Pay zone depth 4682-84 feet
Gas: Initial open flow _____ Mcf/d Oil: Initial open flow _____ Ebl/d
Final open flow _____ Mcf/d Oil: Final open flow _____ Ebl/d
Time of open flow between initial and final tests _____ hours
Static rock pressure _____ psig (surface measurement) after _____ hours shut in

12/22/2023

(Continue on reverse side)

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

Devonian Shale: Perforations: 5520-30 (7 holes) 5558-64 (5 holes) 5606-08(4 holes)
Fracturing: 350 sks. 20/40 sand:500 gal. acid: 428 Bbls. fluid..
Benson: Perforations: 4682.5-84.5 (8 holes)
Fracturing: 332 sks. 20/40 sand:500 gal. acid: 389 Bbls. fluid.

BOTTOM HOLE PRESSURE Pf=PweXGLS

Pf=PweXGLS t=60 + (5789 x 0.0075) + 459.7 = 563.1 X=53.34 T =53.34(563.1) =30.036 =
.0000333 Pf=(1550) (2.72) (0.0000333) (0.0.669) (5145) (0.9) Pf=(1550) (2.72) (0.103)
Pf= (1550) (1.108)
Pf= 1717 psi

WELL LOG

Table with 4 columns: FORMATION COLOR HARD OR SOFT, TOP FEET, BOTTOM FEET, REMARKS. Includes entries for Top Soil, Sandy shale, Sand, Coal, Benson, Devonian Shale, and Sand & sandy shale with corresponding depth measurements and gas check results.

(Attach separate sheets as necessary)

J&J Enterprises, Inc.

Well Operator

12/22/2023

By: [Signature] Robert Dahlin-Geologist
Date: 4/10/85

Note: Regulation 2.02(i) provides as follows:
"The term 'log' or 'well log' shall mean a systematic detailed geological record of all formations, including ... encountered in the drilling of a well."

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

RECEIVED
MAR 26 1985

INSPECTOR'S WELL REPORT

OIL & GAS DIVISION
DEPT. OF MINES
Oil or Gas Well _____
(KIND)

Permit No. 85-7211

Company <u>J+J Enterprises, Inc.</u>	CASING AND TUBING	USED IN DRILLING	LEFT IN WELL	PACKERS
	Address _____	Size		
Farm <u>James H. Nizer</u>	16			
Well No. <u>JK-1100</u>	13			Size of _____
District <u>Clay</u> County <u>Ritchie</u>	10			
Drilling commenced <u>3-19-85</u>	8 1/4			Depth set _____
Drilling completed _____ Total depth _____	6 3/4			
Date shot _____ Depth of shot _____	5 3/16			Perf. top _____
Initial open flow _____ /10ths Water in _____ Inch	3			Perf. bottom _____
Open flow after tubing _____ /10ths Merc. in _____ Inch	2			Perf. top _____
Volume _____ Cu. Ft.	Liners Used _____			Perf. bottom _____
Rock pressure _____ lbs. _____ hrs.	CASING CEMENTED _____ SIZE _____ No. FT. _____ Date _____			
Oil _____ bbls., 1st 24 hrs.	NAME OF SERVICE COMPANY _____			
Fresh water <u>20' -- 1" STREAM</u> <u>70' 1/2" STREAM</u> <u>125' 1 1/2" STREAM</u> feet	COAL WAS ENCOUNTERED AT <u>283 TO 288</u> FEET _____ INCHES			
Salt water _____ feet	<u>1256 TO 1260</u> FEET _____ INCHES			
	FEET _____ INCHES FEET _____ INCHES			

Drillers' Names J. Seas / R. B. Wright / D. P. Wickline

S.W. Jack # 11 Tool Pusher Eugene Baughman

Remarks: Ran 1356 feet of 8 5/8" casing (new) Halliburton ran 300 sacks cement - Plug down at 11:30 A.M.

Waiting on cement at time of visit

3-21-85

DATE

Samuel N. ...
12/22/2023
DISTRICT WELL INSPECTOR

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

RECEIVED

APR 2 - 1985

OIL & GAS DIVISION

INSPECTOR'S WELL REPORT
DEPT. OF MINES

Permit No. 005-7211

Oil or Gas Well _____
(KIND)

Company JSS

Address _____

Farm JAMES H. RIGER

Well No. JK 1100

District Clay County Ritchie

Drilling commenced 3-19-85

Drilling completed 3-25-85 Total depth 5900'

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			Kind of Packer
16			
13			Size of
10			
8 1/4			Depth set
6 5/8			
5 3/16			Perf. top
3			Perf. bottom
2			Perf. top
Liners Used			Perf. bottom

CASING CEMENTED 4 1/2 SIZE 5789 No. FT. 3-26-85 Date

NAME OF SERVICE COMPANY Hall-Dach 325-SKJ

COAL WAS ENCOUNTERED AT _____ FEET _____ INCHES

_____ FEET _____ INCHES _____ FEET _____ INCHES

_____ FEET _____ INCHES _____ FEET _____ INCHES

Drillers' Names _____

Remarks: Q.D. Report
Vis. site, Q.D. AND MOVING

3-25-85
DATE

W. H. Underwood
DISTRICT WELL INSPECTOR

12/22/2023

RECEIVED
APR 2 - 1982
OIL & GAS DIVISION
DEPT. OF MINES

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

12/22/2023
DISTRICT WELL INSPECTOR

STATE OF WEST VIRGINIA
DEPARTMENT OF MINES
OFFICE OF OIL AND GAS
CHARLESTON 25305
FINAL INSPECTION REPORT
INSPECTORS COMPLIANCE REPORT

RECEIVED
JUL 3 - 1985

Company: J & J ENTERPRISES
Farm: KIGER, JAMES & ARDETH Well: JK-1100

(11-09-84) OIL & GAS DIVISION
Permit No. 47- 85-7211
County: RITCHIE DEPT. OF MINES

Rule	Description	In Compliance	
		Yes	No
23.06	Notification prior to starting work	✓	
25.04	Prepped before drilling to prevent waste		
25.03	High pressure drilling	✓	
16.01	Required permits at wellsite	✓	
15.03	Adequate Fresh Water Casings	✓	
15.02	Adequate Coal Casings		
15.01	Adequate Production Casings		
15.04	Adequate Cement Strength		
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	✓	
5	Identification Markings	✓	

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

SIGNED *Samuel M. Heroman*

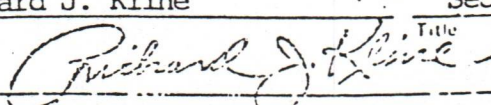
DATE 6-26-85

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. ...
Administrator

July 11, 1985
Date

FERC-121

1.0 API well number: (If not available, leave blank. 11 digits.)	<u>47-085-7211</u>															
2.0 Type of determination being sought. (Use the codes found on the front of this form.)	<u>107</u> Section of NGPA	<u>N/A</u> Category Code														
3.0 Depth of the deepest completion location. (Only report if sections 103 or 107 in 2.0 above.)	<u>5608</u> feet															
4.0 Name, address and code number of applicant. (35 letters per line maximum. If code number not available, leave blank.)	<u>J & J Enterprises, Inc.</u> Name		<u>009480</u> Section Code													
	<u>P.O. Box 697</u> Street															
	<u>Indiana,</u>	<u>PA</u>	<u>15701</u>													
	City	State	Zip Code													
5.0 Location of this well. (Complete (a) or (b).) (a) For onshore wells (35 letters maximum for field name.)	<u>Clay</u> Field Name		<u>WVA</u> State													
	<u>Ritchie</u> County															
(b) For OCS wells:	<u>N/A</u> Area Name		<u> </u> Block Number													
	Date of Lease: <table style="margin: auto; border: none;"> <tr> <td style="border: none;"> </td><td style="border: none;"> </td><td style="border: none;"> </td><td style="border: none;"> </td><td style="border: none;"> </td><td style="border: none;"> </td> </tr> <tr> <td style="border: none;">Mo.</td><td style="border: none;">Day</td><td style="border: none;">Yr.</td><td colspan="3" style="border: none;">OCS Lease Number</td> </tr> </table>										Mo.	Day	Yr.	OCS Lease Number		
Mo.	Day	Yr.	OCS Lease Number													
(c) Name and identification number of this well. (35 letters and digits maximum.)	<u>JK-1100</u>															
(d) If code 4 or 5 in 2.0 above, name of the reservoir. (35 letters maximum.)	<u>N/A</u>															
6.0 (a) Name and code number of the purchaser. (35 letters and digits maximum. If code number not available, leave blank.)	<u>Purchaser not yet designated</u> Name			<u> </u> Section Code												
(b) Date of the contract.	<table style="margin: auto; border: none;"> <tr> <td style="border: none;"> </td><td style="border: none;"> </td><td style="border: none;"> </td><td style="border: none;"> </td><td style="border: none;"> </td><td style="border: none;"> </td> </tr> <tr> <td style="border: none;">Mo.</td><td style="border: none;">Day</td><td style="border: none;">Yr.</td><td colspan="3" style="border: none;"> </td> </tr> </table>										Mo.	Day	Yr.			
Mo.	Day	Yr.														
(c) Estimated annual production:	<u> </u> MMcf															
	(a) Base Price (\$/MMBTU)	(b) Tax	(c) All Other Prices (Indicate (+) or (-).)	(d) Total of (a), (b) and (c)												
7.0 Contract price (As of filing date. Complete to 3 decimal places.)	<u>6 0 0 8</u>	<u>2 7 8</u>	<u> - - -</u>	<u>6 2 9 0</u>												
8.0 Maximum lawful rate (As of filing date. Complete to 3 decimal places.)	<u>6 0 0 8</u>	<u>2 7 8</u>	<u> - - -</u>	<u>6 2 9 0</u>												
9.0 Person responsible for this application	<u>Richard J. Kline</u> Name															
Agency Use Only Date Received by Joint Agency	<u>Secretary</u> Title															
Date Received by FERC	 Signature															
Date Application is Completed	<u>6-3-85</u>		<u>(412) 349-6800</u> Phone Number													

12/22/2023

COVER SHEET, STATE APPLICATION FOR WELL CLASSIFICATION

Date: June 3, 1985

24150

AGENCY USE ONLY *Dw.*

Applicant's Name: J & J ENTERPRISES, INC.

Address: P.O. Box 697

Indiana, PA. 15701

Gas Purchaser Contract No. _____

Date of Contract _____
(Month, day and year)

First Purchaser: _____ 629

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

(City) _____ (State) _____ (Zip Code) _____

FERC Seller Code 009480

FERC Buyer Code _____

WELL DETERMINATION FILE NUMBER

850604-107³-085-7211

Use Above File Number on all
Communications Relating to This Well

Designated Agent: Richard Reddecliff

Address: P.O. Box 48

Buckhannon, WVA 26201

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

Name: Vicki Vanderberg

(Print)

(Title)

Signature: *Vicki Vanderberg*

Address: P.O. Box 697

(Street or P.O. Box)
Indiana, PA. 15701

(City) 412 (State) PA. (Zip Code) 15701

Telephone: 412 349-6800
(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

108 Stripper Well Natural Gas

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

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

AGENCY USE ONLY

QUALIFIED

12/22/2023

RECEIVED

JUN - 4 1985

OIL & GAS DIV.
DEPT. OF MINES

JUN - 4 1985

Date Received

JUN 28 1985

Determination Date

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

Operator: J & J Enterprises, Inc. Agent: Richard Reddecliff

Type Determination being sought - 107 (Devonian Shale)

API Well No.: 47-085-7211 Well Name: Hecket/Williamson JK-1100

West Virginia Office of Oil and Gas County: Ritchie

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: $0.7 \text{ (GR Value at Base Line)}$
 $0.7 \text{ (} \underline{160} \text{ *)} = \underline{112} \text{ API Units}$

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***		
2301'	5884'	3583'	158'

Total Devonian Interval 3583'

Total Less Than 0.7 (Shale Base) 158'

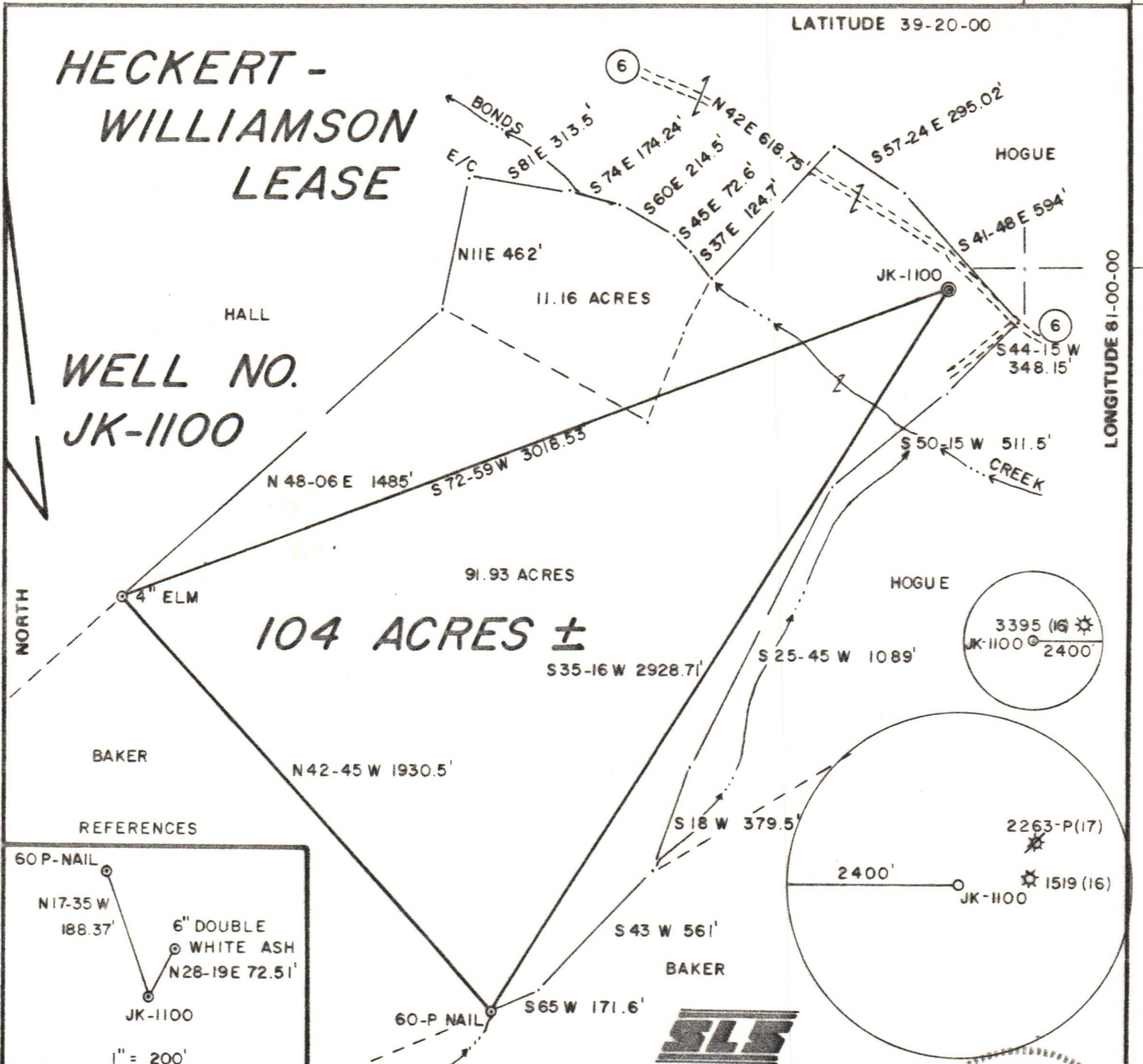
% Less Than 0.7 (Shale Base Line) = $\underline{0.0441} \times 100 = \underline{4.41} \%$

12/22/2023

*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.

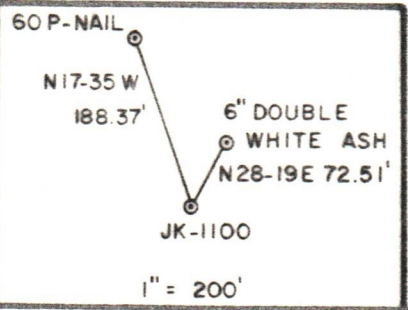
HECKERT - WILLIAMSON LEASE

WELL NO. JK-1100



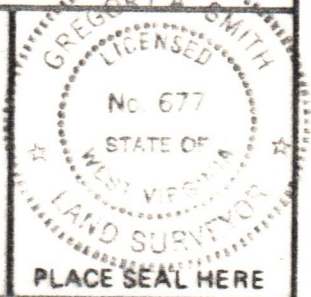
LONGITUDE 81-00-00

REFERENCES



FILE NO. 15-27
 DRAWING NO. _____
 SCALE 1" = 500'
 MINIMUM DEGREE OF ACCURACY 1/200
 PROVEN SOURCE OF ELEVATION INTER. OF ROADS
 ELEV. = 827'

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) Gregory A. Smith
 R.P.E. _____ L.L.S. 677



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



DATE OCTOBER 10, 19 84
 OPERATOR'S WELL NO. JK-1100
 API WELL NO. _____
47-085-7211
 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 825' WATER SHED BONDS CREEK
 DISTRICT CLAY COUNTY RITCHIE
 QUADRANGLE ELLENBORO 7.5'
 SURFACE OWNER JAMES H. KIGER, ET. UX. ACREAGE 91.93
 OIL & GAS ROYALTY OWNER VIRGINIA WILLIAMSON, ET. AL. LEASE ACREAGE 104
 LEASE NO. JJ-1771
 PROPOSED WORK: DRILL X CONVERT ___ DRILL DEEPER ___ REDRILL ___ FRACTURE OR STIMULATE X PLUG OFF OLD FORMATION ___ PERFORATE NEW FORMATION ___ OTHER PHYSICAL CHANGE IN WELL (SPECIFY) _____

12/22/2023

PLUG AND ABANDON ___ CLEAN OUT AND REPLUG ___
 TARGET FORMATION DEVONIAN SHALE ESTIMATED DEPTH 5995'
 WELL OPERATOR J&J ENTERPRISES, INC. DESIGNATED AGENT RICHARD REDDECLIFF
 ADDRESS P.O. BOX 48 ADDRESS P.O. BOX 48
BUCKHANNON, WV. 26201 BUCKHANNON, WV. 26201

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

DESIGNATED AGENT Richard Reddecliff
ADDRESS P.O. Box 48
Buckhannon, West Virginia, 26201
LOCATION Elevation 825
Watershed Bonds Creek
Dist. Clay County Ritchie Quad. Ellenboro
Gas Purchase Contract No. 2.
Meter Chart Code _____
Date of Contract _____

WELL OPERATOR J & J Enterprises, Inc.
ADDRESS P.O. Box 697
Indiana, PA 15701
GAS PURCHASER Not Yet Designated
ADDRESS _____

* * * * *
Date surface drilling began: March 19, 1985

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

BOTTOM HOLE PRESSURE Pf=PweXGLS
Pf=PweXGLS $t=60 + (5789 \times 0.0075) + 459.7 = 563.1$ $X=\frac{1}{53.34}$ $T=\frac{1}{53.34}$ $\frac{1}{563.1} = \frac{1}{30.036} =$
.0000333 Pf=(1550)(2.72) (0.0000333) (0.0.669) (5145) (0.9) Pf=(1550)(2.72)(0.103)
Pf= (1550)(1.108)
Pf= 1717 psi

AFFIDAVIT

I, James H. McElwain, 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 report 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.

James H. McElwain

~~STATE OF WEST VIRGINIA~~ PA

COUNTY OF Indiana, TO-WIT:

I, Vicki L. Vanderberg, a Notary Public in and for the state and county aforesaid, do certify that James H. McElwain, whose name is signed to the writing above, bearing date the 3rd day of June, 1985, has acknowledged the same before me, in my county aforesaid.

Given under my hand and official seal this 3rd day of June, 1985.
My term of office expires on the 23 day of January, 1988.

NOTARIAL SEAL)

Vicki L. Vanderberg
VICKI L. VANDERBERG, NOTARY PUBLIC
INDIANA COUNTY
MY COMMISSION EXPIRES JAN. 23, 1988
Member, Pennsylvania Association of Notaries

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Second section of faint, illegible text, appearing to be a continuation of the document's content.

Third section of faint, illegible text, likely containing a signature or concluding remarks.

12/22/2023



NOTARY PUBLIC STATE OF INDIANA
INDIANA BOARD OF NOTARIES COUNTY
MY COMMISSION EXPIRES JAN 23, 2028
Notary Public, State of Indiana