



1) Date: June 12, 19 85
 2) Operator's Well No. JK-1178
 3) API Well No. 47 - 017-3454
 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: 1022' Watershed: Dotson Run
 District: Central / County: Doddridge Quadrangle: Pennsboro 7.5' 538
- 6) WELL OPERATOR J & J Enterprises, Inc. 7) DESIGNATED AGENT Richard Reddecliff
 Address P.O. Box 48 24150 Address P.O. Box 48
Buckhannon, WV 26201 Buckhannon, WV 26201
- 8) OIL & GAS INSPECTOR TO BE NOTIFIED 9) DRILLING CONTRACTOR:
 Name Mike Underwood Name S.W. Jack Drilling Co.
 Address Rt. 2, Box 114 Address P.O. Box 48
Salem, WV 26426 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, Rhine Street
 12) Estimated depth of completed well, 5995' feet
 13) Approximate trata depths: Fresh, 125' feet; salt, N/A feet.
 14) Approximate coal seam depths: N/A 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	11 3/4	H-40	42	X		<u>200'</u>	<u>200'</u>	<u>0 Sacks</u>	<u>CT's NEAT</u>
Fresh water	8 5/8	ERW	23	X		<u>1622'</u>	<u>1622'</u>	To Surface	Sizes
Coal	8 5/8	ERW	23	X		<u>1622'</u>	<u>1622'</u>	To Surface	Sizes
Intermediate									
Production	4 1/2	J-55	10.5	X		<u>5995'</u>	<u>5945'</u>	<u>300 Sacks</u>	Depths set
Tubing								<u>or as required by rule 15-01</u>	Perforations:
Liners									Top Bottom

OFFICE USE ONLY
 DRILLING PERMIT

Permit number 47-017-3454 Date July 17 19 85

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 July 17, 1987 unless well work is commenced prior to that date and prosecuted with due diligence.

Bond:	Agent:	Plat:	Casing	Fee
<u>82</u>	<u>JK13</u>	<u>M/M/M</u>	<u>11</u>	<u>1989</u>

[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) LOCATION: 1022',
2) WELL OPERATOR: U & J Enterprises, Inc.
3) ADDRESS: P.O. Box 98, Buckhannon, WV 26201
4) NAME: Mike Underwood
5) ADDRESS: Rt. 2, Box 114, Stearns, WV 26426
6) OIL & GAS: SPECIAL PERMIT TO DRILL FOR OIL & GAS
7) PROPOSED WELL WORK: [Blank]
8) PROPOSED PERMIT MODIFICATIONS: [Blank]
9) APPROVED BY: [Blank]
10) APPROVED DATE: [Blank]

Depth	Interval	Material	Remarks
1022'	1022'	To Surface	
1022'	1022'	To Surface	

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: _____



IV-9
(Rev 8-81)

DATE June 4, 1985

WELL NO. JK-1178 REV

State of West Virginia

API NO. 47-017-3454

Department of Mines
Oil and Gas Division

Rec'd. (WF SCD)

JUN 6 1985

CONSTRUCTION AND RECLAMATION PLAN

COMPANY NAME J & J ENTERPRISES, INC.

DESIGNATED AGENT RICHARD M. REDDECLIFF

Address P.O. BOX 48, BUCKHANNON, WV 26201

Address P.O. BOX 48, BUCKHANNON, WV 26201

Telephone 472 - 9403

Telephone 472 - 9403

LANDOWNER Glen Waldo

SOIL CONS. DISTRICT West Fork

Revegetation to be carried out by J & J ENTERPRISES, INC. (Agent)

This plan has been reviewed by West Fork SCD. All corrections and additions become a part of this plan: 6/14/85 (Date)

Kenneth E Knight
(SCD Agent)

ACCESS ROAD	LOCATION
Structure <u>Drainage Ditch</u> (A)	Structure <u>Diversion Ditch</u> (1)
Spacing <u>along inside road cuts</u>	Material <u>Earthen</u>
Page Ref. Manual <u>2-12</u>	Page Ref. Manual <u>2-12</u>
Structure <u>Road Culvert</u> (B) (accord. to O&G Manual)(at natural drains)	Structure <u>Rip-Rap</u> (2)
Spacing <u>One 16" with riprapped outlet</u>	Material <u>Logs &/or Brush &/or Stone</u>
Page Ref. Manual <u>2-7</u>	Page Ref. Manual <u>N/A</u>
Structure <u>Cross Relief Drains</u> (C)	Structure _____
Spacing <u>as per table 1 in manual (2-4) with riprapped outlet</u>	Material _____
Page Ref. Manual <u>2-1</u>	Page Ref. Manual _____

RECEIVED
JUN 21 1985
OIL & GAS DIVISION
DEPT. OF MINES

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

REVEGETATION

Treatment Area I	Treatment Area II
*Lime <u>ACCORDING TO PH 6.5</u> 3 Tons/acre or correct to pH <u>6.5</u>	*Lime <u>According To pH Test</u> 3 Tons/acre or correct to pH <u>6.5</u>
Fertilizer <u>600</u> lbs/acre (10-20-20 or equivalent)	Fertilizer <u>600</u> lbs/acre (10-20-20 or equivalent)
Mulch <u>Hay</u> 2 Tons/acre	Mulch <u>Hay</u> 3 Tons/acre
Seed* <u>KY-31</u> 30 lbs/acre	Seed* <u>KY-31</u> 30 lbs/acre
<u>Annual Rye</u> 10 lbs/acre	<u>Annual Rye</u> 10 lbs/acre
<u>Red Clover</u> 5 lbs/acre	<u>Red Clover</u> 5 lbs/acre

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

*Lime according to PH test

PLAN PREPARED BY Smith Land Surveying 11/10/2023

ADDRESS 111 South Street
Glenville, WV 26351

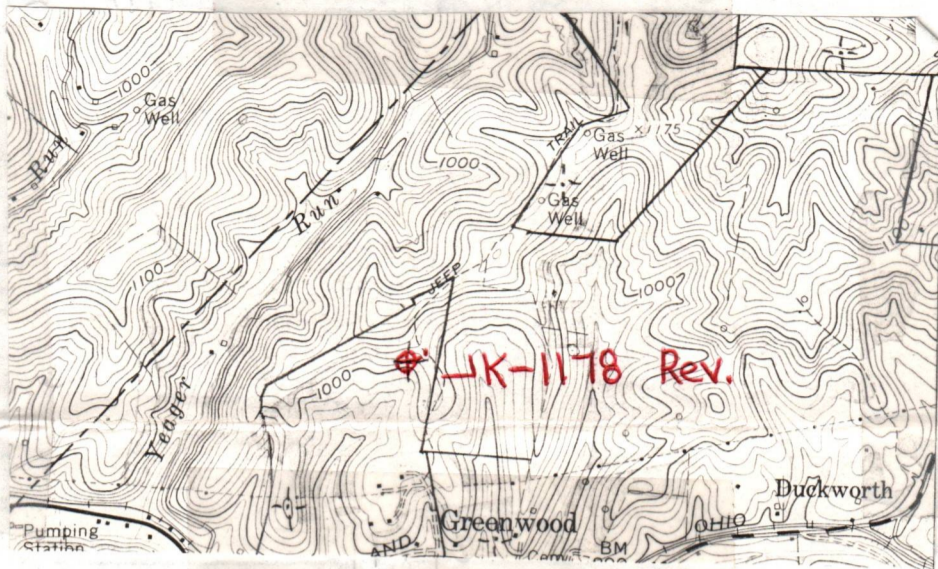
PHONE NO. 462 - 5634

NOTES: Please request landowners 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 Pennsboro 7.5'

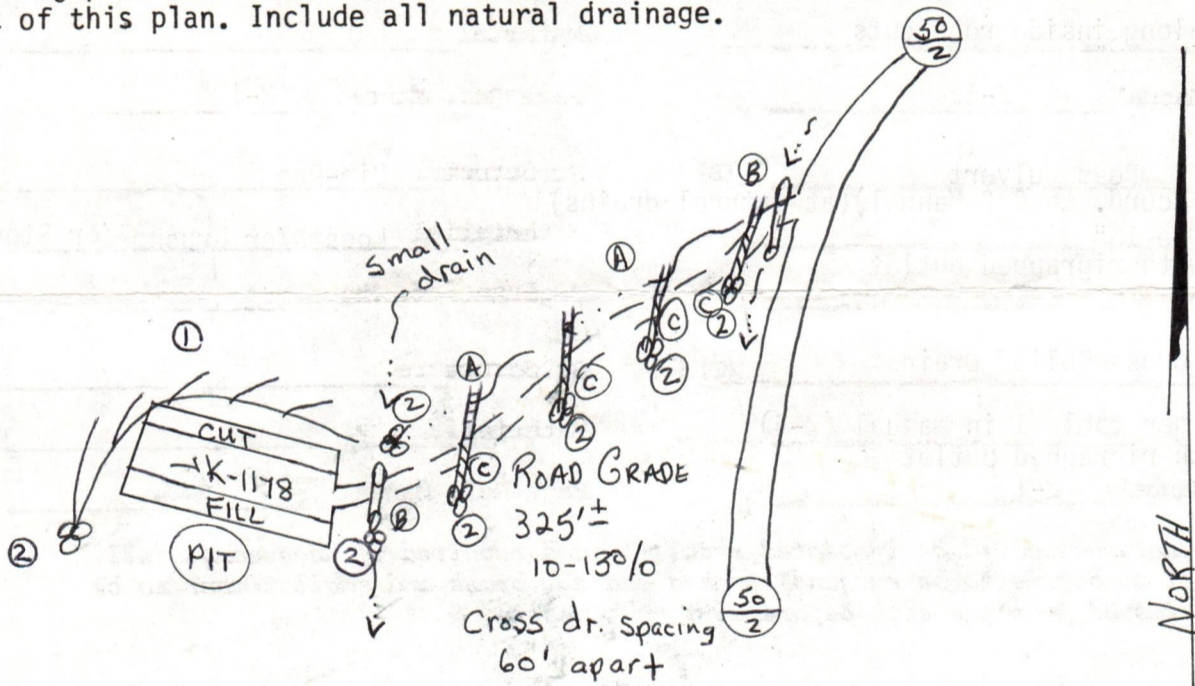
LEGEND

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.

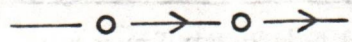

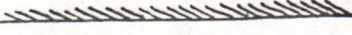











Note: Natural vegetation (filter strip) will remain undisturbed in areas between construction & natural water courses. Place staked hay bales in ditch line for sediment control.

Drilling pit may vary in location other than that shown on this plan and/or other pits may be added due to soil type, newly discovered water systems, and the encounter of rock when building location.

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  11/10/2023
- EXISTING FENCE 
- PLANNED FENCE 
- BUILDING 
- WET SPOT 
- SPRING 

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

1) Date: June 13, 19 85
 2) Operator's Well No. JK-1178
 3) API Well No. 47-017-3454
 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 Glen Waldo
 Address Box 363
Greenwood, WV 26360
 (ii) Name _____
 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 739 780 296

RECEIPT FOR CERTIFIED MAIL

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

TO THE PERSON(S) NAMED
 (1) The Applicant to be plugged and cemented
 (2) The plat
 (3) The Construction of a well plug and reclamation
 THE REASON YOU WHICH ARE SUMMARIZED (FORM-IV-2(B) OR PLAT) ACTION AT ALL.

Sent to	<u>Glen Waldo</u>	
Street and No.	<u>Box 363</u>	
P.O., State and ZIP Code	<u>Greenwood, WV 26360</u>	
Postage	\$	<u>56</u>
Certified Fee		<u>75</u>
Special Delivery Fee		
Restricted Delivery Fee		
Return Receipt Showing to whom and Date Delivered		<u>70</u>
Return receipt showing to whom, Date, and Address of Delivery		
TOTAL Postage and Fees	\$	<u>2.01</u>
Postmark or Date		

Take notice that the operator proposes to construct a well for a Well Work Permit Department of Mines, and depicted on attached plat, Construction and Reclamation Plan, by hand to the person before the day of _____

6) EXTRACTION RIGHTS
 Check and provide
 Included is 1
 I hold the
 The requirements

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.

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 13 day of June, 1985.
 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 H. Reddecliff
 Its Designated Agent
 Address P.O. Box 48
Buckahannon, WV 26201
 Telephone 472-9403

LESSOR WITH DECLARATION ON RECORD:
 Name _____
 Address _____

LESSEE WITH DECLARATION ON RECORD:
 Name _____
 Address _____

and the following documents:
 Form IV-4 if the well is drilling or other work, the proposed casing and IV-6; and the well work is only to prevent control and for

REGARDING THE APPLICATION: COPY OF THE APPLICATION REQUIRED TO TAKE ANY

The undersigned well operator, accompanying documents and Gas, West Virginia on attached Application, the plat, and the certified mail or delivered (circumstances) on or

contracts by which side for specifics.)

RECEIVED
 JUN 21 1985

OIL & GAS DIVISION
 DEPT. OF MINES

11/10/2023

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:

<u>Grantor, lessor, etc.</u>	<u>Grantee, lessee, etc.</u>	<u>Royalty</u>	<u>Book Page</u>
Glen Waldo et.ux.	G.E. & L.C. Young	1/8	69/349
C.E. & Bessie Young	L.C. Young	31/32 W.I.	70/76
Bessie Young, widow et.al.	L.C. Young	1/32 W.I.	88/285
L.C. Young	W. Leslie Rogers	W.I.	90/135
W. Leslie Rogers	William R. Rogers et.al.	W.I.	WB15/108
William R. Rogers	J & J Enterprises, Inc.	W.I.	11/1/84

W.I. = Working Interest

11/10/2023

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

RECEIVED
SEP 24 1985

INSPECTOR'S WELL REPORT

DIVISION OF OIL & GAS
DEPARTMENT OF ENERGY

Permit No. 017-3454

Oil or Gas Well _____
(KIND)

Company <u>J & J</u>	CASING AND TUBING	USED IN DRILLING	LEFT IN WELL	PACKERS
Address _____	Size			
Farm <u>GLEN WALDO</u>	16			Kind of Packer _____
Well No. <u>JK-1178-</u>	13			
District <u>CENTRAL</u> County <u>Deed-</u>	10			Size of _____
Drilling commenced <u>9-16-85-</u>	8 3/4			
Drilling completed _____ Total depth _____	6 5/8			Depth set _____
Date shot _____ Depth of shot _____	5 3/16			
Initial open flow _____ /10ths Water in _____ Inch	3			Perf. top _____
Open flow after tubing _____ /10ths Merc. in _____ Inch	2			Perf. bottom _____
Volume _____ Cu. Ft.	Liners Used			Perf. top _____
Rock pressure _____ lbs. _____ hrs.				Perf. bottom _____
Oil _____ bbls., 1st 24 hrs.	CASING CEMENTED _____ SIZE _____ No. FT. _____ Date _____			
Fresh water _____ feet _____ feet	NAME OF SERVICE COMPANY _____			
Salt water _____ feet _____ feet	COAL WAS ENCOUNTERED AT _____ FEET _____ INCHES			
	_____ FEET _____ INCHES _____ FEET _____ INCHES			
	_____ FEET _____ INCHES _____ FEET _____ INCHES			

Drillers' Names S.W. JACK — Rig 22 — Heavy

Remarks: Rig Report

Visit site, just moved on location, brush and trees not cleaned up to par. (pits o.k. ROAD GOOD)

9-16-85-
DATE

Mike Underwood
DISTRICT WELL INSPECTOR

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

Permit No. _____

Well No. _____

COMPANY _____ ADDRESS _____

FARM _____ DISTRICT _____ COUNTY _____

Filling Material Used _____

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

Drillers' Names _____

Remarks: _____

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

_____ DISTRICT WELL INSPECTOR
11/10/2023



Date October 15, 1985
 Operator's JK-1178
 Well No. JK-1178
 Farm Waldo
 API No. 47 - 017 - 3454

State of West Virginia
 Department of Mines
 Oil and Gas Division

RECEIVED
 OCT 17 1985
 DIVISION OF OIL & GAS
 DEPT. OF ENERGY

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: 1022 Watershed Dotson Run
 District: Central County Doddridge Quadrangle Pennsboro 7.5

COMPANY J&J Enterprises, Inc.

ADDRESS P.O. Box 48, Buckhannon, WV 26201

DESIGNATED AGENT Richard Reddecliff

ADDRESS P.O. Box 48, Buckhannon, WV 26201

SURFACE OWNER Glen Waldo

ADDRESS Box 363, Greenwood, WV 26360

MINERAL RIGHTS OWNER Same as surface

ADDRESS

OIL AND GAS INSPECTOR FOR THIS WORK Mike
Rt. 2, Box 114
Underwood ADDRESS Salem, WV 26426

PERMIT ISSUED 7/17/85

DRILLING COMMENCED 9/16/85

DRILLING COMPLETED 9/22/85

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"	204.25	204.25	100 sks.
9 5/8			
8 5/8	1556.55	1556.55	125 sks.
7			
5 1/2			
4 1/2	5949.20	5949.20	410 sks.
3			
2			
Liners used			

GEOLOGICAL TARGET FORMATION Rhine St. Depth feet

Depth of completed well 5993 feet Rotary x / Cable Tools

Water strata depth: Fresh 50,1145 feet; Salt 0 feet

Coal seam depths: None Is coal being mined in the area? No

OPEN FLOW DATA

Producing formation Devonian Shale Pay zone depth 5786-98 feet

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

Combined Final open flow 603 Mcf/d Final open flow Bbl/d

Time of open flow between initial and final tests 4 hours

Static rock pressure 1400 psig (surface measurement) after 96 hours shut in

(If applicable due to multiple completion--)
 Second producing formation Riley Pay zone depth 4459-72 feet
483 **11/10/2023** 5139-44

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

(Continue on reverse side)

DODD 3454

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

Riley: Perforations: 4459-62 (8 holes) 4470-72 (8 holes)
 Fracturing: 254 sks. 20/40 sand:500 gal. acid: 476 Bbls. fluid.
 Benson: Perforations: 4850.5-52.5 (8 holes)
 Fracturing: 350 sks. 20/40 sand: 500 gal. acid: 432 Bbls. fluid.
 Alexander: Perforations:5139-44 (16 holes)
 Fracturing: 400 sks. 20/40 sand:500 gal. acid: 476 Bbls. fluid.
 Devonian Shale: Perforations: 5786-90 (8 holes) 5896-98 (4 holes)
 Fracturing: 350 sks. 20/40 sand: 506 Bbls. fluid.

BOTTOM HOLE PRESSURE Pf=Pwe^{XGLS}

$$t=60 + (0.0075 \times 5949) + 459.7 = 564 \quad X = \frac{1}{53.35 \times 564} = \frac{1}{30089} = 0.000033 \quad Pf=1400 \times 2.72$$

$$(0.000033)(0.661)(5184)(0.9) = 1400 \times 2.72^{0.1} = 1400 \times 1.1$$

WELL LOG

Pf=1540 psi

FORMATION	COLOR	HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS
					Including indication of all fresh and salt water, coal, oil and gas.
Fill			0	10	Damp @ 50'
Sand, shale & red rock			10	55	
Sand, red rock & shale			55	160	Damp @ 1145'
Sand, shale & red rock			160	250	
Red rock, shale & sand			250	460	Damp @ 1420'
Red rock, shale & sand			460	560	
Red rock, shale & sand			560	965	Gas ck @ 2050 20/10-2" w/water 189,000 cu.ft.
Sand & shale			965	1130	
Sand & shale			1130	1850	
Lime & shale			1850	1860	Gas ck @ 2359 16/10-2" w/water 169,000 cu.ft.
Sand & shale			1860	1870	
Big Lime			1870	1960	
Sand & shale			1960	2225	Gas ck @ 3386 10/10-2" w/water 133,000 cu.ft.
Sand & shale			2225	3000	
Sand & shale			3000	4459	
Riley			4459	4472	Gas ck @ 4661 12/10-2" w/water 146,000 cu.ft.
Sand & shale			4472	4850.5	
Benson			4850.5	4852.5	
Sand & shale			4852.5	5139	Gas ck @ 4878 12/10-2" w/water 146,000 cu.ft.
Alexander			5139	5144	
Sand & shale			5144	5786	
Devonian Shale			5786	5898	Gas ck @ 5219 10/10-2" w/water 133,000 cu.ft.
Sand & shale			5898	5993	
				T.D.	Gas ck @ T.D. 12/10-2" w/water 146,000 cu.ft.

(Attach separate sheets as necessary)

J&J Enterprises, Inc.

Well Operator

By:

Date: 10/15/85

Robert Dahlin - Geologist

11/10/2023

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."

DEPARTMENT OF ENERGY
OIL AND GAS WELLS DIVISION

RECEIVED
SEP 24 1985

INSPECTOR'S WELL REPORT

DIVISION OF OIL & GAS
DEPARTMENT OF ENERGY

Permit No. 017-3454

Oil or Gas Well _____
(KIND)

Company <u>J E J</u>	CASING AND TUBING	USED IN DRILLING	LEFT IN WELL	PACKERS
Address _____	Size			
Farm <u>GLEW WALDO</u>	16			Kind of Packer _____
Well No. <u>JK - 1178</u>	13			
District <u>Centraw</u> County <u>Redd</u>	10			Size of _____
Drilling commenced <u>9-16-85</u>	8 1/4			
Drilling completed _____ Total depth _____	6 3/4			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.				
Fresh water <u>Damp -</u> feet <u>50'</u> feet				
Salt water _____ feet _____ feet				

CASING CEMENTED 11/24 SIZE 260' No. FT. 9-16-85 Date

NAME OF SERVICE COMPANY Halliburton 100-5125

COAL WAS ENCOUNTERED AT no FEET _____ INCHES

_____ FEET _____ INCHES FEET _____ INCHES

_____ FEET _____ INCHES FEET _____ INCHES

Drillers' Names S. W. JACK - Rig 22 - Heavy

Remarks: Rig Report
Visit site, 3260' and dusting - pit's good
ROAD'S good
(Brush need cleaned up)
Better

9-20-85
DATE

Nick Anderson
11/10/2023
DISTRICT WELL INSPECTOR

INSPECTOR'S PERMIT SUMMARY FORM

7-17-85

WELL TYPE Shallow GAS
ELEVATION 1022'
DISTRICT CENTRAL
QUADRANGLE PENNSBORO
COUNTY Dodd

API# 47-017-3454-
OPERATOR JES
TELEPHONE _____
FARM GLEN WALDO
WELL # JIC 1178-

RECEIVED
DEPARTMENT OF ENERGY
OIL AND GAS

SURFACE OWNER _____ COMMENTS _____ TELEPHONE _____
TARGET FORMATION _____ DATE APPLICATION RECEIVED _____
DATE STARTED _____
LOCATION 9-14-85 NOTIFIED YES DRILLING COMMENCED 9-16-85

WATER DEPTHS 50' DAMP, 1420' DAMP.
COAL DEPTHS No

CASING

Ran 200' + feet of 1 1/4 "pipe on 9-16-85 with 125-SK fill up H.B.
Ran 1556' feet of 8 3/8 "pipe on _____ with 125-SK fill up H.B.
Ran 5949' feet of 4 1/2 "pipe on 9-23-85 with 410-SK fill up H.B.
Ran _____ feet of _____ "pipe on _____ with _____ fill up _____
TD 5993' feet on 9-23-85

PLUGGING

Type	From	To	Pipe Removed

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

Date Released 5-29-85
5-29-86

[Signature]
Inspector's signature

11/10/2023

API# 47 017 - 3454 -

LIST ALL VISITS FOR THIS PERMIT

	DATE	TIME	PURPOSE	COMMENTS
1	9-14-85			check Bense work
2	9-16-85			check Pij motion on location
3	9-16-85			1134 Jobs
4	9-20-85			Pij visit - 3200' Dusting -
5	9-23-85			A.O. Report -
6	5-29-86		Reclaimant is RELEASED -	
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				

Notes

O.K. To REC

1.0 API well number (If not available, leave blank. 11 digits.)	47-017-3454															
2.0 Type of determination being sought (Use the codes found on the front of this form.)	103 <small>Section of NGPA</small>	N/A <small>Category Code</small>														
3.0 Depth of the deepest completion location (Only one of sections 103 or 107 in 2.0 above.)	5798 feet															
4.0 Name, address and code number of applicant (35 letters per line maximum. If code number not available, leave blank.)	J & J Enterprises, Inc. <small>Name</small> P.O. Box 697 <small>Street</small> Indiana <small>City</small>		Pa. <small>State</small>	15701 <small>Zip Code</small>												
5.0 Location of this well (Complete (a) or (b).) (a) For onshore wells (35 letters maximum for field name.)	Central <small>Field Name</small> Doddridge <small>County</small>															
(b) For OCS wells:	N/A <small>Area Name</small>															
(c) Name and identification number of this well (35 letters and digits maximum.)	JK-1178															
(d) If code 4 or 5 in 2.0 above, name of the reservoir (35 letters maximum.)	N/A															
6.0 (a) Name and code number of the purchaser (35 letters and digits maximum. If code number not available, leave blank.)	Purchaser not yet designated <small>Name</small>															
(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;"><small>Mo.</small></td><td style="border: none;"><small>Day</small></td><td style="border: none;"><small>Yr.</small></td><td style="border: none;"><small>Mo.</small></td><td style="border: none;"><small>Day</small></td><td style="border: none;"><small>Yr.</small></td> </tr> </table>										<small>Mo.</small>	<small>Day</small>	<small>Yr.</small>	<small>Mo.</small>	<small>Day</small>	<small>Yr.</small>
<small>Mo.</small>	<small>Day</small>	<small>Yr.</small>	<small>Mo.</small>	<small>Day</small>	<small>Yr.</small>											
(c) Estimated annual production:	MMcf															
7.0 Contract price (As of filing date. Complete to 3 decimal places.)	3 . 5 6 5	_ . 2 7 8	_ . _ . _	3 . 8 4 3												
8.0 Maximum lease rate (As of filing date. Complete to 3 decimal places.)	3 . 5 6 5	_ . 2 7 8	_ . _ . _	3 . 8 4 3												
9.0 Person responsible for this application	Richard J. Kline <small>Name</small>															
Agency Use Only	Secretary <small>Title</small>															
Date received by this Agency																
Date received by FERC	10-17-85 <small>Date registration is completed</small>															
Date received by FERC	(412) 349-6800 <small>File # Number</small>															

11/10/2023

DEPARTMENT OF MINES, OIL AND GAS DIVISION

COVER SHEET, STATE APPLICATION FOR WELL CLASSIFICATION

NOV 15 1985

Date: OCT 17, 1985 *24150*

AGENCY USE ONLY

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

WELL DETERMINATION FILE NUMBER

Address: P.O. Box 697

851018-1030-017-3454

Indiana, PA. 15701

Use Above File Number on all
Communications Relating to This Well

Gas Purchaser Contract No. _____

Date of Contract _____
(Month, day and year)

First Purchaser: Purchaser not yet designated *PL29*

Designated Agent: Richard Reddecliff

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

Address: P.O. Box 48

Buckhannon, WVA 26201

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

FERC Seller Code 009480

FERC Buyer Code _____

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

Name: Vicki Vanderberg

Signature: *Vicki Vanderberg* (Print) _____ (Title) _____

Address: P.O. Box 697
(Street or P.O. Box)
Indiana, PA. 15701

Telephone: 412 349-6800
(City) _____ (State) _____ (Zip Code) _____
(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
11/10/2023

RECEIVED
OCT 18 1985

DIVISION OF OIL & GAS
DEPARTMENT OF ENERGY

Date Received

Determination Date

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

Date Oct. 17, 1985

Operator's Well No. JK-1128

API Well No. 47 - 017 - 3454
State County Permit

WELL CLASSIFICATION FORM
NEW ONSHORE PRODUCTION WELL
MGA Section 103

DESIGNATED AGENT James R. Willett
ADDRESS S.W. Jack Drilling Company
Box 48 Buckhannon, W. VA. 26201

WELL OPERATOR J & J Enterprises, Inc.
ADDRESS P. O. Box 697
Indiana, PA 15701

LOCATION: Elevation 1022
Watershed Dotson Run
Dist. Central County Doddridge Quad Pennsboro

GAS PURCHASER Purchaser not yet designated
ADDRESS _____

Gas Purchase Contract No. _____
Meter Chart Code _____
Date of Contract _____

* * * * *

Date surface drilling was begun: Sept. 16, 1985

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

Rock Pressure: Well was shut in several days after treatment and pressure was measured with a spring gauge.

BOTTOM HOLE PRESSURE Pf=Pwe XGLS
 $t=60 + (0.0075 \times 5949) + 459.7 = 564$ $X = \frac{1}{53.35 \times 564} = \frac{1}{30089} = 0.000033$ Pf=1400 x 2.72
 $(0.000033) (0.661) (5184) (0.9) = 1400 \times 2.72^{0.1} = 1400 \times 1.1$
Pf=1540 psi

WELL LOG

I, James H. McElwain, having been first sworn according to law state that surface drilling of the well for which this determination is sought was begun on or after February 19, 1977; the well satisfies applicable state or federal well spacing requirements and the well is not within a proration unit, in existence at the time surface drilling began, which was applicable to the reservoir from which gas is or will be produced and which applied to any other well producing gas in commercial quantities or on which surface drilling began on or after February 19, 1977, and which was capable of producing gas in commercial quantities. I state, further, that I have concluded, to the best of my information, knowledge and belief, that the well for which this determination is sought is a new onshore production well and that I am not aware of any information not described in the application which is inconsistent with this conclusion.

James H. McElwain

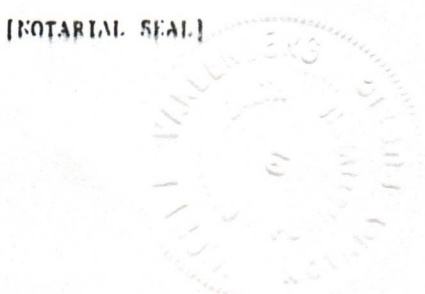
STATE OF ~~WEST VIRGINIA~~ PA
COUNTY OF Indiana TO WIT:

I, Vicki Vanderberg a Notary Public in and for the state and county aforesaid, do certify that J.H. McElwain, whose name is signed to the writing above, bearing date the 17 day of Oct, 1985, has acknowledged the same before me, in my county aforesaid.

Given under my hand and official seal this 17 day of Oct, 1985
My ~~XXXXXX~~ expires on the 23 day of January, 1988
Commission

Vicki Vanderberg
Notary Public

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



RECEIVED
NOV 12 1985

FERC-121

DIVISION OF OIL & GAS
DEPARTMENT OF ENERGY

1.0 API well number: (If not available, leave blank. 11 digits.)	<u>47-017-3454</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 provide if sections 103 or 107 in 2.0 above.)	<u>5798</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>		<u>009480</u> Section Code	
	<u>P.O. Box 697</u>			
	<u>Indiana</u>	<u>Pa.</u>	<u>15701</u>	
	<u>Co.</u>	<u>State</u>	<u>Zip Code</u>	
5.0 Location of this well (Complete (a) or (b).) (a) For onshore wells (35 letters maximum for field name.)	<u>Central</u>			
	<u>Doddridge</u>		<u>WV</u>	
	<u>County</u>		<u>State</u>	
(b) For OCS wells:	<u>n/a</u>		<u>Block Number</u>	
	<u>Date of Lease:</u>		<u>OCS Lease Number</u>	
	<u>Mo.</u>	<u>Day</u>	<u>Yr.</u>	
(c) Name and identification number of this well (35 letters and digits maximum.)	<u>JK-1178</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>			
	<u>Name</u> <u>Section Code</u>			
(b) Date of the contract.	<u>Mo. Day Yr.</u>			
(c) Estimated annual production:	<u>MMcf</u>			
	(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 (a), (b) and (c).)	<u>6 0 9 4</u>	<u>2 7 8</u>	<u>---</u>	<u>6 3 7 2</u>
8.0 Maximum lease rate (As of filing date. Complete (a), (b) and (c).)	<u>6 0 9 4</u>	<u>2 7 8</u>	<u>---</u>	<u>6 3 7 2</u>
9.0 Person responsible for this application	<u>J. H. McElwain</u> <u>Exec. V. President</u>			
Agency Use Only	<u>James H. McElwain</u>			
Date filed for this application	<u>11-5-85</u>			
Date received by FERC	<u>(412) 349-6000</u>			
	<u>11/10/2023</u>			

NOV 30 1985

COVER SHEET, STATE APPLICATION FOR WELL CLASSIFICATION

Date: Oct. 5, 1985 24150

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
Purchaser not yet designated

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

(City) (State) (Zip Code)

FERC Seller Code 009480

AGENCY USE ONLY
WELL DETERMINATION FILE NUMBER
851112 -1073-017- 3454
Use Above File Number on all
Communications Relating to This Well

Designated Agent: Richard Reddick
Address: P.O. Box 48
Buckhannon, WVA 26201

FERC Buyer Code _____

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

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
- 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
 - X 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
QUALIFIED
11/10/2023

RECEIVED
NOV 12 1985

DIVISION OF OIL & GAS
DEPARTMENT OF ENERGY

Date Received

Determination Date

DEPARTMENT OF MINES OIL AND GAS DIVISION

Operator's Well No. JK-1128

API Well No.

47 - 017 - 3454
State County Permit

WELL CLASSIFICATION FORM

HIGH COST GAS WELL - DEVONIAN SHALE

NGPA Section 107

DESIGNATED AGENT James R. Willett

ADDRESS PO Box 48
Buckhannon, West Virginia 26201

LOCATION Elevation 1022

Watershed Dotson Run

Dist. Central County Dabridge quad. Pennsboro

WELL OPERATOR J & J Enterprises, Inc.

ADDRESS PO Box 697
Indiana, PA 15701

GAS PURCHASER Purchaser-not

ADDRESS yet-designated

Gas Purchase Contract No.

Meter Chart Code

Date of Contract

* * * * *

Date surface drilling began: September 16, 1985

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

BOTTOM HOLE PRESSURE Pf=Pwe^{XGLS}

$$t=60 + (0.0075 \times 5949) + 459.7 = 564 \quad X = \frac{1}{53.35} \times \frac{1}{564} = \frac{1}{30089} = 0.000033 \quad Pf=1400 \times 2.72$$

$$(0.000033) (0.661) (5184) (0.9) = 1400 \times 2.72^{0.1} = 1400 \times 1.1$$

WELL LOG

Pf=1540 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 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

Executive Vice President

STATE OF ~~WEST VIRGINIA~~ Pennsylvania

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 5th day of Nov, 1985, has acknowledged the same before me, in my county aforesaid.

11/10/2023

Given under my hand and official seal this 5th day of Nov, 1985.

My term of office expires on the 23 day of Jan, 1988.

Vicki L. Vanderberg

(NOTARIAL SEAL)

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

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.: 47-017-3454 Well Name: Waldo (JKS-1178)

West Virginia Office of Oil and Gas County: Doddridge

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 = 150 * API Units
2. Remarks:

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

1. GR Value = 105 * API Units
2. Calculation: $0.7 \text{ (GR Value at Base Line)}$
 $0.7 \text{ (} \underline{150} \text{ *)} = \underline{105}$ 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***		
2400'	5988'	3588'	91.5'

Total Devonian Interval 3588'

Total Less Than 0.7 (Shale Base) 91.5'

% Less Than 0.7 (Shale Base Line) = $\underline{0.0255} \times 100 = \underline{2.55} \%$ 11/10/2023

*Marked on log included with analysis.

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

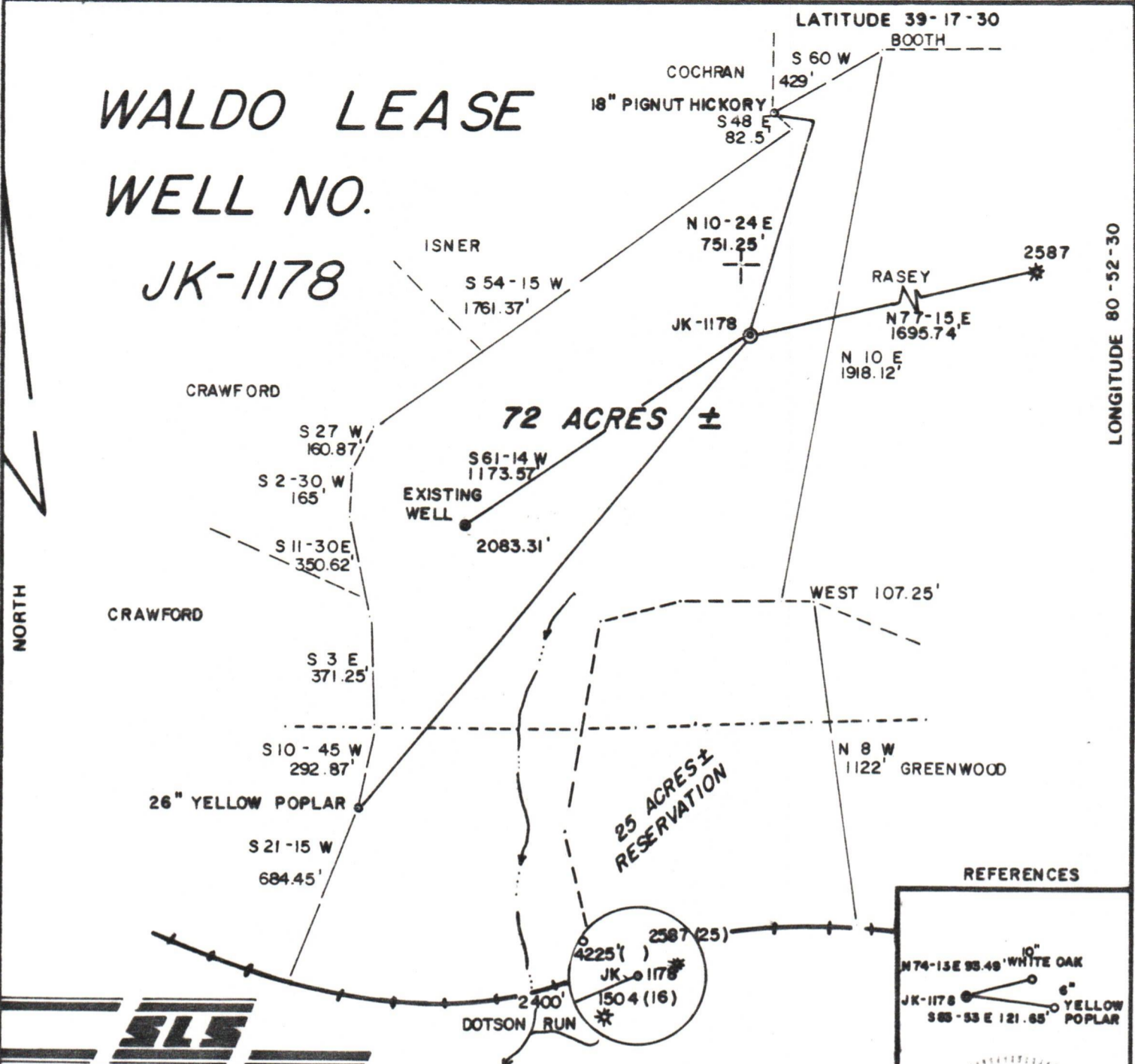
***Lesser of TD or Bottom of Devonian Section Recorded as last Interval in this Column.

MN 7-10-85

5430'

LATITUDE 39-17-30
BOOTH

WALDO LEASE WELL NO. JK-1178



LONGITUDE 80-52-30



REFERENCES

N 74-15 E 98.49' 10" WHITE OAK

JK-1178

S 88-53 E 121.65' 6" YELLOW POPLAR

FILE NO. B-2

DRAWING NO. M.P.

SCALE 1"=500'

MINIMUM DEGREE OF ACCURACY 1/200

PROVEN SOURCE OF ELEVATION B.M. ELEV.=854'

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

STATE OF WEST VIRGINIA

NO. 677

STATE OF WEST VIRGINIA

PLACE SEAL HERE

(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS

FORM IV-6 (8-78)



DATE MARCH 5 19 85

OPERATOR'S WELL NO. JK-1178

API WELL NO. 47-017-3454

STATE 47 COUNTY 017 PERMIT 3454

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 1022' WATER SHED DOTSON RUN

DISTRICT CENTRAL COUNTY DODDRIDGE

QUADRANGLE PENNSBORO 7.5'

SURFACE OWNER GLEN WALDO ACREAGE 72

OIL & GAS ROYALTY OWNER GLEN WALDO LEASE ACREAGE 72

LEASE NO. JK-359

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 RHINE STREET 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

11/10/2023