



Date: June 8, 19 82

FORM IV-2
(Obverse)
(12-81)

Operator's Well No. One

API Well No. 47 085 5717
State County Permit

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

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

LOCATION: Elevation: 1114' Watershed: Douglas Run
District: Grant County: Ritchie Quadrangle: Schultz-7 1/2' Quad

WELL OPERATOR Smith Production Co. DESIGNATED AGENT Mark Kniffin
Address 1824 Capitol Towers Bldg. Address 24 Crystal Ave.
P.O. Box 22705 Williamstown, WV 26187
Jackson, MS 39205

OIL & GAS ROYALTY OWNER Robert & Melinda Jackson COAL OPERATOR _____
Address Harrisville, WV Address _____

ACREAGE 40 ac. COAL OWNER(S) WITH DECLARATION ON RECORD:

SURFACE OWNER Robert & Melinda Jackson Name _____
Address Harrisville, WV Address _____

ACREAGE 40 ac. Name _____
Address _____

FIELD SALE (IF MADE) TO: Name _____
Address _____

OIL & GAS INSPECTOR TO BE NOTIFIED Name _____
Name D. O. Mace (304) 655-7398 Address _____
Address Rt. 1, Box 5
Sandridge, WV 25274

The undersigned well operator is entitled to operate for oil or gas purposes at the above location under a deed _____ / lease _____
other contract X / dated March 18, 19 82, to the undersigned well operator from Cliff Kniffin

(IF said deed, lease, or other contract has been recorded:)
Recorded on March 19, 19 82, in the office of the Clerk of the County Commission of Ritchie County, West Va., in Lease Book 142 at page 240. A permit is requested as follows:

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

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

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

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

BLANKET BOND

04/19/2024

SMITH PRODUCTION CO.
Well Operator
By Mark Kniffin
Its Consultant

PROPOSED WORK ORDER

THIS IS AN ESTIMATE ONLY:
ACTUAL INFORMATION MUST BE SUBMITTED ON FORM IV-35 UPON COMPLETION

DRILLING CONTRACTOR (IF KNOWN) S & B Drilling Co.
Address Cambridge, OH

GEOLOGICAL TARGET FORMATION, Benson (Devonian Shale)

Estimated depth of completed well, 5000 feet Air-Rotary / Cable tools /

Approximate water strata depths: Fresh, 300 feet; salt, 464 feet.

Approximate coal seam depths: NA Is coal being mined in the area? Yes / No /

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	13 3/8	API	36#				60'	T6 Surf.	Kinds	
Fresh Water	8 5/8	11	24#				350'	CTS		
Coal									Sizes	
Intermediate										
Production	4 1/2	J-55	10.5#				5000'	300 SX RFC	Depths set	
Tubing										
Liners									Perforations:	
									Top	Bottom

NOTE: Regulation 7.02 of the Department of Mines provides that the original and four copies of Form IV-2 must be filed with the Department, accompanied by (i) a plat in the form prescribed by Regulation 11, (ii) a bond in one of the forms prescribed by Regulation 12, or in lieu thereof the other security allowed by Code § 22-4-2, (iii) Form IV-9, "Reclamation Plan", applicable to the reclamation required by Code § 22-4-12b and Regulation 23, (iv) unless previously paid on the same well, the fee required by Code § 22-4-12a, and (v) if applicable, the consent required by Code § 22-4-8a from the owner of any water well or dwelling within 200 feet of the proposed well.

A separate Form IV-2 shall not be required for fracturing or stimulating a well where fracturing or stimulating is to be part of the work for which a permit is sought and is noted as such on the Form IV-2 filed in connection therewith.

THIS PERMIT MUST BE POSTED AT THE WELL SITE.
ALL PROVISIONS BEING IN ACCORDANCE WITH CHAPTER 22,
ARTICLE 4 OF THE W. VA. CODE, THE LOCATION IS HEREBY
APPROVED FOR drilling **. THIS PERMIT SHALL EXPIRE**
IF OPERATIONS HAVE NOT COMMENCED BY 2-28-83 **.**
BY [Signature]

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

WAIVER

The undersigned coal operator _____ / owner _____ / lessee _____ / of the coal under this well location has examined this proposed well location. If a mine map exists which covers the area of the well location, the well location has been added to the mine map. The undersigned has no objection to the work proposed to be done at this location, provided, the well operator has complied with all applicable requirements of the West Virginia Code and the governing regulations.

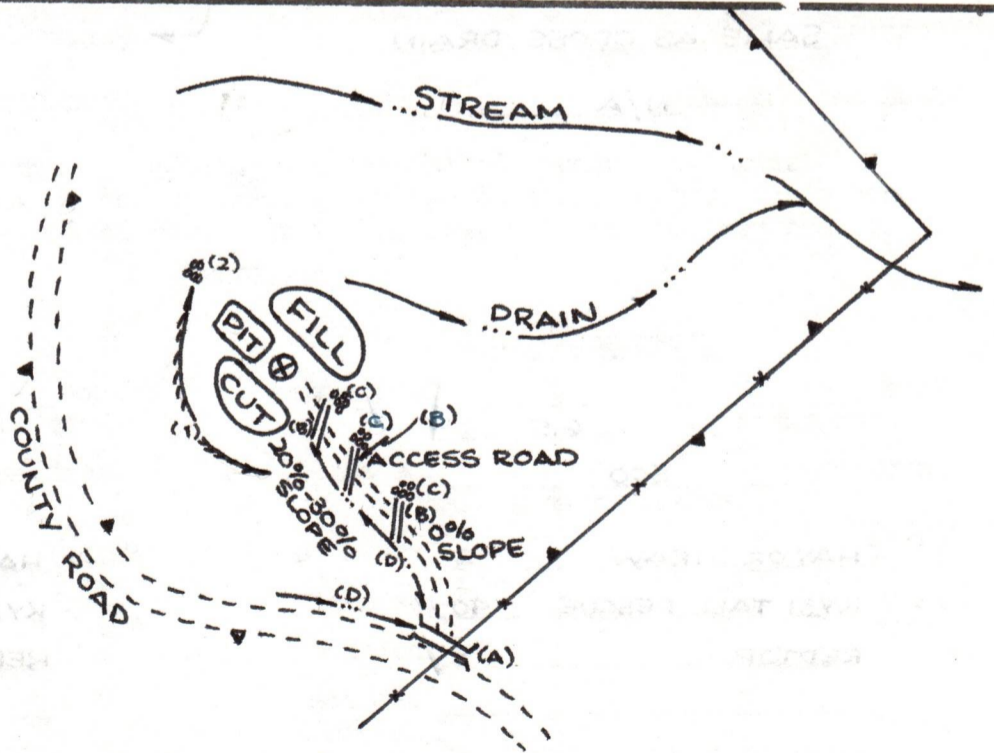
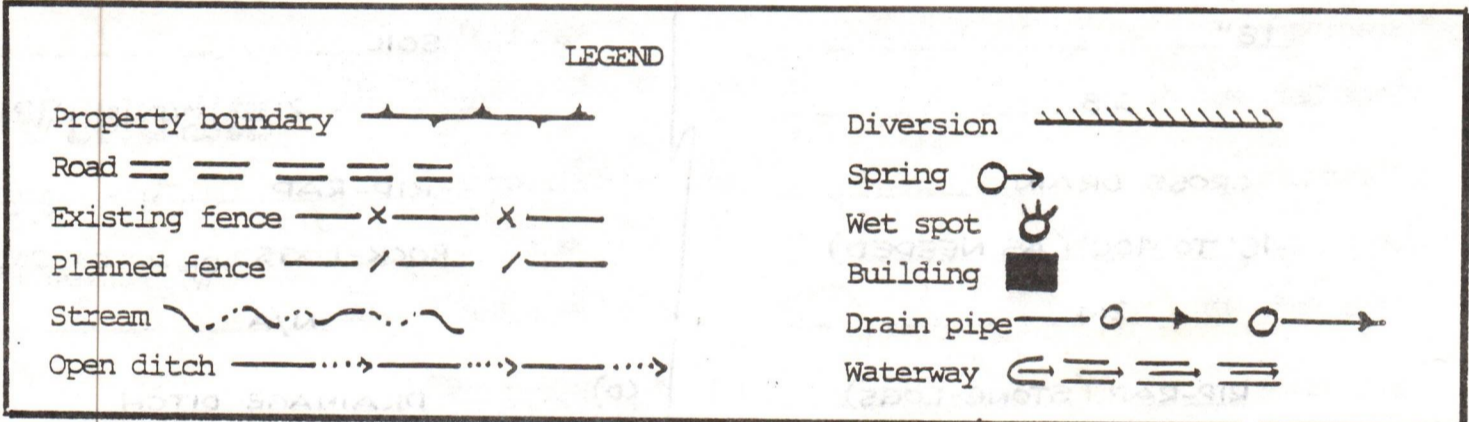
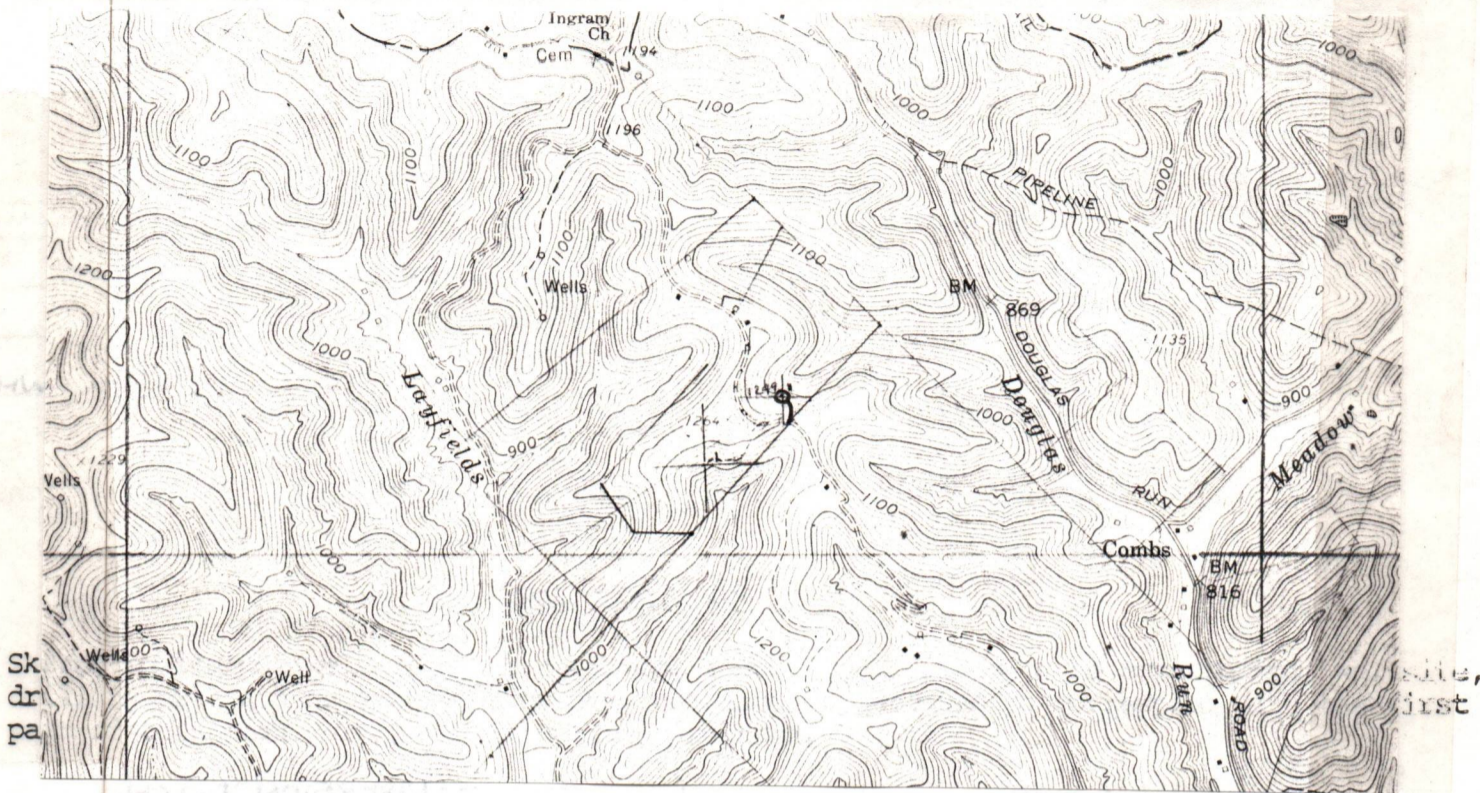
Date: _____, 19 _____

By _____
Its _____

04/19/2024

ATTACH OR PHOTOCOPY SECTION OF INVOLVED TOPOGRAPHIC MAP. QUADRANGLE SCHULTZ

LEGEND
WELL SITE ⊕ ACCESS ROAD —



- Comments:
1. LENGTH OF ACCESS ROAD 300'
 2. BRUSH AND TREES TO BE PILED AT SITE.
 3. _____
 4. _____
 5. _____

04/19/2024



IV-9
(Rev 8-81)

DATE 3 MAY, 1982
WELL NO. JACKSON #1
API NO. 47 - 085 - 5717

State of West Virginia
Department of Mines
Oil and Gas Division
Construction & Reclamation Plan

COMPANY NAME SMITH PRODUCTION CO. DESIGNATED AGENT MARK KNIFFIN
ADDRESS 1824 CAPITOL TOWERS, P.O. BOX 22705 ADDRESS 24 CRYSTAL AVENUE
JACKSON, MISSISSIPPI 39205 WILLIAMSTOWN, W.VA. 26187
Telephone (614) 374-9652 Telephone (304) 375-6045
LANDOWNER ROBERT & MAUNDA JACKSON SOIL CONS. DISTRICT LITTLE KANAWHA
Revegetation to be carried out by SMITH PRODUCTION COMPANY (Agent)

This plan has been reviewed by Little Kanawha SCD. All corrections and additions become a part of this plan: 6-7-82

(Date)
Jarrett Newton
(SCD Agent)

ACCESS ROAD	LOCATION
Structure <u>CULVERT</u> (A)	Structure <u>DIVERSION DITCH</u> (1)
Spacing <u>18"</u>	Material <u>SOIL</u>
Page Ref. Manual <u>2:8</u>	Page Ref. Manual <u>2:10</u>
Structure <u>CROSS DRAIN</u> (B)	Structure <u>RIP-RAP</u> (2)
Spacing <u>45' TO 400' (AS NEEDED)</u>	Material <u>ROCK-LOGS</u>
Page Ref. Manual <u>2:4</u>	Page Ref. Manual <u>N/A</u>
Structure <u>RIP-RAP (STONE-LOGS)</u> (C)	(D) Structure <u>DRAINAGE DITCH</u> (X)
Spacing <u>SAME AS CROSS DRAIN</u>	Material _____
Page Ref. Manual <u>N/A</u>	Page Ref. Manual <u>2:10</u>

RECEIVED
JUN - 8 1982
OIL AND GAS DIVISION
WV DEPARTMENT 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	
Lime _____ Tons/acre	or correct to pH <u>6.5</u>
Fertilizer <u>500</u> lbs/acre	(10-20-20 or equivalent)
Mulch <u>HAY OR STRAW</u> 2 Tons/acre	
Seed* <u>KY31 TALL FESCUE</u> 40 lbs/acre	
<u>REDTOP</u> 5 lbs/acre	
_____ lbs/acre	
_____ lbs/acre	

Treatment Area II	
Lime _____ Tons/acre	or correct to pH <u>6.5</u>
Fertilizer <u>500</u> lbs/acre	(10-20-20 or equivalent)
Mulch <u>HAY OR STRAW</u> 2 Tons/acre	
Seed* <u>KY31 TALL FESCUE</u> 40 lbs/acre	
<u>REDTOP</u> 5 lbs/acre	
_____ lbs/acre	
_____ lbs/acre	

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

04/19/2024

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

PLAN PREPARED BY WILLIAM R. MOSSOR, L.L.S.
ADDRESS 112 NORTH SPRING STREET
HARRISVILLE, W.VA. 26362
PHONE NO. (304) 643-4572



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

WALTER N. MILLER
DIRECTOR

THEODORE M. STREIT
ADMINISTRATOR
OOGsw011

August 11, 1983

Smith Production Company
1824 Capitol Towers Building
P.O. Box 22705
Jackson, Mississippi 39205

Dear Sirs:

This letter is to confirm that the following wells have been released from your Blanket Bond and are now covered by Ohio & Western Resources, Inc.

Blanket Bond #2-277-529: Permit #47-073-1472
47-085-5612
47-085-5717.

Sincerely,

A handwritten signature in black ink, appearing to read "Ted M. Streit".

Ted M. Streit, Administrator
Office of Oil and Gas

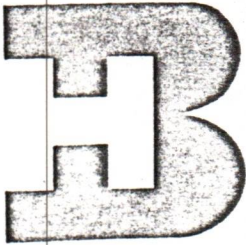
cc: Ohio & Western Resources, Inc.

04/19/2024

BARRY HAAS INSURANCE AGENCY, INC.

325 FOURTH STREET
MARIETTA, OHIO 45750
614 373-3145

RECEIVED
SEP 24 1982
ATTY. GEN.
GENE M. EDDY, President



September 15, 1982

State of West Virginia
Department of Mines & Mining
Oil & Gas Division
1615 Washington Street, East
Charleston, West Virginia 25311

Re: Blanket Bond No. 2-277-529 - Ohio & Western Resources, Inc.
Surety Company: Ohio Casualty Insurance Company
Penalty: \$15,000 Inception Date: September 9, 1982

Gentlemen:

This letter is to serve as written confirmation that the above-captioned blanket bond No. 2-277-529 issued in the name of Ohio & Western Resources, Inc., effective September 9, 1982, does pick up the following wells and permit numbers effective that same date:

Jackson #1-A	Permit #47-085-5753
Huffman #1	Permit #47-085-5805
Jackson/Madden #1	Permit #47-085-5817
Hoff #3	Permit #47-085-5839
Frye #1	Permit #47-073-1472
Turner #1	Permit #47-085-5612
Jackson #1	Permit #47-085-5717

We trust the foregoing will allow you to release cash deposited with you by Ohio & Western Resources, Inc.; however, should you require any additional information or confirmation, please feel free to contact our office.

Sincerely,

Gene M. Eddy
Attorney-In-Fact for
THE OHIO CASUALTY INSURANCE COMPANY

Approved as to form this 8 _____
DAY OF Oct, 1982
CLARENCE H. BROWNING
ATTORNEY GENERAL

BY Frederick S. Wilkerson
GME/vs _____
ATTORNEY GENERAL

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SEP 22 1982
OIL AND GAS DIVISION
WV DEPARTMENT OF MINES
04/19/2024

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

STAGE #1 - 3793,94,95,3808,09,10,11,12,32,33,34,35,36,54,55,56,63,64,65,66:
Broke : 4000, Mas PSI 3890/Ave. PSI 3500, ISIP 2400/10 Min. 2025, 20x.39 Holes
850,000 SCF/N2.

STAGE #2: 3922,23,24,25,26,40,41,42,43,44,57,5859,60,61,62,75,76,77:
Broke@ 2490/Max. PSI 4000/Ave. 3230/ISIP 2150/10 Min 1990/ 19x .39" Holes
850,000 SCF/N2

STAGE # 3: 4024-25,26,27,39,40.41.42.59.60,61,62,73,74,75,76: 16 x .39'
holes. Broke @ 2750/ Max. PSI 3050: Ave. PSI 2650/ ISIP 1880/ 10 Min 1650
850,000 SCF/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
		SEE ATTACHED		SEE ATTACHED	SEE ATTACHED

(Attach separate sheets as necessary)

OHIO & WESTERN RESOURCES, INC.

Well Operator

04/19/2024

By:

Mark Kniffin

(Mark Kniffin)

Date:

December 10, 1982

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."

RECEIVED



JAN 4 1983

IV-35 (Rev 8-81)

OIL AND GAS DIVISION WV DEPARTMENT OF MINES

State of West Virginia Department of Mines Oil and Gas Division

Date 12-10-82 Operator's Well No. #1 Farm Jackson API No. 47 - 085 - 5717

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

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

LOCATION: Elevation: 1114 Watershed Douglas Run District: Grant County Ritchie Quadrangle Schultz

COMPANY Ohio & Western Resources, Inc. ADDRESS P.O.Box 1246, Prksbrg, WV 26102 DESIGNATED AGENT Mark Kniffin ADDRESS 24 Crystal Ave. Willmstwn, WV SURFACE OWNER Robert P. Jackson ADDRESS Rt.#1, Voz 82, Harrisville, WV 26362 MINERAL RIGHTS OWNER Same as Above ADDRESS OIL AND GAS INSPECTOR FOR THIS WORK Samuel Hersman ADDRESS P.O. Bx. 66, Smithville, WV PERMIT ISSUED June 1982 DRILLING COMMENCED 6-28-82 DRILLING COMPLETED 7-4-82 IF APPLICABLE: PLUGGING OF DRY HOLE ON CONTINUOUS PROGRESSION FROM DRILLING OR REWORKING. VERBAL PERMISSION OBTAINED ON

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

GEOLOGICAL TARGET FORMATION Devonian Shale Riley Depth 4625 feet Depth of completed well 4376 feet Rotary X / Cable Tools Water strata depth: Fresh 300 feet; Salt 1800 feet Coal seam depths: N/A Is coal being mined in the area? No

OPEN FLOW DATA

Producing formation Speechly Balltown Pay zone depth 3792-4076 feet Gas: Initial open flow 305 Mcf/d Oil: Initial open flow 15 Bbl/d Final open flow 97 Mcf/d Oil: Final open flow 3 Bbl/d Time of open flow between initial and final tests 24 hours Static rock pressure 480 psig (surface measurement) after 24 hours shut in (If applicable due to multiple completion--)

Ritchie 5717

04/19/2024

STATE OF WEST VIRGINIA
 DEPARTMENT OF MINES
 OIL AND GAS DIVISION
FINAL INSPECTION REQUEST
INSPECTOR'S COMPLIANCE REPORT

RECEIVED
 OCT -4 1983

OIL & GAS DIVISION
 DEPT. OF MINES

Permit No. 005-5717 County Boyle
 Company OHIO WESTERN RESOURCES Farm JACKSON
 Inspector MIKE U. Well No. 1#
 Date 9-29-83

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 Strength	—	—
23.02	Maintained Access Roads	—	—
25.01	Necessary Equipment to prevent Waste	—	—
23.03	Reclaimed Drilling Site	X	—
23.04	Reclaimed Drilling Pits	X	—
23.05	No surface or underground Pollution	—	—
7.03	Identification Markings	X	—

COMMENTS: FINAL INSPECTION O.K. TO RELEASE

I have inspected the above well and (HAVE/HAVE NOT) found it to be in compliance with all of the rules and regulations of the Office of Oil and Gas Department of Mines of the State of West Virginia.

SIGNED: [Signature]
 DATE: 9-29-83

04/19/2024



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

WALTER N. MILLER
 DIRECTOR

THEODORE M. STREIT
 ADMINISTRATOR

November 14, 1983

Ohio & Western Resources
 113 Keyser Street
 Devola
 Marietta, Ohio 45750

Gentlemen:

The required records and reports have been received in this office and the District Inspectors have submitted FINAL INSPECTIONS for the following wells listed below:

<u>PERMIT NUMBER</u>	<u>FARM AND WELL NUMBER</u>	<u>DISTRICT</u>
RIT-5612	Charles Turner, #1	Grant
RIT-5717	Robert & Melinda Johnson, #1	Grant
RIT-5817	R. Jackson, D. Heinritz, Jackson/Madden #1	Grant
RIT-5933	Robert R. Moss, #1	Grant

In accordance with Chapter 22, Article 4, Section 2, the above captioned wells will remain under bond coverage for "life of wells." Reclamation requirements have been approved.

Very truly yours,

Theodore M. Streit, Administrator
 Dept. Mines-Office of Oil & Gas

TMS/rl

04/19/2024

WELL NAME: R. Jackson #1

C-11

30' Samples from 200'

200 - 230	55%	SH, MD, Lt gy, Gy grn, Lt Grn, Sltgy, Fis, SLT, Pur, Slt Calc, Slt Clcus, Sht, Slt, Fm.
	45%	SLT, Lt, Cir gy, Drty Wht, Cir, Gy Grn, Cir Grn, UF gr, Argil, Calc, SLT Clcus, Slt Drty Looking SLT Clean looking, about loose grns, FM
30-60		A/A
60-90	30%	SH A/A
	40%	SLT A/A
	30%	SS, wht, cir, Fn Uf gr, Prtly, WS, TD, Subang, RD, Sub Rnd, Prtly, Prly, Cemt D, Calc., SLT Sila, Clean Looking, SM, Abdrt, Loose Grns, FM
90-320	50%	SLT, Lt Cir gy, Wht, Cir, UF Gr, Argil, Slt calc, SLT Sila, SLT Drty looking, SLT Clean Looking, Abdrt Loose grns, Slt Fn.
	30%	SH A/A
	20%	SS A/A
320-350	60%	SLT A/A
	40%	SH, MD, St Gy, Gy Grn, Lt Grn, US lt, SLT Fis, Pyr, Slt Clcus, Slt Calc, Slt, Slt Fm, Tr SS
350-80	60%	SLT, A/A
	20%	SH, A/A
	20%	SS, Wht, Cir, Fn, UF Gr, W, Prtly Slt, Sub Ang, Slb, Rad, Prtly Cemtd, Sila, Slt Calc, Sm ABDnt Loose Grns, Clear Looking, FM
80 - 410	60%	SH, MD, Lt gy, Gy grn, Lt grn, Sltgy, Slt Fis, Pyr, clcus, Slt Calc, Sft, Slt Fn.
	40%	Slt, A/A tr, SS
410-40	60%	SH A/A
	30%	SLT A/A
	10%	SS, Wht, cir, Fn gr, Prtly, W Sitd, Sub rnd, Slt Sub Ang, Prtly, prly cemtd, Slt Calc, Slt Sila, clean looking ab drt Loose Grns, Sht, Fm.
40-70	80%	SS A/A
	10%	SLT, At, Cir gy, Drty Wht, Cir, UF Gr, Argil, Calc, Slt Drty, Clean Looking, Sm, Abdat Loose Grns, Sft, FM
	10%	SH A/A
70-500	50%	SLT A/A
	30%	SH, MD Lt gy, gy grn, Tn gy, US lty, Fis, Pyr, SLT clcus, Sht, Slt Fm
	20%	SS A/A
500 - 30		A/A
530-560	70%	Slt, Lt, Cir gy, Drty wht, Cir, UF gr, Argil, Calc, Slt drty, Clean Looking SM Loose grns, FM.
	30%	SH - A/A Tr-SS

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560-590		A/A
590 - 620	50%	SLT - A/A
	40%	SS - Wht Cir, Fn UF gy, Prtly Ws td, Sub rnd, Slt Slb Ang, Prtly prly cemtd, Slt calc, Slt Sila, Slt Clean looking, Sm Abont, Loose grns, Aft, SLT fm.
620-50	10%	SH A/A
	70%	SLT A/A
	20%	SS A/A
	10%	SH, Md, Lt gy, Gy grn, Tn Gy, USlty, Fis, Pyr, Slt Calc, SLT Clcus, Sht, Slt Fm
50-80	60%	SLT A/A
	40%	SH A/A Tr SS
80-710	60%	SLT - A/A
	20%	SH - A/A
	20%	SS - Dirty wht, wht,cir, Fn Gr, Prtly Sitd, Sobrad, Slt Sobang, Prtly Cemtd. Sila-Carlc, clean looking, ABDnt loose grns, FM
710-40	40%	SLT - A/A
	40%	SS - A/A
	20%	SH - A/A
740-70	50%	SLT - A/A
	20%	SH - Md-Lt gy, gy grns, slty - Fis, PYR - Slt clcus, SFT - Slt Fm
	30%	SS - A/A
70-800	50%	SLT - Lt Cir gy, Drty wht, wht, cir, UF gn, Argil, Slt Calc, Slt Sila, Slt Clean looking Sm loose grns, Fm
	40%	SS - A/A
	10%	SH - A/A
800 - 30	60%	SLT - A/A
	30%	SS - Wht, cir, Drty wht, Ltgy, Fn- UF grn, Partly Sitd, Slbrad, Slt Subang, Prtly cemtd, Slt Calc, Slt Sila, Clean looking, Abdnt Loose Frns, Fm.
	10%	SH - A/A
30-60	70%	SLT - A/A
	20%	SH - A/A
	10%	SS - A/A
60-90		A/A
90-910	40%	SLT - A/A
	40%	SS - A/A
	20%	SH - Md-Lt gy, gy grn, Tn gy, Slty, Fis, Pyr, Slt clcus, Sct Calc, Sh t-Slt Fm
20-50	40%	SLT - A/A
	30%	SS - A/A
	30%	SH - A/A
950-80	60%	SLT - Lt- Cir gy, drty wht, wht, cir, UFGGr, Argil, Calc, SLT sila, SLT clean looking sm loose grns, Fm
	30%	SS - A/A
	10%	SH - A/A

980-1010	60%	SS Drty Wht, Lht - cir, Cn - Uf gr, prtly Sitd, subrnd, Subang, prtly cemtd, sila, ALT calc, clean looking, Sm- abdnt loose grns, fm
	30%	SLT - A/A
	10%	SH - A/A
1010 - 40	75%	SS - A/A
	25%	SLT - A/A tr SH
40 - 70	85%	SS - A/A
	15%	SLT - A/A
70 - 1100		A/A
1100 - 30	60%	SLT - Lt - Cir gy, wht cir, UF gr, Argil Slt Calc, SLT clean looking, Sm loose grns, FM
	30%	SH - Md, Lt gy, Gy grn, tn gy, slty, Fis, Pyr, SFT - Slt Fm
	10%	SS - A/A
30-60		A/A
60 - 90	70%	SS-Wht - Cir, F gn, prtly sitd, sub rnd, subang, partly cemtd, calc, sila, clean looking sm loose grns, FM.
	25%	SLT - A/A
	10%	SH - A/A
1170 - 1220	80%	SS - A/A
	10%	SLT - Lt cir gy, dirty wht, wht, cir, UF grn, Argil, Slt Calc, Slt clean looking, Sm loose grns, Fm.
	10%	SH - A/A
1220 - 50	60%	SLT - A/A
	30%	SH - Md, lt gy, gy grn, Tn gy, Slty, Slt Fis, pyr, Sht, Slt Fm
	10%	SS, A/A Huy tr cocl.
50-80	70%	SS -Drty wht, wht, circ F gr, prtly Srted, subrnd, sub ang, prtly, prly cemtd, sila, sct calc, Slt clean looking, about loose grns, SFT
	20%	ALT - A/A
	10%	SH - A/A
80-1310	50%	SLT - A/A
	40%	SS - A/A
	10%	SH - A/A
10-40	60%	SLT - A/A
	30%	SH - Md, Ltgy, Dk gy, Gylin, Tngy, SLTy, Fis, Pyr, SFT - SLT Fm.
	10%	SS - A/A
40-70	70%	SS - Wht - cir, F gn, Prtly sitd, Sub rnd, sub Ang, prtly cemtd, sila, calc, clean looking Sm loose grns, Fm.
	20%	SLT - A/A
	10%	SH - A/A

04/19/2024

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1370 - 1400	60%	SLT - Lt - cir gy, Drty wht, wht - cir, UF gn, Argil, SLT calc, SLT clean looking, Sm loose Grns, FM
	20%	SH - A/A
	20%	SS - A/A
1400 - 30	80%	SS - Wht, Cir, UF gn, prtly sltd, Sub Rnd, prtly cemtd, sila - calc, clean looking, Sm loose grns, FM
	20%	SLT - a/A tr SL.
30-60		A/A
60-90	70%	SLT - A/A
	30%	SH - Md - Ltgy, gy grn, Tn gy, Slty, Fis, Pyr, SFT- Slt Fm Tr SS
90-1520	85%	SS - Drty wht, wht, cir, Fn, Uf grn, Prtly Sitd, Subrnd, sila, calc, prtly cemtd, clean looking, Sm loose grns, Fm.
	15%	SLT - A/A Tr - SH
1520 - 50	60%	SLT - Lt cirgy, w/lt cir, Uf gn, Argil, SLT calc, Slt clean looking, Sm Loose grns, FM
	30%	SH - A/A
	10%	SS - A/A
1550 - 80	50%	SLT - A/A
	30%	SH - A/A
	20%	SS - A/A
1580-1610		A/A
1610 - 40		A/A
49 - 70	85%	SS, Drty wht, Wht, Cir, FN UFgn, Prtly sitd, sub rnd, sub ang, Prtly cemtd, Sila, calc, clean looking, Sm loose grns, FM.
	15%	SLT, Lt-CNR gy, wht-cir, UFgn, Argil, Calc, Clean Looking, Sm Loose Grns, FM
70-1700		A/A
1700- 30	70%	SLT - A/A
	20%	SS - A/A
	10%	SH - MD-Lt gy, Blk-dk gy, Tn gy, Gy Grn, Slty, FIS, Pyr, Clcus, SLT calc, SFT, SLT Fm
1730 - 60	60%	SLT - A/A
	40%	SS - A/A Tr SL
1769 - 90	70%	SS A/A
	60%	SLT - A/A Tr. SH

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1790 - 1800	40%	SLT	A/A
	30%	SH	A/A
	30%	SS	A/A

Samples by Carl Von Allman

LIT 5717

Ohio & Western Resources
113 Keyser Street
Marietta, OH 45750

SAMPLE ANALYSIS AND REPORT

WELL NAME: R. Jackson #1

COUNTY AND STATE: Ritchie County, Grant District, Layfields Run, WV

Tech. Information

Begin drlng on 6/30/82.

Set 1906' of 8-5/8" surface casing.

T.D. drlng on 7/3/82 @ 10:00 pm.

T.D. @ 4626' (Driller).

Logging @ 9:00 am on 7/4/82.

T.D. loggers 4625'.

Finished logging @ 5:00 pm on 7/4/82.

Slt. show of gas after T.D.

Hvy. show of gas and oil while cementing 4-1/2".

Natural Shows

Maxton	1795'-1801'	Show gas & oil & H ₂ O while drilling
Weir	2282'-2345'	Slt show of oil in samples; slt cut
Welch Stray	2405'-2407'	Tr oil in samples; no cut
Gantz (50')	2575'-2580'	Slt-fair show of oil in samples; fair cut
Gordon	2851'-2856'	Fair show of oil in samples; fair cut
Speechly/Balltown	3973'-4075'	Fair show of oil in samples; fair cut
*	3805'-3850'	Good show of oil in samples; good cut
Riley	4276'-4288'	Fair-good show of oil in samples; fair cut
Benson	4506'-4508'	Tr show of oil in sample; tr cut

*Natural show of oil while drilling at 3800'; hole would not unload for 40'.

When logging tool came out of hole it was covered with a very light colored oil.

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Primary Zones for Completion

1. Speechly/Balltown
2. Interval at 3800'
3. Riley

Secondary Zones for Completion

1. Gordon
2. Gantz
3. Benson

SAMPLE DESCRIPTIONS

WELL NAME: R. Jackson #1

COUNTY AND STATE: Ritchie County, Grant District, Layfields Run, WV

2300-30	40%	SS-Wht-Clr, Fn-Ufgn, Prtly Sitd, Subang-Subrnd, Prtly Cemtd, Slt Calc-Slt Sila, Clean Looking, Many Loose Grns, Sft-Fm
	30%	Slt-Lt-Clr Gy, Wht-Clr, Vfgny, Calc-Slt Sila-Slt Argil, Slt Drty-Clean Looking, Sft-Fm
	30%	SH-MD-Lt Gy, Slt-Smth Text, Slt Pyr, Sft, Tr Pyn, <u>Slt Fluor, Slt Cut</u>
30-60	40%	SS-A/A
	40%	SH-A/A
	20%	Slt-A/A, Tr Pyr, SKS, <u>Slt Fluor, Slt Cut</u>
60-90	60%	SH-MD-Lt Gy, Slt-Smth Text, Sg Pry, Sft
	40%	Slt-Lt-Clr Gy, Wht-Clr, Vfgn, Argil-Calc, Slt Clean Looking, Sft-Fm
90-2420		SH-A/A Slt-A/A Hvy Tr SS, SKS, <u>Tr Fluor</u>
2420-50 Sft	60%	SH-MD-Lt Gy, Slt-Smth Text, Pyr,
	40%	Slt-Lt Clr Gy, Vfgn, Argil-Calc, Slt Clean Looking, Sft-Fm, Tr SS, Pyr, SKS
50-80	80%	SH-MD-Lt Gy, Dk Gy, Slt-Smth Text, Sft
	20%	Slt-Lt-Clr Gy, Vfgn, Argil-Calc, Slt Clean Looking, Sft-Fm, Tr SS, SKS
80-2510	60%	Slt-Lt-Clr Gy, Lt Rd Brn-Tr, Vfgn, Argil-Hcm-Slt Calc, Slt Drty Looking, Sft-Fm
	40%	SH-MD-Lt Gy, slty-Smth Text, Bft.
10-40		A/A

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R. Jackson #1
 Sample Description
 Page Two

40-70	80%	SLT-Rd Brn-Tr, lt-Clr Gy, Vfgn, Argil-Hce-Slt Calc, Slt Drty Looking, Sft-Fm
	20%	SH-MD-Lt Gy, Sltly-Smth Text, Sft, Tr SS, SKS, <u>Slt-Fair Fluor, Fair Cut</u>
70-2600	90%	Slt-A/A
	10%	SH-A/A, Tr SS, SKS, <u>Fair Fluor, Fair Cut</u>
2600-30		Slt-Lt-Clr Gy, Rd Brn-Tr, Vfgn, Argil-Hcm-Calc, Slt Drty Looking, Sft-FM SH-MD-Lt Gy, Sltly-Smth Text, Pyr, Sft, Tr SKS, Pya <u>Slt Fluor, Tr Cut</u>
2630-60		Poor Sample
60-2750		Poor Samples
2750-80	40%	SS-Wht-Clr, Vfgn, Prtly Sitd, Subang-Subrnd, prtly cemtd, Slt Calc-Slt Sila, Clean Looking, ABDnt Loose Grns, Sft-Fm
	30%	Slt-Lt-Clr Gy, Rd Brn-Tr, Vfgn, Argil-Hcm-Slt Calc, Slt Drty Looking, Sft-Fm
	30%	SH-MD-Lt Gy, Sltly- Slt Smth Text, Sft, Tr-SKS, Pyr <u>Slt-Fair Fluor, Slt-Cut</u>
80-2810	60%	Slt-A/A
	30%	SH-A/A
	10%	SS-A/A <u>Slt Fluor-Fluor, Slt Cut</u>
10-40		SS-A/A Slt-A/A SH-A/A Tr Pyr, SKS <u>Slt-Fair Fluor, Slt-Cut</u>

R17, 5717

R. Jackson #1
 Sample Description
 Page Three

40-70		SS-A/A Slt-Wht-Clr-Trans, Lt-Clr Gy, Lt Rd Brn-Tr, Vfgn, Argil-slt Hcm-Slt Calc, Slt Clean Looking-Drty, Sft-Fm
		SH-A/A Tr Pyr, SKS <u>Fair Fluor, Fair Cut</u>
2870-2900	70%	Slt-Lt-Clr Gy, Vfgn, Argil-Slt Calc, Slt Cleaning Looking, Sft
	30%	SH-MD-Lt Gy, Slt-Smth Text, Pyr, Sft, Tr Pyr
2900-30		A/A
30-60	80%	Slt-Lt-Clr Gy, Wht-Clr, Vfgn, Argil- Slt Calc, Clean Looking-Slt Drty, Sft-Bct Fm
	20%	SH-MD-Lt Gy, Slt-Smth Text, Pyr, Sft, Tr Pyr, SKS <u>Tr Flour</u>
60-90	60%	Slt-lt-Clr Gy, Vfgn, Argil, Sft
	40%	SH-MD-Lt Gy, Slt-Smth Text, Sft, Tr Pyr.
90-3020	60%	SH-MD-Lt Gy, Slt-Smth Text, Pyr, Sft
	40%	Slt-Lt-Clr Gy, Vfgn, Argil-Slt Calc, Slt Clean Looking-Slt Drty Looking, Sft, Tr Pyr, SKS
20-50	65%	Slt-A/A
	35%	SH-A/A Tr Pyr, SKS <u>Tr Fluor</u>
50-80		SH-MD-Lt Gy, Slt-Smth Text, Pry, Sft Slt-Lt Clr Gy, Vfgn, Argil-Slt Calc, Slt Drty Looking, Sft, Tr Pyr, SKS

Samples from 3080' to 3700' all contain the same shale and siltstone makeup

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R. Jackson #1
 Sample Description
 Page Four

3700-30	100%	SH-Dk Gy, MD-Lt Gy, Slty-Slt Smth Text, Pyr, Sft, Tr Slt, Pyr
30-45		A/A
45-60	60%	SH-Dk Gy, MD-Lt Gy, Slty-Smth Text, Pyr, Sft
	40%	Slt-Lt Clr Gy, Rd Brn-Tn, Vfgn, Argil-Hcm-Slt Calc, Drty Looking, Sft-Fm, Tr Pyr, SKS <u>Slt Fluor, Slt Cut</u>
60-75	85%	SH-A/A
	15%	Slt-A/A, Tr Pyr, SKS
75-90	65%	Slt-Lt-Clr Gy, Rd Brn-Tn, Vfgn, Argil-Hcm-Slt Calc, Drty Looking, Sft-Fm
	35%	SH-MD-Lt Gy, Slty-Smth Text, Pyr, Sfm, Tr Blk-Dk Gy, SH, Pyr, SKS <u>Tr Fluor</u>
90-3805	70%	SLT-A/A
	30%	SH-A/A Tr Pyr, SKS <u>Slt Fluor, Slt Cut</u>
3805-20	75%	Slt-Rd Brn-Tn, Lt-Clr Gy, Wht-Clr, Vfgn, Argil-Hcm-Slt Calc, Slt Clean Looking-Drty Looking, ABDnt Loose Grns, Sft
	25%	SH-MD-Lt Gy, Slty-Smth Text, Pyr, Sft, Tr Blk Sh, Pyr SKS <u>Good Fluor, Good Cut</u>
20-35	60%	Slt-A/A
	40%	SH-A/A, Tr Blk Sh, Pyr, SKS <u>Fair Fluor, Slt Cut</u>
35-50	55%	Slt-A/A
	45%	SH-A/A, Tr Blk Sh, Pyr <u>Slt Fluor, Tr Cut</u>
50-65	75%	Slt-Rd Brn-Tn, Wht-Clr, Lt Clr Gy, Vfgn, Argil-Hcm-Slt Calc, Slt Clean Looking-Drty Looking, Few Loose Grns, Sft-Fm
	25%	SH-MD-Lt Gy, Dk Gy, Slty-Smth Text, Pyr, Sft, Tr Pyr, SKS <u>Good Fluor, Good Cut</u>

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R. Jackson #1
 Sample Description
 Page Five

65-80	65% 45%	Slt-A/A SH-A/A, Tr Pyr, SKS <u>Fair Fluor, Slt Cut</u>
80-95		A/A <u>Slt Fluor, Slt Cut</u>
95-3910	60% 40%	Rd Brn-Tr, Wht-Clr, Lt-Clr Gy, Vfgn, Argil-Hcm-Slt Calc, Slt Clean Looking-Drty Looking, Many Loose Grns, Sft-Fm SH-MD-Lt Gy, Dk Gy, Slt-Smth Text, Pyr, Srt, Tr Pyr <u>Fair Fluor, Fair Cut</u>
10-25	65% 35%	Slt-A/A SH-A/A, Tr Pyr <u>Slt Fluor, Slt Cut</u>
25-40		Poor Sample
40-70	75% 25%	Slt-Wht-Clr, Rd Brn-Tn, Lt-Clr Gy, Vfgn, Argil-Hcm-Slt Calc, Slt Clean Looking-Drty Looking, Few Loose Grns, Sft-Fm SH-MD-Lt Gy, Slt-Smth Text, Pyr, Sft, Tr Pyr, SKS <u>Slt-Fair Fluor, Slt-Fair Cut</u>
70-4000	65% 35%	Slt-A/A SH-A/A, Tr, Pyr, SKS <u>Slt Fluor, Slt Cut</u>
4000-30		SH-MD-Lt Gy, Dk Gy, Slt-Smth Text, Pyr, Sft, Slt-A/A, Try Pyr
4030-60	70% 30%	Slt-Lt-Clr Gy, Wht-Clr, Rd Brn-Tn, Vfgn, Argil-Hcm-Slt Calc, Slt Clean Looking-Drty Looking, Sft-Fm SH-MD-Lt Gy, DK Gy, Slt-Smth Text, Pyr, Sft, Tr Pyr, SKS <u>Slt-Fair Fluor, Fair Cut</u>
60-90	75% 25%	Slt-A/A SH-A/A, Tr Pyr, SKS <u>Fair Fluor, Fair Cut</u>

R. Jackson #1
 Sample Description
 Page Six

90-4120	60%	Slt-Lt-Clr Gy, Wht-Clr, Rd Brn-Tn, Vfgn, Argil-Hcm-Slt- Calc, slt clean looking-dirty looking, Sft-Fm
	40%	SH-MD-Lt Gy, Dk Gy, Slt-Smth Text, Pyr, Sft, Tr Pyr <u>Sct Fluor, Slt Cut</u>
20-50	80%	Slt-A/A
	20%	SH-A/A, Tr Pyr, SKS <u>Fair Fluor, Fair Cut</u>
50-80	65%	Slt-A/A
	35%	SH-A/A, Tr Pyr <u>Slt Fluor, Tr Cut</u>
4180-4210	70%	Slt-Lt Clr Gy, Wht-Clr, Rd Brn-Tn, Vfgn, Argil-Hcm-Slt Calc, Slt Clean Looking-Dirty Looking, Sft-Fm
	30%	SH-MD-Lt Gy, Dk Gy, Slt-Smth Text, Pyr, Sft, Tr Pyr <u>Tr Fluor</u>
10-40		Poor Sample
40-70		Poor Sample
70-4300	80%	Slt-Wht-Clr, Lt-Clr Gy, Vfgn, Argil-Calc, Slt Clean Looking, ABDnt Loose Grns, Sft-Fm
	20%	SH-MD-Lt Gy, Dk Gy, Slt-Smth Text, Pyr, Sft, Tr Pyr, SKS <u>Fair-Good Fluor, Fair Cut</u>
4300-30	60%	Slt-A/A, Mostly Lt-Clr Gy
	40%	SH-A/A, Tr Pyr <u>Tr Fluor</u>
30-60		A/A
60-75	60%	SH-MD-Lt Gy, Blk-Dk Gy, Slt-Smth Text, Pyr, Sft
	40%	Slt-Lt-Clr Gy, Wht-Clr, Vfgn, Argil-Slt Calc, Slt Clean Looking, ABDnt Loose Grns, Sft-Fm, Tr Pyr, SKS <u>Tr Fluor</u>

R175717

R. Jackson #1
 Sample Description
 Page Seven

4375-90	70%	SH-MD-Lt Gy, Blk-Dk Gy, Sltly-Smth Text, Pyr, Sft
	30%	Slt-Lt-Clr Gy, Wht, Clr, Vfgn, Argil-Slt Calc, Slt Clean Looking, Many Loose Grns, Sft-Fm, Tr Pyr, SKS <u>Slt Fluor, Slt Cut</u>
90-4420	100%	SH-MD-Lt Gy, Blk-Dk Gy, Sltly-Smth Text, Pyr, Sft, Hvy, Tr Slt, Pyr <u>Tr Fluor</u>
20-50		A/A
4450-80	80%	SH-A/A
	20%	Slt-Lt-Clr Gy, Vfgn, Argil-Slt Calc, Slt Drty Looking, Sft, Tr Pyr
80-95		A/A
95-4510	75%	SH-MD-Lt Gy, Blk-Dk Gy, Sltly-Smth Text, Pyr, Sft
<u>Benson</u>	25%	Slt-Lt-Clr Gy, Wht-Clr, Vfgn, Argil-Slt Calc, Slt Clean Looking, ABDnt Loose Grns, Sft-Fm, Hvy Tr Pyr, SKS, <u>Mica Biotite, Tr Fluor</u>
10-25	80%	SH-A/A
	20%	Slt-A/A, Hvy Tr Pyr, SKS <u>Mica (Biotite)</u>
4525-40	100%	SH-Blk-Dk Gy, MD-Lt Gy, Sltly-Smth Text, Pyr, Sft, Hvy Tr Slt, Pyr, SKS
40-55		A/A
55-70	85%	SH-A/A
	15%	Slt-Lt-Clr Gy, Wht-Clr, Vfgn, Argil-Slt Calc, Slt Clean Looking, ABDnt Loose Grns, Sft <u>Tr Fluor, Tr Cut</u>
70-4600		A/A
4600-TD	100%	SH-Blk, Dk Gy, MD-Lt Gy, Sltly-Smth Text, Pyr Sft, Hvy Tr Slt, Pyr

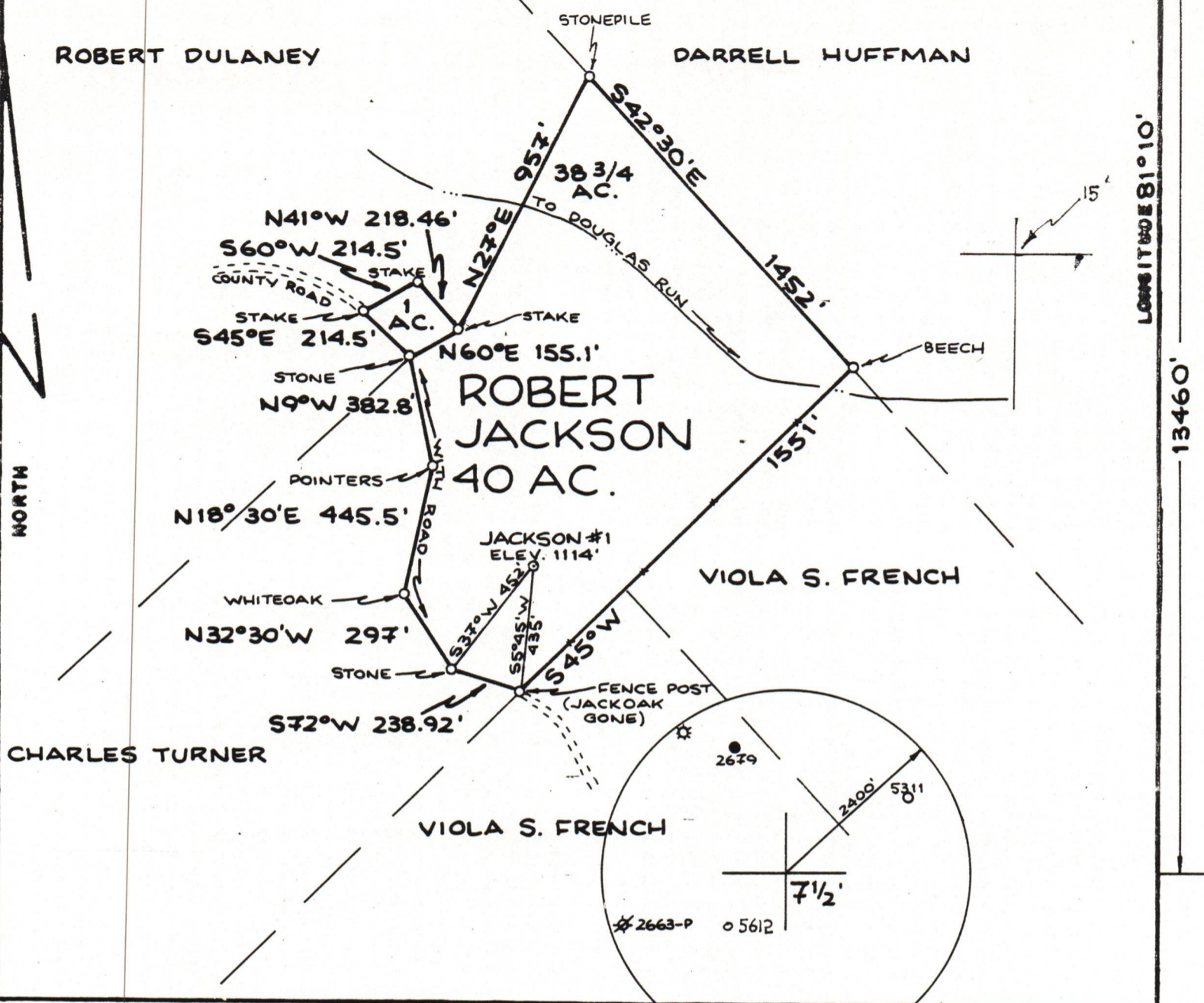
5000'

LATITUDE 39°20'

LONGITUDE 81°10'

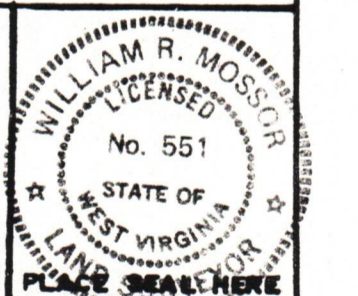
13460'

vm. 2. 6/10/82



FILE NO. _____
 DRAWING NO. _____
 SCALE 1"=500'
 MINIMUM DEGREE OF ACCURACY 1:200
 PROVEN SOURCE OF ELEVATION HIGH PT. ELEV. 1246'

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) *William R. Mossor*
 R.P.E. _____ L.L.S. 551



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

STATE OF WEST VIRGINIA DEPARTMENT OF MINES OIL AND GAS DIVISION

DATE 3 MAY, 19 82
 OPERATOR'S WELL NO. JACKSON #1
 API WELL NO. 47-085-5717
 STATE COUNTY PERMIT

WELL TYPE: OIL GAS LIQUID INJECTION _____ WASTE DISPOSAL _____
 (IF "GAS", PRODUCTION STORAGE _____ DEEP _____ SHALLOW)

LOCATION: ELEVATION 1114' WATER SHED DOUGLAS RUN
 DISTRICT GRANT COUNTY RITCHIE
 QUADRANGLE SCHULTZ 7 1/2' QUAD

SURFACE OWNER ROBERT & MALINDA JACKSON ACREAGE 40
 OIL & GAS ROYALTY OWNER ROBERT & MALINDA JACKSON LEASE ACREAGE 40
 LEASE NO. _____

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 BENSON ESTIMATED DEPTH 5000'
 WELL OPERATOR SMITH PRODUCTION CO. DESIGNATED AGENT MARK KNIFFIN
 ADDRESS 1824 CAPITOL TOWERS ADDRESS 24 CRYSTAL AVENUE
P.O. BOX 22705 JACKSON, MISSISSIPPI 39205 WILLIAMSTOWN, W.VA. 26187

04/19/2024