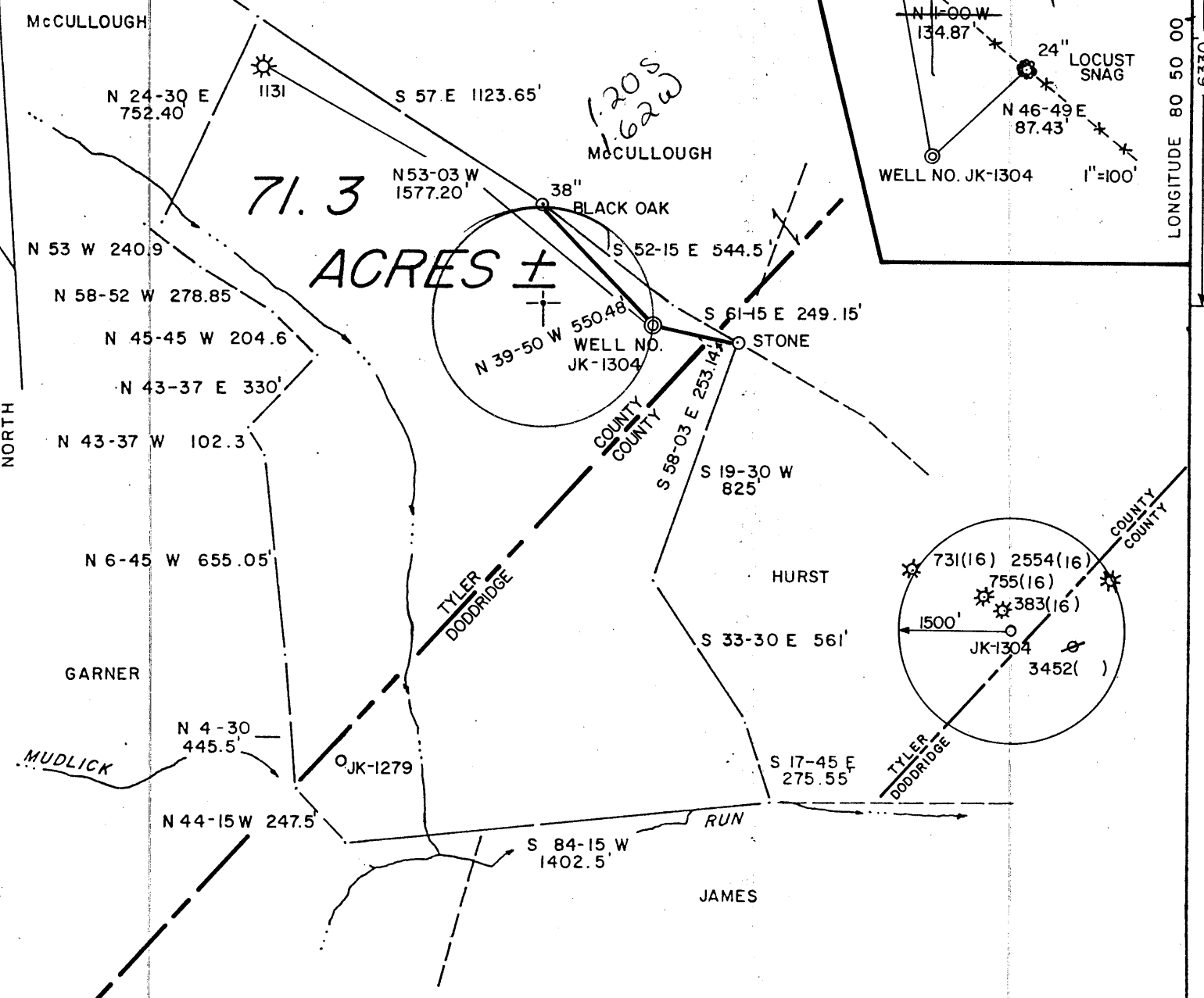


JK-1304

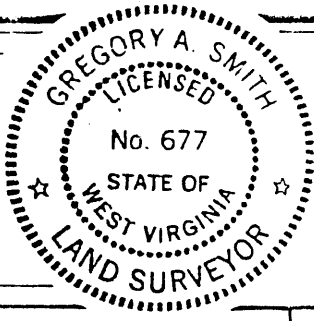


71.3 ACRES ±

VICTORIA SMITH HEIRS

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 ENERGY.

L.L.S. 677 Gregory A. Smith



(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS.  
 DATE APRIL 23, 19 87  
 OPERATORS WELL NO. JK-1304  
 API WELL NO. 47 - 095 - 1194  
 STATE COUNTY PERMIT

MINIMUM DEGREE OF ACCURACY 1 / 200 FILE NO. 19-35 1487  
 PROVEN SOURCE OF ELEVATION TOP OF KNOB ELEV. 1165' SCALE 1" = 500'

STATE OF WEST VIRGINIA DEPARTMENT OF ENERGY OIL AND GAS DIVISION

WELL TYPE: OIL  GAS  LIQUID INJECTION  WASTE DISPOSAL  IF "GAS" PRODUCTION  STORAGE  DEEP  SHALLOW

LOCATION: ELEVATION 1162' WATERSHED MUDLICK RUN DISTRICT CENTERVILLE COUNTY TYLER QUADRANGLE WEST UNION 7.5'671

SURFACE OWNER N. GLEE SMITH et. al. ACREAGE 71.3 LEASE ACREAGE 71.3 LEASE NO. JJ-1921

PROPOSED WORK: DRILL  CONVERT  DRILL DEEPER  REDRILL  FRACTURE OR STIMULATE  PLUG OFF OLD FORMATION  PERFORATE NEW FORMATION  PLUG AND ABANDON  CLEAN OUT AND REPLUG  OTHER

PHYSICAL CHANGE IN WELL (SPECIFY) \_\_\_\_\_ TARGET FORMATION ALEXANDER ESTIMATED DEPTH 5700'

WELL OPERATOR 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

MAY 11 1987

COUNTY NAME PERMIT



RECEIVED  
JUN 15 1987

State of West Virginia  
Department of Mines  
Oil and Gas Division

Date June 11, 1987  
Operator's  
Well No. JK-1304  
Farm N.Glee Smith, et al  
API No. 47 - 095 - 1194

DIVISION OF OIL & GAS  
DEPARTMENT 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: 1162 Watershed Mudlick Run  
District: Centerville County Tyler Quadrangle West Union 7.5'

COMPANY J&J Enterprises, Inc.  
ADDRESS P.O. Box 48, Buckhannon, WV 26201  
DESIGNATED AGENT Oliver L. Hawkins, III  
ADDRESS P.O. Box 48, Buckhannon, WV 26201  
SURFACE OWNER Victoria Smith Hrs. C/O Mrs. John  
ADDRESS W. Hornor, P.O. Box 266  
Nutter Fort, WV 26301  
MINERAL RIGHTS OWNER Same as surface  
ADDRESS  
OIL AND GAS INSPECTOR FOR THIS WORK Robert  
Lowther ADDRESS General Delivery  
Middlebourne, WV 26149  
PERMIT ISSUED 5/8/87  
DRILLING COMMENCED 5/14/87  
DRILLING COMPLETED 5/20/87

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	1304	1304	280 sks.
7			
5 1/2			
4 1/2	5385.25	5385.25	290 sks.
3			
2			
Liners used			

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

GEOLOGICAL TARGET FORMATION Alexander Depth 5322-32 feet  
Depth of completed well 5625 feet Rotary x / Cable Tools  
Water strata depth: Fresh 168,260, feet; Salt 0 feet  
Coal seam depths: 405-10 Is coal being mined in the area? No

OPEN FLOW DATA

Producing formation Alexander Pay zone depth 5322-32 feet  
Gas: Initial open flow Mcf/d Oil: Initial open flow Bbl/d  
Combined Final open flow 712 Mcf/d Final open flow Bbl/d  
Time of open flow between initial and final tests 4 hours  
Static rock pressure 1500 psig (surface measurement) after 96 hours shut in  
(If applicable due to multiple completion--)  
Second producing formation Riley Pay zone depth 4626-54 feet  
Gas: Initial open flow Mcf/d Oil: Initial open flow Bbl/d  
Final open flow Mcf/d Oil: Final open flow Bbl/d  
Time of open flow between initial and final tests hours  
Static rock pressure psig (surface measurement) after hours shut in

(REVERSE)

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

Alexander: Perforations: 5322-32(14 holes)  
Fracturing: 430 sks. 20/40 Sand: Foam frac.  
Riley: Perforations: 4626-54 (16 holes)  
Fracturing: 430 sks. 20/40 sand: 500 gal acid.

BOTTOM HOLE PRESSURE  $P_f = P_{we} XGLS$   
 $t = 60 + (0.0075 \times 5385) + 459.7 = 560$   $X = 53.35 \times 560 = 29881$   $= 0.000033$   $P_f = 1500 \times 2.72 (0.000033)$   
 $(0.695)(4979)(0.9) = 1500 \times 2.72^{0.1} = 1500 \times 1.1$

Pf=1650 psi

WELL LOG

FORMATION	COLOR	HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS Including indication of all fr and salt water, coal, oil and
Fill			0	5	
Red rock, sand & shale			5	280	
Sandy shale & sand			280	405	Damp @ 168'
Coal			405	410	
Sandy shale & sand			410	725	1/4" stream @ 260'
Shale, red rock & sandy shale			725	1030	
Sand & shale			1030	1360	1/2" stream @ 1620'
Sand & shale			1360	1464	
Sand & shale			1464	1588	Gas ck @ 2238 No show
Sand & shale			1588	2010	
Big Lime			2010	2090	Gas ck @ 2550 No show
Sand & sandy shale			2090	2550	
Sand & shale			2550	2915	Gas ck @ 3542 No show
Sand & sandy shale			2915	3511	
Sandy shale			3511	4626	Gas ck @ 4535 No show
Riley			4626	4654	
Sandy shale & sand			4654	5322	Gas ck @ 4846 No show
Alexander			5322	5332	
Sand & shale			5332	5625	

T.D.

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JUN 15 1987

DIVISION OF OIL & GAS  
DEPARTMENT OF ENERGY

(Attach separate sheets as necessary)

J&J Enterprises, Inc.

Well Operator

By:

Date:

6/11/87

Robert Dahlin-Geologist

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 sand, encountered in the drilling of a well."

**RECEIVED**  
MAY 08 1987



1) Date: April 30, 19 87  
 2) Operator's Well No. JK - 1304  
 3) API Well No. 47 095 1194  
 State County Permit

STATE OF WEST VIRGINIA  
 DEPARTMENT OF ENERGY, 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: 1162' Watershed: Mudlick Run  
 District: Centerville / County: Tyler 095 Quadrangle: West Union 7.5' 670
- 6) WELL OPERATOR J & J Enterprises CODE: 24150 7) DESIGNATED AGENT Richard M. Reddecliff  
 Address P.O. Box 48 Address P.O. Box 48  
Buckhannon, WV 26201 Buckhannon, WV 26201
- 8) OIL & GAS INSPECTOR TO BE NOTIFIED Name Robert Lowther  
 Address General Delivery  
Middlebourne, WV 26149
- 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, Alexander
- 12) Estimated depth of completed well, 5700 feet  
 13) Approximate strata depths: Fresh, 110 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		30'	0'	0 Sacks	Kinds
Fresh water	8 5/8	EEW	23	X		1312'	1312'	Fill by Rule	Sizes 15.05
Coal	8 5/8	ERW	23	X		1312'	1312'	Fill by Rule	Sizes 15.05
Intermediate									
Production	4 1/2	J-55	10 1/2	X		5700'	5600'	By Rule 15.0	Depths set
Tubing									
Liners									Perforations: Top Bottom

OFFICE USE ONLY  
**DRILLING PERMIT**

Permit number 47-095-1194 Date May 8 19 87

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 May 8, 1989 unless well work is commenced prior to that date and prosecuted with due diligence.

Bond: <input checked="" type="checkbox"/>	Agent: <input checked="" type="checkbox"/>	Plat: <input checked="" type="checkbox"/>	Casing: <input checked="" type="checkbox"/>	Fee: <u>2167</u>	MPCP: <input checked="" type="checkbox"/>	S&E: <input checked="" type="checkbox"/>	Other: <input type="checkbox"/>
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NOTE: Keep one copy of this permit posted at the drilling location.

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

*John W. Johnston*  
 Director, Division of Oil and Gas  
*Joy Margaret House*