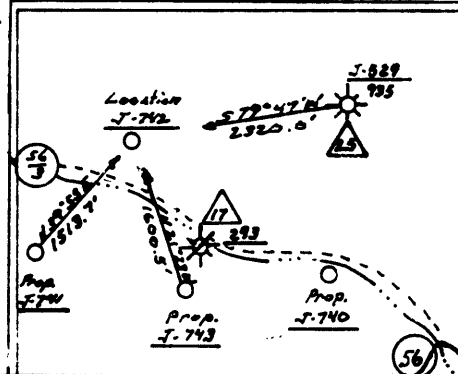
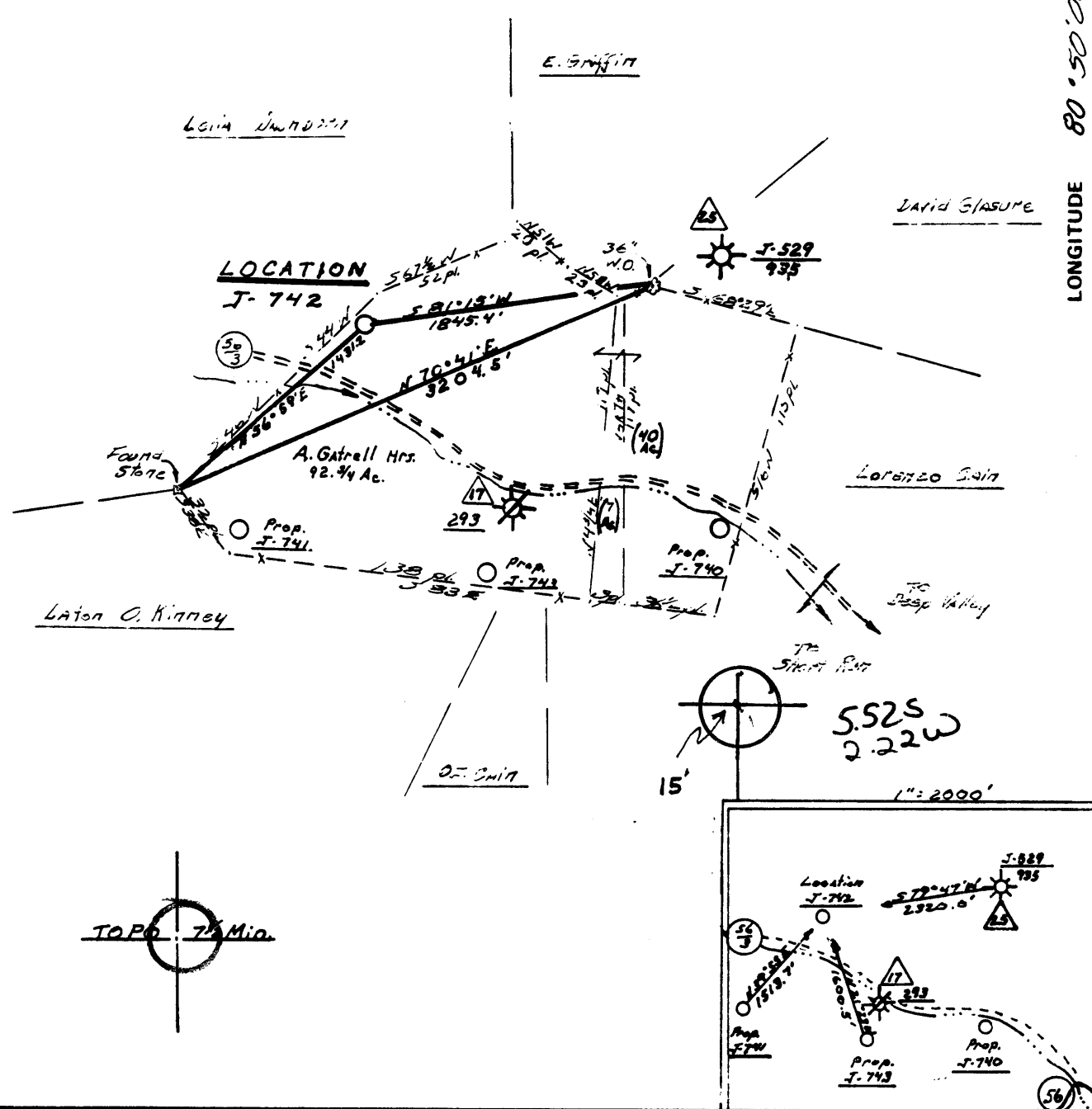


NORTH



FILE NO. 346.01  
 DRAWING NO. 82-29  
 SCALE 1" = 1000'  
 MINIMUM DEGREE OF ACCURACY 1 in 200  
 PROVEN SOURCE OF ELEVATION Spot Elevation 832  
Rd. Tiers S.E. of Location

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) Rayford S. Ostrander  
 R.P.E. \_\_\_\_\_ L.L.S. 555  
Buckhannon, W.Va.

PLACE SEAL HERE

STATE OF WEST VIRGINIA  
 DEPARTMENT OF MINES  
 OIL AND GAS DIVISION



DATE 23 December, 19 82  
 OPERATOR'S WELL NO. J-742  
 API WELL NO. 47-095-1019  
 STATE COUNTY PERMIT

(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS  
 WELL TYPE: OIL \_\_\_ GAS X LIQUID INJECTION \_\_\_ WASTE DISPOSAL \_\_\_  
 (IF "GAS,") PRODUCTION X STORAGE \_\_\_ DEEP \_\_\_ SHALLOW X  
 LOCATION: ELEVATION 998' WATER SHED Short Run  
 DISTRICT Centerville COUNTY Tyler  
 QUADRANGLE West Union 45'C  
 SURFACE OWNER Albert Gattrell Heirs ACREAGE 92.44  
 OIL & GAS ROYALTY OWNER Albert Gattrell Heirs LEASE ACREAGE 139.44  
 LEASE NO. JJ-1420  
 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) \_\_\_\_\_  
 PLUG AND ABANDON \_\_\_ CLEAN OUT AND REPLUG \_\_\_  
 TARGET FORMATION Alexander ESTIMATED DEPTH 5500 G-b Stanley (90)  
 WELL OPERATOR J & T Enterprises, Inc. DESIGNATED AGENT Richard Redcliffe  
 ADDRESS P.O. Box 48 ADDRESS P.O. Box 48  
Buckhannon, W.Va. 26201 Buckhannon, W.Va. 26201

FEB 07 1983

MAY 3 1983

Date: May 2, 1983

Operator's Well No. J-742 045

API Well No. 47-005-1019  
State County Permit

OIL & GAS DIVISION  
DEPT. OF MINES STATE OF WEST VIRGINIA  
DEPARTMENT OF MINES, OIL AND GAS DIVISION

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: 998 Watershed: Short Run  
District: Centerville County: Tyler Quadrangle: West Union

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

PERMITTED WORK: Drill X / Convert \_\_\_ / Drill deeper \_\_\_ / Redrill \_\_\_ / Fracture or stimulate \_\_\_  
Plug off old formation \_\_\_ / Perforate new formation \_\_\_  
Other physical change in well (specify) \_\_\_\_\_

PERMIT ISSUED ON 1/28, 19 83 OIL & GAS INSPECTOR FOR THIS WORK:  
(IF APPLICABLE: PLUGGING OF DRY HOLE OR CONTINUOUS PROGRESSION FROM DRILLING OR REWORKING. VERBAL PERMISSION OBTAINED) Name Robert A. Lowther  
Address Gen. Delivery  
Middlebourne, WV 26149

GEOLOGICAL TARGET FORMATION: Alexander Depth \_\_\_\_\_ feet  
Depth of completed well, 5295 feet Rotary x / Cable Tools \_\_\_  
Water strata depth: Fresh, 845 feet; salt, None feet.  
Coal seam depths: 180-85, 385-90, 640-43 <sup>965-67</sup> Is coal being mined in the area? NO  
Work was commenced 4/12, 1983, and completed 4/17, 19 83

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	113/4	H-40	42	x		30	0	0 sks.	Rinds
Fresh water	8 5/8	ERW	23	x		1052.45	1052.45	265 sks.	
Coal	8 5/8	ERW	23	x		1052.45	1052.45	265 sks.	Sizes
Intermediate									
Production Tubing	4 1/2	J-55	10.5	x		4926.10	4926.10	175 sks.	Depths set
Liners									Perforations:
									Top Bottom
									4875 4878
									4475 4505

OPEN FLOW DATA

Producing formation Benson Pay zone depth 4874-78 feet  
Gas: Initial open flow, \_\_\_\_\_ Mcf/d Oil: Initial open flow, \_\_\_\_\_ Bbl/d  
Combined Final open flow, 539 Mcf/d Final open flow, \_\_\_\_\_ Bbl/d  
Time of open flow between initial and final tests, 6 hours  
Static rock pressure, 1550 psig (surface measurement) after 72 hours shut in  
[If applicable due to multiple completion--]  
Second producing formation Riley Pay zone depth 4475-4505 feet  
Gas: Initial open flow, \_\_\_\_\_ Mcf/d Oil: Initial open flow, \_\_\_\_\_ Bbl/d  
Final open flow, \_\_\_\_\_ Mcf/d Final open flow, \_\_\_\_\_ Bbl/d  
Time of open flow between initial and final tests, \_\_\_\_\_ hours

Bottom Hole Pressure Static rock pressure, \_\_\_\_\_ psig (surface measurement) after \_\_\_\_\_ hours shut in  
Pf=PweXGLS  
 $t=60+(0.0075 \times 4926)+459.7=557$   $x=53.35 \times 557 =29697$   $=0.0000337$  Pf=1550 x 2.72 (0.0000337)  
(0.629) (4677) (0.9) =1550 x 2.72<sup>0.09</sup> =1550 x 1.09  
Pf= 1689.5

MAY 09 1983

08-78

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

Benson: 4874-78 (10 holes)  
Fracturing: 10,000 lbs. 80/100 sand: 40,000 lbs. 20/40 sand: 500 gal. Acid:  
430 Bbls. fluid.

Riley: 4475-4505 (11 holes)  
Fracturing: 10,000 lbs. 80/100 sand: 40,000 lbs. 20/40 sand: 500 gal. Acid:  
430 bbls. fluid.

•ELL 103

FORMATION	Color	Hard or Soft	Top Feet	Bottom Feet	REMARKS Including indication of all fresh and salt water, coal, oil and gas
Clay			0	8	
Sand & shale			8	40	
Brown sand, red rock & shale			40	105	1/2" stream @ 845'
Red rock & shale			105	120	
Sandy shale, sand & red rock			120	170	Wet @ 1480'
Shale			170	180	
Coal			180	185	
Shale & red rock			185	385	
Coal			385	390	Gas ck @ 4245 No show
Red rock & shale			390	525	
White sand			525	675	Gas ck @ 4986' 20/10-1" w/water 33,679 cu.ft.
Sandy shale			675	640	
Coal			640	643	
Shale, red rock & sand			643	965	Gas ck @ collare 16/10-1" w/water 30,123 cu.ft.
Coal			965	967	
Shale & red rock			967	1290	
Shale, sand & lime			1290	1425	
Sand & shale			1425	1830	
Brown sand			1830	1850	
Big lime & injun			1850	2000	
Shale & sand			2000	2900	
Sand & shale			2900	3955	
Sandy shale			3955	4200	
Sand & shale			4200	4475	
Riley			4475	4505	
Shale & sand			4505	4665	
Sand & shale			4665	4874	
Benson			4874	4878	
Brown sand			4878	4890	
Gray shale			4890	5105	
Brown sand			5105	5130	
Gray shale			5130	5295	

5295  
2400  
2895  
Rhinstred @ TD.

(Attach separate sheets to complete as necessary)

J&J Enterprises, INC.  
Well Operator  
By Robert Dahlin  
Geologist

NOTE: Regulation 2.32(d) 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."



1) Date: Dec. 30, 19 82  
2) Operator's Well No. J-742  
3) API Well No. 47 095 1019  
State County Permit

DRILLING CONTRACTOR:

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

OIL AND GAS WELL PERMIT APPLICATION

S.W. Jack Drilling Company  
P.O. Box 48  
Buckhannon, WV 26201

- 4) WELL TYPE: A Oil        / Gas x /  
B (If "Gas", Production x / Underground storage        / Deep        / Shallow x /)
- 5) LOCATION: Elevation: 998 Watershed: Short Run  
District: Centerville County: Tyler Quadrangle: West Union
- 6) WELL OPERATOR J&J Enterprises, Inc. 11) DESIGNATED AGENT Richard M. Roddecliff  
Address P.O. Box 48 Address P.O. Box 48  
Buckhannon, WV 26201 Buckhannon, WV 26201
- 7) OIL & GAS ROYALTY OWNER Albert Gatrell Heirs 12) COAL OPERATOR         
Address C/O Cassie Gatrell Address         
Greenwood, WV 26360
- 8) SURFACE OWNER Albert Gatrell Heirs 13) COAL OWNER(S) WITH DECLARATION ON RECORD:  
Address C/O Cassie Gatrell Name Albert Gatrell Heirs  
Greenwood, WV 26360 Address C/O Cassie Gatrell  
Greenwood, WV 26360
- 9) FIELD SALE (IF MADE) TO:  
Address Unknown
- 10) OIL & GAS INSPECTOR TO BE NOTIFIED  
Name Robert A. Lowther  
Address General Delivery  
Middlebourne, WV 26149
- 14) COAL LESSEE WITH DECLARATION ON RECORD:  
Name         
Address
- 15) PROPOSED WORK: Drill x / Drill deeper        / Redrill        / Fracture or stimulate x /  
Plug off old formation        / Perforate new formation         
Other physical change in well (specify)
- 16) GEOLOGICAL TARGET FORMATION, Alexander
- 17) Estimated depth of completed well, 5500 feet
- 18) Approximate water strata depths: Fresh, 350, 425 feet; salt, 0 feet.
- 19) Approximate coal seam depths: None Is coal being mined in the area? Yes        / No x

20) CASING AND TUBING PROGRAM

CASING OR TUBING TYPE	SPECIFICATIONS					FOOTAGE INTERVALS		CEMENT FILL-UP OR SACKS (Cubic feet)	PACKERS
	Size	Grade	Weight per ft.	New	Used	For drilling	Left in well		
Conductor	11 3/4	H-40	42	x		30	0	0 sks.	Kinds
Fresh water	8 5/8	ERW	23	x		1200	1200	To surface	
Coal	8 5/8	ERW	23	x		1200	1200	To surface	Sizes
Intermediate									
Production	4 1/2	J-51	10.5	x		5450	5450	300 sks.	Depths set
Tubing									
Liners									Perforations:
									Top Bottom

21) EXTRACTION RIGHTS

- Check and provide one of the following:  
 Included is the lease or leases or other continuing contract or contracts by which I hold the right to extract oil or gas.  
 The requirement of Code 22-4-1(c) (1) through (4). (See reverse side for specifics.)

22) ROYALTY PROVISIONS

Is the right to extract, produce or market the oil or gas based upon a lease or other continuing contract or contracts providing for flat well royalty or any similar provision for compensation to the owner of the oil or gas in place which is not inherently related to the volume of oil or gas so extracted, produced or marketed? Yes  No

If the answer above is No, nothing additional is needed. If the answer is Yes, you may use Affidavit Form IV-60.

23) Required Copies (See reverse side.)

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

Notary:         
My Commission Expires 10/16/84

Signed: Richard M. Roddecliff  
Its: Designated Agent

OFFICE USE ONLY

DRILLING PERMIT

Permit number 47-095-1019 Date January 3 19 82

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

Permit expires September 28, 1982 unless drilling is commenced prior to that date and prosecuted with due diligence.

Bond:	Agent:	Plat:	Casing	Fee
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Administrator, Office of Oil and Gas

Line Item Explanation

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

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

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 \_\_\_\_\_