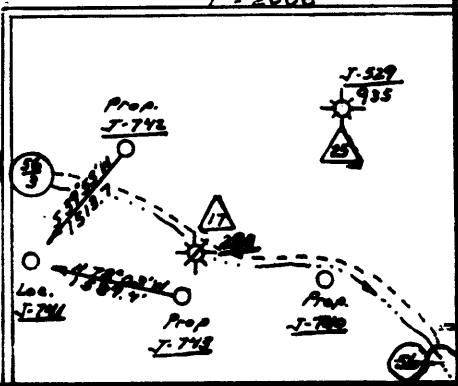
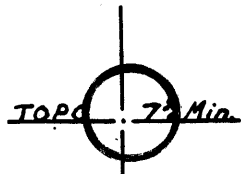
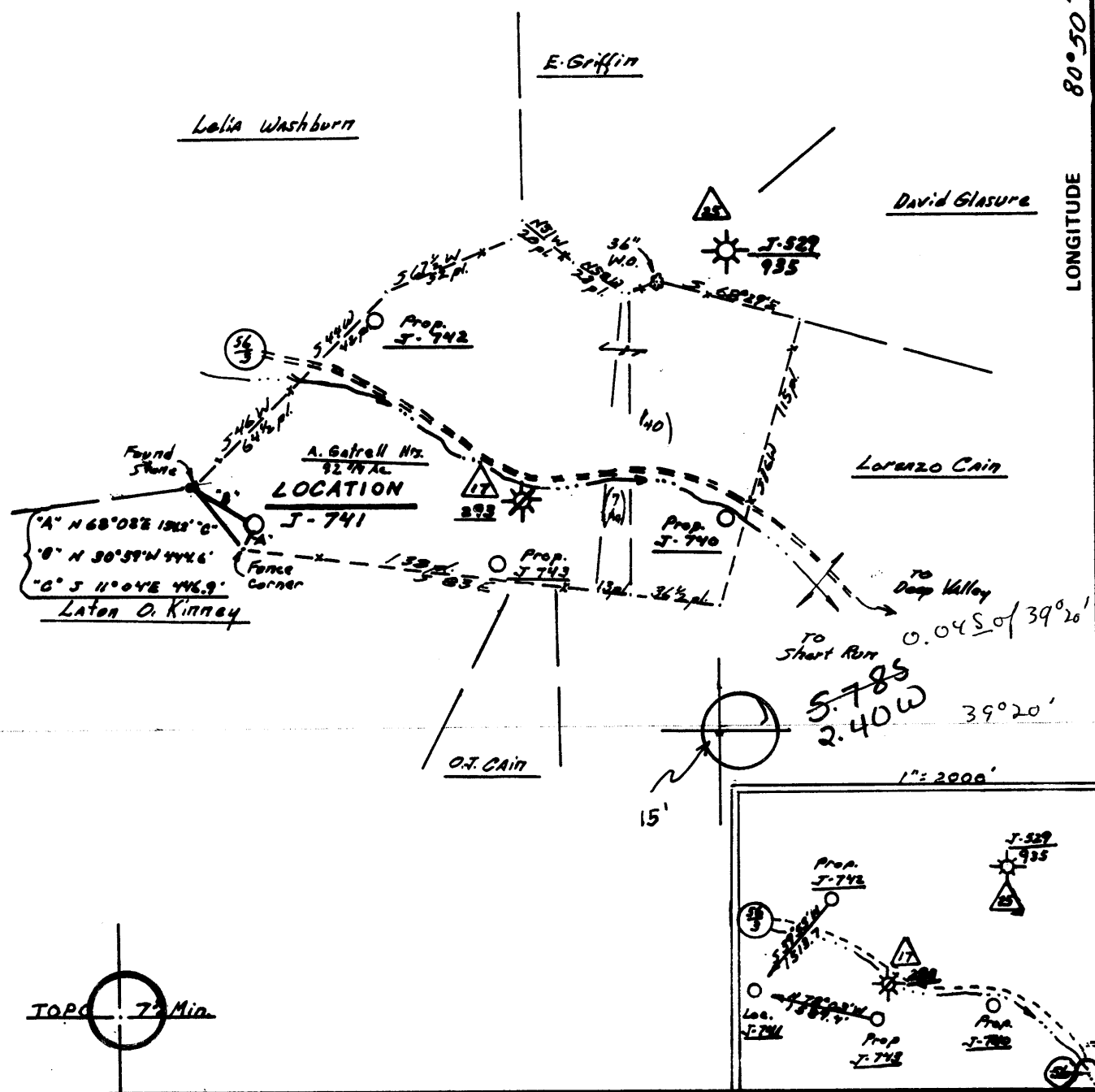


NORTH



FILE NO. 346.01
 DRAWING NO. 82-28
 SCALE 1" = 1,000'
 MINIMUM DEGREE OF ACCURACY 1 in 200
 PROVEN SOURCE OF ELEVATION Spot Elevation 832
Rd. Inters. SE. 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) Richard L. 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-741
 API WELL NO. 47-095-1018
 STATE COUNTY PERMIT

(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS
 WELL TYPE: OIL ___ GAS ___ LIQUID INJECTION ___ WASTE DISPOSAL ___
 (IF "GAS,") PRODUCTION ___ STORAGE ___ DEEP ___ SHALLOW ___
 LOCATION: ELEVATION 1140' WATER SHED Short Run
 DISTRICT Canterville COUNTY Tyler
 QUADRANGLE W. Union 15'SC
 SURFACE OWNER Albert Gatrell Hairs ACREAGE 92 3/4
 OIL & GAS ROYALTY OWNER Albert Gatrell Hairs LEASE ACREAGE 139.75
 LEASE NO. JJ-1420
 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 Alexander ESTIMATED DEPTH 5500 Stanley (90)
 WELL OPERATOR J. Ed. Enterprises, Inc. DESIGNATED AGENT Richard Raddcliffe
 ADDRESS PO Box 48 ADDRESS PO Box 48
Buckhannon W.Va 26201 Buckhannon W.Va 26201

MAY 8 1983

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

C & GAS DIVISION
DEPT. OF MINES WELL OPERATOR'S REPORT
OF
DRILLING, FRACTURING AND/OR STIMULATING, OR PHYSICAL CHANGE

JUN 06 1983

WELL TYPE: Oil / Gas / Liquid Injection Waste Disposal
(If "Gas", Production / Underground storage / Deep / Shallow)
LOCATION: Elevation: 1140 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 / Convert / Drill deeper / Redrill / Fracture or stimulate
Plug off old formation / Perforate new formation
Other physical change in well (specify) _____

PERMIT ISSUED ON 1/15, 1983 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, 5511 feet Rotary / Cable Tools _____
Water strata depth: Fresh, 300 feet; salt, None feet.
Coal seam depths: 270-73, 670-73 Is coal being mined in the area? NO
Work was commenced 4-5, 1983, and completed 4-10, 1983

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.	Kinds
Fresh water	85/8	ERW	23	x		1251.35	1251.35	300 sks.	
Coal	85/8	ERW	23	x		1251.35	1251.35	300 sks.	Sizes
Intermediate									
Production Tubing	4 1/2	J-55	10.5	x		5025.05	5025.05	175 sks.	Depos set
Liners									Perforations:
									Top Bottom
									4510 4536
									4904 4907

OPEN FLOW DATA

Producing formation Benson Pay zone depth 4904-07
Gas: Initial open flow, _____ Mcf/d Oil: Initial open flow, _____ Bbl/d
Combined Final open flow, 492 Mcf/d Final open flow, _____ Bbl/d
Time of open flow between initial and final tests, 4 hours
Static rock pressure, 1675 psig (surface measurement) after _____ hours shut in
[If applicable due to multiple completion--]
Second producing formation Riley Pay zone depth 4510-36
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
$$t=60 + (0.0075 \times 5025) + 459.7 = 557 \quad X=53.35 \times 557 = 29716 = 0.0000337 \quad Pf=1675 \times 2.72 (0.0000337)$$

$$(0.626) (4709) (0.9) = 1675 \times 2.72^{0.089} = 1675 \times 1.09$$

Pf=1832 psi

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

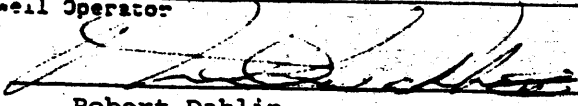
Benson: Perforations: 4510-19 (8 holes) 4535-36 (2 holes)
Fracturing: 10,000 lbs. 80/100 sand: 40,000 lbs. 20/40 sand: 500 gal. Acid:
424 Bbls. fluid.

Riley: Perforations: 4904-4907 (9 holes)
Fracturing: 10,000 lbs. 80/100 sand: 40,000 lbs. 20/40 sand: 500 gal. Acid:
424 Bbls. fluid.

-E-11 103

FORMATION	Color	Hard or Soft	Top Feet	Bottom Feet	REMARKS Including indication of all fresh and salt water, coal, oil and gas
Red Clay			0	12	
Red rock & sand			12	95	
Red rock & shale			95	135	
Red rock, sand & shale			135	270	1/4" stream @ 300'
Coal			270	273	
Red rock & shale			273	300	Damp @ 1500'
Sandy shale			300	445	
Red rock & shale			445	535	Gas ck @ 3530' No show
Sandy shale & sand			535	670	
Coal			670	673	Gas ck @ 3993 No show
Sandy shale & red rock			673	815	
Shale & red rock			815	900	Gas ck @ 4644 20/10-1" w/water
Sand & shale			900	1150	33,679 Cu.ft.
Sand, shale & sandy shale			1150	1380	
Shale & white sand			1380	1540	Gas ck @ 3530 No show
Shale & sandy shale			1540	1880	
Sand & lime			1880	1905	Gas ck @ 3993 No show
Big Lime			1905	2065	
Sand & shale			2065	2860	Gas ck @ 4644 20/10-1" w/water
Shale & sand			2860	3800	33,679 cu.ft.
Sand & shale			3800	4115	
Sandy shale & shale			4115	4510	
Benson			4510	4536	
Sand & shale			4536	4865	
Lt. Brown sand			4865	4875	
Sand			4875	4904	
Benson			4904	4907	
Dark Brown sand			4907	4925	
Gray sand			4925	5270	
Shale			5270	5511	
				TD	Rhonestreet @ TD

(Attach separate sheets to complete as necessary)

J&J Enterprises, Inc.
Well Operator
By 
Robert Dahlin

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."



1) Date: Jan. 10, 19 89
2) Operator's Well No. J-741
3) API Well No. 47 State 005 County 1016 Permit

DRILLING CONTRACTOR:

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

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

OIL AND GAS WELL PERMIT APPLICATION

- 4) WELL TYPE: A Oil / Gas /
B (If "Gas", Production / Underground storage / Deep / Shallow /)
- 5) LOCATION: Elevation: 1140 Watershed: Short Run
District: Centerville County: Tyler Quadrangle: West Union
- 6) WELL OPERATOR J&J Enterprises, Inc. 11) DESIGNATED AGENT Richard M. Reddick
Address P.O. Box 48 Address P.O. Box 48
Buckhannon, WV 26201 Buckhannon, WV 26201
- 7) OIL & GAS ROYALTY OWNER Gatrell Heirs 12) COAL OPERATOR _____
Address C/O Camie Gatrell Address _____
Greenwood, WV 26360
- 8) SURFACE OWNER Albert Gatrell Heirs 13) COAL OWNER(S) WITH DECLARATION ON RECORD:
Address C/O Camie Gatrell Name Albert Gatrell Heirs
Greenwood, WV 26360 Address C/O Camie Gatrell
Greenwood, WV 26360
- 9) FIELD SALE (IF MADE) TO: Name _____
Address _____
- 10) OIL & GAS INSPECTOR TO BE NOTIFIED Name _____
Address General Delivery
Middlebourne, WV 26149
- 15) PROPOSED WORK: Drill / Drill deeper / Redrill / Fracture or stimulate /
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, 500, 600 feet; salt, 0 feet.
- 19) Approximate coal seam depths: 0 Is coal being mined in the area? Yes / No /

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	<u>11 3/4</u>	<u>H-40</u>	<u>42</u>	<input checked="" type="checkbox"/>		<u>30</u>	<u>0</u>	<u>0 sks.</u>	Kinds
Fresh water	<u>8 5/8</u>	<u>HRW</u>	<u>23</u>	<input checked="" type="checkbox"/>		<u>1200</u>	<u>1200</u>	<u>To surface</u>	
Coal	<u>8 5/8</u>	<u>HRW</u>	<u>23</u>	<input checked="" type="checkbox"/>		<u>1200</u>	<u>1200</u>	<u>To surface</u>	Sizes
Intermediate									
Production	<u>4 1/2</u>	<u>J-55</u>	<u>10.5</u>	<input checked="" type="checkbox"/>		<u>5450</u>	<u>5450</u>	<u>300 sks.</u>	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: Linda S. Campbell
My Commission Expires 10/16/89

Signed: Richard M. Reddick
Its: Designated Agent

OFFICE USE ONLY
DRILLING PERMIT

Permit number _____ Date _____

This permit covering the well operator and well location shown below is evidence of permission granted to drill in accordance with the pertinent legal requirements subject to the conditions contained herein and on the reverse hereof. **Notification must be given to the District Oil and Gas Inspector. (Refer to No. 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, 1983 unless drilling is commenced prior to that date and prosecuted with due diligence.

Bond:	Agent:	Plat:	Casing	Fee

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 _____