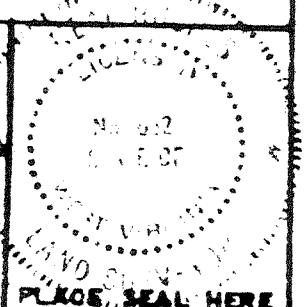


FILE NO. J+J
 DRAWING NO. 1
 SCALE 1" = 400'
 MINIMUM DEGREE OF ACCURACY 1/200
 PROVEN SOURCE OF ELEVATION RD 845

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) Neal Hughes
 R.P.E. _____ L.L.S. 632



(+) 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 AUG. 18, 1981
 OPERATOR'S WELL NO. J572
 API WELL NO. 47-085-5279
 STATE COUNTY PERMIT

WELL TYPE: OIL GAS LIQUID INJECTION _____ WASTE DISPOSAL _____
 (IF GAS, PRODUCTION _____ STORAGE _____ DEEP _____ SHALLOW _____)
 LOCATION: ELEVATION 945' WATER SHED BEASON RUN
 DISTRICT CLAY COUNTY RITCHIE
 QUADRANGLE PULLMAN 7.5' Holbrook 13' NW
 SURFACE OWNER STELLA RICHARDS ACREAGE 42.7
 OIL & GAS ROYALTY OWNER MYLES H. LAMM LEASE ACREAGE 44
 LEASE NO. JJ1081
 PROPOSED WORK: DRILL CONVERT _____ DRILL DEEPER _____ REDRILL _____ FRACTURE OR STIMULATE PLUS OFF OLD FORMATION _____ PERFORATE NEW FORMATION _____ OTHER PHYSICAL CHANGE IN WELL (SPECIFY) _____
 PLUG AND ABANDON _____ CLEAN OUT AND REPLUG _____
 TARGET FORMATION Alexander ESTIMATED DEPTH 5600
 WELL OPERATOR J & J Enterprises DESIGNATED AGENT James R. Willett
 ADDRESS P.O. Box 48 ADDRESS P.O. Box 48
Buckhannon, WV 26201 Buckhannon, WV 26201

6-6 BEASON RUN

SEP 28 1981

MAR - 9 1982

OIL AND GAS DIVISION
 WV DEPARTMENT 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 / Liquid Injection / Waste Disposal
 If "Gas", Production / Underground storage / Deep / Shallow
 LOCATION: Elevation: 945 / Watershed: Beason Run
 District: Clay / County: Ritchie / Quadrangle: Pullman 7.5'

WELL OPERATOR J & J Enterprises, Inc. DESIGNATED AGENT Harry L. Barnett
 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 9/11, 1981 OIL & GAS INSPECTOR FOR THIS WORK:
 Name K. Paul Goodnight
 Address Smithville, WV 26178

IF APPLICABLE: PLUGGING OF DRY HOLE OR CONTINUOUS PROGRESSION FROM DRILLING OR REWORKING. VERBAL PERMISSION OBTAINED
 GEOLOGICAL TARGET FORMATION: Alexander Depth 4992-5014 feet
 Depth of completed well, 5202 feet Rotary / Cable Tools
 Water strata depth: Fresh, - feet; salt, - feet.
 Coal seam depths: None Is coal being mined in the area? No
 Work was commenced 2/11, 1982, and completed 2/17, 1982

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		28	28	0 sks.	Rinds
Fresh water	8 5/8	ERW	23	x		1037.60	1037.60	245 sks.	
Coal	8 5/8	ERW	23	x		1037.60	1037.60	245 sks.	Sizes
Intermediate									
Production	4 1/2	J-55	10.5	x		5066.10	5066.10	775 sks.	Decks set
Tubing									
Liners									Perforations:
									Top Bottom
									2910 3009
									3105 3271
									3683 3885
									3940 4725
									4992 5014

OPEN FLOW DATA
 Producing formation Alexander Pay zone depth 4992-5014 feet
 Gas: Initial open flow, _____ Mcf/d Oil: Initial open flow, _____ Bbl/d
 Final open flow, 336 Mcf/d Final open flow, _____ Bbl/d
 Time of open flow between initial and final tests, 4 hours
 Static rock pressure, 775 psig (surface measurement) after 96 hours shut in
 [If applicable due to multiple completion--] &Speechley 3940-4725
 Second producing formation Benson, Riley, Warren, Balltown Pay zone depth 3683-3885 feet
 Gas: Initial open flow, _____ Mcf/d Oil: Initial open flow, 2910 Bbl/d
 Final open flow, _____ Mcf/d Final open flow, _____ Bbl/d
 Time of open flow between initial and final tests, _____ hours

m Hole Pressure Static rock pressure, _____ psig (surface measurement) after _____ hours shut in
 f=PweXGLS
 $50 + (0.0075 \times 5066) + 459.7 = 558$ X = $53.35 \times 558 = 29769 = 0.0000336$ Pf=775 x 2.72 (0.0000336)
 $545) (3977) (0.9) = 775 \times 2.72^{0.078} = 775 \times 1.108$

MAR 29 1982

08-78

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

Alexander: Perforations: 4992-5014 (14 holes)
Fracturing: 130 sks. 80/100 sand: 280 sks. 20/40 sand: 400 Bbls. fluid.

Benson & Riley: Perforations: 3940-4725 (12 holes)
Fracturing: 63 sks. 80/100 sand: 565 Bbls. fluid.

Warren: Perforations: 3885-3683 (15 holes)
Balltown Fracturing: 100 sks. 80/100 sand: 350 sks. 20/40 sand: 440 Bbls. fluid.

Speechley: Perforations: 3271-3105 (15 holes)
Up Dev. Fracturing: 100 sks. 80/100 sand: 350 sks. 20/40 sand: 440 Bbls. fluid.

Balltown: Perforations: 2940-3009 (18 shots)
Warren Fracturing: 120 sks. 20/40 sand: 207 sks. 20/40 sand: 400 Bbls. fluid.
80/100?

WELL LOG

FORMATION	Color	Hard or Soft	Top Feet	Bottom Feet	Remarks Including indication of all gases and salt water, coal, etc. & gas
Fill			0	10	
Shale & Red rock			10	45	
Sand & shale			45	350	Gas ck @ 2339 4/10-1/2" w/water
Red rock & shale			350	400	3,765 cu.ft.
Sand, shale & red rock			400	775	Gas ck @ 3017 35/10-1" w/water
Sand & shale			775	1750	44,470 cu.ft.
Little Lime			1750	1800	
Big Lime			1800	1920	
Sand & shale			1920	2940	Gas ck @ 3662 56/10-1" w/water
<u>Balltown</u> <i>Warren</i>			2940	3009	55,305 cu.ft.
Sand & shale			3009	3271	Gas ck @ 4215 48/10-1" w/water
Speechley			3271	3105	52,123 cu.ft.
Shale & sand			3105	3300	
Sand			3300	3683	Gas ck @ 4740 22/10-1" w/water
<u>Warren</u> <i>Balltown</i>			3683	3885	25,313 cu.ft.
Sand			3885	3910	
Sand & shale			3910	3940	Gas ck @ 5079 60/10-1" w/water
Benson & Riley			3940	4725	58,363 cu.ft.
Sand & shale			4725	4740	
Brown sand & shale			4740	4930	Gas ck @ T.D. 22/10-1" w/water
Brown sand & shale			4930	4992	25,313 cu.ft.
<u>Alexander</u>			4992	5014	
Shale			5014	5100	
Brown sand & shale			5100	5202 TD	

(Attach separate sheets as complete as necessary.)

J & J Enterprises, Inc.
By Peter Battles
Geologist

NOTE: Regulation 2.02(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."

[08-78]

OIL AND GAS WELL PERMIT APPLICATION

Operator's Well No. J-572
API Well No. 47 - 085 - 5279
State County Permit

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

LOCATION: Elevation: 945 Watershed: Beason Run
District Clay County: Ritchie Quadrangle: Pullman 7.5'

WELL OPERATOR J & J Enterprises, Inc.
Address P.O. Box 48
Buckhannon, WV 26201

DESIGNATED AGENT James R. Willett
Address P.O. Box 48
Buckhannon, WV 26201

OIL & GAS LEASING & MINERAL INTERESTS
ROYALTY OWNER Myles H. Lamm
Address Rt. # 1, Box 27
Pennsboro, WV 26415

COAL OPERATOR None
Address _____

ACREAGE 44
SURFACE OWNER Stella Richards/Terry Lee Richards
Address Route # 1, Box 22
Harrisville, WV 26362
Acreage 42.7

COAL OWNER(S) WITH DECLARATION ON RECORD:
Name Myles H. Lamm
Address Rt # 1, Box 27
Pennsboro, WV 26415

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

Name _____
Address _____

OIL & GAS INSPECTOR TO BE NOTIFIED
Name K. Paul Goodnight
Address Smithville, WV 26178

COAL LESSEE WITH DECLARATION ON RECORD:
Name None
Address _____

RECEIVED
SEP 11 1981

OIL AND GAS DIVISION
WV DEPARTMENT OF MINES

The undersigned well operator is entitled to operate for oil or gas purposes at the above location under a deed / lease / other contract / dated 4/17, 1981, to the undersigned well operator from S & S, Inc.
[If said deed, lease, or other contract has been recorded;]

Recorded on 4/21, 1981, in the office of the Clerk of the County Commission of Ritchie County, West Virginia, in Lease Book 135 at page 505. 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
PHYSICAL LOGS DIRECTLY TO:

WEST VIRGINIA OIL AND GAS
CONSERVATION COMMISSION
15 WASHINGTON STREET EAST
CHARLESTON, WV 25311

TELEPHONE: (304) 348-3092

BLANKET BOND

J & J Enterprises, Inc.
Well Operator
By Peter Battles
Peter Battles
Geologist
Its _____

[08-78]

PROPOSED WORK ORDER

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

DRILLING CONTRACTOR (IF KNOWN) S.W. Jack Drilling Company

Address P.O. Box 48
Buckhannon, WV 26201

GEOLOGICAL TARGET FORMATION, Alexander

Estimated depth of completed well, 5600 feet Rotary / Cable tools /
Approximate water strata depths: Fresh, 170 feet; salt, 0 feet.
Approximate coal seam depths: None 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	11 3/4	H-40	42	x		30	0	0 sks.	Kinds <u>CTS</u> Sizes
Fresh water	8 5/8	ERW	23	x		1650	1650	325 sks.	
Coal	8 5/8	ERW	23	x		1650	1650	325 sks.	
Intermediate									
Production	4 1/2	J-55	10.5	x		5550	5550	375 555 sks.	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.

All provisions being in accordance with Chapter 22, of the W. Va. Code, the location is hereby approved for drilling. This permit shall expire if operations have not commenced by 5-16-82.

John D. Smith
Deputy Director - Oil & Gas Division

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:

W A I V E R

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 _____