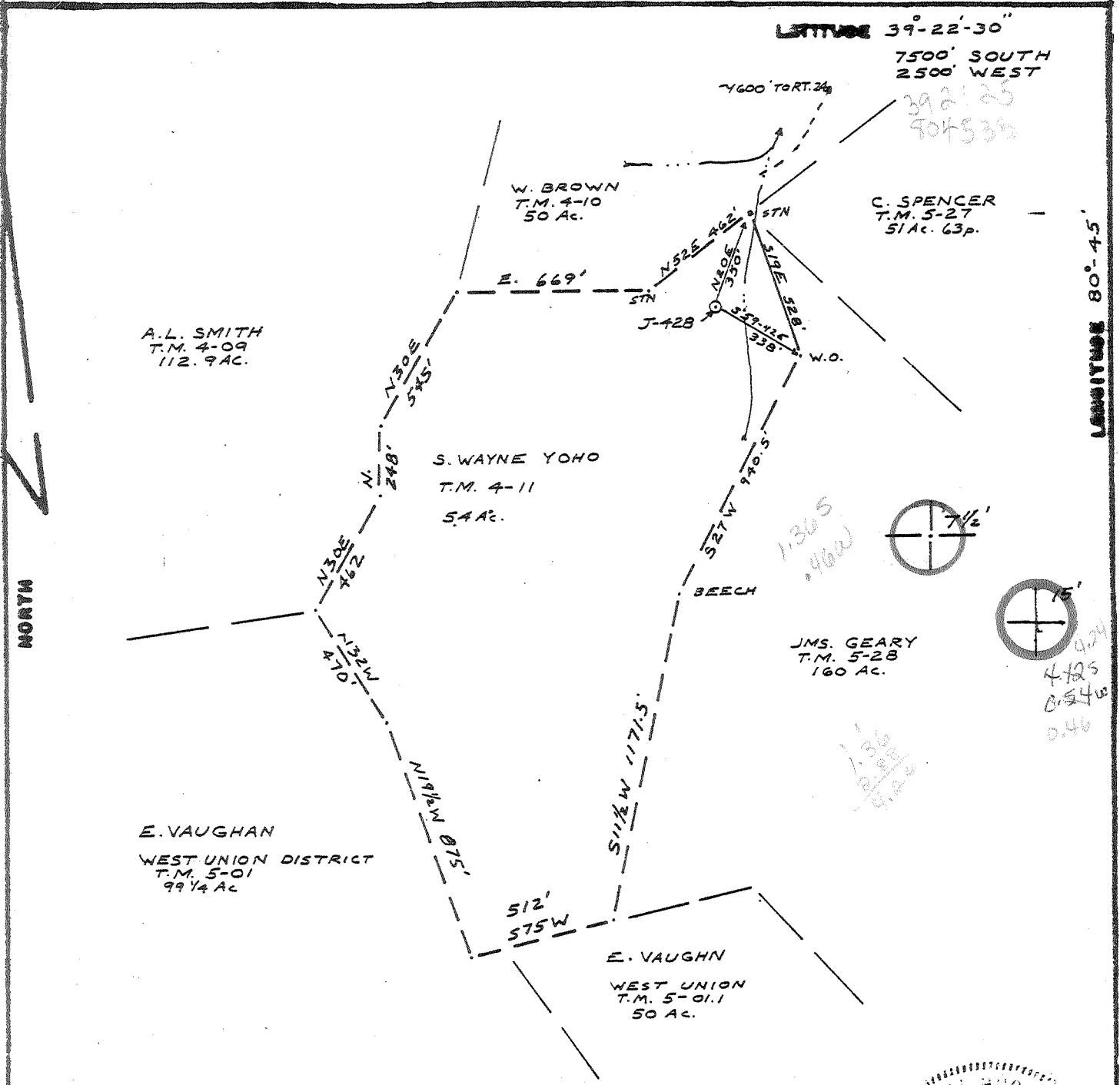


ch 12/20

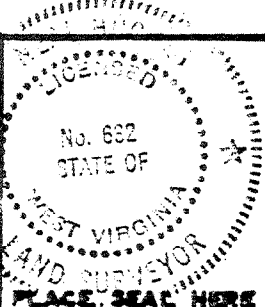
Plot Card CSD

39° 25'



FILE NO. J & J  
 DRAWING NO. J-428  
 SCALE 1" = 500'  
 MINIMUM DEGREE OF ACCURACY 1/200  
 PROVEN SOURCE OF ELEVATION B.M. 778

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)



DATE DEC 5, 19 80  
 OPERATOR'S WELL NO J-428  
 API WELL NO. 47-017-2922  
 STATE COUNTY PERMIT

STATE OF WEST VIRGINIA  
 DEPARTMENT OF MINES  
 OIL AND GAS DIVISION

WELL TYPE: OIL  GAS  LIQUID INJECTION \_\_\_\_\_ WASTE DISPOSAL \_\_\_\_\_  
 ( IF "GAS", PRODUCTION \_\_\_\_\_ STORAGE \_\_\_\_\_ DEEP \_\_\_\_\_ SHALLOW \_\_\_\_\_  
 LOCATION: ELEVATION 930' WATER SHED LITTLE FLINT RUN -  
 DISTRICT GRANT DISTRICT COUNTY DODDRIDGE  
 QUADRANGLE WEST UNION - 7 1/2' EC 415'  
 SURFACE OWNER S.W. YOHO ACREAGE 54 AC. 3 ROODS  
 OIL & GAS ROYALTY OWNER S.W. YOHO LEASE ACREAGE 54 AC. 3 ROODS  
 LEASE NO. K-932  
 PROPOSED WORK: DRILL  CONVERT \_\_\_\_\_ DRILL DEEPER \_\_\_\_\_ REDRILL \_\_\_\_\_ FRACTURE OR STIMULATE  PLUS OFF OLD FORMATION \_\_\_\_\_ PERFORATE NEW FORMATION \_\_\_\_\_ OTHER PHYSICAL CHANGE IN WELL (SPECIFY) \_\_\_\_\_  
 PLUS AND ABANDON \_\_\_\_\_ CLEAN OUT AND REPLUS \_\_\_\_\_  
 TARGET FORMATION BENSON ESTIMATED DEPTH 5200  
 WELL OPERATOR J&J ENTERPRISES, INC. DESIGNATED AGENT H.L. BARNETT  
 ADDRESS P.O. Box 48 ADDRESS P.O. Box 48  
BUCKHANNON, WV 26201 BUCKHANNON, WV 26201

6-6 Swiger (97)

JAN 26 1981

97

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: 930 Watershed: Little Flint Run  
District: Grant County: Doddridge Quadrangle: West Union 7.5'

WELL OPERATOR J & J Enterprises, Inc. DESIGNATED AGENT James R. Willett  
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 12/30, 19 80 OIL & GAS INSPECTOR FOR THIS WORK:  
Name Steve Casey  
Address Rt. # 2, Box 232-D

IF APPLICABLE: PLUGGING OF DRY HOLE OR CONTINUOUS PROGRESSION FROM DRILLING OR REWORKING. VERBAL PERMISSION OBTAINED \_\_\_\_\_, 19 \_\_\_\_\_  
Name Jane Low, WV 26378  
Address \_\_\_\_\_  
GEOLOGICAL TARGET FORMATION: Benson Depth 4979-81 feet  
Depth of completed well, 5090 feet Rotary  / Cable Tools \_\_\_\_\_  
Water strata depth: Fresh, 289 feet; salt 375-465 feet.  
Coal seam depths: 126-30, 575-80 Is coal being mined in the area? No  
Work was commenced 7/29, 19 \_\_\_\_\_, and completed 8/3, 19 81

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		29	29	0 sks.	Rinds
Fresh water	8 5/8	ERW	23	x		1200.05	1200.05	270 sks.	
Coal	8 5/8	ERW	23	x		1200.05	1200.05	270 sks.	Sizes
Intermediate									
Production	4 1/2	J-55	10.5	x		5030.45	5030.45	630 sks.	Depths set
Tubing									
Liners									Perforations:
									Top Bottom
									4979 4981 BNSN
									4531 4534 RIL
									2439 2695 BEREA
									2241 2314 WEIR

**RECEIVED**

OCT 21 1981  
OIL AND GAS DIVISION  
WV DEPARTMENT OF MINES

OPEN FLOW DATA  
Producing formation Benson Pay zone depth 4979-81 BNSN feet  
Gas: Initial open flow, \_\_\_\_\_ Mcf/d Oil: Initial open flow, \_\_\_\_\_ Bbl/d  
Combined Final open flow, 231 Mcf/d Final open flow, \_\_\_\_\_ Bbl/d  
Time of open flow between initial and final tests, 5 hours  
Static rock pressure, 1400 psig (surface measurement) after 96 hours shut in  
[If applicable due to multiple completion--] \_\_\_\_\_ 4531-34  
Second producing formation Riley, Gordon, Berea, Weir Pay zone depth 2241-2314 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=Pwe XGLS  
e=1400 e=2.72 X=53.34(557.425)x=.0000336 T=60 +(5030 .x.0075) +459.7 G=.626 L=3611 S=.9  
=1400(2.72) (.0000336) (.626) (3611) (.9) Pf=1400 (1.07)  
Pf=1498  
OCT 08 1981

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

Benson: Perfs: 4979-81 (8 holes)

Fracturing: 10,000 lbs. 80/100 sand: 40,000 lbs. 20/40 sand: 500 Bbls. fluid.

Riley: Perfs: 4531-34 (12 holes)

Fracturing: 10,000 lbs. 80/100 sand: 28,000 lbs. 20/40 sand: 500 gal. Acid.  
500 Bbls. fluid.

Gordon & Berea: Perfs. 3439-3695 (13 holes)

Fracturing: 15,000 lbs. 80/100 sand: 35,000 lbs/ sand: 500 gals. Acid:  
500 Bbls. fluid.

Weir: Perfs: 2241-2314 (14 holes)

Fracturing: 10,000 lbs. 80/100 sand: 30,000 lbs. 20/40 sand: 500 gal. Acid:  
500 Bbls. fluid.

WELL LOG

FORMATION	Color	Hard or Soft			Remarks
			Top Feet	Bottom Feet	Including indication of all Green and salt water, coal, oil and gas
Red rock, shale & sand			0	25	
Red rock & gray sand			25	85	Damp @ 289'
Sand & shale			85	126	
Coal			126	130	Oil @ 1990'
Shale & sand			130	138	
Sand, shale & red rock			138	235	Gas ck @ 2023 No show
Sand, shale & red rock			235	330	
Sand & shale			330	375	Damp @ 2023
Sand, shale & red rock			375	560	
Red rock & shale			560	575	Gas ck @ 3231 76/10-1/2" w/water
Coal			575	580	16,404 cu.ft.
Shale & red rock			580	880	
Sand, shale & red rock			880	1060	Gas ck @ 3448 36/10-1/2" w/water
Sand & shale			1060	1740	11,800 cu.ft.
Blue Monday			1740	1780	
Sand & shale			1780	1835	Gas ck @ 4225 74/10-1/2" w/water
Big Lime & shale			1835	1895	16,100 cu.ft.
Big Injun			1895	2000	
Grey sand			2000	2100	Gas ck @ 4781 50/10-1/2" w/water
Sand & grey shale			2100	2241	13,312 cu.ft.
Weir			2241	2314	
Grey shale			2314	3439	Gas ck @ 4998 55/10-1/2" w/water
Gordon & Berea			3439	3695	13,943 cu.ft.
Sand & shale			3695	4531	
Riley			4531	4534	
Sand & shale			4534	4950	
Benson			4950	4981	
Sand & shale			4981	5090	
					T.D.

(Attach separate sheets to complete as necessary.)

J & J Enterprises, Inc.

Well Operator

By

*Peter Battles*  
Peter Battles

Its

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-428  
API Well No. 47-017 - 2922  
State County Permit

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

LOCATION: Elevation: 930 Watershed: Little Flint Run  
District: Grant County: Doddridge Quadrangle: West Union 7.5'

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

DESIGNATED AGENT H. L. Barnett  
Address P. O. Box 48  
Buckhannon, WV 26201

OIL & GAS LEASE & GAS COAL OPERATOR S. Wayne Yoho  
Address Rt. 3, Box 62  
Mannington, WV 26582

COAL OPERATOR \_\_\_\_\_  
Address \_\_\_\_\_

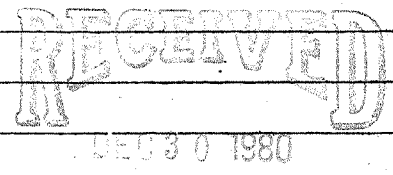
ACREAGE 54  
SURFACE OWNER S. Wayne Yoho  
Address Rt. 3, Box 62  
Mannington, WV 26582  
ACREAGE 54

COAL OWNER(S) WITH DECLARATION ON RECORD;  
Name S. Wayne Yoho  
Address Rt. 3, Box 62  
Mannington, WV 26582  
Name \_\_\_\_\_  
Address \_\_\_\_\_

FIELD SALE (IF MADE) TO:  
Name \_\_\_\_\_  
Address \_\_\_\_\_

COAL LESSEE WITH DECLARATION ON RECORD;  
Name \_\_\_\_\_  
Address \_\_\_\_\_

OIL & GAS INSPECTOR TO BE NOTIFIED  
Name Paul Garrett  
Address 321 Beech St.  
Clarksburg, WV 26301



OIL & GAS DIVISION  
DEPT. 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 August 3, 1979; to the undersigned well operator from S. Wayne Yoho.

[If said deed, lease, or other contract has been recorded:]  
Recorded on August 15, 1979, in the office of the Clerk of the County Commission of Doddridge County, West Virginia, in oil & gas lease book 110 at page 183. 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 well operator, coal owner(s), and coal lessee are hereby notified that any other permits 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 declaration 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  
1624 WASHINGTON STREET EAST  
CHARLESTON, WV 25311

J & J Enterprises, Inc.  
Well Operator

BLANKET BOND

By [Signature]

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 Co. Address P. O. Box 48 Buckhannon, WV 26201

GEOLOGICAL TARGET FORMATION, Benson

Estimated depth of completed well, 5300 feet Rotary X / Cable tools / Approximate water strata depths: Fresh, 430 feet; salt, none feet. Approximate coal seam depths: None Is coal being mined in the area: Yes / No X

CASING AND TUBING PROGRAM

Table with columns: CASING OR TUBING TYPE, SPECIFICATIONS (Size, Grade, Weight per ft, New, Used), FOOTAGE INTERVALS (For drilling, Left in well), CEMENT FILL-UP OR SACKS (Cubic feet), PACKERS (Kinds, Sizes, Depths set, 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 8-31-81

J. J. [Signature] Deputy Director of Gas Division

The undersigned shall not be held liable 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.

By [Signature] Its [Signature]