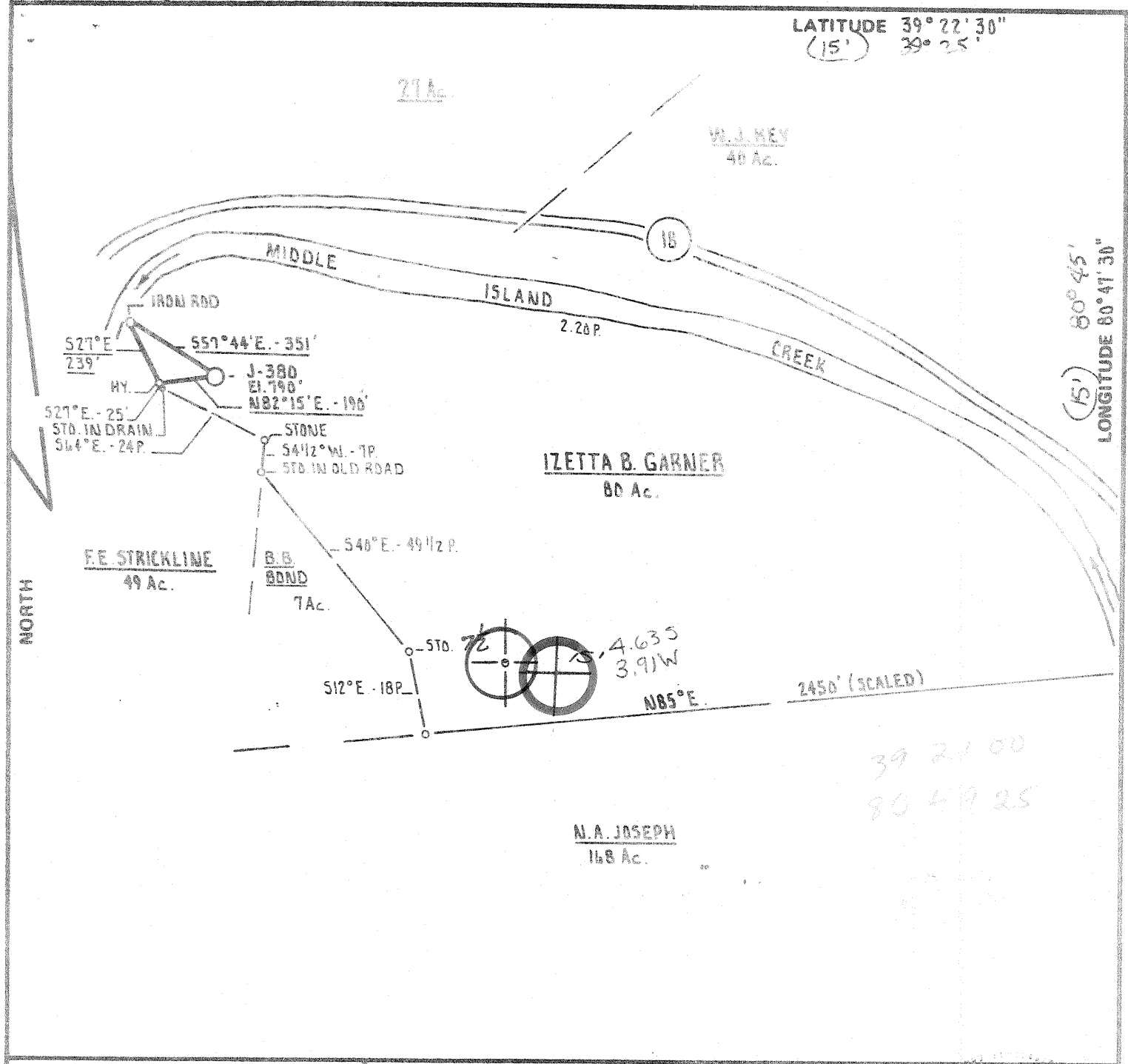


LATITUDE 39° 22' 30"
(15') 39° 25'

LONGITUDE 80° 45'
(15') 80° 41' 30"



39 21 00
80 41 25

FILE NO. _____
DRAWING NO. _____
SCALE 1" = 500'
MINIMUM DEGREE OF ACCURACY 1 PART IN 200
PROVEN SOURCE OF ELEVATION INTERSECTION RT. # 18 AND 56 ELEVATION 825'

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) Daniel L. Wheeler
R.P.E. _____ L.L.S. 530

PLACE SEAL HERE

(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS
FORM IV-6 (8-78)



DATE OCTOBER 2nd, 19 80
OPERATOR'S WELL NO. J-380
API WELL NO. 47-095-0870
STATE TYLER COUNTY TYLER PERMIT

STATE OF WEST VIRGINIA
DEPARTMENT OF MINES
OIL AND GAS DIVISION

WELL TYPE: OIL ___ GAS X LIQUID INJECTION ___ WASTE DISPOSAL ___
(IF "GAS,") PRODUCTION X STORAGE ___ DEEP ___ SHALLOW X
LOCATION: ELEVATION 790' WATER SHED MIDDLE ISLAND CREEK
DISTRICT CENTERVILLE COUNTY TYLER
QUADRANGLE WEST UNION 7.5' & 15' SC
SURFACE OWNER IZETTA B. GARDNER ACREAGE 80 Ac.
OIL & GAS ROYALTY OWNER IZETTA B. GARDNER LEASE ACREAGE 80 Ac.
LEASE NO. P.S. 10
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 5400'
WELL OPERATOR J. and J. ENTERPRISES, INC. DESIGNATED AGENT HARRY BARNETT
ADDRESS P.O. BOX 48 ADDRESS P.O. BOX 48
BUCKHANNON, WEST VIRGINIA 26201 BUCKHANNON, WEST VIRGINIA 26201

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: 790 Watershed: Middle Island Creek
District: Centerville County: Tyler Quadrangle: West Union 7.5

WELL OPERATOR J & J Enterprises, Inc. DESIGNATED AGENT Roger Rolston
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 10/21, 19 80, OIL & GAS INSPECTOR FOR THIS WORK:
Name Phillip L. Tracy
Address P.O. Box 173
Middlebourne, WV 26149

BIOLOGICAL TARGET FORMATION: Alexander Depth _____ feet
Depth of completed well, 4901 feet Rotary / Cable Tools _____
Water strata depth: Fresh, 1285 feet; salt, 1345 feet.
Coal seam depths: 705-10 Is coal being mined in the area? No
Work was commenced 5-9, 19 _____, and completed 5/15, 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		
Conductor	11 3/4	H-40	42	x		32	32	0 sks. Kinds
Fresh water	8 5/8	ERW	23	x		1055.20	1055.20	275 sks.
Coal	8 5/8	ERW	23	x		1055.20	1055.20	275 sks. Sizes
Intermediate								
Production	4 1/2	J-55	10.5	x		4773	4773	210 sks. Cements set
Tubing								
Liners								Perforations: Top Bottom
								4290 4318
								4707 4710

OPEN FLOW DATA

OIL & GAS DIVISION
DEPT. OF MINES

Producing formation Benson Pay zone depth 4707-10 feet
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, 6 hours
Static rock pressure, 1750 psig (surface measurement) after 96 hours shut in
[If applicable due to multiple completion--] P.I. lists this interval @ the Bradford
Second producing formation Bradford Pay zone depth 4290-4318 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
Static rock pressure, _____ psig (surface measurement) after _____ hours shut in

OTTOM HOLE PRESSURE $1 \frac{1}{1}$
 $w=1750$ $E=2.72$ $x=5334$ $T=53.34$ $(555.5)=29630=0.0000337$ $T=60+(4773 \times 0.0075) +459.7$ $T=555.5$
 $=0.682$ $L=4500$ $S=0.9$ $Pf=1750$ $(2.72)(0.0000337)(0.682)(4500)(0.9) =1750(2.72)^{0.093} =1750(1.098)$
 $Pf=1921.5$

AUG 17 1981

[08-78]

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

Benson: Perforations: 4707-10 (12 holes)
Fracturing: 100 sks. 80/100 sand: 320 sks. 20/40 sand: 500 Bbls. fluid

Bradford: Perforations: 4290- 4318 (12 holes)
Fracturing: 100 sks. 80/100 sand: 280 sks. 20/40 sand :500 gal. Acid.
400 Bbls. fluid.

Well Log

FORMATION	Color	Hard or Soft	Top Feet	Bottom Feet	Remarks Including indication of all Green and salt water, coal, oil and gas
Dirt			0	10	
Sand			10	145	Wet @ 205 - $\frac{1}{2}$ " stream
Sand, shale & red rock			145	275	
White sand			275	520	Oil @ 775
Red rock, sand & shale			520	550	
Red rock & shale			550	585	3/4" to 1" stream @ 1280-85
Shale, sand & red rock			585	705	Gas ck @ 2422 No show
Coal			705	710	
Shale & sand			710	965	Gas ck @ 3167 No show
Salt sand			965	1270	
Black shale			1270	1280	Gas ck @ 4714 No show
Salt sand			1280	1345	
Sand			1345	1405	
Salt sand			1405	1450	
Sand, shale & lime			1450	1610	
Red rock, shale & lime			1610	1620	
Big Lime			1620	1725	
Big Injun			1725	1825	
Salt sand			1825	2400	
Gordon			2400	2415	
Sand & shale			2415	3095	
Warren			3095	3135	
Sand & shale			3135	4290	
Bradford			4290	4318	
Sand & shale			4318	4707	
Benson			4707	4710	
Sand & shale			4710	4901	
				TD	

(Attach separate sheets to complete as necessary.)

J & J Enterprises, Inc.

Well Operator

By

Peter Battles

Its

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-380

API Well No. 97-095 State County 087

WELL TYPE: Oil / Gas / (If "Gas", Production / Underground storage / Deep / Shallow / LOCATION: Elevation: 790 Watershed: Middle Island Creek District: Centerville County: Tyler 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 ROYALTY OWNER Izetta B. Garner Address Rt. 1 Greenwood, WV

COAL OPERATOR None Address _____

ACREAGE '80 SURFACE OWNER Izetta B. Garner Address Rt. 1 Greenwood, WV Acreage 80

COAL OWNER(S) WITH DECLARATION ON RECORD: Name _____ Address _____

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

RECEIVED OCT 21 1980

OIL & GAS INSPECTOR TO BE NOTIFIED Name Phillip L. Tracy Address P.O. Box 173 Middlebourne, WV 26149

COAL LESSEE WITH DECLARATION ON RECORD: Name None Address _____

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 Petroleum Services, Inc.

[If said deed, lease, or other contract has been recorded:] Recorded on Sept. 21, 1979 in the office of the Clerk of the County Commission of Tyler County, West Virginia, in oil & gas lease Book 221 at page 171. 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) _____

The above named well operator, coal owner(s), and coal lessee are hereby notified that any operations 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 RETURN COPIES OF ALL GEOPHYSICAL LOGS DIRECTLY TO: WEST VIRGINIA OIL AND GAS CONSERVATION COMMISSION 1625 WASHINGTON STREET EAST CHARLESTON, WV 25311 TELEPHONE: (304) 345-3092

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

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, Alexander
Estimated depth of completed well, 5400 feet Rotary X / Cable tools /
Approximate water strata depths: Fresh, 120 feet; salt, none feet.
Approximate coal seam depths: none Is coal being mined in the area: Yes No X

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		1500	1500	375 sks	
Coal	8 / 8	ERW	23	X		1500	1500	375 sks	Sizes
Intermediate									
Production	4 ¹ / ₂	J-55	10.5	X		5350	5350	300 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", previously paid on the same well, the fee required by Code § 22-4-12a, and (iv) 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.

THIS PERMIT MUST BE POSTED AT THE WELL SITE

All provisions being in accordance with Chapter 22, of the W. Va. Code, this location is hereby approved for drilling. This permit shall expire if operations have not commenced by 6-22-81

John R. Rudolph
Deputy Director, Oil & Gas Division

The undersigned coal operator 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 _____