



FILE NO. JJ
 DRAWING NO. 3
 SCALE 1"=500'
 MINIMUM DEGREE OF ACCURACY 1/200
 PROVEN SOURCE OF ELEVATION RD 750

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) [Signature]
 R.P.E. _____ L.L.S. 632

PLACE SEAL HERE

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



DATE JUNE 9, 1981
 OPERATOR'S WELL NO. J515
 API WELL NO. 47-095-0925
 STATE COUNTY PERMIT

STATE OF WEST VIRGINIA
 DEPARTMENT OF MINES
 OIL AND GAS DIVISION

WELL TYPE: OIL GAS LIQUID INJECTION _____ WASTE DISPOSAL _____
 (:P" GAS", PRODUCTION _____ STORAGE _____ DEEP _____ SHALLOW _____
 LOCATION: ELEVATION 1025 WATER SHED ARNOLDS CREEK
 DISTRICT CENTERVILLE COUNTY TYLER
 QUADRANGLE WEST UNION 7.5 West Union 15 C
 SURFACE OWNER W. PAUL McCUTCHEN ACREAGE 109.8
 OIL & GAS ROYALTY OWNER W. PAUL McCUTCHEN (1/2) ETAL LEASE ACREAGE 109.8
 LEASE NO. JJ 1126
 PROPOSED WORK: DRILL CONVERT _____ DRILL DEEPER _____ REDRILL _____ FRACTURE OR STIMULATE _____ FLUG OFF OLD FORMATION _____ PERFORATE NEW FORMATION _____ OTHER PHYSICAL CHANGE IN WELL (SPECIFY) _____
 PLUG AND ABANDON _____ CLEAN OUT AND REPLUG _____
 TARGET FORMATION Benson ESTIMATED DEPTH 5700
 WELL OPERATOR J & J Enterprises DESIGNATED AGENT Roger Ralston
 ADDRESS P.O. Box 47 ADDRESS P.O. Box
Buckhannon, WV 26201 Buckhannon, WV 26201
6-6 Wilbur (92)

JUL 27 1981

(Obverse)
[08-78]

Date: October 12, 19 81
Operator's Well No. J-515
API Well No. 47 095 - 0925
State County Permit

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: 1025 Watershed: Arnolds Creek
District: Centerville County: Tyler 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 X / Convert ___ / Drill deeper ___ / Redrill ___ / Fracture or stimulate ___
Plug off old formation ___ / Perforate new formation ___
Other physical change in well (specify) _____

PERMIT ISSUED ON 7/8, 19 81

OIL & GAS INSPECTOR FOR THIS WORK:
Name Phillip L. Tracy
Address Rt. # 23
Alma, WV 26320

(IF APPLICABLE: PLUGGING OF DRY HOLE OR CONTINUOUS PROGRESSION FROM DRILLING OR REWORKING. VERBAL PERMISSION OBTAINED _____, 19 _____)

GEOLOGICAL TARGET FORMATION: Benson Depth 4930-42 feet
Depth of completed well, 5428 feet Rotary X / Cable Tools ___
Water strata depth: Fresh, 100 feet; salt, 0 feet.
Coal seam depths: None Is coal being mined in the area? NO
Work was commenced 9/26, 19 81, and completed 10/1, 1981

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.	Rinds
Fresh water	8 5/8	ERW	23	x		1093	1093	250 sks.	
Coal	8 5/8	ERW	23	x		1093	1093	250 sks.	Sizes
Intermediate									
Production	4 1/2	J-55	10.5	x		4984.15	4984.15	225 sks.	Seams set
Tubing									
Liners									
									Perforations:
									Top Bottom
									4528 4554
									4939 4942

OPEN FLOW DATA

OIL AND GAS DIVISION
WV DEPARTMENT OF MINES

Producing formation Benson Pay zone depth 4939-42 feet
Gas: Initial open flow, ___ Mcf/d Oil: Initial open flow, ___ Bbl/d
Combined Final open flow, 1,205 Mcf/d Final open flow, ___ Bbl/d
Time of open flow between initial and final tests, 4 hours
Static rock pressure, 1450 psig (surface measurement) after 72 hours shut in
[If applicable due to multiple completion--]

Second producing formation Riley Pay zone depth 4528-54 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

Bottom Hole Pressure Pf=PweXGLS
 $= 60 + (0.0075 \times 4984) + 459.7 = 558$
 $X = \frac{1}{53.35} \times 558 = \frac{1}{29769} = 0.0000336$
 $Pf = 1450 \times 2.72 (0.0000336) = 1450 \times 2.72 \times 0.096 = 1450 \times 1.10$
Pf= 1595

NOV 5 1981

[08-78]

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

Benson: Perforations: 4939-42 (12 holes)
Fracturing: 100 sks. 80/100 sand: 500 sks. 20/40 sand: 600 Bbls. fluid.

Riley: Perforations: 4528-54 (8 holes)
Fracturing: 100 sks. 80/100 sand: 500 20/40 sand: 500 gals. Acid. 600 Bbls. fluid.

WELL 100

FORMATION	Color	Hard or Soft	Top Feet	Bottom Feet	Remarks Including indication of all fresh and salt water, coal, oil and gas
Top soil			0	5	
Brown sand			5	29	Damp @ 100'
Sand & shale			29	125	Gas ck @ 2110-1" w/water 28,277 cu.ft.
Red rock and sand			125	808	
Sand, shale & red rock			808	875	
Red rock, sand & shale			875	915	Gas ck. @ 3935 40/10-1" w/water 47,629 cu.ft.
Sand, shale & red rock			915	1890	
Big Lime			1890	1950	
Big Injun			1950	2075	Gas ck. @ 4868 150/10 - 1" w/water 129.09 cu.ft.
Sand & shale			2075	2245	
Sand and shale			2245	3850	Gas ck @ 4868 10/10-2" w/water 492,000
Balltown			3850	3930	
Sand & shale			3930	4528	
Riley			4528	4554	Gas ck @ 4962 20/10-2" w/water
Sand & shale			4554	4930	
Benson			4930	4942	696,000 cu.ft.
Sand & shale			4942	5220	
Alexander			5220	5250	Gas ck @ 5179 32/10-2" w/water
Sand & shale			5250	5428	880,000 cu.ft.
				T.D.	

(Attach separate sheets as complete as necessary)

J & J Enterprises, Inc.
Well Operator

By Peter Battles
Geologist

NOTE: Regulation 2.72(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-515

API Well No. 47 - 095 - 092
State County Perm

WELL TYPE: Oil / Gas /
(If "Gas", Production / Underground storage / Deep / Shallow /
LOCATION: Elevation: 1025 Watershed: Arnolds 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 Roger Rolston
Address P.O. Box 48
Buckhannon, WV 26201

OIL & GAS LEASE OWNER W. Paul McCutchan
Address 300 Wood St.
West Union, WV 26456

COAL OPERATOR None
Address

ACREAGE 109.8
SURFACE OWNER Wm. Paul McCutchan
Address 300 Wood St.
West Union, WV 26456
ACREAGE 109.8

COAL OWNER(S) WITH DECLARATION ON RECORD;
Name Wm. Paul McCutchan
Address 300 Wood St.
West Union, WV 26456

FIELD SALE (IF MADE) TO:
Name Unknown
Address

Address

OIL & GAS INSPECTOR TO BE NOTIFIED
Name Phillip L. Tracy
Address Rt. # 23
Alma, WV 26320

COAL LESSEE WITH DECLARATION ON RECORD;
Name None
Address

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 3/12, 1981; to the undersigned well operator from Kathleen Upton

If said deed, lease, or other contract has been recorded:]
Recorded on 3/12, 1981, in the office of the Clerk of the County Commission of Tyler County, West Virginia, in Oil & Gas Lease Book 119 at page 609. 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 changes 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.

LEASEE MUST COPIES OF ALL
ECPHYSICAL LOGS DIRECTLY TO:
WEST VIRGINIA OIL AND GAS
CONSERVATION COMMISSION
608 WASHINGTON STREET EAST
CHARLESTON, WV 25311
TELEPHONE: (304) 348-3092

BLANKET BOND

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

[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, Benson

Estimated depth of completed well, 5700 feet Rotary x / Cable tools /
Approximate water strata depths: Fresh, 380 feet; salt, 0 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, Bot).

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.

THIS PERMIT MUST BE POSTED AT THE WELL SITE

where fracturing or stimulating is to be part of the work for which a permit is sought and All operations 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 3-14-82.

Signature of Deputy Director - Oil & Gas Division

The undersigned 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