

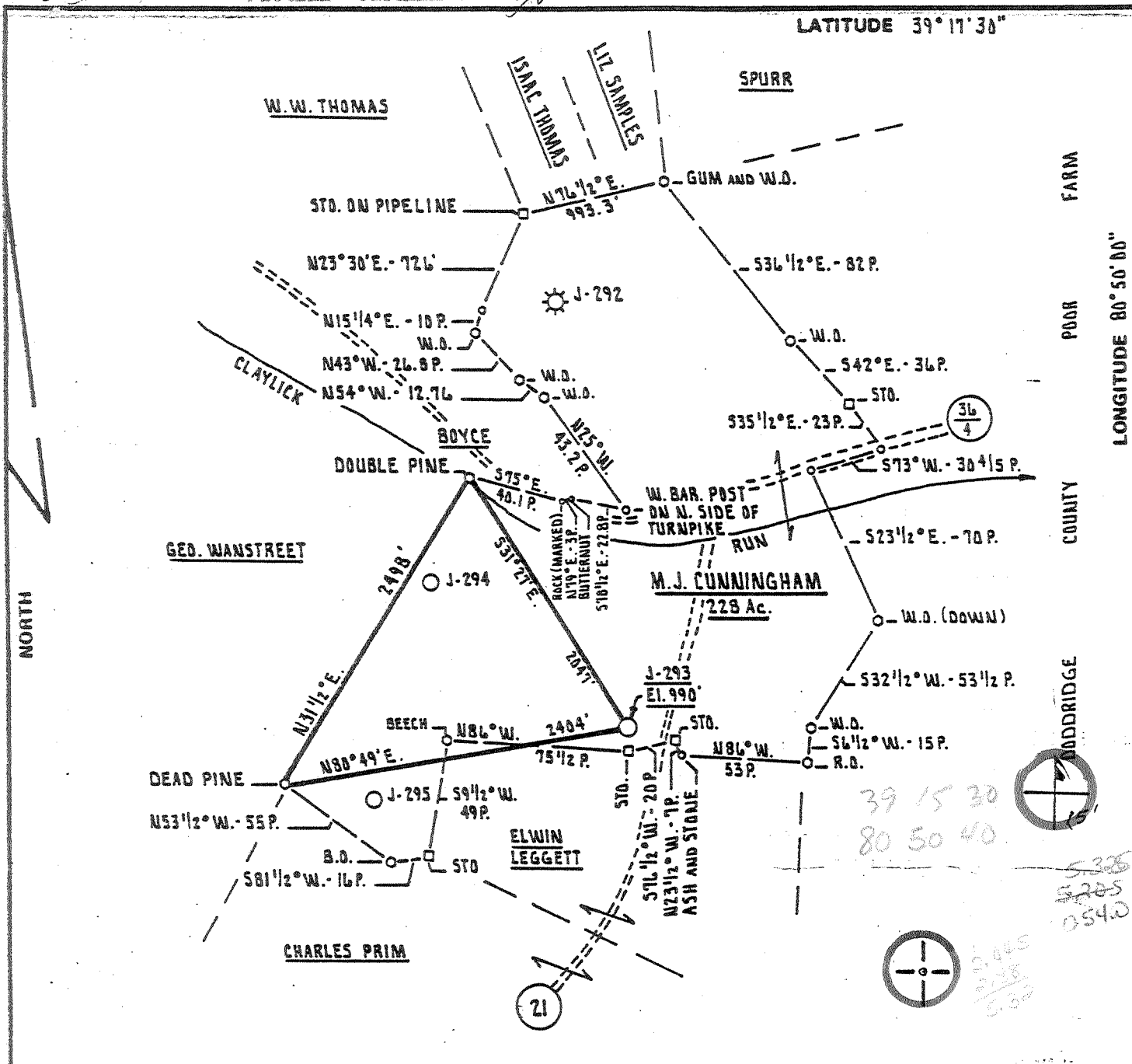
cl 410

Plot Card CSD

39° 20'

LATITUDE 39° 17' 30"

LONGITUDE 80° 50' 00"



FILE NO. _____
 DRAWING NO. _____
 SCALE 1" = 1000'
 MINIMUM DEGREE OF ACCURACY 1 PART IN 200
 PROVEN SOURCE OF ELEVATION J. and J. ENTERPRISES INC.
WELL #K-II #1 ELEVATION 1156'

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) Cecil R. Main
 R.P.E. _____ L.L.S. 711

PLACE SEAL HERE

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



DATE JANUARY 9th, 19 81
 OPERATOR'S WELL NO. J-293
 API WELL NO. _____
47 - 017 - 2950
 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 990' WATER SHED CLAYLICK RUN
 DISTRICT CENTRAL COUNTY DODDRIDGE
 QUADRANGLE WEST UNION 7.5 @ 15' 5C
 SURFACE OWNER GLEN KNIGHT ACREAGE 128 Ac.
 OIL & GAS ROYALTY OWNER M.J. CUNNINGHAM LEASE ACREAGE 228 Ac.
 LEASE NO. H-23
 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 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

6-4 STRAIGHT FR-BLUESTONE CR 89 733 FEB 13 1981 99
 Greenwood

[08-78]

Operator's Well No. J-293
 API Well No. 47 - 017 - 2950-R
 State County Permit

RECEIVED

DEC 24 1981

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

OIL AND GAS DIVISION
 WV DEPARTMENT OF MINES

WELL OPERATOR'S REPORT
 OF
 DRILLING, FRACTURING AND/OR STIMULATION, OR PHYSICAL CHANGE

WELL TYPE: Oil ___ / Gas X / Liquid Injection ___ / Waste Disposal ___
 (If "Gas", Production X / Underground storage ___ / Deep ___ / Shallow X)
 LOCATION: Elevation: 990 Watershed: Claylick Run
 District: Central 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 X / Convert ___ / Drill deeper ___ / Redrill ___ / Fracture or stimulate X
 Plug off old formation ___ / Perforate new formation ___ /
 Other physical change in well (specify) _____

PERMIT ISSUED ON 11/9, 19 81 OIL & GAS INSPECTOR FOR THIS WORK:
 Name Steve Casey
 Address Rt. # 2, Box 232-D
Jane Lew, WV 26378
 (IF APPLICABLE: PLUGGING OF DRY HOLE OR CONTINUOUS PROGRESSION FROM DRILLING OR REWORKING. VERBAL PERMISSION OBTAINED _____, 19 _____)

GEOLOGICAL TARGET FORMATION: Alexander Depth 5302-29 feet
 Depth of completed well, 5510 feet Rotary X / Cable Tools ___
 Water strata depth: Fresh, 185,1250 feet; salt, None feet.
 Coal seam depths: None Is coal being mined in the area? X
 Work was commenced 12/3, 19 81, and completed 12/10, 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		30	0	0 sks	Rinds
Fresh water	8 5/8	ERW	23	X		1517	1517	220 sks.	
Coal	8 5/8	ERW	23	X		1517	1517	220 sks.	Sizes
Intermediate									
Production	4 1/2	10.5	55	X		5379.55	5379.55	550	Downs set
Tubing									
Liners									Perforations:
									Top Bottom
									3463 4609
									5009 5011
									5302 5329

OPEN FLOW DATA

Producing formation Alexander Pay zone depth 5302-29 feet

Gas: Initial open flow, ___ Mcf/d Oil: Initial open flow, ___ Bbl/d
 Combined Final open flow, 1,678 Mcf/d Final open flow, ___ Bbl/d
 Time of open flow between initial and final tests, 4 hours

Static rock pressure, 1560 psig (surface measurement) after 96 hours shut in

(If applicable due to multiple completion--)

Second producing formation Benson & Balltown Pay zone depth 5009-5011 feet
3463-4609

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

$$=60+(0.0075 \times 5379) + 459.7 =560 \quad x=53.35 \quad x \ 560 \quad x=53.35 \quad x \ 560=29878 \quad =0.0000335 \quad Pf=1560 \times 2172$$

$$(0.0000335) (0.697) (4397) (0.9) = 1560 \times 2.72 \quad 0.090 =1560 \times 1.09$$

f=1707 psi

JAN 21 1982

108-783

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

Alexander: Perforations: 5302-29 (13 holes)
Fracturing: 100 sks. 80/100 sand; 500 sks. 20/40 sand; 600 Bbls. fluid .

Benson: Perforations: 5009-11 (7 holes)
Fracturing: 100 sks. 80/100 sand: 400 sks. 20/40 sand: 700 gal. Acid:500 Bbls.fluid

Balltown:Perforations: 3465-3590 (6 holes)
4016-4029 (6 holes)
4606-4609 (6 holes)
Fracturing:100 sks. 80/100 sand: 250 sks. 20/40 sand: 700 gal. Acid:400 Bbls.fluid

WELL LOG

FORMATION	Color	Hard or Soft	Top Feet	Bottom Feet	Remarks Including indication of all fresh and salt water, coal, oil and gas
Sand- stone and shale			0	20	
Shale & sand			20	80	
Sand, shale & red rock			80	170	Hole damp @ 185'
Sand, shale & red rock			170	375	
Red rock, shale & sand			375	800	Hole damp @ 970'
Red rock & shale			800	1050	
Red rock & shale			1050	1445	
Shale			1445	1635	
White sand			1635	1655	
Sand & shale			1655	1970	
Big Lime			1970	2030	
Sand & shale			2030	2340	
Shale & sand			2340	2710	
Shale			2710	3465	
Balltown			3465	4606	
Shale			4606	4620	
Dark shale			4620	4920	
Brown sand & shale			4920	5009	
Benson			5009	5011	
Shale			5011	5030	
Shale			5030	5240	
Brown sand			5240	5302	
Alexander			5302	5329	
Shale			5329	5510	
				T.D.	

(Attach separate sheets as complete as necessary.)

J & J Enterprises, INC.

Well Operator

By

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-293
API Well No. 47-017-2950
State County Perm

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

LOCATION: Elevation: 990 Watershed: Claylick Run
District: Central 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 ROYALTY OWNER Richard J. Cunningham
Address 8284 Klusman
Cucamota, CA

COAL OPERATOR None
Address:

ACREAGE 288
SURFACE OWNER Glen Knight
Address Rt. 1
West Union, WV 26456
ACREAGE 128

COAL OWNER(S) WITH DECLARATION ON RECORD:
Name Richard J. Cunningham
Address 8284 Klusman
Cucamota, CA

FIELD SALE (IF MADE) TO:
Name unknown
Address

COAL LESSEE WITH DECLARATION ON RECORD:
Name None
Address

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

OIL & GAS DIVISION
DEPT. OF MINES

RECEIVED
JAN 16 1981

The undersigned well operator is entitled to operate for oil or gas purposes at the above location under a deed / lease / other contract X / dated 4-16, 1980, to the undersigned well operator from Justin L. Henderson

[If said deed, lease, or other contract has been recorded:]
Recorded on 5-16, 1980, in the office of the Clerk of the County Commission of Doddridge County, West Virginia, in Deed Book 115 at page 74. A permit is requested as follows:

PROPOSED WORK: Drill X / Drill deeper / Redrill / Fracture or stimulate X /
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 GEOPHYSICAL LOGS DIRECTLY TO:
WEST VIRGINIA OIL AND GAS CONSERVATION COMMISSION
1615 WASHINGTON STREET EAST
CHARLESTON, WV 25311
TELEPHONE: (304) 348-3092

BLANKET BOND

J&J Enterprises, Inc.
Well Operator

By Peter Battles
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 Cable tools

Approximate water strata depths: Fresh, 50 feet; salt, 1385 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		65	0	0	Kinds
Fresh water	8 5/8	ERW	23	X		1400	1400	350 sks	
Coal	8 5/8	ERW	23	X		1400	1400	350 sks	Sizes
Intermediate									
Production	4 1/2	J-55	10.5	X		5330	5330	410	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 § 22-4-2a 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 the 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 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 9-20-81.

[Signature]
Deputy Director - Oil & Gas Division

The following waiver must be provided by the well 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

[08-78]

OIL AND GAS WELL PERMIT APPLICATION

Operator's Well No. J-293 API Well No. 47-017-2950-R State County Perm

WELL TYPE: Oil / Gas X (If "Gas", Production X / Underground storage / Deep / Shallow X /) LOCATION: Elevation: 990 Watershed: Claylick Run District: Central 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 ROYALTY OWNER Richard J. Cunningham Address 8284 Klusman Cucamota, CA

COAL OPERATOR None Address

SURFACE OWNER Glen Knight Address Rt. 1 West Union, WV 26456 Acreage 128

COAL OWNER(S) WITH DECLARATION ON RECORD: Name Richard J. Cunningham Address 8284 Klusman Cucamota, CA

FIELD SALE (IF MADE) TO: Name unknown Address

COAL LESSEE WITH DECLARATION ON RECORD: Name None Address

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

RECEIVED NOV - 9 1981 OIL AND GAS DIVISION WV DEPARTMENT OF MINES

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PLEASE SUBMIT COPIES OF ALL GEOPHYSICAL LOGS DIRECTLY TO: WEST VIRGINIA OIL AND GAS CONSERVATION COMMISSION 1615 WASHINGTON STREET EAST CHARLESTON, WV 25311 TELEPHONE: (304) 526-3092

STAMPED SIGNATURE

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

