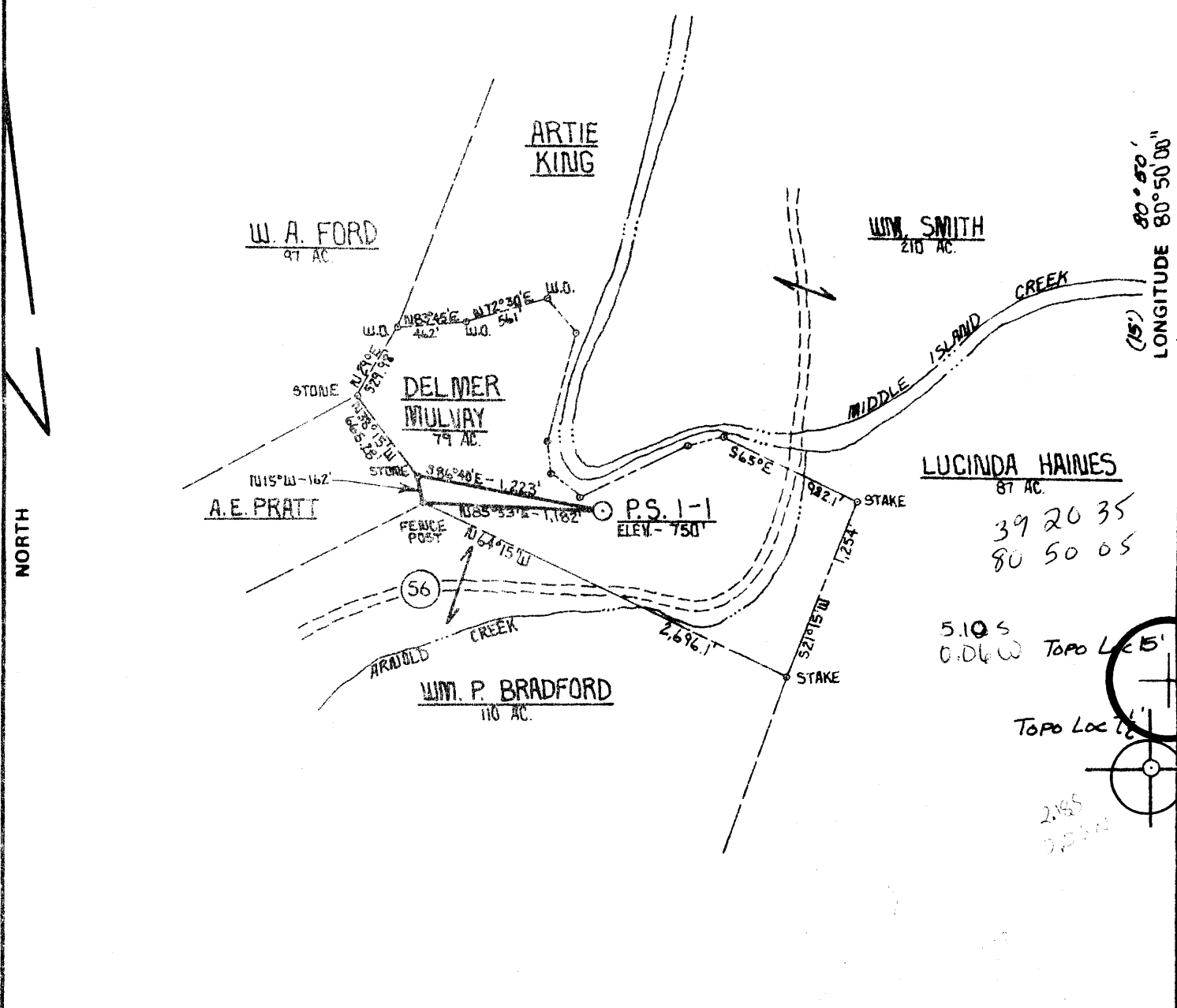


LATITUDE 39° 22' 30"
(15') 39° 25'

LONGITUDE 80° 50' 00"
(15')



LUCINDA HAINES
87 AC.
39 20 35
80 50 05

5.10 S
0.06 W Topo Loc 15'
Topo Loc 15'
2.185
2.200

FILE NO. _____
 DRAWING NO. _____
 SCALE 1" = 1,000'
 MINIMUM DEGREE OF ACCURACY 1 PART IN 200
 PROVEN SOURCE OF ELEVATION INT. RT. 18 & RT. 56
 ELEV. 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 JANUARY 21, 19 80
 OPERATOR'S WELL NO. P.S. 1-1
 API WELL NO. 47 - 095 - 0782
 STATE COUNTY 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 750' WATER SHED MIDDLE ISLAND CREEK
 DISTRICT CENTERVILLE COUNTY TYLER
 QUADRANGLE WEST UNION 7.5, 15 C
 SURFACE OWNER DELMER MULWAY ACREAGE 82.72
 OIL & GAS ROYALTY OWNER DELMER MULWAY LEASE ACREAGE 79
 LEASE NO. P.S. 1
 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 5,150'
 WELL OPERATOR J & J ENTERPRISES, INC. DESIGNATED AGENT HARRY BARNETT
 ADDRESS P.O. BOX 48 BUCKHANNON, W. VA. 26201 ADDRESS P.O. BOX 48 BUCKHANNON, W. VA. 26201

3-3 Wilbur (92)

FEB 28 1980

MAR 10 1980

OIL & GAS DIVISION
DEPT. 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: 750' Watershed: Middle Island Creek
District: Centerville County: Tyler Quadrangle: West Union 7.5
WELL OPERATOR J & J Enterprises, Inc. DESIGNATED AGENT H.L. Barnett
Address P.O. Box 48 Buckhannon, WV 26201 Address P.O. Box 48 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 2-7, 19 80, OIL & GAS INSPECTOR FOR THIS WORK:
(IF APPLICABLE: PLUGGING OF DRY HOLE OR CONTINUOUS PROGRESSION FROM DRILLING OR REWORKING. VERBAL PERMISSION OBTAINED) Name Phillip Lee Tracy
Address Box 173 Dodd St. Middlebourne, WV 26149

GEOLOGICAL TARGET FORMATION: Alexander Depth _____ feet
Depth of completed well, 5100 feet Rotary / Cable Tools
Water strata depth: Fresh, 25 feet; salt, None feet.
Coal seam depths: None Is coal being mined in the area? No
Work was commenced 2-23, 1980, and completed 2-29, 19 80

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	Kind	Depth
Conductor	13/4H-40	42	X			96.50	0	0 sks	None	
Fresh water	8 5/8 BERW	23	X			1040.30	1040.30	285 sks		
Coal	8 5/8 BERW	23	X			1040.30	1040.30	285 sks	Sizes	
Intermediate										
Production Tubing	4 1/2 J-55	10.5	X			5052	5052	280 sks	Depth set	
Liners									Perforations:	
									Top	Bottom
									4238	4242 ✓
									4654	4657 ✓
									4934	4952 ✓

OPEN FLOW DATA
Producing formation Alexander Pay zone depth 4934-52 feet
Gas: Initial open flow, Show Mcf/d Oil: Initial open flow, Bbl/d
Combined Final open flow, 622 Mcf/d Oil: Initial open flow, Bbl/d
Time of open flow between initial and final tests, 22 hours
Static rock pressure, 1425 psig (surface pressure) after 23 hours shut in
(If applicable due to multiple completion--)
Second producing formation Benson & Riley Pay zone depth 4238'-42' R.R. / 4654'-57' Ben.
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 pressure) after hours shut in

APR 9 1980

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

Alexander-Perforations: 4934'-52' (19 holes)
Fracturing: 500 gal Acid: 20,000 lbs Sand 80/100 wire mesh:
45,000 lbs. Sand 20/40 wire mesh; 641 Bbls fluid.

Benson & Riley-Perforations: 4238'-42' (5 Holes) 4654'-57' (8 Holes)
Fracturing: 500 gal Acid; 20,000 lbs Sand 80/100 wire mesh
40,000 lbs. Sand 20/40 wire mesh: 594 Bbls fluid.

REL 100

FORMATION	Color	Hard or Soft	37 Top Feet	Bottom Feet	Remarks Including indication of all gas and salt water, coal, etc. in log
Clay			0	10	
Shale			10	20	
Sand			20	25	
Red Rock			25	30	Water @ 25'
Sand			30	60	
Red Rock			60	65	
Sand			65	85	Water @ 73'
Sand & Shale			85	200	
Red Rock			200	215	
Sand & Shale			215	315	
Red Rock			315	330	
Sand & Shale			330	400	
Sand			400	415	
Sand & Shale			415	810	
Shale			810	980	
Sand & Shale			980	1220	
Shale			1220	1520	
Red Rock			1520	1530	
Shale			1530	1560	
Little Lime			1560	1580	
Big Lime			1580	1685	
Big Injun			1685	1760	
Sand & Shale			1760	2275	
Shale			2275	2315	
Sand & Shale			2315	3890	Gas @ 2458' 36/10 thru 2" w/wa
Shale			3890	4238	
Riley			4238	4267	
Sand & Shale			4267	4652	
Benson			4652	4658	Gas @ 4660' 40/10 thru 2" w/wa
Sand & Shale			4658	4908	
Alexander			4908	4976	
Shale			4976	5100	TD.- 5100 Gas @ TD 32/10 thru 2" w/wat

5100
1760
3340 ft.
exploratory

Attach separate sheets to complete as necessary.

J & J Enterprises, Inc.

Well Operator

By Peter Battles
Its Geologist

NOTE: Regulation 0.0004 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. P. S. -1-#1
API Well No. 47-095-078
State County Perm

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

LOCATION: Elevation: 750 Watershed: Middle Island Creek
District: Centerville County: Tyler Quadrangle: West Union 7 1/2

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

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

OIL & GAS ROYALTY OWNER Delmer Mulvay
Address Star Route
West Union, W. Va. 26456
Acreage 82.7

COAL OPERATOR N/A
Address

SURFACE OWNER Delmer Mulvay
Address Star Route
West Union, W. Va. 26456
Acreage 82.7

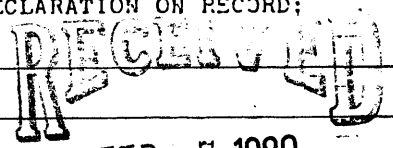
COAL OWNER(S) WITH DECLARATION ON RECORD:
Name Delmer Mulvay
Address Star Route
West Union, W. Va. 26456

FIELD SALE (IF MADE) TO:
Name
Address

Name
Address

OIL & GAS INSPECTOR TO BE NOTIFIED
Name Phillip Lee Tracy
Address Box 173 Dodd St.
Middlebourn, W. Va. 26149

COAL LESSEE WITH DECLARATION ON RECORD:
Name N/A
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 X / dated September 6, 1979, to the undersigned well operator from Petroleum Services Inc.

[If said deed, lease, or other contract has been recorded:]
Recorded on October 20, 1979, in the office of the Clerk of the County Commission of Tyler County, West Virginia, in Deed Book 22 at page 642. A permit is requested as follows:

PROPOSED WORK: Drill X / Drill deeper / Redrill / Fracture or stimulate X /
 / Perforate new formation /
Other physical change in well (specify)

--- attached in other on the work order on the reverse side hereof.

The well operator, coal owner(s), and coal lessee are hereby notified that any additional work to be done or required to be done 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
1601 WASHINGTON STREET EAST
CHARLESTON, WV 25311
TELEPHONE: (304) 348-3092

BLANKET ROAD

J & J ENTERPRISES, INC.
Well Operator
By Peter Battles
PETER BATTLES GEOLOGIST
Its

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, W. Va. 26201

GEOLOGICAL TARGET FORMATION, Alexander

Estimated depth of completed well, 5200 feet Rotary / Cable tools /
Approximate water strata depths: Fresh, 80 feet; salt, 800 feet.
Approximate coal seam depths: None Is coal being mined in the area: Yes / No

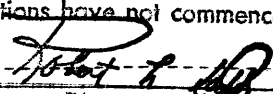
CASING AND TUBING PROGRAM

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		Kind	Depth
Conductor	113/4	H-40	42	X		30	0	0 sks.	None	
Fresh water	8 5/8	ERW	23	X		1200	1200	300 sks.		
Coal	8 5/8	ERW	23	X		1200	1200	300 sks.	Sizes	
Intermediate										
Production	4 1/2	J-55	10.5	X		5150	5150	330 sks.	Deaths 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 **THIS PERMIT MUST BE POSTED AT THE WELL SITE** 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 10-8-80.


Deputy Director - Oil & Gas Division

The undersigned coal operator and by any coal owner or coal lessee, hereby declares under Code § 22-4-20, if the permit is to be used within fifty (50) 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 _____