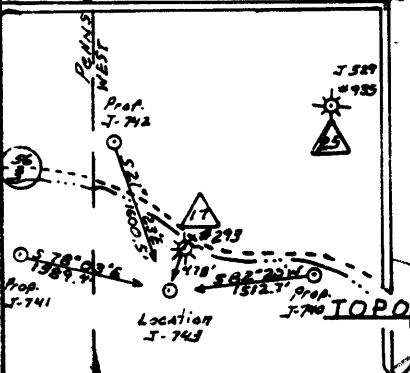
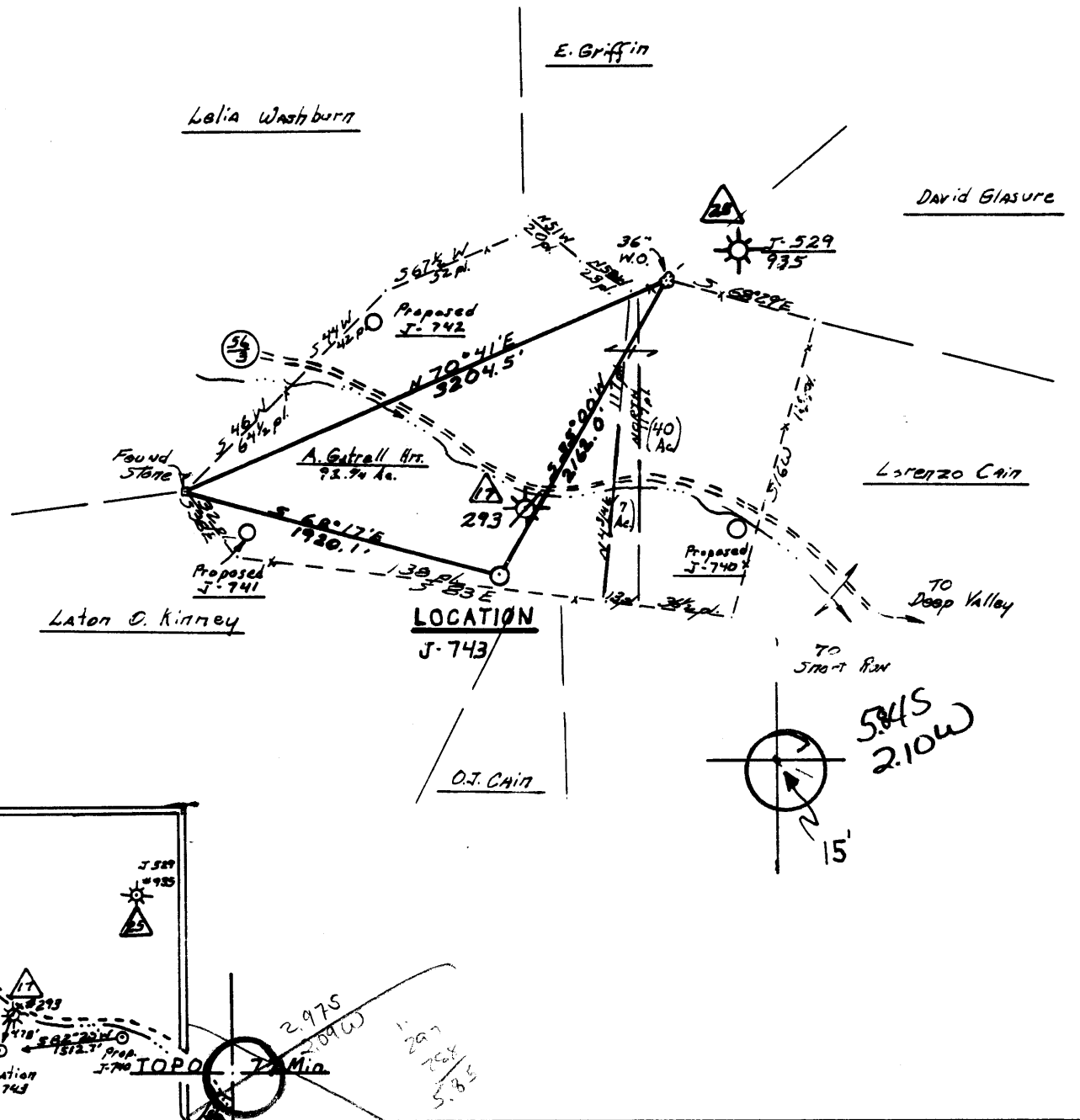


+7.5
0.125
2.14W

NORTH



FILE NO. 346.01
 DRAWING NO. 92-30
 SCALE 1"=1000'
 MINIMUM DEGREE OF ACCURACY 1 in 200
 PROVEN SOURCE OF ELEVATION Spot Elevation 832
Rd. Inters. SE. of Location

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) Richard J. Reddecliffe
 R.P.E. _____ L.L.S. 555
Buckhannon, W.Va.

PLACE SEAL HERE

STATE OF WEST VIRGINIA
 DEPARTMENT OF MINES
 OIL AND GAS DIVISION



DATE 23 December, 19 82
 OPERATOR'S WELL NO. J-743
 API WELL NO. 47-095-1020
 STATE COUNTY PERMIT

(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS
 WELL TYPE: OIL ___ GAS X LIQUID INJECTION ___ WASTE DISPOSAL ___
 (IF "GAS,") PRODUCTION X STORAGE ___ DEEP ___ SHALLOW X
 LOCATION: ELEVATION 1031' WATER SHED Start Run
 DISTRICT Centerville COUNTY Tyler
 QUADRANGLE West Union West Union 15'
 SURFACE OWNER Albert Gastrell Hairs ACREAGE 92 3/4
 OIL & GAS ROYALTY OWNER Albert Gastrell Hairs LEASE ACREAGE 19 3/4
 LEASE NO. JJ-1420
 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 ___ 6-6 Wilbur (92)
 TARGET FORMATION Alexander ESTIMATED DEPTH 5500
 WELL OPERATOR J&T Enterprises Inc. DESIGNATED AGENT Richard Reddecliffe
 ADDRESS P.O. Box 48 ADDRESS P.O. Box 48
Buckhannon, W.Va. 26201 Buckhannon, W.Va. 26201

IV-35
(Rev 8-81)

RECEIVED
AUG 27 1985



DIVISION OF OIL & GAS
DEPARTMENT OF ENERGY

State of West Virginia
Department of Mines
Oil and Gas Division

Date August 22, 1985
Operator's Well No. J-743
Farm Albert Gatrell Hrs.
API No. 47 - 095 - 1020-Ren

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: 1031 Watershed Short Run
District: Centerville County Tyler Quadrangle West Union

COMPANY J&J Enterprises, Inc.
ADDRESS P.O. Box 48, Buckhannon, WV 26201
DESIGNATED AGENT Richard Reddecliff
ADDRESS P.O. Box 48, Buckhannon, WV 26201
SURFACE OWNER Albert Gatrell Hrs.
ADDRESS/O Cammie Gatrell, Greenwood, WV 26360
MINERAL RIGHTS OWNER Same as surface
ADDRESS
OIL AND GAS INSPECTOR FOR THIS WORK Robert A. General Delivery
Lowther ADDRESS Middlebourne, WV 26149
PERMIT ISSUED 10/7/83
DRILLING COMMENCED 7/22/85
DRILLING COMPLETED 7/27/85
IF APPLICABLE: PLUGGING OF DRY HOLE ON CONTINUOUS PROGRESSION FROM DRILLING OR REWORKING. VERBAL PERMISSION OBTAINED ON

Casing & Tubing	Used in Drilling	Left in Well	Cement fill up Cu. ft.
Size 20-16 Cond.			
13-10"	30	0	0 sks.
9 5/8			
8 5/8	1194.15	1194.15	260 sks.
7			
5 1/2			
4 1/2	5024.30	5024.30	210 sks.
3			
2			
Liners used			

GEOLOGICAL TARGET FORMATION Alexander Depth 5165 - 5195 feet
Depth of completed well 5458 feet Rotary ^x / Cable Tools
Water strata depth: Fresh 130,1460¹⁴⁷⁰ feet; Salt 0 feet
Coal seam depths: None Is coal being mined in the area? No

OPEN FLOW DATA

Producing formation Benson Pay zone depth 4912-14 feet
Gas: Initial open flow Mcf/d Oil: Initial open flow Bbl/d
Combined Final open flow 440 Mcf/d Final open flow Bbl/d
Time of open flow between initial and final tests 4 hours
Static rock pressure 1500 psig (surface measurement) after 96 hours shut in
(If applicable due to multiple completion--)
Second producing formation Riley Pay zone depth 4511-39 feet
Gas: Initial open flow Mcf/d Oil: Initial open flow Bbl/d
Final open flow Mcf/d Oil: 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

(Continue on reverse side)

SEP 09 1985

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

Riley: Perforations: 4511-39 (8 holes)
Fracturing: 440 sks. 20/40 sand: 500 gal. acid: 410 Bbls. fluid.
Benson: 4912-14 (8 holes)
Fracturing: 300 sks. 20/40 sand:400 bbls. fluid.

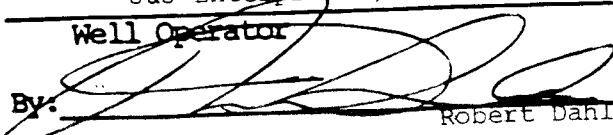
BOTTOM HOLE PRESSURE $P_f = P_{we} \frac{XGLS}{1}$
 $t = 60 + (0.0075 \times 5024) + 459.7 = 557$ $X = 53.35 \times 557 = 29716$ $= 0.000034$ $P_f = 1500 \times 2.72^{(0.000034)}$
 $(0.625)(4713)(0.9) = 1500 \times 2.72^{0.09} = 1500 \times 1.09$

Pf=1635 psi

WELL LOG

FORMATION	COLOR	HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS Including indication of all fresh and salt water, coal, oil and gas
Clay & red rock			0	10	
Sandy shale & gray sand			10	80	
White sand & sandy shale			80	255	¼" stream @ 130'
Shale & red rock			255	405	
Sand, shale & red rock			405	675	Damp @ 1460
Sand, lime & red rock			675	760	
Sandy shale & red rock			760	855	1½" stream @ 1470
Sandy shale & sand			855	1145	
Sand & sandy shale			1145	1720	Gas ck @ 2098 No show
Sand & sandy shale			1720	1850	
Little lime			1850	1870	Gas ck @ 2384 No show
Shale			1870	1880	
Big Lime & Injun			1880	2065	Gas ck @ Drill collars
Sand & shale			2065	2420	22/10-1" w/water
Shale & sand			2420	3095	35,313 cu.ft
Sandy shale & sand			3095	4511	
Riley			4511	4539	
Sandy shale			4539	4912	
Benson			4912	4914	
Sand			4914	5165	
Alexander			5165	5195	
Sandy shale			5195	5458	
					T.D.

(Attach separate sheets as necessary)

J&J Enterprises, Inc.
Well Operator
By: 
Robert Dahlin - Geologist
Date: 8/22/85

Note: Regulation 2.02(i) provides as follows:
"The term 'log' or 'well log' shall mean a systematic detailed geological record of all formations, including all encountered in the drilling of a well."



1) Date: 8/29, 1983
2) Operator's Well No. J-743 (RENEWAL)
3) API Well No. 47 - 095 - 1020-Ren
State County Permit

DRILLING CONTRACTOR:

S.W. Jack Drilling Co.
Box 48
Buckhannon, WV 26201

STATE OF WEST VIRGINIA
DEPARTMENT OF MINES, OIL AND GAS DIVISION
OIL AND GAS WELL PERMIT APPLICATION

OLD NO. 1020

4) WELL TYPE: A Oil / Gas X /
B (If "Gas", Production X / Underground storage / Deep / Shallow X /)
5) LOCATION: Elevation: 1031 Watershed: Short Run
District: Centerville County: Tyler Quadrangle: West Union

6) WELL OPERATOR J&J Enterprises, Inc.
Address P.O. Box 48
Buckhannon, WV 26201
11) DESIGNATED AGENT Richard Reddecliff
Address P.O. Box 48
Buckhannon, WV 26201

7) OIL & GAS ROYALTY OWNER Albert Gatrell Heirs
Address C/O Cammie Gatrell
Greenwood, WV 26360
12) COAL OPERATOR
Address

8) SURFACE OWNER Albert Gatrell Heirs
Address C/O Cammie Gatrell
Greenwood, WV 26360
13) COAL OWNER(S) WITH DECLARATION ON RECORD:
Name Albert Gatrell Heirs
Address C/O Cammie Gatrell
Greenwood, WV 26360

9) PROPERTY SALE (IF MADE TO) Unknown
Address
14) COAL LESSEE WITH DECLARATION ON RECORD:
Name
Address

10) OIL & GAS INSPECTOR TO BE NOTIFIED
Name Robert A. Lowther
Address General Delivery
Middlebourne, WV 26149

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AUG 31 1983
OIL & GAS DIVISION
DEPT. OF MINES

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

14) GEOLOGICAL TARGET FORMATIONS: Alexander
15) Estimated depth of completed well, 5500 feet
16) Approximate water strata depths: Fresh, 360, 450 feet; salt, 0 feet.
17) Approximate coal seam depths: None Is coal being mined in the area? Yes / No X

CASING AND TUBING PROGRAM

CASING OR TUBING	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		30	0	0 sks. Kinds
Production	8 5/8	ERW	23	X		1200	1200	To surface By Rule 15-05
Coal	8 5/8	ERW	23	X		1200	1200	To surface
Production	4 1/2	J-55	10.5	X		5450	5450	300 sks. Depths set
Tubing								Perforations: Top Bottom

18) EXTRACTION RIGHTS
Check and provide one of the following:
 Included in the lease or leases or other continuing contract or contracts by which I hold the right to extract oil or gas.
 The requirement of Code 22-4-1(c) (1) through (4). (See reverse side for specifics.)

22) ROYALTY PROVISIONS
Is the right to extract, produce or market the oil or gas based upon a lease or other continuing contract or contracts providing for flat well royalty or any similar provision for compensation to the owner of the oil or gas in place which is not inherently related to the volume of oil or gas so extracted, produced or marketed? Yes No
If the answer above is No, nothing additional is needed. If the answer is Yes, you may use Affidavit Form IV-60.

23) Required Copies (See reverse side.)
24) 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.
Notary: [Signature] My Commission Expires October 16, 1989
Signed: [Signature] Its: Designated Agent

OFFICE USE ONLY
DRILLING PERMIT

This permit covering the well operator and well location shown below is evidence of permission granted to drill in accordance with the pertinent legal requirements subject to the conditions contained herein and on the reverse hereof. Notification must be given to the District Oil and Gas Inspector. (Refer to No. 10) Prior to the construction of roads, locations and pits for any permitted work. In addition, the well operator or his contractor shall notify the proper district oil and gas inspector 24 hours before actual permitted work has commenced.)
Permit expires October 7, 1985 unless drilling is commenced prior to that date and prosecuted with due diligence.

Bond: [Signature]	Agent: [Signature]	Plat: [Signature]	Casing: [Signature]	Fee: 1300
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[Signature]
Administrator, Office of Oil and Gas

NOTE: Keep one copy of this permit posted at the drilling location.



1) Date: Dec. 30, 1982
 2) Operator's Well No. J-743
 3) API Well No. 47 095 1020
 State County Permit

DRILLING CONTRACTOR:

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

S.W. Jack Drilling Company
P.O. Box 48
Buckhannon, WV 26201

OIL AND GAS WELL PERMIT APPLICATION

- 4) WELL TYPE: A Oil / Gas /
 B (If "Gas", Production / Underground storage / Deep / Shallow /)
- 5) LOCATION: Elevation: 1031 / Watershed: Short Run
 District: Centerville / County: Tyler / Quadrangle: West Union
- 6) WELL OPERATOR J&J Enterprises, Inc. / 11) DESIGNATED AGENT Richard M. Reddecliff
 Address P.O. Box 48 / Address P.O. Box 48
Buckhannon, WV 26201 / Buckhannon, WV 26201
- 7) OIL & GAS ROYALTY OWNER Albert Gatrell Heirs / 12) COAL OPERATOR _____
 Address C/O Carmie Gatrell / Address _____
Greenwood, WV 26360
 Acreage 139.75
- 8) SURFACE OWNER Albert Gatrell Heirs / 13) COAL OWNER(S) WITH DECLARATION ON RECORD:
 Address C/O Carmie Gatrell / Name Albert Gatrell Heirs
Greenwood, WV 26360 / Address C/O Carmie Gatrell
92.75 / Greenwood, WV 26360
 Name _____
 Address _____
- 9) FIELD SALE (IF MADE) TO: _____ / 14) COAL LESSEE WITH DECLARATION ON RECORD:
 Address Unknown / Name _____
 Address _____
- 10) OIL & GAS INSPECTOR TO BE NOTIFIED / Name Robert A. Lowther / Address General Delivery
Middlebourne, WV 26149
- 15) PROPOSED WORK: Drill / Drill deeper _____ / Redrill _____ / Fracture or stimulate /
 Plug off old formation _____ / Perforate new formation _____ /
 Other physical change in well (specify) _____
- 16) GEOLOGICAL TARGET FORMATION, Alexander
- 17) Estimated depth of completed well, 5500 feet
- 18) Approximate water strata depths: Fresh, 360,450 feet; salt, 0 feet.
- 19) Approximate coal seam depths: None / Is coal being mined in the area? Yes _____ / No

20) 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	<u>11 3/4</u>	<u>H-40</u>	<u>42</u>	<input checked="" type="checkbox"/>		<u>30</u>	<u>0</u>	<u>0 sks.</u>	Kinds
Fresh water	<u>8 5/8</u>	<u>ERW</u>	<u>23</u>	<input checked="" type="checkbox"/>		<u>1200</u>	<u>1200</u>	<u>To surface</u>	Sizes
Coal	<u>8 5/8</u>	<u>KRW</u>	<u>23</u>	<input checked="" type="checkbox"/>		<u>1200</u>	<u>1200</u>	<u>To surface</u>	
Intermediate									Depths set
Production	<u>4 1/2</u>	<u>J-55</u>	<u>10.5</u>	<input checked="" type="checkbox"/>		<u>5450</u>	<u>5450</u>	<u>300 sks.</u>	
Tubing									Perforations: Top Bottom
Liners									

- 21) EXTRACTION RIGHTS
 Check and provide one of the following:
 Included is the lease or leases or other continuing contract or contracts by which I hold the right to extract oil or gas.
 The requirement of Code 22-4-1-(c) (1) through (4). (See reverse side for specifics.)
- 22) ROYALTY PROVISIONS
 Is the right to extract, produce or market the oil or gas based upon a lease or other continuing contract or contracts providing for flat well royalty or any similar provision for compensation to the owner of the oil or gas in place which is not inherently related to the volume of oil or gas so extracted, produced or marketed? Yes No
 If the answer above is No, nothing additional is needed. If the answer is Yes, you may use Affidavit Form IV-60.
- 23) Required Copies (See reverse side.)
- 24) 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.
- Notary: _____ / My Commission Expires 11/14/89
 Signed: _____ / Its: Designated Agent

OFFICE USE ONLY

Permit number 47-095-1020 / **DRILLING PERMIT** / Date January 13, 1982

This permit covering the well operator and well location shown below is evidence of permission granted to drill in accordance with the pertinent legal requirements subject to the conditions contained herein and on the reverse hereof. **Notification must be given to the District Oil and Gas Inspector.** (Refer to No. 10) Prior to the construction of roads, locations and pits for any permitted work. In addition, the well operator or his contractor shall notify the proper district oil and gas inspector 24 hours before actual permitted work has commenced.)
 September 28, 1981

Permit expires _____ unless drilling is commenced prior to that date and prosecuted with due diligence.

Bond:	Agent:	Plat:	Casing	Fee

Administrator, Office of Oil and Gas

Line Item Explanation

- 1) Date of Application
2) Your well name and number
3) To be filled out by office of oil & gas
4A) 'Oil' means natural crude oil or petroleum and other hydrocarbons, regardless of gravity, which are produced at the well in liquid form by ordinary production methods and which are not the result of condensation of gas after it leaves underground reservoirs: 'Gas' means all natural gas and all other fluid hydrocarbons not defined as oil.
4B) 'Shallow well' means any well drilled and completed in a formation above the top of the uppermost member of the 'Onondaga Group' or a depth less than six thousand feet, whichever is shallower.
'Deep well' means any well drilled and completed in a formation at or below the top of the uppermost member of the 'Onondaga Group' or at a depth less than six thousand feet, whatever is shallower.
5) Where well is located
6) Before a permit can be issued in a corporation, company partnership, or fictitious name, the name must be registered with the Secretary of State Office
7) Use separate sheet if necessary
8) Present surface owner at time application is filed.
9) Optional
11) See Reg. 7.01 relating to code §22-4-1k
12) 'Coal Operator' means any persons, firm, partnership, partnership association or corporation that proposes to or does operate a coal mine. See Note 24
13 & 14) As per §22-4-20; See Note 24
15) Work that will be attempted—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.
16) Anticipated formation for which well will be completed
17) Self explanatory
18) Depth to deepest freshwater, and shallowest salt water, taken from nearby wells corrected for differences in elevation
19) All coal seam depths
20) Proposed casing program and cementing refer to Code 22-4-5, 22-4-6, 22-4-7, 22-4-8, 22-4-8a Reg 9.01, 15.01, 15.02, 15.03, 15.04, 25.01, 25.02, 25.03, 25.04
21) Code 22-4-11(c) - In lieu of filing the lease or leases or other continuing contract or contracts, the applicant for a permit described herein may file the following:
(1)A brief description of the tract of land including the district and county wherein the tract is located;
(2)The identification of all parties to all leases or other continuing contractual agreements by which the right to extract, produce or market the oil or gas is claimed;
(3)The book and page number wherein each such lease or contract by which the right to extract, produce or market the oil or gas is recorded;
(4)A brief description of the royalty provisions of each such lease or contract.
22) Code 22-4-11(d) and 22-4-11(e).
23) 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.
24) 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.

The following waiver 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.

WAIVER

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 _____