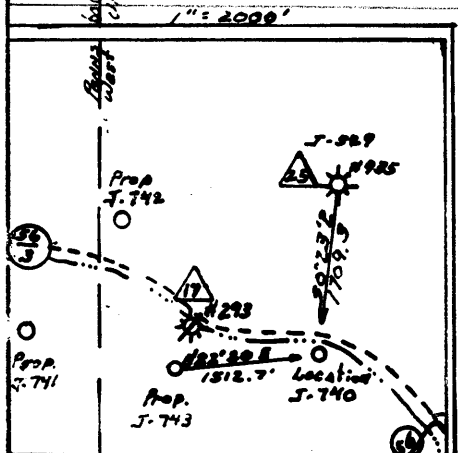
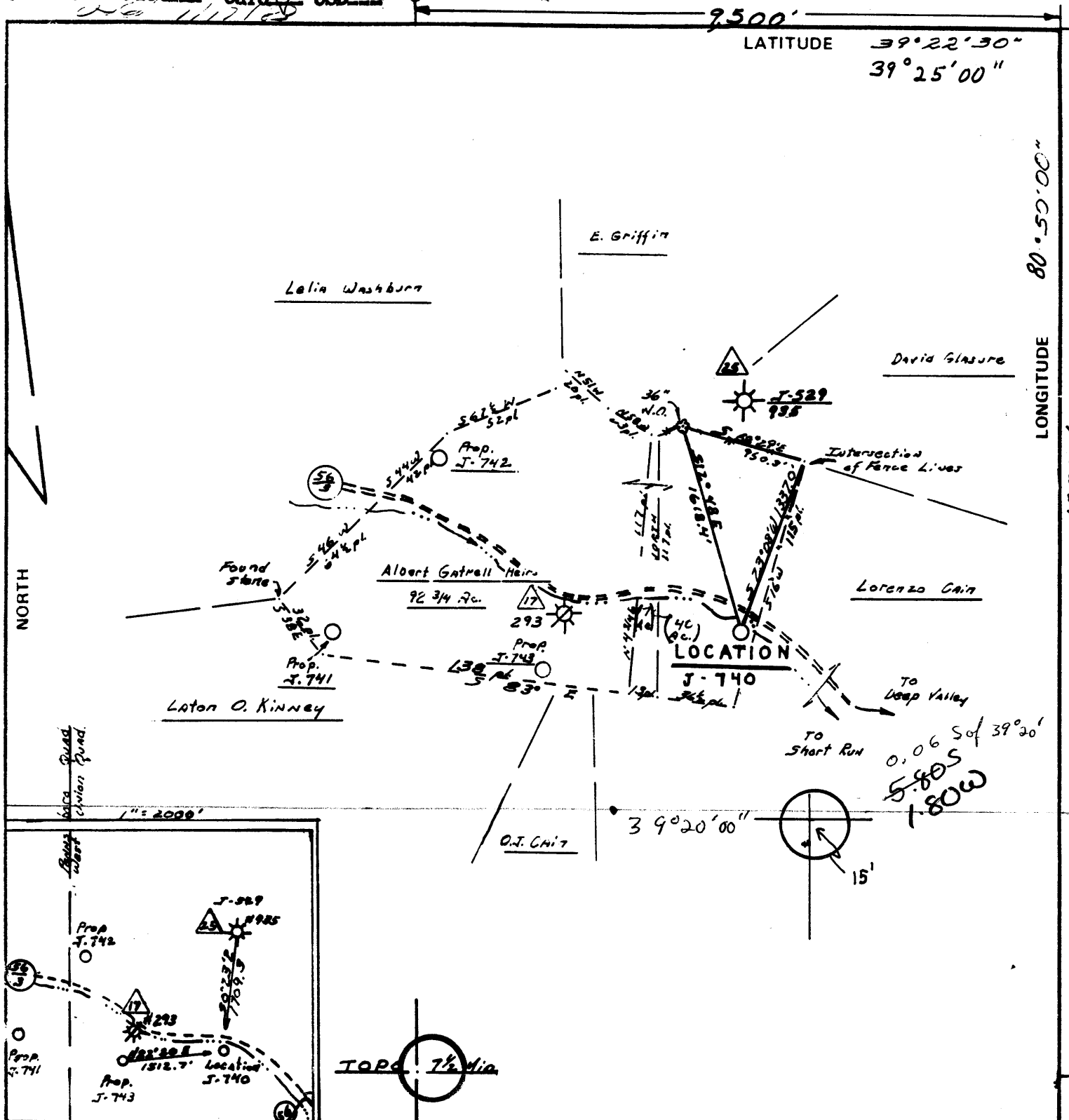


9500'

LATITUDE 39°22'30"  
39°25'00"

LONGITUDE 80°50'00"



TOPG 7 1/2 dia

FILE NO. 346.01  
DRAWING NO. 82-27  
SCALE 1"=1000'  
MINIMUM DEGREE OF ACCURACY 1 in 200  
PROVEN SOURCE OF ELEVATION Foot Elevation 832  
Ed. Intern. SE. of Location

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) Rayford L. Osterlander  
R.P.C. \_\_\_\_\_ L.L.S. 555  
Buckhannon, W. Va.

PLACE SEAL HERE

STATE OF WEST VIRGINIA  
DEPARTMENT OF MINES  
OIL AND GAS DIVISION



DATE 23 December, 1982  
OPERATOR'S WELL NO. J-740  
API WELL NO. \_\_\_\_\_  
47 - 095 - 1017  
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 889 WATER SHED Short Run  
DISTRICT Centerville COUNTY Tyler  
QUADRANGLE West Union N1S18 SC  
SURFACE OWNER Albert Gatrell Heirs ACREAGE 40  
OIL & GAS ROYALTY OWNER Gatrell Heirs & Russell C. J. & John Davis Via Edwin M. Swannick Via LEASE ACREAGE 1.79 1/4  
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) \_\_\_\_\_

FEB 07 1983

PLUG AND ABANDON \_\_\_ CLEAN OUT AND REPLUG \_\_\_ G-6 Stanley (90)  
TARGET FORMATION Alexander ESTIMATED DEPTH 5500  
WELL OPERATOR J&J Enterprises, Inc. DESIGNATED AGENT RICHARD REDDESCHEFF  
ADDRESS PO Box 48 ADDRESS PO. Box 48  
Buckhannon, W. Va. 26201 Buckhannon, W. Va. 26201



MAY 8 1983

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

OIL & GAS DIVISION  
DEPT. OF MINES

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

WELL OPERATOR J&J Enterprises, Inc. DESIGNATED AGENT Richard Reddecliff  
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 1/28, 1983

OIL & GAS INSPECTOR FOR THIS WORK:

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

Name Robert A. Lowther

Address Gen. Delivery  
Middlebourne, WV 2614

GEOLOGICAL TARGET FORMATION: Alexander Depth \_\_\_\_\_ feet

Depth of completed well, 5178 feet Rotary X / Cable Tools \_\_\_\_\_

Water strata depth: Fresh, 40 feet; salt, None feet.

Coal seam depths: 225-28,660-65 Is coal being mined in the area? No

Work was commenced 3/28, 1983, and completed 4/1, 1983

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	113/4	H-40	42	x		30	0	0 sks.	Rinds
Fresh water	85/8	ERW	23	x		966.20	966.20	250 sks.	
Coal	85/8	ERW	23	x		966.20	966.20	250 sks.	Sizes
Intermediate									
Production	4 1/2	J-55	10.5	x		4811.55	4811.55	170 sks.	Beams set
Tubing									
Liners									Perforations:
									Top Bottom
									4328 4332
									4338 4340
									4346 4349
									4356 4358

OPEN FLOW DATA

Producing formation Riley Pay zone depth 4328-58

Gas: Initial open flow, \_\_\_\_\_ Mcf/d Oil: Initial open flow, \_\_\_\_\_ bbl/d

Final open flow, (762) Mcf/d Final open flow, \_\_\_\_\_ bbl/d

Time of open flow between initial and final tests, 4 hours

Static rock pressure, 1700 psig (surface measurement) after 96 hours shut in

[If applicable due to multiple completion--]

Second producing formation \_\_\_\_\_ Pay zone depth \_\_\_\_\_

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

$$t=60 + (0.0075 \times 4812) + 459.7+556 \quad X=53.35 \times 556 =29663 =0.0000337 \quad Pf=1700 \times 2.72 (0.0000337)$$

$$(0.626)(4343)(0.9) =1700 \times 2.72 (0.082) = 1700 \times 1.086$$

Pf=1846 psi

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

Riley: Perforations: 4328-32 (4 holes)  
 4338-40 (3 holes)  
 4346-49 (3 holes)  
 4356-58 (3 holes)

Fracturing: 10,000 lbs. 80/100 sand: 44,500 lbs. 20/40 sand: 500 gal. Acid:  
 450 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
Clay & Red rock			0	35	
Shale, sand & red rock			35	140	
Sand, red rock & shale			140	225	1" stream @ 40'
Coal			225	228	
Red rock & sandy shale			228	290	Gas ck @ 2850 No show
Red rock & sand			290	350	
Sand, shale & sandy shale			350	435	Gas ck @ 4331 No show
Red rock & sandy shale			435	490	
Gray sand & shale			490	660	Gas ck @ 4956 No show
Coal			660	665	
Shale & red rock			665	715	Gas ck @ 4827 30/10-1" w/water 41,222 cu.ft.
Sandy shale & red rock			715	875	
Shale & sand			875	1310	
Sandy shale & shale			1310	1690	
Little lime			1690	1720	
Sandy shale			1720	1740	
Big Lime			1740	1895	
Gray sand & shale			1895	2235	
Shale & sand			2235	3450	
Shale & sandy shale			3450	4328	
Riley			4328	4358	
Sandy shale & brown sand			4358	4805	
Shale			4805	5050	
Sand & shale			5050	5324	

*Shinobu*  
 TD @ TD

(Attach separate sheets as complete as necessary.)

J&J Enterprises, Inc  
 Well Operator  
 By *Robert Dahlin*  
 For Robert Dahlin Geologist

NOTE: Regulation 2.22(f) 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."



1) Date: Dec. 30, 1982  
2) Operator's Well No. J-740  
3) API Well No. 47 095 1017  
State County Permit

DRILLING CONTRACTOR:

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

OIL AND GAS WELL PERMIT APPLICATION

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

- 4) WELL TYPE: A Oil  / Gas  / B (If "Gas", Production  / Underground storage  / Deep  / Shallow )
- 5) LOCATION: Elevation: 889 / 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 Gatrell Heirs / 12) COAL OPERATOR \_\_\_\_\_  
Address C/O Cammie Gatrell / Address \_\_\_\_\_  
Greenwood, WV 26360
- 8) SURFACE OWNER Albert Gatrell Heirs / 13) COAL OWNER(S) WITH DECLARATION ON RECORD:  
Address C/O Cammie Gatrell / Name Albert Gatrell Heirs  
Greenwood, WV 26360 / Address C/O Cammie Gatrell  
Greenwood, WV 26360
- 9) FIELD SALE (IF MADE) TO: \_\_\_\_\_ / Name \_\_\_\_\_  
Address Unknown / Address \_\_\_\_\_
- 10) OIL & GAS INSPECTOR TO BE NOTIFIED / 14) COAL LESSEE WITH DECLARATION ON RECORD:  
Name Robert A. Lowther / Name \_\_\_\_\_  
Address General Delivery / Address \_\_\_\_\_  
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, 300, 400 feet; salt, 0 feet.
- 19) Approximate coal seam depths: 0 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	11 3/4	H-40	42	X		30	0	0 sks.	Kinds
Fresh water	8 5/8	ERW	23	X		1200	1200	to surface	
Coal	8 5/8	ERW	23	X		1200	1200	to surface	Sizes
Intermediate									
Production	4 1/2	J-55	10.5	X		5450	5450	300 sks.	Depths set
Tubing									
Liners									Perforations:
									Top Bottom

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: \_\_\_\_\_ Signed: Richard M. Reddecliff  
My Commission Expires 2/14/84 Its: \_\_\_\_\_  
Designated Agent

OFFICE USE ONLY  
DRILLING PERMIT

Permit number 47-095-1017 Date 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.)

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

Bond:	Agent:	Plat:	Casing	Fee
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Administrator, Office of Oil and Gas

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

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 \_\_\_\_\_