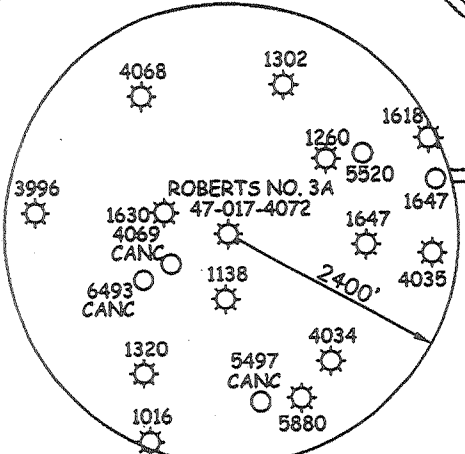
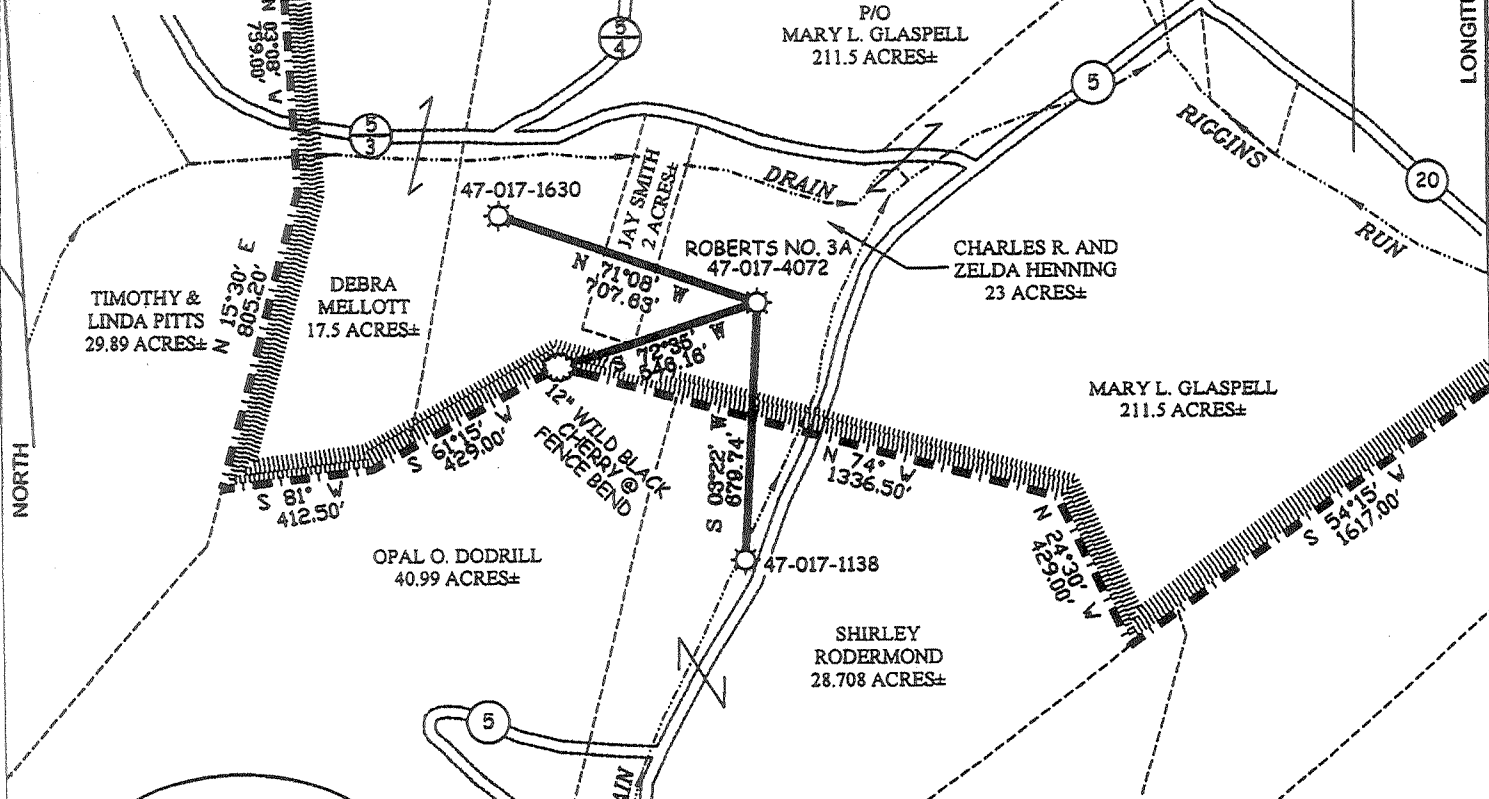


ROYAL CLYDE ROBERTS HEIRS LEASE

156 OF 256 ACRES±

WELL NO. ROBERTS NO. 3A(47-017-4072)



ROBERTS NO. 3A
47-017-4072
STATE PLANE COORDINATES
(NORTH ZONE NAD '87)
(N) 918,810
(E) 1,888,754
LAT. & LONG.(NAD '87)
(N) 39°22'07.8"
(W) 80°40'18.0"
LAT. & LONG.(NAD 83)
(N) 39°22'08.1"
(W) 80°40'17.4"

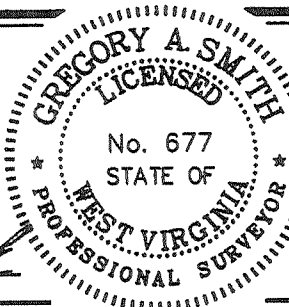
NOTES ON SURVEY

1. TIES TO WELLS AND CORNERS ARE BASED ON GRID NORTH FOR THE WV STATE PLANE COORDINATE SYSTEM NORTH ZONE NAD '27.
2. LEASE BOUNDARY SHOWN HEREON TAKEN FROM A PLAT DATED 11-23-1993 AS PREPARED BY DAVID JACKSON LLS #708 FOR A.P.I. NO. 47-017-4072.
3. SURFACE OWNER AND ADJOINER INFORMATION TAKEN FROM THE ASSESSOR AND COUNTY CLERK RECORDS OF DODDRIDGE COUNTY IN JULY, 2009.
4. WELL LAT./LONG. (NAD'27) ESTABLISHED BY DGPS(SUBMETER MAPPING GRADE).



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 DIVISION OF ENVIRONMENTAL PROTECTION.

P.S. 677 *Gregory A. Smith*



(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS.
DATE NOVEMBER 5, 20 09
OPERATORS WELL NO. ROBERTS NO. 3A
API WELL NO. 47 - 017 - 4072R
STATE COUNTY PERMIT
CANCELLED

MINIMUM DEGREE OF ACCURACY 1 / 200 FILE NO. 7345P3A(292-01)
PROVEN SOURCE OF ELEVATION DGPS (SUBMETER MAPPING GRADE) SCALE 1" = 500'

STATE OF WEST VIRGINIA
DIVISION OF ENVIRONMENTAL PROTECTION
OFFICE OF OIL AND GAS

WELL TYPE: OIL GAS LIQUID INJECTION WASTE DISPOSAL IF "GAS" PRODUCTION STORAGE DEEP SHALLOW

LOCATION: ELEVATION 978' WATERSHED RIGGINS RUN
DISTRICT McCLELLAN COUNTY DODDRIDGE QUADRANGLE SMITHBURG 7.5'
SURFACE OWNER CHARLES & ZELDA HENNING, ET UX ACREAGE 23±
ROYALTY OWNER ROYAL CLYDE ROBERTS HEIRS, ET AL LEASE ACREAGE 156 OF 256±
PROPOSED WORK: LEASE NO. _____
DRILL CONVERT DRILL DEEPER REDRILL FRACTURE OR STIMULATE PLUG OFF OLD FORMATION
PERFORATE NEW FORMATION PLUG AND ABANDON CLEAN OUT AND REPLUG OTHER _____
PHYSICAL CHANGE IN WELL (SPECIFY) _____ TARGET FORMATION KEENER & GORDON
ESTIMATED DEPTH 3,018'

WELL OPERATOR PETROLEUM DEVELOPMENT CORP. DESIGNATED AGENT ALAN H. SMITH
ADDRESS 120 GENESIS BOULEVARD BRIDGEPORT, WV 26330 ADDRESS 120 GENESIS BOULEVARD BRIDGEPORT, WV 26330
05/17/2013

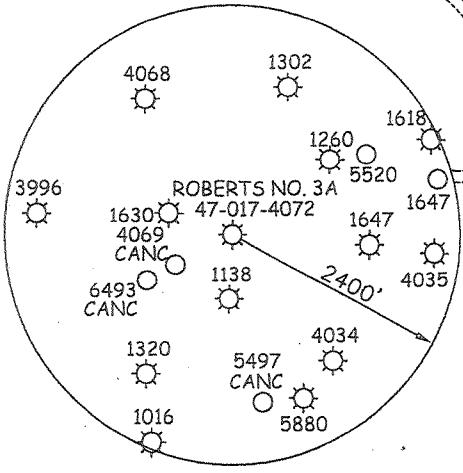
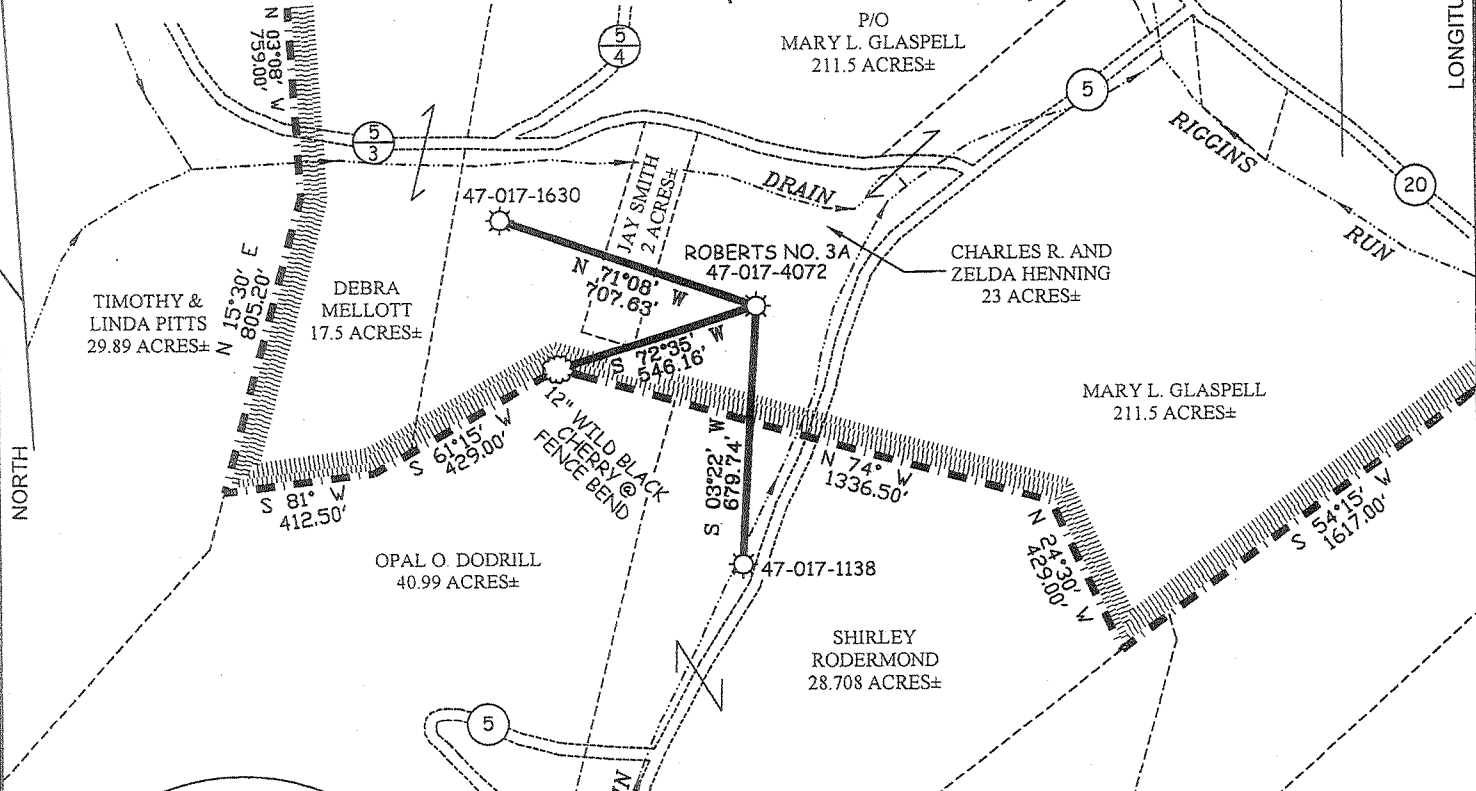
COUNTY NAME
PERMIT

LATITUDE 39°22'30"
LONGITUDE 80°40'00"

ROYAL CLYDE ROBERTS HEIRS LEASE

156 OF 256 ACRES±

WELL NO. ROBERTS NO. 3A(47-017-4072)



ROBERTS NO. 3A
47-017-4072
STATE PLANE COORDINATES
(NORTH ZONE NAD '27)

(N) 918,610
(E) 1,668,754

LAT. & LONG.(NAD '27)
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(W) 80°40'18.0"

LAT. & LONG.(NAD 83)
(N) 39°22'08.1"
(W) 80°40'17.4"

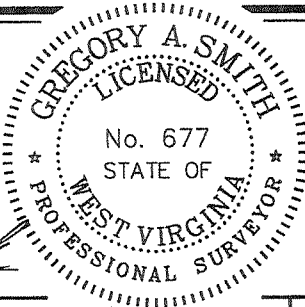
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4. WELL LAT./LONG. (NAD'27) ESTABLISHED BY DGPS(SUBMETER MAPPING GRADE).



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 DIVISION OF ENVIRONMENTAL PROTECTION.

P.S. 677
Gregory A. Smith



(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS.
DATE NOVEMBER 5, 20 09
OPERATORS WELL NO. ROBERTS NO. 3A
API WELL NO. 47-017-4072R
STATE COUNTY PERMIT

MINIMUM DEGREE OF ACCURACY 1/200 FILE NO. 7345P3A(292-01)
PROVEN SOURCE OF ELEVATION DGPS (SUBMETER MAPPING GRADE) SCALE 1" = 500'

STATE OF WEST VIRGINIA
DIVISION OF ENVIRONMENTAL PROTECTION
OFFICE OF OIL AND GAS



WELL TYPE: OIL GAS LIQUID INJECTION WASTE DISPOSAL IF "GAS" PRODUCTION STORAGE DEEP SHALLOW

LOCATION: ELEVATION 978' WATERSHED RIGGINS RUN
DISTRICT McCLELLAN COUNTY DODDRIDGE QUADRANGLE SMITHBURG 7.5'

SURFACE OWNER CHARLES & ZELDA HENNING, ET UX ACREAGE 23±
ROYALTY OWNER ROYAL CLYDE ROBERTS HEIRS, ET AL LEASE ACREAGE 156 OF 256±

PROPOSED WORK: DRILL CONVERT DRILL DEEPER REDRILL FRACTURE OR STIMULATE PLUG OFF OLD FORMATION PERFORATE NEW FORMATION PLUG AND ABANDON CLEAN OUT AND REPLUG OTHER

PHYSICAL CHANGE IN WELL (SPECIFY) _____ TARGET FORMATION KEENER & GORDON
ESTIMATED DEPTH 3,018'

WELL OPERATOR PETROLEUM DEVELOPMENT CORP. DESIGNATED AGENT ALAN H. SMITH
ADDRESS 120 GENESIS BOULEVARD BRIDGEPORT, WV 26330 ADDRESS 120 GENESIS BOULEVARD BRIDGEPORT, WV 26330

COUNTY NAME
PERMIT

DEC 24 2009

State of West Virginia
Division of Environmental Protection
Section of Oil and Gas

Well Operator's Report of Well Work

Farm name: HENNING, CHARLES R. Operator Well No.: ROBERTS 3A

LOCATION: Elevation: 985.00 Quadrangle: SMITHBURG

District: MCCLELLAN County: DODDRIDGE
Latitude: 2200 Feet South of 39 Deg. 22Min. 30 Sec.
Longitude 1425 Feet West of 80 Deg. 40 Min. Sec.

Company: PETROLEUM DEVELOPMENT COR
P. O. BOX 26
BRIDGEPORT, WV 26330-0026

Agent: ERIC R. STEARNS

Inspector: MIKE UNDERWOOD
Permit Issued: 12/16/93
Well work Commenced: 12/08/93
Well work Completed: 12/14/93
Verbal Plugging
Permission granted on: _____
Rotary x Cable _____ Rig
Total Depth (feet) 5212'
Fresh water depths (ft) _____
603
Salt water depths (ft) _____
n/a
Is coal being mined in area (Y/N)? N
Coal Depths (ft): 735-738; 1276-1280

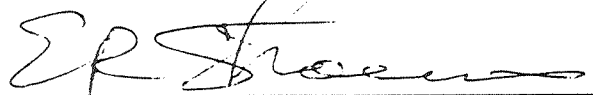
Casing & Tubing Size	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
11 3/4"	161'	161'	100 sks
8 5/8"	1656'	1656'	410 sks
4 1/2"	5189'	5189'	550 sks

OPEN FLOW DATA

Producing formation Benson Pay zone depth (ft) 5078-5083
Gas: Initial open flow 103 MCF/d Oil: Initial open flow 0 Bbl/d
Final open flow 335 MCF/d Final open flow 0 Bbl/d
Time of open flow between initial and final tests 4 Hours
Static rock Pressure 1700 psig (surface pressure) after 72 Hours

Second producing formation _____ Pay zone depth (ft) _____
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

NOTE: ON BACK OF THIS FORM PUT THE FOLLOWING: 1). DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2). THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE.



For: PETROLEUM DEVELOPMENT CORP.

By: Eric R. Stearns
Date: January 7, 1994

JAN 21 1994

ROYAL ROBERTS #3A

STAGE	FORMATION	PERFS	80/100 SKS	20/40 SKS	ACID GAL	N2 (MCF)
ST	Benson	26 (5078' - 5083')	50	500	500	66

W E L L L O G

FORMATION	TOP FEET	BOTTOM FEET	REMARKS: FRESH & SALT WATER, COAL, OIL & GAS
KB - GL	0	10	
sand, shale, RR	10	1740	1/2" water @ 603'
Maxton	1740	1832	Coal 735' - 738'
sand, shale	1832	1922	Coal 1276' - 1280'
Big Lime	1922	2065	
sand, shale	2065	2069	
Big Injun	2069	2129	
sand, shale	2129	2308	gas chk @ 2264' 2/10 thru 2" w/water
Weir	2308	2403	
sand, shale	2403	2516	gas chk @ 2453' 2/10 thru 2" w/water
Berea	2516	2544	
sand, shale	2544	2726	gas chk @ 2639' 2/10 thru 2" w/water
Gordon	2726	2754	
sand, shale	2754	3018	gas chk @ 2829' 2/10 thru 2" w/water
5th	3018	3072	
sand, shale	3072	3388	gas chk @ 3330' 2/10 thru 2" w/water
Warren	3388	3500	
sand, shale	3500	3510	
Speechley	3510	3945	
sand, shale	3945	3990	
Balltown	3990	4406	gas chk @ 4019' 2/10 thru 2" w/water
sand, shale	4406	4430	
Bradford	4430	4518	
sand, shale	4518	4548	
Riley	4548	5016	gas chk @ 4710' 16/10 thru 1" w/water
sand, shale	5016	5082	gas chk @ 5086' 14/10 thru 2" w/water
Benson	5082	5123	gas chk @ TD 6/10 thru 2" w/water
sand, shale	5123	5212	Driller TD
		5225	Logger TD

DF-424

DF-435

1EhSI

47017-04072

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

Page of
Issued 12/16/93
Expires 12/16/95
38200 (5) 611

- 1) Well Operator: Petroleum Development Corporation ⁽⁶⁸⁾
- 2) Operator's Well Number: Roberts #3A 3) Elevation: 985'
- 4) Well type: (a) Oil / or Gas X /
(b) If Gas: Production X / Underground Storage /
Deep / Shallow XX /
- Proposed Target Formation(s): Benson ⁴³⁵
- Proposed Total Depth: 5400 feet
- Approximate fresh water strata depths: 20,160,475
- Approximate salt water depths: 1530,1630,1715 (if present)
- 9) Approximate coal seam depths: none reported
- 10) Does land contain coal seams tributary to active mine? Yes / No X
- 11) Proposed Well Work: Drill and stimulate new well
- 12)

18431

CASING AND TUBING PROGRAM

TYPE	SPECIFICATIONS			FOOTAGE INTERVALS		CEMENT
	Size	Grade	Weight per ft.	For drilling	Left in well	Fill-up (cu. ft.)
Conductor	11 3/4	H-40	42#	30/150	-/150	-/surface
Fresh Water						38CSR/11.3
Coal						38CSR/11.2
Intermediate	8 5/8	H-40	20/23	1165/1655	1165/1655	surface
Production	4 1/2	J-55	10.5	5400	5400	450 sks
Tubing						38CSR/11.1
Liners						

RECEIVED

WV Division of Environmental Protection

NOV 29 93

Permitting Office of Oil & Gas

PACKERS : Kind _____
Sizes _____
Depths set _____

For Division of Oil and Gas Use Only

Fee(s) paid: Well Work Permit Reclamation Fund WPCP
 Plat WW-9 WW-2B Bond Blanket Agent
(Type)

007138/25

NOV 29 93

Permitting
Office of Oil & Gas

- 1) Date: November 23, 1993
- 2) Operator's well number
Roberts #3A
- 3) API Well No: 47 - 017 - 4072
State - County - Permit

STATE OF WEST VIRGINIA
DIVISION OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS

NOTICE AND APPLICATION FOR A WELL WORK PERMIT

- 4) Surface Owner(s) to be served:
 - (a) Name Charles R. Henning
Address Riggins Run
Salem, WV 26426
 - (b) Name _____
Address _____
 - (c) Name _____
Address _____
- 5) (a) Coal Operator:
 - Name none
Address _____
 - (b) Coal Owner(s) with Declaration
 - Name none
Address _____
 - (c) Coal Lessee with Declaration
 - Name none
Address _____
- 6) Inspector Mike Underwood
Address Rt. 2 Box 135
Salem, WV 26426
Telephone (304)-782-1043

TO THE PERSON(S) NAMED ABOVE TAKE NOTICE THAT:

Included is the lease or leases or other continuing contract or contracts by which I hold the right to extract oil and gas OR
~~xxxx~~ Included is the information required by Chapter 22B, Article 1, Section 8(d) of the Code of West Virginia (see page 2)

I certify that as required under Chapter 22B of the West Virginia Code I have served copies of this notice and application, a location plat, and accompanying documents pages 1 through _____ on the above named parties, by:

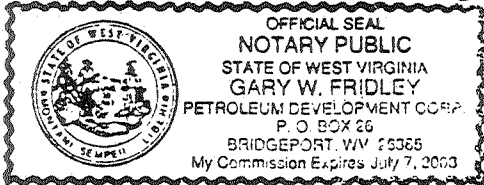
- ~~xxxxxx~~ Personal Service (Affidavit attached)
- _____ Certified Mail (Postmarked postal receipt attached)
- _____ Publication (Notice of Publication attached)

RECEIVED
WV Division of
Environmental Protection

I have read and understand Chapter 22B and 38 CSR 11-18, and I agree to the terms and conditions of any permit issued under this application.

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this application form and all attachments, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete.

I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.



Well Operator Petroleum Development Corporation
 By: [Signature]
 Its: Geologist
 Address P.O. Box 26
Bridgeport, WV 26330
 Telephone 842-6256

Subscribed and sworn before me this 23 day of November, 1993

Gary W. Fridley Notary Public
My commission expires July 7, 2003