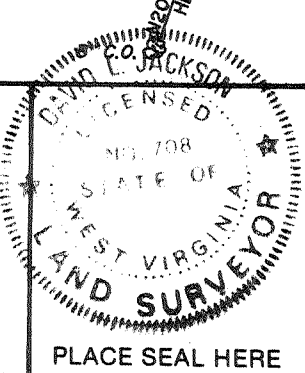


FILE NO. _____
 DRAWING NO. _____
 SCALE 1" = 1000'
 MINIMUM DEGREE OF ACCURACY 1 in 200
 PROVEN SOURCE OF ELEVATION Road Junction 2,106'
SE of Location: elev. 859'

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 ENERGY.

(SIGNED) David L. Jackson
 R.P.E. _____ L.L.S. 708



STATE OF WEST VIRGINIA
 Division of Environmental Protection
 OFFICE OF OIL AND GAS

DATE November 10, 19 93
 OPERATOR'S WELL NO. Roberts No. 2
 API WELL NO. 47-017-04068
 STATE 47 COUNTY 017 PERMIT 04068

WELL TYPE: OIL ___ GAS X LIQUID INJECTION ___ WASTE DISPOSAL ___
 (IF "GAS,") PRODUCTION ___ STORAGE ___ DEEP ___ SHALLOW X

LOCATION: ELEVATION 1197' WATER SHED Riggins Run
 DISTRICT McClellan COUNTY Doddridge
 QUADRANGLE Smithburg 7 1/2' Centerpoint WC

SURFACE OWNER Arby Glaspell ACREAGE 211.15
 OIL & GAS ROYALTY OWNER Royal Clyde Roberts Heirs et al LEASE ACREAGE 156 ac. remainder of 256 ac.
 LEASE NO. 443200

PROPOSED WORK: DRILL X 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 Benson ESTIMATED DEPTH 5500
 WELL OPERATOR Petroleum Development Corp. 687 DESIGNATED AGENT Eric R. Stearns
 ADDRESS P.O. Box 26, Bridgeport, WV 26330 ADDRESS P.O. Box 26, Bridgeport, WV 26330

NOV 23 1993

6-6 Centerpoint (098)

COUNTY NAME _____
 PERMIT _____

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

Well Operator's Report of Well Work

Farm name: GLASPELL, ARBY Operator Well No.: ROBERTS #2

LOCATION: Elevation: 1,197.00 Quadrangle: SMITHBURG

District: MCCLELLAN County: DODDRIDGE
Latitude: 780 Feet South of 39 Deg. 22Min. 30 Sec.
Longitude 2300 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: 11/18/93
Well work Commenced: 11/26/93
Well work Completed: 12/02/93
Verbal Plugging _____
Permission granted on: _____
Rotary x Cable _____ Rig _____
Total Depth (feet) 5455'
Fresh water depths (ft) _____
833
Salt water depths (ft) _____
n/a
Is coal being mined in area (Y/N)? N
Coal Depths (ft): n/a

Casing & Tubing Size	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
16"	24'		
11 3/4"	176'	176'	120 sks
8 5/8"	1834'	1834'	377 sks
4 1/2"	5398'	5398'	501 sks

OPEN FLOW DATA

Producing formation Benson Pay zone depth (ft) 5286-5288
Gas: Initial open flow 21 MCF/d Oil: Initial open flow 0 Bbl/d
Final open flow 290 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 Gordon Pay zone depth (ft) 2943-2960
Gas: Initial open flow _____ MCF/d Oil: Initial open flow _____ Bbl/d
Final open flow co-mingled MCF/d Final open flow _____ Bbl/d
Time of open flow between initial and final tests _____ Hours
Static rock Pressure 300 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: Eric R. Stearns
PETROLEUM DEVELOPMENT CORP.
By: Eric R. Stearns
Date: January 10, 1994

JAN 21 1994

ROYAL ROBERTS #2

STAGE	FORMATION	PERFS	80/100 SKS	20/40 SKS	ACID GAL	N2 (MCF)
1st	Benson	12 (5286' - 5288')	50	500	500	60.5
2nd	Gordon	16 (2943' - 2960')	100	600	500	70

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	1953	1/2" water @ 833'
Maxton	1953	2040	
sand, shale	2040	2134	gas chk @ 2108' no show
Big Lime	2134	2281	
sand, shale	2281	2285	
Big Injun	2285	2378	gas chk @ 2296' no show
sand, shale	2378	2528	gas chk @ 2452' no show
Weir	2528	2612	
sand, shale	2612	2725	gas chk @ 2671' no show
Berea	2725	2768	
sand, shale	2768	2918	gas chk @ 2861' no show
Gordon	2918	2983	
sand, shale	2983	3236	gas chk @ 3110' no show
5th	3236	3303	
sand, shale	3303	3595	
Warren	3595	3772	gas chk @ 3610' 4/10 thru 1" w/water
sand, shale	3772	3784	
Speechley	3784	4154	gas chk @ 3829' 4/10 thru 1" w/water
sand, shale	4154	4175	
Balltown	4175	4532	
sand, shale	4532	4575	gas chk @ 5027' 4/10 thru 1" w/water
Bradford	4575	4700	gas chk @ 5247' 4/10 thru 1" w/water
sand, shale	4700	4805	gas chk @ 5342' 4/10 thru 1" w/water
Riley	4805	5220	gas chk @ 5373' 12/10 thru 1" w/water
sand, shale	5220	5287	gas chk @ TD 4/10 thru 1" w/water
Benson	5287	5326	gas chk @ Collars 4/10 thru 1" w/water
sand, shale	5326	5466	Driller TD
		5455	Logger TD

DF - 424

DFT - 425

15403

017-4068
 Issued 11/18/93
 Page ___ of ___
 Expires 11/18/95

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

- 1) Well Operator: 687 Petroleum Development Corporation 38200 (5) 611
- 2) Operator's Well Number: Roberts #2 3) Elevation: 1197'
- 4) Well type: (a) Oil / or Gas xx /
 (b) If Gas: Production xx / Underground Storage /
 Deep / Shallow xx /
- 5) Proposed Target Formation(s): Benson 435
- 6) Proposed Total Depth: 5500' feet
- 7) Approximate fresh water strata depths: 36.230.376.450.685.1590.1690.1775 ?
- 8) Approximate salt water depths: None reported
- 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)

CASING AND TUBING PROGRAM

TYPE	SPECIFICATIONS			FOOTAGE INTERVALS		CEMENT
	Size	Grade	Weight per ft.	For drilling	Left in well	
Conductor	11 3/4	H-40	42	30/150	-/150	- surface
Fresh Water						
Coal						
Intermediate	8 5/8	H-40	20/23	1375/1865	1375/1865	surface
Production	4 1/2	J-55	10.5	5500	5500	400sks
Tubing						
Liners						

Handwritten notes in table:
 O.K. mu (circled)
 38CSR18-11.3
 38CSR18-11.22
 38CSR18-11.1

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 (D) Blanket Agent

(Type)

18403

06946
24

1) Date: Nov. 12, 1993
2) Operator's well number Roberts #2
3) API Well No: 47 - 017 - 4068
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 Arby Glaspell
Address Salem RFD
Ashley, WV 26426
(b) Name _____
Address _____
(c) Name _____
Address _____
6) Inspector Mike Underwood
Address Rt. 2, Box 135
Salem, WV 26426
Telephone (304)- _____

5) (a) Coal Operator:
Name _____
Address _____
(b) Coal Owner(s) with Declaration
Name No delcaration
Address _____
Name _____
Address _____
(c) Coal Lessee with Declaration
Name _____
Address _____

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 XXX 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:
_____ Personal Service (Affidavit attached)
_____ Certified Mail (Postmarked postal receipt attached)
_____ Publication (Notice of Publication attached)

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 304-842-6256

Subscribed and sworn before me this 15 day of November, 1993

Gary W. Fridley
My commission expires July 7, 2003

