

KANAWHA VALLEY BANK LEASE

5,626 ACRES ± WELL NO. WV 508287

PATRICIA A. FORD ET AL

PENN VIRGINIA OPERATING COMPANY, LLC
47-039-3637

PATRICIA A. FORD ET AL
1,637.149 AC ± (SURFACE)
KANAWHA VALLEY BANK
LEASE
5,626 AC ±

WELL NO. WV 508287
STATE PLANE
COORDINATES

(N) 350,164
(E) 1,869,271

LEASE DESCRIPTION
CALLS FOR RUNNING
WITH CLEAR FORK

WELL NO. WV 508287

47-081-0342

47-081-0645

47-081-626

PENN VIRGINIA OPERATING COMPANY, LLC (SURFACE)
CARBON FUEL/
BEDFORD LAND
LEASE
8,406 AC ±

REFERENCES

NOTES ON SURVEY

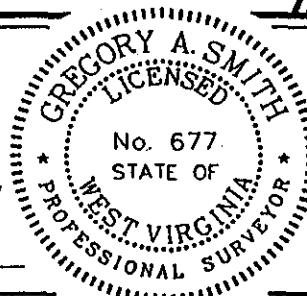
1. TIES TO WELLS AND CORNERS ARE BASED ON STATE PLANE GRID NORTH WV SOUTH ZONE NAD '27.
2. TIES TO REFERENCES ARE BASED ON MAGNETIC NORTH 1/14/02.
3. LEASE BOUNDARY SHOWN HEREON TAKEN FROM A LEASE BOOK 140 AT PAGE 465 ALONG WITH MAPS AND INFORMATION PROVIDED BY GARY PERSINGER OF PENN VIRGINIA OPERATING CO., LLC.
4. SURFACE OWNER AND ADJOINER INFORMATION TAKEN FROM THE ASSESSOR AND COUNTY CLERK RECORDS OF KANAWHA COUNTY IN DECEMBER 2001.
5. WELL LAT./LONG. 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 FEBRUARY 6, 20 02
 OPERATORS WELL NO. WV 508287
 API WELL NO. 47-81-01261
 STATE COUNTY PERMIT

MINIMUM DEGREE OF ACCURACY 1 / 2500 FILE NO. 4677P508287(111-63)
 PROVEN SOURCE OF ELEVATION BENCHMARK ELEVATION = 984' SCALE 1" = 2000'

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 1,166' WATERSHED LAUREL BRANCH
 DISTRICT CLEAR FORK COUNTY RALEIGH QUADRANGLE DOROTHY 7.5'

SURFACE OWNER PATRICIA A. FORD ET AL ACREAGE 1,637.149
 ROYALTY OWNER PATRICIA A. FORD ET AL LEASE ACREAGE 5,626

PROPOSED WORK : LEASE NO. 010306

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 DEVONIAN SHALE
 ESTIMATED DEPTH 5,880'

WELL OPERATOR EQUITABLE PRODUCTION COMPANY DESIGNATED AGENT STEPHEN G. PERDUE
 ADDRESS P.O. BOX 2347, CHARLESTON, WV 25328 ADDRESS P.O. BOX 2347, CHARLESTON, WV 25328

MAR 08 2002

6-6 262

COUNTY NAME RALEIGH
PERMIT 1261

BT

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

Well Operator's Report of Well Work

Farm Name: Ford, Patricia A etal

Operator Well No.: 508287

LOCATION: Elevation: 1166'

Quadrangle: Dorothy

District: Clear Fork

County: Raleigh

Latitude: 14,250 Feet South of
Longitude: 10,600 Feet West of

Minutes Seconds
38 Deg. 0 0
81 Deg. 25 0

Company: Equitable Production Company
P.O. Box 2347, 1710 Pennsylvania Avenue
Charleston, WV 25328

Agent: Stephen G. Perdue

Inspector: Offie Helmick

Permit Issued: 3/6/2002

Well work commenced: 03/15/02

Well work completed: 04/04/02

Verbal Plugging

Permission granted on: _____

Rotary Rig X Cable Rig _____

Total Depth 3200 feet

Fresh water depths (ft) 60'

Salt water depths (ft) 530', 780'

Is coal being mined in area? _____

Coal Depths (ft): none noted

Casing & Tubing Size	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
13 3/8"	33'	33'	grouted
9 5/8"	440'	440'	222.4 ft³
7"	1347'	1347'	299.8 ft³
4 1/2"	3193'	3193'	189 ft³
2 3/8"		3090'	

RECEIVED
Office of Oil & Gas
Permitting
APR 25 2002
WV Department of
Environmental Protection

OPEN FLOW DATA

Producing formation Gordon / Berea; Middle Weir

Pay Zone Depth (ft): _____

See Attach for details

Gas: Initial open flow 0 MCF/d

Oil: Initial open flow _____ Bbl/d

Final open flow: 941 MCF/d

Final open flow: _____

Time of open flow between initial and final tests _____ Hours

Static rock pressure 596 psig (surface pressure) after _____ 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: _____

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.

Kathy S. Dawny
For: Equitable Production Company

By: *David J. Maty*
Date: 4/24/02

MAY 3 - 2002

RA 1201

**EQUITABLE PRODUCTION COMPANY
WR-35 COMPLETION REPORT - Attachment
Well Treatment Summary**

Well: WV-508287-Kanawha Valley Bank

API# 47-081-01261

Date	03/29/02	03/29/02			
Type Frac	N ²	85-80-75 Q			
Acid, N ₂ , Foam, Water		Foam			
Zone Treated	Gordon Berea	Middle Weir			
# Perfs	40	20			
From - To:	2792' - 3135'	2467' - 2504'			
BD Pressure @ psi	2270	990			
ATP psi	2224	1968			
Avg. Rate, B=B/M, S= SCF/M	46,900 S	28 B (foam)			
Max. Treat Press psi	2800	2070			
ISIP psi	1820	430			
Frac Gradient	.68	.60			
10 min S-I Pressure	1260	1520			
Material Volume					
Sand-sks		400			
Water-bbl	52	151.3			
SCF N ₂	1,050,000	287,800			
Acid-gal	400 gal 7 1/2%	500 gal 15.4%			
NOTES:					

TOP	BOTTOM	FORMATION	REMARKS
		Coal	None noted Water @ 60', 530' & 980'
1392'	1431'	AVIS: UPPER	
1563'	1582'	MAXTON: MIDDLE	GT @ 1622' = NS
1664'	1697'	MAXTON: LOWER	GT @ 1845' = NS
1886'	1930'	MAXTON:	
1956'	2033'	LITTLE LIME:	
2047'	2317'	BIG LIME:	GT @ 2064' = NS
2334'	2344'	BIG INJUN:	GT @ 2345' = NS
2392'	2422'	UPPER WEIR:	
2463'	2527'	MIDDLE WEIR:	
2589'	2606'	LOWER WEIR:	GT @ 2657' = odor
2883'	2908'	SUNBURY:	GT @ 2908' = odor
2908'	2952'	BEREA:	
3119'	3137'	GORDON: TD	