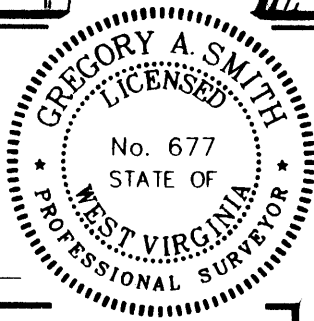


I THE UNDERSIGNED, HEREBY CERTIFY THAT THIS PLAT IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF AND SHOWS ALL THE INFORMATION REQUIRED BY LAW AND THE REGULATIONS ISSUED AND PRESCRIBED BY THE DEPARTMENT OF ENERGY.

P.S. *Gregory A. Smith*
677



(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS.
 DATE JULY 11, 19 97
 OPERATORS WELL NO. BERWIND # 17
 API WELL NO. 47-047-01319
 STATE COUNTY PERMIT

MINIMUM DEGREE OF ACCURACY 1 / 200 FILE NO. 2901P17 (61-40)
 PROVEN SOURCE OF ELEVATION TOP OF KNOB ELEVATION 2345' SCALE 1" = 1000'

WEST VIRGINIA
 DIVISION OF ENVIRONMENTAL PROTECTION
 OFFICE OF OIL AND GAS
 #10 McJUNKIN ROAD
 NITRO, WEST VIRGINIA 25143-2506

WELL TYPE : OIL GAS LIQUID INJECTION WASTE DISPOSAL IF "GAS" PRODUCTION STORAGE DEEP SHALLOW
 LOCATION :
 ELEVATION 1914' WATERSHED VALL CREEK
 DISTRICT BIG CREEK COUNTY McDOWELL QUADRANGLE AMONATE 7.5'
 SURFACE OWNER BERWINDWHITE COAL Co. (TRACT 118) ACREAGE 1440.39
 ROYALTY OWNER BERWIND LAND Co. LEASE ACREAGE 2164 OF 24,625.33
 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 BEREA
 ESTIMATED DEPTH 5000'

WELL OPERATOR CABOT OIL AND GAS CORPORATION DESIGNATED AGENT JOHN ARSHIRE OCT 17 1997
 ADDRESS P.O. BOX 454 GLASGOW, WV 25086 ADDRESS P.O. BOX 454 GLASGOW, WV 25086

COUNTY NAME
 PERMIT

WR-35

Date: 8-Aug-98
API # 47-047-01319

State of West Virginia
Division of Environmental Protection
Section of Oil and Gas
Well Operator's Report of Well Work

Farm name: Berwind Land Co. Operator Well No.: Berwind #17

LOCATION: Elevation: 1,914' Quadrangle: Amonate
District: Big Creek County: McDowell
Latitude: 7,510 feet South of 37 DEG. 15 MIN. 0 SEC.
Longitude: 11,540 feet West of 81 DEG. 37 MIN. 30 SEC.

Company: Cabot Oil & Gas Corporation
400 Fairway Drive: Suite 400
Coraopolis, PA 15108-4308

Agent: John Abshire
Inspector: Ofie Helmick
Permit Issued: 10/15/97
Well Work Commenced: 11/5/97
Well Work Completed: 12/4/97
Verbal Plugging
Permission granted on:
Rotary X Cable Rig
Total Depth (feet) 4661'
Fresh Water Depths (ft) 9', 263'

Salt Water Depths (ft)

Casing & Tubing Size	Used in Drilling	Left in Well	Cement Fill up Cu. Ft.
16"	21'	21'	
8-5/8"	754'	754'	350 sks Class "A"
4-1/2"	4602'	4602'	140 sks RFC

Is coal being mined in area (Y / N)? Y
Coal Depths (ft) 120'-122', 260'-263', 320'-322', 416'-418'

OPEN FLOW DATA

Producing formation Berea Pay zone depth (ft) 4399' - 4406'
Gas: Initial open flow -- MCF/d Oil: Initial open flow N/A Bbl/d
Final open flow 353 MCF/d Final open flow N/A Bbl/d
Time of open flow between initial and final tests 24 Hours
Static rock pressure 380 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: CABOT OIL & GAS CORPORATION

By: Ray Prudnick, Jr.
Date: 8-9-98

McDOW 1319

OPEN FLOW DATA

Perf'd Berea @ 4399' - 4406'. Broke down with 250 gals 15% HCl acid and treated water. BDP: 2800 psi. Frac'd well with 74,500# 20/40 mesh sand and 232,900 scf N₂. ATP: 2479 psi. MTP: 3550 psi. AIR: 15 bpm. ISIP: 861 psi.

FORMATION	TOP	BOTTOM	REMARKS
Fill	0	10	
Sandstone	10	120	
Coal	120	122	
Sandy Shale	122	260	
Coal	260	262	
Gray Shale	262	280	
Sandy Shale	280	320	
Coal	320	323	
Sandy Shale	323	416	
Coal	416	418	
Shale	418	620	
Sand	620	725	
Red Rock	725	778	
Sandy Shale	778	1160	
Sandstone/Shale	1160	1220	
Ravenclyff Sand	1220	1375	
Lime	1375	1480	
Red Sandy Shale	1480	1590	
Gray Sandy Shale	1590	1790	
Sandy Shale	1790	2110	
Upper Maxton	2110	2170	
Sandy Shale	2170	2410	
Middle Maxton	2410	2440	
Sandy Shale	2440	2725	
Lime/Shale	2725	2745	
Little Lime	2745	2850	
Lime/Shale	2850	2940	
Big Lime	2940	3740	
Sandstone	3740	3780	
Sandy Shale	3780	3800	
Sandstone	3800	3980	
Sandstone	3980	4000	
Sandy Shale	4000	4355	
Berea	4355	4410	
Sandy Shale	4410	4455	
Gordon	4455	4505	
Shale	4505	4661 - TD	

24382

047-1319

FORM WW-2B

Page ___ of ___

STATE OF WEST VIRGINIA
DIVISION OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
WELL WORK PERMIT APPLICATION

- 1) Well Operator: Cabot Oil & Gas Corporation 8145 (2) 210
- 2) Operator's Well Number: Berwind Land #17 3) Elevation: 1914'
- 4) Well Type: a) Oil ___ / or Gas X /
b) If Gas: Production X / Underground Storage ___ /
Deep ___ / Shallow X /
- 5) Proposed Target Formation(s): Berea
- 6) Proposed Total Depth: 4600 feet
- 7) Approximate fresh water strata depths: 130', 200'
- 8) Approximate salt water depths: N/A
- 9) Approximate coal seam depths: 264' (open), 414'
- 10) Does land contain coal seams tributary to active mine? Yes X / No ___ /
- 11) Proposed Well Work: Drill and complete a gas well

Issued 10/15/97
Expires 10/15/99

RECEIVED
Environmental Protection

SEP 29 1997

Permitting
Office of Oil & Gas

Based on McDowell 536, 1184, 1197, 1230 and coal company maps
CASING AND TUBING PROGRAM

TYPE	SPECIFICATIONS			FOOTAGE INTERVALS		CEMENT
	Size	Grade	Weight per ft.	For Drilling	Left in Well	Fill-up (cu. ft.)
Conductor	16"	L.S.	65#	30'	30'	10 sks (GFS)
Fresh Water						38CSB/10-11.3
Coal	8-5/8"	L.S.	20#	750'	750'	220 sks (CTS)
Intermediate						38CSB/10-11.2.2
Production	4-1/2"	J-55	10.5#	4550'	4550'	50 sks
Tubing						38CSB/10-11.1
Liners						

PACKERS: Kind Liner on 8-5/8" casing across open mine (244'-284')
Sizes _____
Depths set _____

19 0000 3243
51

For Office of Oil and Gas Use Only

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

(Type)

15

1) Date September 24, 1997
2) Operator's well number
Berwind Land #17
3) API Well No 47 - 047 - 1319
State County Permit

**STATE OF WEST VIRGINIA - BUREAU OF ENVIRONMENT
DIVISION OF ENVIRONMENTAL PROTECTION
OFFICE OF OIL AND GAS**

RECEIVED
Environmental Protection
SEP 29 1997

NOTICE AND APPLICATION FOR A WELL WORK PERMIT

4) Surface Owner(s) to be served
(a) Name Berwind White Coal Co.
Address 1050 One Valley Square
Charleston, WV 25301
(b) Name _____
Address _____
(c) Name _____
Address _____
6) Inspector Ofie Helmick
Address P.O. Box 398
Brenton, WV 24818
Telephone (304)- 543-0764

5) (a) Coal Operator
Name CONSOL Permitting
Address P.O. Box 947 Office of Oil & Gas
Bluefield, VA 24605
(b) Coal Owner(s) with Declaration
Name Berwind White Coal Co.
Address 1050 One Valley Square
Charleston, WV 25301
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**
 Included is the information required by Chapter 22, Article 6, Section 8(d) of the Code of West Virginia (see page 2)
I certify that as required under Chapter 22 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 22-6 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 Cabot Oil & Gas Corporation
By [Signature]
Its Geologist
Address 400 Fairway Drive Suite 400
Coraopolis, PA 15108
Telephone (412)299-7000

Subscribed and sworn before me this 24th day of September, 19 97
[Signature]
My commission expires April 30, 2001

Notary Public [Signature]
Notarial Seal
Susan K. Hayden, Notary Public
Moon Twp., Allegheny County
My Commission Expires April 30, 2001
Member, Pennsylvania Association of Notaries