



Proposed Well No. 16
 600406.35 N
 3208110.10 E

*0.50S
1.08W*

Note:
 Survey based on Peabody coordinate system (Kentucky SPC, South Zone).

Coal Operator:
 Peabody Coal Co.
 800 Laidley Tower
 Charleston, WV 25324

*0.50S
3.35W*

(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS

FILE NO. _____
 DRAWING NO. 1
 SCALE 1" = 2000'
 MINIMUM DEGREE OF ACCURACY 1 in 5000
 PROVEN SOURCE OF ELEVATION Peabody Sta. M-63
5274' SW of Location: elev. 2208.89'

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

PLACE SEAL HERE

STATE OF WEST VIRGINIA
 DEPARTMENT OF ENERGY
 OIL AND GAS DIVISION



DATE September 6, 19 89
 OPERATOR'S WELL NO. 16
 API WELL NO. 47-081-0884
 STATE COUNTY PERMIT

WELL TYPE: OIL ___ GAS X LIQUID INJECTION ___ WASTE DISPOSAL ___
 (IF "GAS,") PRODUCTION X STORAGE ___ DEEP ___ SHALLOW X
 LOCATION: ELEVATION 2232' WATER SHED James Creek and Marsh Fork
 DISTRICT Marsh Fork COUNTY Raleigh
 QUADRANGLE Whitesville 7 1/2' 677 Bald Knob EC
 SURFACE OWNER Berwind Land Company ACREAGE 8044
 OIL & GAS ROYALTY OWNER Berwind Land Company LEASE ACREAGE 8044
 LEASE NO. 8391
 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 Berea Sand ESTIMATED DEPTH 4275
 WELL OPERATOR Edisto Resources Corp. DESIGNATED AGENT Dave Cash, Edisto Resources Corp.
 ADDRESS 681 Anderson Drive, Foster Plaza VI ADDRESS 312 Sixth Avenue
Pittsburgh, PA 15220 H653 Charleston, WV 25303

SEP 24 1989

FORM WW-6

COUNTY NAME PERMIT

6-6 Hopkins Fork - Jarrolds Valley (247)



State of West Virginia
DEPARTMENT OF ENERGY
Division of Oil and Gas

Well Operator's Report of Well Work

Farm name: BERWIND LAND COMPANY Operator Well No.: BERWIND #16

LOCATION: Elevation: 2232.00 Quadrangle: WHITESVILLE

District: MARSH FORK County: RALEIGH
Latitude: 2760 Feet South of 37 Deg. 55Min. 0 Sec.
Longitude 5750 Feet West of 81 Deg. 32 Min. 30 Sec.

Company: EDISTO RESOURCES CORPORAT
68 ANDERSON DR-FOSTER PLAZA
PITTSBURGH, PA 00001-5220

Agent:

Inspector: RODNEY G. DILLON
Permit Issued: 09/29/89
Well work Commenced: 11/1/89
Well work Completed: 11/15/89
Verbal Plugging
Permission granted on: _____
Rotary x Cable _____ Rig
Total Depth (feet) 4291'
Fresh water depths (ft) none

Salt water depths (ft) none

Is coal being mined in area (Y/N)? Y
Coal Depths (ft): 990', 1185'

Casing & Tubing	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
Size 13-3/8"	39.5'	39.5'	conductor
9-5/8"	1240.1'	1240.1'	cement to surface
4-1/2"	4251.2'	4251.2'	196 ft ³

RECEIVED
APR 13 1990

DIVISION OF OIL & GAS
DEPT. OF ENERGY

OPEN FLOW DATA

Producing formation Berea Sand Pay zone depth (ft) 4111'
Gas: Initial open flow odor MCF/d Oil: Initial open flow 0 Bbl/d
Final open flow 150 estimated MCF/d Final open flow 0 Bbl/d
Time of open flow between initial and final tests 7 days Hours
Static rock Pressure 630 psig (surface pressure) after 23 Hours

Second producing formation None 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.

William C. Straslicka
For: EDISTO RESOURCES CORPORATION

By: William Straslicka, Eastern Region Engineering Manager
Date: 11/17/89

APR 20 1990

Perforated 4111 to 4222 - 12 shots 0.39" diameter. Stimulated with 400 gals. acid, 400 gals. methanol, 433 bbls. of 25 lb. gel water with 250 scf/bbl nitrogen. Placed 260 sx of 20/40 sand. Breakdown pressure was 1245 psi. AIR = 13.5 BPM AIP = 1274 psi. Isip = 437 psi. Clean up on 1/2" choke.

DETAILS OF PERFORATED INTERVALS, FRACTURING, PHYSICAL CHANGES

WELL LOG

FORMATION COLOR HARD/SOFT : TOP FEET : BOTTOM FEET : REMARKS

Top Soil	0	10	
Sand and Shale	10	66	
Mine Shaft	66	71	
Sand and Shale	71	377	
Sand	377	990	No Circulations
Coal	990	1185	
Sand	1185	1190	
Coal	1190	1245	
Sand and Shale	1245	1350	
Shale	1350	1510	
Sand	1510	1530	
Shale	1530	1572	
Sand	1572	1622	
Shale	1622	1655	
Sand	1655	1723	
Sand and Shale	1723	1778	
Sand	1778	1896	
Shale	1896	1930	
Sand	1930	2024	
Sand	2024	2300	
Shale	2300	2341	
Sand	2341	2502	
Sand and Shale	2502	2569	
Sand	2569	2627	
Sand and Shale	2627	2718	
Sand	2718	2749	
Sand and Shale	2749	2760	
Sand	2760	2988	
Sand and Shale	2988	3280	
Little Lime	3280	3322	
Shale	3322	3334	
Big Lime	3334	3680	
Sand and Shale	3680	4118	
Sand	4118	4134	
Sand and Shale	4134	4291	

9626

APR 20 1990

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

- 1) Well Operator: ⁴⁵⁵³ Edisto Resources Corporation 15255 (2) 676
- 2) Operator's Well Number: Berwind Land #16 3) Elevation: 2232'
- 4) Well type: (a) Oil / or Gas /
(b) If Gas: Production / Underground Storage /
Deep / Shallow /
- 5) Proposed Target Formation(s): Berea Sand
- 6) Proposed Total Depth: 4275 feet
- 7) Approximate fresh water strata depths: 185, 515
- 8) Approximate salt water depths: None reported
- 9) Approximate coal seam depths: 265, 395, 475, 485, 700, 1005, 1170
- 10) Does land contain coal seams tributary to active mine? Yes / No /
- 11) Proposed Well Work: Drill and fracture stimulate new well.
- 12)

CASING AND TUBING PROGRAM

TYPE	SPECIFICATIONS			FOOTAGE INTERVALS		CEMENT
	Size	Grade	Weight per ft.	For drilling	Left in well	Fill-up (cu. ft.)
Conductor	13 3/8"		48	30		
Fresh Water						
Coal	9 5/8"		32.3	1245	1245	C.T.S.
Intermediate						
Production	4 1/2"		10.5	4275	4275	As required
Tubing						
Liners						

PACKERS : Kind _____
Sizes _____
Depths set _____

For Division of Oil and Gas Use Only

2018
24

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

9626

1) Date: September 15, 1989
2) Operator's well number
Berwind Land #16
3) API Well No: 47 - 081 - 0884
State - County - Permit

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

NOTICE AND APPLICATION FOR A WELL WORK PERMIT

- | | |
|---|---|
| <p>4) Surface Owner(s) to be served:</p> <p>(a) Name <u>Berwind Land Co. ATTN: Ray</u>
Address <u>Brainard 1050 One Valley Square</u>
<u>Charleston, WV 25301</u></p> <p>(b) Name _____
Address _____</p> <p>(c) Name _____
Address _____</p> | <p>5) (a) Coal Operator:</p> <p>Name <u>Peabody Coal Co. ATTN: Mike Eddie</u>
Address <u>PO Box 1233</u>
<u>Charleston, WV 25324</u></p> <p>(b) Coal Owner(s) with Declaration</p> <p>Name <u>Berwind Land Co. ATTN: Ray Brainard</u>
Address <u>1050 One Valley Square</u>
<u>Charleston, WV 25301</u></p> <p>Name _____
Address _____</p> <p>(c) Coal Lessee with Declaration</p> <p>Name <u>Peabody Coal Co. ATTN: Mike Eddie</u>
Address <u>PO Box 1233</u>
<u>Charleston, WV 25324</u></p> |
| <p>6) Inspector <u>Rodney G. Dillon</u>
Address <u>PO Box 1526</u>
<u>Sophie, WV 25921</u>
Telephone <u>(304)-683-3989</u></p> | |

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
x 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:

- x 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 Edisto Resources Corporation
By: Robert T. Golier *Robert T. Golier*
Its: Vice President & Eastern Region Manager
Address 681 Andersen Drive, Foster Plaza VI
Pittsburgh, PA 15220
Telephone (412) 921-3700

Subscribed and sworn before me this 15th day of September, 1989

Patricia A. Fisher
My commission expires August 17, 1998 Notary Public