





API # 47- 81-01133 C-W 22-Apr-99

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

Well Operator's Report of Well Work Operator Well No.: 146-C BEAVER COAL CO. Farm name: Elevation: 2,462.00 Quadrangle: BECKLEY LOCATION:

> County: RALEIGH District: TOWN Feet South of 37 Deg. 47Min. 30 Sec. Latitude: 8250 Feet West of 81 Deg. 12 Min. 30 Sec Longitude 9700

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Company: ENERGY SEARCH, INC. Cement Left 280 FT.SANDERS, W.BLVD., STE. 200 | Casing | Used in |Fill Up KNOXVILLE, TN 37922-0000 in Well Cu. Ft. Drilling Tubing Agent: FRANK R. ROTUNDA Size Inspector: RODNEY DILLON 201 201 04/27/98 05/28/99 12 3/4" Permit Issued: Well work Commenced: -05/28/99 Well work Completed: Verbal Plugging 9 5/8" 4191 163 4191 Permission granted on: Rotary XX Cable Rig
Total Depth (feet) PBID (CIBP) 1350'
Fresh water depths (ft) 195' 659' Rig 10101 275 10101 352 19571 4 1/2" 19571 Salt water depths (ft) Is coal being mined in area (Y/N)?N 2 3/8" Coal Depths (ft): open mine @ 350' 11391

OPEN FLOW DATA

DETAILS OF PERFORATED NOTE: ON BACK OF THIS FORM PUT THE FOLLOWING: 1). 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, 2

	Ohn III Shuth	
For:	ENERGY SEARCH TNC. By: JOHN M. JOHNSTON	
	Date:07/30/99	

Formation Tops

Elevation 2462'
Poca #3 1038-1057'
Poca #2A 1087-1089'
Poca #2B 1139-1141'

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WR-35

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<u>05-May-98</u>

Well Operator's Report of Well Work

Farm name: Beaver Coal Co	•
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Operator Well No.: Beaver Coal#146

LOCATION:

Elevation: 2,462.00 Quadrangle: BECKLEY

District: TOWN County: RALEIGH

Feet South of 37 Deg. 47Min. 30 Sec. Feet West of 81 Deg. 12 Min. 30 Sec. 8250 Latitude: 9700 Longitude

Company: ENERGY SEARCH, INC. 280 FT.SANDERS, W.BLVD...

280 FT.SANDERS,W.BLVD.,STE.200 KNOXVILLE, TN 37922-0000	Casing & — Tubing	,]	Cement Fill Up Cu. Ft.
Agent: FRANK R. ROTUNDA			-	
	Size			
Inspector: RODNEY DILLON				l i
Permit Issued: 05/06/98	12-3/4	201	l 20'	
Well work Commenced: 6/23/98				
Well work Completed: 8/20/98				l İ
Verbal Plugging	9-5/8	419'	l 4191	163
Permission granted on:N/A				
Rotary YXXX Cable Rig Total Depth (feet) 2732	7"	1010'	l I ₁₀₁₀ ,	275
Fresh water depths (ft) 1951 - 6591		<u>'</u>	<u></u>	
Salt water depths (ft) no record	4-1/2	1957'	 1957' 	352
Is coal being mined in area (Y/N)?Coal Depths (ft):open mine @ 350'	2-3/8		 1704'	

OPEN FLOW DATA

Producing formation	Ravencliff	Pay zone depth ((ft) See attach
Gas: Initial open flow	show MCF/d Oil	: Initial open flow	0 Bbl/d
Final open flow	84 MCF/d	Final open flow	
Time of open flow	between initial	and final tests	Hours
Static rock Pressure_	<u> </u>	face pressure) after	24 Hours
Second producing forma Gas: Initial open flow	MCF/d Oil	Pay zone depth (: Initial open flow_	Bb1/d
Gas: Initial open flow Final open flow	MCF/d Oil MCF/d	: Initial open flow Final open flow	Bbl/d Bbl/d
Gas: Initial open flow Final open flow	MCF/d Oil MCF/d between initial	Initial open flow	Bbl/d Bbl/d 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.

	Fruh R. Potunder	7
For: El	NERGY SEARCH, INC.	_ r
B	y: Frank R. Rotunda - VP Land - Agent	1
Da	ate: 9/14/98	,5

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Beaver Coal #146

API: 47-081-01133

Ravencliff:

1708'-12' (4 shots), 1722'-28' (10), 1742'-46' (6 shots) - set CIBP @ 1904'.
Breakdown with 250 gal 15% HCI, @ 643 psi; 1SIP 397 psi; pump 250 gal HCI & drop 30 - 1.3 sg. Balls to ballout @ 3600 psi. 75Q Foam Frac - 30 BPM; 35,000 # 20/40 sand; 355,000 SCF N2; 160 bbl. Total fluid; Max TP 2770 psi; ATP 2650 psi; Final TP 2700 psi; ISIP 2275 psi; 15 min. SIP 1920 psi.

