

Conf 12-30-93 WS-399

Department of Mines, Minerals and Energy  
Division of Gas and Oil

Operations Name: PVRC (OLINGER) VP2851  
Permit #: 2490

Department of Mines, Minerals and Energy  
Division of Gas and Oil  
P. O. Box 1416  
Abingdon, Virginia 24210  
703/676-5423



COMPLETION REPORT

ENTERED

WELL TYPE: Oil  Gas  Coalbed Methane  or Injection

Date Well Completed: 10-15-93 Total Depth of Well: LTD = 6014 DTD = 6010

Attach the Drilling Report, if not previously submitted. In addition, submit any changes in casing or tubing that were approved after the Drilling Report was submitted.

STIMULATION RECORD

Zone 1: CLEVELAND SHALE Formation Stimulated With: 75 Q FOAM  
W/45100# 20/40 SAND - 729850 SCF N2 - 415 BF

Perforated: 5588 TO 5744 No. of Perforations: 30 Perforation Size: .34"  
Formation Broke Down at: N/A PSIG Average Injection Rate: 60 BPM  
ISIP 1741 PSIG 5 MIN SIP 1548 PSIG Average Injection Pressure 3391 PSIG  
Date Stimulated 10-1-93

Zone 2: WEIR Formation Stimulated With: 75 Q FOAM  
W/57000# 20/40 SAND - 730580 SCF N2 - 471 BF

Perforated: 5213 TO 5326 No. of Perforations: 19 Perforation Size: .34"  
Formation Broke Down at: 1974 PSIG Average Injection Rate: 60 BPM  
ISIP 1734 PSIG 5 MIN SIP 1328 PSIG Average Injection Pressure 3474 PSIG  
Date Stimulated 10-1-93

Zone 3: BIG LIME Formation Stimulated With: 50 Q FOAMED ACID  
W/2500 GAL 15% ACID - 211760 SCF N2 - 356 BF

Perforated: 5098 TO 5104 No. of Perforations: 7 Perforation Size: .34"  
Formation Broke Down at: N/A PSIG Average Injection Rate: 10 BPM  
ISIP 1525 PSIG 5 MIN SIP 1215 PSIG Average Injection Pressure 1795 PSIG  
Date Stimulated 10-1-93

FINAL PRODUCTION:  Natural  After Stimulation

	BOD	MCFD	HOURS TESTED	ROCK PRESSURE	HOURS TESTED
Zone (1)					
Zone (2)					
Zone (3)					
Final Production if Gas Zones are Commingled	<u>1412</u>	<u>MCFD</u>	<u>6</u>	<u>660</u>	<u>48</u>

\* Use additional sheets with this format, if more than three (3) zones were stimulated.

Permittee: EQUITABLE RESOURCES EXPLORATION (Company)

By: [Signature] (Signature)

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DRILLING REPORT

Pursuant to VR-480-05-22.1, § 1.36, the undersigned Permittee submits this report on Well VP 2851 in the RICHMOND District of the WISE County, Virginia on 19TH day, OCTOBER month, 19 93.

LOCATION

County: WISE District: RICHMOND  
Surface Elevation: 2928.49' Elevation of Kelly Bushing: 2938.5' Quadrangle: APPALACHIA  
6600 FT. S. of Latitude 36° 57' 30" and 5500 FT. W. of Longitude 82° 50' 00"

Attach a final location plat as required by VR 480-05-22.1, § 1.36.

DRILLING DATA

Date Drilling Commenced: 9/10/93 Drilling Contractor: UNION DRILLING  
Date Drilling Completed: 9/22/93 Rig Type: X Rotary      Cable Tool  
Total Depth of Well: LTD=6014 DTD=6010

GEOLOGICAL DATA

Fresh Water at: 355 Feet DAMP GPM      Feet      GPM  
3495 Feet DAMP GPM      Feet      GPM  
Salt Water at:      Feet      GPM      Feet      GPM  
     Feet      GPM      Feet      GPM

COAL SEAMS:

NAME	TOP	BOTTOM	THICKNESS	MINING IN AREA		
				YES	NO	MINED OUT
	839	842	3			
	3311	3316	5			

GAS AND OIL SHOWS:

FORMATION	TOP	BOTTOM	THICKNESS	IPF (MCFD/BOPD)	PRESSURE	HOURS TESTED
		5100/5162/5597		ODOR		

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Cuttings or samples are X are not available for examination by a member of the Virginia Division of Mineral Resources  
Cuttings or samples have    have not X been furnished to the Virginia Division of Mineral Resources

### ELECTRIC LOGS AND SURVEYS

List logs run on wellbore: FDS/TEMP/GR

Did log disclose vertical location of a coal seam? Yes    No X

### SURVEY RESULTS

DEPTH OF SURVEY	DIRECTION/DISTANCE/DEGREES FROM TRUE VERTICAL	DEPTH OF SURVEY	DIRECTION/DISTANCE/DEGREES FROM TRUE VERTICAL
222	1/4°	2363	1/2°
404	3/4°	2551	1/4°
620	3/4°	2763	1/2°
842	3/4°	2981	3/4°
923	3/4°	3198	1°
1119	3/4°	3322	3/4°
1336	3/4°	3533	3/4°
1553	1°	3747	3/4°
1742	3/4°	3964	1°
1960	3/4°		
2179	1/2°		

### CASING AND TUBING

	SIZE	TOP	BOTTOM	LENGTH	CEMENT USED (IN CU/FT)	DATE CEMENTED	PACKERS OR BRIDGE PLUGS KIND SIZE SET AT
<u>Conductor</u>	13 3/8"		30'	20'			
<u>Surface</u>	9 5/8"		894'	884'	320(378)	9-12-93	
<u>Water Protection</u>							
<u>Coal Protection</u>	7"		3986'	3976'	212(560) 125(148)	9-18-93 9-18-93	
<u>Other Casing and Tubing Left in Well</u>	4 1/2" 2 3/8"		5928' 5727'	5918'	140(181)	9-22-93	

### Liners

REMARKS: Shut down, fishing jobs, depths and dates, caving, lost circulation, etc.

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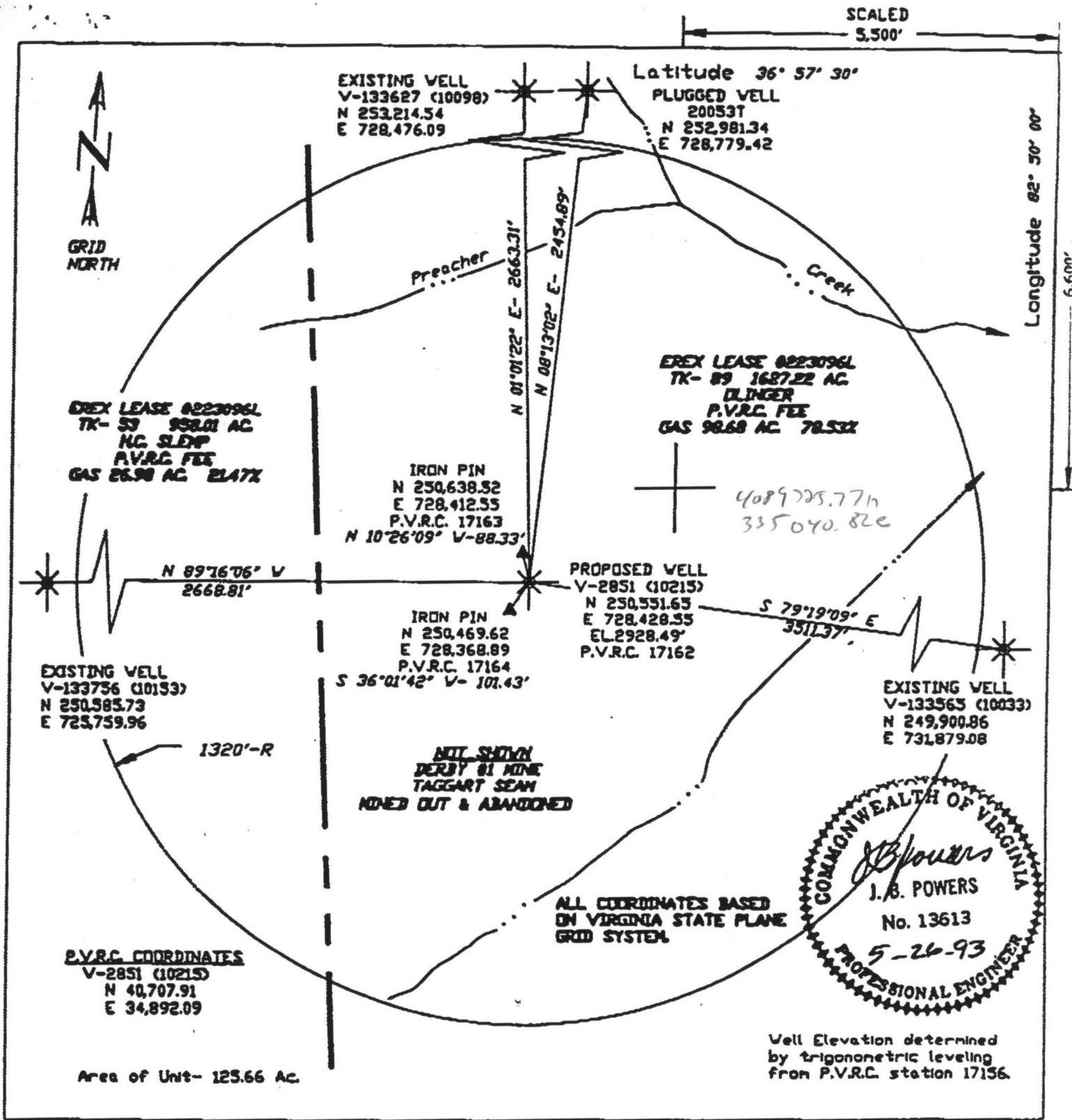
## DRILLER'S LOG

Compiled by GEOLOGY

GEOLOGIC AGE	FORMATION	GENERAL LITHOLOGY	COLOR	DEPTH		THICKNESS	REMARKS
				TOP	BOTTOM		
PENNSYLVANIAN	SAND, SHALE & LEE SANDS			0	3843	3843	
	SAND & SHALE			3843	4096	253	
MISSISSIPPIAN	AVIS LS			4096	4148	52	
	SAND & SHALE			4148	4334	186	
	MAXON SANDS			4334	4510	176	
	SAND & SHALE			4510	4588	178	
	LITTLE LIME			4688	4731	43	
	BIG LIME			4731	5156	425	
	WEIR			5156	5400	244	
	COFFEE SHALE			5400	5520	120	
	BEREA			5520	5592	72	
DEVONIAN	SHALE			5592	6014	422	
	LOGGER'S TOTAL DEPTH				6014		

Permittee: EQUITABLE RESOURCES EXPLORATION (Company)

By: *Martin P. Puskas* (Signature)



1920-F-80

WELL LOCATION PLAT

Company EQUITABLE RESOURCES EXPLORATION Well Name and Number V-2851 (10215)  
 Tract No. 89 Elevation 2928.49' Quadrangle APPALACHIA  
 County WISE District RICHMOND Scale: 1 = 400' Date 05/26/93

This plat is a new plat  an updated plat  or a final location plat

+ Denotes the location of a well on United States topographic Maps, scale 1 to 24,000, latitude and longitude lines being represented by border lines as shown.

J.B. POWERS