

8,800'  
 LATITUDE 37° 22' 30"  
 LONGITUDE 81° 50' 00"  
 10,600'

*Janice*  
*8/22/97*

**REFERENCES N.T.S.**

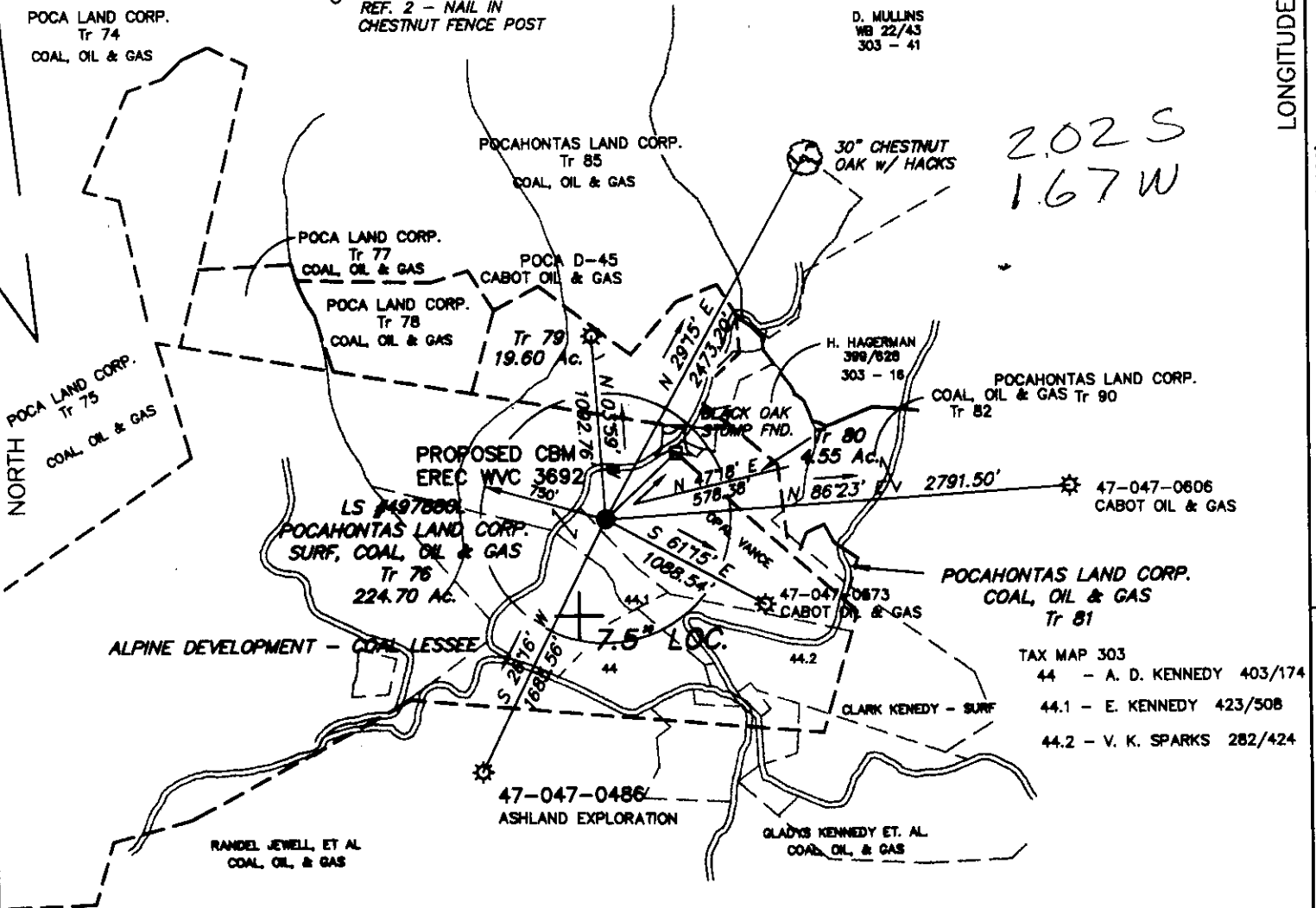
REF. 1 - NAIL IN POWER POLE  
 N 75°46' W 138.76'  
 S 33°31' E 124.56'

PROPOSED CBM EREC WVC 3692

REF. 2 - NAIL IN CHESTNUT FENCE POST

D. MULLINS  
 WB 22/43  
 303 - 41

202 S  
 167 W



TAX MAP 303  
 44 - A. D. KENNEDY 403/174  
 44.1 - E. KENNEDY 423/508  
 44.2 - V. K. SPARKS 282/424

**WELL COORDINATES**  
 W. VA. STATE PLANE  
 N 127118.1935  
 E 1748950.9240

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

FILE No. 9614-9  
 DRAWING No. EREC WVC 3692  
 SCALE 1" = 1000'  
 MINIMUM DEGREE OF ACCURACY 1 : 2500  
 PROVEN SOURCE OF ELEVATION USGS BM 151 RHP, 1959, EL. 2156

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 MINES

(SIGNED) *William J. Whitman* R.P.S.  
 R.P.E. \_\_\_\_\_ R.P.S. 646

WILLIAM J. WHITMAN  
 REGISTERED  
 No. 646  
 STATE OF WEST VIRGINIA  
 PROFESSIONAL SURVEYOR

PLACE SEAL HERE

STATE OF WEST VIRGINIA  
 DIVISION OF ENVIRONMENTAL PROTECTION  
 OFFICE OF OIL AND GAS  
 NITRO, WV

DATE JULY 14 19 97  
 OPERATOR'S WELL No. WVC 3692  
 API WELL No. 47 047-01315-C

WELL TYPE: OIL \_\_\_ GAS \_\_\_ CBM \_\_\_ LIQUID INJECTION \_\_\_ WASTE DISPOSAL \_\_\_ STATE COUNTY PERMIT  
 (IF "GAS") PRODUCTION \_\_\_ STORAGE \_\_\_ DEEP \_\_\_ SHALLOW X

LOCATION: ELEVATION 2060.96 WATER SHED MEATHOUSE FORK OF PANTHER CREEK  
 DISTRICT SANDY RIVER COUNTY McDOWELL  
 QUADRANGLE BRADSHAW, W. VA. - VA.

SURFACE OWNER OPAL VANCE ACREAGE 224.70  
 OIL & GAS ROYALTY OWNER POCAHONTAS LAND CORP. LEASE ACREAGE 15,379.43  
 LEASE No. 497880L

PROPOSED WORK: DRILL X CONVERT \_\_\_ DRILL DEEPER \_\_\_ REDRILL \_\_\_ FRACTURE OR STIMULATE X PLUG OFF OLD FORMATION \_\_\_ PERFORATE NEW FORMATION \_\_\_ OTHER PHYSICAL CHANGE IN WELL (SPECIFY) \_\_\_\_\_

PLUG AND ABANDON \_\_\_ CLEAN OUT AND REPLUG \_\_\_\_\_ ESTIMATED DEPTH 2115' AUG 28 1997  
 TARGET FORMATION PENNSYLVANIAN COALS  
 WELL OPERATOR EQUITABLE RESOURCES ENERGY CO. DESIGNATED AGENT DAVID DEAN  
 ADDRESS 1989 EAST STONE DR. ADDRESS P.O. DRAWER 40  
KINGSPORT, TN 37660 BUCHANNON, WV 26201

FORM IV-6 (8-78)

WR-35

19-Aug-97  
API # 47- 47-01315 C

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

Well Operator's Report of Well Work

Farm name: VANCE, OPAL ETAL Operator Well No.: WVC-8692

LOCATION: Elevation: 2,060.96 Quadrangle: BRADSHAW  
District: SANDY RIVER County: MCDOWELL  
Latitude: 10600 Feet South of 37 Deg. 22Min. 30 Sec.  
Longitude 8800 Feet West of 81 Deg. 50 Min. 0 Sec.

Company: EQUITABLE RESOURCES EXP.  
1989 E. STONE DR., P.O. BOX 1983  
KINGSPORT, TN 37662-1983

Agent: DAVID A. DEAN

Inspector: OFIE HELMICK  
Permit Issued: 08/28/97  
Well work Commenced: 9/21/97  
Well work Completed: 9/26/97  
Verbal Plugging  
Permission granted on:  
Rotary  Cable \_\_\_\_\_ Rig  
Total Depth (feet) LTD-2172 DTD=2165  
Fresh water depths (ft) 396, 600, 1379

Size	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
13 3/8	30	30	
8 5/8	497	497	271
7	673	673	50
4 1/2	2157	2157	344
2 3/8	2104	2104	

Salt water depths (ft) \_\_\_\_\_

Is coal being mined in area (Y/N)? N  
Coal Depths (ft): 15-18, 82-86, 376-380, 480-485, 595-599, 706-709, 1094-1099, 1264-1269, 1416-1422, 1462-1466, 1536-1540, 1648-1652, 1775-1781, 1828-1832, 1879-1884, 1914-1919

OPEN FLOW DATA

Producing formation COAL SEAMS \* Pay zone depth (ft) 1410.5-2044  
Gas: Initial open flow \_\_\_\_\_ MCF/d Oil: Initial open flow \_\_\_\_\_ Bbl/d  
Final open flow 35 MCF/d Final open flow \_\_\_\_\_ Bbl/d  
Time of open flow between initial and final tests \_\_\_\_\_ Hours  
Static rock Pressure 260 psig (surface pressure) after 48 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.

- \* BECKLEY POCO #4
- FIRECREEK POCO #3
- POCO #9 POCO #2
- POCO #6 POCO #1
- POCO #6 RIDER
- POCO #5

For: MICHAEL P JASKOSKI  
EQUITABLE RESOURCES EXP. INC.  
By: Michael P Jaskoski  
Date: 4-28-98

Mc Dow 1315 C

JUN 29 1998

API #: 47-047-01315 C  
 OPERATOR WELL #: WVC3692  
 FARM NAME: OPAL VANCE ET AL

1) DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC.

1<sup>ST</sup> STAGE - PERFORATED POCO SEAMS #1,2,3,4 FROM 1907.5 - 2044 WITH 16 PERFORATIONS. FRACTURED ON 10/20/97 BY DOWELL WITH 70Q LE FOAM; 15300# 12/20 SAND, 466,000 SCF N2, 401 TOTAL BBLs FLUID. BREAKDOWN PRESSURE 2494 PSI, MAX PRESSURE 3758 PSI, AVERAGE PRESSURE 3620 PSI, ISIP 1743 PSI, 1 MIN SIP 1739 PSI, 5 MIN SIP 1675 PSI. AVERAGE INJECTION RATE 16.4 (49) BPM (DH). SET FRAC PLUG @ 1870'

2<sup>ND</sup> STAGE - PERFORATED POCO #5, 6 & 6 RIDER FROM 1771 - 1834.5 WITH 14 PERFORATIONS. FRACTURED ON 10/20/97 BY DOWELL WITH 70Q LE FOAM; 14800# 12/20 SAND, 491,000 SCF N2, 426 TOTAL BBLs FLUID. BREAKDOWN PRESSURE 3378 PSI, MAX PRESSURE 4060 PSI, AVERAGE PRESSURE 3620 PSI, ISIP 1810 PSI, 1 MIN SIP 1886, 5 MIN SIP 1698 PSI. AVERAGE INJECTION RATE 7.9 (25) BPM (DH). SET FRAC PLUG @ 1630'

3<sup>RD</sup> STAGE - PERFORATED FIRE CREEK, BECKLEY & POCO #9 FROM 1410.5 - 1593.5.5 WITH 15 PERFORATIONS. FRACTURED ON 10/20/97 BY DOWELL WITH 70Q HYFOAM; 15500# 12/20 SAND, 575,000 SCF N2, 351 TOTAL BBLs FLUID. BREAKDOWN PRESSURE 2609, MAX PRESSURE 4051 PSI, AVERAGE PRESSURE 3675 PSI, ISIP 1620 PSI, 1 MIN SIP 1602 PSI, 5 MIN SIP 1519 PSI., AVERAGE INJECTION RATE 6.4 (19.6) BPM (DH). F.G. = 2.13.

2) THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE.

SAND, SHALE & THIN COALS	0	1410	1410
BECKLEY	1410	1415	5
SAND, SHALE & THIN COALS	1415	1530	115
FIRE CREEK	1530	1534	4
SAND, SHALE & THIN COALS	1534	1592	58
POCO #9	1592	1594	2
SAND, SHALE & THIN COALS	1594	1770	176
POCO #6 RIDER	1770	1775	5
SAND, SHALE & THIN COALS	1775	1820	45
POCO #6	1820	1823	3
SAND, SHALE & THIN COALS	1823	1832	9
POCO #5	1832	1835	3
SAND, SHALE & THIN COALS	1835	1908	73
POCO #4	1908	1910	2
SAND, SHALE & THIN COALS	1910	1949	39
POCO #3	1949	1950	1
SAND, SHALE & THIN COALS	1950	1992	42
POCO #2	1992	1994	2
SAND, SHALE & THIN COALS	1994	2042	48
POCO #1	2042	2045	3
SAND, SHALE & THIN COALS	2045	2172	127

LOGGER'S TOTAL DEPTH 2172  
 DRILLER'S TOTAL DEPTH 2165

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

- Well Operator: Equitable Resources Energy Company 16155 (6) 261
- Operator's Well Number: WVC 3692 3) Elevation: 2060.96
- Well type: (a) Oil    / or Gas X / CBM Issued 08/28/97  
Expires 08/29/99
- (b) If Gas: Production    / Underground Storage    /  
 Deep    / Shallow
- Proposed Target Formation(s): Pennsylvanian Coals
- 6) Proposed Total Depth: 2115 feet
- 7) Approximate fresh water strata depths: Unknown
- 8) Approximate salt water depths: Unknown
- 9) Approximate coal seam depths: See Attached Prognosis
- 10) Does land contain coal seams tributary to active mine? Yes    / No    /
- 11) Proposed Well Work: Drill - Stimulate - Complete *New Well*
- 12)

**RECEIVED**  
 Environmental Protection  
 Permitting  
 Office of Oil & Gas  
 AUG 1 1997

**CASING AND TUBING PROGRAM**

TYPE	SPECIFICATIONS		FOOTAGE INTERVALS			CEMENT Fill-up (cu. ft.)
	Size	Grade	Weight per ft.	For drilling	Left in well	
Conductor	16.00	L.S.	65	40	40	D.P.
Fresh Water	8.625	L.S.	23	470	470	To Surface 120 ft <sup>3</sup>
Coal						
Intermediate						
Production	4.50	M65	9.5		2095	To Surface 480 ft <sup>3</sup>
Tubing	2.375	L.S.	4.6		2050	----
liners if needed	10.00	J55	42	45	45	

**PACKERS** : Kind                       
 Sizes                       
 Depths set                     

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)

REC-10  
West Virginia  
Environmental Protection  
AUG 11 1997

1) Date: August 8, 1997  
2) Operator's well number  
WVC-3692  
3) API Well No: 47 - 47 - 1315-C  
State County Permit

Permitting  
Office of Oil & Gas  
WEST VIRGINIA - BUREAU OF ENVIRONMENT  
DIVISION OF ENVIRONMENTAL PROTECTION  
OFFICE OF OIL AND GAS

NOTICE AND APPLICATION FOR A WELL WORK PERMIT

Surface Owner(s) to be served:  
(a) Name Daryl & Tonya Barker  
Address Box 189  
Paynesville, WV 24873  
(b) Name Opal Vance  
Address 2690 Nadeau Road  
Monroe, MI 48162  
(c) Name \_\_\_\_\_  
Address \_\_\_\_\_  
Inspector Offie Helmick  
Address P.O. Box 398  
Brenton, WV 24818  
Telephone (304) - 759-0579

5) (a) Coal Operator:  
Name \_\_\_\_\_  
Address \_\_\_\_\_  
(b) Coal Owner(s) with Declaration  
Name Pocahontas Land Corporation  
Address P.O. Box 1517  
Bluefield, WV 24701  
Name \_\_\_\_\_  
Address \_\_\_\_\_  
(c) Coal Lessee with Declaration  
Name Alpine Development Company  
Address P.O. Box 303  
Welch, WV 24801

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     
   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)  
   X 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 Equipable Resources Energy Company  
By: Michael P. Jaskolski  
Its: Manager-Drilling & Workover  
Address 1989 East Stone Drive, P.O. Box 1983  
Kingsport, Tennessee 37662-1983  
Telephone (423) 224-3800

Subscribed and sworn before me this 8th day of August, 1997

Jaune Irene Thomas  
Notary Public  
commission expires December 31, 2000