

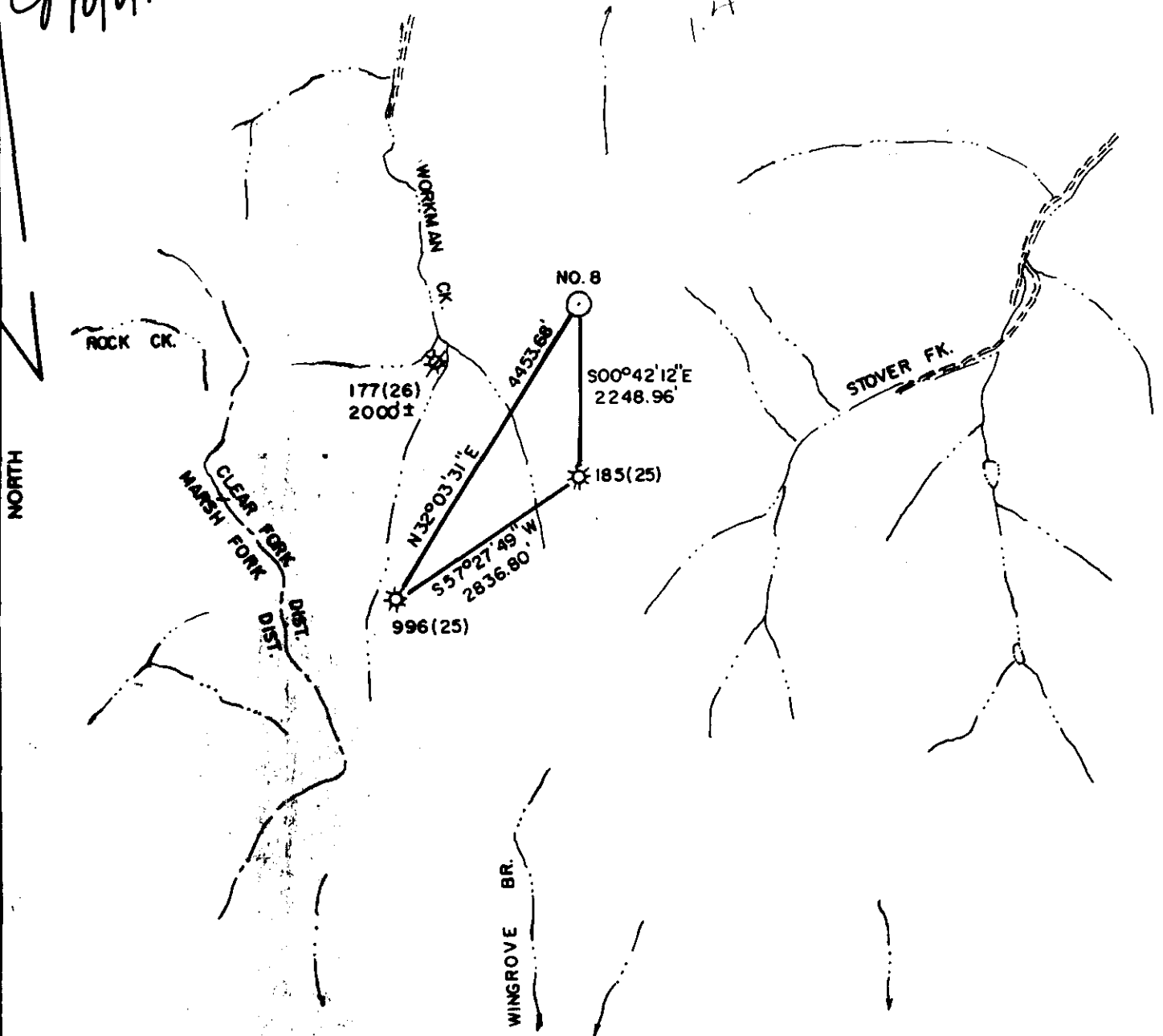
LAND SURVEYING SERVICES  
 21 CEDAR LANE  
 BRIDGEPORT, WV 26330  
 PHONE: 304-842-2018

7415' LATITUDE 37° 52' 30"

WELL REFERENCES:  
 N10°E, 97' TO 4" LOCUST  
 N89°E, 126' TO 6" R. MAPLE

*Janie*  
 10/19/96

0.125  
 1.40



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

FILE NO. \_\_\_\_\_  
 DRAWING NO. \_\_\_\_\_  
 SCALE 1" = 2000'  
 MINIMUM DEGREE OF ACCURACY 1 in 2500  
 PROVEN SOURCE OF ELEVATION EXIST. WELL 996  
 ELEV. - 2371.04'

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) \_\_\_\_\_  
 R.P.E. \_\_\_\_\_ L.L.S. 674  
 STEPHEN D. LOSH



STATE OF WEST VIRGINIA  
 DEPARTMENT OF ENERGY  
 OIL AND GAS DIVISION



DATE JUNE 06, 19 96  
 OPERATOR'S WELL NO. ROWLAND LAND NO. 8  
 API WELL NO.

47 - 081 - 01051  
 STATE COUNTY PERMIT

WELL TYPE: OIL \_\_\_ GAS  LIQUID INJECTION \_\_\_ WASTE DISPOSAL \_\_\_  
 (IF "GAS,") PRODUCTION  STORAGE \_\_\_ DEEP \_\_\_ SHALLOW   
 LOCATION: ELEVATION 2348' WATERSHED WORKMAN CREEK  
 DISTRICT CLEAR FORK COUNTY RALEIGH  
 QUADRANGLE ECCLES 7.5 min.

SURFACE OWNER ROWLAND LAND CO. ACREAGE 654.88  
 OIL & GAS ROYALTY OWNER ROWLAND LAND CO. LEASE ACREAGE 33,000

LEASE NO. \_\_\_\_\_  
 PROPOSED WORK: DRILL  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 GORDON ESTIMATED DEPTH 4150' 6-6 248  
 WELL OPERATOR DOMINION APPALACHIAN DEVELOPMENT DESIGNATED AGENT JOHN HASKINS  
 ADDRESS P. O. DRAWER R ADDRESS P. O. DRAWER R  
 JANE LEW, WV 26378 JANE LEW, WV 26378

00 02 018 LONGITUDE

COUNTY NAME

PERMIT

OCT 1 1996



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

Well Operator's Report of Well Work

Farm name: ROWLAND LAND CO. LTD. Operator Well No.: ROWLAND #8

LOCATION: Elevation: 2,348.00 Quadrangle: ECCLES

District: CLEAR FORK County: RALEIGH  
Latitude: 700 Feet South of 37 Deg. 52Min. 30 Sec.  
Longitude 7415 Feet West of 81 Deg. 20 Min. 0 Sec.

Company: DOMINION APPALACHIAN DEVE  
P. O. DRAWER R  
JANE LEW, WV 26378-0000

Agent: JOHN T. HASKINS

Inspector: RODNEY DILLON  
Permit Issued: 10/10/96  
Well work Commenced: 11/11/96  
Well work Completed: 11/15/96  
Verbal Plugging  
Permission granted on: N/A  
Rotary X Cable Rig  
Total Depth (feet) 4150'  
Fresh water depths (ft)  
Salt water depths (ft) N/A

Casing & Tubing Size	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
11 3/4	30'	0	PULLED
8 5/8	630'	630'	90 SKS
4 1/2	4099'	4099'	170 SKS

Is coal being mined in area (Y/N)? N  
Coal Depths (ft): 7', 15', 241', 755', 765'

OPEN FLOW DATA

Gordon 3964-3980'  
Lower Weir 3464-3495'  
Upper Weir Pay zone depth (ft) 3360-3392'

Producing formation  
Gas: Initial open flow No Show MCF/d Oil: Initial open flow 0 Bbl/d  
Final open flow 1,245 MCF/d Final open flow 0 Bbl/d  
Time of open flow between initial and final tests 22 Hours  
Static rock Pressure 510 psig (surface pressure) after 168 Hours

Big Lime 2954-2960  
Second producing formation Lower Maxton Pay zone depth (ft) 2689-2711  
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

\* COMMINGLED

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.

RECEIVED  
OFFICE OF OIL AND GAS  
JAN 17 1997

For: Larry J. Cavallo  
DOMINION APPALACHIAN DEVELOPMENT, INC.  
By: LARRY J. CAVALLO; SENIOR GEOLOGIST  
Date: 1/16/97

WV Division of  
Environmental Protection

JAN 24 1997

5	STAGE(S)	75 Q Foam & Acid	FRAC	DATE	12/18/96
ZONES	PERFS	HOLES	BBL	BP	ISIP
Gordon	3964-3980	13	135 75Q	1580	1340
Lower Weir	3464-3495	48	148 75Q	1420	1200
Upper Weir	3360-3392	16	152 75Q	2000	1050
Big Lime	2954-2960	10	95 28%HCL	2130	1530
Lower Maxton	2689-2711	18	160 75Q	1940	530

FORMATION	COLOR	HARD/SOFT	TOP	BOTTOM	REMARKS
OVERBURD	BROWN	SOFT	0	5	
SHALE	BROWN	SOFT	5	7	
COAL	BLACK	SOFT	7	9	
SHALE	BROWN	SOFT	9	15	
COAL	BLACK	SOFT	15	17	
SHALE	BROWN	SOFT	17	64	
SANDSTONE	GRAY	HARD	64	80	
SHALE	GRAY	MEDIUM	80	130	
SANDSTONE	GRAY	HARD	130	195	
SHALE	BROWN	MEDIUM	195	235	
SAND SHALE	GRAY	MEDIUM	235	244	
COAL	BLACK	SOFT	244	246	
SANDY SHALE	GRAY	MEDIUM	246	255	
COAL	BLACK	SOFT	255	257	
SANDY SHALE	GRAY	MEDIUM	257	265	
SANDSTONE	GRAY	HARD	265	407	
COAL	BLACK	SOFT	407	409	
SANDY SHALE	GRAY	MEDIUM	409	630	
SHALE	BLACK	SOFT	630	654	
SANDSTONE	GRAY	HARD	650	868	
SANDY SHALE	GRAY	MEDIUM	868	900	
SHALE	BLACK	SOFT	900	1058	Gas Checks:
SANDSTONE	GRAY	HARD	1058	1672	
SHALE	BLACK	SOFT	1672	1685	2070 - No Show
SHALE	RED	SOFT	1685	1695	2250 - No Show
SANDY SHALE	GRAY	MEDIUM	1695	1695	2793 - No Show
SHALE	BLACK	SOFT	1695	1765	3240 - No Show
SANDY SHALE	GRAY	MEDIUM	1765	1828	3290 - No Show
SHALE	BLACK	SOFT	1828	2065	3530 - No Show
SNADY SHALE	GRAY	MEDIUM	2065	2134	4010 - No Show
SHALE	RED	SOFT	2134	2215	
SANDY SHALE	GRAY	SOFT	2215	2269	
SHALE	BLACK	SOFT	2269	2310	
SANDSTONE	GRAY	HARD	2310	2320	
SHALE	RED	SOFT	2320	2340	
SHALE	BLACK	SOFT	2340	2650	
SAND STONE	GRAY	HARD	2650	2680	
SANDY SHALE	GRAY	MEDKUM	2680	2795	
LIME	RED	HARD	2793	3238	
RED ROCK	GRAY	MEDIUM	3238	3360	
SANDSTONE	BLACK	MEDIUM	3360	3538	
SHALE	GRAY	SOFT	3538	4140	
TD				4140	

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

22637

Well Operator: <sup>5735</sup> DOMINION APPALACHIAN DEVELOPMENT, INC. 47830 0331

Operator's Well Number: ROWLAND LAND #8 (11448) ..... 3) Elevation: 2370'  
Approx.

Well type: (a) Oil \_\_\_ / or Gas X / *Issued 10/10/90*  
*Expires 10/10/98*  
(b) If Gas: Production X / Underground Storage \_\_\_ /  
Deep \_\_\_ / Shallow X /

- 5) Proposed Target Formation(s): GORDON 419
- 6) Proposed Total Depth: 4140 feet
- 7) Approximate fresh water strata depths: 40, 180
- 8) Approximate salt water depths: N/A
- 9) Approximate coal seam depths: 270, 310, 320, 540
- 10) Does land contain coal seams tributary to active mine? Yes \_\_\_ / No X /
- 11) Proposed Well Work: DRILL & STIMULATE NEW WELL
- 12)

**RECEIVED**  
WV Division of  
Environmental Protection  
SEP 29 1996  
Permitting  
Office of Oil & Gas

**CASING AND TUBING PROGRAM**

TYPE	SPECIFICATIONS			FOOTAGE INTERVALS		CEMENT
	Size	Grade	Weight per ft.	For drilling	Left in well	Fill-up (cu. ft.)
Conductor	11 3/4		27	30	0	PULL
Fresh Water						
Coal	8 5/8		20	590	590	28 CSR 18-11.2.2
Intermediate						
Production	4 1/2	M-65	9.5	4100	4100	38 CSR 18-11.1
Tubing						
Liners					P.O.	9/17/90

**PACKERS** : Kind \_\_\_\_\_  
 Sizes \_\_\_\_\_  
 Depths set \_\_\_\_\_

For Division of Oil and Gas Use Only

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

150/131

**RECEIVED**  
WV Division of  
Environmental Protection  
SEP 24 1996  
Permitting  
Office of Oil & Gas

1) Date: SEPTEMBER 09, 1996  
2) Operator's well number  
ROWLAND LAND #8 (11448)  
3) API Well No: 47 - 081 - 1051  
State County Permit

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

**NOTICE AND APPLICATION FOR A WELL WORK PERMIT**

- 4) Surface Owner(s) to be served:
- (a) Name ROWLAND LAND CO., LTD  
Address SUITE 609-405 CAPITOL ST., CHALRESTON, WV 25301
- (b) Name \_\_\_\_\_  
Address \_\_\_\_\_
- (c) Name \_\_\_\_\_  
Address \_\_\_\_\_
- 5) (a) Coal Operator:  
Name N/A  
Address \_\_\_\_\_
- (b) Coal Owner(s) with Declaration  
Name N/A  
Address \_\_\_\_\_
- Name \_\_\_\_\_  
Address \_\_\_\_\_
- 6) Inspector RODNEY DILLION  
Address BOX 131  
BRADLEY, WV 25818  
Telephone (304)-256-6946
- (c) Coal Lessee with Declaration  
Name CONSOLIDATED COAL COMPANY  
Address P O BOX 1289 (29 COLLEGE DR.)  
BLUEFIELD, WV 24605  
ATT: ED FANNING

**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 22, Article 6, Section 8(d) of the Code of West Virginia (see page 2)

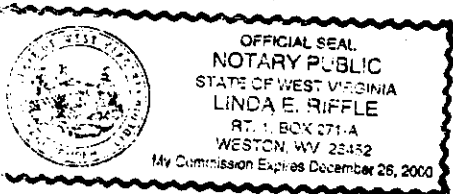
I certify that as required under Chapter 22 of the West Virginia Code I have served copies of this notice and application, a location plat, and accompanying documents pages 1 through \_\_\_\_\_ on the above named parties, by:

- \_\_\_\_\_ Personal Service (Affidavit attached)
- 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 DOMINION APPALACHIAN DEVELOPMENT, INC.  
By: John Haskins JOHN HASKINS  
Its: SENIOR VICE-PRESIDENT  
Address P O DRAWER R  
JANE LEW, WV 26378  
Telephone 304-884-7881

Subscribed and sworn before me this 9th day of September, 1996

Linda E. Riffle Notary Public  
My commission expires December 26, 2000