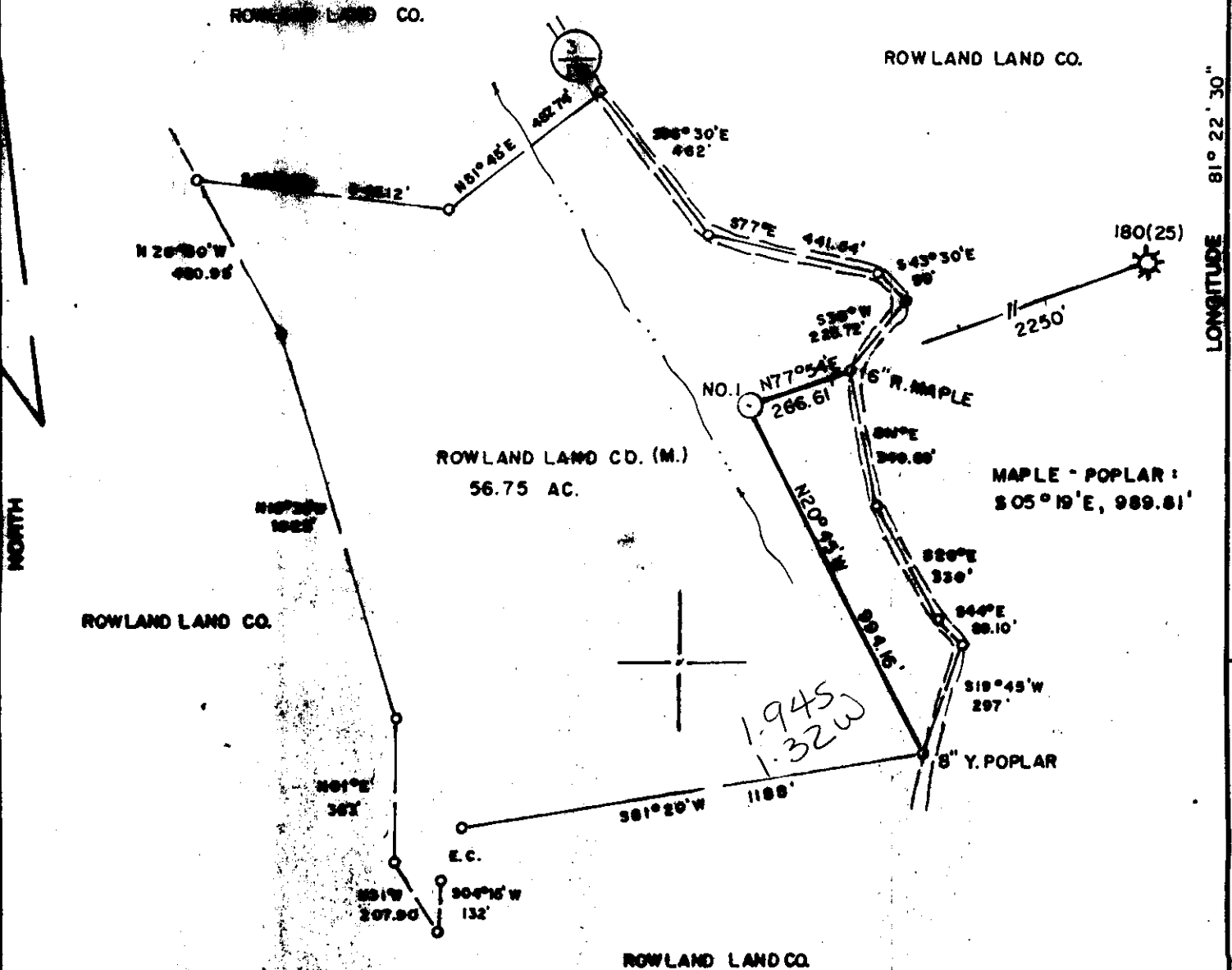


WELL REFERENCES:
 S14°E, 117' TO 4" POPLAR
 S14°W, 138.50' TO 4" CUCUMBER

7010'
 LATITUDE 37° 52' 30"

Janil
4/24/96



LAND SURVEYING SERVICES
 21 CEDAR LANE
 BRIDGEPORT, WV 26330
 PHONE: 304-642-2018

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

FILE NO. _____
 DRAWING NO. _____
 SCALE 1" = 400'
 MINIMUM DEGREE OF ACCURACY 1 in 2500
 PROVEN SOURCE OF ELEVATION RD. INTER. 1400 N.W. OF LOCATION ELEV. - 1682

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 G. LOSH



STATE OF WEST VIRGINIA
 DEPARTMENT OF ENERGY
 OIL AND GAS DIVISION

DATE APRIL 15 19 96
 OPERATOR'S WELL NO. ROWLAND LAND NO. 1
 API WELL NO. 47-081-01027

WELL TYPE: OIL ___ GAS X LIQUID INJECTION ___ WASTE DISPOSAL ___
 (IF "GAS,") PRODUCTION X STORAGE ___ DEEP ___ SHALLOW X

LOCATION: ELEVATION 1836 WATERSHED RIGHT HAND FORK OF ROCK CREEK
 DISTRICT MARSH FORK COUNTY RALEIGH
 QUADRANGLE ARNETT 7.5 min.

SURFACE OWNER GEORGE HALL ACREAGE 7.0
 OIL & GAS ROYALTY OWNER ROWLAND LAND CO. LEASE ACREAGE 36.75 OF 33.000
 LEASE NO. _____

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 GORDON ESTIMATED DEPTH 3650'
 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

APR 26 1996

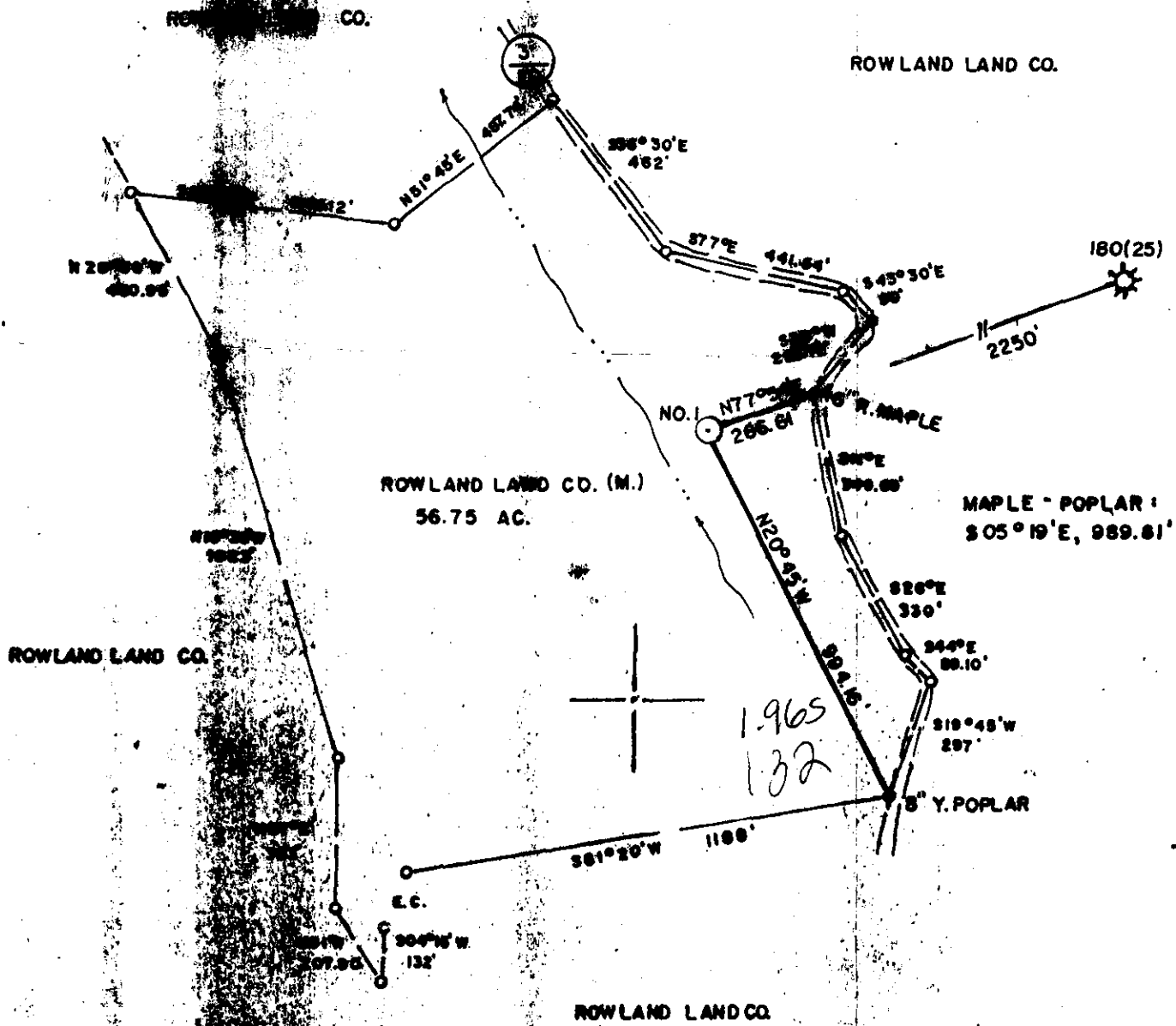
LONGITUDE 81° 22' 18"

COUNTY NAME

PERMIT

WELL REFERENCES:
S14°E, 117' TO 4"
S14°W, 138.5' TO 4'

Janil
4/24/96



LONGITUDE 81° 22' 30" 10 82' 01"

LAND SURVEYING SERVICE
21 CEDAR LANE
BRIDGEPORT, WV 26305
PHONE: 304-642-3333

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

FILE NO. _____
 DRAWING NO. _____
 SCALE 1" = 400'
 MINIMUM DEGREE OF ACCURACY 1 in 2500
 PROVEN SOURCE OF ELEVATION RD. INTER. 1400' N.W. OF LOCATION ELEV. - 1682'

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 APRIL 15, 1996
 OPERATOR'S WELL NO. ROWLAND LAND NO. 1
 API WELL NO.

47 - 081 - 01027
 STATE COUNTY PERMIT

WELL TYPE: OIL GAS LIQUID INJECTION WASTE DISPOSAL
 (IF "GAS,") PRODUCTION STORAGE DEEP SHALLOW
 LOCATION: ELEVATION 1836' WATERSHED RIGHT HAND FORK OF ROCK CREEK
 DISTRICT MARSH FORK COUNTY RALEIGH
 QUADRANGLE ARNETT 7.5 min.
 SURFACE OWNER GEORGE HALL ACREAGE 50
 OIL & GAS ROYALTY OWNER ROWLAND LAND CO. LEASE ACREAGE 56.75 OF 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 3650'
 WELL OPERATOR DOMINION APPALACHIAN DEVELOPMENT DESIGNATED AGENT JOHN HASKINS 4-1-96
 ADDRESS P.O. DRAWER R ADDRESS P.O. DRAWER R
 JANE LEW, WV 26378 JANE LEW, WV 26378

COUNTY NAME PERMIT

7010

LATITUDE 37° 52' 30"

WELL REFERENCES:

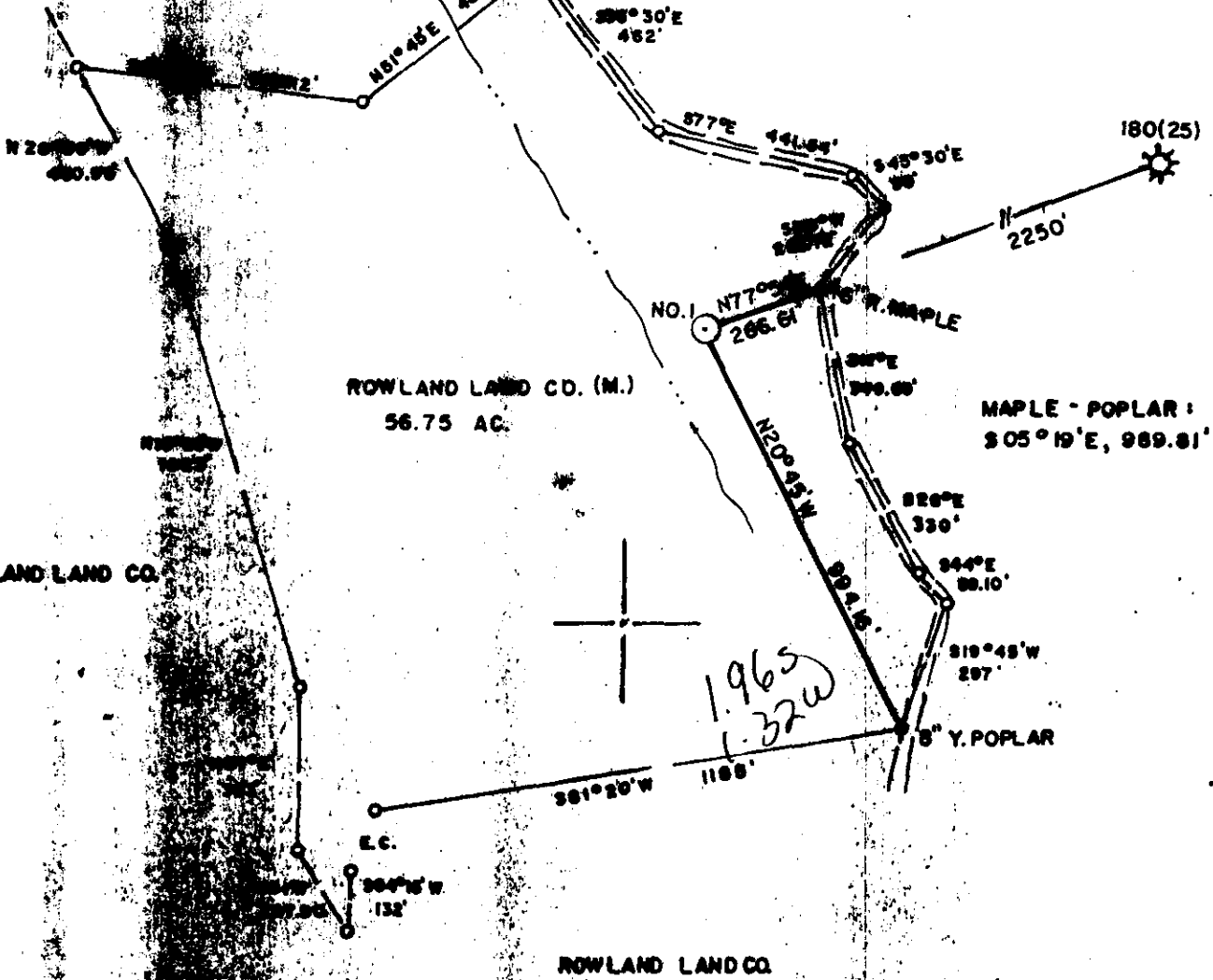
S14°E, 117' 4"

S14°W, 138.5' TO

Janice
4/24/96

ROWLAND LAND CO.

ROWLAND LAND CO.



LONGITUDE 81° 22' 18"

NORTH

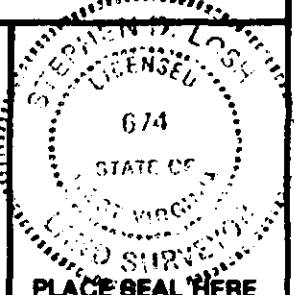
LAND SURVEYING SERVICE
21 CEDAR LANE
BRIDGEPORT, WV 26305
PHONE: 304-642-1111

1965
1-32W

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

FILE NO. _____
 DRAWING NO. _____
 SCALE 1" = 400'
 MINIMUM DEGREE OF ACCURACY 1 in 2500
 PROVEN SOURCE OF ELEVATION RD. INTER. MOO N.W.
 OF LOCATION ELEV. - 1682

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



STATE OF WEST VIRGINIA
 DEPARTMENT OF ENERGY
 OIL AND GAS DIVISION



DATE APRIL 15, 1996
 OPERATOR'S WELL NO. ROWLAND LAND NO. 1
 API WELL NO.

WELL TYPE: OIL GAS LIQUID INJECTION WASTE DISPOSAL
 (IF "GAS,") PRODUCTION STORAGE DEEP SHALLOW
 LOCATION: ELEVATION 1836' WATERSHED RIGHT HAND FORK OF ROCK CREEK
 DISTRICT MARSH FORK COUNTY RALEIGH
 QUADRANGLE ARNETT 7.5 min.
 SURFACE OWNER GEORGE HALL ACREAGE 7.0
 OIL & GAS ROYALTY OWNER ROWLAND LAND CO. LEASE ACREAGE 56.75 OF 33,000

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 3650'
 WELL OPERATOR DOMINION APPALACHIAN DEVELOPMENT DESIGNATED AGENT JOHN HASKINS
 ADDRESS P.O. DRAWER R 5735 ADDRESS P.O. DRAWER R 6-6 248
JANE LEW, WV 26378 JANE LEW, WV 26378

MAY 03 1996

COUNTY NAME PERMIT

RECEIVED
 WV Division of
 Environmental Protection
 WR-35

01-May-96
 API # 47- 81-01027

JUL 05 1996

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

Permitting
 Office of Oil & Gas

Well Operator's Report of Well Work

Farm name: HALL, GEORGE Operator Well No.: ROWLAND LAND #1

LOCATION: Elevation: 1,836.00 Quadrangle: ARNETT

District: MARSH FORK County: RALEIGH
 Latitude: 10280 Feet South of 37 Deg. 52Min. 30 Sec.
 Longitude 7010 Feet West of 81 Deg. 22 Min. 30 Sec.

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

Agent: JOHN T. HASKINS

Inspector: RODNEY DILLON
 Permit Issued: 04/23/96
 Well work Commenced: 05/04/96
 Well work Completed: 05/18/96
 Verbal Plugging
 Permission granted on: N/A
 Rotary X Cable Rig
 Total Depth (feet) 3305
 Fresh water depths (ft) 273'

Salt water depths (ft) NR

Is coal being mined in area (Y/N)? N
 Coal Depths (ft): 807

Casing & Tubing Size	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
11 3/4	33	0	PULLED
8 5/8	877	877	202 SK
4 1/2	3095	3095	202 SK

OPEN FLOW DATA

Producing formation Weir Pay zone depth (ft) 2830-2850
 Gas: Initial open flow 603 MCF/d Oil: Initial open flow 0 Bbl/d
 Final open flow 2768 MCF/d Final open flow 0 Bbl/d
 Time of open flow between initial and final tests 15 Hours
 Static rock Pressure 795 psig (surface pressure) after 168 Hours

Second producing formation L. Maxton Pay zone depth (ft) 2148-2172
 Gas: Initial open flow * MCF/d Oil: Initial open flow 0 Bbl/d
 Final open flow * MCF/d Final open flow 0 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.

For: DOMINION APPALACHIAN DEVELOPMENT, INC.

By: John T. Haskins JOHN HASKINS
 Date: 6/30/96 SENIOR VICE-PRESIDENT

JUL 11 1996

RECEIVED
WV Division of
Environmental Protection

081-1027

FORM WW-2B

Page ___ of _____

APR 22 1996

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

Issued 04/23/96
Expires 04/23/98
47850

Office of Oil & Gas

5735

~~12530~~ (2) 218

- 1) Well Operator: DOMINION APPALACHIAN DEVELOPMENT, INC.
- 2) Operator's Well Number: ROWLAND LAND #1 3) Elevation: 1836'
- Well type: (a) Oil ___ / or Gas X /
- (b) If Gas: Production x / Underground Storage ___ /
Deep ___ / Shallow X /
- Proposed Target Formation(s): GORDON ⁴¹⁹
- Proposed Total Depth: 3670 feet
- 7) Approximate fresh water strata depths: 50, 100, 600
- 8) Approximate salt water depths: N/A
- 9) Approximate coal seam depths: 760
- 10) Does land contain coal seams tributary to active mine? Yes ___ / No X /
- 11) Proposed Well Work: DRILL AND STIMULATE NEW GAS 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	11 3/4		27	30	0	PULLED
Fresh Water						38 CSR
Coal	8 5/8		20	860	860	18-11.2.2
Intermediate						
Production	4 1/2	M-65	9.5	3630	3630	38CSR 18-11.1
Tubing						
Liners						

PACKERS : Kind _____
Sizes _____
Depths set _____

For Division of Oil and Gas Use Only

1357/12

Fee(s) paid: Well Work Permit Reclamation Fund WPCP

Plat WW-9 WW-2B Bond Blanket Agent

(Type)

RECEIVED
WV Division of
Environmental Protection
APR 22 1996

1) Date: APRIL 16, 1996
2) Operator's well number
ROWLAND LAND #1
3) API Well No: 47 - 081 - 1027
State County Permit

Permitting
Office of Oil & Gas
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 GEORGE HALL
Address PO BOX 102
ROCK CREEK, WV 25174
(b) Name _____
Address _____
(c) Name _____
Address _____
6) Inspector RODNEY DILLON
Address BOX 131
BRADLEY, WV 25818
Telephone (304)-256-6946

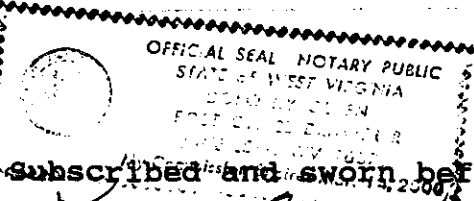
5) (a) Coal Operator:
Name N/A
Address _____
(b) Coal Owner(s) with Declaration:
Name J. W. WORD & EDWARD STANSBURY
Address PO BOX 1575
BECKLEY, WV 35802
Name _____
Address _____
(c) Coal Lessee with Declaration
Name N/A
Address _____

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:
X Personal Service (Affidavit attached)
_____ 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: J. T. Haskins J. T. HASKINS
Its: SENIOR VICE-PRESIDENT
Address PO DRAWER R
JANE LEW, WV 26378
Telephone 304-884-7881



Subscribed and sworn before me this _____ day of _____, 19____
Rodney L. Green Notary Public
My commission expires March 14, 2000

2 STAGES

FRAC 75 Quality foam

DATE 6/13/96

ZONES	PERFS	HOLES	BBL	B.	ISIP
Weir	2830-2850	16	623	1750 psi	1600 psi
L. Maxton	2148-2172	19	492	1600 psi	700 psi

FORMATION	COLOR	HARD/SOFT	TOP	BOTTOM	REMARKS
KB-GL	BROWN	SOFT	0	10	GAS CK @ 1523 NO SHOW
FILL	BROWN	SOFT	10	15	1836 NO SHOW
SAND & SHALE	GRAY	SOFT	15	107	2024 NO SHOW
SAND	BROWN	HARD	107	560	2275 124/10 2" W/W
SAND & SHALE	GRAY	HARD	560	570	2743 15/10 2" W/MER
WHITE SAND	WHITE	SOFT	570	790	2807 16/10 2" W/ MER
SAND & SHALE	GRAY	SOFT	790	807	3175 16/10 2" W/MER
COAL	BLACK	HARD	807	812	TD 17/10 2" W/MER
SAND & SHALE	GRAY	HARD	812	1298	
SAND	BROWN	HARD	1298	1335	
SHALE & SAND	BROWN	SOFT	1335	1450	
WHITE SAND	WHITE	SOFT	1450	1498	
SHALE	GRAY	HARD	1498	1515	
RAVENCLIFF	BROWN	SOFT	1515	1595	
RED SHALE	RED	SOFT	1595	1608	
WHITE SAND	WHITE	HARD	1608	1615	
UPPER MAX	GRAY	HARD	1615	1823	
M. MAXTON	BROWN	SOFT	1823	2043	
L. MAXTON	BROWN	SOFT	2043	2194	
SAND & SHALE	BROWN	HARD	2199	2325	
B. LIME	GRAY	SOFT	2325	2757	
B. INJUN	GRAY	SOFT	2757	1786	
SHALE & SAND	GRAY	HARD	2786	2917	
WEIR	BROWN	SOFT	2917	2960	
TD				3305	