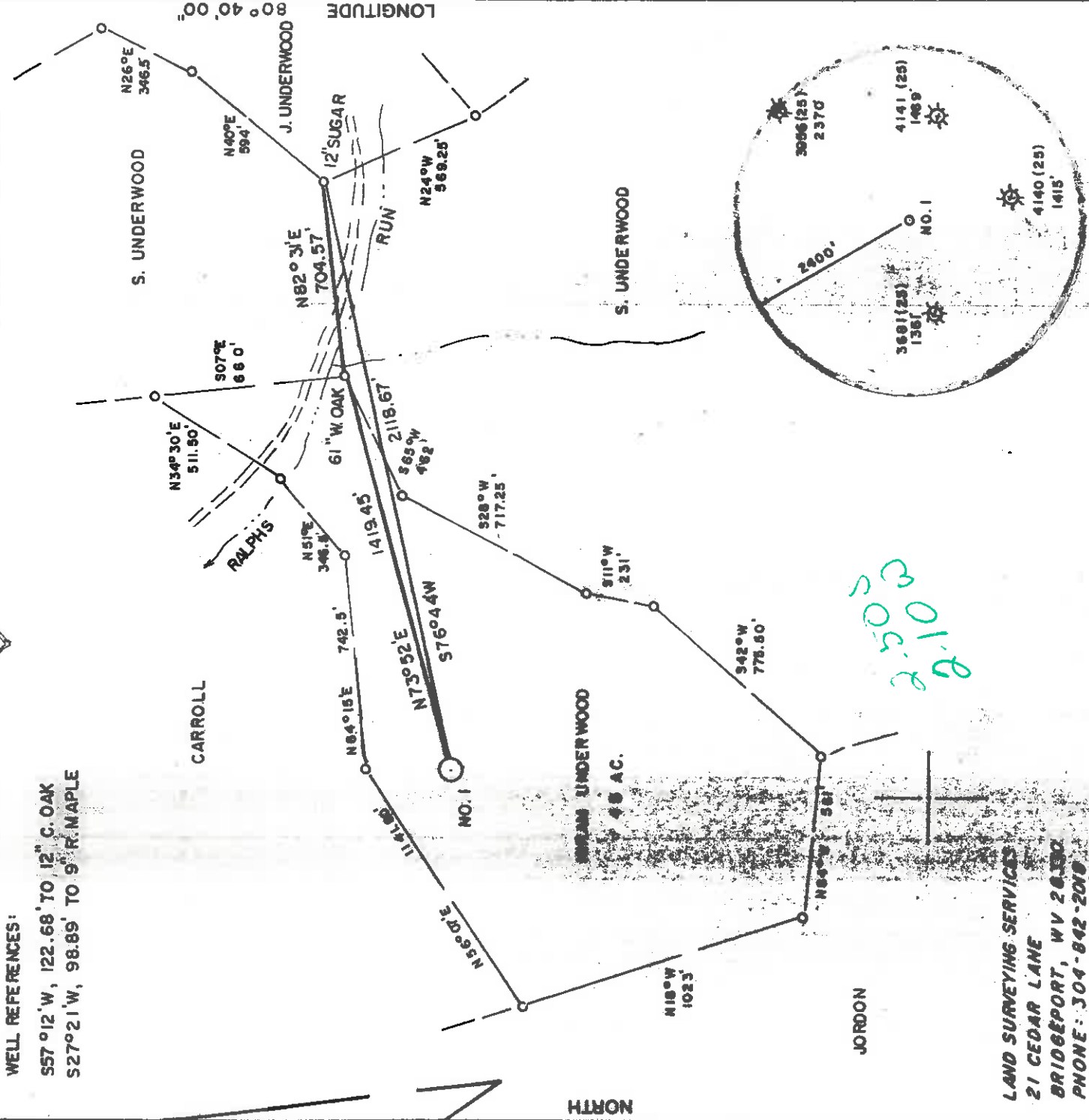


11,150

LATITUDE 39° 25' 00"

LONGITUDE 80° 40' 00"

WELL REFERENCES:
S57°12'W, 122.68' TO 12" C. OAK
S27°21'W, 98.89' TO 9" R. MAPLE



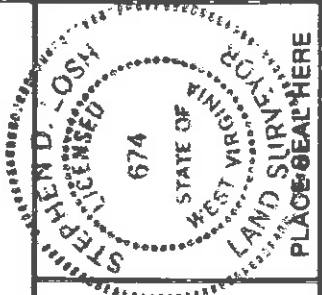
2.500
2.100

LAND SURVEYING SERVICES
21 CEDAR LANE
BRIDGEPORT, WV 26302
PHONE: 304-842-2018

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

FILE NO. _____
 DRAWING NO. _____
 SCALE 1" = 500'
 MINIMUM DEGREE OF _____
 ACCURACY 1 in 200
 PROVEN SOURCE OF _____
 ELEVATION TOP OF KNOB 125d S.W.
 OF LOCATION ELEV. 1336'

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.I.S. _____ 674
 STEPHEN D. LOSH



STATE OF WEST VIRGINIA
 DEPARTMENT OF ENERGY
 OIL AND GAS DIVISION

DATE JULY 23, 1996
 OPERATOR'S WELL NO. H. UNDERWOOD NO. 1
 API WELL NO. 47-017-04298

WELL TYPE: OIL GAS LIQUID INJECTION WASTE DISPOSAL
 (IF "GAS,") PRODUCTION STORAGE DEEP SHALLOW
 LOCATION: ELEVATION 996' WATERSHED RALPHS RUN
 DISTRICT McCLELLAN COUNTY DODDRIDGE
 QUADRANGLE CENTER POINT 7.5 min.
 SURFACE OWNER ELVY UNDERWOOD (LIFE ESTATE) ACREAGE 48
 OIL & GAS ROYALTY OWNER HIRAM UNDERWOOD LEASE ACREAGE 48

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 BENSON ESTIMATED DEPTH 5300'
 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

AUG 30 1996
 6-6 98

COUNTY NAME

PERMIT

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

Well Operator's Report of Well Work

Farm name: UNDERWOOD, ELVY Operator Well No.: H. UNDERWOOD #1

LOCATION: Elevation: 996.00 Quadrangle: CENTER POINT

District: MCCLELLAN County: DODDRIDGE
Latitude: 13175 Feet South of 39 Deg. 25Min. 0 Sec.
Longitude 11150 Feet West of 80 Deg. 40 Min. 0 Sec.

Company: DOMINION APPALACHIAN DEVE

P. O. DRAWER R
JANE LEW, WV 26378-0000

Agent: JOHN T. HASKINS

Inspector: MIKE UNDERWOOD
Permit Issued: 08/27/96
Well work Commenced: 9/09/96
Well work Completed: 9/16/96
Verbal Plugging
Permission granted on: N/A
Rotary X Cable Rig
Total Depth (feet) 5283'
Fresh water depths (ft) 842'
Salt water depths (ft) _____

Is coal being mined in area (Y/N)? N
Coal Depths (ft): 55'

OPEN FLOW DATA

Producing formation BENSON Pay zone depth (ft) 5130-5137
Gas: Initial open flow TSTM MCF/d Oil: Initial open flow N/A Bbl/d
Final open flow 86 MCF/d Final open flow N/A Bbl/d
Time of open flow between initial and final tests 30 Hours
Static rock Pressure 1175 psig (surface pressure) after 72 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

Larry J. Cavallo

For: DOMINION APPALACHIAN DEVELOPMENT, INC.

BY: LARRY CAVALLO: SENIOR GEOLOGIST
Date: 10/10/96

Casing & Tubing Size	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
11 3/4	30'	0	PULLED
8 5/8	968'	968	225 SKS
4 1/2	5239'	5239'	200 SKS

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OFFICE OF OIL AND GAS
OCT 15 1996
WV Division of Environmental Protection

ZONES	1	PERFS	WATER HOLES	FRAC	BBL	BF	DATE 9/20/96
	STAGE(S)						ISIP
BENSON		5130-5137	12		574	2350	1800

FORMATION	COLOR	HARD/SOFT	TOP	BOTTOM	REMARKS
SANDY SHALE			0	55	
COAL			55	60	
RED ROCK			60	98	
SANDY SHALE			98	430	
SAND			430	455	
SANDY SHALE			455	465	
SAND			465	495	
SANDY SHALE			495	520	
SAND			520	640	
SANDY SHALE			640	705	
SAND			705	790	
SANDY SHALE			790	906	HOLE DAMP @ 842'
SAND			906	925	SOAP HOLE @ 906'
SANDY SHALE			925	935	
RR			935	980	
SANDY SHALE			980	1215	
SAND			1215	1240	
SANDY SHALE			1240	1280	
SAND			1280	1300	
SANDY SHALE			1300	1508	
SAND			1508	1590	
SANDY SHALE			1590	1957	
L LIME			1957	1970	
SHALE			1970	2005	
B LIME			2005	2090	
SAND			2090	2228	CK GAS @ 2250' NO SHOW
SANDY SHALE			2228	2365	CK GAS @ 2814' 2/10-1"
SAND			2365	2496	H ₂ O STRONG
SANDY SHALE			2496	2580	SMELL
SAND			2580	2587	
SANDY SHALE			2587	2788	
SAND			2788	2805	
SANDY SHALE			2805	3438	CK GAS @ 2876' 26/10-
GORDON SNAD			3438	3527	1" H ₂ O
SANDY SHALE			3527	4640	
SAND			4640	4665	
SANDY SHALE			4665	5075	CK GAS @ 4692' 6/10-
SAND			5075	5110	2" H ₂ O
SANDY SHALE			5110	5280	CK GAS @ 5131' NO REA
SAND			5280	5283	CK GAS @ TD 5280=
SANDY SHALE			5283		NO READING
TD					CK GAS COLLARS 6/10
					2" H ₂ O

AUG 26 1996

017-4298

FORM WW-2B

Page ___ of ___

Permitting STATE OF WEST VIRGINIA

DEPARTMENT OF ENERGY, DIVISION OF OIL AND GAS

WELL WORK PERMIT APPLICATION

Issued 08/27/96
Expires 08/27/98

22474

Well Operator: DOMINION APPALACHIAN DEVELOPMENT, INC. 47850 286

Operator's Well Number: HIRAM UNDERWOOD #1 3) Elevation: 996

Well type: (a) Oil ___ / or Gas X /

(b) If Gas: Production X / Undergound Storage ___
Deep ___ / Shallow X /

5) Proposed Target Formation(s): BENSON
435

6) Proposed Total Depth: 5230' feet

7) Approximate fresh water strata depths: 40', 80', 200', 880'

8) Approximate salt water depths: N/A

9) Approximate coal seam depths: 70', 300' 420'

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	
Conductor	11 3/4			30'	0'	PULL
Fresh Water						
Coal						
Intermediate	8 5/8"		20#	950'	950'	CSR 38 18-11.2.2
Production	4 1/2"	M-65	9.5#	5190'	5190'	CSR 38 18-11.3
Tubing						
Liners						

PACKERS : Kind _____

Sizes _____

Depths set _____

For Divison of Oil and Gas Use Only

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

Plat WW-9 WW-2B Bond _____ (Type)

1474

RECEIVED
WV Division of
Environmental Protection

AUG 26 1996
Permitting 3)
Office of Oil & Gas

1) Date: AUGUST 20, 1996
2) Operator's well number HIRAM UNDERWOOD #1
3) API Well No: 47 - 017 - 4298(a)
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 ELVY UNDERWOOD
Address HC 67 BOX 105B
WEST UNION, WV 26456

(b) Name _____
Address _____

(c) Name _____
Address _____

5) (a) Coal Operator:
Name N/A
Address _____

(b) Coal Owner(s) with Declaration
Name NO DECLARATION
Address _____

(c) Coal Lessee with Declaration
Name _____
Address _____

6) Inspector MIKE UNDERWOOD
Address ROUTE 2 BOX 135
SALEM, WV 26426-0135
Telephone (304) - 782-1043

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 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)
- 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.



OFFICIAL SEAL
NOTARY PUBLIC
STATE OF WEST VIRGINIA
LINDA E. EFFLER
AT 1, BOX 271 A
WV 26402
My Commission Expires Dec 26, 2000

Subscribed and sworn before me this 20th day of August, 1996

Shad E. Pille Notary Public
My commission expires December 26, 2000

Well Operator DOMINION APPALACHIAN DEVELOPMENT, INC.
BY: _____ SENIOR VICE-PRESIDENT
ITS: _____ P O DRAWER R. JOHN T. HASKINS
Address _____ JANE LEW, WV 26378

Telephone 304 884 7881