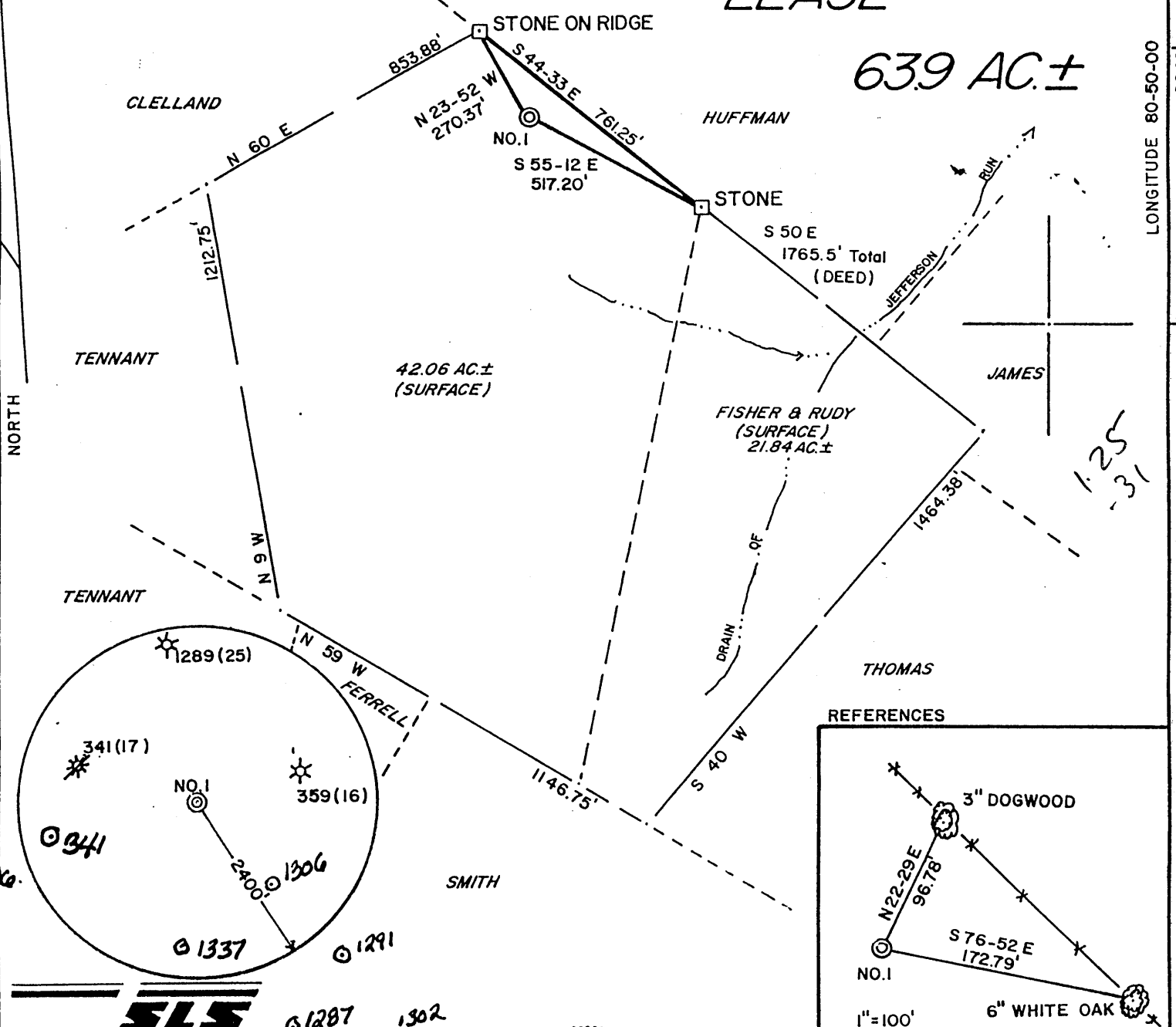


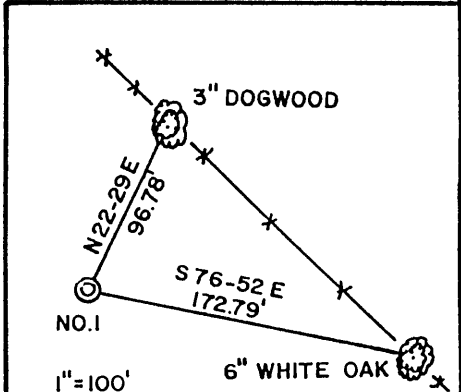
*Janice 9/26/90*  
**WELL NO. 1**

# TENNANT/KOPPERS LEASE

**63.9 AC.±**

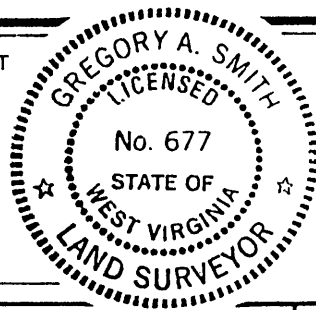


### REFERENCES



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.

L.L.S. 677 *Gregory A. Smith*



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

DATE SEPTEMBER 11, 19 89  
 OPERATORS WELL NO. TENNANT/KOPPERS NO. 1  
 API WELL NO. 47 - 095 - 1381-u  
 STATE COUNTY PERMIT

MINIMUM DEGREE OF ACCURACY 1 / 200 FILE NO. 2150 (28-47)  
 PROVEN SOURCE OF ELEVATION TOP OF KNOB ELEVATION 1122' SCALE 1"=400'

**STATE OF WEST VIRGINIA**  
 DEPARTMENT OF ENERGY  
**OIL AND GAS DIVISION**



WELL TYPE: OIL \_\_\_ GAS X LIQUID INJECTION \_\_\_ WASTE DISPOSAL \_\_\_ IF "GAS" PRODUCTION X STORAGE \_\_\_ DEEP \_\_\_ SHALLOW X  
 LOCATION: ELEVATION 998' WATERSHED JEFFERSON RUN  
 DISTRICT CENTERVILLE COUNTY TYLER QUADRANGLE SHIRLEY 7.5  
 SURFACE OWNER ROBERT H. TENNANT et al ACREAGE 42.06 OF 63.9  
 ROYALTY OWNER GLEN & DAISY CURRY et al LEASE ACREAGE 63.9  
 PROPOSED WORK: LEASE NO. 66  
 DRILL X CONVERT \_\_\_ DRILL DEEPER \_\_\_ REDRILL \_\_\_ FRACTURE OR STIMULATE X PLUG OFF OLD FORMATION \_\_\_ PERFORATE NEW FORMATION \_\_\_ PLUG AND ABANDON \_\_\_ CLEAN OUT AND REPLUG \_\_\_ OTHER \_\_\_  
 PHYSICAL CHANGE IN WELL (SPECIFY) \_\_\_ TARGET FORMATION BENSON  
 ESTIMATED DEPTH 4000

WELL OPERATOR ANVIL OIL COMPANY, INC. DESIGNATED AGENT JUSTIN HENDERSON  
 ADDRESS P.O. BOX 1230 FAIRMONT, WV 26554-1230 ADDRESS P.O. BOX 1230 FAIRMONT, WV 26554-1230

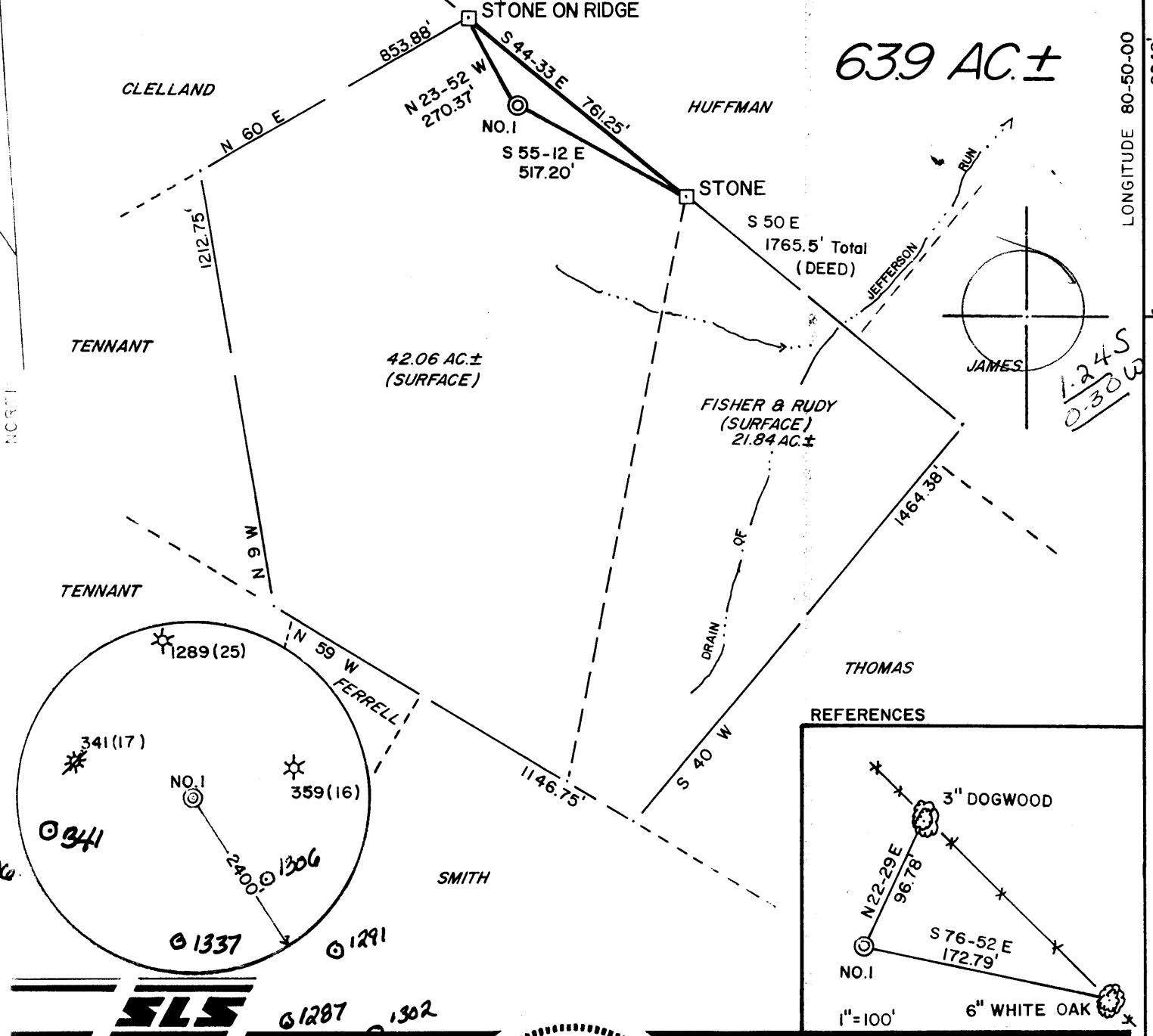
LONGITUDE 80-50-00  
6640'  
125-31  
COUNTY NAME TYLER  
PERMIT 1381-u

286  
285

*Janie 3/26/90*  
**WELL NO. 1**

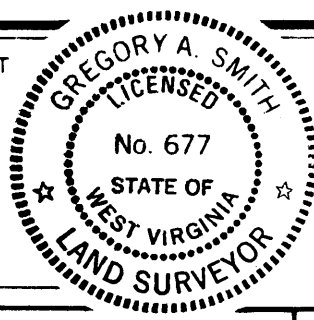
# TENNANT/KOPPERS LEASE

**63.9 AC.±**



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.

L.L.S. 677 Gregory A. Smith



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

DATE SEPTEMBER 11, 19 89  
 OPERATORS WELL NO. TENNANT/KOPPERS NO. 1  
 API WELL NO. 47 - 095 - 1381  
 STATE COUNTY PERMIT

MINIMUM DEGREE OF ACCURACY 1 / 200 FILE NO. 2150 (28-47)  
 PROVEN SOURCE OF ELEVATION TOP OF KNOB ELEVATION 1122' SCALE 1" = 400'

**STATE OF WEST VIRGINIA**  
 DEPARTMENT OF ENERGY  
**OIL AND GAS DIVISION**



WELL TYPE: OIL \_\_\_ GAS X LIQUID INJECTION \_\_\_ WASTE DISPOSAL \_\_\_ IF "GAS" PRODUCTION X STORAGE \_\_\_ DEEP \_\_\_ SHALLOW X  
 LOCATION: ELEVATION 998' WATERSHED JEFFERSON RUN West Union C  
 DISTRICT CENTERVILLE 1 COUNTY TYLER QUADRANGLE SHIRLEY 75  
 SURFACE OWNER ROBERT H. TENNANT et al ACREAGE 42.06 OF 63.9  
 ROYALTY OWNER GLEN & DAISY CURRY et al LEASE ACREAGE 63.9  
 PROPOSED WORK: LEASE NO. 66  
 DRILL X CONVERT \_\_\_ DRILL DEEPER \_\_\_ REDRILL \_\_\_ FRACTURE OR STIMULATE X PLUG OFF OLD FORMATION \_\_\_ PERFORATE NEW FORMATION \_\_\_ PLUG AND ABANDON \_\_\_ CLEAN OUT AND REPLUG \_\_\_ OTHER \_\_\_  
 PHYSICAL CHANGE IN WELL (SPECIFY) \_\_\_ TARGET FORMATION BENSON  
 ESTIMATED DEPTH 5100'

WELL OPERATOR ANVIL OIL COMPANY, INC. 048 DESIGNATED AGENT JUSTIN HENDERSON  
 ADDRESS P.O. BOX 1230 FAIRMONT, WV 26554-1230 ADDRESS P.O. BOX 1230 FAIRMONT, WV 26554-1230

6  
6 Wilbur (092)

LONGITUDE 80-50-00  
6640  
COUNTY NAME  
PERMIT

WR-35

23-Aug-99  
API # 47- 95-01381 W

State of West Virginia  
Division of Environmental Protection  
Section of Oil and Gas  
Well Operator's Report of Well Work

*Handwritten initials*

Farm name: TENNANT, ROBERT H. Operator Well No.: 1 *Tennant/Kopper #1*

LOCATION: Elevation: 998.00 Quadrangle: SHIRLEY

District: CENTERVILLE County: TYLER  
Latitude: 6640 Feet South of 39 Deg. 25Min. 0 Sec.  
Longitude 1650 Feet West of 80 Deg. 50 Min. 0 Sec.

Company: DOMINION APPALACHIAN DEVE  
P. O. BOX 1248  
JANE LEW, WV 26378-0000

Agent: JOHN T. HASKINS

Inspector: MIKE UNDERWOOD  
Permit Issued: 08/23/99  
Well work Commenced: 8/27/99  
Well work Completed: 9/02/99  
Verbal Plugging \_\_\_\_\_  
Permission granted on: \_\_\_\_\_  
Rotary Cable \_\_\_\_\_ Rig \_\_\_\_\_  
Total Depth (feet) \_\_\_\_\_  
Fresh water depths (ft) \_\_\_\_\_  
Salt water depths (ft) \_\_\_\_\_  
Is coal being mined in area (Y/N)? \_\_\_\_\_  
Coal Depths (ft): \_\_\_\_\_

Casing & Tubing Size	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
* No Change - See original WR-35			

OPEN FLOW DATA

Producing formation Big Injun Pay zone depth (ft) 2052-2068'  
 Gas: Initial open flow 0 MCF/d Oil: Initial open flow 0 Bbl/d  
 Final open flow 223 MCF/d Final open flow 0 Bbl/d  
 Time of open flow between initial and final tests 4 Hours  
 Static rock Pressure 60 psig (surface pressure) after 12 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.

For: DOMINION APPALACHIAN DEVELOPMENT, INC.  
By: Larry J. Cavallo; Manager of Engineering  
Date: 11/1/99

TYL 1381 W

Nov 1 1999

One	STAGE(S)	75Q Foam	FRAC	DATE	9/2/99
ZONES	PERFS	HOLES	BBL	BP	ISIP
Big Injun	2052-2068'	20	97 foam	3381	2102

FORMATION	COLOR	HARD/SOFT	TOP	BOTTOM	REMARKS
-----------	-------	-----------	-----	--------	---------

\* NO CHANGE - see orginial WR-35

State of West Virginia  
DEPARTMENT OF ENERGY  
Division of Oil and Gas

Well Operator's Report of Well Work

Farm name: TENNANT, ROBERT H. Operator Well No.: TEN/KOPPERS #1

LOCATION: Elevation: 998.00 Quadrangle: SHIRLEY

District: CENTERVILLE County: TYLER  
Latitude: 6640 Feet South of 39 Deg. 25Min. 0 Sec.  
Longitude 1650 Feet West of 80 Deg. 50 Min. 0 Sec.

Company: ANVIL OIL CO., INC.  
2099 PLEASANT VALLEY ROAD  
FAIRMONT, WV 26554-1230

Agent: JUSTIN L. HENDERSON

Inspector: GLEN P. ROBINSON  
Permit Issued: 03/26/90  
Well work Commenced: 2/14/91  
Well work Completed: 2/18/91  
Verbal Plugging  
Permission granted on: N/A  
Rotary X Cable Rig  
Total Depth (feet) 100' 400'  
Fresh water depths (ft) → ↓  
Salt water depths (ft) NONE

Casing & Tubing Size	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
11 3/4	127'	127'	77 / 127' CT5
8 5/8	1900'	1900'	472ft <sup>3</sup> / 1900' CT5
4 1/2	N/A	5091	603ft <sup>3</sup> / 3000'

Is coal being mined in area (Y/N)? N  
Coal Depths (ft): NONE

OPEN FLOW DATA

Producing formation BENSON Pay zone depth (ft) 4985-90  
 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

Second producing formation RILEY Pay zone depth (ft) 4577-78  
4603-04  
 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

*2nd prod*

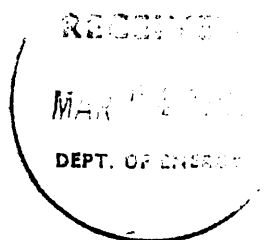
NOTE: ON BACK OF THIS FORM PUT THE FOLLOWING: 1). DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2). THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE

*Justin L. Henderson*

For: ANVIL OIL CO., INC.

By: Justin Henderson President

Date: March 1, 1991



1991

1.) Perforate 4985-90 with 7(.39) holes, 4603-04 with 2(.39) holes, 4577-78 with 2 (.39) holes. Stimulate with 536 BBL sand lader fluid, 10,000 # 80/100 mesh, 40,000 # 20/40 mesh, 1000 gal HCL acid, 20 BPM at 2696 PSIG average treating pressure, ISIP- 1777 PSIG.

2.) FORMATIONS :

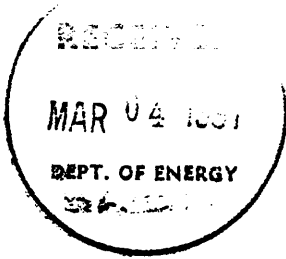
GL - 20' Dirt  
20-30' Red rock  
30-35' S Shale  
35-51' Sand and Shale  
51-65' Sand  
65-135' Sand and shale  
135-170' SShale  
170-180' Sand and red rock  
180-671' Sand shale and red rock  
671-1815' Little lime  
1871-1881' Sand and Shale  
1881-2038' Big lime  
2038-2050' Sand and shale  
2050-2136' Injun  
2136-5151' Sand and Shale

Water at 100' and 400'

Gas checks at 3600'-4/10) 1/2"  
4100' 4/10) 1"  
4600- 4/10) 1"  
5100' 20/10) 1"

LOG TOPS

Little lime- 1815'  
Big lime 1990'  
Injun 2050'  
Weir 2290'  
Riley 4565'  
Benson 4968'  
TD 5152'



10354

MAR 21 1990

095-1381  
Issued 3/26/90  
Expires 3/26/92  
Page     of    

FORM WW-2B  
DIVISION OF OIL & GAS  
DEPARTMENT OF ENERGY

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

- 1) Well Operator: ANVIL OIL COMPANY INC. <sup>6048</sup> 2275 (1) 606
- 2) Operator's Well Number: TENNANT/KOPPERS WELL NO. 1 3) Elevation: 998'
- 4) Well type: (a) Oil X/ or Gas X/  
(b). If Gas: Production X/ Underground Storage    /  
Deep     Shallow X
- 5) Proposed Target Formation(s): BENSON 435
- 6) Proposed Total Depth: 5100 feet
- 7) Approximate fresh water strata depths: 95'
- 8) Approximate salt water depths: N/A
- 9) Approximate coal seam depths: N/A
- 10) Does land contain coal seams tributary to active mine? Yes     / No X
- 11) Proposed Well Work: DRILL & STIMULATE *New Well*
- 12)

CASING AND TUBING PROGRAM

TYPE	SPECIFICATIONS			FOOTAGE INTERVALS		CEMENT
	Size	Grade	Weight per ft.	For drilling	Left in well	
<i>9/29/89</i> Conductor	11 3/4			120'	120'	CTS
Fresh Water	8 5/8		23	1870'	1870'	By rule 38 csr 18-11.3
Coal						
Intermediate						
Production	4 1/2		10 1/2	5100'	5100'	By rule 38 csr 18-11.1
Tubing						
Liners						

PACKERS : Kind      
Sizes      
Depths set    

For Division of Oil and Gas Use Only

3447  
8

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

RECEIVED  
MAR 21 1990

Page 1 of  
Form WW2-A  
(09/87)  
File Copy

DIVISION OF OIL & GAS  
DEPARTMENT OF ENERGY

Date: 9-28-89  
Operator's well number  
Tennant/Koppers #1  
API Well No: 47 - 095 - 1381  
State - County - Permit

STATE OF WEST VIRGINIA  
DEPARTMENT OF ENERGY, DIVISION OF OIL AND GAS

NOTICE AND APPLICATION FOR A WELL WORK PERMIT

4) Surface Owner(s) to be served:  
(a) Name Robert H. Tennant  
Address Box 9, Ross Run Rd.  
Alma, WV 26320  
(b) Name  
Address  
(c) Name  
Address  
6) Inspector Glen P. Robinson  
Address Route 1  
Mineral Wells, WV 26150  
Telephone (304)-

5) (a) Coal Operator:  
Name  
Address  
(b) Coal Owner(s) with Declaration  
Name  
Address  
Name  
Address  
(c) Coal Lessee with Declaration  
Name  
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  
Included is the information required by Chapter 22B, Article 1, Section 8(d) of the Code of West Virginia (see page 2)

I certify that as required under Chapter 22B 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 22B 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 Anvil Oil Co., Inc.  
By: Justin L. Henderson  
Its: President  
Address P.O. Box 1230  
Fairmont, WV 26554-1230  
Telephone (304) 363-1362

Subscribed and sworn before me this 19th day of March, 1990

My commission expires 7/8/90 Notary Public