

8213 12/30/86

WELL REFERENCES:  
N74°E, 171.50' TO 12" TWIN HICK.  
N70°15'W, 169.50' TO 10" HICK.

LATITUDE 39° 15' 00"

LONGITUDE 80° 35' 00"



1328.0  
1328.0

MILLS

PFUNDER

R.L. BARNES  
28.18 AC.

NO. 1

N37°58'E 1196.28'  
S31°07'W 1097.33'

NORTH

PFUNDER

ST. PILE  
166.78'  
CHIPPS

15

ST. PILE  
169.15'  
511°46'E  
135.90'

46  
2

2158(16)  
2160'  
2049(16)  
2195'  
2484(25)  
1544'

3510(25)  
1845'

NO. 1

2400'

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

3351(25)  
1757'

3511(25)  
1930'

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

FILE NO. \_\_\_\_\_  
DRAWING NO. \_\_\_\_\_  
SCALE 1" = 400'  
MINIMUM DEGREE OF  
ACCURACY 1 in 200  
PROVEN SOURCE OF  
ELEVATION BM 1300' S.E. OF  
LOCATION ELEV. 898'

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 REGU-  
LATIONS ISSUED AND PRESCRIBED BY THE DEPART-  
MENT OF ENERGY.  
(SIGNED) *Stephen D. Losh*

R.P.E. L.L.S. 674  
STEPHEN D. LOSH



STATE OF WEST VIRGINIA  
DEPARTMENT OF ENERGY  
OIL AND GAS DIVISION



DATE DECEMBER 03, 19 86  
OPERATOR'S WELL NO. BARNES NO. 1  
API WELL NO. \_\_\_\_\_

47 017 3520

STATE COUNTY PERMIT

COUNTY NAME

WELL TYPE: OIL GAS  LIQUID INJECTION \_\_\_\_\_ WASTE DISPOSAL \_\_\_\_\_  
(IF "GAS,") PRODUCTION  STORAGE \_\_\_\_\_ DEEP \_\_\_\_\_ SHALLOW   
LOCATION: ELEVATION 1116' WATER SHED BUCKEYE CREEK  
DISTRICT GREENBRIER # \_\_\_\_\_ COUNTY DODDRIDGE  
QUADRANGLE BIG ISAAC 7.5 min. 252 123 022 Vedis  
SURFACE OWNER ENIKO M. PFUNDER ACREAGE 28.18 OF 61.16  
OIL & GAS ROYALTY OWNER RICHARD L. BARNES HEIRS, et.al. LEASE ACREAGE 28.18

PERMIT

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 ALEXANDER ESTIMATED DEPTH 5400'  
WELL OPERATOR STONEWALL GAS COMPANY DESIGNATED AGENT CHARLES CANFIELD  
ADDRESS P.O. DRAWER R 441 ADDRESS P.O. DRAWER R  
JANE LEW, WV 26378

JAN 05 1986  
CHARLES CANFIELD  
P.O. DRAWER R  
JANE LEW, WV 26378

6-6 Zinnia (145)

MR-35

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MAR 10 1987

DIVISION OF OIL & GAS  
DEPARTMENT OF ENERGY



State of West Virginia

DEPARTMENT OF ENERGY

Oil and Gas Division

WELL OPERATOR'S REPORT

OF

DRILLING, FRACTURING AND/OR STIMULATING, OR PHYSICAL CHANGE

Date MARCH 3, 1987

Operator's

Well No. BARNES #1 167-S

Farm PFUNDER

API No. 47 - 017 - 3520

WELL TYPE: Oil X / Gas X / Liquid Injection / Waste Disposal /  
(If "Gas," Production X / Underground Storage / Deep / Shallow X /)

LOCATION: Elevation: 1116 Watershed BUCKEYE CREEK

District: GREENBRIER County DODDRIDGE Quadrangle BIG ISAAC

COMPANY STONEWALL GAS COMPANY

ADDRESS PO DRAWER R, JANE LEW, WV 26378

DESIGNATED AGENT CHARLES W. CANFIELD

ADDRESS PO DRAWER R, JANE LEW, WV 26378

SURFACE OWNER ENIKO PFUNDER

ADDRESS RT 1, BOX 351, SALEM, WV 26426

MINERAL RIGHTS OWNER UNION BK. TRUSTEE

ADDRESS RICHARD BARNES ESTATE

CLARKSBURG, WV 26301

OIL AND GAS INSPECTOR FOR THIS WORK MIKE

UNDERWOOD ADDRESS RT 2, BOX 114, SALEM, WV

PERMIT ISSUED DECEMBER 31, 1986

DRILLING COMMENCED JANUARY 12, 1987

DRILLING COMPLETED JANUARY 18, 1987

IF APPLICABLE: PLUGGING OF DRY HOLE ON  
CONTINUOUS PROGRESSION FROM DRILLING OR  
REWORKING. VERBAL PERMISSION OBTAINED  
CN

Casing Tubing Size	Used in Drilling	Left in Well	Cement fill up Cu. ft.
20-16			
Cond. 11 3/4			
13-10"	284	284	150 SKS
9 5/8			
8 5/8	1716	1716	475 SKS
7			
5 1/2			
4 1/2	5573	5573	510 SKS
3			
2			
Liners used			

GEOLOGICAL TARGET FORMATION ALEXANDER Depth 5400 feet

Depth of completed well 5573 feet Rotary X / Cable Tools

Water strata depth: Fresh 79 feet; Salt 1500 feet

Coal seam depths: 518 to 523 Is coal being mined in the area? N/A

OPEN FLOW DATA

Producing formation ALEXANDER Pay zone depth 5400 feet

Gas: Initial open flow \_\_\_\_\_ Mcf/d Oil: Initial open flow \_\_\_\_\_ bbl/d

Final open flow (671) Mcf/d Final open flow \_\_\_\_\_ bbl/d

Time of open flow between initial and final tests 72 hours

Static rock pressure 1700# psig (surface measurement) after 72 hours shut in

(If applicable due to multiple completion--)

Second producing formation BENSON Pay zone depth 4950 feet

Gas: Initial open flow \_\_\_\_\_ Mcf/d Oil: Initial open flow \_\_\_\_\_ bbl/d

Final open flow 671 Mcf/d Oil: Final open flow \_\_\_\_\_ bbl/d

Time of open flow between initial and final tests 72 hours 6 1987

Static rock pressure 1700# psig (surface measurement) after 72 hours shut in

(Continue on reverse side)

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

FRAC TWO STAGES 1/26/87

PERFS ALEXANDER 5349-5436 <i>Block</i> BENSON 4940-5068	HOLES	BBL	SAND	B.D.	I.S.I.P.
	18	715	70,000	2700 #	2000 #
	15	730	70,000	2100 #	1900 #

WELL LOG

FORMATION	COLOR	HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS
SAND, RR, SHALE	BRN	SOFT	0	10	Including indication of all fresh and salt water, coal, oil and gas
SAND	BRN	SOFT	10	96	
COAL	BLK	MED	96	205	1/4" H <sub>2</sub> O @ 79'
SAND & SHALE	GREY	HARD	205	210	GAS CK @ 2224 2/10 1" H <sub>2</sub> O
SAND	WHITE	HARD	210	242	
SAND, RR, SHALE	BRN	HARD	242	380	2317 2/10
LITTEL LIME	GREY	SOFT	380	2086	
PENCOL CAVE	GREY	SOFT	2069	2107	2944 10/10
BIG LIME	BRN	HARD	2086	2180	
INJUN	GREY	MED	2107	2270	GAS CK @ 5119 30/10 2" H <sub>2</sub> O
SHALE & SAND	BRN	MED	2180	2810	
GORDON	BRN	MED	2270	2810	5491 18/10
SAND & SHALE	GREY	SOFT	2810	2950	
RILEY	BRN	MED	2950	4850	GAS CK @ TD 18/10 2" H <sub>2</sub> O
SAND & SHALE	BRN	SOFT	4850	4960	
BENSON	BRN	MED	4850	5096	
SAND & SHALE	GREY	SOFT	4960	5126	
ALEXANDER	BRN	HARD	5096	5126	
SAND & SHALE	BRN	HARD	5126	5380	
	BRN	HARD	5380	5400	
	GREY	HARD	5400	5615	
	TD	HARD	5615	5615	

(Attach separate sheets as necessary)

STONEMALL GAS COMPANY  
Well Operator  
By: *Benjamin A. Hardesty*  
BENJAMIN A. HARDESTY, VICE PRESIDENT  
Date: MARCH 3, 1987

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DEPARTMENT OF ENERGY

Note: Regulation 2.02(i) provides as follows:  
"The term 'log' or 'well log' shall mean a systematic detailed geological record of all formations, including ... of a well."

FORM MW-2 (B) FILE COPY  
 (Obverse) **RECEIVED**  
 7/85

1) Date: DECEMBER 5, 1986  
 2) Operator's Well No. BARNES #1 167-S  
 3) API Well No. 47 017-3520 State County Permit



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

4) WELL TYPE: A Oil  Gas   
 B (If "Gas", Production  / Deep  / Shallow   
 5) LOCATION: Elevation: 1116' Watershed: BUCKEYE CREEK  
 District: GREENBRIER 4 County: DODDRIDGE 017 Quadrangle: BIG ISAAC 252  
 6) WELL OPERATOR STONEWALL GAS CODE: 47850 7) DESIGNATED AGENT CHARLES CANFIELD  
 Address P.O. DRAWER R Address P.O. DRAWER R  
JANE LEW, WV 26378 JANE LEW, WV 26378

8) OIL & GAS INSPECTOR TO BE NOTIFIED  
 Name MIKE UNDERWOOD 782-1043 Name S.W. JACK  
 Address ROUTE 2, BOX 114 Address BUCKHANNON, WV 26201  
SALEM, WV 26426

10) PROPOSED WELL WORK: Drill  / deeper  / Drill deeper  / Perforate new formation   
 Plug off old formation  / Stimulate

11) GEOLOGICAL TARGET FORMATION, ALEXANDER 430  
 12) Estimated depth of completed well, 5400' feet  
 13) Approximate traia depths: Fresh, 150' feet; salt,        feet.  
 14) Approximate coal seam depths: UNKNOWN Is coal being mined in the area? Yes  No

15) CASING AND TUBING PROGRAM

CASING OR TUBING TYPE	SPECIFICATIONS		New	Used	Left in well	CEMENT FILL-UP OR SACKS (Cubic feet)	PACKERS
	Size	Grade					
Conductor	11 3/4		X		<del>2500</del> 250		
Fresh water							
Coal							
Intermediate	8 5/8		X		1700'	RULE 15.0'	
Production	4 1/2		X		5400'	RULE 15.0'	
Tubing							
Lin...							

OFFICE USE ONLY  
 DRILLING PERMIT

Permit number 47-017-3520 Date December 31, 1986

This permit covering the well operator and well location shown below is evidence of permission granted to drill in accordance with the pertinent legal requirements subject to the conditions contained herein and on the reverse hereof. Notification must be given to the District Oil and Gas Inspector. (Refer to No. 8) Prior to the construction of roads, locations and pits for any permitted work. In addition, the well operator or his contractor shall notify the proper district oil and gas inspector 24 hours before actual permitted work has commenced.)

The permitted work is as described in the Notice and Application, plat, and reclamation plan, subject to any modifications and conditions specified on the reverse hereof.  
 Permit expires December 31, 1988 unless well work is commenced prior to that date and prosecuted with due diligence.

Bond:	Agent:	Plat:	Casing	Fee	WPCP	S&E	Other
	<u>4785</u>	<u>WV 174</u>	<u>WV 174</u>	<u>3471</u>	<u>WV 174</u>	<u>WV 174</u>	<u>WV 174</u>

NOTE: Keep one copy of this permit posted at the drilling location.  
[Signature]  
 Director, Division of Oil and Gas

See the reverse side of the APPLICANT'S COPY for instructions to the well operator.

