

*Jamie 11/13/90*

LATITUDE 39°22'30"

10540'

1300'

LONGITUDE 80°47'30"

NORTH

DAVIS

SMITH

WELL REFERENCES:

- S68°W, 189.25' TO 5" RED MAPLE
- S7°E, 131.5' TO 4" TWIN RED MAPLE

CONRAD COSTILOW  
46.87 AC.

N23°E, 1212.75'

STONE

S67°03'E, 594.56'

THOMPSON

NO. 1 REV.

ASH  
1338

1404

1408

N32°W,  
707.22'

S25°09'W, 406.49'

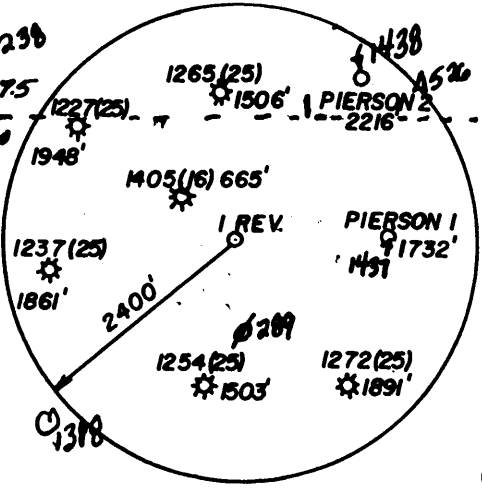
POST

ANDERS  
476

N32°W,  
612.78'

PETER

CUMBERLEDGE



1273

1510c  
3.12 S  
4.23W

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

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

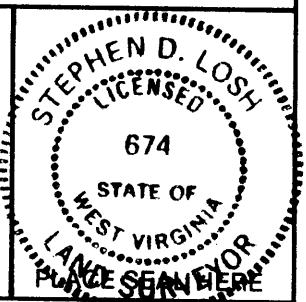
FILE NO. \_\_\_\_\_  
 DRAWING NO. \_\_\_\_\_  
 SCALE 1" = 400'  
 MINIMUM DEGREE OF ACCURACY 1 IN 200  
 PROVEN SOURCE OF ELEVATION RD. INT. 2556' NE. OF LOC. AT ELEV. 1038'

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. NO. 674

STEPHEN D. LOSH



STATE OF WEST VIRGINIA  
 DEPARTMENT OF ENERGY  
 OIL AND GAS DIVISION



DATE SEPT. 27, 19 90  
 OPERATOR'S WELL NO. CONRAD 1  
 API WELL NO. \_\_\_\_\_

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

LOCATION: ELEVATION 1044' 100' WATERSHED CAMP MISTAKE RUN  
 DISTRICT CENTERVILLE COUNTY TYLER  
 QUADRANGLE WEST UNION 7.5 +15' EC

SURFACE OWNER Conrad Costilow ACREAGE 46.87  
 OIL & GAS ROYALTY OWNER FANNY DAVIS, ET AL. LEASE ACREAGE 46.87

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 BENSON ESTIMATED DEPTH 5350

WELL OPERATOR STONEWALL GAS CO. DESIGNATED AGENT JESSE SHELL  
 ADDRESS P.O. DRAWER R 847 ADDRESS P.O. DRAWER R

JANE LEW, WV 26378-0080 JANE LEW, WV 26378-0080

6-6 wilbur (092)

COUNTY NAME PERMIT

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

Well Operator's Report of Well Work

Farm name: COSTILOW, CONRAD Operator Well No.: CONRAD 1 547-S

LOCATION: Elevation: 1004.00 Quadrangle: WEST UNION

District: CENTERVILLE County: TYLER  
Latitude: 1300 Feet South of 39 Deg. 22Min. 30 Sec.  
Longitude 10540 Feet West of 80 Deg. 47 Min. 30 Sec.

Company: STONEWALL GAS COMPANY  
909 E. MAIN ST. P.O. BOX 1575  
RICHMOND, VA 23219-1575

Agent: JESSE A. SHELL

Inspector: MIKE UNDERWOOD  
Permit Issued: 11/13/90  
Well work Commenced: 12/01/90  
Well work Completed: 12/08/90  
Verbal Plugging  
Permission granted on: \_\_\_\_\_  
Rotary X Cable \_\_\_\_\_ Rig  
Total Depth (feet) 5150  
Fresh water depths (ft) 30  
120  
Salt water depths (ft) \_\_\_\_\_  
265, 1440  
Is coal being mined in area (Y/N)? N  
Coal Depths (ft): 515

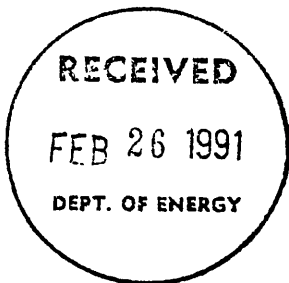
Casing & Tubing Size	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
11 3/4	157	157	75 SKS
8 5/8	1341	1341	285 SKS
4 1/2	5057	5057	710 SKS

OPEN FLOW DATA

Producing formation BENSON Pay zone depth (ft) 4968  
Gas: Initial open flow 231 MCF/d Oil: Initial open flow 0 Bbl/d  
Final open flow 2613 MCF/d Final open flow 0 Bbl/d  
Time of open flow between initial and final tests 1 Hours  
Static rock Pressure 1575 psig (surface pressure) after 168 Hours

Second producing formation RILEY Pay zone depth (ft) 4552  
Gas: Initial open flow 231 MCF/d Oil: Initial open flow 0 Bbl/d  
Final open flow 2613 MCF/d Final open flow 0 Bbl/d  
Time of open flow between initial and final tests 1 Hours  
Static rock Pressure 1575 psig (surface pressure) after 168 Hours

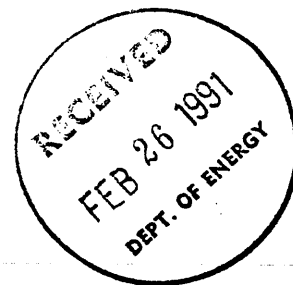
NOTE: ON BACK OF THIS FORM PUT THE FOLLOWING: 1). DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2). THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE.



For: STONEWALL GAS COMPANY  
By: Ray M. Frear, Jr. RAY M. FREAR, JR.  
Date: FEBRUARY 21, 1991 PETROLEUM ENGINEER

2	STAGE WATER	FRAC	12-19-90	DATE			
ZONES	PERFS	HOLES	BBL	BP	ISIP		
BENSON	4968-4973	20	700	2100	1650		
RILEY	4552-4557	20	700	2220	1742		

FORMATION	COLOR	HARD/SOFT	TOP	BOTTOM	REMARKS
FILL	BROWN	SOFT	0	3	DAMP @ 30'
SAND	GRAY	SOFT	3	20	1/2" STREAM @ 120
RR & SHALE	GRAY	SOFT	20	25	1/2" STREAM @ 265
SAND	BROWN	HARD	25	45	1 1/2" STREAM @ 1440
SAND & SHALE	GRAY	HARD	45	77	
SAND	GRAY	HARD	77	122	GAS CK 1932 NO SHOW
SHALE & RR	BROWN	SOFT	122	196	GAS CK 1994 NO SHOW
SAND & SHALE	GRAY	SOFT	196	280	
RR & SHALE	GRAY	SOFT	280	405	GAS CK 2025 60/10 2" W/W
SAND	BROWN	SOFT	405	515	GAS CK 2056 90/10 2" W/W
COAL	BLACK	HARD	515	517	GAS CK 2736 60/10 2" W/W
SAND & SHALE	GRAY	HARD	517	590	
SAND	GRAY	HARD	590	620	GAS CK 4106 70/10 2" W/W
SAND & SHALE	GRAY	SOFT	620	660	GAS CK 4167 50/10 2" W/W
SAND	BROWN	SOFT	660	690	
SAND & SHALE	BROWN	SOFT	690	940	GAS CK 4603 54/10 2" W/W
SHALE & RR	GRAY	HARD	940	1175	
SAND & SHALE	GRAY	HARD	1175	1863	GAS CK TD 30/10 2" W/W
L-LIME	BROWN	SOFT	1863	1875	
SAND & SHALE	BROWN	HARD	1875	1899	
B-LIME	GRAY	SOFT	1899	1990	
INJUN	GRAY	SOFT	1990	2110	
SAND & SHALE	BROWN	HARD	2110	2680	
GORDON	BROWN	SOFT	2680	2695	
SAND & SHALE	BROWN	SOFT	2695	4515	
RILEY	GRAY	HARD	4515	4595	
SAND & SHALE	GRAY	HARD	4595	4925	
BENSON	BROWN	SOFT	4925	4940	
SAND & SHALE	BROWN	SOFT	4940	5150	
TD			5150		



11537

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

- 1) Well Operator: STONEWALL GAS COMPANY 47850 <sup>847</sup> 670
- 2) Operator's Well Number: CONRAD #1 (547-S) 3) Elevation: 1004'
- 4) Well type: (a) Oil   / or Gas X/
- (b) If Gas: Production X/ Underground Storage   /  
 Deep   / Shallow X/
- 5) Proposed Target Formation(s): BENSON 435
- 6) Proposed Total Depth: 5125 feet
- 7) Approximate fresh water strata depths: 40', 800' NOV 07 90
- 8) Approximate salt water depths: 1700'
- 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	
Conductor	11 3/4"		27#	100'	100' CTS	38 CSR 18-11.3
Fresh Water						
Coal						3
Intermediate	8 5/8"		20#	1250'	1240' CTS	38 CSR 18-11.22
Production	4 1/2"	J-55	10.5#	5060'	5060' ←	38 CSR 18-11.1
Tubing						
Liners			<i>OK RB</i>			

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 C. D. Blanket  Agent  
 (Type)

1) Date: NOVEMBER 5, 1990  
2) Operator's well number  
CONRAD #1 (547-S)  
3) API Well No: 47 - 095 - 1443  
State - County - Permit

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

NOV 07 9  
RECEIVED  
OFFICE OF THE SECRETARY

4) Surface Owner(s) to be served:  
(a) Name CONRAD COSTILOW  
Address 301 1/2 LOUISE AVE.  
WEST UNION, WV  
(b) Name \_\_\_\_\_  
Address \_\_\_\_\_  
(c) Name \_\_\_\_\_  
Address \_\_\_\_\_  
6) Inspector MIKE UNDERWOOD  
Address RT 2 BOX 135  
SALEM, WV 26426  
Telephone (304)- 782-1043

5) (a) Coal Operator:  
Name N/A  
Address \_\_\_\_\_  
(b) Coal Owner(s) with Declaration  
Name SAME AS SURFACE  
Address \_\_\_\_\_  
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 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:

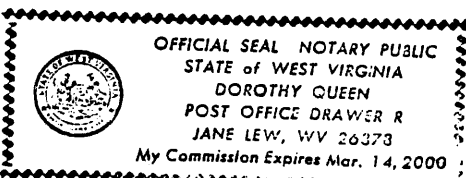
- \_\_\_\_\_ Personal Service (Affidavit attached)
- X Certified Mail (Postmarked postal receipt attached)
- \_\_\_\_\_ Publication (Notice of Publication attached)

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 STONEWALL GAS COMPANY  
By: Beir A. Smith  
Its: PRESIDENT  
Address PO DRAWER R  
JANE LEW, WV 26378-0080  
Telephone 304-884-7881



Subscribed and sworn before me this 5TH day of NOVEMBER, 1990

Dorothy Queen Notary Public  
My commission expires MARCH 14, 2000