

API WELL NO. 45 - 105 - 20691  
STATE COUNTY PERMIT

DATE: November 19, 1984

OPERATOR'S  
WELL NO. 1 Ronnie Montgomery, et al



VIRGINIA OIL AND GAS INSPECTOR  
DEPARTMENT OF LABOR AND INDUSTRY  
OIL AND GAS SECTION  
205 W. Main Street  
Abingdon, Virginia 24210  
Phone 703 628-8115

*New field intent*

**COPY**

REPORT OF COMPLETION OF WELL WORK

Pursuant to Regulation 4.06 of the Regulations under the Virginia Oil and Gas Act, the undersigned well operator reports completion of the type(s) of well work specified below on the referenced well in Rocky Station District, Lee County, Virginia on 21st day, October month, 1984.

WELL TYPE: Oil  / Gas  / Enhanced Recovery  / Waste Disposal   
IF "GAS", Production  / Underground storage   
Exempt by Code § 45.1-300.B.1 from general oil and conservation law: Yes  / NO

WELL WORK: Drill  / Deepen  / Redrill  / Stimulate   
Plug Off Old Formation  / Perforate New Formation   
Plug  / Replug   
Other physical change in well (specify) \_\_\_\_\_

The well work was done as shown in the Appendix(es) applicable to the type(s) of well work involved.

CONFIDENTIALITY STATUS UNDER CODE OF VIRGINIA § 45.1-332.

\_\_\_\_ Ninety days from the filing of this report,

OR

Two years from October 21, 1984, the date on which the referenced well was completed, the well being an exploratory well as defined in Code of Virginia § 45.1-288.21.

APPLICANT: GULF OIL CORPORATION

BY: Dorretta Moore

**SR** Dorretta Moore - Sr. Clerk

ADDRESS: P.O. Box 12116  
Oklahoma City, OK 73157

TELEPHONE: (405) 949-7000

REPORT OF COMPLETION OF WELL WORK  
IF DRILLING, REDRILLING OR DEEPENING IS INVOLVED

COPY

Drilling Contractor Armstrong Drilling Company

Address P. O. Box 386, Oneida, TN 37841

Telephone 615-569-4353

Date Drilling Commenced 7/15/84

Date Drilling Completed 9/7/84

Depth of Completed Well 5560 feet

Drilling Rig Rotary X / Cable Tool        /

Geological Data                      Depth                      Thickness  
                                            Top                      Bottom

Fresh water:

Salt water:

Coal seams	Name	MINING IN AREA		
		Yes	No	Mined Out
148-150, 254-256, 286-287, 316-318, 345-348, 356-358, 469-471, 485-489, 542-544, 599-600, 617-619, 637-638, 666-668, 778-780, 958-966, 1154-1158, 1313-1315, 1435-1436, 1708-1710,				
Oil & gas: 2038-2040, 2087-2090	Name			
3780-3800 SO-SG	5376-88 SG			
3993-4002 SG,SO	5418-5428 SG			

The data on depth of strata is based on the source(s) checked below

- Applicant's own drilling experience in area
- Information supplied by the coal operator in area
- Information already in the possession of the Inspector
- As follows: \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_

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OTHER GENERAL INFORMATION

An electric log survey was / was not / conducted pursuant to Code of Virginia S 45.1-333.B.2, at the coal owner's or operator's request.

An electric log survey was / was not / run for other purposes. This survey did / did not / disclose the vertical location of a coal seam.

Note: If a coal seam was located, the part of the survey from the surface through the coal is attached in accordance with Code of Virginia S 45.1-333.B.3.

Deviation surveys were / were not / required under Code of Virginia S 45.1-333.C "to the bottom of the lowest published coal seam depth".

Note: If deviation surveys were required, the survey results are attached.

A continuous survey was / was not / required under Code of Virginia S 45.1-333.C.

Note: If a continuous directional survey was required, the survey results are attached.

An Inclination Survey was run f/surface to total depth.

CHANGES IN THE PERMITTED WELL WORK

The well operator did / did not / make any change(s) in the permitted well work, verbally approved by the Inspector or Assistant Inspector under Regulation 4.03 of the Regulations under the Virginia Oil and Gas Act, for the purpose of insure successful completion of the well work.

Note: The nature and purpose of each such change, if any, is set out below or on additional sheets if such are required:

- 1) 30" drive pipe was set @  $\pm 17'$  and driven to refusal to prevent cave in due to unconsolidated restored surface.
- 2) 20" conductor casing was at 60' into the uppermost consolidated formation.
- 3) 13-3/8" casing was set at 671' as planned.
- 4) 7" casing was run to TD with two multistage cementing tool used to circulate cement to surface with one @  $\pm 3601'$  and one @  $\pm 2128'$ .

**COPY**

Date: November 19, 1984

Operator's  
Well No. 1 Ronnie Montgomery, etc

APPENDIX TO NOTICE AND APPLICATION  
IF THE WELL WORK IS PLUGGING OR REPLUGGING

Under Code of Virginia § 45.1-311.C.9, the following is submitted with respect to the plugging work:

PURPOSE OF PLUGGING

The plugging work is for the purpose checked below:

- Abandonment of the well by the well operator
- Replugging to permit the safe mining through of the well
- Partial plugging from the bottom of the hole to \_\_\_\_\_ feet below the surface, for development as a water well under Code of Virginia § 45.1-350

PLUGGING METHOD

- (i) The date when the plugging or replugging is proposed to be commenced is October 21, 1984.
- (ii) Copies of all logs in the applicant's possession not heretofore filed with the Inspector are submitted with this Notice and Application.
- (iii) The proposed manner of plugging or replugging the well is that specified in the Code section checked below:
  - 45.1-342 ("Plugging a well that does not penetrate a coal seam.")
  - 45.1-343 ("Plugging a well penetrating a coal seam without a coal protection string as provided in 45.1-334.")
  - 45.1-344 ("Plugging wells with coal protection strings installed as provided in 45.1-334".)
  - 45.1-345 ("Special plugging at the coal owner's request.")
  - 45.1-346 ("Replugging a well previously plugged.")

Date: November 19, 1984Operator's  
Well No. 1 Ronnie Montgomery, etalAPPENDIX TO REPORT OF COMPLETION OF WELL WORK  
IF THE WELL WORK INCLUDED PLUGGING OR REPLUGGINGAFFIDAVITSTATE OF Oklahoma,COUNTY OF Oklahoma, to-wit:J. H. Warner and  
being first duly sworn, depose and say that:L. Klutt

COPY

They are both experienced in the plugging of wells and participated in the plugging work which is the subject of this Affidavit on the referenced well.

The plugging work was for the purpose checked below:

 Abandonment of the well by the well operator ...

\_\_\_\_\_ at the end of production or other use,

 after drilling, redrilling or deepening was unsuccessful, so that the well was plugged on the verbal permission of the Inspector or his designated representative under Code of Virginia S 45.1-311.C.9,

\_\_\_\_\_ Replugging to permit the safe mining through of the well,

\_\_\_\_\_ Partial plugging from the bottom of the hole to \_\_\_\_\_ feet below the surface, and continued operation by the well operator, or

\_\_\_\_\_ Partial plugging from the bottom of the hole to \_\_\_\_\_ feet below the surface, for development as a water well under Code of Virginia S 45.1-350.

The manner of plugging or replugging which was commenced on Oct. 16, 19 84, was in the manner provided by law as checked below:

\_\_\_\_\_ S 45.1-342 ("Plugging a well that does not penetrate a coal seam"),

\_\_\_\_\_ S 45.1-343 ("Plugging a well penetrating a coal seam without a coal protection string as provided in S 45.1-334"),

 S 45.1-344 ("Plugging wells with coal protection strings installed as provided in S 45.1-334"),

\_\_\_\_\_ S 45.1-345 ("Special plugging at the coal owner's request"), or

\_\_\_\_\_ S 45.1-346 ("Replugging a well previously plugged")

COPY

CHANGES IN THE PLUGGING AS PERMITTED

The well operator did  / did not  / make any change(s) in the plugging as specified in the well work permit, which changes were verbally approved by the Inspector or Assistant Inspector under Regulation 4.03 of the Regulations under the Virginia Oil and Gas Act, for the purpose of insuring successful completion of the plugging work.

NOTE: The nature and purpose of each such change, if any, are set out below, or on additional sheets if such are required:

DATE: November 19, 1984

OPERATOR'S

WELL NO. 1 Ronnie Montgomery, etal

APPENDIX TO REPORT OF COMPLETION OF WELL WORK ON A WELL DRILLED IN SEARCH OF OIL OR GAS

DISCOVERY OF OIL OR INDICATIONS THEREOF

Indicated potential flow before stimulation 0 BOD

Gravity and grade

DISCOVERY OF GAS OR INDICATIONS THEREOF

Indicated potential flow before stimulation

Rock Pressure: psig hour test



RECORD OF STIMULATION

Full description of stimulation:

Zone 1: Clinch Sd Formation:

1500 GAL 15% FeHCl acid

Breakdown 800 psig; Avg. Injection 1250 psig; Avg. Injection Rate 3 BPM;

ISIP 1200 psig; 15 Min. Shut-In 850 psig. Perforated Open Hole 5281 - 5560' 1 hr.

Zone 2: Price Sd Formation:

5000 GAL 70% Quality Foamed 15% FeHCl acid

Breakdown 2250 psig. Avg. Injection 2800 psig, Avg. Injection rate 3 BPM;

ISIP 1850 psig, 15 Min. Shut-In 1650 psig. Perforated 4076-90', 4054-70', 4030-42' 10

Zone 3: Greenbriar Lm Formation:

5000 GAL 70% Quality Foamed 15% FEHCl

Breakdown 2100 psig; Avg. Injection 1040 psig; Avg. Injection Rate 3 BPM;

ISIP 1850 psig; 15 Min. Shut-In 1600 psig. Perforated 3764-3794 10

Final Production check one: (X) after stimulation ( ) natural.

Table with 4 columns: RATE, FTP, ORIFICE SIZE, HOURS TESTED. Rows for Zone 1 (NSO&G, Well Swb dry to 5140', 48 hrs), Zone 2 (34 MCFD\* @ 12 psi, 1/4" orifice, 8 hrs), Zone 3 (34 MCFD\* @ 12 psi, 1/2" orifice, 3 hrs).

Final production if gas zones are comingled: 0 MCFD

hours tested: psig, hours tested.

\* Trace of Oil.

APPENDIX TO REPORT OF COMPLETION OF WELL WORK ON A WELL DRILLED IN SEARCH OF OIL OR GAS

DISCOVERY OF OIL OR INDICATIONS THEREOF

Indicated potential flow before stimulation BOD

Gravity and grade

DISCOVERY OF GAS OR INDICATIONS THEREOF

Indicated potential flow before stimulation MCFD

Rock Pressure: psig hour test

RECORD OF STIMULATION

Full description of stimulation:

Zone 4: Price & Greenbrier Formation: 50,000 gal 70% quality foam w/72,500 #20-40 sand

Breakdown 4040 psig; Avg. Injection 3330 psig; Avg. Injection Rate 15 BPM;

ISIP 1850 psig; 15-Min. Shut-In 1790 psig. Perforated See Zone 2 & 3

Zone 2: Formation:

Breakdown psig. Avg. Injection psig, Avg. Injection rate BPM;

ISIP psig, 15-Min. Shut-In psig. Perforated

Zone 3: Formation:

Breakdown psig; Avg. Injection psig; Avg. Injection Rate BPM;

ISIP psig; 15-Min. Shut-In psig. Perforated

Final Production check one: ( X ) after stimulation ( ) natural.

Table with 4 columns: RATE, FTP, ORIFICE SIZE, HOURS TESTED. Row 1: Zone 4, 94.5 MCF, @ 50 psi, 1/2" orifice, 6 hrs.

Final production if gas zones are comingled: 0 MCFD

hours tested: psig, hours tested.



PENNINGTON GAP  
6-1

API No. 45-105-20691 VDMR Well Rep. No. \_\_\_\_\_

DMQ File No. LE-147

Operator GULF OIL EXPLORATION AND PRODUCTION COMPANY

Farm H. RONNIE MONTGOMERY AND PETER CHANCE

Co. Well No. #1 GULF R. MONTGOMERY

County LEE Quadrangle PENNINGTON GAP - 7 1/2'

Location (UTM) N4,074,470; E320,800 UTM Zone 17

(Lat. and Long.) \_\_\_\_\_

Field BEN HUR Province VALLEY AND RIDGE

Elev. (specify) 1695.5' GR TD 5560 Form. at TD SEQUATCHIE

INITIAL FLOW - SHOW Age ORDOVICIAN

Date compl. or abandoned OCTOBER 21, 1984

Result PLUGGED AND ABANDONED

Gas Shows 3780-3800, 3993-4002, 5376-5388, 5418-5428

Gas Pays \_\_\_\_\_

Main Production \_\_\_\_\_ Prod. Form. \_\_\_\_\_

FINAL FLOW - ESTIMATED 162,000 CU. FT. Age \_\_\_\_\_

Treatment: CLINCH SANDSTONE-1500 GALLONS OF 15% FeHCL ACID. PRICE  
SANDSTONE-5000 GALLONS OF 70% QUALITY FOAMED 15% FeHCL ACID.  
GREENBRIER-5000 GALLONS 70% QUALITY FOAMED 15% FeHCL.

Initial Production \_\_\_\_\_

Oil shows 3780-3800, 3993-4002

Water FW \_\_\_\_\_ at \_\_\_\_\_ at \_\_\_\_\_ at \_\_\_\_\_

SW \_\_\_\_\_ at \_\_\_\_\_ at \_\_\_\_\_ at \_\_\_\_\_

Coal 148-150, 254-256, 286-287, 316-318, 345-348, 356-358, 469-471,  
485-489, 542-544, 599-600, 617-619, 637-638, 666-668, 778-780, 958-966,  
Plat \_\_\_\_\_ Plotted \_\_\_\_\_ Completion Report X 1154-1158, 1313-

Drillers Log X Geologic Log \_\_\_\_\_ 1315, 1435-

Samples \_\_\_\_\_ Interval Sheet \_\_\_\_\_ 1436, 1708-1710,

Sample Interval \_\_\_\_\_ 2038-2040, 2087-

Remarks \_\_\_\_\_ 2090

Geophysical Logs S.P. \_\_\_\_\_ Res \_\_\_\_\_ Gamma \_\_\_\_\_ Neutron X

Density X Sonic X Other DUAL INDUCTION, FRACTURE IDENTIFICATION,  
CYBERLOK, PERFORATION

Stratigraphic Data Source DONALD D. PACK

<u>Formation</u>	<u>Top</u>	<u>Datum (Subsea)</u>	<u>Thickness</u>
NORTON	0	+1695.5'	620
LEE	620	+1075.5	1522
BLUESTONE	2142	- 446.5	452
PRINCETON	2594	- 898.5	66
HINTON	2660	- 964.5	440
BLUEFIELD	3100	-1404.5	360
GREENBRIER	3460	-1764.5	340
MACCRADY PRICE	3800	-2104.5	412
SUNBURY	4212	-2516.5	12
BEREA	4224	-2528.5	36
DEVONIAN SHALE	4260	-2564.5	535
CORNIFEROUS	4795	-3099.5	213
Remarks CLINTON	5008	-3312.5	320
CLINCH	5328	-3632.5	106
HAGAN	5434	-3738.5	76
SEQUATCHIE	5510	-3814.5	50

References \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Released to Open File: Completion OCTOBER 21, 1986

Samples NONE

(Note: UTM measurements in meters, all others in feet)

OIL AND GAS WELL SUMMARY REPORT

API No.: 45-105-20691

VDMR Well Rep. No.

Div. Gas & Oil File No.: LE-147

Operator: GULF OIL EXPLORATION AND PRODUCTION COMPANY

Farm: H. RONNIE MONTGOMERY AND PETER CHANCE

County: LEE

Co. Well No.: #1 GULF R. MONTGOMERY

Quadrangle: PENNINGTON GAP - 7-1/2'

Location (UTM): N 4,074,470; E 320,800 UTM Zone: 17

Field: BEN HUR

Province: VALLEY AND RIDGE

Elev. (specify): 1695.5' GR TD: 5560 Formation at TD: SEQUATCHIE

Initial Gas Flow: SHOW

Age: ORDOVICIAN

Date compl. or abandoned: OCTOBER 21, 1984

Result: PLUGGED AND ABANDONED

Gas Shows: 3780-3800, 3993-4002, 5376-5388, 5418-5428

Gas Pays

Main Production

Producing Formation:

Final Gas Flow: ESTIMATED 162,000 CU. FT. Age:

Treatment: CLINCH SANDSTONE-1500 GALLONS OF 15% FEHCL ACID. PRICE SANDSTONE-5000 GALLONS OF 70% QUALITY FOAMED 15% FEHCL ACID. GREENBRIER-5000 GALLONS 70% QUALITY FOAMED 15% FEHCL.

Initial Oil Production:

Final Production:

Oil Shows: 3780-3800, 3993-4002

Water	FW	at	at	at
	SW:	at:	at	at

Coal: 148-150, 254-256, 286-287, 316-318, 345-348, 356-358, 469-471, 485-489, 542-544, 599-600, 617-619, 637-638, 666-668, 778-780, 958-966, 1154-1158, 1313-1315, 1435-1436, 1708-1710, 2038-2040, 2087-2090

Plat

Plotted

Completion Report: X

Drillers Log: X

Geologic Log

Samples

Interval Sheet

Sample Interval

Geophysical Logs

S.P.

Res

Gamma:

Neutron

Density: X Sonic: X Other: DUAL INDUCTION, FRACTURE IDENTIFICATION, CYBERLOK, PERFORATION

Stratigraphic Data Source: DONALD D. PACK

<u>Formation</u>	<u>Top</u>	<u>Datum (Subsea)</u>	<u>Thickness</u>
NORTON	0	+1695.5'	620
LEE	620	+1075.5	1522
BLUESTONE	2142	- 446.5	452
PRINCETON	2594	- 898.5	66
HINTON	2660	- 964.5	440
BLUEFIELD	3100	-1404.5	360
GREENBRIER	3460	-1764.5	340
MACCRADY PRICE	3800	-2104.5	412
SUNBURY	4212	-2516.5	12
BEREA	4224	-2528.5	36
DEVONIAN SHALE	4260	-2564.5	535
CORNIFEROUS	4795	-3099.5	213
CLINTON	5008	-3312.5	320
CLINCH	5328	-3632.5	106
HAGAN	5434	-3738.5	76
SEQUATCHIE	5510	-3814.5	50

Remarks:

References:

Released to Open File: Completion: OCTOBER 21, 1986  
Samples: NONE

(Note: UTM measurements in meters, all others in feet)

# COPY

FORM 16  
APPENDIX TYPE C, SHEET 2 (OBVERSE)

API WELL NO. 45 - 105 - 20691  
State County Permit

PLUGGING DETAILS (FROM THE BOTTOM OF THE HOLE)

<u>INTERVAL</u>		<u>FORMATIONS</u>	<u>TYPES OF MATERIALS USED</u>		<u>BRIDGE</u>	<u>FILLED LINED</u>	<u>NEW CASING</u>	<u>OPEN HOLE</u>
<u>FROM OR AT</u>	<u>...TO</u>		<u>PLUGGING</u>	<u>FILLING</u>				
5560	4800	Clinch Sd	KCL Mud		CIBP @ 4800		X	X
4800	4520		20-40 Mesh Sd & 9# Mud				to 5281	
4500	2250	Price Sd Greenbriar Lm	Cement Plug	30 sks 163' est SWBD Dry f/2250-2405			"	
2250	SFC	Lee					"	

Install 7" x 2" swedge, valve and U shaped vent line 4-1/2' AGL.

20", 13-3/8" and 7" casing strings cemented to surface, 7" csg perforated @ 850' w/250 sks "A" + 16% gel + 3% salt mixed at 12.6 ppg tailed w/100 sks "A" mixed @ 15.6 ppg, 15 BBL cmt circulated between 13-5/8" x 7" annulus.

Virginia Department of Labor & Industry contacted 10/17/84 for verbal OK Milfred Stern.

COPY.

Finally, if this affidavit concerns a well that was abandoned after plugging, deponents have verified that, in accordance with Code of Virginia S 45.1-34 a permanent marker of concrete  X  / iron and concrete      / has been erected over location.

JR Warner  
L Klutts

Subscribed and sworn to before me, a Notary Public in and for the County and State aforesaid, this  November 19 , 19  84 .

My Commission expires  April 20 , 19  86 .

Mary Cahemia  
Notary Public

3.25	-2775	3.5	98.5
3.25	-2862	4.9	103.5
2.75	-2923	2.9	106.4
2.75	-2968	2.2	108.6
3.25	-3048	4.5	113.1
3.00	-3172	6.5	119.6
3.00	-3235	3.3	122.9
3.25	-3297	3.5	126.4
3.00	-3359	3.2	129.6
2.75	-3452	4.5	134.1
2.75	-3543	4.4	138.5
2.75	-3639	4.6	143.1
2.75	-3733	4.5	147.6
2.75	-3887	7.4	155.0
2.25	-4066	7.0	162.0
2.50	-4251	8.1	170.1
3.00	-4467	11.3	181.4
2.50	-4747	12.2	193.6
3.25	-5088	19.3	212.9
2.25	-5520	17.0	229.9

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RECORD OF INCLINATION

RONNIE MONTGOMERY #1, et al

SURVEYS	MEASURED DEPTH	COURSE DISPLT	ACCUM DISPLT
0.25	-50	0.2	0.2
0.50	-75	0.2	0.4
0.50	-135	0.5	1.0
0.50	-197	0.5	1.5
1.00	-258	1.1	2.6
1.75	-299	1.3	3.8
1.50	-329	0.8	4.6
1.00	-358	0.5	5.1
1.00	-388	0.5	5.6
2.00	-445	2.0	7.6
1.50	-476	0.8	8.4
1.25	-507	0.7	9.1
1.50	-537	0.8	9.9
1.25	-573	0.8	10.7
1.00	-600	0.5	11.2
1.50	-634	0.9	12.0
1.25	-665	0.7	12.7
1.00	-682	0.3	13.0
1.50	-717	0.9	13.9
1.50	-748	0.8	14.7
1.00	-780	0.6	15.3
1.25	-810	0.7	16.0
1.25	-842	0.7	16.7
1.00	-874	0.6	17.2
1.25	-905	0.7	17.9
1.25	-936	0.7	18.6
1.00	-968	0.6	19.1
1.00	-1036	1.2	20.3
2.00	-1128	3.2	23.5
2.25	-1191	2.5	26.0
2.00	-1253	2.2	28.2
2.00	-1315	2.2	30.3
1.75	-1377	1.9	32.2
2.00	-1439	2.2	34.4
2.00	-1502	2.2	36.6
2.00	-1563	2.1	38.7
2.25	-1656	3.7	42.4
2.25	-1739	3.3	45.6
2.25	-1836	3.8	49.4
3.00	-1957	6.3	55.8
2.50	-2022	2.8	58.6
3.00	-2080	3.0	61.6
3.00	-2140	3.1	64.8
3.75	-2230	5.9	70.7
3.00	-2287	3.0	73.6
3.00	-2360	3.8	77.5
2.50	-2464	4.5	82.0
2.75	-2588	5.9	87.9
3.25	-2714	7.1	95.1



APPENDIX TO REPORT OF COMPLETION OF WELL WORK  
ON A WELL DRILLED IN SEARCH OF OIL OR GAS

DISCOVERY OF OIL OR INDICATIONS THEREOF

Indicated potential flow before stimulation 0 BOD

Gravity and grade \_\_\_\_\_

COPY

DISCOVERY OF GAS OR INDICATIONS THEREOF

Indicated potential flow before stimulation 0 MCFD

Rock Pressure: \_\_\_\_\_ psig \_\_\_\_\_ hour test

RECORD OF STIMULATION

Full description of stimulation:

Zone 1: Clinch Sd Formation: \_\_\_\_\_

1500 GAL 15% FeHCl acid

Breakdown 800 psig; Avg. Injection 1250 psig; Avg. Injection Rate 3 BPM;

ISIP 1200 psig; ~~15~~ Min. Shut-In 850 psig. Perforated \_\_\_\_\_  
1 hr.

Zone 2: Price Sd Formation: \_\_\_\_\_

5000 GAL 70% Quality Foamed 15% FeHCl acid

Breakdown 2250 psig. Avg. Injection 2800 psig, Avg. Injection rate \_\_\_\_\_ BPM;

ISIP 1850 psig, ~~15~~ Min. Shut-In 1650 psig. Perforated 4076-90', 4054-70', 4030-42'  
10

Zone 3: Greenbriar Lm Formation: \_\_\_\_\_

5000 GAL 70% Quality Foamed 15% FEHCl

Breakdown 2100 psig; Avg. Injection \_\_\_\_\_ psig; Avg. Injection Rate \_\_\_\_\_ BPM;

ISIP 1850 psig; ~~15~~ Min. Shut-In 1600 psig. Perforated 3764-3794  
10

Final Production check one: ( X ) after stimulation ( ) natural.

Zone 1 NSO&G Well Swb dry to 5140' \_\_\_\_\_ 48 hrs.

Zone 2 34 MCFD @ 12 psi 1/4" orifice trace of oil 8 hrs.

Zone 3 34 MCFD @ 12 psi 1/2" orifice trace of oil 3 hrs.

Final production if gas zones are comingled: 0 MCFD

\_\_\_\_\_ hours tested: \_\_\_\_\_ psig, \_\_\_\_\_ hours tested.

APPENDIX TO REPORT OF COMPLETION OF WELL WORK ON A WELL DRILLED IN SEARCH OF OIL OR GAS

DISCOVERY OF OIL OR INDICATIONS THEREOF

Indicated potential flow before stimulation \_\_\_\_\_ BOD

Gravity and grade \_\_\_\_\_

DISCOVERY OF GAS OR INDICATIONS THEREOF

Indicated potential flow before stimulation \_\_\_\_\_ MCFD

Rock Pressure: \_\_\_\_\_ psig \_\_\_\_\_ hour test

COPY

RECORD OF STIMULATION

Full description of stimulation:

Zone 4: Price & Greenbriar Formation: 50,000 gal 70% quality foam w/72,500 #20-40 sand

Breakdown 4040 psig; Avg. Injection 3330 psig; Avg. Injection Rate 15 BPM; ISIP 1850 psig; 15-Min. Shut-In 1790 psig. Perforated See Zone 2 & 3

Zone 2: \_\_\_\_\_ Formation: \_\_\_\_\_

Breakdown \_\_\_\_\_ psig. Avg. Injection \_\_\_\_\_ psig, Avg. Injection rate \_\_\_\_\_ BPM; ISIP \_\_\_\_\_ psig, 15-Min. Shut-In \_\_\_\_\_ psig. Perforated \_\_\_\_\_

Zone 3: \_\_\_\_\_ Formation: \_\_\_\_\_

Breakdown \_\_\_\_\_ psig; Avg. Injection \_\_\_\_\_ psig; Avg. Injection Rate \_\_\_\_\_ BPM; ISIP \_\_\_\_\_ psig; 15-Min. Shut-In \_\_\_\_\_ psig. Perforated \_\_\_\_\_

Final Production check one: ( X ) after stimulation ( ) natural.

Zone 4 94.5 MCF @ 50 psi 1/2" orifice 6 hrs.

Zone 2 \_\_\_\_\_

Zone 3 \_\_\_\_\_

Final production if gas zones are comingled: 0 MCFD

\_\_\_\_\_ hours tested: \_\_\_\_\_ psig, \_\_\_\_\_ hours tested.

LE-147

API WELL NO. 45 - 105 - 20691  
STATE COUNTY PERMIT

GULF OIL EXPLORATION AND PRODUCTION CO.  
H. RONNIE MONTGOMERY AND PETER CHANCE  
#1 GULF R. MONTGOMERY

DATE: November 19, 1984

EL. - 1695.5

OPERATOR'S

WELL NO. 1 Ronnie Montgomery, et al

PENNINGTON GAP 7 1/2'



VIRGINIA OIL AND GAS INSPECTOR  
DEPARTMENT OF LABOR AND INDUSTRY  
OIL AND GAS SECTION  
205 W. Main Street  
Abingdon, Virginia 24210  
Phone 703 628-8115

COPY

REPORT OF COMPLETION OF WELL WORK

Pursuant to Regulation 4.06 of the Regulations under the Virginia Oil and Gas Act, the undersigned well operator reports completion of the type(s) of well work specified below on the referenced well in Rocky Station District, Lee County, Virginia on 21st day, October month, 1984.

WELL TYPE: Oil  / Gas  / Enhanced Recovery \_\_\_ / Waste Disposal \_\_\_  
IF "GAS", Production \_\_\_ / Underground storage \_\_\_  
Exempt by Code § 45.1-300.B.1 from general oil and conservation law: Yes \_\_\_ / NO \_\_\_

WELL WORK: Drill \_\_\_ / Deepen \_\_\_ / Redrill \_\_\_ / Stimulate \_\_\_  
Plug Off Old Formation \_\_\_ / Perforate New Formation \_\_\_  
Plug  / Replug \_\_\_  
Other physical change in well (specify) \_\_\_\_\_

The well work was done as shown in the Appendix(es) applicable to the type(s) of well work involved.

CONFIDENTIALITY STATUS UNDER CODE OF VIRGINIA § 45.1-332.

\_\_\_ Ninety days from the filing of this report,

OR

Two years from October 21, 1984, the date on which the referenced well was completed, the well being an exploratory well as defined in Code of Virginia § 45.1-288.21.

APPLICANT: GULF OIL CORPORATION

BY: Dorretta Moore  
~~NAME~~ Dorretta Moore - Sr. Clerk

ADDRESS: P.O. Box 12116  
Oklahoma City, OK 73157

TELEPHONE: (405) 949-7000

REPORT OF COMPLETION OF WELL WORK  
IF DRILLING, REDRILLING OR DEEPENING IS INVOLVED

COPY

Drilling Contractor Armstrong Drilling Company

Address P. O. Box 386, Oneida, TN 37841

Telephone 615-569-4353

Date Drilling Commenced 7/15/84

Date Drilling Completed 9/7/84

Depth of Completed Well 5560 feet

Drilling Rig Rotary X / Cable Tool          /

Geological Data	Depth	Thickenss
	<u>Top</u> <u>Bottom</u>	

Fresh water:

Salt water:

Coal seams	<u>148-150, 254-256, 286-287, 316-318,</u> <u>345-348, 356-358, 469-471, 485-489,</u> <u>542-544, 599-600, 617-619, 637-638,</u> <u>666-668, 778-780, 958-966, 1154-1158,</u> <u>1313-1315, 1435-1436, 1708-1710,</u>	<u>Name</u>	MINING IN AREA		
			<u>Yes</u>	<u>No</u>	<u>Mined Out</u>
Oil & gas:	<u>2038-2040, 2087-2090</u>	<u>Name</u>			
	<u>3780-3800 SO-SG      5376-88 SG</u> <u>3993-4002 SG,SO      5418-5428 SG</u>				

The data on depth of strata is based on the source(s) checked below

- x   Applicant's own drilling experience in area
- Information supplied by the coal operator in area
- Information already in the possession of the Inspector
- As follows: \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_

Date: November 19, 1984

Operator's  
Well No. 1 Ronnie Montgomery, et al

**COPY**

APPENDIX TO NOTICE AND APPLICATION  
IF THE WELL WORK IS PLUGGING OR REPLUGGING

Under Code of Virginia § 45.1-311.C.9, the following is submitted with respect to the plugging work:

PURPOSE OF PLUGGING

The plugging work is for the purpose checked below:

- Abandonment of the well by the well operator
- Replugging to permit the safe mining through of the well
- Partial plugging from the bottom of the hole to \_\_\_\_\_ feet below the surface, for development as a water well under Code of Virginia § 45.1-351

PLUGGING METHOD

- (i) The date when the plugging or replugging is proposed to be commenced is October 21, 1984.
- (ii) Copies of all logs in the applicant's possession not heretofore filed with the Inspector are submitted with this Notice and Application.
- (iii) The proposed manner of plugging or replugging the well is that specified in the Code section checked below:
  - 45.1-342 ("Plugging a well that does not penetrate a coal seam.")
  - 45.1-343 ("Plugging a well penetrating a coal seam without a coal protection string as provided in 45.1-334.")
  - 45.1-344 ("Plugging wells with coal protection strings installed as provided in 45.1-334".)
  - 45.1-345 ("Special plugging at the coal owner's request.")
  - 45.1-346 ("Replugging a well previously plugged.")

Date: November 19, 1984Operator's  
Well No. 1 Ronnie Montgomery, etalAPPENDIX TO REPORT OF COMPLETION OF WELL WORK  
IF THE WELL WORK INCLUDED PLUGGING OR REPLUGGINGAFFIDAVITSTATE OF Oklahoma,

COPY

COUNTY OF Oklahoma, to-wit:H. Warner and L. Klutt  
being first duly sworn, depose and say that:

They are both experienced in the plugging of wells and participated in the plugging work which is the subject of this Affidavit on the referenced well.

The plugging work was for the purpose checked below:

 Abandonment of the well by the well operator ... at the end of production or other use, after drilling, re-drilling or deepening was unsuccessful, so that the well was plugged on the verbal permission of the Inspector or his designated representative under Code of Virginia S 45.1-311.C.9, Replugging to permit the safe mining through of the well, Partial plugging from the bottom of the hole to  feet below the surface, and continued operation by the well operator, or Partial plugging from the bottom of the hole to  feet below the surface, for development as a water well under Code of Virginia S 45.1-350.The manner of plugging or replugging which was commenced on Oct. 16, 19 84, was in the manner provided by law as checked below: S 45.1-342 ("Plugging a well that does not penetrate a coal seam"), S 45.1-343 ("Plugging a well penetrating a coal seam without a coal protection string as provided in S 45.1-334"), S 45.1-344 ("Plugging wells with coal protection strings installed as provided in S 45.1-334"), S 45.1-345 ("Special plugging at the coal owner's request"), or S 45.1-346 ("Replugging a well previously plugged")

COPY.

Finally, if this affidavit concerns a well that was abandoned after plugging, deponents have verified that, in accordance with Code of Virginia S 45.1-34 a permanent marker of concrete  X / iron and concrete     / has been erected over location.

J R Warner  
L Klutts

Subscribed and sworn to before me, a Notary Public in and for the County and State aforesaid, this  November 19 , 19  84 .

My Commission expires  April 20 , 19  86 .

Mary Cahlinia  
Notary Public

COPY

RECORD OF INCLINATION

RONNIE MONTGOMERY #1, et al

SURVEYS	MEASURED DEPTH	COURSE DISPLT	ACCUM DISPLT
0.25	-50	0.2	0.2
0.50	-75	0.2	0.4
0.50	-135	0.5	1.0
0.50	-197	0.5	1.5
1.00	-258	1.1	2.6
1.75	-299	1.3	3.8
1.50	-329	0.8	4.6
1.00	-358	0.5	5.1
1.00	-388	0.5	5.6
2.00	-445	2.0	7.6
1.50	-476	0.8	8.4
1.25	-507	0.7	9.1
1.50	-537	0.8	9.9
1.25	-573	0.8	10.7
1.00	-600	0.5	11.2
1.50	-634	0.9	12.0
1.25	-665	0.7	12.7
1.00	-682	0.3	13.0
1.50	-717	0.9	13.9
1.50	-748	0.8	14.7
1.00	-780	0.6	15.3
1.25	-810	0.7	16.0
1.25	-842	0.7	16.7
1.00	-874	0.6	17.2
1.25	-905	0.7	17.9
1.25	-936	0.7	18.6
1.00	-968	0.6	19.1
1.00	-1036	1.2	20.3
2.00	-1128	3.2	23.5
2.25	-1191	2.5	26.0
2.00	-1253	2.2	28.2
2.00	-1315	2.2	30.3
1.75	-1377	1.9	32.2
2.00	-1439	2.2	34.4
2.00	-1502	2.2	36.6
2.00	-1563	2.1	38.7
2.25	-1656	3.7	42.4
2.25	-1739	3.3	45.6
2.25	-1836	3.8	49.4
3.00	-1957	6.3	55.8
2.50	-2022	2.8	58.6
3.00	-2080	3.0	61.6
3.00	-2140	3.1	64.8
3.75	-2230	5.9	70.7
3.00	-2287	3.0	73.6
3.00	-2360	3.8	77.5
2.50	-2464	4.5	82.0
2.75	-2588	5.9	87.9
3.25	-2714	7.1	95.1



3.25	-2775	3.5	98.5
3.25	-2862	4.9	103.5
2.75	-2923	2.9	106.4
2.75	-2968	2.2	108.6
3.25	-3048	4.5	113.1
3.00	-3172	6.5	119.6
3.00	-3235	3.3	122.9
3.25	-3297	3.5	126.4
3.00	-3359	3.2	129.6
2.75	-3452	4.5	134.1
2.75	-3543	4.4	138.5
2.75	-3639	4.6	143.1
2.75	-3733	4.5	147.6
2.75	-3887	7.4	155.0
2.25	-4066	7.0	162.0
2.50	-4251	8.1	170.1
3.00	-4467	11.3	181.4
2.50	-4747	12.2	193.6
3.25	-5088	19.3	212.9
2.25	-5520	17.0	229.9

**COPY**

APPENDIX TO REPORT OF COMPLETION OF WELL WORK  
ON A WELL DRILLED IN SEARCH OF OIL OR GAS

DISCOVERY OF OIL OR INDICATIONS THEREOF

Indicated potential flow before stimulation \_\_\_\_\_ BOD  
Gravity and grade \_\_\_\_\_

COPY

DISCOVERY OF GAS OR INDICATIONS THEREOF

Indicated potential flow before stimulation \_\_\_\_\_ MCFD  
Rock Pressure: \_\_\_\_\_ psig \_\_\_\_\_ hour test

RECORD OF STIMULATION

Full description of stimulation:

Zone 4: Price & Greenbrier Formation: 50,000 gal 70% quality foam w/72,500 #20-40 sand

Breakdown 4040 psig; Avg. Injection 3330 psig; Avg. Injection Rate 15 BPM;  
ISIP 1850 psig; 15-Min. Shut-In 1790 psig. Perforated See Zone 2 & 3

Zone 2: \_\_\_\_\_ Formation: \_\_\_\_\_

Breakdown \_\_\_\_\_ psig. Avg. Injection \_\_\_\_\_ psig, Avg. Injection rate \_\_\_\_\_ BPM;  
ISIP \_\_\_\_\_ psig, 15-Min. Shut-In \_\_\_\_\_ psig. Perforated \_\_\_\_\_

Zone 3: \_\_\_\_\_ Formation: \_\_\_\_\_

Breakdown \_\_\_\_\_ psig; Avg. Injection \_\_\_\_\_ psig; Avg. Injection Rate \_\_\_\_\_ BPM;  
ISIP \_\_\_\_\_ psig; 15-Min. Shut-In \_\_\_\_\_ psig. Perforated \_\_\_\_\_

Final Production check one: ( X ) after stimulation ( ) natural.

Zone 4 94.5 MCF @ 50 psi 1/2" orifice 6 hrs.

Zone 2 \_\_\_\_\_

Zone 3 \_\_\_\_\_

Final production if gas zones are comingled: 0 MCFD

\_\_\_\_\_ hours tested: \_\_\_\_\_ psig, \_\_\_\_\_ hours tested.

DATE: November 19, 1984

OPERATOR'S

WELL NO. 1 Ronnie Montgomery, etal

APPENDIX TO REPORT OF COMPLETION OF WELL WORK  
ON A WELL DRILLED IN SEARCH OF OIL OR GAS

DISCOVERY OF OIL OR INDICATIONS THEREOF

Indicated potential flow before stimulation 0 BOD

Gravity and grade \_\_\_\_\_

**COPY**

DISCOVERY OF GAS OR INDICATIONS THEREOF

Indicated potential flow before stimulation 0 MCFD

Rock Pressure: \_\_\_\_\_ psig \_\_\_\_\_ hour test

RECORD OF STIMULATION

Full description of stimulation:

Zone 1: Clinch Sd Formation: \_\_\_\_\_

1500 GAL 15% FeHCl acid

Breakdown 800 psig; Avg. Injection 1250 psig; Avg. Injection Rate 3 BPM;

ISIP 1200 psig; ~~15~~ Min. Shut-In 850 psig. Perforated \_\_\_\_\_  
1 hr.

Zone 2: Price Sd Formation: \_\_\_\_\_

5000 GAL 70% Quality Foamed 15% FeHCl acid

Breakdown 2250 psig. Avg. Injection 2800 psig, Avg. Injection rate \_\_\_\_\_ BPM;

ISIP 1850 psig, ~~15~~ Min. Shut-In 1650 psig. Perforated 4076-90', 4054-70', 4030-42'  
10

Zone 3: Greenbriar Lm Formation: \_\_\_\_\_

5000 GAL 70% Quality Foamed 15% FEHCl

Breakdown 2100 psig; Avg. Injection \_\_\_\_\_ psig; Avg. Injection Rate \_\_\_\_\_ BPM;

ISIP 1850 psig; ~~15~~ Min. Shut-In 1600 psig. Perforated 3764-3794  
10

Final Production check one: ( X ) after stimulation ( ) natural.

Zone 1 NSO&G Well Swb dry to 5140' 48 hrs.

Zone 2 34 MCFD @ 12 psi 1/4" orifice trace of oil 8 hrs.

Zone 3 34 MCFD @ 12 psi 1/2" orifice trace of oil 3 hrs.

Final production if gas zones are comingled: 0 MCFD

\_\_\_\_\_ hours tested: \_\_\_\_\_ psig, \_\_\_\_\_ hours tested.

COPY

DRILLER'S LOGCOMPILED BY Donald D. Pack

<u>Geologic Age</u>	<u>Formation</u>	<u>General</u>		<u>Depth Fts</u>		<u>Thickness</u>	<u>Remarks</u>
		<u>Lithology</u>	<u>Color</u>	<u>Top</u>	<u>Bottom</u>		
Pennsylvanian	Norton Fm			0-620		620	
"	Lee Fm			620-2142		1522	
Mississippian	Pennington Group			2142-3100		958	
"	Bluestone Fm			2142-2594		454	
"	Princeton Ss			2594-2660		66	
"	Hinton Fm			2660-3100		440	
"	Bluefield Fm			3100-3460		360	
"	Greenbriar Ls			3460-3800		340	
"	MacCraday-Price			3800-4212		412	
"	Sunbury Shale			4212-4224		12	
"	Berea Ss			4224-4260		36	
Devonian	Devonian Shales			4260-4795		535	
Silurian	Coruiferous			4795-5008		213	
"	Clinton Shale			5008-5328		320	
"	Clinch SS			5328-5434		106	
"	Hagan Shale			5435-5510		76	
Ordovician	Sequatchie Fm			5510-5560		50	

Complete on supplemental sheets as necessary

CASING AND TUBING PROGRAM

COPY

PRELIMINARY INFORMATION

Is the subject well underlaid by the red shales? YES X / No      /  
If "YES", was a coal protection string set to the red shales? YES X / NO      /

PROGRAM DETAILS

<u>SIZE</u>	<u>TOP</u>	<u>BOTTOM</u>	<u>LENGTH</u>	<u>PERFORATED</u>	
				<u>FROM</u>	<u>TO</u>

<u>Conductor</u>					
30	SFC	17	17		

Casing circulated and cemented in to the surface:

20	SFC	60	60		
----	-----	----	----	--	--

Coal protection casing set under the special rule of Code of Virginia S 45.1-334.B:

13-3/8	SFC	671	671		
--------	-----	-----	-----	--	--

Other casing and tubing left in the well:

7	SFC	5281	5281	4076-4090	
				4054-4070	
				4030-4042	
				3764-3794	

Liners left in well, under Code of Virginia S 45.1-336 or otherwise:

-----

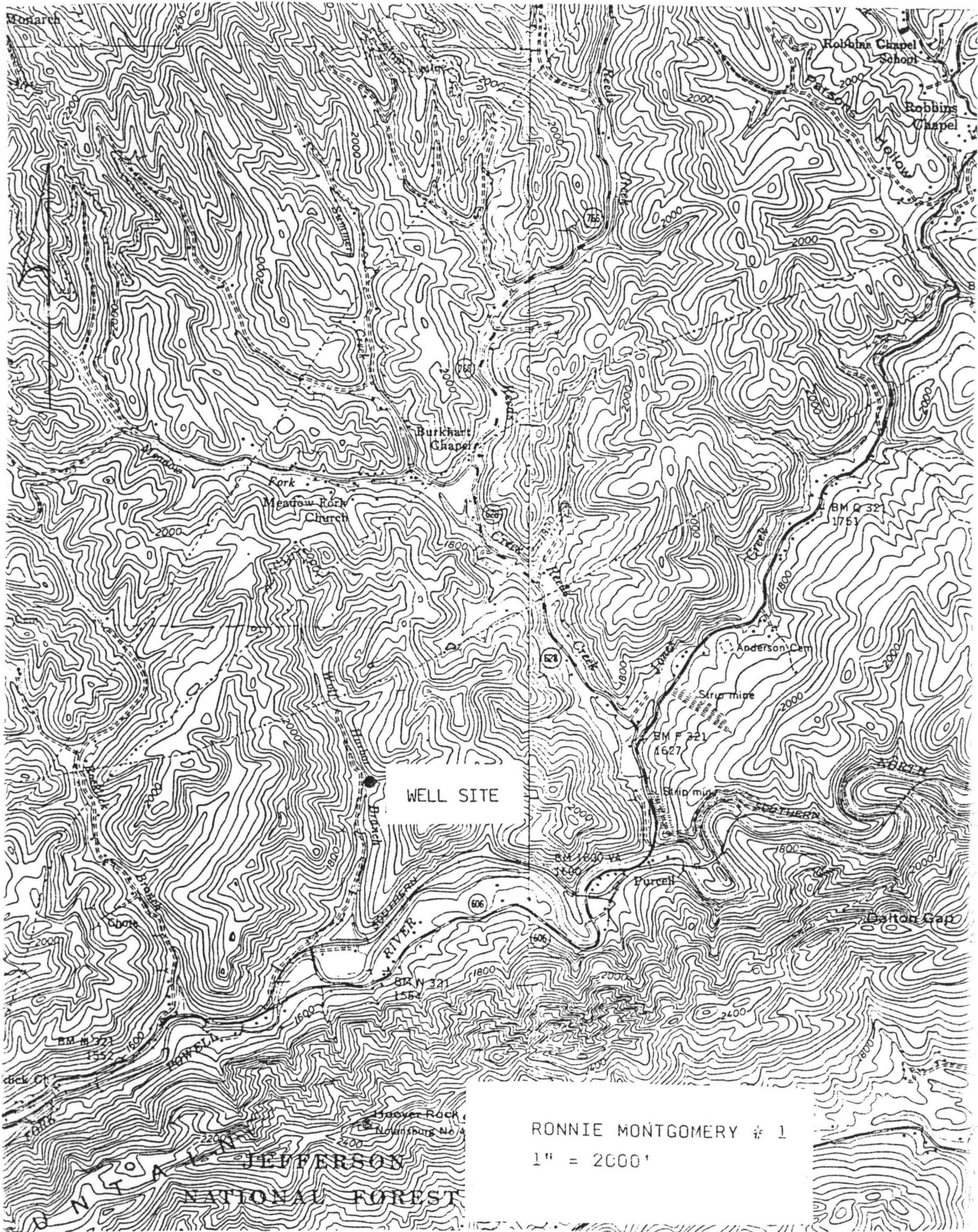
Other casing used in drilling but not left in the well:

<u>Packers or bridge plugs:</u>	<u>Kind</u>	<u>Size</u>	<u>Set At</u>
	Baker CIBP	7"	4800'

REMARKS (SHUT DOWN DEPTHS, DATES: FISHING JOB DEPTHS, DATES: CAVING: ETC.)

SAMPLES AND CUTTINGS

will <u>    </u> /	will not <u>    </u> /	be available for examination by a member of the Division of Mineral Resources
will <u>X</u> /	will not <u>    </u> /	be furnished the Division of Mineral Resources upon request
will <u>    </u> /	will not <u>    </u> /	require sacks to be furnished by the Division of Mineral Resources



RONNIE MONTGOMERY # 1

1" = 2000'

LE-147

COPY

DRILLER'S LOGCOMPILED BY Donald D. Pack

<u>Geologic Age</u>	<u>Formation</u>	<u>General</u>		<u>Depth Fts</u>		<u>Thickness</u>	<u>Remarks</u>
		<u>Lithology</u>	<u>Color</u>	<u>Top</u>	<u>Bottom</u>		
Pennsylvanian	Norton Fm			0-620		620	
"	Lee Fm			620-2142		1522	
Mississippian	Pennington Group			2142-3100		958	
"	Bluestone Fm			2142-2594		454.2	
"	Princeton Ss			2594-2660		66	
"	Hinton Fm			2660-3100		440	
"	Bluefield Fm			3100-3460		360	
"	Greenbriar Ls			3460-3800		340	
"	MacCraday-Price			3800-4212		412	
"	Sunbury Shale			4212-4224		12	
"	Berea Ss			4224-4260		36	
Devonian	Devonian Shales			4260-4795		535	
Silurian	Coruiferous			4795-5008		213	
"	Clinton Shale			5008-5328		320	
"	Clinch SS			5328-5434		106	
"	Hagan Shale			5434-5435		76	
Ordovician	Sequatchie Fm			5510-5560		50	

Complete on supplemental sheets as necessary

VIRGINIA DIVISION OF MINERAL RESOURCES  
 Box 3667, Charlottesville, VA 22903

INTERVAL SHEET

Page 1 of 3

Well Repository No.: W- 7264

Date Rec'd: Date Processed: 8/18/92

Sample Interval: From: 460 To: 5560

Property: Ronnie Montgomery No. 1 (LE-147)

Number of Samples: 490

Company: GULF oil Corp.

Total Depth: 5560

County: Lee PG

Oil or Gas:  Water:  Exploratory:

From-To	From-To	From-To	From-To	From-To
-	750-60	1050-60	1350-60	1650-60
460-70	760-70	1060-70	1360-70	1660-70
470-80	770-80	1070-80	1370-80	1670-80
480-90	780-90	1080-90	1380-90	1680-90
490-500	790-500	1090-1100	1390-1400	1690-1700
500-10	N-R	1100-10	1400-10	1700-10
510-20	810-20	1110-20	N-R	1710-20
520-30	820-30	1120-30	1420-30	1720-30
530-40	830-40	1130-40	1430-40	1730-40
540-50	840-50	1140-50	1440-50	1740-50
550-60	850-60	1150-60	1450-60	1750-60
560-70	860-70	1160-70	1460-70	1760-70
570-80	870-80	1170-80	1470-80	1770-80
580-90	880-90	1180-90	1480-90	1780-90
590-600	890-900	1190-1200	1490-1500	1790-1800
600-10	900-10	N-R	1500-10	1800-10
610-20	910-20	1210-20	1510-20	1810-20
620-30	920-30	N-R	1520-30	1820-30
630-40	930-40	1230-40	1530-40	1830-40
640-50	940-50	1240-50	1540-50	1840-50
650-60	950-60	1250-60	1550-60	1850-60
660-70	960-70	N-R	1560-70	1860-70
670-80	970-80	1270-80	1570-80	1870-80
680-90	980-90	1280-90	1580-90	1880-90
690-700	990-1000	1290-1300	1590-1600	1890-1900
N-R	1000-10	1300-10	1600-10	1900-10
N-R	1010-20	1310-20	1610-20	1910-20
720-30	1020-30	N-R	1620-30	1920-30
730-40	1030-40	1330-40	1630-40	1930-40
740-50	1040-50	1340-50	1640-50	1940-50

NR - no sample returned



VIRGINIA DIVISION OF MINERAL RESOURCES  
 Box 3667, Charlottesville, VA 22903

INTERVAL SHEET  
 Continued

Page 2 of 3

Well Repository No.: W- 7264

From-To	From-To	From-To	From-To	From-To
1950-60	2350-60	2750-60	50-60	50-60
1960-70	2360-70	2760-70	60-70	NR
1970-80	2370-80	2770-80	70-80	70-80
1980-90	2380-90	2780-90	80-90	80-90
1990-2000	2390-2400	2790-2800	90-3200	90-3600 193
2000-10	2400-10	2800-10	3200-10	3600-10
2010-20	2410-20	2810-20	3210-20	3610-20
2020-30	2420-30	2820-30	3220-30	3620-30
2030-40	2430-40	2830-40	3230-40	3630-40
2040-50	2440-50	2840-50	3240-50	3640-50
2050-60	2450-60	2850-60	3250-60	3650-60
2060-70	2460-70	2860-70	3260-70	NR
2070-80	2470-80	2870-80	3270-80	3670-80
2080-90	2480-90	2880-90	3280-90	3680-90
2090-2100	2490-2500	2890-2900	3290-3300	3690-3700
2100-10	2500-10	2900-10	3300-10	3700-10
2110-20	2510-20	2910-20	3310-20	3710-20
2120-30	2520-30	2920-30	3320-30	3720-30
2130-40	2530-40	2930-40	3330-40	NR
2140-50	2540-50	2940-50	3340-50	NR
2150-60	2550-60	2950-60	3350-60	3750-60
2160-70	2560-70	2960-70	3360-70	3760-70
2170-80	2570-80	2970-80	3370-80	3770-80
2180-90	2580-90	2980-90	3380-90	3780-90
2190-2200	2590-2600	2990-3000	3390-3400	3790-3800
2200-10	2600-10	3000-10	3400-10	3800-10
2210-20	2610-20	3010-20	3410-20	3810-20
2220-30	2620-30	3020-30	3420-30	3820-30
2230-40	2630-40	3030-40	3430-40	3830-40
2240-50	2640-50	3040-50	3440-50	3840-50
2250-60	2650-60	3050-60	NR	3850-60
2260-70	2660-70	3060-70	3460-70	3860-70
2270-80	2670-80	3070-80	3470-80	3870-80
2280-90	2680-90	3080-90	3480-90	3880-90
2290-2300	2690-2700	3090-3100	3490-3500	3890-3900
2300-10	2700-10	3100-10	3500-10	3900-10
2310-20	2710-20	3110-20	10-20	3910-20
2320-30	2720-30	3120-30	20-30	3920-30
2330-40	2730-40	3130-40	30-40	3930-40
2340-50	2740-50	3140-50	40-50	3940-50

VIRGINIA DIVISION OF MINERAL RESOURCES  
 Box 3667, Charlottesville, VA 22903

INTERVAL SHEET  
 Continued

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Well Repository No.: W- 7264

From-To	From-To	From-To	From-To	From-To
3950-60	4350-60	4750-60	5150-60	5550-60
3960-70	4360-70	4760-70	5160-70	-
3970-80	4370-80	4770-80	5170-80	-
N-R	4380-90	4780-90	5180-90	-
3990-4000	4390-4400	4790-4800	5190-5200	-
N-R	N-R	4800-10	5200-10	-
N-R	4410-20	4810-20	5210-20	-
N-R	4420-30	4820-30	5220-30	-
N-R	4430-40	4830-40	5230-40	-
N-R	4440-50	4840-50	5240-50	-
4050-60	4450-60	4850-60	5250-60	-
4060-70	4460-70	4860-70	5260-70	-
4070-80	4470-80	4870-80	5270-80	-
4080-90	4480-90	4880-90	5280-90	-
4090-4100	4490-4500	4890-4900	5290-5300	-
4100-10	4500-10	4900-10	5300-10	-
4110-20	4510-20	4910-20	N-R	-
4120-30	4520-30	4920-30	5320-30	-
4130-40	4530-40	4930-40	5330-40	-
4140-50	4540-50	4940-50	5340-50	-
4150-60	4550-60	4950-60	5350-60	-
4160-70	4560-70	4960-70	5360-70	-
4170-80	4570-80	4970-80	5370-80	-
4180-90	4580-90	4980-90	5380-90	-
4190-4200	4590-4600	4990-5000	5390-5400	-
4200-10	4600-10	5000-10	5400-10	-
4210-20	4610-20	5010-20	5410-20	-
4220-30	4620-30	5020-30	5420-30	-
4230-40	4630-40	5030-40	5430-40	-
4240-50	4640-50	5040-50	5440-50	-
4250-60	4650-60	5050-60	5450-60	-
4260-70	4660-70	5060-70	5460-70	-
4270-80	4670-80	5070-80	5470-80	-
4280-90	4680-90	5080-90	5480-90	-
4290-4300	4690-4700	5090-5100	5490-5500	-
4300-10	4700-10	5100-10	5500-10	-
4310-20	4710-20	5110-20	5510-20	-
4320-30	4720-30	5120-30	5520-30	-
N-R	4730-40	5130-40	5530-40	-
4340-50	4740-50	5140-50	5540-50	-