

OIL AND GAS WELL  
SUMMARY REPORT

API No. 45-051-20774-00-03 VDMR Well Rep. No. \_\_\_\_\_

Operator PHILADELPHIA OIL COMPANY DMQ File No. DI-232

Farm JESSE WAMPLER

Co. Well No. P-158

County DICKENSON Quadrangle NORA 7 1/2'

Location (UTM) N4,101,680; E388,070 UTM Zone 17  
(Lat. and Long.) \_\_\_\_\_

Field \_\_\_\_\_ Province APPALACHIAN PLATEAUS

Elev. (specify) 1915.99'GR TD 6345 Form. at TD DEVONIAN SHALE

INITIAL FLOW 103,000 CU. FT. Age DEVONIAN

Date compl. or abandoned OCTOBER 17, 1985

Result GAS WELL

Gas Shows \_\_\_\_\_

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

Main Production \_\_\_\_\_ Prod. Form. BEREA, WEIR

FINAL FLOW ON 323,000 CU. FT., ESTIMATED Age MISSISSIPPIAN

Treatment: BEREA-75 QUALITY FOAM AND 50,000 POUNDS OF SAND, 784,000 SCF OF N2 AND 347 BARRELS OF FLUID. WEIR-FOAM FRAC AND 45,000 POUNDS OF SAND, 718,000 SCF OF N2 AND 322 BARRELS OF FLUID

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

Oil shows \_\_\_\_\_

Water FW YES at 80' at \_\_\_\_\_ at \_\_\_\_\_  
SW \_\_\_\_\_ at \_\_\_\_\_ at \_\_\_\_\_ at \_\_\_\_\_

Coal 235' TO 238', 255' TO 260'; 405' TO 408'; 486' TO 490'; 508' TO 511'; 635' TO 638'

Plat Plotted Completion Report X 1170' TO 1173';(ba

Drillers Log X Geologic Log \_\_\_\_\_

Samples \_\_\_\_\_ Interval Sheet \_\_\_\_\_

Sample Interval \_\_\_\_\_

Remarks \_\_\_\_\_

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

Density \_\_\_\_\_ Sonic \_\_\_\_\_ Other \_\_\_\_\_

Stratigraphic Data Source

BRINT CAMP

Formation	Top	Datum (Subsea)	Thickness
SAND AND SHALE	0	+ 1915.99	2796
RAVENCLIFF	2796	- 880.01	159
LITTLE STONE GAP	2955	- 1039.01	73
SHALE	3028	- 1112.01	370
MAXON	3398	- 1482.01	389
SAND AND SHALE	3787	- 1871.01	153
LITTLE LIME	3940	- 2024.01	64
LIME AND SHALES	4004	- 2088.01	156
BIG LIME	4160	- 2244.01	556
KEENER	4718	- 2800.01	54
WEIR	4770	- 2854.01	508
Remarks COFFEE SHALE	5278	- 3362.01	80
BEREA	5358	- 3442.01	67
DEVONIAN SHALE	5425	- 3509.01	920

References

Released to Open File: Completion FEBRUARY 4, 1986

Samples NONE

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

1542' TO 1545'; 1663' TO 1666'

01-232

FORM 16

API WELL NO. 45 - 051 - 20774

State            County            Permit           

Date: October 28, 1985

Operator's Well

Name Jesse Wampler No. P-158

API 11/85

DI-232 /  
NORA 7 1/2'  
SUR. EL → 1915.99  
2015.9



VIRGINIA OIL AND GAS INSPECTOR  
205 W. MAIN STREET  
ABINGDON, VA 24210  
703-628-8115

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 Kenady District, Dickenson County, Virginia on 17 day, October month, 19 85.

WELL TYPE: Oil        / Gas x / Enhanced recovery        / waste Disposal        / If "Gas", Production x / Underground Storage        /  
Exempt by Code Section 45.1-300.B.1. from general oil and gas conservation law: yes        / no        /

WELL WORK: Drill x / 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 SECTION 45.1-332.

- x   Ninety days from the filing of this report OR
- Two years from                   , 19   , the date on which the referenced well was COMPLETED, the well being an exploratory well as defined in Code of Virginia Section 45.1-288.21.

APPLICANT: Philadelphia Oil Company  
BY Brint Camp  
ITS District Geologist  
ADDRESS 1101 N. Eastman Rd., Kingsport, TN 37664  
TELEPHONE 615-246-4332

FORM 16  
APPENDIX A,  
SHEET 1, (OBVERSE)

API WELL NO. 45 - 051 - 20774  
State County Permit  
Date: October 28, 1985  
Operator's Well  
Name Jesse Wampler No. P-158

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

DRILLING CONTRACTOR Union Drilling  
ADDRESS 1101 N. Eastman Rd., Kingsport, TN 37664  
TELEPHONE 615-246-4332

GEOLOGICAL TARGET FORMATION Brown Shale  
DEPTH OF COMPLETED WELL 6345 FEET  
DATE DRILLING COMMENCED 9-4-85  
DATE DRILLING COMPLETED 9-19-85  
DRILLING RIG: ROTARY X / CABLE TOOL        /

GEOLOGICAL DATA      Depth      Thickness  
                            Top      Bottom

Fresh water      80'

Salt water

MINING IN AREA  
Name      Yes      No      Mined Out

Coal Seams      235-238, 255-260, 405-408, 486-490, 508-511, 635-638, 682-685, 695-699,  
765-767, 777-779, 937-939, 1109-1112, 1170-1173, 1542-1545, 1663-1666

Oil      Formation

Gas      4692      Formation  
  Big Lime

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

- Applicant's own drilling experience in the area  
 Information supplied by the coal operator in the area  
 Information already in possession of the Inspector  
 Other (as follows) \_\_\_\_\_

Form 16  
Appendix A, Sheet 1 (Reverse)  
Continued from Obverse side

#### OTHER GENERAL INFORMATION

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

An electric log survey was \_\_\_X\_/ was not \_\_\_/ run for other purposes. This survey did \_\_\_/ did not \_\_\_X\_/ 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 Section 45.1-333.B.3.

Deviation surveys were \_\_\_X\_/ were not \_\_\_/ required under Code of Virginia Section 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 \_\_\_X\_/ required under Code of Virginia Section 45.1-333.C.

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

#### CHANGES IN THE PERMITTED WELL WORK

The well operator did \_\_\_/ did not \_\_\_X\_/ 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 insuring 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.

CASING AND TUBING PROGRAM

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     /

	SIZE	TOP	BOTTOM	LENGTH	PERFORATIONS FROM	TO
<u>CONDUCTOR:</u>	11-3/4	Surface	13			
<u>CASING CIRCULATED AND CEMENTED IN TO SURFACE:</u>	8-5/8	Surface	2374			

COAL PROTECTION CASING SET UNDER SPECIAL RULE OF CODE OF VIRGINIA 45.1-334.B:

<u>OTHER CASING AND TUBING LEFT IN WELL;</u>	4-1/2"	Surface	6312	6256 - 6314		
				5366 - 5423		
				4809 - 4878		

LINERS LEFT IN WELL UNDER CODE OF VIRGINIA SECTION 45.1-336 OR OTHERWISE:

	2-3/8"	Surface	5369			
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<u>PACKERS OR BRIDGE PLUGS:</u>	<u>KIND</u>	<u>SIZE</u>	<u>SET AT</u>
	Butler Larkin	4½"X2"	4982

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

SAMPLES AND CUTTINGS

WILL X WILL NOT     BE AVAILABLE FOR EXAMINATION BY A MEMBER OF THE VIRGINIA DIVISION OF MINERAL RESOURCES  
 WILL X WILL NOT     BE FURNISHED THE VIRGINIA DIVISION OF MINERAL RESOURCES UPON REQUEST  
 WILL     WILL NOT X REQUIRE SACKS TO BE FURNISHED BY THE VIRGINIA DIVISION OF MINERAL RESOURCES.

DRILLER'S LOG

DI-232

Compiled by Brint Camp

Geolo- gical Age	Formation	General Lithology	Color	Depth (feet)		Thickness	Remarks
				Top	Bottom		
	Sand & Shale			0	2796	2796	
	Ravencliff			2796	2955	159	
	Little Stone Gap			2955	3028	73	
	Shale			3028	3398	370	
	Maxon Sands			3398	3787	389	
	Sand & Shale			3787	3940	153	
	Little Lime			3940	4004	64	
	Lime & Shales			4004	4160	156	
	Big Lime			4160	4716	556	
	Keener			4718 <sup>6</sup>	4770	52 <sup>4</sup>	
	Weir			4770	5278	508	
	Coffee Shale			5278	5358	80	
	Berea			5358	5425	67	
	Brown Shale			5425	6345	920	
	Logger's T.D.			6345			

Complete on supplemental sheet as necessary

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 103 MCFD  
 Rock pressure: N/A psig \_\_\_\_\_ hour test

RECORD OF STIMULATION

Full description of stimulation:

Zone 1: Brown Shale Formation L. Huron  
 The Brown Shale could not be broken down so it wasn't treated.

Perforated 6256-6314 # Perfs. 15 Perf. Size .4  
 Breakdown 3700 psig. Avg. Injection N/A psig.  
 Avg. I.R. N/A BPM Init. S.I.P. 400 psig 15 Min. S.I.P. \_\_\_\_\_ psig

Zone 2: Berea Formation  
 The Berea was stimulated with a 75 Q foam and 50,000 # sand,  
 784,000 scf N<sub>2</sub> and 347 Bbl. fluid.  
 Perforated 5366-5423 # Perfs. 16 Perf. Size .4  
 Breakdown 2270 psig. Avg. Injection 2360 psig.  
 Avg. I.R. 10 BPM Init. S.I.P. 1900 psig 15 Min. S.I.P. \_\_\_\_\_ psig

Zone 3: Weir Formation  
 The Weir was treated with a foam frac and 45,000 # sand,  
 718,000 scf N<sub>2</sub> and 322 Bbl. fluid.  
 Perforated 4809-4878 # Perfs. 15 Perf. Size .4  
 Breakdown 2000 psig. Avg. Injection 2550 psig.  
 Avg. I.R. 9 BPM Init. S.I.P. 1804 psig 15 Min. S.I.P. \_\_\_\_\_ psig

Final production ( ) natural ( X ) after stimulation

	BOD	MCFD	Hours Tested	Rock Pressure	Hours Tested
Zone 1:	_____	<u>0</u>	_____	_____	_____
Zone 2:	_____	<u>211</u>	<u>7</u>	<u>545</u>	<u>48</u>
Zone 3:	_____	<u>112</u>	<u>7</u>	<u>540</u>	<u>48</u>

Final production if gas zones are comingled: \_\_\_\_\_ MCFD

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



DIRECTIONAL SURVEY

P-158

DEPTH

199'  
413'  
597'  
821'  
1007'  
1198'  
1416'  
1601'  
1820'  
2007'  
2196'  
2414'

DEGREES

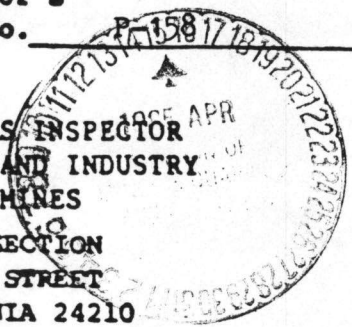
1/2°  
1/4°  
1/4°  
3/4°  
1/4°  
2°  
2°  
2°  
2°  
1-3/4°  
2°  
1-3/4°

(FOR OFFICE USE ONLY) AP Well No. 45 - - -  
State County Permit

Date: February 20, 19 85

Operator's Well No. \_\_\_\_\_

W-232  
VIRGINIA OIL AND GAS INSPECTOR  
DEPARTMENT OF LABOR AND INDUSTRY  
DIVISION OF MINES  
OIL AND GAS SECTION  
205 W. MAIN STREET  
ABINGDON, VIRGINIA 24210  
PHONE 703 628-8115



WELL PLAT

+ Denotes location of well on United States Topographic Maps, scale 1 to 24,000. Latitude and longitude lines are represented by border lines as shown.

This plat is new X / updated     /

This plat is X / is not     / based on a mine coordinate system established for the areas of the well location.

Well operator Philadelphia Oil Company  
1101 N. Eastman Road  
Address Kingsport, TN. 37664  
Farm Jesse Wampler  
Tract T-193 Acres 3157.09 Lease No. PO-148  
Elevation 1915.99'  
Quadrangle Nora, VA.  
County Dickenson District ~~Kenady~~ Ervinton  
Registered Engineer \_\_\_\_\_ Registration No. \_\_\_\_\_  
Certified Land Surveyor \_\_\_\_\_ Cert. No. \_\_\_\_\_  
File No. \_\_\_\_\_ Drawing No. \_\_\_\_\_  
Date 2-20-1985 Scale 1"=400'

Certification of Well Plat

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 of the Virginia Well Review Board.

Luther Perkins Jr. 70-811  
Registered Engineer or Certified Land Surveyor  
in Charge

2500'

Latitude 37° 05' 00"

Longitude 82° 15' 00"

9700'

WELL NO. P-141

N. 36° 30' W  
2525'

LICK

CREEK

WELL No. P-159

N. 38° 41' E  
1917.05'

PO-148 (T-193)  
JESSE WAMPLER  
3157.09 AC.

ROCKY TOP DEVELOPMENT, INC. - SURFACE

N. 00° 45' E 105.01'

WELL No. P-158

S. 15929.05

E. 36482.36

I.P.

I.P.

N. 50° 44' E 77.6'

S. 58° 15' E  
1870'

S. 35° 30' E  
1920'

C.O.

MAPLE

B.O.

