

EUR=273

WR-35

31-Oct-88

API # 47- 21-04729

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

Well Operator's Report of Well Work

Farm name: NUTTER, L. ONIDEE ET VIR Operator Well No.: REED A-1A 549

LOCATION: Elevation: 724.00 Quadrangle: TANNER

District: DEKALB County: GILMER
Latitude: 1490 Feet South of 38 Deg. 57Min. 30 Sec.
Longitude: 7380 Feet West of 80 Deg. 52 Min. 30 Sec.

Company: WACO OIL & GAS CO., INC.
1297 N. LEWIS ST.
GLENNVILLE, WV

Asent: STEPHEN E. HOLLOWAY

Inspector: CRAIG DUCKWORTH
Permit Issued: 11/01/88
Well work Commenced: 01/29/90
Well work Completed: 02/03/90

Verbal Flusings
Permission granted on:
Rotary Cable Ris
Total Depth (feet) 6010
Fresh water depths (ft) 60'
Salt water depths (ft)

Casings & Tubins Size	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
8-5/8"	706	706	C. T. S.
4-1/2"		5,943	685 Sk.

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APR 06 1990

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

OPEN FLOW DATA

DIVISION OF OIL & GAS
DEPARTMENT OF ENERGY

Producing formation Shale, Elk, Alexander, Benson Pay zone depth (ft) See Treatment

Gas: Initial open flow _____ MCF/d Oil: Initial open flow _____ Bbl/d
 Final open flow 1858 MCF/d Final open flow _____ Bbl/d
 Time of open flow between initial and final tests 4 Hours
 Static rock Pressure 1590 psid (surface pressure) after 48 Hours See

Second producing formation Balltown, Riley, Speechly Pay zone depth (ft) Treatment

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 _____ psid (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: WACO OIL & GAS CO., INC.

By: Daniel R. Chapman, Geologist
Date: March 29, 1990

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

- 1st stage: Devonian Shale (5888-5136) 1000 gal 15% HCL, 40 ton CO₂, 594 mcf N₂
- 2nd stage: Elk, Alexander (4887-4526) 675 gal 15% HCL, 40 ton CO₂, 837 mcf N₂
- 3rd stage: Benson, Riley, Balltown (4269-3663) 675 gal 15% HCL, 40 ton CO₂, 935 mcf N₂
- 4th stage: Balltown, Speechly (3573-2774) 675 gal HCL, 40 ton CO₂, 971 mcf N₂

WELL LOG

FORMATION	COLOR	HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS Including indication of all fresh and salt water, coal, oil and gas
Sand, Shale			0	139	<p>1-1/2" stream H₂O @ 60'</p> <div style="text-align: center;"> <p>RECEIVED</p> <p>APR 06 1990</p> <p>DIVISION OF OIL & GAS DEPARTMENT OF ENERGY</p> </div> <p>T. D.</p>
Sand, Shale, Red Rock			139	405	
Sand, Shale			405	1384	
Little Lime			1384	1411	
Blue Monday			1411	1431	
Big Lime			1431	1492	
Big Injun			1492	1583	
Sand, Shale			1583	2760	
Speechly Section			2760	3054	
Shale			3054	3130	
Balltown Section			3130	3775	
Riley Section			3775	4211	
Shale			4211	4261	
Benson			4261	4270	
Shale			4270	4502	
Alexander			4502	4562	
Shale			4562	4705	
Elk Section			4705	4891	
Shale			4891	6010	

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