

NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Revised 12-1-55

Pool Alinebry Formation Alinebry County Lee

Initial _____ Annual _____ Special X Date of Test 6-3-55

Company Continental Oil Company Lease Block 1-9 Well No. 2

Unit J Sec. 9 Twp. 21 Rge. 37 Purchaser El Paso Natural Gas Co.

Casing 7" Wt. 23 I.D. 6.360 Set at 6074 Perf. 5652 To 5890

Tubing 2.5" Wt. 6.5 I.D. 2.441 Set at 6081 Perf. _____ To _____

Gas Pay: From 5652 To 5890 L 5652 xGL .794 -GL 4488 Bar.Press. 13.2

Producing Thru: Casing X Tubing _____ Type Well G. O. Dual

Date of Completion: 6-31-55 Packer 0575 Single-Bradenhead-G. G. or G.O. Dual
Reservoir Temp. 1160

OBSERVED DATA

Tested Through PROVER (CHOKER) (Meter) Type Taps Flange

No.	Flow Data					Tubing Data		Casing Data		Duration of Flow Hr.
	(Line) Size	(Orifice) Size	Press. psig	Diff. h_w	Temp. °F.	Press. psig	Temp. °F.	Press. psig	Temp. °F.	
SI							<u>1714/1727/1730</u>			<u>24/48/72</u>
1.	<u>4"</u>	<u>2.000</u>	<u>546</u>	<u>17.38</u>	<u>46</u>			<u>1386</u>		<u>24</u>
2.	<u>4"</u>	<u>2.000</u>	<u>566</u>	<u>32.49</u>	<u>75</u>			<u>1283</u>		<u>24</u>
3.	<u>4"</u>	<u>2.000</u>	<u>570</u>	<u>51.84</u>	<u>73</u>			<u>1161</u>		<u>24</u>
4.	<u>4"</u>	<u>2.000</u>	<u>573</u>	<u>72.23</u>	<u>73</u>			<u>1036</u>		<u>24</u>
5.										

FLOW CALCULATIONS

No.	Coefficient Flange (24-Hour)	$\sqrt{h_w P_f}$	Pressure psia	Flow Temp. Factor F_t	Gravity Factor F_g	Compress. Factor F_{pv}	Rate of Flow Q-MCFPD @ 15.025 psia	Rate of Flow Q-MCFPD @ 15.025 psia
1.	<u>25.58</u>	<u>104.03</u>		<u>.9757</u>	<u>.9292</u>	<u>1.054</u>	<u>2.543</u>	<u>59.29</u>
2.	<u>25.58</u>	<u>136.92</u>		<u>.9859</u>	<u>.9292</u>	<u>1.063</u>	<u>3.402</u>	<u>125.33</u>
3.	<u>25.58</u>	<u>173.64</u>		<u>.9877</u>	<u>.9292</u>	<u>1.064</u>	<u>4.342</u>	<u>175.89</u>
4.	<u>25.58</u>	<u>205.76</u>		<u>.9877</u>	<u>.9292</u>	<u>1.064</u>	<u>5.139</u>	<u>227.53</u>
5.								

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio 20.233 cf/bbl.

Gravity of Liquid Hydrocarbons .865 deg.

F_c (1-e^{-S}) 1.266

Specific Gravity Separator Gas .695

Specific Gravity Flowing Fluid .794

P_c 1743.2 P_c^2 3038.7

No.	P_t (psia)	P_t^2	$F_c Q$	$(F_c Q)^2$	$(F_c Q)^2 (1-e^{-S})$	P_w^2	$P_c^2 - P_w^2$	Cal. P_w	P_w / P_c
1.	<u>1377.2</u>	<u>1890.6</u>	<u>2.20</u>	<u>4.84</u>	<u>1.47</u>	<u>1955.1</u>	<u>1079.6</u>	<u>1397.7</u>	<u>60.29</u>
2.	<u>1298.2</u>	<u>1685.3</u>	<u>2.74</u>	<u>7.54</u>	<u>4.33</u>	<u>1587.0</u>	<u>1551.1</u>	<u>1297.1</u>	<u>74.52</u>
3.	<u>1174.2</u>	<u>1378.7</u>	<u>3.76</u>	<u>14.14</u>	<u>3.76</u>	<u>1382.5</u>	<u>1656.2</u>	<u>1175.8</u>	<u>67.45</u>
4.	<u>1047.2</u>	<u>1100.8</u>	<u>4.43</u>	<u>19.67</u>	<u>5.27</u>	<u>1106.1</u>	<u>1932.6</u>	<u>1051.7</u>	<u>60.33</u>
5.									

Absolute Potential: 3,000 MCFPD; n 1.310

COMPANY Continental Oil Company

ADDRESS Box 66, Eunice, New Mexico

AGENT and TITLE J.R. [Signature]

WITNESSED _____

COMPANY _____

REMARKS

slope of 1.000 drawn thru highest rate of flow.

MM-1-55 and MM-2-55 File-2

WIS A. [Signature]
GAS ENGINEER

[Signature]

INSTRUCTIONS

This form is to be used for reporting multi-point back pressure tests on gas wells in the State, except those on which special orders are applicable. Three copies of this form and the back pressure curve shall be filed with the Commission at Box 871, Santa Fe.

The log log paper used for plotting the back pressure curve shall be of at least three inch cycles.

NOMENCLATURE

Q = Actual rate of flow at end of flow period at W. H. working pressure (P_w).
MCF/da. @ 15.025 psia and 60° F.

P_c = 72 hour wellhead shut-in casing (or tubing) pressure whichever is greater.
psia

P_w = Static wellhead working pressure as determined at the end of flow period.
(Casing if flowing thru tubing, tubing if flowing thru casing.) psia

P_t = Flowing wellhead pressure (tubing if flowing through tubing, casing if flowing through casing.) psia

P_f = Meter pressure, psia.

h_w = Differential meter pressure, inches water.

F_g = Gravity correction factor.

F_t = Flowing temperature correction factor.

F_{pv} = Supercompressability factor.

n = Slope of back pressure curve.

Note: If P_w cannot be taken because of manner of completion or condition of well, then P_w must be calculated by adding the pressure drop due to friction within the flow string to P_t .

Pc2-Pw2 (Thsnds)

Company: Continental Oil Company
 Well: Hawk B-9 No. 2
 Location: Unit J. Sec. 9-21-37
 Pool: Blinebry
 Date: 8-9-57

Calculated O. F. Potential = 8,000 MCFPD

Q2 = 12,000 Log = 4.079181
 Q1 = 1,200 Log = 3.079181
 Slope = 1.000

100

1000

10,000

Q = MCFPD