

HOBBS OFFICE OCC

Form C-122

Revised 12-1-55

MAIN OFFICE OCC

MULTI-POINT BACKPRESSURE TEST FOR GAS WELLS

Pool Eumont 8:12 Formation Queen County Lea
Initial _____ Annual _____ Special _____ Date of Test 7-27-56
Company Sinclair Oil & Gas Company Lease J.R. Phillips "A" Well No. 6
Unit 1 Sec. 31 Twp. 198 Rge. 37E Purchaser El Paso Natural Gas Co.
Casing 5 1/2 Wt. 15# I.D. _____ Set at 3709 Perf. 3268 To 3432
Tubing 2 Wt. 4.7# I.D. 1.995 Set at 3310 Perf. _____ To _____
Gas Pay: From 3268 To 3432 L 3310 xG .665 -GL 2201 Bar.Press. 13.2
Producing Thru: Casing _____ Tubing X Type Well Single
Single-Bradenhead-G. G. or G.O. Dual
Date of Completion: 1-29-54 Packer 3193 Reservoir Temp. 112

OBSERVED DATA

Tested Through (Prover) (Choke) (Meter) Type Taps Flange

No.	Flow Data					Tubing Data		Casing Data		Duration of Flow Hr.
	(Prover) (Line) Size	(Choke) (Orifice) Size	Press. psig	Diff. h _w	Temp. °F.	Press. psig	Temp. °F.	Press. psig	Temp. °F.	
SI						<u>958</u>	<u>82</u>			<u>72</u>
1.	<u>4</u>	<u>1.250</u>	<u>644</u>	<u>17.2</u>	<u>63</u>	<u>888</u>	<u>82</u>			<u>24</u>
2.		"	<u>583</u>	<u>37.8</u>	<u>107</u>	<u>869</u>	<u>82</u>			<u>24</u>
3.		"	<u>602</u>	<u>58.5</u>	<u>64</u>	<u>809</u>	<u>82</u>			<u>24</u>
4.		"	<u>587</u>	<u>89.3</u>	<u>64</u>	<u>760</u>	<u>82</u>			<u>24</u>
5.										

FLOW CALCULATIONS

No.	Coefficient (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
1.	<u>9.643</u>	<u>106.33</u>	<u>657.2</u>	<u>.9971</u>	<u>.9498</u>	<u>1.065</u>	<u>1034</u>
2.	<u>9.643</u>	<u>150.13</u>	<u>596.2</u>	<u>.9576</u>	<u>.9498</u>	<u>1.045</u>	<u>1378</u>
3.	<u>9.643</u>	<u>189.70</u>	<u>615.2</u>	<u>.9962</u>	<u>.9498</u>	<u>1.066</u>	<u>1846</u>
4.	<u>9.643</u>	<u>231.53</u>	<u>600.2</u>	<u>.9962</u>	<u>.9498</u>	<u>1.062</u>	<u>2244</u>
5.							

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio _____ cf/bbl.
Gravity of Liquid Hydrocarbons _____ deg.
F_c 9.936 (1-e^{-S}) .141
Specific Gravity Separator Gas _____
Specific Gravity Flowing Fluid _____
P_c 971.2 P_c 943.4

No.	P _w 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>901.2</u>	<u>810.3</u>	<u>10.274</u>	<u>105.56</u>	<u>414.88</u>	<u>825.8</u>	<u>118.2</u>	<u>908.4</u>	<u>93.5</u>
2.	<u>882.2</u>	<u>778.3</u>	<u>13.692</u>	<u>187.47</u>	<u>26.43</u>	<u>804.7</u>	<u>138.7</u>	<u>897.7</u>	<u>92.4</u>
3.	<u>822.2</u>	<u>676.0</u>	<u>18.342</u>	<u>336.43</u>	<u>48.44</u>	<u>723.4</u>	<u>220.0</u>	<u>850.5</u>	<u>87.6</u>
4.	<u>773.2</u>	<u>597.8</u>	<u>22.296</u>	<u>497.11</u>	<u>70.09</u>	<u>667.9</u>	<u>275.5</u>	<u>817.3</u>	<u>84.2</u>
5.									

Absolute Potential: 7000 MCFPD; n .93

COMPANY Sinclair Oil & Gas Company
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AGENT and TITLE R.L. Harrold Gas Analyst
WITNESSED Ed Mabe
COMPANY El Paso Nat ural Gas Co.

REMARKS

Well could not be pulled down below 79% of shut in because of Choke and line capacity

Orig & 2 cc: NMCC

cc: SJF, WJR, FCR, CCS, File

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 .