

NEW MEXICO OIL CONSERVATION COMMISSION

HOBBS OFFICE OCC

Form C-122

Revised 12-1-55

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

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Pool Emery Formation Grenada County LeaInitial X Annual _____ Special _____ Date of Test 9-1-56Company Gulf Oil Corporation Lease Growth "B" Well No. 1Unit E Sec. 2 Twp. 20S Rge. 37E Purchaser Purdum Basin FL Co.Casing 7.0" Wt. 20.0# I.D. 6.450" Set at 3439' Perf. _____ To _____Tubing 2-3/8" Wt. 4.7# I.D. 1.975" Set at 3813' Perf. _____ To _____Gas Pay: From 3650' To 3810' L 3439 xG 0.680 -GL 2339 Bar.Press. 11.2Producing Thru: Casing X Tubing _____ Type Well Single Completion

Single-Bradenhead-G. G. or G.O. Dual

Date of Completion: 5-11-56 Packer No Reservoir Temp. _____

OBSERVED DATA

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

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>24.6</u>		<u>7-1/4</u>
1.	<u>1</u>	<u>1.75</u>	<u>156.2</u>	<u>16.0</u>	<u>85</u>			<u>115.3</u>		<u>11-1/4</u>
2.	<u>1</u>	<u>1.75</u>	<u>156.7</u>	<u>15.8</u>	<u>79</u>			<u>62.5</u>		<u>8</u>
3.	<u>1</u>	<u>1.75</u>	<u>156.0</u>	<u>16.1</u>	<u>67</u>			<u>62.2</u>		<u>8</u>
4.	<u>1</u>	<u>1.75</u>	<u>156.3</u>	<u>16.2</u>	<u>72</u>			<u>97.9</u>		<u>12-1/4</u>
5.										

FLOW CALCULATIONS

No.	Coefficient (24-Hour)	$\sqrt{h_{wpf}}$	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>21.69</u>	<u>66.10</u>	<u>148.1</u>	<u>0.9790</u>	<u>0.9993</u>	<u>1.040</u>	<u>1700</u>
2.	<u>21.69</u>	<u>105.80</u>	<u>149.9</u>	<u>0.9802</u>	<u>0.9993</u>	<u>10.13</u>	<u>1800</u>
3.	<u>21.69</u>	<u>119.10</u>	<u>149.2</u>	<u>0.9913</u>	<u>0.9993</u>	<u>1.047</u>	<u>850</u>
4.	<u>21.69</u>	<u>113.90</u>	<u>148.5</u>	<u>0.9896</u>	<u>0.9993</u>	<u>1.045</u>	<u>1000</u>
5.							

COR = 0.89%
K2 = 1.90%

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio _____ cf/bbl.
Gravity of Liquid Hydrocarbons _____ deg.
F_c 0.707 (1-e^{-S}) 0.119Specific Gravity Separator Gas _____
Specific Gravity Flowing Fluid _____
P_c 657.8 P_c 735.8

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>139.8</u>	<u>506.1</u>	<u>1.250</u>	<u>1.563</u>	<u>0.2397</u>	<u>162.3</u>	<u>189.1</u>	<u>739.1</u>	<u>.86</u>
2.	<u>137.7</u>	<u>506.8</u>	<u>1.502</u>	<u>2.257</u>	<u>0.3401</u>	<u>187.7</u>	<u>188.6</u>	<u>696.9</u>	<u>.81</u>
3.	<u>135.4</u>	<u>508.4</u>	<u>1.709</u>	<u>2.922</u>	<u>0.3800</u>	<u>181.9</u>	<u>192.9</u>	<u>688.1</u>	<u>.77</u>
4.	<u>131.1</u>	<u>373.4</u>	<u>2.112</u>	<u>4.461</u>	<u>0.4090</u>	<u>174.1</u>	<u>192.7</u>	<u>681.6</u>	<u>.71</u>
5.									

Absolute Potential: 9950 MCFPD; n .84COMPANY Gulf Oil CorporationADDRESS Box 2167, Hobbs, N.M.AGENT and TITLE J. L. G. Smith

WITNESSED _____

COMPANY _____

REMARKS

ELVIS A. LEE
GAS ENGINEER

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} = Supercompressibility 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 .

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