

NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122

Revised 12-1-55

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Salvat Formation Salvat County Los
Initial I Annual _____ Special _____ Date of Test 6-1/6-10 1957
Company El Paso Natural Gas Company Lease Prichard Well No. 1-4
Unit 0 Sec. 9 Twp. 25 Rge. 37 Purchaser El Paso Natural Gas Company
Casing 5 1/8" Wt. 15.5 I.D. _____ Set at 1169 Perf. _____ To _____
Tubing 2" Wt. 4.7 I.D. _____ Set at 1112 Perf. _____ To _____
Gas Pay: From 1942 To 1109 L _____ xG 0.650 -GL _____ Bar.Press. 13.2
Producing Thru: Casing _____ Tubing I Type Well Single
Date of Completion: 6-10-1957 Packer None Single-Bradenhead-G. G. or G.O. Dual
Reservoir Temp. _____

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>565/649/670</u>		<u>672/673/677</u>		<u>24/44/72</u>
1.	<u>1"</u>	<u>1.000</u>	<u>926</u>	<u>18.49</u>	<u>68</u>	<u>572</u>		<u>686</u>		<u>24</u>
2.	<u>1"</u>	<u>1.000</u>	<u>929</u>	<u>25.00</u>	<u>73</u>	<u>572</u>		<u>699</u>		<u>24</u>
3.	<u>1"</u>	<u>1.000</u>	<u>953</u>	<u>38.14</u>	<u>76</u>	<u>573</u>		<u>691</u>		<u>24</u>
4.	<u>1"</u>	<u>1.000</u>	<u>929</u>	<u>64.00</u>	<u>77</u>	<u>561</u>		<u>618</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
1.	<u>6.135</u>	<u>99.83</u>		<u>.9924</u>	<u>.9608</u>	<u>1.095</u>	<u>615</u>
2.	<u>6.135</u>	<u>104.14</u>		<u>.9877</u>	<u>.9608</u>	<u>1.094</u>	<u>714</u>
3.	<u>6.135</u>	<u>107.90</u>		<u>.9850</u>	<u>.9608</u>	<u>1.095</u>	<u>906</u>
4.	<u>6.135</u>	<u>106.25</u>		<u>.9840</u>	<u>.9608</u>	<u>1.093</u>	<u>1.130</u>
5.							

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio 32,000 cf/bbl.
Gravity of Liquid Hydrocarbons 57.4 deg.
F_c Standard (1-e^{-s})

Specific Gravity Separator Gas _____
Specific Gravity Flowing Fluid _____
P_c 690.2 P_c 476.4

No.	P _w (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>690.2</u>					<u>476.4</u>	<u>11.8</u>		<u>.77</u>
2.	<u>686.1</u>					<u>473.1</u>	<u>11.9</u>		<u>.76</u>
3.	<u>684.2</u>					<u>474.6</u>	<u>12.4</u>		<u>.75</u>
4.	<u>691.8</u>					<u>470.1</u>	<u>12.0</u>		<u>.80</u>
5.									

Absolute Potential: 6,900 MCFPD; n 1.000
COMPANY El Paso Natural Gas Company
ADDRESS P. O. Box 1304, Sal, New Mexico
AGENT and TITLE R. T. Wright Petroleum Engineer
WITNESSED Mark C. Smith
COMPANY El Paso Natural Gas Company

REMARKS

ELVIS A. UTZ
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 .