

NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122

Revised 12-1-55

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Jalnet Formation Yates - Seven Rivers County Lea
Initial _____ Annual _____ Special X Date of Test 4-11-60
Company Cities Service Oil Co. Lease Closson C Well No. 3
Unit 1 Sec. 18 Twp. 22 Rge. 36 Purchaser El Paso Natural Gas Co.
Casing 7 Wt. 24# I.D. 6.336 Set at 3735 Perf. 3262 To 3374
Tubing 2" Wt. 4.7# I.D. 1.995 Set at 3339 Perf. - To -
Gas Pay: From 3262 To 3374 L. 3339 xG 650 Est. -GL 2170 Bar.Press. 13.2
Producing Thru: Casing _____ Tubing X Type Well single
Single-Bradenhead-G. G. or G.O. Dual
Date of Completion: 3-24-60 Packer None Reservoir Temp. _____

OBSERVED DATA

Tested Through (Prover) (~~XXXX~~) (~~XXXX~~)Type Taps Flange

No.	Flow Data					Tubing Data		Casing Data		Duration of Flow Hr.
	(Prover) (XXXX) Size	(XXXX) (Orifice) Size	Press. psig	Diff. h_w	Temp. °F.	Press. psig	Temp. °F.	Press. psig	Temp. °F.	
SI						<u>572</u>		<u>577</u>		<u>72</u>
1.	<u>2"</u>	<u>7/8"</u>	<u>22.5</u>		<u>70</u>	<u>389</u>		<u>446</u>		<u>3Hrs.</u>
2.	<u>2"</u>	<u>7/8"</u>	<u>33.5</u>		<u>73</u>	<u>336</u>		<u>428</u>		<u>3Hrs.</u>
3.	<u>2"</u>	<u>7/8"</u>	<u>48.0</u>		<u>67</u>	<u>304</u>		<u>403</u>		<u>3Hrs.</u>
4.	<u>2"</u>	<u>1"</u>	<u>41.5</u>		<u>70</u>	<u>238</u>		<u>383</u>		<u>3Hrs.</u>
5.	<u>2"</u>	<u>1"</u>	<u>14.0</u>		<u>69</u>	<u>395</u>		<u>426</u>		<u>24Hrs.</u>

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>16.7816</u>		<u>35.7</u>	<u>.9905</u>	<u>.9608</u>	<u>1.002</u>	<u>571.2</u>
2.	<u>16.7816</u>		<u>46.7</u>	<u>.9877</u>	<u>.9608</u>	<u>1.003</u>	<u>745.9</u>
3.	<u>16.7816</u>		<u>61.2</u>	<u>.9933</u>	<u>.9608</u>	<u>1.004</u>	<u>984.1</u>
4.	<u>22.0662</u>		<u>54.7</u>	<u>.9905</u>	<u>.9608</u>	<u>1.004</u>	<u>1153.2</u>
5.	<u>22.0662</u>		<u>27.2</u>	<u>.9915</u>	<u>.9608</u>	<u>1.001</u>	<u>572.3</u>

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio Dry gas cf/bbl.
Gravity of Liquid Hydrocarbons _____ deg.
 F_c N/A ($1-e^{-S}$) N/A

Specific Gravity Separator Gas .650 Est.
Specific Gravity Flowing Fluid N/A
 P_c 590.2 P_c^2 348.3

No.	P_w Bar (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>459.2</u>					<u>210.9</u>	<u>137.4</u>		
2.	<u>441.2</u>					<u>194.7</u>	<u>153.6</u>		
3.	<u>416.2</u>		<u>Measured</u>			<u>173.2</u>	<u>175.1</u>		
4.	<u>396.2</u>					<u>157.0</u>	<u>191.3</u>		
5.	<u>439.2</u>					<u>192.9</u>	<u>155.3</u>		

Absolute Potential: 2100 MCFPD; n 1.000COMPANY Cities Service Oil Co.ADDRESS Box 97, Hobbs, New MexicoAGENT and TITLE Richard G. BorgWITNESSED Jack O. WhittingCOMPANY El Paso Natural Gas Co.

REMARKS

Notes: Slope greater than 1,000
Slope of 1,000 drawn thru point having highest flow.

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 .

PC² - PW² (thsnds)

