

NEW MEXICO OIL CONSERVATION COMMISSION
HOBBS OFFICE OCC

Form C-122
Revised 12-1-55

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Eumont Formation Queen County Lea
Initial Annual Special X Date of Test 8-13 to 8-17-56
Company Two States Oil Company Lease McQuatters Well No. 1
Unit J Sec. 11 Twp. 24-S Rge. 36-E Purchaser EPNG
Casing 5 1/2 Wt. I.D. Set at 3650 Perf. 3218 To 3628
Tubing 2 Wt. I.D. Set at 3620 Perf. I.D. To I.D.
Gas Pay: From 3218 To 3628 L 3620 xG .865 -GL 2407 Bar.Press. 15.2
Producing Thru: Casing X Tubing X Type Well Single
Single-Bradenhead-G. G. or G.O. Dual
Re-
Date of Completion: 2-17-53 Packer I.D. Reservoir Temp. I.D.

OBSERVED DATA

Tested Through (Prover) (Choke) (Meter)

Type Taps

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						954		953		72
1.	4 X	1.000	581	2.6 ²	78	780		784		24
2.	4 X	1.000	588	3.1-3.5	78	702		719		24
3.	4 X	1.000	591	3.6-3.9	81	638		668		24
4.	4 X	1.000	581	4.2 ²	82	584		597		24
5.										

FLOW CALCULATIONS

No.	Coefficient Flg (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.	6.135	63.37		.9850	.9498	1.056	384
2.	6.135	75.99		.9831	.9498	1.056	459
3.	6.135	88.47		.9804	.9498	1.059	535
4.	6.135	102.36		.9795	.9498	1.059	607
5.							

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio cf/bbl.
Gravity of Liquid Hydrocarbons deg.
F_c 9.936 (1-e^{-S}) .153

Specific Gravity Separator Gas
Specific Gravity Flowing Fluid
P_c 967 P_c 955

No.	P _t (psia)	P _t ²	F _c Q	$\frac{P_c^2 - P_t^2}{1 - e^{-S}}$	P _w ²	P _c ² - P _w ²	Cal. P _w	$\frac{P_w}{P_c}$
1.	795.2	629.2		305.8	635.5	299.5		
2.	715.2	511.5		423.5	536.1	398.9		
3.	651.2	424.1		510.9	461.3	473.7		
4.	597.2	356.6		378.4	372.3	563		
5.								

Absolute Potential: 860 MCFPD; n .704 qt ES

COMPANY Two States Oil Company

ADDRESS Box 176, Emice, New Mexico

AGENT and TITLE R. S. Gaston Agent

WITNESSED El Paso Well Log

COMPANY Mabe

REMARKS

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 .