

3 NWCC
2 Austral
1 El Paso
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NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122

Revised 12-1-55

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Blanco Formation Mesaverde County San Juan
Initial X Annual _____ Special _____ Date of Test 4-14-65
Company Austral Oil Co. Lease Marshall Well No. 4
Unit A Sec. 15 Twp. 27N Rge. 9W Purchaser _____
Casing 2 7/8" Wt. 6.5 I.D. _____ Set at 4669 Perf. 4410 To 4494
Tubing _____ Wt. _____ I.D. _____ Set at _____ Perf. _____ To _____
Gas Pay: From 4410 To 4494 L 4494 xG .62 -GL 2786 Bar.Press. _____
Producing Thru: Casing X Tubing _____ Type Well x Single
Single-Bradenhead-G. G. or G.O. Dual
Date of Completion: _____ Packer _____ Reservoir Temp. _____

OBSERVED DATA

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

Flow Data						Tubing Data		Casing Data		Duration of Flow Hr.
No.	(Prover) (Line) Size	(Choke) (Orifice) Size	Press. psig	Diff. h _w	Temp. °F.	Press. psig	Temp. °F.	Press. psig	Temp. °F.	
SI								993		
1.										
2.		3/4"	174		59					3 hrs.
3.										
4.										
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.							
2.							
3.	12.365		186	1.0010	.9837	1.016	2301
4.							
5.							

PRESSURE CALCULATIONS

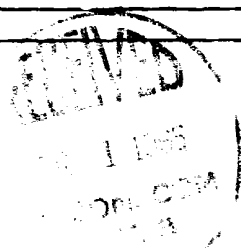
Gas Liquid Hydrocarbon Ratio _____ cf/bbl.
Gravity of Liquid Hydrocarbons _____ deg.
F_c 5.551 (1-e^{-s}) .183
Specific Gravity Separator Gas _____
Specific Gravity Flowing Fluid _____
P_c 1005 P_c 1,010.025

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.									
2.									
3.	186	34,596	12.773	163.147	29.856	193,003	817,022		1.2362
4.									
5.									

Absolute Potential: 2896 2697 MCFPD; n = .75 1.1723

COMPANY Austral Oil Co.
ADDRESS Box 234, Farmington, New Mexico
AGENT and TITLE Original signed by I. A. Dugan Thomas A. Dugan, Consulting Engineer
WITNESSED _____
COMPANY _____

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 .