

NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122

Revised 12-1-55

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

FIELD OFFICE OCC

Pool Langlia Mattix Formation Queen County Lee
Initial X Annual _____ Special _____ Date of Test 11-24-58
Company Realer & Sheldon Lease May A Well No. 2
Unit 4 Sec. 21 Twp. 23 Rge. 37 Purchaser El Paso Natural
Casing 7 Wt. 204 I.D. _____ Set at 3710 Perf. 3432 To 3483
Tubing 2 Wt. 4.7 I.D. _____ Set at 3420 Perf. _____ To _____
Gas Pay: From 3432 To 3483 L 3432 xG .671 -GL 2303 Bar.Press. 13.2
Producing Thru: Casing _____ Tubing X Type Well Single
Date of Completion: 10-9-58 Packer None Reservoir Temp. _____
Single-Bradenhead-G. G. or G.O. Dual

OBSERVED DATA

Tested Through (Prover) (Choke) (Orifice)

Type Taps _____

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						781		787		72
1.	2X .250		701		71	705		728		3
2.	2X .375		569		68	578		664		3
3.	2X .500		412		61	428		507		3
4.	2X .625		291		57	307		544		3
5.	2X .625		247		64	267		465		24

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.	1.4630		714.2	0.9869	0.9456	1.075	1.695 / 1.008
2.	3.0691		582.2	0.9924	0.9456	1.059	1.788
3.	5.5233		425.2	0.9990	0.9456	1.047	2.323
4.	8.3555		304.2	1.0029	0.9456	1.033	2.490
5.	8.3555		260.2	0.9962	0.9456	1.027	2.103

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio _____ cf/bbl.
Gravity of Liquid Hydrocarbons _____ deg.
F_c Measured (1-e^{-s})
Specific Gravity Separator Gas _____
Specific Gravity Flowing Fluid _____
P_c 800.2 P_c 640.3

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.	718.2	515.8				519.4	90.9		
2.	591.2	349.5			453.2	458.6	181.7		
3.	441.2	194.7				372.3	268.0		
4.	380.2	144.5				310.5	329.8		
5.	280.2	78.5				228.7	441.6		

Absolute Potential: 2.770 MCFPD; n .753COMPANY Realer & SheldonADDRESS 302 Carper BuildingAGENT and TITLE Vilas P. Sheldon, PartnerWITNESSED Michael & RyeCOMPANY El Paso Natural

REMARKS

While being tested, well made about 30 bbls. oil, however, it is thought that such was lead oil because, the well ceased making liquids shortly after being tested.

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 .