

NEW MEXICO OIL CONSERVATION COMMISSION

OCT 21 3 09 PM '63

Form C-122

Revised 12-1-55

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Blinebry Formation Blinebry County Lea
Initial X Annual _____ Special X Date of Test 7-11/7-19-63
Company Tidewater Oil Co. Lease State "S" Well No. 2(Casing)
Unit C Sec. 15 Twp. 21 Rge. 37 Purchaser El Paso Natural Gas Co.
Casing 5 1/2" Wt. 15.5 I.D. _____ Set at 6630 Perf. _____ To _____
Tubing 2" Wt. 4.67 I.D. _____ Set at 6292 Perf. _____ To _____
Gas Pay: From 5620 To 5700 L 5620 xG Mix .877 GL 4929 Bar.Press. 13.2
Producing Thru: Casing X Tubing _____ Type Well G. G. Dual
Single-Bradenhead-G. G. or G.O. Dual
Date of Completion: May 4, 1952 Packer _____ Reservoir Temp. _____

OBSERVED DATA

Tested Through (Prover) (Choke) (Meter)

Type Taps _____

No.	Flow Data					Tubing Data		Casing Data		Duration of Flow Hr.
	(11/16") (Line) Size	(11/16") (Choke) (Orifice) Size	Press. psig	Diff. h _w	Temp. °F.	Press. psig	Temp. °F.	Press. psig	Temp. °F.	
SI								1250		72
1.	4	.500	505	4.00	92			699		24
2.	4	.500	550	2.25	94			567		24
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.	1.525	45.53		.9706	.9148	1.053	64.92
2.	1.525	35.59		.9688	.9148	1.060	50.99
3.							
4.							
5.							

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio 17.304 cf/bbl.
Gravity of Liquid Hydrocarbons 41.6 deg.
P_c 1.758 (1-e^{-S}) .288

Specific Gravity Separator Gas .717
Specific Gravity Flowing Fluid .8174
P_c 1263.2 P_c² 1595.7

No.	$\frac{P_w}{P_t}$ 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	$\frac{P_w}{P_c}$
1.	712.2	507.2	-----	Negligible	-----	507.2	1088.5		
2.	580.2	336.6				336.6	1259.1		
3.									
4.									
5.									

Absolute Potential: 98 MCFPD; n 1.000
COMPANY Tidewater Oil Co.
ADDRESS Box 249, Hobbs, N. Mex.
AGENT and TITLE C. L. Wade, Area Supt. *C. L. Wade*
WITNESSED Jack T. Littlefield
COMPANY El Paso Natural Gas Co.

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 .