

NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Revised 12-1-55

Pool Bumont Formation Queen County Lea
Initial X Annual _____ Special _____ Date of Test 4-3-4-12-57
Company Gulf Oil Corporation Lease Ramsey "A" Well No. 20
Unit E Sec. 35 Twp. 21S Rge. 36E Purchaser Permian Basin P. L. Co.
Casing 5.5 Wt. 14 I.D. 4.887 Set at 3880 Perf. 3100 To 3260
Tubing 2.375 Wt. 4.7 I.D. 1.995 Set at 3844 Perf. _____ To _____
Gas Pay: From 3100 To 3260 L 3100 xG .665 -GL 2062 Bar.Press. 13.2
Producing Thru: Casing X Tubing _____ Type Well G. O. Dual
Date of Completion: 12-15-56 Packer 3775 Reservoir Temp. _____
Single-Bradenhead-G. G. or G.O. Dual

OBSERVED DATA

Tested Through (Pressure) (Choke) (Meter) Type Taps Pipe

Flow Data						Tubing Data		Casing Data		Duration of Flow Hr.
No.	(Pressure) (Line) Size	(Choke) (Orifice) Size	Press. psig	Diff. h _w	Temp. °F.	Press. psig	Temp. °F.	Press. psig	Temp. °F.	
SI								1084.7		72
1.	4	2.25	434.3	2.0	72			1047.7		23
2.	4	2.25	427.0	5.2	69			1013.4		24
3.	4	2.25	433.2	14.3	65			941.0		25
4.	4	2.25	426.7	27.0	63			867.4		24
5.										

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.	40.53	29.92	447.5	.9887	.9498	1.042	1187
2.	40.53	47.84	430.2	.9915	.9498	1.042	1903
3.	40.53	79.99	447.4	.9952	.9498	1.044	3199
4.	40.53	109.2	441.9	.9971	.9498	1.044	4376
5.							

PRESSURE CALCULATIONS

CO₂ - 0%
N₂ - 3.44%

Gas Liquid Hydrocarbon Ratio _____ cf/bbl.
Gravity of Liquid Hydrocarbons _____ deg.
F_c 1.883 (1-e^{-S}) .132

Specific Gravity Separator Gas _____
Specific Gravity Flowing Fluid _____
P_c 1097.9 P_c 1205.4

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.	1060.9	1125.5	2.235	4.995	.6593	1125.2	79.2	1061.2	.97
2.	1026.6	1053.9	3.583	12.84	1.695	1055.6	149.8	1027.4	.94
3.	954.2	910.5	6.024	36.29	4.790	915.3	290.1	956.7	.87
4.	880.6	775.5	8.240	67.90	8.963	784.5	430.9	885.7	.81
5.									

Absolute Potential: 10,000 MCFPD; n 0.80

COMPANY Gulf Oil Corporation
ADDRESS Hobbs, New Mexico
AGENT and TITLE F. L. West
WITNESSED R. L. West
COMPANY Permian Basin P. L. 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} = 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 .