NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122
Revised 12-1-55

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Eumont Formation Queen County Lea

Initial X Annual ____ Special ____ Date of Test 9-21-56

Company Gulf Oil Corporation Lease Bell-Ramsay "A" Well No. 5

Unit U Sec. 4 Twp. 21S Rge. 36E Purchaser Permian Basin PL Co.

Casing 5.5" Wt. 17.0# I.D. 4.892" Set at 3707' Perf. 3350' To 3495'

Tubing 2.375" Wt. 4.7# I.D. 1.995" Set at 3354' Perf. ____ To ____

Gas Pay: From 3350' To 3495' L 3354' xG .670 -GL 2247 Bar.Press. 13.2

Producing Thru: Casing ____ Tubing X Type Well Single

Date of Completion: 4-27-56 Packer None Reservoir Temp. ____ Single-Bradenhead-G. G. or G.O. Dual

OBSERVED DATA

Tested Through ~~(Prover)~~ (Choke) (Meter) Type Taps Pipe

No.	Flow Data (Prover) (Line) Size	Flow Data (Choke) (Orifice) Size	Flow Data Press. psig	Flow Data Diff. h_w	Flow Data Temp. °F.	Tubing Data Press. psig	Tubing Data Temp. °F.	Casing Data Press. psig	Casing Data Temp. °F.	Duration of Flow Hr.
SI	4	1.75	472.2	9.9	58	956.6				72
1.	4	1.75	470.6	19.4	69	853.5				24
2.	4	1.75	470.4	28.4	68	783.6				24
3.	4	1.75	472.8	40.2	72	721.7				24
4.						680.0				24
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.	21.69	69.32	485.4	.9725	.9463	1.038	1435
2.	21.69	96.88	483.8	.9725	.9463	1.045	2060
3.	21.69	117.2	483.6	.9725	.9463	1.045	2495
4.	21.69	153.1	486.0	.9696	.9463	1.043	3282
5.							

CO2 - 2.01%
H2 - 2.50%

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio ____ cf/bbl. Specific Gravity Separator Gas ____

Gravity of Liquid Hydrocarbons ____ deg. Specific Gravity Flowing Fluid ____

F_c 9.936 $(1-e^{-s})$ 0.113 P_c 959.8 P_c^2 921.2

No.	P_w P_t (psia)	P_t^2	F_cQ	$(F_cQ)^2$	$(F_cQ)^2$ $(1-e^{-s})$	P_w^2	$P_c^2-P_w^2$	Cal. P_w	$\frac{P_w}{P_c}$
1.	796.8	634.9	20.47	419.0	47.37	634.8	286.4	853.5	.89
2.	737.9	544.5	24.79	614.5	69.47	544.4	376.8	783.6	.82
3.	693.8	481.2	30.22	913.1	103.2	481.2	439.8	721.7	.75
4.	680.0	462.4	38.00	1444.0	163.2	462.4	458.8	680.0	.71
5.									

Absolute Potential: 4,400 MCFPD; n 0.81

COMPANY Gulf Oil Corp.

ADDRESS Box 2167, Hobbs, N.M.

AGENT and TITLE F. L. Smith

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.