NEW MEXICO OIL CONSERVATION COMMISSION

ILLEGIBLE

HOBBS OFFICE OCC

1956 OCT 10 PM 3:06

ELVIS A. UTZ GAS ENGINEER

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 7-7 to 7-14-56

Company Gulf Oil Corporation Lease Collins, H. C. Well No. 4

Unit K Sec. 24 Twp. 21S Rge. 36E Purchaser Permian Basin PL Co.

Casing 5.5 Wt. 17 I.D. 4.892 Set at 3682 Perf. 3473 To 3640

Tubing 2.375 Wt. 4.7 I.D. 1.995 Set at 3641 Perf. ___ To ___

Gas Pay: From 3473 To 3640 L 3641 xG .680 -GL 2476 Bar.Press. 13.2

Producing Thru: Casing ___ Tubing x Type Well Single
Single-Bradenhead-G. G. or G.O. Dual

Date of Completion: 7-14-55 Packer None Reservoir Temp. ___

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						1071.7		1072.7		72
1.	4	2.00	464.7	8.6	72	925.7		992.2		24
2.	4	2.00	470.3	16.2	58	885.8		924.3		24
3.	4	2.00	472.0	25.3	68	752.7		858.8		24
4.	4	2.00	454.6	32.9	57	630.6		800.6		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.	19.92	64.11	477.9	.9887	.9393	1.046	1243
2.	19.92	88.90	483.5	1.0098	.9393	1.055	1659
3.	19.92	110.80	485.2	[illegible]	.9393	1.052	2066
4.	19.92	124.10	467.8	1.0029	.9393	1.050	2673
5.							

CO_2 1.00%
N_2 1.61%

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio ___ cf/bbl.
Gravity of Liquid Hydrocarbons ___ deg.
F_c ___ $(1-e^{-s})$ ___

Specific Gravity Separator Gas ___
Specific Gravity Flowing Fluid ___
P_c 1085.9 P_c^2 1179.2

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.	1005.4					1006.8	172.4		93
2.	937.5					878.9	300.3		86
3.	872.0					760.4	418.8		80
4.	813.8					662.3	516.9		75
5.									

Absolute Potential: 6300 MCFPD; n 0.63
COMPANY Gulf Oil Corporation
ADDRESS Box 2167, Hobbs, N.M.
AGENT and TITLE [illegible signature] 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.