NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122
Revised 12-1-55

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Blinebry Formation Blinebry County Lea

Initial ____ Annual X Special ____ Date of Test Aug. 3-8, 1957

Company Gulf Oil Corp. Lease Vivian Well No. 5

Unit D Sec. 30 Twp. 22S Rge. 38E Purchaser El Paso Natural Gas Co.

Casing 7 Wt. 23 I.D. 6.366 Set at 6325 Perf. ____ To ____

Tubing 2 Wt. 4.7 I.D. 1.995 Set at 5477 Perf. ____ To ____

Gas Pay: From 5415 To 5485 L 5477 xG mix .725 =GL 3971 Bar.Press. 13.2

Producing Thru: Casing ____ Tubing X Type Well Single
Single-Bradenhead-G. G. or G.O. Dual

Date of Completion: 8-14-48 Packer 5375 Reservoir Temp. ____

OBSERVED DATA

Tested Through ~~(Tubing)~~ ~~(Casing)~~ (Meter) Type Taps Flange

	Flow Data					Tubing Data		Casing Data		
No.	~~(Prover)~~ (Line) Size	~~(Choke)~~ (Orifice) Size	Press. psig	Diff. h_w	Temp. °F.	Press. psig	Temp. °F.	Press. psig	Temp. °F.	Duration of Flow Hr.
SI						1621/1580	1540			24/48/72
1.	4	1.50	755	10.89	90	1460				24
2.	4	1.50	733	29.16	90	1290				24
3.	4	1.50	725	56.25	91	1105				24
4.	4	1.50	703	79.21	92	950				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	Bbls Oil
1.	13.99	91.45		.9723	.9258	1.079	1243	14.12
2.	13.99	147.49		.9723	.9258	1.075	1996	21.90
3.	13.99	203.75		.9715	.9258	1.075	2756	27.38
4.	13.99	238.15		.9706	.9258	1.072	3210	32.63
5.								

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio 95,885 cf/bbl.
Gravity of Liquid Hydrocarbons 67 deg.
F_c 9.936 $(1-e^{-s})$ 0.239

Specific Gravity Separator Gas .700
Specific Gravity Flowing Fluid .725
P_c 1634.2 P_c^2 2670.6

No.	P_w P_t (psia)	P_t^2	F_cQ	$(F_cQ)^2$	$\frac{(F_cQ)^2}{(1-e^{-s})}$	P_w^2	$P_c^2-P_w^2$	Cal. P_w	$\frac{P_w}{P_c}$
1.	1473.2	2170.3	12.35	152.52	36.5	2206.8	463.8	1485.5	.91
2.	1303.2	1698.3	19.83	393.23	94.0	1792.3	878.3	1338.8	.82
3.	1118.2	1250.4	27.38	749.66	179.2	1429.6	1241.0	1195.6	.73
4.	963.2	927.8	31.89	1016.97	432.1	1170.9	1499.7	1082.1	.66
5.									

Absolute Potential: 5100 MCFPD; n 0.82
COMPANY Gulf Oil Corporation
ADDRESS Box 2167, Hobbs, N. M.
AGENT and TITLE W. 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.

Gulf Oil Corp.
Vivian No. 5
D-30-22S-38E Lea Co.
Blinebry Pool
Aug. 3-8, 1957
A. P. = 5100 MCF

ILLEGIBLE