

NEW MEXICO OIL CONSERVATION COMMISSION

NO. 10 CITY OF 000

ELVIS A. HIZ
JULY ENGINEER

Form C-122

Revised 12-1-55

MULTI-POINT BACK-PRESSURE TEST FOR GAS WELLS

Pool Eucent Formation ucon County Lee
Initial 1 Annual _____ Special _____ Date of Test 6-1 to 6-8-56
Company GULF OIL CORPORATION Lease Lee State "DZ" Well No. 1
Unit 1 Sec. 16 Twp. 10S Rge. 37E Purchaser Permian Basin Pipeline Company
Casing 7 Wt. 20 I.D. 6.456 Set at 3640 Perf. _____ To _____
Tubing 2.375 Wt. 1.7 I.D. 1.095 Set at 3843 Perf. _____ To _____
Gas Pay: From 3649 To 3850 L 3843 xG .675 -GL 2594 Bar. Press. 13.2
Producing Thru: Casing _____ Tubing 1 Type Well single
Date of Completion: 8-25-54 Packer None Single-Bradenhead-G. G. or G.O. Dual
Reservoir Temp. _____

OBSERVED DATA

Tested Through (Stem) (Stem) (Meter) Type Taps Pipe

No.	Flow Data					Tubing Data		Casing Data		Duration of Flow Hr.
	(Prover) (Line) Size	(Choke) (Orifice) Size	Press. psig	Diff. h _w	Temp. °F.	Press. psig	Temp. °F.	Press. psig	Temp. °F.	
SI						349.7		No connection		71.5
1.	4	1.75	451.0	6.1	90	814.8				24
2.	4	1.75	450.5	6.2	92	810.0				24
3.	4	1.75	452.1	16.7	90	660.8				24
4.	4	1.75	455.2	23.5	95	563.3				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	53.21	464.2	.9723	.9427	1.039	1099
2.	21.69	53.61	463.7	.9716	.9427	1.039	1105
3.	21.69	58.15	465.3	.9723	.9427	1.039	1320
4.	21.69	104.91	463.1	.9768	.9427	1.041	2181
5.							

PRESSURE CALCULATIONS

CG 2 1.402
P2 2.715

Gas Liquid Hydrocarbon Ratio _____ cf/bbl.
Gravity of Liquid Hydrocarbons _____ deg.
F_c 9.936 (1-e^{-s}) 0.163
Specific Gravity Separator Gas 675
Specific Gravity Flowing Fluid _____
P_c 2629 P_c² 927.2

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.	424.0	645.6	10.920	119.25	19.44	705.0	222.2	439.6	87.2
2.	424.2	677.7	10.979	120.54	19.65	697.4	229.8	435.1	86.7
3.	674.0	454.3	18.084	327.03	53.31	507.6	419.6	712.4	73.9
4.	576.5	332.4	21.670	469.59	76.54	408.9	518.3	639.4	66.4
5.									

Absolute Potential: 3540 MCFPD; n 0.84
COMPANY GULF OIL CORPORATION
ADDRESS Box 2167, Hobbs, New Mexico
AGENT and TITLE W. L. Smith
WITNESSED _____
COMPANY _____

REMARKS

Well produces small amount of fluid.

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 .