

NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS 17 Revised 12-1-55

Pool Basent Formation Queen-Seven Rivers County Lea
Initial X Annual _____ Special _____ Date of Test 11-7/14-58
Company Gulf Oil Corporation Lease H. Leonard "A" Well No. 7
Unit M Sec. 22 Twp. 21S Rge. 36E Purchaser Permian Basin PL Co.
Casing 5 1/2" Wt. 14 1/2 I.D. 5.012 Set at 3899' Perf. 3082' To 32201'
Tubing 2-3/8" Wt. 4.7 1/2 I.D. 1.995 Set at 3810 Perf. _____ To _____
Gas Pay: From 3082 To 3220 L 3082 xG .660 -GL 2834 Bar.Press. 13.2
Producing Thru: Casing X Tubing _____ Type Well G-O Dual
Date of Completion: 2-20-58 Packer 3062 Single-Bradenhead-G. G. or G.O. Dual
Reservoir Temp. _____

OBSERVED DATA

Tested Through (Prover) (Choke) (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								994.0		72
1.	4	2.25	497.0	3.8	68			964.7		22 1/2
2.	4	2.25	475.5	5.2	43			946.7		24
3.	4	2.25	478.0	9.1	64			917.5		24
4.	4	2.25	440.4	13.9	61			878.5		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.	40.53	42.27	470.2	.9924	.9535	1.045	1694
2.	40.53	50.31	486.7	1.0147	.9535	1.036	2080
3.	40.53	66.86	491.2	.9962	.9535	1.049	2760
4.	40.53	84.92	453.6	.9990	.9535	1.046	3429
5.							

PRESSURE CALCULATIONS

CO₂ = 0N₂ = 2.64%

as Liquid Hydrocarbon Ratio _____ cf/bbl.
Gravity of Liquid Hydrocarbons _____ deg.
c. 1.712 (1-e^{-s}) .131

Specific Gravity Separator Gas _____
Specific Gravity Flowing Fluid _____
P_c 1007.2 P_c 1014.5

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.	977.9	956.3	2.900	8.410	1.102	957.4	57.1	978.5	.97
2.	999.9	999.8	3.566	12.72	1.666	923.1	76.8	960.8	.95
3.	990.7	856.2	4.622	21.36	2.798	869.0	121.5	932.2	.93
4.	891.7	795.1	5.870	34.46	4.514	799.6	214.9	894.2	.89
5.									

Absolute Potential: 8400 MCFPD; n 0.58COMPANY Gulf Oil CorporationADDRESS Box 2147, Hobbs, N.M.AGENT and TITLE F. L. Smith Gas TesterWITNESSED R. L. WestCOMPANY Permian Basin Pipeline 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} = 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 Corporation
H. Leonard "T" No. 7
M, 22-21-36, Lea Co., N.M.
Bumont Pool
11-7/14-58
AP = 8400 MCF

LOGARITHMIC 359-110
KEUFFEL & ESSER CO. NEWARK, N.J.
2 X 2 CYCLES

