

NEW MEXICO OIL CONSERVATION COMMISSION

HOBBS OFFICE OCC

Form C-122

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Revised 12-1-55

Pool Eumont Formation Queen County Lea
Initial _____ Annual _____ Special X Date of Test 9/10-9/14-56
Company Continental Oil Company Lease Britt B-15 Well No. 3
Unit L Sec. 15 Twp. 20S Rge. 37E Purchaser EPNG
Casing 5 1/2 Wt. 17 I.D. _____ Set at 3724 Perf. _____ To _____
Tubing None Wt. _____ I.D. _____ Set at _____ Perf. _____ To _____
Gas Pay: From 3390 To 3435 L 3390 xG .685 -GL 2322 Bar.Press. 13.2
Producing Thru: Casing X Tubing _____ Type Well Single
Date of Completion: 12-4-49 Packer None Single-Bradenhead-G. G. or G.O. Dual
Reservoir Temp. 90°

OBSERVED DATA

Tested Through XXXXXX XXXXXX (Meter) Type Taps Flange

No.	Flow Data					Tubing Data		Casing Data		Duration of Flow Hr.
	(Line) Size	(Orifice) Size	Press. psig	Diff. h _w	Temp. °F.	Press. psig	Temp. °F.	Press. psig	Temp. °F.	
SI										
1.	4	1.000	548	6.4 ²	87			1029		72
2.	4	1.000	555	7.65 ²	84			1007		24
3.	4	1.000	551	8.6 ²	82			1000		24
4.	4	1.000	538	9.75 ²	78			993		24
5.								985*		24

FLOW CALCULATIONS

No.	Coefficient (24-Hour)	$\sqrt{h_{wPF}}$	Pressure psia	Flow Temp. Factor F _t	Gravity Factor F _g	Compress. Factor F _{pv}	Rate of Flow Q-MCFPD @ 15.025 psia
1.	6.133	149.90	561.2	.9750	.9359	1.054	885
2.	6.133	180.19	568.2	.9777	.9359	1.058	1070
3.	6.133	201.93	564.2	.9795	.9359	1.058	1202
4.	6.133	226.15	551.2	.9831	.9359	1.057	1349
5.							

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio _____ cf/bbl.
Gravity of Liquid Hydrocarbons _____ deg.
F_c .9583 (1-e^{-s}) 0.148
Specific Gravity Separator Gas _____
Specific Gravity Flowing Fluid _____
P_c 1042.2 P_c 1086.2

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.	1020.2	1040.8	.8	.6	.1	1040.9	45.3	1020.2	.94
2.	1013.2	1026.6	1.0	1.0	.1	1026.7	59.5	1013.2	.93
3.	1006.2	1012.4	1.2	1.4	.2	1012.4	73.8	1006.2	.93
4.	998.2	996.4	1.3	1.7	.3	996.7	89.5	998.2	.92
5.									

Absolute Potential: 6,200 MCFPD; n .61
COMPANY Continental Oil Company
ADDRESS Box 427, Hobbs, New Mexico
AGENT and TITLE W. D. Howard, Gas Tester
WITNESSED _____
COMPANY _____

REMARKS

* Unable to obtain 30% drawdown due to pressure control regulator installed in meter run.

ELVIS A. G.
GAS ENGINEER

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 .