

NEW MEXICO OIL CONSERVATION COMMISSION

FORM C-122

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MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Revised 12-1-55

10-05

Pool Summit Formation Queen County Lea
Initial _____ Annual _____ Special X Date of Test 11-12 to 11-16-56
Company Continental Oil Company Lease State A-3 Well No. 1
Unit I Sec. 3 Twp. 20S Rge. 37E Purchaser E. P. N. G.
Casing 5 1/2 Wt. 14 I.D. 5.012 Set at 3799 Perf. 3500 To 3790
Tubing 2 Wt. 4.7 I.D. 1.995 Set at 3750 Perf. _____ To _____
Gas Pay: From 3500 To 3790 L 3750 xG .665 -GL _____ Bar.Press. 13.2
Producing Thru: Casing _____ Tubing X Type Well Single
Single-Bradenhead-G. G. or G.O. Dual
Date of Completion: 3-13-56 Packer None Reservoir Temp. 90°

OBSERVED DATA

Tested Through (Bottom) (Choke) (Meter)Type Taps Flange

No.	Flow Data					Tubing Data		Casing Data		Duration of Flow Hr.
	(<u>Bottom</u>) (Line) Size	(<u>Choke</u>) (Orifice) Size	Press. psig	Diff. h _w	Temp. °F.	Press. psig	Temp. °F.	Press. psig	Temp. °F.	
SI						815		834		72
1.	4	1.500	588	8.41	84	760		783		24
2.	4	1.500	597	16.81	72	700		741		24
3.	4	1.500	607	19.36	65	667		720		24
4.	4	1.500	607	24.01	65	659 *		711 *		24
5.										

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.	13.99	71.09		.9777	.9498	1.053	973
2.	13.99	101.26		.9887	"	1.061	1,412
3.	13.99	109.56		.9952	"	1.062	1,539
4.	13.99	122.01		.9952	"	1.062	1,714
5.							

PRESSURE CALCULATIONS

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

Specific Gravity Separator Gas _____
Specific Gravity Flowing Fluid _____
P_c 847.2 P_c 717.7

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.	796.2					633.9	83.8		.94
2.	754.2					568.8	148.9		.89
3.	733.2					537.6	180.1		.87
4.	724.2					524.5	193.2		.85
5.			4152						*

Absolute Potential: 4,950 MCFPD; n .67

COMPANY Continental Oil Company
ADDRESS Box 427, Hobbs, New Mexico
AGENT and TITLE W. D. Howard, Gas Tester
WITNESSED _____
COMPANY _____

REMARKS

* Not enough drawdown because of choke restriction.

NN000-3 EWW HLJ RLA FTE EVB WDH
attach.

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 .

Revised and Approved .8 .8