

NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122

Revised 12-1-55

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Bluitt San Andres Formation San Andres County Roosevelt
Initial X Annual _____ Special _____ Date of Test 8-10-64
Company ETA Oil Producers Lease Felmont "C" Ltd. Well No. 1
Unit C Sec. 9 Twp. 8-S Rge. 37-E Purchaser Sinclair
Casing 4½" Wt. 9.4# I.D. 4.090" Set at 4630 Perf. 4410 To 4514
Tubing 2 3/8" Wt. 4.7 I.D. 2.0 Set at 4451 Perf. Open End To _____
Gas Pay: From 4410 To 4514 L 4462 xG _____ -GL _____ Bar.Press. 13.2
Producing Thru: Casing _____ Tubing X Type Well Single
Single-Bradenhead-G. G. or G.O. Dual
Date of Completion: 7-21-64 Packer L-30 C 4353 Reservoir Temp. _____

OBSERVED DATA

2" & 4" Orifice well tester with a 0-50 psi recorder was used

Tested Through (Prover) x (Choke) x (Manometer) x Type Taps _____

Flow Data						Tubing Data		Casing Data		Duration of Flow Hr.
No.	(Prover) (Line) Size	(Choke) (Orifice) Size	Press. psig	Diff. h _w	Temp. °F.	Press. psig	Temp. °F.	Press. psig	Temp. °F.	
SI						1242	80	Pkr.		
1.	2"	1	17		39	1205	70			3
2.	4"	1½	16		41	1035	75			3
3.	4"	1½	26		40	920	80			3
4.	4"	2	13		40	835	80			24
5.										

FLOW CALCULATIONS

No.	Coefficient Volumes from GOR Manual (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.	615.1			1.0208	.8810	1.000	553
2.	1261			1.0188	.8810	1.000	1132
3.	1710			1.0198	.8810	1.000	1536
4.	2100			1.0198	.8810	1.000	1887
5.							

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio None cf/bbl.
Gravity of Liquid Hydrocarbons _____ deg.
°C _____ (1-e^{-s})

Specific Gravity Separator Gas .773
Specific Gravity Flowing Fluid None
P_c 1445.2 P_c 2088

No.	P _w BHP Box (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.	1405.2					1974	114		
2.	1324.2					1753	335		
3.	1199.2					1438	650		
4.	1086.2					1179	909		
5.									

Absolute Potential: 3100 MCFPD; n 59°

COMPANY ETA Oil Producers
ADDRESS 104 S. Pecos St., Midland, Texas
AGENT and TITLE C. Allen Dorsey
WITNESSED _____
COMPANY Sinclair

REMARKS

The volume for the 3rd rate was taken from a Texas Manual.

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

³t - 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.

r = 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 .

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