

NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122

Revised 12-1-55

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool San Juan Formation San Juan County San Juan
Initial x Annual Special Date of Test 11-1-59
Company Ztec Oil Company Lease Stratton Well No. 2
Unit J Sec. 1 Twp. 18 Rge. 30E Purchaser
Casing 4 1/2 Wt. 15.5 I.D. 4.476 Set at 4,500 Perf. 4,457 To 4,404
Tubing 2 1/2 Wt. 8.70 I.D. 1.925 Set at 4,414 Perf. To
Gas Pay: From 4,457 To 4,404 L 4,457 xG .77 -GL Bar.Press. 13.0
Producing Thru: Casing Tubing x Type Well in le
Date of Completion: 11-28-59 Packer Quiberson Single-Bradenhead-G. G. or G.O. Dual
Hookwell 1406 Reservoir Temp. 96.5

OBSERVED DATA

Tested Through (Prover) (Choke) (Meter) Type Taps to prover

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	-	-	-	-	-	1837	67	-	-	72
1.	2	1/2	1193	-	65	1804	65	-	-	18
2.	2	3/16	798	-	63	1807	66	-	-	5
3.	2	1/4	760	-	63	778	61	-	-	152
4.	2	3/8	798	-	62	408	60	-	-	14
5.	2	7/16	792	-	65	384	58	-	-	131

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.	.5312	-	1206.2	.9957	.9100	1.109/1.129	417.90/435.1
2.	.7851	-	1011.2	.9945	.9100	1.104/1.131	285.0/295.5
3.	1.4035	-	782.7	.9941	.9100	1.076/1.115	1074.8/1110.7
4.	3.8021	-	411.2	1.000	.9100	1.040/1.056	124.8/126.1
5.	4.5927	-	402.2	1.000	.9100	1.031/1.038	122.5/125.7

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio 6,000 of 100.
Gravity of Liquid Hydrocarbons 52.6 (35 deg.
F_c 0.736 (1-e^{-s}) 209
Specific Gravity Separator Gas .7512
Specific Gravity Flowing Fluid .7444
P_c 100.2 P_c 105.1

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 _c	P _w P _c
1.	1206.2	1454.9	4.122	17.239	1.467	1454.4	344.7	1439	1738
2.	1011.2	1022.5	7.949	63.187	12.284	1011.3	137.8	1114	1124
3.	782.7	612.6	10.579	111.941	20.025	782.8	1401.3	793	621
4.	411.2	169.1	11.971	143.307	20.948	169.1	2465.6	439	289
5.	402.2	161.8	12.690	161.050	32.492	161.8	3277.5	385	275

Absolute Potential: 4359340 MCFPD; n 1.000 = .35479
COMPANY Ztec Oil Company
ADDRESS Box 847, Hobbs, New Mexico
AGENT and TITLE Water - Gas, District Superintendent
WITNESSED
COMPANY Ztec Oil Company

REMARKS

4355 18.77 2.105 1452.1 171 201.9 1112
5202 6.27 19.1 1011.3 111 111.1
11.4 131.3 2.4 782.8 111 111.1
11.4 147.3 2.4 782.8 111 111.1
11.4 151.0 2.4 782.8 111 111.1

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 .

AZTEC OIL & GAS COMPANY
CATRON STATE "B" NO. 2
Section 1-18S-36E

