NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122
Revised 12-1-55

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Jalmat Formation Yates-7 Rivers County Lea

Initial ____ Annual ____ Special X Date of Test 2-4/2-8-1957

Company R. Olsen, Personal Lease Legal Well No. 2

Unit I Sec. 31 Twp. 25 Rge. 37 Purchaser EPNG

Casing 7" Wt. 20.0 I.D. ____ Set at 2778 Perf. ____ To ____

Tubing 2" Wt. 4.7 I.D. ____ Set at 2922 Perf. ____ To ____

Gas Pay: From 2778 To 2922 L 2922 xG 0.680 =GL 1987 Bar.Press. 13.2

Producing Thru: Casing ____ Tubing X Type Well Single
Single-Bradenhead-G. G. or G.O. Dual

Date of Completion: 9-30-51 Packer None Reservoir Temp. ____

OBSERVED DATA

Tested Through ~~(Prover)~~ ~~(Choke)~~ (Meter) Type Taps Flange

	Flow Data					Tubing Data		Casing Data		
No.	~~(Prover)~~ (Line) Size	~~(Choke)~~ (Orifice) Size	Press. psig	Diff. h_w	Temp. °F.	Press. psig	Temp. °F.	Press. psig	Temp. °F.	Duration of Flow Hr.
SI								352		72
1.	4	1.250	149	10.2	63	255		312		24
2.	4	1.250	169	15.2	57	252		273		24
3.	4	1.250	147	32.5	61	236		258		24
4.	4	1.250	164	34.8	63	217		250		24
5.										

FLOW CALCULATIONS

No.	Coefficient Flange (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.	9.643	35.64		.9971	.9393	1.016	327
2.	9.643	52661		1.0029	.9393	1.019	487
3.	9.643	72.10		.9990	.9393	1.016	663
4.	9.643	77.16		.9971	.9393	1.018	709
5.							

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio ____ cf/bbl. Specific Gravity Separator Gas 0.680
Gravity of Liquid Hydrocarbons ____ deg. Specific Gravity Flowing Fluid ____
F_c Measured $(1-e^{-s})$ ____ P_c 365.2 P_c^2 133.4

No.	~~Pw~~ P_t (psia)	P_t^2	F_cQ	$(F_cQ)^2$	$(F_cQ)^2$ $(1-e^{-s})$	P_w^2	$P_c^2-P_w^2$	Cal. P_w	$\frac{P_w}{P_c}$
1.	268.2	71.9				105.8	27.6		.72
2.	265.2	70.3		MEASURED		81.9	51.5		.71
3.	249.2	62.1				73.5	59.9		.67
4.	230.2	52.9				69.3	64.1		.61
5.									

Absolute Potential: 1,380 MCFPD; n .923
COMPANY R. Olsen-Howard Olsen
ADDRESS Drawer Z, Jal, N.M.
AGENT and TITLE J.W. Payne, Jr.
WITNESSED H.H.Kerby
COMPANY EPNG

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.