

NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Revised 12-1-55

Pool Jalmat Formation Yates County Lea
Initial _____ Annual _____ Special X Date of Test 4/22-26/57
Company Sun Oil Company Lease B. T. Lanehart Well No. 2
Unit I Sec. 20 Twp. 25 Rge. 37 Purchaser El Paso Natural Gas Co.
Casing 7" Wt. 24# I.D. 6.336 Set at 2835 Perf. — To _____
Tubing 2 1/2" Wt. 6.5 I.D. 2.441 Set at 2826 Perf. — To _____
Gas Pay: From 2829 To 3325 L 3826 xG 0.665 -GL _____ Bar.Press. _____
Producing Thru: Casing _____ Tubing X Type Well Single
Date of Completion: 2/9/38 Packer — Single-Bradenhead-G. G. or G.O. Dual
Reservoir Temp. _____

OBSERVED DATA

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

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						465		465		72
1.	4"	1.00"	357	17.22	75	357		359		24
2.	4"	1.00	301	33.06	76	302		310		24
3.	4"	1.00	292	34.22	78	294		305		24
4.	4"	1.00	272	46.24	77	273		281		24
5.										

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.	6.135	79.83	370.2	.9859	.9498	1.034	475
2.	6.135	101.89	314.2	.9850	.9498	1.029	602
3.	6.135	102.16	305.2	.9831	.9498	1.028	601
4.	6.135	114.80	285.2	.9840	.9498	1.026	675
5.							

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio No cf/bbl.
Gravity of Liquid Hydrocarbons No deg.
F_c P_w Measured (1-e^{-s})

Specific Gravity Separator Gas 0.665
Specific Gravity Flowing Fluid —
P_c 478.2 P_c² 228.7

No.	P _{EXX} 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	XXXX P _w	P _w P _c
1.									
2.	370.2	137.0				138.5	90.2		
3.	315.2	99.4				104.5	124.2		
4.	307.2	94.4				101.3	127.4		
5.	286.2	81.9				86.6	142.1		

Absolute Potential: 970 MCFPD; n 0.772

COMPANY SUN OIL COMPANY

ADDRESS Box 2792, Odessa, Texas

AGENT and TITLE J. M. Eubanks, Engineer

WITNESSED

COMPANY

REMARKS

ELVIS A. UTZ
G.S. 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 .