

NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122

Revised 12-1-55

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Jalmat Formation Yates County Lea

Initial _____ Annual _____ Special X Date of Test 1-21 to 1-25-57

Company R. Olsen Oil Company Lease Winningham Well No. 2

Unit P Sec. 19 Twp. 25 S Rge. 37 E Purchaser El Paso Natural Gas Company

Casing 7 Wt. 23 I.D. _____ Set at 2648 Perf. None To _____

Tubing 2 1/2 Wt. 6.5 I.D. _____ Set at 1496 Perf. None To _____

Gas Pay: From 2693 To 2841 L _____ xG .675 -GL _____ Bar.Press. 13.2

Producing Thru: Casing _____ Tubing X Type Well Single

Date of Completion: 12-6-49 Packer None Single-Bradenhead-G. G. or G.O. Dual
Reservoir Temp. _____

OBSERVED DATA

Tested Through ~~XXXXXX~~ (Meter) Type Taps _____

No.	Flow Data					Tubing Data		Casing Data		Duration of Flow Hr.
	(Line) (Line) Size	(Orifice) (Orifice) Size	Press. psig	Diff. h _w	Temp. °F.	Press. psig	Temp. °F.	Press. psig	Temp. °F.	
SI						320		320		72
1.	4	1.500	197	10.9	63	248		250		24
2.	4	1.500	178	31.4	62	183		189		24
3.	4	1.500	163	37.2	63	165		173		24
4.	4	1.500	151	44.9	62	153		165		24
5.										

FLOW CALCULATIONS

No.	Coefficient flg(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.	13.99	47.82		.9971	.9427	1.021	642
2.	13.99	77.39		.9981	.9427	1.019	1038
3.	13.99	80.92		.9971	.9427	1.018	1083
4.	13.99	85.53		.9981	.9427	1.016	1144
5.							

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio _____ cf/bbl.
Gravity of Liquid Hydrocarbons _____ deg.
F_c 5.866 (1-e^{-s})

Specific Gravity Separator Gas _____
Specific Gravity Flowing Fluid _____
P_c 333.2 P_c² 111.0

No.	P_t 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 XXXX	XXXX XXXX
1.	261.2	68.2				69.3	41.7		
2.	196.2	38.5				40.9	70.1		
3.	178.2	31.8				34.7	76.3		
4.	166.2	27.6				31.8	79.2		
5.									

Absolute Potential: 1,510 MCFPD; n .855

COMPANY R. Olsen Oil Company

ADDRESS 2805 Liberty Bank Building, Oklahoma City, Oklahoma

AGENT and TITLE Philip Randolph, Vice President

WITNESSED _____

COMPANY _____

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} = Supercompressibility factor.

n = Slope of back pressure curve.

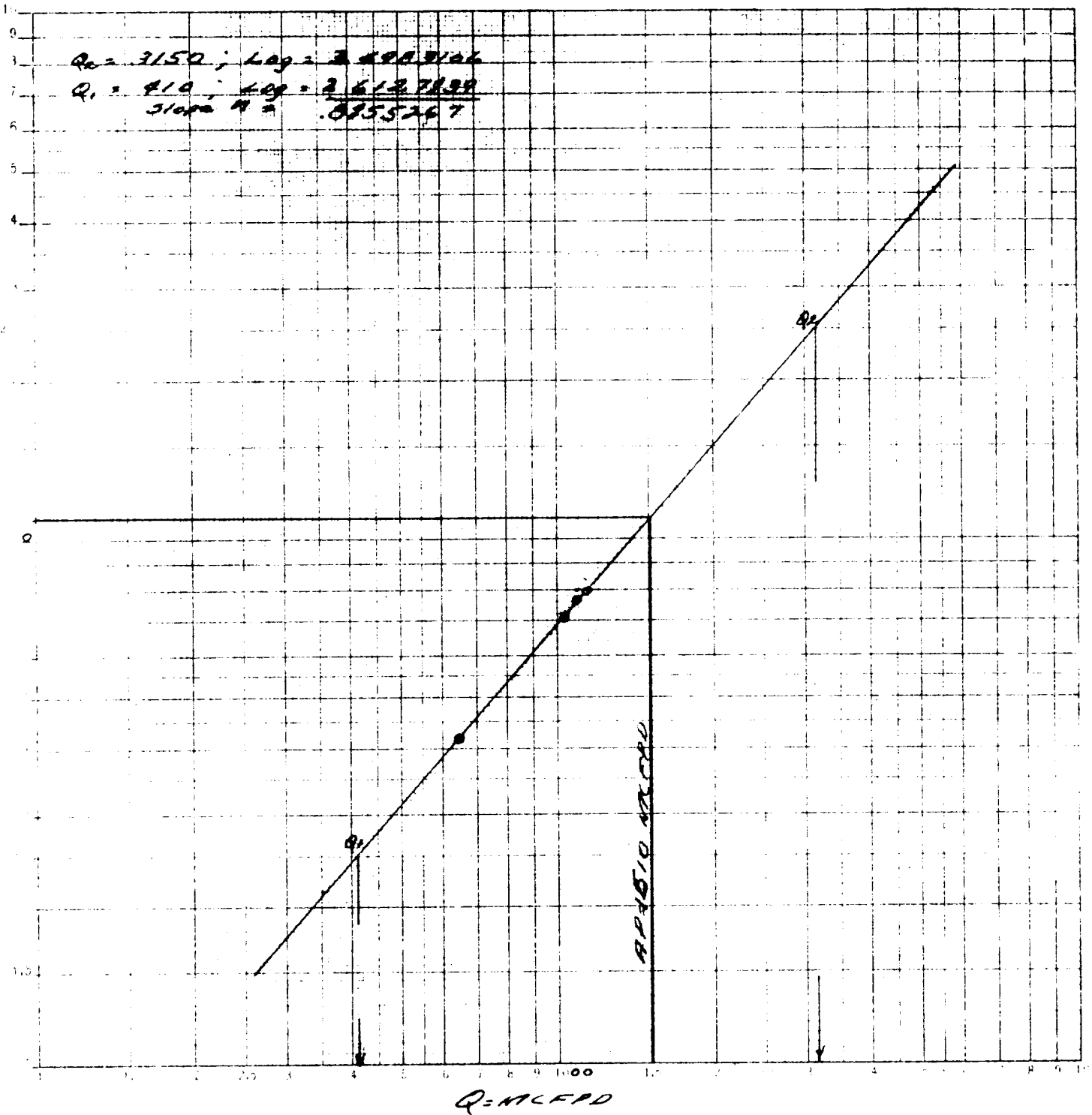
Note: If P_w cannot be taken because of manner of completion or condition of well, then P_w must be calculated by adding the pressure drop due to friction within the flow string to P_t .

R. OLSEN OIL CO.
 WINNINGHAM #2
 UNIT "D", SEC. 19, 25, 37
 1-25-57

$Q_0 = 3150$; $\log = 3.4993106$
 $Q_1 = 410$; $\log = 2.6127838$
 Slope $n = .895267$

$P_0^2 - P_w^2$ (atgnds)

LOGARITHMIC 359 110



3150×2.499311
 410×2.612784
 $.895267$