

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 NOV 20 AM 10:15

Initial _____ Annual _____ Special XX Date of Test 1-14/1-18-57

Company Skelly Oil Company Lease Sherrell Well No. 5

Unit H Sec. 31 Twp. 24S Rge. 37 E Purchaser El Paso Natural Gas Company

Casing 7" Wt. 20.0# I.D. 6.456' Set at 2720' Perf. _____ To _____

Tubing None Wt. _____ I.D. _____ Set at _____ Perf. _____ To _____

Gas Pay: From 2790' To 3350 L 2720 xG 0.660 -GL 1798 Bar.Press. 13.2

Producing Thru: Casing XX Tubing _____ Type Well Single

Date of Completion: 9-19-49 Packer None Single-Bradenhead-G. G. or G.O. Dual
Reservoir Temp. _____

OBSERVED DATA

Tested Through (Pressure) (Choke) (Meter)

Type Taps _____

Flow Data						Tubing Data		Casing Data		Duration of Flow Hr.
No.	(Pressure) (Line)	(Flow) (Orifice)	Press.	Diff.	Temp.	Press.	Temp.	Press.	Temp.	
	Size	Size	psig	h _w	°F.	psig	°F.	psig	°F.	
SI								720		72
1.	4	1.000	650	16.0	76			650		25
2.	4	1.000	637	22.1	80			637		24
3.	4	1.000	630	26.0	79			630		24
4.	4	1.000	573	39.1	80			574		24
5.										

FLOW CALCULATIONS

No.	Coefficient (24-Hour)	$\sqrt{h_{wpf}}$	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	103.00		0.9850	0.9535	1.066	633
2.	6.135	119.83		0.9813	0.9535	1.059	728
3.	6.135	129.32		0.9822	0.9535	1.062	789
4.	6.135	151.29		0.9813	0.9535	1.059	920
5.							

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio _____ cf/bbl.
Gravity of Liquid Hydrocarbons _____ deg.
F_c 0.4682 (1-e^{-S}) 0.116

Specific Gravity Separator Gas _____
Specific Gravity Flowing Fluid _____
P_c 723.2 P_c² 537.6

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 _w	P _w /P _c
1.	663.2	439.8	0.3	0.09	0.01	439.8	97.8		
2.	650.2	422.8	0.3	0.09	0.01	422.8	114.8		
3.	643.2	413.7	0.4	0.20	0.02	413.7	123.9		
4.	587.2	344.8	0.4	0.20	0.02	344.8	192.8		
5.									

Absolute Potential: 2,950 MCFPD; n 0.903

COMPANY Skelly Oil Company
ADDRESS Box 38, Hobbs, New Mexico
AGENT and TITLE _____
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} = 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 .