

NEW MEXICO OIL CONSERVATION COMMISSION

HOBBS OFFICE OCC

ALBUQUERQUE OFFICE OCC

Form C-122

Revised 12-1-55

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

1957 FEB 10

8:04

FEB 12

Pool Jalnet Formation Lates County LeeInitial _____ Annual _____ Special X Date of Test 1-11-57Company Sinclair Oil & Gas Company Lease State 157 "B" Well No. 1Unit 8 Sec. 32 Twp. 24S Rge. 37E Purchaser El Paso Natural Gas CompanyCasing 7" Wt. 245 I.D. 6.336 Set at 3412 Perf. _____ To _____Tubing 2" Wt. 4.74 I.D. 1.995 Set at 2996 Perf. _____ To _____Gas Pay: From 3025 To 3095 L 2996 xG .650 -GL 1947 Bar.Press. 13.2Producing Thru: Casing _____ Tubing X Type Well SingleDate of Completion: 1-7-59 Packer _____ Single-Bradenhead-G. G. or G.O. Dual
Reservoir Temp. 118°

OBSERVED DATA

Tested Through (Barometer) (Orifice) (Meter)Type Taps Flange

No.	Flow Data					Tubing Data		Casing Data		Duration of Flow Hr.
	(Line) Size	(Orifice) Size	Press. psig	Diff. h _w	Temp. °F.	Press. psig	Temp. °F.	Press. psig	Temp. °F.	
SI										
1.	4"	1.500	622	7.84	107	601	70			72
2.	4"	1.500	600	12.25	120	601	70			24
3.	4"	1.500	568	19.36	97	570	70			24
4.	4"	1.500	545	27.04	96	545*	70			24
5.										24

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.	13.99	70.56	635.2	.9576	.9608	1.051	954
2.	13.99	86.66	613.2	.9669	.9608	1.042	1149
3.	13.99	106.06	581.2	.9662	.9608	1.048	1444
4.	13.99	123.93	558.2	.9671	.9608	1.046	1685
5.							

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio 0 cf/bbl.
Gravity of Liquid Hydrocarbons 0 deg.
c 9.936 (1-e^{-s}) .125Specific Gravity Separator Gas .650
Specific Gravity Flowing Fluid _____
P_c 704.2 P_c² 495.9

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.	635.2	403.5	9.48	89.87	11.2	414.7	81.2	644.0	91.4
2.	614.2	377.2	11.42	130.42	16.3	393.5	102.4	627.2	89.1
3.	583.2	340.1	14.35	205.82	25.7	365.8	130.1	604.8	85.9
4.	561.2	314.9	16.74	280.23	35.0	349.9	146.0	591.6	84.0
5.									

Absolute Potential: 4.650 MCFPD; n .871COMPANY Sinclair Oil & Gas Company
ADDRESS 520 East Broadway Hobbs, New Mexico
AGENT and TITLE R. L. Horned Gas Analyst
WITNESSED Edward Mabe
COMPANY El Paso Natural Gas Company

REMARKS

*Not Enough Draw Down Due To High Line Pressure

S. A. UTZ
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} = 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 .