NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122
Revised 12-1-55

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Sawyer Formation San Andres County Lea

Initial ____ Annual X Special ____ Date of Test 2-5-64

Company Sinclair Oil & Gas Co. Lease State Lea 514 Well No. 1

Unit K Sec. 32 Twp. 9S Rge. 38E Purchaser Sinclair Oil & Gas Co. Plt.#29

Casing 7 5/8 Wt. ____ I.D. ____ Set at 3301 Perf. ____ To ____

Tubing 2½ Wt. 6.5 I.D. 2.441 Set at 5000 Perf. 4916 To 4938

Gas Pay: From 4916 To 4938 L 4916 xG .805 =GL 3957 Bar.Press. 13.2

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

Date of Completion: 8-14-60 Packer ____ Reservoir Temp. ____

OBSERVED DATA

Tested Through (Prover) (Choke) (Meter) Type Taps Flg.

No.	Flow Data (Prover) (Line) Size	Flow Data (Choke) (Orifice) Size	Flow Data Press. psig	Flow Data Diff. h_w	Flow Data Temp. °F.	Tubing Data Press. psig	Tubing Data Temp. °F.	Casing Data Press. psig	Casing Data Temp. °F.	Duration of Flow Hr.
SI						1369				72
1.	3	1.875	435.7	8	58	437				24
2.										
3.										
4.										
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.	23.60	59.93	448.9	1.0319	.8635	1.000	1,382
2.							
3.							
4.							
5.							

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio Neg. cf/bbl.
Gravity of Liquid Hydrocarbons ____ deg.
F_c 5.866 $(1-e^{-s})$ .238

Specific Gravity Separator Gas .805
Specific Gravity Flowing Fluid ____
P_c 1382.2 P_c^2 1910.5

No.	P_w / P_t (psia)	P_t^2	F_cQ	$(F_cQ)^2$	$\frac{(F_cQ)^2}{(1-e^{-s})}$	P_w^2	$P_c^2-P_w^2$	Cal. P_w	$\frac{P_w}{P_c}$
1.	450.2	202.7	7.755	60.140	14.313	217.0	1693.5	465.8	33.70
2.									
3.									
4.									
5.									

Absolute Potential: 1,491 MCFPD; n Previous n Slope Used (1.000)
COMPANY Sinclair Oil & Gas Co.
ADDRESS Mr. Fred Rogers Box 1470 Midland Texas
AGENT and TITLE R. Fawcett Inst. Tech. Checked By W.R. Lord
WITNESSED None
COMPANY ____

REMARKS

Negligiable amount of fluid Produced during test.

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.