NE EXICO OIL CON SERVATION COMMISS

Form C-122
Revised 12-1-55

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool **Undesignated** Formation **San Andres** County **Lea**

Initial ______ Annual ______ Special **X** Date of Test **11-9-62**

Company **Lone Star Producing Company** Lease **State King** Well No. **1**

Unit **N** Sec. **16** Twp. **9S** Rge. **35E** Purchaser **Sinclair Oil & Gas Company**

Casing **9-5/8" / 7" liner** Wt. **36# / 23#** I.D. **8.921 / 6.366** Set at **4342' / 4241-5552'** Perf. **4,740'** To **4,815'**

Tubing **2.375** Wt. **4.7#** I.D. **1.995** Set at **4736'** Perf. **4,798'** To **4,802'**

Gas Pay: From **4,740'** To **4,815'** L **4,798'** xG **.800** -GL **3838** Bar.Press. **13.2**

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

Date of Completion: **Nov. 18, 1952** Packer **4736' Hanging Unset** Reservoir Temp. **122°**

OBSERVED DATA

Tested Through ~~(Prover)~~ ~~(Choke)~~ (Meter) Type Taps **Flange**

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						865		865		
1.	3	1.750	372	4	63	767		793		70
2.	3	1.750	410	7.5	70	693		726		3
3.	3	1.750	412	9.5	75	636		673		3
4.	3	1.750	412	10.5	69	597		637		3
5.			324	10.5	85	515		608		22

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.	20.15	39.25	385.2	.9971	.8660	1.066	728
2.	20.15	56.34	423.2	.9905	.8660	1.068	1040
3.	20.15	63.56	425.2	.9859	.8660	1.066	1165
4.	20.15	66.82	425.2	.9915	.8660	1.071	1238
5.	20.15	59.50	337.2	.9768	.8660	1.046	1061

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio **Trace** cf/bbl.
Gravity of Liquid Hydrocarbons **--** deg.
F_c **Measured** $(1-e^{-s})$ **--**

Specific Gravity Separator Gas **.800**
Specific Gravity Flowing Fluid ______
P_c **878.2** P_c^2 **771.2**

No.	P_w P_t (psia)	P_t^2	F_cQ	$(F_cQ)^2$	$(F_cQ)^2 (1-e^{-s})$	P_w^2	$P_c^2-P_w^2$	Cal. P_w	$\frac{P_w}{P_c}$
1.	806.2					650.0	121.2		91.8
2.	739.2					546.4	224.8		84.2
3.	686.2					471.0	300.2		78.1
4.	650.2					423.0	348.2		74.0
5.	621.2					386.0	385.2		70.7

Absolute Potential: **1,503** MCFPD; n **.5000**

COMPANY **Lone Star Producing Company**
ADDRESS **Box 4815, Midland, Texas**
AGENT and TITLE B. E. Carpenter - **Petroleum Engineer**
WITNESSED W. K. Lord
COMPANY **Sinclair Oil and Gas 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.

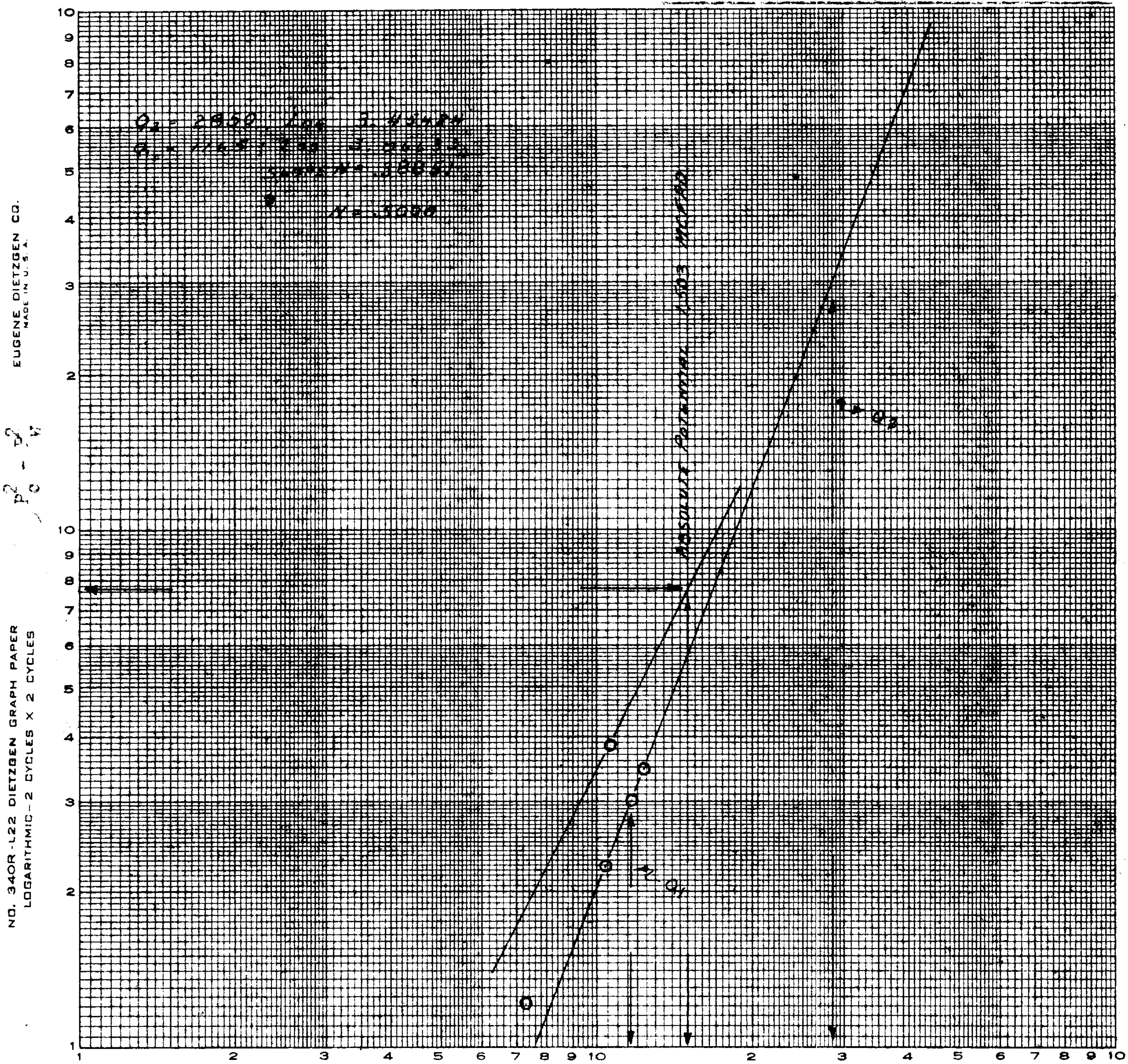
Company Lone Star Producing Company

Well State King

Location N-15-9S-35E

County Lea

Date November 9, 1962



Q = MCFD 15.025 PSIA