NEW MEXICO OIL CONSERVATION COMMISSION

HOBBS OFFICE OCC

OCT 10 PM 3:04

Form C-122
Revised 12-1-55

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool **Eumont** Formation **Queen** County **Lea**

Initial ____ Annual ____ Special **x** Date of Test **7-23 to 7-27-56**

Company **Schermerhorn Oil Corp.** Lease **Houston** Well No. **1**

Unit **K** Sec. **21** Twp. **19 S** Rge. **37 E** Purchaser **EPNG**

Casing **5 1/2** Wt. **14** I.D. **5.012** Set at **3475** Perf. ____ To ____

Tubing **2** Wt. **4.7** I.D. **1.995** Set at **3550** Perf. ____ To ____

Gas Pay: From **3479** To **3760** L **3550** xG **.670** -GL **2379** Bar.Press. **13.2**

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

Date of Completion: **9-12-54** Packer **None** Reservoir Temp. ____

OBSERVED DATA

Tested Through ~~(Choke)~~ ~~(Choke)~~ (Meter) Type Taps ____

No.	Flow Data ~~(Prover)~~ (Line) Size	~~(Choke)~~ (Orifice) Size	Press. psig	Diff. h_w	Temp. °F.	Tubing Data Press. psig	Tubing Data Temp. °F.	Casing Data Press. psig	Casing Data Temp. °F.	Duration of Flow Hr.
SI						911		913		72
1.	4 x 1.500		568	2.35^2	62	846		856		24
2.	4 x 1.500		551	4.0^2	63	789		810		24
3.	4 x 1.500		549	4.4^2	65	773		798		24
4.	4 x 1.500		599	6.4^2	71	657		727	74 ?	24
5.										

FLOW CALCULATIONS

No.	Coefficient (24-Hour) Flg	$\sqrt{h_w p_f}$	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	56.64		.9981	.9463	1.064	796
2.	13.99	94.99		.9971	.9463	1.064	1334
3.	13.99	104.81		.9962	.9468	1.062	1460
4.	13.99	158.38		.9896	.9468	1.064	2206
5.							

PRESSURE CALCULATIONS

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

Specific Gravity Separator Gas ____
Specific Gravity Flowing Fluid ____
P_c **926.2** P_c^2 **857.8**

No.	~~Pw~~ Pt (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.	859.2	738.2				755.5	102.3		.955
2.	802.2	648.5				677.6	180.3		
3.	785.2	616.5				658.0	199.8		
4.	670.2	449.2				547.9	309.9		.729
5.									

Absolute Potential: **5,700** MCFPD; n **.928**
COMPANY **SCHERMERHORN OIL CORPORATION**
ADDRESS **P. O. BOX 1537, HOBBS, NEW MEXICO**
AGENT and TITLE **J. HIRAM MOORE, GEOLOGIST**
WITNESSED ____
COMPANY **El Paso Natural 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.