NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122
Revised 12-1-55

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool **Blanco** Formation **Mesa Verde** County **Rio Arriba**

Initial **x** Annual _____ Special _____ Date of Test **9-25-58**

Company **Honolulu Oil Corporation** Lease **Jicarilla** Well No. **4 M**

Unit **K** Sec. **4** Twp. **26 N** Rge. **4 W** Purchaser **Southern Union Gas Co.**

Casing **3 1/2** Wt. **9.2** I.D. **3"** Set at **6341** Perf. **6074** To **6170**

Tubing **2** Wt. _____ I.D. _____ Set at **6156** Perf. **None - open end** To _____

Gas Pay: From **6074** To **6170** L **6156** xG **.710** -GL **4370** Bar.Press. **12.00**

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

Date of Completion: _____ Packer **3982** Reservoir Temp. **G.G. Dual**

OBSERVED DATA

Tested Through (Prover) (Choke) (Meter) Type Taps _____

	Flow Data					Tubing Data		Casing Data		
No.	(Prover) (Line) Size	(Choke) (Orifice) Size	Press. psig	Diff. h_w	Temp. °F.	Press. psig	Temp. °F.	Press. psig	Temp. °F.	Duration of Flow Hr.
SI						1142	60	—	—	—
1.	2	.750	221	—	57	221	57	—	—	3 hours
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.	12.3650	—	233	1.0029	.9193	1.030	2,736
2.							
3.							
4.							
5.							

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio — cf/bbl. Specific Gravity Separator Gas —
Gravity of Liquid Hydrocarbons — deg. Specific Gravity Flowing Fluid .710
F_c 9.402 $(1-e^{-s})$ .272 P_c 1154 P_c^2 1331.716

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.	233	54.289	25.723	661.672	179.974	234.263	1097.453	484	.419
2.									
3.									
4.									
5.									

Absolute Potential: 3,163 MCFPD; n .75
COMPANY Honolulu Oil Corporation
ADDRESS Drawer 1391, Midland, Texas
AGENT and TITLE G. B. Evans, Division Gas Engineer
WITNESSED _____
COMPANY Southern Union Gas Company

REMARKS

$$AOF = 2,736 \left(\frac{1331.716}{1097.453}\right)^{.75} = (2,736)(1.1561) = 3,163$$

RECEIVED
OCT 10 1958
OIL CON. COM.
DIST. 3

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.