NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122
Revised 12-1-55

HOBBS OFFICE OCC
AM 10:50

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Bennett Formation [illegible] County Lea

Initial ____ Annual ____ Special X Date of Test 6-25 to 6-29-56

Company Humble Oil & Refining Company Lease A. J. Adkins Well No. 4

Unit L Sec. 10 Twp. 21S Rge. 36E Purchaser El Paso Natural Gas Company

Casing 5½ Wt. 17 I.D. 4.892 Set at 3774 Perf. 3375 To 3475

Tubing 2 Wt. 4.7 I.D. 1.995 Set at 3455 Perf. 3448 To 3451

Gas Pay: From 3375 To 3475 L 3448 xG 0.675 -GL 2327 Bar.Press. 13.2

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

Date of Completion: 10-26-52 Packer 3369 Reservoir Temp. 90

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						999				72
1.	4	1.250	599	17.2	64	914				24
2.	4	1.250	615	39.3	66	870				24
3.	4	1.250	611	45.6	66	827				24
4.	4	1.250	614	48.1	69	785				24
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.	9.658	103.6	612.2	0.9962	0.9427	1.068	998
2.	9.643	138.0	628.2	0.9943	0.9427	1.069	1339
3.	9.643	148.7	624.2	0.9948	0.9427	1.068	1442
4.	9.643	154.7	627.2	0.9953	0.9427	1.069	1502
5.							

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio ____ cf/bbl.
Gravity of Liquid Hydrocarbons ____ deg.
F_c 9.996 $(1-e^{-s})$ 0.148

Specific Gravity Separator Gas ____
Specific Gravity Flowing Fluid ____
P_c 1012.2 P_c^2 1024.5

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.	927.2	859.7	9.857	97.16	14.4	874.1	150.4	934.9	92.4
2.	883.2	780.0	13.80	190.4	28.2	794.9	229.6	877.7	86.7
3.	850.2	722.8	15.20	231.0	34.3	722.8	301.7	823.7	81.3
4.	798.2	637.3	15.79	249.4	37.0	637.3	387.2	753.7	74.4
5.									

Absolute Potential: 4050 MCFPD; n 0.98

COMPANY Humble Oil & Refining Company
ADDRESS Box 2347, Hobbs, N.M.
AGENT and TITLE [signature] District Superintendent
WITNESSED J. R. Blumer
COMPANY El Paso Natural Gas Company

REMARKS

FILES A. U. O.

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.