NEW MEXICO OIL CONSERVATION COMMISSION

HOBBS OFFICE OCC

1956 OCT 30 AM 10:49

Form C-122

Revised 12-1-55

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Eumont Formation Penrose County Lea

Initial ____ Annual ____ Special x Date of Test 6-11 to 6-15-56

Company Standard Oil Co. of Texas Lease State 1-35 Well No. 1

Unit M Sec. 35 Twp. 19-S Rge. 37-E Purchaser El Paso Natural Gas Co.

Casing 7 Wt. 23 I.D. 6.366 Set at 3640 Perf. - To -

Tubing 2-3/8 Wt. 4.7 I.D. 1.995 Set at 3657 Perf. - To -

Gas Pay: From 3660 To 3796 L 3657 xG 0.675 =GL 2468 Bar.Press. 13.2

Producing Thru: Casing ____ Tubing x Type Well Single

Single-Br. Penhead-G. G. or G.O. Dual

Date of Completion: 7-22-55 Packer None Reservoir Temp. ____

OBSERVED DATA

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

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						866		871		72 hr. SI
1.	4"	1.5"	568	4.0^2	70	779		799		24
2.	4"	1.5"	567	5.25^2	71	714		754		24
3.	4"	1.5"	562	6.8^2	75	619		701		24
4.	4"	1.5"	599	5.75^2	76	635		697		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.	13.99	96.43	581.2	0.9905	0.9427	1.062	1,338
2.	13.99	126.45	580.2	0.9896	0.9427	1.062	1,753
3.	13.99	163.08	575.2	0.9859	0.9427	1.060	2,248
4.	13.99	142.27	612.2	0.9850	0.9427	1.064	1,966
5.							

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio Dry gas cf/bbl.

Gravity of Liquid Hydrocarbons ____ deg.

F_c Pw measured $(1-e^{-s})$ ____

Specific Gravity Separator Gas ____

Specific Gravity Flowing Fluid ____

P_c 884.2 P_c^2 781.8

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.	812.2					659.7	122.1		91.9
2.	767.2					588.6	193.2		86.8
3.	714.2					510.1	271.7		80.8
4.	710.2					504.4	277.4		80.3
5.									

Absolute Potential: 4,500 MCFPD MCFPD; n 0.66

COMPANY Standard Oil Co. of Texas

ADDRESS Bin "B", Royalty, Texas

AGENT and TITLE J. M. McMahan, District Engineer

WITNESSED Edward Mabe

COMPANY El Paso Natural Gas Company

REMARKS

Average slope drop through points for back pressure curve, in accordance with paragraph 10 (c) of back pressure manual.

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.