NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122
Revised 12-1-55

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Jalmat Formation Yates County Lea

Initial ____ Annual ____ Special X Date of Test 1-7/1-11-57

Company Scharbauerhorn Oil Corp. Lease Woolworth Well No. 3

Unit J Sec. 28 Twp. 24S Rge. 37E Purchaser PNG

Casing 7" Wt. 22.0 I.D. ____ Set at 3225 Perf. ____ To ____

Tubing 2" Wt. 4.7 I.D. ____ Set at 2910 Perf. ____ To ____

Gas Pay: From 2925 To 3018 L 2910 xG .660 =GL 1921 Bar.Press. 13.2

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

Date of Completion: 8-28-52 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						678				72
1.	4 x	1.500	519	14.4	76	632				24
2.	4 x	1.500	519	20.7	76	617				24
3.	4 x	1.500	519	26.0	76	602				24
4.	4 x	1.500	520	56.3	77	539				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	87.65		.9850	.9535	1.049	1,206
2.	13.99	104.98		.9850	.9535	1.049	1,447
3.	13.99	117.63		.9850	.9535	1.049	1,622
4.	13.99	173.15		.9840	.9536	1.053	2,392
5.							

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio Dry cf/bbl. Specific Gravity Separator Gas .660

Gravity of Liquid Hydrocarbons ____ deg. Specific Gravity Flowing Fluid ____

P_c 9.996 $(1-e^{-s})$ .124 P_c 691.2 P_c^2 477.8

No.	Pt (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.	645.2	416.3	12.0	144.0	17.9	434.2	43.6		
2.	620.2	997.2	14.4	207.4	25.7	422.9	54.9		
3.	615.2	878.5	16.1	259.2	32.1	410.6	67.2		
4.	552.2	304.9	23.8	566.4	70.2	375.1	102.7		
5.									

Absolute Potential: 8,200 MCFPD; n .808

COMPANY Scharbauerhorn Oil Corporation

ADDRESS Box 1537, Hobbs, New Mexico

AGENT and TITLE Agent, Charlene James

WITNESSED Earl C. Smith

COMPANY Smith & Turner

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.