NEW MEXICO OIL CONSERVATION COMMISSION

HOBBS OFFICE OCC

Form C-122
Revised 12-1-55

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

1956 NOV 20 AM 9:36

Pool Eumont Formation Yates - Seven Rivers County Lea

Initial ____ Annual ____ Special x Date of Test 6-25-56/6-29-56

Company Cherm Oil Company Lease Wilson State Well No. 1

Unit A Sec. 11 Twp. 21S Rge. 35E Purchaser EPNG

Casing 7 Wt. 20 I.D. 6.456 Set at 3806 Perf. ____ To ____

Tubing 2 Wt. 4.7 I.D. 1.995 Set at 3700 Perf. ____ To ____

Gas Pay: From 3708 To 3765 L 3700 xG .685 -GL 2535 Bar.Press. 13.2

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

Date of Completion: 1-5-54 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						805		799		72
1.	4	1.250	596	3.8	71	756		771		24
2.	4	1.250	607	4.85	71	735		754		24
3.	4	1.250	615	6.55	72	695		732		24
4.	4	1.250	601	7.2	73	674		718		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.	9.643	93.78		.9896	.9359	1.068	894.5
2.	9.643	119.8		.9896	.9359	1.068	1143
3.	9.643	164.1		.9887	.9359	1.072	1569
4.	9.643	181.3		.9877	.9359	1.072	1731
5.							

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio ____ cf/bbl.
Gravity of Liquid Hydrocarbons ____ deg.
F_c 9.936 $(1-e^{-s})$ .160

Specific Gravity Separator Gas ____
Specific Gravity Flowing Fluid ____
P_c 818 P_c^2 653

No.	P_w (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.	784.2	501				614.9	38.1		95
2.	767.2	559.5				588.5	64.5		
3.	745.2	501.3				555.3	97.7		
4.	731.2	471.9				534.7	118.3		89
5.									

Absolute Potential: 4700 460 MCFPD; n .587

COMPANY ____
ADDRESS Cherm Oil Company
AGENT and TITLE 302 Harper Building, Artesia, New Mexico
WITNESSED Miles P. Sheldon
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.