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 X Annual ____ Special ____ Date of Test 1/2/58

Company SUNRAY MID-CONTINENT Lease H. D. GREER Well No. 2

Unit D Sec. 21 Twp. 22S Rge. 36E Purchaser EL PASO NATURAL GAS COMPANY

Casing 5½ Wt. 13 I.D. 5.00 Set at 3680 Perf. 3065 To 3470

Tubing 2-3/8 Wt. 4.7 I.D. 2.00 Set at 3552 Perf. NONE To ____

Gas Pay: From 3065 To 3470 L 3552 xG .765 -GL 2717 Bar.Press. 13.2

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

Date of Completion: 12/27/57 Packer NONE Reservoir Temp. ____

OBSERVED DATA

Tested Through 2" (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						656		667		72 HRS.
1.	.500	19/64	150		47	605	62	615	53	2 3/4
2.	.500	22/64	230		50	565	64	585	55	2
3.	.500	26/64	310		50	485	64	544	62	1
4.	.500	33/64	370		60	423	64	508	62	1
5.	.500	33/64	370		68	420	63	502	70	24

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.	5.5233		163.2	1.0127	.8856	1.023	827
2.	5.5233		243.2	1.0098	.8856	1.040	1,249
3.	5.5233		323.2	1.0000	.8856	1.049	1,658
4.	5.5233		383.2	1.0000	.8856	1.059	1,986
5.	5.5233		383.2	0.9924	.8856	1.057	1,967

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 .765
Specific Gravity Flowing Fluid ____
P_c 680.2 P_c^2 462.7

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.	628.2					394.6	68.1		
2.	598.2					357.8	104.9		
3.	557.2					310.3	152.2		
4.	521.2					271.5	191.1		
5.	515.2					265.4	197.3		

Absolute Potential: 3,800 MCFPD; n .77
COMPANY SUNRAY MID-CONTINENT OIL COMPANY
ADDRESS Box 1168, SNYDER, TEXAS
AGENT and TITLE D. G. BOWER, GAS TESTER
WITNESSED ____
COMPANY ____

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.