NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122
Revised 12-1-55

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool **Blinebry Gas**   Formation **Blinebry Gas**   County **Lea**

Initial **x**   Annual_____   Special_____   Date of Test **4-30-57**

Company **Sunray Mid-Continent Oil Co** Lease **Linam Hardy**   Well No. **5 /**

Unit **A**   Sec. **29** Twp. **21S** Rge. **37E**   Purchaser **None-Undesignated**

Casing **5 1/2** Wt. **15.5** I.D._____ Set at **7900** Perf. **5600** To **5650**

Tubing **2 3/8** Wt. **4.70** I.D. **2"** Set at **6239** Perf._____ To_____

Gas Pay: From_____ To_____ L_____ xG_____ -GL_____ Bar.Press._____

Producing Thru: Casing **x** Tubing_____ Type Well **Dual**

Date of Completion: **4-27-57** Packer **x**   Single-Bradenhead-G. G. or G.O. Dual
Reservoir Temp._____

OBSERVED DATA   **Pkg. 6090'**

Tested Through (Prover) (Choke) (Meter)   Type Taps_____

No.	(Prover) (Line) Size	(Choke) (Orifice) Size	Press. psig	Diff. h_w	Temp. °F.	Tubing Data Press. psig	Temp. °F.	Casing Data Press. psig	Temp. °F.	Duration of Flow Hr.
SI	1799									
1.	3/4"	30/64	373		42°	1474 SI		1105		6 Hrs.
2.	1"	30/64	226		32°	1474 SI		1045		7 Hrs.
3.										
4.										
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.	12.2023		373	1.0178	.9325	1.074	4,639.44
2.	22.0662		226	1.0281	.9325	1.078	5,156.52
3.							
4.							
5.							

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio **39,996** cf/bbl.   Specific Gravity Separator Gas **.693**
Gravity of Liquid Hydrocarbons **44.2** deg.   Specific Gravity Flowing Fluid_____
F_c_____ $(1-e^{-s})$_____ P_c_____ P_c^2_____

No.	P_w **1799** P_t (psia)	P_t^2	$F_c Q$	$(F_c Q)^2$	$(F_c Q)^2 (1-e^{-s})$	P_w^2	$P_c^2 - P_w^2$	Cal. P_w	$\frac{P_w}{P_c}$
1.	373	1391.3				3236.4	1845.1		
2.	226	510.7				3236.4	2725.4		
3.									
4.									
5.									

Absolute Potential: **5380**   MCFPD; n **.90 (Ave Field Slope)**
COMPANY **Sunray Mid-Continent Oil Company**
ADDRESS **Hobbs, New Mexico**
AGENT and TITLE **Charles Beal - Agent**   *Charles Beal*
WITNESSED **Mr. Clegg**
COMPANY **Sunray Mid-Continent Oil Company**

REMARKS

**Well produces liquid on any stabilized rate.
New completion.**

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.