NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122
Revised 12-1-55

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Undesignated Formation Dakota County San Juan

Initial X Annual ____ Special ____ Date of Test 1/22/60

Company Sunray Mid-Continent Oil Co. Lease N.M. Federal "N" Well No. 1

Unit M Sec. 17 Twp. 30N Rge. 12W Purchaser None

Casing 5½ Wt. 15.5# I.D. 4.950 Set at 6771 Perf. 6488 To 6608

Tubing 2 3/8 Wt. 4.7# I.D. 1.995 Set at 6480 Perf. 6480 To ____

Gas Pay: From 6488 To 6608 L 6600 xG 0.65 -GL 4290 Bar.Press. 12

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

Date of Completion: 1/7/60 Packer None Reservoir Temp. ____

OBSERVED DATA

Tested Through ~~(Prover)~~ (Choke) ~~(Orifice)~~ Type Taps ____

	Flow Data					Tubing Data		Casing Data		
No.	(Prover) (Line) Size	(Choke) (Orifice) Size	Press. psig	Diff. h_w	Temp. °F.	Press. psig	Temp. °F.	Press. psig	Temp. °F.	Duration of Flow Hr.
SI						1993		1985		
1.		3/4	223		68°	304	68°	684		3 Hours
2.										
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.	12.3650		235	0.9924	0.9608		2,771
2.							
3.							
4.							
5.							

PRESSURE CALCULATIONS

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

Specific Gravity Separator Gas ____
Specific Gravity Flowing Fluid ____
P_c 2002 P_c^2 4008

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.						484.4	3523.6		0.3476
2.									
3.									
4.									
5.									

Absolute Potential: 3,051 MCFPD; n 0.75

COMPANY Sunray Mid-Continent Oil Company
ADDRESS 136 Petroleum Center Bldg., Farmington, N.M.
AGENT and TITLE Engineer - H. M. Stierwalt Hal M. Stierwalt
WITNESSED ____
COMPANY ____

REMARKS

RECEIVED
FEB 3 1960
OIL CON. COM.
DIST. 3

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.