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 X Special X Date of Test 11/30-12/6/57

Company SOUTHERN CALIFORNIA PETROLEUM CORPORATION Lease Texas-State Well No. 2

Unit I Sec. 16 Twp. 23 Rge. 36 Purchaser El Paso Natural Gas Co.

Casing 7" Wt. 20&23 I.D. ____ Set at 3077 Perf. ____ To ____

Tubing 2-3/8 Wt. 4.7 I.D. ____ Set at 3297 Perf. ____ To ____

Gas Pay: From 3168 To 3295 L 3297 xG .670 =GL 2209 Bar.Press. 13.2

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

Date of Completion: March 2,1951 Packer ____ Reservoir Temp. ____

OBSERVED DATA

Tested Through (Prover) (Chcke) (Meter) Type Taps ____

No.	Flow Data: (Prover) (Line) Size	(Choke) (Orifice) Size	Press. psig	Diff. h_w	Temp. °F.	Tubing Data: Press. psig	Tubing Data: Temp. °F.	Casing Data: Press. psig	Casing Data: Temp. °F.	Duration of Flow Hr.
SI						475		539		72
1.	4	1.250	317	15.21	58	447		471		24
2.	4	1.250	328	28.62	61	410		449		24
3.	4	1.250	330	39.69	62	369		420		24
4.	4	1.250	330	42.90	63	354		410		24
5.										

FLOW CALCULATIONS

No.	Coefficient Flg. (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	70.84		1.0019	.9463	1.036	670
2.	9.643	98.79		.9990	.9463	1.036	933
3.	9.643	116.68		.9981	.9463	1.037	1102
4.	9.643	121.31		.9971	.9463	1.037	1145
5.							

PRESSURE CALCULATIONS

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

Specific Gravity Separator Gas -
Specific Gravity Flowing Fluid -
P_c 552.2 P_c^2 304.9

No.	P_w P_t (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.	468.2	211.8				234.4	70.5	484.2	
2.	423.2	179.1				213.6	96.3	471.3	
3.	382.2	146.1		measured		117.7	117.2		
4.	367.2	134.8				179.1	125.8		
5.									

Absolute Potential: 2.000 MCFPD; n .648

COMPANY SOUTHERN CALIFORNIA PETROLEUM CORP.
ADDRESS Box 1071, Midland, Texas
AGENT and TITLE [signature] Division Engineer
WITNESSED ____
COMPANY SOUTHERN CALIFORNIA PETROLEUM CORP.

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.