NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122
Revised 12-1-55

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Jalmat Gas Formation 7 Rivers County Lea

Initial X Annual ____ Special ____ Date of Test 9/11/61

Company C. E. Long Lease Pech-State Well No. 2

Unit K Sec. 32 Twp. 21-S Rge. 36-E Purchaser Phillips Petrol. Co.

Casing 5½" Wt. 14 lb. I.D. ____ Set at 3910 Perf. 3754' To 3800'

Tubing 2 3/8 Wt. 4.7 I.D. ____ Set at 3888' Perf. 3820' To Garrett Sleeve

Gas Pay: From 3754' To 3800' L 3820 xG .650 (assumed) GL ____ Bar.Press. 13.2

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

Date of Completion: 12/12/56 Packer None Reservoir Temp. ____

OBSERVED DATA

Tested Through ~~(Prover) (Choke)~~ (Meter) Type Taps FLG.

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						603		617		72 hours
1.	4"	2.750	15	4.50	80	569		590		3 hours
2.	4"	2.750	17	7.50	90	547		587		3 hours
3.	4"	2.750	19	10.00	84	519		554		3 hours
4.	4"	2.750	20	12.00	74	480		535		3 hours
5.	4"	2.750	19	8.00	86	470		526		20 hours

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.	53.05	11.23		.9813	.9608	Neg.	561.7
2.	53.05	15.05		.9723	.9608	Neg.	745.9
3.	53.05	17.94		.9777	.9608	Neg.	894.0
4.	53.05	19.96		.9868	.9608	Neg.	1,004.
5.	53.05	16.05		.9759	.9608	Neg.	798.4

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio 146.2/ cf/bbl.
Gravity of Liquid Hydrocarbons 29.5 at 60 deg.
P_c Measured $(1-e^{-s})$ ____

Specific Gravity Separator Gas .9608
Specific Gravity Flowing Fluid .8789
P_c 630.2 P_c^2 397.1

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.	582.2	339.0				363.8	33.3	603.2	95.7
2.	560.2	313.8				360.2	36.9	600.2	95.2
3.	532.2	283.2				321.7	75.4	567.2	90.0
4.	493.2	243.2				300.5	96.6	548.2	87.0
5.	483.2	233.5				290.7	106.4	539.2	85.6

Absolute Potential: 1,690 MCFPD; n .554

COMPANY C. E. LONG
ADDRESS 508-C Wilkinson-Foster Building, Midland, Texas
AGENT and TITLE C. E. Long, Owner
WITNESSED J. B. Murray
COMPANY El Paso Natural Gas Co., Jal, New Mexico

REMARKS

This test was conducted by J. B. Murray, El Paso Natural Gas Co with C. E. Long as witness.

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.