NEW MEXICO OIL CONSERVATION COMMISSION

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool __Jalmat__ Formation __Yates - 7 Rivers__ County __Lea__

Initial_____ Annual_____ Special __X__ Date of Test __6-3/6-7 1957__

Company __El Paso Natural Gas Company__ Lease __Moberly "C"__ Well No. __3__

Unit __B__ Sec. __21__ Twp. __26__ Rge. __37__ Purchaser __El Paso Natural Gas Company__

Casing __5 1/2__ Wt. __17.0__ I.D._____ Set at __3097__ Perf._____ To_____

Tubing __2.0__ Wt. __4.7__ I.D._____ Set at __3085__ Perf._____ To_____

Gas Pay: From __3197__ To __3247__ L __3085__ xG __0.675__ -GL_____ Bar.Press. __13.2__
Assumed

Producing Thru: Casing_____ Tubing __X__ Type Well __Single__
Single-Bradenhead-G. G. or G.O. Dual
Date of Completion: __7-15-1942__ Packer_____ Reservoir Temp._____

OBSERVED DATA

Tested Through ~~(Prover)~~ ~~(Choke)~~ (Meter) Type Taps __Flange__

No.	(Prover) (Line) Size	(Choke) (Orifice) Size	Flow Data Press. psig	Diff. h_w	Temp. °F.	Tubing Data Press. psig	Temp. °F.	Casing Data Press. psig	Temp. °F.	Duration of Flow Hr.
SI						605				72
1.	4	1.250	587	7.29	73	569				24
2.	4	1.250	564	22.00	76	567				24
3.	4	1.250	555	26.01	73	558				24
4.	4	1.250	530	42.56	74	534				24
5.										

FLOW CALCULATIONS

No.	Coefficient (Flange) (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	66.14		.9877	.9427	1.064	632
2.	9.643	112.90		.9850	.9427	1.057	1,070
3.	9.643	121.55		.9877	.9427	1.060	1,150
4.	9.643	153.79		.9868	.9427	1.057	1,458
5.							

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio __Dry__ cf/bbl.   Specific Gravity Separator Gas_____

Gravity of Liquid Hydrocarbons_____ deg.   Specific Gravity Flowing Fluid_____

F_c __9.936__ $(1-e^{-s})$ __0.133__ P_c __618.2__ P_c^2 __382.2__

No.	P_w 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.	602.2	362.6	6.28	39.44	5.25	367.9	14.3	606.5	.97
2.	580.2	336.6	10.63	113.00	15.03	351.6	30.6	593.0	.94
3.	571.2	326.3	11.51	132.48	17.62	343.9	38.3	586.4	.92
4.	547.2	299.4	14.49	209.96	27.92	327.3	54.9	572.1	.88
5.									

Absolute Potential: __4,950__ MCFPD; n __0.629__

COMPANY __El Paso Natural Gas Company__

ADDRESS __P. O. Box 1384, Jal, New Mexico__

AGENT and TITLE __R. T. Wright__ R. T. Wright Petroleum Engineer

WITNESSED __Earl C. Smith__

COMPANY __El Paso Natural Gas Company__

REMARKS

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.