NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122
Revised 12-1-55

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool __BASIN DAKOTA__ Formation __DAKOTA__ County __San Juan__

Initial __X__ Annual_____ Special_____ Date of Test __2/4/64__

Company __Beta Development Co.__ Lease __Martin "A"__ Well No. __1__

Unit __J__ Sec. __3__ Twp. __29 N__ Rge. __11 W__ Purchaser __EPNG Co.__

Casing __4 1/2"__ Wt. __10.50__ I.D. __4.040__ Set at __6608'__ Perf. __6400'__ To __6532'__

Tubing __2 3/8"__ Wt. __4.70__ I.D. __1.995__ Set at __6516'__ Perf. __Open__ To __End__

Gas Pay: From __6400'__ To __6532'__ L __6516'__ xG __.73__ —GL __4626'__ Bar.Press. __12.0__

Producing Thru: Casing_____ Tubing __X__ Type Well __Single - Gas__

Date of Completion: __1/26/64__ Packer_____ Single-Bradenhead-G. G. or G.O. Dual
Reservoir Temp._____

OBSERVED DATA

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

No.	(Prover) (Line) Size	(Choke) Orifice Size	Flow Data 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								2055		7 Days
1.		3/4"	510		93	510	93	1160		3 Hrs.
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		522	.9697	.9066	1.057	5,998
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 __2067__ P_c^2 __4272.4__
P_w __1172__ P_w^2 __1373.5__

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.						1373.5	2898.9		.567
2.									
3.									
4.									
5.									

Absolute Potential: __8,019__ MCFPD; n __.75__

COMPANY __Beta Development Co.__
ADDRESS __234 Petroleum Club Plaza, Farmington, New Mexico__
AGENT and TITLE __George L. Hoffman, Production Engineer__
WITNESSED __H. McAnally__
COMPANY __El Paso Natural Gas Co.__

REMARKS

Tubing pressure not available.

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.