NEW MEXICO OIL CONSERVATION COMMISSION

NOV 2 4 1956

HOBBS OFFICE OCC

Form C-122
Revised 12-1-55

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

1957 FEB 11 AM 9:57

Pool __Eumont Gas Pool__ Formation __Queen__ County __Lea__

Initial _____ Annual _____ Special _____ Date of Test __6-13-56__

Company __Amerada Petroleum Corporation__ Lease __State "T"__ Well No. __5__

Unit __G__ Sec. __20__ Twp. __19-S__ Rge. __37-E__ Purchaser __Permian Basin Pipe Line__

Casing __6-5/8"__ Wt. __24#__ I.D. __6.049__ Set at __3864'__ Perf. __3508-3600'__ To __3618-3646'__

Tubing __2-1/2"__ Wt. __9.3#__ I.D. __2.992__ Set at __3983__ Perf. __3918'__ To __3983'__

Gas Pay: From __3508'__ To __3646'__ L __3508'__ xG __0.600__ ─GL __2385.4__ Bar.Press. __13.2__

Producing Thru: Casing __X__ Tubing _____ Type Well __G.O. Dual__
Single-Br'lenhead-G. G. or G.O. Dual

Date of Completion: __5-3-55__ Packer _____ Reservoir Temp. __91°__

OBSERVED DATA

Tested Through (Prover) (Choke) (Meter)   Type Taps __Pipe__

No.	Flow Data (Line) Size	Flow Data (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								977.7		72
1.	4"	2.750"	453.6	5.8	70			889.3		24
2.	4"	"	462.7	17.9	65			789.5		24-1/4
3.	4"	"	468.8	26.1	68			709.8		23-3/4
4.	4"	"	470.6	31.8	72			644.3		23-3/4
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.	73.11	52.03	466.8	0.9905	0.9999	1.039	3677.4
2.	"	92.29	475.9	0.9952	"	1.041	6565.0
3.	"	112.16	482.0	0.9924	"	"	7957.1
4.	"	124.03	483.8	0.9887	"	"	8766.4
5.							

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio __Dry__ cf/bbl.   Specific Gravity Separator Gas __.655__
Gravity of Liquid Hydrocarbons _____ deg.   Specific Gravity Flowing Fluid _____
F_c __1.399__ $(1-e^{-s})$ __0.151__ P_c __990.9__ P_c^2 __981.9__

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.	902.5	814.5	5.14	26.42	4.0	818.5	163.4	904.7	91.30
2.	802.7	644.3	9.19	84.46	12.8	657.1	324.8	810.7	81.82
3.	723.0	522.7	11.13	123.88	18.7	541.4	440.5	735.8	74.26
4.	657.5	432.3	12.26	150.31	22.7	455.0	526.9	674.5	68.07
5.									

Absolute Potential: __13,100__ MCFPD; n __0.6306__
COMPANY __Amerada Petroleum Corporation__
ADDRESS __Drawer D - Monument, New Mexico__
AGENT and TITLE __W.G. Abbott, Dist. Engineer__   _W.G. Abbott_
WITNESSED _____
COMPANY __Permian Basin Pipe Line Company__

REMARKS

ELVIS A. UTZ
GAS ENGINEER

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.