NEW MEXICO OIL CONSERVATION COMMISSION

HOBBS OFFICE OCC

1957 FEB 11 AM 10:07

Form C-122
Revised 12-1-55

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Eumont Formation Yates - 7 Rivers County Lea

Initial ____ Annual ____ Special X Date of Test 6-15-56

Company Amerada Petroleum Corporation Lease State WE"G" Well No. 1

Unit H Sec. 34 Twp. 20 Rge. 36 Purchaser El Paso Natural Gas Company

Casing 7" Wt. 23.0# I.D. 6.366" Set at 4300 Perf. 3150 To 3600

Tubing 2-3/8" Wt. 4.7# I.D. 1.995 Set at 3636 Perf. 3632 To 3636

Gas Pay: From 3150 To 3600 L 3632 xG 0.680 -GL 2470' Bar.Press. 13.2

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

Date of Completion: 5-25-54 Packer 3131 Reservoir Temp. 91°

OBSERVED DATA

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

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						686				72
1.	4"	0.750"	249	26.0	74	626				24
2.	4"	0.750"	325	40.3	77	546				24
3.	4"	0.750"	297	56.3	81	486				24
4.	4"	0.750"	325	75.7	82	408				24
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.	3.435	82.57	262.2	0.9866	0.9393	1.026	269.7
2.	3.435	116.71	338.2	0.9840	0.9393	1.034	383.1
3.	3.435	132.13	310.2	0.9804	0.9393	1.030	430.5
4.	3.435	160.00	338.2	0.9795	0.9393	1.033	522.3
5.							

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio Dry cf/bbl. Specific Gravity Separator Gas 0.655

Gravity of Liquid Hydrocarbons ____ deg. Specific Gravity Flowing Fluid ____

F_c 9.936 $(1-e^{-s})$ 0.156 P_c 699.2 P_c^2 488.9

No.	P_w / P_t (psia)	P_t^2	F_cQ	$(F_cQ)^2$	$\frac{(F_cQ)^2}{(1-e^{-s})}$	P_w^2	$P_c^2-P_w^2$	Cal. P_w	$\frac{P_w}{P_c}$
1.	639.2	408.6	2.68	7.18	1.12	409.7	79.2	640.1	91.55
2.	559.2	312.7	3.81	14.52	2.27	315.0	173.9	561.2	80.28
3.	499.2	249.2	4.28	18.32	2.86	252.1	236.8	502.1	71.81
4.	421.2	177.4	5.19	26.94	4.20	181.6	307.3	426.1	60.9%
5.									

Absolute Potential: 680 MCFPD; n .5333

COMPANY Amerada Petroleum Corporation

ADDRESS ____

AGENT and TITLE W.G. Abbott

WITNESSED ____

COMPANY EPNG

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.