

NEW MEXICO OIL CONSERVATION COMMISSION

MAIN OFFICE OCC

HOBBS OFFICE OCC

Form C-122

Revised 12-1-55

1957 OCT 9 AM 8:07 OCT 4 PM 2:53 MULTI-POINT BACK-PRESSURE TEST FOR GAS WELLS

Pool Hlinebry Formation Hlinebry County LeaInitial _____ Annual X Special _____ Date of Test 9-12/20-57Company Amerada Petroleum Corporation Lease A.B. Baker Well No. 3Unit I Sec. 10 Twp. 22-S Rge. 37-E Purchaser Permian Basin Pipeline CompanyCasing 5-1/2" Wt. 15.5# I.D. 4.950 Set at 6496 Perf. 5390 To 5595Tubing 2-3/8" Wt. 4.7# I.D. 1.995 Set at 6157 Perf. 6147 To 6150Gas Pay: From 5390 To 5595 L 5390 xG 2)0.726 -GL 2)3913 Bar.Press. 13.2Producing Thru: Casing X Tubing _____ Type Well G.G. DualDate of Completion: 1-20-57 Packer _____ Reservoir Temp. _____

OBSERVED DATA

Tested Through (~~Pressure~~ ~~Stroke~~) (Meter) Type Taps _____ Pipe _____

No.	Flow Data					Tubing Data		Casing Data		Duration of Flow Hr.
	(Line) Size	(Orifice) Size	Press. psig	Diff. h _w	Temp. °F.	Press. psig	Temp. °F.	Press. psig	Temp. °F.	
SI								1712.1		72
1.	4"	1.75"	498.5	8.9	70			1249.7		24
2.	4"	1.75"	490.0	15.3	65			1088.8		24
3.	4"	1.75"	488.5	23.2	74			852.4		24
4.	4"	1.75"	489.9	27.0	84			663.9		24
5.										

FLOW CALCULATIONS

No.	Coefficient (24-Hour)	$\sqrt{h_{wpf}}$	Pressure psia	Flow Temp. Factor F _t	Gravity Factor F _g	Compress. Factor F _{pv}	Rate of Flow Q-MCFPD @ 15.025 psia
1.	21.69	67.48	511.7	0.9905	0.9393	1.051	1431
2.	21.69	87.74	503.2	0.9952	0.9393	1.053	1873
3.	21.69	107.88	501.7	0.9868	0.9393	1.050	2277
4.	21.69	116.55	503.1	0.9777	0.9393	1.047	2429
5.		112.00		0.961	.9834		

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio 1)73768 2)55142 3)87200 cf/bbl.
Gravity of Liquid Hydrocarbons 4)125.528 deg.
F_c 1.793 (1-e^{-S}) 1)0.233 2)0.236 3)0.231 4)0.229
Specific Gravity Separator Gas 0.680
Specific Gravity Flowing Fluid Above
P_c 1725.3 P_c² 2977

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	P _w /P _c
1.	1263.0	1595	2.57	6.6	1.5	1597	1380	1264	0.733
2.	1102.0	1214	3.36	11.3	2.7	1217	1760	1103	0.639
3.	865.6	749	4.08	16.6	3.8	753	2224	868	0.503
4.	677.1	458	4.37	19.1	4.4	462	2515	680	0.394
5.									

Absolute Potential: 2830 MCFPD; n = 0.905COMPANY Amerada Petroleum CorporationADDRESS Drawer D, Mommant, New MexicoAGENT and TITLE O.C. McBryde, District Engineer

WITNESSED _____

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 .

Company Amerada Petroleum Corporation
 Well A. B. Baker No. 3
 Location I-10-22S-37E
 County Lea
 Date 9-12/20-57

