

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 Jan. 12, 1962

Company The Atlantic Refining Co. Lease State Gas Unit "A" Well No. 1

Unit 0 Sec. 36 Twp. 29-N Rge. 11-W Purchaser Southern Union Gas Co.

Casing 1 1/2" Wt. 9.5# I.D. 4.090 Set at 6508.93 Perf. 6334 To 6338

Tubing 2 3/8 O.D. 4.7# I.D. 1.995 Set at 6272.44 Perf. _____ To _____

Gas Pay: From 6276 To 6342 L 6262 xG .7 -GL 4439 Bar.Press. 12.0

Producing Thru: Casing _____ Tubing X Type Well Single-Gas

Date of Completion: 12/10/61 Packer None Reservoir Temp. 114.8°F (SCH.)

OBSERVED DATA

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

No.	Flow Data					Tubing Data		Casing Data		Duration of Flow Hr.
	(Prover) (Line) Size	(Choke) (Orifice) Size	Press. psig	Diff. h _w	Temp. °F.	Press. psig	Temp. °F.	Press. psig	Temp. °F.	
1.		<u>3/4"</u>	<u>220</u>		<u>82</u>	<u>1778</u>	<u>82</u>	<u>1765</u>		<u>3</u>
2.								<u>750</u>		
3.										
4.										
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.	<u>12.3650</u>		<u>232</u>	<u>.9795</u>	<u>.9258</u>	<u>1.023</u>	<u>2661</u>
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 1790 P_c 3204.1

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.						<u>580.6</u>	<u>2623.5</u>		<u>.426</u>
2.									
3.									
4.									
5.									

Absolute Potential: 3092 MCFPD; n .75

COMPANY The Atlantic Refining Company

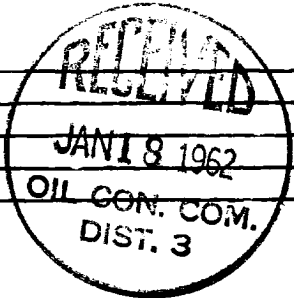
ADDRESS Box 2197 Farmington, New Mexico

AGENT and TITLE R. J. Sartain-Drilling Supervisor

WITNESSED R. J. Sartain

COMPANY The Atlantic Refining Company

REMARKS
Well flowing slight spray of fluid.



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 .