

3-20000
 1-Paul Stock
 1-Astee Oil & Gas
 1-Southern Union

1-John
 1-Rodfern & Hard
 1-File

NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122

Revised 12-1-55

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Basin Formation Sakata County San Juan
 Initial X Annual _____ Special _____ Date of Test 1-14-61
 Company Rodfern & Hard, Inc. Lease Federal Well No. 1
 Unit 0 Sec. 29 Twp. 30N Rge. 12W Purchaser _____
 Casing 4 1/2 Wt. 9.5 & 11.6 I.D. _____ Set at 6400 Perf. 6190 To 6326
 Tubing 1 1/2 Wt. 2.4 I.D. _____ Set at 6300 Perf. Open ended To _____
 Gas Pay: From 6190 To 6326 L _____ xG 0.600 -GL _____ Bar.Press. _____
 Producing Thru: Casing _____ Tubing X Type Well Single-Gas
 Date of Completion: 12-31-60 Packer _____ Reservoir Temp. _____

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.										
2.	<u>2"</u>	<u>3/4"</u>	<u>105</u>		<u>54</u>			<u>1113</u>		<u>3 hrs</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.							
2.	<u>12.3490</u>		<u>107</u>	<u>1.0091</u>	<u>.9993</u>	<u>1.003</u>	<u>2064</u>
3.							
4.							
5.							

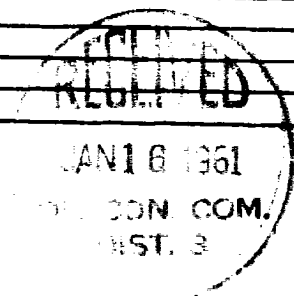
PRESSURE CALCULATIONS

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 _____ P_c _____

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.									
2.	<u>1125</u>					<u>1266</u>	<u>2973</u>		<u>1.4298</u>
3.									
4.									
5.									

Absolute Potential: 3072 MCFPD; n .75 1.303
 COMPANY Rodfern & Hard, Inc.
 ADDRESS Box 1747, Midland, Texas
 AGENT and TITLE T. A. Ryan, 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} = Supercompressibility 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 .