

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Undesignated Dakota Formation Dakota County San Juan
Initial X Annual _____ Special _____ Date of Test 9-22-60
Company Delhi-Taylor Oil Corp. Lease Delhi-Mudge Well No. 3
Unit NE/4 Sec. 15 Twp. 31-S Rge. 11-W Purchaser 7226-92 7224-73 7176-21
Casing 3-1/8" Wt. 17# I.D. 4.892 Set at 7402 Perf. 7296-7308 To 7166-74
Tubing 2-3/8" Wt. 4.7# I.D. 1.995 Set at 7394 Perf. Open ended To _____
Gas Pay: From 7166 To 7332 L _____ xG 0.63 -GL _____ Bar.Press. 13
Producing Thru: Casing _____ Tubing XX Type Well Single gas
Date of Completion: 9-10-60 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.	
SI		<u>3/4"</u>	<u>187</u>		<u>187°</u>	<u>187</u>	<u>187°</u>	<u>774</u>		<u>7 Days</u>
1.										<u>3 Hours</u>
2.										
3.										
4.										
5.										

FLOW CALCULATIONS

No.	Coefficient (24-Hour)	$\sqrt{h_{wpf}}$	Pressure psia	Flow Temp. Factor F	Gravity Factor F	Compress. Factor F	Rate of Flow Q-MCFPD @ 15.025 psia
	<u>11.553</u>		<u>187</u>	<u>0.9919</u>	<u>0.9998</u>	<u>1.0011</u>	<u>1310</u>
1.							
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 Fluid _____
P_c _____ P_c² _____

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.									
3.									
4.									
5.			<u>9661</u>			<u>0.78</u>			

Absolute Delhi-Taylor Oil Corporation MCFPD; n _____
COMPANY P. O. Pomeroy 1166, Farmington, New Mexico
ADDRESS J. F. Berry - Dist. Engineer
AGENT and WILLIAMS
WITNESSED El Paso Natural Gas Company
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 .

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