

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Undesignated Dakota Formation Dakota County San Juan
Initial xx Annual _____ Special _____ Date of Test 9-22-60
Company Delhi-Taylor Oil Corporation Lease Delhi-Madue Well No. 2
Unit 33/4 Sec. 21 Twp. 31-N Rge. 11-W Purchaser _____
Casing 5-1/2" Wt. 176 I.D. 4.892 Set at 7323 Perf. 7076-41 To 6964-85 6998-6900
Tubing 3-3/8" Wt. 4.74 I.D. 1.625 Set at 6922 Perf. Open ended To 6891-96 6914-12
Gas Pay: From 6914 To 7110 L _____ xG 0.837 -GL _____ Bar.Press. 12
Producing Thru: Casing _____ Tubing X Type Well Single gas
Single-Bradenhead-G. G. or G.O. Dual _____
Date of Completion: 9-21-60 Packer None 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						1890		1893		7 Days
1.		3/4"	284		80°	284	80°	1847		3 Hours
2.										
3.										
4.										
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.	12.365		296	0.9813	0.9608	1.025	3537
2.							
3.							
4.							
5.							

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio _____ cf/bbl.
Gravity of Liquid Hydrocarbons _____ deg.
P_c _____ (1-e^{-s})
Specific Gravity Separator Gas _____
Specific Gravity Flowing Fluid _____
P_c 1902 P_c 3617604

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.									

Absolute Potential: 4671 MCFPD; n 0.75
COMPANY Delhi-Taylor Oil Corporation
ADDRESS P. O. Drawer 1188, Farmington, New Mexico
AGENT and TITLE J. F. Barry - Dist. Engineer
WITNESSED Bob Nicholl
COMPANY El Paso Natural Gas 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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OIL CONSERVATION COMMISSION		
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7-20-60

F. Loc. 1740/N; 1800/E Elev. 5873 GL Spd. 7/19/60 Comp. 5-5-60 TD 7295 PB
Casing 5 1/4 @ 313 W 200 Sx. Int. 100 @ 2400 W 200 Sx. Pr. 5' @ 3484 W 200 Sx. T. 2 3/8 @ 6981
Csg. Perf. 6914-12 1123-01 Prod. Stim. Sulf
4671 BO/D
I.P. 3537 MCF/D After 3 Hrs. SICP 1893 PSI After 7 Days GOR Grav. 1st Del.

TOPS		NITD	X	Well Log	TEST				DATA				
Kirtland		C-102		Plat	X	Schd.	PC	Q	PW	PD	D	Ref. No.	
Fruitland		C-103		Electric Log									
Pictured Cliffs	2467	C-104		C-110									
Cliff House	2525												
Menefee	4623	Ditr		Dfa									
Point Lookout	4715	Datr		Dac									
Mancos	4860	Remarks											
Gallup	6115												
Dakota	6945												
Morrison	7145												
Entrada													
Permian	8570												
					E 320								

P
o
Basin Dak. SJ. 21 T 31N R 11W J1 G. Oper. Delhi-Taylor Lsg. Mudge No. 2
Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec.