

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Undesignated Formation Dakota County San Juan
Initial X Annual _____ Special _____ Date of Test 2-27-59
Company Sunset International Pet. Corp. Lease Federal Well No. 1 H
Unit L Sec. 9 Twp. 27N Rge. 10W Purchaser _____
Casing 5-1/2 Wt. 15.5 I.D. _____ Set at 6554 Perf. 6316 To 6499
Tubing 2-3/8 Wt. 4.7 I.D. _____ Set at 6450 Perf. Open End To _____
Gas Pay: From 6316 To 6499 L _____ xG 0.680 -GL _____ Bar.Press. _____
Producing Thru: Casing _____ Tubing X Type Well Single - Gas
Single-Bradenhead-G. G. or G.O. Dual
Date of Completion: 2-20-59 Packer _____ Reservoir Temp. _____

OBSERVED DATA

Tested Through (Pressure) (Choke) (Pressure) Type Taps _____

Flow Data						Tubing Data		Casing Data		Duration of Flow Hr.
No.	(Prover) (Line) Size	(Choke) (Orifice) Size	Press.	Diff.	Temp.	Press.	Temp.	Press.	Temp.	
			psig	h _w	°F.	psig	°F.	psig	°F.	
SI						1988		1967		
1.										
2.										
3.		3/4"	412		70			1060		3 hrs.
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.							
2.							
3.	<u>12.3650</u>		<u>424</u>	<u>0.9905</u>	<u>0.9793</u>	<u>1.046</u>	<u>5102</u>
4.							
5.							

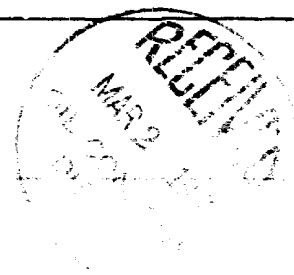
PRESSURE CALCULATIONS

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 1979 P_c 3916

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.	<u>1072</u>					<u>1149</u>	<u>2767</u>		<u>1.4132</u>
4.									
5.									

Absolute Potential: 6,870 MCFPD; n .85 1.3466
COMPANY Sunset International Petroleum Corp.
ADDRESS Box 200, Bloomfield, New Mexico
AGENT and TITLE _____ Original Signed by Thomas F. Popp
WITNESSED T. A. Dugan
COMPANY Consulting Engineer

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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