NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122
Revised 12-1-55

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Undesignated Formation Dakota County San Juan

Initial x Annual Special Date of Test 11-19-59

Company Skelly Oil Company Lease Mexico-Fed "C" Well No. 1

Unit G Sec. 15 Twp. 30N Rge. 13W Purchaser Southern Union Gas Co.

Casing 5½" Wt. 14# I.D. 5.012 Set at 6592' Perf. 6330' To 6485'

Tubing 2" EUE Wt. 4.70 I.D. 1.995 Set at 6474' Perf. 6474' To

Gas Pay: From 6330' To 6485' L xG 0.690 -GL Bar.Press.

Producing Thru: Casing Tubing x Type Well Single - Gas
Single-Bradenhead-G. G. or G.O. Dual

Date of Completion: 11-19-59 Packer Reservoir Temp.

OBSERVED DATA

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

	Flow Data					Tubing Data		Casing Data		
No.	(Prover) (Line) Size	(Choke) (Orifice) Size	Press. psig	Diff. h_w	Temp. °F.	Press. psig	Temp. °F.	Press. psig	Temp. °F.	Duration of Flow Hr.
SI						1652		1917		
1.		3/4"	287		60°	287	60°	745		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.	12.3650		299	1.000	0.9525	1.036	3,570
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 0.69
P_c 1917 P_c^2 3,721.0

No.	P_w P_t (psia)	P_t^2	F_cQ	$(F_cQ)^2$	$\frac{(F_cQ)^2}{(1-e^{-s})}$	P_w^2	$P_c^2-P_w^2$	Cal. P_w	$\frac{P_w}{P_c}$
1.						573.0	3148		0.3924
2.									
3.									
4.									
5.									

Absolute Potential: 4,301 MCFPD; n 0.75
COMPANY Skelly Oil Company
ADDRESS P. O. Box 426, Farmington, New Mexico
AGENT and TITLE W. A. Strickling, Jr., Production Engineer
WITNESSED
COMPANY

REMARKS

RECEIVED
DEC 10 1959
OIL CON. COM.
DIST. 3

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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