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NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122
Revised 12-1-55

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Escrito Extension Formation Gallup County Rio Arriba
Initial X Annual _____ Special _____ Date of Test 12-1-59
Company Val R. Reese & Assoc., Inc. Lease Lybrook Well No. 1-19
Unit C Sec. 19 Twp. 24N Rge. 6W Purchaser _____
Casing 7" Wt. 26# & 23# I.D. 6.366" Set at 6635 Perf. 5326 To 5510
Tubing 2-3/8" Wt. 4.70# I.D. 1.995 Set at 5405 Perf. 5401 To 5405
Gas Pay: From 5326 To 5510 L 5405 xG .68 -GL _____ Bar.Press. _____
Producing Thru: Casing _____ Tubing X Type Well G. G. dual
Date of Completion: 11-23-59 Packer 6430 Single-Bradenhead-G. G. or G.O. Dual
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						1636		1654		
1.										
2.										
3.		3/4	244		61°	289		650		3 hrs.
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.							
3.	12.3650		256	.9990	.9393	1.029	3056
4.							
5.							

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio _____ cf/bbl.
Gravity of Liquid Hydrocarbons _____ deg.
F_c _____ (1-e^{-s})
Specific Gravity Separator Gas .68
Specific Gravity Flowing Fluid _____
P_c 1666 P_c² 2775.6

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.	662					438.2	2337.4		1.1875
4.									
5.									

Absolute Potential: 3476 MCFPD; n ⁷⁵ 1.1375
COMPANY Val R. Reese & Associates, Inc.
ADDRESS Lobby of Simms Bldg., Albuquerque, New Mexico
AGENT and TITLE James F. Jones
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} = 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 .

VAL R. REESE & ASSOCIATES, INC.

Company Val R. Reese & Assoc., Inc.

Lease Lybrook Well No. 1-19

Date of Test 12-1-59

S. I. Dakota 2123

Shut in Pressure (PSIG): Tubing 1636 Casing 1654 S. I. Period 7 Days

Size Blow Nipple 3/4" choke

Flow Through tubing Working Pressures From casing

Time		choke Pressure	Dakota (bgs) Q (MCF/D) 15.025 PSIA & 60°F	Wellhead Working Pressure (PSIG)	Temp
Hours	Minutes				
0	15	454	2116	1015	51°
0	30	399	2119	910	54°
0	45	347	2107	800	58°
1	0	295	2124	760	57°
2	0	256	2129	680	60°
3	0	244	2129	650	61°

Start At 12:00 Noon End Test At 3:00 P. M.

Remarks: _____

Tested by: Ray Williams

Witness: Val R. Reese

OIL CONSERVATION COMMISSION		
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