

NEW MEXICO OIL CONSERVATION COMMISSION

3 NMOCC
2 Occidental
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1 File

Form C-122

Revised 12-1-55

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Blanco Formation Mesa Verde County Rio Arriba
 Initial X Annual _____ Special _____ Date of Test 12-23-58
 Company Occidental Petroleum Corp. Lease E Well No. 2-27
 Unit _____ Sec. 27 Twp. 26N Rge. 3W Purchaser Pacific Northwest Pipeline Corp.
 Casing 5-1/2" Wt. 15.5 I.D. _____ Set at 6335 Perf. 6256 To 6140
 Tubing 2-3/8" Wt. 4.7 I.D. _____ Set at 6110 Perf. _____ To Open ended
 Gas Pay: From _____ To _____ L 6110 xG .700 -GL 4277 Bar.Press. _____
 Producing Thru: Casing _____ Tubing X Type Well G. G. Dual
 Single-Bradenhead-G. G. or G.O. Dual
 Date of Completion: 12-10-58 Packer 6110 Reservoir Temp. _____

OBSERVED DATA

Tested Through (Prover) (Choke) (Prover) 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
1.						1169		990	
2.									
3.		3/4"				59	50	995	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.	12.3650		71	1.0098	.9258	1.00	821
3.							
4.							
5.							

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio _____ cf/bbl.
 Gravity of Liquid Hydrocarbons _____ deg.
 P_c .9402 (1-e^{-s}) .267
 Specific Gravity Separator Gas _____
 Specific Gravity Flowing Fluid _____
 P_c 1181 P_c² 1395

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.	71	5.04	7.72	59.6	15.90	21	1374		1.015
2.									
3.									
4.									
5.									

Absolute Potential: 830 MCFPD; n .75 1.011
 COMPANY Val R. Reese & Associates, Inc.
 ADDRESS 120 South Commercial, Farmington, New Mexico
 AGENT and TITLE T. A. Dugan, Consulting Engineer Original signed by T. A. Dugan
 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} = Supercompressibility 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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VAL R. REESE & ASSOCIATES, INC.

Company Occidental Petroleum Corp.

Lease R Well No. 2-27

Date of Test 12-23-58

M.V. 1169
 Shut in Pressure (PSIG): ^{P.C.} Tubing 990 Casing 990 S.I. Period 13 Days

Size Blow Nipple 3/4" T.C.

Flow Through Tbg. Working Pressures From P.C. Tbg.

Time		M.V. CHOKE Pressure	Q (MCFD) 15.025 PSIA & 60 F	P. C.	S. I.	Temp
Hours	Minutes			Wellhead	Working	
	15	398		994		46
	30	236		996		46
	45	198		997		47
1	00	164		998		49
2	00	77		995		50
3	00	59		995		50

Start At 10:15 A.M. End Test At 1:15 P.M.

Remarks: 15 min. - 30 min. Making heavy spray oil
30 min. - 1:10 min. Making heavy spray oil plus slugs of oil
1:10 - end of test Heavy spray of oil

Tested By: T. A. Dugan

Witness: J. M. Newman