3 NMOCC
2 Occidental
1 NWP
1 Reese
1 File

NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122
Revised 12-1-55

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool **Tapacito Ext.** Formation **Pictured Cliffs** County **Rio Arriba**

Initial **X** Annual _____ Special _____ Date of Test **12-30-58**

Company **Occidental Petroleum Corp.** Lease **E** Well No. **2-27**

Unit **K** Sec. **27** Twp. **26N** Rge. **3W** Purchaser **Pacific Northwest Pipeline Corp.**

Casing **7-5/8"** Wt. **26.40** I.D. _____ Set at **4206** Perf. **4056** To **3994**

Tubing **2-3/8"** Wt. **4.7** I.D. _____ Set at **3961** Perf. **3961** To **3957**

Gas Pay: From **4056** To **3994** L _____ xG **0.60** -GL _____ 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) ~~(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						1000		1000		
1.										
2.										
3.		3/4"				27	52	64		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.	12.3650		39	1.0078	1.000	1.000	485
2.							
3.							
4.							
5.							

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio _____ cf/bbl. Specific Gravity Separator Gas _____
Gravity of Liquid Hydrocarbons _____ deg. Specific Gravity Flowing Fluid _____
P_c _____ $(1-e^{-s})$ _____ P_c **1012** P_c^2 **1024**

No.	P_w P_t (psia)	P_t^2	F_cQ	$(F_cQ)^2$	$(F_cQ)^2$ $(1-e^{-s})$	P_w^2	$P_c^2-P_w^2$	Cal. P_w	$\frac{P_w}{P_c}$
1.	76					5.78	1018.32		1.0058
2.									
3.									
4.									
5.									

Absolute Potential: **487** MCFPD; n **.85** **1.00493**
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

RECEIVED
JAN 5 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.

OIL CONSERVATION COMMISSION
AZTEC DISTRICT OFFICE
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VAL R. REESE & ASSOCIATES, INC.

Company Occidental Petroleum Corp.

Lease E Well No. 2-27

Date of Test 12-30-58

M. V. 1147 P.C. P.C.
Shut in Pressure (PSIG): Tubing 1000 Casing 1000 S.I. Period 20 Days

Size Blow Nipple 3/4" T.C. Est. Gv. 0.600

Flow Through TBG. 2" Working Pressures From CSG.

Time Hours	Time Minutes	Pressure	Q (MCFD) @ 15.025 PSIA & 60° F	Wellhead Working Pressure (PSIG)	Temp
	15	295	1147	495	
	30	160	1147	312	48
	45	104	1149	185	48
1	00	70	1150	120	50
2	00	30	1150	70	51
3	00	27	1150	64	52

Start At 11:50 A.M. End Test At 2:50 P.M.

Remarks: Very dry throughout test

Tested By: T. A. Dugan

Witness: C. Werner
E. Delaney