NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122
Revised 12-1-55

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Blanco MV Extn Formation Mesaverde County Rio Arriba

Initial XX Annual _____ Special _____ Date of Test 3-1-57

Company Northwest Production Corp. Lease "W" Well No. 2-S

Unit B Sec. 5 Twp. 26N Rge. 5W Purchaser Not connected

Casing 5½ Wt. 14 15.5 I.D. _____ Set at 7678 Perf. 4820 To 5426

Tubing 2-3/8 1-1/4 Wt. 17 4.7 2.3 I.D. _____ Set at 7421 4771 Perf. _____ To _____

Gas Pay: From 4820 To 5426 L 4770 xG .650 -GL 3100 Bar.Press. _____

Producing Thru: Casing XX Tubing _____ Type Well Triple - G -G -G
Single-Bradenhead-G. G. or G.O. Dual

Date of Completion: 12-30-56 Packer Yes - 4770 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. MW psig	Diff. h_w	Temp. °F.	Press. DK psig	Temp. °F.	Press. PC psig	Temp. °F.	Duration of Flow Hr.
SI			1107			2104		1039		SI
1.										
2.		3/4"	164		51	2144		988		3 hr
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.							
2.							
3.	14.1605		176	1.0088	9608	1.019	2462
4.							
5.							

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio _____ cf/bbl. Specific Gravity Separator Gas _____
Gravity of Liquid Hydrocarbons _____ deg. Specific Gravity Flowing Fluid _____
F_c 18.57 $(1-e^{-s})$ .202 P_c 1119 P_c^2 1252

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.									
2.									
3.	176	31.0	45.72	2090	422	453	799		1.567
4.									
5.									

Absolute Potential: 3,425 MCFPD; n .75/1.391

COMPANY Pacific Northwest Pipeline Corp.
ADDRESS 405½ W. Broadway, Farmington, New Mexico
AGENT and TITLE C. B. Wagner - Well Test Engineer
WITNESSED A. R. Kendrick
COMPANY N. M. Oil Conservation Commission

REMARKS

RECEIVED
APR 8 1957
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.

DRILLING DEPARTMENT

COMPANY Northwest Production Corp.

LEASE "W" WELL NO. 2-5

DATE OF TEST 3-1-57

SHUT IN PRESSURE (PSIG): TUBING MV 1107 CASING PC 1039 DK 2104 S. I. PERIOD 7 DAYS

SIZE BLOW NIPPLE 3/4" Chokd (Bureau of Mines)

FLOW THROUGH MV WORKING PRESSURES FROM _____

TIME HOURS	TIME MINUTES	MV PRESSURE	PC Q (MCFD) 15.025 PSIA & 60°F	DK WELLHEAD WORKING PRESSURE (PSIG)	TEMP
	15	200	1036	2142	
	30	201	1035	2147	
	45	200	1028	2148	48
1	0	192	1019	2148	49
	30	182	1008	2148	49
2	0	173	1000	2148	49
	30	169	993	2145	50
3	0	164	988	2144	51

START AT 10:10 pm END TEST AT 1:10 pm

REMARKS: _____

TESTED BY C. R. Wagner

Witness A. R. Kendrick - OCC

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