NEW MEXICO OIL CONSERVATION COMMISSION

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Form C-122
Revised 12-1-55

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Wildcat Formation Graneros - Dakota County Rio Arriba

Initial X Annual ____ Special ____ Date of Test 2-23-57

Company Northwest Production Corp. Lease "N" Well No. 4-6

Unit H Sec. 6 Twp. 26N Rge. 4W Purchaser Pacific Northwest Pipeline

Casing 5½" Wt. 15.5# 17.0# I.D. ____ Set at 8375 Perf. 8090 To 8364

Tubing 2-3/8" Wt. 4.7# I.D. ____ Set at 8303 Perf. ____ To ____

Gas Pay: From 8090 To 8364 L 7306 xG .650 -GL 4749 Bar.Press. 12

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

Date of Completion: 2-7-57 Packer Yes - 7306' Reservoir Temp. ____

OBSERVED DATA

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

No.	Flow Data (Prover) (Line) Size	Flow Data (Choke) (Orifice) Size	Flow Data Press. psig	Flow Data Diff. h_w	Flow Data Temp. °F.	Tubing Data Press. psig	Tubing Data Temp. °F.	Casing Data Press. psig	Casing Data Temp. °F.	Duration of Flow Hr.
SI						2094		1055		SI
1.	2	3/4	279		63°	279	63°	1063		3 hr
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.	14.1605		291	.9971	.9608	1.028	4058
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 ____
F_c 9.402 $(1-e^{-s})$ ____ P_c 2106 P_c^2 4435

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.	291	85	38.153	1456	425	510	3925		1.130
2.									
3.									
4.									
5.									

Absolute Potential: 4448 MCFPD; n .75 1.0960
COMPANY Pacific Northwest Pipeline Corporation
ADDRESS 405½ West Broadway, Farmington, New Mexico
AGENT and TITLE C. B. Wagner, Well Test Engineer
WITNESSED J. M. Newman
COMPANY Northwest Production Corporation

REMARKS

RECEIVED
MAR 12 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.

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AZTEC DISTRICT OFFICE
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PACIFIC NORTHWEST PIPELINE CORPORATION

DRILLING DEPARTMENT

COMPANY **Northwest Production Corporation**

LEASE **"N"** WELL NO. **4-6**

DATE OF TEST **2-23-57**

SHUT IN PRESSURE (PSIG): TUBING **DK 2094** CASING **MV 1055** S.I. PERIOD *12* DAYS

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

FLOW THROUGH **Dakota - Tubing** WORKING PRESSURES FROM **MV**

TIME HOURS	TIME MINUTES	PRESSURE	Q (MCFD) 15.025 PSIA & 60°F	WELLHEAD WORKING PRESSURE (PSIG)	TEMP
	34.5	373		1064	61
	41.5	363		1064	61
	50	347		1063	61
1	0	338		1063	61
	12	324		1063	62
	26.5	314		1063	62
	44	304		1063	62
2	5	295		1063	63
	30	287		1063	63
3	0	279		1063	63

START TEST AT **1:15 pm** END TEST AT **4:15 pm**

REMARKS: **Light fog of H_2O through out test**

TESTED BY **C.R. Wagner**

Witnessed by J. M. Newman