NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122
Revised 12-1-55

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool **Tapacito P. C. Extension** Formation **Pictured Cliffs** County **Rio Arriba**

Initial **X** Annual Special Date of Test **8-8-56**

Company **Northwest Production Corp.** Lease **N** Well No. **1-8**

Unit **L** Sec. **8** Twp. **26N** Rge. **4W** Purchaser

Casing **4½** Wt. **9.5#** I.D. Set at **3,672** Perf. **3492** To **3510**

Tubing **1¼"** Wt. **2.3#** I.D. Set at **3,504** Perf. To

Gas Pay: From **3,492** To **3,510** L xG **.650** -GL Bar.Press. **12 PSIA**

Producing Thru: Casing Tubing **X** Type Well **Single**
                                              Single-Bradenhead-G. G. or G.O. Dual
Date of Completion: **8-1-56** Packer Reservoir Temp.

OBSERVED DATA

Tested Through ~~(Prover)~~ (Choke) ~~(Meter)~~ S.I. **7 days** 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						1,031		1,031		
1.		3/4	390		58°	390	58°	970		3 hrs.
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		402	1.0019	.9608	1.041	5704
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 _____ $(1-e^{-s})$ _____ P_c **1,043** P_c^2 **1087.8**

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	$\frac{P_w}{P_c}$
1.						964.3	123.5		8.81
2.									
3.									
4.									
5.									

Absolute Potential: **36,257** MCFPD; n **.85 = 6.3565**

COMPANY **Northwest Production Corporation**
ADDRESS **520 Simms Building, Albuquerque, New Mexico**
AGENT and TITLE **Clarence Wagner; Well Test Engineer**
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.

PACIFIC NORTHWEST PIPELINE CORPORATION

DRILLING DEPARTMENT

COMPANY **Northwest Production Corp.**

LEASE **N**   WELL NO. **1-8**

DATE OF TEST **8-8-56**

SHUT IN PRESSURE (PSIG): TUBING **1031** CASING **1031** S.I.PERIOD **7** DAYS

SIZE BLOW NIPPLE **3/4" Choke (M)**

FLOW THROUGH **tubing**   WORKING PRESSURES FROM **casing**

TIME: HOURS	MINUTES	PRESSURE	Q(MCFD) 15.025 PSIA & 60° F	WELLHEAD WORKING PRESSURE (PSIG)	TEMP
	34.5	360		998	52
	41.5	245		996	55
	50	313		992	52
1	00	393		990	56
	12	273		983	52
	26.5	384		982	56
	44	600		983	63
2	5	567		981	63
	30	268	Gravity = .650	976	54
3	0	390		970	52
			5704 = Q		
			36,257 = AOF		

START TEST AT **9:45 A.M.**   END TEST AT **12:45 P.M.**

REMARKS: **Slightly wet with distillate and H₂O through out test;**
also making popping noise through out test.

TESTED BY _____

C. R. Wagner

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