NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122
Revised 12-1-55

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool BASIN DAKOTA Formation DAKOTA County SAN JUAN

Initial X Annual ____ Special ____ Date of Test 11-30-60

Company NORTHWEST PRODUCTION CORP. Lease BLANCO 29-12 Well No. 1-7

Unit P Sec. 7 Twp. 29N Rge. 12W Purchaser EL PASO NATURL GAS CO.

Casing 4½ Wt. 9.5&11.6 I.D. 4.090 / 4.000 Set at 6331 Perf. 6087 To 6187

Tubing 2-3/8 Wt. 4.7 I.D. 1.995 Set at 6180.83 Perf. 6181 O.E. To ____

Gas Pay: From 6087 To 6187 L 6181 xG est .650 -GL 4018 Bar.Press. ____

Producing Thru: Casing 11-18-60 Tubing No X Type Well Single Gas

Date of Completion: 11-18-60 Packer No Reservoir Temp. ____

Single-Bradenhead-G. G. or G.O. Dual

OBSERVED DATA

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

No.	Flow Data (Prover) (Line) Size	(Choke) (Orifice) Size	Press. psig	Diff. h_w	Temp. °F.	Tubing Data Press. psig	Tubing Data Temp. °F.	Casing Data Press. psig	Casing Data Temp. °F.	Duration of Flow Hr.
SI						1990		2064		SI
1.										
2.										
3.	2"	3/4				284	84	643		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.							
2.							
3.	12.365		276	0.9777	0.9666	1.033	3,280
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 2076 P_c^2 4309.776

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.	655					429.025	3880.751		1.1166
4.									
5.									

Absolute Potential: 3548 MCFPD; n .75/1.0818

COMPANY ____
ADDRESS NORTHWEST PRODUCTION CORP.
AGENT and TITLE 830 SIMMS BLDG., ALBUQUERQUE, N. M.
WITNESSED C. E. Werner, Well Tester
COMPANY ____

REMARKS

RECEIVED
DEC 1 1960
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 BLANCO 29-12 WELL NO. 1-7

DATE OF TEST 11-30-60

SHUT-IN PRESSURE (PSIG): TUBING 1990 CASING 2064 S.I. PERIOD 7 DAYS

SIZE BLOW NIPPLE 2-3/8" TBG

FLOW THROUGH 3/4" T.C. CHOKE WORKING PRESSURES FROM CASING

TIME HOURS	TIME MINUTES	PRESSURE	Q (MCFD) 15.025 PSIA & 60°F	WELLHEAD WORKING PRESSURE (PSIG)	TEMP
0	15	600		1362	
0	30	450		1080	
0	45	417		948	76
1	00	372		843	80
1	30	325		758	82
2	00	297		705	84
2	30	287		671	84
3	00	264		643	84

START AT 10:00 a.m. END TEST AT: 1:00 p.m.

REMARKS: STARTED BLOWING HEAVY SPRAY DISTILLATE AND SOME WATER AFTER THREE MINUTES. WATER DIMINISHED AND DISTILLATE REMAINED STEADY THROUGHOUT TEST.

TESTED BY: C. E. WERNER

WITNESS: _____