

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Wildcat Formation Pictured Cliffs County Rio Arriba
Initial X Annual _____ Special _____ Date of Test 9-10-56
Company Northwest Production Corp. Lease "S" Well No. 5-2
Unit D Sec. 2 Twp. 24 N Rge. 4 W Purchaser Not connected.
Casing 5" Wt. 11.5# I.D. _____ Set at 3250 Perf. 3112 To 3192
Tubing 1 1/4" Wt. 2.3# I.D. _____ Set at 3132 Perf. _____ To _____
Gas Pay: From 3192 To 3112 L _____ xG .680 -GL * _____ Bar. Press. 12.0
Producing Thru: Casing _____ Tubing X Type Well Single
Date of Completion: 8-20-56 Packer NO Single-Bradenhead-G. G. or G.O. Dual
Reservoir Temp. _____

OBSERVED DATA

Tested Through (~~Flow~~) (Choke) (~~Flow~~) Shut in 12 days. Type Taps ---

No.	Flow Data					Tubing Data		Casing Data		Duration of Flow Hr.
	(Pressure) (Choke) Size	(Choke) (Pressure) Size	Press. psig	Diff. h _w	Temp. °F.	Press. psig	Temp. °F.	Press. psig	Temp. °F.	
SI						993		993		Shut-in
1.	2"	3/4	27		66	27	66	132		3 hrs.
2.										
3.										
4.										
5.										

FLOW CALCULATIONS

No.	Coefficient (24-Hour)	$\sqrt{h_{wpf}}$	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.	14.1605		39	.9943	.9393	1.000	516
3.							
4.							
5.							

PRESSURE CALCULATIONS

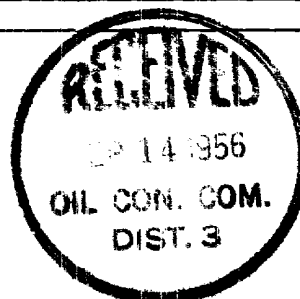
Gas Liquid Hydrocarbon Ratio _____ cf/bbl.
Gravity of Liquid Hydrocarbons _____ deg.
F_c _____ (1-e^{-s})
Specific Gravity Separator Gas _____
Specific Gravity Flowing Fluid _____
P_c 1005 P_c 1010.0

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	P _w P _c
1.									
2.	144					20.7	989.3		1.021
3.									
4.									
5.									

Absolute Potential: 525 MCFPD; n .85/1.018

COMPANY Northwest Production Corporation
ADDRESS 520 Simms Building, Albuquerque, New Mexico
AGENT and TITLE W. B. Richardson, III, 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 .

O.C.C. - 3
L. G. Truby - 1
Geo. Peppin - 1
File - 1

PACIFIC NORTHWEST PIPELINE CORPORATION

DRILLING DEPARTMENT

COMPANY NORTHWEST PRODUCTION CORP.

LEASE "g" WELL NO. 5-2

DATE OF TEST 9-10-56

SHUT IN PRESSURE (PSIG): TUBING 993 CASING 993 S.I. PERIOD 12 DAYS

SIZE BLOW NIPPLE 2 x 3/4 B-M Choke

FLOW THROUGH Tubing WORKING PRESSURES FROM Casing

TIME		CHOKE	Q (MCFD)	WELLHEAD WORKING	TEMP
HOURS	MINUTES	PRESSURE	15.025 PSIA & 60°F	PRESSURE (PSIG)	
	34.5	95	1344	427	50
	41.5	88	1245	382	52
	50	74	1047	338	54
1	0	63	892	280	57
	12	52	736	232	60
	26.5	43	608	194	61
	44	35	495	167	62
2	05	31	438	152	64
	30	29	411	143	65
3	0	27	382	132	66
			Uncorrected		

START TEST AT 10:45 A.M.

END TEST AT 1:45 P.M.

REMARKS: AT 41.5 min: well shut-in 2 min to check ice in choke--O.K., making gasoline mist; spitting ice.

At 1 1/4 hrs: well stopped making liquids.

At 1 1/2 hrs: well began high-pitched whistle at 43# back pressure; shut-in 1 min to check; no foreign matter found behind choke.

At 2 1/4 hrs: well stopped whistling; now gurglings.

At 2-3/4 hrs: well stopped gurgling.

TESTED BY W. B. Richardson III