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NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122  
 Revised 12-1-55

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Undesignated Formation Pictured Cliffs County Rio Arriba

Initial X Annual \_\_\_\_\_ Special \_\_\_\_\_ Date of Test 12-22-58

Company Johnston and Shear Lease 26-3 Well No. 1-3

Unit H Sec. 3 Twp. 26N Rge. 3W Purchaser Not connected

Casing 7 Wt. 23.0 I.D. 6.366 Set at 3889 Perf. 3706 To 3800

Tubing 1-1/4 Wt. 3.3 I.D. 1.380 Set at 3749 Perf. 3747 To 3749

Gas Pay: From 3706 To 3800 L \_\_\_\_\_ xG .650 est -GL \_\_\_\_\_ Bar.Press. \_\_\_\_\_

Producing Thru: Casing \_\_\_\_\_ Tubing X Type Well Dual - G.G.  
 Single-Bradenhead-G. G. or G.O. Dual

Date of Completion: 12-6-58 Packer 5497' Reservoir Temp. \_\_\_\_\_

OBSERVED DATA

Tested Through (Prover) (Choke) (Meter) \_\_\_\_\_ Type Taps \_\_\_\_\_

No.	Flow Data					Tubing Data		Casing Data		Duration of Flow Hr.
	(Prover) (Line) Size	(Choke) (Orifice) Size	Press. psig	Diff. h <sub>w</sub>	Temp. °F.	Press. psig	Temp. °F.	Press. psig	Temp. °F.	
SI						1024		1012		81
1.										
2.										
3.		3/4				44		332	55	3 hrs
4.										
5.										

FLOW CALCULATIONS

No.	Coefficient (24-Hour)	$\sqrt{h_{wpf}}$	Pressure psia	Flow Temp. Factor F <sub>t</sub>	Gravity Factor F <sub>g</sub>	Compress. Factor F <sub>pv</sub>	Rate of Flow Q-MCFPD @ 15.025 psia
1.							
2.							
3.	12.265		56	1.0048	.9898	1.010	675
4.							
5.							

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio \_\_\_\_\_ cf/bbl.

Gravity of Liquid Hydrocarbons \_\_\_\_\_ deg.

P<sub>c</sub> \_\_\_\_\_ (1-e<sup>-s</sup>) Negligible

Specific Gravity Separator Gas \_\_\_\_\_

Specific Gravity Flowing Fluid \_\_\_\_\_

P<sub>c</sub> 1036 P<sub>c</sub><sup>2</sup> 1073.30

No.	P <sub>w</sub> P <sub>t</sub> (psia)	P <sub>t</sub> <sup>2</sup>	F <sub>c</sub> Q	(F <sub>c</sub> Q) <sup>2</sup>	(F <sub>c</sub> Q) <sup>2</sup> (1-e <sup>-s</sup> )	P <sub>w</sub> <sup>2</sup>	P <sub>c</sub> <sup>2</sup> -P <sub>w</sub> <sup>2</sup>	Cal. P <sub>w</sub>	P <sub>w</sub> P <sub>c</sub>
1.									
2.									
3.	244					118.34	954.96		1.1229
4.									
5.									

Absolute Potential: 745 MCFPD; n .85/1.1043

COMPANY Johnston and Shear

ADDRESS 2010 Monte Vista Blvd. NE, Albuquerque, New Mexico

AGENT and TITLE C. E. Werner, Well Tester, Northwest Production Corp.

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  $P_t$ .

<b>OIL AND GAS COMMISSION</b>		
<b>REGISTRATION OFFICE</b>		
No. Copies Received <u>3</u>		
DATE RECEIVED <u>1/1/58</u>		
RECEIVED		
Operator		
Santa Fe	/	
Production Office		
State Land Office		
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File	/	✓

# DRILLING DEPARTMENT

COMPANY Johnston and Shear

LEASE 26-3 WELL NO. 1-3

DATE OF TEST 12-22-58

SHUT IN PRESSURE (PSIG): <sup>PC</sup> TUBING 1024 <sup>PC</sup> CASING 1012 <sup>MV TBG.</sup> ~~1000~~ 1683 DAYS ~~1000~~

SIZE BLOW NIPPLE 3/4" T. C. Choke

FLOW THROUGH 1-1/4" Tbg WORKING PRESSURES FROM Csg.

TIME		PC TBG	MV TBG.	WELLHEAD WORKING	TEMP
HOURS	MINUTES	PRESSURE	<del>1000 (1000)</del>	PRESSURE (PSIG)	
0	15	151	1683	792	41
	30	130	1683	651	41
	45	109	1684	569	43
1	00	94	1685	509	48
2	00	56	1685	389	51
3	00	44	1685	332	55

START AT 10:45 A.M. END TEST AT 1:45 P.M.

REMARKS: Heavy spray water and some distillate after fifteen minutes. Continued throughout test.

TESTED BY : C. E. Werner

WITNESS: \_\_\_\_\_