

## NEW MEXICO OIL CONSERVATION COMMISSION

DUAL COMPLETION

Form C-122

## MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Revised 12-1-55

Pool Wildcat Formation Mesa Verde County San Juan  
Initial Annual Special X Date of Test May 6, 1957  
Company The New Drilling Co. Lease Government-Chain Well No. 1  
Unit Sec. 20 Twp. 31N Rge. 13W Purchaser Southern Union Gas Co.  
Casing 4 1/2" 11.0 I.D. Set at 4230-0740 Perf. 4400 To 4700  
Tubing 2 1/2" 6.8 I.D. Set at 5100 Perf. -- To --  
Gas Pay: From 4400 To 4700 L -- xG -- -GL -- Bar.Press. 12.0  
Producing Thru: Casing X Tubing -- Type Well Dual  
Date of Completion: 4-25-50 Packer Behr Model Single-Bradenhead-G. G. or G.O. Dual  
"BA" at 5100 Reservoir Temp. No Gauge  
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		<u>3/4"</u>	<u>120</u>		<u>65</u>	<u>2070</u>		<u>1022</u>		
1.						<u>2022</u>		<u>120</u>	<u>65</u>	<u>2 Hours</u>
2.										
3.										
4.										
5.										

## FLOW CALCULATIONS

No.	Coefficient (24-Hour)	$\sqrt{h_w p_f}$	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.	<u>12.2000</u>		<u>142</u>	<u>0.9982</u>	<u>0.9100</u>	<u>1.0000</u>	<u>1004</u>
2.							
3.							
4.							
5.							

## PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio                      cf/bbl.  
Gravity of Liquid Hydrocarbons                      deg.  
F<sub>c</sub>                      (1-e<sup>-s</sup>)

Specific Gravity Separator Gas                       
Specific Gravity Flowing Fluid                       
P<sub>c</sub>                      P<sub>c</sub><sup>2</sup>                     

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.						<u>1135.1</u>	<u>1111.0</u>		
2.									
3.									
4.									
5.									

Absolute Potential: 1022.65 MCFPD; n 0.75  
COMPANY The New Drilling Co.  
ADDRESS 1010 Patterson Building, Denver 2, Colorado  
AGENT and TITLE W. E. Hall Vice President  
WITNESSED Rodney Heath  
COMPANY Southern Union Gas Co.

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.

$F_{pv}$  = Supercompressibility 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  $P_t$ .

**DUAL COMPLETION  
INHA VERDE TEST  
May 6, 1957**

## PACKING LEAKAGE TEST

**OPERATOR:** The New Drilling Co.  
**LEASE NAME:** Government-Cain  
**LOCATION:** Section 25, T31N, R13W

WELL NO. 1  
COUNTY: San Juan

### TEST DATA SHEET

<u>Time</u>	<u>Meza Verde</u>	<u>Dakota</u>	<u>Remarks</u>
12:10 p.m.	1052	2079	Shut-in
12:25	545	2082	61°
12:40	367	2083	62°
12:55	280	2083	64°
1:10	232	2083	64°
1:40	182	2085	65°
2:10	150	2085	65°
2:40	142	2085	65°
3:10	130	2085	65°

**Note: This well remained shut-in 7 days before test.**

[illegible]

NOTIFICATION  
 STATE OF NEW MEXICO  
 DEPARTMENT OF LAND AND MINES

STATE OF NEW MEXICO

1.00000000  
 00000000

LOCATION: 10000000  
 NAME: 10000000  
 SECTION 33, T11N, R11E

STATE OF NEW MEXICO

DATE	TIME	NO.	NAME
11-11-11	11:10	1001	1001
11-11-11	11:10	1002	1002
11-11-11	11:10	1003	1003
11-11-11	11:10	1004	1004
11-11-11	11:10	1005	1005
11-11-11	11:10	1006	1006
11-11-11	11:10	1007	1007
11-11-11	11:10	1008	1008
11-11-11	11:10	1009	1009
11-11-11	11:10	1010	1010

1.00000000 1.00000000 1.00000000 1.00000000 1.00000000

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