

## MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Revised 12-1-55

Pool Wildcat Formation Dakota County San Juan  
Initial X Annual \_\_\_\_\_ Special \_\_\_\_\_ Date of Test 12-15-58  
Company Southern Union Gas Co. Lease McCord Well No. 1  
Unit M Sec. 15 Twp. 30 Rge. 13 Purchaser Southern Union Gas Co.  
Casing 5 1/2 Wt. 15.5 I.D. 4.950 Set at 6372 K.F. Perf. 6104 To 6209  
Tubing 2-3/8 Wt. 4.7 I.D. 1.995 Set at 6180 K.F. Perf. 6150 To 6180  
Gas Pay: From 6104 To 6209 L 6150 xG 0.72 GL 4428 Bar. Press. 12.0  
Producing Thru: Casing \_\_\_\_\_ Tubing X Type Well Single Gas  
Date of Completion: 11-30-58 Packer \_\_\_\_\_ Single-Bradenhead-G. G. or G.O. Dual  
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.	
SI								
1.		<u>3/4"</u>	<u>233</u>		<u>80°</u>	<u>204.7</u> <u>233</u>	<u>80°</u> <u>622</u>	<u>7 days</u> <u>3 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>12.3650</u>		<u>245</u>	<u>0.9813</u>	<u>0.9129</u>	<u>1.028</u>	<u>2,790</u>
2.							
3.							
4.							
5.							

## PRESSURE CALCULATIONS

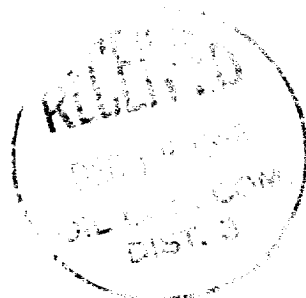
Gas Liquid Hydrocarbon Ratio \_\_\_\_\_ cf/bbl.  
Gravity of Liquid Hydrocarbons \_\_\_\_\_ deg.  
P<sub>c</sub> \_\_\_\_\_ (1-e<sup>-S</sup>)

Specific Gravity Separator Gas \_\_\_\_\_  
Specific Gravity Flowing Fluid \_\_\_\_\_  
P<sub>c</sub> 2059 P<sub>c</sub> 4239.5  
P<sub>w</sub> 634 P<sub>2</sub> 402.0

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.						<u>402.0</u>	<u>3827.5</u>		<u>.308</u>
3.									
4.									
5.									

Absolute Potential: 3005 MCFPD; n 0.75  
COMPANY Southern Union Gas Company  
ADDRESS P. O. Box 815, Farmington, New Mexico  
AGENT and TITLE G. L. Hoffman  
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.

$F_{pv}$  = 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  $P_t$ .

OIL CONSERVATION COMMISSION  
REPORT ON THE  
No. 1  
FILE

Submit 5 Copies  
Appropriate District Office  
DISTRICT I  
P.O. Box 1980, Hobbs, NM 88240

DISTRICT II  
P.O. Drawer DD, Artesia, NM 88210

DISTRICT III  
1000 Rio Brazos Rd., Aztec, NM 87410

State of New Mexico  
Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION  
P.O. Box 2088  
Santa Fe, New Mexico 87504-2088

Form C-104  
Revised 1-1-89  
See Instructions  
at Bottom of Page

REQUEST FOR ALLOWABLE AND AUTHORIZATION  
TO TRANSPORT OIL AND NATURAL GAS

I. Operator Union Texas Petroleum Corporation Well API No. \_\_\_\_\_

Address P.O. Box 2120 Houston, Texas 77252-2120

Reason(s) for Filing (Check proper box) \_\_\_\_\_ Other (Please explain) \_\_\_\_\_  
New Well \_\_\_\_\_ Change in Transporter of: \_\_\_\_\_  
Recompletion \_\_\_\_\_ Oil ☒ Dry Gas ☐  
Change in Operator \_\_\_\_\_ Casinghead Gas ☐ Condensate ☐

If change of operator give name and address of previous operator \_\_\_\_\_

II. DESCRIPTION OF WELL AND LEASE

Lease Name McCord Well No. #1 Pool Name, Including Formation Basin Dakota Kind of Lease State, Federal or Fee Lease No. SE078212  
Location \_\_\_\_\_  
Unit Letter M Feet From The \_\_\_\_\_ Line and \_\_\_\_\_ Feet From The \_\_\_\_\_ Line  
Section 15 Township 30N Range 13W NMPM, SAN JUAN County \_\_\_\_\_

III. DESIGNATION OF TRANSPORTER OF OIL AND NATURAL GAS

Name of Authorized Transporter of Oil ☒ or Condensate ☐ Address (Give address to which approved copy of this form is to be sent) Meridian Oil Inc. P.O. Box 4289, Farmington, NM 87499  
Name of Authorized Transporter of Casinghead Gas ☐ or Dry Gas ☒ Address (Give address to which approved copy of this form is to be sent) Sunterra Gas Gathering Co. P.O. Box 26400, Albuquerque, NM 87125  
If well produces oil or liquids, give location of tanks. \_\_\_\_\_ Unit \_\_\_\_\_ Sec. \_\_\_\_\_ Twp. \_\_\_\_\_ Rge. \_\_\_\_\_ Is gas actually connected? \_\_\_\_\_ When? \_\_\_\_\_

If this production is commingled with that from any other lease or pool, give commingling order number: \_\_\_\_\_

IV. COMPLETION DATA

Designate Type of Completion - (X)	Oil Well	Gas Well	New Well	Workover	Deepen	Plug Back	Same Res'v	Diff Res'v
Date Spudded	Date Compl. Ready to Prod.		Total Depth		P.B.T.D.			
Elevations (DF, RKB, RT, GR, etc.)	Name of Producing Formation		Top Oil/Gas Pay		Tubing Depth			
Perforations					Depth Casing Shoe			
TUBING, CASING AND CEMENTING RECORD								
HOLE SIZE	CASING & TUBING SIZE		DEPTH SET		SACKS CEMENT			

V. TEST DATA AND REQUEST FOR ALLOWABLE

OIL WELL (Test must be after recovery of total volume of load oil and must be equal to or exceed top allowable for this depth or be for full 24 hours.)

Date First New Oil Run To Tank	Date of Test	Producing Method (Flow, pump, gas lift, etc.)	
Length of Test	Tubing Pressure	Casing Pressure	Choke Size
Actual Prod. During Test	Oil - Bbls.	Water - Bbls.	Gas- MCF

GAS WELL

Actual Prod. Test - MCF/D	Length of Test	Bbls. Condensate/MMCF	Gravity of Condensate
Testing Method (puot, back pr.)	Tubing Pressure (Shut-in)	Casing Pressure (Shut-in)	Choke Size

VI. OPERATOR CERTIFICATE OF COMPLIANCE

I hereby certify that the rules and regulations of the Oil Conservation Division have been complied with and that the information given above is true and complete to the best of my knowledge and belief.

Signature Annette C. Bisby Env. & Reg. Sec'rtry  
Printed Name Annette C. Bisby Title (713) 968-4012  
Date 8-7-89 Telephone No. \_\_\_\_\_

OIL CONSERVATION DIVISION

Date Approved AUG 28 1989  
By [Signature]  
Title SUPERVISION DISTRICT # 3

INSTRUCTIONS: This form is to be filed in compliance with Rule 1104

- 1) Request for allowable for newly drilled or deepened well must be accompanied by tabulation of deviation tests taken in accordance with Rule 111.
- 2) All sections of this form must be filled out for allowable on new and recompleted wells.
- 3) Fill out only Sections I, II, III, and VI for changes of operator, well name or number, transporter, or other such changes.