

EL PASO NATURAL GAS COMPANY
OPEN FLOW TEST DATA

DUAL COMPLETION

DATE **March 8, 1957**

Operator El Paso Natural Gas Company		Lease San Juan Unit 28-6 # 69	
Location 990'S, 810'W, Sec. 24-27-6		County Rio Arriba	State New Mexico
Formation Pictured Cliffs		Pool Wildcat	
Casing Diameter 5$\frac{1}{8}$	Set At: Feet 5677	Tubing Diameter 1$\frac{1}{4}$	Set At: Feet 3311
Pay Zone: From 3283	To 3336	Total Depth 5675 - c/o - 5600. Packer at 3425	
Stimulation Method Sand Water Frac		Flow Through Casing X	Flow Through Tubing

Choke Size, Inches 0.75	Choke Constant: C 14.1605	
Shut-In Pressure, Casing, PSIG 1036	12 - PSIA 1048	Days Shut-In 31
Shut-In Pressure, Tubing, PSIG 1036	12 - PSIA 1048	
Flowing Pressure: P, PSIG 154	12 - PSIA 166	Working Pressure: P _w , PSIG 158
Temperature, °F 60		12 - PSIA 170
		Sp. Gr. (From Tables) 1.016
		Gravity .660

SIPT (Mesa Verde) - 1077 psig

CHOKE VOLUME $Q = C \times P_1 \times F_1 \times F_g \times F_p$

$$Q = 14.1605 \times 166 \times 1.0 \times .9535 \times 1.016$$

2277

MCF/D

OPEN FLOW $Q_{of} = Q \left(\frac{P_1^2 - P_w^2}{P_1^2 - P_w^2} \right)^n$

$$Q_{of} = \left(\frac{1,098,304}{1,069,404} \right)^n (1.0270)^{.85} \times 2277 = 1.0229 \times 2277$$

$Q_{of} = 2329$ MCF/D

PREPARED BY **R. A. Ullrich**

WITNESSED BY

cc: **E. J. Coel, Jr. (6)**

L. D. Galloway
L. D. Galloway

EL PASO NATURAL GAS COMPANY
OPEN FLOW TEST DATA

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DUAL COMPLETION

DATE March 26, 1957

Operator El Paso Natural Gas Company		Lease San Juan 28-6 Unit # 69	
Location 990'S, 810'W, Sec. 24-27-6		County Rio Arriba	State New Mexico
Field Name Mesa Verde		Pool Blanco	
Casing Diameter 5½	Set At: Feet 5677	Tubing Diameter 2	Set At: Feet 5541
Pay Zone: From 5000	To 5566	Total Depth 5675 - c/o - 5600. Packer @ 3425	
Stimulation Method Sand Water Frac		Flow Through Casing	Flow Through Tubing X

Choke Size, Inches 0.75	Choke Constant: C 14.1605	Shut-In Pressure, Casing, PSIG P.C. 1042	Shut-In Pressure, Tubing, PSIG 1081
Flowing Pressure, P, PSIG 422	Flowing Pressure, Pw, PSIG 434	Working Pressure, Pw, PSIG Calculated	Working Pressure, Pw, PSIG 983
Temperature: T 60	Temperature: Tw .75	Flow Through Casing 1.052	Gravity .693

CHOKED VOLUME $Q = C \times P_r \times F_c \times F_g \times F_{gv}$

$$Q = 14.1605 \times 434 \times 1.0 \times .9325 \times 1.052 = 6029 \text{ MCF/D}$$

OPEN FLOW $A_{of} = Q \left(\frac{P_c^2 - P_w^2}{P_c^2 - P_a^2} \right)^n$

$$A_{of} = \left(\frac{1,194,649}{228,360} \right)^{.75} (5.231)^{.75} \times 6029 = 3.455 \times 6029$$

Well blew a heavy stream of distillate during entire test period.

$$A_{of} = 20,830 \text{ MCF/D}$$

TESTED BY R. A. Ullrich

WITNESSED BY

cc: E. J. Coel, Jr. (6)

L. D. Galloway
L. D. Galloway

EL PASO NATURAL GAS COMPANY
GAS WELL TEST

To: Mr. E. E. Alsop

Date: March 26, 1957

From: Gas Engineering Department

Place: Farmington, New Mexico

DUAL COMPLETIONSubject: Test data on the El Paso Natural Gas Company Well,
SAN JUAN 28-6 UNIT # 69, Rio Arriba County, N.M.

Tested By: R. A. Ullrich

Location Sec. 24 T. 27 R. 6 990'S, 810'W

Shut-In Pressure PC 1042 psig ; (Shut-in 11 days)
MV 1081 psig0.750" Choke Volume 6029 MCF/D @ 14.7 psia and 60° F. for 0.6
gravity gas. Flow through tubing for 3 hours.

Calculated 3 Hour Absolute Open Flow 20,830 MCF/D

Working Pressure On calculated = 971 Psig

Producing Formation Mesa Verde

Stimulation Method Sand Water Frac

Total Depth 5675 - c/o - 5600'. Packer at 3425.

Field Blanco

H₂S Sweet to lead acetate.

SIPT - Pictured Cliffs - 1042 psig

cc: D. H. Tucker

W. T. Hollis

W. M. Rodgers

Drilling Department

B. D. Adams

Roland Hamblin

Jack Purvis

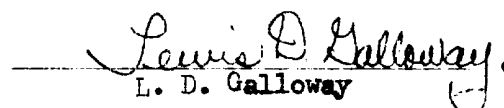
W. V. Holik

C. C. Kennedy

E. J. Coel, Jr. (6)

A. J. Dudenhoeffer

File

Bill Parrish
Dean Rittmann
H. H. Lines
L. D. Galloway

This well blew a heavy stream of distillate during entire test period.

EL PASO NATURAL GAS COMPANY
GAS WELL TEST

To: Mr. E. E. Alsup

Date: March 8, 1957

From: Gas Engineering Department

Place: Farmington, New Mexico

DUAL COMPLETION

Subject:

Test data on the El Paso Natural Gas Company Well,
SAN JUAN 28-6 UNIT # 69, Rio Arriba County, N.M.

Tested By:

R. A. Ullrich

Location Sec. 24 T. 27 R. 6 ,990'S, 810'W

Shut-In Pressure	Pictured Cliffs	SIPT	1036	psig	31	(Shut-in..... days)
	Pictured Cliffs	SIPT	1036	psig		
	Mesa Verde	SIPT	1077	psig		

0.750" Choke Volume	2277	MCF/D @ 14.7 psia and 60° F. for 0.6 gravity gas. Flow through casing for 3 hours.
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Calculated 3 Hour Absolute Open Flow	2329	MCF/D
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Working Pressure On tubing	= 158	Psig
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Producing Formation	Pictured Cliffs
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Stimulation Methods	Sand Water Frac
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Total Depth	5675 - o/o - 5600. Packer at 3425
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Field	Wildcat
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H ₂ S	Sweet to lead acetate.
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Final SIPT (Mesa Verde) - 1078 psig

cc: D. H. Tucker

W. T. Hollis

W. M. Rodgers

Drilling Department

B. D. Adams

Roland Hamblin

Jack Purvis

W. V. Holik

C. C. Kennedy

E. J. Coel, Jr. (6)

A. J. Dudenhoeffer

File

Bill Parrish

H. H. Lines

Dean Rittmann

Lewis D. Galloway
L. D. Galloway

STATE OF NEW MEXICO)
)
COUNTY OF SAN JUAN)

I, Mack H. Mahaffey, being first duly sworn upon my oath depose and say as follows:

I am an employee of Baker Oil Tools, Inc., and that on February 5, 1957, I was called to the location of the El Paso Natural Gas Company San Juan 28-6 #69 Well located in the SW/4 of Section 24, Township 27 North, Range 6 West, N.M.P.M. for the purpose of installing a production packer. Under my direct supervision a Baker Model "EGJ" production packer was set at 3425 feet. The production packer was properly set in accordance with the usual practices and customs of the industry.

Mack H. Mahaffey
Mack H. Mahaffey

Subscribed and sworn to before me, a Notary Public in and for San Juan County, New Mexico, the 15th day of FEB, 1957.

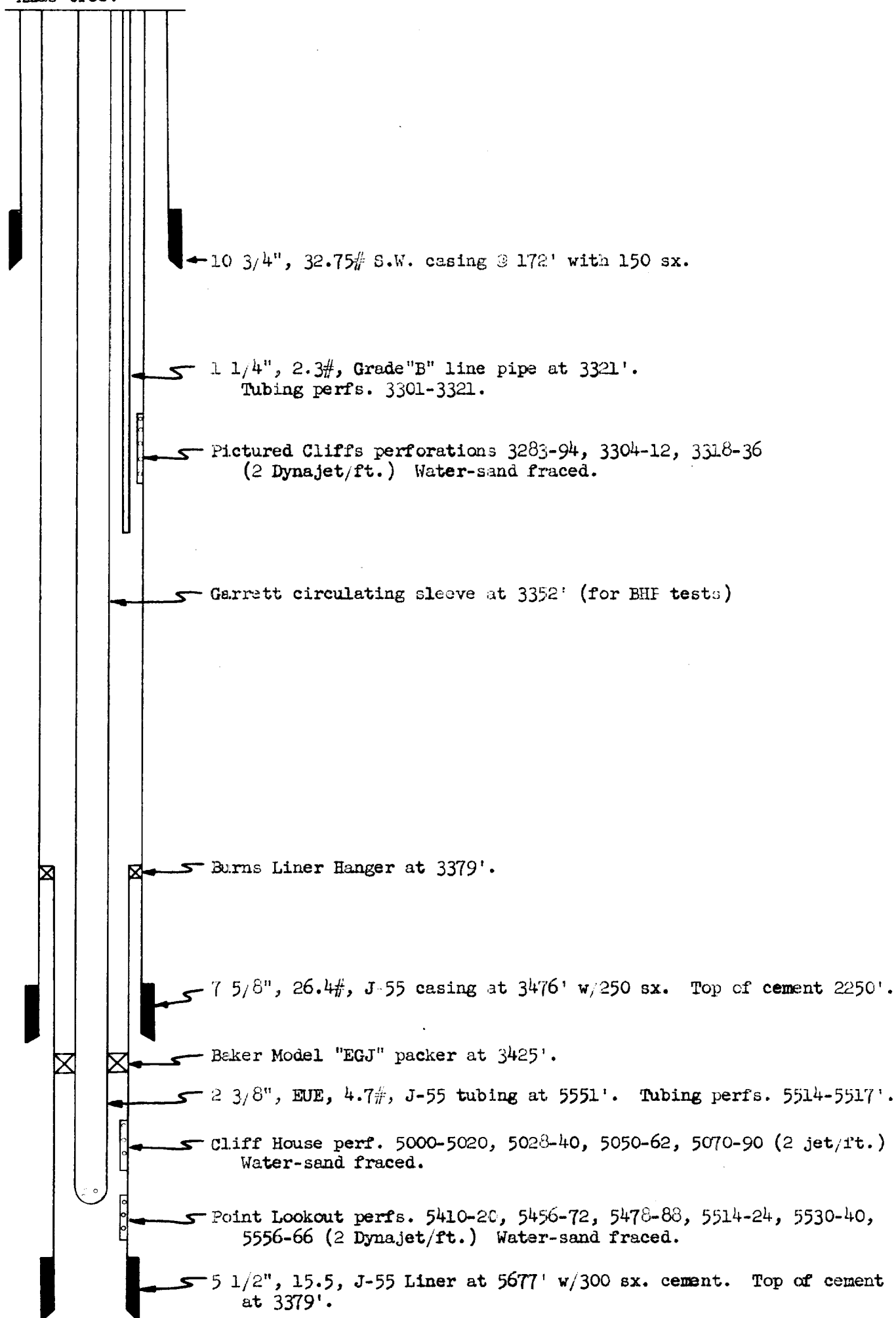
MY COMMISSION EXPIRES FEB. 24, 1960

John J. Mahaffey
Notary Public in and for San Juan County,
New Mexico.

SCHEMATIC DIAGRAM OF DUAL COMPLETION ON
EPNG SAN JUAN 28-6 UNIT #69

Measurement reference point
is 9.65' above top flange of
tubing hanger.

Dual string
Xmas tree.



T.D. 5679'.