

NEW MEXICO OIL CONSERVATION COMMISSION

SANTA FE, NEW MEXICO

7-3-58

APPLICATION FOR DUAL COMPLETION

Basin Dakota & ^{FRANCO} Ignacio Mesa Verde Rio Arriba February 16, 1962

El Paso Natural Gas Company San Juan 27-5 Unit 59 (MD)

A 6 27N 5W

1. This application is made pursuant to the provisions of the New Mexico Oil Conservation Act, Chapter 10, Section 1-1, of the Statutes of the State of New Mexico, and the rules and regulations thereunder, and the undersigned hereby certifies that the information furnished herein is true and correct to the best of his knowledge and belief.

Mesa Verde Dakota

5092 - 5596 7500 - 7716
Gas Gas

Flowing Flowing

- Yes
- Yes
- Yes
- Yes

T. H. McElvain - 220 Shelby Street, Santa Fe, New Mexico
M. A. Romero - Box 2011, Santa Fe, New Mexico



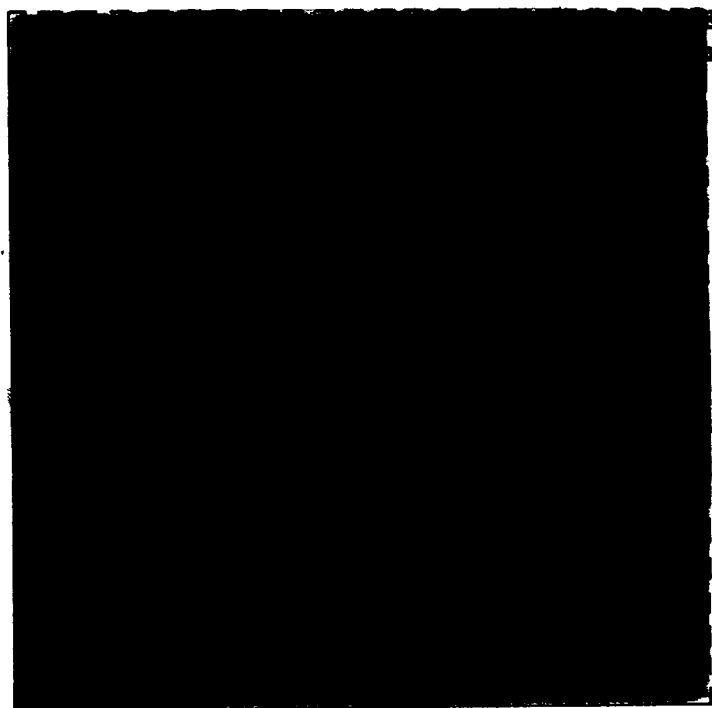
February 16, 1962

CERTIFICATE: I hereby certify that the above is a true and correct copy of the original signed by the Area Petroleum Engineer, El Paso Natural Gas Co.

OR'G'NAL SIGNED E. S. OBERLY

PLAT SHOWING LOCATION OF DUALY COMPLETED
El Paso Natural Gas Co. San Juan 27-5 Unit No. 59 (MD)
and Offset Acreage

T-27-N
R-5-W



Elvain
zero



EL PASO NATURAL GAS COMPANY
EL PASO, TEXAS

SCALE

DATE

No.

DRAWN BY

CHECKED BY

EL PASO NATURAL GAS COMPANY OPEN FLOW TEST DATA

DUAL COMPLETION

DATE January 26, 1962

Operator El Paso Natural Gas Company	Lease San Juan 27-5 No. 59 (MV)
Location 990'N, 800'E, Sec. 6-27-5	County Rio Arriba State New Mexico
Formation Mesa Verde	Pool Blanco
Casing: Diameter 5-1/2" & 4-1/2" O.D.	Set At: Feet 5580
Pay Zone: From 5092	Total Depth: 7870 c/o 7750
Stimulation Method Sand Water Frac.	Flow Through Tubing 12-20-61
	Flow Through Casing X

Choke Size, Inches .75	Choke Constant: C 12.365	5-1/2" Model "D" at 5713
Shut-In Pressure, Casing, PSIG 1093 (MV)	PSIG - 12 PSIA 1105	Shut-In Pressure, Tubing, PSIG - 12 PSIA 1070 (MV)
Flowing Pressure: P PSIG 550	PSIG - 12 PSIA 562	Working Pressure: Pw PSIG - 12 PSIA 661
Temperature: F 72	F _g .9887	F _{pv} (From Tables) Gravity 1.052 .630
	F _g .75	F _g .9759

Initial SIPT (DK) = 2367 psig

Final SIPT (DK) = 2390 psig

CHOKE VOLUME Q C x P_i x F_i x F_g x F_{pv}

$$Q (12.365)(562)(.9887)(.9759)(1.052)$$

7054

MCF D

OPEN FLOW Aof Q $\left(\frac{P_c^2}{P_c^2 - P_w^2} \right)^n$

Aof $\left(\frac{1,221,025}{768,096} \right)^n$

$$(7054)(1.5896) = (7054)(1.4155)$$

Aof 9985

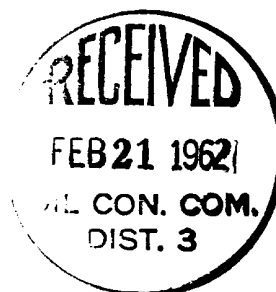
MCF D

TESTED BY D. E. Mortensen

WITNESSED BY

Calculated by: W. D. Dawson

Lewis D. Galloway
Lewis D. Galloway



EL PASO NATURAL GAS COMPANY
OPEN FLOW TEST DATA

DATE January 16, 1962

DUAL COMPLETION

Operator El Paso Natural Gas Company	Lease San Juan Unit 27-5 No. 59 (DK)
Location 990'N, 800'E, Sec. 6-27-5	County Rio Arriba State New Mexico
Formation Dakota	Pool Basin
Casing Diameter 5-1/2 O.D.	Tubing Diameter 2-1/16" O.D.
Set At: Feet 7870	Set At: Feet 7581
Pay Zone: From 7500	Total Depth: 7870 c/o 7750
Stimulation Method Sand/Water: Frac.	Flow Through Tubing 12-20-61
	Flow Through Casing X

Choke Size, Inches 0.750	Choke Constant: C 12.365	5-1/2" O.D. at 5713
Shut-In Pressure, Casing, PSIG (MV) 1087	PSIG - 12 - PSIA 1099	Shut-In Pressure, Tubing, PSIG - 12 - PSIA (DK) 2364
Flowing Pressure, PSIG 392	PSIG - 12 - PSIA 394	Working Pressure: Pw, PSIG - 12 - PSIA Calc. 1174
Temperature 60 F	Ft. .9915	Fpv (From Tables) 1.041
	.75	Gravity, Fg .670
		.9463

Initial SIPT (MV) = 1068 psig

Final SIPT (MV) = 1096 psig

CHOKE VOLUME $Q = C \times P_1 \times F_1 \times F_g \times F_{pv}$

$$C (12.365)(394)(.9915)(.9463)(1.041)$$

4758

MCF D

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

$$A_{of} \left(\frac{5,645,376}{4,267,100} \right)^n$$

$$(1.3230)^{.75}(4758) = (1.2338)(4758)$$

Aof 5870

MCF D

NOTE: Made heavy slug of water at start of test then made spray of water throughout remainder of test.

TESTED BY **R. F. Headrick**

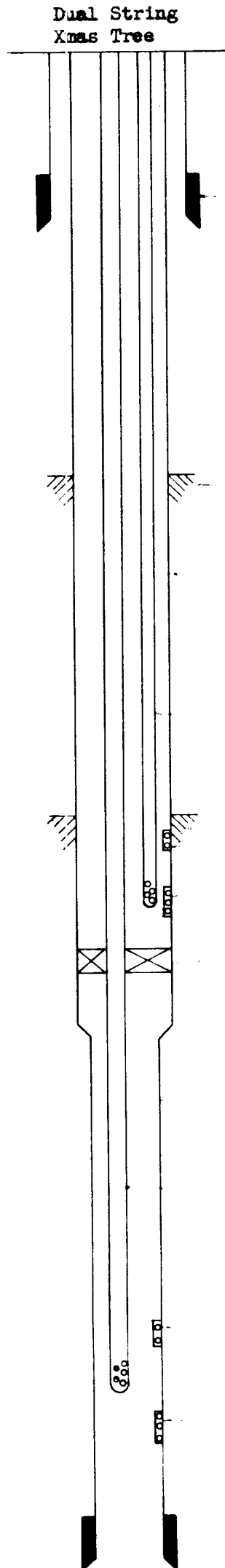
WITNESSED BY

Checked by: **W. D. Dawson**

Lewis D. Galloway
Lewis D. Galloway



SCHEMATIC DIAGRAM OF DUAL COMPLETION
El Paso Natural Gas Co. San Juan 27-5 Unit No. 59 (MD)
NE/4 Section 6, T-27-N, R-5-W



Zero reference point 10.0' above top flange of tubing hanger.

9 5/8", 32.3# H-40 casing set at 293' w/200 sacks of cement circulated to surface.

2900' - Top of cement on third stage.

5 1/2", 15.5# J-55 casing from surface to 5763' w/440 sacks of cement. Top portion of combination string.

1 1/4", 2.3# J-55 set at 5591'.

500' - Top of cement on Second Stage
 Cliff House perforations 5092-5104 (2 SPF), 5110-16, 5132-38 (4 SPF) fractured with water and sand.
 Point Lookout perforations 5490-98; 5508-12; 5524-28; 5550-54; 5560-64; 5588-96 w/4 SPF, fractured with water and sand.

Baker Model "D" Production Packer set at 5713'.

4 1/2", 11.6# J-55 set from 5763' to 7869'.
 Bottom portion of combination string.

2 1/16", 3.25# J-55 set at 7592'.

Graneros perforations 7500-08; 7530-38; 7608-16; 7622-30 (2 SPF) fractured with water and sand.

Lower Dakota perforations 7652-58; 7670-76; 7682-88; 7698-7704; 7710-16 (2 SPF) fractured with water and sand.

