NEW MEXICO OIL CONSERVATION COMMISSION

SANTA FE, NEW MEXICO

7-3-58

APPLICATION FOR DUAL COMPLETION

Field Name	County	Date
Blanco M. V. & Tapacito P. C.	Rio Arriba	[illegible] 11, 1958
Operator	**Lease**	**Well No.**
El Paso Natural Gas Company	San Juan 27-5 Unit	28 (PM)

Location of Well	Unit	Section	Township	Range
	M	25	27N	5W

1. Has the New Mexico Oil Conservation Commission heretofore authorized the dual completion of a well in these same pools or in the same zones within one mile of the subject well? YES X NO ____
2. If answer is yes, identify one such instance: Order No. DC-663 ; Operator, Lease, and Well No.:
   El Paso Natural Gas Co. San Juan 27-5 Unit #36 (PM)

3. The following facts are submitted:	Upper Zone	Lower Zone
a. Name of reservoir	Pictured Cliffs	Mesa Verde
b. Top and Bottom of Pay Section (Perforations)	3676-3714	5586-5756 (Point Lookout)
c. Type of production (Oil or Gas)	Gas	Gas
d. Method of Production (Flowing or Artificial Lift)	Flowing	Flowing

4. The following are attached. (Please mark YES or NO)

Yes a. Diagrammatic Sketch of the Dual Completion, showing all casing strings, including size and setting, top of cement, perforated intervals, tubing strings, including diameters and setting depth, location and type of packers and side door chokes, and such other information as may be pertinent.

Yes b. Plat showing the location of all wells on applicant's lease, all offset wells on offset leases, and the names and addresses of operators of all leases offsetting applicant's lease.

No c. Waivers consenting to such dual completion from each offset operator, or in lieu thereof, evidence that said offset operators have been furnished copies of the application.*

No d. Electrical log of the well or other acceptable log with tops and bottoms of producing zones and intervals of perforation indicated thereon. (If such log is not available at the time application is filed, it shall be submitted as provided by Rule 112-A.)

5. List all offset operators to the lease on which this well is located together with their correct mailing address.
   El Paso Natural Gas Co. is unit operator.

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6. Were all operators listed in Item 5 above notified and furnished a copy of this application? YES ____ NO X . If answer is yes, give date of such notification ____ .

CERTIFICATE: I, the undersigned, state that I am the Division Petroleum Engr. of the El Paso Natural Gas Co. (company), and that I am authorized by said company to make this report; and that this report was prepared under my supervision and direction and that the facts stated therein are true, correct and complete to the best of my knowledge.

ORIGINAL SIGNED E. S. OBERLY

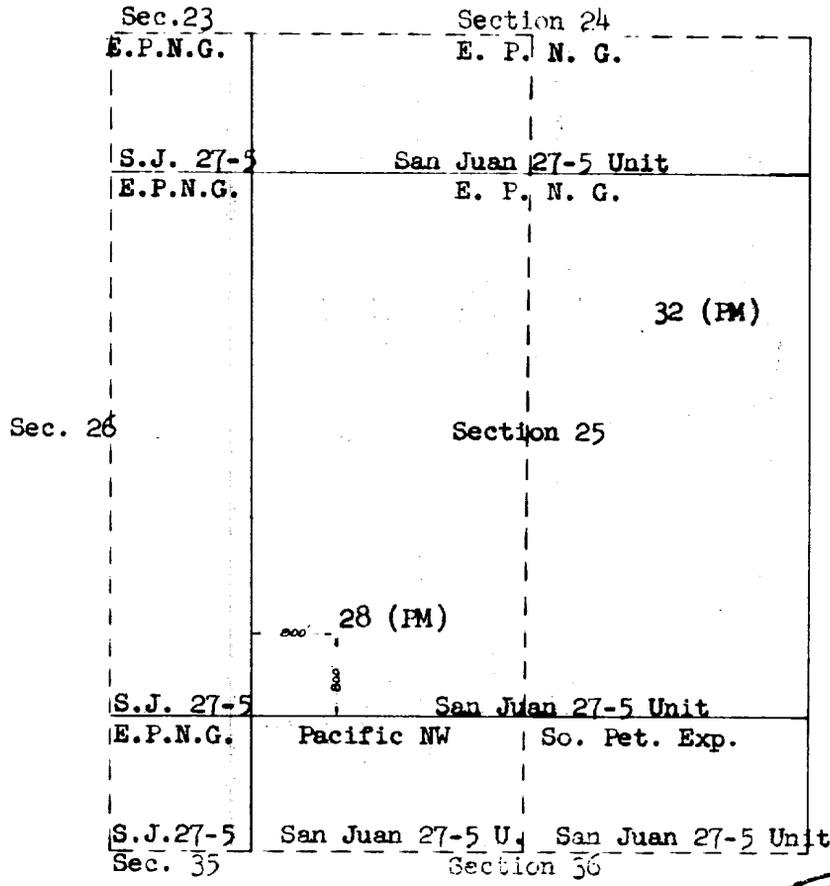
Signature

* Should waivers from all offset operators not accompany an application for administrative approval, the New Mexico Oil Conservation Commission will hold the application for a period of twenty (20) days from date of receipt by the Commission's Santa Fe office. If, after said twenty-day period, no protest nor request for hearing is received by the Santa Fe office, the application will then be processed.

NOTE: If the proposed dual completion will result in an unorthodox well location and/or a non-standard proration unit in either or both of the producing zones, then separate application for approval of the same should be filed simultaneously with this application.

PLAT SHOWING LOCATION OF DUALLY COMPLETED
El Paso Natural Gas Co. San Juan 27-5 Unit No. 28 (PM)
and Offset Acreage

T-27-N, R-5-W



EL PASO NATURAL GAS COMPANY
EL PASO, TEXAS

SCALE	DATE	No.
DRAWN BY	CHECKED BY	

FORM 7-132 (10-56)

FORM 2[illegible]75 (6-58)

EL PASO NATURAL GAS COMPANY

OPEN FLOW TEST DATA

DUAL COMPLETION DATE **August 27, 1958**

Operator: **El Paso Natural Gas**		Lease: **San Juan 27-5 Unit 28-(M)**	
Location: **800S, 800W; 25-27-5**		County: **Rio Arriba**	State: **New Mexico**
Formation: **Mesa Verde**		Pool: **Blanco MV**	
Casing: Diameter: **7-5/8**	Set At: Feet: **3634**	Tubing: Diameter: **2"**	Set At: Feet: **5689**
Pay Zone: From: **5656**	To: **5756**	Total Depth: **5798 c/o 5771**	**Shut-in 8/14/58**
Stimulation Method: **Sand Water Frac.**		Flow Through Casing	Flow Through Tubing: **X**

Choke Size, Inches: **.75**	Choke Constant: C: **12.365**	**5-1/2 liner 3569 - 5796**	
Shut-In Pressure, Casing, PSIG: **911 (PC)**	- 12 = PSIA: **923** / Days Shut-In: **13**	Shut-in Pressure, Tubing PSIG: **(MV) 1107**	- 12 = PSIA: **1119**
Flowing Pressure: P PSIG: **204**	- 12 = PSIA: **216**	Working Pressure: P_w PSIG: **Calc.**	- 12 = PSIA: **431**
Temperature: T °F: **70**	n = **.75**	Fpv (From Tables): **1.023**	Gravity: **.709**

Initial (PC) SIPT = 911 psig
Final (PC) SIPC = 919 psig

Packer at 3622

CHOKE VOLUME = Q $= C \times P_t \times F_t \times F_g \times F_{pv}$

Q = **12.365 x 216 x .9905 x .9225 x 1.023** = **2497** MCF D

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

Aof $= \left(\frac{1252161}{1066400} \right)^n$ **$(1.1741)^{.75}$ (2497) = (1.1280)(2497)**

Aof = **2817** MCF D

TESTED BY: **S. V. Roberts**

WITNESSED BY: **T. H. McElvain**

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Lewis D. Galloway

L. D. Galloway

FORM 23-75 (6-58)

EL PASO NATURAL GAS COMPANY

OPEN FLOW TEST DATA

DUAL COMPLETION

DATE **September 3, 1958**

Operator: **El Paso Natural Gas**		Lease: **San Juan 27-5 Unit 28 (P)**	
Location: **800S, 800W; 25-27-5**		County: **Rio Arriba**	State: **New Mexico**
Formation: **Pictured Cliffs**		Pool: **Tapacito PC**	
Casing: Diameter: **7-5/8**	Set At: Feet: **3634**	Tubing: Diameter: **1-1/4**	Set At: Feet: **3505**
Pay Zone: From: **3476**	To: **3514**	Total Depth: **c/o 5771 5798**	**Shut-in 8/14/58**
Stimulation Method: **Sand Water Frac.**		Flow Through Casing: **X**	Flow Through Tubing

Choke Size, Inches: **.75**	Choke Constant: C: **12.365**		**5-1/2 liner 3569 - 5796**		
Shut-In Pressure, Casing, PSIG: **945 (PC)**	+ 12 = PSIA: **957**	Days Shut-In: **20 (PC)**	Shut-in Pressure, Tubing PSIG: **945 (PC)**	+ 12 = PSIA: **957**	
Flowing Pressure: P PSIG: **714**	+ 12 = PSIA: **726**		Working Pressure: Pw PSIG: **755**	+ 12 = PSIA: **767**	
Temperature: T F: **75**	n: **.85**		Fpv (From Tables): **1.070**	Gravity: **.663**	

Initial SIPT (MV) = 1112 psig
Final SIPT (MV) = 1120 psig

Packer at 3622
2" at 5689

CHOKE VOLUME = Q = C x P_t x F_t x F_g x F_{pv}

Q = **12.365 x 726 x .9859 x .9535 x 1.070** = **9,030** MCF/D

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

Aof = $\left(\frac{915849}{327560} \right)^n$ **$(2.7959)^{.85}$ (9030) = (2.396)(9030)**

Aof = **21,636** MCF/D

TESTED BY: **S. V. Roberts**

WITNESSED BY:

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Lewis D. Galloway

L. D. Galloway

EL PASO NATURAL GAS COMPANY

P. O. Box 997
Farmington, New Mexico

September 3, 1958

Mr. E. C. Arnold
Oil Conservation Commission
1000 Rio Brazos Road
Aztec, New Mexico

Re: Packer Leakage Test on the El Paso Natural Gas Company Well, San Juan 27-5 Unit 28 (PM), 800S, 800W; 25-27-5; Rio Arriba, New Mexico
(Name - Location - Company)

Dear Mr. Arnold:

The subject well was dually completed in the Pictured Cliffs and Mesa Verde zones and a packer was set at 3622 feet. The Mesa Verde zone was tested through a 3/4" choke for three hours August 27, 1958 with the following data obtained:

PC SIPC 911 psig; Shut-in 13 days

PC SIPT 913 psig;

MV SIPT 1107 psig; Shut-in 13 days

Time Minutes	(MV) Flowing Pressure Tubing Psig	(PC) SIP (C) Psig	(MV) Working Pressure, Psig	Temp ° F
0		911		
15	387	912		67
30	356	912		67
45	322	912		67
60	284	913		68
180	204	919	Calc. 419	70

The choke volume for the Mesa Verde was 2497 MCF/D with an AOF of 2817 MCF/D.

The Pictured Cliffs zone was tested September 3, 1958 with a 3/4" choke for 3 hours with the following data obtained:

PC SIPC 945 psig; Shut-in 20 days

PC SIPT 945 psig;

MV SIPT 1112 psig; Shut-in 7 days

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Time Minutes	(PC) Flowing Pressure Casing Psig	(MV) SIP (T) Psig	(PC) Working Pressure, Psig	Temp ° F
0		1112		
15	824	1115		64
30	804	1115		68
45	791	1115		70
60	786	1116		72
180	714	1120	755	75

The choke volume for the Pictured Cliffs test was 9030 MCF/D with an AOF of 21,636 MCF/D.

The results of the above tests indicate there is no packer leakage.

Very truly yours,

H. L. Kendrick
Gas Engineer

HLK/nb

cc: W. M. Rodgers
E. S. Oberly (6)
File