

Letter 9-15-58 @

NEW MEXICO OIL CONSERVATION COMMISSION

SANTA FE, NEW MEXICO

7-3-58

APPLICATION FOR DUAL COMPLETION

Field Name <b>Blanco M.V. &amp; Wildcat</b>		County <b>Rio Arriba</b>		Date <b>September 9, 1958</b>
Operator <b>El Paso Natural Gas Co.</b>		Lease <b>San Juan 28-6 Unit</b>		Well No. <b>60 (FM)</b>
Location of Well	Unit <b>0</b>	Section <b>12</b>	Township <b>27N</b>	Range <b>6W</b>

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 ☒ NO ☐

2. If answer is yes, identify one such instance: Order No. **DC-602**; Operator, Lease, and Well No.:

**El Paso Natural Gas Co. San Juan 28-6 Unit No. 61 (FM)**

3. The following facts are submitted:	Upper Zone	Lower Zone
a. Name of reservoir	<b>Pictured Cliffs</b>	<b>Mesa Verde</b>
b. Top and Bottom of Pay Section (Perforations)	<b>3196-3234</b>	<b>4954-4958 (Cliff House) 5366-5500 (Point Lookout)</b>
c. Type of production (Oil or Gas)	<b>Gas</b>	<b>Gas</b>
d. Method of Production (Flowing or Artificial Lift)	<b>Flowing</b>	<b>Flowing</b>

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.

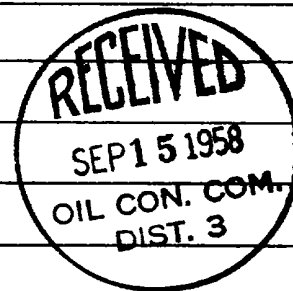
**Yes** b. Plat showing the location of all wells on applicant's lease, all offset wells on offset leases, and the names and addresses of operators of all leases offsetting applicant's lease.

**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.

**None**



6. Were all operators listed in Item 5 above notified and furnished a copy of this application? YES ☐ NO ☐. 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.

STATE OF NEW MEXICO )  
COUNTY OF SAN JUAN )

I, J. E. Rowland, being first duly sworn upon my oath  
depose and say as follows:

I am an employee of Baker Oil Tools, Inc., and that on April  
13, 1958, I was called to the location of the El Paso Natural Gas Company  
San Juan 28-6 Unit No. 80 (PM) Well located in the NE/4 of Section 12,  
Township 27 N, Range 6 W, N.M.P.M., for advisory service in connection  
with installation of a production packer. In my presence, a Baker Model  
"EGJ" Production Packer was set in this well at 3379' feet in accordance  
with the usual practices and customs of the industry.

J. E. Rowland

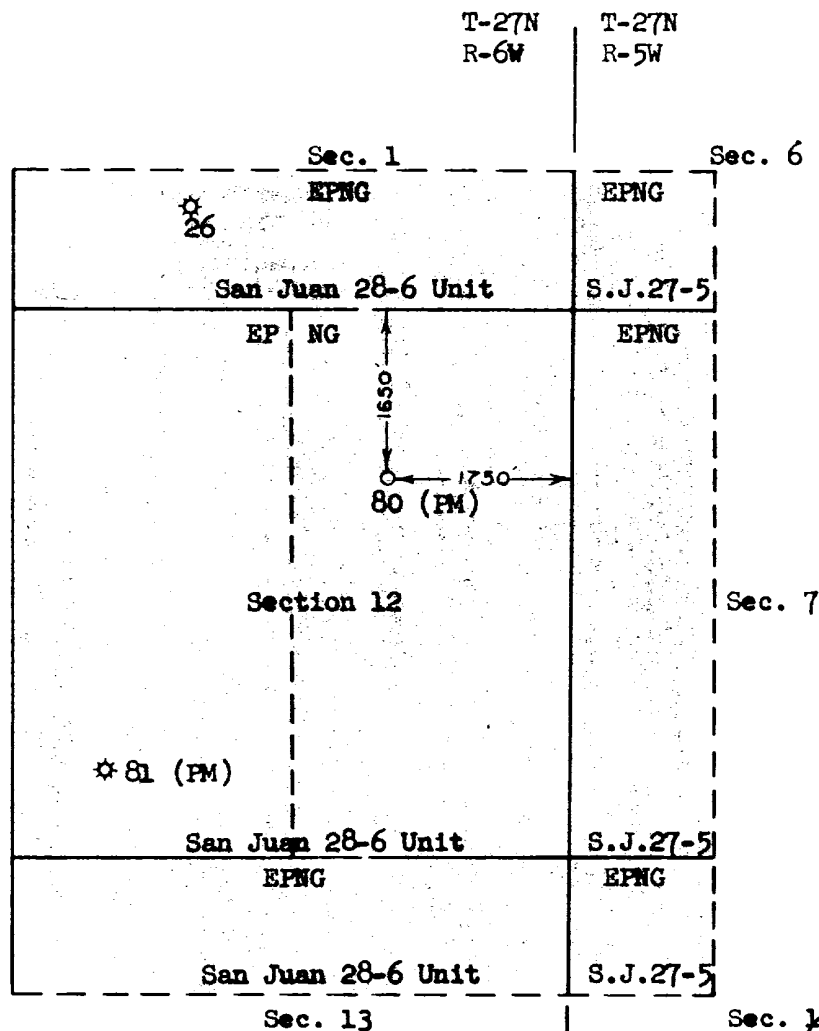
Subscribed and sworn to before me, a Notary Public in and  
for San Juan County, New Mexico, the 10th day of September, 1958.

My commission expires August 26, 1959.

Glen Dale Hill  
Notary Public in and for San Juan  
County, New Mexico.



PLAT SHOWING LOCATION OF DUALY COMPLETED EPNG  
 SAN JUAN 28-6 UNIT NO. 80 (PM)  
 AND OFFSET ACREAGE



EL PASO NATURAL GAS COMPANY  
 EL PASO, TEXAS

SCALE

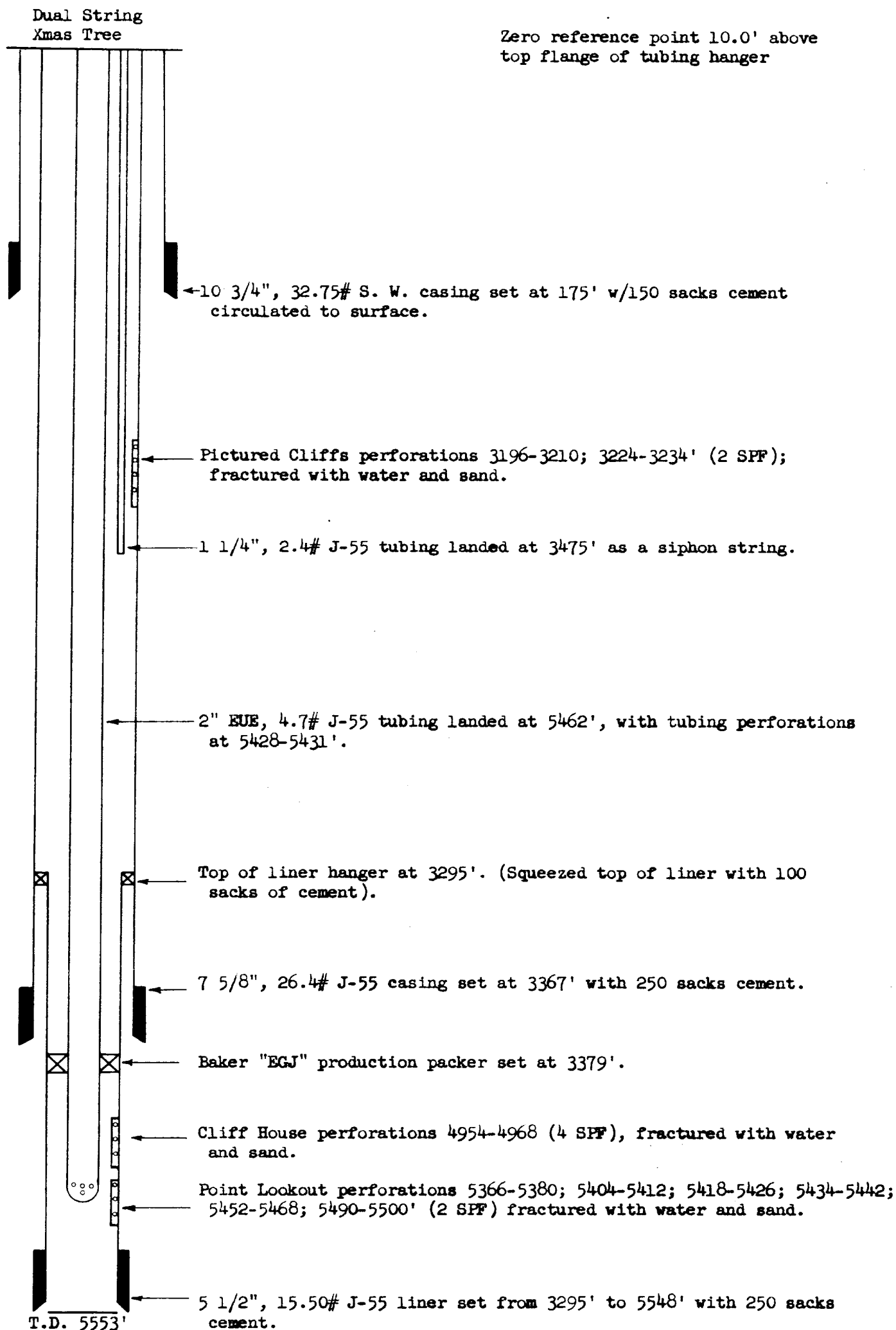
DATE

No.

DRAWN BY

CHECKED BY

**SCHEMATIC DIAGRAM OF DUAL COMPLETION**  
**El Paso Natural Gas Co. 28-6 Unit No. 80 (PM)**

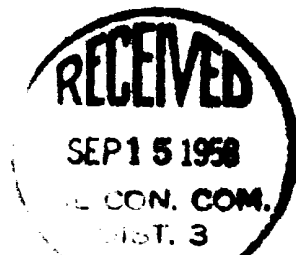


EL PASO NATURAL GAS COMPANY

P. O. Box 997  
Farmington, New Mexico

August 20, 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 28-6 Unit 80 (MP),  
1650N, 1750E; 12-27-6, Rio Arriba, New Mex.  
(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 3368 feet. The Mesa Verde zone was tested through a 3/4" choke for three hours July 30, 1958 with the following data obtained:

PC SIPC 1068 psig; Shut-in 40 days  
PC SIPT 1068 psig;  
MV SIPT 1001 psig; Shut-in 7 days

Time Minutes	(MV) Flowing Pressure Tubing Psig	(PC) SIP (T) Psig	(MV) Working Pressure, Psig	Temp ° F
15	355	1072		70
30	313	1072		74
45	296	1072		74
60	287	1072		74
180	245	1072	Calc. 503	78

The choke volume for the Mesa Verde was 2997 MCF/D with an AOF of 3706 MCF/D.

The Pictured Cliffs zone was tested August 20, 1958 with a 3/4" choke for 3 hours with the following data obtained:

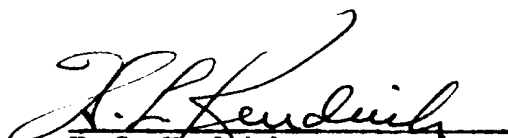
PC SIPC 1082 psig; Shut-in 61 days  
PC SIPT 1082 psig;  
MV SIPT 1023 psig; Shut-in 21 days

<u>Time</u> <u>Minutes</u>	(PC) Flowing Pressure <u>Casing Psig</u>	(MV) SIP (T) Psig	(PC) Working <u>Pressure, Psig</u>	<u>Temp ° F</u>
15	355	1022		61
30	218	1023		62
45	166	1023		61
60	145	1024		62
180	95	1022	98	65

The choke volume for the Pictured Cliffs test was 1243 MCF/D with an AOF of 1254 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



# OPEN FLOW TEST DATA

DUAL COMPLETION

DATE July 30, 1958

El Paso Natural Gas

San Juan 28-6 Unit 80 (M)

1650N, 1750E; 12-27-6

Rio Arriba

New Mexico

Mesa Verde

Blanco MV

5-1/2

5548

2"

5384

5366

5500

5553 a/o 5505

Shut-in 7/23/58

Sand Water Frac.

X

.75

12.365

5-1/2 liner 3295 - 5548

1068 (PC)

1080

7 (MV)

1001 (MV)

1013

245 (MV)

257

Calc.

503

78

.75

1.025

.689

Initial SIPT (PC) = 1068 psig

Packer at 3368

Final SIPC (PC) = 1072 psig

(12.365)(257)(.9831)(.9359)(1.025)

2997

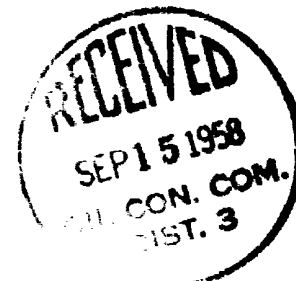
ACF/D

1,026,169  
773,160

(1.3272)<sup>.75</sup> (2997) = (1.2365)(2997)

3706

S. V. Roberts



Lewis D. Galloway  
L. D. Galloway

EL PASO NATURAL GAS COMPANY  
OPEN FLOW TEST DATA

DUAL COMPLETION

DATE August 20, 1958

Operator <b>El Paso Natural Gas</b>		Lease <b>San Juan 28-6 Unit 80 (P)</b>	
Location <b>1650N, 1750E; 12-27-6</b>		County <b>Rio Arriba</b>	State <b>New Mexico</b>
Formation <b>Pictured Cliffs</b>		Pool <b>Undesignated</b>	
Casing: Diameter <b>7-5/8</b>	Set At: Feet <b>3357</b>	Tubing: Diameter <b>1-1/4</b>	Set At: Feet <b>3264</b>
Pay Zone: From <b>3196</b>	To <b>3234</b>	Total Depth: <b>5553 c/o 5505</b>	Shut-in 6/20/58 +
Stimulation Method <b>Sand Water Frac.</b>		Flow Through Casing <b>X</b>	Flow Through Tubing

Choke Size, Inches <b>.75</b>		Choke Constant: C <b>12.365</b>		5-1/2 liner 3295 - 5548	
Shut-In Pressure, Casing, PSIG <b>(PC) 1082</b>	PSIA <b>1094</b>	Days Shut-In <b>(PC) 61</b>	Shut-In Pressure, Tubing, PSIG <b>(PC) 1082</b>	PSIA <b>1094</b>	
Flowing Pressure: P <b>95</b>	PSIG <b>107</b>		Working Pressure: Pw <b>98</b>	PSIG <b>110</b>	
Temperature: T <b>65</b>	F <b>.85</b>		Fpv (From Tables) <b>1.009</b>	Gravity <b>.689</b>	

Initial SIPT (MV) = 1022 psig  
Final SIPT (MV) = 1022 psig

Packer at 3368  
2" at 5384

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

$$Q = 12.365 \times 107 \times .9952 \times .9359 \times 1.009$$

1243

MCF/D

$$\text{OPEN FLOW } A_{of} = Q \left( \frac{P_1^2}{P_2^2 - P_w^2} \right)^n$$

$$A_{of} = \left( \frac{1196836}{1184736} \right)^n$$

$$(1.0102)^{.85} \times 1243 = 1.0087 \times 1243$$

+ SIP (PC) differs from SIP (MV) because  
Mesa Verde was used to pig line 7/23/58.

$$A_{of} = 1254 \text{ MCF/D}$$

TESTED BY Jesse B. Goodwin

WITNESSED BY

Checked By M. W. Rischard

*Lewis D. Galloway*  
L. D. Galloway

