

# El Paso Natural Gas Company

El Paso, Texas  
June 10, 1958

ADDRESS REPLY TO  
POST OFFICE BOX 997  
FARMINGTON, NEW MEXICO

Mr. A. L. Porter  
Secretary and Director  
Oil Conservation Commission  
Box 871  
Santa Fe, New Mexico

Dear Sir:

This is a request for administrative approval for a well dually completed in the Blanco Mesa Verde Pool Extension and South Blanco Pictured Cliffs Pool. The El Paso Natural Gas Company Florance No. 11-D (PM) is located 1460 feet from the North line and 1700 feet from the East line of Section 18, Township 27North, Range 8 West, N.M.P.M., San Juan County, New Mexico.

This well has been completed in the Point Lookout section of the Mesa Verde formation and in the Pictured Cliffs formation. Completion has been accomplished in the following manner:

1. 10 3/4" surface casing set at 173 feet with 150 sacks of cement circulated to the surface.
2. 7 5/8" intermediate casing set at 4910 feet and cemented with a two stage cementing procedure; 150 sacks at the base of the casing and 100 sacks across the Pictured Cliffs formation.
3. 5 1/2" liner set from 4849 feet to 5311 feet with 100 sacks of cement.
4. The casing and liner were tested for leaks before perforating.
5. The Point Lookout section was perforated in five intervals and fractured with water and sand.
6. The Pictured Cliffs formation was perforated in three intervals and fractured with water and sand.
7. All perforations were cleaned out after treatment and completion was accomplished by setting a Baker Model "EGJ" production packer on 2" EUE tubing at 4874 feet with tubing perforations set opposite the Point Lookout perforations. 1 1/4" EUE tubing siphon string was run with tubing perforations set opposite the Pictured Cliffs perforations. The Point Lookout gas will be produced through the 2" tubing and the Pictured Cliffs gas through the casing. Initial potential tests have been run and commercial production has been found in both zones. A packer leakage test has been run and witnessed by a member of the Aztec office of the Oil Conservation Commission. This test shows no communication in the well bore between the two producing formations.



COPY



Administrative approval is requested for the dual completion to allow production from both known producing formations, eliminating the high initial cost of drilling two separate wells.

The offset operators to this well have been notified of El Paso Natural Gas Company's intentions to dually complete this well and in turn have waived any objections to this plan. I am sending copies of the letters of approval received from the offset operators. Also enclosed are:

- (a) Two copies of the schematic diagram of the mechanical installations.
- (b) Two copies of the affidavit from the packer setting company stating that the packer used was set at the depth shown.
- (c) Two copies of the packer leakage test as observed by a member of the Oil Conservation Commission.
- (d) Two copies of the initial potential test showing commercial production from the two formations.
- (e) Two plats showing the location of the well and offset operators.

It is intended to dedicate the E/2 of Section 18, Township 27 North, Range 8 West to the Mesa Verde formation and the NE/4 of Section 18, Township 27 North, Range 8 West to the Pictured Cliffs formation.

Any further information required will be furnished upon your request. Thank you for your consideration in this matter.

Yours very truly,

ORIGINAL SIGNED E. S. OBERLY

E. S. Oberly,  
Division Petroleum Engineer

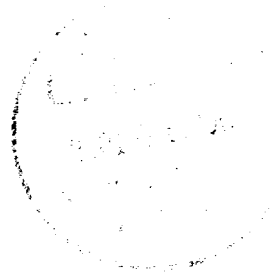
ESO:dgb

Enc.

cc: NMOCC (Emery Arnold) ✓  
Sam Smith  
USGS (Phil McGrath)

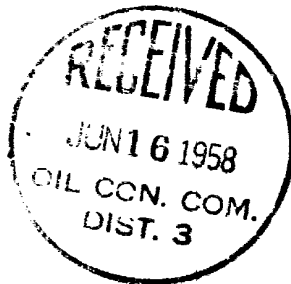
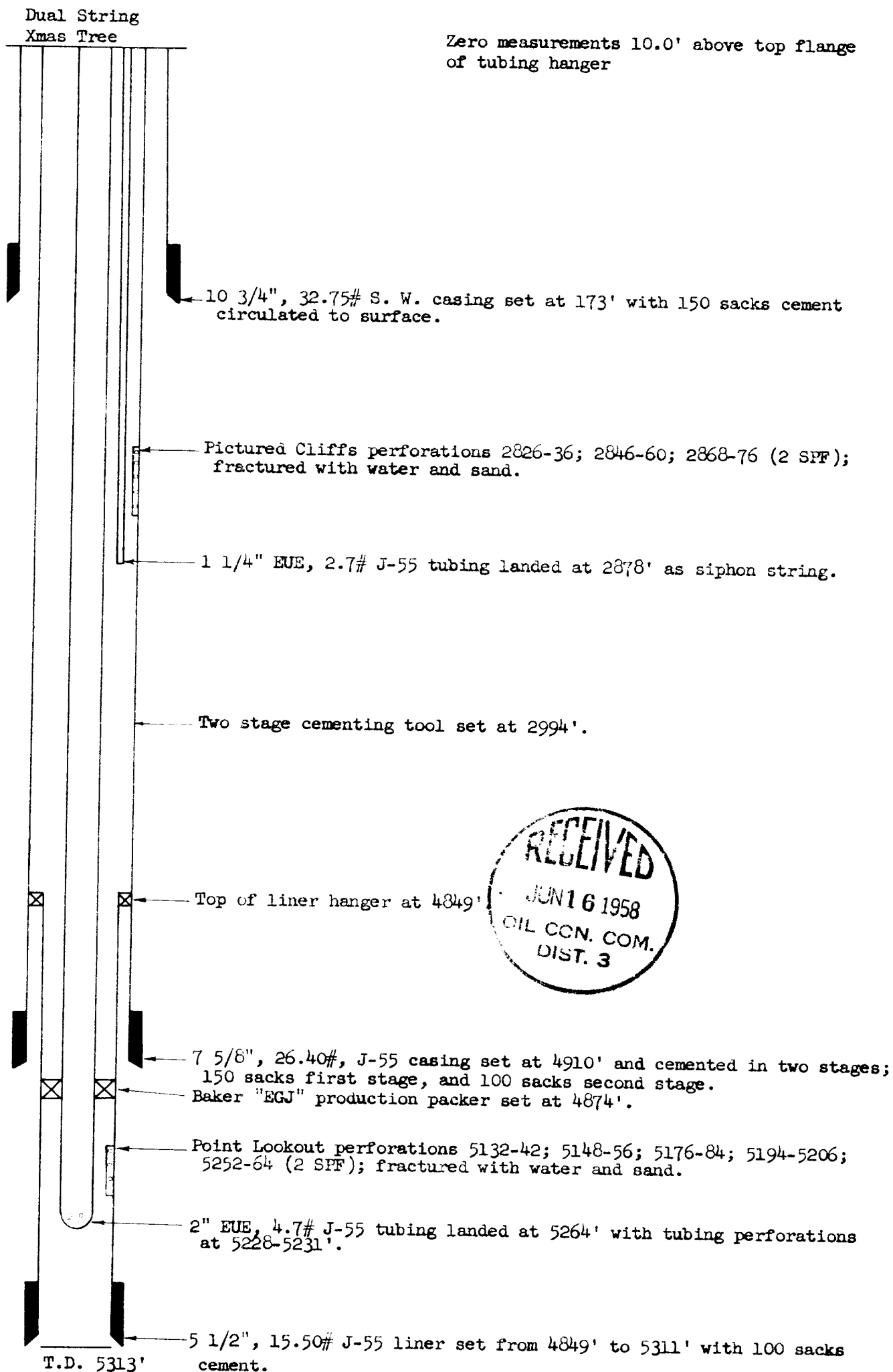


100-2015-00111-1110



Two vertical lines, likely for a signature or date.

SCHEMATIC DIAGRAM OF DUAL COMPLETION  
El Paso Natural Gas Co. Florence No. 11-D (PM)  
NE/4 Section 18, T-27-N, R-8-W



STATE OF NEW MEXICO       )  
                                      )  
COUNTY OF SAN JUAN       )

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

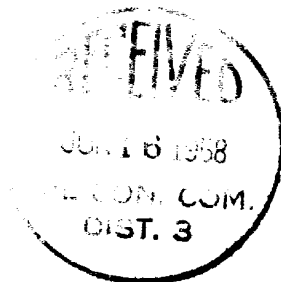
I am an employee of Baker Oil Tools, Inc., and that on February 22, 1958, I was called to the location of the El Paso Natural Gas Company Florance No. 11-L (PM) Well located in the SWNE/4 of Section 18, Township 27 North, Range 6 West, N.M.P.M., for advisory service in connection with installation of a production packer. In my presence, a Baker Model "EGJ" Production packer was set in this well at 4874 feet in accordance with the usual practices and customs of the industry.

Mack M. Mahaffey

Subscribed and sworn to before me, a Notary Public in and for San Juan County, New Mexico, the 4th day of June, 1958.

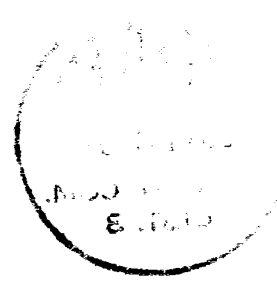
Paul H. MacLean  
Notary Public in and for San Juan  
County, New Mexico

My commission expires February 24, 1960.



*[Handwritten signature]*

*[Handwritten signature]*



# EL PASO NATURAL GAS COMPANY

P. O. Box 997  
Farmington, New Mexico

April 18, 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, Florance 11-D (PM), 1460N, 1700E;  
18-27-8; San Juan County, New Mexico.

Dear Mr. Arnold:

The subject well was dually completed in the Pictured Cliffs and Mesa Verde zones and a packer was set at 4874 feet. The Pictured Cliffs zone was tested through a 3/4" choke for three hours April 2, 1958, with the following data obtained:

PC SIPC 795 psig; shut-in 33 days  
PC SIPT 802 psig;  
MV SIPT 1056 psig; shut-in 33 days

<u>Time Minutes</u>	<u>PC Flowing Pressure Casing PSIG</u>	<u>MV SIPT. Psig</u>	<u>PC Working Pressure, Psig</u>	<u>Temp. °F</u>
0		1053		
15	625	1054		54
30	602	1054		56
45	452	1055		58
60	354	1056		60
180	494	1056	Tbg. 498	64

The choke volume for the Pictured Cliffs was 6351 MCF/D with an AOF of 9704 MCF/D.

The Mesa Verde zone was tested April 16, 1958, with a 3/4" choke for 3 hours with the following data obtained:

PC SIPC 802 psig; shut-in 14 days  
PC SIPT 808 psig;  
MV SIPT 1062 psig; shut-in 47 days






<u>Time</u> <u>Minutes</u>	<u>MV Flowing Pressure</u> <u>Tubing Psig</u>	<u>PC</u> <u>SIPC</u> <u>Psig</u>	<u>MV Working</u> <u>Pressure, Psig</u>	<u>Temp. °F</u>
0		802		
15	475	802		61
30	405	803		63
45	394	803		64
60	382	803		64
180	333	804		65
			Calc. 682	65

The choke volume for the Mesa Verde test was 4073 MCF/D with an AOF of 6000 MCF/D.

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

Very truly yours,

  
S. V. Roberts

LDG/nb

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



EL PASO NATURAL GAS COMPANY  
OPEN FLOW TEST DATA

DUAL COMPLETION

DATE April 16, 1958

Operator El Paso Natural Gas		Lease Florence No. 11-D (M)	
Location 1460N, 1700E; 18-27-8		County San Juan	State New Mexico
Formation Nesa Verde		Pool Blanco	
Casing Diameter 7-5/8"	Set At: Feet 4900	Tubing Diameter 2"	Set At: Feet 5254
Per Zone: From 5132	To 5264	Total Depth: 5312	Shut-in 2/28/58
Simulation Method Sand Water Frac		Flow Through Casing Flow Through Tubing	

Choke Size, inches .75	Choke Constant: C 12.365	5-1/2" liner 4849 to 5311
Shut-In Pressure, casing, PSIG 802 (PC)	PSIA 814	Days Shut-In 47
Shut-In Pressure, tubing, PSIG 1062 (MV)	PSIA 1074	
Flowing Pressure, P, PSIG 333	PSIA 345	Working Pressure, Pw, PSIG Calculated 682
Temperature, T 65		Spv. From Tables 1.040
		Gravity .709

Initial SIFC (PC) 802 PSIG Pkr. at 4874  
Final SIFC (PC) 804 PSIG 1-1/4 at 2868

CHOKE VOLUME  $Q = C \times P_r \times F_p \times F_g \times F_v$

$$Q = 12.365 \times 345 \times .9952 \times 0.9225 \times 1.040 \quad 4073 \quad \text{--- MCF/D}$$

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

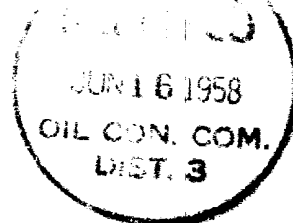
$$\text{Aof} = \left( \frac{1153476}{688352} \right)^n \quad (1.6757)^{.75} \times 4073 = 1.4730 \times 4073$$

Aof 6000 MCF/D

TESTED BY Jess Goodwin

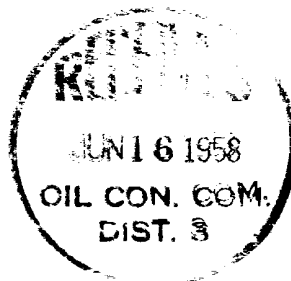
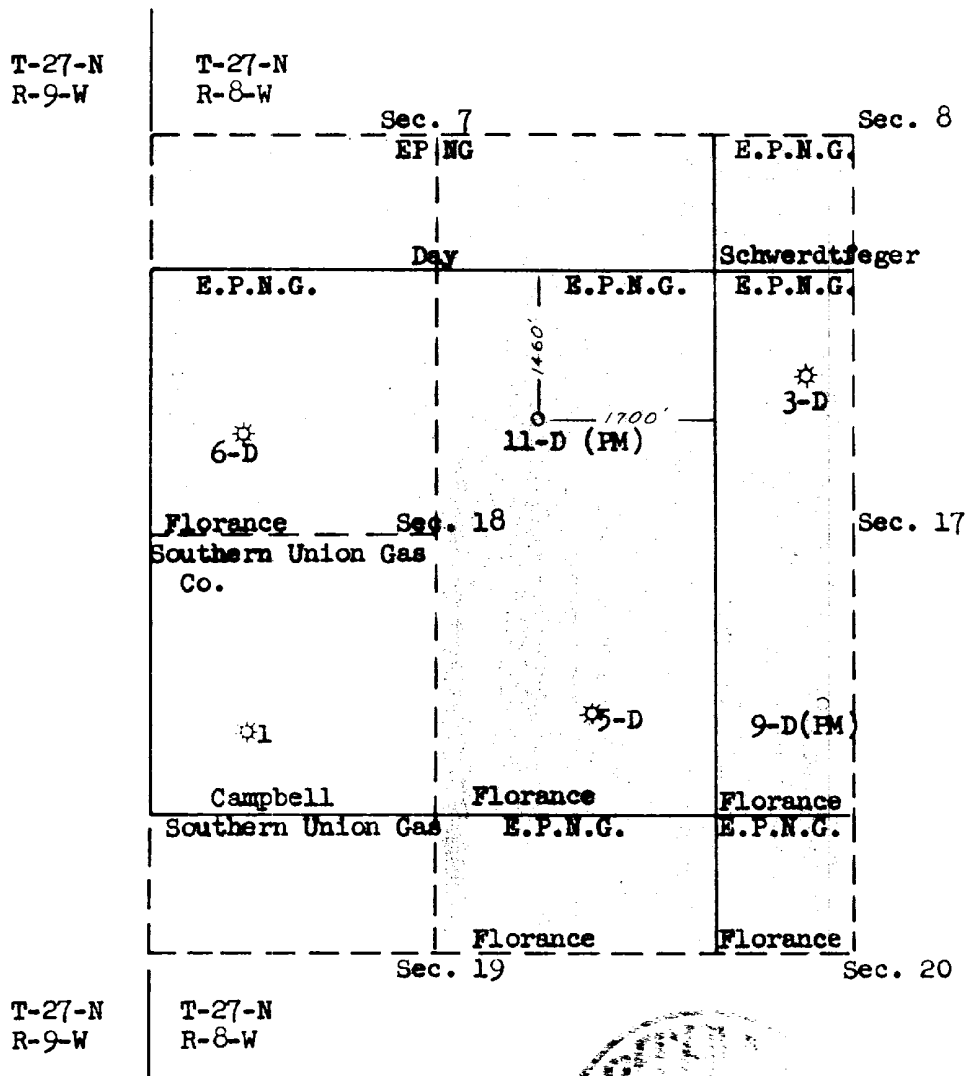
WITNESSED BY S. V. Roberts

Checked By: S. V. Roberts



Lewis D. Galloway  
L. D. Galloway

PLAT SHOWING LOCATION OF DUALY COMPLETED  
El Paso Natural Gas Co. Florance No. 11-D (PM)  
and Offset Acreage



EL PASO NATURAL GAS COMPANY  
EL PASO, TEXAS

SCALE	DATE	No.
DRAWN BY	CHECKED BY	