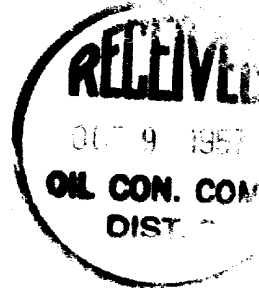


# El Paso Natural Gas Company

El Paso, Texas

October 3, 1957



DIRECT REPLY TO:  
P. O. BOX 997  
FARMINGTON, NEW MEXICO

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

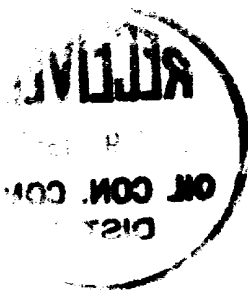
Dear Sir:

This is a request for administrative approval for a well dually completed in the Blanco Mesa Verde Pool and in the North Los Pinos Dakota Extension Pool. The El Paso Natural Gas Company Allison Unit No. 11-X (MD) is located 917 feet from the North line and 1086 feet from the East line of Section 23, Township 32 North, Range 7 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 Dakota formation. Completion has been accomplished in the following manner:

1. 13 3/8", 48# Spiral Weld surface casing set at 237 feet with 225 sacks of cement circulated to the surface.
2. 9 5/8", 36# J-55 intermediate casing set at 3868 feet and cemented with a two stage cementing procedure; 500 sacks across the base of the casing, and 500 sacks across the Pictured Cliffs formation.
3. 7 5/8", 26.40# N-80 (bottom) and J-55 (top) casing set at 5563 feet with 300 sacks; squeezed with 26 and 100 sacks through perforations at 2500 feet and 3650 feet, respectively.
4. 5 1/2", 17# N-80 (bottom) and 15.50# J-55 (top) liner set from 5417 feet to 8475 feet with 500 sacks of Pozmix "140"; the liner was set in hole directionally drilled off of a whipstock set at 5587 feet.
5. The casing and liner were tested for leaks before perforating.
6. The Point Lookout section was perforated in two intervals and fractured with water and sand.
7. The Dakota formation was perforated in two intervals and fractured with water and sand.
8. All perforations were cleaned out after treatment and completion was accomplished by setting a Baker Model D production packer on 2" EUE tubing at 7941 feet. No 1 1/4" siphon string was run. The Point Lookout gas will be produced through the casing and the Dakota gas through the 2" EUE tubing.
9. A Garrett circulating sleeve was installed in the 2" EUE tubing string just below the Point Lookout perforations. This will enable bottom hole pressure tests to be taken at a future date if so required.

COPY

[illegible]

version 1.0.1.1  
 installed on windows.  
 installation instructions are  
 in the file  
 called win\_98\_inst.txt

④ 2013 年 12 月 1 日, 甲公司向乙公司销售一批商品, 售价为 100 万元, 成本为 80 万元, 款项尚未收到。乙公司因资金周转困难, 经与甲公司协商, 于 2013 年 12 月 31 日将一批公允价值为 90 万元的存货抵偿该笔债务。甲公司对该应收账款计提了 10 万元的坏账准备。假定不考虑其他因素, 甲公司 2013 年 12 月 31 日应确认的债务重组损益为 ( ) 万元。

There is a request for administrative approval for a well drilling extension in the El Paso Natural Gas Company Alluvium Unit No. 11-1 (ND) as located 1/2 mile from the north line and 1/2 mile from the west line of Section 12, Township 12 North, Range 7 West, N.M.L., San Juan County, New Mexico.

It will also be pointed out that the above information is not intended to be used as a basis for any action, and that the information is not to be used for any purpose other than that for which it was provided. The information is not to be used for any purpose other than that for which it was provided.

1. The first test was made at 100 feet with the  
2. 100 ft. test. The test was made at 100 feet with the  
3. 100 ft. test. The test was made at 100 feet with the  
4. 100 ft. test. The test was made at 100 feet with the  
5. 100 ft. test. The test was made at 100 feet with the  
6. 100 ft. test. The test was made at 100 feet with the  
7. 100 ft. test. The test was made at 100 feet with the  
8. 100 ft. test. The test was made at 100 feet with the  
9. 100 ft. test. The test was made at 100 feet with the  
10. 100 ft. test. The test was made at 100 feet with the

10. 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 Astec office of the Oil Conservation Commission. This test shows no communication in the well bore between the two producing formations.

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

Pacific Northwest Pipeline Corporation, the offset operator to this well has consented to the dual completion of this well. Enclosed is a copy of the offset operator's letter of approval. 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 copies of the plat showing the location of the well and the offset operator.

It is intended to dedicate the E/2 of Section 23, Township 32 North, Range 7 West to the Mesa Verde formation, and the NE/4 of Section 23, Township 32 North, Range 7 West to the Dakota 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

Encl.

cc: Emery Arnold  
Sam Smith  
Phil McGrath



and the 1960s, when the government's health strategy was to  
improve the health of the population by providing a free  
health service for all. The health service was then  
run by the government and the people's health was  
improved.

1. The above described equipment and materials is high and consistent in accordance with the  
2. The above described equipment and materials is high and consistent in accordance with the  
3. The above described equipment and materials is high and consistent in accordance with the

1993-1994

*Journal of Management Education* 30(6)p. 789-804  
© The Author(s) 2006. Reprints and permissions:  
<http://www.sagepub.com/journalsPermissions.nav>

2000  
 2001  
 2002  
 2003  
 2004  
 2005  
 2006  
 2007  
 2008  
 2009  
 2010  
 2011  
 2012  
 2013  
 2014  
 2015  
 2016  
 2017  
 2018  
 2019  
 2020  
 2021  
 2022  
 2023  
 2024  
 2025  
 2026  
 2027  
 2028  
 2029  
 2030



# El Paso Natural Gas Company

El Paso, Texas

June 24, 1957



*Dual Completion*



Pacific Northwest Pipeline Corporation  
P. O. Box 1520  
Salt Lake City, Utah

Re: Allison All-X Well

Gentlemen:

El Paso Natural Gas Company proposes a dual completion well to be located in the E/2 of Section 23, Township 28 North, Range 7 West, San Juan County, New Mexico. This well will be dually completed in both the Mesa Verde and Dakota Formations.

Inasmuch as you are the owner of the E/2 SW/4 of Section 23, and the NE/4 SW/4 of Section 25, which adjoins the drilling block, and if you have no objections to this proposed dual completion, we would appreciate your signing the attached copy of this letter and returning same to this office.

Very truly yours

TWB:BG:cc

T. W. Bettick  
Division Landman  
Lease Department

The above mentioned dual completion well is hereby approved.

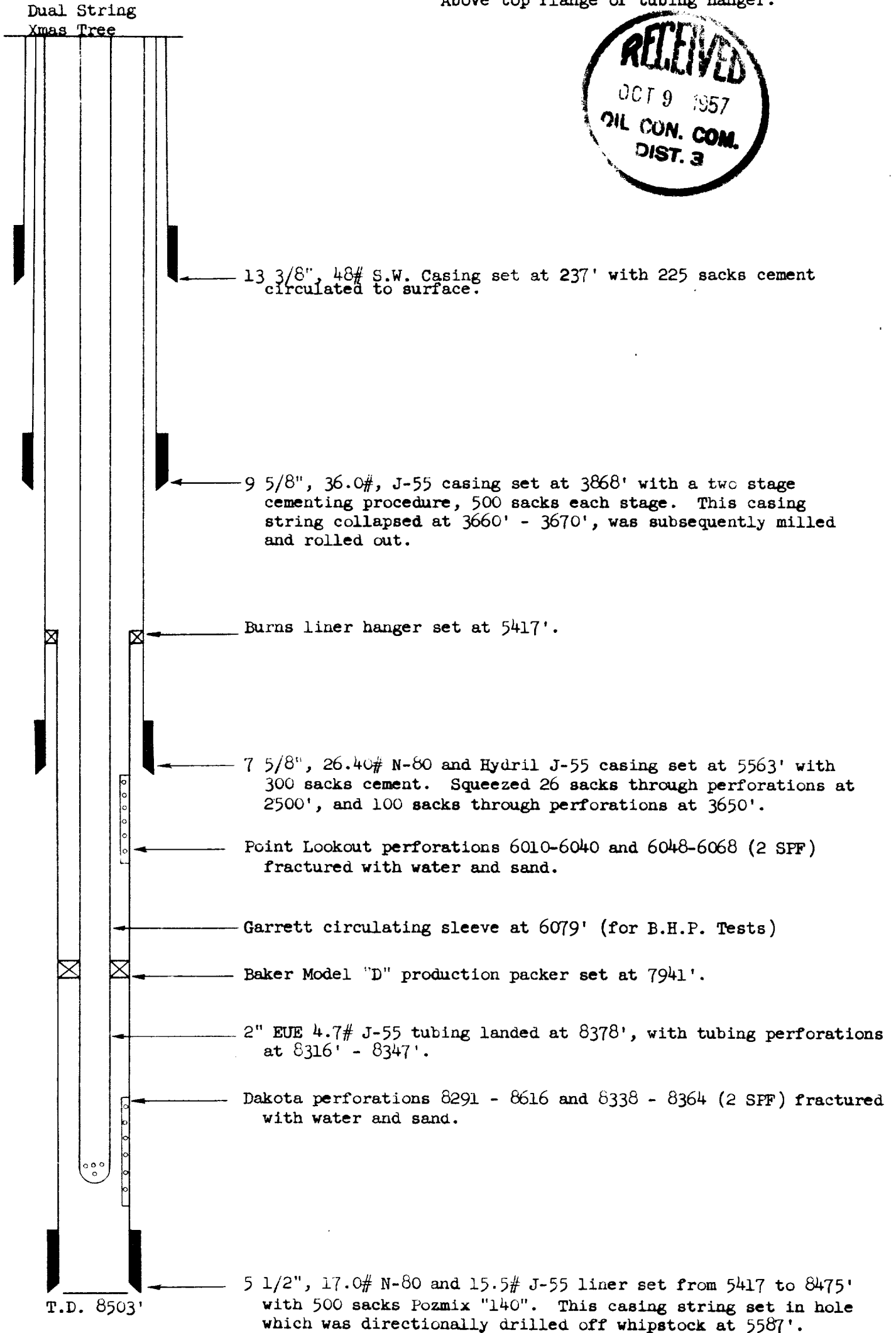
PACIFIC NORTHWEST PIPELINE CORPORATION

By: [Signature]  
[Signature], 1957.

COPY

SCHEMATIC DIAGRAM OF DUAL COMPLETION  
 EPNG ALLISON UNIT NO. 11-X(MD)  
 NE/4 SECTION 23, T-32-N, R-7W

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



NOTE: The original 8 3/4" hole, containing 524' fish, was plugged from 6423' back to 5463' with 500 sacks before whipstocking.



STATE OF NEW MEXICO     }  
COUNTY OF SAN JUAN    }

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

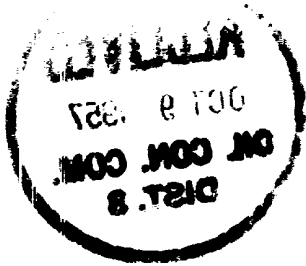
I am an employee of Baker Oil Tools, Inc., and that on August 21, 1957, I was called to the location of the El Paso Natural Gas Company Allison Unit No. 11-X (MD) Well located in the NE NE/4 of Section 23, Township 32 North, Range 7 West, N.M.P.M. for the purpose of installing a production packer. Under my direct supervision a Baker Model "D" production packer was set at 7941 feet. The production packer was properly set 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 12 day of Sept, 1957.

Paul MacLachlan  
Notary Public in and for San Juan County,  
New Mexico

My commission expires February 24, 1960.

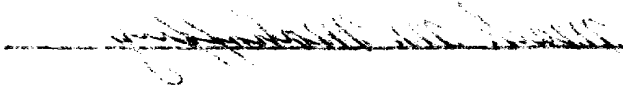


STATE OF NEW MEXICO  
COUNTY OF SAN JUAN

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 August 21, 1927, I was called to the location of the El Paso Natural Gas Company Allamogordo Unit No. 11-A (MD) Well located in the NE 1/4 of Section 23, Township 35 North, Range 7 West, N.M.P.M. for the purpose of installing a production packer. Under my direct supervision a Baker Model "D" production packer was set at 1941 feet. The production packer was properly set in accordance with the usual practices and customs of the industry.



Subscribed and sworn to before me, a Notary Public in and for San Juan

County, New Mexico, the 12 day of 22, 1927.

  
Notary Public in and for San Juan County,  
New Mexico

My commission expires February 24, 1930.



EL PASO NATURAL GAS COMPANY

P. O. Box 997  
Farmington, N.M.

September 20, 1957

Mr. E. C. Arnold  
Oil Conservation Commission  
120 East Chaco  
Aztec, New Mexico



Re: Packer Leakage Test on the El Paso Natural  
Gas Company Well, Allison No. 11-X (MD),  
NW 23-32-7, San Juan County, New Mexico.

Dear Mr. Arnold:

The subject well was dually completed in the Dakota and Mesa Verde zones and a packer was set at 7941 feet. The Dakota zone was tested through a 3/4" choke for three hours August 29, 1957 with the following data obtained:

Mesa Verde SIPC - 1062 psig; shut-in 7 days  
Dakota SIPT - 2888 psig; shut-in 7 days.

<u>Time</u> <u>Minutes</u>	<u>Dak. Flowing Pressure</u> <u>Tubing Psig</u>	<u>MV SIPC Psig</u>	<u>Dak. Working</u> <u>Pressure, Psig</u>	<u>Temp °F</u>
0	Opened tubing	1062		
15	430	1067		66
30	418	1067		67
45	393	1068		68
60	384	1068		69
180	358	1070	Calculated 836	72

The choke volume for the Dakota was 4678 MCF/D with an A.O.F. of 5003 MCF/D.

The Mesa Verde zone was tested September 5, 1957 with a 3/4" choke for 3 hours with the following data obtained:

Mesa Verde SIPC - 1124 psig; shut-in 14 days  
Dakota SIPT - 2910 psig; shut-in 7 days

<u>Time Minutes</u>	<u>MV Flowing Pressure Casing Psig</u>	<u>Dak. SIPT Psig</u>	<u>MV Working Pressure, Psig</u>	<u>Temp °F</u>
0	Opened casing	2910		
15	621	2912		71
30	534	2913		74
45	492	2913		70
60	462	2913		74
120	412	2920		72
180	356	2927	Calculated 348	70

The choke volume for the Mesa Verde test was 4661 MCF/D with an A.O.F. of 5074 MCF/D.

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

Very truly yours,

T. B. Grant  
T. B. Grant  
Gas Engineer

TBG/jla

cc: E. J. Coel, Jr.  
W. M. Rodgers  
E. S. Oberly (6)  
File



EL PASO NATURAL GAS COMPANY  
GAS WELL TESTTo: Mr. E. E. Alsup  
From: Gas Engineering DepartmentDate: August 29, 1957  
Place: Farmington, New MexicoDUAL COMPLETIONSubject: Test data on the El Paso Natural Gas Company Well,  
ALLISON NO. 11-X (D), San Juan County, New Mexico.

Tested By: T. B. Grant and Richard Proctor

Location ..... Sec. 23 T. 32 R. 7 917'N, 1086'E

Shut-In Pressure ..... M.V. SIPC 1062 psig ; (Shut-in 7 days)  
Dak. SIPT 2888 psig0.750" Choke Volume ..... 4678 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 ..... 5003 MCF/D

Working Pressure Or. Calculated = 836 Psig

Producing Formation ..... Dakota


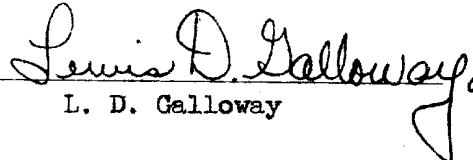
Stimulation Method ..... Sand Water Frac.

Total Depth ..... 8503

Field ..... North Los Pinos Dakota

H<sub>2</sub>S ..... Sweet to lead acetate.

Ending SIPC (MV) - 1070 psig

cc: D. H. Tucker Bill Parrish  
R. W. Harris Dean Rittmann  
W. T. Hollis W. M. Rodgers  
Q. O. Walker  
W. M. Rodgers  
Wayne Cheek  
Drilling Department  
B. D. Adams  
Roland Hamblin  
Jack Purvis  
W. T. Hollis  
C. C. Kennedy  
E. J. Coel, Jr. (6)  
A. J. Dudenhoeffer  
File

  

  
 L. D. Galloway

EL PASO NATURAL GAS COMPANY  
OPEN FLOW TEST DATADUAL COMPLETIONDATE August 29, 1957

Operator <b>El Paso Natural Gas Company</b>		Lease <b>Allison No. 11-X (D)</b>	
Location <b>917'N, 1086'E, Sec. 23-32-7</b>		County <b>San Juan</b>	State <b>New Mexico</b>
Formation <b>Dakota</b>		Pool <b>North Los Pinos Dakota</b>	
Casing: Diameter <b>5-1/2</b>	Set At: Feet <b>8475</b>	Tubing: Diameter <b>2</b>	Set At: Feet <b>8368</b>
Pay Zone: From <b>8291</b>	To <b>8363</b>	Total Depth: <b>8503</b>	
Stimulation Method <b>Sand Water Frac.</b>		Flow Through Casing	Flow Through Tubing <b>X</b>

Choke Size, Inches <b>0.750</b>	Choke Coefficient <b>12.365</b>		
Shut-In Pressure, Casing, PSIG <b>1062 (MV)</b>	- 12 = PSIA <b>1074</b>	Days Shut-In <b>7</b>	Shut-In Pressure, Tubing, PSIG <b>2888 (Dak.)</b>
Flowing Pressure: P, PSIG <b>358</b>	- 12 = PSIA <b>370</b>	Working Pressure: P <sub>w</sub> , PSIG <b>Calculated</b>	- 12 = PSIA <b>848</b>
Temperature: T, °F <b>72</b>	<b>0.75</b>	F <sub>pv</sub> (From Tables) <b>1.026</b>	Gravity <b>.590</b>

Final SIPC (MV) - 1070 psig

CHOKE VOLUME = Q = C × P<sub>i</sub> × F<sub>i</sub> × F<sub>g</sub> × F<sub>pv</sub>

$$Q = 12.365 \times 370 \times .9887 \times 1.008 \times 1.026 = 4678 \text{ MCF/D}$$

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

$$Aof = \left( \frac{8,410,000}{7,690,896} \right)^n$$

$$1.0935^{.75} \times 4678 = 1.0694 \times 4678$$

$$Aof = 5003 \text{ MCF/D}$$

TESTED BY T. B. Grant and Richard Proctor

WITNESSED BY \_\_\_\_\_

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

*L. D. Galloway*  
L. D. Galloway



EL PASO NATURAL GAS COMPANY  
GAS WELL TESTTo: Mr. E. E. Alsup  
From: Gas Engineering Department

Date: September 5, 1957

Place: Farmington, New Mexico

DUAL COMPLETIONSubject: Test data on the El Paso Natural Gas Company Well,  
ALLISON NO. 11-X, San Juan County, New Mexico.

Tested By: S. V. Roberts and Richard Proctor

Location ..... Sec. 23 T. 32N R. 7W , 917'N, 1086'E

Shut-In Pressure ..... M.V. SIPC 1124 psig ; (Shut-in 14 days)  
Dak. SIPT 2910 psig0.750" Choke Volume ..... 4661 MCF/D @ 14.7 psia and 60° F. for 0.6  
gravity gas. Flow through casing for 3 hours.

Calculated 3 Hour Absolute Open Flow ..... 5,074 MCF/D

Working Pressure On ..... Calculated = 360 Psig

Producing Formation ..... Mesa Verde

Stimulation Method ..... Sand Water Frac.

Total Depth ..... 8503

Field ..... Blanco

H<sub>2</sub>S ..... Sweet to lead acetate.

SIPT (Dakota) - Final - 2927 psig

cc: D. H. Tucker  
~~R. W. H. H. H.~~  
W. T. Hollis  
~~E. C. Walker~~  
W. M. Rodgers  
Wayne Cheek  
Drilling Department  
B. D. Adams  
Roland Hamblin  
Jack Purvis  
~~W. J. H. H.~~  
C. C. Kennedy  
E. J. Coel, Jr. (6)  
A. J. Dudenhoeffer  
FileBill Parrish  
Dean RittmannLewis D. Galloway  
L. D. Galloway

EL PASO NATURAL GAS COMPANY  
OPEN FLOW TEST DATADUAL COMPLETIONDATE September 5, 1957

Operator <b>El Paso Natural Gas Company</b>		Lease <b>Allison No. 11-X</b>	
Location <b>917'N, 1086'E, Sec. 23-32-7</b>		County <b>San Juan</b>	State <b>New Mexico</b>
Formation <b>Mesa Verde</b>		Pool <b>Blanco</b>	
Casing: Diameter <b>7-5/8</b>	Set At: Feet <b>5563</b>	Tubing: Diameter <b>2"</b>	Set At: Feet <b>8368</b>
Pay Zone: From <b>6010</b>	To <b>6068</b>	Total Depth: <b>8503</b>	
Stimulation Method <b>Sand Water Frac.</b>		Flow Through Casing <b>X</b>	Flow Through Tubing

Choke Size, Inches <b>0.750</b>		Choke Constant: C <b>12.365</b>		<b>5-1/2" liner. 5417 - 8475</b>	
Shut-In Pressure, Casing, PSIG <b>MV 1124</b>	+ 12 = PSIA <b>1136</b>	Days Shut-In <b>14</b>	Shut-In Pressure, Tubing PSIG <b>Dak. 2910</b>	+ 12 = PSIA <b>2922</b>	
Flowing Pressure: P PSIG <b>356</b>	+ 12 = PSIA <b>368</b>		Working Pressure: P <sub>w</sub> PSIG <b>Calc.</b>	+ 12 = PSIA <b>372</b>	
Temperature: T °F <b>70</b>	n = <b>0.75</b>		F <sub>pv</sub> (From Tables) <b>1.026</b>	Gravity <b>0.591</b>	

SIPT (Dakota) - Initial 2910. Final - 2927 psig. Packer at 7941. Sleeve at 6079

CHOKE VOLUME = Q = C x P<sub>i</sub> x F<sub>i</sub> x F<sub>g</sub> x F<sub>pv</sub>

$$Q = 12.365 \times 368 \times .9905 \times 1.008 \times 1.026 = \underline{4661} \text{ MCF/D}$$

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

$$A_{of} = \left( \frac{1,290,496}{1,152,112} \right)^n = 1.1201^{.75} \times 4661 = 1.0887 \times 4661$$

$$A_{of} = \underline{5074} \text{ MCF/D}$$

TESTED BY S. V. Roberts and R. Proctor

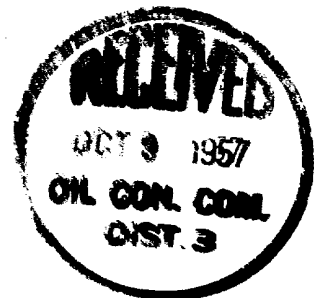
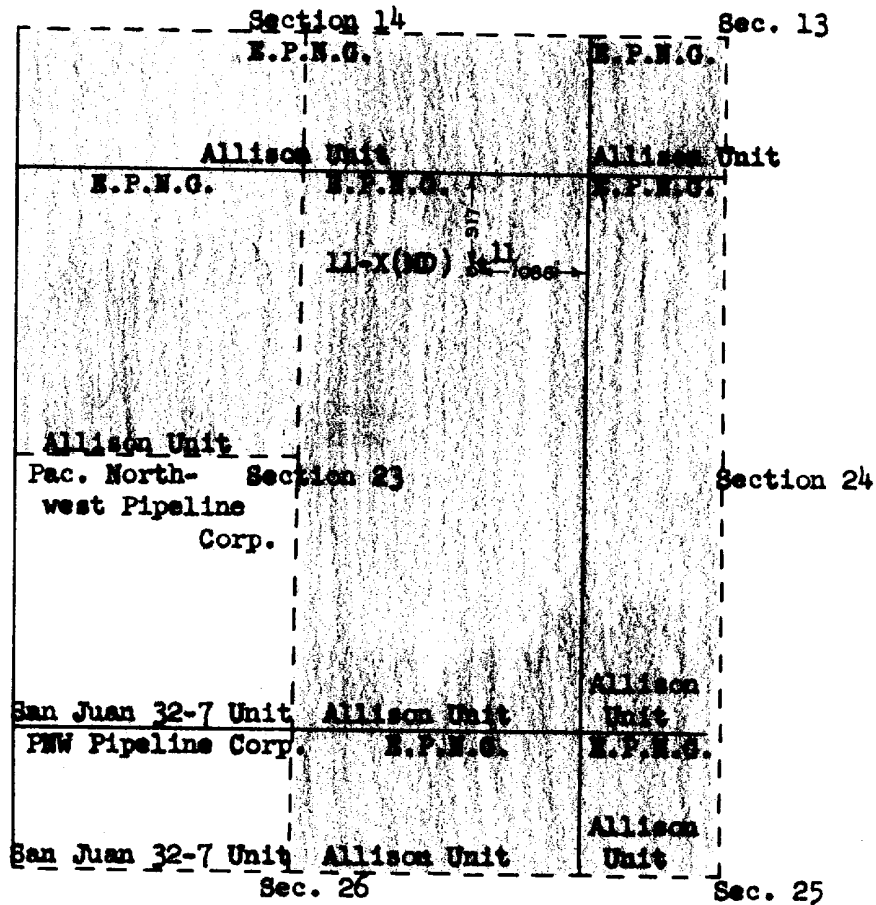
WITNESSED BY \_\_\_\_\_

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



*L. D. Galloway*  
L. D. Galloway

PLAT SHOWING LOCATION OF DUALY COMPLETED  
EL PASO NATURAL GAS ALLISON NO. 11-X (MD)  
AND OFFSET ACREAGE



EL PASO NATURAL GAS COMPANY  
EL PASO, TEXAS

SCALE	DATE	No.
DRAWN BY	CHECKED BY	