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(SUBMIT IN TRIPPLICATE)

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

Land Office **SF**  
Lease No. **080362-A**  
Unit **Frontier**

RECEIVED

JAN 6 1959

SUNDRY NOTICES AND REPORTS ON WELLS  
GEOLOGICAL SURVEY  
FARMINGTON, NEW MEXICO

NOTICE OF INTENTION TO DRILL	SUBSEQUENT REPORT OF WATER SHUT-OFF	
NOTICE OF INTENTION TO CHANGE PLANS	SUBSEQUENT REPORT OF SHOOTING OR ACIDIZING	
NOTICE OF INTENTION TO TEST WATER SHUT-OFF	SUBSEQUENT REPORT OF ALTERING CASING	
NOTICE OF INTENTION TO RE-DRILL OR REPAIR WELL	SUBSEQUENT REPORT OF RE-DRILLING OR REPAIR	
NOTICE OF INTENTION TO SHOOT OR ACIDIZE	SUBSEQUENT REPORT OF ABANDONMENT	
NOTICE OF INTENTION TO PULL OR ALTER CASING	SUPPLEMENTARY WELL HISTORY	
NOTICE OF INTENTION TO ABANDON WELL	<b>Change of Name</b>	<b>X</b>

(INDICATE ABOVE BY CHECK MARK NATURE OF REPORT, NOTICE, OR OTHER DATA)

January 2, 19 59

Well No. **1-C** is located **890** ft. from **[N]** line and **890** ft. from **[E]** line of sec. **16**  
**[S]**  
**[W]**  
**NW NW/4 Sec. 16** **27N** **11W** **NMPM**  
(1/4 Sec. and Sec. No.) (Twp.) (Range) (Meridian)  
**Undesignated** **San Juan** **New Mexico**  
(Field) (County or Subdivision) (State or Territory)

The elevation of the derrick floor above sea level is **6227** ft.

DETAILS OF WORK

(State names of and expected depths to objective sands; show sizes, weights, and lengths of proposed casings; indicate mudding jobs, cementing points, and all other important proposed work)

The Frontier 1-C (GD) as originally named to designate a Gallup-Dakota dual completion is to be changed to the Frontier 1-C due to this well being completed as only a Dakota well.



I understand that this plan of work must receive approval in writing by the Geological Survey before operations may be commenced.

Company **El Paso Natural Gas Products Company**

Address **Post Office Box 1565**  
**Farmington, New Mexico**

ORIGINAL SIGNED BY: JOSEPH E. RAYBURN  
By

Title **Petroleum Engineer**

Initial Deliverability  
Test

NEW MEXICO OIL CONSERVATION COMMISSION  
GAS WELL TEST DATA SHEET - - SAN JUAN BASIN

(TO BE USED FOR FRUITLAND, PICTURED CLIFFS, MESAVERDE, & ALL DAKOTA  
EXCEPT BARKER DOME STORAGE AREA)

Pool Undesignated Dakota Formation Dakota County San Juan  
Purchasing Pipeline El Paso Natural Gas Company Date Test Filed April 29, 1959  
Operator El Paso Natural Gas Products Co. Lease Frontier Well No. 1-C  
Unit D Sec. 16 Twp. 27N Rge. 11W Pay Zone: From 6480' To 6566'  
Casing: OD 5-1/2" WT. 15.50# Set At 6648' Tubing: OD 2-3/8" WT. 4.70# T. Perf. 6492'  
Produced Through: Casing \_\_\_\_\_ Tubing X Gas Gravity: Measured 0.684 Estimated \_\_\_\_\_  
Date of Flow Test: From 2-27-59 To 3-7-59 \* Date S.I.P. Measured 1-12-59  
Meter Run Size -- Orifice Size -- Type Chart -- Type Taps --

OBSERVED DATA

Flowing casing pressure (Dwt) \_\_\_\_\_ psig + 12 = \_\_\_\_\_ psia (a)  
Flowing tubing pressure (Dwt) \_\_\_\_\_ psig + 12 = \_\_\_\_\_ psia (b)  
Flowing meter pressure (Dwt) \_\_\_\_\_ psig + 12 = \_\_\_\_\_ psia (c)  
Flowing meter pressure (meter reading when Dwt. measurement taken):  
Normal chart reading \_\_\_\_\_ psig + 12 = \_\_\_\_\_ psia (d)  
Square root chart reading (\_\_\_\_\_) <sup>2</sup> x spring constant \_\_\_\_\_ = \_\_\_\_\_ psia (d)  
Meter error (c) - (d) or (d) - (c) \_\_\_\_\_ ± \_\_\_\_\_ psi (e)  
Friction loss, Flowing column to meter:  
(b) - (c) Flow through tubing: (a) - (c) Flow through casing \_\_\_\_\_ = \_\_\_\_\_ psi (f)  
Seven day average static meter pressure (from meter chart):  
Normal chart average reading \_\_\_\_\_ psig + 12 = \_\_\_\_\_ psia (g)  
Square root chart average reading (7.00) <sup>2</sup> x sp. const. 10 \_\_\_\_\_ = 490 psia (g)  
Corrected seven day avge. meter press. (p<sub>f</sub>) (g) + (e) \_\_\_\_\_ = 490 psia (h)  
P<sub>t</sub> = (h) + (f) \_\_\_\_\_ = 490 psia (i)  
Wellhead casing shut-in pressure (Dwt) 1919 psig + 12 = 1931 psia (j)  
Wellhead tubing shut-in pressure (Dwt) 1895 psig + 12 = 1907 psia (k)  
P<sub>c</sub> = (j) or (k) whichever well flowed through \_\_\_\_\_ = 1907 psia (l)  
Flowing Temp. (Meter Run) 78°F + 460 \_\_\_\_\_ = 538 ° Abs (m)  
P<sub>d</sub> = 1/2 P<sub>c</sub> = 1/2 (l) \_\_\_\_\_ = 954 psia (n)

FLOW RATE CALCULATION

$$Q = \text{(integrated)} \times \left( \frac{\sqrt{(c)}}{\sqrt{(d)}} \right) = \text{1,936 MCF/da}$$

DELIVERABILITY CALCULATION

$$D = Q \times \left[ \frac{(P_c^2 - P_d^2)}{(P_c^2 - P_w^2)} \right]^n \times (0.8249)^{.75} \times 1,936 = \text{1,676 MCF/da.}$$

SUMMARY

P<sub>c</sub> = 1,907 psia  
Q = 1,936 Mcf/day  
P<sub>w</sub> = 576 psia  
P<sub>d</sub> = 954 psia  
D = 1,676 Mcf/day  
Company El Paso Natural Gas Products Company  
By John J. Strojek John J. Strojek  
Title Petroleum Engineer  
Witnessed by \_\_\_\_\_  
Company \_\_\_\_\_

\* This is date of completion test.  
\* Meter error correction factor

REMARKS OR FRICTION CALCULATIONS

GL	(1-e <sup>-S</sup> )	(F <sub>c</sub> Q) <sup>2</sup>	(F <sub>c</sub> Q) <sup>2</sup> (1-e <sup>-S</sup> ) R <sup>2</sup>	P <sub>t</sub> <sup>2</sup> (Column i)	P <sub>t</sub> <sup>2</sup> + R <sup>2</sup>	P <sub>w</sub>
4,441	0.276	331,313	91,442	240,100	331,542	576

$$D_{500} = 1,936 \times \left[ \frac{(P_c^2 - P_d^2)}{(P_c^2 - P_w^2)} \right]^N = (0.9935)^{.75} \times 1,936 = \text{1,927 MCF/d.}$$

