

NEW MEXICO OIL CONSERVATION COMMISSION

SANTA FE, NEW MEXICO

7-3-58

APPLICATION FOR DUAL COMPLETION

Field Name Blanco M.V. & Wildcat Dakota		County Rio Arriba		Date October 13, 1959
Operator Pacific Northwest Pipeline Corp.		Lease San Juan 29-6 Unit		Well No. 33-13 (MD)
Location of Well A	Unit 13	Section 29N	Township 6W	Range 6W

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 X
2. If answer is yes, identify one such instance: Order No. _____ ; Operator, Lease, and Well No.:

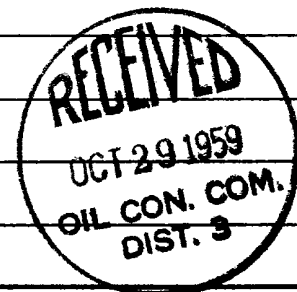
3. The following facts are submitted:	Upper Zone	Lower Zone
a. Name of reservoir	Mesa Verde	Dakota
b. Top and Bottom of Pay Section (Perforations)	5355 - 5804	7844 - 7852 (Upper Dakota) 7918 - 7948 (Lower Dakota)
c. Type of production (Oil or Gas)	Gas	Gas
d. Method of Production (Flowing or Artificial 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.

Pacific Northwest Pipeline Corp. is San Juan 29-6 Unit Operator.



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 Agent of the Pacific Northwest Pipeline Corporation (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, 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 September 13, 1959, I was called to the location of the Pacific Northwest Pipeline corporation San Juan 29-6 Unit No. 33-13 (MD) Well located in the NENE/4 of Section 13, Township 29 Northm Range 6 West, N.M.P.M., for advisory service in connection with installation of a production packer. In my presence, a Baker Model "D" Production Packer was set in this well at 7450 feet in accordance with the usual practices and customs of the industry.

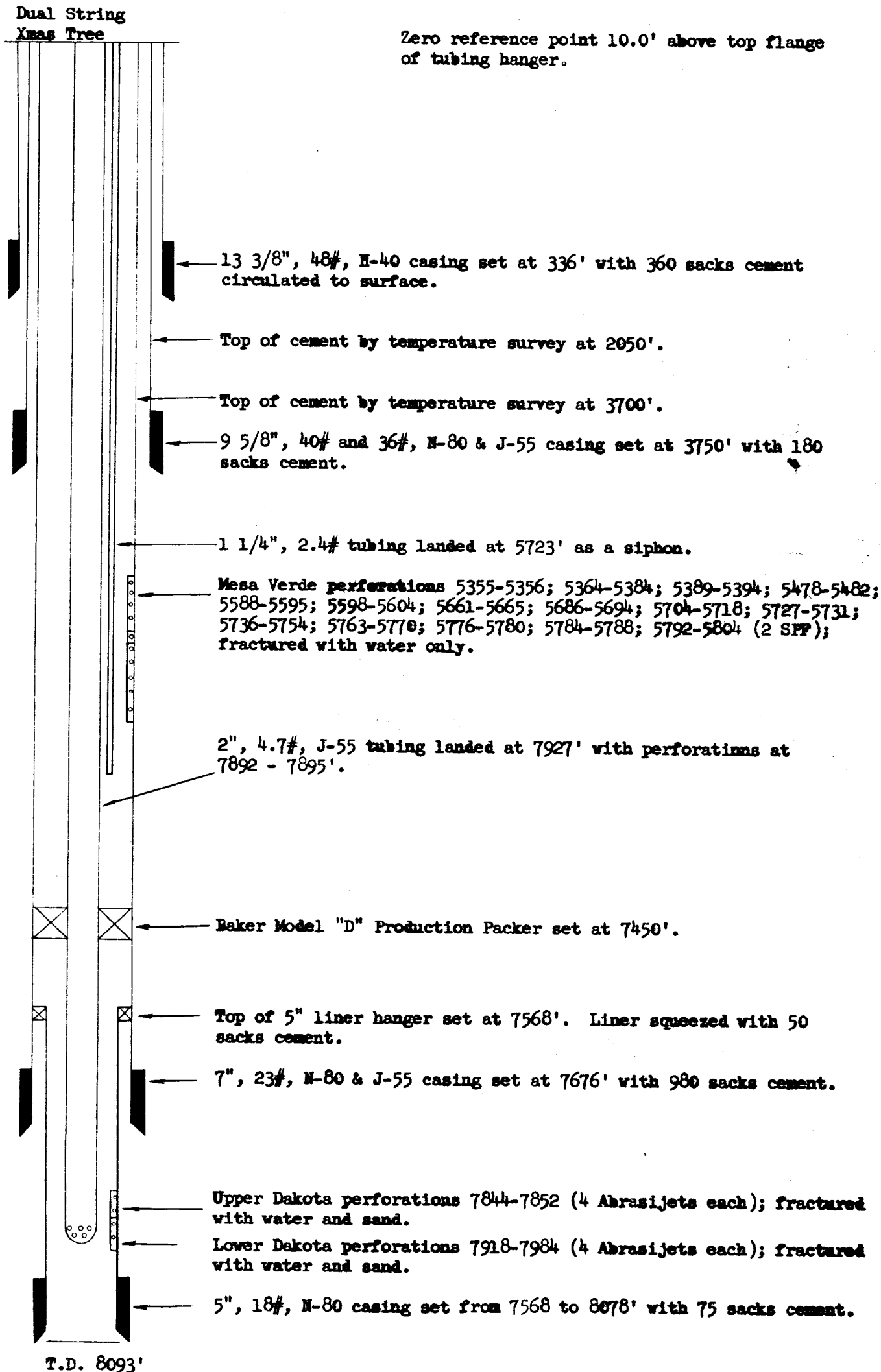
Mack M. Mahaffey

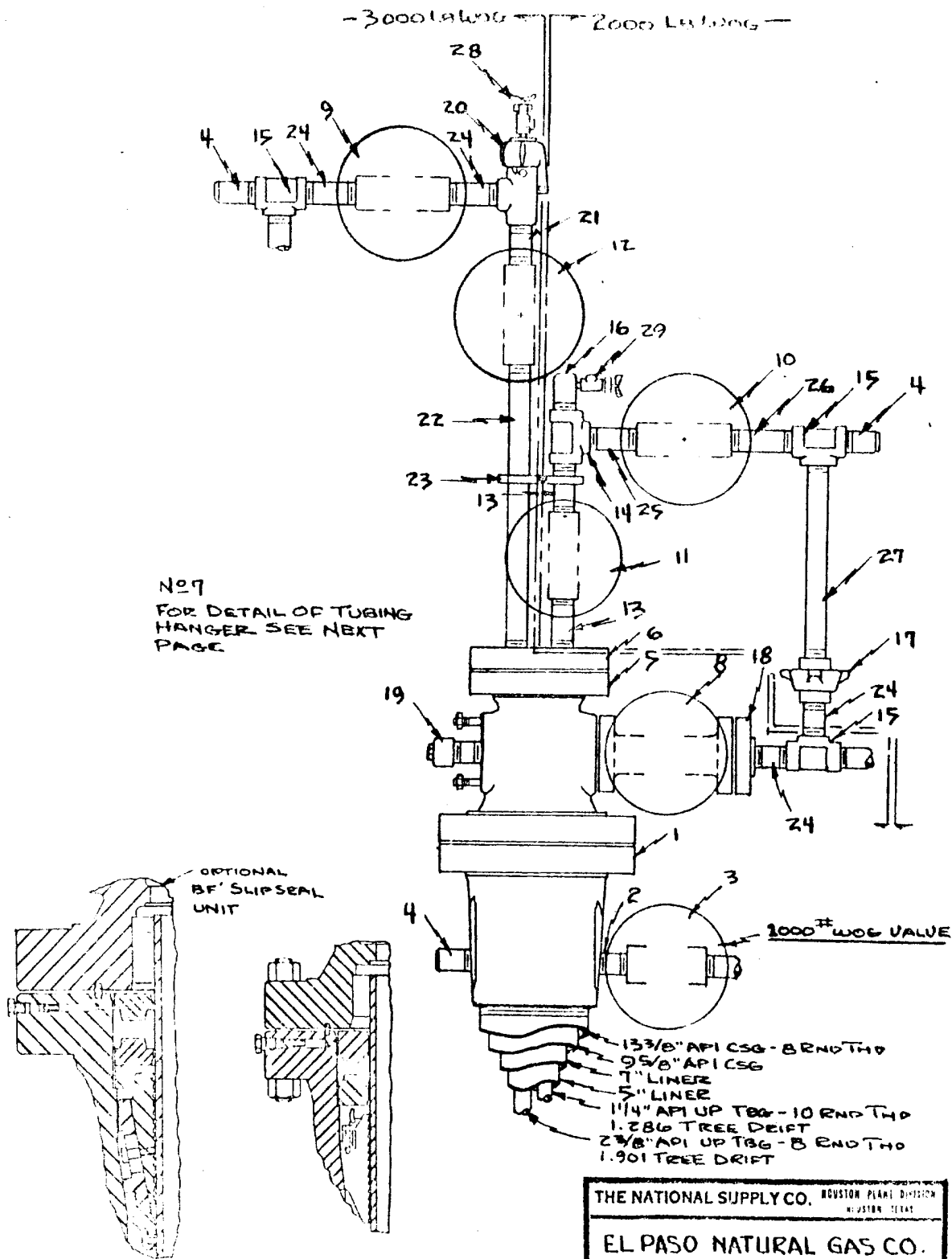
Subscribed and sworn to before me this 14th day of October, 1959.

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

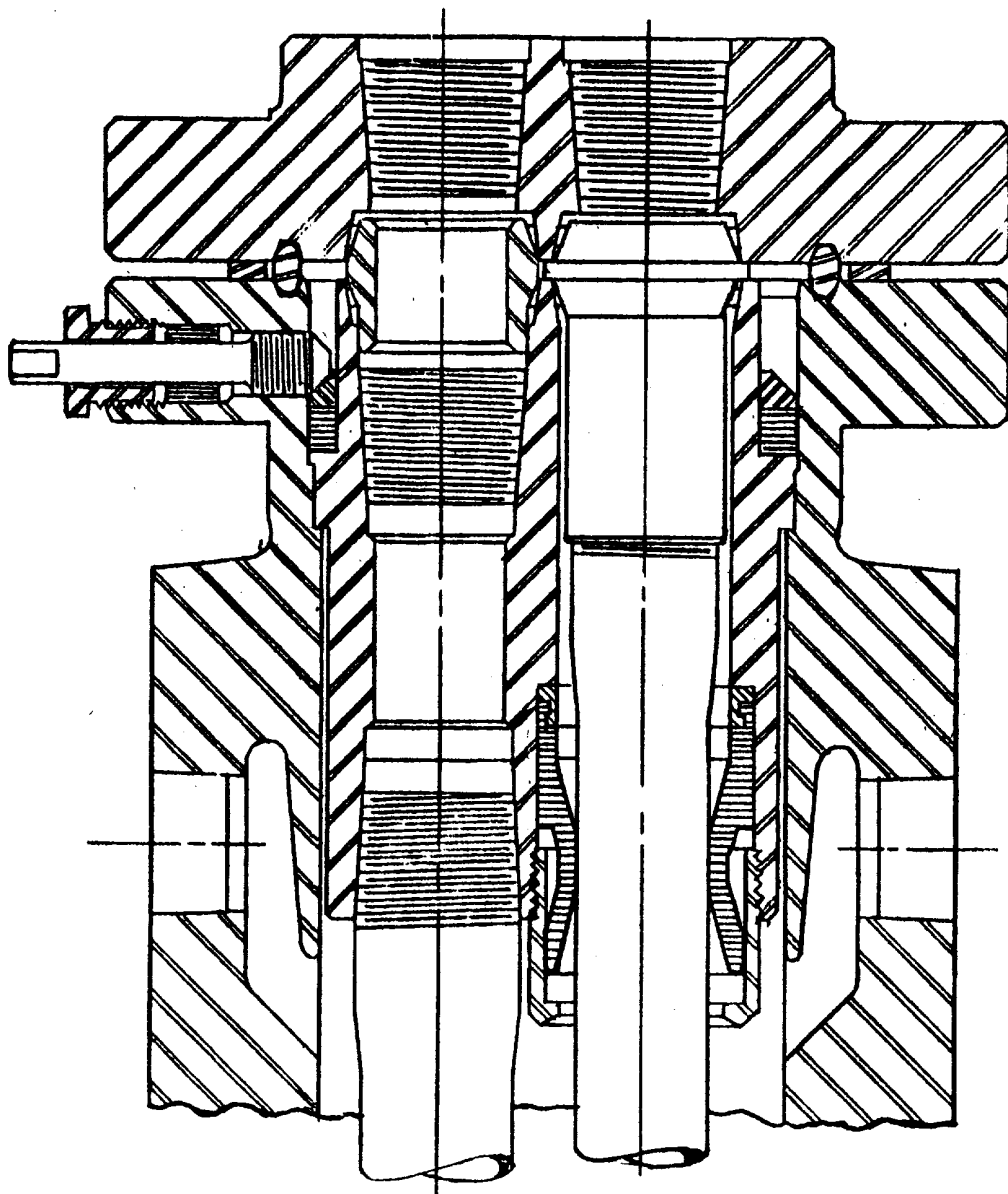
My commission expires February 24, 1960.

SCHEMATIC DIAGRAM OF DUAL COMPLETION
Pacific Northwest Pipeline Corp. San Juan 29-6 Unit No. 33-13(MD)
NE/4 Section 13, T-29-N, R-6-W

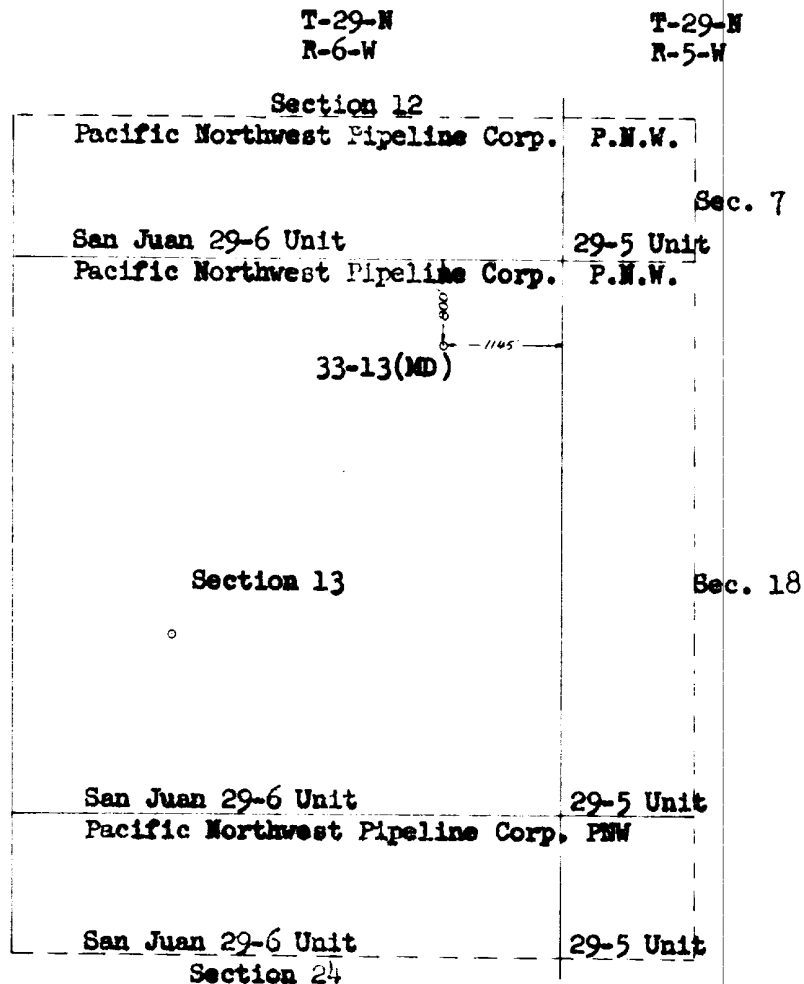




THE NATIONAL SUPPLY CO. HOUSTON PLANT DIVISION HOUSTON, TEXAS		
EL PASO NATURAL GAS CO.		
SCALE 3-5-59 DRAWN O.A.	SUPERSEEDING	35690



**PLAT SHOWING LOCATION OF DUALY COMPLETED
Pacific Northwest Pipeline Corp. San Juan 29-6 Unit No. 33-13 (MD)
and Offset Acreage**



EL PASO NATURAL GAS COMPANY
EL PASO, TEXAS

SCALE	DATE
DRAWN BY	CHECKED BY

No.

EL PASO NATURAL GAS COMPANY
OPEN FLOW TEST DATA

DUAL COMPLETION

DATE September 21, 1959

Operator El Paso Natural Gas		Lease San Juan 29-6 No. 33-13 (D)	
Location 800N, 1145E; 13-29-6		County Rio Arriba	State New Mexico
Formation Dakota		Pool Undesignated	
Casing: Diameter 5	Set At: Feet 8078	Tubing: Diameter 2	Set At: Feet 7917
Pay Zone: From 7918	To 7948	Total Depth 8081 c/o 8033	Shut In: 9/14/59
Stimulation Method Sand Water Frac.		Flow Through: casing	Flow Through: tubing X

Choke Size, Inches .75	Choke Constant: C 12.365	5" liner 7568 - 8078	
Shut-in Pressure, Casing: PSIG 988 (MV)	PSIA 1000	Shut-in Pressure, Tubing: PSIG 2288 (D)	PSIA 2300
Flowing Pressure: P 221	PSIG 233	Working Pressure: P _w Calc.	PSIG 521
Temperature: T 70	F .75	F _{pv} (From Tables) 1.016	Gravity .586

Initial SIPT (MV) = 986 psig
Final SIPC (MV) = 995 psig

Packer at 7450

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

$$Q = 12.365 \times 233 \times .9905 \times 1.012 \times 1.016$$

2934

MCF D

OPEN FLOW Aof $Q \left(\frac{P_1^2}{P_c - P_w} \right)^n$

$$Aof \left(\frac{5290000}{5018559} \right)^n = 1.0540^{.75} \times 2934 = 1.0402 \times 2934$$

Aof **3052** MCF D

TESTED BY **W. D. Dawson**

WITNESSED BY

Lewis D. Galloway
L. D. Galloway

EL PASO NATURAL GAS COMPANY
OPEN FLOW TEST DATA

DUAL COMPLETION

DATE September 28, 1959

Operator El Paso Natural Gas Company		Lease San Juan 29-6 Unit No. 33-13 (M)	
Location 800N, 1145E, 13-29-6		County Rio Arriba	State New Mexico
Formation Mesa Verde		Pool Blanco	
Casing Diameter 7	Set At: Feet 7676	Tubing Diameter 1-1/4	Set At: Feet 5713
Pay Zone: From 5355	To 5804	Total Depth 8081 c/o 8033	Shut In: 9/14/59
Stimulation Method Water Frac		Flow Through Casing X	Flow Through Tubing

Choke Size, Inches .750		Choke Constant 12.365			
Shut-In Pressure, Casing, (MV) 1019	PSIG	- 12 = PSIA 1031	Days Shut-In 14	Shut-In Pressure, Tubing (MV) 1015	PSIG
Flowing Pressure: P 370	PSIG	- 12 = PSIA 382		Working Pressure: P _w 401	PSIG
Temperature: T 70	°F			F _{pv} (From Tables) 1.041	Gravity .680

Initial SIPT (D) = 2425psig

Packer at 7450'

Final SIPT (D) = 2447psig

CHOKE VOLUME = Q C x P_i x F_i x F_g x F_{pv}

$$Q = 12.365 \times 382 \times .9905 \times .9393 \times 1.041 = 4575 \text{ MCF/D}$$

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

$$Aof = \left(\frac{1,062,961}{892,392} \right)^n = 1.1911^{.75} \times 4575 = 1.1400 \times 4575$$

$$Aof = 5216 \text{ MCF/D}$$

TESTED BY W. D. DawsonWITNESSED BY C. R. Wagner (PNW)

Lewis D. Galloway
L. D. Galloway