OIL CONSERVATION COMMISSION
1000 Rio Brazos Rd.
Aztec, New Mexico

DATE 1-4-60

OIL CONSERVATION COMMISSION
BOX 871
SANTA FE, NEW MEXICO

RE: Proposed NSP _____

Proposed NSL _____

Proposed NFO _____

Proposed DC ✓

Gentlemen:

I have examined the application dated 12-17-59

for the PNW SJU 30-5 Unit #27-20 M-20-30-5

Operator Lease and Well No. S-T-R

and my recommendations are as follows:

Approve

Yours very truly,

Emery C Arnold

OIL CONSERVATION COMMISSION

NEW MEXICO OIL CONSERVATION COMMISSION

SANTA FE, NEW MEXICO

7-3-58

APPLICATION FOR DUAL COMPLETION

Field Name	County	Date
Blanco Mesa Verde & Wildcat Dakota	Rio Arriba	December 17, 1959

Operator	Lease	Well No.
Pacific Northwest Pipeline Corp.	San Juan 30-5 Unit	27-20 (MD)

Location of Well	Unit	Section	Township	Range
	M	20	30N	5W

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. _____ ; 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)	5162 - 5640	7646 - 7672
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 30-5 Unit Operator.

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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 October 27, 1959, I was called to the location of the Pacific Northwest Pipeline Corp. San Juan 30-5 Unit No. 27-20 (MD) Well located in the SWSW/4 of Section 20, Township 30 N, Range 5 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 7397 feet in accordance with the usual practices and customs of the industry.

Mack M. Mahaffey

Subscribed and sworn to before me this 18th day of December, 1959.

Notary Public in and for San Juan County, New Mexico

My commission expires February 24, 1960.

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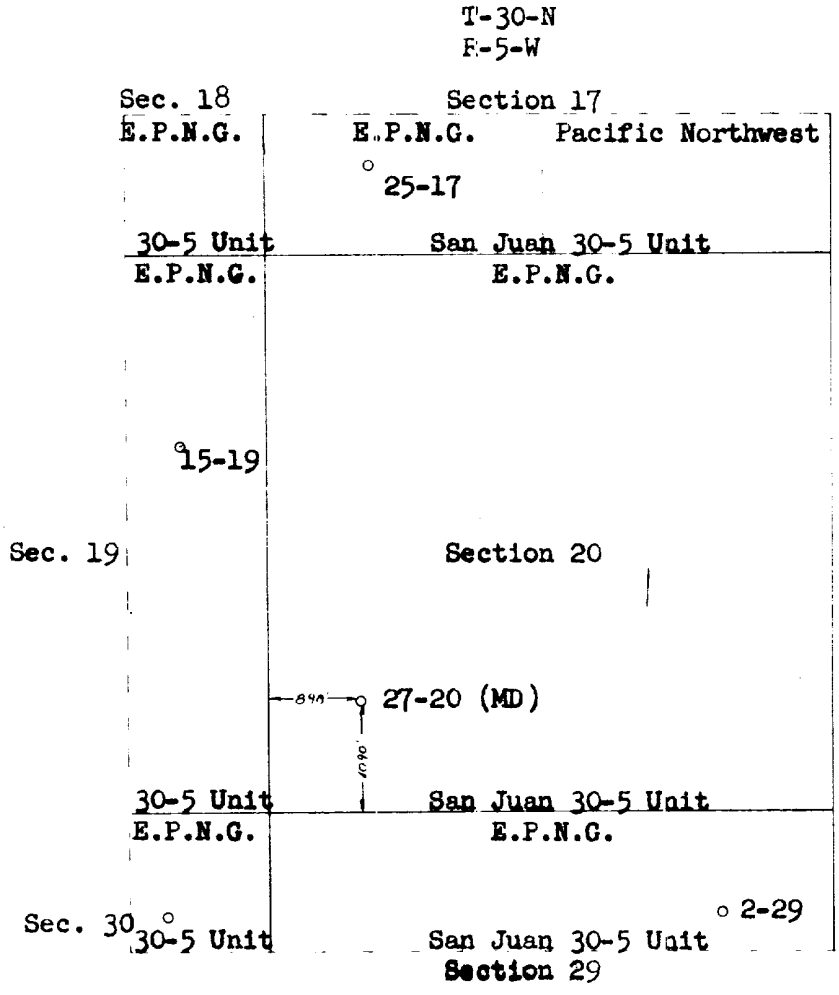
CENTRAL

PLAT SHOWING LOCATION OF DUALLY COMPLETED
Pacific Northwest Pipeline Corp. San Juan 30-5 Unit No. 27-20 (MD)
and Offset Acreage



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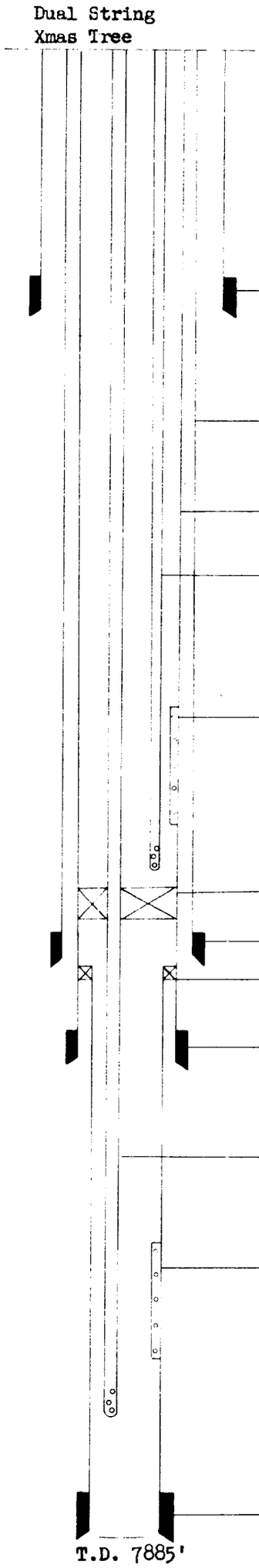
DIST. 3

EL PASO NATURAL GAS COMPANY
EL PASO, TEXAS

SCALE	DATE	No.
DRAWN BY	CHECKED BY	

FORM 7-132R (10-56)

SCHEMATIC DIAGRAM OF DUAL COMPLETION
Pacific Northwest Pipeline Corp. San Juan 30-5 Unit No. 27-20 (MD)
SW/4 Section 20, T-30-N, R-5-W



Zero reference point 10.0' above top flange of tubing hanger

13 3/8", 48#, J-55 casing set at 274' with 220 sacks cement circulated to surface.

Top of cement by B & R temperature survey at 2840'.

Top of cement by B & R temperature survey at 3420'.

1 1/4", 2.4# tubing landed at 5623' as a siphon.

Mesa Verde perforations 5162-5172; 5179-5185; 5192-5200; 5212-5218; 5248-5256; 5466-5484; 5488-5494; 5502-5514; 5532-5546; 5554-5566; 5574-5580; 5604-5610; 5622-5630; 5644-5648 (2 SPF) fractured with water and sand.

Baker Model "D" production packer set at 7397'.

9 5/8", J-55, 36# & N-80, 40# casing set at 3495' with 150 sacks of cement.

Top of 5" liner hanger set at 7433'. Top of cement by temperature survey at 7433'.

7", 23#, J-55 & N-80 casing set at 7504' with 1010 sacks cement.

2 3/8", 4.7#, J-55 tubing landed at 7649' with perforations 7615-7618'.

Dakota perforations 7646-7672 (2 SPF) fractured with oil and sand.

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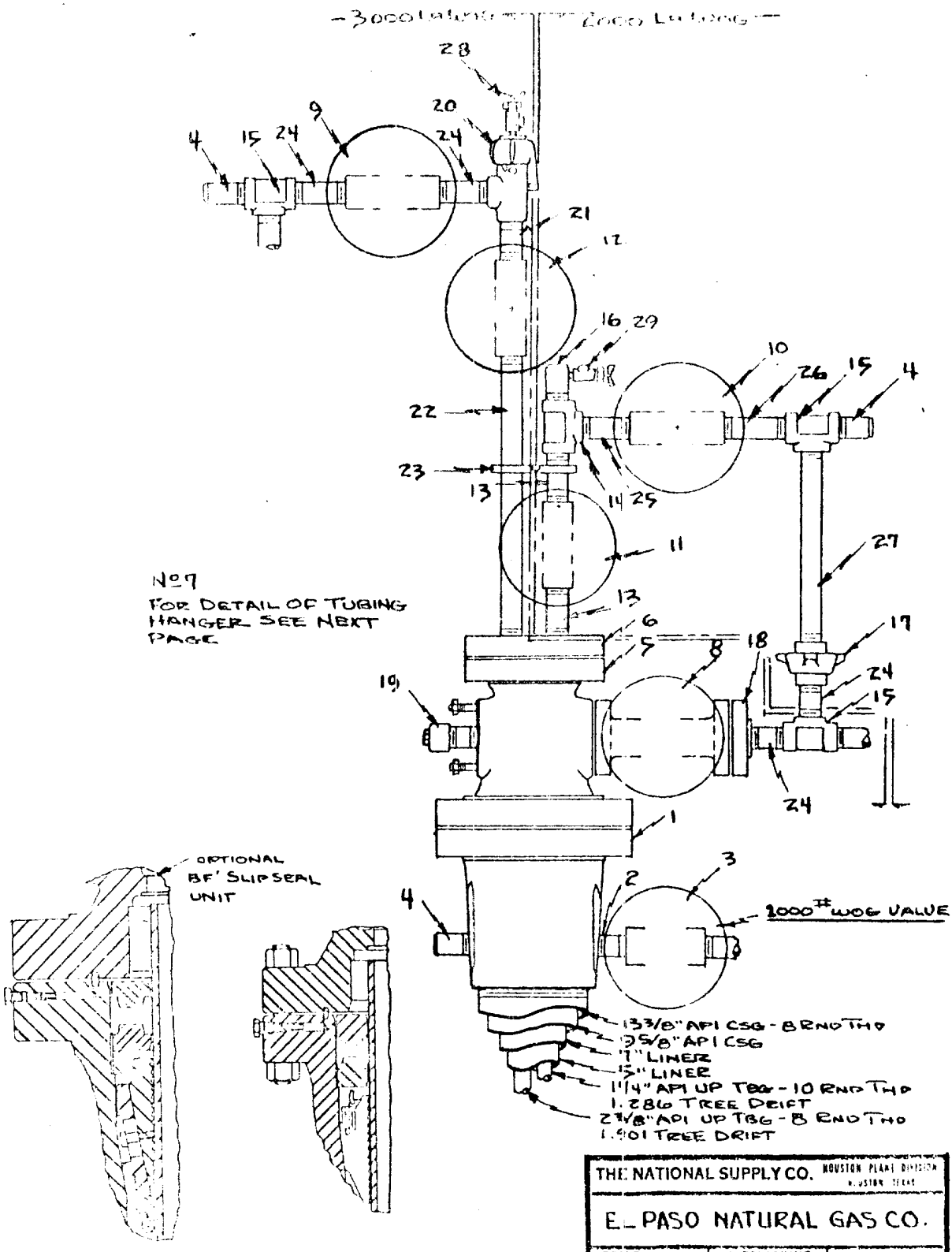
5", 18#, N-80 liner set from 7433' to 7882' with 60 sacks Thermoset



Nº 7
FOR DETAIL OF TUBING HANGER SEE NEXT PAGE

THE NATIONAL SUPPLY CO. HOUSTON PLANT DIVISION HOUSTON TEXAS

E. PASO NATURAL GAS CO.

SCALE 3-5-59 DRAWN D.M.	SUPERSEDING	35690

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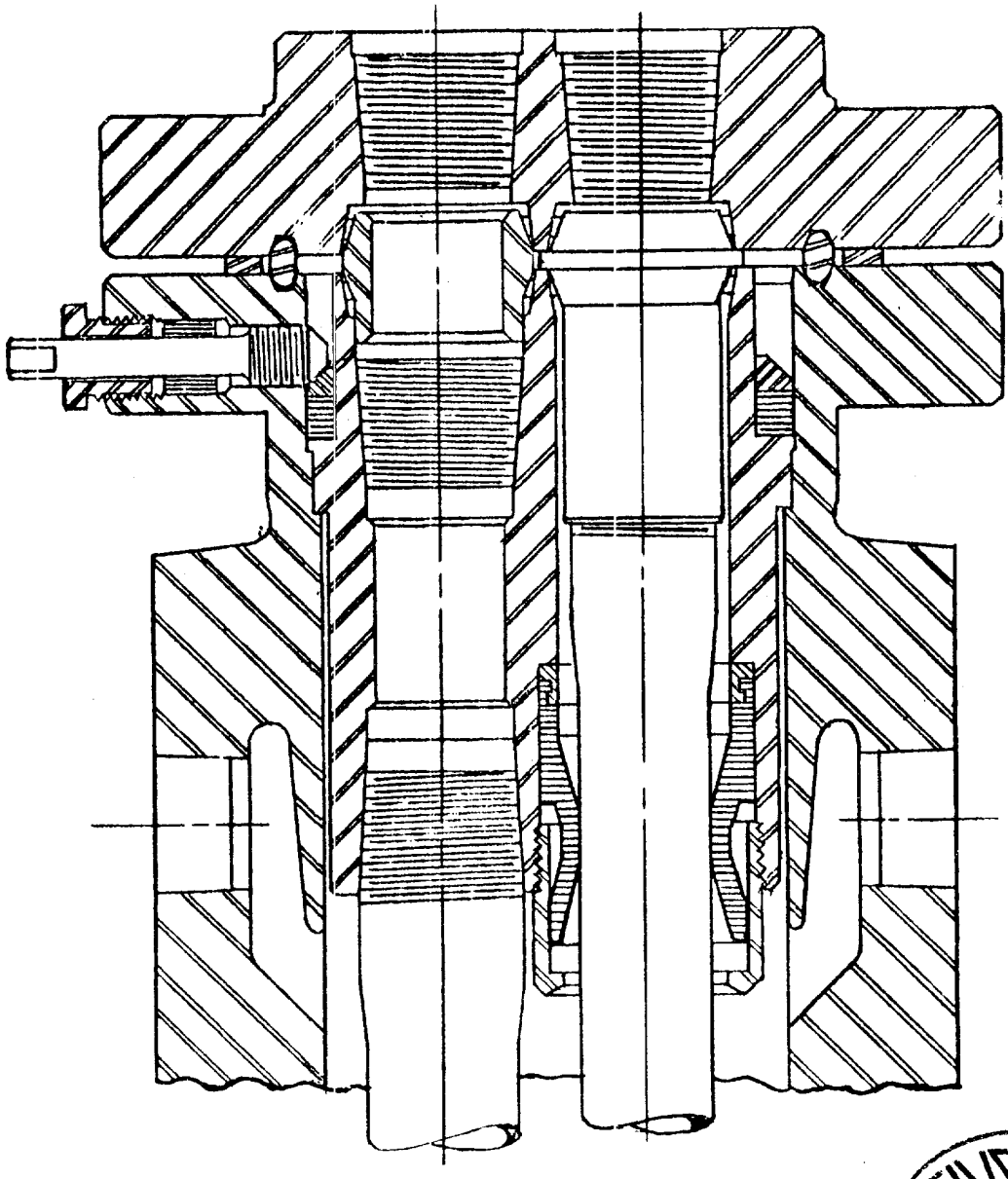
DIST. 3



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NT. 3

FORM [illegible]

EL PASO NATURAL GAS COMPANY

OPEN FLOW TEST DATA

DUAL COMPLETION DATE **November 27, 1959**

Operator: **El Paso Natural Gas Company**		Lease: **San Juan 30-5 Unit No. 27-20 (M)**	
Location: **1090S, 890W; 20-30-5**		County: **Rio Arriba**	State: **New Mexico**
Formation: **Mesa Verde**		Pool: **Blanco**	
Casing: Diameter **7**	Set At: Feet **7504**	Tubing: Diameter **1-1/4**	Set At: Feet **5612**
Pay Zone: From **5162**	To **5648**	Total Depth: **7890 c/o 7710**	**Shut In: 10/28/59**
Stimulation Method: **Sand Water Frac.**		Flow Through Casing: **X**	Flow Through Tubing:

Choke Size, Inches: **.75**		Choke Constant: **12.365**			
Shut-in Pressure, Casing: **(MV) 1115** PSIG	+ 12 = PSIA **1127**	Days Shut-in **30**	Shut-in Pressure, Tubing: **(MV) 1115** PSIG	+ 12 = PSIA **1127**	
Flowing Pressure: **(MV Csg) 183** PSIG	+ 12 = PSIA **195**		Working Pressure: **(MV) Tbg, 207** PSIG	+ 12 = PSIA **219**	
Temperature: T **64**	F.T. **.75**		Fpv (From Tables) **1.018**	Gravity: **.648**	

Initial SIPT (D) = 2576 psig
Final SIPT (D) = 2583 psig

Packer at 7397 = Baker "D"

CHOKE VOLUME: Q = C x Pt x Ft x Fg x Fpv

Q = 12.365 x 195 x .9962 x .9645 x 1.018 = 2358 MCF D

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

Aof = $\left(\frac{1270129}{1222168}\right)^n$ $1.0392^{.75}$ x 2358 = 1.0292 x 2358

Aof = **2427** MCF D

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TESTED BY: **W. D. Dawson**

WITNESSED BY: **W. Smith, C. Wagner**

L. D. Galloway

L. D. Galloway

FORM 2475 (Rev)

EL PASO NATURAL GAS COMPANY

OPEN FLOW TEST DATA

DUAL COMPLETION DATE **November 19, 1959**

Operator: **El Paso Natural Gas**	Lease: **San Juan 30-5 Unit No. 27-20 (D)**
Location: **1090S, 890W; 20-30-5**	County: **Rio Arriba** State: **New Mexico**
Formation: **Dakota**	Pool: **Undesignated**
Casing: Diameter **5** Set At: Feet **7882**	Tubing: Diameter **2** Set At: Feet **7638**
Pay Zone: From **7646** To **7820**	Total Depth: **7890 c/o 7710** Shut In: **10/28/59**
Stimulation Method: **Sand Oil Frac.**	Flow Through Casing: Flow Through Tubing: **X**

Choke Size, Inches: **.75**	Choke Constant: C **12.365**	**5" liner 7433 - 7882**	
Shut-In Pressure, Casing, PSIG + 12 = PSIA: **(MV) 1101** **1113**	Days Shut-In: **22**	Shut-In Pressure, Tubing, PSIG + 12 = PSIA: **(Dak) 2596** **2608**	
Flowing Pressure: P PSIG + 12 = PSIA: **(Dak) 92** **104**		Working Pressure: P_w PSIG + 12 = PSIA: **Calc.** **229**	
Temperature: T **65**	F_n **.75**	Fpv (From Tables) **1.006**	Gravity **.584**

Initial SIPT (MV) = 1098 psig
Final SIPC (MV) = 1104 psig

Baker Model "D" Packer at 7397

CHOKE VOLUME Q = C x P_t x F_t x F_g x F_{pv}

Q = **12.365 x 104 x .9952 x 1.017 x 1.006** = **1309** MCF D

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

Aof $\left(\frac{6801664}{6749223}\right)^n$ **$1.0077^{.75}$ x 1309 = 1.0058 x 1309**

Aof **1317** MCF D

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TESTED BY **W. D. Dawson**

WITNESSED BY **W.B. Smith (Phillips) R. Wagner (PNW)**

Lewis D. Galloway
L. D. Galloway