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

11-23-59

DATE _____

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 11-10-59
for the EPNG SJU 28-6 #85 ~~6-25-29N-6W~~
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 & South Blanco P. C.	Rio Arriba	November 10, 1959

Operator	Lease	Well No.
El Paso Natural Gas Company	San Juan 28-6 Unit	69 (MM)

Location of Well	Unit	Section	Township	Range
	C	25	27N	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 A NO _____
2. If answer is yes, identify one such instance: Order No. DC-405 ; Operator, Lease, and Well No.:

El Paso Natural Gas Co. San Juan 28-6 Unit No. 69 (MM)

3. The following facts are submitted:	Upper Zone	Lower Zone
a. Name of reservoir	Pictured Cliffs	Mesa Verde
b. Top and Bottom of Pay Section (Perforations)	3066-3116	4760-4812 (Cliff House) 5272-5398 (Point Lookout)
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.

El Paso Natural Gas Co. is San Juan 28-6 and San Juan 27-5 Units 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 Division Petroleum Engr. of the El Paso Natural Gas Co. _____ (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 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, A. T. Fry, being first duly sworn upon my oath depose and say as follows:

I am an employee of Guiberson Corporation, and that on September 20, 1959, I was called to the location of the El Paso Natural Gas Company San Juan 28-6 Unit No. 85 (PM) Well located in the SWNE/4 of Section 25, 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 Guiberson Model "AG" Production Packer was set in this well at 4590 feet in accordance with the usual practices and customs of the industry.

A. T. Fry

Subscribed and sworn to before me this 6th day of November, 1959.

Notary Public in and for San Juan County, New Mexico

My commission expires February 24, 1960.

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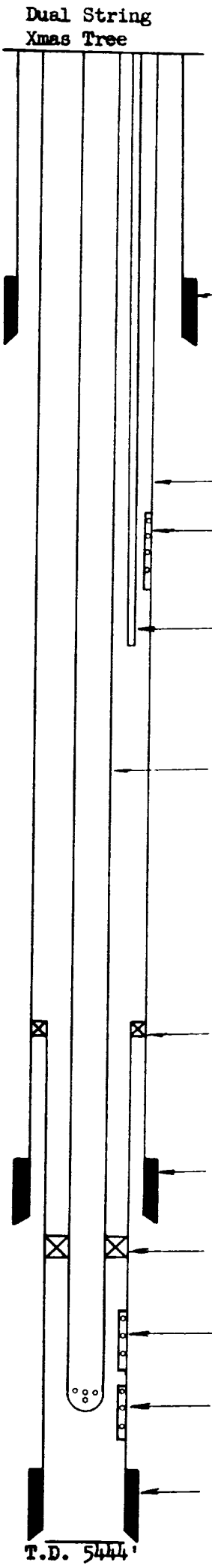
SCHEMATIC DIAGRAM OF DUAL COMPLETION
El Paso Natural Gas Co. San Juan 28-6 Unit No. 85 (PM)
NE/4 Section 25, T-27-N, R-6-W



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

10 3/4", 32.75#, S. W. casing set at 174' with 225 sacks cement circulated to surface.

Top of cement by temperature survey at 2200'.

Pictured Cliffs perforations 3066-3074; 3084-3094; 3102-3116 (2 SPF); fractured with water and sand.

1 1/4", 2.4# tubing landed at 3087' as a siphon.

2", 4.7#, J-55 tubing landed at 5297' with perforations at 5293-5296.

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Top of 5 1/2" liner hanger set at 3170'. Top of cement by temperature survey at 3200'.

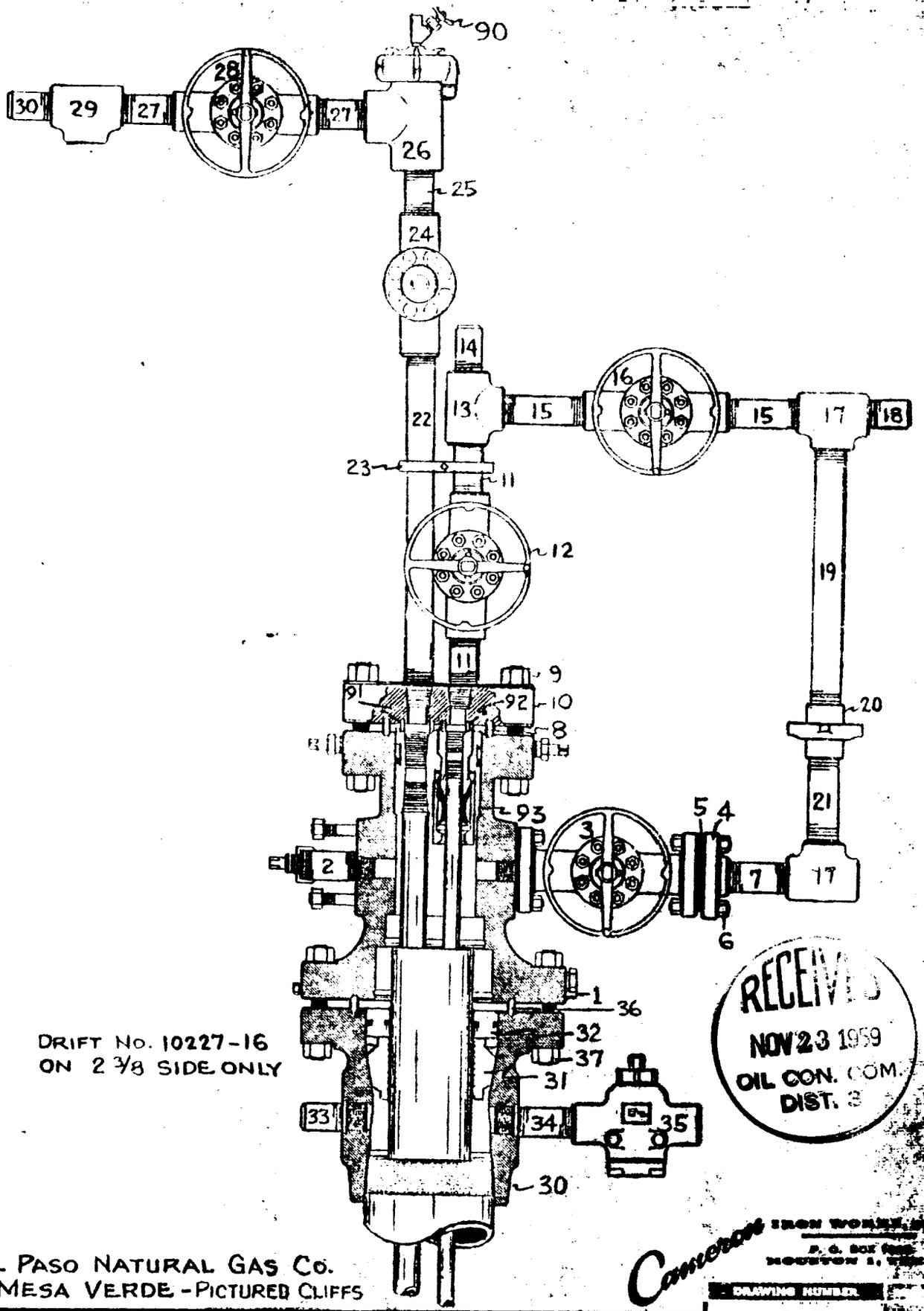
7 5/8", 26.4#, J-55 casing set at 3245' with 126 sacks cement.

Guiberson "AG" production packer set at 4598'.

Cliff House perforations 4760-4770; 4802-4812 (2 SPF); fractured with water and sand.

Point Lookout perforations 5272-5280; 5308-5316; 5328-5334; 5342-5350; 5388-5398 (2 SPF) fractured with water and sand.

5 1/2", 15.50#, J-55 liner set from 3170' to 5441' with 350 sacks cement.



DRIFT No. 10227-16
ON 2 3/8 SIDE ONLY

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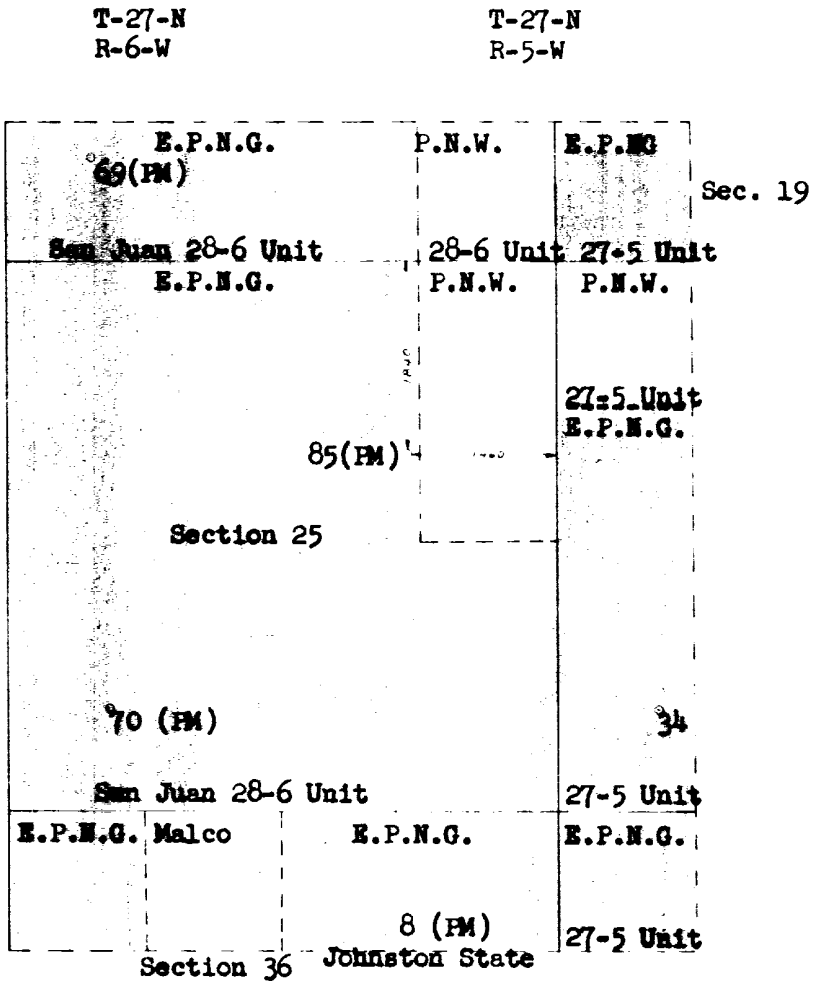
EL PASO NATURAL GAS Co.
MESA VERDE - PICTURED CLIFFS

Cameron IRON WORKS, INC.
P. O. BOX
HOUSTON 1, TEXAS

DRAWING NUMBER
91605

DRAWN BY	DATE	WORKING PRESSURE	DRIFT NO
E N	3-17-59	2,000 #	

PLAT SHOWING LOCATION OF DUALLY COMPLETED
El Paso Natural Gas Co. San Juan 28-6 Unit No. 85 (PM)
and Offset Acreage



EL PASO NATURAL GAS COMPANY
EL PASO, TEXAS

SCALE | DATE | No.
DRAWN BY | CHECKED BY

FORM 7-132R (1-58)

EL PASO NATURAL GAS COMPANY

OPEN FLOW TEST DATA

DUAL COMPLETION DATE **October 22, 1959**

Operator: **El Paso Natural Gas Company**		Lease: **San Juan 28-6 Unit No. 85 (P)**	
Location: **1840N, 1460E; 25-27-6**		County: **Rio Arriba**	State: **New Mexico**
Formation: **Pictured Cliffs**		Pool: **South Blanco**	
Casing Diameter: **7-5/8**	Set At: Feet: **3245**	Tubing Diameter: **1-1/4**	Set At: Feet: **3077**
Pay Zone: From: **3066**	To: **3116**	Total Depth: **5444 c/o 5416**	Shut In: **9/20/59**
Stimulation Method: **Sand Water Frac.**		Flow Through: Tubing: **X**	

Choke Size, Inches: **.75**		Choke Constant: **12.365**					
Shut-in Pressure, Casing: **1068**	PSIG **1080**	+ 12 = PSIA	Days Shut-in: **32**	Shut-in Pressure, Tubing: **1068**	PSIG	+ 12 = PSIA **1080**	
Flowing Pressure: P: **146**	PSIG	+ 12 = PSIA **158**		Working Pressure: Pw: **151**	PSIG	+ 12 = PSIA **163**	
Temperature: T: **59**	F	n: **.85**		Fpv (From Tables): **1.015**		Gravity: **.67**	

Initial SIPT (MV) = 1083 psig
Final SIPT (MV) = 1085 psig

Packer at 4598

CHOKE VOLUME: $Q = C \times P_t \times F_t \times F_g \times F_{pv}$

$Q = 12.365 \times 158 \times 1.0010 \times .9463 \times 1.015 = 1878$ MCF/D

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

$\left(\frac{1166400}{1139831} \right)^n$ $1.0233^{.85} \times 1878 = 1.0198 \times 1878$

Aof = **1915** MCF/D

TESTED BY: **S. V. Roberts**

WITNESSED BY:

Checked By **W. D. Dawson**

Lewis D. Galloway

L. D. Galloway

FORM 23-77

EL PASO NATURAL GAS COMPANY

OPEN FLOW TEST DATA

DUAL COMPLETION DATE October 14, 1959

Operator: El Paso Natural Gas Company		Lease: San Juan 28-6 Unit No. 85 (M)	
Location: 1840N, 1460E; 25-27-6		Rio Arriba	State: New Mexico
Formation: Mesa Verde		Pool: Blanco	
Casing: Diameter: 5-1/2	Set At: Feet: 5441	Tubing: Diameter: 2	Set At: Feet: 5287
Pay Zone: From: 4762	To: 5398	Total Depth: 5444 c/o 5416	Shut In: 9/20/59
Stimulation Method: Sand Water Frac.		Flow Through Casing	Flow Through Tubing: X

Choke Size, Inches: .75	Choke Constant: 12.365	5-1/2 liner 3170 - 5441	
Shut-in Pressure, Casing: 1054 (PC) PSIG	1056 PSIA	Days Shut-in: 24	Shut-in Pressure, Tubing: 1081 (MV) PSIG 1093 PSIA
Flowing Pressure: P PSIG: 310	PSIA: 322	Working Pressure: Pw PSIG: Calc.	PSIG: 638
Temperature: T °F: 62	Fpv: .75	Flow Temp. Factor: 1.044	Gravity: .74

Initial SIPT (PC) = 1056 psig
Final SIPC (PC) = 1059 psig

Packer at 4598

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

Q = 12.365 x 322 x .9981 x .9005 x 1.044 = 3736 MCF/D

OPEN FLOW: $A.O.F. = Q\left(\frac{P_t^2}{P_t^2 - P_w^2}\right)^n$

$\frac{1194649}{787605}$ ^{n} $\quad 1.5168^{.75} \times 3736 = 1.3667 \times 3736$

A.O.F. = 5106 MCF/D

Tom Grant

Lewis D. Galloway

L. D. Galloway