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

DATE 2-27-61

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 2-13-61

for the EPNG Navajo Unit #101 F-19-27N-10W

Operator Lease and Well No. S-T-R

and my recommendations are as follows:

Approved

Yours very truly,

OIL CONSERVATION COMMISSION

NEW MEXICO OIL CONSERVATION COMMISSION

SANTA FE, NEW MEXICO

7-3-61

APPLICATION FOR DUAL COMPLETION

Field Name: Angel Peak Gallup & Angel Peak Dakota Ext.		County: San Juan	Date: February 13, 1961
Operator: El Paso Natural Gas Company	Lease: Huerfano Unit		Well No.: 101 (CD)
Location of Well: Unit F	Section: 19	Township: 27N	Range: 10W

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	Gallup	Dakota
b. Top and Bottom of Pay Section (Perforations)	5336-5510	6076-6142
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.

British American Oil Producing Company - Drawer 30, Farmington, New Mexico

Frontier Oil Company - 4040 E. Louisiana, Denver 2, Colorado

Kurtz Canyon Oil & Gas Company, U. S. National Bank Building, Denver, Colorado

6. Were all operators listed in item 5 above notified and furnished a copy of this application? YES X NO _____. If answer is yes, give date of such notification February 13, 1961.

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 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, Arthur M. Smith, being first duly sworn upon my oath depose and say as follows:

I am an employee of El Paso Natural Gas Company and that on November 21, 1960, I was called to the location of the El Paso Natural Gas Company Huerfano Unit No. 101 (GD) Well located in the SENW/4 of Section 19, Township 27 North, Range 10 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 5536 feet in accordance with the usual practices and customs of the industry.

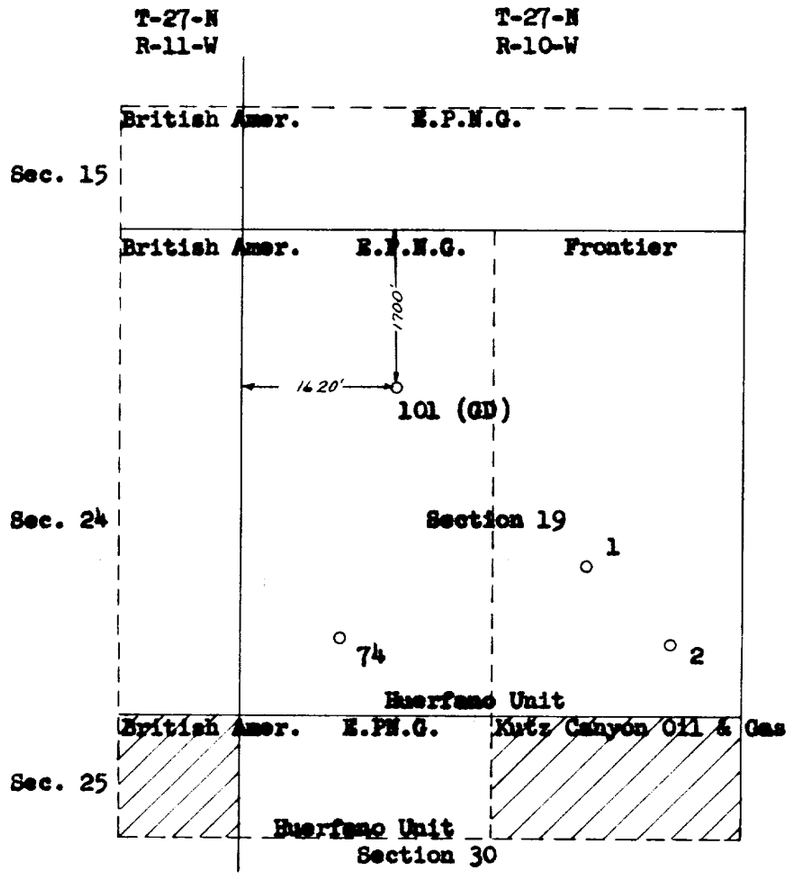
Arthur M. Smith

Subscribed and sworn to before me this 14th day of February, 1961.

Notary Public in and for San Juan County, New Mexico

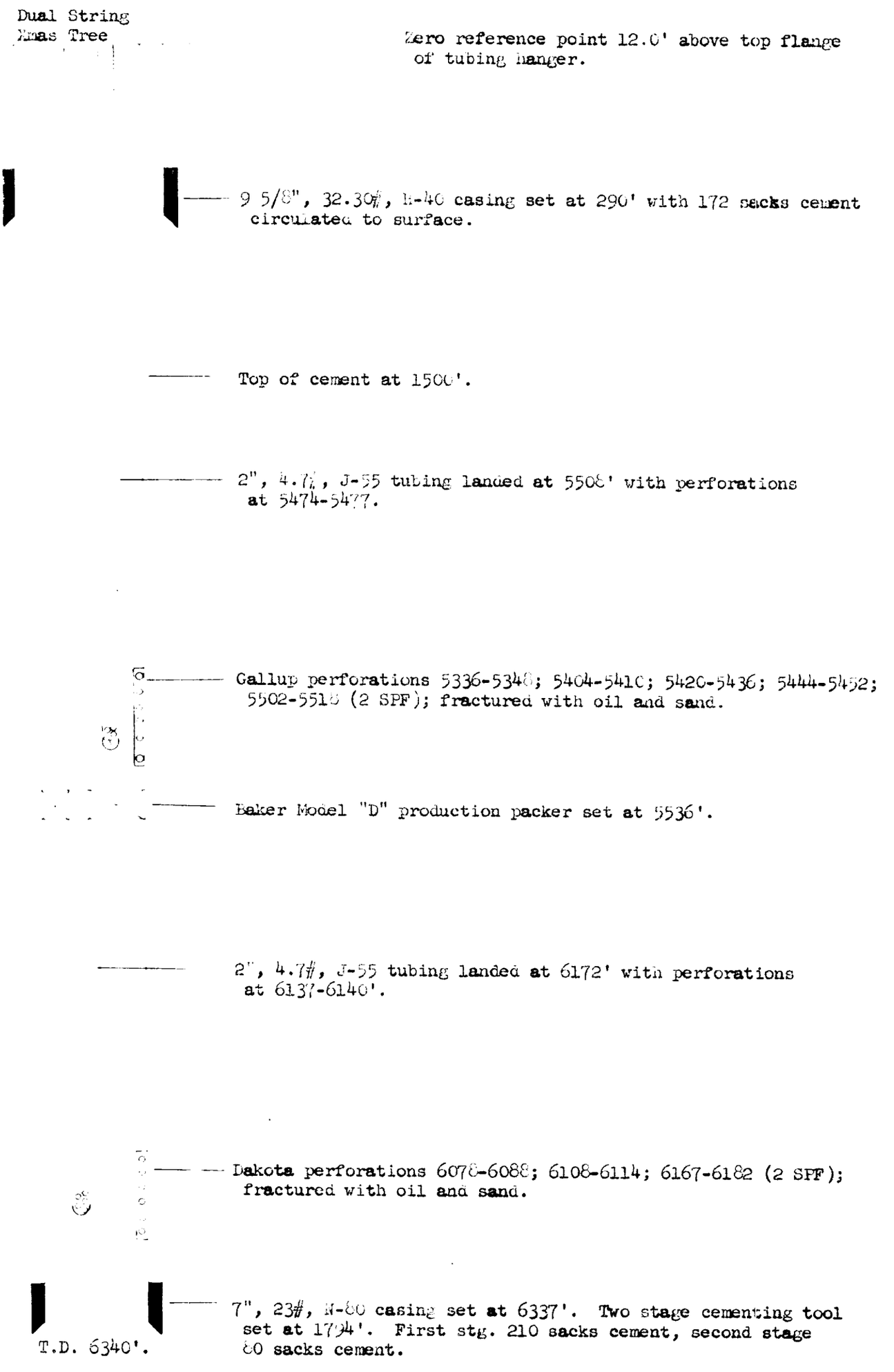
My commission expires October 5, 1964.

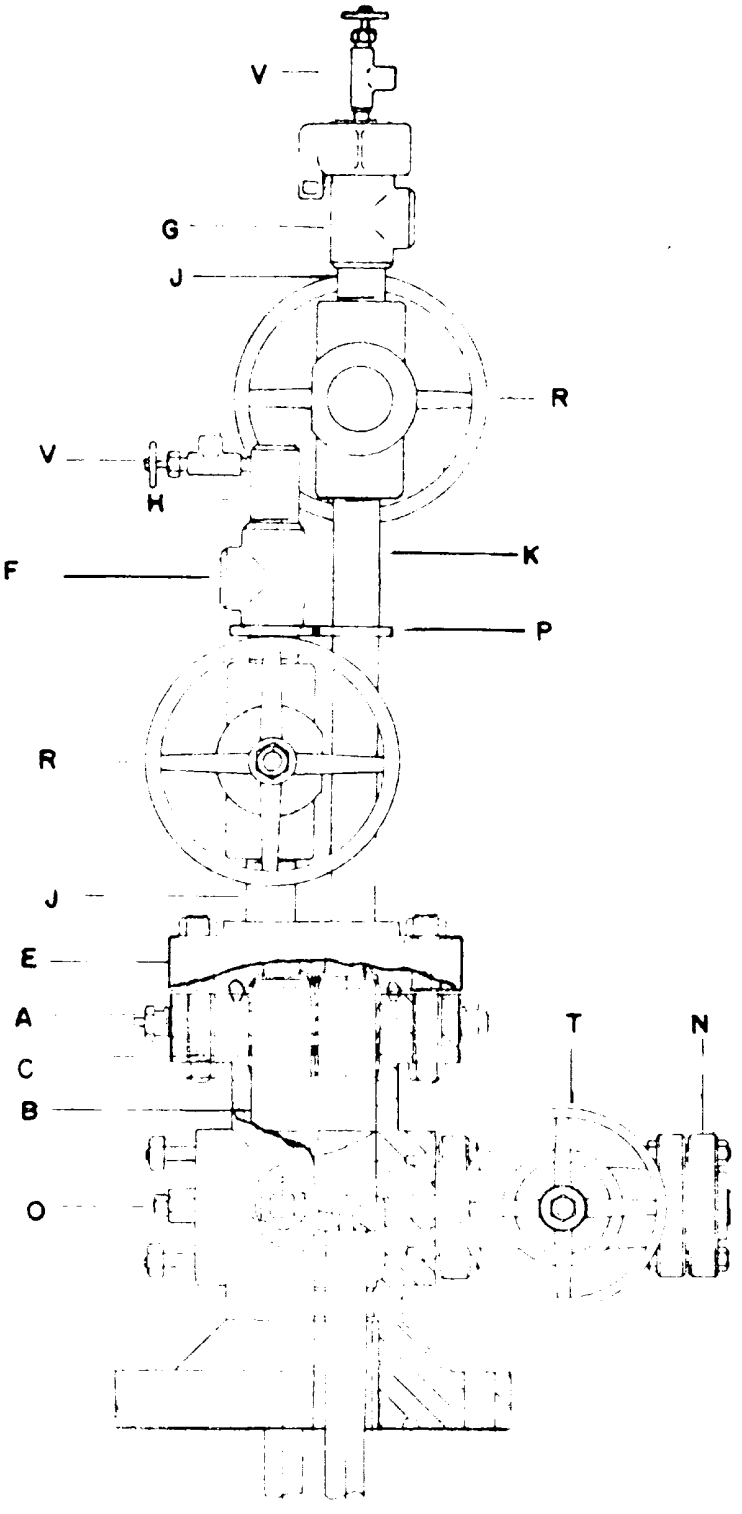
PLAT SHOWING LOCATION OF DUALLY COMPLETED
El Paso Natural Gas Co. Huerfano Unit No. 101 (GD)
and Offset Acreage



Non-Committed Acreage

Schematic Diagram of Dual Completion
El Paso Natural Gas Co. Huerfano Unit No. 101 (GD)
NW/4 Section 19, T-27-N, R-10-W





CHRISTMAS TREE ASSEMBLY NO. X-1148-U REV. 13			PROPERTY OF OIL CENTER TOOL CO., INC. HOUSTON, TEXAS		
PART NO.	SCALE	PATTERN NO.	DATE 2-24-59	SIZE	FILE NO.
MATERIAL SPEC. FOR EL PASO NATURAL GAS CO			DRN. BY GOC		
			CKD. BY		DWG. NO.
			APPRVD.		

EL PASO NATURAL GAS COMPANY

OIL WELL TEST

TO Mr. A. J. Dutenhoefer DATE **January 17, 1961**

FROM Production Engineering Dept. PLACE Farmington, N. M.

SUBJECT: **Gas-Oil Ratio test on El Paso Natural Gas Company well Huerfano Unit 101 (GA)**

TESTED BY: **K. C. McBride**

LOCATION . . . . . Sec. **19** T. **27** R. **10**

SHUT-IN PRESSURE . . . . . SICP **1130** psig SIPT **1109** psig Shut-In **8** days,

TIME AND DATE TEST STARTED . . . . . **1-11-61** **7:30 a.m.**

TIME AND DATE TEST ENDED . . . . . **1-12-61** **7:30 a.m.**

TOTAL PRODUCTION **24** hours Gas **1000** MCF

* Oil **28.8** BBLS

Water **0** BBLS

GAS-OIL RATIO: . . . . . **34722** Cubic Ft. per BBL.

PRODUCING METHOD: . . . . . **Flowing**

PRODUCING THROUGH **2"** CHOKE SETTING **24/64** INCHES

FLOWING PRESSURE **300** psig TUBING **476** psig CASING

SPM **---** LENGTH OF STROKE **---**

PRODUCING FORMATION: . . . . . **Gallup**

FIELD . . . . . **Angels Peak Gallup**

* **Frac Oil still being recovered.**

Production Engineer

cc: B. J. Adams
Ed L. Alsup
D. N. Canfield
W. C. Cheek
E. J. Coel, Jr.
A. M. Derrick
Drilling Dept.
O. W. Fowler
C. C. Kennedy
E. S. Oberly (1) Singels (2) Duals
L. M. Parrish
Proration Dept.
W. M. Rodgers
S. Smith
L. G. Pruby
D. H. Fischer
File
+ Pan American Pet.

EL PASO NATURAL GAS COMPANY

OPEN FLOW TEST DATA

dual completion

DATE December 23, 1960

Operator: El Paso Natural Gas Company		Lease: Huerfano Unit No. 101 (DK)	
Location: 1700'N, 1620'W, 19-27N-10W		County: San Juan	State: New Mexico
Formation: Dakota		Pool: Basin	
Casing: Diameter: 7	Set At: Feet: 6337	Tubing: Diameter: 2-3/8	Set At: Feet: 6159
Pay Zone: From: 6078	To: 6182	Total Depth: 6340 C/O 6291	Shut In: 12-16-60
Stimulation Method: Sand-Oil Frac.		Flow Through Casing	Flow Through Tubing: X

Choke Size, Inches: .75		Choke Constant: C: 12.365			Baker Model "D" Pkr. at 5536		
Shut-in Pressure, Casing, PSIG: (GA) 1101	+ 12 = PSIA: 1113	Days Shut-In: 7	Shut-In Pressure, Tubing PSIG: (DK) 1915	+ 12 = PSIA: 1927			
Flowing Pressure: P PSIG: 562	+ 12 = PSIA: 574		Working Pressure: P_w PSIG: (Calc)	+ 12 = PSIA: 1201			
Temperature: T 84 F	n: .75	F_t: .9777	F_{pv} (From Tables): 1.066		Gravity: 0.724	F_g: .9129	

Initial SIPT (GA) = 1121 psig
Final SIPC (GA) = 1121 psig

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

$Q = (12.365)(574)(.9777)(.9129)(1.066) = 6753$ MCF/D

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

$Aof = \left(\frac{3,713,329}{2,270,928} \right)^n \quad (1.6351)^{.75}(6753) = (1.4460)(6753)$

Aof 9765 MCF/D

TESTED BY W.D.D., R.L.N., F.M.C.

WITNESSED BY

Checked by H. L. Kendrick

Lewis D. Galloway

Lewis D. Galloway