

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

OIL CONSERVATION COMMISSION
BOX 871
SANTA FE, NEW MEXICO

DATE 12-19-61
RE: Proposed NSP _____
Proposed NSL _____
Proposed NFO _____
Proposed DC ✓

Gentlemen:

I have examined the application dated 12-7-61
for the FRNE 110778-61 11-9270-51
Operator Lease and Well No. S-T-R

and my recommendations are as follows:

Chapman

Yours very truly,

Chapman
OIL CONSERVATION COMMISSION

NEW MEXICO OIL CONSERVATION COMMISSION

SANTA FE, NEW MEXICO

7-3-58

APPLICATION FOR DUAL COMPLETION

Field Name <u>Southern Petroleum Exploration Co. & Service, Santa Fe, N.M.</u>		County <u>Santa Fe</u>	Date <u>December 9, 1961</u>
Operator <u>El Paso Natural Gas Company</u>		Lease <u>San Juan 27-2 Unit No. 25 (2nd)</u>	Well No. <u>25</u>
Location of Well	Unit <u>2</u>	Section <u>9</u>	Township <u>34N</u>
		Range <u>27N</u>	

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. 25-25; Operator, Lease, and Well No.:

El Paso Natural Gas Company San Juan 27-2 Unit No. 25 (2nd)

3. The following facts are submitted:	Upper Zone	Lower Zone
a. Name of reservoir	<u>Southern Petroleum</u>	<u>Santa Fe</u>
b. Top and Bottom of Pay Section (Perforations)	<u>25-25</u>	<u>25-25</u>
c. Type of production (Oil or Gas)	<u>Gas</u>	<u>Gas</u>
d. Method of Production (Flowing or Artificial Lift)	<u>Flowing</u>	<u>Flowing</u>

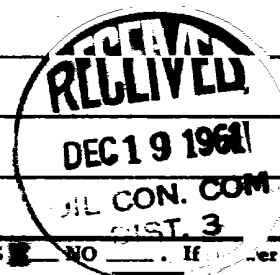
4. The following are attached. (Please mark YES or NO)

- ☒ 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.
- ☒ 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.
- ☒ 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.*
- ☒ 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, San Juan, Santa Fe, New Mexico

Southern Petroleum Exploration Company, Box 255, Silverdale, West Virginia



6. Were all operators listed in Item 5 above notified and furnished a copy of this application? YES ☒ NO ☐ If ☒ is yes, give date of such notification December 9, 1961

CERTIFICATE: I, the undersigned, state that I am the Area Petroleum Engineer 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.

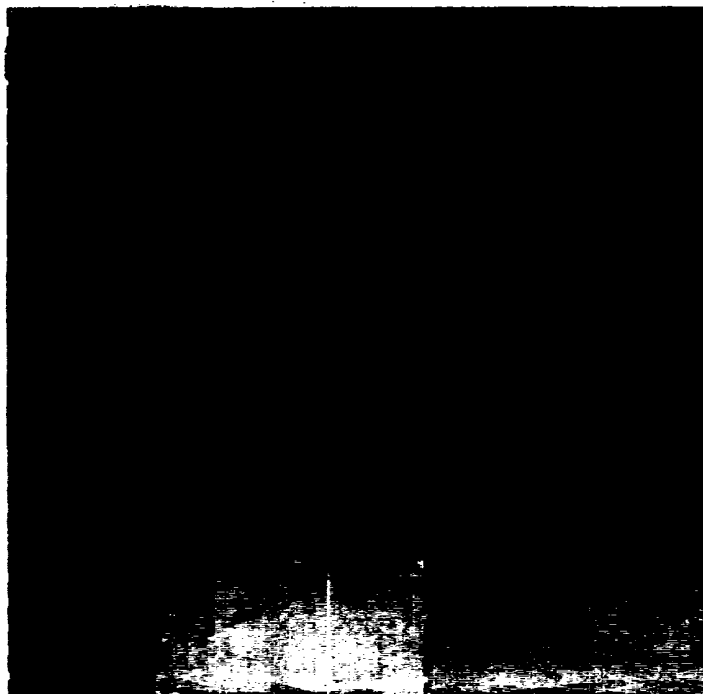
ORIGINAL SIGNED E. S. OBERLY

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 perforation unit in either or both of the producing zones, then separate application for approval of the same should be filed simultaneously with this application.

**PLAT SHOWING LOCATION OF DUALY COMPLETED
El Paso Natural Gas Co. San Juan 27-5 Unit No. 64 (FM)
and Offset Acreage**

**T-27-N
R-5-W**



ILLEGIBLE



**EL PASO NATURAL GAS COMPANY
EL PASO, TEXAS**

SCALE

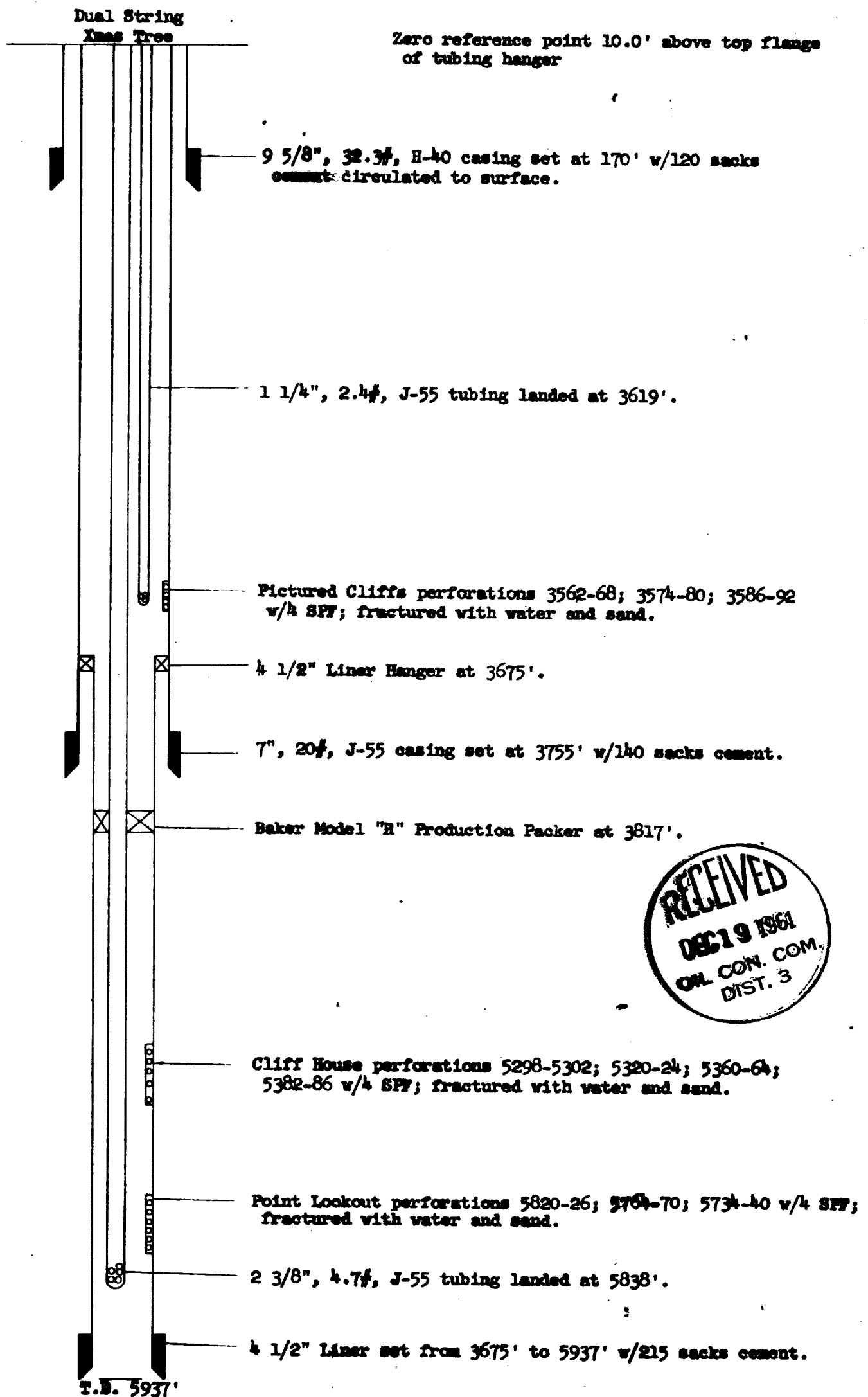
DATE

No.

DRAWN BY

CHECKED BY

SCHEMATIC DIAGRAM OF DUALY COMPLETED
El Paso Natural Gas Co. San Juan 27-5 Unit No. 64 (FM)
Section 9, T-27-N, R-5-W



EL PASO NATURAL GAS COMPANY
OPEN FLOW TEST DATA

DUAL COMPLETION

DATE November 16, 1961

Operator: El Paso Natural Gas Company		Lease: San Juan Unit 27-5 No. 64 (PC)	
Location: 890'S, 800'W, Sec. 9-27-5		County: Rio Arriba	State: New Mexico
Formation: Pictured Cliff		Pool: Tapacito	
Casing: Diameter: 7	Set At: Feet: 3745	Tubing: Diameter: 1-1/4	Set At: Feet: 3619
Pay Zone: From: 3562	To: 3592	Total Depth: 5937 C/O 5913	Shut In: 11-8-61
Stimulation Method: Sand/Water Frac.		Flow Through Casing: X	Flow Through Tubing:

Choke Size, Inches: .750	Choke Constant: C: 12.365	Baker "R" Pkr. at 3817
Shut-In Pressure, Casing, PSIG: 1025 (PC)	PSIA: 1037	Shut-In Pressure, Tubing, PSIG: 957 (PC)
Flowing Pressure, P, PSIG: 219	PSIA: 231	Working Pressure: Pw, PSIG: 244
Temperature: 62	F _r : .9981	F _{pv} (From Tables): 1.022
	F _g : .85	Gravity: .650
		F _g = .9608

Initial SIPT (MV) = 1085 psig

Final SIPT (MV) = 1088 psig

CHOKE VOLUME $Q = C \times P_r \times F_r \times F_g \times F_{pv}$

$$Q = (12.365)(231)(.9981)(.9608)(1.022)$$

2799

MCF D

$$\text{OPEN FLOW } A_{of} = \left(\frac{P_r^2}{P_c^2 - P_w^2} \right)^n$$

$$A_{of} = \left(\frac{1,075,369}{1,009,833} \right)^n \quad (1.0648)^{.85}(2799) = (1.0548)(2799)$$

A_{of}

2952

MCF D

PREPARED BY **R. F. Hendrick**

WITNESSED BY

Checked by: **W. D. Dawson**



Lewis D. Galloway
Lewis D. Galloway

EL PASO NATURAL GAS COMPANY
OPEN FLOW TEST DATA

DUAL COMPLETION

DATE November 28, 1961

Operator El Paso Natural Gas Company		Lease San Juan 27-5 No. 64 (NV)	
Location 890'S, 800'W, Sec. 9-27-5		County Rio Arriba	State New Mexico
Formation Mesa Verde		Pool Blanco	
Casing: Diameter 4-1/2	Set At: Feet 5937	Tubing: Diameter 2-3/8	Set At: Feet 5838
Pay Zone: From 5298	To 5826	Total Depth: 5937 C/O 5913	Shut In 10-27-61
Stimulation Method Sand Water Frac.		Flow Through Tubing X	

Choke Size, Inches 0.750		Choke Constant: C 12.365		Baker "R" Hkr. at 3817	
Shut-In Pressure, Casing, PSIG 1028 (PC)	• 12 = PSIA 1040	Days Shut-In 32	Shut-In Pressure, Tubing PSIG (NV) 1092	• 12 = PSIA 1104	
Flowing Pressure: P PSIG 250	• 12 = PSIA 262		Working Pressure: Pw PSIG (Calc.)	• 12 = PSIA 531	
Temperature: T 65 °F	F _t = .9952		F _{pv} (From Tables) 1.027	Gravity .670	F _g = .9463

Initial SIPT (PC) = 762 psig

Final SIPC (PC) = 1034 psig

CHOKE VOLUME = $Q \cdot C \times P_c \times F_t \times F_g \times F_{pv}$

$$Q = (12.365)(262)(.9952)(.9463)(1.027) = \underline{3133} \text{ MCF/D}$$

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

$$Aof \cdot \left(\frac{1,218,816}{936,855} \right)^n = (1.3009)^{.75} (3133) = (1.2183)(3133)$$

$$Aof = \underline{3817} \text{ MCF/D}$$

TESTED BY Jesse B. Goodwin

WITNESSED BY _____

Checked by: T. B. Grant

Lewis D. Galloway
Lewis D. Galloway

EL PASO NATURAL GAS COMPANY
OPEN FLOW TEST DATADATE **November 28, 1961**

DUAL COMPLETION

Operator El Paso Natural Gas Company		Lease San Juan 27-5 No. 64 (MV)	
Location 890'S, 800'W, Sec. 9-27-5		County Rio Arriba	State New Mexico
Formation Mesa Verde		Pool Blanco	
Casing: Diameter 4-1/2	Set At: Feet 5937	Tubing: Diameter 2-3/8	Set At: Feet 5838
Pay Zone: From 5298	To 5826	Total Depth: 5937 C/O 5913	Shut In 10-27-61
Stimulation Method Sand Water Frac.		Flow Through Casing	Flow Through Tubing X

Choke Size, Inches 0.750	Choke Constant: C 12.365	Baker "R" Fr. at 3817	
Shut-In Pressure, Casing, PSIG 1028 (PC)	12 = PSIA 1040	Days Shut-In 32	Shut-In Pressure, Tubing, PSIG (MV) 1092
Flowing Pressure: P, PSIG 250	12 = PSIA 262	Working Pressure: P _w (Calc.)	PSIG 12 = PSIA 531
Temperature: 65 °F	n = .9952	Fpv (From Tables) 1.027	Gravity .670 Fg = .9463

Initial SIPT (PC) = 762 psig

Final SIPT (PC) = 1034 psig

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

$$Q = (12.365)(262)(.9952)(.9463)(1.027) = 3133 \text{ MCF/D}$$

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

$$Aof = \left(\frac{1,218,816}{936,855} \right)^n (1.3009)^{.75} (3133) = (1.2183)(3133)$$

$$Aof = 3817 \text{ MCF/D}$$

TESTED BY Jesse B. Goodwin

WITNESSED BY _____

Checked by: T. B. Grant

Lewis D. Galloway
Lewis D. Galloway

NEW MEXICO OIL CONSERVATION COMMISSION

SANTA FE, NEW MEXICO

7-3-58

APPLICATION FOR DUAL COMPLETION

Field Name	Tanquito Pictured Cliffs Ext. & Blanco Mesa Verde		County	Rio Arriba	Date	December 7, 1961	
Operator	El Paso Natural Gas Company		Lease	San Juan 27-5 Unit	Well No.	2 (FM)	
Location Unit	M	Section	9	Township	27N	Range	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. **DC-424**; Operator, Lease, and Well No.:

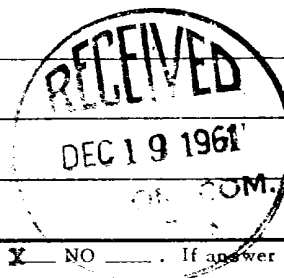
El Paso Natural Gas Company, San Juan 27-5 Unit No. 2 (FM)

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)	352-352	520-520
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.

Malco, Box 660, Roswell, New Mexico**Southern Petroleum Exploration Company, Box 192, Sistersville, West Virginia**

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 **December 7, 1961**.

CERTIFICATE: I, the undersigned, state that I am the **Area Petroleum Engineer** 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.

OSCAR L. VILLALBA

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.
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