



SINCLAIR OIL & GAS COMPANY

Hobbs, New Mexico
P. O. Box 1920
April 22, 1965

New Mexico Oil Conservation Commission
P. O. Box 2088
Santa Fe, New Mexico

Attention: Mr. A. L. Porter, Jr.:

Re: Sinclair Oil & Gas Co.
Rodgers Gas Unit No. 1,
Unit A, Sec. 12, T22S,
R37E, Lea County, New
Mexico, Tubb Gas Pool.

Gentlemen:

New Mexico Gas Supplement No. SE 416 dated 6-5-59 shows assignment of 80 acres to this gas unit as was requested by our letter to you of April 23, 1959.

However, at this time, Sinclair Oil & Gas Company hereby makes application for administrative approval under Order R-586 for a 120 acre Non-Standard Proration Unit in the Tubb Gas Pool, Lea County, New Mexico. This Unit will consist of Sinclair's Alexander Rodgers Lease which occupies the N/2 of the NE/4 of Section 12, T-22-S, R-37-E, (80 acres) and in addition, the SE/4 of the NE/4 of the same section (40 acres) is to be included. The said 120 acres non-standard Proration Unit consists of contiguous quarter-quarter sections all lying within a single section as is shown on the enclosed plat.

Sinclair's Rodgers Gas Unit No. 1, is located 660 feet from the north and east lines of the said, Section 12.

The leasehold and royalty interest owners of the unitized acreage have entered into proper agreements for operating this Unit. All offset operators as described in Tule 5 (d) of said Order have been notified of this application by copies of this letter mailed via registered mail this date. Please advise if there further information you need for your consideration of this matter.

1. Definition of a group is a set G with a binary operation $\cdot$ satisfying the following properties:

- Associativity: $(a \cdot b) \cdot c = a \cdot (b \cdot c)$
- Identity: There exists an element $e \in G$ such that $e \cdot a = a \cdot e = a$ for all $a \in G$.
- Inverses: For every $a \in G$, there exists an element $a^{-1} \in G$ such that $a \cdot a^{-1} = a^{-1} \cdot a = e$.

2. Examples of groups:

- The set of integers $\mathbb{Z}$ under addition.
- The set of non-zero real numbers $\mathbb{R}^*$ under multiplication.

3. Properties of groups:

- Cancellation Law: If $a \cdot b = a \cdot c$, then $b = c$. Similarly, if $b \cdot a = c \cdot a$, then $b = c$.
- Uniqueness of Identity and Inverses: The identity element e and the inverse element a^{-1} are unique.

4. Proofs:

5. Homomorphisms and Isomorphisms: A homomorphism is a map $\phi: G \rightarrow H$ such that $\phi(a \cdot b) = \phi(a) \cdot \phi(b)$. An isomorphism is a bijective homomorphism.

6. Subgroups: A subset H of a group G is a subgroup if H is itself a group under the same operation. The First Isomorphism Theorem states that if $\phi: G \rightarrow H$ is a homomorphism, then $\text{Im}(\phi)$ is a subgroup of H and $G/\text{Ker}(\phi) \cong \text{Im}(\phi)$.

- Lagrange's Theorem: If H is a subgroup of G , then the order of H divides the order of G .

7. Normal Subgroups: A subgroup N of G is normal if $g \cdot n \cdot g^{-1} \in N$ for all $g \in G$ and $n \in N$. The Second Isomorphism Theorem states that if N is a normal subgroup of G , then G/N is a group.

8. Direct Products: If G and H are groups, their direct product $G \times H$ is a group with operation $(a, b) \cdot (c, d) = (a \cdot c, b \cdot d)$. The Third Isomorphism Theorem states that if $\phi: G \rightarrow H$ is a homomorphism and N is a normal subgroup of G , then $\phi(N)$ is a normal subgroup of $\text{Im}(\phi)$ and $(G/N)/\phi(N) \cong \phi(G/N)$.



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I hereby certify that the statements made in this application are true and correct to the best of my knowledge.

W. F. BURNS,
Superintendent

WFB/DP/bd

Sworn and subscribed before me this 22nd. day of April, 1965.

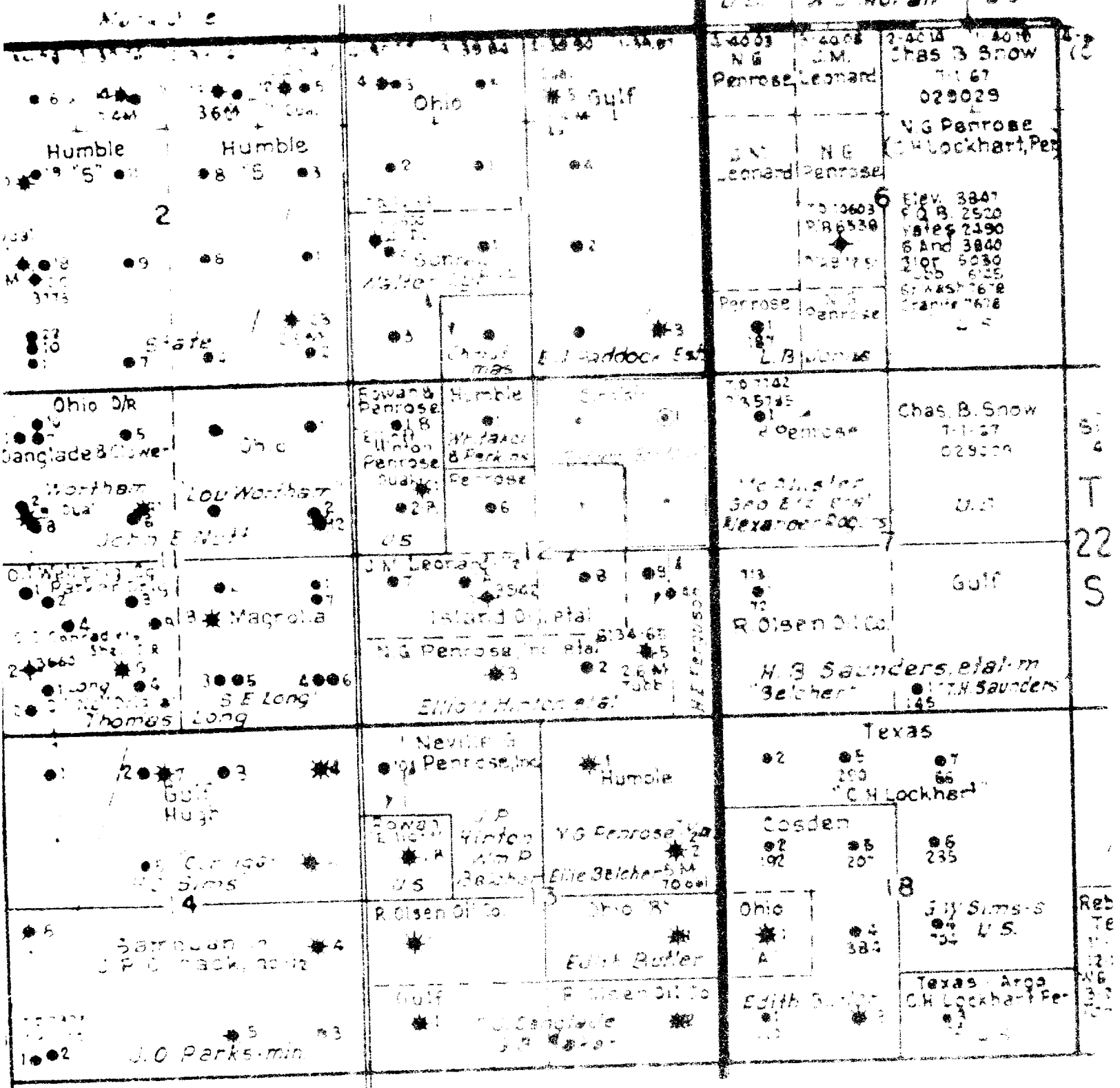
DOYLE WILLIAMS,
Notary Public in and for
Lea County, New Mexico

My Commission Expires:8-21-65

Orig: cc: OCC: Santa Fe,
2 cc: OCC: Hobbs,
cc: Gulf Oil Corp. P. O. Box 2167, Hobbs, New Mexico
cc: Humble Oil & Refining Co. P. O. Box 1600, Midland, Tex.
cc: Neville G. Penrose Inc., 1813 Fair Bldg, Ft. Worth, Tex.
cc: Sunray DX, 1101 Wilco Bldg. Midland, Texas
cc: RFS: File

R-37-E

R-38-E



PART OF
LEA CO., N.M.
Scale 1" = 2000'