

CASE 3757: Application of MOBIL
OIL CORP. FOR AN EXCEPTION TO
ORDER NO. R-3221, CHAVES COUNTY.

Case Number
3757

Application
Transcripts.

Small Exhibits

ETC.

BEFORE THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE HEARING
CALLED BY THE OIL CONSERVATION
COMMISSION OF NEW MEXICO FOR
THE PURPOSE OF CONSIDERING:

CASE No. 3757
Order No. R-3410

APPLICATION OF MOBIL OIL CORPORATION
FOR AN EXCEPTION TO ORDER NO. R-3221,
CHAVES COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on May 15, 1968,
at Santa Fe, New Mexico, before the Oil Conservation Commission
of New Mexico, hereinafter referred to as the "Commission."

NOW, on this 20th day of May, 1968, the Commission, a
quorum being present, having considered the record, and being
fully advised in the premises,

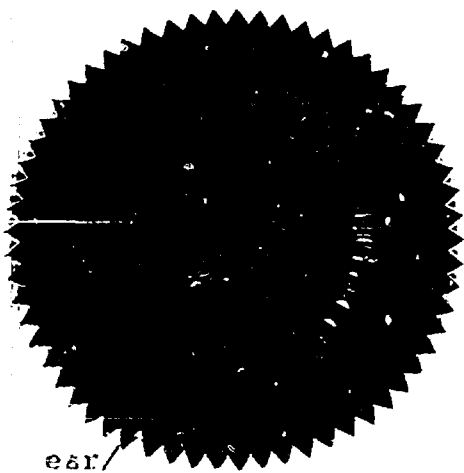
FINDS:

That the applicant's request for dismissal should be
granted.

IT IS THEREFORE ORDERED:

That Case No. 3757 is hereby dismissed.

DONE at Santa Fe, New Mexico, on the day and year hereinabove
designated.



STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION

DAVID F. CARGO, Chairman

GUYTON B. HAYS, Member

A. L. PORTER, Jr., Member & Secretary

State of New Mexico
Oil Conservation Commission



STATE GEOLOGIST
A. L. PORTER, JR.
SECRETARY - DIRECTOR

May 20, 1968

Re: Case No. 3757
Order No. R-3410
Applicant:
Mobil Oil Corporation

Enclosed herewith are two copies of the above-referenced Commission order recently entered in the subject case.

A. L. Porter, Jr.
A. L. PORTER, Jr.
Secretary-Director

Carbon copy of order also sent to:

Other _____

Mobil Oil Corporation

P.O. BOX 633
MIDLAND, TEXAS 79701

Copy file
May 6, 1968

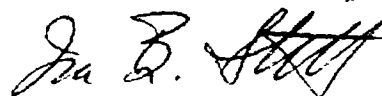
New Mexico Oil Conservation Commission
Post Office Box 2088
Santa Fe, New Mexico 87501

CASE NO. 3757 MAY 15, 1968
EXCEPTION TO ORDER NO. R-3221
(SURFACE PIT ELIMINATION)
C. L. O'BRIEN "C" LEASE
TWIN LAKES (DEVONIAN) FIELD"
CHAVES COUNTY, NEW MEXICO

Gentlemen:

Please cancel the subject hearing. We prefer to defer this action to a later date.

Yours very truly,



Ira B. Stitt
Division Operations Engineer

FLHart:mw

cc:

Mr. J. E. Sperling
P. O. Box 466
Albuquerque, New Mexico

68 MAY 8 AM 9

DOCKET: REGULAR HEARING - WEDNESDAY - MAY 15, 1968

OIL CONSERVATION COMMISSION - 9 A.M. - MORGAN HALL, STATE LAND OFFICE
BUILDING, SANTA FE, NEW MEXICO

- ALLOWABLE (1) Consideration of the oil allowable for June, 1968;
- (2) Consideration of the allowable production of gas for June, 1968, from thirteen prorated pools in Lea, Eddy, and Roosevelt Counties, New Mexico; also presentation of purchaser's nominations for said pools for the six-month period beginning July, 1968; consideration of the allowable production of gas from nine prorated pools in San Juan, Rio Arriba and Sandoval Counties, New Mexico, for June, 1968.

CASE 3757: Application of Mobil Oil Corporation for an exception to Order No. R-3221, Chaves County, New Mexico. Applicant, in the above-styled cause, seeks an exception to Commission Order No. R-3221, which order prohibits the disposal of water produced in conjunction with the production of oil on the surface of the ground in Lea, Eddy, Chaves and Roosevelt Counties, New Mexico, after January 1, 1969. Said exception would be for applicant's C. L. O'Brien "C" lease in Section 1, Township 9 South, Range 28 East, Twin Lakes-Devonian Pool, Chaves County, New Mexico. Applicant seeks authority to continue to dispose of produced water in a surface pit on said lease.

CASE 3758: Application of William A. and Edward R. Hudson for an exception to Order No. R-3221, Eddy County, New Mexico. Applicants, in the above-styled cause, seek an exception to Commission Order No. R-3221, which prohibits the disposal of water produced in conjunction with production of oil on the surface of the ground in Lea, Eddy, Chaves, and Roosevelt Counties, New Mexico, after January 1, 1969. Said exception would be for applicants' Federal, Gulf Federal, and Eddy State "BD" leases in Sections 28, 32, and 33, Township 20 South, Range 30 East, Dos Hermanos Yates-Seven Rivers Pool, Eddy County, New Mexico. Applicants seek authority to continue to dispose of produced water in surface pits in said leases.

CASE 3759: Southeastern New Mexico nomenclature case calling for an order for the creation, abolishment, contraction, and extension of certain pools in Chaves, Lea, Eddy and Roosevelt Counties, New Mexico;

(a) Create a new pool in Lea County, New Mexico, classified as an oil pool for Strawn production and designated as the South Crossroads-Strawn Pool. The discovery well is J. M. Huber Corporation, Santa Fe "22" No. 1, located in Unit B of Section 22, Township 10 South, Range 36 East, NMPM. Said pool should comprise the following-described area:

TOWNSHIP 10 SOUTH, RANGE 36 EAST, NMPM
SECTION 22: NE/4

(b) Create a new pool in Eddy County, New Mexico, classified as an oil pool for Strawn production and designated as the Mesquite-Strawn Pool. The discovery well is Pennzoil Company, Federal A No. 1, located in Unit D of Section 3, Township 18 South, Range 31 East, NMPM. Said pool should comprise the following-described area:

TOWNSHIP 18 SOUTH, RANGE 31 EAST, NMPM
SECTION 3: NW/4 NW/4

(c) Create a new pool in Lea County, New Mexico, classified as a gas pool for Wolfcamp production and designated as the South Osudo-Wolfcamp Gas Pool. The discovery well is Amerada Petroleum Corporation, State WE "K" No. 1, located in Unit F of Section 15, Township 21 South, Range 35 East, NMPM. Said pool should comprise the following-described area:

TOWNSHIP 21 SOUTH, RANGE 35 EAST, NMPM
SECTION 15: NW/4

(d) Abolish the Lane-Pennsylvanian Pool in Lea County, New Mexico, described as:

TOWNSHIP 9 SOUTH, RANGE 33 EAST, NMPM
SECTION 23: NE/4
SECTION 24: W/2
SECTION 25: W/2 and SE/4
SECTION 35: E/2
SECTION 36: All

TOWNSHIP 9 SOUTH, RANGE 34 EAST, NMPM
SECTION 30: S/2
SECTION 31: W/2

TOWNSHIP 10 SOUTH, RANGE 33 EAST, NMPM

SECTION 1: All

SECTION 2: E/2 and SW/4

SECTION 12: N/2

TOWNSHIP 10 SOUTH, RANGE 34 EAST, NMPM

SECTION 6: W/2 and SE/4

(e) Contract the Inbe Permo-Pennsylvanian Pool in Lea County, New Mexico, by deletion of the following-described area:

TOWNSHIP 10 SOUTH, RANGE 33 EAST, NMPM

SECTION 3: SE/4

SECTION 10: E/2

SECTION 11: All

(f) Extend the Vada-Pennsylvanian Pool in Lea County, New Mexico, to include therein:

TOWNSHIP 9 SOUTH, RANGE 33 EAST, NMPM

SECTION 36: SW/4

TOWNSHIP 9 SOUTH, RANGE 34 EAST, NMPM

SECTION 9: SW/4

SECTION 15: NE/4

SECTION 29: NW/4 and S/2

SECTION 30: All

SECTION 31: N/2 and SE/4

TOWNSHIP 10 SOUTH, RANGE 33 EAST, NMPM

SECTION 1: NW/4 and S/2

SECTION 2: All

SECTION 3: SE/4

SECTION 10: All

SECTION 11: All

TOWNSHIP 10 SOUTH, RANGE 34 EAST, NMPM

SECTION 5: NW/4

SECTION 6: All

(g) Extend the Bagley-Pennsylvanian Pool in Lea County, New Mexico, to include therein:

TOWNSHIP 11 SOUTH, RANGE 33 EAST, NMPM

SECTION 36: SE/4

(h) Extend the North Bagley-Lower Pennsylvanian Pool in Lea County, New Mexico, to include therein:

TOWNSHIP 11 SOUTH, RANGE 33 EAST, NMPM
SECTION 17: NW/4
SECTION 18: NE/4
SECTION 20: NE/4

(i) Extend the North Bagley-Upper Pennsylvanian Pool in Lea County, New Mexico, to include therein:

TOWNSHIP 11 SOUTH, RANGE 33 EAST, NMPM
SECTION 16: N/2
SECTION 17: N/2
SECTION 28: NW/4
SECTION 29: N/2

(j) Extend the Buffalo Valley-Pennsylvanian Gas Pool in Chaves County, New Mexico, to include therein:

TOWNSHIP 14 SOUTH, RANGE 27 EAST, NMPM
SECTION 35: N/2

TOWNSHIP 15 SOUTH, RANGE 27 EAST, NMPM
SECTION 1: W/2
SECTION 2: S/2

(k) Extend the Cato-San Andres Pool in Chaves County, New Mexico, to include therein:

TOWNSHIP 9 SOUTH, RANGE 30 EAST, NMPM
SECTION 5: E/2

(l) Extend the Chaveroo-San Andres Pool in Roosevelt County, New Mexico, to include therein:

TOWNSHIP 7 SOUTH, RANGE 32 EAST, NMPM
SECTION 23: SE/4

(m) Extend the East EK-Queen Pool in Lea County, New Mexico, to include therein:

TOWNSHIP 18 SOUTH, RANGE 34 EAST, NMPM
SECTION 22: NE/4

(n) Extend the Inbe Permo-Pennsylvanian Pool in Lea County, New Mexico, to include therein:

TOWNSHIP 10 SOUTH, RANGE 33 EAST, NMPM
SECTION 13: NW/4
SECTION 24: NE/4

(o) Extend the Littman-San Andres Pool in Lea County, New Mexico, to include therein:

TOWNSHIP 21 SOUTH, RANGE 38 EAST, NMPM
SECTION 21: W/2

(p) Extend the East Mason-Delaware Pool in Lea County, New Mexico, to include therein:

TOWNSHIP 26 SOUTH, RANGE 32 EAST, NMPM
SECTION 20: SW/4

(q) Extend the Scharb-Bone Springs Pool in Lea County, New Mexico, to include therein:

TOWNSHIP 19 SOUTH, RANGE 34 EAST, NMPM
SECTION 1: S/2
SECTION 11: SE/4
SECTION 12: All

(r) Extend the Simanola-Pennsylvanian Pool in Lea County, New Mexico, to include therein:

TOWNSHIP 10 SOUTH, RANGE 34 EAST, NMPM
SECTION 17: NE/4

(s) Extend the North Vacuum-Abo Pool in Lea County, New Mexico, to include therein:

TOWNSHIP 17 SOUTH, RANGE 34 EAST, NMPM
SECTION 13: SE/4

(t) Extend the Vacuum-Middle Pennsylvanian Pool in Lea County, New Mexico, to include therein:

TOWNSHIP 17 SOUTH, RANGE 34 EAST, NMPM
SECTION 13: SE/4

(u) Extend the Vacuum-Upper Pennsylvanian Pool in Lea County, New Mexico, to include therein:

TOWNSHIP 17 SOUTH, RANGE 34 EAST, NMPM
SECTION 14: SE/4

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Regular Hearing - May 15, 1968

Docket No. 14-68

(v) Extend the Warren-Drinkard Pool in Lea County,
New Mexico, to include therein:

TOWNSHIP 20 SOUTH, RANGE 38 EAST, NMPM
SECTION 35: NE/4

Mobil Oil Corporation

P.O. BOX 633
MIDLAND, TEXAS 79701

April 10, 1968

Case 3757

*Act for Hearing
May 15 Reg.*

68 APR 12 AM 8 39

New Mexico Oil Conservation - 3
Commission
P. O. Box 2088
Santa Fe, New Mexico 87501

REQUEST FOR EXCEPTION
TO ORDER NO. R-3221
(SURFACE PIT ELIMINATION)
C. L. O'BRIEN "C" LEASE
TWIN LAKES (DEVONIAN) FIELD
CHAVES COUNTY, NEW MEXICO

Gentlemen:

Mobil Oil Corporation respectfully submits this request for an exception to Order No. R-3221 (surface pit elimination) upon the grounds of hardship and the absence of fresh water bearing aquifers in the vicinity of the below described lands. Mobil is the operator of the C. L. O'Brien "C" Well No. 1 located in the SW/SW of Sec. 1, T9S, R28E, Chaves County, New Mexico. Said well is the only well currently producing from the Devonian formation in the Twin Lakes Field. Average daily production during the month of January, 1968, was 31 barrels of oil and 39 barrels of water. The produced water is stored in a surface pit and disposed of by evaporation. The pit is located in the NW/NW of Sec. 1, T9S, R28E.

A recent investigation was conducted seeking a suitable underground disposal zone for the produced water. Based upon analysis of the log of Mobil's C. L. O'Brien "C" Well No. 2 (originally drilled to the Devonian but now a temporarily abandoned San Andres well), the basal Devonian appeared the most likely disposal zone. The quantity of produced water disposed of in the basal Devonian from the Knowles and East Cap Rock Fields clearly verifies the log analysis. However, the expenses of converting and equipping the C. L. O'Brien "C" Well No. 2 to dispose of produced water in the basal Devonian formation is conservatively estimated at \$26,000. The reserves in the Twin Lakes (Devonian) Field make this expense prohibitive, since it is estimated that this lease will be wholly depleted in three or four years.

We also sought other means of disposal. We found no other disposal well is situated in this area. The expenses involved in trucking the produced water from this remote location would be greater than the costs of

DOCKET M. H. D.

Date 5/2/68

conversion and are thus also prohibited by reason of the low reserves. In order to protectively line the disposal pit and adequately maintain such lining, the cost figures would exceed \$40,000. It is also not economically feasible or mechanically desirable to inject this produced water into the basal Devonian formation through the well bore.

It is submitted that the reserves recoverable from said lease will be lost to the economy unless some satisfactory means of disposing of the producing water is discovered.

Our investigation of the geology of the Twin Lakes Field area convinces us that surface pit evaporation disposal constitutes no pollution hazard to fresh water sands, since they are either non-existent in this area, or under impermeable formations. The following geological observations are offered in support of this view:

1. Surface rocks in the vicinity of the Twin Lakes Field are Triassic redbeds and thin quaternary alluvium. Water in contact with Triassic rocks becomes saline because of the salts solution from the rocks. The water, if any, in the alluvium is probably saline because of contact with the Triassic rocks. At present, playa lakes lie on the surface in contact with surface rocks and the high evaporation rates result in saline waters. There are no tributary streams connected to or from the lakes which further concentrates the saline content of the water. Our findings indicate that all of the surface waters in the area are saline and have been for a considerable time. Thus, nature has contributed a polluted surface system.
2. The seepage of oil well brines from pits thru several hundred feet of impermeable Triassic shales into the Santa Rosa water sand is so improbable as to constitute no real pollution hazard.
3. The Santa Rosa re-charge area is from a higher elevation to the west. Thus, any pollution hazard to the re-charge system is not present because the subject pits are so situated, both geographically and topographically, as to remove the possibility.
4. Any pollution hazard to the Ogallala aquifer lying to the east is impossible. The Ogallala is topographically higher and does not outcrop in the Twin Lakes Field area.
5. The volume of produced water requiring disposal is negligible in terms of time and accumulation.

The following items are attached for your information and evaluation:

- (1) Three copies of map showing ownership and wells in the Twin Lakes Field and surrounding area.

Mobil

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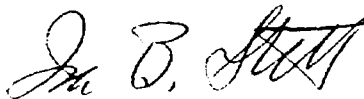
- (2) Three geological cross section and topographic maps of the vicinity of the Twin Lakes Field.
- (3) Three copies of letter waiving objection from Land Owner.
- (4) Three copies of letter of concurrence from Joint Interest Owner.

A fence enclosing the pit will be maintained and only water produced from Mobil's lease would be disposed of in this pit. C. L. O'Brien "C" Well No. 1 is the only producing well currently operated by Mobil in this area.

Mobil Oil Corporation respectfully submits that surface pit evaporation disposal of produced water from the C. L. O'Brien "C" Well No. 1 is the only economically feasible means of disposal and such method constitutes no pollution hazard in the Twin Lakes Field area. Mobil respectfully requests that this exception to Order No. R-3221 be granted administratively.

If additional evidence or information is required, please so advise us.

Yours very truly,



Ira B. Stitt
Division Operations Engineer

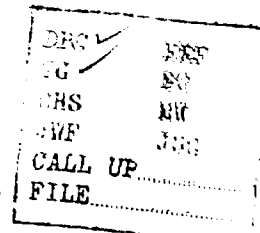
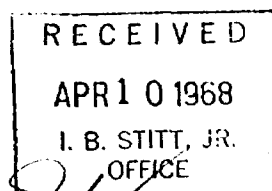
ADB/vp/nab
Attachments

CITIES SERVICE OIL COMPANY



April 3, 1968 *Case 3757*

New Mexico Oil Conservation Committee
P. O. Box 2088
Santa Fe, New Mexico 87501



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

Re: Exception to Order R-3221
O'Brien "C" Twin Lake Devonian,
Chaves County, New Mexico

Gentlemen:

Cities Service Oil Company is a joint owner of the Mobil Oil Corporation C. L. O'Brien "C" Lease Twin Lake Devonian Field, Chaves County, New Mexico.

Cities concurs with Mobil's application for exception to Order R-3221 (elimination of surface pits) and respectively requests continuance of disposing produced water into surface pits after January 1, 1969 on the subject lease. This area is outside of any designated fresh water basins and our investigation indicates there are no fresh water bearing aquifers which could be contaminated from surface disposal of oil field brines.

Unless an exception to the no pit order is issued, this will cause premature abandonment of the lease. This, in our opinion, is an economic waste and also deprives the State of New Mexico from future income derived from taxes.

Your favorable consideration of this matter will be appreciated.

Yours very truly,

E. F. Motter
Region Engineer
Western Region
Production Division

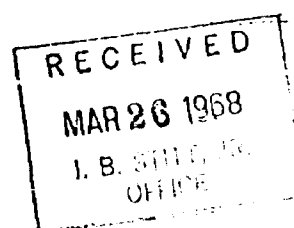
cc: Mobil Oil Corporation
P. O. Box 633
Midland, Texas 79701

O'BRIEN COMPANY

P. O. BOX 448
AMARILLO, TEXAS 79105

March 25, 1968

W. B. O'BRIEN
J. G. O'BRIEN
W. H. O'BRIEN



Case 3757

Mr. Ira B. Stitt
Division Operations Engineer
Mobil Oil Corporation
P. O. Box 633
Midland, Texas 79701

Dear Sir:

Enclosed is signed Waiver in connection with Salt Water Disposal
on the C. L. O'Brien "C" Lease in Chaves County, New Mexico.

Yours very truly,

John G. O'Brien
John G. O'Brien

JGO'B:mb
Encl/2

W A I V E R

New Mexico Oil Conservation
Commission
P. O. Box 2088
Santa Fe, New Mexico 87501

SALT WATER DISPOSAL
C. L. O'BRIEN "C" LEASE
TWIN LAKES (DEVONIAN) FIELD
CHAVES COUNTY, NEW MEXICO

Gentlemen:

The undersigned surface and royalty owners, in the lands covered by the subject lease, have examined a copy of Mobil Oil Corporation's request for an exception to Order No. R-3221 (surface pit elimination) and approve same. Please be advised that the undersigned surface and royalty owners support the request by Mobil Oil Corporation for said exception.

Yours very truly,

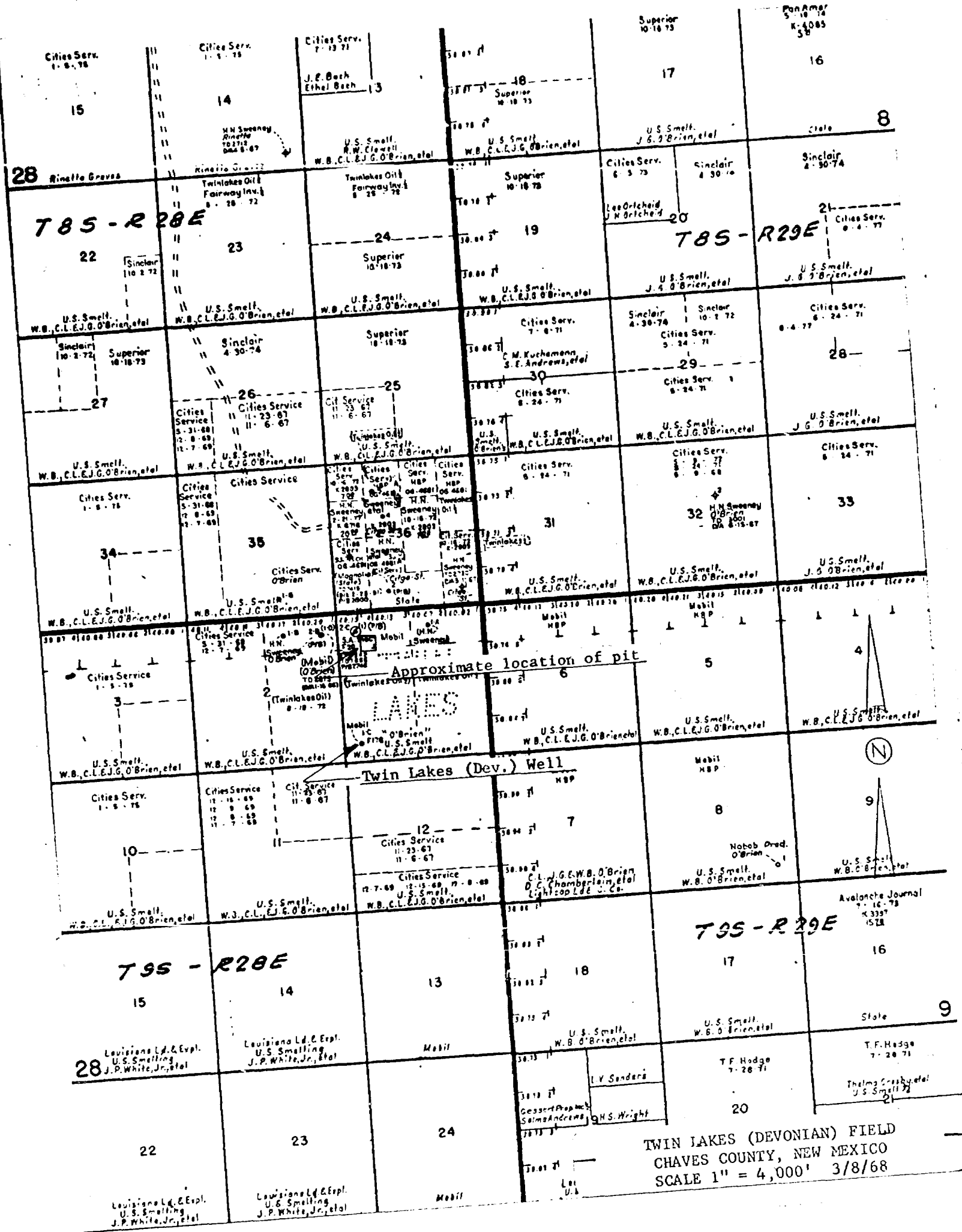
Date 3-25-68

JOHN G. O'BRIEN

By John G. O'Brien

W. B. O'BRIEN

By W. B. O'Brien



dearnley-meier reporting service, inc.

SPECIALIZING IN: DEPOSITIONS, HEARINGS, STATEMENTS, EXPERT TESTIMONY, DAILY COPY, CONVENTIONS

1120 SIMAS BLDG. • P. O. BOX 1092 • PHONE 243-4491 • ALBUQUERQUE, NEW MEXICO

BEFORE THE
OIL CONSERVATION COMMISSION
Santa Fe, New Mexico

May 15, 1968

REGULAR HEARING

IN THE MATTER OF:

Application of Mobil Oil Corporation
for an exception to Order No. R-3221,
Chaves County, New Mexico.

Case No. 3757

BEFORE: Honorable David Cargo
Mr. A. L. Porter
Mr. Guyton B. Hays

TRANSCRIPT OF HEARING

MR. PORTER: Next we will take up Case 3757.

MR. HATCH: Application of Mobil Oil Corporation
for an exception to Order No. R-3221, Chaves County, New
Mexico.

If the Commission please, we have received a
communication from Mobil Oil Company dated May 6, 1968,
requesting that the case be dismissed.

MR. PORTER: If no objections, the case will be
dismissed.

STATE OF NEW MEXICO)
) ss
COUNTY OF BERNALILLO)

I, ADA DEARNLEY, Notary Public in and for the County of Bernalillo, State of New Mexico, do hereby certify that the foregoing and attached Transcript of Hearing before the New Mexico Oil Conservation Commission was reported by me; and that the same is a true and correct record of the said proceedings, to the best of my knowledge, skill and ability.

Witness my Hand and Seal this 27th day of May, 1968.



NOTARY PUBLIC

My Commission Expires:

June 19, 1971.