

CASE 3703: Application of TEXACO  
INC. for salt water disposal,  
Lea County, New Mexico.

Case No.

3703

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Application, Transcript,  
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. 3703  
Order No. R-3362

APPLICATION OF TEXACO INC. FOR  
SALT WATER DISPOSAL, LEA COUNTY,  
NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on December 20, 1967, at Santa Fe, New Mexico, before Examiner Daniel S. Nutter.

NOW, on this 2nd day of January, 1968, the Commission, a quorum being present, having considered the testimony, the record, and the recommendations of the Examiner, and being fully advised in the premises,

FINDS:

(1) That due public notice having been given as required by law, the Commission has jurisdiction of this cause and the subject matter thereof.

(2) That the applicant, Texaco Inc., is the owner and operator of the New Mexico "CW" State Well No. 2, located in Unit L of Section 18, Township 17 South, Range 37 East, NMPM, Lea County, New Mexico.

(3) That the applicant proposes to utilize said well to dispose of produced salt water into the Abo formation, with injection into the perforated interval from approximately 9013 feet to 9046 feet.

(4) That the injection should be accomplished through 2 7/8-inch internally plastic-coated tubing installed in a packer set at approximately 9000 feet; that the casing-tubing annulus should be filled with an inert fluid; and that a pressure gauge should be

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CASE No. 3703  
Order No. R-3362

attached to the annulus or the annulus left open at the surface in order to determine leakage in the tubing or packer.

(5) That approval of the subject application will prevent the drilling of unnecessary wells and otherwise prevent waste and protect correlative rights.

IT IS THEREFORE ORDERED:

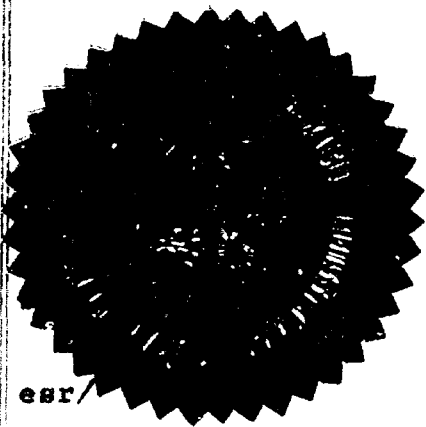
(1) That the applicant, Texaco Inc., is hereby authorized to utilize its New Mexico "CW" State Well No. 2, located in Unit L of Section 18, Township 17 South, Range 37 East, NMPM, Midway-Abo Pool, Lea County, New Mexico, to dispose of produced salt water into the Abo formation, injection to be accomplished through 2 7/8-inch tubing installed in a packer set at approximately 9000 feet, with injection into the perforated interval from approximately 9013 feet to 9046 feet;

PROVIDED HOWEVER, that the tubing shall be internally plastic-coated; that the casing-tubing annulus shall be filled with an inert fluid; and that a pressure gauge shall be attached to the annulus or the annulus left open at the surface in order to determine leakage in the tubing or packer.

(2) That the applicant shall submit monthly reports of its disposal operations in accordance with Rules 704 and 1120 of the Commission Rules and Regulations.

(3) That jurisdiction of this cause is retained for the entry of such further orders as the Commission may deem necessary.

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



STATE OF NEW MEXICO  
OIL CONSERVATION COMMISSION

*David E. Cargo*  
DAVID E. CARGO, Chairman

*Glyton B. Hays*  
GLYTON B. HAYS, Member

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

esr/

GOVERNOR  
DAVID F. CARGO  
CHAIRMAN

State of New Mexico  
**Oil Conservation Commission**



LAND COMMISSIONER  
GUYTON B. HAYS  
MEMBER

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

P. O. BOX 2088  
SANTA FE

January 2, 1968


Mr. Booker Kelly  
White, Gilbert, Koch & Kelly  
Attorneys at Law  
Post Office Box 787  
Santa Fe, New Mexico

Re: Case No. 3703  
Order No. R-3362  
Applicant:  
Texaco Inc.

Dear Sir:

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

Very truly yours,

  
A. L. PORTER, Jr.  
Secretary-Director

ALP/ir

Carbon copy of order also sent to:

Hobbs OCC x

Artesia OCC       

Aztec OCC       

Other State Engineer Office

TEXACO  
INC.

PETROLEUM PRODUCTS



DOMESTIC PRODUCING DEPARTMENT  
MIDLAND DIVISION

P. O. BOX 3109  
MIDLAND, TEXAS

November 7, 1967

*Case 3703*  
**SALT WATER DISPOSAL  
FLUID INJECTION APPLICATION**

Oil Conservation Commission ✓  
Box 2088  
Santa Fe, New Mexico

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

Gentlemen:

Texaco Inc. respectfully requests that an Examiner Hearing be scheduled in Santa Fe, New Mexico to consider the application of Texaco Inc. for authority to utilize its New Mexico "CW" State NCT-1 Well No. 2 located in Unit L, Section 18, T-17-S, R-37-E, Midway Abo Pool, Lea County, New Mexico to dispose of produced salt water. It is planned to dispose of produced salt water from the Midway Abo producing wells by injection into the perforated interval from 9,013 feet to 9,046 feet in the proposed injection well at an initial rate of approximately 100 barrels per day.

In accordance with the provisions of Oil Conservation Commission Rule 701 B, we submit with this request for a hearing a plat showing the location of the proposed salt water disposal well, a log of the well and a diagrammatic sketch of the well. In further compliance of this rule you are advised that a copy of this letter with attachments is being mailed to the State Engineer. Also attached is a list of offset operators who are receiving a copy of this letter.

Yours very truly,

*C. L. Whigham*  
C. L. Whigham  
Division Proration Engineer

CLW-MM  
Attach.

cc: State Engineer  
Offset Operators

*Case 3703*

OFFSET OPERATORS

TEXACO Inc  
NEW MEXICO "CW" STATE NCT-1 LEASE  
MIDWAY ABO POOL  
LEA COUNTY, NEW MEXICO

Aztec Oil and Gas Company  
P. O. Box 847  
Hobbs, New Mexico 88240

Sinclair Oil & Gas Company  
P. O. Box 1470  
Midland, Texas 79701

Gulf Oil Corporation  
P. O. Box 1938  
Roswell, New Mexico 88201

Sunray DX Oil Company  
P. O. Box 1416  
Roswell, New Mexico 88201

D. L. Hannifin  
200 West First  
Roswell, New Mexico

- CASE 3702: Application of Coastal States Gas Producing Company for an exception to Order No. R-3221, Lea County, New Mexico. Applicant, in the above-styled cause, on its own behalf and as operator of the Flying "M" Unit Area, seeks an exception to the provision of Paragraph (6) of the Commission Order No. R-3221 which requires that certain unlined pits used for the disposal of produced water be filled, leveled, and compacted. Applicant proposes that said pits be left open in the Flying "M" San Andres Pool, Lea County, New Mexico, to permit their use for temporary emergency storage of produced water in connection with individual tank batteries connected to the Flying "M" San Andres Pressure Maintenance Project operated by Coastal States Gas Producing Company.
- CASE 3703: Application of Texaco Inc. for salt water disposal, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the Abo formation in the perforated interval from 9013 to 9046 feet in its New Mexico "CW" State Well No. 2 located in Unit L of Section 18, Township 17 South, Range 37 East, Midway-Abo Pool, Lea County, New Mexico.
- CASE 3704: Application of New Mexico Salt Water Disposal Company, Inc., for salt water disposal, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the Bough "D" zone of the Pennsylvanian formation in the perforated interval from 9844 to 9875 feet in its Ainsworth Well No. 1 located in Unit H of Section 19, Township 9 South, Range 34 East, Vada-Pennsylvanian Pool, Lea County, New Mexico.
- CASE 3705: Application of Midwest Oil Corporation for salt water disposal, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the Bough zone of the Pennsylvanian formation in the perforated interval from 9784 to 9810 feet in its Ainsworth State Well No. 1, formerly the Sunray DX State I Well No. 1, located in Unit N of Section 36, Township 9 South, Range 33 East, Lane-Pennsylvanian Pool, Lea County, New Mexico.
- CASE 3706: Application of Major, Giebel & Forster for an amendment to Order No. R-3307, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the amendment of Order No. R-3307 to designate Major, Giebel & Forster as operators of the NW/4 SW/4 of Section 6, Township 13 South, Range 38 East, West Bronco-Devonian Pool, Lea County, New Mexico, rather than Vasicek and Fullinwider dba V. F. Petroleum, who were originally designated as operators of said compulsorily pooled unit.

DOCKET: EXAMINER HEARING - WEDNESDAY - DECEMBER 20, 1967

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

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The following cases will be heard before Daniel S. Nutter, Examiner, or Elvis A. Utz, Alternate Examiner:

CASE 3695 continued from the November 29, 1967, Examiner Hearing

Application of Tenneco Oil Company for Special Pool Rules, McKinley County, New Mexico. Applicant, in the above-styled cause, seeks the promulgation of special pool rules for the South Hospah Upper Sand Oil Pool and the South Hospah Lower Sand Oil Pool, McKinley County, New Mexico, to provide that wells drilled in said pools could be located anywhere on the 40-acre unit except that no well could be located closer than 330 feet to the outer boundary of the lease nor closer than 200 feet to another well producing from the same pool. Applicant further proposes that any existing well not located in accordance with the above requirements be granted an exception to said requirements.

CASE 3698: Application of H & S Oil Company for a unit agreement, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks the approval of the West Artesia Grayburg Unit Area comprising 640 acres, more or less, of state and fee lands in Sections 7, 8, and 17, Township 18 South, Range 28 East, Artesia Pool, Eddy County, New Mexico.

CASE 3699: Application of H & S Oil Company for a waterflood project, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a waterflood project in its West Artesia Grayburg Unit by the injection of water into the Grayburg formation through 8 wells located in Sections 7, 8, and 17, Township 18 South, Range 28 East, Artesia Pool, Eddy County, New Mexico.

CASE 3700: Application of Lone Star Producing Company for salt water disposal, Roosevelt County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the San Andres formation through the perforated interval from 4910 to 5015 feet in its Federal New Mexico "D" Well No. 1 located in Unit A of Section 29, Township 8 South, Range 36 East, South Prairie Field, Roosevelt County, New Mexico.

CASE 3701: Application of Coastal States Gas Producing Company for special pool rules, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the promulgation of special pool rules for the Baum Wolfcamp Pool in Township 14 South, Range 33 East, Lea County, New Mexico, including a provision for 160-acre spacing and proration units.

TEXACO  
INC.

PETROLEUM PRODUCTS

DOMESTIC PRODUCING DEPARTMENT  
MIDLAND DIVISION



P. O. BOX 3109  
MIDLAND, TEXAS 79704

November 7, 1967

SALT WATER DISPOSAL  
FLUID INJECTION APPLICATION

Oil Conservation Commission  
Box 2088  
Santa Fe, New Mexico

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

Gentlemen:

Texaco Inc. respectfully requests that an Examiner Hearing be scheduled in Santa Fe, New Mexico to consider the application of Texaco Inc. for authority to utilize its New Mexico "CW" State NCT-1 Well No. 2 located in Unit L, Section 18, T-17-S, R-37-E, Midway Abo Pool, Lea County, New Mexico to dispose of produced salt water. It is planned to dispose of produced salt water from the Midway Abo producing wells by injection into the perforated interval from 9,013 feet to 9,046 feet in the proposed injection well at an initial rate of approximately 100 barrels per day.

In accordance with the provisions of Oil Conservation Commission Rule 701 B, we submit with this request for a hearing a plat showing the location of the proposed salt water disposal well, a log of the well and a diagrammatic sketch of the well. In further compliance of this rule you are advised that a copy of this letter with attachments is being mailed to the State Engineer. Also attached is a list of offset operators who are receiving a copy of this letter.

Yours very truly,

C. L. Whigham  
Division Proration Engineer

CLW-MM  
Attach.

cc: State Engineer  
Offset Operators

DOCKET MAILED

Date 12-7-67

November 13, 1967

Texaco, Inc.  
P. O. Box 3109  
Midland, Texas

Attn. Mr. C. L. Whigham  
Division Proration Engineer

Gentlemen

Receipt of a copy of your application to the Oil Conservation Commission which seeks authority to utilize your New Mexico "CW" State NCT-1 Well #2, located in Unit L, Sec. 18, T. 17 S., R. 37 E., for salt water disposal is gratefully acknowledged.

FEI/ma  
cc-Oil Conservation Comm.

Yours truly,

S. E. Reynolds  
State Engineer

By:

Frank E. Irby  
Chief  
Water Rights Div.

dearnley-meier reporting service, inc.

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

1120 SIMMS BLDG. • P. O. BOX 1092 • PHONE 243-6691 • ALBUQUERQUE, NEW MEXICO



BEFORE THE  
NEW MEXICO OIL CONSERVATION COMMISSION  
Santa Fe, New Mexico  
December 20, 1967  
EXAMINER HEARING

-----  
IN THE MATTER OF: )

Application of Texaco Inc. for )  
salt water disposal, Lea County, )  
New Mexico. )

Case No. 3703

-----  
BEFORE: Daniel S. Nutter, Examiner

TRANSCRIPT OF HEARING

MR. NUTTER: We'll call Case No. 3703.

MR. HATCH: Case No. 3703, Application of Texaco Inc., for salt water disposal, Lea County, New Mexico.

MR. KELLY: Booker Kelly of White, Gilbert, Koch and Kelly on behalf of the Applicant. We have one witness and ask that he be sworn.

(Witness sworn.)

(Whereupon, Applicant's Exhibits numbered 1, 2, 3 and 4 were marked for identification.)

MR. NUTTER: Please proceed.

DALE McCARTER

called as a witness, having been first duly sworn, was examined and testified as follows:

DIRECT EXAMINATION

BY MR. KELLY:

Q Would you state your name, position and employer, please.

A Dale McCarter with Texaco, Incorporated, Hobbs, New Mexico, as a District Proration Engineer.

Q And, you have previously testified before this Commission?

A Yes, sir, I have.

Q Referring to what has been marked Exhibit Number 1, would you state what Texaco seeks by this application?

A Texaco seeks approval to utilize its New Mexico "CW" State "NCT" 1 Well No. 2 located in Unit L, Section 18, Township 17 South, Range 37 East, located in the Midway-Abo Pool to dispose or produce salt water into the Abo Formation with injection into the perforated interval, 9013 feet to 9046 feet. The well in Exhibit 1 being indicated by the red arrow.

Q All right. Now, this well, what is its history and its present status?

A The well was completed in July of 1966 as a producer in the Midway-Abo Pool. It's potential for nineteen oil, a hundred and eleven water. The GOR are too small to measure on the pump. Its production rapidly declined and it was shut-in in February of 1967 and had a possible salt water disposal well. It is currently shut-in.

Q Now from what wells will you be producing the water that will be injected?

A The only well that produces a significant amount of water at the current time is the New Mexico "CW" State "NCT" 1 Well, No. 1, located in Unit K of the same section. It is the direct east offset to the proposed salt water disposal well.

Q How much water is that well producing?

A It is currently producing approximately one hundred barrels of water per day.

Q Do you expect this would increase?

A No, sir, I don't. The well has been placed on Kobe pump and it is producing, approximately, its maximum capacity at the current time.

Q As I understand it, this is Abo water and you are going to put it back --

A Into Abo Formation, yes, sir.

Q Now, what pressures do you anticipate you'll have to inject into it?

A Well, we initially expect pressures to be in the range of five hundred psi injection, approximately a hundred barrels of water per day.

Q Do you anticipate the Abo zone will take this water?

A Yes, sir. The pressures will probably increase. We've designed our system to handle two thousand pounds of pressure.

Q Now, going on to Exhibit Number 2, which is your sketch of the proposed injection well, would you explain that to the Examiner.

A This is a sketch of the well showing your casing strings, your tubing strings, Packer and perforated interval shows eleven and three-quarter inch O. D. casing set at three hundred fifty feet, cemented with three hundred sacks.

Cement circulated to surface. It shows eight and five-eighths inch O. D. Intermediate string set at thirty-two hundred feet. Cemented with fifteen hundred sacks of cement. Cement did not circulate. It shows the long string of four and a half inch O. D. casing set at nine thousand and eighty-five feet. Cemented with thirteen hundred sacks. Top of cement is unknown. The tubing string will be two and seven-eighth inches O. D. tubing, plastic coated, internally, to be set at approximately nine thousand feet on a tension-type packer with the tubing casing annulus to be filled with an inhibited -- frozen inhibited fluid. Shows the perforations of the Abo formation is nine thousand thirteen feet to nine thousand forty-six feet.

Q What is the characteristics of the water you will be producing or injecting?

A It's a high salinity water with chloride to approximately a hundred and ninety-five thousand parts, parts per million.

Q Do you think that the proposed system will prevent any corrosion problems?

A Above any normal corrosion problems, yes.

Q Do you think the proposed system will prevent leakage of this water to any other zones?

A Yes, sir, I do.

Q What is the situation of the fresh water in the area?

A This well is located inside the boundaries of the Lea County Underground Water Basin, the Ogallala Formation, which is protected by your surface string of three hundred fifty feet with cement circulated. We've got nine thousand feet between the zones.

Q The bottom of that is about three hundred?

A Somewhere around there, yes, sir.

Q What are you doing with the water now?

A We are currently collecting it into oil field tanks and trucking it from the lease.

Q What is the capacity of your system for injection?

A Our system has been designed to handle five hundred and fifty barrels of water per day. This anticipates probable water production from our New Mexico "DE" State Lease, which has two currently producing wells which are producing waterfree immediately north of the "CW" Lease.

Q Now, you have Exhibit Number 3, which is a log of the proposed injection well.

A Yes, sir. This is a log of the proposed well and the perforations are marked by red arrows. It shows seven perforations. The well shows there were two shots per foot, per interval. There were seven intervals that were perforated.

Q And Exhibit Number 4 is a list of all the offset operators, is that correct?

A That's correct.

Q And they, along with the State Engineer, received a copy of this application.

A Yes, sir, the same application that called for the hearing, that was requested for the hearing of the O. C. C.

Q In your opinion, is the proposed installation an efficient and economic way of disposing of this salt water?

A Yes, sir, it is.

Q Were Exhibits 1 through 4 prepared by you or under your supervision?

A Yes, sir, they were.

MR. KELLY: We move the introduction of the Exhibits, 1 through 4.

MR. NUTTER: Texaco Exhibits 1 through 4 will be admitted in evidence.

(Whereupon, Applicant's Exhibits numbered 1 through 4, inclusive, were admitted into evidence.)

MR. KELLY: That's all I have on direct.

CROSS EXAMINATION

BY MR. NUTTER:

Q Mr. McCarter, now you stated this well came in for nineteen barrels of oil, and how many barrels of water?

A A hundred and eleven barrels of water. I believe the cumulative oil production from the well prior to its

being shut-in was less than a thousand barrels of oil.

Q And, which is the well that is making the water at the present time?

A To the immediate -- offset to the east, the Number 1 Well.

Q And the No. 1 and 2 are the -- what is that, the "DE"?

A "CW" -- oh, excuse me.

Q The lease to the north.

A "DE".

Q "BE"?

A "DE". "D" as in "dog".

Q Okay. And, those wells are waterfree?

A Yes, sir, they also --

Q Are they producing from the same zone that you're injecting into here?

A Yes, sir.

Q Do you think there is any possibility of damaging those wells to the north?

A Not at this low rate of water injection, no, sir.

Q How about the other wells in the pool, do they produce water?

A The pool production of water is currently about four thousand barrels of water per month, of which three

thousand barrels of water is from this "CW" No. 1. Our "DG" No. 1 currently produces about a half barrel of water per day.

Q Is this an Abo Reef?

A Yes, sir. It's more of a detrital type formation.

Q Is the water that's produced all produced from the south flank of the reef?

A No, sir. Up on the Consolidated Oil and Gas Midway State in Section 8, these three wells along here produce small amounts of water, also.

Q One of those wells was a discovery well, wasn't it?

A No, sir. The Abo discovery is the No. 1 over in Section 16, in the northwest, northwest.

Q Oh, yes. Well, now, the water that is produced, is this connate water or is this edge water? Is there a water drive that's draining this fluid in here?

A I would imagine that it is just connate water. I imagine we're probably perforated awful close to the oil-water contact of the field is the reason we're producing so much water from this well.

Q Well, structurally, how does your number 2 "CW" well sit with reference to the other wells in Section 18?

MR. KELLY: Let's make this an exhibit here.

(Whereupon, Applicant's Exhibit Number 5 was marked for identification.)

A I have prepared a structural map, contoured on the top of the Abo Reef, which shows the structural position of all the wells in the pool.

MR. KELLY: Let the record show that he is now referring to what has been marked as Exhibit Number 5.

A Which shows the three Texaco wells along the southwestern edge to be in a range from minus fifty-one eighty-nine to minus fifty-one ninety-one.

Q And all three of those wells are pretty much the same level, and the wells in the north half of Section 18 are approximately a hundred or more feet higher, is that right?

A Yes, sir. Your regional dip is up in this direction to the north.

Q So --

A Referring to Exhibit Number 1, Area Map One, on up to the Lovington-Abo Pool which are your red wells right along the northern edge of the map.

Q So any water and outer flooding out that would be done would be to the east rather than to the north and that "CW" No. 1 is the one that is making all the water, as it is.

A Yes, sir.

Q How about your "DG" No. 1? What kind of well is that?

A Well, it's making about two barrels of oil and

about a half barrel of water, and we currently plan to abandon this zone and work it over into a wildcat zone. It's at its economic limit right now, as far as oil production.

Q And what's the production on the "CW" No. 1 Well, again, please?

A If I'm not mistaken -- I don't have it written down, but the water production which is a hundred barrels of water per day and I believe it's around thirty-five barrels of oil per day.

MR. NUTTER: Are there any further questions of Mr. McCarter?

MR. KELLY: Just one question, Mr. Examiner.

REDIRECT EXAMINATION

BY MR. KELLY:

Q Mr. McCarter, in your opinion, if it is necessary to go up to the capacity of the system, which I think you testified something like five hundred fifty barrels a day --

A Yes.

Q -- do you feel that this would have any adverse affect on any other wells in the area?

A I don't believe it would have any adverse affect, no, sir. I might mention that the Midway-Abo Pool, the pre-unitization engineering meetings are scheduled to begin in the first part of 1968, so I believe before any great

increase in water production is realized, I believe the field will probably be unitized for water flood or pressure maintenance operations.

MR. KELLY: That's all I have.

MR. NUTTER: The witness may be excused. I presume you wish to offer Exhibit Number 5 at this time.

MR. KELLY: Yes.

MR. NUTTER: Texaco's Exhibit Number 5 will be admitted in evidence.

(Whereupon, Applicant's Exhibit Number 5 was admitted into evidence.)

MR. NUTTER: Does anyone have anything further they wish to offer in Case No. 3703? We'll take the case under advisement.

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I N D E X

<u>WITNESS</u>	<u>PAGE</u>
DALE McCARTER	
Direct Examination by Mr. Kelly	2
Cross Examination by Mr. Nutter	7
Redirect Examination by Mr. Kelly	11

<u>EXHIBIT</u>	<u>MARKED</u>	<u>OFFERED AND ADMITTED</u>
Applicant's 1, 2, 3 and 4	2	7
Applicant's 5	9	12

Witness my Hand and Seal this 12 day of

March, 1968.

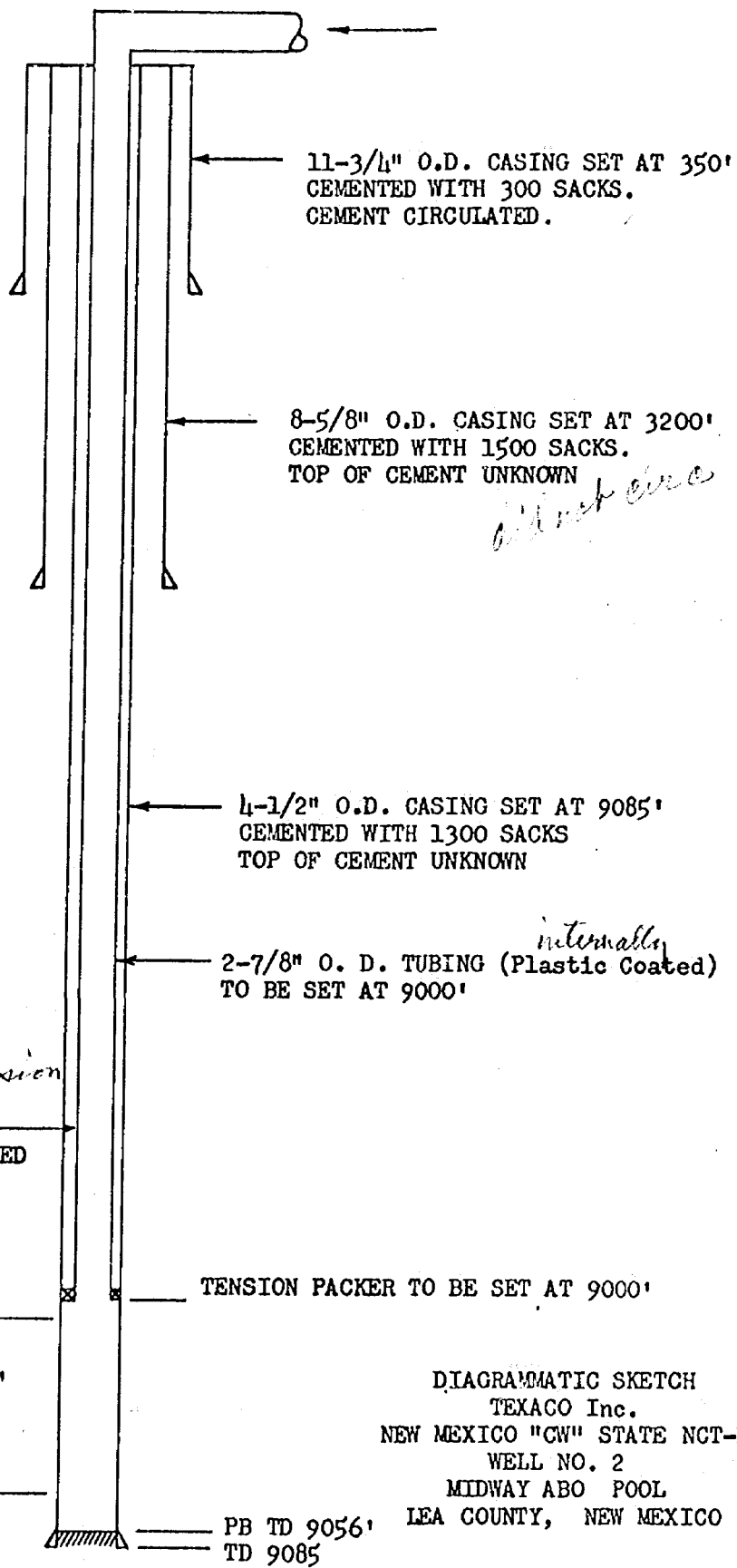
NOTARY PUBLIC

February 10, 1971.

I do hereby certify that the foregoing is  
a true and correct copy of the original.  
Attest my hand and the seal of the  
Department of the Interior, Washington, D.C., this 12/20/67.  
3703  
67  
[Signature]  
New Mexico and Conservation Secretary

*disposal water  
192,000 ppm Cl  
550 BWPD*

BEFORE EXAMINER NUTTER  
OIL CONSERVATION COMMISSION  
*Texas* EXHIBIT NO. 2  
CASE NO. 3703



11-3/4" O.D. CASING SET AT 350'  
CEMENTED WITH 300 SACKS.  
CEMENT CIRCULATED.

8-5/8" O.D. CASING SET AT 3200'  
CEMENTED WITH 1500 SACKS.  
TOP OF CEMENT UNKNOWN

4-1/2" O.D. CASING SET AT 9085'  
CEMENTED WITH 1300 SACKS  
TOP OF CEMENT UNKNOWN

2-7/8" O. D. TUBING (*internally* Plastic Coated)  
TO BE SET AT 9000'

TUBING-CASING ANNULUS  
TO BE FILLED WITH INHIBITED  
FLUID

TENSION PACKER TO BE SET AT 9000'

ABO  
Perfs. 9013'-9046'

DIAGRAMMATIC SKETCH  
TEXACO Inc.  
NEW MEXICO "CW" STATE NCT-1  
WELL NO. 2  
MIDWAY ABO POOL  
LEA COUNTY, NEW MEXICO

PB TD 9056'  
TD 9085'

OFFSET OPERATORS

TEXACO Inc  
NEW MEXICO "CW" STATE NCT-1 LEASE  
MIDWAY ABO POOL  
LEA COUNTY, NEW MEXICO

Aztec Oil and Gas Company  
P. O. Box 847  
Hobbs, New Mexico 88240

Sinclair Oil & Gas Company  
P. O. Box 1470  
Midland, Texas 79701

Gulf Oil Corporation  
P. O. Box 1938  
Roswell, New Mexico 88201

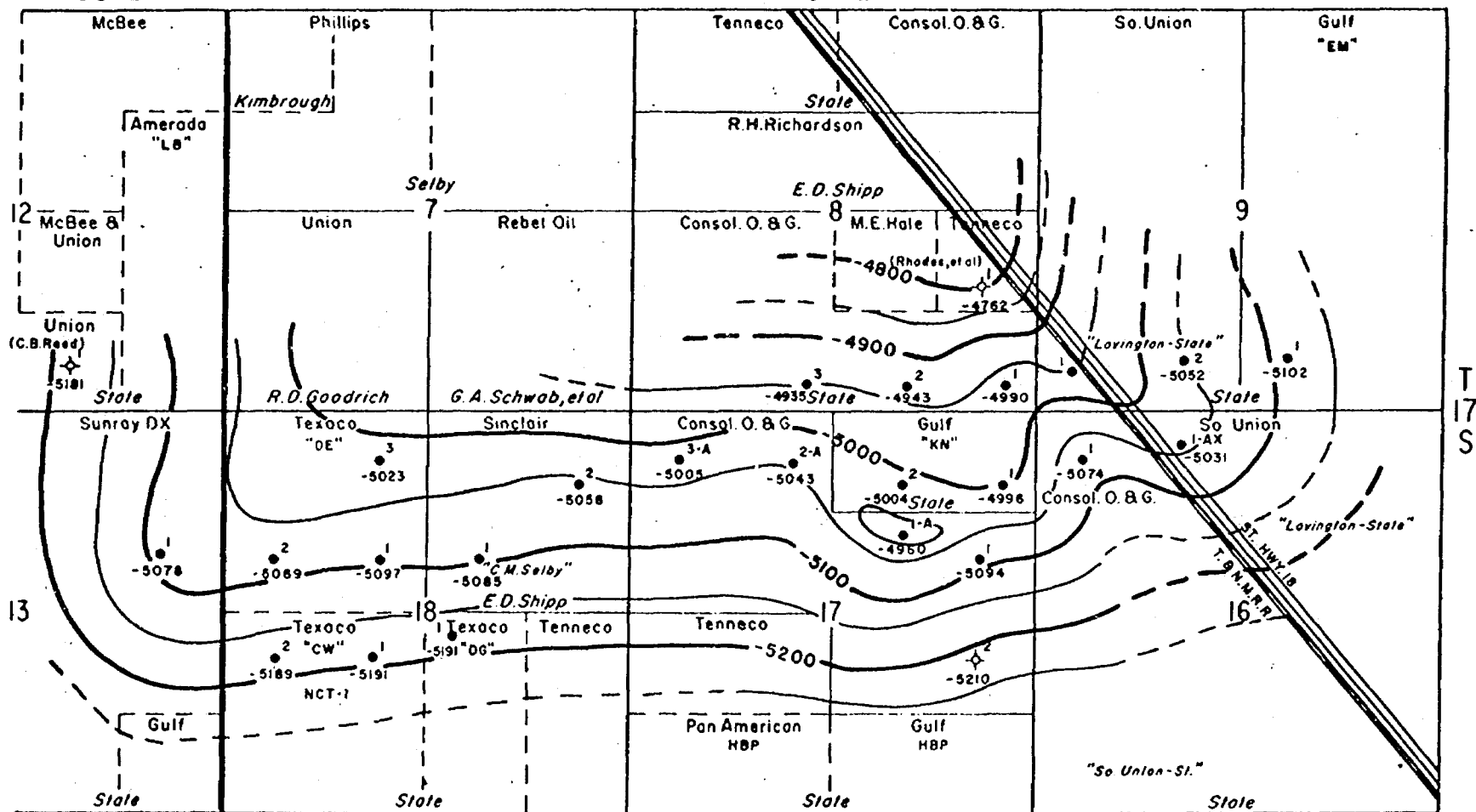
Sunray DX Oil Company  
P. O. Box 1416  
Roswell, New Mexico 88201

D. L. Hannifin  
200 West First  
Roswell, New Mexico

BEFORE EXAMINER NUTTER  
OIL CONSERVATION COMMISSION  
app EXHIBIT NO. 4  
CASE NO. 3703

R-36-E

R-37-E



TEXACO Inc.  
 STRUCTURE MAP  
 CONTOURED ON TOP OF ABO  
 MIDWAY ABO POOL  
 LEA COUNTY, NEW MEXICO  
 Scale: 1" = 2000'  
 EDMc 10-27-67

BEFORE EXAMINED NUTTER  
 CASE NO. 3703  
 EXHIBIT NO. 5  
 TEXACO  
 OIL CONSERVATION