

CASE 4934: Application of TEXACO  
INC. FOR SALT WATER DISPOSAL,  
LEA COUNTY, NEW MEXICO.

CASE No.

41934

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Application,

Transcripts,

Small Exhibits

ETC.

dearnley-meier

SPECIALIZING IN: DEPOSITIONS, HEARINGS, STATEMENTS, EXPERT TESTIMONY, DAILY COPY, CONVENTIONS  
 209 SIMMS BLDG. • P.O. BOX 1092 • PHONE 243-6691 • ALBUQUERQUE, NEW MEXICO 87103  
 FIRST NATIONAL BANK BLDG. EAST • ALBUQUERQUE, NEW MEXICO 87106

MINUTES OF  
 THE UNITED STATES CONSERVATION COMMISSION  
 ALL CONSERVATION COMMISSION COMMISSIONERS  
 STATE LAND OFFICE BUILDING  
 SANTA FE, NEW MEXICO  
 Wednesday, April 11, 1973

IN THE MATTER OF:

Application of Texaco Inc. for  
 salt water disposal, Lea County,  
 New Mexico. Unit 1 of Section  
 34, Township 2 South, Range 36  
 East, Crossroads-Deforian Pool,  
 Lea County, New Mexico.

Case No. 1034

BEFORE: LINDA A. WITZ,  
 Examiner

TRANSCRIPT OF HEARING

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SPECIALIZING IN: DEPOSITIONS, HEARINGS, STATEMENTS, EXPERT TESTIMONY, DAILY COPY, CONVENTIONS  
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1 MR. UTZ: The hearing will come to order, please.  
 2 We will call Case 4234.

3 MR. CARR: Case 4234, Application of Texaco Inc. for  
 4 salt water disposal, Las Comas, New Mexico.

5 MR. BATEMAN: Mr. Chairman, I am Kenneth Bateman of  
 6 White Koch Kelly & McCarthy appearing for the Applicant.  
 7 Let the record show that the witness has been previously  
 8 sworn and had his qualifications accepted.

9 MR. UTZ: The record will so show. Other appearances?  
 10 (No response.)

11 MR. UTZ: You may proceed.

12 \* \* \* \* \*

13 DIRECT EXAMINATION

14 BY MR. BATEMAN:

15 Q State your name and employment for the record, please.

16 A My name is Kenneth Peters, I am employed by Texaco,  
 17 Incorporated, as the District Production Engineer, Hobbs,  
 18 New Mexico.

19 Q And you are familiar, are you not, with the well in question  
 20 in this application?

21 A Yes, sir, I am.

22 Q Refer to the data map, which is Exhibit Number 1, and  
 23 explain what Texaco desires by this application.

24 A Exhibit Number 1 is an ownership plat of the area.

25 Texaco seeks authority to dispose of produced salt water

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1 from the U.D. Sawyer lease to the Devonian formation and  
 2 the U.D. Sawyer Well Number 2, which is located in Unit 1  
 3 of Section 34, Township 9 South, Range 36 East, Crossroads-  
 4 Devonian Pool, Lea County, New Mexico.

5 The U.D. Sawyer lease is outlined in yellow and the  
 6 red arrow indicates the position of the subject well.  
 7 All of the wells on the lease are completed in the  
 8 Devonian interval and Well Number 4 on the subject lease  
 9 is the current SWD Well and is presently disposing of  
 10 9,000 barrels of water a day at 900 psi, and has a  
 11 cumulative injection of 5.6 million barrels of water as  
 12 of March 1, 1973, and this well has a capacity for  
 13 disposal use. The Crossroads-Devonian Pool is an active  
 14 water drive and water production cannot be decreased by  
 15 remedial measures. Current plans are to install larger  
 16 capacity pump equipment in Wells Number 2 and 5 which  
 17 will increase water production 5,000 barrels of water a  
 18 day in Well Number 3.

19 The proposed SWD Well was completed in January 1960  
 20 and produced 421 barrels of oil and no water on a  
 21 potential test. In October 1971, the well was shut-in  
 22 with the cumulative oil production of 414,736 barrels,  
 23 and the Mississippian Zone was then tested and found to be  
 24 non-productive in the subject well.

25 Q Mr. Peters, what do you expect to be the initial

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1 injection rate in the Well Number 2?

2 A Initial injection rate will be 7,000 to 10,000 barrels of  
3 water a day by gravitation.

4 Q All right. Would you continue with Exhibit Number 2 and  
5 explain how you propose to convert Well Number 2?

6 A Exhibit Number 2 is the proposed completion and a  
7 description of our present double completion technique  
8 in the subject well. The surface casing, the 13 and 3/8,  
9 was set at 361 feet and cemented with 400 sacks, and the  
10 cement did circulate to surface. The 8 and 5/8 was set  
11 at 4159, cemented with 2175 sacks, and this also  
12 circulated to the surface. The 5 and 1/2-inch casing was  
13 set at 12,172 feet, cemented about 350 sacks, and the top  
14 of the cement is at 12,150 feet.

15 In converting the proposed well to SWD service, the  
16 present Mississippian perforations from 11,730 feet to  
17 11,770 feet will be squeezed and a cast iron bridge plug,  
18 which is not shown on the plat, at 11,900 feet will be  
19 removed and the present Devonian openhole section from  
20 12,172 feet to 12,181 feet will be drilled deeper by 400  
21 feet from 12,181 to 12,581 feet, and a string of plastic-  
22 coated 3 and 1/2-inch tubing with a packer will be set at  
23 10,400 feet, pressure gauge will be placed on the surface  
24 and the annulus will be filled with inhibited water. The  
25 proposed injection interval will be lower than the

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1 producing horizon in any well completed, presently  
2 completed, in the field.

3 Q All right. Mr. Peters, continue with Exhibit Number 2,  
4 which is a Gamma ray neutron log of Well Number 2, is it  
5 not?

6 A Yes, sir, that is correct. This log shows the subject  
7 well from the interval 10,500 feet to 12,100 feet. The  
8 present Mississippian perforations are shown from 11,730  
9 to 11,770 and the top of the Devonian formation is shown  
10 at 12,170 feet.

11 Q All right. Will the granting of your application prevent  
12 waste and protect correlative rights?

13 A Yes, sir.

14 Q Were Exhibits 1 through 3 prepared by you or under your  
15 direction?

16 A Yes, sir, they were.

17 MR. BATEMAN: I offer Exhibits 1 through 3 at this  
18 time.

19 MR. UTZ: Without objection, Exhibits 1 through 3 will  
20 be entered into the record of this case.

#### 21 CROSS-EXAMINATION

22 BY MR. UTZ:

23 Q Did I understand you to say the Devonian was water drive  
24 wheel?

25 A Yes, sir.

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1 Q Will this injection be in the water zone?

2 A It will be below the present producing zone and in the  
3 water zone, yes, sir.

4 MR. UTZ: Are there any other questions of the  
5 witness?

6 (No response.)

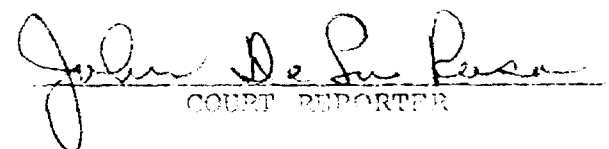
7 MR. UTZ: He may be excused. I will take statements  
8 in the case.

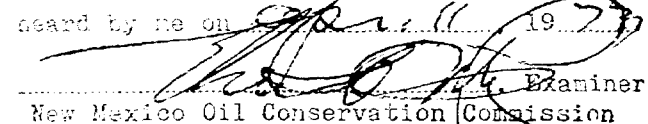
9 (No response.)

10 MR. UTZ: The case will be taken under advisement.  
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1 STATE OF NEW MEXICO )  
 2 COUNTY OF BERNALILLO )

3  
 4 I, JOHN W. W. ROSE, a Court Reporter, in and for the  
 5 County of Bernalillo, State of New Mexico, do hereby certify  
 6 that the foregoing and attached Transcript of Hearing before  
 7 the New Mexico Oil Conservation Commission was reported by me;  
 8 and that the same is a true and correct record of the said  
 9 proceedings to the best of my knowledge, skill and ability.

10   
 11 COURT REPORTER

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 22 I do hereby certify that the foregoing is  
 23 a complete record of the proceedings in  
 24 the Examiner hearing of Case No. 44924  
 25 heard by me on April 19, 1977.  
  
 Examiner  
 New Mexico Oil Conservation Commission

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25INDEXEXHIBITSPAGE

KENNETH CLARKE

Direct Examination by Mr. Dutton

2

Cross-Examination by Mr. Utz

6

EXHIBITSOFFEREDADMITTED

Applicant's Exhibit 1

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6

Applicant's Exhibit 2

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Applicant's Exhibit 3

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6



# OIL CONSERVATION COMMISSION

STATE OF NEW MEXICO  
P. O. BOX 2088 - SANTA FE  
87501

GOVERNOR  
BRUCE KING  
CHAIRMAN

LAND COMMISSIONER  
ALEX J. ARMIJO  
MEMBER

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

May 21, 1973

Mr. Ken Bateman  
White, Koch, Kelly & McCarthy  
Attorneys at Law  
Post Office Box 787  
Santa Fe, New Mexico

Re: Case No. 4933 & 4934  
Order No. R-4519 & 4518  
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

Copy of order also sent to:

Hobbs OCC X  
Artesia OCC R-4519  
Aztec OCC           

Other R-4519 to Bureau of Land Management

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. 4934  
Order No. R-4518

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 April 11, 1973, at Santa Fe, New Mexico, before Examiner Elvis A. Utz.

NOW, on this 17th day of May, 1973, 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 U. D. Sawyer Well No. 3, located in Unit I of Section 34, Township 9 South, Range 36 East, NMPM, Crossroads-Devonian Pool, Lea County, New Mexico.

(3) That the applicant proposes to utilize said well to dispose of produced salt water into the Devonian formation, with injection into the open-hole interval from approximately 12,172 feet to 12,581 feet.

(4) That the injection should be accomplished through 3 1/2-inch plastic-lined tubing installed in a packer set at approximately 10,400 feet; that the casing-tubing annulus should be filled with an inert fluid; and that a pressure gauge should be attached to the annulus at the surface in order to determine leakage in the casing, 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.

-2-

Case No. 4934  
Order No. R-4518

IT IS THEREFORE ORDERED:

(1) That the applicant, Texaco Inc., is hereby authorized to utilize its U. D. Sawyer Well No. 3, located in Unit I of Section 34, Township 9 South, Range 36 East, NMPM, Crossroads-Devonian Pool, Lea County, New Mexico, to dispose of produced salt water into the Devonian formation, injection to be accomplished through 3 1/2-inch tubing installed in a packer set at approximately 10,400 feet, with injection into the open-hole interval from approximately 12,172 feet to 12,581 feet;

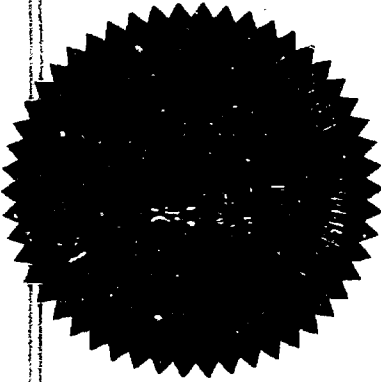
PROVIDED HOWEVER, that the tubing shall be plastic-lined; that the casing-tubing annulus shall be filled with an inert fluid; and that a pressure gauge shall be attached to the annulus at the surface in order to determine leakage in the casing, tubing, or packer.

(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



*I. R. Trujillo*  
I. R. TRUJILLO, Chairman

*Alex J. Armijo*  
ALEX J. ARMIJO, Member

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

S E A L

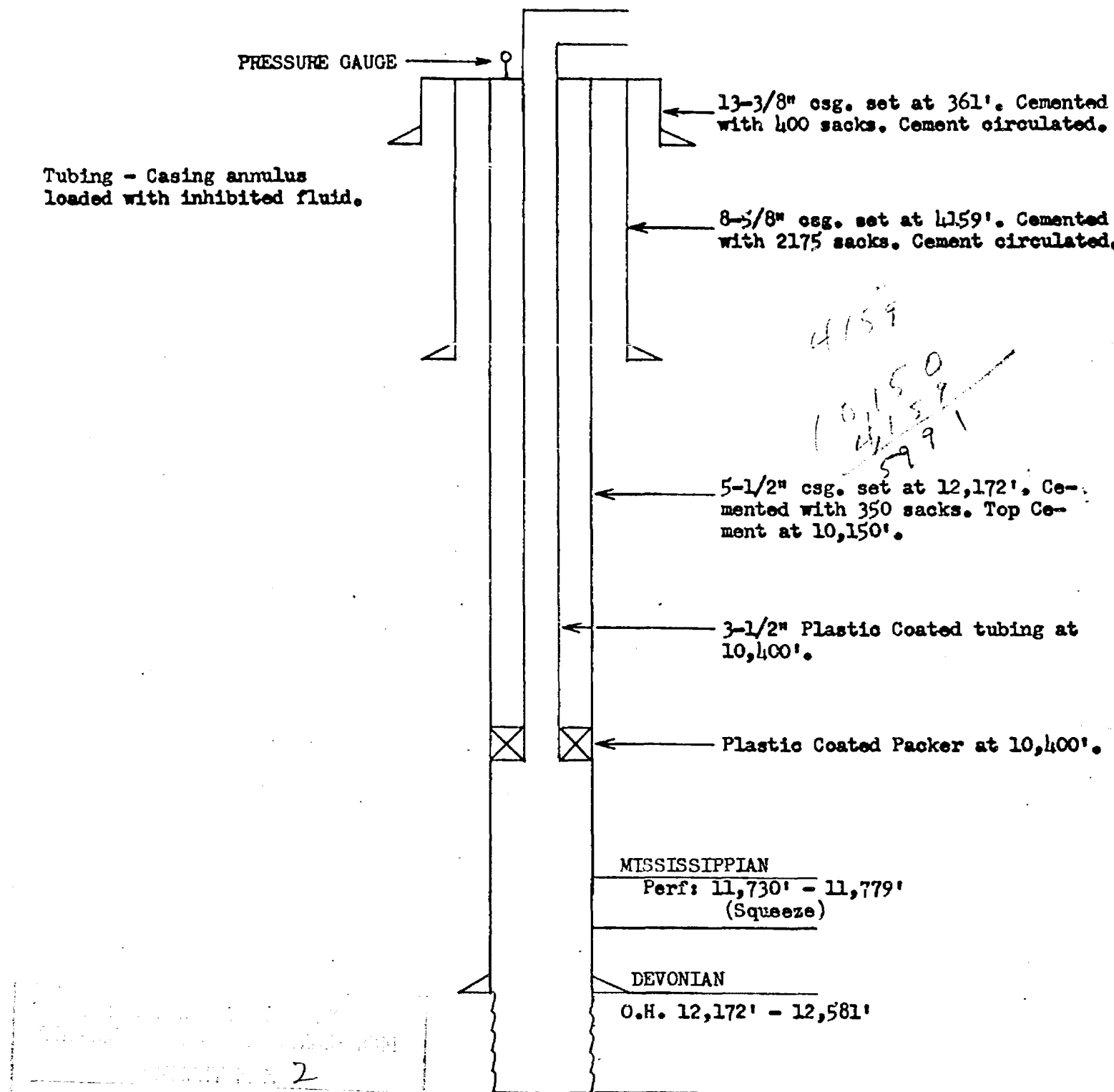
dr/

Case 11936  
Held 4-11-73  
Rec. 4-25-73

Giant Texas Petroleum Co.  
connect their Sourgas #3 I-34  
9-36 to an SWD well. Disposal  
to be in the ~~Quaternary~~ zone of the  
Crossroads Res. pool. Depth to  
be thru 3 1/2" P.C.D. tubing  
& under a packer set at approx  
10,400' & into the fluv. below the  
water zone. Annular to be filled  
w/ cement & D with gauge at  
the surface.

Jim O. Taylor

- CASE 4932: Application of Atlantic Richfield Company for a non-standard proration unit, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval for a 340.94-acre non-standard gas proration unit comprising the W/2 of Section 11, Township 21 South, Range 25 East, Catclaw Draw-Morrow Gas Pool, Eddy County, New Mexico, to be dedicated to its Pure Federal Well No. 1 located in Unit K of said Section 11.
- CASE 4933: 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 Delaware formation through the perforated interval from 4280 feet to 4288 feet in its R. T. Wilson Federal Well No. 5 located in Unit J of Section 24, Township 26 South, Range 31 East, North Mason-Delaware Pool, Lea County, New Mexico.
- CASE 4934: 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 Devonian formation in the open-hole interval from 12,172 feet to 12,581 feet of its U. D. Sawyer Well No. 3 located in Unit I of Section 34, Township 9 South, Range 36 East, Crossroads-Devonian Pool, Lea County, New Mexico.
- CASE 4935: Application of Texaco Inc. for dissolution of a unit and approval of another unit, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the dissolution of the State "JD" Unit Area approved by Commission Order No. R-3886 and the approval of the Rhodes Yates Unit Area comprising 520 acres, more or less, of State and Federal lands in Township 26 South, Range 37 East, Lea County, New Mexico.
- CASE 4936: Application of Texaco Inc. for a waterflood project, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a waterflood project in its Rhodes Yates Unit Area by the injection of water into the Yates-Seven Rivers formations through seven injection wells located in Sections 21, 27 and 28, Township 26 South, Range 37 East, Rhodes-Yates Pool, Lea County, New Mexico.
- CASE 4923: (Continued and Readvertised)
- Application of Continental Oil Company for a non-standard gas proration unit, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for a 360-acre non-standard gas proration unit comprising Lots 14, 15, and 16 and the SE/4 and E/2 SW/4 of Section 4, Township 21 South, Range 36 East, Eumont Gas Pool, Lea County, New Mexico, to be dedicated to its Meyer B-4 Well No. 4 located in Unit S of said Section 4.



4934

Applicant

U.D. SAWYER WELL NO. 3

CROSSROADS (DEVONIAN) POOL

LEA COUNTY, NEW MEXICO

PROPOSED SALT WATER DISPOSAL COMPLETION

TEXACO INC.

April 11, 1973

49934  
OFFSET OPERATOR

U. D. SAWYER WELL NO. 3

CROSSROADS DEVONIAN POOL

LEA COUNTY, NEW MEXICO

Mobil Oil Corporation  
P.O. Box 633  
Wall Towers West  
Midland, Texas 79701

Sun Oil Company  
P.O. Box 1861  
901 West Wall  
Midland, Texas 79701

Cities Service Oil Company  
800 Vaughn Building  
Midland, Texas 79701



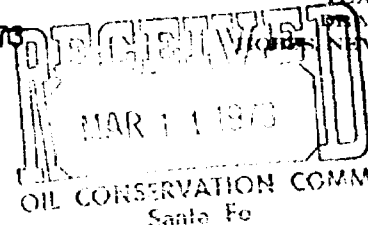
PETROLEUM PRODUCTS

March 13, 1973

TEXACO INC.

BOX 728

SANTA FE, NEW MEXICO 88240



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

REQUEST FOR EXAMINER HEARING

U. D. Sawyer Well No. 3  
Crossroads Devonian Pool  
Lea County, New Mexico

Gentlemen:

It is requested that an examiner hearing be scheduled to consider the application of Texaco Inc. for disposal of produced water in the Crossroads Devonian Pool, Lea County, New Mexico.

At this hearing, Texaco will seek permission to dispose of produced water into the U. D. Sawyer Well No. 3 located in Unit I, Section 34, Township 9 South, Range 36 East, Lea County, New Mexico. Disposal will be via plastic coated tubing into an open hole interval from 12,172 feet to 12,581 feet. Initially, the disposal rate into the well will be 5,000 barrels of water per day by gravitation.

Enclosed with this request are three copies of a plat of the area showing the proposed SWD well, three copies of the log of the well, and three copies of a diagramatic sketch of the proposed disposal well.

Yours very truly,

*J. V. Gannon*  
J. V. Gannon  
District Superintendent

KLP:wg  
MAS,Jr.  
JSR  
Attachments

DOCKET MAILED

Date 3/28/73

DRAFT

dr/

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. 4934

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

Order No. R- 4518

ORDER OF THE COMMISSION

BY THE COMMISSION:

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at Santa Fe, New Mexico, before Examiner Elvis A. Utz.

NOW, on this April day of April, 1973, 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 U. D. Sawyer Well No. 3,  
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36 East, NMPM, Crossroads-Devonian Pool, Lea  
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(3) That the applicant proposes to utilize said well to  
dispose of produced salt water into the Devonian  
formation, with injection into the open-hole interval  
from approximately 12,172 feet to 12,581 feet.

(4) That the injection should be accomplished through  
3 1/2-inch plastic-lined tubing installed in a packer set at

approximately 10,400 feet; that the casing-tubing annulus should be filled with an inert fluid; and that a pressure gauge should be attached to the annulus ~~or the annulus left open~~ at the surface in order to determine leakage in the casing, 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 U. D. Sawyer Well No. 3 located in Unit 1 of Section 34, Township 9 South, Range 36 East, NMPM, Crossroads-Devonian Pool, Lea County, New Mexico, to dispose of produced salt water into the Devonian formation, injection to be accomplished through 3 1/2 -inch tubing installed in a packer set at approximately 10,400 feet, with injection into the open-hole interval from approximately 12,172 feet to 12,581 feet;

PROVIDED HOWEVER, that the tubing shall be plastic-lined; 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 casing, 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.