

CASE 3794: Application of GULF OIL
CORP. FOR SALT WATER DISPOSAL,
LEA COUNTY, NEW MEXICO.

Case Number

3794

Application
Transcripts.

Small Exhibits

ETC.

Gulf Oil Corporation

EXPLORATION AND PRODUCTION DEPARTMENT--U. S. OPERATIONS
ROSWELL DISTRICT

T. W. Kidd
DISTRICT MANAGER
M. I. Taylor
DISTRICT PRODUCTION
MANAGER
F. O. Mortlock
DISTRICT EXPLORATION
MANAGER
H. A. Rankin
DISTRICT SERVICES MANAGER

P. O. Drawer 1938
Roswell, New Mexico 88201

May 29, 1968

Case 3794

60 JUN 3 AM 9 14

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

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

Re: Application of Gulf Oil Corporation for its
Subsidiary, Warren Petroleum Corporation,
for Salt Water Disposal, Lea County, New Mexico

Gentlemen:

Gulf Oil Corporation respectfully requests an Examiner Hearing to consider its application for approval to dispose of salt water in the Warren Petroleum Corporation Eunice Plant No. 161, Salt Water Disposal Well No. 1, to be drilled at a location 2255 feet from the north line and 908 feet from the east line of Section 3-22S-37E, Lea County, New Mexico.

The salt water to be disposed of will be produced from LPG storage wells when product is injected into the wells. These storage wells are used in conjunction with the operation of the Warren Petroleum Corporation Eunice Plant No. 161. The attached plat shows the proposed salt water disposal well circled and colored in red. It is proposed to dispose of this salt water in the open hole San Andres interval 4100'-4900' or less. It is proposed to drill to lost circulation which is anticipated at approximately 4500'-4600', or to a total depth not to exceed 4900'. A schematic diagram of the proposed salt water disposal well is attached.

The disposal of this produced salt water underground is necessary to comply with the Commission's Order R-3221, which prohibits surface disposal in lined pits after January 1, 1969.

A copy of this application has been furnished to offset operators.

Respectfully submitted,

GULF OIL CORPORATION

M. I. Taylor
M. I. Taylor

DOCKET MAILED

Date *6/13/68*



Attachment
JHH:sz

May 29, 1968

cc: New Mexico Oil Conservation Commission
Post Office Box 1980
Hobbs, New Mexico 88240

Humble Oil & Refining Company
Post Office Box 2100
Hobbs, New Mexico 88240

Marathon Oil Company
Post Office Box 220
Hobbs, New Mexico 88240

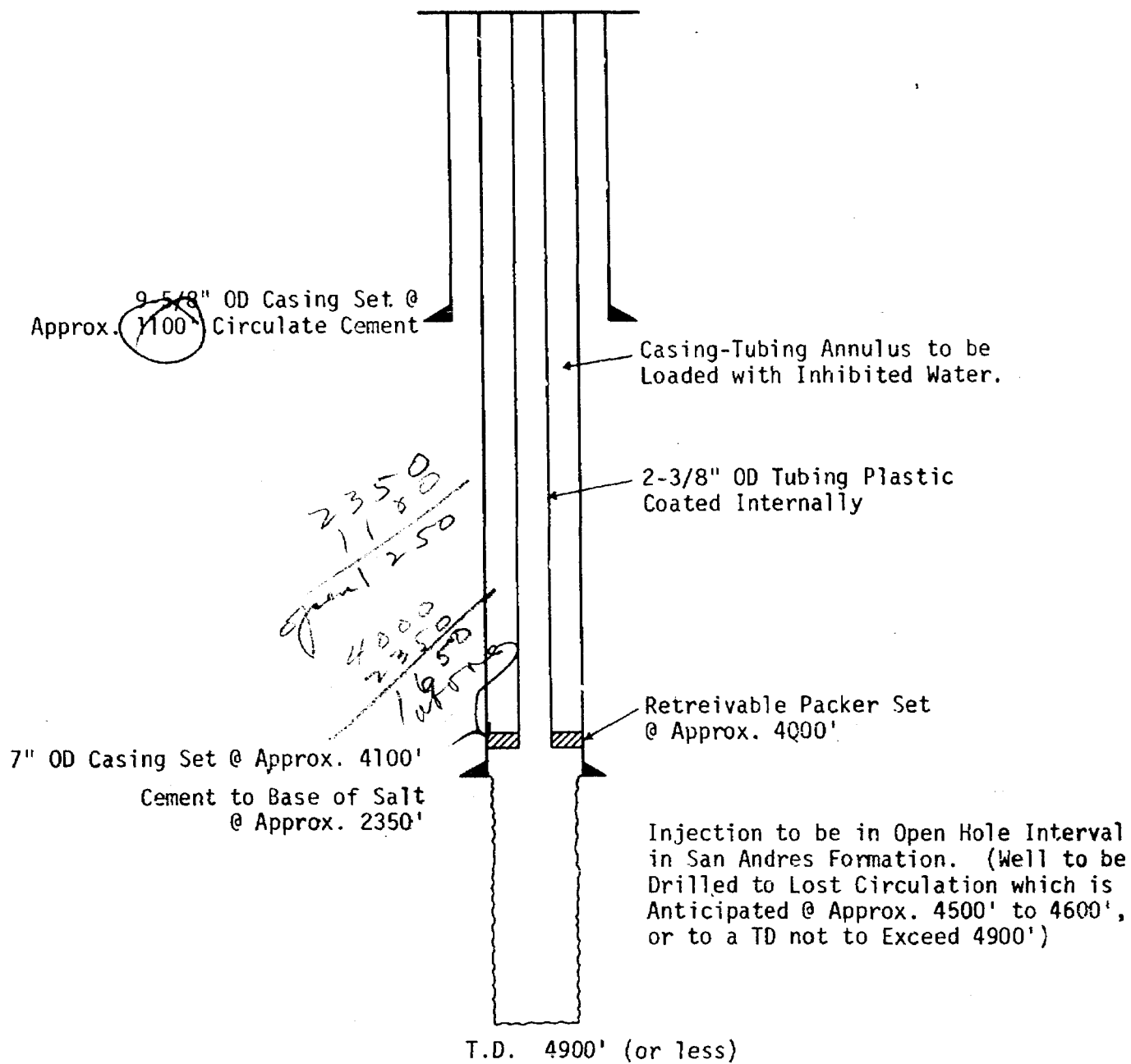
Cities Service Oil Company
Post Office Box 69
Hobbs, New Mexico 88240

Pan American Petroleum Corporation
Post Office Box 1410
Fort Worth, Texas 76101

Sunray DX Oil Company
Post Office Box 1416
Roswell, New Mexico 88201

Anadarko Production Company
Post Office Box 9338
Fort Worth, Texas 76101

Warren Petroleum Corporation
Post Office Box 1589
Tulsa, Oklahoma 74102
Attention: Mr. J. R. Sherman



DIAGRAMMATIC SKETCH
WARREN PETROLEUM CORPORATION

EUNICE PLANT NO. 161
SALT WATER DISPOSAL WELL NO. 1
SE/4 NE/4 SEC. 3-22S-37E
LEA COUNTY, NEW MEXICO

Case 3794

dearnley-meier reporting service, inc.

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

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



BEFORE THE
NEW MEXICO OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
June 26, 1968

EXAMINER HEARING

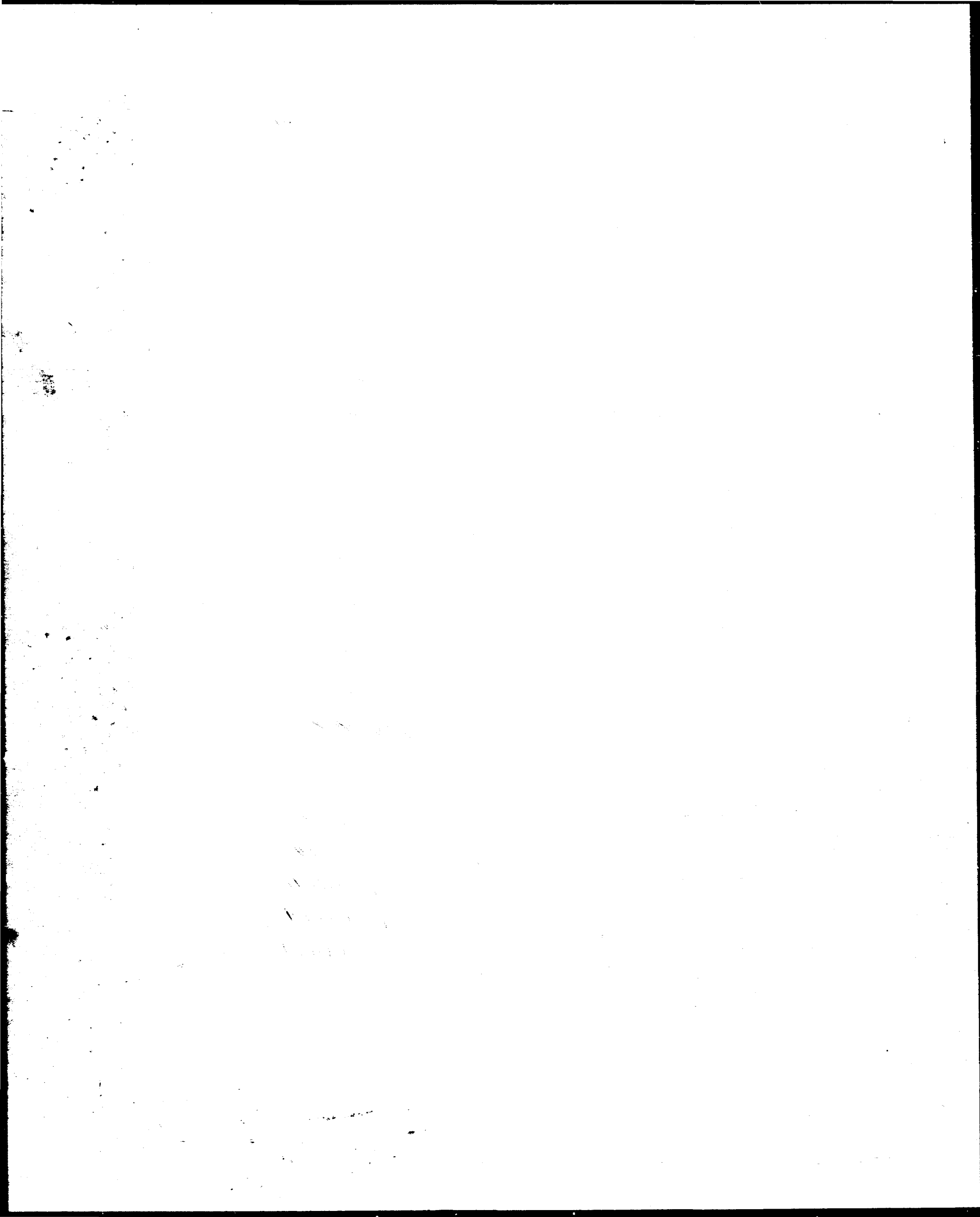
IN THE MATTER OF:

Application of Gulf Oil
Corporation for salt water
disposal, Lea County, New
Mexico.

CASE NUMBER
3794

BEFORE: ELVIS A. UTZ, Examiner

TRANSCRIPT OF HEARING



east line of Section 3, Township 22 South, Range 37 East, Lea County, New Mexico.

Q If this application is approved, Warren will actually be injecting water for disposal and not Gulf, is that correct?

A Yes, it is. The water to be disposed of is gasoline plant waste water and salt water produced from Warren's LPG storage wells when the liquid products are injected into the wells. Warren owns and operates these LPG wells in storage wells in conjunction with the Eunice Gasoline Plant Number 161 operations. They will likewise own and operate the proposed injection well after Gulf drills it for them, if this application is approved.

Q What is shown on Exhibit Number 1?

A Exhibit Number 1 is a plat showing the proposed location of the Warren Eunice Plant Number 161 salt water disposal Well Number 1. The well is circled and colored in red and the proposed location, as previously mentioned, is 2255 feet from the north line and 908 feet from the east line of Section 3, Township 22 South, Range 37 East, Lea County, New Mexico. This well is on acreage, the surface of which is owned by Warren's Eunice plant.

Q Are there any oil wells producing from the San Andres formation within two miles of this proposed injection

well?

A Yes. There is one well and that is in the Eunice-San Andres Pool. This well is Mobil's Carson Number 23 located in the southwest quarter, northeast quarter of Section 33, Township 21 South, Range 37 East. This well, in April, 1968, flowed sixty barrels of oil, 300 barrels of water, 11,640 m.c.f. of gas.

MR. UTZ: San Andres?

THE WITNESS: Yes, sir. It's referred to as the Eunice-San Andres Pool. As I understand, this well was originally drilled as a water supply well and they got oil.

Q (By Mr. Kastler) What have you shown on Exhibit Number 2?

A Exhibit Number 2 is a schematic diagram of the proposed injection well. We plan to set nine-and-five-eighths-inch casing at approximately 1100 feet. The cement will be circulated to the surface. Seven-inch casing will be set at approximately 4100 feet and we will cement to bring the cement back to the base of the salt which will be at approximately 2350 feet.

The well will be drilled to a total depth of 4900 feet or less. The well will be drilled out from below the casing and the injection interval will be in the open hole

San Andres formation. The well will be drilled to lost circulation zone which we anticipate approximately 4500 to 4600 feet. When we reach that point, we will stop or we will go to a total depth not to exceed 4900 feet in the San Andres. The well will be equipped with four-and-a-half-inch OD tubing which will be plastic-coated internally. In this particular well we plan to use a balanced fluid column in the casing tubing annulus and we will use a distillate which will fill the annulus and we will have a pressure gauge at the surface.

Q Although it's not shown on here, will you have a tension-type packer at the bottom of the plastic-coated tubing?

A Not in this well. We will use the balance method of the distillate in the casing tubing annulus, balancing the water in the tubing.

Q You stated that the water to be disposed of comes from operation of Warren's Gasoline Plant and LPG storage wells. Do you have any information on the quality of this water?

A Yes, sir. The storage wells for the LPG are completed in the salt section and the storage is created by dissolving the salt. Therefore, the water produced from the wells is almost a saturated salt solution. Analysis indicates approximately ninety-five per cent saturated, 181,289 parts per

million of chlorides, specific gravity 1.206.

The plant waste water is from the cooling tower overflow and the water blowdown which would be practically fresh water. Some salty water from the regeneration of the water softeners would also be disposed of in the well.

Q What is the quality of water produced from the San Andres formation?

A We don't have an analysis of the San Andres water at the proposed location. However, from other San Andres water in the vicinity indicates 3,000 to 4,000 parts per million of chlorides. The San Andres formation water is brackish.

Q What volumes of water do you anticipate will be necessary to inject?

A The storage of the LPG in the wells is dictated by market demand for the product or by the possible shutdown of the pipeline which takes the liquids from the plant. The rate could be as high as 4400 barrels per day during emergency pipeline shutdown, which is the plant production of liquid products. Probably a lesser disposal rate would be made over a two-month period when the product was going in just from market demand and then the well would have no injection of or no water production from the LPG wells for the remaining ten months. The normal plant waste water is about 2600 barrels per

day. Therefore, that would make the disposal rate vary from, oh, just plant waste water of 2600 barrels to a high of 7,000 barrels per day if we were going in maximum on the plant production.

Q In other words, that's normal operation plus the 4400 during an emergency period?

A Yes. We would --

Q Total 7,000 barrels --

A Probably the normal rate would be 2600 barrels of the plant waste water and probably storing of products in the well on just the market demand would be another 2,000 barrels, so we would have, not counting emergency, around 4600 barrels per day, but the possibility exists that we could go from 2600 barrels to 7,000.

Q Were offset operators furnished copies of Gulf's application?

A Yes, they were.

Q Do you have anything further to add in this case?

A No, sir.

Q Were Exhibits 1 and 2 prepared by you or at your direction and under your supervision?

A Yes, they were.

MR. KASTLER: I would like to move that Exhibits

1 and 2 be entered into evidence at this point, and this concludes my questions on direct.

MR. UTZ: Without objection Exhibits 1 and 2 will be entered into the record of this case.

(Whereupon, Exhibits 1 and 2 were offered and admitted in evidence.)

CROSS EXAMINATION

BY MR. UTZ:

Q In your opinion, will your injection of water in this area affect the San Andres production in that nearest well up in Section 35?

A No, sir. It would have no effect whatsoever. That well is one and seven-tenths miles from our proposed well and there are other San Andres wells in the area which are drawing water out for waterfloods and the rate that it is being drawn out exceeds our maximum rate that we would be putting in, so we couldn't possibly affect anything.

Q They are drawing it out of the San Andres?

A Yes, for waterfloods.

Q You fellows ought to get together.

A Well, of course, we're just trying to comply with the Commission's order and we have got to get the water in the ground and not rely on anybody else operating.

Q You say you are going to balance the annulus with distillate against your water injection. How much pressure are you going to use at the surface, did you say?

A I didn't say, Mr. Utz, but we anticipate on the normal rate of, say, three or four thousand barrels a day that it will be gravity on the maximum of 7,000 per day. It may take a little pressure, but we are hopeful that it will be practically no pressure and mostly by gravity.

We'll probably have to use a pump to move the volume through the well, of course, but we anticipate very low pressure and at this time we are hoping, by gravity.

Now, on balancing this distillate in the annulus, we will have to have a static water level in the well, normally, just under no injection conditions where the distillate will balance this static condition.

So, what we would have, then, would be all distillate on one side against the static column of water on the tubing side. And then the pressure gauge at the wellhead would show this pressure under the balanced condition, and then any pressure that we would encounter, having put the water in, or any fouling of the formation which would cause pressure to increase which would be reflected at the surface, we would have to start pumping it, would be reflected in this pressure gauge.

And this has worked very well in disposal wells of the size that we are asking for here, that is, the size, I mean, by volume that they're using this now in the salt water disposal systems. It has its advantage in that it gives you an indication of when trouble might be starting.

Q And to put a distillate in the annulus, you have to establish a water level and then pump it in at that water level and seal the surface?

A Yes, sir. You would have to actually pump your distillate.

Q It would stay the same?

A You would pump the distillate in and force the water out of the tubing casing annulus back in the tubing. The whole thing depends on that you have to have the static column of water. If we don't have that and can't do it, then you can't hold your distillate, then we would have to go to a packer. We feel, based on our experience with the San Andres, that we will have a water column.

MR. UTZ: Any other questions?

MR. PORTER: I have a question.

CROSS EXAMINATION

BY MR. PORTER:

Q Is this the only gasoline or extraction plant that

Warren operates down in Lea County?

A No, sir, not in Lea County. In fact, they have three.

Q They have three?

A They're right outside of Eunice, one just west of Monument and one up in the Saunders Pool.

Q Does the other one there -- now, this is your Eunice plant, does the Monument plant operate similarly to this one, do they have a storage well for their LPG and all that? In other words, does the company plan to have a disposal well for each one of their plants, or do you know?

A Mr. Porter, I don't know on the plans on those others.

Q It would depend on the quality of water, I suppose?

A Yes, sir. I know that the Saunders plant has no storage well, but I believe Monument has. I think the Saunders plant pumps, they pump all of their raw product down to the Monument plant where it is fractionated if necessary. It would be the Monument plant if they have one, and I think they do, but I don't know.

Q If this application were approved, how long do you think it would be before you had your disposal well in operation down there? Do you know what the schedule would be as far as going ahead and completing the well?

A Yes, sir. The location is staked, the bids have gone

out to drill the well.

Q So, you are ready to move on it?

A We're ready to drill the well. The only thing we are holding up on is if we can get an order. Now, on the drilling of a well, it shouldn't take very long; probably in thirty-five or forty-five days we should have it completed.

MR. PORTER: Thank you.

MR. UTZ: Are there any other questions? The witness may be excused.

(Witness excused.)

MR. UTZ: Any statements? The case will be taken under advisement.

I N D E X

<u>WITNESS</u>	<u>PAGE</u>
JOHN H. HOOVER	
Direct Examination by Mr. Kastler	2
Cross Examination by Mr. Utz	8
Cross Examination by Mr. Porter	10

<u>NUMBER</u>	<u>MARKED FOR IDENTIFICATION</u>	<u>OFFERED AND ADMITTED IN EVIDENCE</u>
# 1 and 2	2	8

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 6th day of July, 1968.

Ada Dearnley
 NOTARY PUBLIC

My Commission Expires:

June 19, 1971

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 3224, heard by me on June 26, 1968.
Thurman L. [Signature], Examiner
 New Mexico Oil Conservation Commission

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. 3794
Order No. R-3446

APPLICATION OF GULF OIL CORPORATION
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 June 26, 1968,
at Santa Fe, New Mexico, before Examiner Elvis A. Utz.

NOW, on this 3rd day of July, 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, Gulf Oil Corporation, is the oper-
ator of the Warren Petroleum Corporation Eunice Plant No. 161
SWD Well No. 1, located 2255 feet from the North line and 908
feet from the East line of Section 3, Township 22 South, Range
37 East, NMPM, Eunice-San Andres Pool, Lea County, New Mexico.

(3) That the applicant proposes to utilize said well to
dispose of produced salt water into the San Andres formation
adjacent to the Eunice-San Andres Pool, with injection into the
open hole interval from approximately 4100 feet to 4900 feet.

(4) That the injection should be accomplished through
4 1/2-inch internally plastic-coated tubing; that the casing-
tubing annulus should be filled with a hydrostatically balanced

-2-

CASE No. 3794
Order No. R-3446

column of inert fluid; and that a pressure gauge should be attached to the annulus at the surface in order to determine leakage in the tubing.

(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:

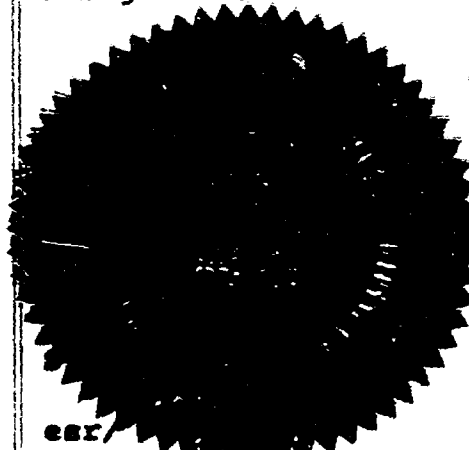
(1) That the applicant, Gulf Oil Corporation, is hereby authorized to utilize its Warren Petroleum Corporation Eunice Plant No. 161 SWD Well No. 1, located 2255 feet from the North line and 908 feet from the East line of Section 3, Township 22 South, Range 37 East, NMPM, Eunice-San Andres Pool, Lea County, New Mexico, to dispose of produced salt water into the San Andres formation adjacent to the Eunice-San Andres Pool, injection to be accomplished through 4 1/2-inch tubing into the open hole interval from approximately 4100 feet to 4900 feet;

PROVIDED HOWEVER, that the tubing shall be internally plastic-coated; that the casing-tubing annulus shall be filled with a hydrostatically balanced column of inert fluid; and that a pressure gauge shall be attached to the annulus at the surface in order to determine leakage in the tubing.

(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 F. Cargo
DAVID F. CARGO, Chairman

Guyton B. Hays
GUYTON B. HAYS, Member

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

esr/

Case 3794

Revised 6-26-68

Rec. 6-27-68.

Grant Self request for a S.W.P. well
at the Warren Pitt. Service Plant.

~~#66~~ #61 to be designated as.

Warren - Service Plant #61-SWD#1

~~2255~~ 2255/N, 968/E 3-225-37E, LemCo.

Salt brine will be injected thru
4 1/2" O.D. ^{internally} plastic coated tubing. Annulus
will be filled with destitute floated
on top of salt water with a pressure
gauge at the surface.

The nearest production in S.A.
is. 1 1/2 miles NE and should be
affected by the requested injection.

Injection interval well be into
lost circulation zone of the Sandstones
at approx. 4500'-4600'

Thos. W. J.

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

July 3, 1968

Mr. Bill Kastler
Gulf Oil Corporation
Post Office Box 1938
Roswell, New Mexico 88201

Re: Case No. 3793
Order No. 3794
Applicant: R-3446 & R-3447
Gulf Oil Corporation

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

ALP/ir

Carbon copy of order also sent to:

Hobbs OCC x
Artesia OCC x R-3447
Aztec OCC
Other State Engineer Office R-3446 & R-3447

DOCKET: EXAMINER HEARING - WEDNESDAY - JUNE 26, 1968

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

The following cases will be heard before Elvis A. Utz, Examiner,
or A. L. Porter, Jr., Alternate Examiner:

CASE 3788: 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 by the injection of water into the Grayburg-San Andres formation through its New Mexico State "W" NCT-1 Well No. 1 located in Unit O of Section 13, Township 17 South, Range 34 East, Vacuum (Grayburg-San Andres) Oil Pool, Lea County, New Mexico.

CASE 3789: Application of Tenneco Oil Company for a unit agreement, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval of the Mesa Queen Unit Area comprising 1,040 acres, more or less, of state lands in Township 16 South, Range 32 East, Mesa-Queen Pool, Lea County, New Mexico.

CASE 3790: Application of Tenneco Oil Company for a waterflood project, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a waterflood project in its Mesa Queen Unit Area by the injection of water into the Queen formation through 12 wells located in Sections 16, 17, and 20, Township 16 South, Range 32 East, Mesa-Queen Pool, Lea County, New Mexico.

CASE 3573 (Reopened):

In the matter of Case 3573 being reopened pursuant to the provisions of Order No. R-3240 to permit all interested parties to appear and show cause why the temporary rules for the South Corbin-Strawn Oil Pool, Lea County, New Mexico, which include a provision for 160-acre spacing units and a 4000 to one gas-oil ratio limit, should remain in effect.

CASE 3791: Application of Kewanee Oil Company for a unit agreement, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval of the Square Lake "12" Unit Area comprising 1,360 acres, more or less, of Federal lands in Township 17 South, Ranges 29 and 30 East, Square Lake Pool, Eddy County, New Mexico.

CASE 3792: Application of Kewanee Oil Company for a waterflood project, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a waterflood project by the injection of water into the Grayburg formation underlying its Square Lake "12" Unit Area through seven wells located in Sections 1 and 12, Township 17 South, Range 29 East, and Sections 6 and 7, Township 17 South, Range 30 East, Square Lake Pool, Eddy County, New Mexico.

CASE 3793: Application of Gulf Oil Corporation for salt water disposal, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the Grayburg formation in the interval from approximately 3812 feet to 3900 feet in its Keohane "C" Federal Well No. 3 located in Unit I of Section 21, Township 18 South, Range 31 East, Shugart Yates-Seven Rivers-Queen-Grayburg Pool, Eddy County, New Mexico.

CASE 3794: Application of Gulf 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 San Andres formation adjacent to the Eunice-San Andres Pool in the interval from approximately 4100 feet to 4900 feet in the Warren Petroleum Corporation Eunice Plant SWD Well No. 1, located 2255 feet from the North line and 908 feet from the East line of Section 3, Township 22 South, Range 37 East, Lea County, New Mexico.

CASE 3795: Application of Pan American Petroleum Corporation for a pool creation and discovery allowable, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the creation of the Bate-Yates Pool in Lea County, New Mexico, comprising the S/2 of Section 26 and the N/2 of Section 35, both in Township 19 South, Range 33 East, and for the assignment of approximately 16,750 barrels of oil discovery allowable to the discovery well, its Bate Federal Well No. 1 located in Unit N of said section 26.

CASE 3796: Application of The Superior Oil Company for the creation of a new pool, assignment of discovery allowable, and the promulgation of pool rules, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the creation of a new upper Pennsylvanian oil pool for its State D COM Well No. 1 located in Unit G of Section 4, Township 14 South, Range 34 East, Lea County, New Mexico, and for the assignment of an oil discovery allowable in the amount of approximately 52,010 barrels to said well. Applicant further seeks the promulgation of special pool rules for said pool, including a provision for 160-acre proration units.

CASE 3797: Application of Ernest A. Hanson for salt water disposal, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the Queen formation in the overall interval from approximately 4604 to 5036 feet in his Mescalero Ridge Unit "35" Well No. 11 located in Unit N of Section 35, Township 19 South, Range 34 East, Pearl-Queen Pool, Lea County, New Mexico.

CASE 3798: Application of Ernest A. Hanson for salt water disposal, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the Delaware formation in the interval from approximately 4177 feet to 4185 feet in his Hanson Federal Well No. 7 located in Unit J of Section 25, Township 26 South, Range 31 East, North Mason-Delaware Pool, Eddy County, New Mexico.

CASE 3799: Application of Amerada Petroleum Corporation for an unorthodox gas well location, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to re-enter and complete as a gas well the State WR "B" Well No. 1 located at an unorthodox location 554 feet from the North line and 2086 feet from the East line of Section 35, Township 12 South, Range 34 East, Ranger Lake-Devonian Gas Pool, Lea County, New Mexico, and to dedicate to said well the E/2 of said section 35.

ir/

9-5/8" OD Casing Set @
Approx. 1100' Circulate Cement

Casing-Tubing Annulus to be
Loaded with Distillate

4-1/2" OD Tubing Plastic
Coated Internally

7" OD Casing Set @ Approx. 4100'
Cement to Base of Salt
@ Approx. 2350'

Injection to be in Open Hole
Interval in San Andres Formation.
(Well to be Drilled to Lost
Circulation which is Anticipated @
Approx. 4500' to 4600', or to a TD
Not to Exceed 4900')

T.D. 4900' (or less)

DIAGRAMATIC SKETCH
WARREN PETROLEUM CORPORATION

EUNICE PLANT NO. 61

SALT WATER DISPOSAL WELL NO. 1

SE/4 NE/4 Sec. 3-223-37E

LEA COUNTY, NEW MEXICO

BEFORE EXAMINER UTZ

OIL CONSERVATION COMMISSION

EXHIBIT NO. 2

CASE NO. 3794

Case No. 3794
Exhibit No. 2
June 26, 1968