

CASE 3719: Application of AMERADA  
PETROLEUM CORP. FOR SALT WATER  
DISPOSAL, LEA COUNTY, NEW MEXICO.

Casa No.

3719

Application, Transcript,  
Small Exhibits, Etc.

GOVERNOR  
DAVID F. CARGO  
CHAIRMAN

State of New Mexico  
**Oil Conservation Commission**



LAND COMMISSIONER  
GUYTON B. HAYS  
MEMBER

P. O. BOX 2088  
SANTA FE

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

February 12, 1968

Mr. Thomas W. Lynch  
Amerada Petroleum Corporation  
Post Office Box 2040  
Tulsa, Oklahoma 74102

Re: Case No. 3719  
Order No. R-3377  
Applicant:

Amerada Petroleum Corp.

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 Mr. D. E. Gray - State Engineer Office

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. 3719  
Order No. R-3377

APPLICATION OF AMERADA PETROLEUM  
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 February 7, 1968,  
at Santa Fe, New Mexico, before Examiner Elvis A. Utz.

NOW, on this 12th day of February, 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, Amerada Petroleum Corporation, is  
the owner and operator of the Chambers Well No. 1, located  
in Unit F of Section 11, Township 12 South, Range 33 East, NMPM,  
Bagley Field, Lea County, New Mexico.

(3) That the applicant proposes to utilize said well to  
dispose of produced salt water into the Siluro-Devonian formation,  
with injection into the perforated interval from 11,010 feet to  
11,026 feet and the open-hole interval from 11,040 feet to  
11,325 feet.

(4) That the injection should be accomplished through  
4-inch internally plastic-coated tubing installed in a packer  
set at approximately 11,000 feet; that the casing-tubing annulus

-2-

CASE No. 3719

Order No. R-3377

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 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:

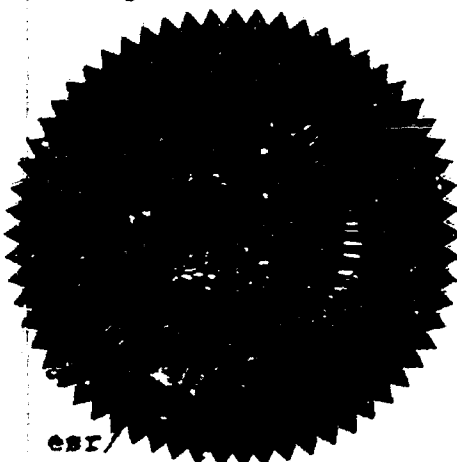
(1) That the applicant, Amerada Petroleum Corporation, is hereby authorized to utilize its L. H. Chambers Well No. 1, located in Unit F of Section 11, Township 12 South, Range 33 East, NMPM, Bagley Field, Lea County, New Mexico, to dispose of produced salt water into the Siluro-Devonian formation, injection to be accomplished through 4-inch tubing installed in a packer set at approximately 11,000 feet, with injection into the perforated interval from 11,010 feet to 11,026 feet and the open-hole interval from 11,040 feet to 11,325 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 F. Cargo*  
DAVID F. CARGO, Chairman

*Guyton B. Hays*  
GUYTON B. HAYS, Member

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

Case 3719

Leard 2-7-68

Res. 2-7-68

Grant Amerada permission to  
convert their T. & Chambers #1.

Center SE NW 11-125-33E to a SWD  
well.

Injection shall be thru Plastic  
coated tubing and under a packer.

Injection into the Siluro Devonian  
thru pipe at approx. 11010-11026.

Packer to be set at approx.  
11000'.

4" x 5 1/2" Annulus shall be filled  
with inhibited fluid.

Thurston

Docket No. 4-68

DOCKET: EXAMINER HEARING - WEDNESDAY - FEBRUARY 7, 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 Daniel S. Nutter, Alternate Examiner:

CASE 3719: Application of Amerada Petroleum 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 Siluro-Devonian formation in the interval from 11,010 feet to 11,325 feet in its L. H. Chambers Well No. 1 located in Unit F of Section 11, Township 12 South, Range 33 East, Bagley Field, Lea County, New Mexico.

CASE 3720: Application of Sinclair Oil & Gas Company for salt water disposal, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the Abo formation in the interval from 6982 to 7092 feet in its Turner "B" Well No. 73, located in Unit C of Section 29, Township 17 South, Range 31 East, Cedar Lake-Abo Pool, Eddy County, New Mexico.

CASE 3348: (Reopened)

In the matter of Case No. 3348 being reopened pursuant to the provisions of Order No. R-3019-A, which order extended 80-acre spacing units for the South Prairie-San Andres Pool, Roosevelt County, New Mexico, for a period of 14 months. All interested parties may appear and show cause why said pool should not be developed on 40-acre spacing units.

CASE 3351: In the matter of Case No. 3351 being reopened pursuant to the provisions of Order No. R-3022-A, which order extended 640-acre spacing units for the Dos Hermanos-Morrow Gas Pool, Lea County, New Mexico, for a period of 14 months. All interested parties may appear and show cause why said pool should not be developed on 320-acre spacing units.

CASE 3520: (Reopened)

In the matter of Case No. 3520 being reopened pursuant to the provisions of Order No. R-3184, which order established 80-acre spacing units for the Northeast Bagley-Wolfcamp Pool, Lea County, New Mexico, for a period of one year. All interested parties may appear and show cause why said pool should not be developed on 40-acre spacing units.

CASE 3721: In the matter of the hearing called by the Oil Conservation Commission on its own motion to permit H. E. Barnes and all other interested parties to appear and show cause why the H. E. Barnes Levers State Well No. 1 and the H. E. Barnes Levers State Well No. 2, located in Units G and H, respectively, of Section 32, Township 7 South, Range 26 East, Pecos-San Andres Pool, Chaves County, New Mexico, should not be ordered plugged and abandoned in accordance with a Commission-approved plugging program.

dearnley-meier reporting service, inc.

SPECIALIZING IN: DEPOSITIONS, HEARINGS, STATEMENTS, EXPERT TESTIMONY, ETC. 7 COPY, CONVENTIONS

1120 SIMMS BLDG. • P. O. BOX 1072 • PHOENIX 243-4491 • ALBUQUERQUE, NEW MEXICO

BEFORE THE  
NEW MEXICO OIL CONSERVATION COMMISSION  
Santa Fe, New Mexico  
February 7, 1968  
EXAMINER HEARING

Application of Amerada Petroleum )  
Corporation for salt water disposal, )  
Lea County, New Mexico. )

Case No. 3719

BEFORE: Elvis A. Utz, Examiner

TRANSCRIPT OF HEARING



## NEW MEXICO OIL CONSERVATION COMMISSION

## EXAMINER HEARING

SANTA FE, NEW MEXICO

Hearing Date FEBRUARY 7, 1968 TIME: 9 A.M.

NAME	REPRESENTING	LOCATION
<i>Lowry</i>	<i>W O K + K</i>	<i>Santa Fe</i>
<i>E. D. Newman</i>	<i>Pan American</i>	<i>Ft Worth</i>
<i>Louis Cox</i>	<i>Hughes, Bondman &amp; Chait</i>	<i>Prudell</i>
<i>B. M. Anderson</i>	<i>Sinclair Oil Co</i>	<i>Midland</i>
<i>N. L. DuHarme</i>	<i>R. W. Byram</i>	<i>Santa Fe</i>
<i>Chas. Malone</i>	<i>Atwood &amp; Malone</i>	<i>Keswell</i>
<i>Thomas W. Lynch</i>	<i>Amerada Petroleum Corp.</i>	<i>Tulsa</i>
<i>R. L. Hoeker</i>	<i>Amerada Petrol Corp.</i>	<i>Tulsa</i>
<i>Jason Kellaher</i>	<i>Kellaher &amp; Fox</i>	<i>Santa Fe</i>
<i>W. A. Dwyer</i>	<i>N. O. C. C.</i>	<i>Artesia</i>

MR. UTZ: Hearing will come to order. First case on the docket will be Case Number 3719.

MR. HATCH: Case 3719, Application of Amerada Petroleum Corporation for salt water disposal, Lea County, New Mexico.

MR. KELLAHIN: If the Examiner please, Jason Kellahin, Kellahin and Fox, Santa Fe, appearing for the Applicant in association with Mr. Thomas Lynch, a member of the Oklahoma Bar, who will present the case.

MR. LYNCH: We will have one witness, Mr. R. L. Hocker.

MR. UTZ: Are there other appearances? You may swear the witness.

(Witness sworn)

R. L. HOCKER

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

DIRECT EXAMINATION

BY MR. LYNCH:

Q Mr. Hocker, will you state your name and your occupation and by whom you are employed for the record?

A My name is R. L. Hocker. I am employed by Amerada Petroleum Corporation as Petroleum Engineer in Tulsa, Oklahoma.

Q Have you testified previously before this Commission?

A Yes, sir, I have.

Q Are you familiar with the area which is the subject of Amerada's application in this proceeding?

A Yes.

(Whereupon, Applicant's  
Exhibit 1 marked for  
identification.)

Q Mr. Hocker, will you examine what has been marked as Exhibit 1 and tell us briefly what that Exhibit shows?

A Exhibit Number 1 is the map of the Bagley Field area and it's the same as Exhibit A which was filed with the application. It shows in red the subject of this application and indicated as being the Amerada-Chambers Number 1, the proposed salt water disposal well.

I have indicated on here all of the wells that had an allowable in December of 1967 in the Devonian.

Q And the Devonian is the interim in which this water is to be disposed?

A Yes, in the lower part of the Devonian.

Q Mr. Hocker, when was the Amerada-Chambers Number 1 completed initially?

A It was completed in August of 1950, it was completed on gas lift, making 159 barrels of oil and 23 barrels of water

in a twenty-four hour test.

Q Will you give us a little production history of the well?

A The well has consistently made water and over the years the water has increased. To the end of 1966, well, let's say first, the year 1966 the well produced 3,126 barrels of oil for a cumulative oil production at the end of 1966 of 212,053 barrels. During 1967 it produced 1,234 barrels, an average of 3.4 barrels of oil per day, making a cumulative oil production for the well of 213,286 barrels.

I would like to point out that in November, the last month that it produced a full month, it produced an average of two barrels of oil per day.

Q And a considerable quantity of water?

A Yes, I had a gauge in September the 6th of 1967 in which it pumped four barrels of oil and 248 barrels of water.

Q What is the present status of this well?

A It has been worked over to a disposal well. The well has been deepened as shown on another exhibit here, I think, which will help explain it, and it has been tested to see if the well will receive water and it will.

Q What other salt water disposal facilities are available in this area?

A There are two wells presently being used for salt water disposal into the Pennsylvanian, the North offset, the Amerada-Chambers Number Two, and the North offset to that, the Amerada State BTD Number Four, both in the Pennsylvanian.

Q Has it been Amerada's experience that the Pennsylvanian at least in those two wells is unable to take all of the water which needs to be disposed of?

A We recognized this problem sometime ago, that the Devonian is a good water drive field and water production is increasing, and we had a hearing before this Commission in October of '67 to do work on the aforementioned two wells plus the conversion of Amerada's Caudle Number One. We did perforate additional interval in the Chambers Number Two, and the injection was not sufficiently increased, we thought, to solve our problem. The rate of injection was increased by perforating additional interval not much more than ten or fifteen per cent of what it was before, so we felt that doing work on the other two wells was probably not justified and this was a better method of disposing of the water.

(Whereupon, Applicant's Exhibit 2 marked for identification.)

Q Would you now examine what has been marked as Amerada's Exhibit 2 and briefly describe what that exhibit shows?

A This is a log schematic of the proposed salt water

disposal well, Amerada-Chambers Number One in which I have added the deepening, the old TD was 11,040 feet and it's been deepened to 11,325 feet. I would like to call your attention to the fact that the production figures that I gave you previously regarding this well all came from the one set of perforations which is shown on the log and as far as change in perforations, it's never been changed throughout the life of the well, when it was a producing oil well.

Q Mr. Hocker, based on the amount of water that's being produced or was being produced while this well was still on production, toward the end of its productive life, is it your opinion that the injection here will be in the water column in the reservoir?

A Mainly in the water column, simply because the well is nearly all water by the time the well was changed from an oil producer to a salt water disposal well.

Q So in your opinion as a petroleum engineer there will be no physical waste of oil as a result of the disposal of water in this well?

A No, sir.

(Whereupon, Applicant's Exhibit  
3 marked for identification)

Q Would you now examine what has been marked as Exhibit 3 and briefly describe what that exhibit shows?

A Exhibit 3 is the same as Exhibit C which was submitted with the application. It is a schematic of the way we propose to dispose of the water in the Amerada-Chambers Number One. The water will be disposed through four inch tubing below a packer into the injection interval of 11,010 feet to 26 and open hole of 11,040 feet to 11,325 feet.

Q What will be in the annulus between the tubing and the casing?

A There will be some inhibited fresh water.

Q According to the schematic the four inch tubing will be internally coated with plastic?

A Yes, sir.

Q What volume of water do you anticipate disposing of in this well, if not initially, ultimately?

A We were asking in this application for permission to use as much as 15,000 barrels of water per day. We don't have that much now, but we can anticipate that as the life of the field progresses and with the good active water drive we have in the Devonian that we will probably need this, maybe even more later.

Q But at the present time you are asking for 15,000 barrels per day. How about the surface pressure, how much surface pressure do you need authority for?

A We don't think we need any right now, but we would like to have permission to use as much as 500 pounds on the surface.

Q Where does this water come from? You said that it comes from, you mentioned several times, the Devonian, does it come also from the Bagley-Pennsylvanian and the Hightower Field?

A The large majority of it comes from the Devonian, however, there is water production in the Bagley-Pennsylvanian. There is also on the very south end of Exhibit 1 a portion of what is called the Hightower Field, which is also in the Devonian. Amerada has one well producing from the Devonian, the State BTE Number 1, which makes considerable water. It's being disposed of in the field, but we would like authority under this application if it becomes necessary to transport water from the Hightower, Pennsylvanian and Devonian to the Chambers Number 1, if we need to, to dispose of it.

Q Is there any reason at all why the waters from these various reservoirs could not be disposed of in the same well?

A No, sir.

Q No incompatibilities?

A No, they are being disposed of in the same well now,



the Chambers Number Two and the BTB Number Four are receiving both waters and it is a system in which other operators' water is also received.

Q Will the completion shown on Exhibit 3 protect sources of oil, gas, and fresh water in the area?

A Yes, sir.

MR. LYNCH: That's all we have, Mr. Examiner.

CROSS EXAMINATION

BY MR. UTZ:

Q What was this water trucking request that you made a moment ago?

A What we ask for in our application was, in the event that we need to, not trucking particularly, we were thinking about the volume we are talking about might be as much as 1,000 barrels a day, of transporting water from Section 23 shown at the bottom of the map, which would be about Section 23, be 12 South, 33 East, about two miles south of the Chambers Number One, we thought it might be nice at least to have the authority so that we could use the water and dispose of that water if need be in the Chambers Number One.

MR. LYNCH: So in summary, Mr. Examiner, we are asking for authority to dispose of water that comes from the Bagley-Pennsylvanian, the Bagley-Devonian, and the Hightower,

both Devonian and Pennsylvanian formations in the Hightower Field.

A Right now we have no intention of doing this work from the Hightower but we would like the authority.

Q (By Mr. Utz) How would you transport it?

A We would have to worry about that as the need arises, but certainly we will have to if we need to.

Q Here is the top of the cement, 6834 on your long string?

A Yes, sir.

Q And the packer will be set at approximately 11,000?

A Right.

Q So that's around what, 3200, 3300 feet of cement above the packer.

A Yes.

MR. UTZ: Are there other questions of the witness?  
Witness may be excused.

(Witness excused.)

MR. HATCH: Did you enter these exhibits?

MR. LYNCH: I would like for Exhibits 1 through 3 to be received into evidence.

MR. UTZ: Without objection, Exhibits 1 through 3

will be entered into the record in this case.

(Whereupon, Applicant's Exhibits  
1 through 3 were offered and  
admitted in evidence)

MR. UTZ: Other statements? Case will be taken  
under advisement.

STATE OF NEW MEXICO     )  
                                   ) ss  
 COUNTY OF BERNALILLO    )

I, KAY EMBREE, 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 31st day of July, 1968.

Kay Embree  
 NOTARY PUBLIC

My Commission Expires:

November 19, 1971

I do hereby certify that the foregoing is a complete record of the proceedings in the hearing of Case No. 3219, heard by me on July 24, 1968.  
Francis J. [Signature], Examiner  
 New Mexico Oil Conservation Commission

DOCKET: REGULAR HEARING - WEDNESDAY - FEBRUARY 14, 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 March, 1968;

(2) Consideration of the allowable production of gas for March, 1968, from thirteen prorated pools in Lea, Eddy, and Roosevelt Counties, New Mexico; consideration of the allowable production of gas from nine prorated pools in San Juan, Rio Arriba and Sandoval Counties, New Mexico, for March, 1968.

CASE 3722: Application of BTA Oil Producers for compulsory pooling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an order force-pooling all mineral interests underlying the SW/4 SE/4 of Section 10, Township 9 South, Range 34 East, Lea County, New Mexico, from the surface of the ground to a depth of 9850 feet or the base of the Bough C zone of the Pennsylvanian formation.

CASE 3723: Southeastern nomenclature case calling for an order for the creation and extension of certain pools in Lea, Chaves and Eddy Counties, New Mexico:

(a) Create a new pool in Lea County, New Mexico, classified as an oil pool and designated as the North Paduca Delaware Pool. The discovery well for said pool is the Texaco Inc. Cotton Draw Unit Well No. 69 in Unit K of Section 34, Township 24 South, Range 32 East. Said pool should comprise the following described acreage:

TOWNSHIP 24 SOUTH, RANGE 32 EAST, NMPM  
Section 34: SW/4

(b) Create a new pool in Eddy County, New Mexico, classified as an oil pool for Morrow production and designated as the Poker Lake-Morrow Gas Pool. The discovery well for said pool is Pan American Petroleum Corporation's Poker Lake Unit No. 36 located in Unit P of Section 28, Township 24 South, Range 31 East. Said pool should comprise the following described acreage:

TOWNSHIP 24 SOUTH, RANGE 31 EAST, NMPM  
Section 28: S/2

(c) Create a new pool in Eddy County, New Mexico, classified as a gas pool for Strawn production and designated as the Scanlon-Strawn Pool. The discovery well is J. M. Huber Corporation's Yates Federal Well No. 1 located in Unit P of Section 32, Township 20 South, Range 29 East. Said pool should comprise the following described acreage:

TOWNSHIP 20 SOUTH, RANGE 29 EAST, NMPM  
Section 32: S/2

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

TOWNSHIP 11 SOUTH, RANGE 33 EAST, NMPM  
Section 8: SW/4  
Section 20: SE/4

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

TOWNSHIP 11 SOUTH, RANGE 33 EAST, NMPM

Section 9: SW/4  
Section 14: N/2 SW/4  
Section 20: NE/4  
Section 21: NW/4

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

TOWNSHIP 8 SOUTH, RANGE 30 EAST, NMPM

Section 4: SW/4  
Section 21: All  
Section 29: NE/4

TOWNSHIP 9 SOUTH, RANGE 30 EAST, NMPM

Section 4: NW/4

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

TOWNSHIP 10 SOUTH, RANGE 33 EAST, NMPM

Section 24: S/2 SW/4

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

TOWNSHIP 7 SOUTH, RANGE 26 EAST, NMPM

Section 28: E/2 SW/4 and SE/4 NW/4

(i) Extend the Penasco Draw San Andres-Yeso Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 19 SOUTH, RANGE 25 EAST, NMPM

Section 5: SE/4 NW/4 and SW/4 NE/4

(j) Extend the Twin Lakes-San Andres Pool in Chaves County, New Mexico, to include therein:

TOWNSHIP 8 SOUTH, RANGE 28 EAST, NMPM

Section 35: S/2 SE/4

JAN 11 PM  
BEFORE THE OIL CONSERVATION COMMISSION  
OF THE STATE OF NEW MEXICO

APPLICATION OF AMERADA PETROLEUM CORPORATION )  
FOR AUTHORITY TO DISPOSE OF SALT WATER INTO )  
THE SILURO-DEVONIAN FORMATION THROUGH ITS )  
L. H. CHAMBERS WELL NO. 1 LOCATED IN THE )  
SE/4 NW/4 SECTION 11-12S-33E, BAGLEY FIELD, )  
LEA COUNTY, NEW MEXICO. )

CASE NO. 2719

APPLICATION

Application Amerada Petroleum Corporation states that:

1. Applicant hereby requests authority to dispose of salt water into the Siluro-Devonian Formation through its L. H. Chambers Well No. 1 located in the SE/4 NW/4 Section 11-12S-33E, Bagley Field, Lea County, New Mexico.
2. Attached hereto as Exhibit A is a plat showing the location of the subject disposal well, the location of all other wells within a radius of two miles from the subject well, and the names of all known lessees within that radius.
3. Attached hereto as Exhibits B and C, respectively, are an electric log of the subject well and a diagrammatic sketch of the proposed completion.
4. Applicant proposes to dispose of approximately 15,000 barrels of salt water per day produced by nearby wells from the Bagley Pennsylvanian Pool, Bagley Siluro-Devonian Pool, and perhaps the Hightower Field.
5. A copy of this application, complete with all attachments, has been given to the State Engineer's Office, Capitol Building, Santa Fe, New Mexico.

DOCKET MAILED

AMERADA PETROLEUM CORPORATION

Date 1-25-68

By

Thomas W. Lynch  
Thomas W. Lynch  
P. O. Box 2040  
Tulsa, Oklahoma 74102

Resident Counsel:

Jason W. Kellahin  
Kellahin and Fox  
P. O. Box 1769  
Santa Fe, New Mexico 87501

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PROPOSED SALTWATER DISPOSAL WELL  
AMERADA L. H. CHAMBERS NO.1  
C SE/4 NW/4 11-12S-33E  
BAGLEY SILURO DEVONIAN POOL  
LEA COUNTY, NEW MEXICO

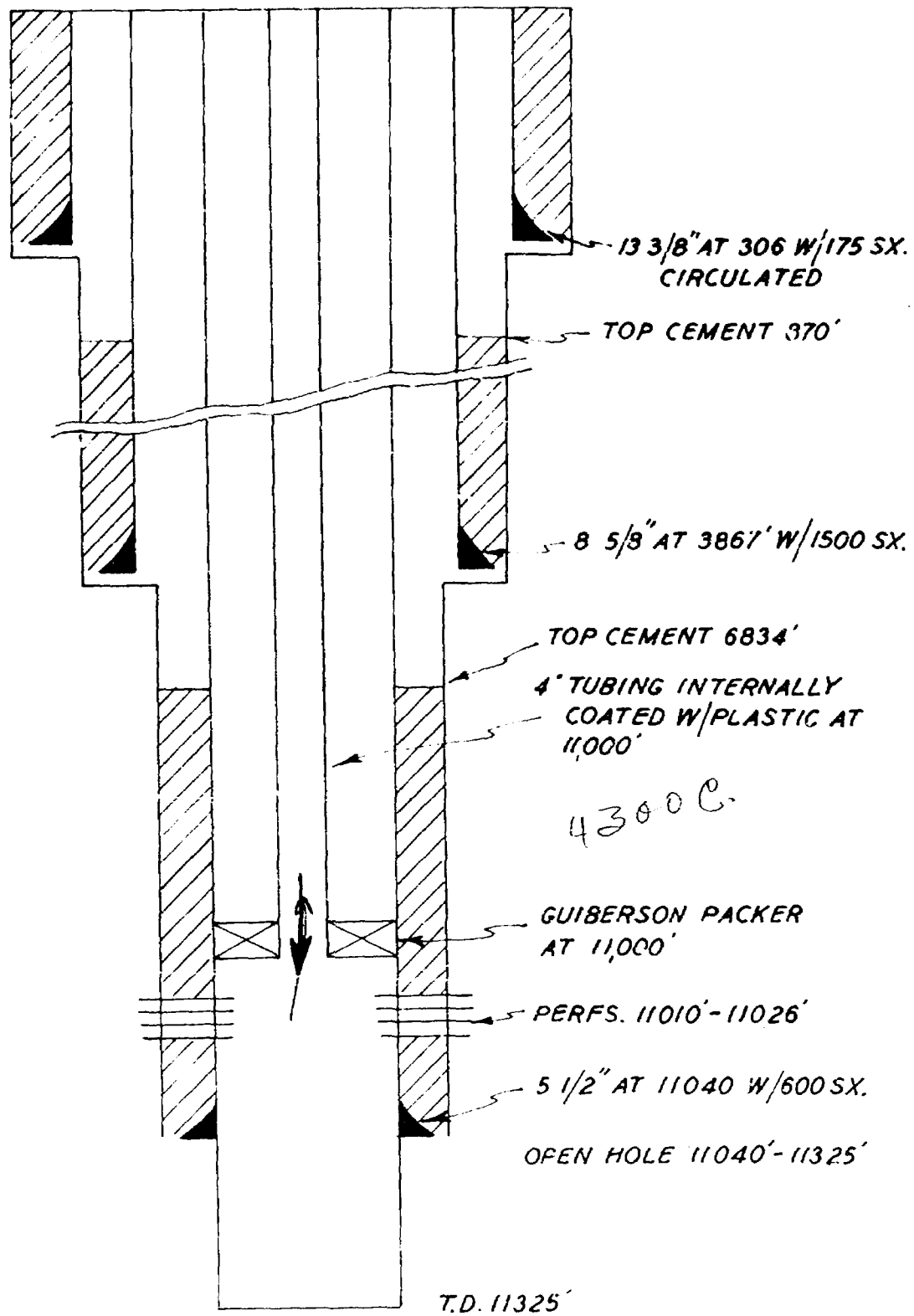
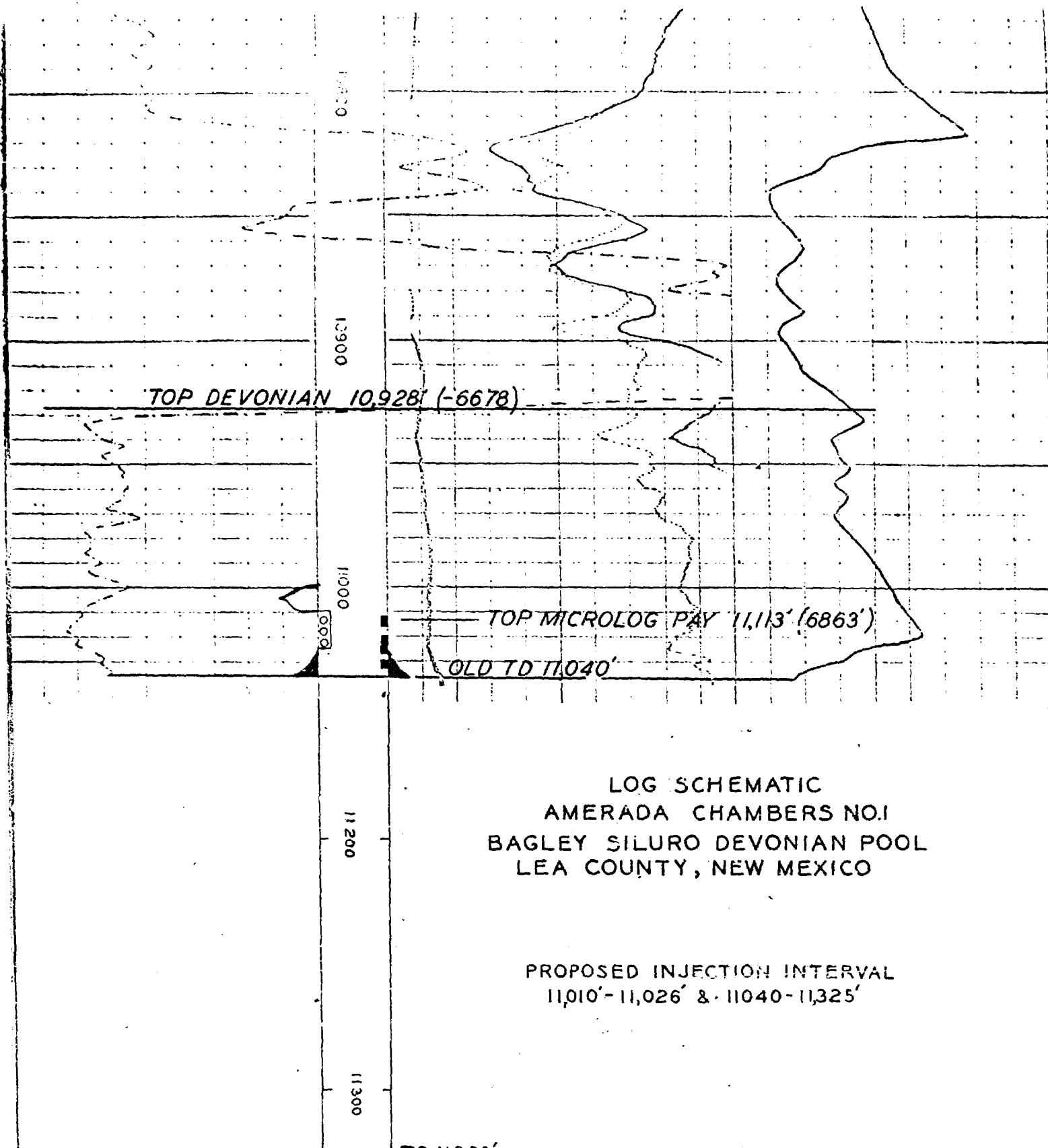


EXHIBIT C





LOG SCHEMATIC  
AMERADA CHAMBERS NO.1  
BAGLEY SILURO DEVONIAN POOL  
LEA COUNTY, NEW MEXICO

PROPOSED INJECTION INTERVAL  
11,010'-11,026' & 11,040'-11,325'

BEFORE EXAMINER UTZ  
GE CONSERVATION CORP.  
EXHIBIT NO. 3  
CASE NO. 3719

AMERADA PETROLEUM CORP.

EXHIBIT 2

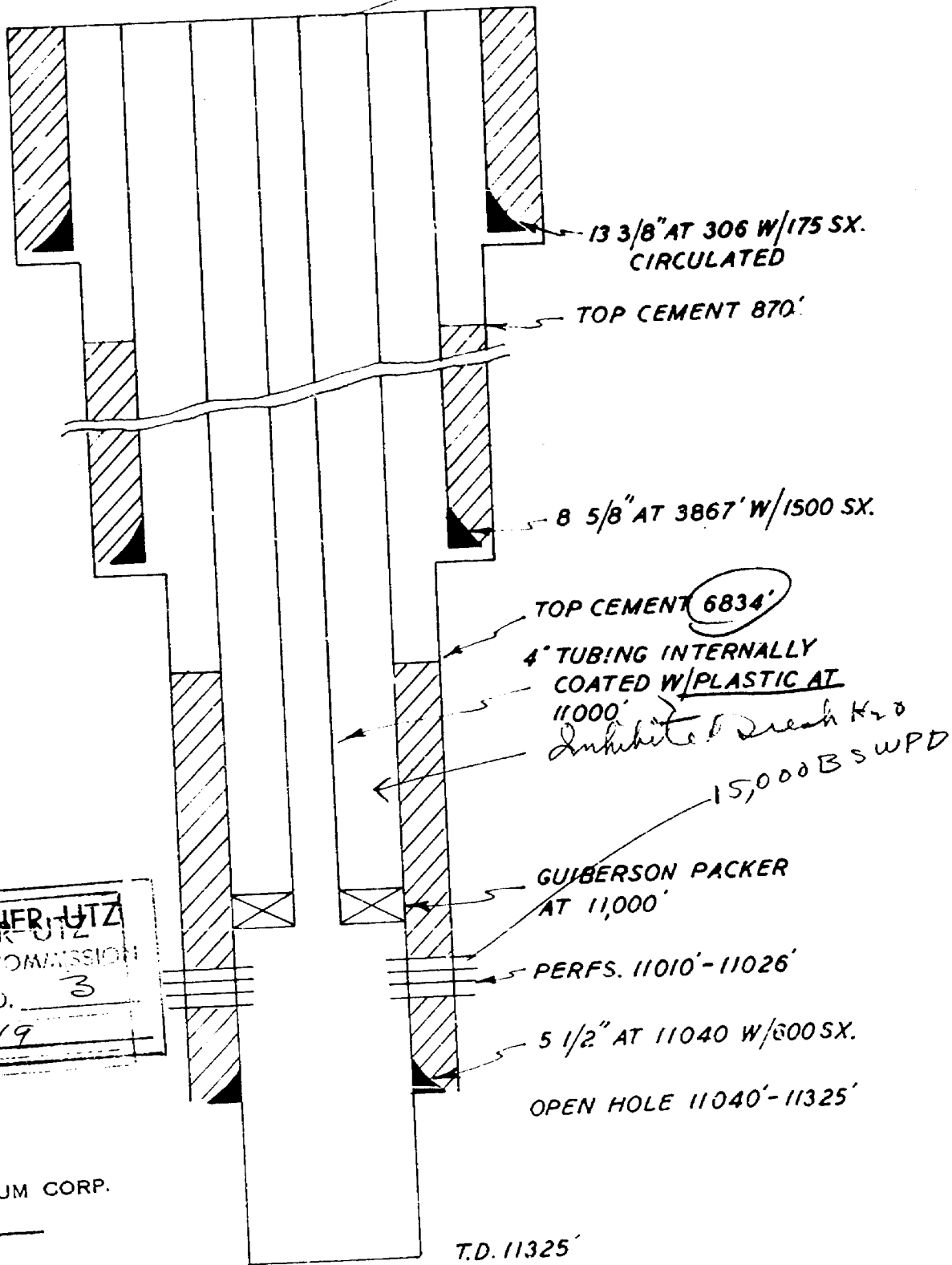
NO. 3719

DATE 2-7-68

PROPOSED SALTWATER DISPOSAL WELL  
AMERADA L. H. CHAMBERS NO. 1

C 38/4 NW/4 11-12S-33E  
BAGLEY SILURO DEVONIAN POOL  
LEA COUNTY, NEW MEXICO

500' *# surface*



BEFORE EXAMINER UTZ  
P. 1011 EXAMINER UTZ  
OIL CONSERVATION COMMISSION  
*Cem.* EXHIBIT NO. 3  
CASE NO. 3719

AMERADA PETROLEUM CORP.  
EXHIBIT 3  
NO. 3719  
DATE 2-7-68