

CASE 4003: Application of MORRIS
R. ANTWEIL FOR SALT WATER DISPOSAL
LEA COUNTY, NEW MEXICO.

Case Number

4003

Application

Transcripts.

Small Exhibits

ETC.

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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 19, 1968

IN THE MATTER OF:

Application of Morris R. Antweil
for salt water disposal, Lea County,
New Mexico.

Case No. 4003

BEFORE: DANIEL S. NUTTER

TRANSCRIPT OF HEARING

MR. NUTTER: We will call as the next case, Case 4003.

MR. HATCH: Application of Morris R. Antweil 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.

MR. NUTTER: We might call for additional appearances in this case, if there are any.

(Witness sworn.)

(Whereupon, Applicant's Exhibits 1 through 6 marked for identification.)

* * * * *

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

DIRECT EXAMINATION

BY MR. KELLAHIN:

Q Would you state your name, please?

A Burton Veteto.

Q Mr. Veteto, what business are you engaged in?

A In the Oil Industry.

Q Are you associated with Morris R. Antweil?

A Yes.

Q The applicant in this case?

A Yes.

Q What is your position?

A Geologist.

Q Have you testified before the Oil Conservation Commission and made your qualifications a matter of record?

A Yes, I have.

MR. KELLAHIN: Are the witness's qualifications acceptable?

MR. NUTTER: Yes, they are.

Q (by Mr. Kellahin) Mr. Veteto, are you familiar with the application of Morris R. Antweil in Case No. 4003?

A Yes, I am.

Q Briefly, what is proposed in this application?

A Morris R. Antweil desires to convert the proposed well to a salt water disposal well.

Q What is the well designation and what is its location, please?

A The well is designated the Martha Forrest No. 1 well, located in the Jalmat Pool, under Unit L of Section 24, 25 South, 36 East.

Q Referring to what has been marked as Exhibit No. 1 would you identify that exhibit, please?

A This was prepared by our engineer, showing the Jalmat producing wells in blue and the disposal wells along

with our presentation in red.

Q You say all the wells colored in blue are Jalmat wells, are they not?

A Yes, that's true.

Q Now, the disposal well, the northernmost well, is the subject well in this hearing, is it not?

A That's right.

Q What are the other two wells?

A The one to the south is the Continental disposal well, and south of the Continental well is the Ralph Lowe disposal well.

Q Do you know what interval they are disposing in?

A Continental is disposing in the first 100 feet of the Seven Rivers Reef. The Ralph Lowe well is disposing in the Yates Formation.

Q Now, referring to what has been marked as Exhibit No. 2, would you identify that exhibit?

A That is Morris R. Antweil's application for the disposal well.

Q Does that also show the ownership of the surface in this area?

A Yes.

Q Who owns the surface?

A Mr. Fred B. Cooper, whose address is Jal, New Mexico.

Q We will come back to that after a while. Does that contain all the required information on a normal application for salt water disposal?

A Yes, it does.

Q Referring to what has been marked as Exhibit No. 3, would you identify that exhibit?

A Exhibit No. 3 is a water analysis prepared by United Chemical Corporation, of the water.

Q That is the produced water that will be disposed of in this well?

A Yes, sir.

Q What is the source of this water?

A The source of the water is -- collected at the battery of which is the produced water.

Q I understand, but what wells are producing and where are they located?

A This is from our No. 1 Federal Well.

Q That is the water sample, but you will be disposing of water other than that in this disposal well, will you not?

A That's right.

Q What other wells will be involved in that?

A The other wells which will be involved are the No. 2 well of ours, Federal, and two wells which we are now in the process of purchasing, which are shown --

Q On Exhibit No. 1?

A Yes, it is the Ayres No. 2 Forrest and the No. 1.

Q In other words, you are disposing of water then, from four wells, is this correct?

A That is correct.

Q Are they all in the immediate vicinity of your disposal well?

A Yes.

Q What formation are those wells producing from?

A The Yates Formation.

Q That is in the Jalmat Pool, is it not?

A That is true.

Q Referring to what has been marked as Exhibit No. 4, would you identify that exhibit?

A No. 4 is a diagrammatic sketch of the proposed disposal well.

Q Now, in connection with your application, did you file a copy of that exhibit?

A Yes.

Q Was the total depth incorrectly stated on that?

A Yes, it was a typographical error. The correct total depth is 3330 feet rather than 70,330.

Q But that has been corrected on your Exhibit No. 4 here?

A Yes.

Q Does this exhibit depict the present condition of this well?

A Yes, sir, it does.

Q How will you complete it for salt water disposal?

A We propose to re-enter this well, test the condition to receive the water, that is if it will make a disposal well at the intervals shown perforated and the open hole interval which is in the Yates Formation. If this is the case, we will run cement-lined tubing with a tension packer, fill the annulus with water and a gauge and dispose down the tubing.

Q Now, will this type of a completion adequately protect all fresh water zones or producing horizons encountered in the well bore?

A Yes, it will.

Q In your opinion, will the injection of water into the Yates as you propose, cause any damage or impairment to producing wells in the area?

A No.

Q Will it cause any loss of oil in any respect?

A None whatsoever.

Q Turning to what has been marked as Exhibit No. 5, will you identify that exhibit please?

A Exhibit No. 5 is an ownership and location plat of the area.

Q That's substantially the same as our Exhibit No. 1 other than the wells have not been shown, is that correct?

A That is correct.

Q Turning to what has been marked as Exhibit No. 6, will you identify that exhibit, please?

A This is a well which is a direct offset to our proposed disposal well, which is the operators No. 1 Roberta Well, which has subsequently been abandoned. The proposed well, there is no available log since it was drilled a number of years ago, by the Barnesville Company. This shows the interval which we believe to receive the injection of the disposed water.

Q You would assume that that would correctly depict the formation in the subject well, would it not, in your opinion?

A I certainly would.

Q Were Exhibits 1 through 6 prepared by you?

A By our engineer.

Q And he is ill, is that correct?

A That is correct.

Q Unable to attend the hearing?

A That's right.

Q Have you examined the exhibits yourself?

A Yes.

Q In your opinion, do they correctly depict the information purported to be shown on them?

A Yes, they do.

Q Do they correctly reflect the conditions that exist?

A Yes.

MR. KELLAHIN: At this time, I offer in evidence Exhibits 1 through 6.

MR. NUTTER: Antweil's Exhibits 1 through 6 will be admitted in evidence.

(Whereupon, Applicant's Exhibits 1 through 6 offered and admitted in evidence.)

MR. KELLAHIN: That completes our examination.

CROSS EXAMINATION

BY MR. NUTTER:

Q Mr. Veteto, turning to your Exhibit No. 1, would

you identify for me the four wells that initially will be taken care of by this disposal well?

A Yes, the two wells in the east half of the southwest quarter of 24, Morris R. Antweil's No. 1 and No. 2 Federal.

Q That's the lease that's identified as Escarte?

A Yes, on the plat, it is referred to on our schedule, I believe, as our Federal, Morris R. Antweil Federal Lease.

Q O. K.

A And the adjoining 80 acres with the No. 2 Forrest.

Q Which is the well south of the disposal well?

A Yes, that's true.

Q O. K.

A And the well which will be southwest or west of the disposal well is the other well.

Q On that same '40?

A No, it's west of the disposal well.

Q The blue well out there in Section 23?

A Right, yes, sir, that will be in 23. The other wells are in 24 and then the one well in 23.

Q Then you either have those at the present time, or you are acquiring them?

A That's correct.

Q Now, turning to your Exhibit No. 4, your schematic

diagram, is it correct that the disposal would be into the perforated interval from 3,049 to 3,090, from 3093 to 3110 and in the open hole interval from 3122 to the top of the plug at 3159?

A That is correct.

Q Now, I notice that you are going to use 2 and 7/8ths inch tubing set in a packer at 3030; will this tubing be plastic-coated?

A Cement-lined.

Q Cement-lined tubing; and will the annulus be loaded with some sort of inhibited fluid?

A Yes, preferably treated water.

Q And will it be equipped with a pressure gauge at the surface on the annulus?

A Yes, it will.

MR. NUTTER: Are there any other questions of Mr. Veteto?

MR. KELLAHIN: I'd like to ask one more.

REDIRECT EXAMINATION

BY MR. KELLAHIN:

Q Mr. Veteto, it is my understanding that the Commission has in its files in connection with this case, a letter from a land owner expressing opposition to this salt

water disposal well. Have you made any arrangement with the surface owner for the use of this well for salt water disposal?

A At the present time, we are negotiating surface damage with Mr. Fred Cooper.

Q Have any demands been made upon you by Mr. Cooper in connection with this?

A Yes, he is asking \$900.00 per year for the use of this well. We think that is a little high, and unreasonable. He is now asking \$750.00.

Q You are still in the process of negotiating with him, though, is this correct?

A Yes, we certainly are.

MR. KELLAHIN: That's all I had.

MR. NUTTER: Are there any other questions of Mr. Veteto? He may be excused.

(Witness excused.)

MR. NUTTER: Do you have anything further, Mr. Kellahin?

MR. KELLAHIN: That's all I have.

MR. HATCH: I would like to read the letter that is spoken of into the record.

MR. NUTTER: Please do.

MR. HATCH: It's addressed to the New Mexico Oil Conservation Commission.

"Dear Sir, As land owner of deeded land where Morris R. Antweil has a lease in Section 24, Township 25 South, Range 36 East. Also, I own land that is under another lease in the same section. Mr. Antweil has made application to dispose of salt water into a well that isn't on his lease. I hereby make protest that he not be allowed to cross his lease line without settlement to me. He has made no contact with me on damage. I understand that I do have the right to protest and have a hearing. Fred B. Cooper, Star Route, Jal, New Mexico."

MR. NUTTER: Was reply made to that letter, Mr. Hatch?

MR. HATCH: There is a copy of a letter that I sent to Mr. Cooper advising him that he does have a right to appear and protest the application of Mr. Antweil. He did not choose to appear at the hearing; the Commission will enter his letter in the record of the case.

MR. KELLAHIN: If the Examiner please, in regard to the letter, it is the position of the applicant that the Commission is without jurisdiction to consider the question of crossing lease lines or land ownership in connection with an

application for salt water disposal. I think the sole question presented to the Commission in an application of this nature is one where the prevention of waste and the protection of correlative rights. Now, if you come to the question of correlative rights as being an element of damages, certainly this Commission cannot sit in judgment on the amount of damages to be paid to the land owner under any conditions. The protestant in this case certainly has adequate remedy at law but not before this Commission. So it is our position that the protest should not be given any weight.

MR. NUTTER: Does anyone else have anything they wish to offer in Case 4003? We will take the case under advisement.

I N D E X

WITNESS	PAGE
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Cross Examination by Mr. Nutter	9

<u>EXHIBITS</u>	<u>MARKED</u>	<u>OFFERED AND ADMITTED</u>
Applicant's 1 through 6	6	9

STATE OF NEW MEXICO)
) ss
 COUNTY OF BERNALILLO)

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

WITNESS my hand this 20th day of November, 1968.

Ada Dearnley

 Ada Dearnley

I do hereby certify that the foregoing is
 a complete record of the proceedings in
 the Zuni hearing of Case No. 4003
 heard by me on 12/19, 1968.
Burton

 New Mexico Oil Conservation Commission

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

December 23, 1968

Mr. Jason Kellahin
Kellahin & Fox
Attorneys at Law
Post Office Box 1769
Santa Fe, New Mexico

Re: Case No. 4003
Order No. R-3641
Applicant:
Morris R. Antweil

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

**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. 4003
Order No. R-3641**

**APPLICATION OF MORRIS R. ANTWEIL
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 19, 1968, at Santa Fe, New Mexico, before Examiner Daniel S. Mutter.

NOW, on this 23rd day of December, 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, Morris R. Antweil, is the owner and operator of the Martha Forrest Well No. 1, located in Unit L of Section 24, Township 25 South, Range 36 East, NMPN, Jalmat Pool, Lea County, New Mexico.

(3) That the applicant proposes to utilize said well to dispose of produced salt water into the Yates and Seven Rivers formations, with injection into the perforated and open-hole interval from approximately 3049 feet to 3159 feet.

(4) That the injection should be accomplished through 2 7/8-inch cement-lined tubing installed in a packer set at approximately 3030 feet; that the casing-tubing annulus should be filled with an inert fluid; and that a pressure gauge should

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CASE No. 4003
Order No. R-3641

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.

IT IS THEREFORE ORDERED:

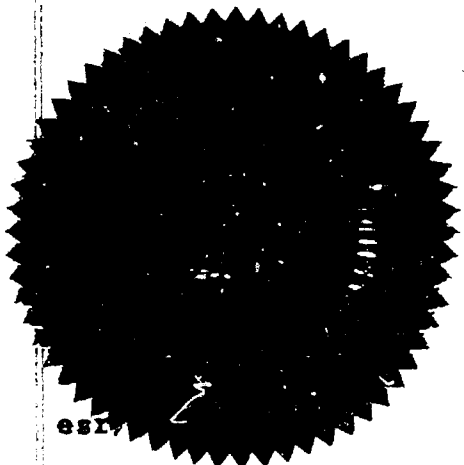
(1) That the applicant, Morris R. Antweil, is hereby authorized to utilize his Martha Forrest Well No. 1, located in Unit L of Section 24, Township 25 South, Range 36 East, NMPM, Jalmat Pool, Lea County, New Mexico, to dispose of produced salt water into the Yates and Seven Rivers formations, injection to be accomplished through 2 7/8-inch tubing installed in a packer set at approximately 3030 feet, with injection into the perforated and open-hole interval from approximately 3049 feet to 3159 feet;

PROVIDED HOWEVER, that the tubing shall be cement-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 his 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, Chairman

GLYTON B. HAYS, Member

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

OIL CONSERVATION COMMISSION
P. O. BOX 2088
SANTA FE, NEW MEXICO 87501

December 10, 1968

C
O
P
Y

Mr. Fred B. Cooper
Star Route
Jal, New Mexico

Re: Case 4003
Application of Morris R.
Antweil for salt water
disposal, Lea County,
New Mexico

Dear Mr. Cooper:

I am enclosing the docket of cases to be heard
before an examiner on December 19, 1968.

You have a right to appear and protest the
application of Mr. Antweil. If you do not choose
to appear at the hearing, the Commission will enter
your letter of December 7, 1968, into the record of
the case.

Very truly yours,

GEORGE M. HATCH
Attorney

GMH/esr
Enclosure

Dec 7, 1968

DEC 12 58
11 AM 12 58
DEC 12 58

Case
4003
file

New Mexico Nat Conservation Comm.

Dear Sir,

as land owner of located where
Morris R. Antuill has a lease in Sec 24
T 25 S. R 36 E also I own land that
is under a mouth lease in the same
sec. Mr. Antuill has made application
to dispose of his salt water into a well
that is on his lease

I have by make protest that he not be
allowed to cross his lease line with out
settlement to me, he has made no contact
with me or damage, I understand I do
have the right to protest and have a
hearing

Thanks

Fred B. Cooper

Star Rt.

Gal NM.

Mr. Antuill application was noted Dec 2, 1968
signed by R. M. Williams

MORRIS R. ANTWERP Roberto #1

North Offset to Proposed Disposal Wells

APPROXIMATE
INTEGRAL
OF
INJECTION

3100

3200

BEFORE EXAMINER NOTED

CIL. COUNCIL FOR THE

6

4003

Docket No. 40-68

DOCKET: EXAMINER HEARING - THURSDAY - DECEMBER 19, 1968

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

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

CASE 4000: Application of Coastal States Gas Producing Company 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 Sand formation in the perforated interval from 5051 feet to 5055 feet in its Conoco-Federal Well No. 2 located in Unit B of Section 15, Township 26 South, Range 33 East, Salado Draw-Delaware Pool, Lea County, New Mexico.

CASE 4001: Application of Tamarack Petroleum 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 Queen formation in the perforated interval from approximately 4862 feet to 4892 feet in its Union State Well No. 2, located in Unit K of Section 15, Township 19 South, Range 35 East, Pearl-Queen Pool, Lea County, New Mexico.

CASE 4002: Application of Marathon Oil Company for a unit agreement, Chaves County, New Mexico. Applicant, in the above-styled cause, seeks approval of the Dallas Ranch Unit Area comprising 8,929 acres, more or less, of State lands in Township 9 South, Ranges 26 and 27 East, Chaves County, New Mexico.

CASE 3968: (Continued and Readvertised)

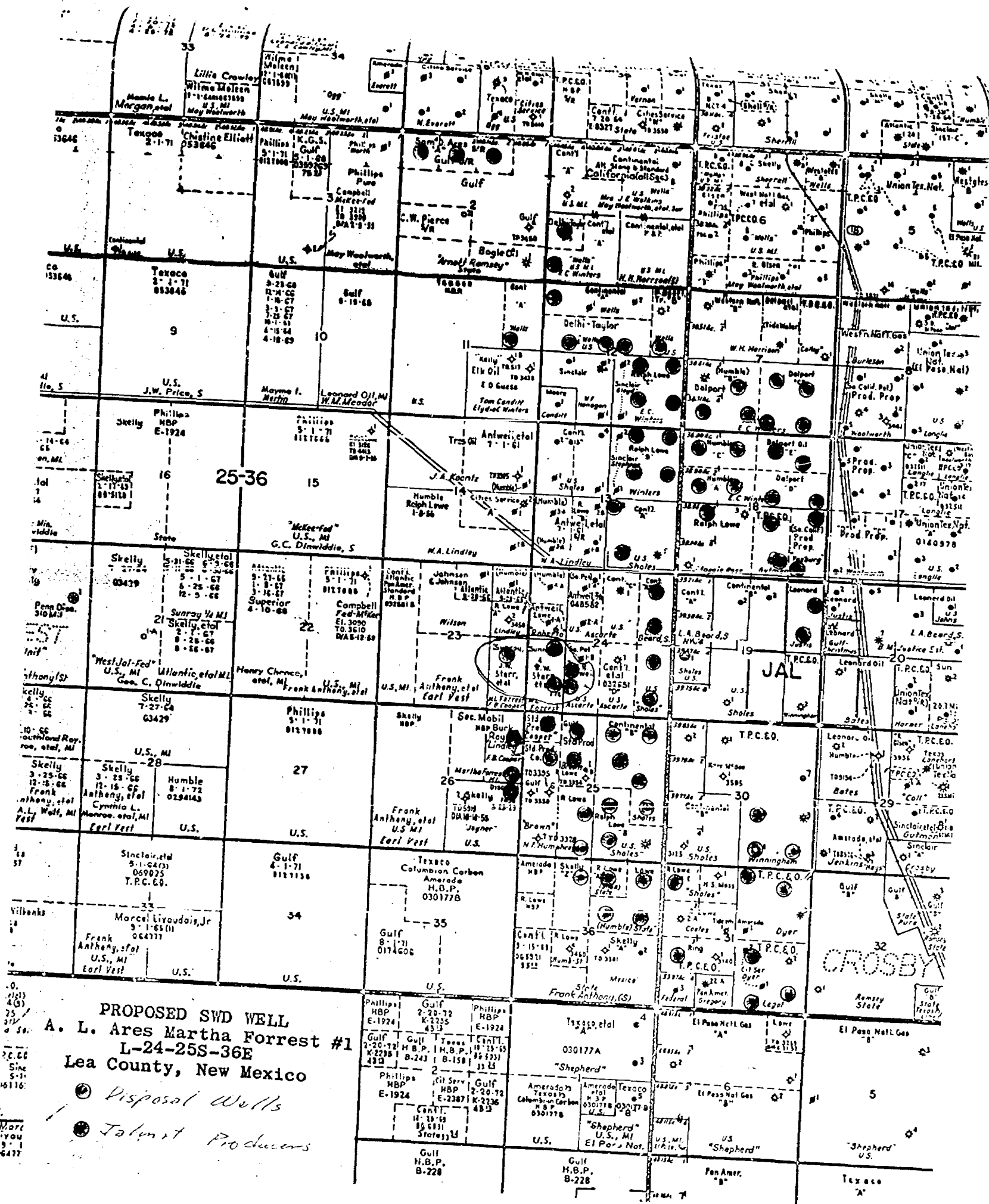
Application of Texaco, Inc. for salt water disposal, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the Devonian formation in the open-hole interval from approximately 12,400 feet to 12,550 feet in its U. D. Sawyer Well No. 4 located in Unit O of Section 34, Township 9 South, Range 36 East, Crossroads-Devonian Pool, Lea County, New Mexico.

December 19, 1968, Examiner Hearing
Docket No. 40-68

-2-

← CASE 4003: Application of Morris R. Antweil for salt water disposal, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the Yates-Seven Rivers formation in the perforated and open-hole interval from 3049 feet to 3159 feet in his Martha Forrest Well No. 1 located in Unit L of Section 24, Township 25 South, Range 36 East, Jalmat Pool, Lea County, New Mexico.

CASE 4004: Application of Atlantic-Richfield Company for the amendment of Order No. R-3507, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the amendment of Order No. R-3507 to permit the disposal of produced salt water into the Lower Queen formation in the interval from 5160 feet to 5380 feet, as well as the previously authorized interval from 4820 feet to 4830 feet in the Upper Queen formation, in its State BN Well No. 1, located in Unit D of Section 13, Township 19 South, Range 34 East, Quail-Queen Pool, Lea County, New Mexico.



PROPOSED SWD WELL
A. L. Ares Martha Forrest #1
L-24-25S-36E
Lea County, New Mexico

● Disposal Wells
● Joint Producers

Notes:
1. 2-1-71
2. 3-23-68
3. 12-18-66
4. 1-1-71
5. 1-1-71
6. 1-1-71
7. 1-1-71
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100. 1-1-71

NEW MEXICO OIL CONSERVATION COMMISSION
APPLICATION TO DISPOSE OF SALT WATER BY INJECTION INTO A POROUS FORMATION

OPERATOR Morris R. Antweil		ADDRESS Box 2010 Hobbs, New Mexico			
LEASE NAME Martha Forrest	WELL NO. 1	FIELD Jalmat	COUNTY Lea		
LOCATION UNIT LETTER L WELL IS LOCATED 2310 FEET FROM THE South LINE AND 990 FEET FROM THE West LINE, SECTION 24 TOWNSHIP 25S RANGE 36E NMPM. Lea County, New Mexico					
CASING AND TUBING DATA					
NAME OF STRING	SIZE	SETTING DEPTH	SACKS CEMENT	TOP OF CEMENT	TOP DETERMINED BY
SURFACE STRING	12 1/2"	500'	485	Circ.	Calculated
INTERMEDIATE	9 5/8"	2930'	400	Circ.	Calculated
LONG STRING	7"	3122'	50	2725'	Calculated
TUBING	2 7/8"	3030'	NAME, MODEL AND DEPTH OF TUBING PACKER Guiberson Tension @ 3030'		
NAME OF PROPOSED INJECTION FORMATION Yates - Seven Rivers Reef		TOP OF FORMATION 3049'		BOTTOM OF FORMATION 3159'	
IS INJECTION THROUGH TUBING, CASING, OR ANNULUS? Tubing		PERFORATIONS OR OPEN HOLE? Both		PROPOSED INTERVAL(S) OF INJECTION 3049' - 3150'	
IS THIS A NEW WELL DRILLED FOR DISPOSAL? No		IF ANSWER IS NO, FOR WHAT PURPOSE WAS WELL ORIGINALLY DRILLED? Jalmat Producer		HAS WELL EVER BEEN PERFORATED IN ANY ZONE OTHER THAN THE PROPOSED INJECTION ZONE? No	
LIST ALL SUCH PERFORATED INTERVALS AND SACKS OF CEMENT USED TO SEAL OFF OR SQUEEZE EACH					
DEPTH OF BOTTOM OF DEEPEST FRESH WATER ZONE IN THIS AREA 1100'		DEPTH OF BOTTOM OF NEXT HIGHER OIL OR GAS ZONE IN THIS AREA None		DEPTH OF TOP OF NEXT LOWER OIL OR GAS ZONE IN THIS AREA None	
ANTICIPATED DAILY INJECTION VOLUME (BBLs.)	MINIMUM 2500 b/d	MAXIMUM 3500 b/d	OPEN OR CLOSED TYPE SYSTEM Closed	IS INJECTION TO BE BY GRAVITY OR PRESSURE? Gravity	APPROX. PRESSURE (PSI) ---
ANSWER YES OR NO WHETHER THE FOLLOWING WATERS ARE MINERALIZED TO SUCH A DEGREE AS TO BE UNFIT FOR DOMESTIC, STOCK, IRRIGATION, OR OTHER GENERAL USE -			WATER TO BE DISPOSED OF Yes	NATURAL WATER IN DISPOSAL ZONE Yes	ARE WATER ANALYSES ATTACHED? Yes
NAME AND ADDRESS OF SURFACE OWNER (OR LESSEE, IF STATE OR FEDERAL LAND) Fred B. Cooper Jal, New Mexico					
LIST NAMES AND ADDRESSES OF ALL OPERATORS WITHIN ONE-HALF (1/2) MILE OF THIS INJECTION WELL					
Burk Royalty Co. 800 Oil & Gas Bldg. Wichita Falls, Tex. 76301					
Standard Production Co. Box 763 Hobbs, New Mexico 88240					
Continental Oil Co. Box 460 Hobbs, New Mexico 88240					
BEFORE EXAMINER NOTED OIL CONSERVATION COMMISSION					
HAVE COPIES OF THIS APPLICATION BEEN SENT TO EACH OF THE FOLLOWING?		SURFACE OWNER Yes		EACH OPERATOR WITHIN ONE-HALF MILE OF THIS WELL Yes	
ARE THE FOLLOWING ITEMS ATTACHED TO THIS APPLICATION (SEE RULE 701-B)		PLAT OF AREA Yes		ELECTRICAL LOG None Available	
				CASE NO. ---	
				DIAGRAMMATIC SKETCH OF WELL Yes	

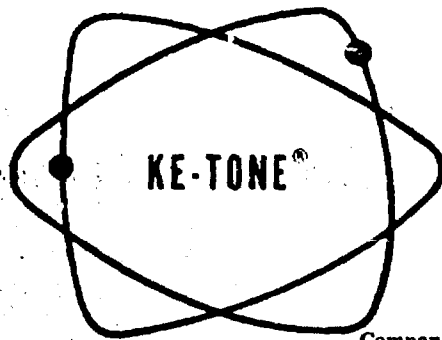
I hereby certify that the information above is true and complete to the best of my knowledge and belief.

E. M. Williams
(Signature)Agent
(Title)2 December 1968
(Date)

NOTE: Should waivers from the State Engineer, the surface owner, and all operators within one-half mile of the proposed injection well, not accompany this application, the New Mexico Oil Conservation Commission will hold the application for a period of 15 days from the date of receipt by the Commission's Santa Fe office. If at the end of the 15-day waiting period no protest has been received by the Santa Fe office, the application will be processed. If a protest is received, the application will be set for hearing, if the applicant so requests. SEE RULE 701.

TABLE 1

TELEPHONE: HOBBS 393-6215



UNITED CHEMICAL CORPORATION

OF NEW MEXICO

601 NORTH LEECH

P. O. BOX 1499

HOBBS, NEW MEXICO 88240

Company Morris R. Antweil

Field Jalmat - Seven Rivers

Lease Federal Sampling Date 6/4/68

Type of Sample _____

WATER ANALYSIS

IONIC FORM	me/l *	mg/l *
Calcium (Ca++)	25.15	504
Magnesium (Mg++)	20.97	255
Sodium (Na+) (cal.)	141.57	3255
Iron		0
Bicarbonate (HCO ₃ -)	23.40	1427
Carbonate (CO ₃ -)	NOT	FOUND
Hydroxide (OH-)	NOT	FOUND
Sulphate (SO ₄ -)	31.75	1525
Chloride (Cl-)	132.54	4700
<div style="border: 1px solid black; padding: 5px; display: inline-block;"> <p>BEFORE EXAMINER NUTTER</p> <p>INTERVIEW COMMISSION</p> <p>Exhibit NO. <u>2</u></p> <p>G. NO. <u>4003</u></p> </div>		
7.3 pH c @ 68° F		
Dissolved Solids on Evap. at 103° - 105° C		
Hardness as Ca CO ₃	46.12	2306
Carbonate Hardness, as CaCO ₃ (temporary)	23.40	1170
Non-Carbonate Hardness as CaCO ₃ (permanent)	22.72	1136
Alkalinity as CaCO ₃	23.40	1170
Specific Gravity c 68° F	1.005	

* mg/l = milligrams per Liter

* me/l = milliequivalents per Liter

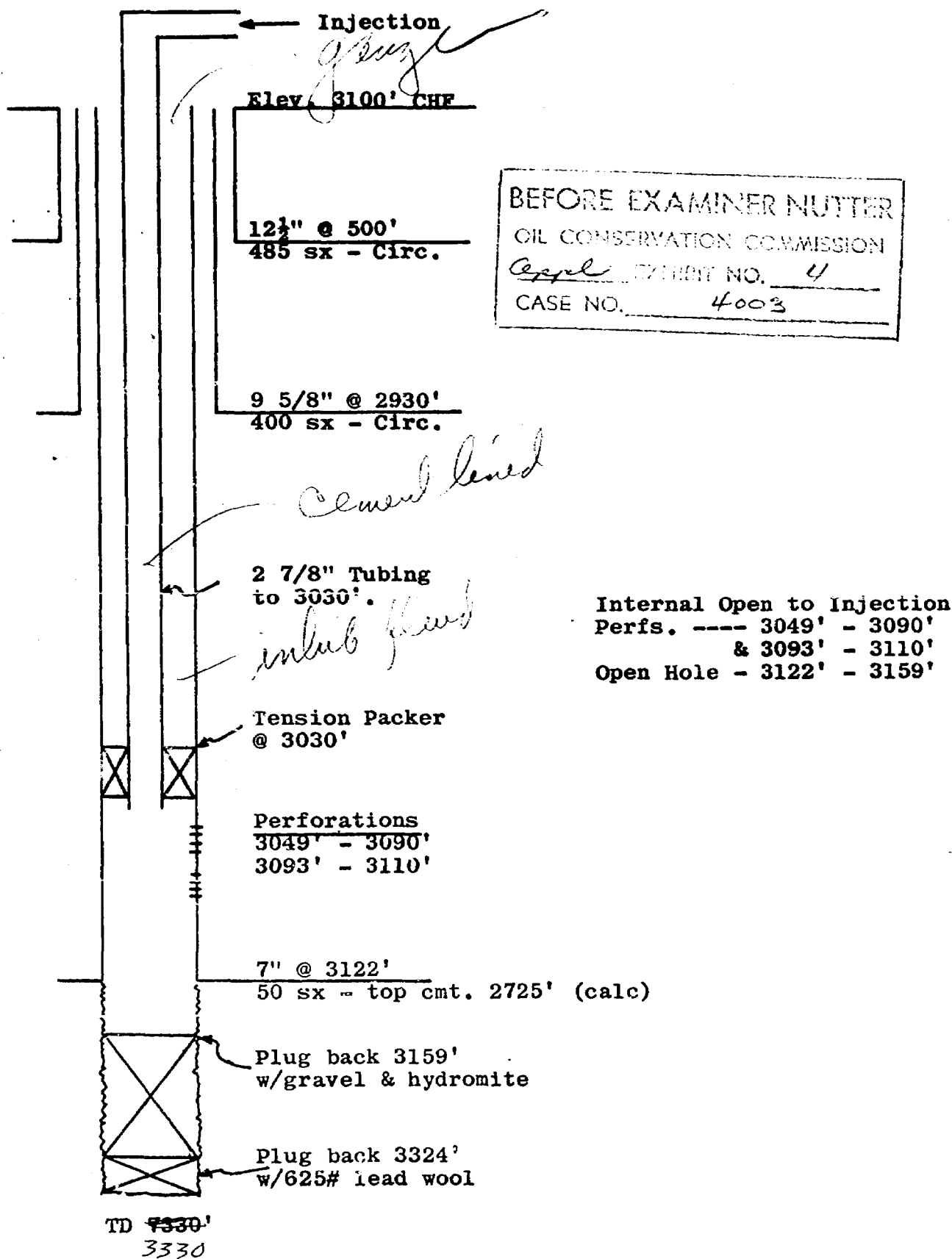
Water Sample taken from
Morris R. Antweil Lease

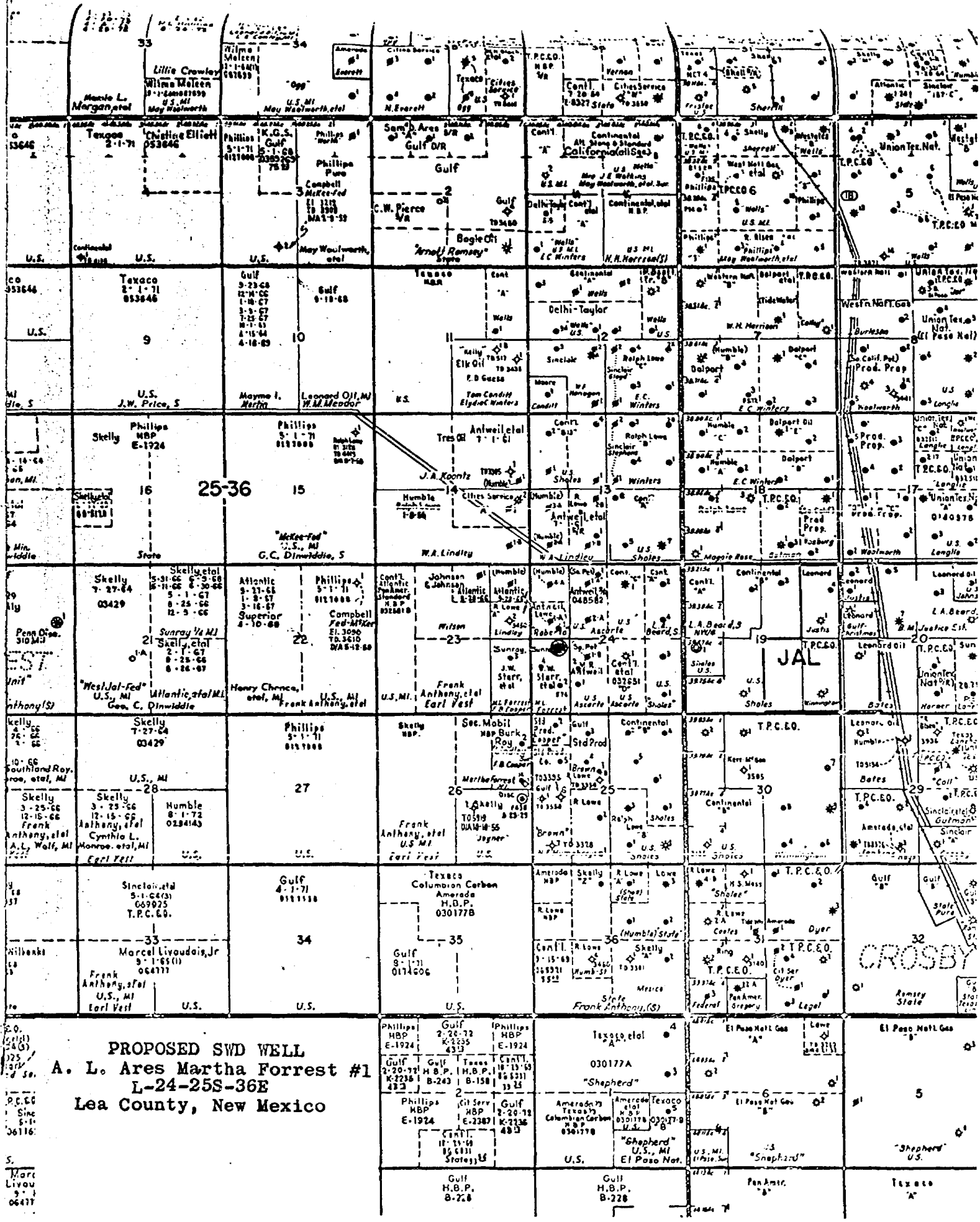
E/2 SW/4 Sec. 24-25S-36E

Producing from the Jalmat Yates - Seven Rivers.

//////////////////////////////////// *Makes Water Work* //////////////////////////////////////

A. L. ARES MARTHA FORREST #1
L-24-25S-36E
Lea County, New Mexico





Morris R. Antweil

OIL OPERATOR
P. O. Box 2010
HOBBS, NEW MEXICO

December 2, 1968

MAIL OFFICE

'68 Dec 3 AM 8 15

Case 4603

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

Attn: Mr. D. S. Nutter, Chief Engineer

Gentlemen:

Attached is a form C-103, Application for Approval of a Salt Water Disposal Well, on a well presently operated by A.L. Ares, Box 75, Santa Fe, New Mexico. Morris R. Antweil has reached an agreement to purchase the Martha Forrest lease from Mr. Ares effective 1 January 1969.

We request the application for a salt water disposal well be considered in our name to be effective 1 January 1969. Please notify us if there is anything further required with this application.

Yours very truly,

MORRIS R. ANTWEIL

R M Williams

R. M. Williams

RMW/cs

DOCKET MARKED

Date 12-5-68

NEW MEXICO OIL CONSERVATION COMMISSION
APPLICATION TO DISPOSE OF SALT WATER BY INJECTION INTO A POROUS FORMATION

Case 4003

OPERATOR Morris R. Antweil		ADDRESS Box 2010 Hobbs, New Mexico	
LEASE NAME Martha Forrest	WELL NO. 1	FIELD Jalmat	COUNTY Lea
LOCATION UNIT LETTER L ; WELL IS LOCATED 2310 FEET FROM THE South LINE AND 990 FEET FROM THE West LINE, SECTION 24 TOWNSHIP 25S RANGE 36E NMPM. Lea County, New Mexico			

CASING AND TUBING DATA					
NAME OF STRING	SIZE	SETTING DEPTH	SACKS CEMENT	TOP OF CEMENT	TOP DETERMINED BY
SURFACE CASING	12 1/2"	500'	485	Circ.	Calculated
INTERMEDIATE	9 5/8"	2930'	400	Circ.	Calculated
LONG STRING	7"	3122'	50	2725'	Calculated
TUBING	2 7/8"	3030'	NAME, MODEL AND DEPTH OF TUBING PACKER Guiberson Tension @ 3030'		
NAME OF PROPOSED INJECTION FORMATION Yates - Seven Rivers Reef			TOP OF FORMATION 3049'		BOTTOM OF FORMATION 3159'
IS INJECTION THROUGH TUBING, CASING, OR ANNULUS? Tubing			PERFORATIONS OR OPEN HOLE? Both		
IS THIS A NEW WELL DRILLED FOR DISPOSAL? No			PROPOSED INTERVAL(S) OF INJECTION 3049' - 3150'		
IF ANSWER IS NO, FOR WHAT PURPOSE WAS WELL ORIGINALLY DRILLED? Jalmat Producer			HAS WELL EVER BEEN PERFORATED IN ANY ZONE OTHER THAN THE PROPOSED INJECTION ZONE? No		
LIST ALL SUCH PERFORATED INTERVALS AND SACKS OF CEMENT USED TO SEAL OFF OR SQUEEZE EACH					
DEPTH OF BOTTOM OF DEEPEST FRESH WATER ZONE IN THIS AREA 1100'		DEPTH OF BOTTOM OF NEXT HIGHER OIL OR GAS ZONE IN THIS AREA None		DEPTH OF TOP OF NEXT LOWER OIL OR GAS ZONE IN THIS AREA None	
ANTICIPATED DAILY INJECTION VOLUME (BBLs.) 2500 b/d	MINIMUM 3500 b/d	MAXIMUM Closed	OPEN OR CLOSED TYPE SYSTEM Gravity	IS INJECTION TO BE BY GRAVITY OR PRESSURE? --	APPROX. PRESSURE (PSI) --
ANSWER YES OR NO WHETHER THE FOLLOWING WATERS ARE MINERALIZED TO SUCH A DEGREE AS TO BE UNFIT FOR DOMESTIC, STOCK, IRRIGATION, OR OTHER GENERAL USE - Yes			NATURAL WATER IN DISPOSAL ZONE Yes		
NAME AND ADDRESS OF SURFACE OWNER (OR LESSEE, IF STATE OR FEDERAL LAND) Fred B. Cooper Jal, New Mexico			ARE WATER ANALYSES ATTACHED? Yes		
LIST NAMES AND ADDRESSES OF ALL OPERATORS WITHIN ONE-HALF (1/2) MILE OF THIS INJECTION WELL					
Burk Royalty Co. 800 Oil & Gas Bldg. Wichita Falls, Tex. 76301					
Standard Production Co. Box 763 Hobbs, New Mexico 88240					
Continental Oil Co. Box 460 Hobbs, New Mexico 88240					
HAVE COPIES OF THIS APPLICATION BEEN SENT TO EACH OF THE FOLLOWING?					
SURFACE OWNER Yes		EACH OPERATOR WITHIN ONE-HALF MILE OF THIS WELL Yes		THE NEW MEX. STATE ENGINEER	
ARE THE FOLLOWING ITEMS ATTACHED TO THIS APPLICATION (SEE RULE 701-B)? Yes		ELECTRICAL LOG None Available		DIAGRAMMATIC SKETCH OF WELL Yes	

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

Edm Williams
(Signature)

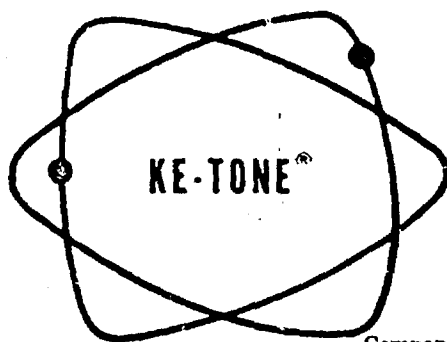
Agent
(Title)

2 December 1968
(Date)

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OF NEW MEXICO

601 NORTH LEECH

P. O. BOX 1499

HOBBS, NEW MEXICO 88240

Company

Morris R. Antweil

Field

Jalmar - Seven Rivers

Lease

Federal

Sampling Date

6/4/68

Type of Sample

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Water Sample taken from

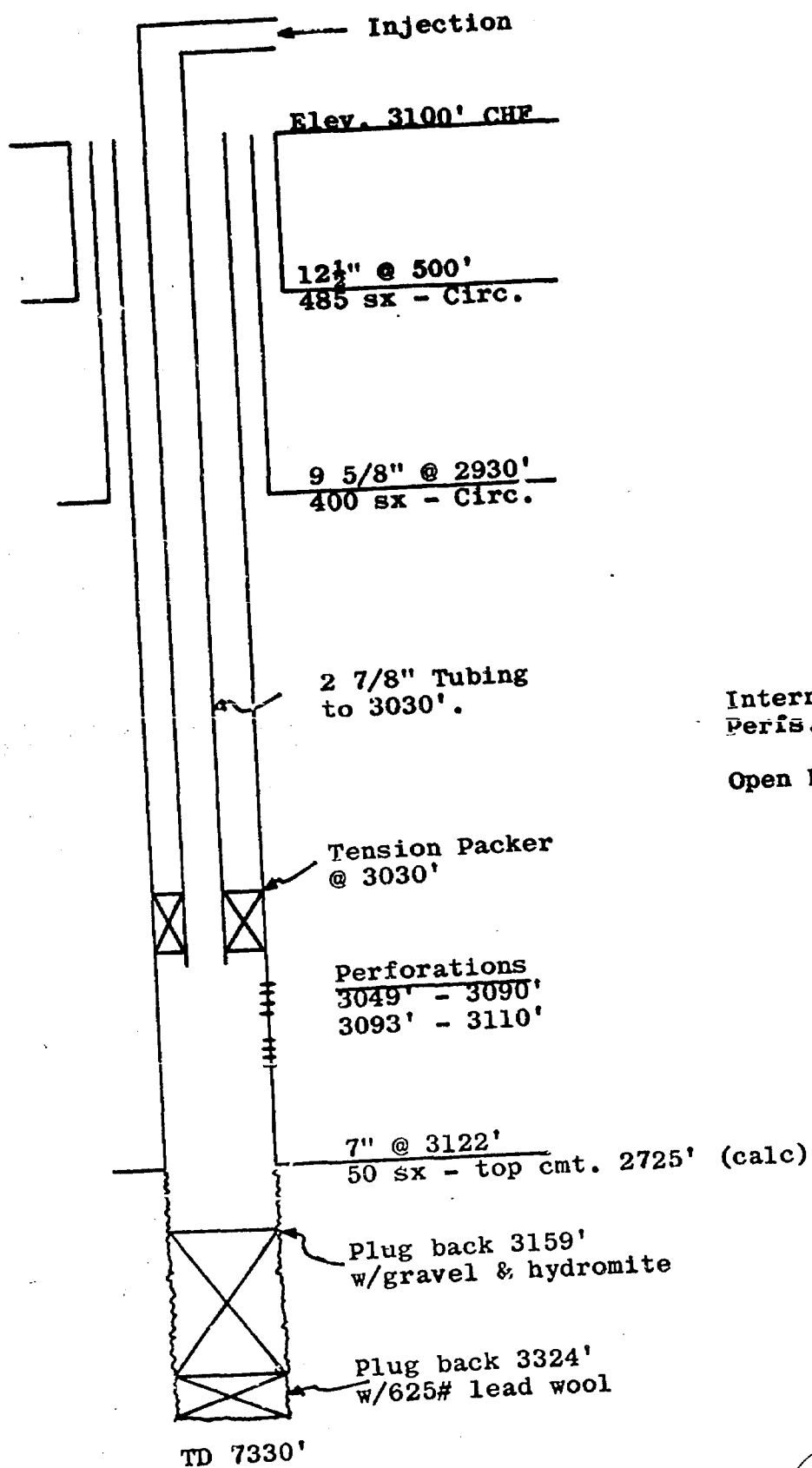
Morris R. Antweil Lease

E/2 SW/4 Sec. 24-25S-36E

Producing from the Jalmar Yates - Seven Rivers.

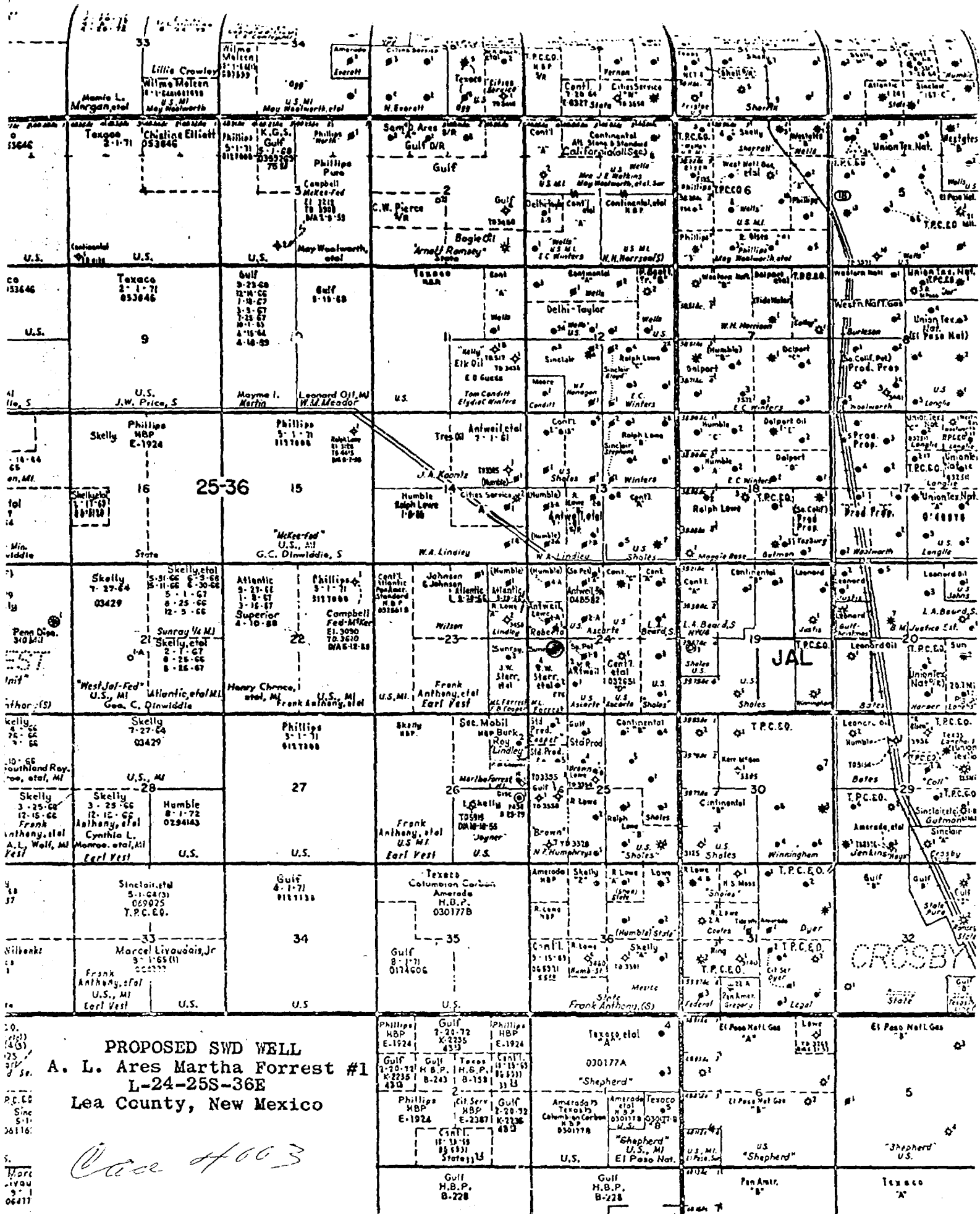
//////////////////////////////////// *Makes Water Work* //////////////////////////////////////

A. L. ARES MARTHA FORREST #1
 L-24-25S-36E
 Lea County, New Mexico



Internal Open to Injection
 Peris. ---- 3049' - 3090'
 & 3093' - 3110'
 Open Hole - 3122' - 3159'

Case #603



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. 4003

Order No. R- 3641

APPLICATION OF MORRIS R. ANTWEIL
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 19, 1968,
at Santa Fe, New Mexico, before Examiner Daniel S. Nutter

NOW, on this _____ day of December, 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, Morris R. Antweil,
is the owner and operator of the Martha Forrest Well No. 1
located in Unit L of Section 24, Township 25 South, Range
36 East, NMPM, Jaimat Pool, Lea
County, New Mexico.

(3) That the applicant proposes to utilize said well to
dispose of produced salt water into the Yates and Seven Rivers
perforated and
formations, with injection into the open-hole interval
from approximately 3049 feet to 3159 feet.

(4) That the injection should be accomplished through
2 7/8 -inch ^{Cement} ~~plastic~~-lined tubing installed in a packer set at

approximately 3030 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, Morris R. Antweil,
is hereby authorized to utilize ^{his} ~~the~~ Martha Forrest Well No. 1
located in Unit L of Section 24, Township 25 South, Range
36 East, NMPM, Jalmat Pool, Lea
County, New Mexico, to dispose of produced salt water into the
Yates and Seven Rivers formations, injection to be accomplished through
2 7/8-inch tubing installed in a packer set at approximately
3030 feet, with injection into the perforated and
open-hole interval
from approximately 3049 feet to 3159 feet;

PROVIDED HOWEVER, that the tubing shall be ^{Cement} ~~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 ^{his} ~~the~~
disposal operations in accordance with Rules 104 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.