

CASE 7122: ELK OIL COMPANY FOR SALT  
WATER DISPOSAL, LEA COUNTY, NEW MEXICO

CASE NO.

7122

APPLICATION,  
TRANSCRIPTS,  
SMALL EXHIBITS,  
ETC.

STATE OF NEW MEXICO  
ENERGY AND MINERALS DEPARTMENT  
OIL CONSERVATION DIVISION

IN THE MATTER OF THE HEARING  
CALLED BY THE OIL CONSERVATION  
DIVISION FOR THE PURPOSE OF  
CONSIDERING:

CASE NO. 7122  
Order No. R-6573

APPLICATION OF ELK OIL COMPANY  
FOR SALT WATER DISPOSAL, LEA  
COUNTY, NEW MEXICO.

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 9 a.m. on January 14, 1981, at Santa Fe, New Mexico, before Examiner Richard L. Stamets.

NOW, on this 10th day of February, 1981, the Division Director, 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 Division has jurisdiction of this cause and the subject matter thereof.
- (2) That the applicant, Elk Oil Company, is the owner and operator of the C. S. State Well No. 2, located in Unit K of Section 26, Township 14 South, Range 34 East, NMPM, High Plains-Pennsylvanian Pool, Lea County, New Mexico.
- (3) That the applicant proposes to utilize said well to dispose of produced salt water into the Pennsylvanian formation, with injection into the perforated interval from approximately 10,445 feet to 10,516 feet.
- (4) That the injection should be accomplished through 2 3/8-inch plastic lined tubing installed in a packer set at approximately 10,300 feet; that the casing-tubing annulus should be filled with an inert fluid; and that a pressure gauge or approved leak detection device should be attached to the annulus in order to determine leakage in the casing, tubing, or packer.

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(5) That if pressure is required for injection, the injection well or system should be equipped with a pressure limiting switch or acceptable substitute which will limit the wellhead pressure on the injection well to no more than 2090 psi.

(6) That the operator should notify the supervisor of the Hobbs district office of the Division of the date and time of the installation of disposal equipment so that the same may be inspected.

(7) That the operator should take all steps necessary to ensure that the injected water enters only the proposed injection interval and is not permitted to escape to other formations or onto the surface.

(8) That Coquina Oil Company is the owner and operator of the Cities Service State Well No. 1 located in Unit E of Section 26, Township 14 South, Range 34 East, NMPM.

(9) That said Cities Service State Well No. 1 is completed in said High Plains-Pennsylvanian Pool on the 40-acre proration unit immediately offsetting the proposed injection well to the northwest.

(10) That injection of salt water into applicant's Cities Service State Well No. 2 could result in the premature watering out of said Cities Service State Well No. 1 thereby resulting in waste and violation of correlative rights.

(11) That the applicant and Coquina agreed that an administrative procedure to halt injection into said Cities Service State Well No. 2 upon a showing of increased water production from said Cities Service State Well No. 1 would prevent such premature abandonment.

(12) That approval of the subject application with an administrative procedure to cause injection to be halted to prevent premature water encroachment into and abandonment of said Cities Service State Well No. 1 will prevent waste and will protect correlative rights.

IT IS THEREFORE ORDERED:

(1) That the applicant, Elk Oil Company, is hereby authorized to utilize its C. S. State Well No. 2, located in Unit K of Section 26, Township 14 South, Range 34 East, NMPM, High Plains-Pennsylvanian Pool, Lea County, New Mexico, to

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dispose of produced salt water into the Pennsylvanian formation, injection to be accomplished through 2 3/8-inch tubing installed in a packer set at approximately 10,300 feet, with injection into the perforated interval from approximately 10,445 feet to 10,516 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 shall be equipped with an approved leak detection device in order to determine leakage in the casing, tubing, or packer.

(2) That if pressure is required for injection, the injection well or system shall be equipped with a pressure relief valve or acceptable substitute which will limit the wellhead pressure on the injection well to no more than 2090 psi.

(3) That the operator shall notify the supervisor of the Hobbs district office of the Division of the date and time of the installation of disposal equipment so that the same may be inspected.

(4) That the operator shall immediately notify the supervisor of the Division's Hobbs district office of the failure of the tubing, casing, or packer, in said well or the leakage of water from or around said well and shall take such steps as may be timely and necessary to correct such failure or leakage.

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

IT IS FURTHER ORDERED:

(1) That the Director of the Division shall rescind the injection authority granted by this order upon application and showing by the operator of the Cities Service State Well No. 1 located in Unit E of said Section 26 of the following:

- (a) That said well is currently completed in the High Plains Pennsylvanian Pool;
- (b) That said well has experienced an increase in water production up to a current average of 25 barrels per day;

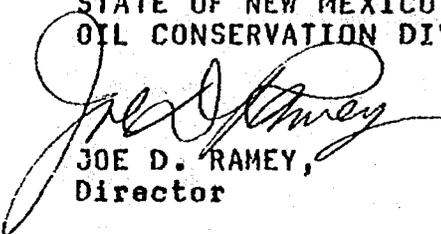
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- (c) copies of supporting production records; and
  - (d) a demonstration that the operator of said Cities Service State Well No. 2 salt water disposal well has been notified of the request for rescission of authority to inject.
- (2) That the Director may require additional testing of said Cities Service State Well No. 1 in order to confirm the rate of water production therefrom.
- (3) That the Director shall rescind the injection authority granted by this order within 30 days following receipt of an application as provided for in Order (1)(a) through (d) above.
- PROVIDED HOWEVER, that the Director may set this matter for a public hearing upon a proper showing that the facts alleged or data submitted in the application for rescission are inaccurate, incorrect, or not representative of conditions demonstrating premature water encroachment resulting from operation of the disposal well.
- (4) That jurisdiction of this cause is retained for the entry of such further orders as the Division may deem necessary.

DONE at Santa Fe, New Mexico, on the day and year herein-  
above designated.

STATE OF NEW MEXICO  
OIL CONSERVATION DIVISION

  
JOE D. RAMEY,  
Director

S E A L

dr/



STATE OF NEW MEXICO  
ENERGY AND MINERALS DEPARTMENT  
OIL CONSERVATION DIVISION

BRUCE KING  
GOVERNOR  
LARRY KEHOE  
SECRETARY

POST OFFICE BOX 2088  
STATE LAND OFFICE BUILDING  
SANTA FE, NEW MEXICO 87501  
(505) 827-2434

February 13, 1981

Mr. Paul Cooter  
Atwood, Malone, Mann & Cooter  
P. O. Drawer 700  
Roswell, New Mexico 88201

Re: CASE NO. 7122  
ORDER NO. R-6573

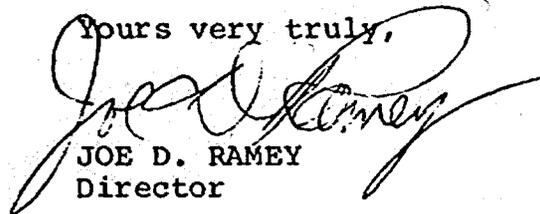
Applicant:

Elk Oil Company

Dear Sir:

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

Yours very truly,

  
JOE D. RAMEY  
Director

JDR/fd

Copy of order also sent to:

Hobbs OCD \_\_\_\_\_  
Artesia OCD \_\_\_\_\_  
Aztec OCD \_\_\_\_\_

Other Jason Kellahin



RECEIVED  
FEB 01 1981  
OIL CONSERVATION DIVISION

COQUINA OIL CORPORATION  
P. O. DRAWER 2960  
MIDLAND, TEXAS 79702

(915) 682-6271

January 28, 1981

*Case 7122  
BLL*

Elk Oil Company  
Box 310  
Roswell, New Mexico 88201

Attention: Mr. Joseph J. Kelly

Re: Coquina Oil Corporation  
Cities Service State #1  
High Plains Penn Pool  
Lea County, New Mexico

Dear Mr. Kelly:

I would like to apologize for the delay in getting the water production data on our well. I have discovered that the rate does vary slightly, so I had it put on a multi-day test to ensure reasonable accurateness.

Water production rates were as follows:

1/12/81	19 BWP
1/13/81	19 BWP
1/14/81	16 BWP
1/15/81	14 BWP
1/16/81	16 BWP
1/17/81	16 BWP

Therefore, based on these tests I feel that a more reasonable estimate of average water production from this well is 16 BWP. Documentation of these tests are available if you care to see them.

To reiterate the agreement as I see it:

1. Elk Oil will limit injection to gravity injection only, and will not install surface pressure disposal means.
2. Elk agrees to limit the disposal to produced water from its #1 J. M. State well located in the SE SE of Sec. 26, T14S, R34E under this application.

3. Elk agrees to cease disposal into its well upon request by Coquina if water production from the Coquina Cities Service State #1 well increases to 30 BWPD and appears to be detrimental to Coquina's operation.
4. Coquina recognizes that Elk may make application at some later date to increase its disposal authority and agrees to consider the disposal results to that time and conditions at that time to base its agreement or objection to any such application.

Based on the stipulations addressed above, Coquina Oil Corporation does not have any current objection to Elk Oil Company's application as outlined in Case #7122 on Docket #181.

Yours truly,

COQUINA OIL CORPORATION

*Ron Gilbreath*

Ron Gilbreath  
Production Manager

RG:fe

cc: State of New Mexico  
Oil Conservation Commission  
Santa Fe, New Mexico  
Attn: Mr. Richard Stamets - Examiner



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I N D E X

JOSEPH J. KELLY

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RONNIE R. GILBREATH

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E X H I B I T S

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MR. STAMETS: We'll call next Case Number 7122.

MR. PADILLA: Application of Elk Oil Company for salt water disposal, Lea County, New Mexico.

MR. STAMETS: Call for appearances.

MR. COOTER: Mr. Examiner, Paul Cooter, with the law firm of Atwood and Malone in Roswell.

I have one witness, Joe Kelly.

MR. STAMETS: Are there any other appearances in this case?

MR. KELLAHIN: Jason Kellahin, Kellahin and Kellahin, Santa Fe, and we also -- for Coquina Oil Corporation.

We will also have one witness.

MR. STAMETS: I'd like to have all of the witnesses stand and be sworn at this time, please.

(Witnesses sworn.)

JOSEPH J. KELLY

being called as a witness and being duly sworn upon his oath, testified as follows, to-wit:

DIRECT EXAMINATION

1  
2  
3 BY MR. COOTER:

4 Q. Would you state your name for the record  
5 please sir?

6 A. Joseph J. Kelly.

7 Q. What's your position with Elk Oil Com-  
8 pany, Mr. Kelly?

9 A. President.

10 Q. Have you previously testified before  
11 this Commission?

12 A. Yes, I have.

13 Q. What does Elk Oil Company seek by the  
14 application in this case?

15 A. We've made application to dispose of  
16 salt water by injection into a porous formation of produced  
17 water.

18 Q. And what's the formation that -- of the  
19 well where you seek to inject the water?

20 A. We seek to inject it in the Elk Oil  
21 Company Cities Service State No. 2, which is located in the  
22 High Plains-Penn.

23 Q. With your application did you file a  
24 log of the --

25 A. Yes. Yes, I did.

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Q. -- the injection --- proposed injection well?

A. Yes, I did.

Q. Let me direct your attention to what has been marked as Exhibit One. What is shown by that exhibit?

A. This exhibit is a plat of the leases in the area. The first inner circle is a half mile radius and wells around our proposed injection well.

The second circle is a two mile circle of all producing and plugged wells within the -- as a -- to our proposed injection well.

Q. How is it color coded?

A. The red is for producing well, red circle; the green circle, for plugged and produced -- for plugged and abandoned or a dry and abandoned well.

Q. For the record, your proposed injection well is in the southwest quarter of Section 26.

A. That's correct.

Q. Let me next direct your attention to what has been marked as Exhibit Two. What is that?

A. This is a tabulation of all wells within the two mile circle, as to section, company name, well, total depth, and producing formation, if it's producing.

Q. Next let me place in front of you Exhibit

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Three and explain to the Examiner what is shown by that.

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A. This is a schematic drawing of our proposed injection well, which shows all casing, depth run, cementing record, proposed depth of packer, and perforations that the injected water will be placed into.

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Q. Let me hand you Exhibit Four. Explain that to the Commission.

8

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A. These are the tabular of two -- or all wells within the half mile radius, which consists of two wells; the first one is Coquina Oil Corporation Cities Service State No.1, which is a producing well; the second is Coquina Oil Corporation Cities Service State No. 3, which is a plugged and abandoned well.

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This shows all casing, the settings, cement used, and tops.

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Q. All right, let me next hand you Exhibit Number Five. Explain that, if you would.

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A. Exhibit Number Five is a schematic of the plugged and abandoned Cities Service -- Coquina's Cities Service No. 3, which shows the casing, the depth set, the casing that's still in the well, and the plugs as they as they set them in when they abandoned the well.

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Q. Coquina, then, is the only operator within a one half mile radius.

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A. That is correct.

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Q. Is the depth of your proposed water injection in the State Cities Service Well No. 2 below the production formation of the Coquina well, producing Coquina well?

7

A. Yes, by approximately 40 feet.

8

9

Q. In your opinion would the proposed injection have an effect on the Coquina well?

10

A. At the present time, no.

11

12

Q. Have you discussed this matter with Coquina?

13

A. Yes, I have.

14

15

Q. Have you reached a tentative agreement with Coquina with reference to your application?

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A. Yes, I have. Their well is located in the northwest part of 26, called the Coquina State No. 1, which I've been told is making approximately 10 barrels of water a day.

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In talking it over with the Coquina representative, we've reached a tentative agreement that if his water appreciably increases, that is to say to in the neighborhood of 20 or 25 barrels a day of water, Elk will cease to inject water into its proposed salt water disposal well.

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2 Q That is if the Commission were favorably  
3 inclined and granted your application.

4 A Yes.

5 Q What is the source of water for the  
6 proposed injection well?

7 A The source of water will come from the  
8 southeast of 26, Elk Oil Company "JM" State No. 1. This well  
9 is producing currently at the rate of 8 barrels of oil and  
10 80 barrels of water per day.

11 Q How is that water being disposed of at  
12 this time?

13 A By truck.

14 Q And what is the cost of that disposal?

15 A 78 cents a barrel.

16 Q Is it, in your opinion, economical to  
17 continue disposal of the water from that well in that manner?

18 A No, it isn't. It is becoming nonecon-  
19 omical to continue to produce our "JM" State No. 1 if we  
20 have to continue to truck our water.

21 Q Is there a possibility that that well  
22 would be plugged and abandoned if this application is not  
23 granted?

24 A Yes, sir.

25 Q And if that were plugged and abandoned

1  
2 would there be oil still left in the formation?

3 A. Yes, sir.

4 Q. How do you propose to inject the water  
5 into the new well?

6 A. By gravity. We propose not to place  
7 any equipment to force the water down the wellbore.

8 Q. Who is the owner of the lease?

9 A. The owner of the lease is Cities Service.

10 Q. And that's for the injection well?

11 A. Yes, sir.

12 Q. Has Cities Service indicated its approval  
13 of the application?

14 A. Yes, they have.

15 Q. And that has been marked as Exhibit Six.  
16 Were Exhibits One through Five prepared  
17 by you?

18 A. Yes, they were.

19 Q. Mr. Kelly, in your opinion would the  
20 grant of your application result in additional recovery?

21 A. Yes, sir.

22 Q. Of hydrocarbons?

23 A. Yes, it will.

24 Q. And under the proposed agreement with  
25 Coquina, would its correlative rights be protected?

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A. Yes, sir, I believe they would be.

MR. COOTER: Mr. Examiner, we offer Exhibits One through Six.

MR. STAMETS: These exhibits will be admitted.

MR. COOTER: That concludes our direct.

CROSS EXAMINATION

BY MR. STAMETS:

Q. Mr. Kelly, is the well, the well producing the water located in the southeast southeast of Section 26?

A. Yes, sir.

Q. And I believe, looking at some material that you submitted here, you expect this well to take all of the produced water on a vacuum?

A. Yes, sir.

Q. And therefore the Division's standard limitation of 0.2 of a pound per foot of depth at the surface would be acceptable limitations as far as you're concerned.

A. Right.

MR. STAMETS: Any other questions of Mr. Kelly? Mr. Kellahin.

MR. KELLAHIN: Yes, Mr. Stamets.

## CROSS EXAMINATION

BY MR. KELLAHIN:

Q. Mr. Kelly, as I understand, in response to Mr. Stamets' questions, that you expect the well to take it on vacuum, do you have any plans to put a pump on the well?

A. No, sir, that's why I stated it would not be economical to place a pump to force the water down the wellbore, and it probably would cause a pressure rise anyway, and then where you are when you get into it, then that limitation of what you just stated.

Q. In your application you state you anticipate from 250 barrels of water per day not to exceed 500, but your well is now producing 80 barrels per day.

A. Right.

Q. Would you anticipate it would increase that much?

A. Well, I hope -- hopefully not. I just use that as parameters.

Q. You have two other producing wells in this area, do you not?

A. Three.

Q. Three?

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A. No, two, excuse me. Correct that.

3

Q. You have three total. Are they producing water?

4

5

A. Yes, sir, our Union State No. 1 in Section 25 of 14, 34, is.

6

7

Q. And what are you doing with that water?

8

A. It is also trucked.

9

Q. Are you planning to put that water in this disposal well?

10

11

A. Not at the present time, but if we are granted an application here and economics force us to it, we would probably ask to do it, yes.

12

13

Q. In other words, you'd be willing to come back for another hearing for that purpose?

14

15

A. If we had to, right.

16

17

Q. Is that what you're saying? So would you be willing to have the order in this case limited to the injection of water from the one well you've testified to?

18

19

A. Yes, sir.

20

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Q. Do you have any plans to make a commercial disposal well out of this well?

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A. No, sir.

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Q. And you'd be willing to have a restriction to that effect in the order?

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A. Yes, sir.

Q. As I understand, you have made an agreement with Coquina that if the water production in their well appreciably increases you will immediately stop injection.

A. That's correct.

Q. Could you arrive at some figure where that would be automatic in the event the Commission sees fit to put it in the order?

A. Well, as I've been told by Coquina's representative, it's making approximately 10 barrels a day, and as we discussed, if it went to 20 to 25 barrels a day that would be cause for alarm, to see what is going on, yes.

Q. And you'd be willing to have a provision to that effect in the order?

A. Yes, sir.

MR. KELLAHIN: That's all the questions I have, thank you.

MR. STAMETS: Any other questions of Mr. Kelly? He may be excused.

Are you going to put your witness on, Mr. Kellahin?

MR. KELLAHIN: Yes, sir, it will be very briefly.

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3 RONNIE R. GILBREATH

4 being called as a witness and being duly sworn upon his oath,  
5 testified as follows, to-wit:

6  
7 DIRECT EXAMINATION

8 BY MR. KELLAHIN:

9 Q Would you state your name, please?

10 A My name is Ronnie R. Gilbreath.

11 Q By whom are you employed and in what  
12 position, Mr. Gilbreath?

13 A I'm employed by Coquina Oil Corporation,  
14 Midland, Texas, as a production manager.

15 Q Have you testified before the Oil Con-  
16 servation Division as an engineer and made your qualifications  
17 a matter of record?

18 A Yes, sir, I have.

19 MR. KELLAHIN: Are the witness' qualifi-  
20 cations acceptable?

21 MR. STAMETS: They are.

22 Q Mr. Gilbreath, you heard the testimony  
23 of Mr. Kelly in this case, and rather than go into any de-  
24 tail on our exhibits, would you quickly go through with our  
25 Exhibit Number One, Two, and Three ----

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A. Yes, sir.

3

Q. --- Four, Five, and Six and identify those exhibits, please?

4

5

A. Exhibit Number One is simply a location plat, which indicates the position of the Coquina well and the applied for permitted well, Elk Oil Company's well. This is just simply to show the relationship of the two wells to one another.

6

7

Q. Approximately how far apart are those two wells?

8

9

A. The wells are approximately 1750 feet apart on the surface.

10

11

Q. And Exhibit Number Two, will you identify that exhibit?

12

13

A. Exhibit Number Two is a structure map, which is drawn on the top of the Bough A formation, which is the subject formation.

14

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Q. Mr. Kelly testified that this injection well is approximately 40 feet lower than the Coquina producing well, is that reflected on that exhibit?

16

17

A. Yes, sir, it is.

18

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Q. That would be about right?

20

21

A. That is approximately right, yes, sir.

22

23

Q. And Number Three, would you identify that

1  
2 exhibit?

3 A. Number Three is a cross section map  
4 listed as A-A', which is also designated on Exhibit Two, the  
5 A-A' is marked on there.

6 What this is to do is to show that the  
7 zones that are applied for to be disposed into of are the  
8 same zones which Coquina produces out of in their well.

9 Q. And I refer you to Exhibit Number Four  
10 and Five, would you identify those exhibits?

11 A. Yes, sir. Exhibits Four and Five are  
12 simply production records of the well to indicate that Coquina  
13 has produced this well continuously since its being drilled  
14 in 1973.

15 The first one is a graphical outline  
16 with all the production decline curves and the second is simply  
17 a tabulation showing production from the well, that we have  
18 produced it continuously.

19 Q. Now have you prepared any estimate of  
20 the economics and reserves in this well?

21 A. Yes, sir, we have. We have --

22 Q. Exhibit Number Six?

23 A. Yes, sir, the last exhibit indicates  
24 that Coquina's best estimate, best guess, whatever you want  
25 to call it, is approximately 4150 barrels of reserves left

1  
2 as of 1-1-80, and that it is economical to recover, and  
3 that's Coquina's primary concern in this case, is to protect  
4 that.

5 Q And Mr. Kelly testified that he had  
6 reached a tentative agreement with you in regard to the in-  
7 jection of water in their disposal well, is that correct?

8 A Yes, sir. This morning Mr. Kelly and I  
9 visited and we did reach a tentative agreement and I think  
10 he did bring out all the pertinent points on it. We have  
11 agreed basically to a monitoring procedure which we'll set  
12 up in which if our well increases appreciably, they agree  
13 to stop injection into their well.

14 Q Do you know what your water production  
15 is at the present time?

16 A Currently it's estimated at 10 barrels  
17 a day. We will -- I have reached an agreement with him to  
18 verify this for his --

19 Q You will furnish that information to  
20 Mr. Kelly --

21 A Yes.

22 Q -- and also to the Commission?

23 A Yes, sir, but I feel fairly strongly  
24 it is 10 barrels a day, but we will verify it and furnish  
25 that information, if needed.

1  
2 Q And would you furnish that to the Com-  
3 mission, also?

4 A Yes, sir, I will.

5 Q Were Exhibits One through Six either  
6 prepared by you or under your supervision?

7 A Yes, sir, they were.

8 MR. KELLAHIN: At this time we'll offer  
9 Exhibits One through Six inclusive.

10 MR. STAMETS: These exhibits will be ad-  
11 mitted.

12  
13 CROSS EXAMINATION

14 BY MR. STAMETS:

15 Q Mr. Gilbreath, it would seem like we  
16 need some sort of logical procedure here for the Division  
17 to enforce any shutting in of Mr. Kelly's salt water dis-  
18 posal well. Would you be agreeable to providing notice to  
19 the Director of the Division at any time that the production  
20 on your well exceeds 25 barrels per day or --

21 A Yes, sir.

22 Q --- or at the time that you decide that  
23 this needs to be stopped. It's conceivable that the pro-  
24 duction might go above 25 barrels a water a day but you might  
25 not want to stop, increased your oil recovery pressure or

1  
2 for other conditions.

3 A. Yes, sir, if other conditions develop,  
4 Mr. Kelly and I did discuss that and we're willing to work  
5 out an agreement in which if it looks like, you know, having  
6 negative impact on our well and our water increases, he's  
7 willing to stop and Coquina's willing to notify you, any  
8 procedure that the Commission directs.

9 Q. So procedure which would require two  
10 things, one being production in excess of 25 barrels of water  
11 per day from your well, and your objection to his continued  
12 use --

13 A. Yes, sir.

14 Q. -- in the other well would be the two  
15 factors then that would be important in the Division cancel-  
16 ling Mr. Kelly's authority to do that.

17 A. Yes, sir, it would.

18 Q. Okay, fine.

19 MR. STAMETS: Any other questions of  
20 this witness? He may be excused.

21 Anything further in this case?

22 The case will be taken under advisement.

23  
24 (Hearing concluded.)  
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C E R T I F I C A T E

I, SALLY W. BOYD, C.S.R., DO HEREBY CERTIFY that the foregoing Transcript of Hearing before the Oil Conservation Division was reported by me; that the said transcript is a full, true, and correct record of the hearing, prepared by me to the best of my ability.

Sally W. Boyd C.S.R.

SALLY W. BOYD, C.S.R.  
Rt. 1 Box 193-B  
Santa Fe, New Mexico 87501  
Phone (505) 455-7409

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 7127 heard by me on 1-14-81.  
Richard P. Plum, Examiner  
Oil Conservation Division

STATE OF NEW MEXICO  
ENERGY AND MINERALS DEPARTMENT  
OIL CONSERVATION DIVISION  
STATE LAND OFFICE BLDG.  
SANTA FE, NEW MEXICO  
14 January 1980

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IN THE MATTER OF: )

Application of Elk Oil Company for )  
salt water disposal, Lea County, )  
New Mexico. )

CASE  
7122

-----  
BEFORE: Richard L. Stamets

TRANSCRIPT OF HEARING

A P P E A R A N C E S

For the Oil Conservation  
Division:

Ernest L. Padilla, Esq.  
Legal Counsel to the Division  
State Land Office Bldg.  
Santa Fe, New Mexico 87501

For the Applicant:

Paul Cooter, Esq.  
ATWOOD, MALONE, MANN & COOTER  
Roswell, New Mexico

For the Coquina Oil  
Company:

Jason Kellahin, Esq.  
KELLAHIN & KELLAHIN  
500 Don Gaspar  
Santa Fe, New Mexico 87501

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I N D E X

JOSEPH J. KELLY

Direct Examination by Mr. Cooter	4
Cross Examination by Mr. Stamets	11
Cross Examination by Mr. Kellahin	12

RONNIE R. GILBREATH

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Applicant Exhibit One, Plat	6
Applicant Exhibit Two, Tabulation	6
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Applicant Exhibit Four, Tabulation	7
Applicant Exhibit Five, Schematic	7
Applicant Exhibit Six, Letter	10

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E X H I B I T S

Coquina Exhibit One, Plat	16
Coquina Exhibit Two, Structure Map	16
Coquina Exhibit Three, Cross Section	17
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1  
2 MR. STAMETS: We'll call next Case Number  
3 7122.

4 MR. PADILLA: Application of Elk Oil  
5 Company for salt water disposal, Lea County, New Mexico.

6 MR. STAMETS: Call for appearances.

7 MR. COOTER: Mr. Examiner, Paul Cooter,  
8 with the law firm of Atwood and Malone in Roswell.

9 I have one witness, Joe Kelly.

10 MR. STAMETS: Are there any other ap-  
11 pearances in this case?

12 MR. KELLAHIN: Jason Kellahin, Kellahin  
13 and Kellahin, Santa Fe, and we also -- for Coquina Oil Cor-  
14 poration.

15 We will also have one witness.

16 MR. STAMETS: I'd like to have all of  
17 the witnesses stand and be sworn at this time, please.

18  
19 (Witnesses sworn.)

20  
21 JOSEPH J. KELLY

22 being called as a witness and being duly sworn upon his oath,  
23 testified as follows, to-wit:

24  
25 DIRECT EXAMINATION

1  
2  
3 BY MR. COOTER:

4 Q Would you state your name for the record,  
5 please sir?

6 A Joseph J. Kelly.

7 Q What's your position with Elk Oil Com-  
8 pany, Mr. Kelly?

9 A President.

10 Q Have you previously testified before  
11 this Commission?

12 A Yes, I have.

13 Q What does Elk Oil Company seek by the  
14 application in this case?

15 A We've made application to dispose of  
16 salt water by injection into a porous formation of produced  
17 water.

18 Q And what's the formation that -- of the  
19 well where you seek to inject the water?

20 A We seek to inject it in the Elk Oil  
21 Company Cities Service State No. 2, which is located in the  
22 High Plains-Penn.

23 Q With your application did you file a  
24 log of the --

25 A Yes. Yes, I did.

1  
2 Q -- the injection -- proposed injection  
3 well?

4 A Yes, I did.

5 Q Let me direct your attention to what has  
6 been marked as Exhibit One. What is shown by that exhibit?

7 A This exhibit is a plat of the leases in  
8 the area. The first inner circle is a half mile radius and  
9 wells around our proposed injection well.

10 The second circle is a two mile circle  
11 of all producing and plugged wells within the -- as a -- to  
12 our proposed injection well.

13 Q How is it color coded?

14 A The red is for producing well, red circle;  
15 the green circle, for plugged and produced -- for plugged  
16 and abandoned or a dry and abandoned well.

17 Q For the record, your proposed injection  
18 well is in the southwest quarter of Section 26.

19 A That's correct.

20 Q Let me next direct your attention to  
21 what has been marked as Exhibit Two. What is that?

22 A This is a tabulation of all wells within  
23 the two mile circle, as to section, company name, well, total  
24 depth, and producing formation, if it's producing.

25 Q Next let me place in front of you Exhibit

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Three and explain to the Examiner what is shown by that.

A. This is a schematic drawing of our proposed injection well, which shows all casing, depth run, cementing record, proposed depth of packer, and perforations that the injected water will be placed into.

Q Let me hand you Exhibit Four. Explain that to the Commission.

A. These are the tabular of two -- or all wells within the half mile radius, which consists of two wells; the first one is Coquina Oil Corporation Cities Service State No.1, which is a producing well; the second is Coquina Oil Corporation Cities Service State No. 3, which is a plugged and abandoned well.

This shows all casing, the settings, cement used, and tops.

Q All right, let me next hand you Exhibit Number Five. Explain that, if you would.

A. Exhibit Number Five is a schematic of the plugged and abandoned Cities Service -- Coquina's Cities Service No. 3, which shows the casing, the depth set, the casing that's still in the well, and the plugs as they as they set them in when they abandoned the well.

Q Coquina, then, is the only operator within a one half mile radius.

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A. That is correct.

Q. Is the depth of your proposed water injection in the State Cities Service Well No. 2 below the production formation of the Coquina well, producing Coquina well?

A. Yes, by approximately 40 feet.

Q. In your opinion would the proposed injection have an effect on the Coquina well?

A. At the present time, no.

Q. Have you discussed this matter with Coquina?

A. Yes, I have.

Q. Have you reached a tentative agreement with Coquina with reference to your application?

A. Yes, I have. Their well is located in the northwest part of 26, called the Coquina State No. 1, which I've been told is making approximately 10 barrels of water a day.

In talking it over with the Coquina representative, we've reached a tentative agreement that if his water appreciably increases, that is to say to in the neighborhood of 20 or 25 barrels a day of water, Elk will cease to inject water into its proposed salt water disposal well.

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Q That is if the Commission were favorably inclined and granted your application.

A Yes.

Q What is the source of water for the proposed injection well?

A The source of water will come from the southeast of 26, Elk Oil Company "JM" State No. 1. This well is producing currently at the rate of 8 barrels of oil and 80 barrels of water per day.

Q How is that water being disposed of at this time?

A By truck.

Q And what is the cost of that disposal?

A 78 cents a barrel.

Q Is it, in your opinion, economical to continue disposal of the water from that well in that manner?

A No, it isn't. It is becoming noneconomical to continue to produce our "JM" State No. 1 if we have to continue to truck our water.

Q Is there a possibility that that well would be plugged and abandoned if this application is not granted?

A Yes, sir.

Q And if that were plugged and abandoned

1  
2 would there be oil still left in the formation?

3 A. Yes, sir.

4 Q. How do you propose to inject the water  
5 into the new well?

6 A. By gravity. We propose not to place  
7 any equipment to force the water down the wellbore.

8 Q. Who is the owner of the lease?

9 A. The owner of the lease is Cities Service.

10 Q. And that's for the injection well?

11 A. Yes, sir.

12 Q. Has Cities Service indicated its approval  
13 of the application?

14 A. Yes, they have.

15 Q. And that has been marked as Exhibit Six.  
16 Were Exhibits One through Five prepared  
17 by you?

18 A. Yes, they were.

19 Q. Mr. Kelly, in your opinion would the  
20 grant of your application result in additional recovery?

21 A. Yes, sir.

22 Q. Of hydrocarbons?

23 A. Yes, it will.

24 Q. And under the proposed agreement with  
25 Coquina, would its correlative rights be protected?

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A. Yes, sir, I believe they would be.

MR. COOTER: Mr. Examiner, we offer Exhibits One through Six.

MR. STAMETS: These exhibits will be admitted.

MR. COOTER: That concludes our direct.

CROSS EXAMINATION

BY MR. STAMETS:

Q. Mr. Kelly, is the well, the well producing the water located in the southeast southeast of Section 26?

A. Yes, sir.

Q. And I believe, looking at some material that you submitted here, you expect this well to take all of the produced water on a vacuum?

A. Yes, sir.

Q. And therefore the Division's standard limitation of 0.2 of a pound per foot of depth at the surface would be acceptable limitations as far as you're concerned.

A. Right.

MR. STAMETS: Any other questions of Mr. Kelly? Mr. Kellahin.

MR. KELLAHIN: Yes, Mr. Stamets.

## CROSS EXAMINATION

BY MR. KELLAHIN:

Q. Mr. Kelly, as I understand, in response to Mr. Stamets' questions, that you expect the well to take it on vacuum, do you have any plans to put a pump on the well?

A. No, sir, that's why I stated it would not be economical to place a pump to force the water down the wellbore, and it probably would cause a pressure rise anyway, and then where you are when you get into it, then that limitation of what you just stated.

Q. In your application you state you anticipate from 250 barrels of water per day not to exceed 500, but your well is now producing 80 barrels per day.

A. Right.

Q. Would you anticipate it would increase that much?

A. Well, I hope -- hopefully not. I just use that as parameters.

Q. You have two other producing wells in this area, do you not?

A. Three.

Q. Three?

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A. No, two, excuse me. Correct that.

3

4

Q. You have three total. Are they producing water?

5

6

A. Yes, sir, our Union State No. 1 in Section 25 of 14, 34, is.

7

8

Q. And what are you doing with that water?

A. It is also trucked.

9

10

Q. Are you planning to put that water in this disposal well?

11

12

13

A. Not at the present time, but if we are granted an application here and economics force us to it, we would probably ask to do it, yes.

14

15

Q. In other words, you'd be willing to come back for another hearing for that purpose?

16

17

A. If we had to, right.

18

19

Q. Is that what you're saying? So would you be willing to have the order in this case limited to the injection of water from the one well you've testified to?

20

21

A. Yes, sir.

22

23

Q. Do you have any plans to make a commercial disposal well out of this well?

A. No, sir.

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Q. And you'd be willing to have a restriction to that effect in the order?

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A. Yes, sir.

Q. As I understand, you have made an agreement with Coquina that if the water production in their well appreciably increases you will immediately stop injection.

A. That's correct.

Q. Could you arrive at some figure where that would be automatic in the event the Commission sees fit to put it in the order?

A. Well, as I've been told by Coquina's representative, it's making approximately 10 barrels a day, and as we discussed, if it went to 20 to 25 barrels a day that would be cause for alarm, to see what is going on, yes.

Q. And you'd be willing to have a provision to that effect in the order?

A. Yes, sir.

MR. KELLAHIN: That's all the questions I have, thank you.

MR. STAMETS: Any other questions of Mr. Kelly? He may be excused.

Are you going to put your witness on, Mr. Kellahin?

MR. KELLAHIN: Yes, sir, it will be very briefly.

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2  
3 RONNIE R. GILBREATH

4 being called as a witness and being duly sworn upon his oath,  
5 testified as follows, to-wit:  
6

7 DIRECT EXAMINATION

8 BY MR. KELLAHIN:

9 Q Would you state your name, please?

10 A My name is Ronnie R. Gilbreath.

11 Q By whom are you employed and in what  
12 position, Mr. Gilbreath?

13 A I'm employed by Coquina Oil Corporation,  
14 Midland, Texas, as a production manager.

15 Q Have you testified before the Oil Con-  
16 servation Division as an engineer and made your qualifications  
17 a matter of record?

18 A Yes, sir, I have.

19 MR. KELLAHIN: Are the witness' qualifi-  
20 cations acceptable?

21 MR. STAMETS: They are.

22 Q Mr. Gilbreath, you heard the testimony  
23 of Mr. Kelly in this case, and rather than go into any de-  
24 tail on our exhibits, would you quickly go through with our  
25 Exhibit Number One, Two, and Three ---

1

2 A Yes, sir.

2

3

Q -- Four, Five, and Six and identify those  
4 exhibits, please?

4

5

A Exhibit Number One is simply a location  
6 plat, which indicates the position of the Coquina well and  
7 the applied for permitted well, Elk Oil Company's well. This  
8 is just simply to show the relationship of the two wells to  
9 one another.

10

Q Approximately how far apart are those  
11 two wells?

11

12

A The wells are approximately 1750 feet  
13 apart on the surface.

13

14

Q And Exhibit Number Two, will you identi-  
15 fy that exhibit?

15

16

A Exhibit Number Two is a structure map,  
17 which is drawn on the top of the Bough A formation, which  
18 is the subject formation.

18

19

Q Mr. Kelly testified that this injection  
20 well is approximately 40 feet lower than the Coquina producing  
21 well, is that reflected on that exhibit?

21

22

A Yes, sir, it is.

23

Q That would be about right?

24

A That is approximately right, yes, sir.

25

Q And Number Three, would you identify that

1  
2 exhibit?

3 A. Number Three is a cross section map  
4 listed as A-A', which is also designated on Exhibit Two, the  
5 A-A' is marked on there.

6 What this is to do is to show that the  
7 zones that are applied for to be disposed into of are the  
8 same zones which Coquina produces out of in their well.

9 Q. And I refer you to Exhibit Number Four  
10 and Five, would you identify those exhibits?

11 A. Yes, sir. Exhibits Four and Five are  
12 simply production records of the well to indicate that Coquina  
13 has produced this well continuously since its being drilled  
14 in 1973.

15 The first one is a graphical outline  
16 with all the production decline curves and the second is simply  
17 a tabulation showing production from the well, that we have  
18 produced it continuously.

19 Q. Now have you prepared any estimate of  
20 the economics and reserves in this well?

21 A. Yes, sir, we have. We have --

22 Q. Exhibit Number Six?

23 A. Yes, sir, the last exhibit indicates  
24 that Coquina's best estimate, best guess, whatever you want  
25 to call it, is approximately 4150 barrels of reserves left

1  
2 as of 1-1-80, and that it is economical to recover, and  
3 that's Coquina's primary concern in this case, is to protect  
4 that.

5 Q And Mr. Kelly testified that he had  
6 reached a tentative agreement with you in regard to the in-  
7 jection of water in their disposal well, is that correct?

8 A Yes, sir. This morning Mr. Kelly and I  
9 visited and we did reach a tentative agreement and I think  
10 he did bring out all the pertinent points on it. We have  
11 agreed basically to a monitoring procedure which we'll set  
12 up in which if your well increases appreciably, they agree  
13 to stop injection into their well.

14 Q Do you know what your water production  
15 is at the present time?

16 A Currently it's estimated at 10 barrels  
17 a day. We will -- I have reached an agreement with him to  
18 verify this for his --

19 Q You will furnish that information to  
20 Mr. Kelly --

21 A Yes.

22 Q -- and also to the Commission?

23 A Yes, sir, but I feel fairly strongly  
24 it is 10 barrels a day, but we will verify it and furnish  
25 that information, if needed.

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Q And would you furnish that to the Commission, also?

A Yes, sir, I will.

Q Were Exhibits One through Six either prepared by you or under your supervision?

A Yes, sir, they were.

MR. KELIAHIN: At this time we'll offer Exhibits One through Six inclusive.

MR. STAMETS: These exhibits will be admitted.

CROSS EXAMINATION

BY MR. STAMETS:

Q Mr. Gilbreath, it would seem like we need some sort of logical procedure here for the Division to enforce any shutting in of Mr. Kelly's salt water disposal well. Would you be agreeable to providing notice to the Director of the Division at any time that the production on your well exceeds 25 barrels per day or --

A Yes, sir.

Q -- or at the time that you decide that this needs to be stopped. It's conceivable that the production might go above 25 barrels a water a day but you might not want to stop, increased your oil recovery pressure or

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for other conditions.

A. Yes, sir, if other conditions develop, Mr. Kelly and I did discuss that and we're willing to work out an agreement in which if it looks like, you know, having negative impact on our well and our water increases, he's willing to stop and Coquina's willing to notify you, any procedure that the Commission directs.

Q So procedure which would require two things, one being production in excess of 25 barrels of water per day from your well, and your objection to his continued use.--

A. Yes, sir.

Q -- in the other well would be the two factors then that would be important in the Division cancelling Mr. Kelly's authority to do that.

A. Yes, sir, it would.

Q Okay, fine.

MR. STAMETS: Any other questions of this witness? He may be excused.

Anything further in this case?

The case will be taken under advisement.

(Hearing concluded.)

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C E R T I F I C A T E

I, SALLY W. BOYD, C.S.R., DO HEREPY CERTIFY that  
the foregoing Transcript of Hearing before the Oil Conserva-  
tion Division was reported by me; that the said transcript  
is a full, true, and correct record of the hearing, prepared  
by me to the best of my ability.

\_\_\_\_\_

I do hereby certify that the foregoing is  
a complete record of the proceedings in  
the Examiner hearing of Case No. \_\_\_\_\_  
heard by me on \_\_\_\_\_ 19\_\_\_\_.

\_\_\_\_\_, Examiner  
Oil Conservation Division

**SALLY W. BOYD, C.S.R.**

Rt. 1 Box 193-B  
Santa Fe, New Mexico 87501  
Phone (505) 455-7409



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Exhibit 2  
Case 7122

**ERGER SONIC LOG**

COMPANY: **ELSA OIL & GAS CO.** Other Surveys: **155, 16**

WELL: **STATE 75-1** Location of Well: **160' FROM SW CORNER 1/4**

FIELD: **WILCOX**

LOCATION: **22-153-15E**

COUNTY: **LEA** Elevation: **975' ASL**

STATE: **NEW MEXICO**

DATE: **11-20-50**

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**WELLS 75-1 & 1980-751**

DATE: **7/21/50**

LOG NUMBER: **W 8311J**

LOGGERS: **W. H. HARRISON, R. C. SUTHER**

LOGGING COMPANY: **ELSA OIL & GAS CO.**

WELL: **STATE 75-1**

FIELD: **WILCOX**

LOCATION: **22-153-15E**

COUNTY: **LEA**

STATE: **NEW MEXICO**

DATE: **11-20-50**

Recorded By: **Electrical Log Service**

REFERENCE **W 8311J** (ELSI)

**15 COMPLETION RECORD**

**Welex COMPENSATED ACOUSTIC VELOCITY LOG**

COMPANY: **ELSA OIL & GAS CO.**

WELL: **STATE 75-1**

FIELD: **WILCOX**

COUNTY: **LEA**

STATE: **NEW MEXICO**

DATE: **7/21/50**

LOG NUMBER: **W 8311J**

LOGGERS: **W. H. HARRISON, R. C. SUTHER**

LOGGING COMPANY: **ELSA OIL & GAS CO.**

WELL: **STATE 75-1**

FIELD: **WILCOX**

LOCATION: **22-153-15E**

COUNTY: **LEA**

STATE: **NEW MEXICO**

DATE: **11-20-50**

**Welex FORKHO LOG**

COMPANY: **ELSA OIL & GAS CO.**

WELL: **STATE 75-1**

FIELD: **WILCOX**

COUNTY: **LEA**

STATE: **NEW MEXICO**

DATE: **7/21/50**

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COUNTY: **LEA**

STATE: **NEW MEXICO**

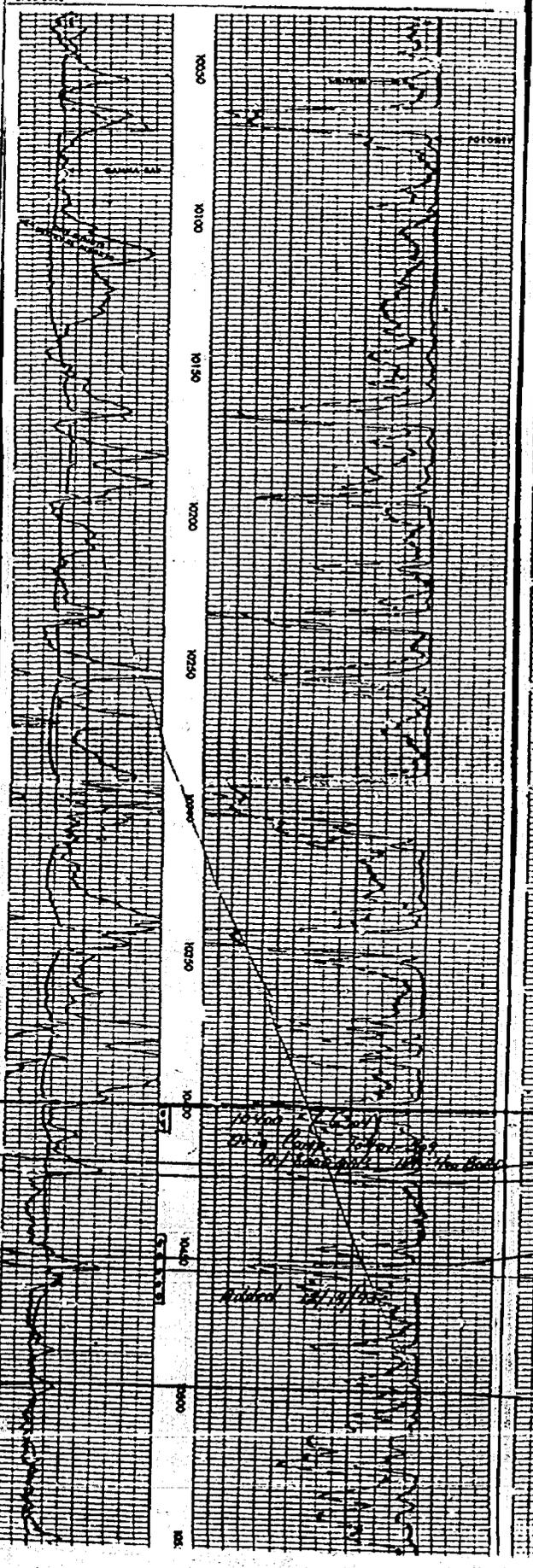
DATE: **11-20-50**

Recorded By: **Electrical Log Service**

REFERENCE **W 83054G** (ELSI)

**COMPLETION RECORD**

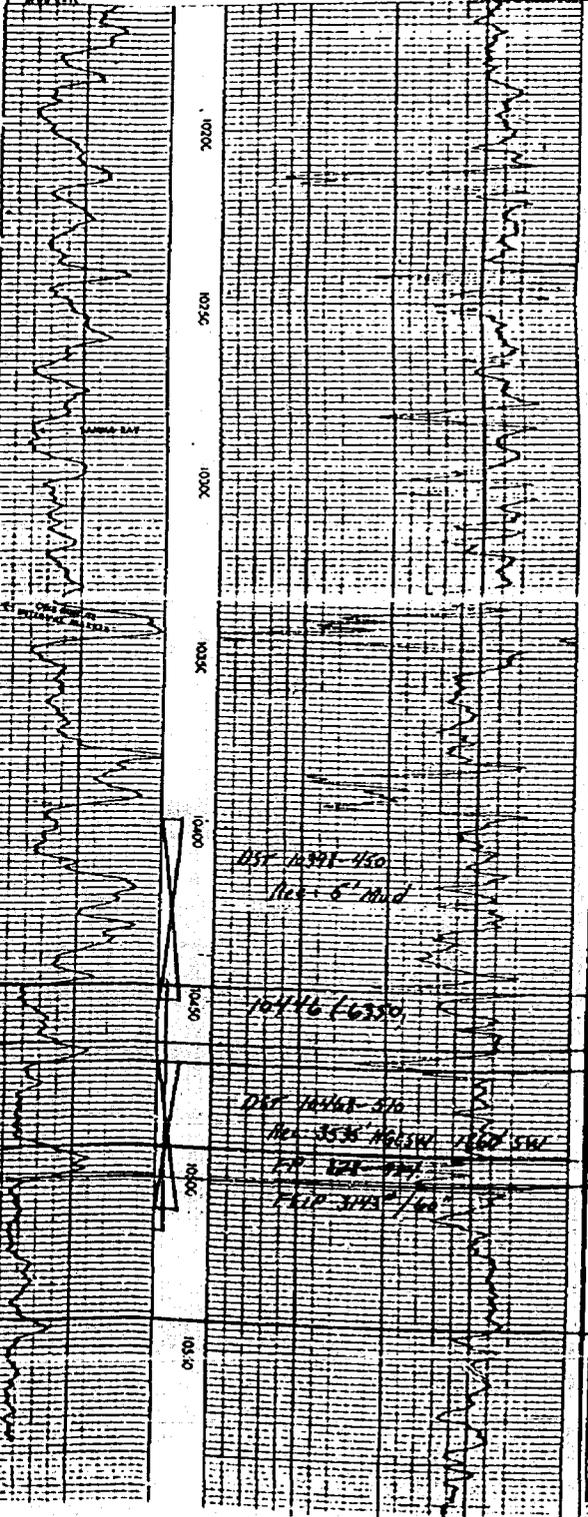
**THE SUBSURFACE LIBRARY**



Recorded By: **Electrical Log Service**

REFERENCE **W 83773** (ELSI)

**COMPLETION RECORD**



**WILCOX COVER MIDLAND, TEXAS 79701**

**RESISTIVITY CHMS M<sup>2</sup>/M**

**RESISTIVITY OHMS M<sup>2</sup>/M**

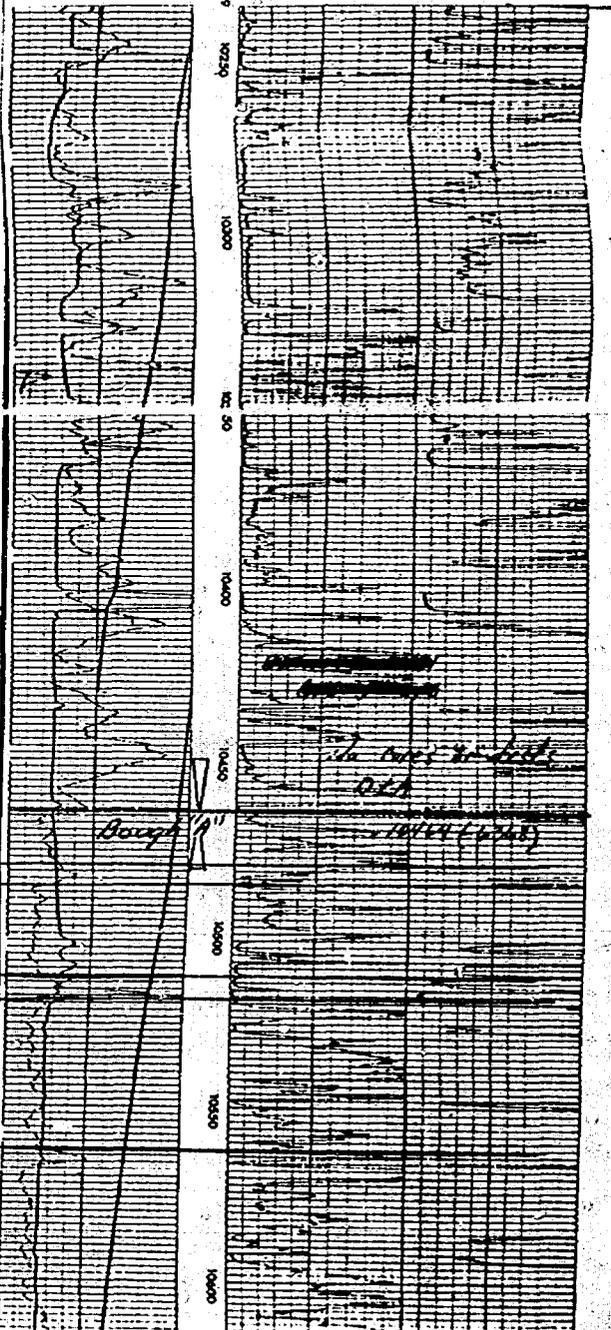
**GAMMA**

**FORKHO POROSITY INDEX**

**THE SUBSURFACE LIBRARY**

**P.O. BOX 912**

**MIDLAND, TEXAS 79701**



COQUINA OIL CORPORATION  
 CITIES SERVICE STATE LEASE  
 HIGH PLAINS PENN FIELD  
 LEA COUNTY, NEW MEXICO

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1973												
1974												
1975												
1976												
1977												
1978												
1979												
1980												
1981												
1982												

Exh. b. 7 4  
 Case 2/22

17,174 15,812 9854 5077 5,034 5,097 3,307

1000

200

CITIES SERVICE ST #1

1/6 Purchase Permian - Temp. Survey

High Flow, Permian, Las Comanche Gas

		Oil Produced	Gas Sales (MCF)	GOR	
1973	S	2767	0		FIRST RUNS 9-25-73 (Permian) IF
	15-74 O	810.7	187.2		Gas Sales Line Connected 10-20-73
	N	459.2	591.1		Gas Sales began 28th 10-20-73 IF
	D	164.6	76.4	46.4	
1972		1711.4	854.7		
	CUM 1-1-74	1711.4	854.7		
	J	1527	1545	1012	IP
	F	1403	4613	3288	2P
	M	1196	4152	3502	2P
	I	1303	3394	2605	#3 PRA in April 1974 IP
	M	1537	5483	3563	IP
	J	1364	5832	4280	
	J	1227	2162	2387	
	A	1382	2389	2090	
	S	1190	4238	3561	
	13423 O	1192	3656 3903	3067	
	N	1179	3112	2640	
	D	1216	3197	2629	IP
1974		15818	45321	2865	
	CUM 1-1-75	32932	53268		
1975	J	1125	2555	2271	IP 2
	F	1239	2575	2078	IP 2
	M	1069	2330	2180	
	A	839	2377	2833	
	M	30	1787	59567	
	J	999	2031	2033	
	J	986	4032	4091	
	A	1236	2397	1934	
	S	944	2014	2386	
	O	510	1033	2025	
	N	196	644	3286	
	D	781	1664	2131	
1975		9854	25441	8681.5	
	CUM 1-1-76	42786	79309		
1976	J	627	2339	3405	IP 3
	F	631	719	1139	IP 3
	M	555	484	872	IP 3
	A	376	248	626	IP 3
	M	33.7	551	1042	IP 3
	J	298	284	953	IP 4
	J	212	250	1179	IP 4
	A	483	865	1791	IP 4
	S	405	472	1180	IP 4
	O	388	229	590	Exhibit 5 IP 4
	N	344	239	695	Case 7122 IP 4

Cities Service State #1  
 Oil: Permian-temp. ~~Comm~~ <sup>2-1-78</sup> Gas: Tipperary

		Oil	MCF	GOR	
Produced SALES					
1976	D	341	221	677	IP
1976		5077	6717		
Com 1-1-77		47863	86026		
1977	J	330	247	755	IP
	F	363	237	796	IP
	M	318	434	1365	IP
	A	291	293	1007	IP
	M	254	196	772	IP
	J	268	129	481	IP
	J	260	179	688	IP
	A	224	199	701	IP
	S	153	108	706	IP
	J	53	80	1509	IP
	F	195	106	544	IP
	J	265	203	766	IP
1977		5034	2465		
Com 1-1-78		50897	88491		
1977	J	239	204	854	IP
	F	20	73	3650	IP
	M	1103	152	1476	IP Chad pump 3-3-78
	A	104	193	1856	IP
	M	334	223	847	IP Chad pump 5-2-78
	J	162	180	1111	IP
	J	86	70	914	IP
	A	137	87	635	IP
	J	215	163	758	IP
	O	740	250	332	IP
	M	479	310	647	IP
	D	478	177	370	IP
1978		3097	2142		
Com 1-1-79		53994	90633		
1977	J	441	195	442	IP
	F	287	158	481	IP
	M	321	118	368	IP
	A	204	142	696	IP
	M	268	223	832	IP
	J	327	176	538	IP
	J	289	174	602	IP
	F	227	165	727	IP
	S	257	110	428	IA
	J	139	91	659	IP Put well Puts together As of 2-2-79 Sells 6-1-79
	F	309	132	427	IP
	J	239	87	364	IP
1977		3307	1751		
Com 1-1-78		57301	92384		

Stripper

92

Cities Service State



COQUINA OIL CORPORATION - 73-A EXPLORATION PROGRAM  
APPRAISAL OF CERTAIN LEASEHOLD AND ROYALTY INTERESTS OF COQUINA  
IN THE 73-A EXPLORATION FUND PROPERTIES  
PROJECTION OF ESTIMATED ANNUAL PRODUCTION AND CASH FLOW  
BEGINNING JANUARY 1, 1981

GH PLAINS FIELD, LEA COUNTY, NEW MEXICO  
COQUINA OIL CORP. - OPERATOR  
CITIES SERVICE NO.1

PROVED  
PRODUCING 73A1

INTERESTS - Gross 0.424206 Net Oil 0.318154 Net Cond Net Oil Prod Net Gas 0.318154  
GROSS PRICE - Oil \$ 36.503 / bbl. Cond \$ / bbl. Oil Prod \$ / bbl. Gas \$ 1342.58 / mmcf Discount Rate is 10.00 % per ann.  
NOTES - STRIPPER OIL. Compounded MONTHLY MID -pe

PRESENT WORTH AT 12.75 - 11,841 \*\*\*\* 16.00 - 11,411 \*\*\*\* 21.50 - 10,738 \*\*\*\* 25.00 - 10,

Period	Number of Wells	ESTIMATED 8 8 THS PRODUCTION				COMPANY NET PRODUCTION			
		Oil Barrels	Condensate Barrels	Plant Products Barrels	Gas MMCF	Oil Barrels	Condensate Barrels	Plant Products Barrels	Gas MMCF
1	1	1,680	0	0	1	535	0	0	0
2	1	1,340	0	0	0	426	0	0	0
3	1	1,130	0	0	0	360	0	0	0
4		0	0	0	0	0	0	0	0
5		0	0	0	0	0	0	0	0
6		0	0	0	0	0	0	0	0
7		0	0	0	0	0	0	0	0
8		0	0	0	0	0	0	0	0
9		0	0	0	0	0	0	0	0
0		0	0	0	0	0	0	0	0
1		0	0	0	0	0	0	0	0
2		0	0	0	0	0	0	0	0
3		0	0	0	0	0	0	0	0
4		0	0	0	0	0	0	0	0
5		0	0	0	0	0	0	0	0
Total		4,150	0	0	1	1,320	0	0	0
Under		0	0	0	0	0	0	0	0
Future		4,150	0	0	1	1,320	0	0	0
Relative		59,220	0	0	94				
Rate		63,370	0	0	95				

Period	FUTURE GROSS INCOME (FGI) - \$				TOTAL FUTURE GROSS INCOME - \$	PRODUCTION TAXES - \$	WINDFALL TAX & TRANSPORTATION COSTS - \$	WINDFALL & PROD TAXES & TRANS COSTS - \$
	From Oil	From Condensate	From Plant Products	From Gas				
81	20,560	0	0	255	20,815	1,598	3,038	4,636
82	17,878	0	0	221	18,099	1,390	1,714	3,104
83	16,468	0	0	204	16,672	1,280	1,084	2,364
84	0	0	0	0	0	0	-1,683	-1,683
85	0	0	0	0	0	0	0	0
86	0	0	0	0	0	0	0	0
87	0	0	0	0	0	0	0	0
88	0	0	0	0	0	0	0	0
89	0	0	0	0	0	0	0	0
90	0	0	0	0	0	0	0	0
91	0	0	0	0	0	0	0	0
92	0	0	0	0	0	0	0	0
93	0	0	0	0	0	0	0	0
94	0	0	0	0	0	0	0	0
95	0	0	0	0	0	0	0	0
Total	54,906	0	0	680	55,586	4,268	4,153	8,421
Under	0	0	0	0	0	0	0	0
Future	54,906	0	0	680	55,586	4,268	4,153	8,421

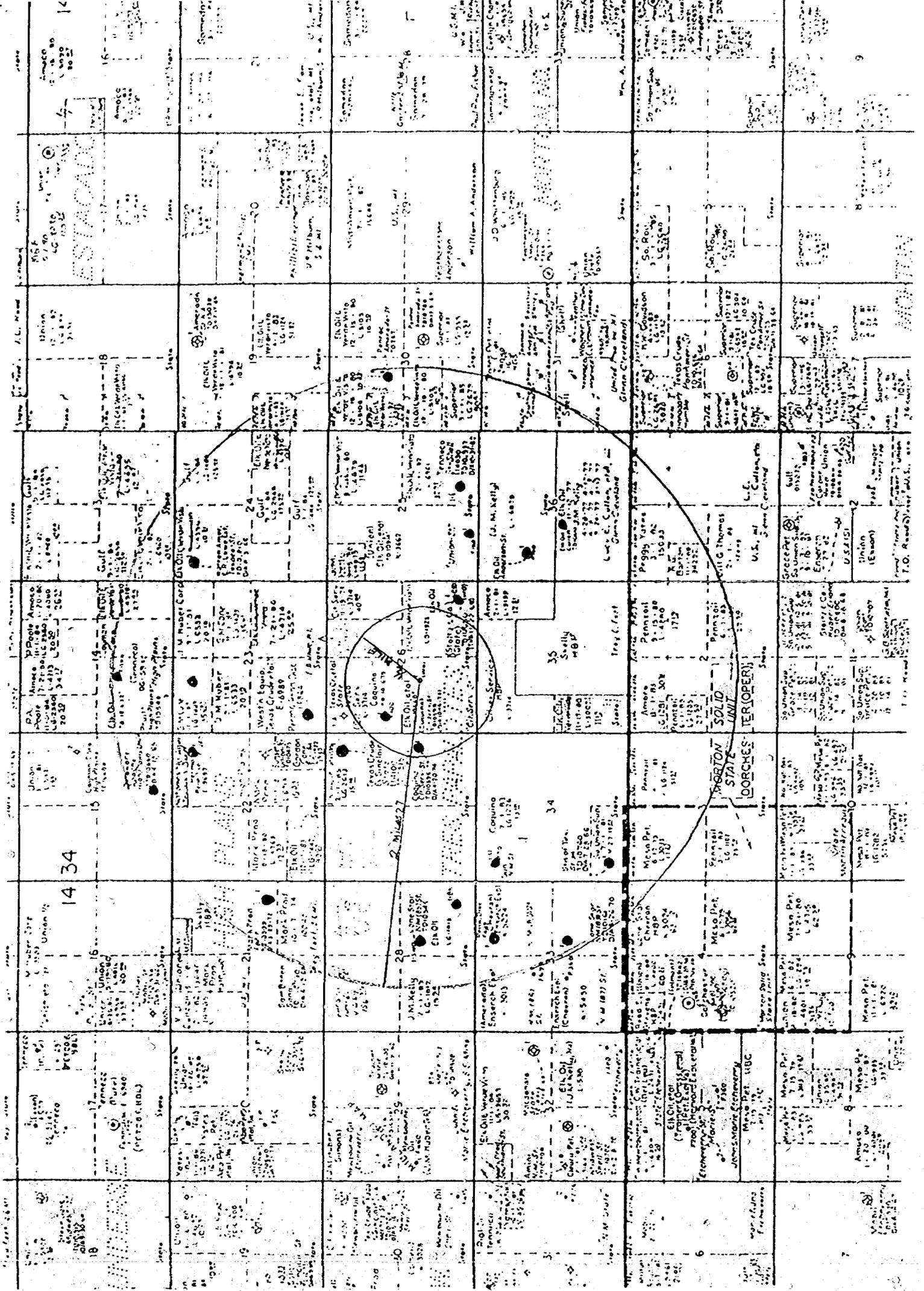
Period	FGI After PROD TAXES & TRANS COSTS - \$	DEDUCTIONS - \$			TOTAL DEDUCTIONS - \$	FUTURE NET INCOME - \$	CUMULATIVE FUTURE NET INCOME - \$	PRESENT WORTH of the FUTURE NET INCOME - \$
		Operating Costs	Ad Valorem Taxes	Development Costs				
81	16,175	9,672	0	0	9,672	6,507	6,507	6,191
82	14,995	10,542	0	0	10,542	4,453	10,960	3,835
83	14,308	11,491	0	0	11,491	2,817	13,777	2,196
84	1,683	0	0	0	0	1,683	15,460	1,188
85	0	0	0	0	0	0	15,460	0
86	0	0	0	0	0	0	15,460	0
87	0	0	0	0	0	0	15,460	0
88	0	0	0	0	0	0	15,460	0
89	0	0	0	0	0	0	15,460	0
90	0	0	0	0	0	0	15,460	0
91	0	0	0	0	0	0	15,460	0
92	0	0	0	0	0	0	15,460	0
93	0	0	0	0	0	0	15,460	0
94	0	0	0	0	0	0	15,460	0
95	0	0	0	0	0	0	15,460	0
Total	47,165	31,705	0	0	31,705	15,460	15,460	13,410
Under	0	0	0	0	0	0	15,460	0
Future	47,165	31,705	0	0	31,705	15,460	15,460	13,410

Exhibit 6  
Case 31,705

ELK OIL COMPANY  
 Application to Dispose of  
 Salt Water  
 C.S. State #2  
 High Plains Field  
 Lea County, New Mexico

- Producing
- P & A

BEFORE EXAMINER STAMETS  
 OIL CONSERVATION DIVISION  
 EXHIBIT NO. 1  
 CASE NO. 7122  
 Submitted by \_\_\_\_\_  
 Hearing Date \_\_\_\_\_



ELK OIL COMPANY  
 Application to Dispose of Salt Water  
 C.S. State #2  
 High Plains Field  
 Lea County, New Mexico

Wells within 2 mile radius

TOWNSHIP 14 SOUTH - RANGE 34 EAST

<u>SECTION</u>	<u>COMPANY</u>	<u>WELL</u>	<u>TOTAL DEPTH</u>	<u>PRODUCING FORMATION</u>
14	Elk Oil Company	#1 High Plains	10,622	P. & A
15	Delaware-Apache	#2 High Plains	10,660	Dry
21	Mark Producing	#1 Fort	10,535	Dry
22	Sunset Inc.	#1 Union	10,575	Dry
22	Natomas	#1 High Plains	10,600	Penn @ 10,438
23	Western Equipment	#1-23 State	10,543	Penn @ 10,463
24	Warren American	#1 Texaco State	10,810	Dry
25	Tenneco	#1 Shell State	10,937	Dry
25	Elk Oil	#1 Union State	10,541	Penn @ 10,468
26	Elk Oil	#1 JM State	10,650	Penn @ 10,55
26	Elk Oil	#2 C.S. State	10,598	Penn @ 10,441
26	Coquina	#1 C.S. State	10,579	Penn @ 10,401
26	Texas Crude	#1 State	260	Dry
27	Texas Crude	#1-27 State	11,515	Dry
27	Coquina	#3 Cities Service	10,596	Dry
28	Sam Boren	#1 Sandy	10,730	Dry
28	Lone Star	#85 State	10,544	Dry
28	Elk Oil	#1 B.K. State	10,535	Penn @ 10,428
33	Lone Star	#80 State	10,663	Penn @ 10,468
33	Lone Star	#83 State	10,601	Dry
34	Sun Oil	#1 N.M. State	10,650	P & A
34	Standard of Texas	#1 State 34	10,760	Dry
36	Elk Oil	#1 Anderson State	10,628	Penn @ 10,478
36	Elk Oil	#1 Cullen	10,610	Dry

TOWNSHIP 14 SOUTH - RANGE 35 EAST

30	Penroc	#2 Amerada State	267	Dry
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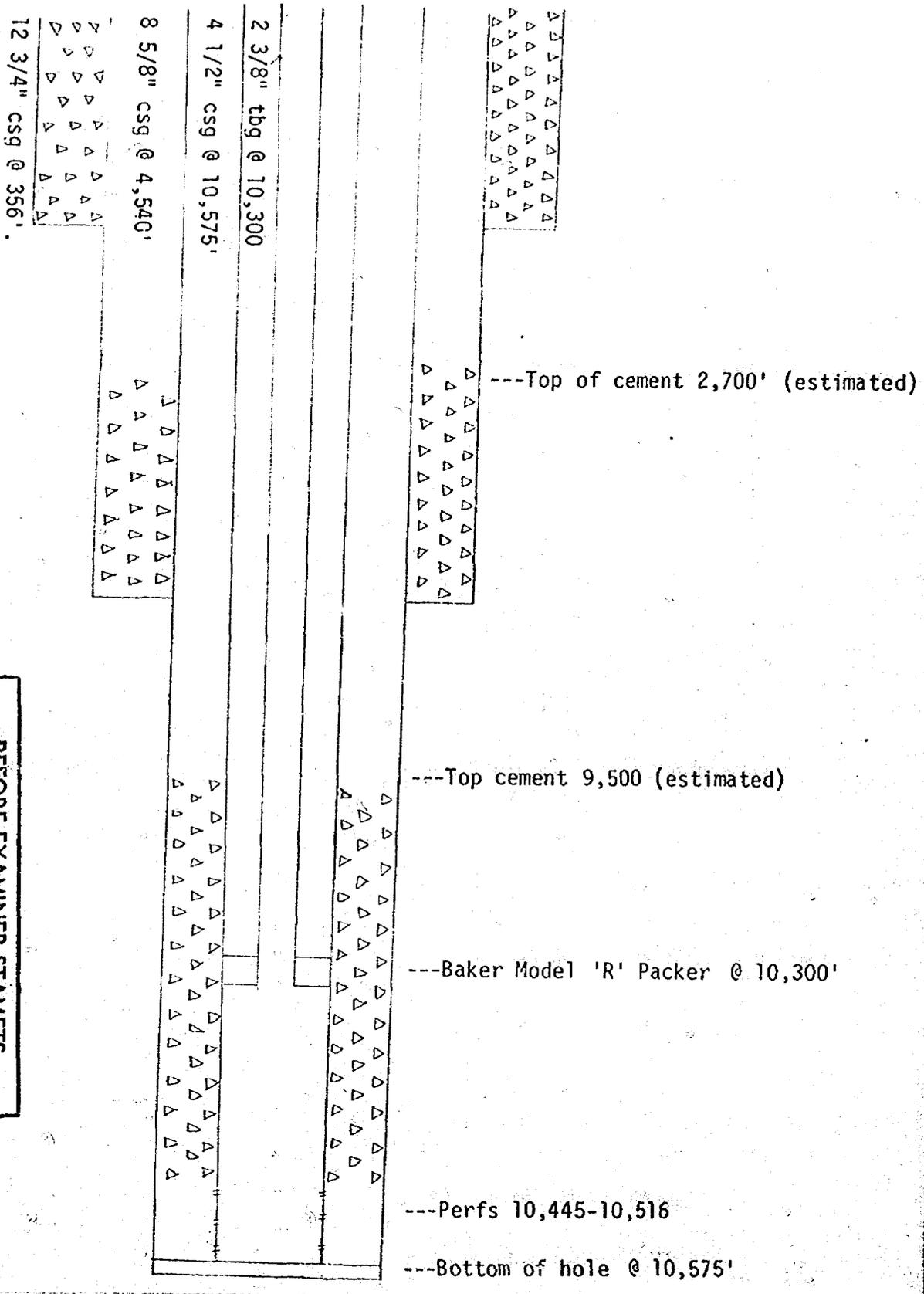
BEFORE EXAMINER STAMETS  
 OIL CONSERVATION DIVISION

*EIK* EXHIBIT NO. 2

CASE NO. 7122

Submitted by \_\_\_\_\_

Hearing Date \_\_\_\_\_



BEFORE EXAMINER STAMETS  
OIL CONSERVATION DIVISION  
ELK EXHIBIT NO. 3  
CASE NO. 7122  
Submitted by \_\_\_\_\_  
Hearing Date \_\_\_\_\_

ELK OIL COMPANY  
Application to Dispose of Salt Water  
C. S. State #2  
High Plains Field  
Lea County, New Mexico

Wells within 1/2 mile radius

COQUINA C. S. State #1; Sec. 26-14S-34E; 1980 FNL, 660 FWL

<u>Casing</u>	<u>Settings</u>	<u>Cement</u>	<u>Tops</u>
12 3/4	378'	375 sx	circ.
8 5/8	4,544'	300 sx	2,700 est.
5 1/2	10,561'	350 sx	9,500 est.

Total Depth 10,579  
Perforation: 10-401-409 Penn High Plains

COQUINA C. S. State #3; Sec. 27-14S-34E; 1980 FSL, 510 FEL

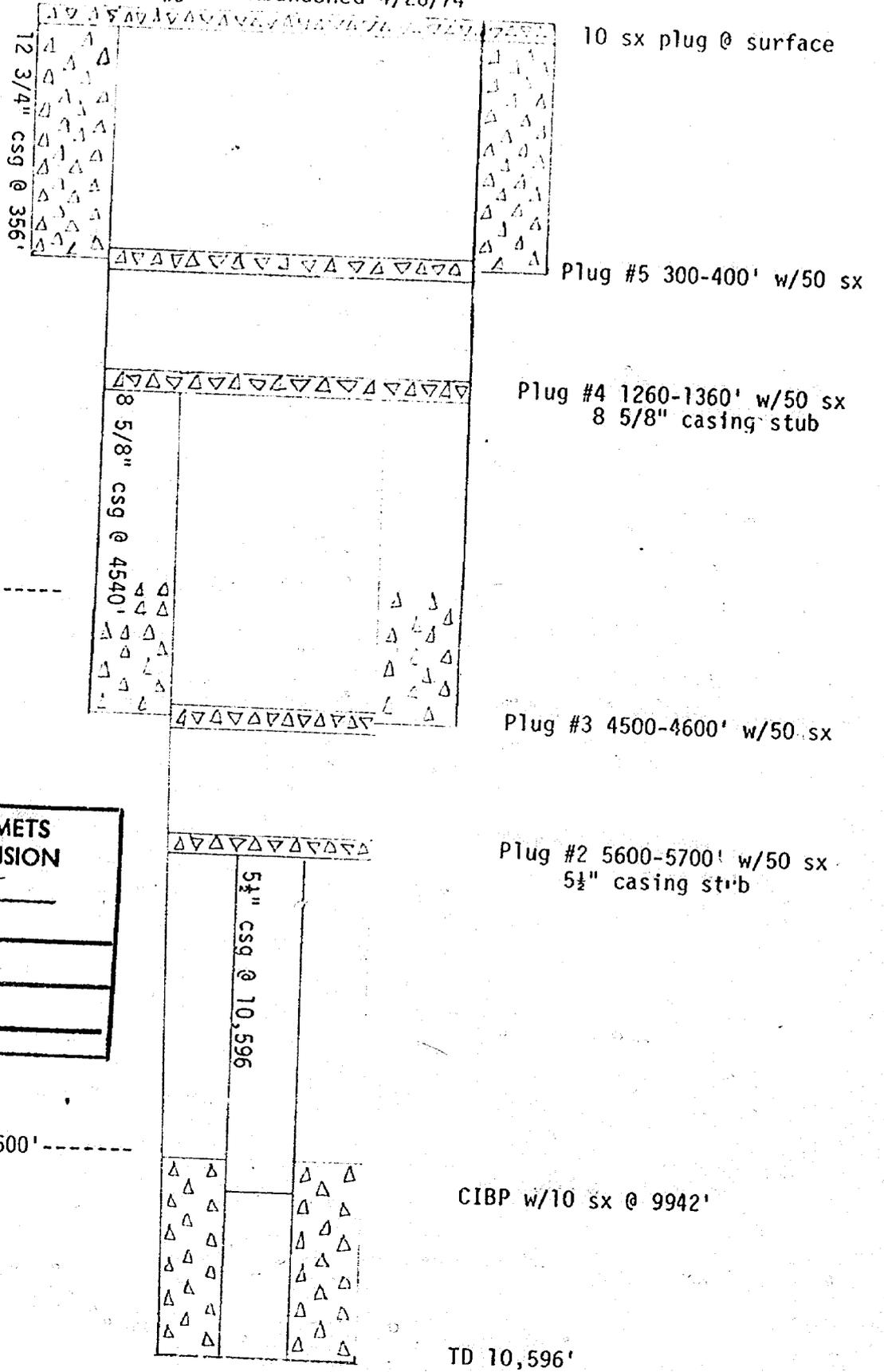
<u>Casing</u>	<u>Settings</u>	<u>Cement</u>	<u>Tops</u>
12 3/4	353'	375 sx	circ.
8 5/8	4,540'	300 sx	2,700' est
5 1/2	10,596	350 sx	9,500' est

Total Depth 10,596  
P & A 4-20-74

BEFORE EXAMINER STAMETS  
OIL CONSERVATION DIVISION  
*EIK* EXHIBIT NO. 4  
CASE NO. 7122  
Submitted by \_\_\_\_\_  
Hearing Date \_\_\_\_\_

Application to Dispose of Salt Water  
COQUINA Cities Service State #3  
Sec. 27-14S-34E  
Lea County, New Mexico

Plugged & Abandoned 4/20/74



BEFORE EXAMINER STAMETS  
OIL CONSERVATION DIVISION  
EIK EXHIBIT NO. 5  
CASE NO. 7122  
Submitted by \_\_\_\_\_  
Hearing Date \_\_\_\_\_



CITIES SERVICE COMPANY  
ENERGY RESOURCES GROUP

Box 1919  
Midland, Texas 79702  
(915) 685-5600

December 16, 1980

Elk Oil Company  
P. O. Box 310  
Roswell, New Mexico 88201

Attention: Mr. Joseph J. Kelly

Re: C. S. State #2  
1380' FWL, 1980' FSL  
Section 26, T-14-S, R-34-E  
Lea County, New Mexico

Gentlemen:

Cities Service has no objection to Elk Oil Company converting the captioned well to a salt water disposal well as requested in your letter of November 21, 1980.

Yours truly,

CITIES SERVICE COMPANY

*John W. Young*  
John W. Young  
Manager - Land  
Southwest Region

JWYbd

BEFORE EXAMINER STAMETS OIL CONSERVATION DIVISION <i>EIK</i> EXHIBIT NO. <u>6</u> CASE NO. <u>7122</u> Submitted by _____ Hearing Date _____
---



ELK OIL COMPANY  
 Application to Dispose of Salt Water  
 C.S. State #2  
 High Plains Field  
 Lea County, New Mexico

Wells within 2 mile radius

TOWNSHIP 14 SOUTH - RANGE 34 EAST

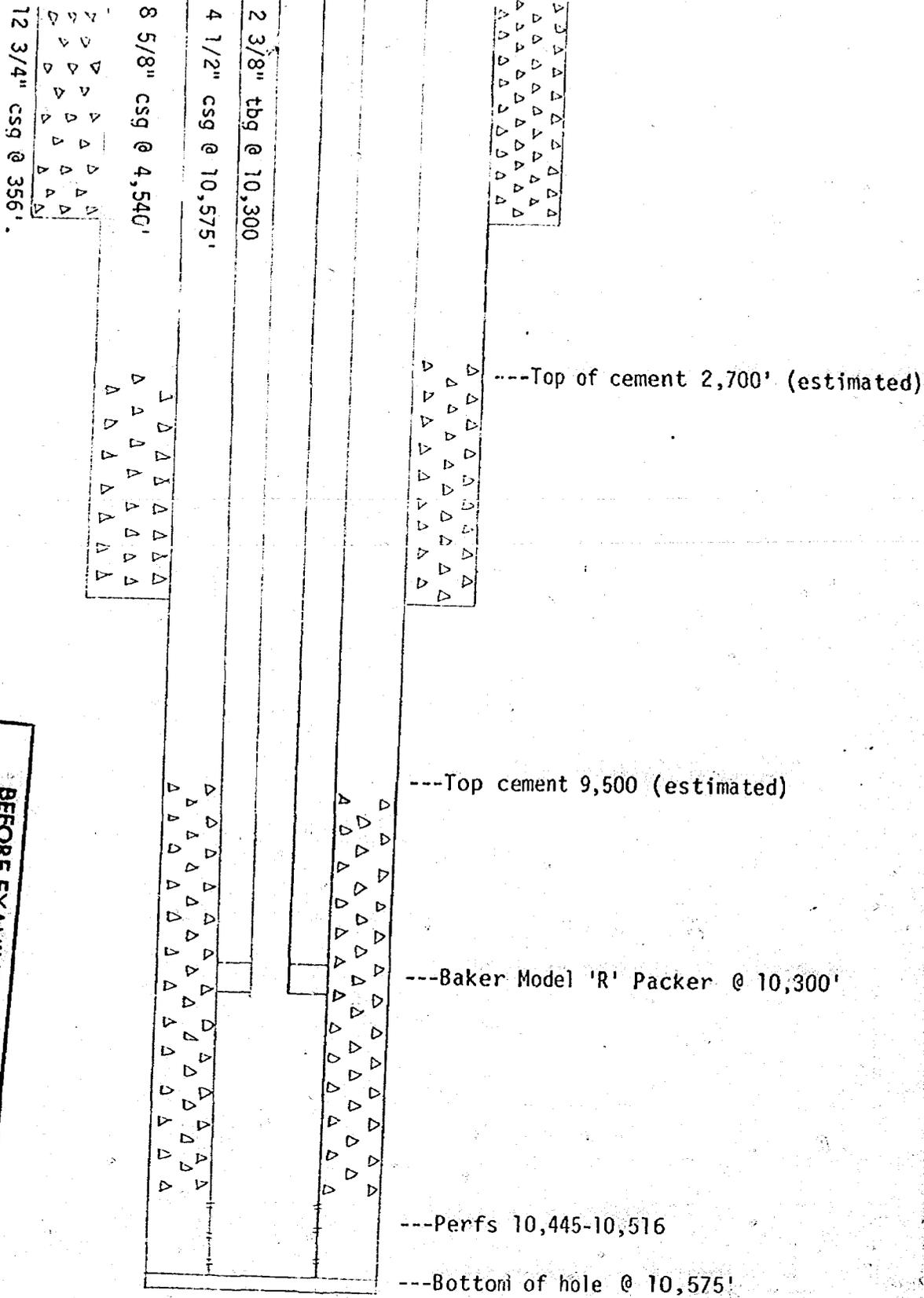
<u>SECTION</u>	<u>COMPANY</u>	<u>WELL</u>	<u>TOTAL DEPTH</u>	<u>PRODUCING FORMATION</u>
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15	Delaware-Apache	#2 High Plains	10,660	Dry
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23	Western Equipment	#1-23 State	10,543	Penn @ 10,463
24	Warren American	#1 Texaco State	10,810	Dry
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26	Elk Oil	#2 C.S. State	10,598	Penn @ 10,441
26	Coquina	#1 C.S. State	10,579	Penn @ 10,401
26	Texas Crude	#1 State	260	Dry
27	Texas Crude	#1-27 State	11,515	Dry
27	Coquina	#3 Cities Service	10,596	Dry
28	Sam Boren	#1 Sandy	10,730	Dry
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36	Elk Oil	#1 Cullen	10,610	Dry

TOWNSHIP 14 SOUTH - RANGE 35 EAST

30	Penroc	#2 Amerada State	267	Dry
----	--------	------------------	-----	-----

BEFORE EXAMINER STAMETS	
OIL CONSERVATION DIVISION	
<u>EIK</u>	EXHIBIT NO. <u>2</u>
CASE NO. <u>7122</u>	
Submitted by _____	
Hearing Date _____	

ELK OIL COMPANY  
C. S. State #2  
Sec. 26-14S-34E  
Lea County, New Mexico



BEFORE EXAMINER STAMETS  
OIL CONSERVATION DIVISION  
EXHIBIT NO. 3  
CASE NO. 7122  
Submitted by \_\_\_\_\_  
Hearing Date \_\_\_\_\_

FLK OIL COMPANY  
Application to Dispose of Salt Water  
C. S. State #2  
High Plains Field  
Lea County, New Mexico

Wells within 1/2 mile radius

COQUINA C. S. State #1; Sec. 26-14S-34E; 1980 FNL, 660 FWL

<u>Casing</u>	<u>Settings</u>	<u>Cement</u>	<u>Tops</u>
12 3/4	378'	375 sx	circ.
8 5/8	4,544'	300 sx	2,700 est.
5 1/2	10,561'	350 sx	9,500 est.

Total Depth 10,579  
Perforation: 10-401-409 Penn High Plains

COQUINA C. S. State #3; Sec. 27-14S-34E; 1980 FSL, 510 FEL

<u>Casing</u>	<u>Settings</u>	<u>Cement</u>	<u>Tops</u>
12 3/4	353'	375 sx	circ.
8 5/8	4,540'	300 sx	2,700' est
5 1/2	10,596	350 sx	9,500' est

Total Depth 10,596  
P & A 4-20-74

BEFORE EXAMINER STAMETS  
OIL CONSERVATION DIVISION

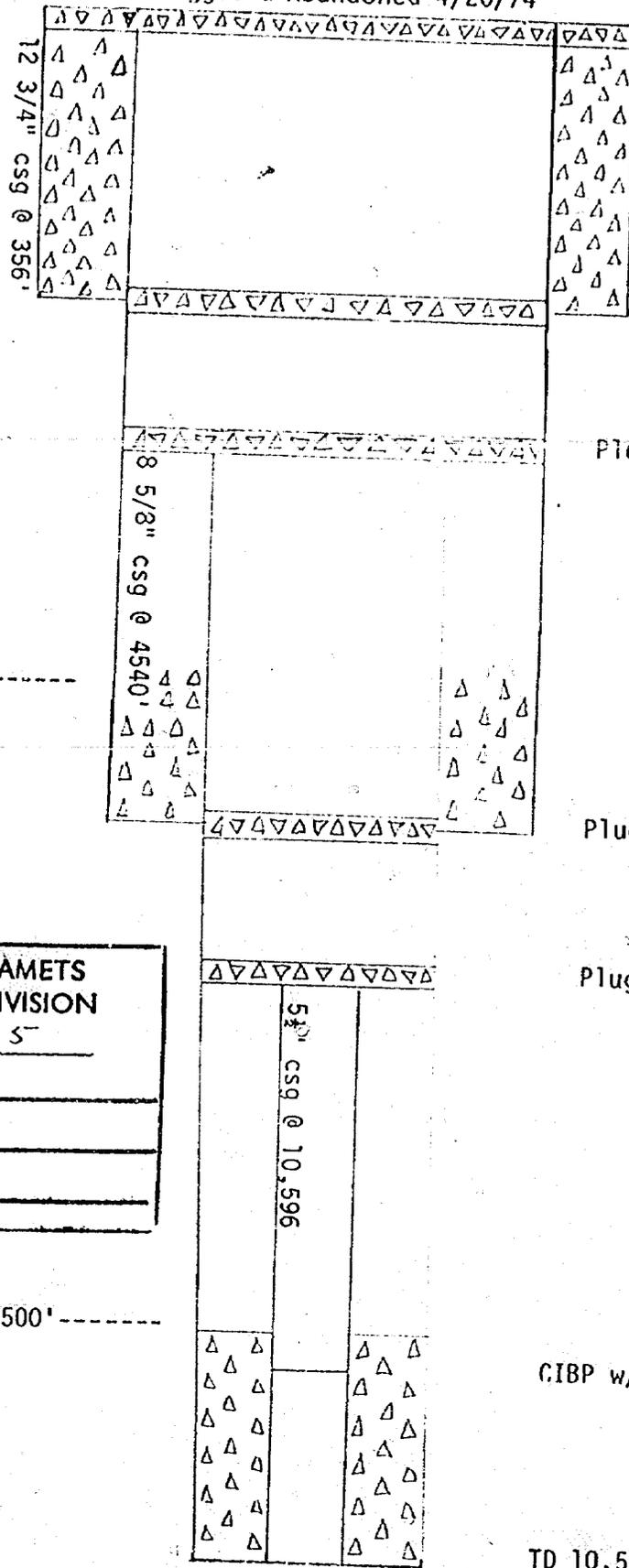
*EIK* EXHIBIT NO. 4

CASE NO. 7122

Submitted by \_\_\_\_\_

Hearing Date \_\_\_\_\_

Plugged & Abandoned 4/20/74



10 sx plug @ surface

Plug #5 300-400' w/50 sx

Plug #4 1260-1360' w/50 sx  
 8 5/8" casing stub

Estimated top 2700'-----

Plug #3 4500-4600' w/50 sx

BEFORE EXAMINER STAMETS  
 OIL CONSERVATION DIVISION  
 EIK EXHIBIT NO. 5  
 CASE NO. 7122  
 Submitted by \_\_\_\_\_  
 Hearing Date \_\_\_\_\_

Plug #2 5600-5700' w/50 sx  
 5 1/2" casing stub

Estimated top 9500'-----

CIBP w/10 sx @ 9942'

TD 10,596'



CITIES SERVICE COMPANY  
ENERGY RESOURCES GROUP

Box 1919  
Midland, Texas 79702  
(915) 685-5600

December 16, 1980

Elk Oil Company  
P. O. Box 310  
Roswell, New Mexico 88201

Attention: Mr. Joseph J. Kelly

Re: C. S. State #2  
1380' FWL, 1980' FSL  
Section 26, T-14-S, R-34-E  
Lea County, New Mexico

Gentlemen:

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Yours truly,

CITIES SERVICE COMPANY

*John W. Young*  
John W. Young  
Manager - Land  
Southwest Region

JWYbd

BEFORE EXAMINER STAMETS OIL CONSERVATION DIVISION <i>EIK</i> EXHIBIT NO. <u>6</u> CASE NO. <u>7122</u> Submitted by _____ Hearing Date _____
---







CITIES SERVICE ST #1

YL Purchases Permian - Temp. S...

Yield - Permian, Permian - Temp. S...

		Oil Produced	GAS Sales (MCF)	GOR	
1973	S	2167	0		FIRST RUNS 9-25-73 (Permian) 1F
1974	O	8107	1872		Gas Sales Line Connected 10-20-73
	N	4593	5911		Gas Sales began 3/11/74 10-20-73 1K
	D	1646	764	464	1F
1974		17114	8547		
CUM 1-1-74		17114	8547		
	J	1527	1545	1012	1P
	F	1403	4613	3288	2P
	M	1196	4182	3502	2P
	I	1303	3394	2605	#3 P.A.M. April 1974 1P
	M	1529	5483	3563	1P
	J	1324	5832	4280	
	J	1327	2168	2387	
	A	1382	2889	2090	
	S	1190	4238	3561	
13423	O	1192	3656	3067	
	N	1179	3112	2640	
	D	1216	3197	2629	1P
1974		15818	45321	2865	1
CUM 1-1-75		32932	53268		2
1975	J	1125	2555	2271	1P 2
	F	1239	2575	2078	1P 2
	M	1069	2330	2180	2
	A	839	2377	2833	2
	M	30	1787	59567	2
	J	999	2031	2033	2
	J	986	4034	4091	2
	A	1236	2397	1934	2
	S	844	2014	2386	3
	O	510	1033	2025	3
	N	196	644	3286	3
	D	781	1664	2131	3
1975		9854	25441	86815	3
CUM 1-1-76		42786	79309		3
1976	J	627	2339	3405	1P 3
	F	631	719	1139	1P 3
	M	555	484	872	1P 3
	A	396	248	626	1P 3
	M	337	351	1042	1P 3
	J	298	284	950	1P 4
	J	212	250	1179	1P 4
	A	483	865	1791	1P 4
	S	405	472	1180	1P 4
	O	388	229	590	1P 4
	N	344	239	695	1P 4

BEFORE EXAMINER STAMETS  
OIL CONSERVATION DIVISION  
Case No. T 122  
Submitted by Gilbert  
Hearing Date 1-14-81  
Exhibits EXHIBIT NO. 5

Cities Service State #1

Oil: Permian-temp. ~~COMM~~ Basin <sup>2-1-78</sup> GAS TEMPERARY

		OIL Produced	MCF SALES	GOR	
1976	D	3411	221	677	IP
1976		5077	6717		
COM 1-1-77		47863	86026		
1977	V	330	249	755	IP
	F	363	289	796	IP
	M	318	434	1365	IP
	A	271	293	1007	IP
	M	254	196	772	IP
	V	268	129	481	IP
	V	260	179	628	IP
	A	284	199	701	IP
	C	153	108	706	IP
	O	53	80	1509	IP
	M	195	106	544	IP
	D	265	203	766	IP
1977		5034	2465		
COM 1-1-78		50897	88491		
1977	J	239	204	854	IP
	M	20	93	3650	IP
	M	103	152	1476	IP chgd pump 3-3-78
	A	104	193	1856	IP
	M	334	223	847	IP chgd pump 5-2-78
	J	162	180	1111	IP
	V	86	70	814	IP
	A	137	87	635	IP
	C	215	163	758	IP
	O	740	250	338	IP
	M	479	310	647	IP
	D	478	177	370	IP
1978		3097	2142		
COM 1-1-79		53994	90633		
1979	J	441	195	442	IP
	F	287	138	481	IP
	M	321	118	368	IP
	A	204	142	696	IP
	M	268	223	832	IP
	J	327	176	538	IP
	J	289	174	602	IP
	F	227	165	727	IP
	S	257	110	438	IP
	D	138	91	459	IP
	M	309	132	427	IP
	D	239	87	364	IP
1979		3307	1751		
COM 1-1-80		57301	92284		

POYDIL  
Puts together IP  
Asst Eng with  
sets of Poyd

Stripper

pg 2

Cities Service State

Cities Service State #1

CIL Basin

Gas: Tipperary

1 2 3 4 5

		CIL Produced	MCF Sales	GOR	
1980	J	212	84	326	IP
	F	235	79	326	IP
	M	181	81	448	IP
	A	182	53	282	IP
	M	248	65	262	IP
	J	232	56	241	IP
	J	83	71	807	IP
	A	202	76	365	IP
	S	171	96	561	IP
	O	186	112	602	IP
	N	141	56	397	IP
<b>Cum Total</b>		<b>59390</b>	<b>93213</b>		<b>IP</b>
1980					
Cum. To 1-1-81					
1981	J				
	F				
	M				
	A				
	M				
	J				
	J				
	A				
	S				
	O				
	N				
	D				
1981					
Cum. To 1-1-82					
1982	J				
	F				
	M				
	A				
	M				
	J				
	J				
	A				
	S				
	O				
	N				
	D				
1982					
Cum. To 1-1-83					

Stripper

COQUINA OIL CORPORATION - 73-A EXPLORATION PROGRAM  
APPRAISAL OF CERTAIN LEASEHOLD AND ROYALTY INTERESTS OF COQUINA  
IN THE 73-A EXPLORATION FUND PROPERTIES  
PROJECTION OF ESTIMATED ANNUAL PRODUCTION AND CASH FLOW  
BEGINNING JANUARY 1, 1981

GH PLAINS FIELD, LEA COUNTY, NEW MEXICO  
COQUINA OIL CORP. - OPERATOR  
CITIES SERVICE NO.1

PROVED  
PRODUCING 73A

INTERESTS - Gross 0.424206 Net Oil 0.318154 Net Cond. / bbl Net Oil Prod. / bbl Net Gas 0.318154  
GROSS PRICE - Oil \$ 38.503 / bbl Cond \$ / bbl Oil Prod \$ / bbl Gas \$ 1342.38 / mcf Discount Rate is 10.00 % per ann.  
NOTES - STRIPPER OIL. Compounded MONTHLY MIO .per.

PRESENT WORTH AT 12.75 - 11,841 \*\*\*\* 16.00 - 11,411 \*\*\*\* 21.50 - 10,738 \*\*\*\* 25.00 - 10,

Period	Number of Wells	ESTIMATED 8.8 THS PRODUCTION				COMPANY NET PRODUCTION			
		Oil Barrels	Condensate Barrels	Plant Products Barrels	Gas MMCF	Oil Barrels	Condensate Barrels	Plant Products Barrels	Gas MMCF
1	1	1,680	0	0	1	534	0	0	0
2	1	1,340	0	0	0	426	0	0	0
3	1	1,130	0	0	0	360	0	0	0
4		0	0	0	0	0	0	0	0
5		0	0	0	0	0	0	0	0
6		0	0	0	0	0	0	0	0
7		0	0	0	0	0	0	0	0
8		0	0	0	0	0	0	0	0
9		0	0	0	0	0	0	0	0
10		0	0	0	0	0	0	0	0
11		0	0	0	0	0	0	0	0
12		0	0	0	0	0	0	0	0
13		0	0	0	0	0	0	0	0
14		0	0	0	0	0	0	0	0
15		0	0	0	0	0	0	0	0
Total		4,150	0	0	1	1,320	0	0	0
Under		0	0	0	0	0	0	0	0
Future		4,150	0	0	1	1,320	0	0	0
Initial		59,220	0	0	94				
Rate		63,370	0	0	95				

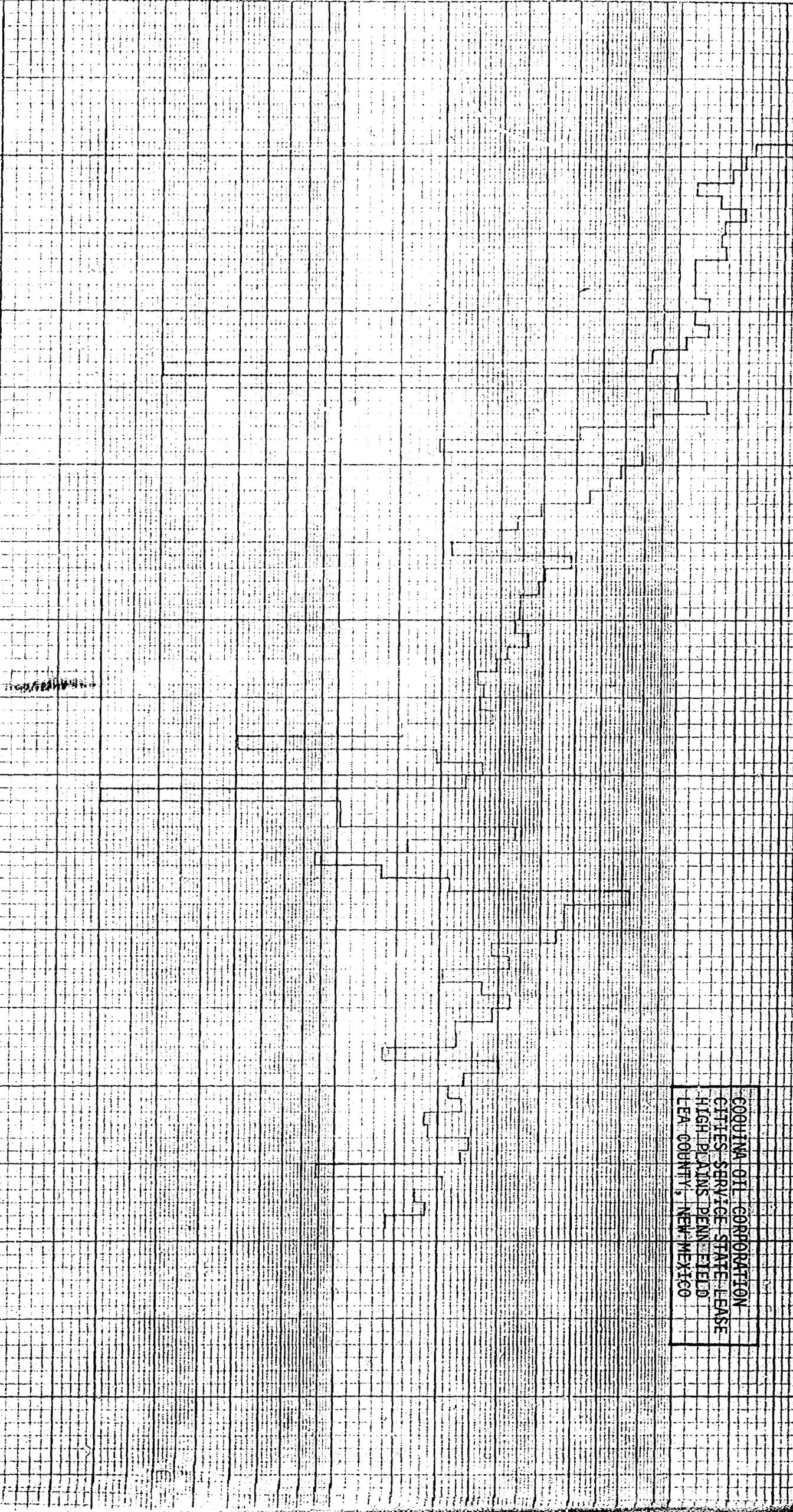
Period	FUTURE GROSS INCOME (FGI) - \$				TOTAL FUTURE GROSS INCOME - \$	PRODUCTION TAXES - \$	WINDFALL TAX & TRANSPORTATION COSTS - \$	WINDFALL & PROD. TAXES & TRANS. COSTS - \$
	From Oil	From Condensate	From Plant Products	From Gas				
81	20,560	0	0	255	20,815	1,598	3,038	4,636
82	17,878	0	0	221	18,099	1,390	1,714	3,104
83	16,468	0	0	204	16,672	1,280	1,084	2,364
84	0	0	0	0	0	0	-1,683	-1,683
85	0	0	0	0	0	0	0	0
86	0	0	0	0	0	0	0	0
87	0	0	0	0	0	0	0	0
88	0	0	0	0	0	0	0	0
89	0	0	0	0	0	0	0	0
90	0	0	0	0	0	0	0	0
91	0	0	0	0	0	0	0	0
92	0	0	0	0	0	0	0	0
93	0	0	0	0	0	0	0	0
94	0	0	0	0	0	0	0	0
95	0	0	0	0	0	0	0	0
Total	54,906	0	0	680	55,586	4,268	4,153	8,421
Under	0	0	0	0	0	0	0	0
Future	54,906	0	0	680	55,586	4,268	4,153	8,421

Period	FGI After PROD. TAXES & TRANS. COSTS - \$	DEDUCTIONS - \$			TOTAL DEDUCTIONS - \$	FUTURE NET INCOME - \$	CUMULATIVE FUTURE NET INCOME - \$	PRESENT WORTH of the FUTURE NET INCOME - \$
		Operating Costs	Ad Valorem Taxes	Development Costs				
81	16,179	9,672	0	0	9,672	6,507	6,507	6,191
82	14,995	10,542	0	0	10,542	4,453	10,960	3,835
83	14,308	11,491	0	0	11,491	2,817	13,777	2,196
84	1,683	0	0	0	0	1,683	15,460	1,168
85	0	0	0	0	0	0	15,460	0
86	0	0	0	0	0	0	15,460	0
87	0	0	0	0	0	0	15,460	0
88	0	0	0	0	0	0	15,460	0
89	0	0	0	0	0	0	15,460	0
90	0	0	0	0	0	0	15,460	0
91	0	0	0	0	0	0	15,460	0
92	0	0	0	0	0	0	15,460	0
93	0	0	0	0	0	0	15,460	0
94	0	0	0	0	0	0	15,460	0
95	0	0	0	0	0	0	15,460	0
Total	47,165	31,705	0	0	31,705	15,460	15,460	13,410
Under	0	0	0	0	0	0	15,460	0
Future	47,165	31,705	0	0	31,705	15,460	15,460	13,410





17,174 1973  
 15,818 1974  
 9,854 1975  
 5,071 1976  
 3,054 1977  
 3,071 1978  
 3,307 1979  
 1980  
 1981  
 1982



COQUINA OIL CORPORATION  
 CITIES SERVICE STATE LEASE  
 HIGHLANDS PENN FIELD  
 LEA COUNTY, NEW MEXICO

CITIES SERVICE - ST. #1  
 Oil Purchases: Permian - Temp. ...  
 High Plains, Permian ...

		Oil Produced	GAS Sales (MCF)	GOR	
1973	S	2767	0		FIRST PAID 9-25-73 (Permian) IF
	10376 O	8107	1872		Gas Sales Line Connected: 10-20-73
	N	4592	5911		Gas Sales began 2 <sup>nd</sup> 10-20-73 IK
	D	1646	764		464 IF
1972		17114	8547		
CUM 1-1-74		17114	8547		
	J	1527	1545	1012	IP
	F	1403	4613	3288	2P
	M	1196	4182	3502	2P
	I	1303	2394	2605	#3 PAA in April 1974 IP
	M	1529	5483	3563	IP
	J	1364	5832	4220	
	J	1327	2168	2387	
	A	1382	2889	2090	
	S	1190	1238	3561	
	13423 O	1192	3656 (3900)	3067	
	N	1279	3112	2640	
	D	1216	3197	2629	IP
1974		15818	45321	2865	
CUM 1-1-75		32932	53268		
1975	J	1125	2555	2271	IP 2
	F	1239	2575	2078	IP 2
	M	1069	2330	2180	
	A	839	2377	2833	
	M	30	1787	59567	
	J	999	2031	2033	
	J	986	4034	4091	
	A	1236	2397	1934	
	S	844	2014	2386	
	O	510	1033	2025	
	N	196	644	3286	
	D	781	1664	2131	
1975		9854	25441	86815	
CUM 1-1-76		42786	79309		
1976	J	627	2339	3405	IP 3
	F	631	719	1139	IP 3
	M	555	484	872	IP 3
	A	396	258	626	IP 3
	M	337	351	1042	IP 3
	J	298	284	953	IP 4
	J	212	250	1179	IP 4
	A	483	865	1791	IP 4
	S	405	478	1180	IP 4
	O	388	229	590	IP 4
	A	344	239	695	IP 4
CITIES SERVICE - ST #1			P. 1		

Cities Service State #1  
 Oil: Permian-temp. ~~COMM~~ Basin 2-1-78 GAS TEMPORARY

		OIL	MCF	GOR	
Produced SALES					
1976	D	341	221	677	IP
1976		5077	6717		
COMM 1-1-77		47863	86026		
1977		330	249	755	IP
		363	287	796	IP
	M	318	434	1365	IP
	A	271	293	1007	IP
	M	254	196	772	IP
	V	268	129	481	IP
	V	260	177	688	IP
	H	284	199	761	IP
	C	133	108	766	IP
	O	53	80	1509	IP
	M	195	106	544	IP
	T	265	203	766	IP
1977		5034	2465		
COMM 1-1-78		50897	88191		
1978	J	239	204	854	IP
	II	20	73	3650	IP
	M	1103	152	1476	IP Chad pump 2-3-78
	A	104	193	1856	IP
	B	334	223	847	IP Chad pump 5-2-78
	J	162	180	1111	IP
	V	86	70	214	IP
	A	137	87	635	IP
	C	215	163	758	IP
	O	740	250	338	IP
	M	479	310	647	IP
	D	478	177	3710	IP
1978		3097	2142		
COMM 1-1-79		53994	90633		
1979	J	441	195	442	IP
	F	287	138	481	IP
	M	321	118	368	IP
	A	224	142	696	IP
	M	268	223	835	IP
	J	327	176	538	IP
	J	289	174	602	IP
	F	227	165	727	IP
	S	257	110	428	IP
	O	138	91	659	IP Pit out Parts together
	M	309	132	427	IP Acid and both sets of parts
	J	239	87	364	IP
1979		3307	1751		
COMM 1-1-80		57351	92384		

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Cities Service STATE #1  
 Oil Basin  
 Gas: Tipperary

1 2 3 4 5

		Oil Produced	MCF Sales	GOR	
1980	J	212	84	396	IP
	F	235	79	336	IP
	M	181	81	448	IP
	A	188	53	282	IP
	M	248	65	262	IP
	J	232	56	241	IP
	J	98	71	807	IP
	A	208	76	365	IP
	S	171	96	561	IP
	O	186	112	602	IP
	N	141	56	397	IP
<b>Cum Total</b>		<b>59390</b>	<b>98213</b>		IP
1980					
Cum To 1-1-81					
1981	J				
	F				
	M				
	A				
	M				
	J				
	J				
	A				
	S				
	O				
	N				
	D				
1981					
Cum To 1-1-82					
1982	J				
	F				
	M				
	A				
	M				
	J				
	J				
	A				
	S				
	O				
	N				
	D				
1982					
Cum To 1-1-83					
Tipperary					
CITIES Service STATE #1					
P3					

COQUINA OIL CORPORATION - 73-A EXPLORATION PROGRAM  
APPRAISAL OF CERTAIN LEASEHOLD AND ROYALTY INTERESTS OF COQUINA  
IN THE 73-A EXPLORATION FUND PROPERTIES  
PROJECTION OF ESTIMATED ANNUAL PRODUCTION AND CASH FLOW  
BEGINNING JANUARY 1, 1981

GH PLAINS FIELD, LEA COUNTY, NEW MEXICO  
COQUINA OIL CORP. - OPERATOR  
CITIES SERVICE NO.1

PROVED  
PRODUCING 73AB

INTERESTS -- Gross 0.424206 Net Oil 0.318154 Net Cond 0.000000 Net Gas 0.106056  
GROSS PRICE -- Oil \$ 38.503 / bbl Cond \$ 0.00 / bbl Gas \$ 1342.38 / mcf  
NOTES -- STRIPPER OIL. Discount Rate is 10.00 % per ann. Compounded MONTHLY MID per.

PRESENT WORTH AT 12.75 - 11,841 \*\*\*\* 16.00 - 11,411 \*\*\*\* 21.50 - 10,738 \*\*\*\* 25.00 - 10,000

Period	Number of Wells	ESTIMATED 8/8 THS PRODUCTION				COMPANY NET PRODUCTION			
		Oil Barrels	Condensate Barrels	Plant Products Barrels	Gas MMCF	Oil Barrels	Condensate Barrels	Plant Products Barrels	Gas MMCF
1	1	1,680	0	0	1	534	0	0	0
2	1	1,340	0	0	0	426	0	0	0
3	1	1,150	0	0	0	360	0	0	0
4		0	0	0	0	0	0	0	0
5		0	0	0	0	0	0	0	0
6		0	0	0	0	0	0	0	0
7		0	0	0	0	0	0	0	0
8		0	0	0	0	0	0	0	0
9		0	0	0	0	0	0	0	0
0		0	0	0	0	0	0	0	0
1		0	0	0	0	0	0	0	0
2		0	0	0	0	0	0	0	0
3		0	0	0	0	0	0	0	0
4		0	0	0	0	0	0	0	0
5		0	0	0	0	0	0	0	0
Total		4,150	0	0	1	1,320	0	0	0
Under		0	0	0	0	0	0	0	0
Future		4,150	0	0	1	1,320	0	0	0
Relative		59,220	0	0	94				
Rate		63,370	0	0	95				

Period	FUTURE GROSS INCOME (FGI) - \$				TOTAL FUTURE GROSS INCOME - \$	PRODUCTION TAXES - \$	WINDFALL TAX & TRANSPORTATION COSTS - \$	WINDFALL & PROD. TAXES & TRANS. COSTS - \$
	From Oil	From Condensate	From Plant Products	From Gas				
81	20,560	0	0	255	20,815	1,598	3,038	4,636
82	17,878	0	0	221	18,099	1,390	1,714	3,104
83	16,468	0	0	204	16,672	1,280	1,084	2,364
84	0	0	0	0	0	0	-1,683	-1,683
85	0	0	0	0	0	0	0	0
86	0	0	0	0	0	0	0	0
87	0	0	0	0	0	0	0	0
88	0	0	0	0	0	0	0	0
89	0	0	0	0	0	0	0	0
90	0	0	0	0	0	0	0	0
91	0	0	0	0	0	0	0	0
92	0	0	0	0	0	0	0	0
93	0	0	0	0	0	0	0	0
94	0	0	0	0	0	0	0	0
95	0	0	0	0	0	0	0	0
Total	54,906	0	0	680	55,586	4,268	4,153	8,421
Under	0	0	0	0	0	0	0	0
Future	54,906	0	0	680	55,586	4,268	4,153	8,421

Period	FGI After PROD. TAXES & TRANS. COSTS - \$	DEDUCTIONS - \$			TOTAL DEDUCTIONS - \$	FUTURE NET INCOME - \$	CUMULATIVE FUTURE NET INCOME - \$	PRESENT WORTH of the FUTURE NET INCOME - \$
		Operating Costs	Ad Valorem Taxes	Development Costs				
81	16,179	9,672	0	0	9,672	6,507	6,507	6,191
82	14,995	10,542	0	0	10,542	4,453	10,960	3,835
83	14,308	11,491	0	0	11,491	2,817	13,777	2,196
84	1,683	0	0	0	0	1,683	15,460	1,186
85	0	0	0	0	0	0	15,460	0
86	0	0	0	0	0	0	15,460	0
87	0	0	0	0	0	0	15,460	0
88	0	0	0	0	0	0	15,460	0
89	0	0	0	0	0	0	15,460	0
90	0	0	0	0	0	0	15,460	0
91	0	0	0	0	0	0	15,460	0
92	0	0	0	0	0	0	15,460	0
93	0	0	0	0	0	0	15,460	0
94	0	0	0	0	0	0	15,460	0
95	0	0	0	0	0	0	15,460	0
Total	47,165	31,705	0	0	31,705	15,460	15,460	13,410
Under	0	0	0	0	0	0	0	0
Future	47,165	31,705	0	0	31,705	15,460	15,460	13,410

Dockets Nos. 4-81 and 5-81 are tentatively set for January 28 and February 11, 1981. Applications for hearing must be filed at least 22 days in advance of hearing date.

DOCKET: EXAMINER HEARING - WEDNESDAY - JANUARY 14, 1981

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

The following cases will be heard before Richard L. Stamets, Examiner, or Daniel S. Nutter, Alternate Examiner:

- ALLOWABLE: (1) Consideration of the allowable production of gas for February, 1981, from fifteen prorated pools in Lea, Eddy, and Chaves Counties, New Mexico.
- (2) Consideration of the allowable production of gas for February, 1981, from four prorated pools in San Juan, Rio Arriba, and Sandoval Counties, New Mexico.
- CASE 7117: Application of Gulf Oil Corporation for a non-standard gas proration unit, unorthodox location, and simultaneous dedication, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the simultaneous dedication of a previously approved 320-acre non-standard proration unit comprising the E/2 of Section 25, Township 20 South, Range 36 East, Eumont Gas Pool, to its L. W. White (NCT-A) Wells No. 2 in Unit I and No. 7 at an unorthodox location 990 feet from the North line and 660 feet from the East line of said Section 25.
- CASE 7118: Application of El Paso Exploration Company for downhole commingling, Rio Arriba County, New Mexico. Applicant, in the above-styled cause, seeks approval for the downhole commingling of South Blanco-Tocito and Basin-Dakota production in the wellbore of its Jicarilla 152 W Well No. 3 in Unit D of Section 7, Township 26 North, Range 5 West.
- CASE 7119: Application of Shell Oil Company for a unit agreement, Bernalillo and Sandoval Counties, New Mexico. Applicant, in the above-styled cause, seeks approval for the West Mesa Unit Area, comprising 26,722 acres, more or less, of State, Federal, and fee lands in Townships 10, 11, and 12 North, Ranges 1 and 2 East.
- CASE 7120: Application of Dugan Production Corporation for downhole commingling, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks approval for the downhole commingling of undesignated Gallup and Basin-Dakota production in the wellbore of its Merry May Well No. 1 in Unit I of Section 24, Township 24 North, Range 10 West.
- CASE 7121: Application of Flag-Redfern Oil Co. for downhole commingling, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks approval for the downhole commingling of Pinon-Fruitland and Fulcher Kutz-Pictured Cliffs production in the wellbores of its Aloha Wells Nos. 1 and 2 located in Units L and D, respectively, of Section 16, Township 28 North, Range 11 West.
- CASE 7122: Application of Elk Oil 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 Pennsylvanian formation in the interval from 10,445 feet to 10,516 feet in its C. S. State Well No. 2 in Unit K of Section 26, Township 14 South, Range 34 East, High Plains-Pennsylvanian Pool.
- CASE 7123: Application of Yates Petroleum Corporation for an unorthodox gas well location, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of its Federal "AB" Well No. 7, a Morrow test to be drilled 1980 feet from the North line and 660 feet from the West line of Section 9, Township 18 South, Range 25 East, the N/2 of said Section 9 to be dedicated to the well.
- CASE 7124: Application of Caribou Four Corners, Inc. for two non-standard proration units, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks approval for two non-standard oil proration units in Section 13, Township 29 North, Range 15 West, Cha Cha-Gallup Oil Pool, as follows: a 56.09-acre unit consisting of those fee lands comprising the NE/4 NW/4 and northermost 16.09 acres of the SE/4 NW/4 of said Section 13, and a 66.33-acre unit consisting of those fee lands comprising the NW/4 NW/4 and northermost 23.33 acres of the SW/4 NW/4 of said Section 13. In the alternative applicant seeks an order directing the escrowing of funds attributable to those lands in the E/2 NW/4 and W/2 NW/4, respectively, of said Section 13 which are not included in the above-described non-standard proration units.

APPLICATION TO DISPOSE OF SALT WATER BY INJECTION INTO A POROUS FORMATION

OPERATOR <b>ELK OIL COMPANY</b>		ADDRESS <b>BOX 310, ROSWELL, NEW MEXICO 88201</b>	
LEASE NAME <b>C.S. State</b>	WELL NO. <b>2</b>	FIELD <b>High Plains Penn</b>	COUNTY <b>Lea</b>
LOCATION UNIT LETTER <b>K</b> WELL IS LOCATED <b>1980</b> FEET FROM THE <b>South</b> LINE AND <b>1830</b> FEET FROM THE <b>West</b> LINE. SECTION <b>26</b> TOWNSHIP <b>14S</b> RANGE <b>34E</b> N.M.P.M.			

NAME OF STRING	SIZE	SETTING DEPTH	SACKS CEMENT	TOP OF CEMENT	TOP DETERMINED BY
SURFACE CASING <b>34#</b>	<b>12 3/4</b>	<b>356</b>	<b>375</b>	<b>circ.</b>	
INTERMEDIATE <b>32/24#</b>	<b>8 5/8n</b>	<b>4540</b>	<b>300</b>	<b>2700</b>	<b>Estimated</b>
LONG STRING <b>11.5#</b>	<b>4 1/2</b>	<b>10,575</b>	<b>200</b>	<b>9500</b>	<b>Estimated</b>
TUBING <b>2 3/8</b>	<b>10,300</b>	NAME, MODEL AND DEPTH OF TUBING PACKER <b>Baker Model "R"</b>			

NAME OF PROPOSED INJECTION FORMATION <b>Penn</b>	TOP OF FORMATION <b>10,435</b>	BOTTOM OF FORMATION <b>10,515</b>
IS INJECTION THROUGH TUBING, CASING, OR ANNULUS? <b>Tubing</b>	PERFORATIONS OR OPEN HOLES <b>Perforations</b>	PROPOSED INTERVAL(S) OF INJECTION <b>10,445-10,516</b>
IS THIS A NEW WELL DRILLED FOR DISPOSAL? <b>No</b>	IF ANSWER IS NO, FOR WHAT PURPOSE WAS WELL ORIGINALLY DRILLED? <b>Drilled to Penn (Oil Well)</b>	HAS WELL EVER BEEN PERFORATED IN ANY ZONE OTHER THAN THE PROPOSED INJECTION ZONE? <b>No</b>

LIST ALL SUCH PERFORATED INTERVALS AND SACKS OF CEMENT USED TO SEAL OFF OR SQUEEZE EACH

**None**

DEPTH OF BOTTOM OF DEEPEST FRESH WATER ZONE IN THIS AREA <b>200</b>	DEPTH OF BOTTOM OF NEXT HIGHER OIL OR GAS ZONE IN THIS AREA <b>None</b>	DEPTH OF TOP OF NEXT LOWER OIL OR GAS ZONE IN THIS AREA <b>Penn</b>
ANTICIPATED DAILY INJECTION VOLUME (BBL/D) <b>250</b>	MINIMUM <b>100</b>	MAXIMUM <b>500</b>
OPEN OR CLOSED TYPE SYSTEM <b>Closed</b>		
IS INJECTION TO BE BY GRAVITY OR PRESSURE? <b>Gravity</b>		APPROX. PRESSURE (PSI) <b>-0-</b>
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 - <b>Yes</b>		NATURAL WATER IN DISPOSAL ZONE <b>Yes</b>
NAME AND ADDRESS OF SURFACE OWNER (OR LESSEE, IF STATE OR FEDERAL LAND) <b>C. A. Fort, Box 1085, Lovington, New Mexico</b>		ARE WATER ANALYSES ATTACHED? <b>No</b>

LIST NAMES AND ADDRESSES OF ALL OPERATORS WITHIN ONE-HALF (1/2) MILE OF THIS INJECTION WELL

**Coquina, P. O. Drawer 2960, Midland, Texas 79702**

**Cities Service, Box 1919, Midland, Texas 79702**

**Elk Oil Company, Box 310, Roswell, New Mexico 88201**

HAVE COPIES OF THIS APPLICATION BEEN SENT TO EACH OF THE FOLLOWING?	SURFACE OWNER <b>Yes</b>	EACH OPERATOR WITHIN ONE-HALF MILE OF THIS WELL <b>Yes</b>
ARE THE FOLLOWING ITEMS ATTACHED TO THIS APPLICATION (SEE RULE 701-B)?	MAP OF AREA <b>Yes</b>	ELECTRICAL LOG <b>Yes</b>
		DIAGRAMMATIC SKETCH OF WELL <b>Yes</b>

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

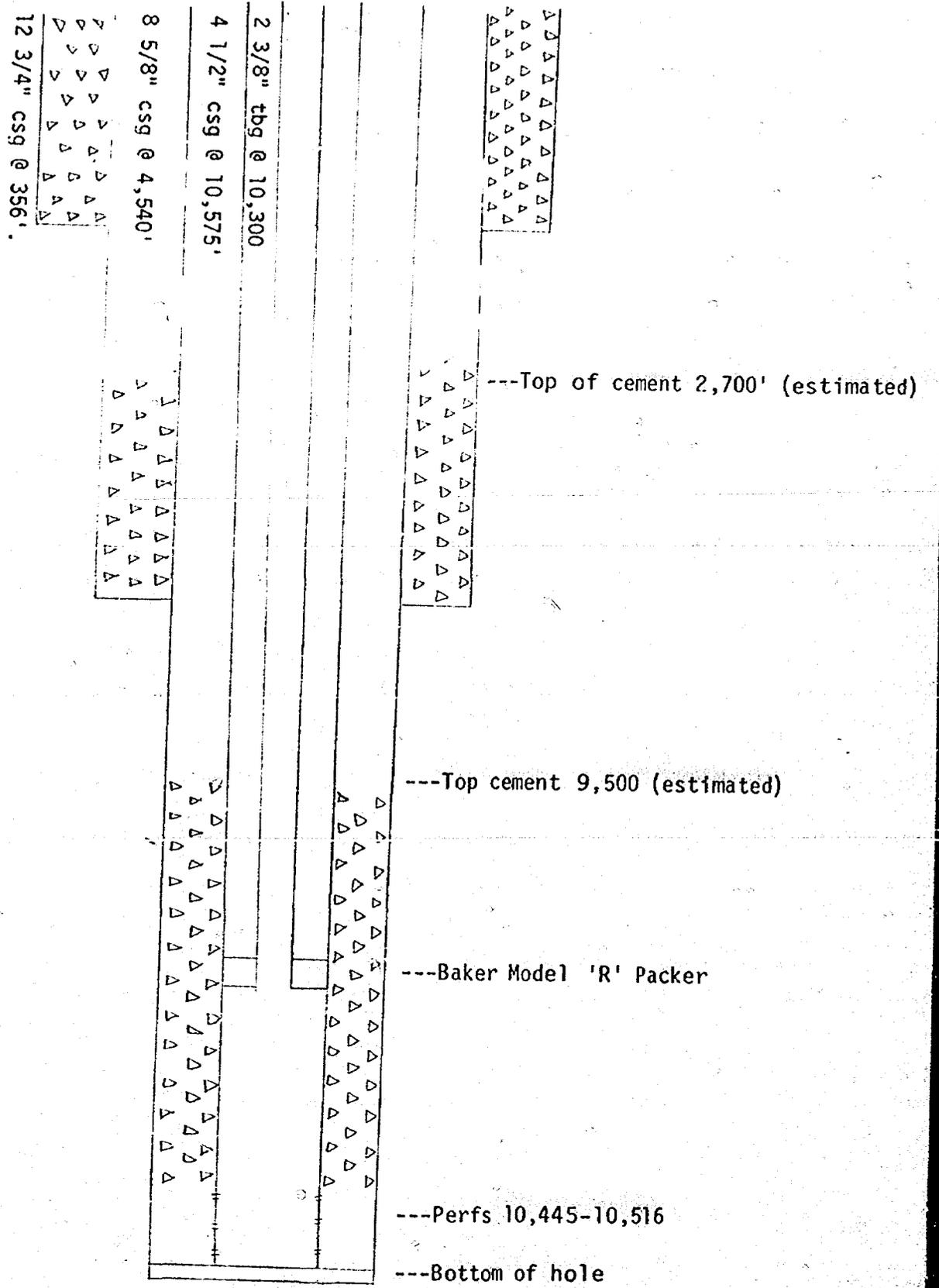
**Joseph J. Kelly** (Signature) **DEC 10 1980** (Date)

**OIL CONSERVATION DIVISION** (Title) **12/18/80** (Date)

**SANTA FE** (Location)

NOTE: Should owners from the surface owner and all operators within one-half mile of the proposed injection well not accompany this application, the New Mexico Oil Conservation Division will hold the application for a period of 15 days from the date of receipt by the Division'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.

ELK OIL COMPANY  
C. S. State #2  
Sec. 26-14S-34E  
Lea County, New Mexico



ELK OIL COMPANY  
 Application to Dispose of Salt Water  
 C.S. State #2  
 , High Plains Field  
 Lea County, New Mexico

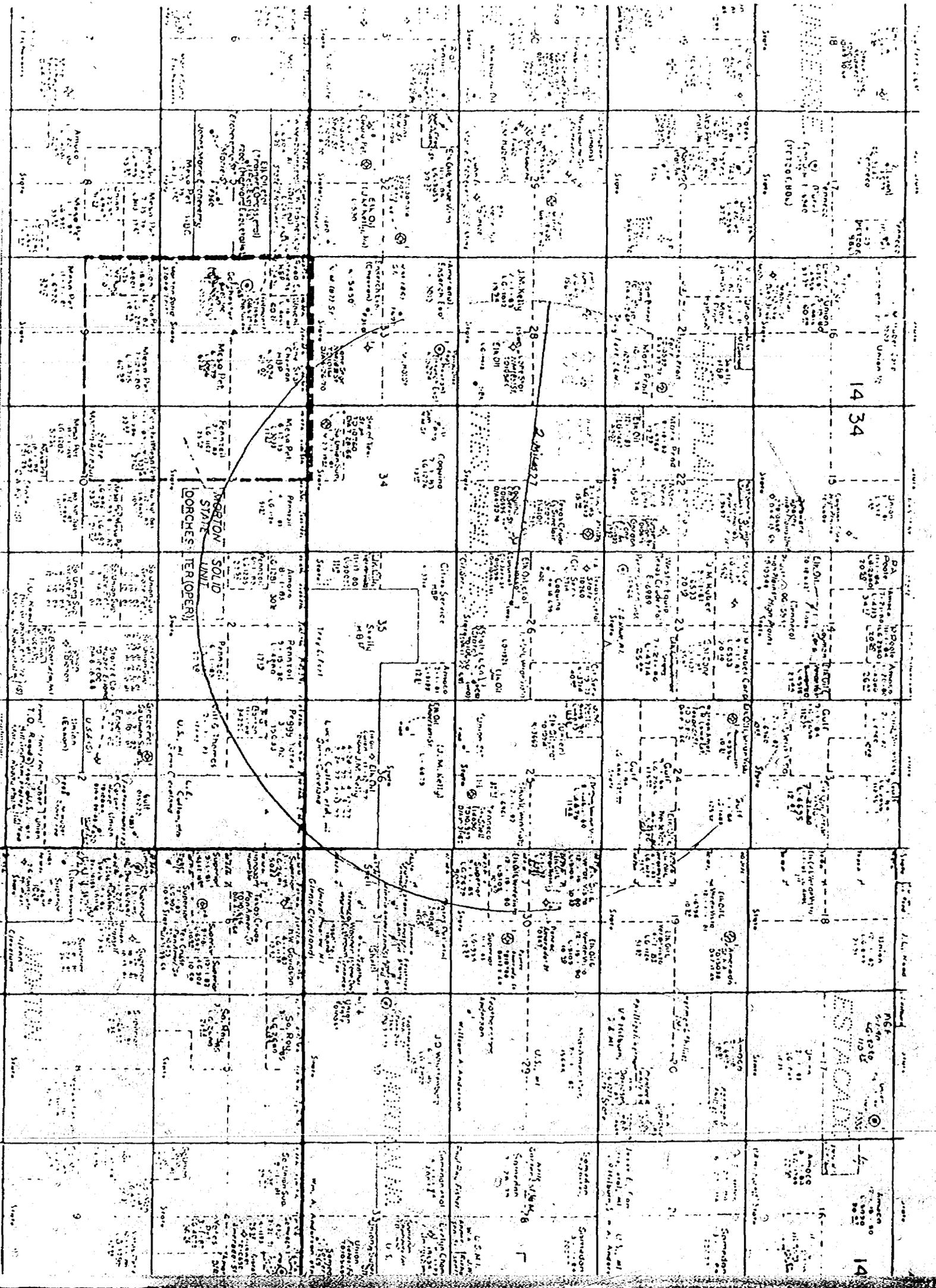
TOWNSHIP 14 SOUTH - RANGE 34 EAST

<u>SECTION</u>	<u>COMPANY</u>	<u>WELL</u>	<u>TOTAL DEPTH</u>	<u>PRODUCING FORMATION</u>
14	Elk Oil Company	#1 High Plains	10,622	P & A
15	Delaware-Apache	#2 High Plains	10,660	Dry
21	Mark Producing	#1 Fort	10,535	Dry
22	Sunset Inc.	#1 Union	10,575	Dry
22	Natomas	#1 High Plains	10,600	Penn @ 10,438
23	Western Equipment	#1-23 State	10,543	Penn @ 10,463
24	Warren American	#1 Texaco State	10,810	Dry
25	Tenneco	#1 Shell State	10,937	Dry
25	Elk Oil	#1 Union State	10,541	Penn @ 10,468
26	Elk Oil	#1 JM State	10,650	Penn @ 10,56
26	Elk Oil	#2 C.S. State	10,598	Penn @ 10,441
26	Coquina	#1 C.S. State	10,579	Penn @ 10,401
26	Texas Crude	#1 State	260	Dry
27	Texas Crude	#1-27 State	11,515	Dry
27	Coquina	#3 Cities Service	10,596	Dry
28	Sam Boren	#1 Sandy	10,730	Dry
28	Lone Star	#85 State	10,544	Dry
28	Elk Oil	#1 B.K. State	10,535	Penn @ 10,428
33	Lone Star	#80 State	10,663	Penn @ 10,468
33	Lone Star	#83 State	10,601	Dry
34	Sun Oil	#1 N.M. State	10,650	P & A
34	Standard of Texas	#1 State 34	10,760	Dry
36	Elk Oil	#1 Anderson State	10,628	Penn @ 10,478
36	Elk Oil	#1 Cullen	10,610	Dry

TOWNSHIP 14 SOUTH - RANGE 35 EAST

30	Penroc	#2 Amerada State	267	Dry
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ELK OIL COMPANY  
 Application to Dispose of  
 Salt Water  
 C.S. State #2  
 High Plains Field  
 Lea County, New Mexico





CITIES SERVICE COMPANY  
ENERGY RESOURCES GROUP

Box 1919  
Midland, Texas 79702  
(915) 685-5600

December 16, 1980

Elk Oil Company  
P. O. Box 310  
Roswell, New Mexico 88201

Attention: Mr. Joseph J. Kelly

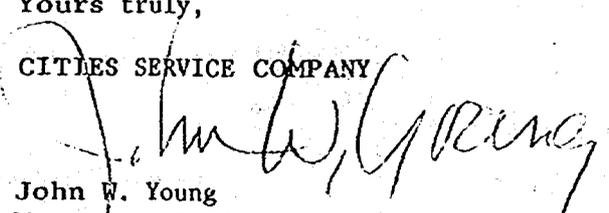
Re: C. S. State #2  
1380' FWL, 1980' FSL  
Section 26, T-14-S, R-34-E  
Lea County, New Mexico

Gentlemen:

Cities Service has no objection to Elk Oil Company converting the captioned well to a salt water disposal well as requested in your letter of November 21, 1980.

Yours truly,

CITIES SERVICE COMPANY

  
John W. Young  
Manager - Land  
Southwest Region

JWYbd

APPLICATION TO DISPOSE OF SALT WATER BY INJECTION INTO A POROUS FORMATION

OPERATOR <b>ELK OIL COMPANY</b>		ADDRESS <b>BOX 310, ROSWELL, NEW MEXICO 88201</b>	
LEASE NAME <b>C.S. State</b>	WELL NO. <b>2</b>	FIELD <b>High Plains Penn</b>	COUNTY <b>Lea</b>
LOCATION UNIT LETTER <b>K</b> ; WELL IS LOCATED <b>1980</b> FEET FROM THE <b>South</b> LINE AND <b>1830</b> FEET FROM THE <b>West</b> LINE, SECTION <b>26</b> TOWNSHIP <b>14S</b> RANGE <b>34E</b> NMPM.			

CASING AND TUBING DATA

NAME OF STRING	SIZE	SETTING DEPTH	SACKS CEMENT	TOP OF CEMENT	TOP DETERMINED BY
SURFACE CASING <b>34#</b>	<b>12 3/4</b>	<b>356</b>	<b>375</b>	<b>circ.</b>	
INTERMEDIATE <b>32/24#</b>	<b>8 5/8n</b>	<b>4540</b>	<b>300</b>	<b>2700</b>	<b>Estimated</b>
LONG STRING <b>11.5#</b>	<b>4 1/2</b>	<b>10,575</b>	<b>200</b>	<b>9500</b>	<b>Estimated</b>
TUBING <b>2 3/8</b>	<b>10,300</b>	NAME, MODEL AND DEPTH OF TUBING FACTOR <b>Baker Model "R"</b>			

NAME OF PROPOSED INJECTION FORMATION <b>Penn</b>	TOP OF FORMATION <b>10,435</b>	BOTTOM OF FORMATION <b>10,515</b>
IS INJECTION THROUGH TUBING, CASING, OR ANNULUS? <b>Tubing</b>	PERFORATIONS OR OPEN HOLES? <b>Perforations</b>	PROPOSED INTERVAL(S) OF INJECTION <b>10,445-10,516</b>
IS THIS A NEW WELL DRILLED FOR DISPOSAL? <b>No</b>	IF ANSWER IS NO, FOR WHAT PURPOSE WAS WELL ORIGINALLY DRILLED? <b>Drilled to Penn (Oil Well)</b>	HAS WELL EVER BEEN PERFORATED IN ANY ZONE OTHER THAN THE PROPOSED INJECTION ZONE? <b>No</b>

LIST ALL SUCH PERFORATED INTERVALS AND SACKS OF CEMENT USED TO SEAL OFF OR SQUEEZE EACH

**None**

DEPTH OF BOTTOM OF DEEPEST FRESH WATER ZONE IN THIS AREA <b>200</b>	DEPTH OF BOTTOM OF NEXT HIGHER OIL OR GAS ZONE IN THIS AREA <b>None</b>	DEPTH OF TOP OF NEXT LOWER OIL OR GAS ZONE IN THIS AREA <b>Penn</b>
ANTICIPATED DAILY INJECTION VOLUME (BBLS.) <b>250</b>	MINIMUM <b>100</b>	MAXIMUM <b>500</b>
OPEN OR CLOSED TYPE SYSTEM <b>Closed</b>	IS INJECTION TO BE BY GRAVITY OR PRESSURE? <b>Gravity</b>	APPROX. PRESSURE (PSI) <b>-0-</b>

ANSWER YES OR NO WHETHER THE FOLLOWING WATERS ARE MINERALIZED TO SUCH A DEGREE AS TO BE UNSUIT FOR DOMESTIC, STOCK, IRRIGATION, OR OTHER GENERAL USE -

WATER TO BE DISPOSED OF <b>Yes</b>	NATURAL WATER IN DISPOSAL ZONE <b>Yes</b>	ARE WATER ANALYSES ATTACHED? <b>No</b>
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NAME AND ADDRESS OF SURFACE OWNER (OR LESSEE, IF STATE OR FEDERAL LAND)

**C. A. Fort, Box 1085, Lovington, New Mexico**

LIST NAMES AND ADDRESSES OF ALL OPERATORS WITHIN ONE-HALF (1/2) MILE OF THIS INJECTION WELL

**Coquina, P. O. Drawer 2960, Midland, Texas 79702**

**Cities Service, Box 1919, Midland, Texas 79702**

**Elk Oil Company, Box 310, Roswell, New Mexico 88201**

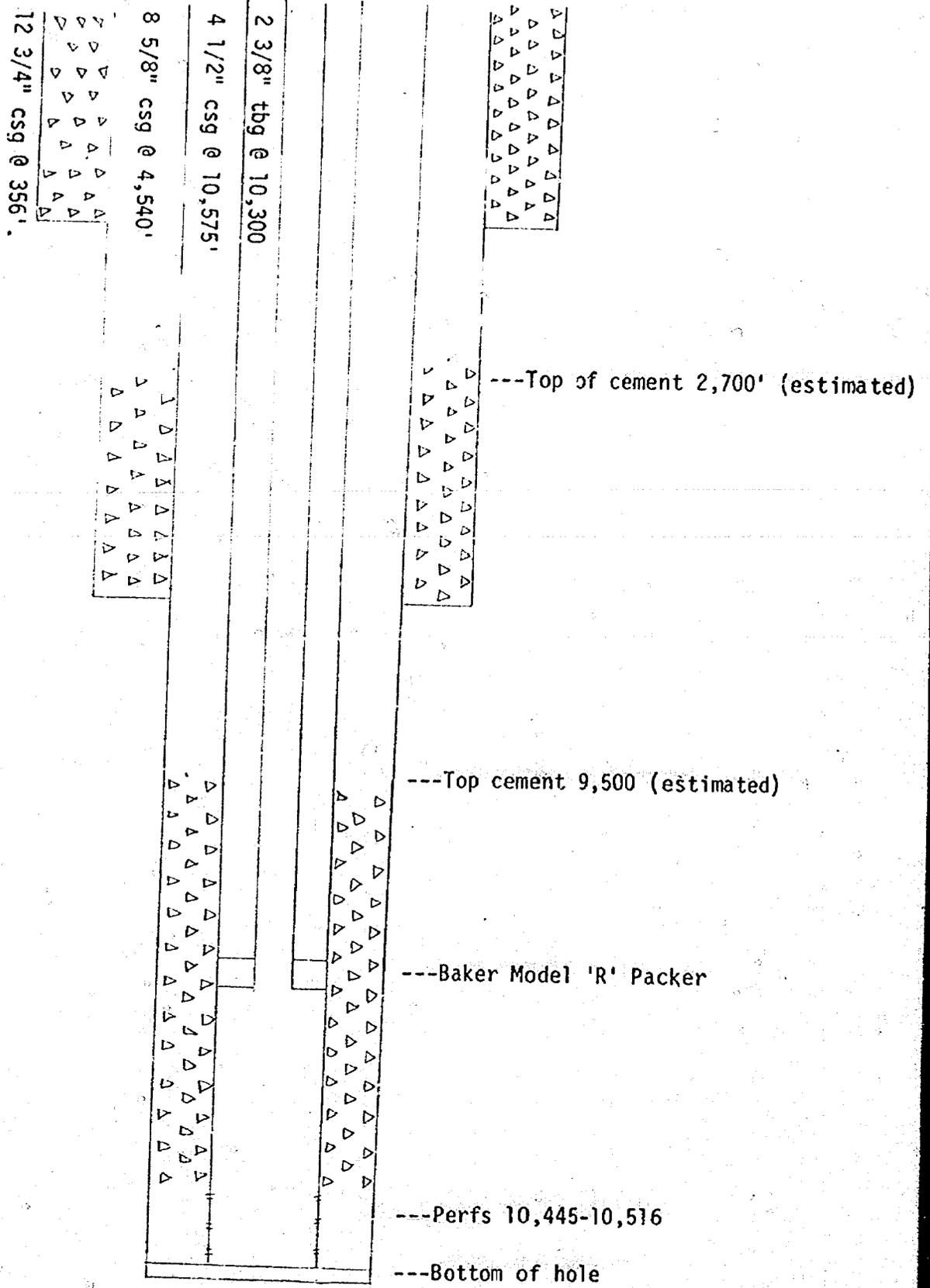
RECEIVED DEC 19 1980		HAVE COPIES OF THIS APPLICATION BEEN SENT TO EACH OF THE FOLLOWING SURFACE OWNERS? <b>Yes</b>	EACH OPERATOR WITHIN ONE-HALF MILE OF THIS WELL? <b>Yes</b>
ARE THE FOLLOWING ITEMS ATTACHED TO THIS APPLICATION (SEE RULE 701-B)? <b>OIL CONSERVATION DIVISION Yes</b>		ELECTRICAL LOG <b>Yes</b>	DIAGRAMMATIC SKETCH OF WELL <b>Yes</b>

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

**Joseph J. Kelly** (Signature) **President** (Title) **12/18/80** (Date)

NOTE: Should waivers from the surface owner and all operators within one-half mile of the proposed injection well not accompany this application, the New Mexico Oil Conservation Division will hold the application for a period of 15 days from the date of receipt by the Division'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.

ELK OIL COMPANY  
C. S. State #2  
Sec. 26-14S-34E  
Lea County, New Mexico



ELK OIL COMPANY  
 Application to Dispose of Salt Water  
 C.S. State #2  
 High Plains Field  
 Lea County, New Mexico

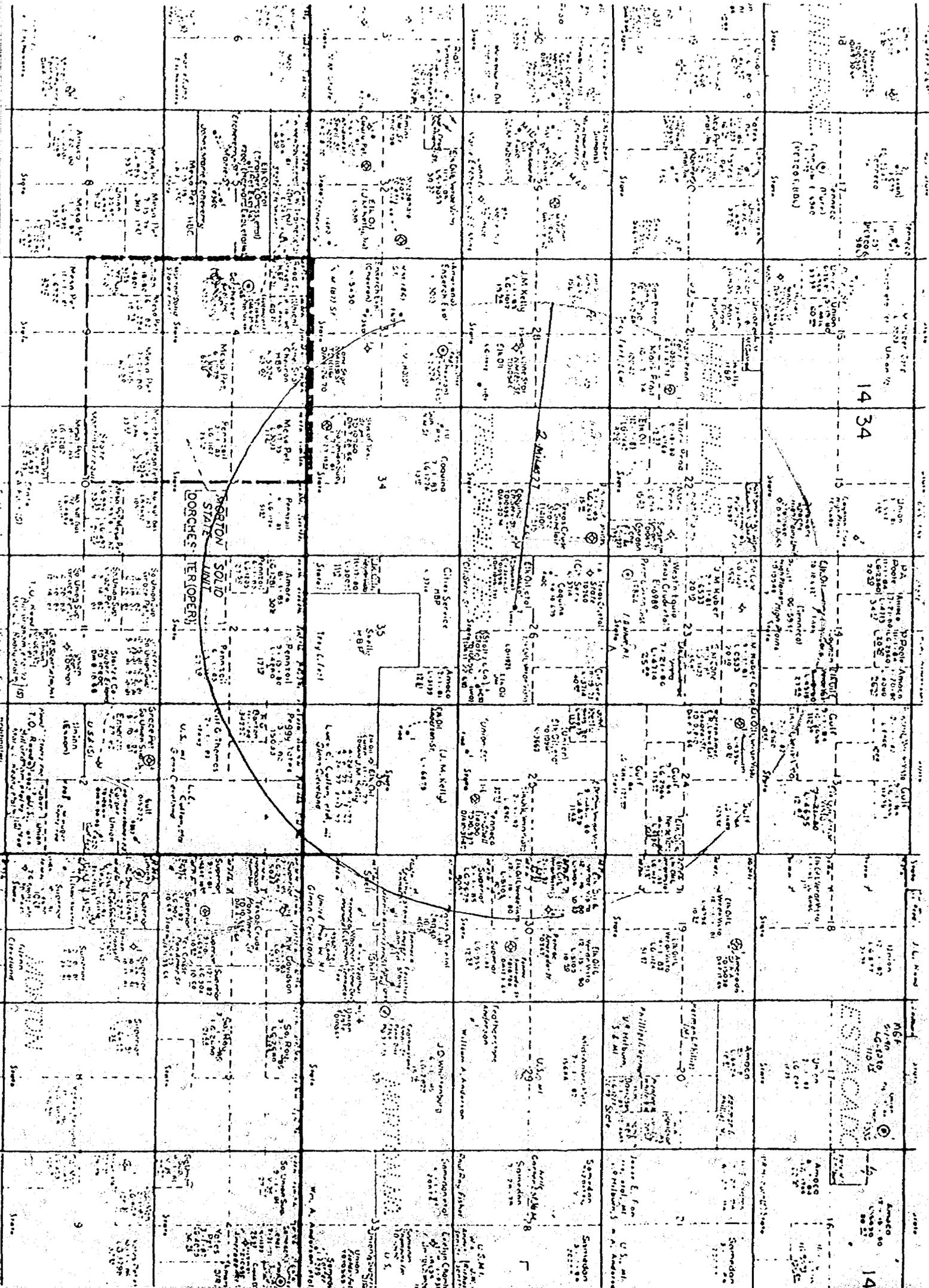
TOWNSHIP 14 SOUTH - RANGE 34 EAST

<u>SECTION</u>	<u>COMPANY</u>	<u>WELL</u>	<u>TOTAL DEPTH</u>	<u>PRODUCING FORMATION</u>
14	Elk Oil Company	#1 High Plains	10,622	P & A
15	Delaware-Apache	#2 High Plains	10,660	Dry
21	Mark Producing	#1 Fort	10,535	Dry
22	Sunset Inc.	#1 Union	10,575	Dry
22	Natomas	#1 High Plains	10,600	Penn @ 10,438
23	Western Equipment	#1-23 State	10,543	Penn @ 10,463
24	Warren American	#1 Texaco State	10,810	Dry
25	Tenneco	#1 Shell State	10,937	Dry
25	Elk Oil	#1 Union State	10,541	Penn @ 10,468
26	Elk Oil	#1 JM State	10,650	Penn @ 10,56
26	Elk Oil	#2 C.S. State	10,598	Penn @ 10,441
26	Coquina	#1 C.S. State	10,579	Penn @ 10,401
26	Texas Crude	#1 State	260	Dry
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27	Coquina	#3 Cities Service	10,596	Dry
28	Sam Boren	#1 Sandy	10,730	Dry
28	Lone Star	#85 State	10,544	Dry
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33	Lone Star	#80 State	10,663	Penn @ 10,468
33	Lone Star	#83 State	10,601	Dry
34	Sun Oil	#1 N.M. State	10,650	P & A
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36	Elk Oil	#1 Anderson State	10,628	Penn @ 10,478
36	Elk Oil	#1 Cullen	10,610	Dry

TOWNSHIP 14 SOUTH - RANGE 35 EAST

30	Penroc	#2 Amerada State	267	Dry
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ELK OIL COMPANY  
 Application to Dispose of  
 Salt Water  
 C.S. State #2  
 High Plains Field  
 Lea County, New Mexico





CITIES SERVICE COMPANY  
ENERGY RESOURCES GROUP

Box 1919  
Midland, Texas 79702  
(915) 685-5600

December 16, 1980

Elk Oil Company  
P. O. Box 310  
Roswell, New Mexico 88201

Attention: Mr. Joseph J. Kelly

Re: C. S. State #2  
1380' FWL, 1980' FSL  
Section 26, T-14-S, R-34-E  
Lea County, New Mexico

Gentlemen:

Cities Service has no objection to Elk Oil Company converting the captioned well to a salt water disposal well as requested in your letter of November 21, 1980.

Yours truly,

CITIES SERVICE COMPANY

*John W. Young*  
John W. Young  
Manager - Land  
Southwest Region

JWYbd

# ELK OIL COMPANY

BOX 310

ROSWELL, NEW MEXICO 88201

(505) 623-3190

JOSEPH J. KELLY  
PRESIDENT

J. MICHAEL KELLY  
VICE PRESIDENT

December 18, 1980

State of New Mexico  
Energy & Minerals Department  
Oil Conservation Division  
P. O. Box 2088  
Santa Fe, New Mexico 87501

*Case 7122*

Re: C-108 Application to Dispose of  
Salt Water  
C.S. State #2  
High Plains Field  
Lea County, New Mexico

Gentlemen:

We are attaching our Application to Dispose of Salt Water by injection into the Pennsylvanian zone at perforations 10,445-10,516 in our C. S. State #2 located in Section 26, T-14S, R-34E, Unit K, Lea County, New Mexico.

The C. S. State was drilled to a depth of 10,575' and completed as an oil well in the High Plains Field. The well has subsequently turned to salt water. The source of the proposed injection water is from our J.M. State #1 and Union State #1 in the field, and the anticipated daily volume is 250 barrels, gravity fed.

We respectfully request your approval of this application.

Yours very truly,

ELK OIL COMPANY



Joseph J. Kelly  
President

JJK/rm  
Enclosure  
RECEIVED  
DEC 19 1980  
OIL CONSERVATION DIVISION  
SANTA FE  
C-108, Diagrammed sketch, electric log,  
operations in 2-mile radius, Cities Service letter.

APPLICATION TO DISPOSE OF SALT WATER BY INJECTION INTO A POROUS FORMATION

OPERATOR <b>ELK OIL COMPANY</b>		ADDRESS <b>BOX 310, ROSWELL, NEW MEXICO 88201</b>	
LEASE NAME <b>C.S. State</b>	WELL NO. <b>2</b>	FIELD <b>High Plains Penn</b>	COUNTY <b>Lea</b>
LOCATION UNIT LETTER <b>K</b> WELL IS LOCATED <b>1980</b> FEET FROM THE <b>South</b> LINE AND <b>1830</b> FEET FROM THE <b>West</b> LINE, SECTION <b>26</b> TOWNSHIP <b>14S</b> RANGE <b>34E</b> N.M.P.M.			

CASING AND TUBING DATA

NAME OF STRING	SIZE	SETTING DEPTH	SACKS CEMENT	TOP OF CEMENT	TOP DETERMINED BY
SURFACE CASING <b>34#</b>	<b>12 3/4</b>	<b>356</b>	<b>375</b>	<b>circ.</b>	
INTERMEDIATE <b>32/24#</b>	<b>8 5/8n</b>	<b>4540</b>	<b>300</b>	<b>2700</b>	<b>Estimated</b>
LONG STRING <b>11.5#</b>	<b>4 1/2</b>	<b>10,575</b>	<b>200</b>	<b>9500</b>	<b>Estimated</b>
TUBING <b>2 3/8</b>	<b>10,300</b>	NAME, MODEL AND DEPTH OF TUBING PACKER <b>Baker Model "R"</b>			

NAME OF PROPOSED INJECTION FORMATION <b>Penn</b>	TOP OF FORMATION <b>10,435</b>	BOTTOM OF FORMATION <b>10,515</b>
IS INJECTION THROUGH TUBING, CASING, OR ANNULUS? <b>Tubing</b>	PERFORATIONS OR OPEN HOLE? <b>Perforations</b>	PROPOSED INTERVAL(S) OF INJECTION <b>10,445-10,516</b>
IS THIS A NEW WELL DRILLED FOR DISPOSAL? <b>No</b>	IF ANSWER IS NO, FOR WHAT PURPOSE WAS WELL ORIGINALLY DRILLED? <b>Drilled to Penn (Oil Well)</b>	HAS WELL EVER BEEN PERFORATED IN ANY ZONE OTHER THAN THE PROPOSED INJECTION ZONE? <b>No</b>

LIST ALL SUCH PERFORATED INTERVALS AND SACKS OF CEMENT USED TO SEAL OFF OR SQUEEZE EACH

**None**

DEPTH OF BOTTOM OF DEEPEST FRESH WATER ZONE IN THIS AREA <b>200</b>	DEPTH OF BOTTOM OF NEXT HIGHER OIL OR GAS ZONE IN THIS AREA <b>None</b>	DEPTH OF TOP OF NEXT LOWER OIL OR GAS ZONE IN THIS AREA <b>Penn</b>
ANTICIPATED DAILY INJECTION VOLUME (GALLONS) <b>250</b>	MINIMUM <b>100</b>	MAXIMUM <b>500</b>
OPEN OR CLOSED TYPE SYSTEM <b>Closed</b>		
IS INJECTION TO BE BY GRAVITY OR PRESSURE? <b>Gravity</b>		APPROX. PRESSURE (PSI) <b>-0-</b>
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 - <b>Yes</b>		ARE WATER ANALYSES ATTACHED? <b>No</b>

NAME AND ADDRESS OF SURFACE OWNER (OR LESSEE, IF STATE OR FEDERAL LAND)  
**C. A. Fort, Box 1085, Lovington, New Mexico**

LIST NAMES AND ADDRESSES OF ALL OPERATORS WITHIN ONE-HALF (1/2) MILE OF THIS INJECTION WELL  
**Coquina, P. O. Drawer 2960, Midland, Texas 79702**

**Cities Service, Box 1919, Midland, Texas 79702**

**Elk Oil Company, Box 310, Roswell, New Mexico 88201**

HAVE COPIES OF THIS APPLICATION BEEN SENT TO EACH OF THE FOLLOWING? <b>Yes</b>	SURFACE OWNER <b>Yes</b>	EACH OPERATOR WITHIN ONE-HALF MILE OF THIS WELL <b>Yes</b>
ARE THE FOLLOWING ITEMS ATTACHED TO THIS APPLICATION (SEE RULE 701-D)? <b>Yes</b>	PLAT OF AREA <b>Yes</b>	ELECTRICAL LOG <b>Yes</b>
		DIAGRAMMATIC SKETCH OF WELL <b>Yes</b>

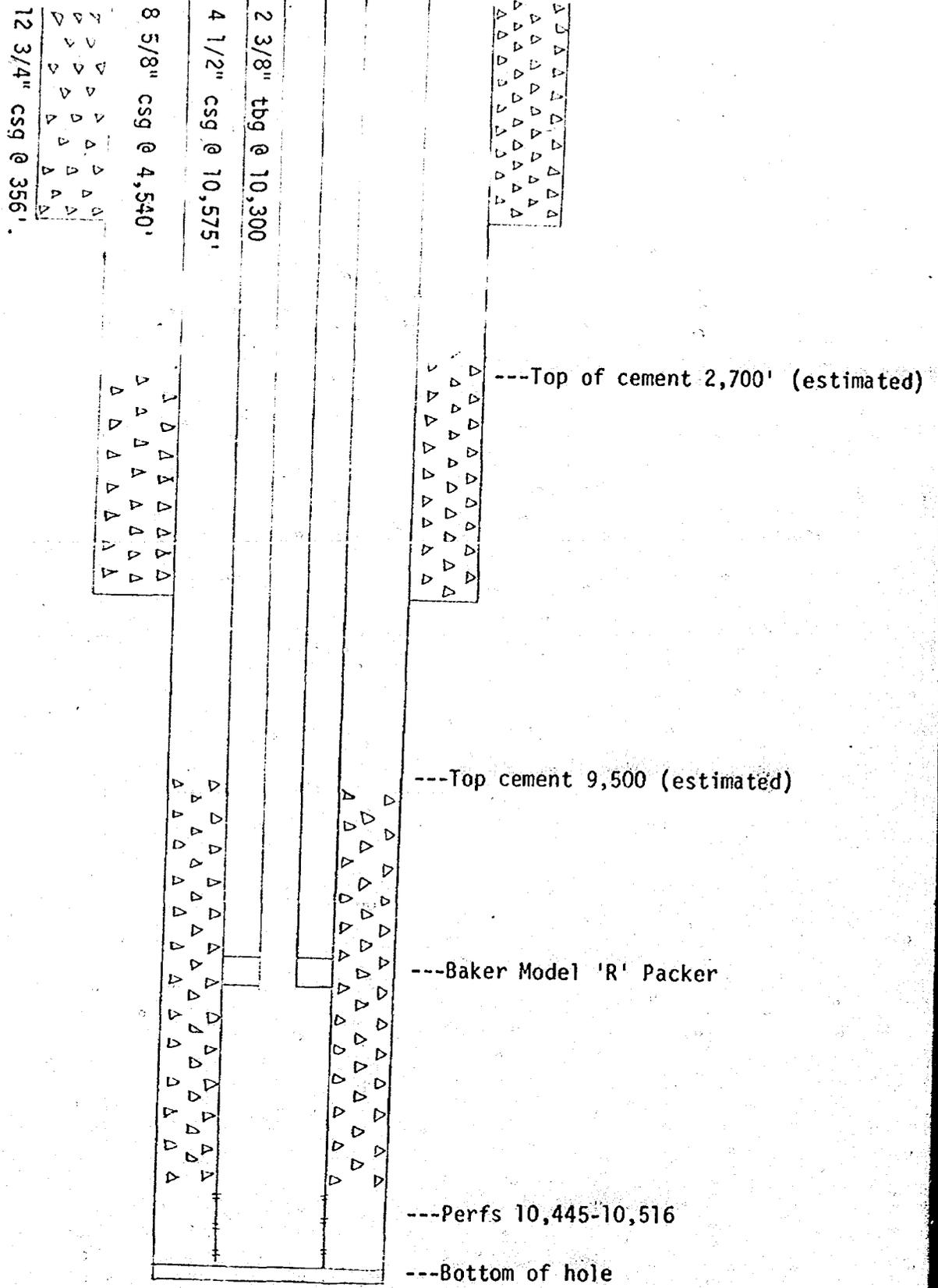
I hereby certify that the information above is true and complete to the best of my knowledge and belief.

**Joseph J. Kelly** (Signature) **President** (Title) **12/18/80** (Date)

**OIL CONSERVATION DIVISION SANTA FE**

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ELK OIL COMPANY  
C. S. State #2  
Sec. 26-14S-34E  
Lea County, New Mexico



ELK OIL COMPANY  
 Application to Dispose of Salt Water  
 C.S. State #2  
 High Plains Field  
 Lea County, New Mexico

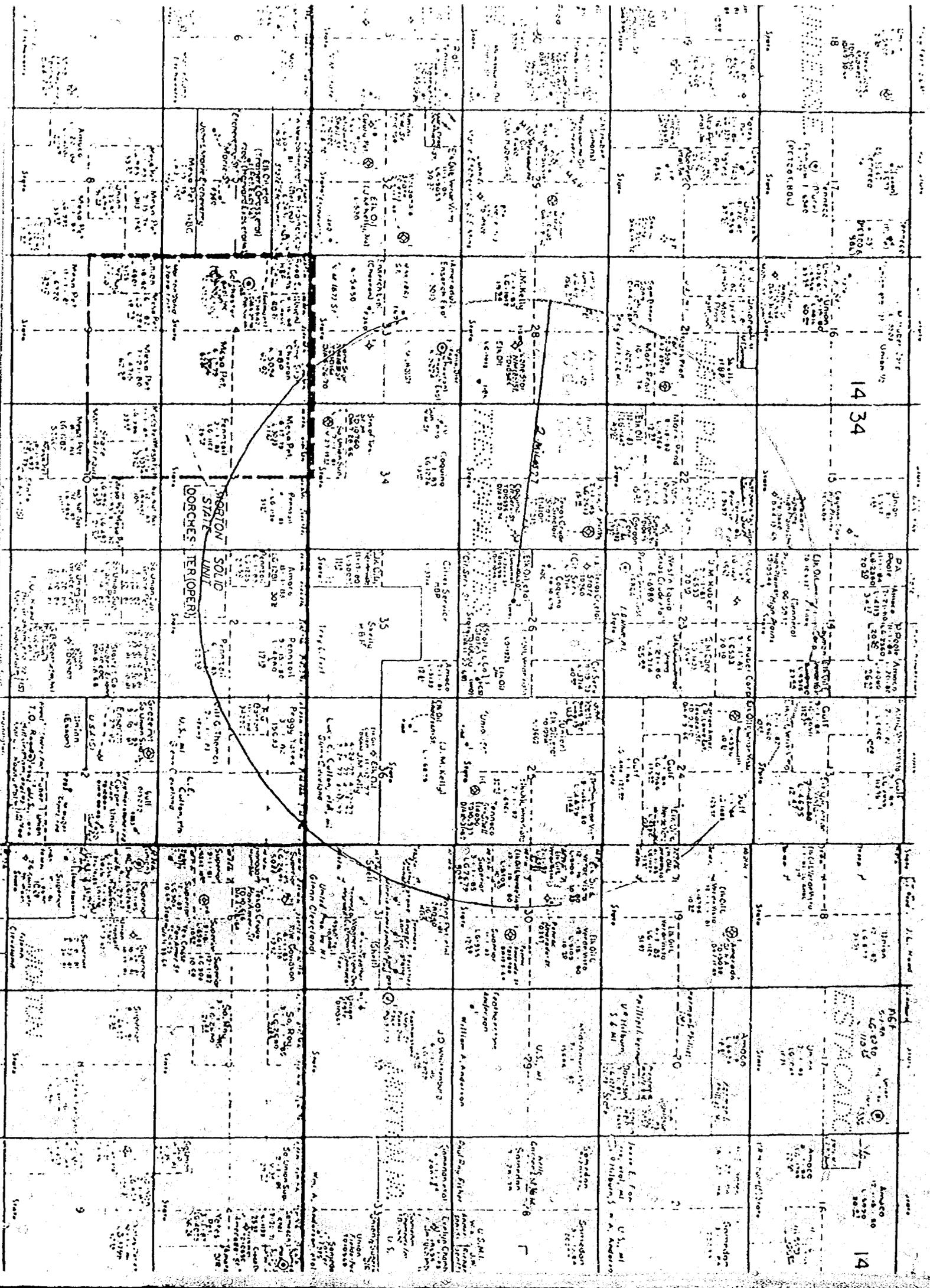
TOWNSHIP 14 SOUTH - RANGE 34 EAST

<u>SECTION</u>	<u>COMPANY</u>	<u>WELL</u>	<u>TOTAL DEPTH</u>	<u>PRODUCING FORMATION</u>
14	Elk Oil Company	#1 High Plains	10,622	P & A
15	Delaware-Apache	#2 High Plains	10,660	Dry
21	Mark Producing	#1 Fort	10,535	Dry
22	Sunset Inc.	#1 Union	10,575	Dry
22	Natomas	#1 High Plains	10,600	Penn @ 10,438
23	Western Equipment	#1-23 State	10,543	Penn @ 10,463
24	Warren American	#1 Texaco State	10,810	Dry
25	Tenneco	#1 Shell State	10,937	Dry
25	Elk Oil	#1 Union State	10,541	Penn @ 10,468
26	Elk Oil	#1 JM State	10,650	Penn @ 10,56
26	Elk Oil	#2 C.S. State	10,598	Penn @ 10,441
26	Coquina	#1 C.S. State	10,579	Penn @ 10,401
26	Texas Crude	#1 State	260	Dry
27	Texas Crude	#1-27 State	11,515	Dry
27	Coquina	#3 Cities Service	10,596	Dry
28	Sam Boren	#1 Sandy	10,730	Dry
28	Lone Star	#85 State	10,544	Dry
28	Elk Oil	#1 B.K. State	10,535	Penn @ 10,428
33	Lone Star	#80 State	10,663	Penn @ 10,468
33	Lone Star	#83 State	10,601	Dry
34	Sun Oil	#1 N.M. State	10,650	P & A
34	Standard of Texas	#1 State 34	10,760	Dry
36	Elk Oil	#1 Anderson State	10,628	Penn @ 10,478
36	Elk Oil	#1 Cullen	10,610	Dry

TOWNSHIP 14 SOUTH - RANGE 35 EAST

30	Penroc	#2 Amerada State	267	Dry
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ELK OIL COMPANY  
 Application to Dispose of  
 Salt Water  
 C.S. State #2  
 High Plains Field  
 Lea County, New Mexico





CITIES SERVICE COMPANY  
ENERGY RESOURCES GROUP

Box 1919  
Midland, Texas 79702  
(915) 685-5600

December 16, 1980

Elk Oil Company  
P. O. Box 310  
Roswell, New Mexico 88201

Attention: Mr. Joseph J. Kelly

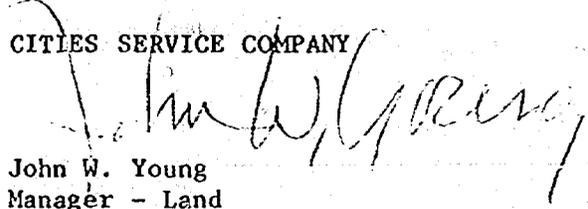
Re: C. S. State #2  
1380' FWL, 1980' FSL  
Section 26, T-14-S, R-34-E  
Lea County, New Mexico

Gentlemen:

Cities Service has no objection to Elk Oil Company converting the captioned well to a salt water disposal well as requested in your letter of November 21, 1980.

Yours truly,

CITIES SERVICE COMPANY

  
John W. Young  
Manager - Land  
Southwest Region

JWYbd

ROUGH

dr/

STATE OF NEW MEXICO  
ENERGY AND MINERALS DEPARTMENT  
OIL CONSERVATION DIVISION

IN THE MATTER OF THE HEARING  
CALLED BY THE OIL CONSERVATION  
DIVISION FOR THE PURPOSE OF  
CONSIDERING:

CASE NO. 7122

Order No. R- 6573

APPLICATION OF ELK OIL COMPANY FOR  
SALT WATER DISPOSAL, LEA COUNTY,  
NEW MEXICO.

ORDER OF THE DIVISION

BY THE DIVISION:

*[Handwritten initials: RLF]*  
This cause came on for hearing at 9 a.m. on January 14  
1981, at Santa Fe, New Mexico, before Examiner Richard L. Stamets  
NOW, on this        day of January, 1981, the Division  
Director, 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 Division has jurisdiction of this cause and the subject  
matter thereof.

(2) That the applicant, Elk Oil Company,  
is the owner and operator of the C. S. State Well No. 2,  
located in Unit K of Section 26, Township 14 South,  
Range 34 East, NMPM, High Plains-Pennsylvanian Pool,  
Lea County, New Mexico.

(3) That the applicant proposes to utilize said well to  
dispose of produced salt water into the Pennsylvanian  
formation, with injection into the perforated interval  
interval from approximately 10,445 feet to 10,516 feet.

(4) That the injection should be accomplished through 2 3/8  
-inch plastic lined tubing installed in a packer set at approxi-  
mately 10,300 feet; that the casing-tubing annulus should be  
filled with an inert fluid; and that a pressure gauge or approved  
leak detection device should be attached to the annulus in order

to determine leakage in the casing, tubing, or packer.

(5) That <sup>if pressure is required for injection,</sup> the injection well or system should be equipped with a <sup>pressure limiting switch</sup> ~~pop-off valve~~ or acceptable substitute which will limit the wellhead pressure on the injection well to no more than 2090 psi.

(6) That the Director of the Division should be authorized to administratively approve an increase in the injection pressure upon a proper showing by the operator that such higher pressure will not result in migration of the injected waters from the Pennsylvanian formation.

(6) That the operator should notify the supervisor of the Hobbs district office of the Division of the date and time of the installation of disposal equipment so that the same may be inspected.

(7) (8) That the operator should take all steps necessary to ensure that the injected water enters only the proposed injection interval and is not permitted to escape to other formations or onto the surface.

(8) That Caguina Oil Company is the owner and operator of the Cities Service State Well No. 1 located in Unit E of Section 26, Township 14 South, Range 34 East, NM PM, also completed in said High Plains - Pennsylvanian Pool.

(9) That said Cities Service State Well No. 1 is completed in said High Plains - Pennsylvanian Pool on the ~~40~~ 40-acre protraction unit immediately offsetting the proposed injection well to the northwest.

(10) That ~~Cogina~~ injection of salt water into applicant's Cities Service State Well No. 2 could result in the premature watering out of said Cities Service State Well No. 1 thereby resulting in waste and violation of correlative rights.

(11) That the applicant and Cogina agreed that an administrative procedure to ~~halt~~ halt injection into said Cities Service State Well No. 2 upon a showing of increased water production from said Cities Service State Well No. 1 would prevent such ~~water~~ premature abandonment.

(12) That approval of the subject application with an administrative procedure to cause injection to be halted to prevent premature water encroachment into and abandonment of ~~the~~ ~~the~~ said Cities Service State Well No. 1 will prevent waste and will protect correlative rights.

IT IS THEREFORE ORDERED:

(1) That the applicant, Elk Oil Company, is hereby authorized to utilize its C. S. State Well No. 2 located in Unit K of Section 26, Township 14 South, Range 34 East, NMPM, High Plains-Pennsylvanian Pool, Lea County, New Mexico, to dispose of produced salt water into the Pennsylvanian formation, injection to be accomplished through 2 3/8-inch tubing installed in a packer set at approximately 10,300 feet, with injection into the perforated interval from approximately 10,445 feet to 10,516 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 shall be equipped with an approved leak detection device in order to determine leakage in the casing, tubing, or packer.

*if pressure is required for injection,*  
(2) That <sup>pressure relief</sup> the injection well or system shall be equipped with a ~~pop-off~~ valve or acceptable substitute which will limit the wellhead pressure on the injection well to no more than 2090 psi.

(3) That the Director of the Division may authorize an increase in injection pressure upon a proper showing by the operator of said well that such higher pressure will not result in migration of the injected fluid from the Pennsylvanian formation.

(3) (4) That the operator shall notify the supervisor of the Hobbs district office of the Division of the date and time of the installation of disposal equipment so that the same may be inspected.

(4) (5) That the operator shall immediately notify the supervisor of the Division's Hobbs district office of the failure of the tubing, casing, or packer, in said well or the leakage of water from or around said well and shall take such steps as may be timely and necessary to correct such failure or leakage.

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

~~IT IS FURTHER ORDERED.~~

(1) ~~Ordered Further~~, That the Director of the Division shall rescind the injection authority granted by this order upon application and showing by the operator of the Cities Service State Well No. 1 located in E of said Section 26 of the following:

(a) that said well is <sup>currently</sup> completed in the High Plains Pennsylvanian Pool;

(b) that said well has experienced an increase in water production up to ~~a~~ a current average of 25 barrels per day; ~~and~~

(c) copies of <sup>supporting</sup> production records; and

(d) a demonstration that ~~the~~ the operator of ~~the~~ said ~~the~~ Cities Service State Well No. 2 salt water disposal well has been notified of the request for <sup>rescission</sup> rescission of authority to inject.

<sup>supporting</sup>  
(3) That the Director of ~~the~~ Division may require additional testing of said Cities Service State Well No. 1 in order to confirm the rate of

water production therefrom.

~~(3) That if there is~~

(3) That the Director shall rescind the injection authority granted by this order within 30 days following receipt of an application as provided for in Order (1) (a) thru (d) above unless further ~~test~~

Provided However,

~~(3)~~ That the Director may set this matter for a public hearing upon a <sup>proper</sup> showing ~~by the operator of the disposal well~~ that the facts alleged or data submitted in the application for rescission are inaccurate, incorrect, or not representative of conditions demonstrating premature water encroachment resulting from operation of the disposal well.

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

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