

NEW MEXICO OIL CONSERVATION COMMISSION

EXAMINER HEARING

SANTA FE, NEW MEXICO

Hearing Date AUGUST 4, 1994 Time: 8:15 A.M.

NAME	REPRESENTING	LOCATION
<i>Dan Nutter</i>	<i>Cow Engu</i>	<i>S.F.</i>

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STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION DIVISION

IN THE MATTER OF THE HEARING)
CALLED BY THE OIL CONSERVATION)
DIVISION FOR THE PURPOSE OF)
CONSIDERING:) CASE NO. 11,003
)
APPLICATION OF HAL J. RASMUSSEN)
OPERATING, INC.)
_____)

ORIGINAL

REPORTER'S TRANSCRIPT OF PROCEEDINGS

EXAMINER HEARING

BEFORE: MICHAEL E. STOGNER, Hearing Examiner

August 4, 1994

Santa Fe, New Mexico

- 2 1994

This matter came on for hearing before the Oil Conservation Division on Thursday, August 4, 1994, at Morgan Hall, State Land Office Building, 310 Old Santa Fe Trail, Santa Fe, New Mexico, before Steven T. Brenner, Certified Court Reporter No. 7 for the State of New Mexico.

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 Examiner Hearing
 CASE NO. 11,003

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A P P E A R A N C E S

FOR THE DIVISION:

RAND L. CARROLL
Attorney at Law
Legal Counsel to the Division
State Land Office Building
Santa Fe, New Mexico 87504

FOR THE APPLICANT:

PADILLA LAW FIRM, P.A.
1512 South St. Francis Drive
P.O. Box 2523
Santa Fe, New Mexico 87504-2523
By: ERNEST L. PADILLA

* * *

1 WHEREUPON, the following proceedings were had at
2 8:29 a.m.:

3 EXAMINER STOGNER: This hearing will come to
4 order for Docket Number 22-94. I'm Michael E. Stogner,
5 appointed Hearing Examiner for today's hearing or docket.

6 And the first thing we'll consider today will be
7 Case 11,003.

8 MR. CARROLL: Application of Hal J. Rasmussen
9 Operating, Inc., for a pressure maintenance project, Lea
10 County, New Mexico.

11 EXAMINER STOGNER: Call for appearances.

12 MR. PADILLA: Mr. Examiner, Ernest L. Padilla,
13 Santa Fe, New Mexico, for the Applicant.

14 I have one witness to be sworn.

15 EXAMINER STOGNER: Are there any other
16 appearances in this matter?

17 Will the witness please remain standing to be
18 sworn at this time?

19 TYSON DUNN,
20 the witness herein, after having been first duly sworn upon
21 his oath, was examined and testified as follows:

22 DIRECT EXAMINATION

23 BY MR. PADILLA:

24 Q. Mr. Dunn, would you please state your full name?

25 A. My name is Tyson Dunn.

1 Q. How do you spell "Tyson"?

2 A. T-y-s-o-n.

3 Q. T-y-s-o-n?

4 A. Yes.

5 Q. Mr. Dunn, where do you live?

6 A. Midland, Texas.

7 Q. Who do you work for?

8 A. I work for Hal Rasmussen Operating.

9 Q. As what?

10 A. I'm a production engineer.

11 Q. Mr. Dunn, have you previously testified before
12 the Oil Conservation Division and had your credentials as a
13 petroleum engineer accepted as a matter of record?

14 A. No, I have not previously testified.

15 Q. Mr. Dunn, would you tell us where and when you
16 received your education as a petroleum engineer?

17 A. In May of 1993 from Texas A&M.

18 Q. Since 1993, what have you been doing in the oil
19 industry?

20 A. I've been working for Hal Rasmussen as a
21 production engineer.

22 Q. What other duties do you perform for Hal
23 Rasmussen Operating?

24 A. Overseeing production and some exploration.

25 Q. Are you involved with analyzing geology and

1 things of that nature --

2 A. Yes.

3 Q. -- from time to time?

4 A. Yes.

5 Q. Have you made a study and have you prepared
6 certain exhibits for introduction with regard to this
7 Application today?

8 A. Yes.

9 MR. PADILLA: Mr. Examiner, we tender Mr. Dunn as
10 a petroleum engineer.

11 EXAMINER STOGNER: Mr. Dunn is so qualified.

12 Q. (By Mr. Padilla) Mr. Dunn, can you briefly
13 describe what the purpose of this hearing is today?

14 A. This is to obtain a permit for a pressure
15 maintenance project on our Farnsworth "A" lease, located in
16 Lea County, New Mexico.

17 Q. Can you be a little bit more specific in terms of
18 what you intend to do with the pressure maintenance project
19 and how it will enhance production as a result of the
20 pressure maintenance?

21 A. We are currently producing from this lease by
22 submersible pumps, and we are moving a lot of water and
23 therefore feel we are depleting the reservoir of its
24 pressure, and we wish to inject water downdip of these
25 producing wells to charge the formation, keep the pressure

1 stabilized.

2 Q. Mr. Dunn, let's turn to what we have marked as
3 Rasmussen Exhibit Number 1 and have you identify that for
4 the Examiner and tell him what it contains.

5 A. Okay, this exhibit shows the lease is operated by
6 Hal J. Rasmussen in the area, and with the two wells in
7 question, the Farnsworth "A" 1 located in unit A of Section
8 13, and the Farnsworth "A" 2 located in Unit P of Section
9 13.

10 Q. What's outlined in yellow on that exhibit, Mr.
11 Dunn?

12 A. This is the leases operated by Hal Rasmussen in
13 the area.

14 Q. Do you operate other pressure maintenance
15 projects in this same area?

16 A. Yes, the Eaves "A" lease, which is located in
17 Section 19, is currently a pressure maintenance project.

18 Q. Is that project similar in nature to what you're
19 proposing today?

20 A. Yes, very similar.

21 Q. Okay. Let's move on to what we have marked as
22 Exhibits 2A and 2B and have you tell the Examiner what that
23 is, those exhibits are.

24 A. These are the current schematics of the wells in
25 question, showing that both wells are currently temporarily

1 abandoned.

2 Q. Do these exhibits show how the wells are
3 currently completed and how they're cemented and things of
4 that nature?

5 A. Yes.

6 Q. Mr. Dunn, when you testify concerning another
7 exhibit, the C-108, is that same information contained in
8 the C-108?

9 A. No, the proposed schematic is in C-108 form, but
10 not the current schematic.

11 Q. Okay. Do you have anything further concerning
12 these two exhibits?

13 A. No.

14 Q. Okay, let's turn now to Exhibits 3A and 3B and
15 have you identify that for the Examiner, please.

16 A. These are the C-108 forms which were filed with
17 the Oil Conservation Division for each of the wells in
18 question.

19 Q. Let's start off on page 1 of Exhibit 3A.

20 Now, first of all, let me ask you, are these
21 C-108s pretty much identical except for the particular
22 wells for which you were trying to inject into?

23 A. Yes, they're very similar.

24 Q. In other words, the description of the geology
25 and the description of the pressure maintenance and that

1 sort of thing is identical?

2 A. Yes, both wells are currently completed in the
3 Yates zone, and we will be deepening each well to the Seven
4 Rivers to inject water.

5 Q. Okay, let's go on to -- Let's start off on page 2
6 of Exhibit 3A and have you go through that, please.

7 A. This is a proposed schematic of the Farnsworth A
8 1 Well, showing that we wish to deepen the well to the
9 Seven Rivers formation and set a liner across the Yates
10 formation and that we will inject water through an open-
11 hole interval at 3150 to 3350 through a plastic-coated
12 tubing and under a packer.

13 Q. How about the cementing on this well? Will the
14 cementing, in your opinion, be sufficient to prevent any
15 migration of injected fluids --

16 A. Yes.

17 Q. -- up the wellbore?

18 A. Yes.

19 Q. Let's go on to the next page. What does that
20 show?

21 A. This shows the wells within a half-mile radius of
22 the wells in question.

23 Q. Now, who owns -- Who are the adjoining owners,
24 and who is an interested party with respect to being inside
25 the one-half -- radius circle?

1 A. Ambett Oil Company and Hal Rasmussen are the only
2 two owners of wells in this area.

3 Q. Did you send notice to Ambett Oil Company
4 concerning this hearing?

5 A. Yes.

6 Q. And is that attached in this C-108?

7 A. Yes.

8 Q. Further back, is that correct?

9 A. Yes.

10 Q. Okay. Now -- and that was sent certified mail,
11 return receipt?

12 A. Yes.

13 Q. Who is the surface owner for this property?

14 A. Frank Ambett.

15 Q. And have you notified Frank Ambett?

16 A. Yes.

17 Q. By certified mail?

18 A. Yes.

19 Q. And do you have a return receipt for that?

20 A. Yes.

21 Q. And that's attached to the C-108?

22 A. Yes.

23 Q. Now, in terms of uniformity of ownership in the
24 pressure maintenance project, is this a single lease, or is
25 this unitized, or how is the land configuration?

1 A. This is a single lease with the ownership uniform
2 throughout.

3 Q. Okay. Let's go on to the next page, please, and
4 have you tell the Examiner what's on that page.

5 A. These next pages show the completion data of the
6 wells which are inside the area of review.

7 Q. Would you tell the Examiner which those wells are
8 and where they're located on the plat, on the previous
9 page?

10 A. Each of these wells is located within the radius
11 of the circle that has been drawn here, and a detailed
12 description follows.

13 Q. Is there anything in this data that would lead
14 you to believe that there would be any type of migration
15 through the casing or the wellbore, to migrate into another
16 oil-producing zone or freshwater zone?

17 A. No.

18 Q. How many wells are within the half-mile circle?

19 A. Ten wells.

20 Q. And all of the information concerning those wells
21 is contained in the C-108?

22 A. Yes. And I have also included on the plugging
23 schematic of any wells that were plugged within that
24 radius.

25 Q. Following those descriptions that you have in

1 there is Section 7 of the C-108 the proposed operations.

2 Would you go into that now, Mr. Dunn?

3 A. Okay, this data is based on -- As was stated
4 earlier, we have a pressure maintenance project in the
5 adjacent lease, which shows to be identical, the
6 substructure, and we are currently injecting water for
7 pressure maintenance over there, and we are going to inject
8 the same way into the Farnsworth lease also, and we will --
9 with an average injection volume of 8000 barrels of water a
10 day on a vacuum.

11 Q. Does the fact that you're producing or injecting
12 into the vacuum -- is that significant in terms of the
13 Application itself?

14 A. I feel that that is one thing stating that we are
15 moving water from the formation, that it is not a complete,
16 constant water drop.

17 EXAMINER STOGNER: I'm sorry, what? You're going
18 to have to speak up.

19 THE WITNESS: Okay. I feel that's not a complete
20 -- it's not a -- that showing it's on a vacuum shows that
21 the formation is losing pressure to some point.

22 Q. (By Mr. Padilla) What's the nearest source of
23 fresh water? You have that in Section 7?

24 A. Yes, the Ogallala formation, and I have included
25 in this C-108 a freshwater analysis done from that

1 formation, which is being produced from a windmill, and we
2 have -- currently have the pressure maintenance project in
3 effect underneath this formation where this freshwater
4 sample was taken from.

5 Q. Do you have the freshwater analysis on this
6 C-108?

7 A. Yes.

8 Q. Where is it?

9 A. It is located before the logs.

10 Q. What does that freshwater analysis show?

11 A. It shows that it has no contamination from any
12 hydrocarbon zones.

13 Q. Is this water potable and good for human
14 consumption?

15 A. Yes, I took samples myself, and the water is
16 drinkable, if need be.

17 Q. Can we skip the schematic and go into the
18 freshwater analysis, or a couple of schematics? What do
19 those schematics --

20 A. They are wells which have been plugged that are
21 within the area of review.

22 Q. What are you showing by the schematics of the
23 Farnsworth A-3 and the A-8 wells?

24 A. I'm showing that they have been properly plugged
25 to prevent contaminating any freshwater zones.

1 Q. Okay, you have a log attached to the C-108, and I
2 notice that you also have prepared another log as part --
3 as another exhibit. Are those duplicative in terms of the
4 log you have in the C-108 and the further exhibit you have?

5 A. Yes.

6 Q. Do you want to go through this log in the C-108,
7 or do you want to discuss them both later?

8 A. We can discuss them both later.

9 Q. Okay. You have a statement attached to the
10 C-108 in which you say that you have examined available
11 geologic and engineering data and find no evidence of open
12 faults or any other hydrologic connection between the
13 disposal zone and any other underground source of drinking
14 water.

15 Is that -- Do you confirm that statement here
16 today, in here?

17 A. Yes.

18 Q. What engineering data and geologic information
19 did you examine to make this statement?

20 A. I based it on log analysis and also the current
21 pressure maintenance project which is in effect in an
22 adjacent lease, which seems to be the exact formations.

23 Q. Okay. The next page is a mailing list followed
24 by return receipts, postal return receipts. Are these the
25 same owners that you testified about earlier?

1 A. Yes.

2 Q. Did you testify concerning Chevron USA earlier?

3 A. Chevron is an offset operator, but they do not
4 have any wells within the area of review.

5 Q. Have any of the people you gave notice to
6 objected or communicated with you in any manner to indicate
7 a negative attitude concerning this hearing?

8 A. No.

9 Q. And the last page on the C-108 is what?

10 A. This is a -- showing that a legal notice was
11 printed in the Hobbs newspaper.

12 Q. Mr. Rasmussen, do you have anything concerning
13 Exhibit 3A?

14 A. This exhibit is for the Farnsworth A- -- I'm
15 sorry, for the 3B is the Farnsworth A-2 Well.

16 Q. Concerning the first Exhibit 3A, the first C-108,
17 do you have anything further concerning that exhibit?

18 A. No.

19 Q. What differences do you find between the C-108
20 for the second well, and the first well? What are the
21 differences between the two C-108s?

22 A. The only difference is they were both -- This
23 well is also presently completed in the Yates zone, and we
24 will set a liner across the Yates zone and inject into the
25 Seven Rivers at a little bit of a -- It's a different depth

1 interval, just based on the structure.

2 Q. And you're looking principally at the schematic
3 on the second page; is that right?

4 A. Yes.

5 Q. How about the half-mile circle? That changes
6 also, does it not?

7 A. Yes, there are a few wells that are different
8 within this circle.

9 Q. And which wells have you included in this circle
10 that were not included in the circle for the first well?

11 A. That would be the Farnsworth A-7, the McCallister
12 A-2 and the Eaves A-6.

13 Q. In your opinion, Mr. Dunn, are these wells
14 completed in such a manner that would prevent migration of
15 fluids to other oil-producing zones or freshwater zones?

16 A. Yes.

17 Q. Who did you send notice concerning this
18 particular 108?

19 A. This was sent to the surface owner, Frank
20 Anthony, Ambett Oil Company, and that's it.

21 Q. Chevron was not in -- you know, this -- for this
22 well?

23 A. No.

24 Q. Do you have anything further concerning how the
25 freshwater analysis is the same one that you attached on

1 the first one?

2 A. Yes.

3 Q. Do you have anything further concerning this
4 second C-108?

5 A. No.

6 Q. Let's go on to what we have marked as Exhibit 4
7 and have you identify that for the Examiner, please.

8 A. This is a type log of the Yates and Seven Rivers
9 formations, located in the Scarborough Pool, which is
10 identified in each of the wells on these leases.

11 EXAMINER STOGNER: You're going to have to speak
12 up, both of you.

13 Q. (By Mr. Padilla) Mr. Dunn, where is the
14 separation between the Yates and the Seven Rivers
15 formations?

16 A. The Seven Rivers, the top of the Seven Rivers, is
17 just below the 3100-foot line.

18 Q. And what separates the two formations?

19 A. There seems to be some -- an impermeable shale
20 barrier right there. As you see in the Yates above, it is
21 mostly sandstone with some dolomite stringers. And the
22 Seven Rivers is just the opposite; it's mostly dolomite
23 with some sand stringers.

24 Q. Can you tell the Examiner the basic difference
25 between the two formations in terms of producing

1 capability?

2 A. I would say one is -- The Yates is tight, and the
3 Seven Rivers is very porous, and that's very evident, I
4 think, in the wells that we are producing in the area, that
5 we can produce the Seven Rivers through submersible pumps
6 that move a lot of water and a lot of fluid, and the Yates
7 will not give up very much fluid.

8 Q. Have you seen anything in the evidence or the
9 information that you have examined, geologic or
10 engineering, that would give you any clue or opinion as to
11 whether there would be any vertical migration between the
12 Seven Rivers and the Yates formation in terms of natural
13 fracturing or anything of that nature?

14 A. I do not feel there will be any communication,
15 and that's based on -- We have wells producing from both
16 zones in the area and, like I said before, the Yates seems
17 to be very tight, and the Seven Rivers very porous.

18 Q. Do you have anything further concerning Exhibit
19 4?

20 A. No.

21 Q. Let's go on to Exhibit Number 5 and have you
22 identify that for the Examiner, please.

23 A. This is a substructure map of the Seven Rivers
24 formation showing the Farnsworth lease, which is
25 highlighted, and the Eaves lease, which is located in

1 Section 19, and with the arrows pointing to the two wells
2 in question for the pressure maintenance project, and the
3 green highlighted wells showing the producers in the area,
4 and the two blue highlighted wells showing the two wells
5 that are currently being used for pressure maintenance on
6 the Eaves lease.

7 Q. Mr. Dunn, does this also show the other pressure
8 maintenance project that you have in the area?

9 A. Yes.

10 Q. And where is that?

11 A. The Eaves A-7 and the A-10, located in Section
12 19, are being used for pressure maintenance.

13 Q. And are those the wells colored blue?

14 A. Yes.

15 Q. And generally, it appears that you're injecting
16 downstructure, and that effect -- that in effect which is
17 oil up -- upstructure; is that --

18 A. Yes.

19 Q. -- fair to say?

20 A. Yes.

21 Q. And you intend to do the same in the proposed
22 pressure maintenance project as you have in the one in
23 Section 19?

24 A. Yes, we propose to inject water downdip and
25 produce off the top of the reef.

1 Q. Okay. How are you producing? Please go on to
2 that a little bit. How are you -- Have you enhanced
3 production by what you're doing now, and do you intend to
4 further enhance production? Is that -- How are you going
5 to do that?

6 A. Yes, when we took over these leases, the Eaves
7 lease was making about 18 barrels of oil a day on
8 conventional rod pump. And we came in and put them on
9 submersible and have gotten the production up to over 250
10 barrels of oil a day.

11 And I feel that the -- On the Eaves lease, the
12 pressure maintenance has a direct effect on it.

13 Looking on the map, the A-5, the A-8 and the A-15
14 wells, which are located adjacent to the two pressure
15 maintenance wells, are three of our best producers and move
16 the most fluid.

17 Q. Do you have in Exhibit 6 information concerning
18 the current production of the -- on the Eaves lease and how
19 you have enhanced production by pressure maintenance there?

20 A. Yes.

21 Q. Let's go on to Exhibit 6 and have you tell the
22 Examiner, first of all, what it is and then go into what it
23 contains.

24 A. This exhibit is showing the individual well
25 performance and the lease production data for the Eaves and

1 Farnsworth leases.

2 It is showing that we're moving a lot of water on
3 these leases and that we have increased production
4 significantly.

5 And also, as I pointed out earlier, those three
6 wells which are in the area of the pressure maintenance
7 wells move the most fluid and make the most oil, and gas
8 also.

9 Q. Now, the pressure maintenance project or
10 injection project, is that going to be an open or a closed
11 system?

12 A. It will be a closed system.

13 Q. And how are you going -- Do you need to make a
14 water analysis of the water that you're taking out of the
15 Seven Rivers?

16 A. We are producing water from the Seven Rivers and
17 putting it right back in the Seven Rivers, and it is going
18 through a skim system which we feel is very effective, and
19 we're recovering 20 barrels of oil or so out of that skim
20 system, and then we're also treating the wells with a
21 clarifier chemical and a corrosion- and scale-inhibitor.

22 Q. Okay, let's go back to the production data. In
23 the first page on Exhibit 6, you're talking about the daily
24 rate of production?

25 A. Yes.

1 Q. And what's on the second page?

2 A. This is showing the Eaves lease, total production
3 on the "A" lease for 1988 through June of this year, and
4 that's pointing out -- We took the lease over at the first
5 of 1993, and that's pointing out the increased production.

6 Q. Roughly what percentage of increase is there from
7 the time you took it over to the current production?

8 A. We've gone from, as I said earlier, 18 barrels a
9 day, to over 250 barrels a day.

10 Q. Quite a bit?

11 A. Yes.

12 Q. What's on the third page of Exhibit 6?

13 A. The third page is showing the wells that are
14 currently producing on the Farnsworth lease and their daily
15 well performance.

16 Q. What is the top allowable for the wells on the
17 Farnsworth lease?

18 A. 128.

19 Q. And you're nowhere near that right now?

20 A. No.

21 Q. How do you propose to allocate production between
22 the injection wells and the producing wells on this
23 particular pressure maintenance project?

24 A. If -- For this pressure maintenance project, we
25 wish to have an allowable for the injection wells, as well

1 as the producers.

2 Q. You're not proposing to increase the allowable
3 for any of -- for the field?

4 A. No.

5 Q. Okay. What's on the fourth page?

6 A. The fourth page is showing the production history
7 from 1988 through June of this year for the Farnsworth
8 lease, and once again pointing out the increased
9 production.

10 Q. In your opinion, Mr. Dunn, would approval of this
11 Application result in the same type of production
12 enhancement for the Farnsworth lease as you have created in
13 the Eaves lease?

14 A. Yes.

15 Q. Mr. Examiner -- well, let me -- Mr. Dunn, do you
16 have an opinion as to whether approval of this Application
17 would be in the best interests of conservation of oil and
18 gas?

19 A. Yes, I feel it will.

20 Q. Do you feel that approval of this Application
21 would protect correlative rights?

22 A. Yes.

23 Q. Mr. Dunn, do you have anything further to add to
24 your testimony?

25 A. No.

1 MR. PADILLA: Mr. Examiner, we tender Exhibits 1
2 through 6, and we'll pass the witness at this time.

3 EXAMINER STOGNER: Exhibit 1 through 6 will be
4 admitted into evidence at this time.

5 EXAMINATION

6 BY EXAMINER STOGNER:

7 Q. Mr. Dunn, the 6, 7 and 10 Farnsworth "A" wells,
8 those are the ones that are presently producing, and are
9 those the only wells that will be producing whenever these
10 two wells start injecting?

11 A. No, we are looking into going into most of the
12 wellbores on top of the reef and even future drilling
13 prospects in the area.

14 Q. And that would be the Number 4 and 5 well?

15 A. And the Number 9 also, and we -- On the
16 Farnsworth "B" lease also, which is located in Section 7,
17 we have future plans to put those on submersible pump also.

18 Q. Okay, let me make sure I -- The Farnsworth "A"
19 lease takes in the east half of the east half of 13?

20 A. Yes.

21 Q. And the west half of 18?

22 A. Yes.

23 Q. Okay, that -- and that's what we're here today
24 for, right?

25 A. Right.

1 Q. And any operations on that Farnsworth "B" over in
2 Section 7, that would be a whole different injection
3 project?

4 A. Yes.

5 Q. Or it would just be incremental -- how would you
6 say?

7 A. I feel like it will have some effect on the reef
8 in that area.

9 Q. But at this time it's just limited to the
10 Farnsworth "A"?

11 A. Yes.

12 Q. Okay. Did you include any completion data on
13 that 6, 7 and 10 wells in your C-108?

14 A. I have -- Yes, on the A-6, I think, is in the
15 C-108 for the A-2.

16 Q. Oh, yeah. And the Number 10 Well being outside
17 the half-mile area of review, you don't have any completion
18 report on that?

19 A. Right.

20 Q. Okay.

21 A. So I have the A-6 and the A-7.

22 Q. In looking at the completion reports, I fail to
23 see like hole size or tops of cement. Do you have that
24 information available to you?

25 A. No, I do not have it right now.

1 Q. Okay, then, what I'm going to ask you to provide
2 me subsequent to today is calculated or known tops of
3 cement on your area-of-review wells. So therefore, I'm
4 sure you'll either have to find the hole sizes or find
5 information that provides top of cement.

6 Also on the C-108 for the first one, that would
7 be the Number 1 Well, that plugged and abandoned well that
8 you have a schematic for, or at least one of them, that's
9 the A-3, do you have the completion information on that
10 showing the tops of cement or amounts of cement used in the
11 7-inch casing or the liner that was cemented in?

12 A. I have the amount of cement that was used to plug
13 it. I do not have the -- presently don't have the amount
14 that was originally cemented in the well.

15 EXAMINER STOGNER: Okay. Could you provide me
16 that?

17 What I'm essentially interested in is making sure
18 that there's enough cement in those area-of-review wells
19 that they are indeed cemented off, and therefore, if we
20 have any inspection by the EPA, there will be no questions
21 about it, that provided by your calculations or your
22 information provided showing that the tops of cement are
23 adequate, and that in those plugged and abandoned wells,
24 not only do we have the plugging information but we also
25 have the completion information showing that there's

1 adequate cement behind those existing casings.

2 So Mr. Padilla, if you'll make sure that that is
3 provided us subsequent to the date of hearing.

4 MR. PADILLA: Okay.

5 Q. (By Examiner Stogner) The three wells that are
6 presently producing, you said they were on submersible
7 pump?

8 A. Yes.

9 Q. Okay. Do you know any -- what pressure data --
10 Do you have any pressure data, virgin pressure, out there
11 in this particular formation?

12 A. The static bottomhole pressure is about 1100
13 pounds.

14 Q. 1100. Okay. The present producing interval on
15 those three wells, the 6, 7 and 10, is that exclusive to
16 the Seven Rivers formation, or is it split out between the
17 Yates and Seven Rivers?

18 A. It is exclusive to the Seven Rivers.

19 Q. Exclusive to the Seven Rivers?

20 A. Yes.

21 Q. Okay. As will any additional completions on the
22 Number 4, 5 or any other subsequent wells?

23 A. Yes.

24 Q. And your injection is just exclusive to the Seven
25 Rivers; is that correct?

1 A. Yes.

2 Q. Now, you show that the surface was owned by an
3 individual, but these are, I assume, BLM leases?

4 A. Yes, it's federal minerals.

5 Q. Federal minerals, B surface?

6 A. Yes.

7 Q. Old homesteads, I would assume. Okay.

8 So the BLM was not notified since they neither
9 own the offset -- either they're not an operator or on an
10 unleased mineral tract or surface owner?

11 A. Right.

12 Q. And the two wells, the Farnsworth 1 and 2, do you
13 know approximately when those wells were drilled and
14 completed?

15 A. I would say they were -- It was around 1950, in
16 that area, but I can get that information.

17 Q. Okay. If you would, again, I'm going to need
18 tops of cements on those wells, either calculated or shown.
19 You do show the amount of cement used, but if I can have
20 you either calculate it or indicate by a temperature survey
21 if there's information available in the records on those
22 wells also.

23 Do you know when those wells stopped producing?

24 A. No, I'm not sure right offhand when they were
25 TA'd.

1 Q. Okay. Do you know what the current condition of
2 those two wells are? I mean, has Hal Rasmussen re-entered
3 them?

4 A. No, and we -- When they were abandoned, they were
5 pressure-tested, and the casing was in good integrity, and
6 that is something that when we install a packer in the
7 well, we will perform a casing integrity test.

8 Q. Now, when you said they were abandoned, were they
9 plugged and abandoned or just temporarily abandoned?

10 A. Temporarily abandoned.

11 Q. Pursuant to any requirements that the Hobbs
12 District Office provided you --

13 A. Yes.

14 Q. -- that's how you will do your mechanical
15 integrity --

16 A. Yes, yes.

17 Q. Let's see, the tubing in the Number 1 well is
18 going to be 5-inch; is that correct?

19 A. Yes.

20 Q. And the tubing in the other one is 5-1/2?

21 A. Yes.

22 Q. Now, you said these are on vacuum?

23 A. Our wells on the Eaves lease, which is -- The
24 identical formations are on a vacuum.

25 Q. And you expect these to be on a vacuum also?

1 A. Yes.

2 Q. So as far as -- Do you see that these are going
3 to be building up pressure any time in the near future, or
4 do you expect that vacuum to cease and then the wells start
5 pressuring up at a later time?

6 A. I feel like that since we're moving so much
7 water, that we are just constantly recharging the
8 formation, and we haven't seen any signs of the wells
9 pressuring up, and I don't expect them to, as far as having
10 to have any means of pressure, say, over 100 pounds, to
11 inject water.

12 Q. Is this a bottom water drive reservoir or --

13 A. If you could explain -- What do you mean by
14 "bottom water -- "

15 Q. Okay, I'm trying to get the mechanism here.

16 A. It's a strong water drive reservoir. That is,
17 basically the water from downdip of the reef I feel is, you
18 know, pushing the oil to the top of the reef.

19 Q. So the injection would essentially enhance that?

20 A. Yes.

21 Q. And what would be the source water of these two
22 injection wells?

23 A. It would be produced water from the producers on
24 the lease.

25 Q. On this lease. Will there be any outside lease

1 usage?

2 A. We feel like we may have to in the future.
3 Presently we don't feel like we need to, but the more
4 producers we have in the area, the more water we feel we
5 need to recharge the formation, so we may in the future
6 need to bring off-lease water to inject into those wells.
7 But that water will be from the Seven Rivers formation.

8 Q. Are there any Yates wells out there that make
9 water, or will there be any Yates water utilized?

10 A. No.

11 Q. At least foreseeable at this time?

12 A. Right.

13 Q. But the -- It's duly noted that the Scarborough
14 Yates-Seven Rivers Pool is a conglomeration of those two
15 formations; is that correct?

16 A. Yes.

17 Q. But you're just interested in injecting into the
18 Seven Rivers portion of that?

19 A. Right.

20 EXAMINER STOGNER: Okay. I have no other
21 questions of this witness.

22 Any other questions of Mr. Dunn?

23 MR. PADILLA: I have no other questions, and
24 we'll supply the information you requested.

25 EXAMINER STOGNER: And I'll keep the record open

1 pending just that information.

2 Other than that -- We'll keep the record open
3 just for that information, and we'll take it under
4 advisement at that time.

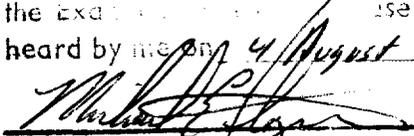
5 MR. PADILLA: Thank you, Mr. Stogner.

6 EXAMINER STOGNER: And if you'll get it to me,
7 Mr. Padilla, with whatever time frame you feel is
8 appropriate.

9 (Thereupon, these proceedings were concluded at
10 9:10 a.m.)

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I do hereby certify that the foregoing is
a correct and true transcript of the proceedings in
the Examination Case No. 11007,
heard by me on 4 August 1999.
 , Examiner
Oil Conservation Division

