

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. 13,707

APPLICATION OF YATES PETROLEUM)
CORPORATION TO RESCIND OR AMEND)
ADMINISTRATIVE ORDER SWD-1021,)
LEA COUNTY, NEW MEXICO)

ORIGINAL

REPORTER'S TRANSCRIPT OF PROCEEDINGS

EXAMINER HEARING

BEFORE: DAVID R. CATANACH, Hearing Examiner

May 11th, 2006

Santa Fe, New Mexico

This matter came on for hearing before the New Mexico Oil Conservation Division, DAVID R. CATANACH, Hearing Examiner, on Thursday, May 11th, 2006, at the New Mexico Energy, Minerals and Natural Resources Department, 1220 South Saint Francis Drive, Room 102, Santa Fe, New Mexico, Steven T. Brenner, Certified Court Reporter No. 7 for the State of New Mexico.

* * *

STEVEN T. BRENNER, CCR
(505) 989-9317

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May 11th, 2006
Examiner Hearing
CASE NO. 13,707

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A P P E A R A N C E S

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* * *

1 WHEREUPON, the following proceedings were had at
2 8:54 a.m.:

3 EXAMINER CATANACH: Okay, at this time I'll call
4 Case 13,707, the Application of Yates Petroleum Corporation
5 to rescind or amend Administrative Order SWD-1021, Lea
6 County, New Mexico.

7 Call for appearances.

8 MS. MUNDS-DRY: Good morning, Mr. Hearing
9 Examiner. My name is Ocean Munds-Dry with the law firm of
10 Holland and Hart, here representing Yates Petroleum
11 Corporation this morning.

12 EXAMINER CATANACH: Additional appearances?

13 MR. BRUCE: Mr. Examiner, Jim Bruce of Santa Fe,
14 representing Manzano, LLC. I have one witness.

15 Anybody else?

16 Okay, will the witness please stand to be sworn
17 in at this time?

18 (Thereupon, the witnesses were sworn.)

19 DAVID F. BONEAU,
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 MS. MUNDS-DRY:

24 Q. Good morning again, Dr. Boneau. Would you please
25 state your full name for the record?

1 A. David Francis Boneau.

2 Q. Where do you reside?

3 A. Artesia, New Mexico.

4 Q. By whom are you employed?

5 A. Yates Petroleum Corporation.

6 Q. And have you previously testified before the Oil
7 Conservation Division?

8 A. Yes, ma'am, I have.

9 Q. And have your credentials an expert in petroleum
10 engineering been accepted and made matter of record before
11 the Division?

12 A. Yes, they have.

13 Q. Are you familiar with the Application Yates has
14 filed in this case?

15 A. Yes, I'm familiar with that.

16 Q. Are you prepared to share the results of your
17 work with the Examiner?

18 A. Definitely, yes, ma'am.

19 MS. MUNDS-DRY: Are the witness's qualifications
20 acceptable?

21 EXAMINER CATANACH: Any objection?

22 MR. BRUCE: No, sir.

23 EXAMINER CATANACH: Yes, they are.

24 Q. (by Ms. Munds-Dry) Dr. Boneau, have you prepared
25 exhibits for presentation here today?

1 A. Yes, I have done that.

2 Q. Would you then please, Dr. Boneau, turn to Yates
3 Exhibit Number 1 and identify that for the Examiner and
4 explain what Yates seeks in this case?

5 A. Yes, I'll try to do that. This case concerns a
6 well called Peter Grande State Number 1, and in SWD-1021
7 that allows saltwater disposal in the San Andres in that
8 Peter Grande State Number 1 well. Yates seeks to rescind,
9 amend SWD-1021, because we think injection there threatens
10 one of our wells called Mescalero ALR State Number 1, which
11 is located quite close to the Peter Grande State Number 1.

12 Q. Does the rest of this exhibit try to summarize
13 the --

14 A. Tries to summarize the background and where we're
15 going with this case and -- et cetera.

16 Yates received notice of the Manzano application
17 for injection into the Peter Grande State Number 1 in our
18 mail room, logged that in on January 4th, 2006. The
19 application was approved on January 25th, 2006, by the
20 NMOCD. And on February 6th, 2006, the application arrived
21 in my office. And it -- You know, it's just a sad story,
22 but it's the way it goes in the world sometimes.

23 The mail at Yates all goes to the land
24 department. The land department sent this application to
25 geology and to engineering. On February 6th the geologist

1 walked into my office with it and said, This is probably
2 something that you ought to worry about. And then I went
3 on a frantic search for where was my copy and, you know,
4 many hours later my secretary found it under a pile of
5 magazines. Anyway, we received notice, we -- it didn't get
6 to the people who needed it, and we were late and all that
7 stuff. Anyway...

8 On February 6th, I saw the application, I didn't
9 like that they were injecting so close to our well and we
10 had no cement on our well, and I contacted people. The
11 first people I contacted were Holland and Hart, this lawyer
12 person here, and asked the lawyer to find out if this
13 application had been approved, and -- I thought maybe the
14 State would delay approving it, since it was kind of
15 questionable, and found out that it had been approved.

16 And then I contacted Manzano and -- see what we
17 could do about -- whether we could talk about the facts
18 here, or whether we were just plain too late. Anyway,
19 that's the "we fouled up" part of the notice. Notice
20 came -- I mean, notice came to Yates, it did not -- we lost
21 it internally, and when I found it -- We're trying to do
22 something to correct our mistake.

23 Q. And I think, Dr. Boneau, we're going to get into
24 the rest of what you summarized here as we go through your
25 testimony today. But if you'll just sort of point to, as

1 it shows here, what Yates' basic concern is with this
2 administrative order.

3 A. Okay, that -- can do that shortly. Manzano
4 intends to inject in the San Andres at 4350 to 4470, into
5 the San Andres zone. Our well, which is 770 feet away, has
6 no cement from 3000 feet to 7500 feet, and so there's a big
7 interval with no cement and it's just the interval that
8 they're injecting into, and this nasty San Andres water
9 going by our casing could make it fail.

10 The well that we're talking about is a decent
11 well, it's made 80,000 barrels of oil. We think it's got
12 30,000 or 40,000 barrels of oil left. There's no reason to
13 destroy it, and we think that injecting into the Peter
14 Grande State Number 1 is a threat to this well, and we need
15 a different plan than injecting into the San Andres and
16 that Peter Grande State Number 1.

17 Q. Thank you, Dr. Boneau. I'll ask you to please
18 turn to Yates Exhibit Number 2 and review that for the
19 Examiner.

20 A. Yates Exhibit Number 2 is simply a piece of a
21 Midland map showing the area. There's a half-mile circle
22 and a two-mile circle around the proposed injection well.
23 The area marked in yellow is the Yates Mescalero state
24 lease, and the well we're talking about is in the southeast
25 quarter, southeast quarter of Section 2. It's the nearest

1 well just west of the injecting well.

2 Q. What's the proximity, if you can tell somewhat
3 from this map, of the two wells we're discussing here
4 today?

5 A. The Yates well is exactly 770 feet directly west
6 of the Manzano injector.

7 Q. Thank you, Dr. Boneau. If you'll please turn to
8 Yates Exhibit Number 3 and identify that for Mr. Catanach.

9 A. Yates Exhibit Number 3 is a similar map. It is
10 taken straight from the Manzano application. It emphasizes
11 the half-mile circle. Again, the well -- I mean, this is a
12 Manzano exhibit. I added yellow to show our lease, and I
13 added an arrow that points down at Mescalero State Number 1
14 well in the southeast southeast of Section 2.

15 Q. Can you identify what has been marked as Yates
16 Exhibit Number 4 and explain to the Examiner what this is
17 and what this shows?

18 A. Yates Exhibit Number 4 is a table that I prepared
19 when I received the Manzano application, and lists in a
20 hard-to-read tabular form the cement situation behind all
21 the wells within Manzano's circle of review. Just for the
22 record, the Manzano half-mile circle is like a third-of-a-
23 mile circle. It's bigger than it needs to be, which just
24 shows they're trying to do a good job.

25 Anyway, in this table, Exhibit 4, the two wells

1 of interest are the first two wells on the left. So the
2 Peter Grande State Number 1 is the subject well, and just
3 to the right of it, Mescalero State Number 1 is the well
4 we're worried about.

5 And on my table I listed these wells in order of
6 distance from the proposed injector. Anyway, the only
7 thing to -- I mean, as a matter of fact, there's a well up
8 .3 mile away or something where it's questionable. That's
9 not our point, though. Our point simply involves the Peter
10 Grande State Number 1 and our Mescalero, so...

11 The Yates well is 330 from the south, 330 from
12 the east of Section 2. It says 730 feet away, and that's a
13 Boneau error. I would say it's 770 feet away. Our well
14 was spudded in 1997, it's drilled to 9535 feet, it has
15 8-5/8-inch at 2925, cemented to the surface. But then it
16 has 5-1/2-inch casing at TD, cemented with only 300 sacks.
17 And we have a cement bond log that shows that that brings
18 the cement up to 7500 feet. And so there's no cement
19 across the San Andres.

20 Q. And I believe you stated this, Dr. Boneau, I just
21 want to make sure. As this table illustrates, the Yates
22 Mescalero well is the closest well to the Peter Grande
23 well?

24 A. It's the closest offset to the Peter Grande well.

25 Q. Thank you. If you'll please turn to Yates

1 Exhibit Number 5 and review this exhibit for Mr. Catanach.

2 A. Okay. Exhibit Number 5 is, again, a page copied
3 from the Manzano application. It's a wellbore diagram of a
4 Yates well.

5 I have added two things to the picture there.
6 Manzano did not know where the top of cement was, they
7 estimated 8500 feet; our cement bond log says that the top
8 of the cement is 7500 feet. And I have drawn in a thing
9 that says Injection Zone, 4350-4470, which is where there
10 is no cement.

11 I think this is an appropriate time to tell what
12 the story is behind why there's no cement. The truth is
13 that our prognosis for this well foresaw bringing cement a
14 lot higher than we did. Our prognosis says that we were --
15 we intended to use like 1200 sacks of cement.

16 Not everybody who worked on this well is still at
17 Yates, but I talked to the people that -- I mean, I was
18 there and the drilling superintendent was there, a few
19 people were there, and I'm 99-percent sure this is the
20 right story.

21 We drilled the well, we logged the well, it did
22 not look very good on the logs, and we decided to just put
23 enough cement in there to test these bottom Bough zones
24 with the idea that when it failed we could cut the casing
25 off and plug the well, and we did that. We cemented over

1 300 sacks. That was legal in 1997.

2 And today we would need special permission to do
3 that, and we would almost surely not be given special
4 permission to do that. Today the rules require bringing
5 cement up into the intermediate casing in situations like
6 this, but in 1997 they didn't, and we cemented it with 300
7 sacks and got enough cement to cover the Bough and the
8 producing zones.

9 You'll see a little later that this well -- the
10 first two years of production from this well were pretty
11 terrible in the zone -- in our reading of the logs that the
12 target zone was not very good or correct. But then we
13 opened some deeper zones and they turned out to be pretty
14 good, and it turned into a good well.

15 Anyway, the truth is that before the well was
16 drilled we intended to put more cement in here than we did.
17 Based on the logs of the well, we cut back on the cement,
18 and this is what resulted.

19 Q. Dr. Boneau, even though Yates' plans changed with
20 respect to the cement in this well, this wellbore diagram,
21 which was part of the Manzano application, agrees that
22 there's no cement in the injection zone?

23 A. I think everybody agrees that there's no cement
24 anywhere near the injection zone.

25 Q. Dr. Boneau, if you'd please turn to Exhibit

1 Number 6 and explain what this is to Mr. Catanach?

2 A. Exhibit Number 6 is a cement bond log for the
3 Yates well, Mescalero State Number 1, and it's absolutely
4 the whole -- the whole log. But it shows that the top of
5 the cement -- if you page through it a little bit, at 7500
6 feet you see the curve change, and the company that ran it
7 wrote, Top of cement, 7500 feet.

8 Anyway, it's documentation that the top of the
9 cement is at 7500 feet, and there's no need to guess where
10 it is, it really is at 7500 feet.

11 Q. Would you identify what has been marked as Yates
12 Exhibit Number 7?

13 A. Yates Exhibit Number 7 is a production plot of
14 the Yates well, the Mescalero State Number 1. And I think
15 we have two points in showing this. The first would be to
16 confirm that the early production in 1997, '98 and '99 was
17 10 barrels a day or less. It really was poor in the target
18 zone. But then in mid-1999 we recompleted those lower
19 zones that are shown on the wellbore diagram, and the well
20 started making about 75 barrels a day, and it's produced
21 about 80,000 barrels, and it's now down 15 or 20 barrels a
22 day.

23 This is also part of our estimate of what the
24 future production will be from this well. And so the --
25 our forecast of the production curves into the future are

1 shown on Exhibit 7, and then there's calculations on
2 Exhibit 8 that say even with operating costs of \$4000 a
3 month, we'll get 39,000 more barrels and .3 BCF out of this
4 well, and realize cash flow something like \$2 million.

5 Q. And that's shown on Exhibit 8?

6 A. And that's shown on Exhibit 8.

7 Q. In that case, I'll have you please turn to Yates
8 Exhibit Number 9 and explain what this is to Mr. Catanach.

9 A. Yates Exhibit Number 9 is simply an attempt to
10 show what we do with the water that our well produces. Our
11 well produces about 20 barrels of water a day, and we have
12 another well just to the west, the Mescalero State Number
13 2, that produces more water, 75 to 100 barrels of water a
14 day. Just to complete the story of what's going on,
15 basically.

16 This exhibit is intended to show that we take
17 that water via truck to an SWD well at the top of this map,
18 a circle that says SWD by it. The well is called State 3
19 Number 1 SWD in Section 3 of 9 South, 32 East,
20 approximately six or seven miles north, so...

21 Q. Why did Yates decide on that well to dispose of
22 produced water?

23 A. Well, it's a Devonian well, so the water goes
24 into the Devonian, and some Mississippian first, but deep
25 perfs, which I consider good, but it's basically the

1 closest good disposal well we could find, and it's on the
2 Yates lease, and anyway we have been injecting in there for
3 a year or so, is all that we have done.

4 But anyway, we don't have a great solution for
5 water either. We're spending -- I wrote down \$1.60, but
6 somewhere between \$1.50 and \$2.00 a barrel to get rid of
7 our water. I really don't have a great point, other than
8 to try to get some details of the story into the record,
9 because I think we'll be talking about this a little more.

10 Q. And is Exhibit 10 the notice that you received
11 from Manzano?

12 A. Yeah, it's a one-page notice, and then we did
13 receive the entire application -- well, I guess the entire
14 application is here.

15 Q. And not to belabor the point, but we do not
16 contest that proper notice was given in this application?

17 A. No, we got it.

18 Q. With that, if you'll please turn to Exhibit
19 Number 11, is this the administrative order that was issued
20 as a result of Manzano's application?

21 A. Exhibit 11 is the order issued as a result of
22 Manzano's application, signed by Mark Fesmire, January
23 25th, 2006.

24 Q. In particular, I'd like to direct you to the
25 bottom of page 2.

1 A. Yes, ma'am.

2 Q. On page 2 of the order, the second-to-the-bottom
3 paragraph, what does the order state about the Division's
4 jurisdiction?

5 A. Provided further that jurisdiction is retained by
6 the Division for the entry of such further orders as may be
7 necessary for the prevention of waste and/or protection of
8 correlative rights, and so forth.

9 Q. And is that what Yates is asking the Division to
10 do here, to enter a further order to prevent waste?

11 A. Yes, ma'am.

12 Q. Dr. Boneau, in your opinion if Manzano is allowed
13 to inject into the San Andres interval, is there a danger
14 of waste occurring in the Mescalero well?

15 A. Yes, that's our fear, is that it will destroy the
16 casing in our well and prevent future production from our
17 well.

18 Q. And I know this is a difficult question for you,
19 because you're not mad at Manzano in any way. What do you
20 view as the best solution in this circumstance?

21 A. The best solution is that Manzano water go into
22 some other well that doesn't threaten production.

23 Q. So in this circumstance you'd ask that the
24 Division rescind or void this order?

25 A. I cannot think of any better solution. I just --

1 Q. And I know you've --

2 A. -- I've tried really hard, but --

3 Q. I know you've spent some time on this. Have you
4 come up with any possibility for amending the order that
5 would allow Manzano to both dispose of its produced waters
6 and also protect Yates' well?

7 A. I don't know how to do that in an effective way
8 that doesn't cost millions of dollars, doesn't cost huge
9 amounts of dollars.

10 Q. And I believe you've entertained the idea of
11 cementing the well. Do you have some thoughts as to
12 whether that would be an effective solution?

13 A. I think you're referring to trying to put cement
14 across the San Andres in our well. And since the well is
15 eight years old, that would be hard to do. Anyway, maybe
16 you could do that, maybe you couldn't, and it would --
17 probably you couldn't easily, probably your first try would
18 fail and you'd end up spending a lot of money and maybe
19 get, you know, two-thirds of the problem solved, but --
20 whatever.

21 It's not a clear, easy solution, and it runs the
22 risk of just ruining our well. So anyway, our people are
23 not enthralled with that idea at all.

24 Q. Is it your believe that it would not assure the
25 Yates well as being protected from the water being

1 injected?

2 A. Yeah, I think that's a true statement, that --
3 Well, it would probably help protect it, and nobody's going
4 to guarantee that it would completely protect it.

5 Q. Dr. Boneau, I'm going to ask you to look at these
6 exhibits out of order. Would you please turn to Exhibit
7 Number 13 and 14?

8 A. Yes.

9 Q. Is it your understanding that this comes from the
10 Division's file of this Application?

11 A. It's my understanding, because that's what you
12 told me.

13 Q. This isn't your handwriting on either of these
14 exhibits, is it?

15 A. No, ma'am. As I said, I can read it. It can't
16 be mine.

17 Q. And what does -- both of those notes, if you'd
18 please read that handwriting, what does that handwriting
19 state?

20 A. On Exhibit 13 it seems to say, Possible
21 Bradenhead pressure after injector, and with arrows to our
22 well and to a Chesapeake well.

23 And on Exhibit 14 it says, Possible Bradenhead
24 flow here after injection starts in offset well.

25 Q. What does this indicate to you?

1 A. I would say it indicates that whoever wrote this,
2 at least, was thinking of the same kind of danger that I'm
3 thinking of. That's what it indicates to me.

4 Q. And then I'll ask you to turn back to Exhibit
5 Number 12, Dr. Boneau. Is this a notice affidavit signed
6 by that lawyer person, along with a green card and notice
7 to Mr. Hanagan at Manzano of this Application?

8 A. Yes, that's what it appears to be.

9 Q. And Dr. Boneau, will the granting of this
10 Application be in the best interest of conservation, the
11 prevention of waste, and the protection of correlative
12 rights?

13 A. Yes, ma'am.

14 Q. And were Exhibits 1 through 14 either prepared by
15 you or compiled under your direction and supervision?

16 A. Yes, they were.

17 MS. MUNDS-DRY: We would ask that Yates Exhibits
18 Number 1 through 14 be admitted.

19 EXAMINER CATANACH: Any objection?

20 MR. BRUCE: No objection.

21 EXAMINER CATANACH: Exhibits 1 through 14 are
22 admitted.

23 MS. MUNDS-DRY: That concludes our direct
24 testimony.

25 EXAMINER CATANACH: Mr. Bruce?

CROSS-EXAMINATION

BY MR. BRUCE:

Q. Just a few questions of Dr. Boneau. The normal -- for an administrative application like Manzano filed, the typical notice period is 20 days, is it not, Doctor?

A. Is it 15 or 20?

EXAMINER CATANACH: I believe for SWDs it's 15.

Q. (By Mr. Bruce) Fifteen.

A. I thought it was 15. But anyway, we were less than a month, and it took me a month.

Q. And I think you answered your counsel's question that, you know, you don't dispute that the notice was properly given by Manzano and Manzano did send a notice letter to you?

A. I don't dispute that at all. It is absolutely true, they did just what they were supposed to do.

Q. And just one or two other things. On your Exhibit 1, Doctor, down under item 5, item 5.b, I'm a little confused. Isn't 260,000 p.p.m. -- isn't that the formation water, the San Andres formation water, parts per million?

A. Okay, San Andres water is about 260,000 parts per million. There's a water analysis in the Manzano application that's about 260,000 parts per million. My understanding was that that was the water they were going

1 to inject, and if I'm wrong about that, I'm wrong.

2 MR. BRUCE: I don't have anything else, Mr.
3 Examiner.

4 EXAMINATION

5 BY EXAMINER CATANACH:

6 Q. Okay. Dr. Boneau, the danger to your well is
7 that the San Andres water will reach your wellbore and
8 corrode your casing; is that your concern?

9 A. Yes -- Our casing is sitting there in San Andres
10 water now, or whatever waters are there next to it. The
11 concern is that moving water corrodes the stuff a lot
12 faster than water just sitting there, and so when they
13 inject they'll just start the water moving past our casing,
14 and the water that's going to be moving past it for the
15 first year or something is going to be the indigenous San
16 Andres water, no matter what they inject.

17 But anyway, there's going to be high-salinity
18 water moving past our casing, wearing it away, rather than
19 just it sitting there stewing in water, which is the way it
20 is now.

21 Q. Is it possible if -- once the water reaches your
22 wellbore, it could also flow up your casing annulus in that
23 well? Is that possible?

24 A. Yes, that's possible. If they -- I mean, if the
25 injection increases the pressure enough that there's

1 pressure to push the water up along our casing -- there's
2 no cement behind our 5-1/2-inch casing from 8500 feet to
3 the surface, and if there were pressure down there, that
4 water would move up that annular space.

5 Q. Or down; is that correct? Or down the annulus?

6 A. Well, it could move down the annulus, from the
7 4400-foot injection zone down to the top of the cement at
8 7500 and go into our casing, or it could go into some
9 porous, permeable interval along in there. It could do all
10 those things.

11 Q. You guys are producing out of the Bough B and
12 Bough C, and also the Cisco. Above that Pennsylvanian
13 interval, is there anything that might be potentially
14 productive uphole from there, that might be exposed to
15 this?

16 A. I think the potential of any of those zones
17 producing is very low, in my opinion, is, I think, the best
18 answer I can give you. If we thought there was anything we
19 could produce, we would have cement across it and we would
20 be trying to produce it.

21 Q. So what happens if you do get a hole in your
22 casing from this water? What will Yates have to do?

23 A. Fix the hole. I mean, interrupt production --
24 Well, the hole will interrupt production, the hole will let
25 water come in, and we're suddenly producing lots of San

1 Andres water. So we would just have to pull everything out
2 of the well, set a bridge plug, set a retainer, try to
3 squeeze cement to fix that hole, and hope that we can
4 accomplish all that and then get our well back on
5 production. Sometimes those things go easily, sometimes
6 they turn into nightmares.

7 Q. So it's your opinion that that would endanger
8 your production?

9 A. Yes.

10 Q. Now the San Andres is -- Have you looked at any
11 geology to see whether the San Andres is continuous in this
12 area, that it would extend into your wellbore?

13 A. Enough that it would extend -- our wellbore is so
14 close that I -- it looked enough that it would be
15 continuous over that small distance, yes.

16 EXAMINER CATANACH: Okay, I don't have anything
17 further. This witness may be excused.

18 MIKE HANAGAN,
19 the witness herein, after having been first duly sworn upon
20 his oath, was examined and testified as follows:

21 DIRECT EXAMINATION

22 BY MR. BRUCE:

23 Q. Would you please state your name for the record?

24 A. Mike Hanagan.

25 Q. Where do you reside?

1 A. Roswell, New Mexico.

2 Q. Who do you work for and in what capacity?

3 A. I'm one of the owners of Manzano and I'm also a
4 geologist, but I take care of operations.

5 Q. Okay. Have you previously testified before the
6 Division as a geologist?

7 A. Yes, I have.

8 Q. And were your credentials as an expert petroleum
9 geologist accepted as a matter of record?

10 A. Yes, they were.

11 Q. And were you responsible for filing the SWD
12 application for Manzano?

13 A. Yes, I was.

14 Q. And are you familiar with all matters related to
15 that application, including the geology in this area?

16 A. Yes, I am.

17 MR. BRUCE: Mr. Examiner, I'd tender Mr. Hanagan
18 as an expert petroleum geologist.

19 EXAMINER CATANACH: Any objection?

20 MS. MUNDS-DRY: No objection.

21 EXAMINER CATANACH: Mr. Hanagan is so qualified.

22 Q. (By Mr. Bruce) Before we begin, Mr. Hanagan,
23 maybe we could summarize what -- for the Examiner what
24 Manzano's position is. Item 1 is the notice issue. Is it
25 your contention that Manzano followed the proper notice

1 procedures?

2 A. Yes, I believe we did, and I believe the Division
3 also found that we did in their order.

4 Q. And therefore the saltwater disposal
5 administrative order should be final?

6 A. Yes, that's our position.

7 Q. Has -- Item number 2, has Manzano already
8 incurred costs with respect to the SWD well?

9 A. Yes, we have, we've incurred about \$115,000 of
10 costs so far. The whole project will probably cost us
11 another \$125,000 to \$130,000.

12 Q. Okay. So at this point if the order is revoked,
13 you're kind of sitting out there with incurred costs?

14 A. Yeah, we have some equipment that we have no
15 further use for that's just applicable to a disposal well.

16 Q. And finally, is it also Manzano's position that
17 the saltwater injection does not put Yates' well at any
18 higher risk than it already is?

19 A. Yes, that's -- I don't think it places any
20 additional risk upon it.

21 Q. Okay. Is it your opinion that Yates' well is
22 already at risk due to drilling without cementing across
23 about a 3500-, 4000-foot interval?

24 A. Yeah, I'm surprised that the casing is still
25 intact.

1 Q. Okay. So not only is there no cementing in the
2 injection zone, there is no cementing in other zones also?

3 A. Yes, there's other factors that could impact it.

4 Q. Okay. Let's just run through a couple of your
5 exhibits at this point, Mr. Hanagan. Just briefly, what is
6 Exhibit 1?

7 A. Exhibit 1 is our application, the C-108 for our
8 application for the disposal well that was filed.

9 Q. Okay. With respect to -- let's get into this
10 right now. What is the quality of the San Andres formation
11 water? What is its parts per million?

12 A. The San Andres should be in the 250,000 to
13 260,000 parts per million. Our produced water is in the 35
14 to 135 parts per million -- 135,000, I'm sorry.

15 Q. Okay. So the water that Manzano intends to
16 inject is less dirty, so to speak, than the formation
17 water?

18 A. Yes.

19 Q. Okay.

20 A. And those salinities are shown within the 108, as
21 far as their --

22 Q. Now since Exhibit 1 was filed with the Division,
23 is there any new evidence that you're aware of regarding
24 injection or any wells in the area of review?

25 A. There's been two additional wells drilled within

1 the area of review, the Chesapeake Jordan Number 3 in the
2 southwest quarter of the northwest quarter of Section 12, I
3 believe it is, and we drilled a 4 Pete Sake Number 2, which
4 is in the southeast quarter of the northeast quarter.

5 Q. Okay.

6 A. Both of which have circulated cement on them.

7 Q. Through the injection zone?

8 A. Yeah, to surface on both of those wells.

9 Q. Okay. But that's the only new evidence, there
10 isn't any --

11 A. Yeah, there's only been those two new wells.

12 Q. There's no new technical evidence?

13 A. Not that I'm aware of.

14 Q. Okay. What is Exhibit 2, briefly?

15 A. Exhibit 2 is a copy of the letter we sent with
16 our application to Yates.

17 Q. Okay. Together with a copy of the signed green
18 card --

19 A. Yes.

20 Q. -- showing that they did receive it on January
21 4th, 2006?

22 A. Correct.

23 Q. Mr. Hanagan, I'm going to hand you Yates Exhibit
24 12, which is their notice exhibit. Point out the second
25 paragraph of that notice letter. What does Yates' notice

1 letter state with respect to their Application that we're
2 here for today?

3 A. Yeah, the last sentence of their letter states,
4 quote, Failure to appear at that time and become a party of
5 record will preclude you from challenging the matter at a
6 later date.

7 Q. So would it be your understanding that if Manzano
8 hadn't showed up today and Yates' Application had been
9 granted, Manzano couldn't do anything about that?

10 A. According to what they're saying there.

11 Q. Okay.

12 A. That would be our position too, probably.

13 Q. Let's move on. The Hearing Examiner asked Dr.
14 Boneau about the geology. Could you identify Manzano
15 Exhibit Number 3 and discuss the San Andres in this area?

16 A. Exhibit 3 is a structure map drawn on the marker
17 just below the top of the San Andres formation. This field
18 is located on a structural nose, but it's a pretty subtle
19 nose; those are 10-foot contours. There is San Andres
20 production to the southwest, down in the southwest quarter
21 of 11. The wells that don't have a double circle are San
22 Andres wells. So there's a little bit of San Andres. It's
23 all old, but within -- you know, right in here there's no
24 San Andres production.

25 I prepared this exhibit to show -- to argue the

1 correlative prevention of -- I mean encroachment of
2 correlative rights. Our well is downdip from the Yates
3 well. We have production-tested the Peter Grande in the
4 San Andres formation, in the normal pay in that area, found
5 it to be wet, produced about 8000 barrels of water out of
6 it.

7 So there's -- we feel there's little return -- or
8 little potential for San Andres production in the immediate
9 area. They could probably only benefit as far as
10 additional reserves being pushed up to them by our
11 injection.

12 Q. But there's no current San Andres production in
13 the immediate area?

14 A. No, sir.

15 Q. Which is -- one reason you sought to inject in
16 the San Andres is because you wouldn't damage any existing
17 production?

18 A. Yes.

19 Q. Now you did point out that -- and you have
20 pointed out on there Yates' well and the Manzano injection
21 well, and the production to the southwest. Is there -- I'm
22 handing you Yates Exhibit 9. Are there some -- Is there an
23 injection well down to the southwest?

24 A. Yeah, it's not shown on my map, and I am aware of
25 at least one San Andres injection well within the

1 production to the southwest, somewhere in either the
2 southeast quarter of 10, the southwest quarter of 11, or
3 the north half of one of those sections below it there.

4 Q. Okay.

5 A. But there's at least one San Andres disposal well
6 in that --

7 Q. It's a disposal well, not a pressure-maintenance
8 or a waterflood --

9 A. No --

10 Q. -- project?

11 A. -- to my knowledge, it hasn't been waterflooded.

12 Q. Okay.

13 A. And I can only say, I think that I'm aware of a
14 well down in -- I'm pretty sure that there's one, but I
15 can't tell you exactly which well it is.

16 Q. Okay. Let's move on to your Exhibit 4, and
17 discuss for the Examiner what you intend to represent by
18 this exhibit.

19 A. Exhibit 4 is a map, it's the visual
20 representation of what Dr. Boneau showed as far as the
21 wells within the area, showing basically -- the wells that
22 are shown in green, cement have been brought up to the top
23 or near the top of the San Andres formation. Wells in
24 yellow, the cement was not brought up to the top. Of the
25 two wells that are shown in yellow where cement was not

1 circulated, one well has already been plugged due to casing
2 collapse down near the top of -- just above the top of the
3 -- in between the San Andres and the Abo formation.

4 Q. And that was the Manzano well, right?

5 A. It was a re-entry. Manzano re-entered an old
6 well that was drilled in the 1960s, maybe even the late
7 1950s, and we attempted a Bough completion, and we lost
8 that well due to the casing collapse.

9 Q. Okay. So that well had been sitting there for a
10 number of years, and that preceded any plans for you to
11 inject into the Peter Grande well; is that correct?

12 A. Yes. We've also had another well, that 4 Pete
13 Sake Number 1 down in the southeast -- the southeasternmost
14 well there is -- we had -- it seemed that we circulated
15 cement there, but we actually had a minor casing collapse
16 there, which we've repaired and put back on, but -- What
17 I'm trying to show is, this area has potential problems
18 with -- that need to be protected around the wellbore.

19 Q. Regardless of any injection into the San Andres?

20 A. Yes.

21 Q. Is it your opinion that it should be the
22 operator's obligation to properly drill, case and cement
23 its well to protect against these problems?

24 A. Yeah, I think it is -- I mean, it's apparent, you
25 know, everybody is going to the additional expense of

1 attempting to circulate cement. Yates is doing it on their
2 newer wells. I know what -- Yates was doing just exactly
3 what Dr. Boneau was describing, you know, had a marginal
4 well, but -- and so they wanted to be able to recover the
5 casing if it didn't produce.

6 But since then, everybody has taken the
7 additional -- gone to the additional effort and taken the
8 additional expense to cement. And most of them and -- us
9 and Yates both are running high-collapse casing to protect
10 the wellbores from swelling Abo shales, which is also a
11 problem, so -- We sure feel it's the operator's
12 responsibility to protect their wellbore, to take the steps
13 necessary.

14 Q. So when you said you understood what Yates was
15 doing, are you saying that many operators, when they think
16 they have a well that's not going to be especially
17 productive, or perhaps might even be shortly plugged and
18 abandoned, not to do these cementing across these various
19 zones?

20 A. Yeah, it's a conscious step you take to where you
21 don't spend the money so you can recover the pipe. But
22 it's also the risk you take too.

23 Q. Let's move on to your last exhibit, Exhibit 5.
24 What does that reflect?

25 A. Exhibit 5 is a scanned image of the neutron

1 density log of the Yates well. There's a couple of little
2 gaps in there when I was scanning it in, but this is
3 basically showing the interval of the Yates well that is
4 exposed, i.e., not protected by cement around their casing.
5 And it's kind of color-coded to show the various risks --
6 what the risks are to that wellbore at the present time.

7 Q. Okay, and let's go through this. First of all,
8 in the middle, or toward the top of the exhibit, the blue
9 zone is the San Andres injection interval?

10 A. The blue zone is the improved injection interval.

11 Q. And what do the other colors represent?

12 A. Well, directly above the blue is a purple box.
13 That is the San Andres interval that was production-tested
14 in the Peter Grande well and is present in the Yates well.
15 There's perme- -- our production tests prove there was
16 permeability there, and we had high water cuts. We were
17 making over 200 barrels a day water with only a slight oil
18 cut. So you have San Andres water present already in the
19 wellbore.

20 The green sections that are shown above -- and
21 just about anyplace where you see these little spikes going
22 to the left are little salt sections, and there's at least
23 six or seven of them covering several hundred feet. Those
24 are open salt sections that are adjacent to the wellbore
25 that will sooner or later cause the wellbore casing to

1 collapse, it's going to corrode the casing at one time or
2 another.

3 And then the pink down at the bottom is the Abo
4 shale interval that is exposed above their cement top. The
5 bottom number down there is 7500, and swelling Abo shales
6 have been known to collapse casing in this area and other
7 areas right around here, and both Yates and us are going to
8 -- and other operators, are going to the additional expense
9 of running high-collapse casing to protect from those
10 swelling shales.

11 Q. Okay, so not only do you cement the zone, you use
12 higher grade casing?

13 A. Yes.

14 Q. So even if Manzano wasn't proposing to inject
15 into the San Andres, Yates' well is at risk, even in other
16 zones, the Abo and other zones?

17 A. I believe so.

18 Q. Is it your opinion that the obligation should be
19 on Yates to re-enter its well and cement across the zones,
20 if it feels that its well is at risk?

21 A. Yes, sir, it is.

22 Q. Just one final thing. What is your current
23 saltwater disposal cost if you do not get -- if the
24 approval of the SWD is revoked?

25 A. We're spending over \$40,000 a month right now for

1 saltwater disposal from there, which is over \$2 a barrel.
2 I'm not exactly sure how much it's been, but we've been
3 running over \$40,000 a month for several months now.

4 Q. How would that be reduced, provided you can
5 inject into this well?

6 A. Our cost would go down to under a quarter a
7 barrel, to --

8 Q. So a factor of eight or ten difference?

9 A. Yeah, it would be -- and thus -- that would also,
10 if we continue, as these wells get uneconom- -- get lower
11 in their -- further along in their life, that higher
12 disposal cost is going to reduce the economic life of the
13 wells also. So there would be a loss of --

14 Q. Loss of reserves on your existing producing
15 wells?

16 A. Yes.

17 Q. Were Exhibits 1 through 5 prepared by you or
18 under your supervision?

19 A. Yes, they were.

20 Q. And in your opinion, is the denial of Yates'
21 Application in the interests of conservation and the
22 prevention of waste?

23 A. Yes, I believe it is.

24 MR. BRUCE: Mr. Examiner, I'd move the admission
25 of Manzano Exhibits 1 through 5.

1 EXAMINER CATANACH: Any objection? Exhibits 1
2 through 5 will be admitted.

3 CROSS-EXAMINATION

4 BY MS. MUNDS-DRY:

5 Q. Mr. Hanagan, I only have one or two questions for
6 you. I'm looking at your Exhibit Number 4 --

7 A. Uh-huh.

8 Q. -- and do I understand your testimony, then, the
9 two yellow circles represent the wells that do not have
10 production string cement --

11 A. Yes.

12 Q. -- is that correct? And I believe you also
13 testified that the -- is it the Pistol Pete well? --

14 A. Yes, ma'am.

15 Q. -- has been plugged and abandoned?

16 A. Yes, ma'am.

17 Q. So the only well on this map is the Mescalero
18 Number 1 well that has no cement?

19 A. Well, not the only well on the map, but within
20 the half-mile area of review. In fact, even the -- back
21 over here, the Chesapeake Jordan Number 1, which is just
22 outside of the area of review, does not have cement,
23 although we tried to cement circulate it, we just didn't
24 run enough cement to bring it up all the way --

25 Q. Okay.

1 A. -- and I'm not sure about the wells down to the
2 southwest, as far as how many of them have --

3 Q. Okay. Is it fair to say, though, that the Yates
4 Mescalero well is the closest to the Peter Grande well?

5 A. Yes, uh-huh.

6 Q. When you were considering disposal in the Peter
7 Grande well, and before you filed the application, did you
8 make any efforts to contact Yates --

9 A. Not --

10 Q. -- given the proximity?

11 A. Not prior to our application.

12 Q. Did you contact anyone at Yates, Dr. Boneau or
13 anyone else, to discuss your application after you had
14 filed it?

15 A. Yeah, after it was approved we -- well, Dr.
16 Boneau made the initial contact, and then -- talked with
17 Dr. Boneau and a couple others at Yates since then.

18 Q. And you've been going back and forth, trying to
19 figure out some way to try to resolve this matter?

20 A. Yes.

21 Q. You mentioned that you had purchased some
22 equipment in anticipation of disposing of water in this
23 well. If this order were, in fact, revoked, could Manzano
24 use this equipment at another site, if it was able to
25 identify another well where it could dispose of water?

1 A. We don't have anything -- of course, we're a
2 small operator, we don't have any other disposal wells. We
3 might go hunt for another one to do, but we don't have
4 anything in the books that we could use it on, other than
5 we could probably use the water tanks, but as far as the
6 gunbarrel, the triplex pump and the lined tubing, we don't
7 have a use for it.

8 Q. But there's nothing unique to that equipment to
9 that well site that couldn't be used somewhere else?

10 A. In the disposal application --

11 Q. In a disposal application?

12 A. -- yes.

13 MS. MUNDS-DRY: That's all the questions I have.

14 EXAMINATION

15 BY EXAMINER CATANACH:

16 Q. Okay. Mr. Hanagan, in the subject disposal well
17 are there any other zones, maybe deeper zones, that are
18 potentially -- that you could potentially use for disposal?

19 A. Well, there are zones down within the
20 Pennsylvania, the Bough and -- We didn't get deep enough to
21 get to the Devonian, but we did production-test the Bough
22 B, C and Cisco zones that are producing in all the other
23 wells right there. There's about ten different zones,
24 porosity stringers over a 100-foot interval, that are
25 productive in the -- all the best porosity is opened up and

1 being currently produced, so we could put it back in that,
2 but that would be more of a pressure maintenance type of
3 deal. We didn't approach it from that side. I'm not aware
4 of, other than those zones, a good zone to put it in,
5 within our wellbore.

6 Q. That's a potential. I mean, you could
7 potentially put it in the Bough interval?

8 A. Yes.

9 Q. And your producing -- is that right, your
10 producing wells are in the Bough C?

11 A. Yes, it's an interval -- it's from the Bough B
12 down into the top of the Canyon. It's -- The whole
13 Cisco/Canyon stuff gets a little complicated as to when you
14 get out of the Cisco, but I believe everything is being
15 carried as Bough and Cisco in there.

16 Q. Your -- I'm sorry, the permit that was granted to
17 Manzano, I notice that in one of the paragraphs there it
18 cited commercial injection. Is this, in fact, a
19 commercial-type disposal well?

20 A. I don't believe so. I've seen that somewhere
21 along the way too. Our initial intentions are for our own
22 use. I don't know that we have thrown the idea out of
23 bringing other people's water -- In fact, I've talked with
24 Yates about them bringing their water in there during our
25 talk, but I don't know what would be required to do that.

1 Q. But you didn't ask for it to be a commercial
2 well, did you?

3 A. I don't think so, not that I remember.

4 Q. Okay.

5 A. I'm not opposed to it being granted as one.

6 Q. Do you know who approved this permit?

7 A. No, I don't. All I've seen is Director Fesmire's
8 signature on the order, but I don't even know who it was
9 reviewed by. I didn't receive any questions.

10 Q. So you didn't have any discussions with any of
11 the engineers in the Division?

12 A. No.

13 Q. Mr. Hanagan, given the fact that there are so
14 many risks in this area, not just the San Andres but in the
15 Abo and in the various salt sections, doesn't the presence
16 of your injection kind of make these risks more than they
17 already are?

18 A. I believe it would be hard to argue that we
19 wouldn't be another risk or possibly accelerate the risk,
20 just the whole number of the risks that are there. The
21 point I'm driving at is that it's the operator's
22 responsibility to address those risks, especially when you
23 make the conscious decision to not protect your casing.

24 Q. This isn't an area that's currently under
25 waterflood operations or anything like that, right --

1 A. No.

2 Q. -- as far as you know?

3 A. I don't believe any of the San Andres is and to
4 the south, but -- and that's mostly old stuff.

5 EXAMINER CATANACH: I don't have anything
6 further.

7 Any further questions?

8 MR. BRUCE: I have no further questions.

9 MS. MUNDS-DRY: (Shakes head)

10 EXAMINER CATANACH: Okay, this witness may be
11 excused.

12 Anything further in your case, Ms. --

13 MS. MUNDS-DRY: We have nothing further.

14 EXAMINER CATANACH: -- lawyer person?

15 Okay, there being nothing further, Case 13,707
16 will be taken under advisement.

17 MR. HANAGAN: Thank you.

18 MS. MUNDS-DRY: Thank you, Mr. Examiner.

19 (Thereupon, these proceedings were concluded at
20 9:55 a.m.)

21 * * *

22 I do hereby certify that the foregoing is
23 a complete record of the proceedings in
24 the Examiner hearing of Case No. 13707,
25 heard by me on May 11, 2006.
David R. Catnach, Examiner
Oil Conservation Division

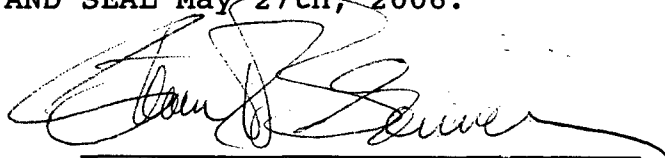
CERTIFICATE OF REPORTER

STATE OF NEW MEXICO)
) ss.
COUNTY OF SANTA FE)

I, Steven T. Brenner, Certified Court Reporter and Notary Public, HEREBY CERTIFY that the foregoing transcript of proceedings before the Oil Conservation Division was reported by me; that I transcribed my notes; and that the foregoing is a true and accurate record of the proceedings.

I FURTHER CERTIFY that I am not a relative or employee of any of the parties or attorneys involved in this matter and that I have no personal interest in the final disposition of this matter.

WITNESS MY HAND AND SEAL May 27th, 2006.



STEVEN T. BRENNER
CCR No. 7

My commission expires: October 16th, 2006