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

ORIGINAL

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

APPLICATION OF DWIGHT A. TIPTON FOR APPROVAL OF A PRESSURE MAINTENANCE PROJECT IN LEA COUNTY, NEW MEXICO — Case 14917

REPORTER'S TRANSCRIPT OF PROCEEDINGS

EXAMINER HEARING

BEFORE: RICHARD EZEANYIM, Presiding Examiner
DAVID K. BROOKS, Legal Examiner

November 29, 2012

Santa Fe, New Mexico

This matter came on for hearing before the New Mexico Oil Conservation Division, RICHARD EZEANYIM, Presiding Examiner, and DAVID K. BROOKS, Legal Examiner, on Thursday, November 29, 2012, at the New Mexico Energy, Minerals and Natural Resources Department, 1220 South St. Francis Drive, Room 102, Santa Fe, New Mexico.

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A P P E A R A N C E S

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EXAMINER EZEANYIM: We will now go back to page 3 and continue the -- I mean page 2. We are back to page 2.

At this point, I call Case Number 14917. This case was continued from November 1. This is the application of Dwight A. Tipton for approval of a pressure maintenance project in Lea County, New Mexico. Call for appearances.

MR. PADILLA: Mr. Examiner, my name is Ernest L. Padilla, for the applicant in this case. I have one witness to be sworn.

EXAMINER EZEANYIM: Any other appearances?

May the witness stand up, state your name and be sworn, please?

MR. MAXEY: My name is John Maxey.

(One witness was sworn.)

MR. PADILLA: Mr. Examiner, this application was originally brought as a saltwater disposal well. But because the disposal interval was the same as the producing interval, we had to change the application from a saltwater disposal to pressure maintenance, in accordance with the OCD's policies, so we will present the pressure maintenance portion of the case.

There have been no objections by any of the

affected interest owners or operators surrounding the injection well. So with that, we'll proceed with our case.

JOHN MAXEY

Having been first duly sworn, testified as follows:

DIRECT EXAMINATION

BY MR. PADILLA:

Q. Mr. Maxey, would you state your name, please?

A. John C. Maxey.

Q. Where do you live?

A. Roswell, New Mexico.

Q. And what do you do for a living?

A. I am a consulting petroleum engineer, and I'm registered in the State of New Mexico.

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

A. Yes, I have.

Q. When was the last time you testified before the OCD?

A. Approximately four years ago.

Q. Would you briefly give us your educational background and work experience to refresh the Examiner's acquaintance with you?

A. I graduated from Oklahoma State University in Petroleum Engineering 1980. I went to work for Chevron USA as a drilling representative. I worked in Chevron's drilling department for approximately two years.

I then went to -- transferred jobs, went to Mesa Petroleum, worked as a drilling representative for about a year and then was moved to the Amarillo Corporate Office, brought into the office as a production engineer. I managed the main continent division, which was Oklahoma, up through the Rockies, all the way to Montana.

From there I went to a small start-up company called Foran Oil Company, which was a predecessor to Matador Resources. It grew from about a $5 million to a $480 million company. That was sold to Tom Brown. And from there, I went to work for Read & Stevens as a petroleum engineer/operations manager. And I worked there for about 15 years and then was made president of the company. I was president for approximately seven years.

And then I went out on my own as a consulting engineer about a year and a half ago, March of two years ago.

Q. Mr. Maxey, have you made a study of the application in terms of pressure maintenance?

A. Yes, I have.

MR. PADILLA: Mr. Examiner, we tender Mr. Maxey as an expert petroleum engineer.

EXAMINER EZEANYIM: Mr. Maxey is so qualified.

Q. (By Mr. Padilla) Mr. Maxey, let's just turn to Exhibit Number 1, and tell us what it is and what it contains.

A. Exhibit Number is -- the first page is the Administrative Application Checklist, and the second page is the C-108 Application for Authority to Inject.

As you stated, this was done administratively, and there was no objection from offset owners. However, they would like to dispose of their produced water into the existing San Andres producing zone. Therefore, it falls under the pressure maintenance -- at least the OCD's guidelines for pressure maintenance.

The C-108 is the application. Attached to that is a map showing the one-mile diameter area of review, which was used for the C-108. The sheet after that is the Injection Well Data Sheet. The actual well that is proposed for injection is the Sunray A Number 1.

Beyond the Injection Well Data Sheet is the attachments to the C-108, answering the questions of the cover sheet for the OCD. And beyond that is the list of wells in the area of review, with the schematics of the

area of wells in the area of review.

Q. Mr. Maxey, in your review or compilation of the various wells, did you find any problems in terms of cement or any of that sort of thing that would affect pressure maintenance?

A. No. It appeared, from my examination of this information, that the cement was across all perforated intervals, and the proposed injection zone has integrity isolation from any other zones in the wellbore.

Q. Can you tell the Examiner, in terms of pressure maintenance, what's being accomplished here insofar as a comparison, say, to saltwater disposal, and the change from saltwater disposal to pressure maintenance?

A. Mr. Examiner, this was originally a saltwater disposal application, and it's brought back under hearing as a pressure maintenance project. It really falls more under a saltwater disposal.

There are six wells in the area of review. Of the six, three are operated by Dwight Tipton, who I represent; three are operated by Legacy. Legacy has no problem with Mr. Tipton's application, as long as he is injecting his produced water from the three wells on lease and not bringing any water off lease.

Basically, I looked at this to see -- in terms

of pressure maintenance, the one thing I can just point out to you is they produce approximately 250 barrels of total fluid a day. Mr. Tipton produces approximately 38 barrels of total fluid a day. He wants to re-inject 30 barrels of fluid a day. So in terms of pressure maintenance, it's not a really big project. It's basically a disposal on lease.

Q. Will there be some point where injection is going to enhance production from the wells?

A. With the 30 barrels a day that Mr. Tipton would like to dispose of, he should be able to build some kind of a bank. And there are three offset wells. Hopefully, they'll see a response in those wells. They'll see some oil production, as well as primarily what he's looking for is economic relief from trucking the water off lease.

Q. How would that affect waste, in terms of having to truck off water?

A. The economics of installing an on-lease disposal will extend the life of the producing wells and provide more primary recovery in the Tipton wells. And any increase in what you could call secondary recovery, based on injection, will add to recovery, preventing waste.

Q. How about the compatibility of the injected

water into the reservoir? Will that have any effect on the production?

A. No.

Q. Same water?

A. Same water.

Q. Let's go on to what we've marked as Exhibit 2, and tell us what that is.

A. Exhibit Number 2, I just wanted to provide you with a locator map to show you where the focus of the discussion is.

This is just a map that was an excerpt of an article done by the Bureau of Mines in New Mexico, showing a northwest shelf sand. There's a platform carbonate play, of which the Lane San Andres is a part.

If you'll notice, the San Andres field is in the northern part of Chaves and Lea Counties, Mr. Examiner. These are fields that are mapped, with better than one million barrels of recovered oil.

The Lane San Andres does not fall in that group. They've produced, out of the six wells, about 400,000. So I placed a dot next to the Flying M San Andres field and labeled that the Lane San Andres. That's the field we're talking about. That's where we're located in the southeast part of the state.

Q. Let's go to Exhibit 3. What is that?

A. Exhibit 3 I've narrowed down to the area of review. The six wells -- six green dots on the map are the producing San Andres wells. I've labeled each of the wells with the operator. Three are Legacy; three are Tipton, operated by Tipton.

This is basically a microcosm of the structure. There's a few things on here. Basically the sub C structures are labeled on each well. The depiction of those contours are very close together, as far as what the contours represent, minus 330 to minus 335 to minus 340, relatively very little structural change over the area of review.

Also labeled on there is a cross-section from A to A prime, and I believe that's the next exhibit. But I wanted you to see that that's from the southwestern-most well in the area of review to the proposed injector in the center to the well on the northernmost-part of the area of review.

Q. So any effect is primarily going to be seen on the four wells west and north of the proposed injector; is that right?

A. That's correct.

Q. Let's go on to Exhibit 4. What is that?

A. Exhibit 4 is the cross-section I just spoke about. This is hung on the top of the San Andres

porosity, so this is a stratigraphic cross-section. And you can see the San Andres porosity that develops right below the black line that the logs were hung on.

The blue boxes are the perforated intervals. One thing of interest that we can discuss a little later is the Legacy Lane B Number 3, the left-most well. It has some additional perforated intervals above the -- my stratigraphic hanger. And this could be the source of the extra water produced from Legacy, but I don't know for sure.

The left-most wells are basically neutron logs, not a lot of quantitative data. And the right-most log is a neutron density, more modern log.

Q. If you'll go to Number 4?

A. Primarily the main pay section is the top of the porosity.

Q. Go to Exhibit 5. What is that?

A. Exhibit 5, Tipton would like to dispose of produced water in the perforated interval in the pay section, which this is the proposed injector well. This is a density-neutron log on the left, a dual laterolog, with a microlog on the right.

I've labeled the proposed injection interval. The current perforations that are open are the upper-most gray box --

EXAMINER EZEANYIM: I'm trying to get at Exhibit Number 5. Hold on. I need to look at it with you.

Okay. I have it now.

A. It's a density neutron log on the left, resistivity on the right. This is the actual proposed injector, which is in the center of the area, the circle, the one-mile-diameter circle.

The upper gray box is the existing perforations which the well produced from. You'll see the arrow from the description box drawn to those.

And then the lowermost, where the arrow goes down to that larger interval, they would like to openhole the wellbore below the current TD and add this interval for disposal.

Q. Anything else on Exhibit 5?

A. I need to back up. I misstated -- this is not the existing proposed. This is a deeper well within the area of review that I had a log on. Excuse me.

The proposed well to inject into needs to be deepened, and this log gives you a look at the section. That's why I presented that.

Q. Exhibit 6, what does that show?

A. Exhibit 6, I divided the production into the Legacy-operated production, which is three wells. And

the next exhibit will be the Tipton production, which is the other three wells in the area of review. So we've got two decline curves, basically.

On the Tipton reserves, you'll notice that they produce approximately eight barrels of oil per day and 219 barrels of water per day. That's 96 percent water cut. This is all from San Andres production. They have accumulated production of 223 barrels of oil from those three wells.

Q. And the --

A. I also projected EURs out to 60 barrels a month, which is two barrels a day. Estimated ultimate recovery is 241,000 barrels of oil from those three wells.

Q. Is this economic, in your opinion?

A. You know, these wells are probably -- I don't know exactly how they're disposing water, but these are very near or beyond an economic limit.

Q. How about Tipton Exhibit 7?

A. Exhibit 7 is the same type of exhibit. It's for the Tipton producing wells. The main difference is they also produce eight barrels of oil a day.

Now, you'll notice on my projection -- I've gone back historically for the projection. On some of the more recent production, you'll notice the well count,

which is the lowermost curve, has dropped off a little bit. And his wells are intermittent because of the economics of his wells. That's one reason he would like to get a disposal.

So utilizing the -- well, those wells have produced an accumulated production of 168,000 barrels of oil. And utilizing this projection, down to 60 barrels a month is an EUR of 186,000 barrels of oil. Tipton's wells produce approximately a 79 percent water cut.

One of the things I wanted to point out was Legacy does not have a problem with Mr. Tipton's application. And just my own opinion is that, number one, if they can get any bump in oil production from injection, they're in favor of that. Number two, they're not too concerned with the eventual water breakthrough if he's injecting 30 barrels of water a day, because that's only 14 percent of what they actually produce now.

So eventually, there will be a breakthrough of fluid into both their wells and his wells. But injecting 14 percent of what they actually produce, a fraction of that breaking through to their wells, they're not going to notice very much. And that's why I don't believe they're here today. I have not talked to them, but Mr. Tipton has.

Q. Anything else on Exhibit 7?

A. No.

Q. Let's go to Exhibit 8. What is that?

A. I ran some economics. Currently it's about $4 a barrel to dispose of produced water for Mr. Tipton. Using about a 50 percent per barrel expense for disposing on lease, at $175,000 investment, based on those projections that I had showed you earlier, with about a 15-year life, the net present value on this project, discounted at 20 percent, is about $3,000.

Basically the rate of return on the project is about 21 percent. It's definitely over a hurdle rate of return. It's a 3.3 to 1 rate of return on investment, and it's paid out over four and a half years.

To me, this is a conservative look, because there's no account for any increase in oil production, based on any banking that's done from injected fluids. So this is basically the economics on getting rid of water on lease.

Q. Mr. Maxey, do you have an opinion as to whether approval of this application would be in the best interest of conservation of oil and gas?

A. Disposing of water on lease is going to prevent waste, extend the life of the reserves, and there will be no impairment of correlative rights. It will also prevent trucking of water up and down the highway.

That's another reason I like the idea.

MR. PADILLA: Mr. Examiner, we offer Exhibits 1 through 8, and I pass the witness.

EXAMINER EZEANYIM: Exhibits 1 through 8 will be admitted.

Do you have any questions?

(Exhibits 1 through 8 were admitted.)

EXAMINER BROOKS: No questions.

EXAMINER EZEANYIM: Okay. Now, let's go back to the original application. What does Tipton really want to do? Do they want to do pressure maintenance, saltwater disposal? What exactly do they want to do?

MR. PADILLA: Originally, it was filed as an application for saltwater disposal. Obviously, with the rules and policies of the OCD, if you're going to inject into the same zone as the producing zone, you have to call it pressure maintenance or -- that's essentially the advice that we had from Mr. Jones.

EXAMINER EZEANYIM: That's where the problem lies. Because at the injection interval, there's a lot of productive wells in that area.

EXAMINATION

BY EXAMINER EZEANYIM:

Q. Let's go back to your area of review in your

Form C-108. Let me also understand your nomenclature on that -- I mean the area of review. Where you have your Sunray A Number 3 and disposal well --

A. Which exhibit is that?

Q. It's Form C-108, where you have the area of review.

Now, when you look at those six wells, which we have looked at on the diagram, three have been -- I mean two have been operated by Dwight Tipton, and the rest is operated by Legacy. Okay.

Now, the injection interval, as I understand it, is --

A. Legacy is mentioned four times. One of those is a plugged well. The Twitty BHF State is a deep well.

Q. Okay. But it's penetrating the injection interval?

A. Yes.

Q. Let's get -- when you say -- let's look at the first well there in the area of review. What does "P" -- I know it's producing oil. P, does that mean producing, or plugged and abandoned?

A. Producing.

Q. So "P" means producing?

A. Yes.

Q. And "T" means temporarily abandoned? The rest

are producing; right? It appears to me that those producing wells are producing from the injection interval?

A. Yes.

Q. Now, Mr. Tipton is not here. I don't know what questions I had for Legacy. Whatever Legacy says is really immaterial.

It depends on what you just narrated, that when you have -- if you want to do a saltwater disposal, you're going to dispose into a producing zone, and that's why this Form C-108. I know you have to go to the BLM.

So I wanted to know what you wanted to do. Do you want to do saltwater disposal, or do you desire a pressure maintenance project, like you are talking about? So what exactly does Mr. Tipton want to do?

MR. PADILLA: I've had this problem, Mr. Examiner, on prior applications, where they have not been considered administratively for saltwater disposal simply because you're disposing into a producing zone. And so that's why we had to change the application to a pressure maintenance application.

It's hard to see a true pressure maintenance project, in the sense that you're drilling various injectors, which is more typical in a pressure maintenance case, and you have a specific pattern.

This well is drilled around a producing well or is surrounded by producing wells. So necessarily, you will have some kind of bump, as testified to by Mr. Maxey, where you do have some effect from injection into a well that's centered in the area of review.

EXAMINER EZEANYIM: Very good. That's a good point. If I look at your injection well, I see you have perforation from 630 to 650, 20 feet there. And then there is disposal below that, the open hole.

If you squeeze out for 630 to 650 and you deposit your saltwater on that open hole, I can send this back for administrative application, because that will notify why you are here now.

Why you are here is because you perforated -- that perforation is where the oil is coming from. That perforation everybody has in their wells, in those producing wells that we just identified.

If I allow you to put water here with that and design it as pressure maintenance, and you are going to have water injections in some of those. Even though Legacy is not here, I don't know what conversation they had with Tipton. I know there is no objection. I don't know whether they were notified. I have no idea.

Whether they were notified or not, we are here to make sure you don't produce saltwater. We want you to

send the saltwater disposal, don't get me wrong. But we don't want you to send it to the wrong formation.

But it could have been easier if you put it in the open hole production of this injection well. If you put that water in the open portion of the injection well, which is dependent on the position of the zone, we wouldn't be here today. We could have approved it administratively.

If you are willing to squeeze off those perforations in this injection well and put the water in the open hole, I don't need to write an order for this case. I can send it back administratively. That's why I'm asking, what are you asking here? Do you really want pressure maintenance?

You want to get rid of this water. And you want to get rid of it in the open hole, so we can approve it administratively. Very simple. Then you squeeze off those perfs in the injection wells so the other wells can produce whatever. I know they are producing eight barrels of oil a day. They are producing something. I don't want to dry them out.

MR. PADILLA: We would have preferred to have the application originally approved administratively as --

EXAMINER EZEANYIM: I would like to do

that.

MR. PADILLA: -- as a saltwater disposal well.

THE WITNESS: I need to make a comment. As I spoke to Mr. Tipton before we got into this, we discussed the value of doing this in the current injection zone and being able to move oil to the offset producers.

If you'll notice on the map, the entire east half -- or east of this row of -- the north/south row of wells, there are no wells over there. This could set up additional drilling on the east side of the section if there's a response to what he's going to do in the existing zone on these other wells.

Secondly, he wanted to have additional zones open, other than just 10 foot. He recognized the fact that based on production, based on the current condition of the reservoir, with 400,000 barrels of oil produced and a bunch of water, that he will initially -- the water will be injected in a vacuum. But at some point, 10 foot intervals was not that great.

If you look at the log, this Exhibit Number 5, and you notice the porosity curve on the density neutron log, his best zone for injection is the current producing zone. You'll notice how tight it gets below the pay

section, all the way down 250 foot that he's proposed. So he's just asking for an additional interval to be approved in the order.

EXAMINER EZEANYIM: I understand what he's asking. But anyway, if you look at that Form C-108, it's pretty clear. That's why Mr. Jones said they had to do -- what are you going to tell me now?

Did you design this pressure maintenance for this design? I know it's tight, when you look at the log. But when he designed that for it to be really a pressure maintenance, if he designed for pressure maintenance, I need to know what I need to do and all kinds of things.

To me, pressure maintenance, I would like to -- it's what I call, you know, waterflood, and design the waterflood that way. Pressure maintenance is just sometimes to help the primary production. Is that what you are trying to do?

Are you trying to convince me that it might entice further development in the area after you see how the water is doing? I'm trying to protect our form and the rule that we don't put water into a productive zone without designing something.

If you are doing a waterflood, that could have been a different issue. But here I think you wanted a

saltwater disposal, and then we need to remand it to hearing or -- I mean when you are told that you can't inject into that perforation, I mean you say it's pressure maintenance, without really thinking harder about whether that's the right thing to do.

I'm not forcing you on what to do, but I'm just telling you that -- you are telling me it's 10 feet. You can drill deeper. I mean the depth is 4,750? You can drill an additional 50 feet and put your water there, because that's also an economic part of it when we go to the economics.

You need to get rid of that water for those producing wells, but I don't want them to be put into a productive zone within those one-half mile -- actually, what I have done by procedural rule is two miles, but not within my area of review.

And before I know it, you are going to be seeing water breakthrough in those producing wells. So I don't understand. Because as you know, the San Andres is almost water now. So if we are getting any production from there, we should not destroy it.

But I want you to dispose of the water when you produce those wells, but I want you to put them in the formation that it's supposed to reside, instead of going to a production interval. You understand what I'm

talking about?

THE WITNESS: I understand. I have no quantitative data. I have no core analysis. I have no special core analysis. And you just made a statement that we don't want to put it in there and destroy the reserves. So I don't know if that's an assumption on your part that that's what this will do, but I don't have that opinion.

I've worked in numerous San Andres fields. I could point to you on this area of review -- I worked in the Tom-Tom, the Tomahawk, the Chaveroo and the Milnsand. In those fields we have disposal wells; disposal, not pressure maintenance. We have disposal wells in the existing zone. And I can point to disposal wells that have -- in the offsets, we've seen 25,000-barrel incremental increases because of the disposal wells.

But I cannot -- this is a tight reservoir, and I cannot inject the amount of volume that I just gave you that's being produced in all those wells. I can't go in one well and expect, in a tight rock like the San Andres, to be able to inject the amount of water required to maintain the pressure, unless I exceed the frack rating.

So you're right. This is a dilemma. What we're trying to do is show an idea that will work. And in the meantime, we're going to improve the economics and

prevent waste, even if we dispose of the produced water in the existing zone. But if we increase recovery in the offset wells, then we've got another option: Potentially even drilling wells.

EXAMINER EZEANYIM: If you're telling me you are going to conduct a pilot project to see how it works out, and then we give you a year or a few months to see, when you start injecting into those perforations, what will happen at the pilot project, then we monitor the pilot project.

But if we approve pressure maintenance without having a pilot project, I don't know what's going to happen. I really don't know what's going to happen. I'm very, very, adamant on this, on them injecting that water into a productive zone.

And one of my main duties is to make sure I protect -- of course, you're right. If you look at the logs, they are tight. Okay, great. They're tight. Again, Mr. Tipton is not here to tell me what it would cost Legacy. Maybe Legacy don't care. Even if they don't care, I will still care, because that's my job.

THE WITNESS: Yes, sir. I understand.

The part that we're struggling with is this has come for an administrative approval, and we were told it needs to go pressure maintenance. Now what I'm

hearing from you is it needs to come as a pilot project.

EXAMINER EZEANYIM: I'm not saying you should do that. If you tell me, "I do need a pilot project," sure. I want you to do a pilot project in that case and monitor what is happening. If you start running that well, do you know what to do?

But when you approve pressure maintenance or a saltwater disposal into a perforated zone that is one mile within six producing wells and there is no monitor to see what's happening -- I'm not telling you to do the pilot project. It's up to you if you want to. But if that is what is before me, I can consider that.

But if you are trying to produce water into the perforated zone in this well, it's a problem for me. What I suggest, if it's not going to be a burden on the operator, is you can squeeze that or even run it into a line, if you can't squeeze it, and then put your water here. Because you need a place to put that water.

You say it's 10 feet on the open hole. I mean drill out and then put the water into the San Andres. You could do that. I mean I don't see any reason why you couldn't do that. You could go to 5,000, and we are going to approve it in one minute. No problem. Then we come back and study. Even if it's one barrel a day, that's why I'm put here, to protect it.

So if you put it in there with that design in the pressure maintenance, I become worried. I mean I don't know all of the story. I need Mr. Tipton here or Legacy here and say, "Well, I don't want it." I don't really care what Legacy says, but I will still do what I'm supposed to do.

But we always give those notices to people to object or not object. Sometimes they don't understand it, and they don't know whether to object or not. Then it becomes our job, under the statutes, to protect the correlative rights.

I'm not saying what you're doing is wrong. Don't get me wrong. I like what you're doing. Don't get me wrong. But I'm asking: Is there any way you can just squeeze that out, put it in the open hole, and then I don't even need to write an order. We approve it administratively. You put your water in San Andres, in the open hole.

Tell me why I should approve those perforations. You've been telling me it's tight. What else can I consider as my finding to be able to approve that you can inject in the perforated interval, as well as the open hole? I'm asking that.

Because if you can inject in the open hole, that would be better. There's no question about that.

There's no production form there. The production from there is deeper. We want to leave them alone and put the water where there is no production.

If I approve this, then I'm going to go against this Form C-108. And I don't know whether you're going to be able to do it. You said the formation is tight. You said that Legacy is not objecting. Legacy doesn't have to object.

THE WITNESS: Are you saying, when you say, "go against the C-108," is that because the checked box for SWD is --

EXAMINER EZEANYIM: No, no, no. The C-108 is one of our most difficult forms. We are going to ask you about implied production above and below the injection interval. Now we're talking about production in the injection interval. We want to look at above and below the injection interval, see how close it is to the injection interval, and see whether we can approve, whether you're doing any waterflood or pressure maintenance or saltwater disposal.

But now the perforation is where -- most of the wells are perforated. Mr. Padilla, you know what I'm talking about. These wells are perforated, and that's where the water is going to go. I don't know, when you put the water in there, what it's going to do to those

eight barrels a day. I don't know. Do you see my concern there?

MR. PADILLA: The only thing I can say is that we're in a Catch 22 here, as far as filing an application for saltwater disposal and then telling -- then we're instructed to file a pressure maintenance, which is -- admittedly, we're creating a fiction for pressure maintenance here, in the sense that -- and I think, based on Mr. Maxey's testimony, that you will have some effect for pressure maintenance, but it's not the normal pressure maintenance cases you would have.

EXAMINER EZEANYIM: Let me say this: If this is pressure maintenance, let's say all the six wells have been operated by Mr. Tipton, and he designed a pressure maintenance project to be able to see how production will improve by maintaining the pressure.

If these have no problem with any water coming there and you want to do this, yeah. I mean we will approve it. Because now it behooves you, as the owner or the operator, to make sure what you are doing is right. Of course, you have to design it the way you want it to -- you know, instead of producing eight barrels a day, maybe you will produce 20 barrels a day after you maintain those pressure.

But that would mean the six wells in that area

of review would have to belong to Tipton, and then you inject water in this well and see how it does with these wells. And then if he thinks that the pressure maintenance isn't running -- like there's breakthrough and running, I mean you stop.

But now we have other operators in that area of review who may not have -- I don't know what was said. Mr. Maxey, you didn't talk to them. The owner talked to them, but he's not here to explain what was said. Even if Legacy is asking me to approve that, technically, I may not approve it, even if they ask me to do it. That's my point.

So you are right in what you say. You are told to do saltwater disposal. All of a sudden, it becomes pressure maintenance. We just don't develop pressure maintenance in a vacuum.

So I mean I like to approve things, but I don't know how we can go ahead.

Q. (By Examiner Ezeanyim) I want you to tell me what I should do. What should happen in this case? Do you think it's really wise to produce water into those perforated intervals? Can you tell me how I can do that?

A. You've asked me what I think you should do. And I think what's presented and with the history of the San Andres, that injection in the interval will not

destroy reserves. As a matter of fact, I believe it will prevent waste.

Q. How will it not? That is the question, how? Tell me why it wouldn't destroy reserves.

A. Because there's been numerous floods up in the San Andres in that area --

Q. I know that.

A. -- and they're successful.

Q. I know that. But I know they are in the area of review of this well. I've looked at my log data. I looked at all those things. I know that. There's a lot of saltwater pressure maintenance in the area. It doesn't remove the fact of what we are trying to talk about here. I understand what you're saying. Yes, there's a lot of them in the San Andres. We approve a lot of saltwater disposal in the San Andres.

A. I've never instituted a full-blown flood until there was something done to see if the idea worked. I've never done that.

EXAMINER EZEANYIM: Mr. Padilla, do you see the point I'm trying to make? From saltwater disposal to pressure maintenance, it's not good for me.

If you have designed this as a pressure maintenance and then come to hearing and then try to say, "This is what I'm doing, this is how I designed my

pressure maintenance," we can look at that. Don't get me wrong. We approve pressure maintenance every day. But I told you, on that scenario, when we approve it.

THE WITNESS: May I ask a question about the regulatory side, trying to figure out a solution?

EXAMINER EZEANYIM: Okay.

THE WITNESS: In a tighter formation, where you cannot inject the volume of water needed for true maintenance of pressure, but in this case, you're not maintaining the pressure, but you're preventing a more severe pressure decline, in a case where you can't maintain a true pressure maintenance because of the reservoir being tight, what is -- on a regulatory basis, how does that need to come to the Commission?

EXAMINER EZEANYIM: Can you repeat the question? Are you saying you want to do pressure maintenance? What do you want to do?

THE WITNESS: I'm asking how this needs to come back to the Commission if Mr. Tipton would like to pursue the option of seeing if water injection into the zone will move water to the offset producers.

EXAMINER EZEANYIM: I understand. He has a right.

THE WITNESS: I'm asking how do we do that on a regulatory basis, which is what we're struggling

with.

EXAMINER EZEANYIM: Let's say I deny this application. He knows. You go to the Commission, take it to the Commission. Maybe you have new evidence that they will have to consider and maybe overrule what I said. Yeah, you have the --

THE WITNESS: There's no other type of -- what you're saying is there's no other type of application to do this in this --

EXAMINER EZEANYIM: No, no. Even if it's denied, I don't know whether you're going to have to go de novo to the Commission.

Can you explain to him how it works?

If we deny this, you can go to the Commission. And then whatever you want to present to them, you present to them.

EXAMINER BROOKS: I think there's some confusion here. Because when you're talking, Mr. Examiner, about going to the Commission, you're talking about appealing from a decision that would be made.

EXAMINER EZEANYIM: Which we haven't made.

EXAMINER. BROOKS: Whereas I think Mr. Maxey probably is talking -- is referring to the agency itself, which would include both the Commission, as an

appellate body, and the Division, as the initial decision maker.

What he's asking is, how do you structure an application that would achieve his objectives, assuming this one is denied? Not so much as a matter of appealing the denial, although that could happen also, but also, what kind of structure of application would you want to see that would enable this applicant to achieve their objectives?

EXAMINER EZEANYIM: You could call it a pressure maintenance project and meet all your notice requirements. If you really want pressure maintenance -- I hope I'm answering your question -- and then bring it forward, you don't have to go to the Commission. You can bring it forward to the Division, because that's where you start. The only way you go to Commission is if we deny something or approve something that you don't like, you go to Commission.

But if you are telling me that really, Mr. Maxey, this is really a pressure maintenance project, we can talk about that. But my intention here is we are trying to approve a saltwater disposal, and all of a sudden, it turns into pressure maintenance project.

THE WITNESS: It has been presented this time as a pressure maintenance project. Pressure will be

maintained to an extent with injection of fluid into the reservoir, and all the offset production is allocated into the battery. So offset production can be monitored for response. So I don't know what else --

EXAMINER EZEANYIM: That's a good point. If we can put a condition there to monitor it -- because you made it clear in your presentation that Mr. Tipton would like to see more development if this works. We don't know if it works. But if it works, fine. I might put it in the scenario there that we monitor it and see what's happening in the other wellbores. Of course, we can do that. Are you asking for that?

THE WITNESS: That would work great. Yes. And if it could be what's done out there now on their well testing, allocated into the battery, I hope it wouldn't be required to go out and put some kind of flow meters, like two-phase flow meters or something that the offset operator does not have.

EXAMINER EZEANYIM: I wouldn't like you to do that, because my intention is not to cost you money. I don't want you to do that. But I think the other kind of monitoring, you could do.

THE WITNESS: Monitoring the wells is part of watching what this injection well is going to do. So that would be welcomed. If you want to put that in the

ruling, I will explain to Mr. Tipton that that's what you needed.

EXAMINER EZEANYIM: In the order. Okay.

Q. (By Examiner Ezeanyim) Your client is not comfortable disposing to the open hole only because there is not enough disposal space?

A. I have done that before, where I've asked for more interval. It's been approved, and we didn't utilize the whole interval.

I've done that before in Delaware sands. Where they're tighter, you tend to plug up because you have trouble with filtering water. And you don't have to come back with an ongoing operation, shut it down because your pressure limited, and come back to the Commission and look for approval of a little additional zone.

That's kind of where Mr. Tipton was going with this. That was one of my first questions, asking him about the additional interval.

Q. He needs that perforated --

A. He would like to get that approved, the open hole.

Q. Yeah. Open hole, no question.

A. As far as just additional disposal interval, if there's any problem in the 10-foot interval -- do you understand where I'm coming from? If you have a 10-foot

disposal zone and you start to become pressure limited and can't clean it up, then you would like additional zone to inject into.

If the OCD approves 10 feet, if he wants two more feet of perforation, he's got to come back for an order. So he's looking for additional zone to inject into, and he's chosen the lower nonproducing part.

EXAMINER EZEANYIM: I get it now.

THE WITNESS: I hope I'm explaining this.

EXAMINER EZEANYIM: You are doing fine. But don't think I'm picking on you.

THE WITNESS: That's what we're here for.

EXAMINER EZEANYIM: I need to protect what I need to protect. That's why we came here today.

THE WITNESS: Would it be fair to say you're going to consider, based on -- I'd like to tell Mr. Tipton that you're going to consider, based on making sure that the offsets are being monitored, is one of the things?

EXAMINER EZEANYIM: Yes.

THE WITNESS: I'll explain that to him. And he'll understand that, because we discussed that.

EXAMINER EZEANYIM: I think I would like to do that. I'm not going to give you a budget to spend a lot of money on those.

THE WITNESS: They're reallocating on each well.

EXAMINER EZEANYIM: You know how they work. We can monitor with that.

Q. (By Mr. Ezeanyim) Now I go to this one. When you use the letter M, are you referring to thousands or millions on this?

A. The M? Three zeros, one thousand.

Q. But you know, sometimes people put --

A. You like to see the zeros?

Q. No. I wanted to make sure that --

A. That's correct.

EXAMINER EZEANYIM: But if you use more, I know you mean million. Some of them use small M and call it thousands. I'm from the old school. I've been to these conventions. When you see M, that M is a thousand. When I see small m, that's a million, unless I see MM.

THE WITNESS: That's all right. I understand.

EXAMINER EZEANYIM: Okay. Do you have any other thing?

MR. PADILLA: The only thing we have is Exhibit 9, which is my affidavit saying that all the offsets operators have been notified. In fact, they've been notified twice, once on the administrative

application, and secondly, with notice of this hearing.

So we would offer Exhibit 9 also.

EXAMINER EZEANYIM: In the interest of conformity, I think I would like to call this application a pressure maintenance, even though it wasn't designed very well. I'm going to call it pressure maintenance and be able to put that monitor in there.

Because if I issue saltwater disposal -- of course, I can still do that. But I want it to be a pressure maintenance project, and let's see what's going to happen in those wells.

Did I say I'm going to approve it? I have to think about it.

So Mr. Maxey, I'm going to consider the information. We have them on the record, and then we'll see what we can do. Our objective is to make sure we do our job under the Oil and Gas Act, regardless of whether anybody objects or not. When I'm asking you questions, I'm not angry at you. I'm not trying to put a burden on you to do a lot of things. So don't get me wrong.

THE WITNESS: Thank you, Mr. Examiner.

EXAMINER EZEANYIM: Do you have anything further?

MR. PADILLA: Nothing else.

EXAMINER EZEANYIM: Okay. At this point,

Case 14917 will be taken under advisement.

* * *

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 14917 heard by me on 11/21/13.

Examiner
Oil Conservation Division

REPORTER'S CERTIFICATE

I, JACQUELINE R. LUJAN, New Mexico CCR #91, DO HEREBY CERTIFY that on November 29, 2012, proceedings in the above captioned case were taken before me and that I did report in stenographic shorthand the proceedings set forth herein, and the foregoing pages are a true and correct transcription to the best of my ability.

I FURTHER CERTIFY that I am neither employed by nor related to nor contracted with any of the parties or attorneys in this case and that I have no interest whatsoever in the final disposition of this case in any court.

WITNESS MY HAND this 11th day of December, 2012.

Jacqueline R. Lujan, CCR #91
Expires: 12/31/2012