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:

ORIGINAL

APPLICATION OF JUDAH OIL, LLC, FOR APPROVAL OF A COMMERCIAL SALT WATER DISPOSAL WELL, EDDY COUNTY, NEW MEXICO

CASE NO: 14364

REPORTER'S TRANSCRIPT OF PROCEEDINGS
EXAMINER HEARING

BEFORE: RICHARD EZEANYIM, Presiding Examiner
DAVID K. BROOKS, Legal Examiner
TERRY G. WARNELL, Technical Examiner

September 17, 2009

Santa Fe, New Mexico

This matter came on for hearing before the New Mexico Oil Conservation Division, RICHARD EZEANYIM, Presiding Examiner; DAVID K. BROOKS, Legal Examiner; and TERRY G. WARNELL, Technical Examiner, on Thursday, September 17, 2009, at the New Mexico Energy, Minerals and Natural Resources Department, 1220 South St. Francis Drive, Room 102, Santa Fe, New Mexico.

REPORTED BY: Jacqueline R. Lujan, CCR #91
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A P P E A R A N C E S

FOR THE APPLICANT:

MICHAEL FELDEWERT, ESQ.
HOLLAND & HART
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Santa Fe, New Mexico 87501

E X H I B I T S

MR. EZEANYIM: We call Case Number 14364. This is the application of Judah Oil, LLC, for approval of a commercial salt water disposal, Eddy County, New Mexico. Call for appearances.

MR. FELDEWERT: May it please the Examiner, Michael Feldewert from the Santa Fe office of Holland & Hart on behalf of the applicant. I have two witnesses here.

MR. EZEANYIM: Any other appearances? Before we continue this case, I need to submit two letters into the record. The first letter came from Scott Branson, opposing the application. The second letter is from the state land office supporting the application. So I wanted to admit these documents into the record so that we have this information.

MR. FELDEWERT: Mr. Examiner, we're thinking on the same line, because I have both of those marked as exhibits.

MR. EZEANYIM: Stand up, state your names and be sworn, please.

MR. CAMPANELLA: James Blaise Campanella.

MR. SCOTT: George L. Scott III.

(The witnesses were sworn.)

JAMES CAMPANELLA

Having been first duly sworn, testified as follows:

DIRECT EXAMINATION

BY MR. FELDEWERT:

Q. Please state your full name for the record.

A. James Blaise Campanella.

Q. What is your position with Judah Oil, LLC?

A. Manager/operator.

Q. And are you familiar with the application that was filed in this case?

A. I am.

Q. And is Exhibit Number 1 a copy of the C-108 application that was filed on behalf of the company by Mr. Prichard?

A. Yes, it is.

Q. Would you just briefly outline for the Examiner what Judah Oil seeks under this application?

A. We are looking to convert our MWJ State Number 1Y well, oil well, to a commercial disposal well.

Q. Where is that well located?

A. It's located in Unit N, Section 30, Township 24 South, Range 29 East.

Q. If I look in Exhibit B to your application, which we've marked as Exhibit Number 1, does that show your proposed disposal well?

A. Yes, it does.

Q. MWJ State 1Y well?

A. That's correct.
Q. What's the current status of that well?
A. It is a producing oil well.
Q. Is it located on fee acreage or state?
A. State land.
Q. And how many barrels of produced water do you seek authority to inject?
A. Approximately up to 4,000 a day, average, 3,000.
Q. What do you expect your maximum pressure to be?
A. Maximum pressure would be 726 pounds.
Q. And what formation do you propose to dispose into?
A. Delaware formation.
Q. What's your perforation range?
A. From 36 through 4,975.
Q. Now, does Exhibit G to your application, which we've marked as Exhibit 1, does it identify the parties that received a copy of your application?
A. Yes, it does.
Q. That would be the second page, the page after Exhibit G; is that right?
A. That's correct.
Q. It shows that you notified the state land

office?

A. Yes, I did.

Q. It looks like notice was provided to a surface lessee?

A. It was.

Q. Then you provided notice to a number of companies. Are they the operators within a half mile of your proposed disposal well?

A. They operate within a mile radius of my proposed well.

Q. And is Exhibit Number 2 -- does that contain a copy of the certified return receipts indicating that all of these parties received a copy of your application?

A. Yes, it does.

Q. Who's the nearest operator to your proposed injection well?

A. Nearburg.

Q. Is Exhibit Number 3 a copy of a letter from Nearburg indicating that they did not oppose your application?

A. Yes, it is.

Q. As the Examiner just noted, is Exhibit Number 4 a copy of a letter from the state land office indicating it does not oppose your application?

A. Yes.

Q. Why was this case set for hearing?

A. The land lessee from the State of New Mexico, Scott Branson, filed a protest.

Q. He's a grazing lessee?

A. Yes.

Q. Have you had discussions with Mr. Branson about his concerns?

A. Yes, I have.

Q. Where do you understand things stand today?

A. He has sent a letter to the OCD by mail and also email, which we should have already received, that he's withdrawing his protest.

Q. So you talked to him and addressed his concerns?

A. Yes.

MR. EZEANYIM: How long ago was that letter? Did it come in the mail?

THE WITNESS: He mailed it. It's going to be here -- he probably mailed it Monday or Tuesday --

MR. EZEANYIM: To the OCD?

THE WITNESS: -- and we haven't received it yet. So I asked him to email it to Michael's email so we would have it, so it's probably there. But we have got the issue addressed.

MR. EZEANYIM: Okay. Good.

Q. (By Mr. Feldewert) So he's not here today. You've talked with him and you understand that you've addressed his concerns?

A. Yes.

Q. Is Exhibit 5 an affidavit of publication in the Artesia News of this hearing?

A. Yes, it is.

Q. Has Judah Oil brought a geologist to this hearing to address whatever questions the Examiner may have about this application?

A. Yes.

MR. FELDEWERT: Mr. Examiner, at this time I would move the admission of Exhibits 1 through 5.

MR. EZEANYIM: Exhibits 1 through 5 will be admitted.

(Exhibits 1 through 5 were admitted.)

MR. FELDEWERT: I have no further questions of this witness.

MR. EZEANYIM: Very good. Mr. Brooks?

MR. BROOKS: Looking at -- where was your list of the people who have been notified? I was looking at it a minute ago. It's in the C-108.

MR. FELDEWERT: It's the page, Mr. Examiner, right between the two exhibits -- third to the last page.

MR. BROOKS: Of the C-108?

MR. FELDEWERT: Yes. Which has been marked Exhibit 1.

MR. BROOKS: Okay.

EXAMINATION

BY MR. BROOKS:

Q. On Exhibit B to the C-108, the inner circle there is the area of review; right?

A. That's correct.

Q. Where do these various companies -- where is their operation?

A. Nearburg is the operator of the Ruby well within the half-mile radius to the east of the MWJ wellbore. They also operate the Amethyst, which is in Section 32, and they also operate -- those are the two wells that Nearburg operates.

Q. Okay. They operate the well in the east half of 30?

A. That's correct.

Q. Go ahead.

A. And Judah Oil -- I operate -- actually operates the McKee well, which is in Section 25. NGX -- we have actually taken over operations from NGX.

Q. So NGX was notified because they formerly operated the McKee well?

A. That's correct. And Primero should be -- Primero operates the Milano State in Section 36 and the Queen Lake State.

Q. Part of that area is within the area of review up there in the northeast quarter?

A. That's correct. Murchinson operates the north half of Section 30.

Q. You included the BLM on your list. Is there some unleased acreage in there?

A. There's some acreage that offsets the MWJ between the McKee and the MWJ. The BLM operates that lease.

Q. That's unleased?

A. That's federal. It, actually, I believe, is leased. To be honest with you, I don't know who has that lease, but it's BLM land.

Q. Normally the person that should be notified would be the lessee if it's not operated. But the McKee well there, that's -- you identified the operator of that; right?

A. Right. I believe that Nearburg actually operates that federal land. We have the quarter section in between.

MR. BROOKS: Thank you. That's all I have.

MR. WARNELL: No questions.

MR. EZEANYIM: I think Mr. Campanella is -- we are going to qualify him for the record as a fact witness; is that correct?

MR. FELDEWERT: As a fact witness, yes.

MR. EZEANYIM: Is that technical or fact?

MR. FELDEWERT: Fact, yes.

MR. EZEANYIM: For the record, because we didn't do it at the beginning -- I want to make it for the record that he's a fact witness for our purposes. Be that as it may, the next witness is an engineer?

MR. FELDEWERT: We have a geologist.

MR. EZEANYIM: I can ask Mr. Campanella about the -- if he knows about -- if there's any production within the area. This is a commercial salt water disposal going to be from 36 to 4,975. Is there any production within a half mile, two miles, of this interval that we're going to dispose this salt water?

MR. FELDEWERT: Let me step back. The geologist is going to address the zone, itself. In terms of whether there's any production within a half mile or a mile, I'm assuming Mr. --

THE WITNESS: Not in these zones that we're looking at, except for the area that the geologist will discuss that the well is currently producing out of.

MR. EZEANYIM: Okay. I think I'll reserve some of those questions for the geologist. You may step down.

Call your next witness.

MR. FELDEWERT: We call George Scott.

GEORGE L. SCOTT III

Having been first duly sworn, testified as follows:

DIRECT EXAMINATION

BY MR. FELDEWERT:

Q. Mr. Scott, why don't you give us your full name for the record?

A. George L. Scott III.

Q. What is your relationship with Judah Oil?

A. Consulting geologist to Judah Oil.

Q. Have you previously testified before the Division?

A. Yes.

Q. Have you previously testified before Mr. Ezeanyim?

A. No, I have not had the pleasure.

Q. Why don't you briefly outline your educational background?

A. I have a Bachelor of Science from New Mexico Tech in geology. During that time I worked at the Petroleum Recovery Research Center, also, at the Bureau

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of Mines, had an academic minor in petroleum engineering. Then I worked for a couple of years, including work for Mack Chase, which was about 30 years ago. And then I went to school at the University of Texas, at Austin, and I had two and a half years of graduate-level study in petroleum engineering, in geology and geophysics. Then I resumed working in southeast New Mexico, and today have about 33 years of experience working in the Permian Basin.

Q. Are you familiar with the application filed in this case?

A. Yes, I am.

Q. Have you conducted a study of the area that is the subject of this application? Particularly, the interval which they propose to inject.

A. Yes.

MR. FELDEWERT: I would tender Mr. Scott as an expert witness in petroleum geology.

MR. EZEANYIM: Mr. Scott is so qualified. However, the only mistake you made was to go to the University of Texas.

THE WITNESS: This is true. I should have gone to OU.

MR. EZEANYIM: You should have gone to Texas A&M. I'm sorry. Go ahead.

Q. (By Mr. Feldewert) Now, Exhibit Number 1, which is the C-108 application, contains data on the salt water disposal well; correct?

A. Yes.

Q. Have you examined that data?

A. Yes.

Q. Is this a good candidate for a commercial disposal well?

A. Yes.

Q. Just briefly outline why that is.

A. The wellbore is presently commercially non-productive.

Q. Let me stop you there. It's producing but it's not commercially productive?

A. Correct. It's producing but not in commercial quantities. The well is stratigraphically very favorable for injection of water, running water, in the Delaware formation. Whereas there will be some additional perforations required, the well is partially perforated in the bottom of the hole.

Q. Is this going to be an open system?

A. This will be an open system with anticipated average injection of 3,000 barrels of water per day.

Q. Your proposed anticipated injection pressure, is that going to be by gravity, or --

A. We anticipate -- and this is partly by comparison to another well that is in the area -- average injection pressure of about 250 psi, with a maximum pressure of 726 psi, to answer your question. Initially, we might be able to gravity feed, but once we start putting a significant quantify of water in, we'll be at about 250 psi as anticipated pressure.

Q. Is Exhibit 6 a better copy of the area of review?

A. Yes.

Q. Why don't you take a look at that and just identify for the Examiner how many wells within the area of review actually penetrate the proposed injection zone.

A. There are two wells that actually penetrate within the half-mile radius. In addition to that, we have three wells that are fresh water wells within that radius. Actually, maybe two, but one is right on the half-mile circle.

Q. What are the two wells that -- well, one of them is the proprosed injection well?

A. Yes.

Q. What's the other well that penetrates the --

A. The Ruby 30 State Com. Number 1, and it's represented -- the wellbore diagrams are represented in Exhibit C, I believe -- yes -- of the C-108 application.

Q. The second page of Exhibit C?
A. Yes.
Q. Is that the one that is operateed by Nearburg?
A. Yes.
Q. Does the casing in this well support the approval of this application?
A. Yes. We've got production string of seven inch with cement over the entire interval that we would be injecting into in the proposed MWJ well.
Q. In terms of the -- I know this is a commercial well, which makes it somewhat difficult, but what are the possible sources of the water that's likely to be disposed of?
A. It would be principally Delaware -- produced oil from the Delaware formation, from the Bone Spring formation, and to a lesser degree, water produced from the Pennsylvania and, principally, the Morrow formation, from the Pennsylvania.
Q. Does the application contain data on these water sources in Exhibits D and E?
A. Yes, it does.
Q. Let's get to the area we want to focus on here. Have you examined whether the zones in which Judah Oil proposes to inject are productive of oil and gas?
A. Yes. Can we refer to Exhibit 8 at this point?

Q. Pull out this big one?

A. Yes.

Q. Why don't you orient the Examiner?

A. Okay. Exhibit 8 is a west to east subsurface cross-section. The well in the middle is the proposed salt water disposal well, the Judah Oil, LLC, well. And present for this well we have -- of course, the curve to the left is the gamma ray curve. In the middle are the compensated neutron and formation density compensated curves, the porosity curves.

On the right side we have the dual resistivity curves, and then on the column on the right side, where it shows "WS", meaning water saturation, we have calculated water saturation values beginning at 3,700 feet and then down all the way to near the bottom of the wellbore. And these show that all -- and let me add, the perforations in the bottom of the hole in red are present, existing perforations.

MR. EZEANYIM: Red? Where is red? Okay. Down here?

THE WITNESS: Yes, sir. So the bottom perforations are the existing perforations. In yellow are shown the intervals that will be perforated pursuant to the proposed conversion of this into a salt water disposal.

Q. (By Mr. Feldewert) Let me stop you right there. Mr. Ezeanyim suffers from the same issue that one of my partners does, that is color blind. I will keep that in mind in the future. I apologize.

So what we have here, Mr. Scott, is in your middle column on the left-hand side, we have a series of rectangles that you've drawn?

A. Yes, sir. In the bottom, little holes are drawn into the bottom rectangles. That's specifically below from about 48 -- approximately 4,880 to 4,970, approximately.

Q. And your rectangles, which on the exhibit are colored in yellow, show up in the middle column. They stand from your bottom perfs up.

A. Yes.

Q. And roughly corresponding with them is a percentage that shows --

A. -- water saturations. And these water saturation calculations show very clearly that all of the zones are water productive. In addition -- and this is based on my review of the mud log data and all of the other available well data in this area, and this includes the wells that are productive over in Section 36 and 25 to the west and southwest, which I was involved in the company that drilled those wells -- there are no mud log

shows above -- you know, in this interval, in this area, there are no hydrocarbon shows. There's no shows of significant economic potential. You have to get up to about 3,300 feet in this area to have a potential gas zone, and then the only exception is the existing perforations in this Judah Oil well, which are presently noncommercial, and that is from the Delaware, from the Brushy Canyon Delaware.

Q. Let me ask you this while we're on those perforations. Was this well subject to any kind of a stimulation effort prior to the decision to --

A. Yes. These perforations had a small frac treatment pumped into them.

Q. Did it have any success?

A. The well was, basically, still non-commercial. It enhanced the production slightly from a few barrels to a few more barrels of oil a day, but it was still non-commercial.

Q. Anything else important about this exhibit?

A. Well, you can also see on this map -- it's shown on your Exhibit 6, as well -- the presence of the fresh water wells. And, of course, I'm jumping ahead of myself.

Q. Before we get to those, let me ask you this: What conlusions have you drawn about the use of this

interval for a disposal well?

A. Well, the proposed interval?

Q. Yes.

A. It will -- there's a well about two miles east of us. Pogo put a disposal well in. It's a closed-loop system. But they are producing into the equivalent -- the stratigraphically equivalent upper part of our zone. So approximately from 3,700 to about 4,100 is what Pogo produces two miles to the east in this same stratigraphic section.

Q. I don't think we necessarily need to get it out in the open, but is Exhibit 9 the sundry notice, along with -- what do you call this thing?

A. That's the porosity log showing the perforations that they disposed into.

Q. So the identity of the well that you're talking about is identified in Exhibit 9?

A. Yes, sir.

Q. Is this a good candidate for a disposal -- is this zone a good candidate for a disposal well?

A. Yes. By comparison to the Pogo well, we actually have a thicker stratigraphic interval, so it would be a very good disposal candidate.

Q. Let's move on to --

MR. EZEANYIM: Before you move on, let me

understand this, because this is good. How do you calculate your water saturation?

THE WITNESS: Basically, I do a modified Archie's equation. I used a water resistivity of .04, which is --

MR. EZEANYIM: From the log; right?

THE WITNESS: Yes, sir. But the RW value that we used was based on taking produced waters from this specific area and having them measured, and then I would take the deep resistivity curve to get an RT value, and then RW value of RT and square root of, divide it by the porosity.

Now, I did not do any invasion corrections for resistivity like I would have done, because there was no microlog available to a tornado chart correction. So I just used -- I took for RT the deep curve measurement.

MR. EZEANYIM: Is that why you called it modified Archie's equation?

THE WITNESS: Yes, sir. Modified, because I didn't do what would typically be an invasion -- an RT corrected for invasion, yes, sir.

MR. EZEANYIM: If your calculations are correct, looking at those SWUs, the Nearburg well is in the area of review?

THE WITNESS: I'm sorry?

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MR. EZEANYIM: Nearburg. There is a well belonging to Nearburg that is producing?

THE WITNESS: Yes, sir. And that is the well to the right on this cross-section, and it is structurally just a few feet -- I'm sorry. I should have mentioned there's a structural datum, a minus 1,800 foot structural datum, that these wells are hung on, and then the statigraphic shale markers are indicated to show stratigraphic correlations. So the Nearburg well is very fairly close to the east, about a quarter mile to the east.

And being that it was structurally not that much lower, at the time I was doing the cross-section, I compared the water saturation values and they were comparable. So I made the focus be about the Judah SWD well. But the water saturation values in the Nearburg well were actually a little bit higher water saturations than -- slightly higher than our well here, and that would make sense because they're a little bit lower structurally.

MR. EZEANYIM: Okay. Go ahead.

Q. (By Mr. Feldewert) Then I want to focus back here on Exhibit Number 6, which is your color map of the area of review, and it shows some of the water wells in the area. Have you reviewed the groundwater hydrology in

the vicinity?

A. Yes.

Q. And you pointed out -- you showed two, maybe three, water wells within the area of review. What conclusions have you reached about the water source in this area?

A. Exhibit F in the C-108 shows fresh water analyses, but water in this area occurs in the luvium field from depths of about 120 to about 350 feet. Then from -- if you look at the -- in our C-108, if you look at the wellbore diagrams for both our well and, of course, for the -- well, for our well -- we've got three strings of casing covering the fresh water zones. We have 13 and three-eighths string down to 429 feet with cement circulated to the surface. We have eight and five-eighths casing set to 2,710 feet, also with cement circulated. Then we have the production string of four-and-a-half-inch pipe, and it doesn't have the cement circulated to the surface, but -- the fresh water zones are very well protected by three strings of pipe, and two of which have cement behind pipe.

Q. Now, does Exhibit F contain water samples from these nearby water wells?

A. Yes.

Q. Last question. Have you found any evidence of

any open faults or any other hydrologic connections between your proposed injection interval and any underground source of drinking water?

A. No.

Q. Is there a particular feature out here that gives you confidence that this disposal operation is not going to pose a threat to groundwater?

A. Stratigraphically between the zones and the Delaware that we will be -- that the MWJ will be producing -- injecting the water into, there are hundreds of feet of anhydride and dolomitic anhydride, very dense, no porosity, between our Delaware formation and the shallow fresh water zones. So you have, basically, very, very thick evaporitic minerals, very thick in terms of anhydrides, the dolomites, even some salts, that would not fracture or propagate a fracture or allow any kind of communication of fluids upwards into the fresh water.

Q. In your opinion, will the approval of this application be in the best interest of conservation and production in the area?

A. Yes. It would allow -- it would potentially allow more wells to be drilled in the area where production would otherwise be commercially boarderline. Because with having a closed disposal well versus having to truck your water off, the economic savings would lead

to more development under state leases.

MR. FELDEWERT: Mr. Examiner, at this point I would move the admission into evidence of Exhibits 6 through 9.

MR. EZEANYIM: Exhibits 6 through 9 will be admitted.

(Exhibits 6 through 9 were admitted.)

MR. FELDEWERT: I have no further questions of this witness.

MR. EZEANYIM: Any questions?

MR. BROOKS: No questions.

MR. EZEANYIM: Any questions?

EXAMINATION

BY MR. WARNELL:

Q. I have a question about your logs here. I hate to get that back out.

On the upper perfs there -- and the question was just above 4,900.

A. Yes, sir.

Q. Is that gas or oil?

A. It was oil. A little bit of casing had gas but a very small amount, not enough to sell, and, principally, water.

Q. Doesn't that look more like a gas profile?

A. On the Judah well?

Q. Yes.

A. Yes. Except these are old Dresser logs, and the old Dresser logs were very -- they were very much enhanced. You got a lot more crossover, pseudo gas effect, due to the fact that it was just a Dresser log. For instance, if you look over at the Schlumberger log to your east for the same section up and down the hole -- for instance, I would point out at 3,870 to 3,890, you know, there appears to be a gas effect there, yet the zone calculates 93 percent water saturation.

Now, if you move over to the east in the Nearburg well that is a Schlumberger log, there's no gas effect at all anywhere. And you see this in this Dresser log in quite a few places, what I would call pseudo gas effect. But when you look at the corresponding Schlumberger log that is very nearby, obviously the same beds are present, no gas effect. That's the difference between the old Dresser logs and the Schlumberger logs.

Q. Well, one may have been run on a limestone matrix and one on a sandstone.

A. Yes, but they're both limestone matrices.

Q. They are both?

A. Yes, sir. In this part of the country it would be very unusual to do anything but limestone matrix. It's something I kind of routinely will check

anyway, but they're both limestone matrices. The difference is the old Dresser logs were quite a bit more enhanced. I used to principally be a log analyst consultant for a lot of companies, including Mesa, and we virtually did not run a Dresser atlas in a Wildcat well, only if it was an infield well, because it was well known that it was going to generate a pseudo gas effect and it would optimize your porosities. You know, your true porosities were not reflected very well with those logs.

Q. Let's go uphole in that same well, up around 3,700 there. I think that's your last set of proposed perfs for the injection well?

A. Yes, sir.

Q. When I glanced at this the first time, I thought that looked like hydrocarbon to me, and, in fact, it looked like gas. You probably didn't use the same argument; right?

A. Yes. For one thing, there was no mud log shows. Secondly, it calculates 90 percent water saturation. And third, if you move over and look at the well to the east, the Nearburg Ruby 30 State Com. Number 1 well, at exactly 3,725, that is exactly correlative sandstone bed. There the zone looks shaley, because the Schlumberger log accurately reflects that there is no gas effect, so it's purely due to the Dresser log.

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And we actually drilled some wells back in the '80s, and we would run Dresser and Schlumberger in the same hole, kind of have a log run-off, and then we'd go in and cut cores sometimes, and it was generally found that Schlumberger was very accurate and the old Dresser logs were optimized.

Q. I agree with that 100 percent. I hadn't noticed the caliper. There's a bit of a wash-out there.

A. Yes, sir, but not so much that it would alter the density neutron from compensating, because you're at -- what is that -- 11 inches.

Q. My concern is that there's a lot of perforations and a lot of depth in that well.

A. Yes, sir.

Q. Are you going to be injecting into a producer, the zone --

MR. CAMPANELLA: Would you like me to make a quick statement?

MR. EZEANYIM: No. You will be re-called if that's necessary. Let them finish.

A. Was there a specific question?

Q. (By Mr. Warnell) Yeah. It just makes me a little uneasy that we're going to open up all those perforations and inject water into something that may be a potential producer.

A. I've drilled the wells to the southwest and actually re-entered the well in 25 to the west. In the well on the west, there were no mud log shows from, you know, 40 -- from 4,600 up, there was no shows at all. This particular section that we've got proposed to perforate, it's present over this area, but it calculates to be water productive in the entire area, and there's no production from it within miles. This section is fairly laterally continuous, so we don't really find production until you get up into the -- you know, at about 3,300 you have a potential gas zone, but nothing correlative with this as part of the Delaware section.

MR. WARNELL: Okay. That's all I have. Thank you.

MR. BROOKS: Nothing.

MR. EZEANYIM: This case could not have come to hearing if you had gotten that letter before the hearing. Because I think this case came to hearing because of that objection from Mr. Scott Branson; right?

MR. FELDEWERT: Correct.

MR. EZEANYIM: But we are going to get that letter anyway.

MR. FELDEWERT: Mr. Branson filed -- a grazing lessee -- filed an objection, and that, to my knowledge, was what caused it to go to hearing before the

Division, which caused my client to bring everybody up to Santa Fe, which is fine, but it would have been nice to have avoided that cost. So I hope that answers your question.

MR. EZEANYIM: Yes. That's, basically, what I was saying. Well, they're here now. We have to ask questions.

EXAMINATION

BY MR. EZEANYIM:

Q. What Terry was asking you about those wells, when I look at that injection well, there is one producing well by Nearburg, and we're talking about using this, and you said -- is this produced from the cement level?

A. No, sir. It's producing from the deeper Bone Spring formation.

Q. So deeper than 975?

A. Yes, sir. Like 6,600 feet.

Q. That is a Nearburg well?

A. Yes, sir.

Q. This well, who owned the well initially, the one you're going to be converting to salt water disposal? Who owned it before?

A. Judah owns it. Acutally, my company owned it many years ago, and Judah took the well over.

Q. Who is your company?

A. My company was Energex Company, or NGX Company. But we couldn't produce it commercially, and Judah Oil took it over and operated it, because sometimes a one-man operation can run a well more economically.

Q. When you owned it, did it produce anything at all?

A. Actually, it was perforated in the Bone Spring at the time, and it just -- the well was loaded up with fluid, so we never sold hydrocarbons off the wellbore.

Q. So the Bone Spring is deeper than the zone you're injecting; right?

A. Yes, sir. It's about 1,000 feet deeper.

Q. Now, for commercial salt water disposal, the waters will be coming from the Delaware, the Bone Spring, the Mesaverde and the Morrow?

A. Yes, sir.

Q. Did you conduct any water analyses on those?

A. We had some water analyses that I believe was going to be -- that it just got sent in today to Mike.

THE WITNESS: Were you going to provide that?

MR. FELDEWERT: Mr. Examiner, we have within the application the water analyses. We actually have two types of information on the potential sources of

produced water. Now, of course, we're dealing with a commercial well, which makes it difficult to project where the water may come from. But you'll see on Exhibit D they provided information from a Website on the TDS, chlorides, potential water. Exhibit E is water analysis of the Delaware, primarily because they could not get TDS information off the initial Website. So there is information in here of the water that they project will go into this disposal well.

MR. EZEANYIM: Because potentially you could be receiving water from those four formations.

MR. FELDEWERT: Potentially. Probably the most -- I don't know what the most likely source is.

MR. EZEANYIM: Does anyone know the most likely source?

THE WITNESS: The Delaware formation would be the most prolific source, sir.

MR. FELDEWERT: And the water analysis was provided for the Delaware.

MR. EZEANYIM: But not for the rest of the three?

MR. FELDEWERT: The other three have the information from the state Website on the general quality of the water.

Q. (By Mr. Ezeanyim) You talked about injecting

at 250. Are you going to be injecting by gravity?

A. Initially -- it would probably take by gravity initially. But once any volume is -- once -- for instance, my analogy to the Pogo well two miles to the east, I believe they were injecting at about 250 psi about 2,000 barrels of fluid a day. So I would say, you know, we've got our maximum limit that we're applying for, but we would hope to be about -- to put 2 or 3,000 barrels a day down at pressure rates of 3 to 400 psi, what we're hoping for.

Q. And the injection well, this injection well you are going to convert, I have the schematic on the C-108?

A. Yes.

Q. Fresh water, there is no harm to the fresh water?

A. No fresh water, sir.

Q. No open faults?

A. No, there are no faults.

Q. Especially when you're looking at commercial well disposal.

A. Um-hum.

MR. EZEANYIM: No further questions.

MR. FELDEWERT: I have two things. One, I need to point out for the record, I just realized there

is no Exhibit 7, so I want the record to reflect that, so you don't think you're missing it. When we got to labeling the exhibits there was a mistake made. We don't have an Exhibit 7.

MR. EZEANYIM: No Exhibit 7. So Exhibits 6, 8 and 9.

MR. FELDEWERT: Secondly, I think Mr. Campanella, in light of the questions from Examiner Warnell, has something else he'd like to add, so if I may just briefly recall him.

MR. EZEANYIM: Okay.

You have previously been sworn. Sit down, sir.

JAMES CAMPANELLA

REDIRECT EXAMINATION

BY MR. FELDEWERT:

Q. Go ahead.

A. We did submit an application originally, and we received a probe test from Nearburg, and they wanted to preserve the upper perfs in their well, or the upper zone, which is in our well around 3,400 feet, 3,350 or something of that nature. We worked with them -- they went through their log analyses and I worked with their reservoir engineer and came up with the perforations for our wellbore, our zones. They're very comfortable with

the area that we're looking at because we work real close with them. I just wanted to add that. So we can answer some questions you may have as far as leaving some -- having some oil zones, producing zones, available. They went through that very thoroughly. That letter that is resubmitted removing their objection is after we went over their log. I just wanted to throw that in.

MR. WARNELL: I just can't help believe that when you perforate that top zone -- well, you're going to get a gasket there, I think.

THE WITNESS: What we'll do is I'll let you-all know on our reports when we do that. If we know it's commercial, I promise you, I want it as much as you do, because I still have the lease. We'll squeeze those perfs if we have to. And also, we'll check for any kind of oil residue when we perforate it. If we notice oil, we'll go and test that zone and make sure it's not productive.

MR. EZEANYIM: According to your testimony, Nearburg doesn't have any injection above 975 feet. It's only when you go below 975 feet you have the injection; right?

THE WITNESS: Yes. That's correct. They went over that zone with us.

MR. EZEANYIM: As long as you stay above

975 feet, you're okay.

THE WITNESS: Uh-huh.

MR. FELDEWERT: Thank you, Mr. Examiner. We have nothing further to present.

MR. EZEANYIM: Okay. At this point Case Number 14364 will be taken under advisement.

How about we go for lunch now, or just conclude these two cases before we go to lunch? Why don't we take a five-minute break and come back and conclude these two before we go to lunch.

MR. BRUCE: My cases will only take about five minutes, total.

(A recess was taken.)

* * *

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 14364 heard by me on 9/17/09

Examiner
Oil Conservation Division

REPORTER'S CERTIFICATE

I, JACQUELINE R. LUJAN, New Mexico CCR #91, DO HEREBY CERTIFY that on September 17, 2009, 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 30th day of September, 2009.

Jacqueline R. Lujan, CCR #91
Expires: 12/31/2009