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 COBALT OPERATING, LLC FOR AUTHORIZATION TO INJECT PRODUCED WATER FOR DISPOSAL, LEA COUNTY, NEW MEXICO.

CASE NO. 15241

REPORTER'S TRANSCRIPT OF PROCEEDINGS

EXAMINER HEARING

December 4, 2014

Santa Fe, New Mexico

BEFORE: MICHAEL McMILLAN, CHIEF EXAMINER
GABRIEL WADE, LEGAL EXAMINER

This matter came on for hearing before the New Mexico Oil Conservation Division, Michael McMillan, Chief Examiner, and Gabriel Wade, Legal Examiner, on Thursday, December 4, 2014, at the New Mexico Energy, Minerals and Natural Resources Department, Wendell Chino Building, 1220 South St. Francis Drive, Porter Hall, Room 102, Santa Fe, New Mexico.

REPORTED BY: Mary C. Hankins, CCR, RPR
New Mexico CCR #20
Paul Baca Professional Court Reporters
500 4th Street, Northwest, Suite 105
Albuquerque, New Mexico 87102
(505) 843-9241

APPEARANCES

FOR APPLICANT COBALT OPERATING, LLC:

ADAM G. RANKIN, ESQ.
and
JORDAN L. KESSLER
HOLLAND & HART
110 North Guadalupe, Suite 1
Santa Fe, New Mexico 87501
(505) 988-4421
agrankin@hollandhart.com
jlkessler@hollandhart.com

ALSO PRESENT: Mr. Kenneth Goff
Mr. Brian Wood

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EXHIBITS OFFERED AND ADMITTED

(8:17 a.m.)

EXAMINER McMILLAN: The first case to be heard today is Case Number 15241, application of Cobalt Operating, LLC for authorization to inject produced water for a disposal well, Lea County, New Mexico.

Call for appearances.

MR. RANKIN: Thank you, Mr. Examiner.

Adam Rankin, Holland & Hart in Santa Fe, on behalf of the Applicant Cobalt Operating, LLC.

EXAMINER McMILLAN: Any other.

MS. KESSLER: Jordan Kessler, with Holland & Hart.

MR. RANKIN: Mr. Examiner, I have one witness today.

EXAMINER McMILLAN: Okay. Would the witness please stand?

MR. RANKIN: Mr. James Thompson.

MR. THOMPSON: Hello.

EXAMINER McMILLAN: Good morning. You need to be sworn in.

JAMES THOMPSON,

after having been first duly sworn under oath, was questioned and testified as follows:

DIRECT EXAMINATION

BY MR. RANKIN:

Q. Go ahead, have a seat.

Good morning, Mr. Thompson.

A. Good morning.

Q. For the record, would you please state your full name?

A. James Darryl Thompson II.

Q. Mr. Thompson, would you please tell the Examiners by whom you are employed and where?

A. I'm employed by Cobalt Operating, LLC in Midland, Texas.

Q. And what is your current position with Cobalt Operating?

A. My current position is vice president of business development.

Q. And in that role, what are your obligations and responsibilities?

A. My responsibilities include overseeing land and legal and regulatory as well.

Q. And have you previously testified before the Division, and have your credentials as an expert in environmental engineering made a matter of record?

A. I have.

Q. And are you familiar with the application in

this case?

A. I am.

Q. And did you prepare or oversee the preparation of an exhibit -- exhibits for this case?

A. I did.

MR. RANKIN: Mr. Examiner, I would tender Mr. Thompson as an expert in environmental engineering.

EXAMINER McMILLAN: So do you possess an engineering degree?

THE WITNESS: I do, from the University of Texas, the Permian Basin.

EXAMINER McMILLAN: Okay. And how much experience as an engineer do you have?

THE WITNESS: I have worked in oil and gas and completions and drilling for about 11 years now.

EXAMINER McMILLAN: So qualified.

MR. RANKIN: Thank you, Mr. Examiner.

Q. (BY MR. RANKIN) Mr. Thompson, can you briefly summarize what it is that Cobalt Operating is seeking with this application?

A. Yes. Cobalt is requesting authorization to inject produced water into the Devonian Formation through the Warren #2 wellbore. It's API Number 30-302526953. We anticipate an average injection rate of approximately 2,500 barrels per day and a maximum of

3,000 barrels per day, an average pressure of 1,000 pounds per square inch and a maximum pressure of 2,352 psi.

We intend to do this through the end of the Devonian through the formation perforations from 116 -- I'm sorry -- 11,760 to 11,875 and to actually drill out open hole an additional 975 feet and be completed as open hole and inject through that interval as well.

Q. Mr. Thompson, is the maximum injection pressure of 2,352 pounds per square inch -- is that in conformance with the OCD's guidelines of 0.2 pounds per foot for the perforated interval?

A. Well within.

Q. Now, the land on which this proposed injection well is located, what is the status of the land?

A. It's fee service and fee mineral.

Q. Is that a split estate situation in this case?

A. It is.

Q. And have you prepared a C-108 application with this as part of this application?

A. We have.

Q. And has that been marked as Exhibit Number 1 that I just distributed?

A. That's correct.

Q. The exhibit sticker, I'll just note, is on the

inside of the interior page, at the beginning of the C-108, after tab number one.

Mr. Thompson, does the C-108 contain all the information that's required for the granting of this application?

A. It does.

Q. And now this project, is it an existing project or an expansion of a project, or is this a new injection well project?

A. This is a new injection well project.

Q. Looking at tab number one, Mr. Thompson, which is marked with one of the gray tabs, smaller gray tabs, can you please review for the Examiners what that tab shows, what that map shows?

A. This is a half-mile radius map, with the Warren #2 well being at the center of that radius. It's the area of review. It shows -- it's showing the location of the lease and the well itself.

Q. Okay. So the lease is -- the well -- the lease acreage is located in the center of that dotted circle; is that correct?

A. That is correct.

Q. And that's where the Warren #2 is located, with the arrow?

A. That is correct.

Q. And that dotted -- that circle is the half-mile area of review; is that correct?

A. Yes.

Q. And are all the tracts that fall within that area of review identified on this map?

A. Yes.

Q. And then, Mr. Thompson, does this also indicate who the lease operators are to whom notice was provided in this case?

A. It does.

Q. And are all those leasehold operators identified behind tab number two on the C-108?

A. Yes.

Q. And in addition to leasehold operators, was notice also provided to the surface owners as well?

A. Yes, it was.

Q. And behind the white tab number two, is that a list of all the individuals to whom notice was provided?

A. That's correct.

Q. So that would include all the leasehold operators and surface owners as well?

A. That is correct.

Q. And behind -- I'm sorry for a little bit of confusion here, but behind 2A, the gray tab 2A, is that a copy of the letter that was provided to all those

individuals?

A. Yes, it is.

Q. And the subsequent pages, do they show a copy of the letters and the green card receipts sent to all of those individuals?

A. That is correct.

Q. And behind tab number three is that a copy of the Affidavit of Publication indicating that this C-108 application was published in a newspaper, in the "Hobbs News-Sun"?

A. That is correct.

Q. And finally, with respect to the notice, behind tab number three, is that a copy of the affidavit prepared by our law firm indicating that notice was provided to the two individuals on the following page of this hearing today?

A. That is correct.

Q. And those two individuals, are those individuals who protested this application?

A. That is correct.

Q. And on the last page, there is a copy of the letter that was sent to those individuals from my law firm indicating today's hearing?

A. That is correct.

Q. Thank you.

Now, with respect to the well itself, Mr. Thompson, can you just give a little bit of a brief background? Because this is an existing well; is that correct?

A. That is correct.

Q. Give a little bit of background on this well?

A. Sure. The well was originally spudded in 1980, and it was initially completed as a midway Devonian well. It was perforated at 11,760 to 11,850. The Devonian was plugged back in 1983, and it was converted to a Strawn producer, perforated at 10,682 feet to 10,787 feet. The Strawn 1st was squeezed in 1998.

The well was completed a second time in the Devonian, perfed from 11,760 to 11,794, also from 11,808 to 11,850. Cumulative production from the Strawn was approximately 300,000 barrels of oil and 680 mcf of gas, and production from the Devonian was approximately 46,000 barrels of oil and 2,000 mcf of gas.

Q. And Cobalt is currently the lease operator of this tract; is that correct?

A. That is correct.

Q. And looking at -- let's turn to the gray tab number four of Exhibit Number 1.

EXAMINER WADE: Which tab was that?

MR. RANKIN: Tab four.

EXAMINER WADE: Of the gray ones?

MR. RANKIN: Of the gray ones, yes.

Q. (BY MR. RANKIN) It should be the well data sheet; is that correct?

A. That is correct.

Q. Would you please review for the Examiners -- and on the following pages, the wellbore schematic was your Exhibit 2; is that correct?

A. That is correct.

Q. Would you please review for the Examiners the current status of that well?

A. Well, currently we've got -- we have a surface casing 13-to-three-eighths cemented to surface with 350 sets, casing set at 592 feet. The intermediate casing is 8-to-five-eighths casing, which is set at 4,400 feet. with cement circulating the surface. And then the 5-and-a-half long string is set at 11,875 feet, with a calculated cement top of 2,400 feet.

Q. Does this wellbore injection well data sheet also show the proposed completion and deepening of this well?

A. It does.

Q. Can you review for the Examiners that part of this well data sheet?

A. Certainly. We'll drill out with a four-inch

bit down to 12,850 feet and complete this area as open hole to access additional porosity in the Devonian Formation.

Q. And how does Cobalt intend to stimulate the injection well, if at all?

A. We intend to stimulate with hydrochloric acid, 15 percent, in order to clean out the wellbore itself.

Q. Now, turning to tab five of the gray-green tabs, would you review for the Examiners what that shows?

A. Again, this is the two-mile radius map showing the Warren #2 wellbore as the focus of the radius.

Q. And this -- depicted on this map are -- what else is depicted on this map?

A. Additionally, they're all water wells that are within that two-mile radius depicted on this map.

Q. How many water wells were identified?

A. There were 83 water wells identified in this area.

Q. And were there any other injector wells within a two-mile radius?

A. There were. There were 12 injection wells and/or disposal wells.

Q. Now, Mr. Thompson, at the time this application was filed, were there any wells producing from the

Devonian, the target injection zone, within a half-mile area of this proposed well?

A. There were.

Q. There were at the time of the application?

A. Yes.

Q. And which well is that?

A. That was the Hale State 1Y, which we also operate.

Q. Okay. And looking at -- what is page 6 of the C-108? That's the third well down on that table that is operated by Cobalt; is that correct?

A. That is correct.

Q. And is that in the same lease?

A. It is on a lease that is immediately adjacent.

Q. Immediately adjacent. All right.

So that well is operating and producing from the Devonian?

A. That is correct.

Q. Now, are there any other wells that are currently producing from the Devonian?

A. Currently producing from the Devonian since we filed the C-108 is the Warren #1 well. It is on this same lease, which we have re-entered.

Q. And that well is identified as the second well on that same table operated by Cobalt?

A. That is correct.
Q. And that well had been P&A'd, but Cobalt has re-entered it; is that correct?
A. That is correct.
Q. And that's currently been approved for operation?
A. It has.
Q. Okay. And that's on the same lease as this injection well; is that correct?
A. That is correct.
Q. Now, can you tell us a little bit about that? What is the source of the disposal for that well, the Warren 1, that's currently producing?
A. Currently we are seeking this disposal application to service this Warren #1 well as a light oil cut, thin oil cut. So right now we have installed a 750-barrel-a-day submersible pump, which we have to throttle back in order to use other disposal sources, trucking, in order to service this well, and that greatly damages the economics of the Warren #1 well.
Q. You say greatly damages the economics of the Warren #1 well. Is it sustainable economically for Cobalt to continue to pay for disposal fees for that water?
A. It is not sustainable.

Q. So as a consequence, Cobalt wants to have an on-lease disposal option; is that right?

A. That is correct.

Q. How long has the Warren 1 been producing?

A. It's been producing approximately one month.

Q. One month.

And during that time, Cobalt's been paying for the disposal fee for the produced water?

A. That's correct.

Q. Now, looking at the wells identified on the table behind --

EXAMINER McMILLAN: Excuse me. What page?

MR. RANKIN: I'm sorry. So looking at the table of wells, tab number two.

EXAMINER WADE: Gray two or white two?

MR. RANKIN: Thank you very much. Gray number two.

MS. KESSLER: Page 5 of the application.

Q. (BY MR. RANKIN) Actually, you know what, Mr. Thompson, I'm going to refer you to the green tab number six. Mr. Thompson, please review for the Examiners what that table shows.

A. This shows other wells within the -- within the radius that have also -- that have also penetrated the Devonian Formation.

Q. And these are all the P&A'd wells; is that correct?

A. That is correct.

Q. And this shows the status of the well in terms of -- the status of the well in terms of cement and the protection within that penetrated zone?

A. That is correct.

Q. And following that -- this table is a -- are the wellbore schematics of each of the P&A'd wells; is that correct?

A. That is correct.

Q. And in your opinion, Mr. Thompson, are each of those wells protected in the injection zone?

A. We believe that they are. We believe that they are isolated by cement casing to protect groundwater.

Q. Does the C-108 contain all the information with respect to the wells that penetrate the injection zone?

A. It does.

Q. And have you reviewed all the data available on these wells?

A. We have.

Q. And in your opinion, is there any remedial work that would be required to protect against -- protect these wells from the injection -- related with the proposed injection well?

A. No.

Q. Now, with respect to the injection, what is the volume -- I think you touched on this initially. What is the volume that Cobalt is seeking to inject into the injection well?

A. We -- we -- we anticipate approximately 2,500 barrels per day and a maximum of 3,000 barrels per day.

Q. And, again, the source of this water that you propose to inject is on lease operations; is that correct?

A. That is correct.

Q. And from the same zone; is that right?

A. That is correct.

Q. So Devonian water being injected into the -- into the Devonian?

A. That's correct.

Q. As a consequence, do you anticipate any compatibility issues, compatibility problems?

A. No. The nature of the water coming out of the formation being disposed back would negate that.

Q. But nonetheless, Cobalt conducted some water chemistry tests to confirm that?

A. Certainly we did.

Q. And those are depicted on what is Exhibit G to the application, which, unfortunately, is not tabbed.

But is that correct, Exhibit G to the C-108?

EXAMINER McMILLAN: Please slow down and tell me where it is.

MR. RANKIN: I'm sorry, Mr. Examiner. It's not tabbed, but it's Exhibit G to the C-108 application, which is actually just following the P&A'd wellbore schematics.

EXAMINER McMILLAN: I found it.

MR. RANKIN: Oh, did you? Thank you.

Q. (BY MR. RANKIN) These are the water chemistry tests; is that correct, Mr. Thompson?

A. They are.

Q. Has there been, to your knowledge, any other injection that's been permitted into the Devonian in the area?

A. Yes.

Q. And where is the nearest well that you're familiar with that is injecting into the Devonian?

A. It's the Consolidated State on a lease that is adjacent and to the east.

Q. Is that something that you can point out to the Examiners on an overview map?

A. If you'll look at the green tab five-gray tab five, the page immediately following that, it shows the radius with the leases.

EXAMINER McMILLAN: Yes.

A. The Consolidated State is on the lease designated as VB-2166-0000. I'm sorry. Not that section, but the section immediately to the east of that. It's actually noted as SWD with a small circle, immediately above the Warren 2 notation on that page.

EXAMINER McMILLAN: Oh, okay. I see it.

Q. (BY MR. RANKIN) So that notation behind -- I'm sorry -- behind green tab number one is the SWD Consolidated #1?

A. That's correct.

Q. And that well is currently injecting into the Devonian; is that correct?

A. That is correct.

Q. Is that a well that Cobalt operates?

A. We operate that well. Yes, sir.

Q. Now, with respect to the Warren #2, the subject of this application, will this injection well be a closed system or open system?

A. It'll be a closed system.

Q. And is that different than what is actually contained in the -- stated in the C-108 application?

A. Yes. Initially in the application we had noted and requested an open system, thinking that a commercial disposal would be a possibility, but we were unable to

come to terms with the surface owner on that. So the commercial aspect of this disposal well was -- was -- was dropped.

Q. And so based on your understanding, this would be a closed system in light of the source of the water and the injection zone?

A. That's correct.

Q. Now, I think you touched on this initially as well on your overview, but what is the injection pressure again that Cobalt is seeking?

A. An average injection pressure is approximately 1,000 psi.

Q. And the maximum pressure you're seeking?

A. The maximum pressure, again, is 2,352 pounds per square inch.

Q. And Cobalt requires a higher pressure with the OCD doing the step-rate test?

A. Yes.

Q. And that would be to confirm the fracture pressure within that formation?

A. That's correct.

Q. Now, will Cobalt monitor this well? How will Cobalt monitor the integrity of this well?

A. We'll comply with the OCD's required MIT testing as scheduled. Pressure gauges will be installed

on all the annulus within the wellbore itself to confirm that integrity has not been compromised.

Q. And will Cobalt use an annular fluid within the annulus base as part of that pressure monitoring?

A. That's correct. We won't go into annular spaces -- packer fluid.

Q. Now, in the area in which you're seeking to inject, is there any fresh water within the area?

A. There is.

Q. And where are there freshwater sources?

A. It is the Ogallala.

Q. Okay. And what is the approximate depth of the Ogallala output in this area?

A. We estimate it to be around 2- to 300 feet, if I'm not mistaken.

Q. And so the nearest freshwater zone is the Ogallala, and that's approximately 300 feet deep; is that correct?

A. That's correct, on the surface.

Q. And the Devonian -- top of the Devonian is approximately what depth?

A. Top of the Devonian is -- we're approximately 11,485 feet between the top of the Devonian and the bottom of what's been identified as the Ogallala.

Q. In your opinion, will there be any threats or

risk to those freshwater sources as a result of this injection?

A. No. Due to the depth and permeability of the formation we're injecting in, the casing and cementing program that we're implementing, we feel that -- we feel that the groundwater in this area will be sufficiently protected.

Q. Tell me a little bit about the permeability. You are mentioned the permeability in the Devonian. How will that help protect the fresh groundwater sources?

A. The more permeable the injection zone is, the lower your injection pressure is. You're less likely -- you're actually -- if there is a mechanical failure, you're actually going to have the head pressure to push produced water up where it could impact -- if there were other issues, could impact groundwater. So 1,000 pounds per square inch, you will not -- it's physically impossible to have enough head pressure -- due to the static fluid level in the wellbores, you won't have enough pressure to move -- produce fluids up into that area where it could impact the Ogallala.

Q. In addition to the high permeability of the Devonian, are there other geologic barriers to help isolate the injection zone in this case?

A. There are. And there's also -- there's also

five anhydrite and salt zones that cumulatively represent about 11,076 feet of anhydrite and salt zones that are between the top of the Devonian and the bottom of the Ogallala.

Q. And the narrative description of that geology, including those impermeable geologic barriers, is contained within this permit application?

A. They are.

Q. And that is located on page 7 of the C-108; is that right?

A. That is correct.

Q. Does this geologic description contain all the information which requires -- with respect to the stratigraphy in the area?

A. It does. It meets all those requirements.

Q. It also includes a description of the formation tops within the area?

A. That's correct.

Q. Now, let's talk a little bit more about the fresh water in the area. You identified some freshwater zones. Are there also freshwater wells that are producing in the area --

A. Yes.

Q. -- a mile or so within the proposed injection?

A. Yes. There are four.

Q. Were you able to take any freshwater samples from those wells?

A. We were, and we analyzed those also for various constituents.

Q. And those are identified behind green tab number eight?

A. That is correct.

Q. And you identified these freshwater wells using the State Engineer's Web site; is that correct?

A. That's correct.

Q. And tab number eight indicates all the freshwater wells within the mile; is that correct?

A. That is correct.

Q. And on the following pages are the freshwater chemical analyses for those freshwater wells?

A. That is correct.

Q. And does each of these indicate with the well -- I'm sorry. Forgive me, Mr. Thompson. I'm trying identify -- can you identify the well or not? I can't discern that in this case. Is that the case?

A. I'm sorry?

Q. I'm sorry. I was asking whether or not the wells were identified. Which wells were tested?

A. They were.

Q. So following the chemical analyses, there is an

overview map as part of Exhibit H. Does that indicate the sample sites for each of those four samples?

A. It does.

Q. Were these generally domestic wells that were sampled?

A. Yes.

Q. And these would function or operate as a background for the water quality in this area prior to injection from the Warren #2; is that right?

A. We believe so.

Q. Now, going back to the geology, have you identified any open faults or geologic areas that would allow to function as a conduit for injection water to reach these freshwater sources?

A. We have not identified any faults.

Q. So in your opinion, based on the geology of the Devonian and the permeability and the impermeable geologic barriers between the injection zone and the surface and the freshwater zones, is it your opinion that the injected fluid will stay in the targeted zone?

A. Yes.

Q. In your opinion, Mr. Thompson, would there be any waste -- would the granting of this application result in waste?

A. It would -- it would. It would promote the

waste and the production that is currently marginally economic in trucking -- or uneconomic -- pardon me -- in trucking from the Warren #1 wellbore.

Q. I think I phrased it the other way. I'm asking you if this application is granted, it would -- would it result in waste? In other words, would there be any impairments to other wells or production in the area?

A. No. We don't believe so.

Q. But failure to grant this application would result in waste, in your opinion?

A. It would.

Q. And why is that?

A. The lost production in the Warren #1, which would be uneconomic.

Q. So the Warren #1 -- the current production from the Warren #1 on lease is dependent upon being able to dispose on lease?

A. That's correct.

Q. In your opinion, Mr. Thompson, would the granting of this application be in the best interest of conservation of the resources?

A. It would be.

Q. And were Exhibits 1 through 3 either prepared by you or under your direct supervision?

A. They were.

MR. RANKIN: Mr. Examiner, I would move into evidence Exhibit Numbers 1 through 3.

EXAMINER McMILLAN: Exhibits 1 through 3 are accepted as part of the record.

(Cobalt Operating, LLC Exhibit Numbers 1 through 3 were offered and admitted into evidence.)

MR. RANKIN: Mr. Examiner, I pass the witness.

CROSS-EXAMINATION

BY EXAMINER McMILLAN:

Q. Okay. The first question I have is what is the Warren #1 producing from?

EXAMINER WADE: Is Mr. Goff here?

MR. GOFF: Yes, sir.

EXAMINER WADE: What role are you going to play today?

MR. GOFF: I would like to make a brief statement of my concerns about this well.

EXAMINER WADE: Do you intend to cross-examine the witness?

MR. GOFF: No.

Q. (BY EXAMINER McMILLAN) For the Warren #1, it's currently producing?

A. That's correct.

Q. What pool or formation?
A. It's producing from the Devonian Formation.
Q. And how about the Hale 1Y?
A. It is producing.
Q. From?
A. From the Devonian as well.
Q. Now, as an expert witness, is the production from the Warren #1 -- is it correlative with the injection zone?
A. Yes.
Q. I'm going to ask you the same exact question for the Hale #1Y. Is it going to be correlative with the injection zone?
A. Yes.
Q. The next question I have relates back to this well. When I looked at the production yesterday for the Warren #2, API 30-02526953, I see that it has made -- from September 2013 through September 2014, in the midway Devonian, it has made 95 barrels of oil.
A. That's correct.
Q. And when I look at this, I see that in September 2014, the Warren #2 is producing -- produced nine barrels of oil; is that correct?
A. I believe that's correct.
Q. So you want to turn -- excuse me -- change a

producer into an injector?

A. A marginal producer into an injection well, yes. It's marginally economic.

Q. Now, how do I know it's marginal?

A. Because the cost to run 640 pumping units on the well pumping from the Devonian Formation is at its economic limit in order to produce this well.

Q. You know, I need proof of that. I mean, without a definitive statement, I believe that to be arm waving. So there must -- there has -- for the process to continue, there must be an engineering analysis stating why it's uneconomical.

A. We can provide that.

Q. Now, the next question I have is why did you emphasize water analysis? I believe it was on the Snyder [phonetic], in Section 8, 16 South, 36 East. But if you look at that analysis, that's for the Strawn.

A. The Snyder was a water well?

Q. It was one of your analysis. Why do you emphasis the Strawn when you're not going to take water from the Strawn? That really shouldn't have anything to do with it.

MR. RANKIN: We can address that in redirect, Mr. Examiner, if that would be helpful.

Q. (BY EXAMINER McMILLAN) And I also want to know

about the compliance order for the Angel #3.

A. Uh-huh.

Q. Please update.

A. I believe we have until the end of January -- I'm sorry -- until the end of February to bring -- bring those wells online. We intend to bring those online as working producers. We've been acquiring leases on those. It's quite -- it's been an intensive process acquiring the leases, and we have a certain percentage of the leaseholds now that we believe we could go in and produce these wells economically.

Q. I want to be clear. It's for the Devonian, correct?

A. For which well? The Angel?

Q. For this well, you're going to inject into the Devonian, right?

A. For which well?

Q. For the Warren #2?

A. That's correct.

Q. And so the San Andres was a typo? In the application, you say the San Andres and you mention the Devonian, and at that point, you actually mention the pool code. So it is the Devonian, correct?

A. That's correct.

Q. Okay. Let's see. Now, you said the deepest

depth water is 300 feet. Do you have any idea what the water column is?

A. I would have to refer to my consultant on that, which is Brian Wood with Permits West.

MR. WOOD: It's part of Exhibit H.

MR. RANKIN: Mr. Examiner, if I might refer you to the table behind green tab number eight. The data is from the State Engineer's Office. It's the water column within a one-mile area.

Q. (BY EXAMINER McMILLAN) So using some worst-case scenario, you're looking at 425, right? I mean, the water column, you're saying the max depth is 300 feet, so it would be 425. And your surface casing goes to 592 feet, correct?

A. That's correct.

Q. Now, I just want some clarification for myself. I wasn't totally clear on this. You're going to perf 11,760 to 11,875, right?

A. I believe, yes. Those are the perfs that are already open, and we're going to additionally drill, with a four-inch bit, to add two or three more porosity zones that we've identified by log in this area to further reduce any pressure that would be in the wellbore.

Q. Now, you said in your application the volume's

about 100 [sic] feet thick, right -- 11,010 feet, if you look at it. I just want to make sure that you don't believe that there's going to be further or an addition below it, right? The addition [sic] hasn't subcropped out?

A. We believe we will be in the Devonian Formation at that depth.

Q. I just want to make sure there will be -- you're not going to be at basement -- basement will be well below that?

A. Basement?

Q. Yeah. I mean Precambrian. I want to make sure that --

A. The granite?

Q. Yes, the granite.

A. Yeah. It'll be well below that. I assure you, we will not drill into the granite wash with a four-inch bit.

Q. And are you aware of any casing problems with the Fasken well?

A. No. Whenever -- no. We don't believe we have any casing problems because we were able to produce -- the production that we showed, had it been -- had we had any kind of casing integrity problems, we would have had so much water that we wouldn't be able to produce even

the minute amounts that we were with the rod pump. But certainly we will test, as mandated, mechanical integrity prior to injection to ensure the casing integrity is intact.

Q. Okay. What I want to see is -- I expect you guys to supply production figures for the Warren #1 and the Hale #1Y.

A. Certainly.

Q. And you will -- you will have definitive proof why this should be -- this well should be converted?

A. We can. We can demonstrate that.

Q. Okay. Those are the questions that I have, unless counsel would like to redirect.

MR. RANKIN: Thank you, Mr. Examiner. I would like to ask a few questions as follow-up.

REDIRECT EXAMINATION

BY MR. RANKIN:

Q. Mr. Thompson, just for a point of clarification, if you would turn to the C-108, which is several pages behind green tab number two -- or one page behind green tab number two.

A. Uh-huh.

Q. You see on the third well down, the Hale State #1Y, where it indicates that it's producing from the zone -- the Strawn zone; is that correct?

A. That's not correct.

Q. Is your understanding that it's producing from the Devonian?

A. It is producing from the Devonian. That's correct. The Strawn has been squeezed off in that wellbore.

Q. So that's a point of correction on this table, then?

A. It should be corrected, yes.

Q. It's producing from the Devonian?

A. That's correct.

Q. Thank you.

Now, I want to talk to you just a little bit about the production that's occurring from the Devonian, in particular from the Warren #1 well. That well is -- how is it related structurally to the Warren #2 well, the proposed injection well?

A. The Warren #1, based on the Devonian tops that we encountered in the area, is approximately 20 to 30 feet superior on structure. So we are updip. The Warren #1 is updip from the Warren #2.

Q. How would that impact -- or how does that impact the production with respect to the Warren #1 versus the production that was occurring from the Warren #2?

A. We believe that there is not going to be any impact. We've operated a number of Devonian wells that are in this same proximity. We all know that the Devonian is a perfect water drive. The analogy I like to use is you're putting a fire hose under the ocean. It's not going to impact or migrate hydrocarbons enough to see any response either way.

Q. Okay. So the fact that the Warren #2 is downdip from the Warren #1, which is currently producing -- is that correct?

A. That is correct.

Q. And as I understand what you're telling me, the injection into the Warren #1 is because it's downdip and because its permeability on the Devonian will have no impact on the production from the Warren #1, which is updip; is that correct?

A. We believe that to be the case.

Q. Now, just talking about the structural differences in the -- in the production zone here in the targeted zone in the Devonian, the Warren #1 is updip, right?

A. That is correct.

Q. So how -- does that have any effect on the fact that the Warren #1 is still a producing well relative to the Warren #2?

A. It was -- it was -- studying that strata and the location on structure was one of the reasons that compelled us to re-enter the Warren #1 and have been able to make that a successful producer.

Q. So because it's updip, is it accessing a greater -- a greater well zone? Is that -- is that -- is that true?

A. The geology would suggest that, yes.

Q. Now, I also want to touch on why -- why this application was for a saltwater disposal well as opposed to a pressure maintenance well, for example. Can you explain to the Examiners why -- why this is a saltwater disposal well?

A. The porosity that is shown in this midway field, the Devonian in particular, and many other fields prevents any type of pressure maintenance. It's the perfect water drive so intervention in one area is not going to affect any type of pressure in any other area.

Q. So the injection into the Warren #2 would not function in any way to increase production or generate a drive in the Warren #1?

A. We don't believe so.

Q. So that's the reason in this case you're seeking a saltwater disposal application?

A. That's correct.

MR. RANKIN: No further questions, Mr. Examiner.

EXAMINER McMILLAN: Okay. I'd like to have redirect [sic].

RECROSS EXAMINATION

BY EXAMINER McMILLAN:

Q. The first question is -- I specifically asked you if the Warren #1 is correlative with the zone. Remember, in the Devonian, just because you're higher to another -- another on the top of the Devonian, a lot of times you've got to drill. You have to drill into the Devonian to get the porosity. So the real question is not the tops. It is the porosity zone.

My question to you: Are the porosity zones, not the tops -- how are those in terms of the subsurface depths?

A. I see what you're saying. The production interval that we will be producing from in the Warren #1 will actually -- the primary injection zones that we've seen from logs that are in the Devonian where we believe we have a good perm, those are actually below what we will be producing out of the Warren #1. In the Warren #2, where we believe the majority of the water will be disposed, will be stratigraphically low to the other producing zones which are within the upper portion of

the Devonian.

Q. You know, this is what I want to see. I want to see a cross section of that.

A. We have those.

Q. Okay. Are they in the application?

A. They are not.

Q. Well, I mean, I expect that to be supplied.

A. Very good.

Q. And just for the record, I've never heard of a Devonian field not making water. The production is weird.

A. Not making water?

Q. Yeah, not making water. I've never seen that.

A. That's possibly a reporting error. It is making water.

Q. I said I'm familiar with the Devonian, and I've never heard of that.

And same thing with the 1Y?

A. We can do that. The cross section that we have built for this field actually includes both of these wells.

Q. Okay. Yeah. I expect that.

I have no further questions at this time. Thank you.

A. Thank you.

EXAMINER McMILLAN: I would like to give the opportunity to Mr. Goff to please go ahead and --

Okay. If you would -- I believe we would like to have you sworn in, too.

KENNETH GOFF,

after having been first duly sworn under oath, testified as follows:

MR. GOFF: My name is Kenneth Goff. I am a dairy and farm operator in Lea County, in this general area. Our dairy is located within a two-mile area of this well, and some of our farmland is less than that. Our ranch land is surrounding it.

And I guess we're -- I'm primarily concerned about any contamination. We are dealing with -- one mile south of this well, there's approximately 50 monitoring wells dealing with contamination of the aquifer, and that's between this well and our dairy operation. And we're concerned that if any contamination keeps moving towards us, it will devastate our operation. That water's our lifeblood. And so we're -- we wonder if there are any other safeguards that would -- that would help us know that there is not going to be any of this contamination.

And my concern is the integrity of the well could be compromised. Whether it is or not, I don't

know, but is there a way that we can find out before it gets into the -- into the -- especially the Ogallala? The contamination that we're dealing with now, they've been trying to clean up for the last two years and have not been successful yet, so we are concerned.

We do have some contamination further north and a little east of this well, east of where the wells -- the well samples that you have. I don't know what the progress is in cleaning that up.

I'm also -- I guess I have a question or two. Do we recognize the Santa Rosa as being a water to be concerned about to protect? Because I believe that that's going to be part of our future water source in Lea County. As you know, the water table has dropped severely, and there's already been talk about that happening, and some of that has already happened in Texas, in the -- in the Gaines County area. And so we were -- I guess we were questioning is there was a way that we can protect that also for something that we'll probably need in the future?

EXAMINER McMILLAN: I can just tell you from a regulation standpoint. We have a -- you just can't, you know -- if we get approval, they can't just go out there and do it. There are certain tests that we require they run to test the structural integrity of the

casing program.

EXAMINER WADE: Maybe we could give Mr. Rankin the opportunity to call another witness or recall a witness if there is anything further you'd like to address regarding the questions or the concerns that were raised.

MR. RANKIN: Thank you, Mr. Examiner and Counsel --

EXAMINER WADE: Legal counsel.

MR. RANKIN: -- legal counsel.

I just want to state for the record that we object to the entry of testimony on the record as evidence for the reason that no pre-hearing statement was entered and no entry of appearance was entered. So I just want to state that for the record.

If I might just ask a couple of questions of Mr. Goff, and then we will rest our case.

EXAMINER WADE: Okay.

CROSS-EXAMINATION

BY MR. RANKIN:

Q. Mr. Goff, just so I'm understanding, you had indicated there was some contamination a mile south of your property?

A. A mile south of your proposed well, about a mile south.

Q. And that's resulted in approximately 50 monitoring wells?

A. Yes, in two different locations, more or less side by side.

Q. And there is testing or monitoring the groundwater in the Ogallala; is that correct?

A. They're actually trying to clean it up. There was and is contamination.

Q. And is that contamination the result of an injection well?

A. Well, I do not know, but it is oil contamination. And with what we see and how long it was being contaminated before it was caught, I think something isn't working. I don't know what it is, but something's not working.

Q. Was that contamination the result of a surface pipeline? Is that correct?

A. Surface meaning on top of the ground?

Q. Yeah.

A. No. No.

Q. So do you know the source of the contamination in that case?

A. On two areas, it is -- was a pipeline underground. On one area, I'm not sure. I know of three that has affected our farm or our operation or

close to it, and I don't know what the third one is.

Q. Are you aware that there are 12 injection wells currently operating within two miles of the proposed Warren #2?

A. I wasn't aware of that many. That creates more of a concern for me.

Q. Are you aware of any contamination resulting from those injection wells?

A. Not -- not in -- not in our area. But how would I know?

Q. Well, have you identified any contamination from your drinking water sources or your water sources other than the ones identified?

A. No, I haven't, but I think that's enough. The oil plume is moving, and so they continue to have to drill more water monitoring wells trying to clean it up. And so that's -- again, that's a concern.

Q. Thank you, Mr. Goff.

A. I'm certainly not against the oil industry. I've lived there all my life, but I do have a concern about our water, and not just Ogallala but Santa Rosa. And is it possible to put monitoring -- a monitoring well next to that to monitor the Ogallala and the Santa Rosa, say, quarterly or something to see if there is any change before -- I mean, before that contamination

becomes so big that it's difficult to clean up? I don't know the answer.

Q. Thank you, Mr. Goff.

MR. RANKIN: Nothing further.

EXAMINER WADE: Thank you very much.

EXAMINER McMILLAN: Thank you for your time. We really appreciate it.

Okay. With that in mind, Case Number 15241 will be taken under advisement with the stipulation that the cross sections and production and economic analysis must be provided before a decision is rendered.

MR. RANKIN: Thank you, Mr. Examiner. We will provide that information as quickly as possible.

EXAMINER McMILLAN: Thank you very much.

Let's take about a ten-minute break.

(Case Number 15241 concludes, 9:15 a.m.; break taken, 9:15 a.m. to 9:28 a.m.)

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

_____, Examiner
Oil Conservation Division

STATE OF NEW MEXICO

COUNTY OF BERNALILLO

CERTIFICATE OF COURT REPORTER

I, MARY C. HANKINS, New Mexico Certified Court Reporter No. 20, and Registered Professional Reporter, do hereby certify that I reported the foregoing proceedings in stenographic shorthand and that the foregoing pages are a true and correct transcript of those proceedings that were reduced to printed form by me to the best of my ability.

I FURTHER CERTIFY that the Reporter's Record of the proceedings truly and accurately reflects the exhibits, if any, offered by the respective parties.

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

Mary C. Hankins

MARY C. HANKINS, CCR, RPR
Paul Baca Court Reporters, Inc.
New Mexico CCR No. 20
Date of CCR Expiration: 12/31/2014

Davidson, Florene, EMNRD

From: Goetze, Phillip, EMNRD
Sent: Friday, October 31, 2014 11:38 AM
To: Brian Wood (brian@permitswest.com)
Cc: Dawson, Scott, EMNRD; McMillan, Michael, EMNRD; Jones, William V, EMNRD; Davidson, Florene, EMNRD; Dickey, Sylvia, EMNRD
Subject: Second Protest of Application for Injection - Warren No. 2

RE: Warren No. 2 (API 30-025-26953) Sec. 8, T. 17 S., R. 37 E., NMPM, Lea County.

Mr. Wood:

OCD was notified by Mr. Ken Goff (an affected person) that he is protesting this application due to potential impacts to ground water. Therefore, you are being notified that if Cobalt Operating, LLC wishes for this application to be considered, it must either go to hearing or may be reviewed administratively if the protest is withdrawn as a result of a negotiated resolution with this party. The application will be retained by OCD, but suspended from further administrative review. Please contact OCD once you have made a decision regarding the application. Please call me with any questions regarding this matter. PRG

Contact Information:
Mr. Kenneth Goff
c/o Goff Dairy
11015 Goff Place
Hobbs, NM 88210
575-318-6879 (cell)

Phillip R. Goetze, P.G.
Engineering and Geological Services Bureau, Oil Conservation Division
1220 South St. Francis Drive, Santa Fe, NM 87505
O: 505.476.3466 F: 505.476.3462
phillip.goetze@state.nm.us