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

APPLICATION OF LEGEND NATURAL GAS III, LP FOR SPECIAL POOL RULES, EDDY COUNTY, NEW MEXICO.

CASE NO. 15076

COPY

REPORTER'S TRANSCRIPT OF PROCEEDINGS

EXAMINER HEARING

January 23, 2014

Santa Fe, New Mexico

BEFORE: RICHARD EZEANYIM, CHIEF EXAMINER
GABRIEL WADE, LEGAL EXAMINER

This matter came on for hearing before the New Mexico Oil Conservation Division, Richard Ezeanyim, Chief Examiner, and Gabriel Wade, Legal Examiner, on Thursday, January 23, 2014, at the New Mexico Energy, Minerals and Natural Resources Department, 1220 South St. Francis Drive, Porter Hall, Room 102, Santa Fe, New Mexico.

REPORTED BY: Mary C. Hankins, CCR, RPR
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APPEARANCES

FOR APPLICANT LEGEND NATURAL GAS III, LP:

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EXHIBITS OFFERED AND ADMITTED

(11:17 a.m.)

EXAMINER EZEANYIM: Case Number 15076. This is the application of Legend Natural Gas III, LP for special pool rules, Eddy County, New Mexico.

Call for appearances.

MR. BRUCE: Mr. Examiner, Jim Bruce of Santa Fe representing the Applicant. I have three witnesses.

EXAMINER EZEANYIM: Any other appearances?

Okay. May the three witnesses stand up and be sworn in? State your names first.

MR. VINING: Jason Vining.

MR. Rieser: Bob Rieser.

MR. KUIPER: Kendal Kuiper.

(Mr. Vining, Mr. Rieser and Mr. Kuiper sworn.)

EXAMINER EZEANYIM: Proceed, Counselor.

KENDAL KUIPER,

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

DIRECT EXAMINATION

BY MR. BRUCE:

Q. Will you please state your name and city of residence for the record?

A. Kendal Kuiper.

Q. Would you spell your last name for the Examiner?

A. K-U-I-P-E-R.

Q. And who do you work for and in what capacity?

A. I work for Legend Natural Gas as a landman.

Q. Have you previously testified before the Division?

A. I have not.

Q. Would you please summarize your educational and employment background for the Examiner?

A. Okay. I graduated from the University of Texas at El Paso in 1977 with a bachelor's of business administration, and I went to work -- in January of 1978, I went to work for Shell Oil Company. I've worked as a petroleum landman for 35 years. I've worked for Legend Natural Gas for approximately five-and-a-half years.

Q. Does your area of responsibility at Legend include this portion of Eddy County?

A. It does.

Q. And are you familiar with the land matters involved in this case?

A. I am.

MR. BRUCE: Mr. Examiner, I tender Mr. Kuiper as an expert petroleum landman.

EXAMINER EZEANYIM: Mr. Kuiper is so qualified.

But you went to the University of Texas. That's not good (laughter). You should go to Texas A&M. You know what I mean?

THE WITNESS: I do. I know (laughter).

EXAMINER EZEANYIM: Mr. Kuiper is so qualified.

Q. (BY MR. BRUCE) Mr. Kuiper, could you identify Exhibit 1 for the Examiner and briefly describe what Legend seeks in this case?

A. Yeah. Exhibit 1 shows, in green, the original pool known as the North Hay Hollow-Bone Spring pool, and that's Pool Code Number 30216. And that's the original pool. And the current way the pool boundaries are in green, on Exhibit 1, and then the new boundaries are all those lands within the red outline.

Q. Just to clarify, there is a little extra red line along the township line. Should that have been --

A. Yeah. That was just an error in the drafting.

Q. Okay.

A. So everything within the red boundary is part of the new proposed pool.

Q. Where did you get the current pool boundaries?

A. Current pool boundaries were given to me by

Paul Kautz, in the OCD Hobbs office, by e-mail.

EXAMINER EZEANYIM: In the red outline, right?

THE WITNESS: Yes, sir.

EXAMINER EZEANYIM: You know, Paul Kautz and the State aren't here. We might have it, the pool configurations. But whatever he tells you, he is the district geologist, so I will accept this as the pool boundaries for the North Hay Hollow, right?

THE WITNESS: Yes.

EXAMINER EZEANYIM: You have expanded for this --

THE WITNESS: Yes.

EXAMINER EZEANYIM: Okay. I mean, if Paul told you that, then I will accept it, because it's a little different from what we have, but that's okay.

Q. (BY MR. BRUCE) And referring to page 2 of Exhibit 1, when was the pool created?

A. The pool was originally created in October of 1985.

Q. And page 2, is that a copy of the order which created the pool?

A. Yes, it is.

MR. BRUCE: And, Mr. Examiner, if you look at that little smudge mark at the bottom, the top

perforation of the discovery well was at 5,877 feet.

EXAMINER EZEANYIM: On the fourth page?

MR. BRUCE: Right there -- if you look at paragraph two -- paragraph two, the last line.

EXAMINER EZEANYIM: This (indicating)?

MR. BRUCE: Yes.

EXAMINER EZEANYIM: It's a one-page order.

MR. BRUCE: Well, I just included one page just to show -- you'll see the top perforation of the discovery well is at 5,877 feet.

EXAMINER EZEANYIM: Yeah.

MR. BRUCE: So under the Divison's regulations, the current daily allowable is 107 barrels per day.

EXAMINER EZEANYIM: At that depth?

MR. BRUCE: Depth bracket, yes.

Q. (BY MR. BRUCE) And, Mr. Kuiper, what does Legend request in this case?

A. We're requesting that the pool allowable for the North Hay Hollow-Bone Spring pool be increased from the 107 barrels a day to 375 barrels per day.

Q. And why are you making this request?

A. Well, we've drilled three wells in the pool, and the completed depth of those wells is approximately 7,800 feet. And in addition to that, we drilled more

than one well per unit, and so we require the additional allowable because of the number of wells and the depth.

EXAMINER EZEANYIM: These are vertical wells?

THE WITNESS: No. I'm sorry. They're all horizontal wells.

EXAMINER EZEANYIM: Okay. And the true vertical depth is now, currently, in the same pool at 7,800 feet?

THE WITNESS: Yes, sir.

Q. (BY MR. BRUCE) But the combination -- and I believe the wells -- you did get good results from the wells?

A. We did.

Q. And between that and the deeper depth and the plan to drill additional Bone Spring wells, that would lead to exceeding the allowables, correct?

A. Yes, it would.

Q. Does Legend have a geologist and engineer present to discuss --

A. We do. We have Mr. Robert Rieser, the geologist, who works for Legend, and Mr. Jason Vining, petroleum engineer.

Q. And did you search the Division's records to identify all operators in the pool or within a mile of

the pool?

A. Yes.

Q. And was notice of this application given to all operators?

A. Yes, it was.

Q. And is that reflected in my Affidavit of Notice marked as Exhibit 2?

A. Yes, it is.

MR. BRUCE: And, Mr. Examiner, all operators in the pool did receive actual notice.

Q. (BY MR. BRUCE) Have any operators objected to this application?

A. None have objected.

MR. BRUCE: Mr. Examiner, actually, both Mewbourne Oil Company and Devon Energy Production Company did contact me, and they do not object to the application.

EXAMINER EZEANYIM: Okay.

Q. (BY MR. BRUCE) Were Exhibits 1 and 2 prepared by you or compiled from company business records?

A. Yes, they were.

Q. And in your opinion, is the granting of this application in the interest of conservation and the prevention of waste?

A. Yes.

MR. BRUCE: Mr. Examiner, I'd move the admission of Exhibits 1 and 2.

EXAMINER EZEANYIM: Exhibits 1 and 2 will be admitted.

(Legend Exhibit Numbers 1 and 2 were offered and admitted into evidence.)

MR. BRUCE: And if the record could note, I've got the exhibits in chronological order.

EXAMINER EZEANYIM: Very good. Thank you (laughter). Maybe you can do that next time. Thank you (laughter). It makes it easier on me. I mean, just a request.

Okay. Are you done?

MR. BRUCE: Yes. No further questions of the witness.

CROSS-EXAMINATION

BY EXAMINER EZEANYIM:

Q. Is this Hay Hollow -- is this an oil pool or a gas pool?

A. Let's see.

Q. It says it's a gas pool.

A. The original -- I'm not -- I'm not positive. I think -- was it a gas pool?

MR. BRUCE: Yeah.

Mr. Examiner, on Exhibit 1, the order says

it's a pool for production of oil.

THE WITNESS: Yeah. It says it on the order.

EXAMINER EZEANYIM: Which one?

MR. BRUCE: Page 2 of Exhibit 1, paragraph two.

EXAMINER EZEANYIM: All right. But I don't know why they call it the Hay Hollow gas pool.

THE WITNESS: It's the Hay Hollow-Bone Spring pool.

MR. BRUCE: It says "North Hay Hollow-Bone Spring."

Q. (BY EXAMINER EZEANYIM) Morrow gas pool. Okay. So it's an oil pool, because you're asking for allowables. You can't be asking for -- and turn around and ask for allowables. So, of course, even if -- at that point, they can file as a gas pool. We can do that -- and the record -- I mean, you know, this may have been done a long time ago. What date is this?

A. October 1885. Yeah. It's old.

Q. You know, I'm seeing a lot of information from '85. Even if it's a gas pool, we can convert it to an oil pool because we are getting oil. I think it's better to produce --

MR. BRUCE: I believe it is an oil pool.

EXAMINER EZEANYIM: Yeah, it is. It should be an oil pool.

Most of the questions here are technical. They are not really land issues.

You did all the notices. You did the land job. You are excused.

THE WITNESS: Thank you.

EXAMINER EZEANYIM: Call your next witness.

MR. BRUCE: Call the geologist, Mr. Examiner.

EXAMINER EZEANYIM: Proceed.

ROBERT B. RIESER,

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

DIRECT EXAMINATION

BY MR. BRUCE:

Q. Would you state your full name and city of residence for the record?

A. Robert Bernard Rieser. City of residence is Weatherford, Texas.

Q. And who do you work for?

A. Legend Natural Gas.

Q. And what is your job with them?

A. I'm a senior geologist with them.

Q. Have you previously testified before the

Division?

A. No.

Q. Would you please summarize your educational and employment background?

A. I received my bachelor's of geology from Notre Dame University and my master's from Ohio University in 1976. Then after grad school, I worked for Amoco and worked for a number of companies, most recently with Legend. But for the last -- most of the last 15 years, I've been working on stratigraphic issues both in Texas and Venezuela.

Q. And does your area of responsibility at Legend include this portion of southeast New Mexico?

A. Yes.

Q. And are you familiar with the geologic matters regarding this application?

A. Yes.

MR. BRUCE: Mr. Examiner, I tender Mr. Rieser as an expert petroleum geologist.

EXAMINER EZEANYIM: Mr. Rieser is so qualified.

Q. (BY MR. BRUCE) Mr. Rieser, you have only one exhibit. It's got several pages to it.

MR. BRUCE: Mr. Examiner, it's Exhibit 4. I did manage to get one exhibit out of order.

EXAMINER EZEANYIM: Okay. Good.

MR. BRUCE: The engineer will discuss the next one.

EXAMINER EZEANYIM: Okay. Very good.

Q. (BY MR. BRUCE) Rather than let me interrupt, Mr. Rieser, could you run through the pages of Exhibit 4 and discuss the main reservoir that you have been drilling in this area?

A. Okay. Exhibit 4 consists of five pages. The first one is what I refer to as the cheat sheet, listing the stratigraphic names of the horizons I've been correlating that we inherited in the Fort Worth office and then with the Comment section of what those names actually refer to. So that's helpful for anybody referring to the geology sections or maps, because the stratigraphic names themselves are kind of mysterious.

Page 2 is an isochore of the 2nd Bone Spring interval -- the entire 2nd Bone Spring interval.

Q. That's the zone that Legend has been testing?

A. That's the zone we've been testing in this area, correct.

And page 3 is the isochore map of the particular sand -- the 2nd Bone Spring target sand, particular sand, within the Bone Spring that we've been focusing on.

Page 4 is a structure map of that particular, 2nd Bone Spring target sand.

And page 5 is a structure map of the entire Bone Spring Sand interval. Essentially, it's the top of the 1st Bone Spring Sand.

Q. Although this isn't a pooling case, it's showing -- let's go to page --

MR. BRUCE: First of all, Mr. Examiner, the third and fourth pages, I got those and printed them up in color. I can e-mail those, so you'll have them in color.

EXAMINER EZEANYIM: That's fine.

Q. (BY MR. BRUCE) Looking at the second page to the exhibit, the Legend acreage where you've drilled your wells in Section 7 to date, again, those are 2nd Bone Spring?

A. Those are 2nd Bone Spring, right.

Q. And is there any particular reason in this area you drill them as stand-up units rather than lay-down?

A. Not to my knowledge.

Q. Now, if I recall, it really didn't matter because Legend was 100 percent interest owner in those wells anyway?

A. Right.

Q. Is the 2nd Bone Spring Sand the main sand being

drilled? Is it continuous across the north Hay Hollow pool?

A. Yes. Based on the stratigraphic work, it is continuous.

Q. In looking at the structure, is that of any importance in drilling the well?

A. Not really. Not really. It helps us. It picks the point for landing the well, but as far as the actual production capabilities of the well, it hasn't played a major part.

Q. And the engineer will discuss a little bit more about the drilling of the wells in this area --

A. Correct.

Q. -- the production characteristics?

A. Correct.

Q. Was Exhibit 4 prepared by you?

A. Yes.

Q. And in your opinion, will the granting of this application be in the interest of conservation and the prevention of waste?

A. That's correct.

MR. BRUCE: Mr. Examiner, I'd move the admission of Exhibit 4.

EXAMINER EZEANYIM: Exhibit 4 will be admitted.

(Legend Exhibit Number 4 was offered and admitted into evidence.)

MR. BRUCE: I have no further questions of the witness.

EXAMINER EZEANYIM: Thank you, Counselor.

CROSS-EXAMINATION

BY EXAMINER EZEANYIM:

Q. You're a geologist, right, Mr. Rieser?

A. Correct.

Q. I think you can handle some questions relating to geology, then.

What is the cut rate porosity in this area?

A. In this area, for the 2nd Bone Spring, based on the recent petrophysical study based on the area, we're looking at less than 10 percent.

Q. Less than 10 percent.

And what are you getting?

A. It's more like between 2 to 6 percent average porosity.

Q. It's really tight.

A. It's tight.

Q. That will play into what we're doing here. Okay. Good.

What is the type -- we established it's an oil pool. Can you tell me the type of well, what that

is, or the engineer will tell me?

A. The engineer will discuss that.

Q. Okay. Very good. I will ask him that question, then.

Most of these will be engineering questions to answer, so you may be excused. Thank you.

A. Thank you.

JASON VINING,

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

DIRECT EXAMINATION

BY MR. BRUCE:

Q. Would you please state your full name and city of residence?

A. Jason Vining, Dallas, Texas.

Q. And who do you work for?

A. I work for Legend Natural Gas.

Q. What is your job there?

A. Operations and completions engineer.

Q. Have you previously testified before the Division as an engineer?

A. I have not.

Q. Would you please summarize your educational employment background for the Examiner?

A. Sure. I got a bachelor's of science in

petroleum engineering from Louisiana State University in 2009. I worked for about four years for Merit Energy Company out of Dallas and started working for Legend Natural Gas in April of last year.

Q. Does your area of responsibility at Legend include this portion of southeast New Mexico?

A. It does.

Q. And are you familiar with the engineering matters related to this application, and are you familiar with the wells that Legend has drilled in this area?

A. Yes.

MR. BRUCE: Mr. Examiner, I tender Mr. Vining as an expert petroleum engineer.

EXAMINER EZEANYIM: Mr. Vining is so qualified.

But may I ask you a question?

THE WITNESS: Yes, sir.

EXAMINER EZEANYIM: Since you are a recent graduate, are you aspiring to get the professional engineer registration?

THE WITNESS: That's the plan, yeah, eventually.

EXAMINER EZEANYIM: I encourage you to do that because it's your profession.

THE WITNESS: Sure.

EXAMINER EZEANYIM: Okay. Go ahead.

Q. (BY MR. BRUCE) Mr. Vining, first of all, why don't you identify Exhibit 3 and discuss its contents?

A. So Exhibit 3 is a map, once again, showing the outline of the pool, as well as showing the three wells that Legend has drilled in Section 7 of 25 South, 28 East. The State GQ 3H, 4H and 5H.

And if you use this map in conjunction with a table that we're going to show in a little bit, the red dots are going to be Concho wells, Concho horizontals. The yellow dots are going to be Yates, and I believe that blue dot, that blue well, is Mewbourne.

Q. And what is Exhibit 5?

A. Exhibit 5 is kind of basically showing the same thing. It's just from two different sources, so just to confirm that those are the wells and their associated APIs, the wells within that pool.

Q. And these also identify the wells by operator, correct, or at least by the API numbers?

A. Just API numbers, yes, sir.

Q. Let's move on to the table of data marked Exhibit Number 6. Could you go through that for the Examiner?

A. Sure. This is showing all of the wells that

were on Exhibit 3, along with the associated operators' API numbers, the locations, whether these wells are verbal or horizontal, the date of completion and the cumulative oil, gas and water production since those wells have been online.

Q. Looking at the production data, obviously the only way to develop is by horizontal wells?

A. That's true. And I'm sorry, I forgot to clarify. These are only Bone Spring wells, and the only wells that are highlighted on these maps are Bone Spring horizontals.

Q. And, again, you can refer back to Exhibits 3 and 5 to determine their locations.

In answering Mr. Ezeanyim's question, what type of reservoir is this?

A. A solution gas drive reservoir.

EXAMINER EZEANYIM: What?

A. It's a solution gas drive reservoir.

EXAMINER EZEANYIM: Very good.

A. Yes, sir, the volatile oil, which we confirm with PVT analysis. We don't have that analysis here, but that's what we found through that.

EXAMINER EZEANYIM: Okay.

Q. (BY MR. BRUCE) Looks like the reservoir does produce a fair amount of gas?

A. It does, as solution gas drive reservoirs usually do.

Q. Let's discuss production, and I would ask you to refer to your Exhibit 7. What does this reflect?

A. Exhibit 7 reflects two wells. One that we operate, the State GQ 3H, which was the first well drilled within this pool that Legend operated. The other is the Really Scary 5H, which is just showing the daily production -- daily oil production from each of those wells. And then the orange line between those two wells is just showing an average. So these are the only two wells that we had more than three months of daily production data on, which the Really Scary 5, we don't even have quite that much. So I just wanted to bring this to reflect what kind of oil production we're seeing from these Bone Spring horizontal wells.

Q. And it initially came on at about 1,000 barrels a day?

A. That's correct. Close to it, yes, sir.

Q. Let me ask you one thing: When these wells came on, is that when -- did Legend pretty much immediately begin looking at changing the pool rules in the North Hay Hollow-Bone Spring pool?

A. We did, yes, sir.

Q. In looking back on your Exhibit 3, in the half

section, have those three wells been drilled, 3, 4 and 5?

A. They have, yes, sir. The 3 was drilled and brought online in, I believe, March of 2013, and the other two wells were subsequently drilled about six months after that. I believe they were brought online in September.

Q. And although it's outside this pool, does Legend have other areas where it is planning on drilling, in essence, any infill Bone Spring wells, existing units?

A. Yes, sir.

Q. And is that one of the reasons why -- I mean drilling the infill wells -- you are seeking the increased allowable?

A. Yes, sir, along with other formations here that are going to be within the pool. The 2nd Bone Spring is what these are targeting, but there are other potential targets that other operators are going after, the 1st Bone Spring, the 3rd Bone Spring, which will be within this pool.

Q. Just in the pool?

A. Yeah.

Q. And by the placement on Exhibit 3, you can see that really you placed the wells so that there was about

equal distance between the three wells?

A. That's correct, about 950 feet between each well.

Q. Is that to minimize drainage interference between the wells?

A. That's correct. Yes, sir.

EXAMINER EZEANYIM: Let's go back to that drilling point there. I don't like interference. So which exhibit are you talking about now?

MR. BRUCE: Mr. Examiner, if you look at Exhibit 3, just at the top end --

EXAMINER EZEANYIM: I have Exhibit 3 here. Okay.

MR. BRUCE: You can see --

EXAMINER EZEANYIM: Three laterals, right?

THE WITNESS: Yes, sir.

EXAMINER EZEANYIM: What is the distance between them.

THE WITNESS: About 950 feet, approximately.

EXAMINER EZEANYIM: Is ownership in that section identical 100 percent to Legend.

THE WITNESS: Yes, sir.

EXAMINER EZEANYIM: Okay. Interesting.

THE WITNESS: In that half section.

EXAMINER EZEANYIM: What did you say?

THE WITNESS: In that half section.

EXAMINER EZEANYIM: In that half section. Okay. Very good.

THE WITNESS: Yes, sir.

EXAMINER EZEANYIM: Very good.

Q. (BY MR. BRUCE) You have two exhibits left. I'm not sure which one you would like to go to first.

A. This is just for additional data. This is a DFIT, which is a diagnostic fracture injection test.

EXAMINER EZEANYIM: Which exhibit?

MR. BRUCE: Exhibit 8.

A. Oh, I'm sorry. Exhibit 8.

Really the only thing I would like to reference from this is that through this DFIT analysis, which was done on another well about a mile north of these wells that we're discussing, we found that the reservoir pressure, based on this test, is 4,150 psi. And through PVT analysis, we found that the bubble point pressure is about 4,011. And that's not a precise number, but that's what the results of the PVT analysis said, so that would suggest that this reservoir is undersaturated. There is no formation-free gas present in the reservoir currently. And if you have any questions about this, I'd be more than happy to answer

them.

EXAMINER EZEANYIM: Yeah. Okay.

Q. (BY MR. BRUCE) And finally Exhibit 9. What does that reflect?

A. So Exhibit 9 is showing the three wells, so the three laterals that we drilled in that half section, just their gas-oil ratios. The main thing we wanted to illustrate here is that the gas-oil ratios are increasing at a reasonable rate for a solution gas drive reservoir. You know, you are going to see an increase in gas-oil ratios, but the rate at which we're seeing this is not alarming or concerning.

Q. And does that indicate to you that by increasing the allowable, there will be no reservoir damage?

A. That's correct. Yes, sir, and no issues with conservation or recoveries.

Q. And, therefore, increasing the allowable to 375 barrels a day would not cause any waste?

A. That's correct. Yes, sir.

Q. Were Exhibits 3 and 5 through 9 either prepared by you or compiled from company records?

A. Yes, sir, they were.

Q. In your opinion, is the granting of this application in the interest of conservation and the

prevention of waste?

A. Yes, sir.

MR. BRUCE: Mr. Examiner, I'd move the admission of Exhibits 3 and 5 through 9.

EXAMINER EZEANYIM: Exhibits 3 and 5 through 9 will be admitted.

(Legend Exhibit Numbers 3 and 5 through 9 were offered and admitted into evidence.)

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

EXAMINER EZEANYIM: Thank you very much.

CROSS-EXAMINATION

BY EXAMINER EZEANYIM:

Q. We have established that this is a reservoir solution gas drive, right?

A. Yes.

Q. Okay. Now, do we have any initial gas cap or initial undersaturation?

A. Since it's undersaturated, we do not.

Q. So we don't have any gravity segregation here?

A. No, sir.

Q. Okay. Good. So it's purely -- the energy is purely from that solution gas drive making gas, right?

A. Yes, sir.

Q. Okay. That establishes one point. I need to

give you a mechanism of how you're going to put this well in.

You've given me two important data that I really require, you know.

And then the bubble point -- I'm glad you did that, gave me the bubble point. If I don't know the bubble point -- because that way I can determine how you are going to produce this well so that it can produce mostly liquid. Because if you draw down this -- before you know it, it's bubble point. Of course, you can have a well with, you know -- it's not bubble point. You can have that straight line, but that's what you get with a production mechanism, where you want to produce more liquid than gas. If you look at the spreadsheet, you'll see they are producing a lot of gas --

A. Uh-huh.

Q. -- because of the solution gas drive.

And then it doesn't really -- it depends on the rate of withdrawal. Like, you are asking for 375. It doesn't matter. As long as it doesn't have an initial gas cap. You told me it doesn't have any initial gas caps, which is demonstrated by your --

A. Yes, sir. Yes, sir.

Q. Okay. Now, it appears to me this is already tight. Do you have any idea about the ability -- I know

it can be measured, but do you have any idea since walking that area?

A. Yeah. They estimated that with their DFIT.

Q. And what did they get?

A. They estimated a permeability of .003 millidarcies.

Q. So you haven't -- the mobility ratio?

A. Yeah.

Q. In other words, you calculate a mobility ratio. It's tight.

A. Yeah. I don't have that, but, yeah.

Q. If you have -- of course, it's a mobility ratio --

A. Yes, sir.

Q. -- and you can see how that oil moves, because it's the dynamics of the oil. We are looking at how it moves. If you don't have that ratio, then it's critical then.

Do you have an idea about it? You should, because you have PVT data.

A. Yes, sir. It's about 150 degrees.

Q. 150?

A. Yes, sir. It's pretty --

Q. Do you calculate original oil in place?

A. We have not. Our reservoir group may have some

more data on that, but as operations completions, I don't have that information.

Q. See, I want to -- that is important information that I needed. I needed to see how much oil we have in place.

A. Uh-huh.

Q. And if you have calculated the estimated ultimate recovery, and in each of those calculations by what method you used to calculate them, because that would be a march towards your request. If you do original oil in place and calculate estimated oil recovery and then you are asking for 375, then I have to do my own calculation to see whether you deserve that 375. Of course, don't get me wrong. This is a solution gas drive. We need to be careful.

A. Uh-huh.

Q. And then I think I got the depth. The depth right now, you said, is 7,800, right?

A. Yes, sir.

Q. And then I understand from your testimony that why you are asking for this increase is that you are going to be drilling infills. So let's say you create a project area and you drill one well. Is that project area is going to drill another well, and, therefore, you are afraid it might exceed the current allowable --

current daily allowable, right?

A. Yes, sir, as well as there being multiple targets within this pool, so infills, yes. And some of those infills may be targeting different formations, but the allowable would be set for the pool, which would include the multiple horizons that we'd be targeting. So --

Q. Okay. Apart from the horizons, if you are not drilling any infills, would you still be requesting that 375?

A. Based on the production that we've seen in the early stages --

Q. Yeah. I'm looking at the production. It is about 1,000. The IP is about 1,000, right?

A. Yes, sir.

Q. So unless you drill an infill, that's when you can go in there. Don't get me wrong. If we can extract that hydrocarbon back, we can be out there; we can do it. There is nothing written on the allowables as long as they are not impairing correlative rights and as long as you're not drawing down that system so that it produce gas. I don't want to say gas at 350 [sic]. I want to say we're looking at $100 a barrel. So I know you are -- are you a reservoir engineer?

A. Operations.

Q. Well, operations. What is your speciality? Production?

A. Production, operations, but I handle the completions as well.

If I could just speak briefly on the operation side.

Q. Yeah, go ahead.

A. If we want to reduce -- if we leave the allowables where they are and we have to reduce the rates, these wells load up and require artificial lift within a week --

Q. I understand. Yeah. Uh-huh.

A. -- and, actually, we've fallen back. And our artificial lift on these three wells is gas lift. So if we're gas-lifting and we're also choking back, then it's going to result in intermittent flow of the well, which, if you have intermittent flow of those down periods, where the well is not flowing anything, the gas lift compressor is going to go down. And so at that point, it's just not a very efficient gas lift operation.

And I'm sure you know, in a fracture reservoir, when you have a well that's up and down, up and down, it's going to leave you open to causing sand bridges within the lateral, which we may have to go in at some point, you know, and clean that sand out.

So just from an operations standpoint -- I know that you're asking a lot of reservoir questions, but from an operations standpoint, I think it would be detrimental to the well based on how we're having to produce these wells.

Q. What is your name again?

A. Jason.

Q. Jason, could you, with your counsel's assistance, try to do -- it's a simple calculation, you know.

A. And send that to you? Sure.

Q. Because when you do that -- you do it on an everyday basis, you know -- you can also do the EUR, just for my information on this pool.

A. Sure.

Q. Because any pool that comes here, I want to study it and see how its behaving, so we know how to produce it efficiently. Of course, you see, you are very close to bubble point. If you don't -- if you don't do what you're supposed to do, you want to break even farther, then you produce gas. I want to produce liquid.

And then my only consolation [sic] here is that it's going to maybe produce some segregation, which would be -- which is, you know, to your advantage. I

don't know whether you could do it, but if it's purely a solution gas drive, the rate of withdrawal does not affect ultimate recovery. But I want you to calculate that, and let me look at it.

A. Sure.

Q. So I will count on you to get that calculation. You can e-mail it to me, just the oil IP and the EUR on this particular project area.

A. Sure.

Q. See what type of drainage. And, of course, when you do that, I want to see the method you use in both calculations. "To be provided."

No further questions. Thank you.

At this point, it's about ten minutes to 12:00. We are going to take lunch for those who want to eat, and then we'll come back around 1:00. We have one more case to go. That's a contested case.

Is 1:00 good for everybody?

See you at 1:00.

(Case Number 15076 concludes, 11:56 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
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