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

ORIGINAL

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

CASE 15297

APPLICATION OF DEVON ENERGY PRODUCTION COMPANY, L.P., FOR SPECIAL POOL RULES, EDDY COUNTY, NEW MEXICO.

REPORTER'S TRANSCRIPT OF PROCEEDINGS

EXAMINER HEARING

May 14, 2015

Santa Fe, New Mexico

BEFORE: MICHAEL McMILLAN, CHIEF EXAMINER
ALLISON MARKS, LEGAL EXAMINER
WILLIAM V. JONES, ENGINEERING EXAMINER

This matter came on for hearing before the New Mexico Oil Conservation Division, Michael McMillan, Chief Examiner, and Allison Marks, Legal Examiner, and William V. Jones, Engineering Examiner, on May 14, 2015, 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: ELLEN H. ALLANIC
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A P P E A R A N C E S

FOR APPLICANT DEVON ENERGY PRODUCTION COMPANY, L.P.:

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I N D E X

CASE NUMBER 15297 CALLED

DEVON ENERGY PRODUCTION COMPANY, L.P.
CASE-IN-CHIEF:

WITNESS SAMUEL WALKER

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(Time noted 9:09 a.m.)

EXAMINER McMILLAN: I would like to call this hearing back to order. I would like to call case No. 15297, Application of Devon Energy Production Company, L.P., 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 McMILLAN: Any others appearances?

(No response.)

EXAMINER McMILLAN: Please swear in the witnesses.

(Whereupon, the oath was administered to the witnesses presented.)

EXAMINER McMILLAN: Mr. Bruce, please proceed.

SAMUEL WALKER

having been first duly sworn, was examined and testified as follows:

DIRECT EXAMINATION

BY MR. BRUCE:

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

A. Samuel Walker, Oklahoma City, Oklahoma.

Q. And who do you work for?
A. Devon Energy.
Q. And what is your job with Devon?
A. A landman.
Q. Have you previously testified before the Division?
A. I have.
Q. Were your credentials as an expert petroleum landman accepted as a matter of record?
A. They were.
Q. And are you familiar with the land matters involved in this application?
A. I am.
MR. BRUCE: Mr. Examiner, I tender Mr. Walker as an expert petroleum landman.
EXAMINER McMILLAN: So accepted.
Q. Mr. Walker, could you identify Exhibit 1 for the Examiner.
A. Yes. Exhibit 1 is just a land plat of the West Jennings Bone Spring Pool in Eddy, County, given to us by Paul Coutz of the Hobbs OCD Office.
It is color-coded. The blue is the current boundaries of the pool and the red is the proposed existing pool boundaries by Paul Coutz.
Q. And so Mr. Coutz has told you that he intends to

expand the pool to include the red or brownish acreage?
A. Right, correct.
Q. And what is the yellow acreage?
A. It is acreage where there is approved APD but a well has not yet been drilled.
MR. BRUCE: And Mr. Examiner, Exhibit 2 is simply a legal description of the acreage on page 1 of the exhibit.
EXAMINER McMILLAN: Okay.
Q. What is the depth frac allowable in the pool?
A. The current allowable is 230 barrels of oil per day.
Q. What does Devon seek in this case?
A. We would like to get 690 barrels of oil per 40-acre unit.
Q. Does Devon have a geologist and an engineer to testify about the need for the allowable increase?
A. Yes, we do.
Q. And were all of the operators in the pool, including the expansion acreage and within one mile of that acreage, notified of this hearing?
A. Yes, they were.
Q. And is that reflected in Exhibit 2?
A. Yes.
MR. BRUCE: And, Mr. Examiner, all of the

operators in the pool did receive actual notice.

Q. And were Exhibits 1 and 2 either prepared by you or under your supervision or compiled from company business records?

A. Yes, they were.

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

A. Yes.

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

EXAMINER McMILLAN: Exhibits 1 and 2 now may be accepted as part of the record.

(Whereupon, Devon Energy Production Company, L.P., Exhibits 1 and 2 were offered and accepted as part of the record.)

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

EXAMINER McMILLAN: Go ahead.

EXAMINATION BY EXAMINER JONES

EXAMINER JONES: Just to get oriented here, is there an offsetting Bone -- this is Bone Spring, correct?

THE WITNESS: Correct.

EXAMINER JONES: Is there offsetting Bone Spring pools here and how close are they?

THE WITNESS: There is -- I believe if you look at Exhibit 1, there is a Bone Spring pool to the north, probably about a mile away.

EXAMINER JONES: And it's an oil pool?

THE WITNESS: I believe so.

EXAMINER JONES: And it is classified as a wildcat at this point in time, but you think it would be included in this pool?

THE WITNESS: Eventually, perhaps, if, I guess, they expanded to include that.

EXAMINER JONES: You are not asking for fixed pool boundaries or a frozen pool of a certain size here, are you?

THE WITNESS: No. We are just asking for an increased allowable production.

EXAMINER JONES: And the pool can grow as it grows then?

THE WITNESS: Correct.

EXAMINER JONES: What about these other operators that you noticed them, what kind of support did they give for this application?

THE WITNESS: No one had any objection. Only had one person call and just ask a few questions about it, and they were completely okay with the idea.

MR. BRUCE: That was BOPCO, Mr. Examiner.

EXAMINER JONES: BOPCO called?

THE WITNESS: Uh-huh.

EXAMINER McMILLAN: Devon was here earlier, I believe, talking about a -- asking for increased allowable for a pool in the Bone Spring. Do you remember where that was at or how far away?

THE WITNESS: Yes. That was in section 32, Lea County, 24 south, 31 east, I believe.

EXAMINER JONES: So straight south of here about 12 miles?

THE WITNESS: No. It would be north and a little east.

EXAMINER JONES: Yes, north.

So this is on the state line here, you are talking about; close to Jal; is that correct?

THE WITNESS: It is not far from the state line. A little bit north.

EXAMINER JONES: Around the Town of Loving?

THE WITNESS: Uh-huh.

EXAMINER JONES: Okay. And your application is solely for an oil allowable? It is not for any changing of the limiting GOR, just oil allowable?

THE WITNESS: Correct.

EXAMINER JONES: Okay.

EXAMINER McMILLAN: I don't have -- I have

no further questions.

THE WITNESS: All right.

EXAMINER JONES: Thank you.

THE WITNESS: Thank you.

STEPHEN BURNS

having been first duly sworn, was examined and testified as follows:

DIRECT EXAMINATION

BY MR. BRUCE:

Q. Please state your name for the record.

A. Stephen Burns.

Q. And where do you reside?

A. In Oklahoma City.

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

A. Devon Energy as a geologist.

Q. Have you previously testified before the Division?

A. Yes.

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

A. Yes, they were.

Q. And are you familiar with the geology involved in this application?

A. Yes, I am.

MR. BRUCE: Mr. Examiner, I tender Mr. Burns

as an expert petroleum geologist.

EXAMINER McMILLAN: So accepted.

Q. Mr. Burns, let's run through your exhibits. What is 3?

A. Exhibit 3 is a structure map on top of the Third Bone Spring line with a contour interval of 25 feet.

It also shows the pool outline that was the subject of some questions a bit ago. The structure dips from the west to the east.

Q. Is structure particularly important in the Bone Spring here?

A. It is not.

Q. It's just sort of a reference --

A. It's a reference.

Q. What is Exhibit 4?

A. Exhibit 4 is a net isopach using an 8 percent cutoff of the lower Third -- sorry -- lower Second Bone Spring interval -- a contour interval of 10 feet. And, again, it shows the subject section and the surrounding areas.

Q. It looks like most of the acreage has 130 to 150 feet of net sand in this area?

A. That's correct.

Q. And so the Second Bone Spring is continuous across this pool as it may be expanded?

A. Yes, it is.

Q. Is this the primary target zone of Devon in its plan to drill in this area?

A. It is.

Q. Are there other productive Bone Spring intervals in this area?

A. There are. In section 2 itself, we produce, I believe, from the Third Bone Spring. We also produce from the Avalon Shale interval. And we are currently drilling a Wolf Camp well.

Q. Let's move on to the productive intervals. Could you describe the cross section mark, Exhibit 5.

A. The cross section I have given you runs across the subject area. It is hung on the -- it is a stratographic section. It is hung on the Third Bone Spring line, which was the structural marker on Exhibit No. 3. And the isopach interval represented on Exhibit No. 4 is from the blue line down to the purple line.

Q. Is Devon -- in other areas at least, Devon is looking at drilling -- let's just take a single 160-acre well unit in a section. Are they considering drilling both in the upper Second Bone Spring as well as in the lower Second Bone Spring?

A. We currently have work in progress to the north, probably six or eight miles, where we are going to drill

a couple of horizontals just above the blue line in what I call the A Sand of the Second Bone Spring.

Q. So when you're looking at this area, not only is the Avalon Shale a potential zone where you'll drill a well in the Third Bone Spring, but, possibly, two wells in the Second Bone Spring?

A. Correct. The data that we have today would indicate that our frac heights are not going up far enough to access the A Sand.

Q. Let's look at a potential development in section 2, which is part of the pool. What does that reflect?

A. I assume you are talking about Exhibit 6?

Q. Yes.

A. Exhibit 6, I just kind of blew it up a little bit, because there's a lot of well locations in section 2 currently. It shows where we have drilled some Avalon wells in there already, which are the lines with small circles that are actually filled in.

In blue are represented the locations that we would like to drill into the lower Second Bone Spring, which is the isopach interval that is included in this hearing. So there are actually six locations.

Q. So besides multiple zones, you are also looking at potentially having -- let's say, in the lower Second

Bone Spring of having more than one lower Second Bone Spring well per well unit?

A. That's correct.

Q. Okay. And that's -- those are two of the main reasons you are seeking the allowable increase?

A. That's correct.

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

A. Yes.

Q. And were Exhibits 3 through 6 prepared by you or under your supervision?

A. Yes, they were.

MR. BRUCE: Mr. Examiner, I move the admission of Exhibits 3 through 6.

EXAMINER McMILLAN: Exhibits 3, 4, 5, and 6 may now be accepted as part of the record.

(Whereupon, Devon Energy Production Company, L.P., Exhibits 3, 4, 5, and 6 were offered and accepted as part of the record.)

MR. BRUCE: And I have no further questions for the witness.

EXAMINER McMILLAN: Just go first.

EXAMINATION BY EXAMINER JONES

EXAMINER JONES: So where is the Avalon

located on this cross section?

THE WITNESS: It's actually not on that cross section. It would be above, probably 400 or 500 feet.

EXAMINER JONES: Okay.

THE WITNESS: So, really, this cross section, I have only given you that Second Bone Spring interval.

EXAMINER JONES: That is your main target?

THE WITNESS: That is our target for this application.

EXAMINER JONES: For the new drilling?

THE WITNESS: Yes.

EXAMINER JONES: How have the existing wells turned out? They are in the Avalon; is that correct?

THE WITNESS: Yeah. They are marginal. They were drilled a couple, three years ago. We have learned a lot about fracs and so forth since then. And we are going to do some additional work in this area, generally which we -- you know, our hope is it will turn out much better.

EXAMINER JONES: So those are -- existing wells are in what zone now?

THE WITNESS: In the Avalon predominantly. And I believe we also have the One-third Bone Spring

Sand well, also.

EXAMINER JONES: Just one?

THE WITNESS: So far, yes.

EXAMINER JONES: But you plan more?

THE WITNESS: Again, subject to economics. You know, $60, $50 oil changes a lot.

EXAMINER JONES: But do you want this application primarily because you want to have a rig there and drill all the wells and get them on line and then you frac them all about the same time?

THE WITNESS: We have. And Pedro will speak to this a lot more. And I will just kind of generically answer your question.

This is a down-spacing pilot for us. So we are trying to kind of figure out what the correct spacing is for that lower Bone Spring interval.

EXAMINER JONES: Okay. So stand-up wells are the way to go here?

THE WITNESS: It appears to be. I don't know that in the lower Second Bone Spring that we have a lot of data that says one way is better than the other.

The principal stress direction, you can intersect that pretty much at the same angle, whether you go east or west. Our preference has been not to test that theory a great deal, but go ahead and drill

everything north/south. And all of our drills up in Cotton Draw proper area have been drilled north and south.

EXAMINER JONES: Cotton Draw is right north of here?

THE WITNESS: Correct.

EXAMINER JONES: And so the principal stress direction would be...

THE WITNESS: I believe it is about -- it is probably close to north, 45 west.

EXAMINER JONES: Okay. So northeast to southwest?

THE WITNESS: Yes, exactly.

EXAMINER JONES: And you talked about frac height. That was kind of an engineer's question, but for geologists, do you work with the microseismic people or --

THE WITNESS: I actually don't. I let our geophysicist do that. All I know is kind of what I've heard sitting in meetings and so forth.

EXAMINER JONES: Okay. But you do have control out here. What control do you have? What vertical wells and what pilot holes have you drilled?

THE WITNESS: The best map to kind of talk about the control from, in the immediate vicinity, is

the structural map.

The wells that have subC numbers immediately below the well symbols are the wells which have penetrated that lower Second Bone Spring interval.

And so you can see there's a few scattered control points in this area, but it does not have a great deal of control.

EXAMINER JONES: Okay. And those are in red; is that correct?

THE WITNESS: That's correct.

EXAMINER JONES: Those are in red on Exhibit --

THE WITNESS: On Exhibit No. 3.

EXAMINER JONES: So do you plan on drilling some more pilot holes and logging them?

THE WITNESS: Well, I don't think that we have.

EXAMINER JONES: Is that a point of debate among your team?

THE WITNESS: No. We're pretty good about drilling them where we think we need them. And the pilot holes are basically for us.

We've tried doing -- we have taken some core data, some side well core data in section 2 just recently with a deep Wolf Camp test.

EXAMINER JONES: Okay.

THE WITNESS: That's the well in the southeast, southeast; southeast of section 2.

EXAMINER JONES: Okay.

THE WITNESS: And I don't think in terms of finding my landing point or anything that I really need a lot of additional control to do that.

We do have seismic out here. That's good data that we can, you know, plan a well bore path and feel pretty comfortable with it.

So I think right now we are in pretty good shape for that, unless we find that it is not what we expect.

EXAMINER JONES: You can see these sands on the seismic?

THE WITNESS: No. We don't see sands on seismic. But we know what the structure looks like. And that is really kind of the important part. So we know where the land {sic} and what the dip is going to be and so forth.

EXAMINER JONES: So you drill your vertical portion, and then do you log it before you decide to kick off?

THE WITNESS: Typically, we don't.

EXAMINER JONES: So what kind of logging do

you do with the horizontal --

THE WITNESS: If it's a well that we need some additional science on, we'll do a fairly comprehensive sonic, FMI, that type of data collection in the horizontal. But, you know, that is obviously very expensive and we don't do that very often.

EXAMINER JONES: Do you do logging while drilling with --

THE WITNESS: Typically, no. When we are drilling just a regular horizontal, no.

We've got a gamma ray with surveys in the hole, and so we know where we are at. And that's about all we normally run in a just standard well.

EXAMINER JONES: So you got your drill times and your mud logs to basically --

THE WITNESS: That's correct.

EXAMINER JONES: Your gamma ray comes in, you can log in from your office and be watching all this going on?

THE WITNESS: Yes. We get -- usually our survey depths, I think we run 90 feet now. And, again, that is a little bit outside of my purview.

We have execution GOs that kind of watch all of the wells for us and so forth. And they try and keep the asset geologist to mapping.

EXAMINER JONES: What about your -- first of all, the top and bottom of this pool, is it pretty easy to pick the top and the bottom of the Bone Spring pool as it's defined by poll counts.

THE WITNESS: Yes, it would be.

EXAMINER JONES: If you look at any of the logs here, do you see any gas, oil, or water or changes going on from top to bottom of the pool?

THE WITNESS: No, we've do not to date. I haven't been terribly concerned about water saturations.

The sands in the Bone Spring interval in particular are all low resistivity sands. And we produce water with all of our wells.

We have to be set up to handle that water disposal, and so on and so forth. But I don't really see oil/water contacts if that is what you are asking or gas/water contacts.

EXAMINER JONES: Okay. And the wells -- so you haven't drilled any in the target zone you are talking about right now?

THE WITNESS: In section 2.

EXAMINER JONES: In section 2?

THE WITNESS: That's correct. I believe we are currently drilling our first well in section 2 for

this zone. It should be the Snapping 2 State 1H, I believe. Maybe we are at about 5,000 feet.

EXAMINER JONES: Okay. You've set your intermediate where?

THE WITNESS: Sorry. I honestly can't answer that. It's around 4,300 feet maybe.

EXAMINER JONES: Below the Delaware.

THE WITNESS: We are into the Delaware.

EXAMINER JONES: In the Delaware?

THE WITNESS: Yes.

EXAMINER JONES: And your Wolf Camp well, is that an exciting new prospect you are talking about there?

THE WITNESS: It's been a challenge.

EXAMINER JONES: Really.

THE WITNESS: Yes.

EXAMINER JONES: You are already pretty deep here with the Bone Spring. How deep is your Wolf Camp well?

THE WITNESS: It is going to be eleven, eight TVD.

EXAMINER JONES: Okay. I don't have any more questions.

EXAMINATION BY EXAMINER McMILLAN

EXAMINER McMILLAN: So the Avalon is not

separated; it's all part of the same thing?

THE WITNESS: It's all part of the Bone Spring.

EXAMINER McMILLAN: So your reason for this is you are going to have multiple wells in the 40s, right?

THE WITNESS: That's correct.

EXAMINER McMILLAN: So how many wells could you possibly see in a 40?

MR. BRUCE: Our next witness, the engineer, will go over that.

THE WITNESS: Thank you.

EXAMINER McMILLAN: And what was your other -- reason one was because you have multiple wells 40. What were your other reasons for this application?

MR. BRUCE: I think his testimony, Mr. Examiner, is that there is a potential for up to two or three wells in different intervals -- a potential of two wells in the Second Bone Spring and a potential of one well in the Third Bone Spring.

EXAMINER McMILLAN: Okay.

EXAMINER MARKS: Is that your testimony?

THE WITNESS: Yes, it is. We will have multiple wells in that Bone Spring interval over a vertical portion of the hole.

FURTHER EXAMINATION BY EXAMINER JONES

EXAMINER JONES: I forgot to ask, are there existing vertical wells in the Bone Spring here?

THE WITNESS: No. There are no producing vertical wells. There are wells that are deeper, but nothing that is actually producing from the Bone Spring interval.

EXAMINER JONES: You are not overlapping any spacing units either -- or project areas? Because obviously you are drilling them all north/south, so...

THE WITNESS: Correct.

EXAMINER JONES: Okay.

EXAMINER McMILLAN: I have no further questions at this time. Thank you very much.

THE WITNESS: Thank you.

PEDRO MORA

having been first duly sworn, was examined and testified as follows:

DIRECT EXAMINATION

BY MR. BRUCE:

Q. Would you, please, state your full name for the record.

A. Pedro Mora.

Q. And where do you reside?

A. Oklahoma City.

Q. Who do you work for and in what capacity?
A. Devon Energy as a reservoir engineer.
THE COURT REPORTER: Sir, you're turned away from me and you have an accent and your voice is low. I'm having trouble understanding you. Please face me and speak up.
Q. Have you previously testified before the Division?
A. Yes.
Q. And were your credentials as a petroleum reservoir engineer accepted as a matter of record?
A. Yes, it was {sic}.
THE COURT REPORTER: Sir, please speak louder.
Q. And are you familiar with the engineering matters related to this application?
A. Yes, I am.
MR. BRUCE: Mr. Examiner, I tender Mr. Mora as an expert reservoir engineer.
EXAMINER McMILLAN: So qualified.
Q. Mr. Mora, I ask you to identify Exhibit 7. And please run through it and give me the basis of the request in this matter.
A. Okay. Exhibit 7 is a -- shows I was in charge, tried to understand and maximize the recovery and

economics for Bone Spring Sands.

And the proposal was to increase the actual level, because we saw important net present value increase to -- for the wells. And we are planning to implement a pilot in the section 2.

So if we go to page 3, this is just a --

THE COURT REPORTER: I need to understand you so if you --

A. -- it's a production history profile for some wells in the area. So we have the Snapping 2 State 13H; the Cotton Draw Unit 214H; the Cotton Draw Unit 211H; the Snapping 10 FED 3H; and the Snapping 10 FED 5H.

So we can see here, we compare the actual rates versus the allowable that we have for that particular pool right now. And it looks like we are making better wells or productivity values are greater than that limit that we have right now.

Q. So the initial rates for a number of these wells are substantially above the allowable for the well unit?

A. That's correct. So if we go to page 4, this is the waterflow that we follow to understand how much oil, how much reserve we have per well in the area.

So we create numerical models in Facquet, we run some RTN analysis and we perform some history match of the neighbor wells in the area. And we use all the logs

that we have, the core data that we have, the PVT, some DFIT data, and the production history.

So we perform a history match of the pressure. And you can see here in the log how -- that's an example for a particular well.

We try to monitor our oil, and we simulate the pressure, water, and gas rates. And when we compare our results with the hard data that we have, the core data, the DFIT data, and the production history, then we perform some forecasts in trying to understand how much is going to be our EUR per well.

And, so, then using that data, we perform a spacing analysis. So we put different number of wells per section, trying to see how much was the optimal EUR per section and how was the optimal NTV per section.

So that's in page No. 5. You can see the table with the results. And we have a different number of wells; this is one well per section, two wells, three, four, five and six wells per section, seven, and eight wells per section.

So we perform analysis and we try to see the effect of the interference between wells. And that interfering is going to affect our EUR per well. So we quantify that and then we run economics to try to see as

a group of wells, how was our best NTV and our best rate of return.

And as you can see in the table in page 6, our ultimate number of wells per section is six. Using six wells per section, we can get a rate of return of 25 percent. And the reserve per section increased to 2.2 million barrel of oil. From four wells per section, it was 1.7. So we are increasing the reserves per section, and we are increasing the NTV.

The rate of return is similar to the four wells per section, but we are optimizing and getting to a point, 3.5 million dollars.

So using that analysis, we are proposing a pilot in the section to build six wells in the lower Second Bone Spring. And as Steve mentioned, our plan is to drill all those wells at the same time and try to frac at the same time to avoid any kind of interference in the frac design. And that's why we are requiring increasing the oil wells.

So in the last page of series No. 7, we have some conclusions. And it looks like with four wells per section, we still have the high remaining residual oil saturations. It looks like we need acceleration or a down spacing program. And that's what we are going to try to make with this final -- the ultimate well density

of six wells per section looks like it's the best case scenario right now.

It will increase from 30 to 40 percent the total reserves per section. That's what our numbers are showing. The total pool maximum allowable is 230 barrels per day for 40 acres, and that's approximately 120 barrels a day for 160 acres.

So the actual data that we have for enabled wells shows that we need to increase that allowable. And that's where we have some Bone Spring wells producing right now.

So we are planning to have the six wells per section in the lower Second Bone Spring. And then we have two Bone Spring wells. We already have the Avalon. So it looks like we are going to have three or four targets between the Bone Spring.

In relation to the history with six wells per section, we are expecting approximately 1,600 barrels of oil per day. And that's in 107-acre spacing. This is just for Second Bone Spring.

We request an increase to 690 barrels of oil per day for 40 acres, and that's equivalent of 2,760 barrels a day and 160-acre spacing, and the equivalent of 1,845 barrels of oil per day and 170-acre spacing.

Q. Was Exhibit 7 prepared by you, Mr. Mora?

A. Yes, it was.

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

A. Yes, it was {sic}.

MR. BRUCE: Mr. Examiner, I move the admission of Exhibit 7.

EXAMINER McMILLAN: Exhibit 7 may now be accepted as part of the record.

(Whereupon, Devon Energy Production Company, L.P., Exhibit 7 was offered and accepted as part of the record.)

EXAMINER McMILLAN: I would like for Mr. Jones to ask some questions, to start off.

EXAMINATION BY EXAMINER JONES

EXAMINER JONES: So does Devon have this Fauquet model or did you learn of the Fauquet and you requested it?

THE WITNESS: They have been using Fauquet for the last three or four years. Presently, Delaware as you know, we have wells from a three- to a four-year maximum. So we start to make some model like two years ago, and we have now good data. We have some wells with bottom hole pressure from pumps.

So our data right now is more robust than it

was two years ago. So we are planning actually to have some real time sensors bottom hole pressure data. And we have right now six wells down hole gauges to try to record pressure and to, you know, feed better or more.

EXAMINER JONES: How do you land those gauges down there and do they transmit somehow through the fluid to the surface?

THE WITNESS: Yes. There's two types. There's the memory ones that you need just to go to the closest well and just run a tool to get the memory. And the other one is realtime data.

EXAMINER JONES: Okay.

THE WITNESS: Those are the expensive ones.

EXAMINER JONES: Yeah, I bet. Can you balance your log-calculated oil in place with your decline curves here very well?

THE WITNESS: Yeah. That was one of the first things that we did. We have our type fuels for the area. We have our type fuels for the wells. And our models are showing the difference between 2 to 3 percent with those type fuels. So the model is telling us that we are really close to the histories and that's what's feeling us really good.

EXAMINER JONES: What assumptions did you

have to make in your log analysis to match your declines? I mean, as far as your water saturations and your --

THE WITNESS: Yeah, Fauquet Harmony RTA use a flat water saturation for the whole interval that you create a model. So those values were the average from the logs that we have in the area. So those values are around 50, 55 percent water saturation.

EXAMINER JONES: Okay.

THE WITNESS: So porosity around -- from the cores and we take a well and cut and draw. It's like five miles away. So the porosities were taken from that particular core and -- I think that we have enough data to be confident that the model is working.

EXAMINER JONES: Your core porosities and your log porosities -- so what kind of logs do you need to run to match your core porosities? In other words, do you need just a density log or --

THE WITNESS: Yeah, I think when we run -- in that particular well, we run a full combo of logs. So then we compare with other types of logs, and then we compare the values that we get from the core with those ones. And they match quite well.

EXAMINER JONES: Okay. So your frac heights, did you get into looking at those?

THE WITNESS: Yes.

EXAMINER JONES: So you're assuming in this whole model situation that the -- so this is all empirical type stuff, so it is based on whatever fracs you've done --

THE WITNESS: Yes.

EXAMINER JONES: -- so far. So if you change your frac design, it's going to change everything --

THE WITNESS: That was part of the analysis. We, in the previous hearing that was last year, we presented the results with the old frac design. These particular results are with the new fracture design. So the SRD, the frac height, the half frac length change with the new frac designs.

So before we were using 600, 700 pounds per foot. Now we are using 1,500 pounds per foot. So indirectly we didn't see too much increase in the frac height, so it looks like we have more density. So we are having more half frac length.

EXAMINER JONES: You're packing more sand in there?

THE WITNESS: We are packing more sand, too.

EXAMINER JONES: Is it sixteen, thirty sand or is it twenty, forty?

THE WITNESS: It's forty, seventy and 100 mesh.

EXAMINER JONES: And did you microseismic to --

THE WITNESS: Yeah, we have a -- we run a microseismic in ground well with the old frac design and another with the new frac design, and we compare.

That's why we are saying in the microseismic, we are looking that the frac height was really similar, but we have more and more density with the new frac designs.

EXAMINER JONES: Okay.

THE WITNESS: That's one of the things. So we use microseismic. Right now we just got a radioactive tracer. We are making a practical signs well, and we are getting a lot of data from that one. And these results are also showing us that we are in that frac height that we are using for the models.

EXAMINER JONES: Okay. Do you use any chemical tracers also in addition to the --

THE WITNESS: I don't remember that we use a chemical tracer. We use radioactive tracer, I know.

EXAMINER JONES: We are putting everybody to sleep.

So, basically, this business of having

multiple horizontal wells in the same pool, you're not worried about -- let's say one of them is the 90 percent well and it produces more than the other two and they are right on top of each other; are you worried about any reservoir damage?

THE WITNESS: No. We didn't see any reservoir damage. We didn't see any batch or whatever. So we believe that vertically we are not communicating with the upper sand and we are not communicating with the Third Bone Spring. So aerially we can see some effects, but we didn't see any negative effect. We are seeing just positive effects.

EXAMINER JONES: Okay. How it's affected is in relation to getting your reserves earlier and your economics is better?

THE WITNESS: Correct.

EXAMINER JONES: And what about the GOR? As you produce these wells really hard, is it pulling all your -- is it hurting your --

THE WITNESS: That's something really interesting that we saw there. It looks like with the old frac design our pressure just dropped more quickly than with the new frac design. So that could be explained because we are contacting more area. Our draw down in the reservoir is lower. So that means that our

pressure behavior is more smooth. So with the new frac design, the pressure decline is more smooth than with the old frac.

EXAMINER JONES: The reservoir pressure here is normal pressure?

THE WITNESS: No. This is an overpressure environment. We took about 7. -- 0.6 psi...

EXAMINER JONES: Excuse me. Say that one more time.

THE WITNESS: 0.6 --

EXAMINER JONES: 1.6 -- surface gradient psi?

THE WITNESS: Yeah.

EXAMINER JONES: So six wells, and, if you wanted to lower economics, you could even go to more wells and get a little bit more --

THE WITNESS: That's right. That is another part of the study we are running right now. So what happen if the oil price increase? So maybe the economics could improve and maybe we can drill more wells per section. But that's going to depend on the commodity prices.

EXAMINER JONES: Yeah. So you're not asking for any kind of limiting GOR change here? 2,000 is fine?

THE WITNESS: Yes. We didn't see any changes in that and the PVDs that we have are showing an EUR of less than 2,000 --

EXAMINER JONES: Did you say of a thousand?

THE WITNESS: No. Less than 2,000.

EXAMINER JONES: Thank you very much.

THE WITNESS: You're welcome.

EXAMINER McMILLAN: This was in engineering, and the only question I had, you asked, so I'm fine.

THE WITNESS: Thank you.

MR. BRUCE: I have nothing further, Mr. Examiner.

EXAMINER McMILLAN: Okay. Therefore, case No. 15297 will be taken under advisement.

EXAMINER JONES: Excuse me. You guys are okay with a temporary pool rule here?

MR. BRUCE: That's fine.

EXAMINER McMILLAN: Case 15297 will be taken under advisement.

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. _____, heard by me on MAY 14, 2015.

_____, Examiner
Oil Conservation Division

(Time noted 9:52 a.m.)

STATE OF NEW MEXICO)
) ss.
COUNTY OF BERNALILLO)

REPORTER'S CERTIFICATE

I, ELLEN H. ALLANIC, New Mexico Reporter CCR No. 100, DO HEREBY CERTIFY that on Thursday, May 14, 2015, the proceedings in the above-captioned matter were taken before me, 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 and control.

I FURTHER CERTIFY that I am neither employed by nor related to nor contracted with (unless excepted by the rules) 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.

Ellen allanic

ELLEN H. ALLANIC, CSR
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