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 NO. 14308

APPLICATION OF RSC RESOURCES LIMITED PARTNERSHIP TO ALLOW TWO OPERATORS ON A WELL UNIT, EDDY COUNTY, NEW MEXICO

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REPORTER'S TRANSCRIPT OF PROCEEDINGS

EXAMINER HEARING

April 16, 2009
Santa Fe, New Mexico

BEFORE: DAVID BROOKS: Hearing Examiner
TERRY WARNELL: Technical Advisor
RICHARD EZEANYIM: Technical Advisor

This matter came for hearing before the New Mexico Oil Conservation Division, David Brooks Hearing Examiner, on April 16, 2009 at the New Mexico Energy, Minerals and Natural Resources Department, 1220 South St. Francis Drive, Room 102, Santa Fe, New Mexico.

REPORTED BY: Peggy A. Sedillo, NM CCR NO. 88
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I N D E X

E X H I B I T S

A P P E A R A N C E S

For the Applicant:	JAMES BRUCE, ESQ. Attorney at Law P. O. Box 1056 Santa Fe, NM 87504
For Three Span Oil and Gas:	OCEAN MUNDS-DRY, ESQ. Holland & Hart P. O. Box 2208 Santa Fe, NM 87504-2208
For COG Operating Limited:	SCOTT HALL, ESQ. Montgomery and Andrews P. O. Box 2307 Santa Fe, NM 87504-2307

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HEARING EXAMINER: At this time we'll call Case No. 14308. That is the Application of RSC Resources Limited Partnership to allow two operators on a well unit, Eddy County, New Mexico. Call for appearances.

MR. BRUCE: Mr. Examiner, I am Mr. Bruce from Santa Fe representing the Applicant. I have two witnesses to be sworn.

MS. MUNDS-DRY: Mr. Examiner, Ocean Munds-Dry from the law firm Holland and Hart here representing Three Span Oil and Gas this morning. I have one witness.

MR. HALL: Mr. Examiner, Scott Hall, Montgomery and Andrews Law Firm of Santa Fe, appearing on behalf of COG Operating LLC. No witnesses this morning.

HEARING EXAMINER: Okay. Are the witnesses present?

MR. BRUCE: Yes.

MS. MUNDS-DRY: Yes.

HEARING EXAMINER: Would the witnesses please stand, state your name, and then you'll be sworn.

(Note: The witnesses were placed under oath by the court reporter.)

HEARING EXAMINER: Would the witnesses please state their names for the record?

MR. CATE: Randall Cate.

MR. SMITH: Kirk Smith.

MR. BALDRIDGE: Earl Baldridge.

HEARING EXAMINER: Thank you. You may be seated.

KIRK E. SMITH,

The witness herein, after first being duly sworn upon his oath, was examined and testified as follows:

DIRECT EXAMINATION

BY MR. BRUCE:

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

A. My name is Kirk Elwood Smith.

Q. And where do you reside?

A. Midland, Texas.

Q. What is your occupation?

A. I'm a petroleum landmand.

Q. And what is your relationship to the applicant in this case?

A. I am a contractor to RSC Resources, LP.

Q. And as part of that, your relationship with RSC, have you been -- Do you have a company of your own?

A. Yes, I do.

Q. And what is the name of that?

A. Peregrine Production, LLC.

Q. And on behalf of Peregrine and RSC, the applicant, have you taken a number of term assignments on

acreage in the proposed well unit?

A. Yes, I have.

Q. And have you familiarized yourself with the title matters in this case?

A. Yes, I have.

Q. And RSC has proposed several wells in this area and you have done the land work on this; is that correct?

A. That's correct.

Q. Have you previously testified before the Division as a petroleum landman?

A. Yes, I have.

Q. And were your credentials as an expert accepted?

A. They were.

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

HEARING EXAMINER: So qualified.

Q. Mr. Smith, could you identify Exhibit 1 for the Examiner and tell him what that shows?

A. Exhibit 1 is a plat of Eddy County, New Mexico, Township 16 South, Range 28 East, specifically the north half of the south half of Section 30.

Q. Okay. And the north half of the south half of Section 30 is the proposed well unit for the RSC's horizontal well, is it not?

A. That's correct, the Lucky Wolf Fed. Com. No.

2-H.

Q. Now, the well bore of the Lucky Wolf 30-2 is not shown on this plat, is it?

A. That's correct.

Q. But is it a horizontal well which crosses all four quarter quarter sections?

A. It is a horizontal well that will cross the entire -- all four quarter quarter sections.

Q. Okay. Now, highlighted in red on this plat is another well, what is that well?

A. That is the Three Span Fed. Com. No. 1.

Q. And what type of well is that at the present?

A. That currently is a Wolf Camp producer.

Q. What was it originally drilled as?

A. If was originally drilled as an oil producer.

Q. Okay. And who is the operator of that well?

A. Three Span Oil and Gas Company, Incorporated.

Q. And that is a vertical well?

A. That's correct.

Q. And you understand that since RSC's well intends to cross the northeast quarter of the southwest quarter of Section 30, you understand that Division rules allow more than one well, one operator on a well unit, but notice had to be given to Three Span, correct?

A. That's correct.

Q. And notice was given to Three Span and it objected, do I understand?

A. That's my understanding, yes.

Q. And are you here today requesting permission from the OCD to have two operators of a well -- of wells on the northeast quarter of southwest quarter of Section 30?

A. That's correct.

Q. Now, looking at Exhibit 2, which is an assignment, Mr. Smith, what is that?

A. Exhibit 2 is a conveyance assignment and bill of sale recorded at Special Public Record 82, Page 355 of the record of Eddy County, New Mexico. And this conveyance assignment and bill of sale is the source of title to the Three Span well bore.

Q. Okay. And does the last page of that exhibit reflect that it is a well bore only assignment?

A. Yes, that is correct, it is a well bore assignment only.

Q. Now, in this well, one of the parties who would be participating is COG Operating, is it not?

A. I'm sorry?

Q. One of the other working interests owners in this well, in RSC's proposed well is COG?

A. That's correct. In RSC's well, COG is a

participant, that is correct.

Q. Okay. Now, what is Exhibit 3?

A. Exhibit 3 is an excerpt of a drilling title opinion prepared by Hinkle, Hensley, Shanor and Martin, Mr. Douglas Lunsford, Esquire, covering the horizontal well bore of the RSC well.

Q. And what does that opinion state with respect to the term assignment that was just submitted as Exhibit 2?

A. On Page 12, Part 2(a)(i), Mr. Lunsford explains what the rights of Three Span Oil and Gas are in the well bore.

HEARING EXAMINER: The Exhibit 3 I have has only four pages.

MR. BRUCE: Excuse me, Mr. Hearing Examiner, it should be the second page.

THE WITNESS: I'm sorry, specifically, it's Page 12 of the title opinion. The entire title opinion is not here. It is Page 2 of the exhibit.

HEARING EXAMINER: Okay.

Q. And does Mr. Lunsford, as a title attorney, state that the interest acquired under this assignment is a well bore only assignment?

A. That's correct, that's what he states.

Q. Now, this assignment was prepared for COG. Has RSC and Peregrine Production been authorized to use this?

A. Yes, we have. There is a confidentiality agreement that allows us to use this instrument for purposes of the well bore.

Q. Okay. Now next, let's move on to Exhibit 4. What is Exhibit 4?

A. Exhibit 4 is a Farmout Agreement dated December 5, 2008, by and between Three Span Oil and Gas Company, E. Earl Baldridge III, and WKKA, Ltd., as farmor, and Peregrine Production, LLC, is farmee.

Q. And what land did this farmout originally cover?

A. This farmout originally covered Section 30, the east half of the southeast and the northeast northeast of Township 16 South, Range 28 East from the surface to the base of the Wolf Camp formation only, Eddy County, New Mexico.

Q. Okay. In looking at Exhibit 1, these are all federal leases involved in this well, are they not?

A. That's correct, yes.

Q. And did Three Span and others own interests besides in the well bore of the Crow Flats Well, they owned working interests in other acreage within the proposed well unit?

A. That is correct.

Q. And they farmed out that acreage too?

A. That is correct.

Q. Did you have discussions with Mr. Baldridge and Three Span and these other people of the intent of RSC with respect to the drilling of the well?

A. Absolutely, yes. They were acutely familiar, yes.

Q. Okay. Did you inform them that you were planning on drilling a horizontal Wolf Camp well?

A. Yes, we did, and they were aware of that.

Q. What is Exhibit 5?

A. Exhibit 5 is a memorandum of an agreement which was recorded in the record of Eddy County, New Mexico, the Official Public Record 761, Page 1066, which evidences the farmout agreement that you see as Exhibit 4.

Q. Okay. And was that farmout agreement subsequently amended?

A. Yes, it was.

Q. And what led to that, did you find out that there were other interests involved?

A. What led to that was that our title research indicated that Three Span Oil and Gas, et. al., Earl Baldridge III, and WKKA owned a small interest in the northeast southwest which was a contractual interest out of the Crow Flats working interest unit.

Q. Okay.

A. And so Exhibit 6 was prepared to accommodate

that title evidence.

Q. Okay. So what you're saying is, even though Exhibit 2 was a well bore only assignment and that's what Three Span operates the well under, they also owned other interests in the northeast quarter of the southwest quarter?

A. That is correct.

Q. And you obtained this amendment which was submitted as Exhibit 6?

A. That is correct.

Q. So your farmout agreement covers their working interests in the 40 acres where the Crow Flats Well is located?

A. That is correct.

Q. Now, there was some related force pooling proceedings with respect to this well, were there not?

A. That's correct.

Q. There are three or four separate tracts of lands within the well unit?

A. That is correct.

Q. And approximately how many working interest owners?

A. About 32, I believe, 32 separate working interest owners.

Q. And have you obtained -- Peregrine Production on

behalf of RSC obtained farmouts or term assignments on the vast majority of those interests?

A. Yes. At this point, all but two parties we've finalized our agreements with.

Q. Okay. And since you obtained the term assignment -- the amended farmout agreement, I should say, from Three Span, does it own any working interest in the northeast quarter of the southwest quarter of Section 30 outside the well bore of the Crow Flats well?

A. Yes, it does.

Q. But they are subject to your farmout?

A. That's correct.

Q. Okay. So at this point, Peregrine Production and RSC own those working interests?

A. That's correct, during the term of the farmout.

Q. Okay. And so RSC has the right to drill the well?

A. That is correct.

MR. BRUCE: Mr. Examiner, I'm simply handing you as Exhibit 7 the letter that I sent to Three Span requesting, pursuant to Division rules, permission for two operators on a well unit.

Finally, Mr. Examiner, submitted as Exhibit 8 is the Affidavit of Notice that was sent to Three Span. I never did get the green card back, but the postal service

website shows that the letter was delivered. And Three Span is here, so I believe I complied with the notice requirements of the Division's rules.

HEARING EXAMINER: Well, as to Three Span, if there's any defect in notice, they've waived it by appearance.

Q. Mr. Smith, were Exhibits 1 through 6 prepared by you or under your supervision?

A. Yes. Specifically, Exhibits 1, 2, 4, 5 and 6 were prepared by me, Exhibit 3 was prepared by Mr. Doug Lunsford.

Q. And it's part of RSC's business records?

A. That's correct.

Q. And in your opinion, is the granting of RSC's application to allow us to drill the Lucky Wolf Fed. Con. 30 No. 2 Well in the interest of conservation and prevention of waste?

A. Yes, sir, it is.

MR. BRUCE: Mr. Examiner, I'd move the admission of RSC's Exhibits 1 through 8.

MS. MUNDS-DRY: No objection.

HEARING EXAMINER: Exhibits 1 through 8 are admitted.

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

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HEARING EXAMINER: Ms. Munds-Dry?

MS. MUNDS-DRY: I just have a few questions, I believe.

CROSS-EXAMINATION

BY MS. MUNDS-DRY:

Q. Mr. Smith, do you have your Exhibit 4 in front of you there? I believe it is the original farmout agreement.

A. Yes, I do.

Q. When you first approached Three Span, you responded to Mr. Bruce that Three Span did know very well that you were intending to drill a horizontal well; is that correct?

A. Oh, yes.

Q. What did you propose, what were the footage locations for the original proposed horizontal well, do you recall?

A. The original footage locations were with respect to the 30 1-H. Again, when we originally spoke with Three Span, et. al., we were -- our title information indicated that they were only going to be in the 1-H. They were not in the northeast southwest outside of the well bore.

And so, the footage locations for the 1-H were from the east boundary as a surface location, and I don't -- the engineer can help you with the farmout

question.

And the bottom hole location would be at a terminus on the west side of the section. We subsequently changed that.

Q. Why did you change that?

A. You'll have to ask the engineer about that.

Q. Okay. When that location did change, when did you propose that new location to Three Span?

A. We would have proposed that by notice from Mr. Bruce.

Q. Do you recall approximately when that was?

A. I'll defer again to Mr. Bruce. We've gone through numerous hearings on this south half of 30.

Q. Okay. As far as you know, were there two different locations that were proposed to Three Span for the location of the well?

A. On the 1-H?

Q. On the 1-H.

A. On the 1-H, I believe so, yes. Three Span originally made the farmout on December 5, 2008. So we may have changed that location after --

As matter of fact, I'd like to change my testimony. I believe that we made this farmout agreement with Three Span on December 5th as it is dated, and we changed the location in January.

So Three Span would not have received a notice of change of location as it had already farmed out. They would not have been a party to the pooling activity.

Q. I see. And Mr. Smith, when was the 2-H well first proposed to Three Span?

A. It was proposed prior to the December 5th farmout.

Q. Do you know approximately when that was?

A. No, I'm sorry, I don't remember.

Q. And has that location changed?

A. It also changed, yes.

Q. And was that changed location proposed to Three Span?

A. It was. I believe so.

Q. Do you know approximately when that was?

A. Probably in January as well.

Q. The current location for the Lucky Wolf 2-H, how far is that well location from the Three Span Crow Flats Fed. Com. No. 1?

A. I'm sorry, counselor, I'm not qualified to answer that question.

Q. Okay. Your engineer, do you believe he'll know that?

A. I believe he would be qualified to answer that question.

Q. Okay. I believe that's all the questions I have. Thank you.

HEARING EXAMINER: Okay. What is the current status of the -- I'm sorry, Mr. Hall?

MR. HALL: I have no questions.

HEARING EXAMINER: What is the current status of the pooling proceeding?

THE WITNESS: The pooling proceeding for the 2-H has been taken under advisement, I believe, from two weeks ago by the Commission.

HEARING EXAMINER: Okay. And what is the unit for the 2-H?

THE WITNESS: The unit for the 2-H is the north half of the south half of Section 30 of 16 and 28.

HEARING EXAMINER: Okay. And then there is another pooling proceeding?

THE WITNESS: That is correct, one that has been continued until today, which is the other case you have before you, the south half of the south half of Section 30.

HEARING EXAMINER: Okay. So the other pooling proceeding relates to a different unit?

THE WITNESS: That's correct.

HEARING EXAMINER: And it's not involved with this controversy because it's a different unit?

THE WITNESS: That's correct.

HEARING EXAMINER: Okay. Now, the proposed well will go all the way across the unit from east to west?

THE WITNESS: Yes, sir, it will.

HEARING EXAMINER: And what is the distance between that well bore and the Three Span?

THE WITNESS: Again, I would defer that to the engineer.

HEARING EXAMINER: Okay. And I suppose any questions I have about the completion of the wells, that would be for the engineer?

THE WITNESS: If you please.

HEARING EXAMINER: Okay now, you said that the well bore language was on the last page of Exhibit 3 and I couldn't find it. Where is the specific language?

THE WITNESS: Specifically, it would be Page 4 of Exhibit 2.

HEARING EXAMINER: Okay, so it's in the exhibit?

THE WITNESS: Yes, sir. And this language was read into the record during the Lucky Wolf 2-H pooling hearing two weeks ago.

HEARING EXAMINER: Okay. Very good. And once again, in the title opinion that's Exhibit No. 3, which paragraph is specifically relevant there?

THE WITNESS: I would refer to Page 2 of the

exhibit, Paragraph 2, Part A, Subpart I.

HEARING EXAMINER: Okay.

THE WITNESS: And it would be -- the main body would be in Line 6 of that Subpart I.

HEARING EXAMINER: Now, in your proceeding that you brought to pool these interests, were you proposing to exclude the Three Span well from the pooled unit?

THE WITNESS: I'm sorry, I don't understand the question.

HEARING EXAMINER: Well, I can understand why a lot of people wouldn't understand it, but I would think a landman should understand it.

THE WITNESS: Well, the --

HEARING EXAMINER: The pooled unit is included in the entire north half of the south half of Section 30?

THE WITNESS: That's correct.

HEARING EXAMINER: The Three Span well is located in the north half of the south half of Section 30?

THE WITNESS: That's correct.

HEARING EXAMINER: If you farmed a unit comprising the north half of the south half of Section 30, then that would, in effect, reconsolidate -- other things equal -- that would in effect reconsolidate the well bore interest in the unit. But my assumption is, that was not

your intention?

THE WITNESS: No. The well bore has the right of capture and does not own any correlative rights. Those correlative rights have been reserved in Exhibit 2 by the assignors who are now RSC Resources.

So, RSC Resources desires to develop its rights through that well bore through that entire unit.

HEARING EXAMINER: But whatever you've asked for, you would not object, I take it, if the Division entered a pooling order that expressly excludes the Three Span well?

THE WITNESS: Yes. We don't have any rights to that well bore.

HEARING EXAMINER: Okay. And you're not seeking to pool that into your unit?

MR. BRUCE: No, we're not, Mr. Examiner.

THE WITNESS: I'm sorry, no, we're not.

HEARING EXAMINER: If that was the case, we're treading in a very unexplored territory here, I think. But I want to get it right if we can.

Mr. Ezeanyim, any questions for this witness?

MR. EZEANYIM: Yes. Mr. Smith, this case is interesting. We, three or four years ago, went ahead and changed our rules and allowed multiple operators on the spacing units so that these cases don't come here anymore.

We're here now. Two operators came in to say "Allow multiple operators." We allowed multiple operators. So you're here and that's why we did the change, to make multiple operators.

I don't like it, because we did that once, it was a long time to do it, and now you guys are coming to say allow more operators. That's really interesting. But anyway.

I want to go back to Exhibits No. 4 and 6. What I want you to tell me there, according to your testimony, is that a farmout agreement by Three Span -- my questions are going to what I wrote down here is, on that farmout agreement, could Three Span drill on that well on that northeast southwest quarter of Section 30?

THE WITNESS: Mr. Examiner, no, Three Span could not drill an addition well in the northeast southwest. They only own the well bore. Neither could they sidetrack their existing well bore, but they would lose their well bore, they would not -- they did not have the rights under Exhibit 2 to replace that well.

MR. Ezeanyim: Okay. Is that detailed in those farmout agreements?

THE WITNESS: Well, no. The farmout agreement covers the what we are calling the correlative rights in the northeast southwest. Three Span's interests in the

farmout agreement as it applies to the northeast southwest is separate from its rights in the well bore. They're two separate issues.

The well bore is owned by Three Span specifically. And in light of that, I would refer to Page 2 of Exhibit 6. And because we -- when we made this agreement with this amendment with Three Span, we specifically dealt with this. And I would refer to the second land entry, and it says specifically,

> "Save and exempt the Crow Flats Com. No. 1 well bore as more fully described in that certain conveyance, assignment and bill of sale dated effective 6/1/90 from Eagle Oil and Gas, et. al., as assignor, to Cheyenne Resources as assignee, recorded at Official Public Record Volume 82, Page 355, record of Eddy County, New Mexico."

So it was not our intent in the farmout to encumber Three Span's operations on the Fed. Com. No. 1. They were specifically separated and they could enjoy their rights in that well bore.

MR. Ezeanyim: Okay. So your answer is yes, that if Three Span -- You mean to tell me that they need to drill an infield in the northeast southwest quarter,

they can drill because of this -- I don't understand all these legal -- whatever you say. But I just want to know whether they have the right to drill an infield.

THE WITNESS: In my opinion, they do not have the right to drill an additional well bore in the northeast southwest. They do not own those rights.

Three Span specifically granted us the right to develop the reserves in the northeast southwest outside of the well bore. That is what the farmout and its amendment constitutes. They specifically gave us those rights to develop that. And -- Well, that's my testimony.

MR. EZEANYIM: Okay. That's my only question.

HEARING EXAMINER: Terry?

MR. WARNELL: No questions.

HEARING EXAMINER: Okay. Anything further, Mr. Bruce?

MR. BRUCE: Just one question.

REDIRECT EXAMINATION

BY MR. BRUCE:

Q. Mr. Smith, when Ms. Munds-Dry was asking you questions about the 30-1 well, that's the south half south half which is the subject of the next case we'll be talking about?

A. That's correct.

MR. BRUCE: Okay.

HEARING EXAMINER: Anything else from anyone? Very good. The witness may stand down. You may call your next witness.

MR. BRUCE: I call Mr. Cate to the stand.

RANDALL CATE,

The witness herein, after first being duly sworn upon his oath, was examined and testified as follows:

DIRECT EXAMINATION

BY MR. BRUCE:

Q. Please state your name for the record.

A. My name is Randall Cate.

Q. And where do you reside?

A. Midland, Texas.

Q. And what is your relationship to RSC Resources Limited Partnership?

A. That is my company. I'm the president and sole owner of the company.

Q. And is it a duly qualified well operator in the state of New Mexico?

A. Yes, it is.

Q. By trade, what is your occupation?

A. Petroleum engineer.

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

A. Yes, I have.

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

A. Yes.

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

A. Yes, I am.

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

HEARING EXAMINER: Any objection?

MS. MUNDS-DRY: No objection.

MR. HALL: No objection.

HEARING EXAMINER: So qualified.

Q. Mr. Cate, could you refer to your Exhibit A and discuss the location of RSC's proposed well and also the location of the Three Span well?

A. Yes. Exhibit A, first page is the C-102 that -- it will help illustrate what we're dealing with here. The north half north half is the spacing unit.

In red outline is the Lucky Wolf 30-2-H well plan. And the green dot in the northeast of the southwest quarter there is the Three Span well bore. And it's 1,980 surface from the south and the west of Section 30.

And we have designed the well bore to stay within the producing area which by requirements are going to be 330 feet from the lease lines.

And so what we will do is stay as close to that 330 feet, which puts us at 2,310 from the south line, we will stay as close to that northern boundary of the producing area until we pass the Three Span 40 acre section. And then we plan to turn to the south and east to terminate 330 feet from the east line and 1,980 from the south line.

MR. EZEANYIM: Mr. Cate, could you repeat that?

THE WITNESS: Yes. In relation to the well, it is at 1,980 from the south line. Our well plan will be 2,310 or so. That is our limit. That is our producing area limit, is 2,310.

So it's 330 feet further north from the Three Span well bore that we will pass by in that 40 acres. Once we pass through that 40 acres, then we plan to turn the well bore to the southeast and to a terminus, you know, through the center of the producing area.

So the plan is that our well bore, the 30-2-H well bore should pass no closer than -- and I'm going to say 300 feet. We have 330 feet these days.

The technology, if you wish, you can stay within a five feet window with the horizontal technology. So just giving us a little leeway, I feel that we will be at least 300 feet from the Three Span well bore.

Q. Mr. Cate you have discussed this in the pooling

hearing, but in your opinion, is a horizontal well bore necessary in order to economically produce the reserves in the north half south half of Section 30?

A. Yes, it is. This horizontal play has developed in the last two or three years. And I've got a plat coming up -- I think Exhibit C, that I can discuss that little bit better. It will show the area and the amount of activity in it.

Q. Okay.

A. But yes, the horizontal technology has now proven itself as the way to recover these reserves. The vertical wells cannot do it economically.

Q. Exhibit A actually has three pages to it. Has your APD for the well been approved by the BLM?

A. Yes, it has. Yes, the second page was simply a plan by Black Viper, who is the directional drilling company, that correlates to what I've shown on the C-102.

Our APD has been approved by the BLM. And the copy here, it was approved on 4/9/09, as a matter of fact.

Q. Okay. Let's move on to your Exhibit B, the land plat you were discussing. What does that show?

A. Exhibit B is the land plat that shows -- Mostly, it's sections inside of Township 16 South and 28 East. It also goes partly over into the western side of 16 South and 29 East.

And if you'll notice, these are the horizontal -- the little, I guess sticks, diagrams -- that are crossing these sections, which are a mile by a mile, are the either drilled or proposed -- or APD'ed, I'm sorry -- permitted well bores that have been staked to date or drilled to date in this township. And there's 20 something so far.

And then over into Townships 16 and 28, there's 20 or 30 over there also. To outline -- well, Section 30 is in the south 30 southwest corner of this plat, and I show pictorially -- and it's visually accurate as to the distance between our proposed lateral and the vertical well, the Three Span well.

But if you go to the north, what I've highlighted in yellow and green is, this is a common practice by operators in this play to drill near existing vertical well bores. And each of these that I've highlighted in yellow -- For instance, if you go to the section north of 30 into 19, COG has two wells -- well, actually, they have four wells staked, but the one in the north half of the south half is virtually going to twin an existing well and produce 20,000 barrels out of the Wolf Camp that is no longer producing.

But they're going to twin it within 100 feet and then kick off their well bore and drill from there. There

is not a concern that the existing vertical well bore that has produced Wolf Camp reserves would damage their well.

My point being, I understand Mr. Baldridge is trying to protect his interest, but as an operator of a horizontal well, we're about to spend $3 million to $4 million, we would not put ourselves at risk by drilling close enough to a vertical well that during either the drilling operation or the completion operation we would risk the investment we're making.

And that's what my point here is, that not just RSC, but COG, Cimarex up in Section 16 -- As a matter of fact, they used these existing well bores to steer near the Wolf Camp pay. It's a tool that we use to stay in the pay.

So you can see -- I counted at least eight or nine of these, several that have actually been reentered after producing the Wolf Camp, and then use the same well bore to drill out of and do the horizontal lateral.

So the operators are not seeing that being in close proximity -- some of these are even within a hundred feet -- are a risk to either well bores. And a couple of these are producing reserves from lower pays, and they're going right by them within 100 feet.

The wells on 11, the well on 15 is a producer, and Cimarex -- I'm sorry, 16. RSC has an interest in it.

They drilled within 100 feet of that well that is producing reserves. The frac job went great. There was no problem.

So my point is, the concerns of any operational risks have been taken into account by the operators that are doing the drilling also. And it's a common practice in the area to drill near these existing well bores.

Q. And there haven't been any incidents of the horizontal well bore damaging an existing well bore?

A. No, not that I'm aware of at all.

Q. And how long have you been in the oil and gas business, Mr. Cate?

A. I graduated from UT in '79. So 30 years.

Q. And you've worked for other companies, have you not?

A. Oh, yes. I've worked for the Gulf Oil, Texas Oil and Gas, and 15 years at EOG Resources.

Q. And you've been involved in the drilling of any number of wells?

A. Yes. COG was one of the top horizontal drillers in New Mexico, as a matter of fact.

Q. Can you recall in any instance one of COG's or the other company's well bores, either vertical or horizontal, hitting another existing well bore?

A. No.

Q. Now, with respect to the Crow Flats No. 1, the Three Span well, when a well is being drilled, are there supposed to be certain steps taken to determine how the well bore is deviated?

A. Yes.

Q. And is that material filed with the Division?

A. Yes, it is.

Q. And what is Exhibit C?

A. Well, that is not that. If you want to go to that, that will be my last exhibit, actually, which would be Exhibit F.

Q. Okay. I got them mixed up. Okay. Let's take a step back then. Go to Exhibit C and discuss what that is.

A. Okay. Part of, I think, Three Span's objection is drainage. But what I wanted to show here on Exhibit C, this is the well log for the Crow Flat Unit No. 1, the Three Span well.

The Wolf Camp pay is shown, the log to the left. That's a density neutron log. And to the right, the log is the resistivity profile, but -- and it's a lateral log that was run also. And the scales are shown at the bottom.

I did a volumetric calculation breaking down each interval as is shown, its respective porosities, salt water calculations. We've backed into the RW for arch

equation by water analysis in this area.

And I've got a weighted average volumetric calculation that shows on 40 acres the recoverable oil in place should be 93.8 thousand barrels. And that is based on 31 feet of pay, average porosity is 10 percent. And the dolomite average -- salt water saturation or weighted average is 31 percent.

The Crow Flats decline -- and I'll show you that on my next exhibit, but the Crow Flats decline has an EUR of 67,000 barrels, roughly. There's 26,000 -- almost 27,000 barrels left to be recovered in this 40 acre unit.

Now, RSC and through farmouts in this leasehold, owns the rights to develop those remaining barrels. Our well will not hamper the Crow Flats well from continuing to produce its reserves, but without the horizontal laterals -- and this kind of answers the Examiner's previous question that -- the vertical wells have been found not to recover the reserves on the 40 acre spacing units that they've been assigned. And entirely now the play has gone to horizontal drilling because it does allow for the greatest recovery of the oil reserves in these units.

So I'm showing correlative waste would be occurring if we are not allowed to drill and complete in that 40 acre spacing unit.

Q. And again, this Exhibit C only applies to the northeast quarter of the southwest quarter?

A. That's correct.

Q. Okay. You're not drilling a horizontal well to recover 26,000 barrels?

A. Oh, no. There's three other spacing units with that potential of recoverable oil in each.

Q. Okay. And what is Exhibit D?

A. Exhibit D does -- I referenced earlier. That is the decline per where I arrived at the EUR for this well bore at 67,000 thousand barrels. And it's got a 5 percent decline; approximately four to five barrels of oil a day is what it produces.

MR. EZEANYIM: Which well produces four to five barrels a day?

THE WITNESS: The Three Span well is currently producing four to five barrels of oil a day.

Q. What is Exhibit E, Mr. Cate?

A. Okay, Exhibit E is a structure map that shows around Section 30 -- Basically, there is a structural nosing feature, but it's not -- it's not distinctive. It's common in this area.

But basically, the dip is to the west. And so we're going down dip to the east. And it's important because this gives here an indication of the direction, if

a well were to deviate, it typically will walk up dip. So a well bore that might deviate on its own will tend to walk to the west.

Q. And not toward your proposed well?

A. Not toward the north. And the following exhibits will show that.

Q. Okay. Well, let's go on to Exhibit F which is three separate pages. What does that show?

A. Well, the first one is the surveys that are required to be run on every well bore in New Mexico that was run when the Crow Flats No. 1, Three Span's well, was originally drilled.

And the surveys are used -- Clearly, if there is too high of a deviation problem, then they are required to run a gyro, but in this case, the deviations were not sufficient to warrant that.

The second page, then, I took -- and I got Black Warrior to take these deviations and put them in their program to tell us what a maximum deviation could be of this well bore down to 6,200 feet, basically where our pay is.

And so he calculates it -- I mean, they calculate it all the way down through the Morrow. But if you go back up to Line 21, which would be 6,245 feet, the maximum deviation, if every deviation walked continually

to the north, the maximum it could have been at the Wolf Camp is 100 feet.

The implication there is that our horizontal -- our 30 2-H well bore will still be at least 200 feet away even if it did walk totally this one direction. But as you would expect with the structure, the way that it runs, it dips to the east.

This is public data from COG's well, the Donnor 3, which is back on the structure map, Exhibit E. This is their pilot hole, their vertical hole in the Donnor 3, which is the well just off sitting to the north of the Three Span well.

And they did run a gyro, so they know exactly where they are. Which after they finished the gyro, of course, then they kick off and drill what they measured with wild drilling tools.

And I had to blow this up, but what it shows is, that it walked entirely in a west direction. Number one, it -- if you go down to -- well, you can see where they tied in at the bottom there, at the bottom left. It says "Tied into the scientific gyro."

So, at 5,874 feet, if you come to the middle, the vertical section, it only walked 40 feet total. Okay. It actually ended up .1 foot south, not north. And then it walked 40 feet west.

And if you follow that west coordinate all the way up the column, it only went west. It did not deviate to the east. And there when it did even do some north and south in this column, it was only a half foot or a few feet at a time. As matter of fact, early on it went south -- very shallow, it went south first and then tended to come back.

So this is an example of a well -- immediately offset well that shows what you should really expect with these deviations. Number one, they do not walk 100 percent in one direction to the north, and they don't walk to the north, they actually go to the west.

So if the Three Span well did walk any direction at all and deviate any direction at all, it should be just to the west. And I believe that our well bore will be no closer than 300 feet from their well bore.

Q. So, in their pre-hearing statement, Three Span raised two issues, one of which is protecting their correlative rights, but with respect to development of this particular 40 acres, RSC owns those rights, does it not?

A. Well, they do have correlative rights --

Q. In their well bore.

A. Which allows them to produce what they can from their well bore. Our correlative rights are for any

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further development, any additional wells on that 40 acre unit, and also the rights that we've picked up in the remaining units in this well bore.

Q. And the other issue is damage to the well bore. But based upon what you just presented and testified about, do you see any issue with respect to damage to Three Span's well bore?

A. No. There's virtually very, very little chance of that happening.

Q. Were Exhibits A through F prepared by you or under your personal supervision?

A. Yes, they all were.

Q. In your opinion, is the granting of RSC's application in the interest of conservation or prevention of waste?

A. Yes, it is.

MR. BRUCE: Mr. Examiner, I'd move the admission of Exhibits A through F.

Ms. MUNDS-DRY: No objection.

HEARING EXAMINER: A through F are admitted.

MR. BRUCE: No further questions.

HEARING EXAMINER: Ms. Munds-Dry?

CROSS-EXAMINATION

BY MS. MUNDS-DRY:

Q. Mr. Cate, I understand that you have a greater

familiarity of when the different wells were proposed to Three Span and what the locations were according to Mr. Smith?

A. Yes.

Q. I'd like to just back up, then, and talk about that for a little bit. When you originally entered into the farmout agreement, which I believe is Exhibit 4, what locations for the 1-H -- what was the surface and bottom hole location proposed for the 1-H, do you recall?

A. Yes. We -- I want to say this was probably back even in October -- September or October of 2008, the original south half south half, which is the 30 1-H, was planned 330 from the south and east to a terminus of 330 feet from the south and west.

Q. And I understand that that location changed; is that correct?

A. Yes, it did.

Q. And when was the new location proposed?

A. Very early January. I think, as matter of fact, the stakes -- I see the C-102s are February '06. I believe the stakings were early to mid January.

Q. And do you recall the change of locations, the surface and bottom hole?

A. Yes.

Q. What was that?

A. You said what predicated or what changed?

Q. What was the change in location?

A. Oh, okay. We decided -- RSC decided that the locations on the western side of Section 30 were less intrusive, less expensive than the locations on the east side of the section. There's a lot more terrain differential.

And our estimates where, the locations could have cost us, you know, hundreds of thousand of dollars plus. And so we chose the locations for both these wells over on the western side of the section primarily to save money, but also less intrusion for the pads on the land.

Q. Now, let's turn to the Lucky Well No. 2-H. When was that well first proposed to Three Span?

A. Officially, it would -- I don't know that we ever officially proposed that. I mean, we did not propose that well to them. We notified that we would be drilling it with -- Okay. Jim Bruce gave me a -- Okay, we had, actually, proposed this well to them on 12/17/08.

I thought, like Mr. Smith, that we already had the farmout before that, but -- Okay. I think I remember now. Title wise, we had taken a farmout from Three Span, and the other -- his other partners in the east half of the east half of the section earlier than this, earlier than December.

I believe that we found out then that Three Span had a small interest -- Three Span and their partners had a 3 percent interest that we had not leased in the same tract as his well bore, which we then made this proposal, which we did propose at the 2,310 feet from the south and 100 feet from the west, on 12/17/08. And they subsequently assigned us their interests. They did not want to participate. And -- Yes.

Q. Has the location of the Lucky Wolf 2-H, has that location remained the same since you first proposed it to Three Span?

A. I believe so. I believe this was the only proposal that we gave them on the 2-H. Now, we did give them the proposal on the 1-H. Our plans did change to drill the 2-H first.

Q. Okay. Thank you. Let's turn to your Exhibit A, if you would please, Mr. Cate.

A. Okay.

Q. You testified that in your prior experience, you drilled horizontal wells in the past before owning RSC?

A. Yes.

Q. Did I understand that correctly?

A. While I was under the employ of EOG Resources, primarily.

Q. Okay. How many horizontal wells does RSC

operate in New Mexico?

A. RSC does not operate any wells in New Mexico at this point.

Q. You don't operate any wells, any vertical or horizontal wells in New Mexico?

A. That's correct.

Q. Is RSC a duly qualified operator before the OCD?

A. Yes, it is.

Q. Okay. So this would be the first well that you would be the operator of in New Mexico?

A. That is correct. Now, RSC owns various working interests in probably at least 20 wells in southeast New Mexico of which four of them are in this horizontal play right here.

Q. Those are none-operating interests?

A. They are none-operating interests.

Q. As operator, then, is this the first time you've used Black Viper as your directional drilling contractor?

A. Yes, it is.

Q. And you testified that in your experience that with the technology the way it is today with horizontal wells, that there's at most a five foot deviation?

A. No, that's not exactly what I said. If you do not control the deviation, it could be greater than five feet. My point was that the technology exists to stay

within a five foot window if you so desire.

Q. I see. On Exhibit B, Mr. Cate, you show that at least on this exhibit -- I believe there are eight horizontal wells that are reflected on Exhibit B; is that correct?

A. Yes. Nine, actually, including our Lucky Boy, I believe.

Q. Okay. Fair enough. And how many of these horizontal wells has RSC?

A. RSC has participated with Cimerex in three wells in Section 16.

Q. I understand that, Mr. Cate, but how many of these well bores has RSC drilled?

A. I already answered that question. I did not -- RSC did not drill any of them.

Q. Okay. And you showed here that there were many vertical wells, and I believe it's reflected as green dots on the map here that are next to these yellow sticks?

A. Yes.

Q. In each of these instances, are these vertical wells owned by the same operator, or is it a different operator?

A. Well, in Section 16, that green well is owned by the same operator, Cimarex, who drilled three horizontal laterals.

In Section 15, I believe that well is operated by -- the vertical well is operate by Devon, even though the APD is Cimarex. And Section 19, back over on the south, that will be COG operating.

And the well I referenced earlier in the north half south half, I believe that the well they're going to offset that produced out of the Wolf Camp is actually plugged at this time.

Over in section -- on the east side of the map in Section 19, RSC owns an interest in that horizontal lateral that St. Mary's has recently drilled, and they drilled right by an old EOG well called the Savors. That well is actually a 10-A well also. The pipe was not set. Those I know of specifically.

Q. So are there no examples on here of wells that are operated -- vertical wells operated by someone different than operates the horizontal wells?

A. I cannot be sure. But probably not.

Q. Mr. Cate, if you please turn to Exhibit D, you had testified that Crow Flats No. 1 made four to five barrels a day. What was your source for that data?

A. Well, I've got several sources. I used drilling info. But I've also looked at the production listed on the PI also. But it's public data that's gathered by several different, you know, data sources.

Q. When you were discussing Exhibit F, you were discussing different factors that effect deviation?

A. Yes.

Q. Are the factors in a vertical well that effect deviations different than the factors that effect deviation in a horizontal well, is that a fair statement?

A. Absolutely, sure.

Q. And according to Exhibit F, you believe that the max at the vertical well for the Crow Flats, you believe the max that it may have lost is about 100 feet?

A. That is what the calculations show, yes.

Q. And I'm not sure I understood you correctly, so I'm generally asking to make sure I understand. So let me clarify. Did you say that the max that the Lucky Wolf 2-H would go when it crosses the northeast quarter of the southwest quarter is 200 feet away?

A. No, actually, we will be between 300 and 330 feet away from Three Span at its 1,980 from the south and west surface locations. And then my testimony was, if the well bore -- the Three Span well bore, based on these surveys -- had done the improbable and walked entirely to the maximum displacement to the north, which is also improbable, then our well bore would still -- the horizontal lateral would still be at least 200 feet away.

Q. Okay. Thank you for clarifying that.

MS. MUNDS-DRY: Those are all the questions I have for Mr. Cate.

HEARING EXAMINER: Mr. Hall?

MR. HALL: I have no questions.

HEARING EXAMINER: Okay, I think I understand the basic situation but I want to be sure it's on the record. So for that purpose, the Three Span well is called the Lucky Wolf No. 1, is that the name of it?

THE WITNESS: No, sir, it's Crow Flats --

HEARING EXAMINER: Oh, I know. No, Lucky Wolf is the proposed well.

THE WITNESS: It's RSC's horizontal lateral.

HEARING EXAMINER: And the Three Span is Crow Flats No. 1?

THE WITNESS: Fed. Com. Unit No. 1, I believe, is the proper name.

MR. BRUCE: If you look at Exhibit A, Mr. Examiner, the first page of it, the C-102.

HEARING EXAMINER: Okay, yeah, that's the C-102 for the Lucky Wolf.

MR. BRUCE: Yes, but I've highlighted it in green and then down below.

HEARING EXAMINER: Okay, so that's the correct name, then, the Three Span Crow Flats Fed. Com. Unit No. 1, that's the correct name of the Three Span?

THE WITNESS: Yes, I believe it is.

HEARING EXAMINER: And the proposed well is the Lucky Wolf 30 Fed. Com. No. 2-H?

THE WITNESS: Yes.

HEARING EXAMINER: And that's the only well that RSC proposes to drill on this unit, correct?

THE WITNESS: That's correct.

HEARING EXAMINER: And RSC does not have an existing well on this unit?

THE WITNESS: That's correct.

HEARING EXAMINER: Okay. Both the Three Span well and the proposed well will be completed in the Wolf Camp, correct?

THE WITNESS: That's correct.

HEARING EXAMINER: And this is an oil zone?

THE WITNESS: Yes, it is.

HEARING EXAMINER: Okay. Do you have a projection on what you expect the rate of production to be in the proposed well?

THE WITNESS: The rate?

HEARING EXAMINER: Yeah.

THE WITNESS: Of production through the entire lateral all four units?

HEARING EXAMINER: I guess that's what it would have to be.

THE WITNESS: Yes. Yes, probably 300 barrels per day, I believe, would be a good first month's estimate.

HEARING EXAMINER: Yeah. What is the depth bracket allowable on this?

THE WITNESS: I believe 104 to 130 at the 6,1400. feet. I believe it's --

HEARING EXAMINER: Now, is that for a 40 acre unit?

THE WITNESS: Yes, per 40. So four times that would be --

HEARING EXAMINER: So it's going to be 400 and something.

THE WITNESS: Yeah. I can't remember specifically, but it's over 400 barrels per day.

HEARING EXAMINER: And the Three Span well is only producing like four or five barrels a day?

THE WITNESS: Yes. Four to five barrels, yes.

HEARING EXAMINER: So based on that, there presumably would not -- This unit would presumably not be exceeding its allowable? Even if your 300 barrels day projection proves to be accurate, you would have to do considerably better than that before you would have a problem exceeding the allowable?

THE WITNESS: That's correct. I know of only

two instances where the wells have exceeded the allowables, and they don't do it for very long, either, maybe a month or two, and then -- you know, these do hyperbolic decline, so I don't anticipate that there would be an allowable problem.

HEARING EXAMINER: You would understand, however, that Three Span production from the Three Span well would presumably have to be included in computing the allowable production?

THE WITNESS: Absolutely. And can be grandfathered. I mean, their five barrels a day can -- We're not trying to impede their right to produce their production.

HEARING EXAMINER: Okay. I believe that's all my questions. Mr. Ezeanyim?

MR. EZEANYIM: You asked good questions. There were questions I wanted to ask you but you've done them. But let me ask you some of these questions. What's the flow? Do you have an idea, can you give me an idea of this formation in this area, do you have an idea how -- what it is?

THE WITNESS: Yes, I actually do. I did not present --

MR. EZEANYIM: The average, you know, what you think it is, the average and the --

THE WITNESS: Yes. I would say based on my experience, probably .1 millidarcy. There are several DSTs -- If I go back to our land plat, which was Exhibit B, the well in Section 15, which is in the middle of the section, their DS-2 -- and I've actually got that if you would like me to make it of record, but I can tell you what the -- The flow -- this had approximately 60 feet of porosity of that same 4 percent cut off.

And I could find that if you would like and I can read it to you, but the DSTs have flow pressures of approximately 40 pounds, and recoveries might be 100 feet of total fluid at the best.

So very, very limited permeability. And that's reflected on the Three Span decline curve. But after an acid job, it produced approximately 15 to 20 barrels a day; but within six months, it's down to ten barrels a day for a 50 foot unit, 31 feet of net pay.

So, I would say the permeabilities are very low, .1 to .5 millidarcies, somewhere in that range. Very tight.

MR. EZEANYIM: Okay. How do you come up with the recovery factor of 20 percent?

THE WITNESS: Twenty percent is -- At EOG, I was primarily their reservoir engineer and we worked with Degoire and McNaughten. It was an independent firm. And

what they had was a very interesting correlation between the oil gravity and the recovery factor.

And it makes sense, because the higher the oil gravity, the thinner the fluid, the better it moves through the reservoir. And the gravity of this crude is a 42 gravity. Their correlation was basically that you could divide the gravity by 2 and that is your recovery factor.

MR. EZEANYIM: Is that a rule of thumb?

THE WITNESS: It is a rule of thumb, but it also makes sense. And that was from empirical -- I mean, they -- you know, evaluated tens of thousands of wells and that was what -- But one field in particular that I managed called the Red Hills Field, it also had 42 degree gravity crude.

We did a horizontal program in that field, and it also had .1 to .5 millidarcy permeability. Another reason that the horizontal program was successful there. And the recovery factors were also estimated to be 20 percent.

MR. EZEANYIM: The recovery factor here is very conservative, because for such a tight formation, you might not get up to that. You might -- I don't know. But I think if your rule of thumb works, I wanted to find out how you come up with that. Okay.

I know opposing counsel asked you about this, so if we look at Exhibit F, given the deviation of 100 feet, you are at least 230 feet from the Crow Flats No. 1 in passing through the northeast southwest quarter?

THE WITNESS: No, Mr. Examiner, this -- this is the COG well, this data?

MR. EZEANYIM: Oh, okay. Yeah. On that one, COG was the -- it's called the Donnor No. 3?

THE WITNESS: Yes, the Donnor No. 3, and it's a direct offset to the Three Span well. But COG just drilled this, I believe, December or January.

MR. EZEANYIM: Okay. What was the location of that well, is it in the same section?

THE WITNESS: The vertical well is approximately -- I think their surface location is 1,980 from the east line, and I think 1,880 from the north line. It was slightly off the center.

MR. BRUCE: Mr. Examiner, if you'd look at Exhibit B, over on the left side, just above the red well unit?

MR. EZEANYIM: Yeah. Okay.

MR. BRUCE: The COG well is the one immediately to the north and crosses through three 40 acre well units. And that's where the well that Exhibit F is taken from.

EZEANYIM: Okay, I see. And I think you decided

that this may be the fastest way to where RSC is drilling? I know you said in your testimony that EOG or something like that was into it, but this is the only horizontal well that RSC is going to drill, right?

THE WITNESS: Yes, that is correct. Now, my plan is to employ a consulting engineering firm. Probably New Tech. I've already had discussions with them. And they have extensive experience in horizontals.

MR. Ezeanyim: Okay. That's all I have.

HEARING EXAMINER: Mr. Bruce, any follow up?

REDIRECT EXAMINATION

BY MR. BRUCE:

Q. Really, just one follow-up question, and this was in the pooling proceeding a couple weeks ago, Mr. Cate. COG did have a separate APD in part of this well unit, did it not?

A. That's correct.

Q. And COG has agreed to withdraw that APD?

A. That's correct.

Q. So as the Examiners look at the on-guard system, they might see a COG APD covering the north half southeast quarter of the section, but that APD is going away?

A. That is right. I think that was the Donnor No. 2, and COG has agreed to withdraw that APD.

Q. And work together with respect to the drilling

of RSC's well?

A. Yes. They've offered to aid and help -- they've joined in -- They've indicated they will join in the drilling of this well, as well as several others. We've got J. Cleo Thompson, EOC, and several other industry partners have signed our JOAs, as matter of fact.

HEARING EXAMINER: Is that all, Mr. Bruce?

MR. BRUCE: Yes.

HEARING EXAMINER: Okay. I had one other question that I forgot to ask. It looks like from the way the plat is drawn that the -- Let me look at the actual footages. Yeah, there's 100 from the west line. And you don't have the coordinates at the point of penetration. Is this going to be an nonstandard location for Lucky Wolf 30 Fed. Com. No. 2-H?

THE WITNESS: It is nonstandard for the vertical portion of the well bore. However, by the time the curve is built and landed, it will not -- it will not land until it does encounter the producing area 330 feet from the line.

HEARING EXAMINER: But it will not reach the top of the Wolf Camp formation at a point 330 from the --

THE WITNESS: That's right. And that's the design. Why we actually moved 200 feet is to allow the building of the curve. I felt it was a waste. You know,

start at 330, and you're 600 or 700 feet by the time you actually get into the pay.

HEARING EXAMINER: Very good. Thank you. That's all I have. Anything further from anybody?

MR. BRUCE: Only thing I was going to point out, you asked about the allowable. It is 142 barrels of a day for a 40 acre well unit.

HEARING EXAMINER: Okay. Very good. Thank you. You may stand down. And does that conclude your presentation, Mr. Bruce?

MR. BRUCE: Yes, sir.

HEARING EXAMINER: Ms. Munds-Dry?

MS. MUNDS-DRY: Could I ask for a five minute pregnancy-related break?

(Note: A break was taken)

HEARING EXAMINER: Ms. Munds-Dry, you may call your first and only witness.

EARL BALDRIDGE,

the witness herein, after first being duly sworn upon his oath, was examined and testified as follows:

DIRECT EXAMINATION

BY MS. MUNDS-DRY:

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

A. Edgar Earl Baldridge III.

Q. Mr. Baldridge, where do you reside?
A. I reside in Midland, TX.
Q. And by whom are you employed?
A. I'm employed by Three Span Oil and Gas, Inc.
Q. And what is your position with Three Span?
A. I am the president and operations manager.
Q. Have you previously testified before the Division?
A. No, I have not.
Q. Would you review your education and work history for the Examiners, please?
A. I have a Bachelor's of Science from the University of Wyoming, 1988. I hired on with Texaco Exploration as an operations engineer in December '88 and became a drilling engineer in January 1992.

I left Three Span and became a consultant in October 1992, primarily a horizontal drilling engineer working with various independents in the Permian Basin in New Mexico.

In January of '94, I began internationally consulting and spent most of my time in southeast Asia and Russia. I resumed working with Three Span Oil and Gas in 1998 and I've been working with them ever since.

Q. Are you familiar with the application that's been filed by RSC in this case?

A. Yes, I am.

Q. And just to make sure I understand, you're a petroleum engineer by trade?

A. Yes, ma'am.

MS. MUNDS-DRY: Mr. Examiner, we would tender Mr. Baldridge as an expert in petroleum engineering.

HEARING EXAMINER: Are there any objections?

MR. BRUCE: No objection.

HEARING EXAMINER: Did you wish to ask him some questions, Mr. Ezeanyim?

MR. EZEANYIM: Yes. Mr. Baldridge, are you a registered petroleum engineer?

MR. BALDRIDGE: No, sir, I am no.

MR. EZEANYIM: Were you taught by (inintellible name) in Wyoming?

MR. BALDRIDGE: Yes, I --

MR. EZEANYIM: Did you did listen?

MR. BALDRIDGE: I'm sure I did.

MR. EZEANYIM: Okay, yeah. Because if you were taught by him, then you are qualified.

HEARING EXAMINER: He is so qualified.

MS. MUNDS-DRY: Thank you, Mr. Examiner.

Q. Mr. Baldridge, would you please state why Three Span objects to this application?

A. Primarily, we object to the application due to

the potential risk of well bore damage to our Crow Flats Fed. Com. Unit No. 1. Also, we believe the well harms our correlative rights.

Q. How did you first become aware of RSC's desire to drill a well in the south half this section?

A. RSC, or Peregrine Production, proposed the Lucky Wolf Fed. Com. No. 1-H in early 2008. I don't remember the date exactly. Later they proposed the Lucky Wolf Fed. Com. 2-H in January 2009.

Q. And what was RSC's original proposal to Three Span?

A. RSC and/or Peregrine proposed the Lucky Wolf Fed. Com. No. 1 in the south half of the south half of Section 30. The working interest owners of Crow Flats Fed. were offered the opportunity to pool their -- held by HPPA acreage in the east half of the southeast of Section 30 and participate in the farmout -- farmout that acreage under the explicit threat of pooling.

Q. Mr. Baldridge, did you enter into an agreement with RSC?

A. We entered into a farmout of the east half of the southeast and the northeast of the northeast on December 5, 2008. And that was later modified, I believe, twice, to include rights in the southeast quarter of Section 30.

Q. What is Three Span's interest in this section?

A. Three Span Oil and Gas is the operator of Crow Flats Fed. Com. Unit No. 1. That's the Wolf Camp oil producer. It's 1,980 from west, and 1,980 from south.

Three Span Oil and Gas is also the operator of Crow Flats A Federal No. 1, which is located 1,980 from the north, and 760 from the east. It's also a Wolf Camp producer.

Q. Now, the Three Span well that we're interested in and concerned about today is the Crow Flats No. 1?

A. That's correct. It's Crow Flats Fed. Com. Unit No. 1.

Q. Okay. How far away is RSC's proposed Lucky Wolf 2-H well from Three Span's Crow Flats No. 1? And I'll ask you to refer to Exhibit A.

A. Okay. The proposed east/west horizontal that is the well in question is 330 feet from the Crow Flats Fed. Com. unit's surface location at its nearest point. The proposed east/west horizontal is potentially 227 feet from the Crow Flats Fed. Com. unit's subsurface location at its nearest point.

Q. Now, explain to me, Mr. Baldridge, the source of the data and review the numbers in the inclination report, if you would, for the Examiners.

A. This is a similar inclination report that was

proposed earlier by RSC. We did not have the data that was submitted to the OCD. Subsequently, I used the wire line survey data points that were in the mud log of the Eagle well. The data points are fairly similar to what were submitted to the OCD. And that puts us out anywhere from 102 to 107 feet at the Wolf Camp interval.

Q. What is your concern in terms of the proximity between the Crow Flats No. 1 well and the proposed Lucky Wolf No. 2-H?

A. Again, given the proximity, the risk of well bore damage. And also, potential drainage.

Q. Before we turn to the next exhibit, in your opinion, could you expand on how might the drilling of the proposed horizontal well cause damage to Three Span's Crow Flats well?

A. There are several operations that occur during drilling and completion. That potential does exist for a collision with the well itself. Also during drilling, they're drilling in an overbalanced condition, and the drained and pressure-depleted reservoir risks significant loss of drilling which includes the formation and potentially sweeping the low sink surrounding the Crow Flats Fed. Com. Unit No. 1.

Casing and cement. Again, the significantly overbalanced condition created during the cementing of the

production casing and/or liner in a drained and pressure-depleted reservoir causes a significant loss of cement in the formation and potentially sweeping the low pressure sink surrounding Crow Flats No. 1.

And last but not least, the completion, completion techniques typical of horizontal completion in Section 30. The Donnor Fed. No. 1, I believe it's COG operating Donnor 30 Fed. Com. 3. That's fairly typical of completions we've seen in the Wolf Camp in this area.

It involves a large multistage fracture. COG's well itself, which is in the south half of the north half of Section 30, was completed in seven stages using approximately 21,500 gallons of 15 percent acid, and 22,201 barrels of -- it's called silver stem, which is cross-linked frac fluid. That's a Halliburton product.

MR. EZEANYIM: Where are you reading that?

THE WITNESS: I am reading this off of Exhibit B.

MS. MUNDS-DRY: Mr. Ezeanyim, I believe -- We'll identify this in a moment. Exhibit B was a document filed by COG.

Q. Mr. Baldridge, is this a summary notice filed by COG?

A. Yes.

Q. And what does this identify in the document?

A. This is a subsequent report of the completion on that horizontal that's north of our -- it's in the south half of the north half.

Q. And this shows the numbers that you've been discussing?

A. Right, exactly. It's seven stages. They're not showing sand, although there will be sand induced in this frac fluid, we assume. But the volumes are large. We just believe such a large fracture stimulation on, again, a drained and pressure-depleted reservoir, there are potential risks of damaging the Crow Flats Fed. Com. No. 1, and potentially depleting it.

Q. Mr. Baldridge, let's turn to what has been marked as Three Span Exhibit B, and let's discuss the first page of Exhibit B for the Examiners, and then we'll go through the other documents in the packet here.

A. Similar to the analysis for RSC, Robert Paterson, an engineer in our office under my supervision, prepared an estimate of what the drainage currently is in our completed intervals in the Crow Flats bed.

Again, if you move to the second page, the calculations are the same. The blacked out area is to give us a radius. We used a 4 percent cross plot porosity cut off.

Saturation of water using RSC's equations

assumes .05. BOI was calculated and estimated at 1.24. Based on the current cumulative production of the Crow Flats Fed. Com No. 1, which was 48,228 barrels, that calculates to a 57 acre radius -- 57 acre drainage, which is a radius of 888 feet ultimate cum. That radius would extend out to be 1,278 feet in those completed intervals.

And all the backup documentation follows behind it, including the logs, the spreadsheet analysis of the porosity. Then, of course, the top page was just a graphical representation of the drainage radius.

Q. Let's go through this now that you've shown us the calculations that you used for this drainage map here.

Walk us through this map, if you would, Mr. Baldridge. Where is Crow Flats No. 1 located on this?

A. Crow flats Fed. Com. Unit No. 1 is in the center of the radius, which is that 1,980 to 1,980 south and the west line. And then we have the Lucky -- the proposed horizontal is just to the north of it. And their area of interest -- and it runs through that area of current drainage, and of course, they turn it back slightly to the south to the terminus.

Q. And it shows two circles here around the Crow Flats, one is sort of a gray shaded color. What does that represent?

A. The smaller of the two circles represents that

calculated radius of drainage based on cumulative production; and the large circle, again, is the calculated radius of drainage for cumulative production of our current well.

Q. Okay, thank you. And you indicated that the additional documents in here are the backup documentation that you used for the calculations.

If you could just quickly identify each of these documents so that when the examiners are reviewing the record, they can have some idea of what they're looking at here. You have the summary, here, I believe, and that's what you just discussed?

A. That's correct.

Q. And what is the next document?

A. The next document is the completion report that was submitted to the BLM by Schlumberger Resources. This is the current completion of the Crow Flats Fed. Com. Unit No. 1, and it shows the intervals that are perforated was 6,429 and 6,472, 15 perforations. Those were actually listed on the following documentation.

Q. Okay. What is the next document?

A. This is the compensated neutron-formation density log for the same well that was performed by Eagle Oil and Gas when the well was drilled.

And from this, the density -- the porosity for

density and neutron were pulled off of these logs for the calculations. The log following that is the lateral log, which gives us the resistivity data, water saturation data.

Q. And the next document?

A. That is just a simple Excel analysis of that data with the course, the depth of the areas highlighted in yellow with the current completion intervals in Crow Flats Fed. Com. Unit No. 1. And we're using a 4 percent porosity cut off.

You can see the depths, the neutron porosity, density porosity, cross-plot porosity, your total resistivity and calculated SW, your bulk volume water. And of course also, based on cross plotting, gives you an idea of the matrix.

And their calculations are actually shown to the right of the page. So it's those based on PHI in the first area, and the second area, saturation of water, 30 percent, BLI ultimate recovery, oil, gas, BOE. It will give your -- That's for ultimate recovery. The lower box shows the current recovery.

Q. And the next document?

A. That's the cross-plot calculation.

Q. And then you have a graph here, the next document?

A. That's the cross plot. It's a graphical representation of cross-plot porosity and our cutoffs at 4 percent.

Q. Okay. Next document?

A. Again, this is where we're getting to volumetric reservoir, volumetric tracker.

Q. And the next document I have here, which is the third to the last, shows the rate versus time frame?

A. That's rate versus time. It's calculated out to cum production.

Q. And then the final two documents here?

A. That's just to give an idea of where the well is.

Q. Okay. Thank you, Mr. Baldridge. In your opinion, will RSC's proposed well impede on Three Span's correlative rights and its well bore?

A. We do believe it will.

Q. And in your opinion after conducting this engineering study, is more than one well necessary in this spacing unit?

A. Our drainage calculations clearly indicate the Crow Flats Fed. adequately drains the 40 acre unit.

Q. And after reviewing the reservoir in this area, what are your engineering conclusion?

A. Again, we believe that the Crow Flats Fed. Com.

Unit Well No. 1 adequately drains the 40 acre unit.

Q. And what are your concerns in terms of the proximity of the horizontal well to the Crow Flats well?

A. We're very concerned about potential damage during drilling and completion to our well bore and loss of correlative rights.

Q. In your opinion, will the granting of RSC's application be in the best interest of conservation, the prevention of waste, and the protection of correlative rights?

A. No, it would not.

Q. Were Exhibits A, B, and C prepared by you or compiled under your direct supervision?

A. Yes, they were.

MS. MUNDS-DRY: Mr. Brooks, we move the admission into evidence Three Span's Exhibits A, B, and C.

MR. BRUCE: No objection.

HEARING EXAMINER: A, B, and C are admitted.

MS. MUNDS-DRY: And that concludes my direct examination of Mr. Baldridge.

HEARING EXAMINER: Mr. Bruce?

CROSS-EXAMINATION

BY MR. BRUCE:

Q. Mr. Baldridge, with respect to the Crow Flats Fed. Com. No. 1 well, Three Span's well, that was acquired

under a well-bore only assignment, correct?

A. I am not a land mineral lawyer, but I do believe that's correct.

Q. And the farmout you gave as amended to Peregrine Production covers your interests, your acreage over on the east half of the east half, correct?

A. That's correct.

Q. Or at least some of it. And also in the northeast quarter of the southwest quarter?

A. That is correct.

Q. Did you receive cash consideration for that farmout?

A. We did receive cash consideration in that farmout.

Q. How long has Three Span owned its interest in Section 30?

A. Approximately ten years.

Q. During that time, has Three Span ever proposed a Wolf Camp test to any interest owners in Section 30?

A. No, we have not.

Q. Have you participated in any horizontal wells in this township or in any other township in which Three Span owns a working interest?

A. Can I ask that the question be a little more defined?

Q. Has Three Span Oil and Gas participated as a working interest owner in any horizontal well in southeast New Mexico?

A. Not in southeast New Mexico, no.

Q. I'm look at -- I think this is part of Exhibit C.

A. Yes, sir.

Q. Mr. Baldridge, are you saying your log analysis shows only 15 feet of net pay in the Wolf Camp, in your well?

A. In completed intervals in the Crow Flats Fed. Com. Unit No. 1 using a 4 percent porosity cutoff, that is what we believe.

Q. Okay. Now, do you recall what Mr. Cate testified with respect to the net pay?

A. Vaguely.

Q. Just roughly, if you could --

A. It was slightly larger.

Q. If there is more net pay, is the drainage area smaller?

A. Yes, sir, the calculations would be smaller.

Q. Now, one of the reasons Three Span is opposing this, you believe it will harm Three Span's correlative rights; is that correct?

A. Yes, sir.

Q. Could you define correlative rights for me?

MS. MUNDS-DRY: Objection. Mr. Baldridge is not a lawyer.

HEARING EXAMINER: Well, he's given an opinion about correlative rights so he must have some idea of a definition that he's relying on. I was going to ask him if he was familiar with it the way it's defined in the New Mexico Oil and Gas Act.

I will overrule the objection because I assume the question refers to his opinion and what definition he's using.

MR. BRUCE: And I would just ask what his practical definition of it is or his understanding of correlative rights under the New Mexico statutes.

HEARING EXAMINER: Okay. I'll overrule the objection.

A. My understanding of correlative rights in New Mexico is the right -- again, I have -- I'm not a lawyer nor a landman, my knowledge of it is very thin, but it's my right to produce reserves in this well bore. Period. I mean, that's just more or less my understanding of it.

Q. Now, spacing out here for the Wolf Camp formation is 40 acres, do you agree?

A. Yes, sir.

Q. In looking at your drainage area map, hadn't Three Span already -- based on your calculations or the calculations of your fellow engineer in your office, already drained all of the reserves under the northeast quarter of the southwest quarter of Section 30?

A. That would be the calculation in the completed intervals, yes.

Q. You're not asserting it, but it shows based on your calculated estimated ultimate here showing that it would extend into almost every adjoining 40 acre tract, correct?

A. That's what this would indicate, yes.

Q. Okay. Do you think Three Span's entitled to produce other people's reserves?

MS. MUNDS-DRY: Same objection, Mr. Brooks.

HEARING EXAMINER: Yeah. I will overrule the objection for the same reason, that he's giving opinions, so he's entitled to give a basis for his opinion.

A. Rephrase the question, we're --

Q. In your opinion, is Three Span entitled to produce reserves from other tracts in which Three Span does not own an interest?

A. That's a legal question that I just don't understand the basis to -- Based on proration in New Mexico, you're allowed to produce the reserves within that

unit -- or contributed to the well in -- on the proration units.

Q. Let me ask you this -- Okay, Mr. Baldridge, I won't harass you anymore on that. But looking at your map, would you say if a well is drilled to the south, in the south half of the south half, your map shows that you would be draining reserves from the south half of the south half, does it not?

A. That's what it would indicate, yes, sir.

Q. Does that give you the right to object to drilling a well in the south half of the south half?

A. Not to my knowledge, no, sir.

Q. Do you agree that this is a tight reservoir?

A. Yes, sir, this is type matrix rock.

Q. Do you think this drainage area accurately reflects the area of drainage in such a tight reservoir?

A. The calculations and resulting graphical representation takes into account quite a few assumptions, i.e., homogeneity, non-fracturing.

Many tight reservoirs have secondary permeability. It would not exactly match this graphical representation, it would be more odd shaped; different higher perm intervals would be larger, lower perm intervals would be smaller.

Q. In your opinion, does the resistivity log, is

that a good indicator of permeability?

A. Resistivity log can indicate potential existence of near well permeability, yes.

Q. And does this log show a significant section starting just about 6,400 feet and going down to just about 6,500 feet?

A. There does appear to be invasion on the log. As to whether that indicates secondary or primary permeability, I'm unable to tell.

Q. Okay, but that indicates the reservoir is a larger volume than you are projecting on your drainage calculations?

A. It is our opinion that those areas would be under the cross-plot porosity cutoff.

Q. So you're saying that the intervals that you did not perforate, you're not draining those?

A. Yes, sir, that would be my indication.

Q. So those could still be tested by another operator?

A. Yes, sir.

MR. BRUCE: I think that's all I have, Mr. Examiner.

HEARING EXAMINER: Thank you. Mr. Hall?

MR. HALL: No questions.

HEARING EXAMINER: Okay. Mr. Baldridge, this is

going to be a little bit tedious, but we don't, at this point, have this exhibit organized so that we're going to get a record that is going to be intelligible.

So I'm going to go through all of these documents that I believe constitute Exhibit C with you again and I'm going to try to clarify this.

The document that's actually marked Exhibit C, that is the document that has the colored circle on it, correct?

THE WITNESS: Yes, sir.

HEARING EXAMINER: Okay. Now, this is your calculation of the supposed drainage radius for the Crow Flats Fed. Com. No. 1?

THE WITNESS: It's a graphical representation of drainage given the assumptions of the calculations, yes.

HEARING EXAMINER: Okay. Now, the next two pages, which I'm going to mark as Pages 2 and 3 because they're Pages 2 and 3 of Exhibit C, are your actual drainage calculations, they're actually marked "1 Page" and "2 Page" in the lower left-hand corner, right?

THE WITNESS: Yes, sir.

HEARING EXAMINER: And the document marked "1 Page" is entitled "Drainage Calculations for Crow Flat Fed. Com. Unit No. 1," correct?

THE WITNESS: Yes, sir.

HEARING EXAMINER: Okay, so that's the second page of Exhibit C. And the next has the same document and has the same title and it has "2 Page." Now, is that the third page of Exhibit 3?

THE WITNESS: Yes, sir.

HEARING EXAMINER: Okay. The next document appears to me to be a United States Department of Interior Bureau of Land Management Well Completion or Recompletion Report and Log, correct?

THE WITNESS: Yes, sir.

HEARING EXAMINER: And that is on the Crow Flats Fed. Com. Unit No. 1, right?

THE WITNESS: Yes, sir.

HEARING EXAMINER: And that is the fourth page of Exhibit C?

THE WITNESS: Yes, sir.

HEARING EXAMINER: Now, the fifth page of Exhibit C is entitled "Schlumberger Compensated Neutron-Formation Density." Is that right?

THE WITNESS: Yes, sir.

HEARING EXAMINER: And I'm just going to identify these documents because I don't understand them. The people that do may have some questions for you about them, but...

On the third -- the third page is printed in

landscape but it has a title that's in portrait at the bottom, and the title in portrait says, "Crow Flat Fed. Com. Unit No. 1," correct?

THE WITNESS: Yes, sir.

HEARING EXAMINER: And the portion in landscape is entitled "Parameters," correct?

THE WITNESS: Yes, sir.

HEARING EXAMINER: And that is the sixth page of Exhibit C. Okay, now we have a log that's on legal size paper, and that's the seventh page of Exhibit C?

THE WITNESS: Yes, sir.

HEARING EXAMINER: And to be sure we can distinguish it -- there's only one other log in here, this one is entitled "Compensated Neutron Formation Density," correct?

THE WITNESS: Yes, sir.

HEARING EXAMINER: Okay. That's the seventh page. Now we come to the eighth page. And the eighth page is the header from the log, and it -- for another log. And that one is entitled "Dual Laterolog Micro-SFL," correct?

THE WITNESS: Yes, sir.

HEARING EXAMINER: Then the ninth page again is printed in landscape and it has "Gamma Ray" and "Resistivity" up at the top, right?

THE WITNESS: Yes, sir.

HEARING EXAMINER: All right. Then the tenth page is another log which is entitled "Dual laterol Log," right?

THE WITNESS: Yes, sir.

HEARING EXAMINER: And that's the tenth page. Okay, and the 11th page is entitled "Log Analysis of Crow Flats Federal Com Unit No. 1," and that's the one that you said was the Excel analysis, correct?

THE WITNESS: Yes, sir.

HEARING EXAMINER: That's the 11th page. Okay, the 12th page is entitled "Porosity and Lithology Determination." And how did you characterize that in your previous testimony? I forgot.

THE WITNESS: It is the Schlumberger's calculation for cross-plot porosity based upon formation of neutron porosity.

HEARING EXAMINER: Okay. And then the next page, the 13th page is the one that has the green colored lines, correct?

THE WITNESS: Yes, sir.

HEARING EXAMINER: It's entitled "Crow Flats Federal Com. Unit No. 1, Wolfcamp Interval." Now, what does that depict?

THE WITNESS: That is graphical representation

of the cross-plot porosity and it's cutoff.

HEARING EXAMINER: Okay. And then we go to the 14th page of Exhibit C entitled "Practical Petroleum Reservoir Engineering Methods." What is that?

THE WITNESS: That is the calculation for the volumetric factor.

HEARING EXAMINER: Okay. Then we go to the 15th page of Exhibit C, and that is in landscape, and it's entitled "Crow Flats Federal Com. Dog Canyon," and it has green lines and I guess magenta or purple lines, whatever you call them, right?

THE WITNESS: Yes, sir.

HEARING EXAMINER: And what is that?

THE WITNESS: That is the historic production and the projected project to the ultimate recovery based on current decline.

HEARING EXAMINER: For the Crow Flats Federal Com. No. 1 well?

THE WITNESS: Yes, sir.

HEARING EXAMINER: Okay. And then the 16th page is a C-102 for the Crow Flats Fed. Com. Well No. 1?

THE WITNESS: Yes, sir, it is.

HEARING EXAMINER: And the 17th page is the C-102 for the proposed Lucky Wolf 30 Fed. Com. No. 2, correct?

THE WITNESS: Yes, sir.

HEARING EXAMINER: Okay. Now I think we'll be able to identify all the instructions by the record.

The statement has been made in the testimony of RSC's witnesses that following the farmout agreements, Three Span owns no interest in this unit -- or in this proposed unit other than the well bore interests that it owns in the Crow Flats Fed. Com. Well No. 1; do you disagree with that?

THE WITNESS: I'm very unclear as to Three Span's and the working interest owners' rights in this area. We own the well bore rights. But it is my understanding there were other rights that we also owned. Again, I'm not a landman nor a title attorney.

HEARING EXAMINER: Yeah, I understand that, and because you're speaking on behalf of the corporation is the only reason I'm asking you this question.

But my understanding of the testimony was that Three Span formerly did own other interests in this unit, but by virtue of farmout agreements, it has an amendment to the farmout agreement that it has divested itself of all interests except for the well bore interest.

And what I'm trying to get to is, do you disagree with that -- or does Three Span disagree with that?

THE WITNESS: Sir, I'm unable to answer the question. I don't mean to -- I don't understand the rights of Three Span or the working interest owners in this quarter section.

HEARING EXAMINER: Okay, I'll accept that. I think, then, I will pass you to Mr. Ezeanyim.

MR. EZEANYIM: Okay. Mr. Baldridge, what is the current production rate of this Crow Flats -- or what is it making?

THE WITNESS: Crow Flats Fed. Com. Unit No. 1 makes approximately six barrels of oil a day, nine barrels of gas, no water.

MR. Ezeanyim: And that is what it is currently doing?

THE WITNESS: Yes, sir.

MR. EZEANYIM: I thought the testimony was four to five --

THE WITNESS: It was slightly higher.

MR. EZEANYIM: Okay. All right. How did you calculate your estimated recovery, did you calculate it volumetrically or did you calculate it by decline of -- how did you calculate it?

THE WITNESS: We backed the acreage out of the calculation using ultimate recovery in current cum from decline analysis. The rest -- the volumetric equation was

used to back the area drainage out.

MR. EZEANYIM: So you used the volumetric equation to calculate the --

THE WITNESS: Right.

Mr. EZEANYIM: Okay. And right now your recoverable rights are for 8,258?

THE WITNESS: Through November of 2008, yes, sir.

MR. EZEANYIM: When was this well drilled?

THE WITNESS: Eagle Oil and Gas drilled this well originally in 1980 as a Marrow well.

MR. EZEANYIM: You said 1990?

THE WITNESS: August of 1980 as a Morrow prospect.

MR. Ezeanyim: Okay. And then what happened, they didn't find anything?

THE WITNESS: I would assume not. It was transferred to Cheyenne -- either sold, transferred, I'm not clear on how that transaction occurred. Cheyenne recompleted with its working interest partners to the Wolf Camp.

MR. EZEANYIM: Okay. Do you know when that recompleted happened?

THE WITNESS: Based on Exhibit C -- I'm not clear on the page numbers, I apologize, it was in May of

1980.

MR. EZEANYIM: It was recompleted in May of 1980?

THE WITNESS: Hold on, sir, that's incorrect. The completion report that was submitted to the BLM was submitted in October of 1990.

MR. EZEANYIM: Okay, so that's when they completed the Wolf Camp?

THE WITNESS: Yes, sir.

MR. EZEANYIM: Do you know when the APD was completed in the Wolf Camp?

THE WITNESS: According to the form 3164, it was a flowing well producing 38 barrels of oil, 20 MCF gas on a ten -- on a -- it was a three-quarters inch choke.

MR. EZEANYIM: Okay. And it's currently, as you said now, producing six barrels a day?

THE WITNESS: Yes, sir.

MR. EZEANYIM: Okay. And we understand that your are granted -- well, not granted yet, how you got your estimated ultimate recovery is by volumetric calculations, not by decline?

THE WITNESS: It was by decline, yes. The ultimate recovery was calculated by decline analysis.

MR. EZEANYIM: And the decline rate was what?

THE WITNESS: Is 3.5 percent.

MR. EZEANYIM: Okay, a difference of 1.5 from 1.24. What is your average height in your calculations in this drainage area?

THE WITNESS: The average drainage area for the total height?

MR. EZEANYIM: Yes, the average height, because I know you average them out, I think.

THE WITNESS: Yes. The height is actually in the Excel spreadsheet, those areas in yellow. So 6429, 6437, 6456, 6461.

MR. EZEANYIM: Okay, so average that out to --

THE WITNESS: And then he shows a calculation of the porosity feet of 1.5679 for the bottom interval, and .7398 in the bottom hole.

MR. EZEANYIM: Okay. So now, did you calculate -- you think you are going to get 9,000 barrels from there. And now, how long will it take you to recover that?

THE WITNESS: Fifty years.

MR. EZEANYIM: Fifty years?

THE WITNESS: Yes, sir.

MR. EZEANYIM: Okay, good. It takes you 50 years to recover that?

THE WITNESS: Yes, sir. That decline analysis, you have to base it on economics and --

MR. EZEANYIM: Yeah. So it's 50 years to get the additional 51,000?

THE WITNESS: Yes.

MR. EZEANYIM: Okay. Explain to me again how your correlative rights are going to be impaired by giving the other, the Lucky Wolf --

THE WITNESS: The Lucky Wolf horizontal will clearly drain -- we'll see significant drainage at our location.

MR. EZEANYIM: Okay. What did you say?

THE WITNESS: I said it is our belief that given the proximity, though, we would see significant drainage and reduced production at the Crow Flats Fed. Com. Unit No. 1.

MR. EZEANYIM: In this process, we do a lot of assumptions, and sometimes these assumptions can kick off anywhere, plus or minus.

When I look at Exhibit C, your drainage in this area there, it appears to me that you are not draining your 40 acres, you are encroaching on other people's -- or that acreage that -- you know, you drained all the -- I thought you said 57, which means you're encroaching on other acreage to that 40 acres. So I begin to wonder where the assumptions in the calculations are.

THE WITNESS: As I explained earlier, there are,

of course, many assumptions that are used, homogeneity being the largest of the assumptions. Homogeneity of matrix. It also assumes that no secondary for fracturing permeability. It's assuming drainage equally at -- It's averaged all of the drain -- The calculations across completion intervals, and there have been quite a few assumptions that were put into it.

In reality, the drainage radius would be a very irregular figure.

MR. EZEANYIM: Yeah. Very good. You agree that the permeability is .1 to .5 millidarcy?

THE WITNESS: I do not have that data. It is high. I do know that.

MR. EZEANYIM: And there, the drilling would also be tight?

THE WITNESS: Yes, sir.

MR. EZEANYIM: Okay. And you alluded to the completion methods on there. You said something about these completion methods. I didn't write it down. If you look at that page you have there, you think you're competing with Donnor Well No. 3, and that's what -- Why are you talking about that, saying that the acid that is used is going to affect your well?

THE WITNESS: It's a large volume of acid, but it's a significantly large fracturing in each of these

stages. Again, given the proximity of their well to our well -- I do not have access to their stem designs or treatment procedures, or what have you, you would imagine -- you would more than imagine, you assume that the fracture would extend far beyond the distance of our well.

MR. EZEANYIM: That you think it will affect your well?

THE WITNESS: Yes, sir. Were they to fracture into our well bore, it would potentially catastrophically destroy our well bore itself.

MR. EZEANYIM: Okay. I would like to ask you one more question, but I forgot what it was. Go ahead.

MR. WARNELL: Okay, yeah, I do have a question, Mr. Baldridge. I think it's a question, or at least you can help me clarify in my mind what's going on.

I went in yesterday into in GoTech and looked into production, and I went in and looked at Section 30, 16 South, 28 East up top to the Three Span well called Crow Flats A Federal No. 1.

THE WITNESS: Yes, sir. That is the well that is in the northeast quarter. There are two Three Span oil and gas wells in Section 30, Crow Flats A Federal No. 1, and then, of course, the Crow Flats Fed. Com. Unit No. 1.

MR. WARNELL: All right. Thank you.

MR. EZEANYIM: So there are two different wells?

THE WITNESS: Yes, sir.

HEARING EXAMINER: Are you finished, Mr. Ezeanyim?

MR. EZEANYIM: Yes, I am.

HEARING EXAMINER: Mr. Bruce, any redirect?

MS. MUNDS-DRY: Mr. Brooks, this is my witness.

HEARING EXAMINER: Oh, I'm sorry. Ms. Munds-Dry, do you have anything further?

MS. MUNDS-DRY: I don't have any further questions.

HEARING EXAMINER: Mr. Bruce, did you have anything further for this witness?

MR. BRUCE: I don't, but I would like to recall Mr. Cate to answer one question.

HEARING EXAMINER: Okay, you may do so.

REDIRECT EXAMINATION

MR. RANDALL CATE

BY MR. BRUCE:

Q. Mr. Cate, you sat here and listened to Mr. Baldridge's testimony, did you not?

A. Yes, I did.

Q. And you heard him express concern about the size of the frac in the horizontal well?

A. Yes, sir, I did.

Q. In your opinion, and if you could discuss this,

is there any danger to Three Span's well from the -- from how the Lucky Wolf 30 2 well will be drilled, completed, and fraced?

A. No, there's no danger. Exhibit B does reflect what COG pumped in their fracture treatment simulation, and RSC does plan to do a similar treatment.

The completion technology is called Peak Isolated Packer Completion, but it's peak completion for short. Basically, you have an open hole -- it's not cemented -- the entire lateral.

And then the 4 1/2 inch casing is run the entire length with packers every 500 or 600 feet along the lateral, so you'll have nine, maybe ten stages. Now this was a short lateral, so they only had seven stages. But if you drill the entire section, you'll have eight or nine stages.

There is a port next to each packer and then they drop balls, medal balls that are larger and larger and larger in diameter that will set each of these stages.

So, number one, you're in an open hole essentially. The port opens and you do frac each stage as is shown here. There's approximately 3,00 barrels or so. But it is designed to stay within about 100 foot intervals.

By the way, I've discussed with Halliburton and

B.J. actually the frac design that we're talking about here. It being an open hole completion, and these wells being drilled east-west along primary stress directions, the fracs stay entirely along the lateral, they would not go toward -- tangentially toward the Three Span well.

So each stage is designed to stay entirely within the Wolf Camp interval within that stage and -- I'm not sure what else to say. But there is very little risk. There's no evidence at all that the fracs go out of zone or --

Q. Are you saying the fracs grow vertically?

A. The fracs grow vertically. And that's proven. That's elementary engineering. You don't lift the burden of the earth, you frac up and down. That's why we have frac height logs. And so, yes, any growth is going to be in a vertical direction, not toward -- horizontally over toward his well.

Q. Okay. And will the horizontal well access, what you hope for, most of the producible zone in the Wolf Camp?

A. Yes. Which -- Every zone, Mr. Baldridge's testimony indicated they did not complete. That is the beauty of the horizontals. They are the most efficient method to recover the reserves.

Q. Thank you.

MR. BRUCE: That's all I have, Mr. Examiner.
HEARING EXAMINER: Ms. Munds-Dry?
MS. MUNDS-DRY: No questions from me.
HEARING EXAMINER: Mr. Hall?
MR. HALL: No questions.
MR. EZEANYIM: I want to make some clarification. Is COG your partner?
THE WITNESS: Well, COG also owns a very small interest in the well, but COG has about a quarter, yes.
Mr. EZEANYIM: Okay. Do you have an agreement with COG that they agree to participate in this well?
THE WITNESS: Yes.
MR. EZEANYIM: Because we had a presentation but they didn't -- COG didn't --
THE WITNESS: We do not actually have, I think, a signed JOA yet, but --
MR. EZEANYIM: Okay. But they agreed to participate --
THE WITNESS: Verbally they've indicated they would join in the 2-H, yes.
MR. EZEANYIM: Okay. That's all I wanted to know.
HEARING EXAMINER: Okay, you may step down.
MR. BRUCE: I rest my case.
HEARING EXAMINER: Okay. Well, I think we have

a legal issue here and I'm interested if any of the lawyers want to address it. There are very few cases that I'm aware of on the subject of well bore assignments, and I believe it was you, Mr. Bruce, that after the last hearing provided me with an extensive article on the subject and it doesn't cite very many case.

MR. BRUCE: I'm afraid it doesn't.

HEARING EXAMINER: Okay. There is one case, a recent one from Texas, PetroPro Limited versus Upland Resources, Inc. And that's not yet in the Reporter, but its citation is 2007 Westlaw, 1717178.

And the judge who wrote that opinion attempts to set everything out in great -- he's following the judicial inclination to try to the settle the law in an unsettled area.

But of course, it's a Texas case and I was admonished this last week inadvertently referring to the Inspection of Records Act and the Open Records Act, and in order to excuse my fault when it was called to my attention, I mentioned that's what it was called in Texas. And it was suggested to me that that made my fault worse rather than...

But anyway, the reasoning that this Court uses is very much in line with the testimony of your land witness, Mr. Bruce, who testified that in his opinion, as

I understand, Three Span has no correlative rights.

This case is reasoned on the idea that you have a right of capture. As a well bore owner, you don't own any subsurface rights except in the well bore itself, 8 inches or 14 inches or whatever it is, but the oil that comes into that well bore you own by virtue of the rule of capture.

If that were true, it would be very questionable to me whether or not the owner of a well bore assignment owns any correlative rights.

And certainly we have an issue that's been presented here about -- as correlative rights are defined in the New Mexico Oil and Gas Act. So -- I'm not saying that's the case, I'm just saying the question arises because of the nature of well bore assignments and because of the logic that the Amarillo Court of Appeals used in this case.

Of course, we also have another issue of possible damage to the well. And we know we have that issue, but does anybody have any thoughts they would like to add on the issue of correlative rights, whether there even is a correlative right here, and if so, how do you define it when it's within the same spacing unit?

MR. BRUCE: Well, Mr. Examiner, I -- I won't set forth my whole closing, but that was going to be my point,

was that Three Span owns no correlative rights. They own the right to produce that well bore as long as the other working -- and, you know, under Rule -- well, I have a couple of handouts. These are not marked as exhibits, but they're...

Mr. Examiner, under Rule 19.15.15.9A, up to four wells are allowed on a 40 acre well unit.

HEARING EXAMINER: Right.

MR. BRUCE: And the second handout I handed to you is the rule -- just so you have it in the case file -- about two operators on a well unit.

And I think the other attorneys in here would probably concur, this originally came up when people started drilling into Morrow wells and there were two operators on a well unit.

And I believe originally, the state's on guard system at that point was not set up to handle two operators on a well unit and recording production -- and especially with respect to our near and dear Taxation and Revenue Department. And that finally got corrected, and so two operators were allowed on a well unit.

But here we are today now, especially over the last couple years, there have been more and more -- especially Wolf Camp and Bone Spring and some Delaware oil units where there are going to be two operators on a well

unit.

The thing is, the undisputed testimony from Mr. Smith is that Three Span owns well bore rights only, and the assignment by which Three Span derives its interest reserves to the assignors, who are now RSC and Peregrine Production, the right to any other -- to develop acreage outside of that well bore.

If you'll allow Three Span to deny the right of RSC to drill this well, you're giving them rights they never had. And therefore, it's my point that Three Span owns no correlative rights. Somewhere down the road, Three Span could have acquired these rights and -- and that might be another issue.

But that's not what we have here today. They did acquire some rights, but then they farmed them out, for value received, to RSC, and I believe RSC has the right to develop those rights.

HEARING EXAMINER: Okay. Ms. Munds-Dry?

MS. MUNDS-DRY: Mr. Brooks, the challenge that Three Span has with that argument is that I'm afraid we're encroaching on a station of the OCD in determining the extent of what those well bore rights are and what that assignment really means. This is a question, quite frankly, for a court of law.

And the question, I believe, originally was, do

they have any correlative rights? As you pointed to the Texas law case, it helps to try to answer that. We don't have any New Mexico law on this issue.

HEARING EXAMINER: I'm not aware of any.

MS. MUNDS-DRY: And neither am I. And so we are in a little bit of an open territory here.

Now, Three Span is the operator of the Crow Flats No. 1 well and does have the right to operate that well and produce from the Wolf Camp in that well. I would argue then that in our opinion, they do have correlative rights, they do have a right there to produce the well.

But that's just my opinion and I don't think we have any law or any prior OCD history of orders that helps us answer that question.

Now -- and I agree with Mr. Bruce that this rule was developed for multiple operators in a different situation in a different time, not only dealing with Morrow wells when you had three 220 acre spacing units, but also when you had vertical wells.

So if you go back a little further and you're discussing spacing units and how they are determined and drainage patterns, well, that works fine and good when you have vertical wells, but when you get into this kind of situation, again, I think we're in a unique situation where you have horizontal wells and vertical wells and

what's appropriate for drainage patterns and whether you need more than one operator on that spacing unit.

So again, I think the question is open. This rule unfortunately does not address that because it did not contemplate these issues at the time.

HEARING EXAMINER: Right.

MS. MUNDS-DRY: So I am throwing a lot more questions back your way, because I think it is open-ended. And I would just mostly caution you, Mr. Brooks, to not get too far down the path of what the well bore assignment really means in terms of Three Span's rights, because I do think that's beyond your jurisdiction.

Now, to the extent we're talking about waste and correlative rights, obviously, that's appropriate. But I think we have to be careful to limit our examination of it, and that's why we did not get into the issues of what these well bore assignment conveyances mean in terms of Three Span's rights, because we do not believe that's appropriate and it's beyond the jurisdiction of the OCD.

HEARING EXAMINER: Well, you know, there are limitations on the jurisdiction of the OCD that -- and I understand that. But we've got something of a problem, it seems to me here, because if we're being asked to make a judgment as to whether or not the granting of an application impairs correlative rights, we have to form

some working notion of what the party's correlative rights are in order to make that determination.

So it seems to me that while we may not have the right to determine what, as a matter of real estate law, this conveyance conveys, we do have to make some kind of determination of what correlative rights are involved.

That may involve at least a -- for the purpose of that determination, construing this assignment to some extend. But anyway, the bottom line is, nobody has any -- nobody's aware of any authority that needs to be considered other than what Mr. Bruce has submitted and what I've come up with.

MR. BRUCE: I would note, Mr. Examiner, that with respect to general oil and gas law, not conservation law, but there is a New Mexico Supreme Court case which I could probably dig up that does state that with respect to general oil and gas law, New Mexico does follow Texas law.

HEARING EXAMINER: Well, there's, of course, the famous case of Continental Oil Company versus MNOCD which seems to say exactly the opposite with regard to conservation law. But..

MR. BRUCE: But my client's point is -- I mean, they don't care to harm Three Span, obviously.

HEARING EXAMINER: Yeah.

MR. BRUCE: If it does have correlative rights,

it's limited to, like you say, virtually the right to capture out of that well bore.

HEARING EXAMINER: Okay, what you're saying about they don't desire to harm Three Span raises the second issue that I want to ask you about. I guess I shouldn't have allowed you to use your own closing in your own way, but --

MR. BRUCE: That's okay.

HEARING EXAMINER: It seems to me we have to come up with a practical solution if -- and I'm making no prejudgment as to how we decide this case. But if we were to decide that we were to allow this well, and basically, I understand Terry's position is, we shouldn't allow the well at all, and if that's the decision, then this part doesn't arise.

But if we allow the well, I was trying to think how we could get a practical solution to this given what we call a unit and how we deal with units in New Mexico.

And it seems to me we need to -- if we get to that point in the other case, in deciding the other case, what we're going to need to do is take advantage of the language in the New Mexico Supreme Court case that -- I always call it the Bartels and James case, and I've called it that so long I can't remember the real name of it.

But it's the one that says a spacing unit and

proration unit are different things. We can have a spacing unit that's one way and a proration unit that's another way.

It seems to me we have to -- what we want to do then is to define a staking unit that excludes the Three Span well but leaves the proration unit as included in there. That seems to me to be the practical solution. Does anybody have any comments on that?

MR. BRUCE: I'd agree with you. Obviously, we're not -- my clients are not making any claim of title to the Three Span well nor production therefrom.

HEARING EXAMINER: You're not claiming that's going to be rolled into the unit?

MR. BRUCE: Correct. It has its own 40 acre unit and it is owned by Three Span and I don't know if it has any working interest partners, but we're not making any claim to that.

HEARING EXAMINER: Well, I don't think it can be -- can stay on that 40 acre unit, because it's going to -- we have an allowable issue. But I don't think that's -- from the testimony, I don't think that will become an issue. Because even if you say that the allowable is computed on 120 acre basis --

MR. BRUCE: 160.

HEARING EXAMINER: 160 acre basis, the Three

Span well is not going to come anywhere near even one-fourth of that well, according to the testimony, correct?

MR. BRUCE: The Three Span well --

HEARING EXAMINER: The Three Span well is not going to produce anywhere even -- even the allowable for a 40 acre unit.

MR. BRUCE: Correct.

HEARING EXAMINER: So it's not going to -- it can be rolled into the 120 acre allowable without causing any issues between the two of you?

MR. BRUCE: That is correct.

HEARING EXAMINER: Again, assuming we allow the Lucky Wolf well to be drilled. Okay, any further comments, Ms. Munds-Dry?

MS. MUNDS-DRY: No. I don't disagree with that.

HEARING EXAMINER: Okay. I will quit talking and let either of the attorneys say anything else they want to say.

MR. BRUCE: Well, the only other issue -- and I'll be very brief on it, is I think Mr. Cate's testimony shows there is virtually no issue with respect to RSC's well hitting and damaging Three Span's well.

And the last thing I handed you was just a portion of a Midland Map Company map showing -- and I

could give you any number of land plats, but this one shows parts of Township 21 South, 37 East, and 22 South, 37 East.

Up in 21 South, 37 East, there's testimony in the record of a case -- several cases involving Apache unitizations in that area where there are, I believe -- I forget the total number, but somewhere in excess of 3,500 to 4,000 well bores in that one township alone.

If you just look at this, you see any number of areas where there's two, three, even four wells virtually on the same well pad. And I've never heard any report or statement or reporting to the OCD where one well bore has hit another.

Obviously, the well density -- just looking at the land plats, is substantially less, again, 16 South, 28 East, than it is here. If all of these years there's never been any report of one well bore hitting another, I think -- I just think it's baseless to say there's going to be any harm to the well bore.

HEARING EXAMINER: Ms. Munds-Dry?

MS. MUNDS-DRY: Mr. Brooks, we would just respectfully disagree, that given the proximity of these two wells to each other and the fact that they're drilling a horizontal well where you do have design and plans but you're not able to control that 100 percent, it's not

baseless to say that there is a risk.

And Three Span, as operator, has obligations to its working interest owners to protect that well bore. So that is our concern, that there is a risk.

HEARING EXAMINER: Okay. Very good. If there's nothing further, than Case No. 14308 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. 14308 heard by me on 4-16-2009

David K. Brooks, Examiner
Oil Conservation Division

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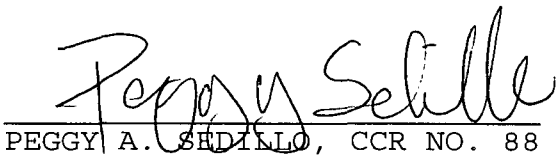
STATE OF NEW MEXICO)
) ss.
COUNTY OF BERNALILLO)

REPORTER'S CERTIFICATE

I, PEGGY A. SEDILLO, Certified Court Reporter of the firm Paul Baca Professional Court Reporters do hereby certify that the foregoing transcript is a complete and accurate record of said proceedings as the same were recorded by me or under my supervision.

Dated at Albuquerque, New Mexico this 25th day of April, 2009.



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