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- 1 (10:47 a.m.)
- 2 EXAMINER EZEANYIM: At this point, I call
- 3 Case Number 14991. This is the application of Mewbourne
- 4 Oil Company to abolish the special rules and regulations
- 5 for the South Culebra Bluff-Bone Spring pool, Eddy
- 6 County, New Mexico.
- 7 Call for appearances.
- 8 MR. BRUCE: Mr. Examiner, Jim Bruce of
- 9 Santa Fe representing the Applicant. I have three
- 10 witnesses. Mr. Haden and Mr. Hill have already been
- 11 sworn in and qualified, but I do have one additional
- 12 witness.
- 13 EXAMINER EZEANYIM: Any other appearances.
- 14 MR. RANKIN: Mr. Examiner, Adam Rankin,
- 15 Holland & Hart of Santa Fe, representing RKI
- 16 Exploration. I previously filed an entry of appearance
- 17 in this matter.
- 18 EXAMINER EZEANYIM: Any witnesses?
- MR. RANKIN: No witnesses.
- 20 EXAMINER EZEANYIM: May the witness that
- 21 has not been sworn stand up, state your name and be
- 22 sworn, please.
- MR. ROBISON: Drew Robison.
- 24 (Mr. Robison sworn; Mr. Haden and Mr. Hill
- 25 previously sworn.)

- 1 MR. BRUCE: Mr. Examiner, look at the
- 2 exhibits. Exhibit 1 is a copy of Order R-6139, which
- 3 established special pool rules for the South Culebra
- 4 Bluff-Bone Spring pool. The spacing is 80 acres with
- 5 wells located 150 feet from the center of each
- 6 quarter-quarter section. Mewbourne seeks to abolish
- 7 those rules, although the application also requests that
- 8 any existing well unit will be grandfathered in so that
- 9 the equities aren't affected in that well unit -- those
- 10 well units.
- 11 I'm going to have Mr. Haden testify just
- 12 very, very briefly, and then we do have a geologist and
- 13 an engineer to discuss the reasons for that.
- But as you'll see, people are drilling a
- 15 lot of wells in this area, and the other pools in the
- 16 area are basically spaced on statewide rules. And
- 17 basically, the net effect of the special pool rules at
- 18 this time is to generate more work for Mr. Brooks for
- 19 unorthodox locations.
- D. PAUL HADEN,
- 21 after having been previously sworn under oath, was
- 22 questioned and testified as follows:
- 23 DIRECT EXAMINATION
- 24 BY MR. BRUCE:
- 25 Q. Mr. Haden, on behalf of Mewbourne, did you

- 1 examine the records to determine the identity of all
- 2 operators in the pool or within a mile of the pool and
- 3 not assigned to any other pool?
- 4 A. Yes, I did.
- 5 Q. And if you look at Exhibit 2, the Affidavit of
- 6 Notice, page 3, the notice list, are those all of the
- 7 companies you located to pool our operators in this
- 8 pool?
- 9 A. That is correct.
- 10 Q. And was written notice sent to those operators?
- 11 A. Yes, they were.
- 12 Q. And they all received actual notice of this
- 13 hearing; did they not?
- 14 A. Yes, sir, they did.
- 15 O. And what is Exhibit 3?
- A. Exhibit 3 is a copy of our letters of support
- 17 from several of these operators who were noticed, which
- 18 they support the abolishment of these special pool
- 19 rules.
- Q. Did you receive any comments from any other
- 21 operators adverse or otherwise?
- A. No. We had no adverse comments whatsoever
- 23 regarding our proposal.
- Q. Were Exhibits 1 through 3 prepared by you or
- 25 compiled from company business records?

25

## DIRECT EXAMINATION

2 BY MR. BRUCE:

1

- 3 Q. And, Mr. Hill, are you familiar with the
- 4 geology involved in this application?
- 5 A. Yes, sir.
- 6 Q. And, Mr. Hill, I've marked Exhibit 4. Does
- 7 that simply outline the current boundaries of the South
- 8 Culebra Bluff pool?
- 9 A. Yes, sir.
- 10 Q. Does it also have a number of wells located
- 11 horizontal and vertical in that pool?
- 12 A. Yes, sir.
- Q. Let's talk about the geology itself. Could you
- 14 identify Exhibit 5 for the Examiner and discuss its
- 15 contents?
- 16 A. This is the area that shows Culebra Bluff
- 17 South, as well as the surrounding pools that are on
- 18 statewide rules. We've got Forehand Ranch, Cass Draw to
- 19 the west. To the east is Laguna Salado and Cedar
- 20 Canyon, and to the south is Malagra North.
- 21 EXAMINER EZEANYIM: Just let me get what
- 22 you said. The surrounding pools around this unit is on
- 23 statewide land, right?
- 24 THE WITNESS: Yes, sir.
- 25 EXAMINER EZEANYIM: Then the pools are on

- 1 80 acres, right? The pools are spaced on 80 acres.
- THE WITNESS: Yes, sir.
- 3 EXAMINER EZEANYIM: Okay. Go ahead.
- 4 A. The structure here is on top of the 2nd Bone
- 5 Spring Sand. I've highlighted all of the production --
- 6 the Bone Spring production. You'll see that on the
- 7 bottom right: Avalon Sand, Avalon Shale, 1st Bone
- 8 Spring Sand, 2nd Bone Spring Sand, Harkey Sand and the
- 9 3rd Bone Spring Sand.
- And to the lower left, you'll be able to
- 11 see Avalon, the horizontal wells. The wellbores are
- 12 highlighted. If they've been drilled, they're solid.
- 13 If they're permitted, they are dashed. So you can see
- 14 that in all of these, except for the Malaga North, there
- 15 are horizontal wells.
- Q. Anything further on this exhibit, Mr. Hill?
- 17 A. No, except I do have one cross section which
- 18 will be one of the next exhibits.
- 19 EXAMINER EZEANYIM: Okay. On that unit,
- 20 let's look at the Laguna Salado. Is that -- is that
- 21 pool near this -- the one in green -- is that blue or
- 22 green? Are there two units there, in this one
- 23 (indicating).
- THE WITNESS: Yes.
- 25 EXAMINER EZEANYIM: Are there two pools?

- THE WITNESS: Two different pools, yes,
- 2 sir.
- 3 EXAMINER EZEANYIM: Oh, okay. And those
- 4 are, again, horizontal wells, right?
- 5 THE WITNESS: Yes. They're in the 1st Sand
- 6 and 2nd Sand.
- 7 EXAMINER EZEANYIM: Have you guys,
- 8 Mewbourne, drilled any wells in those units -- those
- 9 pools.
- 10 THE WITNESS: No, sir. No, sir.
- 11 EXAMINER EZEANYIM: Okay. Go ahead.
- 12 Q. (BY MR. BRUCE) If you will move on to Exhibit 6
- 13 here, your cross section, and discuss the reservoir a
- 14 little further.
- 15 A. Yes, sir. This cross section picks up one well
- 16 in all of the pools. It picks up the Malaga North. And
- 17 if you'll start from the third one from the left, the
- 18 4 J Culebra Bluff South, and I've included the 1st Sand
- 19 and the 2nd Bone Spring Sand, because that's where most
- 20 people are drilling in this area, and then move to the
- 21 right. That's the top of the 1st Sand going into the
- 22 2nd Bone Spring carbonate. Then we've got the 2nd Bone
- 23 Spring Upper Sand and 2nd Bone Spring Lower Sand.
- 24 If you move to the right three, the Culebra
- 25 Bluff South, the Laguna Salado Field and Cedar Canyon

- 1 Field, you'll see that all of the sands through this
- 2 area are continuous.
- 3 As you move back to the west, Forehand
- 4 Ranch Field and Cass Draw Field, some of the intervals
- 5 start shrinking, but you still do have continuous sand
- 6 and 1st Bone Spring Sand and 2nd Bone Spring Sand.
- 7 Q. Geologically, is there any reason to
- 8 differentiate between all of the Bone Spring pools in
- 9 this area?
- 10 A. No, sir.
- 11 Q. Next, what is Exhibit 7?
- 12 A. Exhibit 7 is just one type log cross section
- 13 through the Culebra South Hills, and it's got the top of
- 14 the Delaware and everything that encompasses the Bone
- 15 Spring. So you've got Avalon Sand, Avalon Shale, 1st
- 16 Bone Spring Sand, 2nd Bone Spring Sand, Harkey Sand, 3rd
- 17 Bone Spring Sand, and you hit the top of Wolfcamp. And
- 18 all of these intervals produce within these fields.
- 19 Q. Is there any one, at this point, predominant
- 20 producing zone?
- 21 A. It's going to be the 1st and 2nd Bone Spring
- 22 Sand.
- 23 Q. But they are all productive?
- 24 A. Yes, sir.
- Q. Were Exhibits 4, 5, 6 and 7 prepared by you or

- 1 compiled from company business records?
- 2 A. Yes, sir.
- 3 MR. BRUCE: Mr. Examiner, I'd move the
- 4 admission of Exhibits 4 through 7.
- 5 EXAMINER EZEANYIM: Exhibits 4 though 7
- 6 will be admitted.
- 7 (Mewbourne Exhibit Numbers 4 through 7
- 8 were offered and admitted into evidence.)
- 9 MR. BRUCE: And I have no further questions
- 10 of the witness.
- 11 EXAMINER EZEANYIM: Thank you.
- 12 Any questions?
- MR. BROOKS: No questions.
- 14 EXAMINER EZEANYIM: Mr. Goetze, any
- 15 questions?
- 16 EXAMINER GOETZE: No questions for this
- 17 witness right now.
- 18 EXAMINER EZEANYIM: You may step down.
- 19 Oh, okay. I'm sorry. I forgot to ask
- 20 about cross-examination of the witness.
- 21 EXAMINER BROOKS: I do that all the time,
- 22 Richard. I'm surprised for you to do it. You remember
- 23 those things.
- EXAMINER EZEANYIM: Well, yeah. I'm tired.
- 25 EXAMINER BROOKS: Aren't we all.

- 1 MR. RANKIN: Long day.
- I have no questions for the witness.
- 3 EXAMINER EZEANYIM: I'm sorry about that.
- 4 I meant nothing by it.
- 5 Okay. You have no questions?
- 6 MR. RANKIN: No questions.
- 7 EXAMINER EZEANYIM: You may step down.
- 8 Call your next witness.
- 9 DREW ROBISON,
- 10 after having been previously sworn under oath, was
- 11 questioned and testified as follows:
- 12 DIRECT EXAMINATION
- 13 BY MR. BRUCE:
- Q. Could you state your name for the record?
- 15 A. Drew Robison.
- 16 Q. Where do you reside?
- 17 A. Midland, Texas.
- 18 Q. Who do you work for and in what capacity?
- 19 A. I'm a reservoir engineer for Mewbourne Oil
- 20 Company.
- Q. Have you previously testified before the
- 22 Division?
- A. Yes, I have.
- Q. And were your credentials as an expert
- 25 reservoir engineer accepted as a matter of record?

- 1 A. Yes, they were.
- Q. And are you familiar with the reservoir matters
- 3 involved in this application?
- 4 A. Yes.
- 5 Q. And does your area of responsibility at
- 6 Mewbourne include this part of southeastern New Mexico?
- 7 A. Yes, it does.
- 8 MR. BRUCE: Mr. Examiner, I'd tender
- 9 Mr. Robison as an expert reservoir engineer.
- 10 EXAMINER EZEANYIM: So qualified.
- 11 Q. (BY MR. BRUCE) Mr. Robison, you've got two
- 12 exhibits, 8 and 9. Let me introduce them, and please
- 13 discuss for the Examiner the reservoir qualities and
- 14 production from these pools, and give your opinion on
- 15 abolishing the pools.
- 16 A. Okay. Exhibit 8 is a volumetric estimate of
- 17 oil in place. And for this, I focused on the 2nd Bone
- 18 Spring Sand, because that's what most people are
- 19 drilling, including us, in this area now.
- What I'm trying to show here is that it's
- 21 already -- it's a very tight formation and the recovery
- 22 are very low already, and so with the pool rules in
- 23 place and the setbacks of 660 -- actually, the setbacks
- 24 are 150 from the center of the quarter-quarter. We
- 25 can't maximize our lateral length, and so we need to

- 1 maximize our lateral length in order to get the recovery
- 2 factors higher.
- 3 So all I did was took, from the type log
- 4 that he (indicating) presented, the reservoir thickness
- 5 and some estimated reservoir properties and from log
- 6 calculations and came up with the original oil in place
- 7 for each proration unit for each 160 acres.
- 8 As you can see down at the bottom, I have
- 9 the OOIP, which is the original oil in place in
- 10 thousands of barrels, so that number is almost 4 million
- 11 barrels of oil in place per 160. And that's with
- 12 approximately 80 feet of reservoir.
- 13 And we are estimating from decline curves
- 14 and wells in the area that the recoverable oil is around
- 15 250,000 barrels, which calculates to only a recovery
- 16 factor of 6.4 percent, which is pretty low.
- 17 EXAMINER EZEANYIM: Is this in the South
- 18 Culebra Bluff?
- 19 THE WITNESS: Yes.
- 20 Q. (BY MR. BRUCE) Mr. Robison, with the tight
- 21 reservoir and the low recovery factor, assuming the pool
- 22 rules are abolished, do you see any adverse effect on
- 23 offsets by drilling 330 feet out of the quarter-quarter
- 24 section?
- 25 A. No.

- O. What does Exhibit 9 show?
- A. Exhibit 9 is a list of all the active wells,
- 3 along with the operators in the pool, at Culebra Bluff
- 4 South-Bone Spring pool. And I've ordered these by spud
- 5 date.
- And then I've highlighted in red the
- 7 horizontal wells. So what I was trying to show here is
- 8 how the field has changed through time. And initially
- 9 the field was developed with vertical wells, and now
- 10 everybody, over the last three years, has been drilling
- 11 horizontal wells in this field and surrounding fields.
- 12 O. And do the directional or the horizontal
- drilling results seem to benefit production from this
- 14 reservoir?
- 15 A. Yes.
- 16 Q. In your opinion, should the pool rules be
- 17 abolished?
- 18 A. Yes, they should.
- 19 Another limiting factor, also, is the
- 20 allowable. Since most of the early wells, as you can
- 21 see from the perforations, were around 6,000 feet, this
- 22 pool was put in a 6,000-depth allowable, which allowed
- 23 for 220 barrels of oil a day per 80 acres. So for these
- 24 wells that we're drilling horizontals now, with the
- 25 existing rules, we would only be allowed to produce 444

- 1 [sic] barrels of oil per day. And most of our wells are
- 2 TVD'd over 8,000 feet. So that will increase our
- 3 allowable to what's necessary, because many of these
- 4 wells come on 500 or 1,000 barrels a day in the area.
- 5 Q. Do you have anything further in this case,
- 6 Mr. Robison?
- 7 A. No, I do not.
- 8 Q. Were Exhibits 8 and 9 prepared by you?
- 9 A. Yes, they were.
- 10 Q. And in your opinion, will the granting of this
- 11 application be in the interest of conservation and the
- 12 prevention of waste?
- 13 A. Yes.
- MR. BRUCE: And with that, Mr. Examiner, I
- move the admission of Exhibits 8 and 9.
- 16 EXAMINER EZEANYIM: Thank you, Mr. Bruce.
- 17 Mr. Rankin?
- MR. RANKIN: No objections.
- 19 EXAMINER EZEANYIM: Exhibits 8 and 9 will
- 20 be admitted.
- 21 (Mewbourne Exhibit Numbers 8 and 9 were
- 22 offered and admitted into evidence.)
- 23 EXAMINER EZEANYIM: Anything, Mr. Rankin?
- MR. RANKIN: No questions, Mr. Examiner.
- 25 EXAMINER BROOKS: No questions.

- 1 EXAMINER GOETZE: No questions.
- 2 CROSS-EXAMINATION
- 3 BY EXAMINER EZEANYIM:
- 4 Q. Okay. Let's look at your two exhibits. Very
- 5 interesting. How did you get all that data?
- 6 A. Some of it's from data we have in-house, and
- 7 some of it is just from my best estimate from different
- 8 correlations. But the majority of the data, we do have
- 9 factual data on.
- 10 Q. The porosity here, is that the average porosity
- 11 or the net porosity?
- 12 A. That is the average porosity over the sand
- 13 we're targeting, which is the lower-most sand of the 2nd
- 14 Bone Spring Sand.
- 15 O. And the outer reef [sic] is calculated?
- 16 A. No. That is a measured --
- 17 O. You measured that?
- 18 A. Yes. We've done multiple tests in the area, so
- 19 that's a real number.
- 20 Q. And this is from all the wells. Is it from all
- 21 the wells or a sample of the wells in that South Bluff?
- 22 A. Yes, it is. It's kind of a generalized --
- 23 because the field covers almost the whole township, so
- 24 there are some variations here and there, but, in
- 25 general, this is kind of an average of the whole field.

- 1 Q. Okay. Let's go to Exhibit Number 9. We should
- be able to -- any time you do this, put oil first, gas
- 3 second. If you put -- when I looked at it, I was
- 4 looking at the gas. I thought, oh, no. I thought that
- 5 was oil. I didn't know it was gas. You see what I
- 6 mean?
- 7 A. Yes.
- Q. Oil is 104 today; gas is 2.5. Don't get me
- 9 wrong. It's good, but, you know, I like oil more than
- 10 gas because of the prices.
- 11 A. I agree.
- 12 Q. So when I looked at these -- when I was looking
- 13 at that, I thought that was oil, and I was confused.
- 14 But when I look at it, then I would say, Gosh.
- Anyway, these numbers are -- they're in
- 16 thousands? Is this in thousands, because it's not
- 17 stated?
- 18 A. No, they're not. These are in Mcf. I should
- 19 have put that on there, but that is Mcf barrels of oil
- 20 and barrels of water.
- 21 O. Gas is Mcf?
- 22 A. Yes.
- Q. Yeah. When you write gas in Mcf, I do need
- 24 that, but oil, you have to -- so you're doing that in
- 25 raw numbers?

- 1 A. Yes, that's correct.
- Q. Do you know the nature of the -- of this Bluff?
- 3 Is that the --
- 4 A. Yes, it is. It's solution gas.
- 5 Q. It's solution gas.
- 6 A. Right. And that's -- that's why I was showing
- 7 this exhibit. I should have mentioned that. For a
- 8 solution gas reservoir, the recovery factors are low
- 9 anyway, but they're even lower than you would expect, I
- 10 would say. And that's why it lends itself to horizontal
- 11 drilling.
- 12 Q. Oh, yeah, because even -- I always give a
- 13 solution gas starting from ten percent, but this is 6.4
- 14 [sic].
- 15 A. That's correct.
- Q. You should have repaired [sic] this a long time
- 17 ago, if this is what it's doing, so that you can drill
- 18 this and -- you know, with horizontal wells and maybe
- 19 get up to ten percent. Who knows? But we can get up to
- 20 ten percent on this rate, because most of them are
- 21 completed, and then they are producing below the bubble
- 22 point. You know, maybe wells that came in -- maybe the
- 23 bubble point -- but I can see that -- you have an idea
- 24 about those pressures?
- A. I don't know what the bubble point pressure is.

- 1 Q. You don't know what the bubble point pressure
- 2 is? No idea?
- 3 A. It's normally pressured.
- 4 Q. To the depth?
- 5 A. Yes.
- 6 Q. Okay. Good. I think that's all I have.
- 7 Okay. Now, one thing I wanted to point out
- 8 is, I want to know why you want to grandfather 80-acre
- 9 unit. Can't you abolish all of them? Why do you want
- 10 to grandfather the 80-acre?
- MR. BRUCE: Mr. Examiner, I think I can
- 12 answer that. If there are 80-acre well units -- and I'm
- 13 sure there are out there -- producing, if you down space
- 14 those to 40 acres, people would have been receiving
- 15 revenues for quite some time and then be excluded from
- 16 production. And I don't think they'd be happy, and I
- 17 don't think we'd be happy locating everyone and
- 18 notifying them either. But that's the general reason.
- 19 EXAMINER EZEANYIM: I can see why you want
- 20 to grandfather them in. Of course, if you don't
- 21 grandfather them in, I would not allow you to --
- 22 MR. BRUCE: I mean, I think that allows --
- 23 if an operator, on an individual basis, wants to down
- 24 space his well unit, he can try to do that, but at this
- 25 point, I think that would be unfair to the interest

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| 1  | owners.  |
| 2  | EXAMINER EZEANYIM: So you want to abolish                |
| 3  | those special pool rules the statewide rule, except      |
| 4  | grandfather 80-acre unit? Anyone that isn't producing    |
| 5  | on the 80-acre unit, grandfather them?                   |
| 6  | MR. BRUCE: That's correct.                               |
| 7  | EXAMINER EZEANYIM: So in other words                     |
| 8  | MR. BRUCE: And I think the ones that are                 |
| 9  | grandfathered in are probably, without looking at a map, |
| 10 | pretty much all vertical wells. There might be one or    |
| 11 | two short horizontal wells.                              |
| 12 | EXAMINER EZEANYIM: Okay. I think that's                  |
| 13 | it.  |
| 14 | Anything further, Mr. Rankin?                            |
| 15 | MR. RANKIN: Nothing from me.                             |
| 16 | EXAMINER EZEANYIM: You entered your                      |
| 17 | appearance to be on the record?                          |
| 18 | MR. RANKIN: That's correct.                              |
| 19 | EXAMINER EZEANYIM: Okay. Thank you.                      |
| 20 | At this point, Case Number 14991 will be                 |
| 21 | taken under advisement.                                  |
| 22 | (Case Number 14991 concludes, 11:09 a.m.)                |
| 23 | (Break taken, 11:09 a.m. to 11:18 a.m.)                  |
| 24 | a complete record of the proceedings in                  |
| 25 | the Examiner hearing to Case No 1499                     |

|    | Page 2  |
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| 1  | STATE OF NEW MEXICO   |
| 2  | COUNTY OF BERNALILLO  |
| 3  |   |
| 4  | CERTIFICATE OF COURT REPORTER                               |
| 5  | I, MARY C. HANKINS, New Mexico Certified                    |
| 6  | Court Reporter No. 20, and Registered Professional          |
| 7  | Reporter, do hereby certify that I reported the             |
| 8  | foregoing proceedings in stenographic shorthand and that    |
| 9  | the foregoing pages are a true and correct transcript of    |
| 10 | those proceedings that were reduced to printed form by      |
| 11 | me to the best of my ability.                               |
| 12 | I FURTHER CERTIFY that the Reporter's                       |
| 13 | Record of the proceedings truly and accurately reflects     |
| 14 | the exhibits, if any, offered by the respective parties.    |
| 15 | I FURTHER CERTIFY that I am neither                         |
| 16 | employed by nor related to any of the parties or            |
| 17 | attorneys in this case and that I have no interest in       |
| 18 | the final disposition of this case.                         |
| 19 | Mayor Danleyon-   |
| 20 | Mary C. HANKINS, CCR, RPR                                   |
| 21 | Paul Baca Court Reporters, Inc.                             |
| 22 | New Mexico CCR No. 20<br>Date of CCR Expiration: 12/31/2013 |
| 23 |   |
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| 25 |   |