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

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

APPLICATION OF MARATHON OIL PERMIAN, LLC FOR A SPACING UNIT AND COMPULSORY POOLING, LEA COUNTY, NEW MEXICO. CASE NO. 20131

REPORTER'S TRANSCRIPT OF PROCEEDINGS

EXAMINER HEARING

January 10, 2019

Santa Fe, New Mexico

BEFORE: WILLIAM V. JONES, CHIEF EXAMINER
KATHLEEN MURPHY, TECHNICAL EXAMINER
LEONARD LOWE, TECHNICAL EXAMINER
DAVID K. BROOKS, LEGAL EXAMINER

This matter came on for hearing before the New Mexico Oil Conservation Division, William V. Jones, Chief Examiner; Kathleen Murphy and Leonard Lowe, Technical Examiners; and David K. Brooks, Legal Examiner, on Thursday, January 10, 2019, at the New Mexico Energy, Minerals and Natural Resources Department, Wendell Chino Building, 1220 South St. Francis Drive, Porter Hall, Room 102, Santa Fe, New Mexico.

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

		Page 2
1	APPEARANCES	
2	FOR APPLICANT MARATHON OIL PERMIAN, LLC:	
3	ZOE E. LEES, ESQ.	
4	DEANA M. BENNETT, ESQ. MODRALL, SPERLING, ROEHL, HARRIS & SISK, P.A.	
5	500 4th Street, Northwest, Suite 1000 Albuquerque, New Mexico 87102	
6	(505) 848-1800 zel@modrall.com	
7	deanab@modrall.com	
8	INDEX	
	INDEA	
9		PAGE
10	Case Number 20131 Called	4
11	Marathon Oil Permian, LLC's Case-in-Chief:	
12	Witnesses:	
13	Travis H. Prewett:	
14	Direct Examination by Ms. Lees	7
15	Cross-Examination by Examiner Brooks Cross-Examination by Examiner Jones	15 18
16	Direct Examination by Ms. Lees (Witness re-called)	32
17	Matt Baker:	
18	Direct Examination by Ms. Lees	19
19	Cross-Examination by Examiner Jones Cross-Examination by Examiner Murphy	27 30
20	Cross-Examination by Examiner Lowe	31
21	Proceedings Conclude	33
22	Certificate of Court Reporter	34
23	-	
24		
25		

		Page 3
1	EXHIBITS OFFERED AND ADMITTED	
2		PAGE
3	Marathon Oil Permian, LLC Exhibit Numbers 1 through 7	15
4	Marathon Oil Permian, LLC Exhibit	15
5	Numbers 8 through 11	27
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		
21		
22		
23		
24		
25		

- 1 (9:41 a.m.)
- 2 EXAMINER JONES: This is Case 20131.
- 3 Call for appearances.
- 4 MS. LEES: Zoe Lees on behalf of Marathon
- 5 Oil Permian, LLC. This is the application of Marathon
- 6 Oil Permian, LLC for approval of a spacing unit and
- 7 compulsory pooling, Lea County, New Mexico. This is
- 8 Case 20131 pertaining to the Battle Fee 34 WC 20H well.
- 9 EXAMINER JONES: Any other appearances in
- 10 this case?
- MS. LEES: We will also be asking for a
- 12 continuance on this case in order to notice the
- 13 overrides.
- 14 Also, I'd like to alert the Division that
- 15 we realized there was a typo in the second amended
- 16 application that we filed yesterday. We have a
- 17 corrected application for you, and the application in
- 18 this packet is correct. We'll provide Florene with a
- 19 corrected application today.
- 20 EXAMINER JONES: It was a typo that didn't
- 21 affect a whole lot?
- 22 MS. LEES: No. It was a significant typo.
- 23 Let's see if I can -- it was -- so the depth severance
- 24 in this case -- the correct depth severance is described
- 25 as from 100 feet below the top of the Wolfcamp Formation

1 to the base of the Wolfcamp Oil Pool. Instead of saying

- 2 "100 feet below the top of the Wolfcamp Formation," it
- 3 said "100 feet below the base." It was a typo, but it
- 4 was significant.
- 5 EXAMINER JONES: Was the TVD still the
- 6 same?
- 7 MS. LEES: The TVD was still the same.
- 8 EXAMINER JONES: Okay. Mr. Brooks?
- 9 MR. BROOKS: We don't have any testimony so
- 10 far, so --
- MS. LEES: No.
- 12 EXAMINER BROOKS: -- there is no witness to
- 13 ask questions of.
- The question was about filing the amended
- 15 application?
- 16 MS. LEES: Yeah. We filed the second
- 17 amended application last night.
- 18 EXAMINER BROOKS: Yeah.
- 19 MS. LEES: It said "below the top of the
- 20 base," and that was my fault. It should have said
- 21 "below the top."
- 22 EXAMINER JONES: Was last night the last --
- 23 appears to be February [sic] the 7th, right? Was last
- 24 night the last --
- MS. BENNETT: Well, we were --

1 EXAMINER JONES: It was the night before --

- 2 it was the day before, is that correct, two days ago?
- 3 MS. BENNETT: So we were hopeful that just
- 4 filing the amended complaint [sic] would allow us to
- 5 hear it today -- or allow you-all to hear it today but
- 6 continue for notice purposes. We will be sending
- 7 amended notice -- amended applications to all parties
- 8 entitled to notice in this case.
- 9 EXAMINER BROOKS: I believe that should be
- 10 a satisfactory procedure.
- 11 EXAMINER JONES: Okay. Sounds good.
- The same witnesses.
- MS. LEES: Same witnesses, yes.
- 14 EXAMINER JONES: Let the record show these
- 15 two, Mr. Prewett, and -- the two witnesses have been
- 16 sworn.
- 17 EXAMINER BROOKS: And your name is,
- 18 Mr. Witness?
- 19 THE WITNESS: Travis Prewett.
- 20 MS. LEES: Mr. Prewett is the land witness,
- 21 and our geologist is Matt Baker.
- 22 EXAMINER BROOKS: Okay. So Mr. Prewett and
- 23 Mr. Baker have been sworn and qualified.
- MS. LEES: Yes, that's correct.

25

- TRAVIS H. PREWETT,
- 2 after having been previously sworn under oath, was
- 3 questioned and testified as follows:
- 4 DIRECT EXAMINATION
- 5 BY MS. LEES:
- 6 Q. And, Mr. Prewett, are you familiar with the
- 7 application amended by Marathon in this case?
- 8 A. Yes.
- 9 Q. And are you familiar with the status of the
- 10 lands that are subject to this application?
- 11 A. Yes.
- 12 Q. Could you please turn to Exhibit 1, and can you
- 13 please identify this document for the hearing examiners?
- 14 A. This is the second amended application for Case
- 15 Number 20131, which is for the Battle 34 WCB 20H well.
- 16 Q. And can you explain what Marathon seeks under
- 17 this application?
- 18 A. Marathon seeks to pool uncommitted mineral
- 19 interests from 100 feet below the top of the Wolfcamp
- 20 Formation being plus or minus 12,080 feet to the base of
- 21 the Wolfcamp Oil Pool below the surface of the
- 22 underlying spacing unit covering the east half east of
- 23 Section 34 in Township 21 South, Range 33 East of Lea
- 24 County, New Mexico.
- Q. And are you aware that Marathon filed a first

- 1 amended application in this case?
- 2 A. Yes.
- Q. And did that first amended application indicate
- 4 new well names?
- 5 A. Yes.
- 6 Q. And did that first amended application add the
- 7 depth severances?
- 8 A. Yes.
- 9 Q. And why did Marathon file a second amended
- 10 application?
- 11 A. We filed a second amended application because
- 12 we needed to change the depth severance. It was at the
- 13 base of the Bone Spring, and we wanted to move it to 100
- 14 feet below the base of the Wolfcamp -- no, no. Yeah.
- 15 Base of the -- well, no. Excuse me. Let me say that
- 16 again. The second amended application was to move --
- 17 was initially the base of the Bone Spring Formation,
- 18 also known as the top of the Wolfcamp Formation, and we
- 19 wanted to move it to 100 feet below the top of the
- 20 Wolfcamp Formation, also known as base of the Bone
- 21 Spring.
- 22 Q. Thank you.
- 23 Did you send out proposal letters and AFEs
- 24 for these applications?
- 25 A. Yes, on October 5th, 2018.

1 Q. And does the well-proposal letter or the AFE

- 2 need to change with the second amended application?
- 3 A. No.
- 4 Q. We'll discuss the specifics of those later in
- 5 your testimony.
- 6 So there are depth severances in this
- 7 application, correct?
- 8 A. That is correct.
- 9 Q. And how were those depth severances created?
- 10 A. They were created from the lease language, and
- 11 I provided that language in a later exhibit.
- 12 Q. And we'll discuss those when we get to that
- 13 exhibit.
- Let's turn to Exhibit 2. Can you please
- 15 identify Exhibit 2 for the hearing examiners?
- 16 A. Yes. This is the C-102 plat for the Battle 34
- 17 WCB 20H.
- 18 Q. And has the Division identified a pool and pool
- 19 code for this well?
- 20 A. Yes. The pool name is WC-025 G-10 S2133280,
- 21 Wolfcamp, with a pool code of 98033.
- Q. Will the completed intervals for the well
- 23 comply with the setback requirements for this pool?
- 24 A. Yes. Correct.
- Q. Can you please turn to what's been marked as

1 Exhibit 3? Can you identify and explain this exhibit

- 2 for the hearing examiners?
- 3 A. Yes. This is just the lease tract map showing
- 4 the unit that the 20H is going to be pooling in, and
- 5 that's the east half-east half of Section 34.
- 6 Q. And are the parties whom you're seeking to pool
- 7 listed in Exhibit 4?
- 8 A. Yes.
- 9 Q. And what type of interest do you seek to pool
- 10 in this application?
- 11 A. We seek to pool all the uncommitted mineral
- 12 interests in the Bone Spring Formation underlying this
- 13 spacing unit.
- Q. Did you notify all mineral interests underlying
- 15 the spacing unit at issue in this case whether or not
- 16 they are interests of the depth the well is producing?
- 17 A. Yes.
- 18 Q. Could you summarize for the examiners the other
- 19 efforts Marathon has made to obtain voluntary pooling of
- 20 interests?
- 21 A. We -- we used the last known addresses that we
- 22 obtained through title research and sent out our well
- 23 proposals to those. And then for any mailings that were
- 24 returned to us, we used different online people searches
- 25 such as LexisNexis and Accurint to update those

1 addresses and resend those proposals. From the folks

- 2 that we have talked to, we've continued correspondence
- 3 via email and telephone calls.
- 4 Q. In your opinion, has Marathon made a good-faith
- 5 effort to obtain voluntary joinder in the well?
- 6 A. Yes.
- 7 Q. Could you please turn to Exhibit 5, And could
- you explain this exhibit for the hearing examiners?
- 9 A. Yes. This is the depth-severance exhibit, and
- 10 it's got a diagram of the different formations. It also
- 11 depicts the depth severances, and also it gives you the
- 12 language from the various instruments that show at least
- 13 part of the Marathon's interest that was created in the
- 14 spacing unit.
- 15 Q. And does the quoted language explain the depth
- 16 severance located within --
- 17 A. It does.
- 18 Q. And could you explain that to hearing
- 19 examiners?
- 20 A. Right. So we have two languages here that I've
- 21 listed. It's 100 feet below the deepest perforation
- 22 or -- 100 feet below the deepest perforation, also 100
- 23 feet below the deepest depth drilled and also 100 feet
- 24 below the base of the deepest producing formation and
- 25 100 feet below the deepest producing zone.

1 Q. And when you designated these groups of

- ownership, did you look at title records prepared for
- 3 the acreage?
- A. We did.
- 5 Q. And were there 15 different groups of owners
- 6 based on the title records you reviewed?
- 7 A. Yes.
- 8 Q. And as I asked you earlier, you sent a
- 9 well-proposal letter out on October 5th, 2018, correct?
- 10 A. That is correct.
- 11 Q. Did you send the working interest owners a well
- 12 proposal for these wells?
- 13 A. I did.
- 14 Q. Does the well-proposal letter identify the
- 15 first and last take point and the approximate TVD for
- 16 the well?
- 17 A. It does.
- 18 Q. And did the well-proposal letter include an AFE
- 19 for the well?
- 20 A. Yes.
- 21 Q. Did Marathon provide costs for drilling the
- 22 well and completion costs to the parties that it seeks
- 23 to pool?
- 24 A. Yes.
- Q. Please turn to Exhibit 6, and can you identify

- 1 that exhibit for the hearing examiners?
- 2 A. This is the AFE for the 20H -- the Battle 20H
- 3 well.
- 4 Q. And what are the costs for drilling, completing
- 5 and equipping the well?
- 6 A. The grand total cost was \$8,107,847.
- 7 Q. And are those costs in line with the cost of
- 8 other horizontal wells drilled to this length and depth
- 9 of this area of New Mexico?
- 10 A. Yes.
- 11 Q. And who should be appointed operator of the
- 12 **well?**
- 13 A. Marathon Oil Permian, LLC.
- 14 Q. Do you have a recommendation for the amounts
- 15 that Marathon should be paid for supervision and
- 16 administrative expenses?
- 17 A. Yes. It's \$7,000 per month for a drilling well
- 18 and \$700 a month for a producing well.
- 19 Q. Are these amounts equivalent to those normally
- 20 charged by Marathon and other operators in this area for
- 21 horizontal wells of this length and depth?
- 22 A. Yes.
- Q. Do you request that these rates be adjusted
- 24 periodically as provided by the COPAS accounting
- 25 **procedure?**

- 1 A. Yes.
- Q. Does Marathon request the maximum cost plus 200
- 3 percent risk charge if any pooled working interest owner
- 4 fails to pay its share of costs for drilling, completing
- 5 and equipping the well?
- 6 A. Yes.
- 7 Q. Were the parties you're seeking to pool
- 8 notified of this hearing?
- 9 A. Yes.
- 10 Q. And can you identify what Exhibit 7 is?
- 11 A. Exhibit 7 is the Affidavit of Notice prepared
- 12 by counsel for Marathon.
- MS. LEES: And as I stated earlier, we are
- 14 going to continue this case to the February docket so we
- 15 can notify the overriding royalty interests.
- 16 THE WITNESS: I would also like to go back.
- 17 One of the questions was: What type of interest do you
- 18 seek to pool. And I had responded incorrectly. I had
- 19 said in the Bone Spring Formation underlying the spacing
- 20 unit. What I meant to say is we seek to pool the
- 21 uncommitted mineral interests 100 feet below the top of
- 22 the Wolfcamp Formation, being 12,080 feet, to the base
- of the Wolfcamp Oil Pool below the surface underlying
- 24 the spacing unit covering the east half-east half of
- 25 Section 34, 21 South, Range 33 East.

- 1 Q. (BY MS. LEES) Thank you, Mr. Prewett.
- 2 Does Marathon request that it be allowed a
- 3 period of one year between when the well is drilled and
- 4 when the well is completed under the order?
- 5 A. Yes.
- 6 Q. Were Exhibits 1 through 7 prepared by you or
- 7 under your supervision or compiled form company business
- 8 records?
- 9 A. Yes.
- 10 Q. Is the granting of this application in the
- interest of conservation and the prevention of waste?
- 12 A. Yes.
- MS. LEES: I'd like to move to have
- 14 Exhibits 1 through 7 admitted into the record.
- 15 EXAMINER JONES: 1 through 7 are admitted.
- 16 (Marathon Oil Permian, LLC Exhibit Numbers
- 17 1 through 7 are offered and admitted into
- 18 evidence.)
- MS. LEES: And I tender this witness.
- 20 EXAMINER JONES: Mr. Brooks?
- 21 CROSS-EXAMINATION
- 22 BY EXAMINER BROOKS:
- 23 Q. You're requesting the depth severance in the
- 24 order to be at what level? When we're drafting an
- order, what is going to be the depth line we're going to

- 1 draw for this spacing unit?
- 2 A. Okay. So the pooling unit will be from 100
- 3 feet below the top of the Wolfcamp. The depth
- 4 severances occur above that.
- 5 Q. 100 feet below the top of the Wolfcamp?
- 6 A. Right.
- 7 Q. And that's going to be where -- this is a
- 8 Wolfcamp unit --
- 9 A. Yes, sir.
- 10 Q. -- a Wolfcamp well?
- 11 A. Yes, sir.
- 12 Q. And it's going to be from -- you're going to
- 13 exclude the top 100 feet?
- 14 A. Yes, sir.
- 15 Q. But the rest of the Wolfcamp is included?
- 16 A. Yes, sir, because we have common ownership
- 17 below 100 feet.
- 18 Q. Okay. So then you have quoted the lease
- 19 language here from various leases?
- 20 A. Yes, sir.
- 21 Q. And all of the leases -- all of the leases
- 22 cover the entire tract in the horizontal plane?
- 23 A. That is correct.
- 24 Q. That is the entire east half of the west half?
- 25 A. Yes, sir.

1 Q. Okay. And the depth-severance line that you

- 2 have requested us to draw, in your opinion -- well, no.
- 3 This is the -- this is not something you can opine on.
- 4 The depth-severance line is below where you have been
- 5 told the depth severance of the title is?
- 6 A. Could you repeat that?
- 7 Q. The depth-severance line is below any depth
- 8 severance appearing in the title?
- 9 A. The depth-severance line will be -- the two
- 10 lines of the depth severances will be 100 feet below the
- 11 deepest well drilled or perforated -- or -- and the
- 12 other one is deepest producing formation or deepest
- 13 zone.
- 14 Q. Yeah. Those are the depth severances in the
- 15 title?
- 16 A. Those are the two depth severances. Yes, sir.
- 17 Q. The depth severances you're going to draw --
- 18 that we're going to draw in defining this unit is going
- 19 to be below either one of those?
- 20 A. That is correct, geologically. Yes, sir.
- Q. Okay. Thank you.
- 22 A. And my geologist will better define that.
- 23 Q. Yeah. Thank you.

24

25

1 CROSS-EXAMINATION

- 2 BY EXAMINER JONES:
- Q. It says "100 feet below the base of the deepest
- 4 producing formation-zone" is one of the possible
- 5 definitions, is that correct, depth severance?
- 6 A. Right. So it's actually two. And this is the
- 7 same leases that we spoke about on 15H. But one of
- 8 these leases would have said "the deepest producing
- 9 formation" and the other lease would have said "the
- 10 deepest producing zone."
- 11 Q. Okay. And then there's -- above that, you said
- 12 "100 feet below the deepest perforation-depth drilled."
- 13 That's in the Roy Barton lease.
- 14 A. Right. So one of these leases would have
- 15 had -- and I can't tell you exactly which one had which,
- 16 but one of the leases or multiple leases would have had
- 17 the deepest perforation drilled, and the residue would
- 18 have had the deepest depth drilled.
- 19 Q. Yeah. Because you could say that the deepest
- 20 producing formation -- below the base of the deepest
- 21 producing formation-zone. It just depends on the
- 22 geologist's definition.
- 23 A. Yes, sir.
- 24 Q. Can you say what -- how the interests change
- 25 above and below this depth-severance depth? In other

1 words, the same owners but different percentages; is

- 2 that correct?
- 3 A. Right. So there are some lease expirations
- 4 that occurred so they Pughed out after.
- 5 **Q.** Oh.
- 6 A. Right. And so that's what happened. So we
- 7 drilled the 1H and the 2H, and then certain leases had
- 8 different depth provisions, and so that's why it got
- 9 clouded -- not clouded, but, you know, it's complicated
- 10 title.
- 11 Q. Uh-huh. Okay. Thanks a lot.
- 12 A. Thank you.
- MS. LEES: I'd like to call Matt Baker up.
- 14 EXAMINER JONES: Let the record show
- 15 Mr. Baker has been qualified.
- MS. LEES: Thank you.
- 17 MATT BAKER,
- 18 after having been previously sworn under oath, was
- 19 questioned and testified as follows:
- 20 DIRECT EXAMINATION
- 21 BY MS. LEES:
- Q. Are you familiar, Mr. Baker, with the second
- amended application filed by Marathon in this matter?
- 24 A. Yes.
- 25 Q. And are you familiar with the status of the

lands that are the subject to this application?

- 2 A. Yes.
- Q. Are you familiar with the drilling plan for the
- 4 well?
- 5 A. Yes.
- 6 Q. And have you conducted a geologic study of the
- 7 area embracing the proposed spacing unit for the well?
- 8 A. Yes.
- 9 Q. What is the targeted interval for the well?
- 10 A. The targeted interval for this one is the
- 11 Wolfcamp C.
- 12 Q. And can you please turn to what we've marked as
- 13 Exhibit 8, and can you identify this exhibit and explain
- 14 it to the hearing examiners?
- 15 A. Yes. This is a structure map for the top of
- 16 the Wolfcamp C. Looking at the structure here, we see
- 17 that the Wolfcamp C structure is dipping to the south.
- 18 Marathon's acreage is shown in yellow. The proposed
- 19 wells for this units are in red, and the Wolfbone C well
- 20 in particular here is number two. And then the vertical
- 21 wells used for the assessment are circled in red.
- Q. And is there anything structurally that would
- interfere with the contribution of acreage to the
- 24 proposed well?
- 25 A. No.

1 Q. Have you prepared a cross section of logs to

- determine the relative thickness and porosity of the
- 3 Wolfcamp C?
- 4 A. Yes.
- 5 Q. And is that cross section contained in Exhibit
- 6 9?
- 7 A. Yes, it is.
- Q. And are the wells that you've selected to
- 9 include in this cross section representative of the
- 10 Wolfcamp Formation in this area?
- 11 A. Yes.
- 12 Q. And can you please explain Exhibit 9 to the
- 13 hearing examiners?
- 14 A. Yes. This is a stratigraphic cross section
- 15 hung on the top of the Wolfcamp moving from A to A prime
- 16 or west to east across this unit. We see here that
- 17 there is slight thinning moving west to east along this
- 18 unit, but it should be relatively -- the thickness
- 19 should be relatively uniform along the path of the
- 20 wellbore. And our producing zone here is highlighted in
- 21 yellowish-orange with the drilling target being
- 22 indicated by the red arrow on the middle log.
- Q. And can you please turn to what's been marked
- 24 as Exhibit 10, and can you identify and explain this
- document for the hearing examiners?

- 1 A. Yes. This is a gross sand isochore of the
- 2 Wolfbone C interval. We can see once again that moving
- 3 from west to east, the unit does slightly thin, but
- 4 along the planned wellbore path, thickness should remain
- 5 relatively constant.
- 6 Q. And you were here for Mr. Prewett's testimony,
- 7 correct?
- 8 A. Yes.
- 9 Q. Were you here when he testified regarding the
- 10 lease language in Exhibit -- quoted in Exhibit 5, that
- it established two depth severances in this well?
- 12 A. Yes.
- Q. Will you please turn to Exhibit 11 --
- 14 A. Yes.
- 15 Q. -- and can you identify and explain this
- 16 exhibit?
- 17 A. Yes. So there is a lot going on here, so I'll
- 18 try to do the best I can.
- 19 This is essentially a cross-section view
- 20 from north to south across the unit. You'll see in the
- 21 upper, right corners the little inset map kind of
- 22 projecting where this viewing plane is moving from north
- 23 to south. In red is essentially the planned wellbore
- 24 trajectory for the 20H. Above that in black is the
- 25 as-drilled Battle 2H. The gridded-out formation tops

1 along this line are the dashed lines with the top of the

- 2 3rd Bone Spring Sand in orange, the Wolfcamp in blue,
- 3 the top of the Wolfcamp A in green, and then all the way
- 4 down to the Wolfcamp D2.
- 5 So the two depth severances that were
- 6 pointed out were 100 feet below the deepest perforation
- 7 or depth drilled and 100 feet below the base of the
- 8 deepest producing formation-zone.
- 9 So the way I look at this is the two depth
- 10 severances listed don't occur at the same point in
- 11 space, so we have to think about this as a
- 12 two-dimensional problem, hence the viewing plane here.
- 13 So the first one, 100 feet below the base of the deepest
- 14 producing formation or zone would be the base of the
- 15 Bone Spring or top of the Wolfcamp. So here in blue I
- 16 have it labeled as "top estimated to be 11,980 feet
- 17 TVD." So 100 feet below that would be 12,080 feet TVD,
- 18 roughly corresponding to the top of what we call the
- 19 Wolfcamp A.
- Now, the second one is the deepest depth
- 21 drilled, which occurs all the way out in the lateral,
- 22 almost at the toe of the well, as I've indicated here.
- 23 And that's at 12,019.5 feet TVD. So 100 feet below that
- 24 would be 12,119.5 feet.
- 25 So since they're on the opposite sides of

- 1 the unit, we know from the structure maps that our
- 2 formation dips to the south. Therefore, at the toe of
- 3 the well, the formation tops come in deeper than they
- 4 did on the north side of the unit. So looking at that
- 5 point in space out here, you essentially connect the two
- 6 points and draw a straight line, is what I did here. So
- 7 at the point out here where I said 100 feet below the
- 8 deepest depth drilled, at this point, 100 feet below the
- 9 Wolfcamp is actually deeper than 100 feet below the
- 10 deepest depth drilled, essentially. So then in green
- 11 would define that pool showing that even though those
- 12 depths are different, essentially it's still within the
- 13 same formation.
- 14 Q. Thank you.
- 15 Can you please turn to Exhibit 12, and can
- 16 you please identify and explain what this exhibit shows?
- 17 A. This is kind of cartoon drawing of our assumed
- 18 maximum values for our hydraulic fracture. In this
- 19 area, we have yet to drill a Wolfcamp C well, so a lot
- 20 of this is just preliminary work. Here you see, again,
- 21 the avocado shape, kind of the maximum value for our
- 22 hydraulic frac height, and then the best-case scenario,
- 23 without any frac barriers or anything like that, as well
- 24 as the propped stimulated rock volume, which is what we
- 25 would actually be producing from.

1 So here we see that our drilling target is

- 2 in the Wolfbone C denoted in pinking-red. So looking at
- 3 the shape of this. I also have labeled here on the
- 4 red-dashed line "100 feet below the Wolfcamp top" or the
- 5 top of the pool that we are requesting.
- 6 EXAMINER BROOKS: Now, what exhibit are you
- 7 looking at?
- 8 THE WITNESS: 12.
- 9 EXAMINER BROOKS: Let's see. Where is 12?
- 10 Oh, here's 12. Sorry. Go ahead.
- 11 THE WITNESS: So here, even in the
- 12 best-case scenario, are hydraulic frac height would not
- 13 reach above the top of the Wolfcamp A. But to note, in
- 14 this log, we do have a very clay-rich interval above the
- 15 Wolfcamp C, which will significantly reduce our
- 16 fractured height, as well as our propped SRV. Now,
- 17 these clay-rich zones tend to be much more ductal than
- 18 other rocks. Therefore, after they are fractured, they
- 19 tend to close off significantly faster than something
- 20 that is more brittle. So with keeping those things in
- 21 mind, we should not produce anything above 100 feet
- 22 below the Wolfcamp top.
- Q. (BY MS. LEES) Thank you, Mr. Baker.
- 24 What is the preferred well orientation in
- 25 this area?

- 1 A. North-south.
- Q. Are there any impediments to this horizontal
- 3 well?
- 4 A. No.
- 5 Q. Do you anticipate that each quarter-quarter
- 6 section will be productive in the Bone Spring Formation?
- 7 A. Yes.
- 8 Q. Do you accept that each quarter-quarter section
- 9 will contribute approximately equally to production from
- 10 the well?
- 11 A. Yes.
- 12 Q. In your opinion, would the granting of
- 13 Marathon's application be in the best interest of
- 14 conservation, the prevention of waste and the protection
- 15 of correlative rights?
- 16 A. Yes.
- Q. Were Exhibits 8 through 12 prepared by you or
- 18 compiled under your direction and supervision?
- 19 A. Yes.
- Q. I have to ask you two questions again because I
- 21 made a mistake, Mr. Baker. I apologize.
- 22 Do you anticipate that each quarter-quarter
- 23 section will be productive in the Wolfcamp Formation?
- 24 A. Yes.
- 25 Q. Thank you.

1 And do you anticipate that each

- 2 quarter-quarter section will contribute approximately
- 3 equally to the production from the well?
- 4 A. Yes.
- 5 Q. And were Exhibits 8 through 12 prepared by you
- 6 or compiled under your direction and supervision?
- 7 A. Yes.
- 8 MS. LEES: I'd like to move the admission
- 9 of Exhibits 8 through 12 into the record.
- 10 EXAMINER JONES: Exhibits 8 through 12 are
- 11 admitted.
- 12 (Marathon Oil Permian, LLC Exhibit Numbers
- 8 through 12 are offered and admitted into
- 14 evidence.)
- 15 MS. LEES: And I tender this witness.
- 16 CROSS-EXAMINATION
- 17 BY EXAMINER JONES:
- 18 Q. The depth severances -- did you say before
- 19 which well was the -- which well or wells actually
- 20 defined the depth severances?
- 21 A. I did not.
- Q. Are you aware of those wells, or should the
- 23 landman answer that?
- MS. BENNETT: I believe it was in your
- 25 exhibit, isn't it, the 2H well?

1 THE WITNESS: Yeah. I mean, I don't think

- 2 in the leases they were -- are you asking if in the
- 3 leases they were based on a well log or --
- 4 EXAMINER JONES: Yeah, a certain well, or
- 5 if you're aware of it as a geologist.
- 6 THE WITNESS: I'm not aware of that being
- 7 in the lease.
- 8 EXAMINER BROOKS: That wouldn't be in the
- 9 lease. I mean, I wouldn't think.
- 10 EXAMINER JONES: Because it was after the
- 11 lease was issued?
- 12 EXAMINER BROOKS: Below the deepest --
- 13 yeah. If it was re-leased, yeah, that's true. And
- 14 these are situations where a lease expired, right?
- THE WITNESS: Yes.
- MS. BENNETT: Yes.
- 17 EXAMINER BROOKS: And your company leased
- 18 or re-leased the lower -- the lower zones.
- 19 MR. PREWETT: There is still one
- 20 outstanding unleased interest owner that we're working
- 21 with. It's an estate, and we're working through there.
- 22 And there are some other companies that picked up some
- 23 leases. We picked up some leases. So --
- 24 EXAMINER BROOKS: Okay. So it might be --
- 25 the lease might say below the deepest -- if we had the

1 lease language, we'd know. But we don't know, right?

- 2 You might. Are the wells that define these depth
- 3 severances identified in the leases, or are they just
- 4 below the deepest well drilled?
- 5 MR. PREWETT: They're not -- the wells are
- 6 not -- they're identified in the lease. The two wells
- 7 that they're referring to there -- the two wells that
- 8 were drilled in the lease, which is the east half of
- 9 Section 34, was the 1H, which is the east half-east
- 10 half, and the 2H, which is the west half-east half. So
- if that lease language was the deepest depth drilled in
- 12 the lease, then that 2H well, which is in the west
- 13 half-east half, is creating a depth severance on the
- 14 east half-east half as well.
- 15 EXAMINER BROOKS: Yeah.
- 16 MR. PREWETT: And then they have the
- 17 specific language where it is the deepest depth drilled
- in the unit in that 1H, which is the east half-east
- 19 half, which is drilled on the Bone Spring. That creates
- 20 its own depth severance up in the Bone Spring. But you
- 21 still have the other depth severance that's in the
- 22 Wolfcamp, that 2H.
- 23 EXAMINER BROOKS: Okay. Thank you.
- Q. (BY EXAMINER JONES) Okay. This is Lea County,
- 25 and it's Wolfcamp. Is there a chance this is an Upper

1 Wolfcamp pool, or is there going to be an Upper Wolfcamp

- and a Lower Wolfcamp here, or is it all just considered
- 3 Wolfcamp as far as the pool goes? That won't affect any
- 4 lease severances initially or depth severances?
- 5 MS. BENNETT: I'm not sure about the answer
- 6 to that.
- 7 THE WITNESS: I'm not sure either.
- 8 EXAMINER JONES: Well, you've already
- 9 gotten a definition of the lease -- of the pool in each
- 10 one of these cases anyway, so Mr. Kautz has already
- 11 spoken, I guess, on this. So we we're probably fine.
- 12 Q. (BY EXAMINER JONES) So the Wolfcamp C is the
- 13 target. You don't anticipate targets above that but
- still below the depth severance, of course?
- 15 A. Yes. Not at this time. I don't know for sure.
- 16 Q. Okay.
- 17 EXAMINER JONES: Do you have any questions?
- 18 CROSS-EXAMINATION
- 19 BY EXAMINER MURPHY:
- 20 Q. Can I ask you a question? The 2H and the 15,
- 21 are they stacked? And they're Bone Spring?
- 22 A. They are in -- the 2H and the 15H, the 2nd --
- 23 **Q. Yes.**
- 24 A. -- 2nd Bone, 15H? I believe not completely
- 25 stacked. The 15H should be in the middle of that

1 quarter-quarter -- of that quarter section, and then I

- 2 believe the 2H was something like 330 feet off. So they
- 3 are not.
- 4 Q. And the same for the 20H, the 1H and the 17,
- 5 are they somewhat stacked?
- 6 A. The 20H and the 17H will be stacked. Yes,
- 7 ma'am.
- 8 Q. Okay.
- 9 EXAMINER MURPHY: And we have another
- 10 question.
- 11 CROSS-EXAMINATION
- 12 BY EXAMINER LOWE:
- 13 Q. I have another question.
- Good morning.
- 15 A. On which one?
- Q. On you Exhibit 12 and compare it to Exhibit 11.
- 17 Your blue avocado-shaped frac height on Exhibit 12, this
- 18 map here, in reference to the WFMP A, is that toe end of
- 19 the -- of the well?
- 20 A. On 12 here?
- 21 Q. Yes.
- 22 A. No. I believe this would be at the heel where
- 23 the well is landing.
- Q. At the heel.
- 25 So at the toe end, that blue portion will

- 1 be further down then?
- 2 A. Exactly.
- Q. Okay. Okay. Thank you.
- 4 EXAMINER JONES: Okay.
- 5 MS. LEES: And I actually do need to call
- 6 Travis Prewett back up to the stand.
- 7 EXAMINER JONES: Okay.
- 8 MS. LEES: Thank you, Mr. Baker.
- 9 THE WITNESS: Uh-huh.
- TRAVIS H. PREWETT,
- after having been previously sworn under oath, was
- re-called, questioned and testified as follows:
- 13 DIRECT EXAMINATION
- 14 BY MS. LEES:
- 15 Q. All right. Thank you, Mr. Prewett.
- 16 When did Marathon anticipate beginning
- drilling the wells in Case Numbers 20128, 20129 and
- 18 **20131?**
- 19 A. We plan on drilling them in mid-June -- or
- 20 spudding in mid-June.
- 21 Q. Thank you.
- 22 MS. LEES: I'd like to continue Case Number
- 23 20131 for notice purposes to the February docket.
- 24 EXAMINER JONES: Okay. Case 20131 is
- 25 continued to February the 21st.

Page 33 MS. LEES: We're all done with this one. 1 2 EXAMINER BROOKS: February 7th or February 3 21st? 4 MS. BENNETT: Is it possible --5 MS. LEES: It's just for notice purpose. 6 Is it possible to get the February 7th? 7 EXAMINER JONES: I'm instructed no. 8 MS. LEES: Okay. EXAMINER JONES: I'm instructed no 9 (laughter). 10 11 MS. BENNETT: Thank you. 12 EXAMINER JONES: Okay. Let's take a 13 ten-minute break. 14 (Case Number 20131 concludes, 10:14 a.m.) 15 16 17 18 19 20 21 22 23 24 25

- 1 STATE OF NEW MEXICO
- 2 COUNTY OF BERNALILLO

3

- 4 CERTIFICATE OF COURT REPORTER
- 5 I, MARY C. HANKINS, Certified Court
- 6 Reporter, New Mexico Certified Court Reporter No. 20,
- 7 and Registered Professional Reporter, do hereby certify
- 8 that I reported the foregoing proceedings in
- 9 stenographic shorthand and that the foregoing pages are
- 10 a true and correct transcript of those proceedings that
- 11 were reduced to printed form by me to the best of my
- 12 ability.
- I FURTHER CERTIFY that the Reporter's
- 14 Record of the proceedings truly and accurately reflects
- 15 the exhibits, if any, offered by the respective parties.
- 16 I FURTHER CERTIFY that I am neither
- 17 employed by nor related to any of the parties or
- 18 attorneys in this case and that I have no interest in
- 19 the final disposition of this case.
- 20 DATED THIS 30th day of January 2019.

21

22

MARY C. HANKINS, CCR, RPR
Certified Court Reporter
New Mexico CCR No. 20

Date of CCR Expiration: 12/31/2019
Paul Baca Professional Court Reporters

25