

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                      CASE NO. 16088  
LLC FOR A NONSTANDARD SPACING AND  
PRORATION UNIT AND COMPULSORY POOLING,  
EDDY COUNTY, NEW MEXICO.

Consolidated with

APPLICATION OF MARATHON OIL PERMIAN                      CASE NO. 16089  
LLC FOR COMPULSORY POOLING, EDDY  
COUNTY, NEW MEXICO.

REPORTER'S TRANSCRIPT OF PROCEEDINGS

EXAMINER HEARING

May 17, 2018

Santa Fe, New Mexico

BEFORE:   SCOTT DAWSON, CHIEF EXAMINER  
          MICHAEL McMILLAN, TECHNICAL EXAMINER  
          DAVID K. BROOKS, LEGAL EXAMINER

This matter came on for hearing before the  
New Mexico Oil Conservation Division, Scott Dawson,  
Chief Examiner, Michael McMillan, Technical Examiner,  
and David K. Brooks, Legal Examiner, on Thursday,  
May 17, 2018, 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

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25

APPEARANCES

FOR APPLICANT MARATHON OIL PERMIAN LLC:

DEANA M. BENNETT, ESQ.  
 JENNIFER L. BRADFUTE, ESQ.  
 MODRALL, SPERLING, ROEHL, HARRIS & SISK, P.A.  
 500 4th Street, Northwest, Suite 1000  
 Albuquerque, New Mexico 87102  
 (505) 848-1800  
 deanab@modrall.com  
 jlb@modrall.com

INDEX

PAGE

Case Numbers 16088 and 16089 Called	3
Marathon Oil Permian LLC's Case-in-Chief:	
Witnesses:	
Matt Tate:	
Direct Examination by Ms. Bennett	5, 10
Direct Examination by Ms. Bradfute	10, 19
Cross-Examination by Examiner McMillan	20
Cross-Examination by Examiner Brooks	21
Cross-Examination by Examiner Dawson	23
Kate Zeigler, Ph.D.:	
Direct Examination by Ms. Bennett	24
Cross-Examination by Examiner Dawson	34
Proceedings Conclude	38
Certificate of Court Reporter	39

EXHIBITS OFFERED AND ADMITTED

Marathon Oil Permian LLC Exhibit Numbers 1 through 5	19
--	----

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25

(11:27 a.m.)

EXAMINER DAWSON: So at this point, we will call case number 16 on the list, which is Case Number 16088, application of Marathon Oil Permian LLC for a nonstandard spacing and proration unit and compulsory pooling, Eddy County, New Mexico. And it will be consolidated with number 17 on the list, Case Number 16089, which is an application of Marathon Oil Permian LLC for compulsory pooling, Eddy County, New Mexico.

Please call for appearances.

MS. BENNETT: Good morning. Deana Bennett with Modrall Sperling, on behalf of Marathon Oil Permian LLC, and with me is Jennifer Bradfute. And we have two witnesses today.

EXAMINER DAWSON: Can you please have your witnesses stand and be sworn in?

(Mr. Tate and Dr. Zeigler sworn.)

EXAMINER McMILLAN: Any other appearances? Please proceed.

EXAMINER DAWSON: You may continue when you're ready, Ms. Bennett.

MS. BENNETT: Thank you.

Before I proceed with my first witness, Matt Tate, yesterday we filed an amended application for

1 both of these cases. As of yesterday, we discovered  
2 that the surface hole is going to be on a different --  
3 in a different section than what was in our previous  
4 C-102s. So we provided our amended applications  
5 yesterday and ask this case be -- two cases be continued  
6 for notice purposes only until the June 17th docket --  
7 I'm sorry -- June 14th. But we have our two witnesses  
8 here today, our geotechnical witnesses, so we'd like to  
9 proceed with them and then take care of the notice  
10 issues, which we have already begun, and then return  
11 here on June 14th to provide the additional exhibits  
12 addressing the notice for the location for the surface  
13 hole.

14 EXAMINER DAWSON: Okay.

15 MS. BENNETT: Also, we would ask that  
16 Marathon be allowed 150 days rather than 120 days for  
17 completion of the wells after spudding.

18 If there aren't any questions, I'll go  
19 ahead and start with Mr. Tate.

20 EXAMINER DAWSON: Why does Marathon need  
21 another 30 days?

22 MS. BRADFUTE: Mr. Dawson, they have one  
23 dedicated completion crew active in the state and  
24 drilling numerous wells, and so they thought the  
25 additional 30 days would be needed to get these wells

1 completed. They have been considering additional  
2 completion crews, but right now they have a single  
3 completion crew.

4 EXAMINER DAWSON: Okay. Thank you.

5 MS. BENNETT: At this time I'd like to  
6 introduce Mr. Tate.

7 MATT TATE,  
8 after having been previously sworn under oath, was  
9 questioned and testified as follows:

10 DIRECT EXAMINATION

11 BY MS. BENNETT:

12 Q. And, Mr. Tate, please state your name for the  
13 record.

14 A. Matt Tate.

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

16 A. I'm a landman for Marathon Oil Company.

17 Q. And have you previously testified before the  
18 Division?

19 A. Yes, I have.

20 Q. Were your credentials as a landman accepted as  
21 a matter of record?

22 A. Yes, they were.

23 Q. Does your area of responsibility at Marathon --  
24 let me back up.

25 What are your responsibilities at Marathon?

1           A.    I handle the land-related responsibilities for  
2 certain parts of Eddy County, New Mexico.

3           **Q.    And does your area of responsibility at**  
4 **Marathon include the area of Eddy County, New Mexico?**

5           A.    It does, yes.

6           **Q.    Are you familiar with the amended applications**  
7 **that we filed yesterday on behalf of Marathon in Case**  
8 **Numbers 16088 and 16089?**

9           A.    Yes.

10          **Q.    And are you familiar with the status of the**  
11 **lands that are the subject of these amended**  
12 **applications?**

13          A.    Yes, I am.

14                   MS. BENNETT: I would like to tender  
15 Mr. Tate as an expert in petroleum land matters.

16                   EXAMINER DAWSON: At this time Mr. Tate  
17 will be accepted as an expert in petroleum land matters.

18                   MS. BENNETT: Thank you.

19          **Q.    (BY MS. BENNETT) Mr. Tate, if you would please**  
20 **turn to Exhibit 1A in the materials you have before you?**  
21 **Mr. Tate, could you briefly describe what 1A is and what**  
22 **it seeks?**

23          A.    Yes. This is an application for Marathon's  
24 Catapult Fee 6H. We're seeking to create a 160-acre  
25 nonstandard spacing unit into the Bone Spring Formation.

1 This unit will cover the east half-east half of  
2 Section 1, Township 23 South, Range 26 East Eddy County,  
3 New Mexico. We also seek to pool all the unleased  
4 mineral interests located within the spacing unit.

5 Q. Thank you.

6 If you could now turn to Exhibit 1B and  
7 explain to the Examiners what this exhibit is and what  
8 Marathon is seeking by this exhibit.

9 A. In this application, Marathon is seeking to  
10 pool all the leased mineral interests within the Bone  
11 Spring Formation. This is underlying the standard  
12 320-acre spacing and proration unit covering the east  
13 half of Section 1, Township 23 South, Range 26 East.

14 Q. Thank you.

15 If you could turn to Exhibit 2A, and I'm  
16 going to be breaking these down between the Bone Spring  
17 and the Wolfcamp Formations. So if you could please  
18 describe for the Examiners what Exhibit 2A is.

19 A. Yes. This is the C-102 for the Catapult Fee  
20 23-26-1 TB 6H showing the first take point to be in the  
21 northeast quarter of the northeast quarter, and the last  
22 take point to be in the southeast quarter of the  
23 southeast quarter of Section 1 of 23 South, 26 East.

24 Q. And does Exhibit 2 also include the Form C-103?

25 A. Yes, it does.

1 Q. And is that the sundry notice that was filed to  
2 identify the -- to identify Section 36?

3 A. It is, yes.

4 Q. Thank you.

5 Has the Division identified a pool and a  
6 pool code for this well?

7 A. Yes. It's the Carlsbad; Bone Spring, South,  
8 Pool Code 9670.

9 Q. Thank you.

10 Is this pool governed by the Division  
11 statewide rules which has a 330-foot setback  
12 requirement?

13 A. Yes, ma'am.

14 Q. Will the completed setback for these wells --  
15 for this well comply with the Division setback  
16 requirement?

17 A. Yes, they do.

18 Q. Thank you.

19 If you could now turn to Exhibit 2B, and 2B  
20 consists of three documents. So if you could briefly  
21 describe for the Examiners what Exhibit 2B is.

22 A. Yes. These are the C-102s for our Catapult Fee  
23 23-26-1 WA 5H. The 5H shows the first take point to be  
24 in the -- so the first take point for the 5H is on the  
25 line of the northwest quarter and the northeast quarter

1 of the northeast quarter. And the last take point is  
2 planned on the line of the southwest quarter and the  
3 southeast quarter of the southeast quarter.

4 The second C-102 of this exhibit is for the  
5 Catapult Fee 23-26-1 WXY 3H. The first take point for  
6 this well is planned in the northwest quarter of the  
7 northeast quarter, and the last take point is planned in  
8 the southwest quarter of the southeast quarter of  
9 Section 1, 23 South, 26 East.

10 **Q. And is there a third C-102?**

11 A. Yes. The third C-102 is the Catapult 23-26-1  
12 WXY 10H. This well has a plan: First take point in the  
13 northeast quarter of the northeast quarter, and a  
14 planned last take point in the southeast quarter of the  
15 southeast quarter.

16 **Q. Thank you.**

17 **And has the Division identified a pool and**  
18 **a pool code for these wells?**

19 A. Yes, they have. So the 5H is located in the  
20 Purple Sage; Wolfcamp Gas, Pool Code 98220. The 3H and  
21 the 10H are also in the Purple Sage; Wolfcamp Gas Pool,  
22 with a pool code of 98220.

23 **Q. Thank you.**

24 **And was a Form C-103 submitted for each of**  
25 **these three --**

1 A. Yes, they were.

2 Q. Are these pools governed by the Division  
3 statewide rules, which have a 330-foot setback  
4 requirement?

5 A. Yes.

6 Q. And will the completed --

7 DIRECT EXAMINATION

8 BY MS. BRADFUTE:

9 Q. I'm sorry. Just to clarify, Mr. Tate, these  
10 are Purple Sage; Wolfcamp Gas Pool, correct?

11 A. Yes.

12 Q. And this pool was subject to special pool rules  
13 with established 330-foot setback requirements and  
14 320-acre spacing, correct?

15 A. Yes. Yes.

16 CONTINUED DIRECT EXAMINATION

17 BY MS. BENNETT:

18 Q. And will the completed intervals for the wells  
19 comply with the Division setback requirements?

20 A. They do.

21 Q. Thank you.

22 Can you please turn to what has been marked  
23 as Exhibit 3 and explain what this exhibit is to the  
24 Examiners?

25 A. So this is the lease tract plat for Marathon's

1 Catapult unit in the east half of Section 1, 23 South,  
2 26 East. This unit's comprised of two separate lease  
3 tracts, Tract 1 being a fee lease where Marathon owns  
4 100 percent of the leasehold working interest under this  
5 tract. Tract 2 is also a fee lease where Marathon  
6 owns approximately 94 percent of the leasehold working  
7 interest under this tract.

8 **Q. Are there any overriding royalty interests**  
9 **within the spacing unit?**

10 A. There are not, no.

11 **Q. Does Exhibit 3 identify the parties whom you**  
12 **are seeking to pool?**

13 A. Yes. So there are three unleased parties under  
14 Tract 2 that we're seeking to pool, the first being  
15 Robert L. Cruce. Mr. Cruce is unable to execute binding  
16 documents. So we've been in contact with family  
17 members, and we're now working with his sister who is  
18 his caretaker in order to work out guardianship issues  
19 with them.

20 Arkansas Children's Hospital, we have been  
21 working with them since December of 2017. Our brokers  
22 have indicated to us that they have agreed to terms with  
23 this group, and they've been provided a lease form, and  
24 they intend to sign that and return it to us. Robert  
25 Lee Moore, he is unlocatable. We've been in contact

1 with multiple family members, all of which do not know  
2 his whereabouts. They indicated that he could be in the  
3 Dallas area. We've run a LexisNexis search for him, and  
4 it indicated he potentially is at a homeless shelter in  
5 Dallas. We sent an offer to lease and a well proposal  
6 to that address, to which we have gotten no response.

7 Q. Thank you.

8 In your opinion, has Marathon made a  
9 good-faith effort to obtain voluntary joinder in the  
10 well from these parties?

11 A. Yes.

12 Q. And in the event that you are able to reach an  
13 agreement with the Arkansas Children's Hospital, will  
14 you notify the board [sic]?

15 A. I will, yes.

16 Q. Would you please turn to Exhibit 4? Exhibit 4  
17 consists of four letters. Could you explain to the  
18 Commissioners what these -- to the examiners what these  
19 are, please?

20 A. Yes. These are the proposal letters that were  
21 sent to our unleased owners under Tract 2. These are  
22 proposal letters for each well proposal described.  
23 These were sent to Robert Cruce and Robert Moore, with  
24 the exception of the Arkansas Children's Hospital, since  
25 they had indicated their agreement to lease and agreed

1 to terms. We are waiting on the signed form to come  
2 back, so we cannot propose the well through them.

3 Q. Thank you.

4 If you could then turn to what is marked as  
5 Exhibit 4A. Can you please explain what Exhibit 4A is  
6 to the Examiner?

7 A. Exhibit 4A is the AFE for the Catapult 6H well.

8 Q. And if you could briefly explain Exhibits 4B, C  
9 and D as well.

10 A. 4B will be the AFE for the 5H. C is the AFE  
11 for the 3H, and D is the AFE for the 10H.

12 Q. Thank you.

13 Did you send the working interest owners or  
14 the unleased mineral owners well proposals for the well?

15 A. Again, we sent an AFE to all unleased mineral  
16 interest owners with the exception of Arkansas  
17 Children's Hospital. And Marathon is the only working  
18 interest owner under these two tracts.

19 Q. Thank you.

20 And the well-proposal letter, I think you  
21 mentioned, included an AFE for each well?

22 A. It did, yes.

23 Q. Did Marathon provide costs for the drilling of  
24 the well and completion costs to the parties it seeks to  
25 pool? Is that included in the AFEs?

1           A.    It is, yes.

2           Q.    What is the cost for drilling the well and  
3 completion costs of the 6H well?

4           A.    The total cost to drill and complete is  
5 \$6,779,788.

6           Q.    And that is information that's contained on  
7 Exhibit 4A?

8           A.    It is, yes.

9           Q.    Let's turn to Exhibit 4B.  What are the  
10 completion costs for drilling and completing and  
11 equipping the well?  I think this is the 3H well -- the  
12 5H well identified on Exhibit 4B.

13          A.    The cost to drill, complete and equip the 5H is  
14 \$6,806,518.

15          Q.    So \$6,806,518?

16          A.    Yes.  Sorry.

17          Q.    And then turning to Exhibit 4C, which  
18 identifies the cost for the 3H well, could you please  
19 provide the estimated costs of drilling, completing and  
20 equipping this well?

21          A.    Total cost to drill, complete and equipment is  
22 \$6,804,358.

23          Q.    Thank you.

24                           And turning to Exhibit 4D which identifies  
25 the cost of the 10H well, would you please state for the

1 record the estimated cost of drilling, completing and  
2 equipping the 10H well.

3 A. The total cost is also \$6,804,358.

4 Q. Thank you.

5 Are those costs in line with the cost of  
6 other horizontal wells drilled to this length and this  
7 depth in this area of New Mexico?

8 A. Yes, they are.

9 Q. Do you request that Marathon Oil Permian LLC be  
10 appointed operator of the well?

11 A. Yes, we do.

12 Q. Do you have a recommendation for the amount  
13 which Marathon should be paid for supervision and  
14 administrative expenses?

15 A. \$7,000 per month for a drilling well and \$700  
16 per month for a producing well.

17 Q. And are those amounts equivalent to those  
18 normally charged by Marathon and other operators in this  
19 area for horizontal wells of this length and depth?

20 A. Yes.

21 Q. Do you request that these rates be adjusted  
22 periodically as provided by the COPAS accounting  
23 procedure?

24 A. Yes.

25 Q. Does Marathon request the maximum cost plus 200

1 percent risk charge if any pooled working interest owner  
2 fails to pay its share of costs for drilling, completing  
3 and equipping the wells?

4 A. Yes, we do.

5 Q. Were the parties you're seeking to pool  
6 notified of this hearing?

7 A. Yes, they were, with the exception of the  
8 Arkansas Children's Hospital.

9 Q. And that is an exception because you've been  
10 working with the Arkansas Children's Hospital --

11 A. Yes.

12 Q. -- to get them to voluntarily agree?

13 A. Yes.

14 Q. If you could look at Exhibit 5, please, Exhibit  
15 5 is an affidavit prepared by Marathon's counsel stating  
16 that the applications were provided under a notice  
17 letter, proof receipt, which is attached; is that  
18 correct?

19 A. Yes.

20 Q. And that affidavit covers the original  
21 application, not the amended application, as of this  
22 time?

23 A. Correct.

24 Q. And then Exhibits 5A and 5B are the pool  
25 parties and offset parties to whom notice was provided;

1 is that correct?

2 A. Yes, it is.

3 Q. And Exhibit 5A covers the 6H well; is that  
4 correct?

5 A. Yes, that's correct.

6 Q. And I notice, for example, that there -- well,  
7 Mr. Robert Lee Moore, as you mentioned, may be living in  
8 a homeless shelter, and you've attempted to contact him.  
9 But this identifies that it was returned to sender?

10 A. Okay. Yes.

11 Q. But there are some other addressees who were  
12 either -- the mail was either return to sender or still  
13 in process, and that's indicated on the charts as well?

14 A. It is, yes.

15 Q. And if you could turn to the very last page of  
16 Exhibit 5A, the last two pages, that's an Affidavit of  
17 Publication identifying that the notice was published in  
18 a newspaper of general circulation in the county in  
19 which the property is located; is that correct?

20 A. Yes.

21 Q. And if you look at Tab 5B, that's the chart of  
22 interest -- or the chart of the addressees who were  
23 provided notice or who Marathon attempted to provide  
24 notice to for the applications for the 3H, 5H and 10H?

25 A. Correct.

1 Q. And, again, Mr. Moore is showing as return to  
2 sender?

3 A. Yes.

4 Q. If you turn to the last page of Exhibit 5B,  
5 there is also an Affidavit of Publication identifying  
6 that notice was published in the "Carlsbad  
7 Current-Argus" newspaper; is that accurate?

8 A. It is, yes.

9 Q. Do you feel that you exercised reasonable  
10 diligence to notify the parties of the hearing today?

11 A. Yes, we do.

12 Q. What sort of diligence did you undertake to  
13 notify the parties and find their addresses?

14 A. We had our land brokers run the Eddy County  
15 records, obtain addresses. They did online searches.  
16 We also did in-house online searches for addresses for  
17 these parties. Anything that was returned, we did  
18 attempt to find an alternate address to locate those  
19 parties.

20 Q. Thanks.

21 Were Exhibits 1 through 5 prepared by you  
22 or under your supervision or compiled from company  
23 business records?

24 A. Yes, they were.

25 Q. In your opinion, is the granting of these

1     **applications in the interest of conservation and the**  
2     **preservation [sic] of waste?**

3             A.     Yes.

4                     MS. BENNETT:   With that, I would like to  
5     have Exhibits 1 through 5 admitted to the record.

6                     EXAMINER DAWSON:   Exhibits 1 through 5 will  
7     be admitted to the record.

8                     (Marathon Oil Permian LLC Exhibit Numbers 1  
9                     through 5 are offered and admitted into  
10                    evidence.)

11                    CONTINUED DIRECT EXAMINATION

12     BY MS. BRADFUTE:

13             **Q.     With one point of clarification, in your**  
14     **opinion, Mr. Tate, will the granting of this application**  
15     **be in the prevention of waste?**

16             A.     Yes.

17                     MS. BRADFUTE:   "Preservation" (laughter).

18                     MS. BENNETT:   Well, one could read that  
19     from my notes that --

20                     THE WITNESS:   For the prevention of waste.

21                     MS. BENNETT:   That's what I meant  
22     (laughter).

23                     EXAMINER BROOKS:   And the protection of  
24     correlative rights.

25                     EXAMINER DAWSON:   Thank you.

1 Do you have questions, Michael?

2 CROSS-EXAMINATION

3 BY EXAMINER McMILLAN:

4 Q. Actually, I do have a question. I need  
5 clarity. On your first take point for the 5H, you said  
6 it's on the unit -- or the quarter-quarter boundary?

7 A. It is planned directly on the quarter-quarter  
8 boundary for the northwest quarter and the northeast  
9 quarter for the northeast quarter.

10 Q. Just so you know, the OCD likes it to lay 10  
11 feet off the line. That way they can clearly identify  
12 where the first perf and the last perf would land.  
13 Would you have a problem if you had to move it 10 feet?

14 A. I don't think so.

15 Q. Okay. So you have no objections if we needed  
16 you to move it 10 feet for -- purposes? That's fine?

17 A. I don't think so, no.

18 MS. BRADFUTE: I don't see that as an  
19 issue. If you want to, I can revise the C-102.

20 EXAMINER McMILLAN: Yeah. Let's revise it.

21 MS. BRADFUTE: And that was for the 5H  
22 well?

23 EXAMINER McMILLAN: Yeah.

24 EXAMINER DAWSON: Do you have any  
25 questions, David?

1 EXAMINER BROOKS: I do.

2 CROSS-EXAMINATION

3 BY EXAMINER BROOKS:

4 Q. How many wells does this case involve?

5 A. It involves four separate wells.

6 Q. Four separate wells.

7 A. Yes, sir.

8 EXAMINER DAWSON: For both cases.

9 EXAMINER BROOKS: Yeah.

10 Q. (BY EXAMINER BROOKS) And one is the 6H -- one  
11 is the TB 6H, one is the WA 5H, and one is the WXY 3H,  
12 and then the final one is the WXY 10H; is that right?

13 A. Yes, sir.

14 Q. I'm trying to read off your title. The numbers  
15 of wells have gotten so complicated these days. You  
16 know, I have trouble --

17 A. True.

18 Q. -- getting them in mind, much less keeping them  
19 in mind.

20 And they're all going to be in the east  
21 half of Section 1 of -- what is this township and range?

22 A. 23 South, 26 East.

23 Q. 23 South, 26 East.

24 In Eddy County?

25 A. Yes, sir.

1 Q. And we have the tract ownership shown on this  
2 plat on Exhibit 3, right?

3 A. Yes, that's correct.

4 Q. Okay. Now, the working interest in all these  
5 leases -- where's the working interest breakdown? Is it  
6 all owned by Marathon, or is there a working interest  
7 breakdown somewhere?

8 A. Yes, sir. We've listed the individual fee  
9 leases taken under each tract. Marathon owns all of  
10 those leases listed. So we're 100 percent under lease  
11 Tract Number 1. We've obtained approximating 94 percent  
12 of the leasehold working interest under Tract 2.

13 Q. Now, you have a series of leases under Tract 2  
14 after you lease these?

15 A. Yes.

16 Q. Cruce, the Children's Hospital and Moore are  
17 all unleased mineral owners, right?

18 A. Yes, sir.

19 Q. But then they're all listed as leases.

20 Does Marathon own all these leases?

21 A. Yes, sir. Marathon owns all --

22 Q. 100 percent?

23 A. Yes.

24 Q. So there are no leasehold interests out there  
25 except Marathon?

1 A. Correct.

2 Q. You're just pooling these unleased mineral  
3 owners?

4 A. Yes, sir.

5 Q. Okay. Now, that makes things easier.

6 What about overrides? Are there any  
7 overriding royalties under any of these leases?

8 A. No, sir. There are no overrides.

9 Q. Thank you. I think that's all I need to know.

10 CROSS-EXAMINATION

11 BY EXAMINER DAWSON:

12 Q. So I would assume since Marathon's 100 percent  
13 leasehold owner, there are no depth severances either?

14 A. No. We own through the Bone Spring and  
15 Wolfcamp.

16 Q. That's all the questions.

17 MS. BENNETT: Thank you.

18 EXAMINER DAWSON: And so do you want to --

19 MS. BRADFUTE: We have a second witness.

20 EXAMINER DAWSON: We'll do the geology.

21 EXAMINER BROOKS: We've got to have their  
22 geologist.

23 KATE ZEIGLER, Ph.D.,

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

1

2

DIRECT EXAMINATION

3 BY MS. BENNETT:

4 Q. Dr. Zeigler, please state your name for the  
5 record.

6 A. My name is Kate Zeigler.

7 Q. Thank you, Dr. Zeigler.

8 Who do you work for?

9 A. I work for Zeigler Geologic Consulting, and I  
10 am a consultant for Marathon Oil.

11 Q. Thank you.

12 And have you previously testified before  
13 the Division, and were your credentials accepted and  
14 made part of the record?

15 A. Yes.

16 Q. Thank you.

17 Are you familiar with the amended  
18 applications filed by Marathon in this matter?

19 A. Yes.

20 Q. And are you familiar with the status of the  
21 lands that are the subject of those applications?

22 A. Yes.

23 Q. Are you familiar with Marathon's plans for  
24 drilling the four wells that we've been discussing?

25 A. Yes.

1           **Q.**    And have you conducted a geologic study of the  
2    **area embracing the proposed spacing unit in the wells?**

3           A.    Yes.

4           **Q.**    Thank you.

5                   MS. BENNETT:  At this time I'd like to  
6    tender Dr. Zeigler as an expert in geology matters.

7                   EXAMINER DAWSON:  Dr. Zeigler will be  
8    admitted as an expert in geology matters.

9                   MS. BENNETT:  Thank you.

10           **Q.**    **(BY MS. BENNETT) Dr. Zeigler, if you could, as**  
11   **with Mr. Tate's testimony, advise us between the Bone**  
12   **Spring Formation and the Wolfcamp Formation.  So let's**  
13   **start with the Bone Spring 6H well, which is the subject**  
14   **of the application in 16088.  What is the targeted**  
15   **interval for the 6H well?**

16           A.    It is the 3rd Bone Spring Sand.

17           **Q.**    **Would you please turn to what's been marked as**  
18   **Exhibit 6A and would you please tell the Examiners what**  
19   **this document represents?**

20           A.    This is a structure contour map on the top of  
21    the 3rd Bone Spring Sand subsea, and there are a number  
22    of different colors on this map.  But the project area  
23    is pretty much square in the middle with a black-dashed  
24    outline around it, and you see the four wells from north  
25    to south through that area.  There are three existing

1 wells, one to the south, the Mobil-Federal 12-1; to the  
2 north, the Collatt 2; and the Gulf Federal Com 4. And  
3 the take-away point from this exhibit is if you look at  
4 the structural contour map on the top of the 3rd Bone  
5 Spring, it's generally like in much of the basin where  
6 you see that general dip off to the southeast. But in  
7 this case, where the project area is, there's an  
8 anticlinal form, and you can see that the contours rise  
9 up on the northwest side and then dip off on the  
10 southeast side. And so we're looking at this as a  
11 possibility for having an enhancement of the  
12 accumulation of the resources because there is an  
13 anticlinal trap, as well as the normal reserves that are  
14 in that area in the Bone Spring.

15 The contour interval on this, I should  
16 point out, is a 50-foot contour interval.

17 **Q. Now, you mentioned a moment ago that this map**  
18 **shows the four proposed wells -- the four wells. Can**  
19 **you identify for the Examiners which is the 6H well?**

20 A. So there are two on the very outside on the  
21 east and the west, and there is one right down the  
22 middle and one just slightly off to the east of the one  
23 in the middle. The one that is slightly east of the  
24 central well is the 6H well.

25 **Q. Thank you.**

1           A.    I can draw that if you-all need.

2                       MS. BENNETT:  Is that clear to everyone,  
3    which one of the four we're talking about, to the extent  
4    needs it to be clear?

5                       EXAMINER DAWSON:  Well, if you're looking  
6    at this map from the left to the right, we're talking  
7    about the third well from the left, correct?

8                       MS. BRADFUTE:  That's right.

9                       MS. BENNETT:  Uh-huh.

10                      THE WITNESS:  The dashed line (indicating).

11                      EXAMINER DAWSON:  Yeah.  The third well  
12    from the left.

13                      THE WITNESS:  Yes.

14                      EXAMINER DAWSON:  Okay.

15           **Q.    (BY MS. BENNETT) Is there anything that you**  
16    **found in your review that would interfere with the**  
17    **contribution of the acreage to the proposed well?**

18           A.    No.  There are no faults, no pinch-outs,  
19    nothing that should inhibit the development of this  
20    area.

21           **Q.    And the feature that you were just describing,**  
22    **the anticlinal feature, that's not going to inhibit or**  
23    **impede or interfere with contribution of the acreage?**  
24    **You mentioned that that's more likely than not an**  
25    **enhancement?**

1           A.    Yes.  We expect it to be an enhancement of  
2 accumulation.

3           **Q.    Thank you.**

4                           **If you would please turn to Exhibit 6B and**  
5 **would you explain to the Examiners what this document**  
6 **represents?**

7           A.    So this is a cross section through the three  
8 wells that I identified on the map before.  So we're  
9 moving from south to north from the Mobil-Federal 12-1  
10 to the Collatt #2, and then we're turning and moving  
11 eastward across the project area.  So the cross section  
12 corners on that central well.  And the take-home [sic]  
13 point, we're looking at about 300 feet of very uniform  
14 Bone Spring Sand.  We don't see any major changes in the  
15 lithology that might inhibit production, and it's a  
16 nice, thick producing interval that's consistent in its  
17 thickness across the entire project area, not only from  
18 north to south but also from west to east.

19           **Q.    If you could please turn to Exhibit 6B and**  
20 **explain to the Examiners what this document is.**

21           A.    So this is a gross interval isochore for the  
22 3rd Bone Spring Sand with 25-foot contour intervals, and  
23 again the project area in the center and the  
24 black-dashed line.  We're considering the third well  
25 from the left, and we have our three wells that we just

1 looked at the cross section for are also superimposed  
2 over the project area.

3           If you look at this, initially there is a  
4 contour line that appears, that crosses through the  
5 project area. And so what we've done is also included  
6 the actual data points that were used to construct that  
7 contour map. And the reason that we did that is to  
8 demonstrate that the thickness variations in the 3rd  
9 Bone Spring Sand within the project area are not  
10 significant, even though that contour line running  
11 through the project area might initially make it look  
12 like there is a thickness variation through the project  
13 area.

14           **Q. So, again, based on Exhibit 6C, it's your**  
15 **conclusion that there would be no impediments to the**  
16 **horizontal well?**

17           A. True.

18           **Q. Would each quarter-quarter section -- well, is**  
19 **each quarter-quarter section productive in the Bone**  
20 **Spring Formation?**

21           A. Yes.

22           **Q. And will each tract quarter-quarter section**  
23 **contribute approximately equally to the production of**  
24 **the well?**

25           A. Yes.

1           Q.    Now I'd like to turn to Exhibit 7A.  And  
2 Exhibits 7A, B and C are similar to what we just  
3 discussed for the Bone Spring Formation, but these are  
4 for the Wolfcamp Formation.  And that's the subject of  
5 the application, 16089.

6                       What's the targeted interval for the 5H, 3H  
7 and 10H wells?

8           A.    The target for these three wells is the Upper  
9 Wolfcamp, including the Wolfcamp A and the Wolfcamp -- I  
10 don't want to screw up my sands -- the Wolfcamp Y Sand.

11           Q.    Thank you.

12                       Can you tell the hearing examiners what  
13 Exhibit 7A is and what the take-away from this exhibit  
14 is?

15           A.    This is another structure contour map, but this  
16 one is developed on the top of the Wolfcamp, also subsea  
17 with a contour interval of 50 feet.  The project area is  
18 in the middle of the figure, again.  And now we're  
19 looking at the three wells that equally divide the  
20 project area.  So now we're not considering that  
21 third-from-the-west well in this particular case.  So  
22 now we're into just the Wolfcamp wells.

23                       And in this case, again, we have that  
24 general dip to the southeast, and that anticlinal  
25 feature shows up as well in the Wolfcamp.  And as is the

1 case for the Bone Spring Sand, the anticlinal feature is  
2 expected to be an enhancement mechanism for the  
3 accumulation, as discussed for the Bone Spring Sand.

4 **Q. And based on your review of Exhibit 7A, you do**  
5 **not see anything that would interfere with the**  
6 **contribution of the acreage to the proposed wells?**

7 A. There are no structural features, no fractures,  
8 no pinch-outs that might interfere with that.

9 **Q. Thank you.**

10 **Let's turn to Exhibit 7B. Would you**  
11 **explain to the hearing examiners what this document**  
12 **represents, please?**

13 A. So this is a cross section of the same three  
14 wells that we looked at for the last cross section.  
15 We've just shifted downhole just a little bit. So you  
16 actually have the bottom of the 3rd Bone Spring at the  
17 top of each of these logs. So we're just continuing  
18 down a little bit.

19 Again, the left half of the diagram is that  
20 south-to-north cross section, and then the right half is  
21 the west to east. So we have that corner on the Collatt  
22 #2 well, and again just noting that the Upper Wolfcamp  
23 through this area is of similar thickness throughout.

24 For these three wells, the producing zones  
25 will be the Wolfcamp Y Sand and the Wolfcamp A. We're

1 looking at these lower resistivity sand units that have  
2 a fairly continuous thickness throughout the area,  
3 whether you're going from south to north or from west to  
4 east.

5 **Q. Thank you.**

6 **Now, let's turn to Exhibit 7C. And can you**  
7 **please tell the Examiners what this document is?**

8 A. So this is a gross interval isochore from the  
9 top of the Wolfcamp down to the top of the Wolfcamp B,  
10 with 25-foot contour intervals. The project area is in  
11 the center, looking at the three Wolfcamp wells. And,  
12 again, as was case with the Bone Spring contour  
13 interval, we have a contour line passing through the  
14 project area, which might pinch out, which might suggest  
15 that we have significant variations on the thicknesses  
16 of these units. And, again, we included the actual data  
17 points that were used to constrain the contour interval  
18 to demonstrate again that the thickness through this  
19 area is fairly consistent. And so what we're seeing in  
20 the previously drilled wells is corroborated by these  
21 data points, even though it looks like there is a  
22 contour line running right through the project area.

23 **Q. If I'm reading this correctly, the difference**  
24 **between the two contour points for the two data points**  
25 **within the project area, it looks like it's about 4**

1 feet; is that right? 249 and 253?

2 A. We're looking at maybe a 4- to 6-foot variation  
3 through that area, which is extremely homogenous.

4 Q. Again, having reviewed Exhibit 7C and the other  
5 documents that you've reviewed, have you concluded that  
6 there would be no impediments to drilling a horizontal  
7 well?

8 A. True.

9 Q. And have you concluded that each  
10 quarter-quarter section is productive in the Wolfcamp  
11 Formation?

12 A. Yes.

13 Q. And that each tract quarter-quarter section  
14 will contribute approximately equally to the production  
15 from the wells?

16 A. Yes.

17 Q. In your opinion, would the granting of  
18 Marathon's applications -- application be in the best  
19 interest of conservation and the prevention of waste?

20 A. Yes.

21 Q. Thank you.

22 Were Exhibits 6 and 7 compiled from company  
23 records?

24 A. Yes, they were.

25 Q. Thank you.

1 MS. BENNETT: With that, I would like to  
2 move admission of Exhibits 6 and 7 into the record.

3 EXAMINER DAWSON: Exhibits 6 and 7 will be  
4 admitted into the record at this time.

5 (Marathon Oil Permian LLC Exhibit Numbers 6  
6 and 7 are offered and admitted into  
7 evidence.)

8 EXAMINER DAWSON: Questions?

9 EXAMINER McMILLAN: No questions.

10 CROSS-EXAMINATION

11 BY EXAMINER DAWSON:

12 Q. Okay. Dr. Zeigler, looking at the cross  
13 section you have, you have the same wells on both cross  
14 sections --

15 A. Yes.

16 Q. -- for the Wolfcamp and the Bone Spring?

17 Do you know what zones those wells are  
18 producing from?

19 A. I do not know which zones those ones are  
20 producing from.

21 Q. Okay. You did this for the cross-section  
22 purposes --

23 A. Yes. We're establishing the uniformity.

24 Q. -- to show the uniformity of the zone?

25 A. Yes, sir.

1 Q. And then looking at your map on Exhibit 7C, the  
2 gross interval isochore, it looks like there is a mound  
3 down there in like the southeast quarter of 12. Is that  
4 a 300-foot contour there?

5 A. Yes.

6 Q. Okay. I believe there was another map that had  
7 that -- looked like there was a -- on there also in the  
8 Bone Spring, is that correct, down in that area?

9 A. Yeah. The contour interval looks a little  
10 different on the Bone Spring isochore map, but you do  
11 again see that thickening right down there to the  
12 southeast.

13 Q. Okay. That's all the questions I have. Thank  
14 you.

15 EXAMINER BROOKS: No questions.

16 EXAMINER McMILLAN: I have a general  
17 question. Moving the surface location, would that have  
18 changed the AFE at all?

19 MS. BRADFUTE: My understanding was no.

20 EXAMINER McMILLAN: The reason I'm asking  
21 is because we had a scenario two or three months ago  
22 where we basically moved -- just for future reference.  
23 Where I said we had to move the surface location, and  
24 they had an engineer who provided us an affidavit that  
25 said that moving the surface location would not have

1 changed the AFE.

2 MS. BRADFUTE: If that's something the  
3 Division would like, we can provide that.

4 EXAMINER McMILLAN: Yeah. And I'm just  
5 saying, since you've already done that, but if you have  
6 to move the surface location in the future, if you can  
7 get an engineer who can provide a signed affidavit that  
8 moving the surface location will not change the AFE  
9 costs and the project area doesn't change. I don't  
10 see -- if you get that information, I don't see any  
11 reason for having to come back. But you've already done  
12 it in this case, but I'm saying for the future, keep  
13 that in mind.

14 MS. BRADFUTE: Oh, okay. We had the  
15 surface in the application. That was the reason for the  
16 amendment, because it's going to change the -- as  
17 specified in the original application.

18 EXAMINER BROOKS: I think basically even  
19 with regard to an issued order, we would let you change  
20 the surface location just by a C-103.

21 MS. BRADFUTE: Is there any need to  
22 continue the case then, if it's just that change?

23 EXAMINER BROOKS: Well, we would have to  
24 have the evidence that -- that it wouldn't change the  
25 AFE.

1 MS. BRADFUTE: Okay. We can provide that  
2 to you-all.

3 EXAMINER BROOKS: Yeah. I would -- I would  
4 say if you had that, I would say we don't need to move  
5 it -- to continue it. But since you don't have it today  
6 and you're not going to get it until after today, I  
7 think we probably should leave it the way it is.

8 MS. BRADFUTE: Okay. That sounds  
9 reasonable.

10 MS. BENNETT: Thank you.

11 EXAMINER DAWSON: But you want to continue  
12 it for notice, for exhibits, correct?

13 MS. BENNETT: We do need to continue in any  
14 event for the Arkansas Children's Hospital issue as  
15 well.

16 MS. BRADFUTE: Yeah.

17 EXAMINER BROOKS: Well, yeah. If you -- if  
18 that deal falls through, then you're going to have to  
19 renotice them --

20 MS. BENNETT: Right.

21 EXAMINER BROOKS: -- and have the -- as far  
22 as the public hearing time. I had forgotten that.

23 MS. BENNETT: Uh-huh. So we still would --  
24 I guess we still do need to regardless and ask this be  
25 continued until the June 14th docket.

1                   EXAMINER DAWSON: Okay. At this point Case  
2 Numbers 16088 and 16089 will be continued until June  
3 14th.

4                   MS. BENNETT: Thank you.

5                   (Case Numbers 16088 and 16089 conclude,  
6 12:08 p.m.)

7  
8  
9  
10  
11  
12  
13  
14  
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.

13 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 19th day of June 2018.

21

22

23 MARY C. HANKINS, CCR, RPR  
24 Certified Court Reporter  
New Mexico CCR No. 20  
Date of CCR Expiration: 12/31/2018  
Paul Baca Professional Court Reporters

25