

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 NOS. 16147,  
LLC FOR A NONSTANDARD SPACING AND 16149  
PRORATION UNIT AND COMPULSORY POOLING,  
LEA COUNTY, NEW MEXICO.

Consolidated with

APPLICATION OF MARATHON OIL PERMIAN, CASE NO. 16148  
LLC FOR A NONSTANDARD SPACING AND  
PRORATION UNIT, APPROVING NONSTANDARD  
LOCATIONS, AND COMPULSORY POOLING, LEA  
COUNTY, NEW MEXICO.

REPORTER'S TRANSCRIPT OF PROCEEDINGS

EXAMINER HEARING

June 14, 2018

Santa Fe, New Mexico

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

This matter came on for hearing before the  
New Mexico Oil Conservation Division, Michael McMillan,  
Chief Examiner, and David K. Brooks, Legal Examiner, on  
Thursday, June 14, 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  
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## 1 APPEARANCES

2 FOR APPLICANT MARATHON OIL PERMIAN, LLC:

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1 (9:00 a.m.)

2 EXAMINER McMILLAN: At this time I'm  
3 switching to case number 44 on page 12, Case Number  
4 16147, application of Marathon Oil Permian, LLC for a  
5 nonstandard spacing and proration unit and compulsory  
6 pooling. This is combined with Case Number 16148,  
7 application of Marathon Oil Permian, LLC for a  
8 nonstandard spacing and proration unit, approving  
9 nonstandard locations, and compulsory pooling.

10 MS. BRADFUTE: 16148 should be a request  
11 for a nonstandard spacing unit and pooling, and Case  
12 Number 16149 should be an application for a nonstandard  
13 proration unit, nonstandard locations and pooling.

14 EXAMINER McMILLAN: And are all of these  
15 combined?

16 MS. BRADFUTE: They are all combined.

17 EXAMINER McMILLAN: And these are combined  
18 with 16149, application of Marathon Oil Permian, LLC for  
19 a nonstandard spacing and proration unit and compulsory  
20 pooling, Lea County, New Mexico.

21 Call for appearances.

22 MS. BRADFUTE: Mr. Examiner, Jennifer  
23 Bradfute on behalf of the Applicant.

24 EXAMINER McMILLAN: Any other appearances?

25 Please proceed.

1                   If the witnesses will please stand up and  
2   be sworn in at this time.

3                   Thank you.

4                   (Mr. Gyllenband and Dr. Zeigler sworn.)

5                   MS. BRADFUTE: Mr. Examiner, I'd like to  
6   call my first witness.

7                   And, Mr. Examiner, before I begin my  
8   questioning, I just want to point out that Marathon  
9   would like to request in all three of these cases that  
10   additional time is added to allow for the completion of  
11   these wells between the time when the wells are drilled  
12   and completed, and we'll present that during the  
13   testimony.

14                  EXAMINER McMILLAN: Thank you.

15                  RYAN GYLLENBAND,

16                  after having been previously sworn under oath, was  
17                  questioned and testified as follows:

18                  DIRECT EXAMINATION

19   BY MS. BRADFUTE:

20                  **Q.    Could you please state your name for the**  
21   **record?**

22                  A.    Ryan Gyllenband.

23                  **Q.    And, Mr. Gyllenband, who do you work for?**

24                  A.    Marathon Oil.

25                  **Q.    And what is your position at Marathon?**

1           A.     Petroleum landman.

2           Q.     What are your responsibilities as a petroleum  
3 landman?

4           A.     Preparing wells for drilling and reviewing.

5           Q.     And have you previously testified before the  
6 Division?

7           A.     Yes.

8           Q.     And were your credentials accepted and made  
9 part of the record?

10          A.     Yes.

11          Q.     Does your area of responsibility at Marathon  
12 include the area of Lea County in southeastern New  
13 Mexico?

14          A.     Yes.

15          Q.     And are you familiar with the applications that  
16 have been filed by Marathon in Case Numbers 16147, 16148  
17 and 16149?

18          A.     Yes.

19          Q.     Are you familiar with the status of the lands  
20 which are the subject matter of these applications?

21          A.     Yes.

22                   MS. BRADFUTE: I'd like to tender  
23 Mr. Gyllenband as an expert witness.

24                   EXAMINER McMILLAN: So qualified.

25          Q.     (BY MS. BRADFUTE) Mr. Gyllenband, could you

1     please turn to what has been marked as Exhibit Number 1  
2     in the packet in front of you? And is this exhibit a  
3     diagram of Marathon's development plan for the Ender  
4     Wiggins wells, which are the subject matter of these  
5     three applications?

6           A.     Yes.

7           Q.     Could you please explain how these wells are  
8     going to be located within the proposed spacing and  
9     proration units for the Examiners to help kind of orient  
10    how everything's going to be drilled and located?

11          A.     Yes. So on the left side of the page, you'll  
12    see an aerial view of the three wells. They're stacked  
13    on top of each other, so they're all located 330 feet  
14    off of the western line. The surface holes are located  
15    down at the bottom page. There are three separate  
16    surface holes located 30 feet apart. Those will be  
17    drilled from the center of Section 14, 25-34 and drilled  
18    north through the north half of 14 and then through all  
19    of Section 11. The bottom-hole location will be located  
20    330 feet off of the north line of Section 11.

21                   On the right side, you'll see a  
22    cross-section view of how the wells will be located, the  
23    3H in the 3rd Bone Spring, the 1H in the Upper Wolfcamp,  
24    and then the 2H in the Lower Wolfcamp.

25          Q.     And just to confirm, this is not a multilateral

1 well that's being proposed by Marathon; is that correct?

2 A. That's correct, three separate wells.

3 Q. Three separate wells.

4 But each of these wells have similar  
5 footages. They're just going to be drilled at different  
6 depths, one below the next?

7 A. That's correct.

8 Q. Okay. If you could please turn to what's been  
9 marked as Exhibit Number 2 in the packet in front of  
10 you, and this exhibit has three different tabs. I  
11 wanted to first look at Tab A. Could you please  
12 identify what that document is for the Examiners?

13 A. This is an application to pool for the Ender  
14 Wiggins 3rd Bone Spring 3H well, and we're asking to  
15 pool the west half-west half of Section 11 and the west  
16 half of the northwest quarter of Section 14, 25-34 in  
17 Lea County, New Mexico, 240-acre spacing unit.

18 Q. And this application is for the well that's  
19 going to be drilled in the Bone Spring Formation,  
20 correct?

21 A. That's correct.

22 Q. Okay. And could you please turn to Tab B of  
23 this exhibit and identify what this document is?

24 A. This is the application to pool for the Ender  
25 Wiggins WA 1H well, which is -- we're asking to pool the

1 west half-west half of Section 11 and the west half of  
2 the northwest quarter of Section 14 25-34, Lea County,  
3 New Mexico, again 240-acre spacing unit.

4 Q. And this well is going to be drilled within the  
5 Upper Wolfcamp Formation; is that correct?

6 A. That's correct.

7 Q. And within Lea County, this Upper Wolfcamp  
8 Formation has been designated and dedicated to the oil  
9 pool by the district office; is that correct?

10 A. That's correct.

11 Q. And that's why Marathon is seeking the creation  
12 of a 240-acre oil spacing and proration unit?

13 A. That's correct.

14 Q. Could you please turn to Tab C of this exhibit?  
15 And could you please identify what this document is?

16 A. This is the application to pool the spacing  
17 unit for the Ender Wiggins WD 2H well. We're asking to  
18 pool the west half of Section 11 and the northwest  
19 quarter of Section 14, 25-34, Lea County, New Mexico,  
20 and this is a 480-acre spacing unit.

21 Q. And this application is for a Lower Wolfcamp  
22 well, correct?

23 A. That's correct.

24 Q. And this well would be dedicated to a gas pool  
25 in Lea County, which is subject to 320-acre spacing?



1           A.    Correct.

2           Q.    Okay.  And Marathon in this application is also  
3 going to be requesting nonstandard locations, correct?

4           A.    Correct.

5           Q.    Okay.  We'll get to those in just a moment.

6                   If you could please turn to what's been  
7 marked as Exhibit Number 3 and this exhibit has three  
8 different pages, and I want to first look at the first  
9 page.  Could you please identify what this document is?

10          A.    This is the C-102 for the Ender Wiggins 3rd  
11 Bone Spring 3H well.  You can see it's a 240-acre  
12 spacing unit made up of the west half of the northwest  
13 quarter of Section 14 and then the west half-west half  
14 of Section 11.

15          Q.    And the 3H well is the 3rd Bone Spring well,  
16 correct?

17          A.    Correct.

18          Q.    And has the -- has the pool code and pool name  
19 been identified for this well?

20          A.    Yes.  It's the Red Hills; Bone Spring, East.  
21 The pool code is 97369.

22          Q.    And is this pool governed by the Division  
23 statewide rule on setback requirements for oil wells  
24 which establish 330-foot setbacks?

25          A.    Yes.

1           Q.    And will this well comply with those setback  
2 requirements?

3           A.    Yes.

4           Q.    Could you please look at the second page of  
5 this exhibit and identify what this document is?

6           A.    This is the C-102 for the Ender Wiggins WA 1H  
7 well.  It's pooling the same spacing unit as the 3rd  
8 Bone, except this is in the Upper Wolfcamp.  So it's the  
9 west half-west half of Section 11 and the west half of  
10 the northwest quarter of Section 14.

11          Q.    And does this proposed C-102 identify a pool  
12 and a pool code that this well will develop?

13          A.    Yes.  The full name is Pitchfork Ranch;  
14 Wolfcamp, South.  The pool code is 96994.

15          Q.    And, again, this is an oil pool, correct?

16          A.    That's correct.

17          Q.    And is this pool subject to the Division  
18 statewide rule on setback requirements for oil wells  
19 which establish 330-foot setbacks?

20          A.    Yes.

21          Q.    And will this rule comply with those setback  
22 requirements?

23          A.    Yes, it will.

24          Q.    And finally, could you look at the last page of  
25 this exhibit and identify what that document is?

1           A.     This is the C-102 for the Ender Wiggins WD 2H  
2     well.  It is a gas well also drilling in the same area,  
3     but the spacing unit is made up out of the northwest  
4     quarter of Section 14 and the west half of Section 11  
5     for a 480-acre spacing unit.

6           Q.     And does this proposed C-102 form identify the  
7     pool and a pool code for the well?

8           A.     Yes.  It's the Fairview Mills; Wolfcamp Gas  
9     Pool.  The pool code is 76560.

10          Q.     And is this pool subject to the Division's rule  
11     for setback requirements for gas wells developed in Lea  
12     County which establishes 660-foot setbacks?

13          A.     Yes.

14          Q.     And will this well comply with those setback  
15     requirements?

16          A.     No.

17          Q.     Could you please identify for the hearing  
18     examiners where the first take point will be located for  
19     this well?

20          A.     The first take point's going to be located 330  
21     feet from the west line of the project area and 330 feet  
22     from the south line of the project area.  The well will  
23     then continue up the western edge, 330 feet off of that  
24     western edge of the project area, with a bottom-hole  
25     location located 330 feet off of the west edge of

1 Section 11 and 330 feet south of the north line of  
2 Section 11.

3 Q. Okay. And just to confirm, for the first take  
4 point, I want to give the Examiners the exact footage  
5 and not just from the next boundary of the project area.  
6 Is it 2,310 from the north line of Section 14 and 330  
7 feet from the west line?

8 A. That's correct.

9 Q. Okay. Thank you.

10 For all three of the wells, Marathon has  
11 requested the creation of a nonstandard spacing and  
12 proration unit, correct?

13 A. Correct.

14 Q. Has Marathon provided notice to affected  
15 parties via certified mail, return receipt requested?

16 A. Yes.

17 Q. And were mineral owners located within the  
18 southwest quarter and the northeast quarter of Section  
19 14 notified of Marathon's application for the 2H well,  
20 which requested the location of a 480-acre gas spacing  
21 and proration unit?

22 A. Yes, they were.

23 Q. And those were all mineral interest owners who  
24 would be or could be excluded from the 320-acre spacing  
25 unit, correct?

1           A.     That's correct.

2           Q.     Could you please turn to what has been marked  
3     as Exhibit Number 4 in the packet in front of you? And  
4     I want to first look at the first page of this exhibit.  
5     Could you please explain what this document is for the  
6     hearing examiners?

7           A.     This is showing the spacing unit for the 1H and  
8     the 3H. As you can see, Tracts 1 and 2 are made up of  
9     the west half of Section -- the west half-west half of  
10    Section 11. Both of those tracts are federal acreage.  
11    And then Tract 3 is made up of the west half of the  
12    northwest quarter of Section 14. That's fee acreage.

13          Q.     And so the tracts that make up this development  
14    area include both federal and fee acreage, correct?

15          A.     That's correct.

16          Q.     And could you please turn to the second page of  
17    this exhibit and explain this document to the hearing  
18    examiners?

19          A.     This is showing the spacing unit for the Ender  
20    Wiggins WD 2H. Tracts 1 and 2 make up the west half of  
21    Section 11. Both tracts are federal acreage. And Tract  
22    3 is the northwest quarter of Section 14, which is fee  
23    acreage.

24          Q.     And what type of interest does Marathon seek to  
25    pool in all three of its applications?

1           A.    All the uncommitted interests in the spacing  
2   and proration unit.

3           Q.    Does Marathon also seek to pool overriding  
4   interest owners?

5           A.    Yes.

6           Q.    Okay.  And has Marathon provided notice to  
7   those overriding royalty interest owners within each  
8   spacing and proration unit of its application?

9           A.    Yes, we have.

10          Q.    And could you please turn to the last page of  
11   this exhibit?  And could you please explain what this  
12   document shows to the hearing examiners?

13          A.    This shows the committed and uncommitted  
14   mineral working interests in the spacing units.  The  
15   interest is the same for both the 240-acre spaced unit  
16   and the 480-acre spaced unit, which are uniform across  
17   that western portion of Section 11 and Section 14.

18          Q.    Okay.  So there is no difference in the  
19   ownership between the oil spacing and proration unit  
20   that you're seeking to develop and the gas spacing and  
21   proration unit that you're seeking to develop?

22          A.    That's correct.

23          Q.    Okay.  And this chart outlines the uncommitted  
24   working interest owners and an unleased mineral interest  
25   owner that Marathon is seeking to pool, correct?

1           A.     That's correct.

2           Q.     Okay. And then as stated before, you're also  
3 seeking to pool the overriding royalty interest owners?

4           A.     That's correct.

5           Q.     Could you summarize for the Examiners what  
6 efforts Marathon has made to obtain voluntary pooling of  
7 the interest?

8           A.     We've provided them with initial well proposals  
9 and then followed up with joint operating agreements to  
10 the uncommitted working interest owners and proposed  
11 lease forms or offered to provide JOAs to the unleased  
12 mineral owners.

13          Q.     And in your opinion, has Marathon made a  
14 good-faith effort to obtain voluntary joinder in the  
15 wells?

16          A.     Yes.

17          Q.     Could you please look at Exhibit Number 5, and  
18 could you please identify what this document is?

19          A.     This is an example of the initial well proposal  
20 that was sent out to the uncommitted parties for our  
21 proposal for these three wells.

22          Q.     Okay. And this initial proposal letter  
23 contains information about each of the three wells  
24 subject to each of the applications that are being  
25 heard, correct?

1           A.     That's correct.

2           Q.     And it provides interest owners with a separate  
3     election to either participate or not participate in  
4     each of the wells, correct?

5           A.     Correct.

6           Q.     And did Marathon also send out an AFE along  
7     with this well-proposal letter?

8           A.     Yes, we did.

9           Q.     Could you please turn to what's been marked as  
10    Exhibit Number 6? And this exhibit has three different  
11    tabs. I'm going to first start with Tab A. Could you  
12    please identify what this document is under Tab A?

13          A.     This is the AFE for the Ender Wiggins 3rd Bone  
14    Spring 3H well.

15          Q.     Okay. And, again, this is the 3rd Bone Spring  
16    well that's being promoted?

17          A.     Right.

18          Q.     And does this AFE contain proposed costs for  
19    drilling, completing and equipping the 3H well?

20          A.     Yes, it does. The total drilling cost is  
21    \$2,881,260. Completions cost is \$5,220,889 [sic], for a  
22    total of \$9,093,976.

23          Q.     And could you please turn to Tab B of this  
24    exhibit? Could you please identify what that document  
25    is?



1           A.     This is the AFE for the Ender Wiggins WA 1H  
2     well.

3           Q.     And has Marathon identified costs for drilling  
4     and completing the 1H well within this AFE?

5           A.     Yes.

6           Q.     What is that?

7           A.     Drilling cost is \$2,888,820. The completions  
8     cost is \$5,220,889 [sic], and combined with equipping, a  
9     total of \$9,101,536.

10          Q.     And could you please turn to Tab C of this  
11     exhibit and identify what this document is?

12          A.     This is the AFE for the Enders Wiggins WD 2H  
13     well.

14          Q.     And does this AFE also identify costs for  
15     drilling and completing this well?

16          A.     Yes, it does. The total drilling cost is  
17     \$3,325,680. The total completions cost, \$6,666,429.  
18     And when combined with the equipping and other costs,  
19     \$10,983,927.

20          Q.     And are these estimated costs for the 1H, 2H  
21     and 3H wells in line with the costs to drill other  
22     horizontal wells to these lengths and these depths of  
23     southeastern New Mexico?

24          A.     Yes.

25          Q.     In your opinion, who should be appointed as the

1 operator of the wells?

2 A. Marathon Oil Permian, LLC.

3 Q. And do you have a recommendation for the  
4 amounts which Marathon should be paid for supervision  
5 and administrative expenses?

6 A. Yes. Marathon's requesting \$7,500 per month  
7 while drilling and \$750 per month while producing.

8 Q. And are these amounts equivalent to those  
9 amounts normally charged by Marathon and other operators  
10 within this area for horizontal wells drilled to these  
11 lengths and these depths?

12 A. Yes.

13 Q. Do you request that these rates be adjusted  
14 periodically as provided for under the COPAS accounting  
15 procedure?

16 A. Yes, we do.

17 Q. And does Marathon request the maximum cost plus  
18 200 percent risk charge if any pooled working interest  
19 owner fails to pay its share of the cost for drilling,  
20 completing and equipping the wells?

21 A. Yes.

22 Q. I next want to look at Exhibit Number 7. And  
23 Exhibit Number 7, the first couple of pages contains a  
24 chart, correct?

25 A. That's correct.

1           Q.    And does this chart list the parties who  
2   Marathon is seeking to force pool?

3           A.    Yes.  The first six, I believe, lines are  
4   parties that we're seeking to force pool.

5           Q.    And then does it also list the overriding  
6   royalty interest owners within the unit separately?

7           A.    Yes.  Yes.

8           Q.    And then it lists offset owners below that,  
9   correct?

10          A.    Correct.

11          Q.    If you look at about five lines near the bottom  
12   of this page, there are no addresses listed for those  
13   offset owners, correct?

14          A.    That's correct.

15          Q.    And if you look at the next page, there are  
16   also no addresses listed on that page for offset owners,  
17   correct?

18          A.    That's correct.

19          Q.    What efforts did Marathon engage in to locate  
20   addresses for these offset owners?

21          A.    We looked through the county records for any  
22   address of when their interest was obtained and then  
23   followed up with online searches through Google or  
24   LexisNexis, and we weren't able to find any addresses  
25   for these --

1           Q.    In your opinion, did Marathon engage in a  
2   reasonable and diligent effort to look for these  
3   addresses?

4           A.    Yes, we did.

5           Q.    If you could look at Tab A of this exhibit,  
6   does Tab A contain an affidavit that's been completed by  
7   Marathon's counsel in Case Number 16147 confirming that  
8   notice was provided to affected parties of this  
9   application?

10          A.    Yes.

11          Q.    And if you could please look at the very last  
12   page of Tab A, does this document consist of an  
13   Affidavit of Publication showing that notice was also  
14   provided by publication through a newspaper in Lea  
15   County?

16          A.    Yes, that's correct.

17          Q.    And does this publication list by name all of  
18   the parties who you -- who were affected in this case in  
19   general, including those who you cannot find addresses  
20   for?

21          A.    Yes.

22          Q.    If you could please look at page B -- or Tab B  
23   of this exhibit, does Tab B contain an affidavit  
24   prepared by Marathon's counsel in Case Number 16148  
25   confirming that notice was provided to all affected

1 parties of that application?

2 A. Yes.

3 Q. And, again, could you please look at the last  
4 page of Tab B? And does this document consist of an  
5 Affidavit of Publication again confirming that notice  
6 was given via publication?

7 A. Yes.

8 Q. And if you could please look at Tab C of this  
9 exhibit, does Tab C include an affidavit prepared by  
10 Marathon's counsel in Case Number 16149 confirming that  
11 notice was given to affected parties of that  
12 application?

13 A. Yes.

14 Q. And if you could please turn to the last page  
15 of Tab C, is this document an Affidavit of Publication  
16 also confirming that notice was provided in the  
17 newspaper for this application?

18 A. Yes.

19 Q. Were Exhibits 1 through 7 prepared by you or  
20 under your supervision or compiled from company business  
21 records?

22 A. Yes.

23 Q. And, Mr. Gyllenband, in your opinion, will the  
24 granting of these applications be in the interest of  
25 conservation and the prevention of waste?

1           A.     Yes.

2           Q.     Mr. Gyllenband, Marathon is requesting  
3 additional time from when it commences -- when these  
4 wells are drilled to when completion operations can be  
5 conducted, correct?

6           A.     That's correct.

7           Q.     How much additional time is Marathon  
8 requesting?

9           A.     250 days.

10          Q.     And why is it requesting that additional time?

11          A.     These wells are going to be all drilled at once  
12 from one pad in addition to three more wells drilled to  
13 the south consecutively, wells that are not party to  
14 this and on totally separate plans but drilled from a  
15 nearby pad located right in the middle of Section 14,  
16 and then they'll be later completed at the same time.  
17 So that's to allow for the drilling of those six wells  
18 and then for our frac prep and then for completions.

19                     We're also running one frac crew in Lea  
20 County at this time -- or in all of New Mexico at this  
21 time just because that's kind of the optimal number of  
22 frac crews to run with our drilling activity. And so  
23 that's how long it takes for us to get back to these  
24 wells to complete them.

25          Q.     Okay. And approximately how long does it take

1     **to drill each one of the wells that are being drilled?**

2           A.     Anywhere from 20 to 30 days, but some of  
3     these -- these are all mile-and-a-half, as the other  
4     three will be. And as we stated, the Wolfcamp D wells  
5     are a little bit more confusing and complicated and  
6     deeper.

7           **Q.     Yeah.**

8                   MS. BRADFUTE: I'd like to move the  
9     admission of Exhibits 1 through 7 into the record.

10                  EXAMINER McMILLAN: Exhibits 1 through 7 in  
11     Case Numbers 16147 and 16148 and 16149 shall be accepted  
12     as part of the record.

13                  (Marathon Oil Permian, LLC Exhibit Numbers  
14     1 through 7 are offered and admitted into  
15     evidence.)

16                  MS. BRADFUTE: And that completes my  
17     questioning.

18                               CROSS-EXAMINATION

19     BY EXAMINER McMILLAN:

20           **Q.     So are there any depth severances?**

21           A.     No, sir.

22           **Q.     Okay. I'm confused on the unlocatable**  
23     **interests. It's not for the pooled parties. It's for**  
24     **the offsets?**

25                   MS. BRADFUTE: It's for the offsets.

1           Q.    (BY EXAMINER McMILLAN) But not pooled  
2 parties --

3           A.    No, sir.

4           Q.    -- correct?

5           A.    No, sir. No, sir.

6           Q.    I have a question on clarification -- it's a  
7 Fairview well -- about notice in the southwest quarter  
8 of 14.

9           A.    Yes, sir.

10          Q.    Was everyone in the mineral interest estate  
11 notified?

12          A.    Yes, sir, in the southwest quarter and also the  
13 northeast quarter of Section 14, for both of those.

14                   MS. BRADFUTE: We probably overnotified.  
15 We did both of those quarters.

16          Q.    (BY EXAMINER McMILLAN) All right. The project  
17 area is the west half of 11 and the northwest of 14,  
18 correct?

19                   MS. BRADFUTE: Yes.

20                   EXAMINER McMILLAN: So, therefore, you  
21 notified everyone in the mineral interest estate in the  
22 southwest quarter of Section 14 because that's what's  
23 left out?

24                   MS. BRADFUTE: Yes.

25                   EXAMINER McMILLAN: Okay. Go ahead.



1 CROSS-EXAMINATION

2 BY EXAMINER BROOKS:

3 Q. I see on Exhibit 7, you have addresses for all  
4 of the listed overriding owners.

5 A. Yes, sir.

6 Q. And is that all the overriding owners there are  
7 in this unit?

8 A. Yes, sir. All the overrides in the spacing  
9 unit we seek to pool.

10 Q. Okay. And did you receive return receipts from  
11 all of them?

12 A. Yes, sir.

13 Q. Thank you. I think that's all I have.

14 EXAMINER McMILLAN: Okay.

15 MS. BRADFUTE: Okay. That concludes my  
16 questions for this witness, and I'll call my second  
17 witness.

18 EXAMINER McMILLAN: Let's take a -- let's  
19 come back at 9:40.

20 MS. BRADFUTE: Okay.

21 (Recess, 9:26 a.m. to 9:40 a.m.)

22 EXAMINER McMILLAN: Call this hearing back  
23 to order.

24 Please proceed.

25 MS. BRADFUTE: I'd like to call my second

1 witness.

2 KATE ZEIGLER, Ph.D.,  
3 after having been previously sworn under oath, was  
4 questioned and testified as follows:

5 DIRECT EXAMINATION

6 BY MS. BRADFUTE:

7 Q. Could you please state your name?

8 A. Kate Zeigler.

9 Q. And who do you work for?

10 A. I'm a consulting geologist with Zeigler  
11 Geologic Consulting here on behalf of Marathon.

12 Q. And what are your responsibilities as a  
13 geologist?

14 A. I work with assessment of stratigraphy in  
15 various parts of New Mexico for various projects, and in  
16 this case, I'm assisting Marathon with understanding the  
17 stratigraphy of these wells.

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

20 A. Yes.

21 Q. And were your credentials accepted and made  
22 part of the record?

23 A. Yes.

24 Q. Are you familiar with the applications that  
25 have been filed by Marathon in these matters?

1           A.     Yes.

2           Q.     And are you familiar with the status of the  
3     lands which are the subject matter of these  
4     applications?

5           A.     Yes.

6           Q.     Are you familiar with the drilling plans for  
7     the 1H, 2H and 3H wells?

8           A.     Yes.

9           Q.     And have you conducted a geologic study of the  
10    area embracing the proposed spacing units for each of  
11    the wells?

12          A.     Yes.

13                   MS. BRADFUTE:   I'd like to tender  
14    Ms. [sic] Zeigler as an expert in geology matters.

15                   EXAMINER McMILLAN:   So qualified.

16          Q.     (BY MS. BRADFUTE) Ms. [sic] Zeigler, what is  
17    the targeting for the 1H, 2H and 3H wells?

18          A.     So in stratigraphic order, the 3H will target  
19    the 3rd Bone Spring.   The 1H will target the Upper  
20    Wolfcamp, which in Marathon's internal nomenclature is  
21    being referred to as the Wolfcamp A.   And then the 2H  
22    will target the Lower Wolfcamp, and in Marathon's  
23    internal nomenclature, that'll be the Wolfcamp D.

24          Q.     Could you please turn to what's been marked as  
25    Exhibit Number 8?   And this exhibit has three different

1 documents within it. Does Exhibit 8 contain materials  
2 related to your study of the 3rd Bone Spring Sand?

3 A. Yes.

4 Q. And if you could please focus on the first page  
5 of this exhibit and explain what this document  
6 represents.

7 A. So this is a structure contour map on the top  
8 of the Wolfcamp, and the yellow areas are Marathon's  
9 acreage in this area. And the project area for the  
10 Ender Wiggins group of wells is in the dash blacked line  
11 in the center of the map, and the contour intervals here  
12 are 50 foot. And what you're seeing is a general  
13 deepening of this area from the north-northwest to the  
14 south-southeast across the project area.

15 And the three red-circled wells, the  
16 Pitchfork Federal 1 to the TG 1 and the Fairview Mills  
17 Federal #1, are the three wells that are going to be  
18 used for cross sections in subsequent exhibits.

19 Q. And when you put together this structure map,  
20 did you notice anything that would interfere with the  
21 contribution of the acreage to the proposed Bone Spring  
22 well?

23 A. No. There are no faults and no pinch-outs that  
24 would interfere with production.

25 Q. And did you prepare a cross section of logs to

1     **determine the relative thickness and porosity of the**  
2     **Bone Spring Formation within this area?**

3           A.     Yes.

4           Q.     And is that cross section contained on the  
5     **second page of this exhibit?**

6           A.     Yes.

7           Q.     If you could please look at the second page.

8           A.     So these are the three wells identified on the  
9     previous map, and so from left to right, we're going  
10    north to south through the project area, so the  
11    Pitchfork, the Bates and the Fairview. And the  
12    green-shaded area is the zone of production for the 3rd  
13    Bone Spring Sand, and all of the -- all of the cross  
14    sections that we'll see today are hung from the top of  
15    the Wolfcamp.

16                   And in this particular diagram, in each of  
17    the three wells, we're looking at gamma ray, resistivity  
18    and then neutron porosity logs for each of those three  
19    wells. And in the Bone Spring here, you can see that  
20    there is a 6 percent or greater porosity in all three of  
21    these and that there is a consistent thickness of the  
22    3rd Bone Spring Sand throughout the project area.

23           Q.     Are the wells that you've selected to include  
24    **on this cross section representative of the Bone Spring**  
25    **Formation in the area?**

1           A.    Yes, they are.

2           **Q.    And what does this cross section show you about**  
3           **the area that's proposed to be dedicated to the 3H well?**

4           A.    That we should expect to see consistent  
5           production along the length of the lateral.

6           **Q.    Can you please turn to the third page of**  
7           **Exhibit Number 8 and explain what that document**  
8           **represents?**

9           A.    So this is the same area covered by the first  
10          map with the yellow areas being Marathon's acreage for  
11          the larger area, the black-dashed box is the project  
12          area for this particular set of wells. This is a net  
13          sand isochore for the 3rd Bone Spring showing that we  
14          have effectively consistent thickness throughout the  
15          project area of the 3rd Bone Spring Sand.

16          **Q.    And what conclusions have you drawn from your**  
17          **geologic study of the Bone Spring Formation throughout**  
18          **this area?**

19          A.    That it should produce consistently along the  
20          length of the lateral.

21          **Q.    And just to confirm, you did not notice any**  
22          **impediments to horizontal development?**

23          A.    No. There are no faults, fractures or  
24          pinch-outs --

25          **Q.    And will each quarter-quarter section be**

1     productive in the Bone Spring Formation?

2           A.     Yes.

3           Q.     And will each quarter-quarter section  
4     contribute approximately equally to the production from  
5     the 3H well?

6           A.     Yes.

7           Q.     I want to next look at Exhibit Number 9. Does  
8     Exhibit Number 9 contain the items related to your study  
9     of the Upper Wolfcamp Formation?

10          A.     Yes.

11          Q.     Could you please focus on the first page of  
12     this exhibit and explain what this document represents?

13          A.     So this is very similar to the first map that  
14     we looked, with the yellow being Marathon's acreage in  
15     the area, the black-dashed box in the center of the map  
16     being the project area for the Ender Wiggins wells, and,  
17     again, with three red-circled wells being the cross  
18     sections that we looked at previously. We'll continue  
19     to look at those but deeper in the section. And we have  
20     a general deepening in the structural contour from the  
21     northwest to the southeast in the project area.

22          Q.     And did you notice anything structurally that  
23     would interfere with development in this area?

24          A.     Again, there are no faults or pinch-outs that  
25     might impede production.

1           Q.    And did you prepare a cross section of logs to  
2   determine the relative thickness and porosity of the  
3   Upper Wolfcamp Formation?

4           A.    Yes.

5           Q.    And is that cross section of logs contained on  
6   the second page of Exhibit 9?

7           A.    Yes.

8           Q.    Could you please explain what this cross  
9   section represents to the Examiners?

10          A.    So, again, we're looking at those three wells  
11   from north to south, going left to right across the  
12   page. And as noticed, for the 3rd Bone Spring Sand,  
13   we're looking again at a consistent thickness of the  
14   Upper Wolfcamp through this area, and that's the  
15   green-shaded area in the lower part of the cross section  
16   now. So, again, we're hung from the top of the  
17   Wolfcamp, so the figure is similar to the one that we  
18   looked at before. And the thickness of the Upper  
19   Wolfcamp is consistent across the project area.

20          Q.    And what does this cross section tell you about  
21   development within this area?

22          A.    That we should again expect to see consistent  
23   production throughout the project area.

24          Q.    Are the wells that you've selected for this  
25   cross section representative of the Upper Wolfcamp



1     **Formation?**

2           A.     Yes, they are.

3           **Q.     And could you look at the last page of Exhibit**  
4     **Number 9 and explain what this document represents?**

5           A.     So this is a gross interval isochore for the  
6     Upper Wolfcamp, the Wolfcamp, Wolfcamp B [sic]. And,  
7     again, you can see the yellow that's Marathon's acreage  
8     in the greater area, the black-dashed box that includes  
9     this particular project area and the three wells that we  
10    just looked at the cross sections for and showing that  
11    there is consistency in the thickness of the Upper  
12    Wolfcamp across the entirety of the project area.

13          **Q.     And what conclusions have you drawn from your**  
14     **geologic study of the Upper Wolfcamp Formation in this**  
15     **area?**

16          A.     That there are no faults or pinch-outs that  
17     should affect production and that we should see  
18     consistent production along the length of the lateral.

19          **Q.     And, again, to confirm, you didn't notice any**  
20     **impediments to horizontal development?**

21          A.     True.

22          **Q.     And will each quarter-quarter section be**  
23     **productive in the Upper Wolfcamp Formation?**

24          A.     Yes.

25          **Q.     And will each quarter-quarter section**

1     contribute approximately equally to the development of  
2     the 1H well?

3           A.     Yes.

4           Q.     If you could please turn to Exhibit Number 10,  
5     does Exhibit Number 10 contain materials related to your  
6     study of the Lower Wolfcamp Formation?

7           A.     Yes.

8           Q.     Could you please focus on the first page of  
9     this exhibit and explain what this document represents?

10          A.     So similar maps are what we've seen for the  
11     first two, with the yellow being Marathon's project area  
12     for its greater acreage in the area, the black-dashed  
13     box is the particular project area and the three  
14     red-circled wells being the cross section that we'll  
15     continue to look at the deeper section in the next part  
16     of this exhibit. And in this case for the Wolf [sic],  
17     this is a structure contour map of the top of the  
18     Wolfcamp B [sic]. And, again, we have a deepening of  
19     the -- of the unit from the northwest down to the  
20     southeast across the project area.

21          Q.     And did you prepare a cross section of logs to  
22     determine the relative thickness of the porosity of the  
23     Lower Wolfcamp?

24          A.     Yes.

25          Q.     And is that cross section of logs contained on

1     **the second page of this exhibit?**

2           A.     It is.

3           **Q.     And could you please explain this document to**  
4     **the hearing examiners?**

5           A.     So just as we've seen previously from left to  
6     right, we're going north to south through those three  
7     wells. This is still hung on the top of the Wolfcamp,  
8     so we've just scooted the whole image down off the logs,  
9     looking at gamma ray, resistivity and porosity just as  
10    we have for the previous two cross sections.

11                   Now looking at the Wolfcamp D, the Lower  
12    Wolfcamp interval, showing again that there is a  
13    consistency in the thickness of this unit across the  
14    entire project area.

15           **Q.     And are the wells that you selected for this**  
16     **cross section representative of the Lower Wolfcamp**  
17     **Formation in the area?**

18           A.     Yes.

19           **Q.     And could you please turn to the third page of**  
20     **Exhibit Number 10 and explain what this document**  
21     **represents?**

22           A.     This is a gross interval isochore for the Lower  
23     Wolfcamp. And, again, as with the previous maps, the  
24     yellow is Marathon's greater acreage. The black-dashed  
25     box is this particular project area. The three

1 red-circled wells are the cross section that we just  
2 looked at. And this is showing that the thickness of  
3 the Wolfcamp D is consistent across the project area.

4 Q. And what conclusions have you drawn from your  
5 geologic study of the Lower Wolfcamp zones within the  
6 area?

7 A. That there are no faults or pinch-outs that may  
8 create impediments to production and that we should see  
9 consistent production along the length of the lateral.

10 Q. And will each quarter-quarter section be  
11 productive in the Lower Wolfcamp Formation?

12 A. Yes.

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

16 A. Yes.

17 Q. Will you please turn to what's been marked as  
18 Exhibit Number 11? And this exhibit contains three  
19 different wellbore diagrams. The first page contains  
20 the wellbore diagram for the 3H well, correct?

21 A. Yes.

22 Q. And could you please just quickly explain what  
23 that document shows?

24 A. So this is simply a profile of the wellbore  
25 showing that there will be a back-build into the north

1 line of Section 14. The well will come down and target  
2 the 3rd Bone Spring Sand and that both the last -- first  
3 and last perforations will be no closer than 330 feet  
4 from either end of the project area.

5 **Q. And could you turn to the second page and**  
6 **explain this document?**

7 A. So this is the Ender Wiggins Federal WA 1H,  
8 which will also have a back-build to the south, to the  
9 north line of Section 14 and will come down and target  
10 the Upper Wolfcamp. And this was the previous wellbore  
11 diagram. The first and last perforation will be no  
12 closer than 330 feet from the edges of the project area.

13 **Q. And could you finally turn to the last page of**  
14 **this exhibit?**

15 A. This is the Ender Wiggins Federal WD 2H, which  
16 will back-build south to the north line of Section 14.  
17 We will go down and target the Wolfcamp D, the Lower  
18 Wolfcamp horizon. And as with the previous two, the  
19 first and last perorations will be no closer than 330  
20 feet from the north and south lines of the project area.

21 **Q. Ms. [sic] Zeigler, in your opinion, will the**  
22 **granting of Marathon's application be in the best**  
23 **interest of conservation, the prevention of waste and**  
24 **the protection of correlative rights?**

25 A. Yes.

1           **Q.    Were Exhibits 8 through 11 prepared by you or**  
2           **compiled under your direction and supervision?**

3           A.    Yes.

4                       MS. BRADFUTE:  I'd like to move the  
5           admission of Exhibits 8 through 11 into the records.

6                       EXAMINER McMILLAN:  Exhibits 8 through 11  
7           in Cases 16147, 16148 and 16149 may now be accepted as  
8           part of the record.

9                       (Marathon Oil Permian, LLC Exhibit Numbers  
10           8 through 11 are offered and admitted into  
11           evidence.)

12                      MS. BRADFUTE:  And that concludes my  
13           questions for this witness.

14                               CROSS-EXAMINATION

15           BY EXAMINER McMILLAN:

16           **Q.    So in the case of the WD #2H, all quarter**  
17           **sections can be expected to contribute equally, more or**  
18           **less, to production?**

19           A.    Yes, sir.

20           **Q.    Okay.  What were your reasons for the NSL,**  
21           **nonstandard location?  I'm talking about the gas pool.**

22                       MS. BRADFUTE:  My understanding,  
23           Mr. Examiner -- and this may not have been covered with  
24           Ms. [sic] Zeigler -- is that there is some synergy with  
25           placing these wells, stair-stepping, that they're all

1 placed at depths right below each other at different  
2 depths. And so they wanted to place these wells that  
3 way, and then that allows for later infill development  
4 in order to prevent waste, because they're all going to  
5 be placed about 330 feet off the line, all three wells.

6 EXAMINER McMILLAN: But then why is 330  
7 better than 660?

8 MS. BRADFUTE: It's well placement and well  
9 spacing to allow for more wells to be drilled within the  
10 half section.

11 EXAMINER McMILLAN: But are you increasing  
12 reserves by going 330 feet?

13 MS. BRADFUTE: You will see increasing  
14 infill development, so yes. The overall reserves from  
15 the half section will be increased when you leave  
16 more -- for the development of the subsequent wells  
17 because the net amount of fractures within the section  
18 increases.

19 EXAMINER McMILLAN: So no comments about  
20 increasing reserves?

21 MS. BRADFUTE: As far as an engineer's  
22 testimony today?

23 EXAMINER McMILLAN: Yeah.

24 MS. BRADFUTE: We can provide an affidavit  
25 if you want for that.

1 EXAMINER McMILLAN: Yeah, because I'm  
2 not -- from what I can tell, to be honest with you, I  
3 don't see -- you don't provide a lot of reason for the  
4 nonstandard location. If you get an engineer to say the  
5 reason we want the 330 is to increase reserves, there is  
6 more justification for the NSL.

7 MS. BRADFUTE: Okay. And would you like  
8 that as an information request, or would you like us to  
9 come back at the next date?

10 EXAMINER McMILLAN: No. Don't come back if  
11 it's not contested.

12 MS. BRADFUTE: Yes, it's not. We'll  
13 provide an affidavit of information on the increased  
14 reserves.

15 EXAMINER McMILLAN: Okay. Just email it.

16 MS. BRADFUTE: Yes, I will.

17 EXAMINER McMILLAN: Okay. Thank you.  
18 Thank you.

19 I wasn't clear on the 250 days. Can you  
20 bring him back a second?

21 MS. BRADFUTE: Sure.

22 EXAMINER BROOKS: I have no questions for  
23 this witness.

24 THE WITNESS: Thank you.

25



1 RYAN GYLLENBAND,  
2 after having been previously sworn under oath, was  
3 re-called, questioned and testified as follows:

4 DIRECT EXAMINATION

5 BY MS. BRADFUTE:

6 Q. Mr. Gyllenband, you're still under oath. I  
7 believe Examiner McMillan has some additional questions  
8 regarding the 250 days for you.

9 A. Sure.

10 So as I mentioned, these three wells are  
11 going to be drilled back to back to back, along with  
12 three more wells going to the south, and then we plan to  
13 complete all six of those wells at the same time. So if  
14 you say 20 to 30 days -- let's round up to 30, times  
15 six, that's 180 days just to drill this, and then it  
16 takes time for frac prep and to get on our schedule. So  
17 we're already at 180 days. And then to frac all six of  
18 these wells, it's going to take an additional five days  
19 per well, potentially, times six, so that's 30, plus  
20 180. So we're at 210 just if we went from drilling  
21 immediately into completion, and so then I'm asking for  
22 an additional 40 days for a buffer.

23 EXAMINER McMILLAN: I'll tell you the  
24 problem I have is, realistically, you're dealing with a  
25 perfect situation. I mean --

1 MS. BRADFUTE: Would you like us to  
2 increase the amount?

3 CROSS-EXAMINATION

4 BY EXAMINER McMILLAN:

5 Q. I mean, would you be willing to go one year, as  
6 long as we know that one of the wells is completed in  
7 all the different quarter-quarter sections?

8 A. I would prefer more time. I was just going  
9 with the 250 because I thought --

10 Q. Yeah. Like I said, it's too difficult. Plus,  
11 I have difficulty figuring what 250 days is. So if you  
12 do one year, with those qualifications, would that be  
13 fine with you?

14 A. Yes, sir. That would be acceptable.

15 REDIRECT EXAMINATION

16 BY MS. BRADFUTE:

17 Q. Mr. Gyllenband, do you have any further  
18 explanation as to why the NSL is being requested for the  
19 Wolfcamp D well?

20 A. Sure. That just complies with our future  
21 development for this section. We plan to fully develop  
22 Section 11 and the north half of Section 14 with our  
23 Ender Wiggins wells as we step across. The full  
24 development spacing out of all the Bone Spring, all the  
25 Wolfcamp and then the Wolfcamp gas, this was the optimal

1 location for that first Wolfcamp gas well so that then  
2 the next one and the next one, as you space across,  
3 recover the most oil and gas reserves.

4 Q. And by spacing the wells accordingly, is that  
5 Marathon's intent to increase reserves from development  
6 in the section?

7 A. That's correct.

8 EXAMINER McMILLAN: Then I don't need the  
9 engineer's statement.

10 MS. BRADFUTE: Oh, you don't?

11 EXAMINER McMILLAN: No.

12 MS. BRADFUTE: That concludes my questions,  
13 Mr. Examiner, unless you have other questions.

14 EXAMINER BROOKS: I have none.

15 MS. BRADFUTE: I'd ask that Cases 16147,  
16 16148 and 16149 be taken under advisement.

17 EXAMINER McMILLAN: Okay. Cases 16147,  
18 16148 and 16149 shall be taken under advisement.

19 Thank you very much.

20 MS. BRADFUTE: Thank you.

21 (Case Numbers 16147, 16148 and 16149  
22 conclude, 9:58 a.m.)  
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 17th day of July 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

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