Page 1

OCD 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 DEVON ENERGY PRODUCTION CASE NO. 16163, COMPANY, L.P. FOR A NONSTANDARD SPACING 16164 AND PRORATION UNIT AND COMPULSORY POOLING, EDDY COUNTY, NEW MEXICO.

REPORTER'S TRANSCRIPT OF PROCEEDINGS

EXAMINER HEARING

September 6, 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, September 6, 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

Page 2 1 APPEARANCES 2 FOR APPLICANT DEVON ENERGY PRODUCTION COMPANY, L.P.: 3 CANDACE CALLAHAN, ESQ. BEATTY & WOZNIAK, P.C. 4 500 Don Gaspar Avenue Santa Fe, New Mexico 87505 5 (505) 983-8764 ccallahan@bwenergylaw.com б 7 8 INDEX 9 PAGE Case Numbers 16163 and 16164 Called 4 10 11 Devon Energy Production Company, L.P.'s Case-in-Chief: 12 Witnesses: 13 Joe Hammond: Direct Examination by Ms. Callahan 4, 7 14 Cross-Examination by Examiner Brooks 7 Cross-Examination by Examiner McMillan 22 15 16 Susan L. Estes: 17 Direct Examination by Ms. Callahan 23 39 18 Proceedings Conclude 19 Certificate of Court Reporter 40 20 21 22 23 24 25

Page 3 EXHIBITS OFFERED AND ADMITTED PAGE Case Number 16163: Devon Energy Production Company, L.P. Exhibit Numbers 1 through 6 Devon Energy Production Company, L.P., Exhibit Numbers 7 through 14 Case Number 16164: Devon Energy Production Company, L.P. Exhibit Numbers 1 through 6 Devon Energy Production Company, L.P. Exhibit Numbers 7 through 14

Page 4 (4:45 p.m.) 1 EXAMINER McMILLAN: I'd like to call Case 2 Number 16163, which is combined with Case Number 16164, 3 application of Devon Energy Production Company, L.P. for 4 5 a nonstandard spacing and proration unit and compulsory pooling, Eddy County, New Mexico. 6 7 Call for appearances. 8 MS. CALLAHAN: Mr. Examiner, Candace 9 Callahan, of Beatty & Wozniak, appearing for Devon 10 Energy Production Company, L.P. 11 EXAMINER McMILLAN: Be advised you're still 12 under oath. 13 JOE HAMMOND, after having been previously sworn under oath, was 14 questioned and testified as follows: 15 16 DIRECT EXAMINATION BY MS. CALLAHAN: 17 18 Q. Mr. Hammond, would you please restate your name 19 for the record? 20 Α. Joe Hammond. 21 And you work for? Q. 22 Devon Energy as a landman. Α. 23 All right. And you were just qualified as an 0. expert in petroleum land matters, were you not --24 25 Α. Yes.

Page 5 1 -- in Cases 16346 and 16349? Q. 2 Α. Yes, I was. 3 Q. Does your area of responsibility include the Permian Basin in New Mexico? 4 5 Yes, it does. Α. And are you familiar with the applications that 6 Q. 7 have been filed by Devon in Cases 16163 and 16164? 8 Α. Yes, I am. And are you familiar with the status of the 9 0. lands which are the subject of these cases? 10 11 Yes, I am. Α. 12 MS. CALLAHAN: I would retender the witness 13 as an expert. EXAMINER McMILLAN: So qualified. 14 15 (BY MS. CALLAHAN) All right. So would you ο. 16 please briefly state what Devon is seeking in 16163 and 17 16164? 18 Devon seeks the pooling of uncommitted mineral Α. 19 interests in two spacing and proration units for 20 development of the Wolfcamp Formation. Case 16163 proposes a 632.38 spacing and proration unit and the 21 22 drilling of four Wolfcamp wells. That will encompass the west half of Section 31 and the west half of Section 23 24 30, Township 23 South, Range 29 East. 25 And in Case 16164, we propose a 640-acre

Page 6 spacing and proration unit and the drilling of another 1 four initial Wolfcamp wells that will encompass the east 2 half of Sections 30 and 31, Township 23 South, Range 29 3 4 East. 5 MS. CALLAHAN: Mr. Examiner, for ease of reference, we'd like to refer to these as the west unit 6 and the east unit, if that's all right. 7 8 EXAMINER McMILLAN: Yes. That's a good 9 idea. 10 (BY MS. CALLAHAN) Mr. Hammond, let's look at 0. 11 Exhibit 1 in Case 16163. 12 Α. Exhibit 1 are four C-102s. And I'll briefly 13 describe the target zones for each one. In the 621H, the Spud Muffin 30-31 [sic] Fed Com 621H, the target 14 formation is the Wolfcamp X-Y. The 732H, the target 15 16 formation is the Wolfcamp 300. The 622H, the target formation is the X-Y of the Wolfcamp. And the 734H, the 17 18 target formation is the Wolfcamp 300. 19 And have these applications to drill been Q. 20 approved? The only one that has is the Stud Muffin Com 21 Α. 22 734H, has been approved as -- and the API Number is 23 30-015-44753. 24 The 732H has been submitted to the BLM and 25 has been accepted.

Page 7 1 CROSS-EXAMINATION 2 BY EXAMINER BROOKS: 3 Q. Could you go back through what Wolfcamp zones 4 you're calling these? 5 There's -- the Wolfcamp X-Y, which is a Α. shallower formation -- or shallower depth within the 6 7 Wolfcamp. 8 Is that the 621? Q. 9 Α. 621 and 622. Are both in the X-Y? 10 0. 11 Yes. And that's how we tell them apart, Α. because it's the 600 series. And then the 700 series is 12 13 what we call the Wolfcamp 300. 14 I've never heard that designation before, 300. 0. 15 I've heard the X-Y. 16 MS. ESTES: If I may, the 300 is equivalent to the Lower A. 17 18 EXAMINER BROOKS: Okay. Thank you. 19 CONTINUED DIRECT EXAMINATION 20 BY MS. CALLAHAN: 21 Q. And to accommodate this drilling plan, what are you asking of the Division? 22 The pooling of all uncommitted mineral 23 Α. 24 interests in a -- in a 632.38-acre spacing and proration 25 unit comprised of the west half of Sections 30 and 31.

Page 8 And what pool is -- are these wells to be 1 0. 2 drilled into? 3 Α. Purple Sage; Wolfcamp Gas Pool. 4 And that pool code is? Is that 98220? ο. 5 EXAMINER McMILLAN: Yes. 6 THE WITNESS: Okay. Thank you. 7 (BY MS. CALLAHAN) Are you familiar with the ο. 8 rules for the Purple Sage; Wolfcamp Gas Pool? 9 Α. Yes. 10 And what do they provide as a spacing unit? 0. 11 320 acres. Α. 12 0. And what are the setbacks requirements? 13 330 feet. Α. 14 And will the completed intervals for these 0. 15 wells all comply with the setback requirements for these 16 special rules? 17 Α. Yes. 18 And the spacing unit for this case is also Q. 19 considered a standard horizontal well spacing and 20 proration unit under the new rules, correct? Yes, it is. 21 Α. 22 MS. CALLAHAN: Although these cases -- this 23 case -- both of these cases were filed prior to the 24 implementation of the new horizontal rules. 25 EXAMINER McMILLAN: So they're project

Page 9 1 areas. 2 (BY MS. CALLAHAN) What type of mineral 0. 3 ownership is involved in this unit? All lands in the west unit -- excuse me. 4 Α. All 5 lands except the southwest-southwest quarter of the west unit are fee. The southwest-southwest quarter is a 6 7 40-acre -- well, roughly 40-acre federal tract. 8 And these wells are to be drilled and completed Q. 9 in batch format as well? 10 Α. Yes. 11 Let's look at Exhibit 2. 0. 12 Α. Exhibit 2 is a pooling list that lists the 13 working interest owners and lists some unleased mineral owners within the pool unit of the Wolfcamp. Plus, it 14 lists overriding royalty interest owners within the pool 15 16 unit of the Wolfcamp. 17 Q. Is mineral ownership severed by depth within 18 this proposed unit? 19 It is not. Α. 20 Let's look at Exhibit 3. Q. 21 Α. Exhibit 3 is a map. The first page is an 22 ownership map reflecting the entire unit. And the 23 second page is -- is the -- more or less a tract 24 description of the owners within that unit. 25 Okay. And it's been updated to reflect current Q.

Page 10 ownership; is that right? 1 Yes, it has. 2 Α. 3 Again, Devon has gone in. We bought some interest from Kaiser-Francis. We bought some interest 4 5 from Tap Rock. We bought some interest from AllDale Minerals. We're still working with Chevron on a trade. 6 7 We're still working with OXY on a trade. MRC is 8 probably going to participate. RKI is going to 9 participate. And so that's, in a nutshell, a rough 10 estimate of what's going on. 11 0. So are you seeking to pool all of these owners 12 listed on Exhibit 3? 13 Α. Yes. 14 What is Exhibit 4? 0. Exhibit 4 is my initial proposal letters that 15 Α. 16 went out earlier this year, and then additional wells, as we proposed them, went out at different times later 17 in the year. And so we originally proposed the 700 18 19 series wells, then we came back and proposed the 600 20 series wells. And so that's what all these letters 21 reflect, is the efforts to propose the wells to all the 22 owners. 23 So all these wells have been proposed timely to 0. all these owners; is that correct? 24 25 Oh, yes. Yes. Α.

Page 11 All right. And Exhibit 4A, what does that 1 0. 2 reflect? This is the AFEs that were sent with the 3 Α. letters. The Wolfcamp 300 wells -- 700 wells originally 4 had an AFE of \$9,074,476. That was later revised to 5 \$10,024,476. And then the X-Y wells, which are the 6 7 later wells that we proposed, has an AFE cost of 8 \$9,723,995. 9 Are these costs in line with the costs of other 0. horizontal wells in this area drilled to this length and 10 11 depth? 12 Α. Yes. 13 What is Exhibit 5? 0. Exhibit 5 is, again, documentation of a history 14 Α. of the communications that we've had with all of the 15 16 owners in here, and so a lot of it is still ongoing. And so it reflects documentation of contacts all 17 18 yearlong, basically. 19 Q. In your opinion, has Devon made a good-faith 20 effort to obtain voluntary joinder of all these parties 21 in the units? 22 Α. Yes. 23 In addition to the working interest owners, 0. 24 you've identified the parties to be pooled. Is Devon 25 pooling other interest owners?

Page 12 It's the overriding royalty interest owners 1 Α. 2 that are listed also. 3 Q. And they were included in Exhibit 2, correct? 4 Α. Yes, they were. 5 And there were unleased mineral interest owners Q. within this unit? 6 7 Α. Yes, there were. There were -- there were -yes. There are unleased mineral interest owners. Yes. 8 9 Okay. And you attempted to lease or purchase 0. these interests? 10 11 Yes, we did. We -- again, I hired a broker to Α. 12 research the records, and either they made contact with the unleased owners or I made contact with -- with more 13 of the company owners. So yes, they have been 14 15 contacted. Everyone has. 16 Q. Okay. Great. Let's look at Exhibit 6. Is this an 17 18 affidavit by me attesting to the noticing of working 19 interests and overriding royalty interest owners in your 20 proposed spacing unit? Yes, it is. 21 Α. 22 What is Exhibit 6A1? 0. 23 That is your letter that's gone out to the pool Α. 24 parties. 25 Okay. And this includes both the working Q.

Page 13 interest and overriding royalty interest owners? 1 2 Α. Yes. 3 Q. Okay. And they were sent a copy of the amended 4 application where we changed the well names in the 600 5 wells? 6 Α. Yes. Yes. 7 Okay. And have we identified the parties from Q. 8 whom we did not receive return-receipt cards in 9 Exhibit A? 10 Α. Yes. 11 And are they bolded? The names and addresses 0. 12 are bolded in this exhibit? Yes, they are. Yes, they were. 13 Α. 14 All right. 0. EXAMINER BROOKS: Which exhibit is this? 15 16 MS. CALLAHAN: This is the exhibit attached to Exhibit 6A1 immediately -- kind of the first page of 17 Exhibit 6. 18 19 EXAMINER BROOKS: 6A1, I've got, but the 20 next thing is the amended application. MS. CALLAHAN: Yeah. And if you skip 21 22 behind that, you'll see Exhibit A. 23 EXAMINER BROOKS: Okay. I've got it. And 24 the names in bold are people you did not get notice to? 25 MS. CALLAHAN: Well, we gave notice, but we

Page 14 didn't get cards back from them. 1 2 EXAMINER BROOKS: Okay. You did not get 3 return receipts. Okay. Thank you. MS. CALLAHAN: Yes. 4 5 (BY MS. CALLAHAN) So these -- this case was Q. 6 filed before the new horizontal rules went into effect? 7 Α. Yes. 8 So did we also send notice to offset owners? ο. Yes, we did. 9 Α. Okay. And that is reflected in Exhibit A2, 10 Q. 11 correct, that letter that was sent out to the --12 Α. Yes. 13 You're going to have to wade through a bunch of 0. 14 receipts to locate that. 15 And let's see. So since we didn't receive 16 all our return-receipt cards, we also published notice 17 as to everyone in the pooled party list; is that right? 18 Yes, we did. Α. 19 And that's reflected in Exhibit -- and it's in Q. 20 the upper, left-hand corner, so it may be hard to 21 find -- 6B. 22 Α. Yes. MS. CALLAHAN: And we also didn't receive 23 24 cards from everyone who were offset operators, and those 25 are indicated by bolded names and addresses. But we did

Page 15 not publish as to them in light of the new horizontal 1 2 rules. 3 Q. (BY MS. CALLAHAN) And what efforts did you make 4 to locate current addresses for those that we didn't 5 receive return-receipt cards for? We hired a broker that researched the county 6 Α. 7 records and did Internet searches in efforts to find all 8 addresses. 9 Okay. Let's turn now to Exhibit 1 for Case 0. 16164. Would you tell us about this exhibit, please? 10 Exhibit 1 is four C-102s for four Wolfcamp 11 Α. 12 wells to be drilled on the east unit -- or east side of 13 Sections 30 and 31. And they are -- the acreage is all fee over here. The names are the Stud Muffin 31-30 14 623H, 736H, 624H and 738H. Again, the 623 and 624 are 15 the Wolfcamp X-Ys, and the 736 and the 738 are the 16 Wolfcamp 300s. 17 18 And have these applications been approved? Q. The 27 -- the 736H and the 738H, yes, those 19 Α. 20 The API for 736H is 30-015-44755. The 738H API have. is 30-015-44757. 21 22 Q. And are you asking the Division to pool all 23 uncommitted mineral interests in this spacing unit 24 comprised --25 Α. Yes.

Page 16 1 -- of the east half of Sections 30 and 31? Q. 2 Α. Yes. 3 Q. And these wells are also to be drilled from the 4 Purple Sage; Wolfcamp Gas Pool? 5 Α. That's correct. 6 And that also complies with the 330-foot Q. 7 setback? 8 Α. Yes. And they're now considered standard horizontal 9 Q. well spacing and proration units? 10 11 Α. Yes. 12 0. What type of mineral ownership is involved in this unit? 13 It's all fee on this side. 14 Α. 15 And it's also -- these wells are also to be ο. 16 drilled in batch-type format? 17 Α. That's correct. 18 Let's look at Exhibit 2. Would you walk us Q. 19 through this? 20 Exhibit 2 is a map, again reflecting the unit Α. ownership and tract ownership of the east side. Again, 21 Chevron owns 57 percent. OXY owns about 12. And Nortex 22 23 owns, I believe, 64. And so, again, we are still 24 working with Chevron. Still working with OXY on trades, 25 and Nortex will probably participate.

Page 17 Are you referring to Exhibit 3? 1 Q. 2 Α. Yes. Okay. So just to clarify, this is an updated 3 Q. reflection of the mineral interest ownership; is that 4 5 right? 6 Α. Yes, it is. I'm not sure -- did you say 7 Exhibit 2? 8 0. Exhibit 3. 9 Okay. Exhibit 3. Okay. Α. 10 That's what you're looking at when you're 0. 11 speaking --12 Α. Yeah. Okay. So all the parties listed on this 13 Q. 14 Exhibit 3 are parties that you want to be pooled; is that correct? 15 Yes, that's correct. 16 Α. 17 0. Let's look at Exhibit 4. 18 Exhibit 4 is -- are my well-proposal letters Α. 19 for the wells that have been proposed here. And so, 20 again, it covers 700 series wells, and it covers 600 21 series wells. 22 0. And Exhibit 4A? 4A is the AFE that was attached to the well 23 Α. proposals, again reflecting \$9,074,476 AFE for the 700 24 well series, and that was later revised upwards to 25

Page 18 \$10,024,476 for the 700 series wells. 1 And then the 600 series wells have an AFE 2 cost of \$9,723,995. 3 4 ο. Are those costs in line with the cost of other 5 horizontal wells in this area drilled to this length and 6 depth? 7 Α. Yes, they are. Yes, it is. 8 What is Exhibit 5? Q. Exhibit 5 just a quick summary of the 9 Α. communication history between Devon and OXY and Chevron. 10 11 In your opinion, has Devon made a good-faith 0. 12 effort to obtain voluntary joinder of these parties in 13 the unit? 14 Α. Yes. 15 And you're also asking that the overriding ο. 16 royalty interest owners be pooled? 17 Yes. Α. 18 And those parties are listed on Exhibit 2, Q. 19 along with the working interest owners? Exhibit 2 20 is --I'm not sure mine had an Exhibit 2 in it. 21 Α. 22 EXAMINER BROOKS: In my package, it's right 23 behind the -- between the -- right behind the C-102. 24 THE WITNESS: There it is. I've got it. 25 Thank you, sir.

Page 19 This reflects the working interest 1 Yes. 2 owners and the overriding royalty interest owners who are being pooled. 3 4 Q. (BY MS. CALLAHAN) Let's look at Exhibit 6, 5 Is this an affidavit of counsel regarding please. 6 notices sent by my office of this hearing? 7 Yes, it is. Α. 8 And attached to this, do we find a copy of the Q. letter sent to the parties to be pooled? 9 10 Α. Yes. 11 Is that Exhibit 6A1? 0. 12 Α. That's correct. 13 And there is an Exhibit A attached to that, 0. 14 correct? And that lists all the working interests and 15 overriding royalty owners in this unit? 16 Α. It does. 17 Q. And does it correctly identify all of the 18 working interests and overriding royalty owners in the 19 proposed spacing unit? 20 Yes, it does. Α. 21 Updated, I guess, by Exhibit 3? Q. 22 Yeah, that's right. Α. 23 It's been changed to working interests. 0. 24 Okay. So did we also send notice to offset 25 operators since this was filed originally before the new

Page 20 1 horizontal rules? 2 Α. Yes, we did. 3 Q. Okay. And that is also attached here, I 4 believe, as Exhibit A2? 5 Α. 6A2. 6 Q. Yes. 7 And in this case, also, we identified 8 parties that did not -- we did not receive 9 return-receipt cards from in bold on the exhibit. Ι believe it's called A, attached to both 6A1 and 6A2. 10 And did we also publish notice since not all parties 11 12 were locatable? 13 Yes, we did publish. Α. 14 Is that reflected in Exhibit 6B? 0. Yes, it is. 15 Α. 16 All right. Now I'd like to address questions Q. 17 which apply equally to both cases, 16163 and 16164. For 18 both the east and west spacing units, who should be 19 designated as operator? 20 Devon Energy Production Company, L.P. Α. 21 And in each case, what amount do you recommend Q. 22 Devon be paid for supervision and administrative 23 expenses? 24 Α. 8,000 a month drilling rate, 800 a month 25 producing rate.

Page 21 1 And are these amounts normally charged by Devon 0. 2 and other operators in this area? 3 Α. Yes. 4 And do you request these rates be adjusted Q. 5 periodically as provided under the COPAS accounting 6 procedure? 7 Α. Yes. 8 And in each case, does Devon request a maximum Q. cost plus 200 percent risk charge if any pooled working 9 interest owner doesn't pay its share of drilling, 10 completing and equipping the wells? 11 12 Α. Yes. 13 In your opinion, is granting the application in 0. 14 Case Number 16163 and 16164 in the best interest of 15 conservation, the prevention of waste and protection of 16 correlative rights? 17 Α. Yes. 18 Were Exhibits 1 through 6 and its subparts Q. 19 prepared by you under your supervision or compiled from 20 company business records? 21 Α. Yes. 22 MS. CALLAHAN: We tender Exhibits 1 through 23 6 and its subparts into the record. 24 EXAMINER McMILLAN: Okay. And in Case 16164? 25

Page 22 MS. CALLAHAN: And in 16164, we tender the 1 2 same, Exhibits 1 through 6 and its subparts. 3 EXAMINER McMILLAN: Okay. Exhibits 1 4 through 6 and its subparts in Case 16163 may be accepted 5 as part of the record, and Exhibits 1 through 6 and its subparts in Case 16164 may be accepted as part of the 6 7 record. 8 (Devon Energy Production Company, L.P., in Case Number 16163, Exhibit Numbers 1 9 10 through 6 and its subparts, and in Case 11 Number 16164, Exhibits 1 through 6 and its 12 subparts are offered and admitted into 13 evidence.) MS. CALLAHAN: That concludes my questions 14 for this witness. 15 16 CROSS-EXAMINATION BY EXAMINER McMILLAN: 17 18 Q. No depth severances, correct? 19 Α. No depth severances. 20 In both of these cases, there are unlocatable Q. 21 interests, right? 22 Yes. Well, on the -- on the -- on the east Α. 23 side, yes, there were. And then I think there was --24 excuse me. On the west side, there were. 25 MS. CALLAHAN: There were overriding

Page 23 royalty interest owners that could not be located. 1 2 (BY EXAMINER McMILLAN) Okay. So there are 0. 3 unlocatable interests? 4 Α. That's correct. 5 MS. CALLAHAN: Yeah. 6 (BY EXAMINER McMILLAN) All the statuses, Q. 7 they're all proposed? 8 Α. Yes, they are. 9 EXAMINER McMILLAN: Okay. Go ahead. EXAMINER BROOKS: I have no questions. 10 11 MS. CALLAHAN: Can I call my next witness? 12 EXAMINER McMILLAN: Yes. Please proceed. 13 MS. CALLAHAN: I call Susan Estes. 14 SUSAN L. ESTES, after having been previously sworn under oath, was 15 questioned and testified as follows: 16 17 DIRECT EXAMINATION BY MS. CALLAHAN: 18 19 Ms. Estes, for the record, in these new cases, Q. 20 would you please state your name, identify by whom 21 you're employed and in what capacity? 22 Susan Estes, Devon Energy Corporation and as a Α. 23 qeologist. 24 Okay. You were previously accepted as an 0. 25 expert in geology matters; is that correct?

Page 24 1 Α. Yes, ma'am. 2 Okay. And your area at Devon includes the 0. 3 Permian Basin in New Mexico? 4 Α. Yes. 5 Are you familiar with the application that has Q. 6 been filed by Devon in this case? 7 Α. Yes. 8 And you have conducted a geologic study of the Q. 9 lands that are the subject of this hearing? 10 Α. I have. 11 0. All right. 12 MS. CALLAHAN: I retender the witness as an 13 expert in petroleum geology. 14 EXAMINER McMILLAN: So qualified. 15 (BY MS. CALLAHAN) Ms. Estes, would you look ο. 16 first to Exhibit Number 7 in Case 16163, the west half of Sections 30 and 31. 17 18 Mr. Examiner, as in the last presentation, all Α. 19 the maps, including this execution plan, are all in the 20 same format, so I'll try to run through them as quickly 21 as I can. 22 This is just the Wolfcamp execution plan. 23 The wells are color-coded by series, so your 600 or the 24 Wolfcamp X-Y series are your red lines and dots and labels, so the 621, 22, 23 and 24 for both the west and 25

Page 25 east half. And the 700 series for the Wolfcamp 300, 1 which is the Lower A equivalent, are denoted in green. 2 Going to Exhibit 8 on the next page, this 3 is top Wolfcamp Y Sand structure map. Again, you can 4 see it looks like most of the rest of -- it's pretty 5 benign out here, very similar, 50-foot contour interval. 6 7 The wells that are -- the producing wells are 8 color-coded just exactly the same, so the Wolfcamp X-Y 9 sands, the producing horizontal wells, are shown with the bottom holes at the -- at the -- with the red dots. 10 11 Excuse me. And the Wolfcamp 300s are shown by the green And on this map, it's a little easier to see. 12 dots. You can see there are some that are drilled north-south 13 and some that are drilled east-west. 14 If you go to the next map, this is a top 15 16 Wolfcamp 300 structure map, subsea. This is Exhibit 9 we're looking at? 17 Q. I'm sorry. Yes, Exhibit 9. Again, the same 18 Α. 19 The wells are color-coded the same. format. The only 20 difference on this one is I have lines of section on here that refer to the cross sections that follow. 21 22 Again, of course, the PSUs are denoted by your blue outlines. 23 If you go to Exhibit 10, again this is just 24 25 the same cross section as before, just blown up a little

Page 26 bit to show you the X-Y and the 300 target intervals 1 2 shaded in yellow. We're going to drill in the lower -or in the middle of that Wolfcamp Y Sand. That's at 3 about 9,800 feet measured depth, give or take. And the 4 5 Wolfcamp 300, we will target it in the lower part of that yellow interval, at about 10,8 [sic] to 850, for 6 7 the other part of that interval. And, again, you can 8 see that the log character, the thickness, everything is 9 fairly quite consistent across this area. 10 If you go to the next -- Exhibit 11, again 11 the same cross section. It's just a dip section. Ιt 12 goes from west to east, again showing the consistency of 13 your formations across this area and your target intervals. 14 If you go to Exhibit 12, this is a Wolfcamp 15 16 Y isopach map just on the overall interval. Contour interval is 5 feet on this. And average -- the 17 18 thickness range from across -- the south -- from the 19 southwest to the northeast is about 80 feet down in the 20 southwest corner to about 55 in the northeast. The 21 development block that we're looking at averages 55 to 22 60 feet of sand. And, again, the color -- the producers 23 are all denoted in your -- X-Y producers -- excuse me --24 are shown by the red dots. 25 Exhibit 13 on the next page, Wolfcamp 300

Page 27 isopach map. The overall interval -- contour interval 1 is 20 -- 20 feet. Your overall range is about 140 feet 2 up in the northwest to around 320 down -- I'm sorry. 3 Yeah. 140 in the northwest to about 320. It gets 4 5 thicker as you go down to south-southwest. And it probably averages around 240 feet in the development 6 7 block, looking at Sections 30 and 31. 8 Q. So if we look at -- that's all you have for 9 Case 16163? 10 Α. Yes. 11 If we look at 16164, it looks like we have the 0. 12 same exhibits. 13 Α. Yes. 14 Is there anything you'd like to point out to 0. 15 the examiners about -- that might differentiate this 16 from what you've just gone through? 17 The only -- no. Exhibits 7 through -- let me Α. 18 make sure. 19 Q. 13? 20 -- through 13 are all the same. So you can Α. flip to that very last exhibit. That's the only thing 21 that's different. And the main reason I created this is 22 23 just to kind of address the potential interference 24 issues between the 3rd Bone Spring and the Wolfcamp X-Y. 25 I mean, it's public data, and you can look at it. And

Page 28 you can see the degradation. If you don't develop both 1 2 at the same time, you're going to get degradation in one 3 or both. 4 ο. Excuse me. I think we're talking about Exhibit 5 14; is that correct? I thought I said 14. 6 Α. Yes. 7 I'd like to ask from this MS. CALLAHAN: 8 point forward that the testimony that she's about to 9 give regarding both the Bone Spring and the Wolfcamp be included in the prior cases, 16346 and 16349, because 10 the testimony will apply to all four cases. 11 12 EXAMINER McMILLAN: Okav. 13 (BY MS. CALLAHAN) Please proceed. 0. I forgot where I was. 14 Α. 15 We're on Exhibit 14. I wanted to clarify. ο. 16 Α. The purpose of this exhibit is to try and show you at least what we're trying to do based on our 17 evaluation of the offset data. And anyway, if you look 18 19 at the diagram on the left, I've got a wireline log that's got the 3rd Bone Spring, the Wolfcamp X-Y and the 20 100 divided. And I'm showing where they are. 21 22 And in red -- the three dots in red are --23 are the -- are the 3rd Bone Spring. The four dots are 24 the four wells basically in the Wolfcamp X-Y -- are in 25 the X-Y. Excuse me.

Page 29 And what this is -- I don't know if you're 1 2 familiar. We call it a gun-barrel diagram. You're looking at kind of a cross section of how they're 3 vertically spaced. You're looking at it from the side. 4 So what we're trying to do is we do a stack-stagger. 5 So we're staggering them, for one thing. We're also trying 6 7 to get at least 250 feet vertically between the targets 8 so giving it as much room as we possibly can. 9 We've also -- on plane, we'll get 1,540 10 feet between the same -- the same formation or same 11 target on the X-Y. Whereas, in the 3rd Bone, we've got 12 it at at least 1,640. If you look over on the map view, that shows what it looks like in a map view over here. 13 So you've got your four blue Wolfcamp X-Ys with your 14 three 3rd Bone sitting -- staggered up on top like it 15 16 shows here. 17 And basically what we're going to do is 18 just codevelop this. We know we have to. Otherwise, 19 we're going -- one's going to try and drain the other 20 more than likely. What we're going to do, too -- as Joe alluded to earlier, this is kind of a pilot program for 21 22 us, this entire -- these entire two sections, not only 23 for 3rd Bone and X-Y but even for the 300. We're trying 24 to figure out optimal spacing. You know, any data that 25 we can get, any learnings, we're going to take what we

Page 30 have here and apply it to some acreage that we actually 1 have to the east, which is our core acreage block. 2 So we're also -- so we're going to drill all these, batch 3 drill them, like Joe said. We're going to actually go 4 in and batch complete them at the same time, and then 5 б we're going to be bringing a 3rd Bone-Wolfcamp on at 7 exactly the same time to let them do what they will do. 8 We are going to install downhole gauges and monitors and take pressures, so we're going to be able 9 10 to try and see that interaction. We're going to obtain 11 PVT and DFIT analysis for data and try to analyze that 12 as best we can. 13 And -- oh, and the 3rd Bone -- the 300 -the Wolfcamp 300 will probably be phased in slightly. 14 The drill is concluded, but it will be phased in a 15 16 little bit later more than likely because out here, we'll probably have some takeaway issues. So we'll --17 it'll be slightly behind, just not at the same time. So 18 19 we just have takeaway constraints. Everybody does out 20 here. So we're kind of in one of those "if we build it, 21 maybe they'll come. 22 (Laughter.) 23 You know, if we drill it, maybe they'll come. Α. 24 That's our hope anyway (laughter). We've really 25 struggled out here to get that settled, but it's coming

Page 31

1 together. So we feel pretty comfortable with it.

2 Anyway, this was just to kind of try and This is what we're trying to do becasue we 3 mitigate. know it's a known issues. And, again, this is a 4 5 program -- we're not even done yet either. Once we just 6 do this -- we're trying to do sim ops, where we have the 7 mega pads. So if we come back later and we think, well, 8 maybe the 100 or maybe the 2nd Bone, for example, we can come back later and also drill those because we set the 9 pads up that way. So I guess it's unlocking a lot of 10 11 locations, is what we're hoping from some of the data, 12 you know, that we'll kind of get out of this.

Q. So if we total -- excuse me -- all of your proposed Bone Spring wells and the Wolfcamp wells, how many wells are we looking at that you're going to batch drill and complete? Ten?

17 Let's see. Right now we've got -- three, Α. seven, four. We'll probably have some infills, so we'll 18 19 probably have about 13 right now, and then there's the 20 upside to come back later depending on, you know, once we find out -- once we take enough data, we'll figure 21 22 out and evaluate other intervals and maybe have other 23 target formations out here. But 13 at least, 24 potentially, to start with and maybe more. 25 But in terms of these applications, we've just Q.

asked for -- we just talked about ten wells --1 2 Α. Yes. 3 Q. -- right? 4 Α. Right. 5 So in terms of the compulsory pooling order, Q. are you going to ask for more time to drill and complete 6 7 these wells and have a longer term for the order? Yes. I think a lot of -- because of the 8 Α. 9 takeaway constraints that I've talked about and just timing issues, we're asking for 180 months just for the 10 11 order -- 180 days. That would be great. It's been a 12 long day. 13 (Laughter.) 14 EXAMINER BROOKS: We'll ask for 180 months 15 to get the order out. 16 (Laughter.) THE WITNESS: Because by then you won't 17 18 care. None of us will care. 19 MR. HAMMOND: 240 days. 20 EXAMINER McMILLAN: You want what? 21 THE WITNESS: 18 months. 22 MS. CALLAHAN: 18 months to get it all done 23 and then 240 days for the drilling and completion. 24 THE WITNESS: I'm delusional. I apologize. 25 Yeah.

Page 32

Page 33 EXAMINER McMILLAN: You didn't hear my 1 2 standard speech. Fingering out exactly when 240 days is is a nightmare for everybody. 3 MS. CALLAHAN: Is there a better number? 4 5 EXAMINER McMILLAN: Can you make it, say, one year, but then if you have an engineer state that, 6 7 you know, all of the quarter sections or quarter-quarter 8 sections haven't been drilled are capable of producing? 9 Because figuring out exactly when 240 days is, we'll get 10 four or five different answers. If you say one year and 11 state that -- there is an order out there for Chevron 12 that I've copied numerous times --13 THE WITNESS: Yeah. EXAMINER McMILLAN: -- that just says that 14 we'll give you up to one year, but then you have to --15 16 after the well is drilled -- drilled, you'll have to get a signed affidavit from the engineer saying that each 17 quarter section or quarter-quarter section is capable of 18 19 producing. 20 MS. CALLAHAN: Okay. I quess I can ask her that now, right? 21 THE WITNESS: I would -- I would -- I would 22 23 say that I would agree with that right now. 24 EXAMINER McMILLAN: Yeah. 240 is too 25 complicated for us state employees to figure out.

Page 34 1 (BY MS. CALLAHAN) But it's your opinion that 0. 2 each quarter-quarter section is going to contribute more 3 or less equally to all of these? Yes, it is. 4 Α. 5 EXAMINER McMILLAN: And you want the 18 б months? 7 MS. CALLAHAN: To get it all done. 8 EXAMINER BROOKS: We don't usually give a deadline date to get the entire batch completed. 9 10 MS. CALLAHAN: No, but you have to get an 11 extension of the order after 12 months to --12 EXAMINER BROOKS: What we usually do is have a deadline date to start the first well and a 13 deadline from the time you start the first well to 14 complete at least one well. 15 16 MS. CALLAHAN: Oh, okay. 17 THE WITNESS: Okay. Well, that's --18 EXAMINER BROOKS: That's the way our orders 19 are normally written. And the reason being is that 20 compulsory pooling orders -- if you're not going to drill a well in the unit, if you don't -- if you've not 21 22 got a completed well in the unit, you don't need a 23 compulsory pooling order. 24 MS. CALLAHAN: Okay. Thank you. 25 THE WITNESS: Okay.

Page 35 MS. CALLAHAN: I think that concludes 1 2 our --3 EXAMINER McMILLAN: Okay. And the exhibits? 4 5 MS. CALLAHAN: Yes. I'd like to tender б Exhibits -- in 16163, Exhibits 7 through 13, and in 7 16164, Exhibits 7 through 13 as well, and then also 8 Exhibit 14. 9 EXAMINER McMILLAN: Okay. In Case 16163, Exhibits 7 through 14, and in 16164, Exhibits 7 through 10 11 14 may now be accepted as part of the record. 12 (Devon Energy Production Company, L.P., in Case Number 16163, Exhibit Numbers 7 13 through 14, and in Case Number 16164, 14 Exhibits 7 through 14 are offered and 15 16 admitted into evidence.) 17 MS. CALLAHAN: And Exhibit 14, I guess I would tender those into all four cases, 16346, 16349, 18 19 16163 and 16164, since we're incorporating the 20 testimony. EXAMINER McMILLAN: In Cases 16346 and 21 22 16349, Exhibit 14 may now be accepted as part of the 23 record or entered as part of the record. 24 MS. CALLAHAN: All right. Thank you. 25 EXAMINER McMILLAN: Thanks.

Page 36 1 THE WITNESS: Thank you. 2 MS. CALLAHAN: And I ask that you take these under advisement. 3 EXAMINER McMILLAN: Okay. What about -- is 4 5 the notice correct? 6 EXAMINER BROOKS: Well, they had the same 7 notice evidence you had in the previous case, or did I 8 miss something? 9 MS. CALLAHAN: No. We filed these before, and we did include the overrides. 10 EXAMINER BROOKS: You also did the offset. 11 12 You included the overrides in all four cases. 13 MS. CALLAHAN: Yes. But the notices aren't right in the first two Bone Spring cases, so we're 14 continuing this. 15 16 EXAMINER BROOKS: But the Wolfcamp, they 17 are? 18 MS. CALLAHAN: The Wolfcamp, they are. We 19 did publish as to the ones who were unlocatable. 20 EXAMINER BROOKS: Okay. And my understanding was that it was basically the same 21 22 evidence, but you had this issue of notifying the 23 offsets, but you don't -- I'm not really concerned with 24 whether you notified the offsets since that's no longer 25 required, even though it was required at the time you

Page 37 gave the notice. But it was never required by rule. 1 Ιt 2 was simply by a procedure. We had a policy we had 3 adopted. MS. CALLAHAN: Yeah. And that's why we did 4 5 it initially. EXAMINER BROOKS: That's why most people 6 7 did it. Okay. I'm okay with the notice. 8 MS. CALLAHAN: Okay. 9 EXAMINER BROOKS: If you have a specific question, go ahead ask it. 10 EXAMINER McMILLAN: No, I don't. You 11 12 always do better notice questions than I ever do. 13 EXAMINER BROOKS: Well, there is a confusion in the rules as to what you have to do when 14 you don't -- when you don't have evidence of delivery. 15 16 The rule doesn't make that clear. 17 Now, I believe, if I understood the testimony of the land witness correctly in these 18 19 cases -- all of the cases -- and you can contradict me 20 if I'm wrong. But what you said was you hired someone to contact these people. They found the whereabouts of 21 everybody and they actually got in touch with them, but 22 they didn't send another set of notices. They just put 23 24 that on the publication. Is a correct recitation? 25 MR. HAMMOND: On the west side, there were

Page 38 four unlocatables. 1 2 EXAMINER BROOKS: Right. MR. HAMMOND: And everybody else got notice 3 and was talked to either by myself or the broker. 4 5 EXAMINER BROOKS: And I believe you said, did you not, they made Internet searches --6 7 MR. HAMMOND: Yes. 8 EXAMINER BROOKS: -- and record searches of the addresses of those four unlocatables. 9 10 MR. HAMMOND: Yes, I did. 11 EXAMINER BROOKS: I never did ask you who 12 the unlocatables were, but I looked at the exhibits, and 13 it's pretty obvious who they were. 14 MR. HAMMOND: Yeah. EXAMINER BROOKS: Okay. I'm okay with the 15 16 notice. 17 MS. CALLAHAN: So we'd ask that you take Cases 16163 and 16164 under advisement. Notice is 18 19 complete for those cases. 20 EXAMINER McMILLAN: Okay. Cases 16163 shall be taken under advisement. Case 16164 shall be 21 taken under advisement. 22 23 Thank you. 24 MS. CALLAHAN: Thank you. 25 EXAMINER McMILLAN: This hearing is

		Page 39
1	adjourned.	
2		MS. CALLAHAN: Thank you very much for
3	staying late.	
4		THE WITNESS: Yeah. We do appreciate that.
5		(Case Numbers 16163 and 16164 conclude,
6		5:33 p.m.)
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Page 40 1 STATE OF NEW MEXICO 2 COUNTY OF BERNALILLO 3 CERTIFICATE OF COURT REPORTER 4 5 I, MARY C. HANKINS, Certified Court Reporter, New Mexico Certified Court Reporter No. 20, 6 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 a true and correct transcript of those proceedings that 10 were reduced to printed form by me to the best of my 11 12 ability. 13 I FURTHER CERTIFY that the Reporter's Record of the proceedings truly and accurately reflects 14 the exhibits, if any, offered by the respective parties. 15 16 I FURTHER CERTIFY that I am neither employed by nor related to any of the parties or 17 18 attorneys in this case and that I have no interest in 19 the final disposition of this case. 20 DATED THIS 28th day of September 2018. 21 22 MARY C. HANKINS, CCR, RPR 23 Certified Court Reporter New Mexico CCR No. 20 Date of CCR Expiration: 12/31/2018 24 Paul Baca Professional Court Reporters 25