2	Page 1
3 4 5	IN THE MATTER OF THE HEARING CALLED BY THE OIL CONSERVATION DIVISION FOR THE PURPOSE OF CONSIDERING:
6	APPLICATION OF CONOCOPHILLIPS COMPANY CASE NO. 14839 FOR DOWNHOLE COMMINGLING, RIO ARRIBA
7	COUNTY, NEW MEXICO.
8	
9	
10	REPORTER'S TRANSCRIPT OF PROCEEDINGS
11	EXAMINER HEARING
12	
13	BEFORE: DAVID K. BROOKS, Chief Examiner
14	TERRY WARNELL, Technical Examiner
15	May 24, 2012
16	Santa Fe, New Mexico
17	F S
18	This matter came on for hearing before the
19	New Mexico Oil Conservation Division, DAVID K. BROOKS, Chief Examiner, and TERRY WARNELL, Technical Examiner,
20	on Thursday, May 24, 2012, at the New Mexico Energy, Minerals and Natural Resources Department, 1220 South
21	St. Francis Drive, Porter Hall, Room 102, Santa Fe, New Mexico.
	New MEXICO.
22	
.23	REPORTED BY: Mary C. Hankins, CCR, RPR New Mexico CCR #20
24	Paul Baca Professional Court Reporters 500 4th Street, Northwest, Suite 105
25	Albuquerque, New Mexico 87102
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1	APPEARANCES	Page 2
2	FOR APPLICANT CONOCOPHILLIPS:	
3	W. THOMAS KELLAHIN, ESQ.	
4	KELLAHIN AND KELLAHIN 706 Gonzales Road	
5	Santa Fe, New Mexico 87501 (505) 982-4285	
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7		
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1	(8:31 a.m.) Page 3
2	EXAMINER BROOKS: At this time, we call
3	Case Number 14839, the application of ConocoPhillips for
4	downhole commingling, Rio Arriba County, New Mexico.
5	Call for appearances.
6	MR. KELLAHIN: Mr. Examiner, Tom Kellahin
7	of the Santa Fe law firm of Kellahin and Kellahin. I'm
8	appearing today on behalf of the Applicant, and I have
9	two witnesses to be sworn.
10	EXAMINER BROOKS: Okay. Would you please
11	have your witnesses stand and identify themselves for
12	the record and be sworn.
13	MR. CORCORAN: Rich Corcoran.
14	MR. PERTUSO: Dryonis, D-R-Y-O-N-I-S,
15	Pertuso, P-E-R-T-U-S-O.
16	(Witnesses sworn.)
17	EXAMINER BROOKS: You may proceed,
18	Mr. Kellahin.
19	MR. KELLAHIN: Thank you, Mr. Examiner.
20	This case before you this morning is based
21	upon an objection by a Madalyn Joy Johnson. She's a
22	royalty interest owner within the spacing unit. Conoco
23	filed an administrative application for downhole
24	commingling for a wellbore that was going to be a
25	tri-mingle in the Mancos, the Basin Dakota and the

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1	Gallup. And after sending out some 280 notices,
2	Mrs. Johnson filed an objection.
3	As a result of that objection, Mr. Corcoran
4	has been in contact with her and her attorney. At this
5	point, we have not been able to persuade her to withdraw
6	her objection, so with your permission, we'll go forward
7	and present to you our technical case. We're asking the
8	Division to go ahead and deny the objection and to
9	approve the application.
10	EXAMINER BROOKS: Very good.
11	RICHARD CORCORAN,
12	after having been previously sworn under oath, was
13	questioned and testified as follows:
14	DIRECT EXAMINATION
15	BY MR. KELLAHIN:
16	Q. Mr. Corcoran, for the record, please state your
17	name and occupation.
18	A. My name is Richard Corcoran, and I am a landman
19	with ConocoPhillips.
20	Q. And where do you reside, sir?
21	A. I reside in Farmington, New Mexico.
22	Q. On prior occasions, have you testified and
23	qualified an as expert petroleum landman for your
24	company?
25	A. I have.

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Page 5 Ο. And on behalf of your company, have you 1 previously testified before the Division as a petroleum 2 3 landman? 4 Α. Yes, I have. 5 Ο. And has it been your responsibility to contact 6 the interest owners that would share in production in 7 this spacing unit for this infill well? 8 Α. That is correct. 9 Q. As part of that effort, was one of the individuals that you contacted Mrs. Johnson? 10 Α. 11 Yes. And was it your responsibility to try to 12 Ο. discuss with her your plans and how you propose to 13 14 proceed with those plans? 15 Α. Correct, and try to answer any questions. 16 MR. KELLAHIN: We tender Mr. Corcoran as an 17 expert petroleum landman. 18 EXAMINER BROOKS: So accepted. 19 Ο. (BY MR. KELLAHIN) Mr. Corcoran, would you turn 20 to the exhibit book and pass the cover sheet, and open this up and find tab one? 21 Α. I'm there. 22 Did you organize this exhibit book? 23 Ο. I did. 24 Α. 25 Can we use the first document after tab one, Q.

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1	which is marked Exhibit 1A, to help explain to the
2	Examiner the details about where this well is located?
3	A. Okay. This well is located in the San Juan
4	Basin, 29-5 Unit, which is approximately six miles west
5	of the Jicarilla Reservation and ten miles south of the
6	Colorado-New Mexico state line. It encompasses the
7	acreage identified in green.
8	Q. If you'll take a moment, let's look at the
9	hashed area in red. What does that show us?
10	A. That is the spacing unit for the proposed well.
11	Q. This is a new drill?
12	A. Yes, it is.
13	Q. And the plan for this well is to access
14	production in what three formations?
15	A. In the Mesaverde, Mancos and Dakota.
16	Q. In looking at the maps, is there a Dakota
17	participating area within this unit?
18	A. There is. If you'll turn to page
19	Q. Don't turn yet. Okay?
20	A. Yes, there is.
21	Q. Is there also one for Mesaverde?
22	A. There is.
23	Q. And those two and the spacing unit is
24	located entirely within this federal unit?
25	A. Yes, that is correct.

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1	Page 7
1	Q. And the federal unit is identified as what, the
2	San Juan what?
3	A. 29-5 Unit.
4	Q. So when we look at Mrs. Johnson's interest
5	within the drill tract, how are you able to apportion
6	what her share is for each of the three spacing units?
7	A. By virtue of her interest in the particular
8	participating area. Each zone is or the Mesaverde
9	and the Dakota are dedicated to separate participating
10	areas within that unit.
11	Q. Within each unit, then, she would have a
12	different fractional interest?
13	A. That is correct.
14	Q. Does she have any interest in this wellbore, in
15	this spacing unit in the Mancos?
16	A. She has no interest in the Mancos.
17	Q. Is there a Mancos participating area?
18	A. There is no Mancos representing the first
19	Mancos well in this unit.
20	Q. This would be a new drill?
21	A. That is correct.
22	Q. When we look at Exhibit 1A, then, the green
23	outline represents what, Mr. Corcoran?
24	A. The unit boundary.
25	Q. And have you color-coded the Mesaverde and the
	z. Inte have jou concer che nebaverat and the
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Page 8 Dakota wells within the -- that area? 1 I have, as depicted on the plat in the corner. 2 Α. 3 Ο. And Exhibit 1A is a depiction of the entire information available for all these spacing units and 4 5 pools? 6 Α. That's correct. 7 0. When we turn to B1, what are we looking at 8 here? 9 Α. We're looking at the participating area for the 10 Mesaverde Formation in that unit, in the San Juan 29-5 Unit. 11 And when we turn to 1C, what are we looking at 12 Q. 13 in this exhibit? The yellow in this particular exhibit indicates 14 Α. the Dakota participating area within the San Juan 29-5 15 Unit. 16 If you'll turn past Exhibit Tab 1, let's start 17 Q. Exhibit Tab 2. What have you placed in the exhibit book 18 behind Exhibit Number Tab 2? 19 20 Α. This is a copy of our application to the -- for administrative approval of the proposed well -- the 21 downhole commingle at the proposed well. 22 23 Q. You are familiar with the procedures developed 24 by the Division for administrative approval of a well to be downhole commingled? 25

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		Page 9
1	Α.	I am.
2	Q.	Prior to filing the actual application with the
3	district	office, is there a method available by which
4	you send	notice to the parties that are affected by your
5	applicat	ion?
6	Α.	There is, and barring any objection.
7	Q.	And when did that notice take place for this
8	case?	
9	Α.	That one went out October of 2011.
10	Q.	And the file will reflect that in a minute?
11	Α.	Correct.
12	Q.	How many individuals or companies were sent
13	notice of	f your application?
14	Α.	Approximately 280.
15	Q.	And how did you prepare that list?
16	Α.	By by all the participants in both the
17	participa	ating areas affected and any other acreage
18	surround	ing the proposed well.
19	Q.	Did you receive an objection from any other
20	interest	owner besides Mrs. Johnson?
21	Α.	We received one verbal objection, and after
22	talking t	to that party, they were satisfied.
23	Q.	So hers was the only objection filed?
24	Α.	That's correct.
25	Q.	And as a result of filing that application,

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Page 10 then, you initiated putting this case on the hearing 1 docket for today? 2 Α. Yes. 3 Q. When we turn through the tab two documents, 4 5 let's turn past the administrative application. 2B represents what, Mr. Corcoran? 6 7 Α. That's a Form C-107A which sets out the various questions the Commission wants answered in order to 8 9 administratively consider our application. Was this sheet also provided Mrs. Johnson when 10 Ο. you sent the notice letter of October 5th? 11 12 Α. Yes. All parties were provided this letter --13 or this form. 14 Q. If you'll turn, then, to what is marked as 2D, it's a locator map, as I see it. Do you find that? 15 This is C-102. It's a form that depicts 16 Α. Yes. where the proposed well was located, and it's submitted 17 along with our application for administrative approval 18 of downhole commingling. 19 20 Q. Passed Exhibit 2B is E, F and G, and those are 21 engineering plots of historical data for filing the administrative application? 22 That is correct. 23 Α. Turn now with me to what is marked as 2H. 24 Q. 25 Α. Yes.

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Page 11 1 What does this represent? Ο. Α. This is a letter to the individuals, to all the 2 3 280 people, that would be impacted by what we're doing and explain --4 5 Ο. And when you talk about a notice letter, this is the notice letter that you had sent? 6 7 Α. Exactly. Let's turn now to what is marked as tab three 8 Q. 9 of the exhibit book. And when we look behind tab three, what does this document represent? 10 11 Α. This is a certification mailing to this party 12 that we're seeking this order. 13 Ο. And when you turn to the second page of that, 14 there is a letter dated April 11th? Α. 11th. Correct. 15 16 And what does this represent? Q. 17 This is the notice that we actually sent to the Α. party that was objecting. 18 This is the Notice of Hearing? 19 Ο. 20 Α. Correct. 21 Ο. Did this letter notify Mrs. Johnson of the time and place and the hour for the hearing this morning? 22 23 Α. It did. Did it also tell her and advise her how to 24 Ο. contact the Division? 25

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Page 12 1 Α. It did. Does it describe to her the type of prehearing 2 Q. statement she needed to file? 3 Specifically. Α. 4 Ο. Did the notice letter also include a copy of 5 the actual application filed with the Division? 6 Α. It did. 7 Do the subsequent attachments to the 8 Q. 9 certification show that Mrs. Johnson actually received this letter? 10 Α. She did receive it and signed for it. 11 Ο. There was an additional party that was sent 12 13 notice of this hearing. There is a attorney located in Albuquerque. Do you know that individual? 14 I do. I've had numerous -- a number of Α. 15 conversations with him. 16 And to your knowledge, who is that individual? 17 Q. That is Clyde Worthen. 18 Α. And what was his relationship with 19 Ο. Mrs. Johnson? 20 21 Α. He is her attorney, representing her in answering questions for her in this matter. 22 Did you talk, e-mail and write to Mr. Worthen? 23 Q. No less than ten times. 24 Α. 25 Q. As a result of those conversations, what did he

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Page 13 tell you? 1 2 Α. He told me that he had agreed -- basically, he agreed what we were doing, and he would make a 3 recommendation to his client. 4 Did he subsequently withdraw from contacts with 5 Q. you on her behalf? 6 He did. He asked that I contact her directly. 7 Α. 8 Ο. Did you attempt to do so? Ten times. 9 Α. 10 When we turn to tab four, would you identify Q. 11 for the Examiner what you have summarized behind tab four as this exhibit page? 12 13 Α. This is simply where this party's, Mrs. Johnson, interest stems from in this particular 14 unit. And it cites two leases. It cites the number of 15 16 acreages contained in each participating area, and it cites her resulting interest in each of those 17 18 participating areas. And as you can see, there is a 19 point and four zeros before her number comes up. 20 EXAMINER BROOKS: So none of her interest 21 is within this drill bore? 22 THE WITNESS: No, sir. (BY MR. KELLAHIN) So this would be an infill 23 Ο. well for, basically, the Dakota? 24 25 Both the Mesaverde and Dakota would be Α. Yes.

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Page 14 considered infill wells. Consequently, her interest is 1 2 not changed. And she derives an interest just because she 3 Ο. participates in the participating area? 4 5 Α. That's correct. And the participating area is currently the 6 0. cover for this drill bore? 7 8 Α. That is correct. 9 Ο. And when we look at the percentage interest you 10 displayed in her interest --11 Α. Yes. 12 Ο. -- to reduce this to a percentage, you have to 13 move the point to two positions to the right? 14 Α. Which is -- in this case, for the Mesaverde, it's .007236 percent. 15 16 Q. And for the Dakota? It would be .021552 percent. 17 Α. 18 **Q**. Have you had your engineer estimate for you, using some standard engineering assumptions in 19 20 calculating her share of production in this well, what 21 the dollar amount would be on a monthly basis for her 22 interest? 23 Α. We did. I did. I asked them to prepare that, and it resulted in approximately \$9 a month. 24 25 And this would be additional income? Q.

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	-	Page 15
	1	A. Correct.
	2	Q. When we turn now to Exhibit Tab 5, some of
	3	these documents are then repeated again?
	4	A. Correct.
	5	Q. Do you start with 5A and continue through the
	6	pages?
	7	A. Yes. And that's just to give you a sequence of
	8	communication with this party; the first letter being
	9	dated October 5th, directed to her, accompanied by our
	10	application; her resulting response on October 20th just
	11	saying she objects. No reason, just "I object."
4	12	Q. That's on 5D?
	13	A. 5D.
	14	Q. All right, sir. Then what's occurring?
	15	A. Then after that, the next four pages are my
	16	communications my written communications with
	17	Mr. Worthen, the attorney that was representing her. In
	18	addition to this, there were half a dozen phone calls to
	19	this attorney. And as you can see, the last item is on
	20	the very first page there, asking him that or saying
	21	please feel free to contact her directly, that he's
	22	advised her of what he thought, which he advised me was
	23	to go ahead and withdraw her objection.
	24	Q. In the last few weeks, were you successful and
	25	able to communicate with Mrs. Johnson by e-mail?

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Page 16 1 Α. One time -- or, no, more than once. Twice. 2 And that's the following pages, which is 5I. Are there any phone calls or e-mails from 3 Ο. either her or her attorney for which you did not 4 5 respond? Α. 6 No. 7 ο. Among this group of e-mails and correspondence, is there a summary page that you could direct the 8 Examiner's attention that sets forth the essence of what 9 10 you were trying to communicate to Mrs. Johnson? 11 There is, and that would -- let me get you the Α. 12 right page. Go to 5G. It's an explanation to her 13 attorney of what we're attempting to do and how it might impact her interest. 14 15 Ο. Do the documents contained behind Exhibit Tab 16 Number 5 represent the essence of what you were trying to explain to Mrs. Johnson and her attorney? 17 18 Α. They do. Are you aware of anything else you could do to 19 Ο. 20 satisfy her concerns? 21 Α. Nothing that I -- nothing. 22 Q. At this point, are you asking the Examiner to 23 go ahead and grant your application? 24 Α. I am. 25 Q. When we turn to tab number six, would you

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Page 17 1 summarize for the Examiner what he will see when he turns to the documents behind tab number six? 2 3 Α. This is our actual application to the Commission to set the case for hearing. 4 5 Ο. Finally, then, when we go to tab number seven, there is a chronology that you have prepared. This is 6 7 your preparation, right? This is --Α. 8 9 Q. A document you prepared? That's correct, all my attempts to communicate 10 Α. with Mrs. Johnson and my -- my actual communications 11 12 with her attorney and the number of -- the date and what 13 transpired. 14 Were the documents prepared and submitted Ο. behind Exhibit Tabs 1 through 6 documents that either 15 you prepared directly, or they were prepared under your 16 direction and control? 17 18 Α. They were. 19 MR. KELLAHIN: Mr. Examiner, we move for 20 the introduction of ConocoPhillips' Exhibits 1 through 21 7. 22 EXAMINER BROOKS: 1 through 7 are admitted. 23 MR. KELLAHIN: That concludes my examination of Mr. Corcoran. 24 25 (ConocoPhillips Exhibit Numbers 1 through 7

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Page 18 were offered and admitted into evidence.) 1 2 EXAMINER BROOKS: Okay. Thank you. 3 CROSS-EXAMINATION BY EXAMINER BROOKS: 4 5 Ο. The \$9 a month that you indicated to Mrs. Johnson that she would receive, that's in addition 6 7 to the interest that she's already receiving under the 8 participating areas and other wells; is that correct? 9 Α. That is correct, sir. It should increase by that much. 10 11 Q. Yeah. Based on what price? We use the \$2 figure at that point. 12 Α. 13 Okay. Q. So it's possible it could double. 14 Α. That would be nice. 15 Q. Yeah (laughter). Hopefully. 16 Α. I think that's all of my questions. 17 Q. 18 EXAMINER BROOKS: Mr. Warnell? 19 CROSS-EXAMINATION BY EXAMINER WARNELL: 20 This is a vertical well? Q. 21 22 Yes, it is. Α. Ο. And when I look at one of the exhibits there, 23 24 it almost looks like, you know, the guy that logs this into the database at OCD. There is -- on tab two --25

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Page 19 Α. 1 Yes. 2 Ο. -- underneath the downhole commingle, I'm 3 assuming Mr. Jones has written in "4480"? 4 Α. Say it again. It looks like Mr. Jones has written in there 5 Ο. 6 "4480." So this almost looks like this got approved administratively. 7 Α. Almost. 8 9 MR. KELLAHIN: I think so. 10 Q. (BY EXAMINER WARNELL) So we logged this into the system on October 13th. When did we first know of 11 12 the objection? Did we know of the objection on that date, when we --13 14 Α. You would have known -- let me refer you to her response to us. You would have been notified at the 15 same time, and that would have been on tab 5D, which 16 would have been October 20th, that she wrote this 17 We probably received it a couple of days later. 18 letter. Q. 19 Okay. No further questions. EXAMINER BROOKS: Well, I do have another 20 21 question, but maybe this is for your second witness. RECROSS EXAMINATION 22 23 BY EXAMINER BROOKS: 24 How are you going to allocate -- what is the Ο. 25 method of allocation of this interest to the Mancos --

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Page 20 portion to the Mancos? How do you determine that? 1 Well, the Mancos, because this is the first 2 Α. 3 spacing unit -- I'll attempt to answer, and you can follow up, if you will. 4 5 Q. Okay. Because it's the first attempt at the Mancos in 6 Α. this unit --7 8 Q. Right. That's what you indicated. 9 Α. Yes. 10 -- it will be based on a 320-acre casing unit --11 Right. 12 Q. 13 Α. -- identified on the first plat, covering the west half of Section 26 of this particular township and 14 15 And what will happen is, the owners of the range. Mancos only in that 320 acres will share in production 16 17 from the Mancos zone, and she -- and this party has no 18 interest in the Mancos in that formation -- or in that 19 section. 20 Q. Right. Well, how are you going to determine 21 what portion of production on the well to the Mancos? 22 Α. I'm going to defer that question. 23 Q. I assumed you might. 24 Thank you. That's all I have. 25 Α. Thank you.

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1	Page 21 DRYONIS PERTUSO,
2	after having been previously sworn under oath, was
3	questioned and testified as follows:
4	DIRECT EXAMINATION
5	BY MR. KELLAHIN:
6	Q. Would you please state your name and
7	occupation?
8	A. Sure. Dryonis Pertuso. I'm a reservoir
9	engineer.
10	Q. You have to speak slowly for us.
11	Mr. Pertoso, right?
12.	A. Yeah. P-E-R-T-U-S-O. Reservoir engineer,
13	ConocoPhillips.
14	Q. Mr. Pertuso, on prior occasions, have you
15	testified as a reservoir engineer before the Division?
16	A. Yes, I have.
17	Q. And have your qualifications been accepted as
18	an expert witness?
19	A. Yes.
20	Q. As part of your preparation for today's
21	hearing, have you reviewed the downhole commingling
22	application that your company has for this proposed
23	well?
24	A. Yes, I have.
25	Q. And you're prepared to answer the questions

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Page 22 that I have and the Examiner has about allocations and 1 methods of allocation? 2 · 3 Α. Yes. Are the exhibits that we're about to see 4 Ο. 5 exhibits that you prepared? 6 Α. Yes. MR. KELLAHIN: We tender Mr. Pertuso as an . 7 expert petroleum reservoir engineer. 8 9 EXAMINER BROOKS: So accepted. Ì0 Ο. (BY MR. KELLAHIN) To answer Mr. Brooks' question, what is the method of allocation that you will 11 12 utilize for apportioning the production from the three zones for this wellbore? 13 14 Α. We're going to use the spinner method. Say it again? 15 Q. Α. The spinner. 16 And has the spinner method been used and 17 Q. approved by the Division before? 18 Α. Yes. 19 Let's turn to the exhibits that you have 20 Ο. 21 available. If you turn behind Exhibit Tab Number 8, there are two pages to this exhibit. What are we about 22 23 to see on these pages? These are allocation forms that we have 24 Α. submitted recently on new drills for tri-mingle wells 25

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1 using the spinner method.

Q. Let's turn, then, to the presentation that shows the Division and the Examiner how you went through the various steps for the allocations and qualifying the procedures and the criteria for downhole commingling approval.

First of all, let's just start with the cover sheet. You're looking at tab number nine, and you're starting with tab 9A. That's just the cover sheet, right?

11 A. Yeah.

12 Q. We're going to try to tie all these things back13 to the Division, the Form C-107A?

14 A. Yeah.

And in doing so, can you summarize for the 15 Ο. Examiner, on the next display, the various components of 16 your analysis to satisfy the commingling requirements? 17 18 Α. Yes. Through these exhibits, we're going to go 19 over surrounding wells, similar wells we have in the 20 area where we have tri-mingled recently that have been 21 approved by the Division.

I'm going to show the water rates we're observing in these wells. I'm also going to show some precedent, some of the tri-mingle activity, we have had in the recent past and some similar approvals that have

Page 24 been done. I'm also going to talk about Mancos 1 production and how marginal it is, and if we don't 2 tri-mingle, probably this reserve won't be recovered 3 under the current gas prices. Then I'm going to touch 4 5 on the proposed allocation method. And that's pretty much what we'll be 6 7 touching on. 8 Ο. Right. So if you'll turn now to 9C, let's locate the Examiner as to how to find this wellbore. 9 10 Α. This map, if you see -- if you go to unit -- to 11 29-5, the red star, that's the location of this well. This is going to be the new drill, the 77M? 12 Q. 13 Α. Yes. 14 All right, sir. 0. 15 The green stars represent existing wells, which Α. are tri-mingled in the Mesaverde and Mancos. 16 17 Ο. In those existing tri-mingles, have they all 18 been approved by the Division? 19 Α. They have. 20 Q. Have they exhibited any kind of performance problems? 21 22 Α. No. 23 Are there any kind of fluid incapability issues Q. that have arisen with the other six tri-mingles? 24 25 Α. No.

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ł	1	Page 25 Q. Are you aware of any water problems with any of
	2	those?
	3	A. No.
	4	Q. Are there any components of the commingling
	5	process associated with those six wells that are of
	6	concern to you as a reservoir engineer?
	7	A. No.
	8	Q. Do you see any reason why the proposed new
	9	drill, the subject well, is going to respond any
	10	differently as to any of those issues?
	11	A. No.
	12	Q. Let's turn to the water rates question. If
	13	you'll turn to tab 9D, do you see any problems
	14	associated with water rates?
	15	A. No.
	16	Q. Summarize for us what the Examiner should see
	17	of interest on this tabulation?
	18	A. If you go to the circle the numbered circle
	19	in red, what that shows is the water production absorbed
	20 ′	in the surrounding wells. It's only three barrels for
	21	every million gas produced, cubic feet. It's fairly
	22	low.
	23	Q. The wellbores tabulated, then, how do are
	24	they responding to being associated with the dry gas
	25	production zones?

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A. Yes.

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Q. Let's turn to Exhibit Tab 9E. It's captioned Mancos Reservoir Pressures." What are you focusing on here?

A. The point I want to convey here is that
pressure in the Mancos is very close to normal pressure,
hydrostatic. Sometimes even lower than that.

Q. When you're looking at pressure differentials in the Mancos, what kinds of reservoir pressures are you worried about in association with tri-mingling with these other two zones, so you have a tri-mingling wellbore?

A. The Mancos pressure is very close to the Dakota, is what we have observed, measured in the Mancos wells. We don't see any issues as far as reservoir pressure is concerned by commingling the Mancos with the Mesaverde and Dakota in this area.

18 Q. If you have an excessively overpressured zone, 19 what will that do, or how will that affect the other 20 zones being commingled?

A. That could, under long-showing pressures -volume pressure of the other formations and therefore jeopardize production from the other zones.

Q. And that's the kind of thing you look for?A. Yes.

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1	
2	A. No.
3	Q. If you'll turn to tab 9F, before we start
4	looking at the point of the display, what have you
5	tabulated?
6	A. Here what I listed are a series of applications
7	we have submitted. Those highlighted in green have been
8	already approved by the Division. And we have eight
9	more pending, and we haven't got any rejections.
10	Q. Now, these would be tri-mingles in the zones
11	that we're talking about tri-mingling for this wellbore?
12	A. Yes.
13	Q. Have you also looked to see what other
14	operators are doing for tri-mingles in the San Juan
15	Basin?
16	A. Yes. That chart, in the lower part of the
17	exhibit, shows the activity that various operators in
18	the basin have had over the past six years in
19	tri-mingling Mesaverde, Dakota and Mancos.
20	Q. And what's the total that you tabulate?
21	A. 144.
22	Q. Are you aware of any of those having any kind
23	of problems associated with those wellbores?
24	A. No.
25	Q. If you'll turn to if you'll turn to the next

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Page 28 display; it's not numbered, but it will appear in the 1 2 exhibit book after 9F. What are we seeing at this point in the display book, Mr. Pertuso? 3 Α. That's a similar application. 4 Williams 5 Production Company, LLC filed an application to 6 commingle all formations in the Rosa Unit, which was 7 approved by the Division. So Williams, for their Rosa Unit, has the 8 Ο. 9 approval you're seeking for the single wellbore? Α. 10 Yes. 11 And their approval is available for their Ο. 12 entire unit? 13 Α. Yes. 14 Ο. Turn with me now to what is marked as tab 9G. 15 What are you trying to convey to the Examiner at this point? 16 The point I'm wanting to convey here is how 17 Α. marginal the production from the Mancos is in this area. 18 And how does this show that? Ο. 19 20 Α. In that plug, what we're showing is individual 21 gas rates for all the wells in this area where we have 22 recently completed the Mancos. And the main point to 23 convey is that if we don't tri-mingle the Mancos with 24 the Mesaverde and Dakota, it won't be economic to 25 produce, and, therefore, that resource can be stranded.

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1	Q. So it would be uneconomic?
2	A. Yes.
3	Q. And have you summarized for the Examiner on
4	page 9H the advantages to the tri-mingle?
5	A. Yes.
6	Q. And what are those?
7	A. By tri-mingling these three zones, we are
8	splitting the drilling costs among three formations.
9	We're increasing the amount of reserves to be recovered
10	from each formation by delaying the abandonment rate, as
11	operating costs will be split among the three
12	formations. And, of course, it allows the development
13	of the Mancos, which otherwise wouldn't be done.
14	Q. All right, sir. Now, if you'll go to 9I, let's
15	go back to Examiner Brooks' question about allocation.
16	Is this your allocation procedure and methodology?
17	A. Yes.
18	Q. You've displayed it in a cartoon fashion?
19	A. Yes.
20	Q. Walk us through how this is done.
21	A. As I said earlier, our recommended allocation
22	effort for this well is using the spinner method. What
23	we're going to do is run a spinner, and record the
24	production from each of the formations in the wellbore.
25	And then using the appropriate math, we're going to

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Page 30 calculate the allocation split for each one of those. 1 As a result of the allocation, then, what is 2 Ο. 3 your final percentage associated with each of the three? If you turn to the left side of the exhibit, I 4 Α. 5 put an example. Let's assume we run the spinner, and we measure that the Mesaverde is making 100 Mcfd a day. 6 7 The Mancos is making 50 Mcfd. The Dakota rate is making 8 Basically, a total well production will be the 80. summation of all those individual rates, and the gas 9 allocation from each formation will be the result of 10 11 dividing the individual formation by the total well 12 production. 13 For the Mesaverde, let's say we recorded 14 100 Mcfd a day, divided by 230, which is the total well 15 production. Then the Mesaverde will get an allocation 16 of 43 percent. 17 At what point in the process do you run the Ο. spinner allocation method? 18 19 After the completion is done. Α. 20 Q. And have you commenced production? 21 Α. We do the allocation before commencing 22 production. And when we reduce this to a tabulation of a 23 Ο. 24 form, can you show us 9J and explain to us what this 25 page shows?

Page 31 The 9J, again, is an allocation form. 1 Α. It is the information that we submit to the Division after 2 3 running the spinner. If you turn to the information highlighted in red, we submitted to the Division 4 5 individual rates recorded for each formation and then 6 the percentages calculation that we do use in the method 7 that I just explained in my previous exhibit. 8 Now, would you turn with me to the last Ο. 9 display, which is 9K and describe for the Examiner how you made the engineering judgment that all three of your 10 11 reservoirs are going to be in the dry gas area? 12 Α. Based on literature and high gas [sic] ratios, 13 this well is located in the dry gas area of the Mancos. 14 In summary, how did you go about doing this? 0. 15 Is that a bubble map over on the left? Α. Well, what the map shows is based on a thermal 16 matergy analysis --17 Phase? 18 Ο. 19 Α. Yes. 20 Q. Okay. I think it's a phase map. 21 Α. On the left or on the right? 22 Q. On the upper left. 23 Α. On the left, yes. It just shows, yeah, a phase 24 diagram on dry gas reservoirs. If you go to point E, these reservoirs are produced under the same 25

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Page 32 temperature, and, as you can see, the reservoir, there 1 are no changes in the composition of the hydrocarbons. 2 3 Ο. And you're outside of the dew point ellipse Therefore, as an engineer, you know you're in the here. 4 5 dry gas? Yes, sir. 6 Α. And you've depicted that on the map, then, 7 Ο. 8 that's shown on the right side? Α. Yes. 9 10 Does that conclude your presentation and Ο. explanation? 11 Α. 12 Yes. 13 MR. KELLAHIN: If the Examiner pleases, we 14 move the introduction of Mr. Pertuso's Exhibits 8 and 9. 15 EXAMINER BROOKS: 8 and 9 will be admitted. (ConocoPhillips Exhibit Numbers 8 and 9 16 were offered and admitted into evidence.) 17 MR. KELLAHIN: That concludes my 18 examination of this witness. 19 20 CROSS-EXAMINATION 21 BY EXAMINER BROOKS: 22 Q. Okay. The spinner, I take it from your diagram here, your drawing here, is that it's a device that is 23 lowered into the hole that is designed to measure the 24 25 actual amount of gas coming out of the formation at a

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1 particular level; is that correct?

2 A. Yes. Yes.

3 Q. Can you kind of explain to a nontechnical 4 person how that works?

5 Α. It's basically on a spinner. Based on the 6 amount of gas that is coming from a given formation, so will be the velocity of the spinner, and that is 7 translated into a rate. As you move down -- if you 8 place -- if you place the -- if you place the spinner on 9 10 top of the Mesaverde, then you are recording the whole production from the well. If you move down, then the 11 spinner will only be measuring the production from the 12 Mancos and the Dakota, and by subtraction, if you know 13 14 what the Mesaverde is making --

Q. That's what I was wondering, was how does it distinguish what's coming out of the formation -- of one formation versus what's coming from below? I can see how it distinguishes, because what's coming from above doesn't move through it.

20 A. (Indicating.)

21 Q. But you just subtract?

22 A. Yes.

Q. So when you get down to the Mancos, you're actually measuring what's coming from the Mancos from the Dakota?

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Page 34 1 Α. Correct. 2 And then you go down and you measure what's Q. coming in out of the Dakota, and you subtract. 3 The subtraction of those two establishes what you believe to 4 5 be coming out of the Mancos. Α. 6 Correct. 7 Ο. Okay. So you won't know what the allocation is 8 until you actually do run these tests, right? 9 Α. Yes, which normally takes a couple of hours. 10 And you haven't drilled the well yet? Q. 11 Α. No. But the estimates, then, that you have -- that 12 Ο. 13 the previous witness gave with regard to Mrs. Johnson's interest, was that based on other wells in the vicinity? 14 15 Α. I don't think I understand your question. 16 We're talking interest or production allocation? 17 Ο. We're talking about number of dollars. 18 Α. That was --I mean, because you've got to know both in 19 0. 20 order to get to dollars. 21 Α. Yes. That was -- that was done using -- yeah, 22 using a volume, an assumed allocation based on offset production, yes. 23 24 And going back to your drawing -- to the map --Ο. 25 wait a minute. Let's see.

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Page 35 EXAMINER BROOKS: We had a map that showed 1 the location of this well in these last set of exhibits; 2 did we not, Mr. Kellahin? 3 4 MR. KELLAHIN: Yes, we did. 5 EXAMINER BROOKS: Where is that? Okay. It's 9C. 6 7 Ο. (BY EXAMINER BROOKS) Where is there any Mancos 8 production in this facility, or is it off the site of this map? Because this is all the unit, right? 9 10 Α. The Mancos production is on the green Yes. 11 stars. Those are Mancos wells, tri-mingles. The green wells, are they producing from the 12 0. 13 Mancos? 14 Α. Yes. 15 They're all different units. MR. KELLAHIN: They're all on different scale. 16 17 EXAMINER BROOKS: Yeah. Okay. Yeah. Ι 18 see. They are different units. 19 THE WITNESS: Uh-huh. 20 EXAMINER BROOKS: Okay. Thank you. Ι 21 believe that's all I have. 22 Mr. Warnell? 23 CROSS-EXAMINATION 24 BY EXAMINER WARNELL: 25 On these tri-mingled wells, how are you Q.

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Page 36 fracking those? Are you fracking starting with the 1 bottom, doing an individual frack and then --2 Α. We start from the bottom and work our way 3 Yes. 4 up. So you frack --5 Ο. Α. The Dakota. 6 7 Q. And then do you do an IPI and come on up, or do you just --8 9 Α. Set a plug, do the Mancos. Set a plug, perforate and do the Mesaverde. 10 11 And then clean the well up? 0. 12 Α. Drill out all the plugs and then flow the well. 13 Ο. Could you clarify for me what it is that Mrs. Johnson is objecting to? 14 Α. I'm going to have to probably defer you to my 15 land --16 17 MR. KELLAHIN: Examiner Warnell, none of us None of us know. 18 know. 19 EXAMINER BROOKS: She's just objecting. 20 MR. KELLAHIN: For your point of 21 information, the exhibits will demonstrate that she was withdrawing her objection but doing so under duress. 22 She would not tell us what that duress was, and we did 23 24 not want it to be associated with anything we had done; 25 so we decided to come here.

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1	EXAMINER BROOKS: Of course, she is not
2	present here to explain that.
3	MR. KELLAHIN: We don't know.
4	EXAMINER BROOKS: Well, proceed as though
5	she's objecting, and we have
6	MR. KELLAHIN: Thank you, Mr. Examiner.
7	EXAMINER BROOKS: Is there anything else?
8	MR. KELLAHIN: No, sir.
9	EXAMINER BROOKS: Case Number 14839 will be
10	taken under advisement.
11	(The hearing concluded, 9:13 a.m.)
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15	d by heraby certify that the foregoing to
16	
17	the Examiner hearing of Case No. 14839, heard by me on $5-24-12$
18	David K. Brock Examiner
19	Oil Conservation Division
20	
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1 STATE OF NEW MEXICO

2 COUNTY OF BERNALILLO

3 CERTIFICATE OF COURT REPORTER 4 5 I, MARY C. HANKINS, New Mexico Certified Court Reporter No. 20, and Registered Professional 6 Reporter, do hereby certify that I reported the 7 8 foregoing proceedings in stenographic shorthand and that the foregoing pages are a true and correct transcript of 9 10 those proceedings that were reduced to printed form by me to the best of my ability. 11 12 I FURTHER CERTIFY that the Reporter's 13 Record of the proceedings truly and accurately reflects the exhibits, if any, offered by the respective parties. 14 15 I FURTHER CERTIFY that I am neither 16 employed by nor related to any of the parties or attorneys in this case and that I have no interest in 17 18 the final disposition of this case. 19 Nary C. Hankin 20 HANKINS, CCR, RPR 21 Paul Baca Professional Court Reporters New Mexico CCR No. 20 22 Date of CCR Expiration: 12/31/2012 23 24 25