Page 1 1 STATE OF NEW MEXICO ENERGY, MINERALS, AND NATURAL RESOURCES DEPARTMENT OIL CONSERVATION DIVISION 2 3 IN THE MATTER OF THE HEARING CALLED ORIGINAL BY THE OIL CONSERVATION DIVISION FOR 4 THE PURPOSE OF CONSIDERING: CASES 15435 5 APPLICATION OF DUGAN PRODUCTION COMANY FOR APPROVAL OF THE SUNFLOWER FRUITLAND 6 PICTURED CLIFFS, SAN JUAN COUNTY, 7 NEW MEXICO. 8 9 REPORTER'S TRANSCRIPT OF PROCEEDINGS EXAMINER HEARING 10 January 21, 2016 11 Santa Fe, New Mexico 12 13 14 MICHAEL MCMILLAN, CHIEF EXAMINER BEFORE: SCOTT DAWSON, EXAMINER 15 DAVID BROOKS, LEGAL COUNSEL υ 16 This matter came on for hearing before the 17 New Mexico Oil Conservation Division, MICHAEL MCMILLAN, 18 Chief Examiner, SCOTT DAWSON, Examiner, and DAVID BROOKS, Legal Counsel, on January 21, 2016, at the New Mexico Energy, Minerals, and Natural Resources 19 Department, Wendell Chino Building, 1220 South St. Francis Drive, Porter Hall, Room 102, Santa Fe, New 20 Mexico. 21 22 REPORTED BY: ELLEN H. ALLANIC NEW MEXICO CCR 100 CALIFORNIA CSR 8670 23 PAUL BACA COURT REPORTERS 24 500 Fourth Street, NW Suite 105 25 Albuquerque, New Mexico 87102

Page 2 1 APPEARANCES 2 For Applicant Dugan Production Company 3 Michael H. Feldewert, Esq. Holland & Hart 4 110 North Guadalupe Suite 1 5 Santa Fe, New Mexico 87501 6 (505)988-4421mfeldewert@hollandhart.com 7 8 9 10 INDEX 11 12 CASE NUMBER 15435 CALLED 13 DUGAN PRODUCTION COMPANY CASE-IN-CHIEF: 14 WITNESS KURT H. FAGRELIUS 15 Direct Redirect Further By Mr. Feldewert 16 5 17 EXAMINATION By Examiner McMillan 13 By Examiner Dawson 15 18 19 20 21 22 23 24 PAGE Reporter's Certificate 17 25

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Page 4 1 (Time noted 11:05 a.m.) 2 EXAMINER McMILLAN: I would like to call the hearing back to order. I would like to call case 15435, 3 Application of Dugan Production Company for Approval of 4 5 the Sunflower Fruitland Pictured Cliffs, San Juan 6 County, New Mexico. 7 Call for appearances. 8 MR. FELDEWERT: May it please the Examiner, 9 Michael Feldewert with the Santa Fe Office of Holland 10 and Hart appearing on behalf of the Applicant. I have one witness here today. 11 12 EXAMINER McMILLAN: Any other appearances? 13 THE WITNESS: I'm Kurt Fagrelius with Dugan Production. 14 15 EXAMINER McMILLAN: May you please be sworn 16 in. 17 (WHEREUPON, the presenting witness 18 was administered the oath.) 19 EXAMINER McMILLAN: Go ahead. 20 KURT FAGRELIUS 21 having been first duly sworn, 22 was examined and testified 23 as follows: 24 ---000---25 ---000---

	Page 5
1	DIRECT EXAMINATION
2	BY MR. FELDEWERT:
3	Q. Please state your full name, identify by whom
4	you're employed and in what capacity.
5	A. My name is Kurt Fagrelius. I'm employed by Dugan
6	Production in Farmington. And I am the vice president
7	of land and exploration.
8	Q. How long have you held that title for Dugan?
9	A. I have held that title for ten years, and I've
10	worked at Dugan for 38 years.
11	Q. And do you have a master's degree?
12	A. I have a master's of science in geology from the
13	New Mexico Institute of Mining and Technology and a
14	bachelor of science in geology from Fort Lewis College
15	in Durango, Colorado.
16	Q. And, Mr. Fagrelius, have you previously
17	testified before this Division as an expert in petroleum
18	geology?
19	A. Yes, I have.
20	Q. And were your credentials accepted and made a
21	matter of public record?
22	A. Yes, they were.
23	Q. Are you familiar with this application?
24	A. Yes, I am.
25	Q. Did you assist in putting this unit prospect

1 together?

2 A. Yes, I did.

3 Q. And in so doing have you conducted a geologic 4 study of the area in question?

Page 6

5 A. Yes, I did.

6 MR. FELDEWERT: I would tender Mr. Fagrelius 7 once again as an expert witness in petroleum geology. EXAMINER McMILLAN: 8 So accepted. 9 0. Please turn to what has been marked as Dugan Exhibit Number 1. Mr. Fagrelius, is this the unit 10 agreement that would govern your proposed unitized area 11 and formation? 12

13 A. Yes, it is.

14 Q. And what formation is being unitized?

A. We are asking to unitize the Fruitland Formation from the top of the Fruitland Formation to the base of Pictured Cliffs sandstone.

Q. If I turn to -- first off, before we leave this exhibit, does it conform with the federal and state exploratory unit form?

21 A. Yes, it does.

Q. If I turn to what has been marked as Dugan Exhibit 2, is this the Exhibit A to the unit agreement that provides the outline of the unit area and identifies leases that are involved?

Page 7 Yes, it is. 1 Α. 2 And how have you differentiated leases on here? Ο. This red boundary is the outer boundary of our 3 Α. 4 proposed Sunflower unit. Within it it contains multiple 5 federal and state leases. Each lease is designated by a circled No. 1, 2, 6 7 3, up to seven different leases that are all presented There's 6,976 acres of which 8-1/28 on our Exhibit B. 9 percent is state and 91 percent is federal. 10 Ο. And for the convenience of the Examiners, is that listed in the bottom right-hand corner of Exhibit 8, 11 12 those percentages? Yes, it is. 13 Α. 14And the acreage? Q. Yes, sir. 15 Α. And you identify on here two state leases that 16 Q. 17 are identified with a gray shading? Section 2 is shaded in gray, and those are two 18 Α. 19 state leases. 20 And the remaining leases are federal? Q. 21 A. Correct. And does this unit area encompass the entirety of 22 0. 23 each lease; in other words, there's no portions of 24 leases within the unitized area? 25 That's correct, no leases within the unitized Α.

Page 8 area extend outside of the unitized area. 1 And if I turn to what's been marked as Dugan 2 0. Exhibit 3, that would be the standard Exhibit B to the 3 4 unit agreement showing the percentage of ownership? 5 Α. That's correct. And then if I turn to what's been marked as Dugan 6 Ο. Exhibit Number 4, is this the type log referenced in the 7 unit agreement that identifies, by reference, to a type 8 9 log for a specific well unitized interval? 10 Α. Yes, it is. If I go to Exhibit 5, is this 11 Now, moving on. Ο. the preliminary approval letter for the New Mexico State 12 Land Office for this particular unit? 13 14 Α. Yes, it is. And did you likewise meet with the BLM about this 15 Ο. 16 unit? 17 Α. Yes, we did. And if I turn to what's been marked as Dugan 18 0. 19 Exhibit Number 6, is that the BLM preliminary approval 20 letter? 21 Yes, it is. Α. Moving on then to Exhibit 7, does this reflect 22 Ο. 23 your initial development plan for this particular 24 unit? 25 It does. I've got seven wells proposed. We have Α.

Page 9 the first initial test well and then six others, one of 1 2 which will be a saltwater disposal well. We've surveyed these locations, got the plats back. Notices of staking 3 4 have been sent out. And we will do our on-site inspections on the 27th of this month. 5 Are there some tribal trust lands involved here? 6 Ο. 7 Α. The surface is tribal trust surface, except for 400 acres that is deeded fee land. 8 9 So as part of your ongoing development process, Q. 10 you will be dealing with the tribes with respect to the necessary easements; is that correct? 11 12 That's correct. We have met twice with Navajo Α. 13 Minerals and also the Navajo Land Department. We are 14 working on a surface use agreement. 15 Ο. Okay. If I then move on to Exhibit Number 8, 16 have you created a structure map extending across the 17 unitized area? 18 Α. Yes. And is that depicted on Exhibit Number 8? 19 Q. 20 Yes, it is. This structure map is drawn on the Α. 21 top of the Pictured Cliffs sandstone. And you can see the regional dip is about 100 feet per mile to the north 22 23 There's no breaks in the structure to indicate down. 24 faulting or discontinuities with the Pictured Cliffs. 25 So you don't observe any geologic impediments to Q.

Page 10 developing this acreage with a unit? 1 2 None whatsoever. It also depicts a stratigraphic Α. 3 cross section from west to east. And that demonstrates that the formation is contiguous across the Sunflower 4 Unit. 5 For purposes of the record, you are looking at 6 0. 7 Exhibit 8 and there is a blue line; that's what you're 8 referencing? 9 Α. Yes, sir. A to A Prime? 10 Ο. 11 Α. Yes, sir. Then turn to Exhibit No. 9. Is this the cross 12 Q. section that corresponds to that blue line 13 A to A Prime? 14 Yes, it does. 15 Α. 16 Ο. And what do you observe -- first off, tell us where you identify the various formations and then 17 what you observe looking at this cross section? 18 Okay. On the far right at A Prime is our type 19 Α. log that is also the exhibit we looked at earlier that 20 showed the vertical limits of our proposed unit. 21 22 We propose to unitize from the top of the 23 Fruitland Formation to the base of the Pictured Cliffs 24 sandstone. Both units are contiguous across the unit. And we like to unitize both units or intervals because 25

Page 11 1 we are able to commingle them in the same wellbore. 2 And that leads to my next question, that is, do Q. 3 you intend to develop this unit with vertical wells or horizontal wells? 4 They'll all be vertical. 5 Α. 6 Ο. And why is that? The shallowness of our wells here -- on the west 7 Α. 8 end of the unit, the Pictured Cliffs comes within 450 feet of the surface. And on the north and east end, 9 10 it's about 1,100 feet below the surface. 11 It's much too shallow with today's technology to build a curve and go horizontal. Plus these wells 12 13 commonly produce large volumes of water with the gas and we don't have a way to pump it. 14 So a vertical well with a rod pump is the best 15 way to complete these. 16 17 Mr. Fagrelius, has Dugan, in your opinion, kind 0. 18 of developed a niche in this particular type of 19 development? 20 Α. Yes, we have. First and foremost is our people. 21 But we are developing shallow coals at this depth, six 22 miles to the east, and we have had success. 23 And, in your opinion, can this unitized interval Q. across the proposed unitized area be efficiently and 24 effectively developed under your common plan of 25

1 development?

7

2 A. Yes, it can.

Q. And, in your opinion, will the approval of this application be in the best interest of conservation and the prevention of waste and the protection of correlative rights?

A. Yes, it will.

Q. Were Dugan Exhibits 1 through 9 prepared by you9 or compiled under your direction and supervision?

10 A. Yes, they were.

Q. And before I move them into evidence, I need to ask one thing. I think in reviewing the leases you didn't talk about ownership. Does Dugan own 100 percent of all of the leases?

A. Dugan production owns 100 percent of all of theleases. There are no overriding royalties.

We have the state royalty and the federal royalty of course. But we are 100 percent working interest owners.

20 MR. FELDEWERT: I move the admission into 21 evidence of Dugan Exhibits 1 through 9.

22 EXAMINER McMILLAN: Exhibits 1 through 9 may 23 now be accepted as part of the record.

(Dugan Production Company Exhibits 1 through9 were offered and admitted.)

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Page 13 MR. FELDEWERT: And that concludes my 1 examination of this witness. 2 EXAMINATION BY EXAMINER MCMILLAN 3 4 EXAMINER McMILLAN: Okay. The first question I have is Exhibit 7. Are you going to test the 5 Pictured Cliffs in these or are you just going for the 6 7 Fruitland? 8 THE WITNESS: In the event that we have a 9 show in the Pictured Cliffs or at Fruitland Sand, we will complete both. 10 11 EXAMINER McMILLAN: So you are going to test them both? 12 13 THE WITNESS: That's our plan, yes. 14EXAMINER McMILLAN: Okay. 15 THE WITNESS: If the coal looks good, that's 16 our main priority, that's our number one target. 17 EXAMINER McMILLAN: And a geology question. 18 I don't know, I am ignorant of the geology. How did the 19 Pictured Cliffs actually form? What is it? 20 THE WITNESS: It is a sandstone, a near short sandbar that was formed basinward of the swamps 21 that deposited the coals. 22 23 EXAMINER McMILLAN: So it's crudely like the 24 Mancos? 25 THE WITNESS: No. It's a shallow marine

Page 14 environment the Pictured Cliffs was deposited in. 1 2 EXAMINER McMILLAN: Okay. 3 THE WITNESS: Okay. 4 EXAMINER McMILLAN: Are there any existing 5 wells? 6 THE WITNESS: There's one. It was drilled three, four years ago by Koch Exploration. 7 EXAMINER McMILLAN: And you are now the 8 9 operator of it? Yes, sir. 10 THE WITNESS: EXAMINER McMILLAN: So I assume also you're 11 12 asking for a surface commingle? THE WITNESS: Yes, sir, within the unit. 13 14 •EXAMINER McMILLAN: Okay. I just want to make sure that's clear. 15 MR. FELDEWERT: I think by unitizing it will 16 be allowed to commingle --17 EXAMINER McMILLAN: Yes, it will be one 18 19 lease --MR. FELDEWERT: Correct. 20 21 EXAMINER McMILLAN: So this is -- the surface is on tribal land? 22 23 THE WITNESS: Tribal trust surface. 24 EXAMINER McMILLAN: Tribal trust. And there are seven tracts, right? 25

Page 15 1 THE WITNESS: Correct. 2 MR. FELDEWERT: I think Exhibit 2, Mr. Examiner. 3 4 EXAMINER McMILLAN: Okav. 5 MR. FELDEWERT: It identifies each of the 6 tracts. 7 EXAMINER McMILLAN: Okay. I don't have any 8 further questions. Any questions? 9 EXAMINER DAWSON: Yes, I have a few questions. 10 11 EXAMINATION BY EXAMINER DAWSON 12 EXAMINER DAWSON: The existing well within 13 the unit, you said it was operative. Was it drilled by 14 Koch Exploration? 15 THE WITNESS: Yes, sir. 16 EXAMINER DAWSON: And is that operated by 17 Koch or --THE WITNESS: No, sir. Dugan Production 18 19 operates that well as well. EXAMINER DAWSON: What formation is that 20 21 producing from? 22 THE WITNESS: It's in the Fruitland coal. 23 EXAMINER DAWSON: Fruitland coal, okay. 24 THE WITNESS: They shot a little out of zone 25 on one of the coals. That's why I hesitated.

		Page 16
1		EXAMINER DAWSON: Okay. I have no further
2	questions.	Thank you.
3		MR. BROOKS: No questions.
4		EXAMINER McMILLAN: Case No. 15435 shall be
5	taken under	advisement. Thank you very much.
6		MR. FELDEWERT: Thank you.
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10		(Time noted 11:18 a.m.)
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15		t consider record of the proceedings in
16		the Examiner bearing of Case No.
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1	STATE OF NEW MEXICO )
2	) ss.
3	COUNTY OF BERNALILLO )
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7	REPORTER'S CERTIFICATE
8	
9	I, ELLEN H. ALLANIC, New Mexico Reporter CCR No. 100, DO HEREBY CERTIFY that on Thursday, January 21, 2016, the proceedings in the above-captioned matter were
10	taken before me, that I did report in stenographic shorthand the proceedings set forth herein, and the
11	foregoing pages are a true and correct transcription to the best of my ability and control.
12	
13	I EURTHER CERTER that I am noither employed by
14	I FURTHER CERTIFY that I am neither employed by nor related to nor contracted with (unless excepted by the rules) any of the parties or attorneys in this case,
15	and that I have no interest whatsoever in the final disposition of this case in any court.
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20	ELLEN H. ALLANIC, CSR
21	NM Certified Court Reporter No. 100 License Expires: 12/31/16
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