Page 1 1 STATE OF NEW MEXICO ENERGY, MINERALS, AND NATURAL RESOURCES DEPARTMENT 2 OIL CONSERVATION DIVISION 3 IN THE MATTER OF THE HEARING CALLED ORIGINAL BY THE OIL CONSERVATION DIVISION FOR 4 THE PURPOSE OF CONSIDERING: CASE 15339 5 . 6 APPLICATION OF COG OPERATING, LLC, FOR A NON-STANDARD SPACING AND PRORATION UNIT 7 AND COMPULSORY POOLING, EDDY COUNTY, NEW MEXICO. 8 9 10 REPORTER'S TRANSCRIPT OF PROCEEDINGS 11 EXAMINER HEARING 12 July 9, 2015 13 Santa Fe, New Mexico 14 15 JUL 30 WILLIAM V. JONES, CHIEF EXAMINER BEFORE: GABRIEL WADE, LEGAL EXAMINER 16 17 Π This matter came on for hearing before the New Mexico Oil Conservation Division, William y. Jones, 18 Chief Examiner and Gabriel Wade, Legal Examine?, on July 19 9, 2015, at the New Mexico Energy, Minerals, and Natural Resources Department, Wendell Chino Building, 1220 South 20 St. Francis Drive, Porter Hall, Room 102, Santa Fe, New Mexico. 21 22 ELLEN H. ALLANIC REPORTED BY: NEW MEXICO CCR 100 23 CALIFORNIA CSR 8670 PAUL BACA COURT REPORTERS 24 500 Fourth Street, NW Suite 105 25 Albuquerque, New Mexico 87102

Page 2 1 APPEARANCES 2 For the Applicant 3 Gabrielle A. Gerholt Concho 1048 Paseo de Peralta 4 Santa Fe, New Mexico 87501 (505) 780-8000 5 ggerholt@concho.com 6 7 INDEX 8 CASE NUMBER 15339 CALLED 9 COG OPERATING, LLC, CASE-IN-CHIEF: 10 WITNESS AARON L. MYERS, JD 11 Direct Redirect Further 12 By Ms. Gerholt 4 13 EXAMINATION Examiner Jones 11 14 15 WITNESS DREW BERGMAN 16 Direct Redirect Further 17 By Ms. Gerholt 15 18 EXAMINATION Examiner Jones 19 19 20 21 PAGE Reporter's Certificate 24 22 23 24 25

Page 3 EXHIBIŤ INDEX Exhibits Offered and Admitted PAGE COG OPERATING LLC EXHIBIT 1 COG OPERATING LLC EXHIBIT 2 COG OPERATING LLC EXHIBIT 3 COG OPERATING LLC EXHIBIT 4 COG OPERATING LLC EXHIBIT 5 COG OPERATING LLC EXHIBIT 6 19. COG OPERATING LLC EXHIBIT 7 COG OPERATING LLC EXHIBIT 8

Page 4 7 (Time noted 8:18 am.) 2 EXAMINER JONES: The first case today, let's call case 15339, Application of COG Operating LLC for a 3 non-standard spacing and proration unit and compulsory 4 pooling in Eddy County, New Mexico. 5 6 Call for appearances. 7 MS. GERHOLT: Gabrielle Gerholt on behalf of 8 COG Operating LLC. And I have two witnesses with me 9 this morning. 10 EXAMINER JONES: Any other appearances. 11 (No response.) 12 EXAMINER JONES: Will the witnesses please 13 stand and will the court reporter please swear in the 14 witnesses. 15 (Whereupon, the presenting witnesses were 16 administered the oath.) 17 MS. GERHOLT: May I approach? 18 EXAMINER JONES: Yes. 19 MS. GERHOLT: At this time, I call my first 20 witness, Aaron Myers. 21 AARON L. MYERS 22 having been first duly sworn, was examined and testified 23 as follows: 24 DIRECT EXAMINATION BY MS. GERHOLT: 25

Page 5 O. Okay. Good morning. Would you please state your 1 full name for the record and by whom you are employed 2 3 and in what capacity? 4 My name is Aaron Myers. I'm a senior landman Α. 5 with COG Operating LLC. 6 And in what capacity do you work for COG? 0. 7 Α. Senior landman. 8 Q. Thank you. 9 Have you previously testified before the 10 Division? 11 Α. Yes, I have. 12 And were your credentials as a petroleum landman 0. 13 accepted and made part of public record? 14 Α. Yes, they were. Are you familiar with the application that has 15 0. been filed by COG in this case? 16 17 Α. Yes, I am. 18 MS. GERHOLT: Mr. Examiner, at this time I would tender Aaron Myers as an expert in petroleum land 19 20 matters. 21 EXAMINER JONES: He is qualified as an 22 expert in petroleum land matters. 23 MS. GERHOLT: Thank you. 24 0. Let me draw your attention to what has been 25 marked as COG Exhibit No. 1. Could you please identify

Page 6 it and explain what COG seeks under the application? 1 2 It's a NM OCD form C-102, well location and Α. acreage dedication plat, establishing a 160-acre spacing 3 unit in the west half of the east half of Section 30; 4 Township, 23 South; Range, 30 east. 5 And is COG seeking to pool the mineral interests 6 0. 7 underlying this non-standard spacing unit? 8 Α. Yes. 9 And is that in the Bone Spring formation? 0. Yes, it is. 10 Α. 11 And do we seek to dedicate the non-standard Ο. spacing unit to the Ice Dancer 30 Federal Com 2H? 12 13 Α. Yes. Would you please identify the surface hole 14 Ο. 15 location and the bottom hole location for the Examiners? Surface hole location is in the southwest of the 16 Α. southeast guarter of section 30. It is 475 feet from 17 the south line, 1,890 feet from the east line. 18 19 The bottom hole location will be in the northwest of the northeast quarter, 330 feet from the north line 20 21 and 2,230 feet from the east line. 22 Q. Could you also please identify which pool is 23 involved in this application and its pool code? The pool is the Forty-Niner Edge Pool and the 24 Α. 25 pool code is 96526.

Page 7 1 Q. Okay. Could you also please identify the API 2 number? The API number for the well is 30-015-39473. 3 Α. Okay. And what is the character of the lands in 4 Q. this non-standard spacing unit? 5 Fee lands and federal lands. 6 Α. Okay. And will the completed interval for this 7 Q. proposed well comply with the setback requirements per 8 OCD rules? 9 Yes, it will. 10 Α. Have you been able to identify the interest 11 0. owners in the proposed non-standard spacing unit? 12 Yes, we have. 13 Α. If I could now draw your attention to what has 14 0. 15 been labeled COG Exhibit 2. Does page 1 of this exhibit identify COG's proposed non-standard spacing unit? 16 17 Yes, it does. Α. And does page 2 identify the interest owners 18 Q. within the unit? 19 20 Α. Yes, it does. 21 And has the Ice Dancer 30 Federal Com 2H been Ο. proposed to the interest owners identified in 22 23 Exhibit No. 2? 24 A. Yes, it has. Does it also identify the interest owners who are 25 Q.

	Page 8
1	presently uncommitted to the well and whom COG wishes to
2	pool?
3	A. Yes, it does.
4	Q. And who are those parties?
5	A. It is Worrall and ConocoPhillips Company.
6	Q. Okay. If I can now draw your attention to what
7	has been labeled COG Exhibit No. 3. Is Exhibit No. 3 a
8	copy of the well proposal that was sent out to all
9	interest owners COG seeks to pool?
10	A. Yes, it is.
11	Q. In addition to sending out this letter, what
12	other efforts has COG undertaken to obtain bond carry
13	junkets?
14	A. We are currently working to finalize an OA. But
15	with the spud date being what it is, we are here to pool
16	everything and working towards finishing the OA with the
17	other parties.
18	Q. And what is the spud date?
19	A. Actually I don't have that off the top of my
20	head.
21	Q. But it is coming quickly?
22	A. Yes. It will be the next 60 days.
23	Q. So before the end of the summer?
24	A. Uh-huh.
25	Q. Thank you.

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Page 9 1 Does Exhibit 3 also include the authority for 2 expenditure? Α. Yes, it does. 3 4 And are the costs reflected in the AFE and why it Ο. would cost COG as incurred in drilling similar 5 horizontal wells in the area? 6 7 Yes, it does. Α. And in addition to this AFE, has COG estimated 8 Q. the drilling costs and the production costs? 9 Yes, they have. 10 Α. And could you please identify what those costs 11 0. are, first for drilling? 12 Drilling would be \$7,000 and producing rate would 13. Α. 14 be \$700. 15 Thank you. And are these costs in line with what Q. COG and other operators in the area charge for similar 16 17 wells? 18 Yes, they are. Α. Do you ask that these administrative and overhead 19 0. 20 costs be incorporated into any order resulting from this hearing? 21 22 Α. Yes, we would. 23 Q. Does COG also ask that they be adjusted in accordance with the appropriate accounting procedures? 24 25 Α. Yes.

	Page 10
1	Q. And with respect to the interest owners who
2	remain uncommitted to this well, do you request that the
3	Division include the 200 risk penalty?
4	A. Yes, we would.
5	Q. Let's now turn our attention to the formation of
6	the non-standard unit.
7	Has COG identified the operators or ownership of
8	loose mineral interests in the 40-acre proposed
9	non-standard spacing unit?
10	A. Yes.
11	Q. And was that part of the application?
12	A. Yes, it was.
13	Q. And are those affected operators owners on
14	Exhibit 4?
15	A. Yes, they are.
16	Q. Okay. And did the owners of those leased mineral
17	interests receive notice of this hearing?
18	A. Yes, they did.
19	Q. If I can now draw your attention to Exhibit 5.
20	Is this an affidavit signed by me with attached copies
21	of the letters sent to pool parties of the offsetting
22	interests?
23	A. Yes, it is.
24	Q. Were any cards returned?
25	A. Yes, they were.

Page 11 1 0. So all cards were returned? 2 A. Yes. Q. And were all parties located? 3 4 A. Yes. O. Has COG brought a geologist here today to testify 5 about a non-standard unit? 6 7 A. Yes, we have. Q. And were Exhibits 1 through 5 prepared by you or 8 compiled under your direction and supervision? 9 10 A. Yes, they were. MS. GERHOLT: At this time, I would request 11 Exhibits 1 through 5 be moved into evidence. 12 13 EXAMINER JONES: Exhibits 1 through 5 are admitted. 14 (WHEREUPON, COG OPERATING LLC EXHIBITS 1 15 THROUGH 5 WERE OFFERED AND ADMITTED.) 16 MS. GERHOLT: I have no further questions of 17 this witness. 18 EXAMINATION BY MR. JONES 19 20 EXAMINER JONES: Mr. Myers, M-y-e-r-s? 21 THE WITNESS: Yes, sir. 22 EXAMINER JONES: The surface hole location, do you know why it was picked so far up -- so far north? 23 24 THE WITNESS: There are some existing vertical well bores in that section. Originally we had 25

Page 12 platted it and had a C-102 ready. Then we had to kind 1 2 of change it, just to make sure we weren't going to 3 interfere with any of those vertical well bores. So surface hole location was made. The 4 bottom hole location was moved just to make sure we were 5 not going to interfere with any of those. 6 7 EXAMINER JONES: So it's getting crowded out there in the oil field, I take it. 8 9 THE WITNESS: Yes. 10 EXAMINER JONES: Why didn't you just move into the next section to the south and start your well? 11 12 THE WITNESS: I think we were going to have 13 the same types of issues there. Geology and engineering are usually the ones that handle digging locations and 14 doing all that stuff. So they kind of identified 15 section 30 as where they wanted to be. So that's where 16 we went in and platted everything. 17 EXAMINER JONES: Okay. You got a really 18 19 nice exhibit here showing the ownership to this well. It doesn't show who owns the lands to the south, whether 20 it's state lands or federal lands or -- but if you did 21 22 start to the south, you'd get more well bore, and, you'd 23 think, more production out of your well. THE WITNESS: Uh-huh. 24 25 EXAMINER JONES: And this is all federal; is

Page 13 1 that correct? 2 THE WITNESS: It is federal and fee. 3 EXAMINER JONES: You mentioned fee, but I 4 pulled up our records and it doesn't show any fee. 5 Where is the fee acreage there? 6 I thought there was fee THE WITNESS: 7 acreage in there. I might have it confused with a 8 different well. I am actually looking at it and it is 9 all federal. 10 EXAMINER JONES: Sometimes maybe our records 11 may not be exactly right. When it says "federal," it 12 could be maybe not totally federal. And spud date soon; 13 you need a quick turnaround, I take it? 14 THE WITNESS: Uh-huh. 15 EXAMINER JONES: Plans for surrounding 16 development, do you guys own -- this is Concho. Do you 17 guys own the surrounding lands and are you going to develop them the same way, north, south wells? 18 19 Yeah. Typical we do north, THE WITNESS: 20 south orientation on most of the well bores, unless 21 geology tells us we should do it east, west. But that's 22 more of a geology question than it is a land question. 23 EXAMINER JONES: Do you have any idea about 24 tracts that have owners that you didn't want to deal 25 with around this area with a lot of stranded acreage

Page 14 issues? 1 2 MS. GERHOLT: I'm sorry to interrupt, 3 Mr. Examiner, but it may be useful to know that this is 4 in the potash area and therefore we have certain restraints placed upon us because of that. 5 6 EXAMINER JONES: Okay. So drilling --7 MS. GERHOLT: Just limited locations. 8 EXAMINER JONES: Yeah. It does show that A 9 and B definitely are potash. And the section to the 10 south has potash issues also. 11 MS. GERHOLT: Exactly. 12 EXAMINER JONES: Okay. That helps. 13 So what I see in the well file is exactly 14 what she said as far as the locations for the wells. We 15 are encouraged to put the legal -- the locations that you give for surface hole location and bottom hole 16 17 locations in our hearing orders. 18 So that is why -- and I understand when you 19 make the application, you just say, Surface in unit 0 20 and bottom hole in unit B, but you had the testimony 21 here about it, so that is fine. 22 MS. GERHOLT: (Nodding.) 23 EXAMINER WADE: I have no questions. 24 EXAMINER JONES: Thanks, Mr. Myers. 25 Uh-huh. THE WITNESS:

Page 15 1 MS. GERHOLT: At this time, I would request 2 Drew Bergman, the geologist, take the stand. 3 DREW BERGMAN 4 having been first duly sworn, was examined and 5 questioned as follows: 6 DIRECT EXAMINATION 7 BY MS. GERHOLT: 8 Q. Good morning. Would you please state your name, 9 for whom you work, and in what capacity. 10 My name is Drew Bergman. I'm a geologist for COG Α. 11 Operating, LLC. 12 Q. Have you previously testified before the 13 Division? 14 Α. Yes, I have. 15 Q. And were your credentials as a petroleum geologist accepted and made part of public record? 16 17 Yes, they were. Α. 18 And are you familiar with the application that Q. 19 has been filed by COG in this case? 20 A. Yes, I am. 21 And have you conducted a geologic study of the Q. 22 area? 23 A. Yes, I have. 24 MS. GERHOLT: Mr. Examiner, at this time I 25 would request that the Division recognize Drew Bergman

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1 as an expert in geology matters.

2 EXAMINER JONES: He is qualified as an3 expert in petroleum geology.

Q. Let's begin with Exhibit 6. In beginning with the legend, please identify what this exhibit is and walk us through it.

A. So this is a structure map on the base of the
Third Bone Spring Sand. The contours are the black
lines and they are labeled values. The purple dashed
line is our well in question, and then our acreage is in
yellow.

Q. And does this structure map show a gentle dip?
A. Yes, from the west to the east into the basin.
Q. If I can now draw your attention to what has been
labeled Exhibit No. 7. And, again, beginning with the
legend, could you please identify what this exhibit is
and walk us through it.

18 A. So this is a cross section from A to A Prime as 19 shown on the previous exhibit. The top of the Third 20 Bone Spring is in purple and the base of the Third Bone 21 Spring Sand is in red. And the logs on these are 22 porosity resistivity logs.

Q. And the wells that were chosen for the stratigraphic cross section, do you believe those to be representative of the area that is the subject of our

Page 17 1 non-standard spacing unit? 2 Α. Yes. 3 What conclusions have you drawn from your Q. geologic study of this area? 4 5 Ά. That the formation is continuous and there are no 6 geologic hazards. 7 Do you anticipate each quarter, quarter to Q. 8 contribute equally to the well? 9 Α. Yes, I do. 10 Is a horizontal well the best way to efficiently Ο. 11 and effectively drill a non-standard unit? 12 Α. Yes, it is. 13 I can now draw your attention to what has been Q. 14 marked as Exhibit 8. Could you please identify this exhibit? 15 16 Α. This is a profile of the well bore. The section 17 lines are in dark blue. The setbacks are in dashed blue 18 lines. The well bore is in red, and labels accordingly. 19 And does the well bore show that the completed Q. 20 interval is within the required setbacks? Α. 21 Yes. 22 Q. And will the completed interval of this well 23 comply with all setback requirements? 24 A. Yes, it will. 25 Would you please explain why COG wants to drill Q.

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1	this well from south to north?
2	A. It would be perpendicular to the regional max
3	stress.
4	EXAMINER JONES: Sorry. Can you say that
5	one more time?
6	THE WITNESS: Perpendicular to the regional
7	max horizontal stress.
8	EXAMINER JONES: Okay.
9	Q. And how does that relate to other wells in the
10	area?
11	A. Most are north, south or stand-up.
12	Q. And in your opinion, would the granting of COG's
13	application be in the best interest of conservation and
14	the prevention of waste and for the protection of
15	correlative rights?
16	A. Yes.
17	Q. Were Exhibits 6 through 8 prepared by you or
18	compiled under your direction or supervision?
19	A. Yes, they were.
20	MS. GERHOLT: At this time I request that
21	Exhibits 6 through 8 be moved into evidence.
22	EXAMINER JONES: Exhibits 6 through 8 are
23	admitted.
24	(WHEREUPON, COG OPERATING LLC EXHIBITS 6
25	THROUGH 8 WERE OFFERED AND ADMITTED.)

Page 19 1 EXAMINATION BY EXAMINER JONES 2 EXAMINER JONES: So we got a little bit of 3 dip to the east; is that correct? 4 THE WITNESS: Yes, sir. 5 EXAMINER JONES: And why did you pick the 6 Third Bone Spring in here? Is this the target in the 7 general area? 8 THE WITNESS: So there's an offset well. 9 It's shown in the northeast by that long purple lateral. That was a good well. 10 11 EXAMINER JONES: So the northeast, the 12 little line that goes from unit B down to unit --THE WITNESS: So that's in section 16 to 21. 13 14 EXAMINER JONES: I see, the big purple line. That is a mile and a half well. And that one was 15 16 attempted in the Third Bone Spring? 17 THE WITNESS: Yes, sir. EXAMINER JONES: Why did they drill that one 18 19 in the Third Bone Spring? 20 THE WITNESS: I guess they thought it was a good area to do it in. 21 22 EXAMINER JONES: Okay. Do you have plans for the rest of the Bone Spring in this area? 23 24 THE WITNESS: Not at the current time. 25 EXAMINER JONES: So you have some stress

Page 20 data that shows east, west stress direction? I am not 1 2 asking to present it, but you mentioned that earlier. 3 THE WITNESS: It shows northwest to 4 southeast. 5 EXAMINER JONES: So generally if you drilled 6 southwest to northeast, you'd be perfect as far as 7 vour --8 THE WITNESS: If you had the acreage that 9 would allow it, yes, sir. 10 EXAMINER JONES: So your land is constraining 11 you a little bit here? 12 THE WITNESS: Yes, sir. 13 EXAMINER JONES: But you are actually 14 drilling a tiny bit up dip, it looks like. So your 15 surface hole location, everything will drain down 16 towards your well, so you can pump it, I guess? 17 THE WITNESS: Yes, sir. 18 EXAMINER JONES: And this was the control 19 you had, this was these three wells? 20 THE WITNESS: Yes, it is some of the better 21 control. 22 EXAMINER JONES: So you didn't have any deep 23 Pennsylvanian wells or --24 THE WITNESS: No, sir. 25 EXAMINER JONES: So you basically got the

Page 21 top of the Wolfcamp shown and you got the top of the 1 2 Third Bone Spring, it looks like; is that correct? 3 THE WITNESS: Yes, sir. 4 EXAMINER JONES: It looks like there's some 5 movement to drill some pilot holes out that are going 6 down to the Wolfcamp and then back up and drill the Bone 7 Spring or gather data for the Wolfcamp? 8 THE WITNESS: Uh-huh. 9 EXAMINER JONES: You don't want to do that 10 here -- or are you in a hurry to drill this well? 11 THE WITNESS: Yes, we are. 12 EXAMINER JONES: Just because of lease 13 issues or --14 THE WITNESS: APD expiration. 15 EXAMINER JONES: It's a federal APD --16 right? -- so if you get an extension on that, it will be 17 another two years? 18 THE WITNESS: I'm not in the regulatory department; and I don't know if we can extend it or not. 19 20 EXAMINER JONES: Maybe you already got one 21 extension. 22 MS. GERHOLT: Mr. Examiner, we already had 23 one extension on this. 24 EXAMINER JONES: That explains it. 25 Your AFE, did you look at the AFE for the

Page 22] costs of it? 2 THE WITNESS: I have not. 3 EXAMINER JONES: Are you going to be sitting on the well or not entering the progress of the well? 4 5 THE WITNESS: I would just be monitoring where we're landing and making sure we're in zone. б 7 That's all my job entails. EXAMINER JONES: So you're happy with your 8 9 crew out there, the mud loggers or the -- when will you 10 put them on location? 11 THE WITNESS: They will come on after a 12 surface casing. 13 EXAMINER JONES: Okay. So they'll be on, but 14 there is an intermediate through the salt, isn't there? 15 THE WITNESS: Uh-huh. 16 EXAMINER JONES: So you've got a two-man crew 17 on for the whole --18 THE WITNESS: Yes, sir. 19 EXAMINER JONES: Almost the whole life of 20 the well? 21 THE WITNESS: (Nodding.) 22 EXAMINER JONES: I don't have any more 23 questions. Do you have any, Gabe? 24 MR. WADE: I don't have any questions. 25 EXAMINER JONES: Thanks for coming up.

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1	MS. GERHOLT: At this time, Mr. Examiner,
2	COG would ask for this case to be taken under
3	advisement.
4	EXAMINER JONES: That sounds like a
5	reasonable request. Let's take case 15339 under
6	advisement.
7	Thank you, Ms. Gerholt.
8	MS. GERHOLT: Thank you, Mr. Jones.
9	
10	(Time noted 8:37 a.m.)
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15	de hereby certify that the foregoing is
16	a complete record of the proceedings in the Examiner theoring of Case No.
17	heard by me ca
18	Oll Conservation Division
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1	STATE OF NEW MEXICO)
2) SS.
3	COUNTY OF BERNALILLO)
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6	
7	REPORTER'S CERTIFICATE
8	I, ELLEN H. ALLANIC, New Mexico Reporter CCR
9	No. 100, DO HEREBY CERTIFY that on Thursday, July 9, 2015, 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 FURTHER CERTIFY that I am neither employed by
14	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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18	
19	S DAD A DA
20	ELLEN H. ALLANIC, CSR
21	NM Certified Court Reporter No. 100 License Expires: 12/31/15
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