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- 1 EXAMINER BROOKS: We'll call Case Number
- 2 14987, application of Encana Oil & Gas USA, Inc., for
- 3 approval of a unit agreement and an exception to the well
- 4 location requirements set forth in the special rules for
- 5 the Counselors Gallup-Dakota and Basin Mancos Gas Pools,
- 6 Sandoval County, New Mexico.
- 7 Call for appearances.
- 8 MR. BRUCE: May it please the Examiner?
- 9 Michael Feldewert appearing on behalf of Encana Oil & Gas
- 10 USA, Inc. I have two witnesses.
- 11 EXAMINER BROOKS: Would your witness
- 12 please stand and identify themselves?
- MR. BRUCE: Mr. Examiner --
- 14 EXAMINER BROOKS: I'm sorry, Mr. Bruce.
- 15 You're entering an appearance in this case?
- MR. BRUCE: I'm entering an appearance on
- 17 behalf of JMJ Land & Minerals Company. I have no
- 18 witnesses.
- 19 EXAMINER BROOKS: Very good. The
- 20 witnesses may stand and identify themselves, please.
- MR. SOMMER: Nicholas Sommer, geologist.
- MR. McCOOL: Billy Wade McCool, land
- 23 negotiator.
- 24 (Two witnesses were sworn.)
- MR. FELDEWERT: We'll call our first

- 1 witness.
- 2 EXAMINER BROOKS: Go ahead.
- 3 BILLY WADE McCOOL
- 4 Having been first duly sworn, testified as follows:
- 5 DIRECT EXAMINATION
- 6 BY MR. FELDEWERT:
- 7 Q. Please state your name identify by whom you're
- 8 employed and in what capacity?
- 9 A. My name is Billy Wade McCool. I'm employed by
- 10 Encana Oil & Gas USA, Inc. I'm a land negotiator.
- 11 Q. How long have you been a land negotiator with
- 12 Encana?
- 13 A. Six years.
- 14 Q. Is this the first time that Encana Oil & Gas
- 15 USA, Inc., has appeared before the Division?
- 16 A. Yes.
- 17 Q. So you have not previously testified before
- 18 this Division?
- 19 A. I have not.
- Q. Would you review your educational background?
- 21 A. I hold a Bachelor of Arts in Political Science
- 22 from the University of North Texas. I hold a Juris
- 23 Doctorate from the University of Tulsa, College of Law;
- 24 and I'm also enrolled in the LLM Program at the
- 25 University of Denver, Sturm College of Law, in

- 1 environment and natural resources law.
- Q. You're one of those lawyers?
- A. Yes, I'm one of those lawyers.
- 4 Q. Have you passed the Bar?
- 5 A. Yes, I have.
- 6 Q. What state?
- 7 A. I'm Barred in Oklahoma.
- Q. What has been your work history since you got
- 9 your Juris Doctorate degree from Tulsa?
- 10 A. Upon graduation from the University of Tulsa
- 11 in 2006, I did field landwork for a year in Texas. I was
- 12 an independent contractor. I did leasing, title
- 13 examination, abstracting, seismic permitting, things of
- 14 that nature.
- 15 After I had been working as an independent
- 16 contractor for roughly about 11 months, I was brought on
- 17 full time as an employee with Encana Oil & Gas as a
- 18 surface land negotiator in Fort Worth, working the
- 19 Barnett Shale. I've held various positions, working in
- 20 East Texas, West Texas, Louisiana, up in North Texas,
- 21 following my stint as a mineral land negotiator, doing
- 22 general mineral land duties, rig title, acquisition,
- 23 divestiture.
- In 2011 in December, I was transferred to
- 25 Denver, Colorado, to work on Encana's New Ventures Team

- 1 as a land negotiator. In July of 2012, I was moved to
- 2 the San Juan Asset Team.
- 3 Q. Do you have any professional affiliations or
- 4 certifications?
- 5 A. Yes. I'm a member of the American Bar
- 6 Association, a member of the Oklahoma Bar Association, a
- 7 member of the American Association of Professional
- 8 Landmen, a member the Denver Association of Petroleum
- 9 Landmen.
- 10 Q. How long have you been a member of the
- 11 American Association of Petroleum Landmen?
- 12 A. Since 2006.
- 13 Q. Are you familiar with the application that's
- 14 been filed in this case?
- 15 A. Yes, I am.
- Q. Are you familiar with the status of the lands
- 17 in the proposed unit area for the Gallo Canyon Federal
- 18 Exploratory Unit?
- 19 A. Yes, I am.
- Q. Why don't you briefly identify for the
- 21 Examiners what Encana seeks with this application?
- 22 EXAMINER BROOKS: Are you going to ask to
- 23 qualify --
- MR. BRUCE: No.
- 25 EXAMINER BROOKS: You're not going to ask

- 1 to qualify him?
- MR. BRUCE: No need to.
- 3 EXAMINER BROOKS: Go ahead.
- 4 A. Encana seeks approval of the Gallo Canyon
- 5 Federal Exploratory Unit. It's a federal unit composed
- of 5,760 acres comprised of state and federal acreage,
- 7 located in Sandoval County, New Mexico.
- 8 Q. (By Mr. Feldewert) Approximately how much of
- 9 the land acreage is federal lands -- let me ask you, is
- 10 there any fee land?
- 11 A. There's no fee land.
- 12 Q. Just federal and state land?
- 13 A. Yes.
- 14 Q. How much of the acreage is federal?
- 15 A. 89 percent.
- 16 O. And the remainder is state land?
- 17 A. That's correct.
- Q. What else do you seek under this application?
- A. We seek exception to the special field rules
- 20 applicable to the Counselors Gallup-Dakota Oil Pool with
- 21 regard to well location.
- Q. Let me turn to what's been marked as Encana
- 23 Exhibit Number 1. Is this a map showing your proposed
- 24 unit boundary?
- A. Yes. The red outline show the proposed unit

- boundary on this map.
- Q. On this particular exhibit, you identify the
- 3 current acreage or the location of the Counselors
- 4 Gallup-Dakota Pool as it extends into this unit area;
- 5 correct?
- 6 A. That's correct.
- 7 Q. Is the Counselors Gallup-Dakota Oil Pool a
- 8 listed pool under the Division order that created the
- 9 Basin Mancos Gas Pool?
- 10 A. Yes, it is.
- 11 Q. Are you familiar with the fact that the order
- 12 creating the Basin Mancos Gas Pool, Order Number R-12984,
- indicates that the existing oil pool or any existing oil
- 14 pool is extended two miles for purposes of the
- applicability of the special pool rules of that oil pool
- 16 rule?
- 17 A. Yes, I am familiar.
- 18 Q. If that order indeed governs this particular
- 19 case, then the entire unit area is within two miles of \cdot
- 20 the Counselors Dakota Gallup Oil Pool as extended under
- 21 the order creating the Basin Mancos Gas Pool?
- 22 A. Yes, that's correct.
- Q. Are you familiar with the fact that if you go
- 24 to the temporary and special rules and regulations for
- 25 the Counselors Gallup-Dakota Oil Pool, that those

- 1 particular rules say that the unit boundary extends for
- 2 one mile?
- 3 A. Yes, I am aware of that.
- 4 Q. If that particular boundary applied, then part
- 5 of this unit would be within the Counselors Gallup-Dakota
- 6 Oil Pool and part of it would remain within the Basin
- 7 Mancos Gas Pool?
- 8 A. That's correct.
- 9 Q. Is that why you also seek an exception to the
- 10 well location requirements for the Basin Mancos Gas Pool,
- 11 if indeed it applies here?
- 12 A. Yes.
- Q. What are the current setback requirements on
- 14 the Basin Mancos Gas Pool, if it applies to part of this
- 15 unit
- 16 A. 660 feet.
- 17 Q. If, as we believe, the Counselors
- 18 Gallup-Dakota Oil Pool applies to this entire unit area,
- 19 what are the well location requirements under those
- 20 special pool rules?
- A. 660 feet and also a 1,320 in-between well
- 22 spacing.
- Q. Is that contained within Rule 4 of the special
- 24 rules for the Counselors Gallup-Dakota Oil Pool?
- 25 A. Yes.

- 1 MR. FELDEWERT: Those rules remain
- 2 permanent, Mr. Examiner, under Division Order R-7034-B.
- 3 O. (By Mr. Feldewert) Do the setbacks, either
- 4 the Basin Mancos Gas Pool or the Counselors Gallup-Dakota
- 5 Oil Pool, interfere with your well plans in the unit
- 6 area?
- 7 A. Yes, they do.
- Q. What does the company therefore seek with
- 9 respect to the exception for this unit area?
- 10 A. The company seeks exception in the form of a
- 11 330-foot setback and exception to the in-between well
- 12 spacing requirement to allow the wells to be located
- 13 anywhere within the unit area.
- Q. So you're seeking how the well is located
- anywhere within the unit, as long as they remain 330 feet
- 16 from the outer boundary of the unit area shown on Exhibit
- 17 1?
- 18 A. That's correct.
- 19 O. Let's turn to what's been marked Encana
- 20 Exhibit 2. Is this a copy of the unit agreement for the
- 21 Gallo Canyon Unit Area?
- 22 A. Yes.
- Q. Does this copy conform with the federal form?
- A. Yes, it does.
- 25 Q. Have there been certain modifications required

- 1 by the Bureau of Land Management?
- 2 A. Yes, there have.
- Q. Did the Bureau of Land Management require that
- 4 this Unit Agreement only apply to horizontal development
- 5 plans?
- 6 A. Yes, they did.
- 7 Q. So if I take a look at what is the first page
- 8 of the Unit Agreement, the fourth page of the exhibit,
- 9 the second clause at the top indicates, does it not, that
- 10 this Unit Agreement is limited to wells that are
- 11 horizontally drilled, as defined in that second clause on
- 12 the first page of the Unit Agreement?
- 13 A. Yes, that's correct.
- Q. Has this -- what horizons are being unitized
- 15 under this Unit Agreement?
- 16 A. It's in Clause 3. It's the Mancos group,
- 17 which is defined as "100 feet below the stratigraphic
- 18 equivalent of the top of the Mancos Shale (base of the
- 19 Mesaverde Group) to the stratigraphic equivalent of the
- 20 base of the Greenhorn Limestone Formation."
- 21 Q. If I turn to -- if I take a look at Encana
- 22 Exhibits 3 and 4, are they the letters from both the
- 23 State Land Office and Bureau of Land Management granting
- 24 preliminary approval of this Unit Agreement in the unit
- 25 area?

- 1 A. Yes. Exhibit 3 is from the State Land Office,
- 2 and Exhibit 4 is from the Bureau of Land Management.
- Q. Was there a mistake in the application that
- 4 was filed in the fact that it made a reference to
- 5 vertical well development?
- 6 A. Yes.
- 7 Q. And based on the amendments required by the
- 8 BLM and the State Land Office, this unit would only apply
- 9 to horizontal wells?
- 10 A. Yes.
- 11 Q. Exhibit A to the Unit Agreement identifies the
- 12 boundary to the unit area and essentially conforms to
- 13 what's been marked as Encana Exhibit Number 1; is that
- 14 correct?
- 15 A. Yes.
- Q. And Exhibit B to the Unit Agreement, it
- 17 provides an ownership breakdown, does it not?
- 18 A. That's correct.
- 19 Q. Just to finish that off, Exhibit C to the Unit
- 20 Agreement is what?
- 21 A. It's a stratigraphic interval type log.
- Q. Looking at Exhibit B to the Unit Agreement,
- 23 are there any uncommitted leases or working interests
- 24 currently to this Unit Agreement?
- 25 A. Yes.

- 1 O. How much of the interest shown on Exhibit B
- 2 has been formally committed to the Unit Agreement?
- A. 86 percent.
- 4 Q. And the remaining at this point remains
- 5 uncommitted?
- 6 A. That's correct.
- 7 Q. Have you had various contacts with the owners
- 8 of the current uncommitted acreage?
- 9 A. Yes, I have.
- 10 Q. Have you provided them with an opportunity to
- 11 participate?
- 12 A. Yes.
- Q. And you've had discussions to date about that
- 14 participation?
- 15 A. Yes, I have.
- 16 O. In addition to the modifications that are
- 17 required by the BLM, has the Bureau of Land Management
- 18 also agreed to treat the entire unit area as a single
- 19 participating area?
- 20 A. Yes.
- Q. As a result, under the Division rules, the
- 22 company will be able to operate the unit area if this is
- 23 granted as a single project area?
- A. That's correct.
- Q. Now, with respect to your request for an

- 1 exception to the well location requirements within the
- 2 unit area, did you undertake an examination of the
- 3 operators and the lessees in the spacing units
- 4 surrounding the entire unit area?
- 5 A. Yes.
- 6 Q. And is Exhibit 5 an affidavit with attached
- 7 letters providing notice of this application and the
- 8 hearing to those parties?
- 9 A. Yes.
- 10 Q. Are all of the surrounding acreage subject to
- 11 a lease?
- 12 A. No, they're not.
- 13 Q. What acreage remains unleased?
- 14 A. The acreage immediately to the east, which is
- 15 the Jicarilla Tribe.
- 16 Q. The notice list that is comprised starting on
- 17 page 4 of Exhibit 5, does it reflect that notice was
- 18 provide to the Jicarilla Oil & Gas Administration of this
- 19 application?
- 20 A. Yes, it does.
- Q. Were Encana Exhibits 1 through 5 prepared by
- 22 you or compiled under your direction and supervision?
- 23 A. Yes, they were.
- 24 MR. FELDEWERT: Mr. Examiner, I move the
- 25 admission into evidence of Encana Exhibits 1 through 5.

- 1 EXAMINER BROOKS: One through 5 are
- 2 admitted.
- 3 (Exhibits 1 through 5 were admitted.)
- 4 MR. BRUCE: That concludes my examination
- 5 of this witness.
- 6 EXAMINER BROOKS: Mr. Bruce?
- MR. BRUCE: Just a few questions.
- 8 CROSS-EXAMINATION
- 9 BY MR. BRUCE:
- 10 Q. Mr. McCool, Exhibit 2, the Unit Agreement, is
- 11 this based on the State Land Office form or is it based
- 12 on the federal form?
- 13 · A. This is based on the federal form that I
- 14 receive from BLM.
- 15 Q. Mr. Feldewert asked you on page 4 of that
- 16 exhibit, page 1 of the actual Unit Agreement, is that
- 17 second paragraph the only change to the form?
- 18 A. No, that is not the only change to the form.
- 19 Q. What are the other changes?
- 20 A. There were quite a few basically typographical
- 21 changes. In Section 12, Paragraph Number 3, the State
- 22 Land Office requested that we add "and Commissioner" to
- 23 form.
- Q. I'm not looking for stuff like that.
- Is there -- what I'm asking is substantive

- 1 changes. Normally, a federal unit agreement form
- 2 provides for participating area for wells after they've
- 3 been drilled.
- 4 Looking at paragraph 11 of this form,
- 5 "Allocation and Production," is that a change --
- 6 substantial change to form? Because this agreement does
- 7 not provide for separate participating areas as wells are
- 8 drilled?
- 9 A. Correct. This is an undivided Unit Agreement,
- 10 so it wouldn't have participating areas, per se.
- 11 Q. That's what I'm looking for. Are there any
- 12 others? I've looked at a ton of these, but the print
- 13 gets to you after a while.
- 14 A. As far as the change to the horizontal wells
- 15 that I pointed out, that's the only substantive change
- 16 that I can recall off the top of my head right now.
- 17 Q. Is there a Unit Operating Agreement?
- 18 A. A Unit Operating Agreement has not been sent
- 19 out yet. There is one draft in draft version.
- Q. Insofar as the change that this covers only
- 21 horizontal wells, who requested that?
- 22 A. The BLM and the State Land Office. But the
- 23 BLM specifically requested it.
- Q. The Counselors Gallup Pool, what is the
- 25 spacing in that?

- 1 A. 160-acre spacing.
- MR. BRUCE: That's all I have,
- 3 Mr. Examiner.
- 4 EXAMINER BROOKS: Okay. I have a few
- 5 questions about this one.
- 6 EXAMINATION
- 7 BY EXAMINER BROOKS:
- 8 Q. You said the Unit Agreement applies only to
- 9 horizontal wells; right?
- 10 A. Yes.
- 11 Q. Does the Unit Agreement contain a definition
- 12 of horizontal wells?
- 13 A. Yes, it does, sir.
- 14 Q. Where is that?
- 15 A. In the preamble. It's in the second
- 16 paragraph.
- MR. FELDEWERT: The fourth page of Exhibit
- 18 5.
- 19 Q. (By Examiner Brooks) But is it numbered page
- 20 1, though?
- 21 A. Yes.
- Q. You had me confused on the pages.
- Okay. Where is it?
- A. The second paragraph from the top.
- Q. Okay, the second paragraph, numbered paragraph

- 1 2?
- 2 A. Yes. I'm sorry, it's the second paragraph,
- 3 not the numbered paragraph 2.
- 4 Q. Very good. Now, are there existing vertical
- 5 wells in this unit that are completed in the Mancos?
- 6 A. There are two existing verticals on the
- 7 northeast portion of unit.
- 8 Q. They would be excluded from this and would
- 9 continue to be -- production would continue to be
- 10 allocated on a spacing unit basis?
- 11 A. That's correct.
- 12 Q. What does the Unit Agreement provide in regard
- 13 to the drilling of any future vertical wells?
- 14 A. The agreement doesn't limit the drilling of
- 15 future vertical wells on a tract basis. However, the
- 16 unitized portion is limited to horizontal development.
- Q. When you say, "the unitized portion," you
- 18 don't mean the same thing as the unitized formation?
- 19 A. No. The unitization provided for in this Unit
- 20 Agreement specifically only applies to horizontal wells.
- 21 As far as the vertical wells in existing
- 22 production or if you were to have future vertical wells
- 23 drilled within the boundaries of what would be this
- 24 horizontal unit, the unit would not have applicability to
- 25 the vertical wells. The vertical wells would be drilled

- 1 on a tract basis, based on --
- 2 O. Based on what?
- A. Based on whatever the existing spacing pattern
- 4 would be for that.
- 5 Q. You're aware of the Oil Conservation
- 6 Division's rules on that subject?
- 7 A. Yes, sir.
- 8 Q. And that says that they have to have -- to
- 9 drill further vertical wells would require the permission
- 10 of all working interest owners. And that would be all
- 11 working interest owners, I would assume, in the project
- 12 area. I don't have that in front of me. And the project
- 13 area would be the unit area.
- 14 A. Well, I don't necessarily know if it has to
- 15 be -- the project area is the unit area as for horizontal
- 16 production.
- 17 O. But that's what the horizontal well rule would
- 18 contemplate, as I would assume. So the Unit Agreement,
- 19 unless there's something otherwise provided in the Unit
- 20 Operating Agreement, a typical operating agreement would
- 21 preclude drilling wells not drilled under that agreement
- 22 within the same formation unless they were in the
- 23 existing spacing pattern, which, if you use the older
- 24 form, I'm sure they'll clean that up in the new form
- 25 they're working on.

- But if you use the older form, that creates
- 2 something of an ambiguity where you have both horizontal
- 3 and vertical wells working in the same area.
- 4 Is that issue going to be covered in your Unit
- 5 Operating Agreement?
- A. Yes. Going to the BLM and putting the Unit
- 7 Agreement together, the very basis of the unit is the
- 8 exploratory nature of the horizontal wells in the unit.
- 9 Adding the vertical production or adding
- 10 vertical wellbores into the unit abrogates that
- 11 exploratory nature of it, which would be the reason we
- 12 haven't addressed it.
- I don't want to say, "not addressed it."
- 14 That's not the right word. But the reason it's been
- 15 excluded from this Unit Agreement.
- 16 Q. Okay. Very good.
- 17 You said there were uncommitted interests in
- 18 the unit?
- 19 A. Yes.
- Q. What nature are they, and where are they?
- 21 A. Section 27. If you could turn to Exhibit 2 --
- 22 I'm sorry, Section 27.
- 23 Q. I have Exhibit 1 in front of me. That shows
- 24 me where the section is. Now, is there something in
- 25 Exhibit 2?

- 1 A. No. Exhibit 1 is the correct one. Section
- 2 27.
- 3 Q. All of Section 27?
- A. There's 12.5 percent working interest that
- 5 remains outstanding in that tract and an overriding
- 6 royalty interest in the amount of 7.5 percent.
- 7 And then in the northwest of Section 24, there
- 8 is an uncommitted interest in 100 percent of that 160.
- 9 Q. That's the only part of that -- that's the
- 10 only divided tract that is wholly excluded -- wholly
- 11 uncommitted?
- 12 A. Yes, that's correct.
- 13 Q. Is that state or federal?
- 14 A. That is a federal tract.
- 15 Q. Those are the only interests that have not
- 16 been committed to the unit; is that correct?
- 17 A. That's correct.
- 18 Q. Now, what exactly are you asking for in this
- 19 application?
- 20 A. We're asking for the Commission to approve
- 21 this application for the Unit Agreement, and we're also
- 22 asking to --
- Q. To approve the Unit Agreement?
- A. To approve the Unit Agreement.
- Q. Which the State Land Office requires?

- 1 A. Yes.
- 2 And we're also asking for the exception to the
- 3 special pool rules for the Counselors Gallup-Dakota Oil
- 4 Pool.
- 5 Q. That would be for the setbacks?
- A. Yes, sir, that's correct, and in-between well
- 7 spacing in that pool.
- 8 Q. It's the distance between the wells --
- 9 A. Yes, Mr. Examiner. It's -- 1,320 is the
- 10 distance.
- 11 Q. Of course your horizontals would be -- the
- 12 only setbacks that would apply would be from the outer
- 13 boundary of the spacing -- from the outer boundary of the
- 14 unit, since the whole unit is going to be the project
- 15 area?
- 16 A. That's correct.
- Q. What spacing are you asking for -- what
- 18 setback are you asking for from the outer boundary of the
- 19 unit?
- 20 A. 330 feet.
- Q. And you did not receive any objections from
- 22 any of the offsets?
- A. No, we did not receive any objections from
- 24 offsets.
- Q. I just have one other question. What is your

- 1 reason for preferring to be characterized as a land
- 2 negotiator, rather than a landman?
- A. That's our styling internally in the company.
- 4 I think I can use them interchangeably. Maybe when I'm
- 5 in Texas, I can use landman.
- 6 EXAMINER BROOKS: It has interested me
- 7 that many ladies introduce themselves as landmen here
- 8 without raising a political correctness objection. Very
- 9 good.
- 10 Mr. Ezeanyim?
- 11 EXAMINATION
- 12 BY EXAMINER EZEANYIM:
- Q. You just asked my question, because I didn't
- 14 understand what negotiator and landman is. I want to
- 15 find out. When you say, "negotiator," is this landman?
- 16 I don't know. So you asked my question.
- 17 A. Yes. It's definitely interchangeable.
- 18 Q. But it's the same thing; right?
- 19 A. Yes, sir
- 20 EXAMINER BROOKS: You are also a lawyer?
- 21 THE WITNESS: I am an attorney
- Q. (By Mr. Ezeanyim) Currently, you have 86
- 23 percent committed?
- A. That's correct.
- 25 EXAMINER EZEANYIM: No further questions.

- 1 EXAMINER BROOKS: Mr. Goetze?
- 2 EXAMINER GOETZE: No questions for this
- 3 witness.
- 4 EXAMINER BROOKS: Mr. Bruce, follow-up?
- 5 RECROSS-EXAMINATION
- 6 BY MR. BRUCE:
- 7 Q. Mr. McCool, on your Unit Agreement, the
- 8 exhibit -- you were talking about uncommitted interests.
- 9 And I just wanted to clarify, on Tract 1A, northwest of
- 10 24 --
- 11 A. Give me a moment, sir.
- 12 Q. Tract 1A --
- 13 A. Okay. I'm with you.
- Q. -- you said it was uncommitted. But were you
- 15 talking about the working interests?
- 16 A. I was talking about the working interest.
- 17 That's correct.
- 18 Q. Has Dugan Production Corp. ratified the
- 19 agreement, the record title owner?
- 20 A. Yes.
- 21 Q. What about the overrides? I presume the Tom
- 22 Dugan family --
- 23 A. Yes, the overrides have been ratified.
- MR. BRUCE: Okay.
- MR. FELDEWERT: Mr. Examiner, we're going

- 1 to call our next witness. But there's one thing I want
- 2 to clarify. And I don't want to put you on the spot, but
- 3 maybe I am.
- 4 The exception that we seek is certainly to the
- 5 setback requirements under the Counselors Gallup-Dakota
- 6 Oil Pool.
- 7 As I read the interplay between the order
- 8 creating the Basin Mancos Gas Pool and the special rules
- 9 that existed for the Counselors Gallup-Dakota Oil Pool
- 10 which were entered some time ago and were actually made
- 11 permanent in 1986, before the Basin Mancos Gas Pool was
- 12 entered, I read those existing rules, and they say that
- 13 the rules apply to the area of the Counselors
- 14 Gallup-Dakota Pool and anywhere within one mile.
- Then we go to the more recent order creating
- 16 the Basin Mancos Gas Pool, and it says that for all oil
- 17 pools that are listed, that those rules apply within two
- 18 miles of the area boundary.
- 19 Now, I would take that to mean that the
- 20 subsequent order has modified the special pool rules.
- 21 But I'm not 100 percent certain, to the extent there's
- 22 any ambiguity, the exception would also apply that we
- 23 seek to the setback requirements under the Basin Mancos
- 24 Gas Pool order to the extent there is acreage within the
- 25 unit area that would fall within the Basin Mancos Gas

- 1 Pool.
- 2 EXAMINER BROOKS: I understand the
- 3 witness's testimony in that respect. And I would
- 4 interpret the Basin Mancos order as you suggested, that
- 5 it takes precedence over the preceding Counselors Gallup
- 6 Gas Pool order. Certainly that can be taken care of in
- 7 the order in this case, as far as this unit is concerned.
- MR. FELDEWERT: With that said, we'll call
- 9 our next witness.
- 10 EXAMINER BROOKS: The witness may step
- 11 down.
- 12 THE COURT REPORTER: Can I have five
- 13 minutes?
- 14 EXAMINER BROOKS: Let's take a break.
- 15 (A recess was taken.)
- 16 EXAMINER BROOKS: You may proceed with
- 17 your next witness, Mr. Feldewert.
- MR. BRUCE: Thank you, Mr. Examiner.
- 19 NICHOLAS SOMMER
- 20 Having been first duly sworn, testified as follows:
- 21 DIRECT EXAMINATION
- 22 BY MR. FELDEWERT:
- Q. Would you please state your full name,
- 24 identify by whom you are employed and in what capacity?
- 25 A. Nicholas Curt Sommer. I'm employed by Encana

- 1 Oil & Gas USA, Incorporated. I'm a geologist.
- 2 Q. How long have you been a -- is it petroleum
- 3 geologist?
- A. Petroleum geologist.
- 5 Q. How long have you been a petroleum geologist
- 6 with Encana?
- 7 A. Five and a half years.
- Q. Have you previously testified before the
- 9 Division?
- 10 A. No.
- 11 Q. Why don't you provide us with your educational
- 12 background? Where did you get your degree?
- 13 A. I earned my Bachelor's of Science Degree in
- 14 Geology from the University of Texas in Austin in 2002.
- 15 I earned my Master's of Science in Geology at the
- 16 University of Colorado at Boulder in 2007.
- 17 Q. Upon graduation in 2007, did you begin work as
- 18 a petroleum geologist with Encana?
- 19 A. Yes, I did.
- Q. And have your responsibilities over time
- 21 included the San Juan Basin of New Mexico?
- 22 A. Yes, they have, since February of 2011.
- Q. Are you a member of any professional
- 24 affiliations?
- 25 A. I'm a member of the American Association of

- 1 Petroleum Geologists, the Rocky Mountain Section, RMAG.
- 2 I'm also a member of Rocky Mountain Section of the
- 3 Society of Economic Paleontologists and Mineralogists.
- 4 I'm also a member of the Denver Well Logging Society,
- 5 which is the local chapter for the Society of
- 6 Professional Well Log Analysts.
- 7 Q. How long have you been a member of the
- 8 American Association of Petroleum Geologists?
- 9 A. Since 2001.
- 10 Q. Did you join when you were a student?
- 11 A. Yes. There are student chapters of AAPG
- 12 across the nation. I joined while I was at the
- 13 University of Texas.
- Q. And you've maintained your membership
- 15 throughout?
- 16 A. Yes.
- 17 Q. Are you familiar with the application that's
- 18 been filed in this case?
- 19 A. Yes, I am.
- Q. Have you conducted a geologic study of the
- 21 area and the lands that are the subject of this
- 22 application?
- 23 A. Yes, I have.
- MR. FELDEWERT: Mr. Examiner, I would
- 25 tender Mr. Sommer as an expert witness in petroleum

- 1 geology.
- 2 EXAMINER BROOKS: He's so qualified.
- 3 Q. (By Mr. Feldewert) Would you turn to what's
- 4 marked Encana Exhibit 6?
- 5 Let me first ask you, is this the same type of
- 6 log that comprises Attachment C to the Unit Agreement
- 7 which was marked as Exhibit Number 2?
- A. Yes, it is. The Gallo Canyon Number 1 Well
- 9 was drilled by Gulf Oil in 1983. It's a bit confusing
- 10 because there's another well called the Gallo Canyon
- 11 Number 1 that is outside the unit area. This is in the
- 12 unit.
- 13 Q. Are you familiar with the horizon that is
- 14 being unitized for the Gallo Canyon unit?
- 15 A. Yes.
- 16 O. What is that horizon?
- 17 A. It is from 100 feet below the top of the
- 18 Mancos shale, which is the base of the Mesaverde group,
- 19 all the way down to the base of the Greenhorn Limestone
- 20 member.
- 21 Q. Is that interval or that horizon depicted in
- 22 what's been marked as Encana Exhibit 6?
- 23 A. Yes, it is.
- Q. Have you conducted a study to determine
- 25 whether this particular horizon extends across the

- 1 unitized area?
- 2 A. Yes, I have. And yes, it does extend across
- 3 the unit area.
- 4 Q. Turn to what's marked as Encana Exhibit 7.
- 5 Would you please identify it for us and tell us what it
- 6 shows?
- 7 A. Sure. This is just a zoomed-in portion of the
- 8 type log from the Gallo Canyon Number 1 Well. We've got
- 9 it out of scale so that we can see some detail in the
- 10 Gallup member of the Mancos shale.
- It's included so that we can point out some of
- 12 the characteristics of the pay sands. They have, on the
- 13 far left tract, a clean gamma ray response, which would
- 14 be when it curves just to left and the color shading gets
- 15 more yellow, the pay sandstones do.
- In the middle tract, the resistivity curve,
- 17 you see brighter colors where you have oil and gas
- 18 present. Then on the right, there's the neutron and
- 19 density porosity curves.
- The density porosity is shaded with a cutoff
- 21 showing greater than 5 percent porosity. The sandstones
- 22 within the Gallup cause that curve to deflect towards the
- 23 left. They range anywhere from 4 to 12 or 13 percent on
- 24 the high side in porosity.
- Q. Are those colored in red on Encana Exhibit 7?

- 1 A. Yes, they are.
- Q. Is that the target sands for your development
- 3 under this proposed Unit Agreement?
- A. Yes, they are. We target typically the sands
- 5 of the Lower Gallup with our horizontal laterals. We
- 6 usually land the laterals in either the lowest sand with
- 7 good porosity and resistivity response or the
- 8 second-lowest sand because our hydraulic fracture
- 9 stimulations go primarily upwards, we believe.
- 10 Q. Anything else about this particular exhibit?
- 11 A. No.
- 12 Q. Let's turn to what's been marked as Encana
- 13 Exhibit Number 8. Please first identify it for us, and
- 14 then tell us what it shows.
- 15 A. Sure. What we have with Exhibit Number 8 is a
- 16 structure contour map on the top of Gallup. The depths
- 17 are Sub C true vertical depths.
- The Gallo Canyon Unit outline is shown in red.
- 19 Highway 550 is the dashed black line that cuts across
- 20 from west to east and goes through the unit.
- Our proposed initial unit well is shown with a
- 22 black line. There is a square at the surfacehole
- 23 location. It will be drilled southeasterly at
- 24 approximately 135 degree azimuth, and the bottomhole
- 25 location is shown with a circle.

- Oil wells primarily from the Counselors
- 2 Gallup-Dakota field are shown with green circles, and gas
- 3 wells are shown in a hollow red circle with lines
- 4 radiating out. There are also other symbols for plugged
- 5 and abandoned wells, dry holes, and canceled APDs shown
- 6 on the map.
- 7 What these structure contours reveal, which is
- 8 typical for the Chaco slope in the San Juan Basin, is a
- 9 fairly uniform monoclinal dip towards the north/northeast
- 10 of approximately 1 degree. The structural contours show
- 11 good continuity across the whole mapped area, including
- 12 the unit boundary, indicating that there are no faults
- 13 within the mapped area or the unit.
- Q. Do you have cross-sections that corresponds to
- 15 A to A prime and B to B prime that are shown on this
- 16 exhibit?
- 17 A. Yes, I do. Those are going to be Exhibits 9
- 18 and 10. The A to A prime provides a view in a downdip
- 19 direction. The B to B prime gives us a glimpse across
- 20 the unit along structural strike.
- Q. Let's turn to what's been marked as Encana
- 22 Exhibit 9. Is this your A to A prime cross-section?
- 23 A. Yes, it is.
- Q. What does this show us?
- 25 A. This shows us from -- on the left side of the

- 1 page, where we labeled A, which would be south, the
- 2 Encana Lybrook AO3 Well all the way over to the other
- 3 Gallo Canyon Number 1 Well at A prime, which is to the
- 4 north, downdip outside the unit.
- When we look between the formation tops
- 6 labeled "Gallup" and "Base Gallup," what you can see is
- 7 good continuity of sandstone, the pay sandstone
- 8 reservoirs of the Gallup member.
- 9 Looking from left to right, you can see good
- 10 clean gamma ray response, elevated resistivity and
- 11 elevated porosity throughout all five of the wells shown
- on the cross-section, including the very middle one that
- 13 we looked at earlier, the Gallo Canyon Number 1 Well
- 14 that's in Section 26.
- 15 You can notice on the two wells on the
- 16 right-hand side, the Absolut 1 and the other Gallo Canyon
- 17 Number 1 Well, those sandstones have been perforated and
- 18 completed within the Gallup and just above the Gallup as
- 19 well.
- 20 Q. Is that shaded in -- what's that color?
- 21 A. They are shaded pink, and they are in the
- 22 left-hand side of the corresponding depths that are
- 23 labeled.
- Q. Do the pay sands that you're targeting then
- 25 extend across the area that you've examined?

- 1 A. Yes, they do. They exhibit good continuity
- 2 across the unit area.
- Q. So that was your south-to-north cross section?
- A. Yes.
- 5 Q. Let's go to what's been marked as Encana
- 6 Exhibit Number 10. Is this your west to east?
- 7 A. Yes, it is.
- 8 Q. B to B prime?
- 9 A. B to B prime. B would be west, B prime is
- 10 east. This also has the type log Gallo Canyon Number 1,
- 11 which is the second well from the right.
- 12 Again, just looking at the well log responses
- of the Gallup member, you can see clean gamma ray,
- 14 elevated resistivity and elevated porosity, showing again
- 15 that the pay sands exhibit good continuity along strike
- 16 within the unit area. And there are perforations in the
- 17 wells that are on the far west and the far west, the Dome
- 18 Federal 28-23 Number 1 and the Gulf State 36 Number 1.
- So again, the Gallup sandstone reservoirs do
- 20 exhibit good continuity across the unit area.
- 21 Q. Now, Mr. Sommer based on your analysis, have
- 22 you observed any faults or pinchouts or any other
- 23 geologic anomaly that would adversely affect the
- 24 development of this area under a unit plan?
- 25 A. No, I have not.

- 1 Q. In your opinion, is the unitized area one that
- 2 can be effectively and efficiently developed under a
- 3 horizontal unit plan?
- 4 A. Yes, it is.
- 5 Q. Will the formation of this unit, in your
- 6 opinion, provide for the most efficient development of
- 7 the reserves in the unitized interval?
- 8 A. Yes, it will.
- 9 Q. Do you believe that the granting of this
- 10 application is in the best interest of conservation, the
- 11 prevention of waste and the protection of correlative
- 12 rights?
- 13 A. Yes, I do.
- Q. Were Encana Exhibits 6 through 10 prepared by
- 15 you?
- 16 A. Yes.
- MR. FELDEWERT: Mr. Examiner, I move the
- 18 admission into evidence of Encana Exhibits 6 through 10.
- 19 EXAMINER BROOKS: Six through 10 are
- 20 admitted.
- 21 (Exhibits 6 through 10 were admitted.
- MR. FELDEWERT: That concludes my
- 23 examination of this witness.
- 24 EXAMINER BROOKS: Mr. Bruce?
- MR. BRUCE: Just a few questions.

CROSS-EXAMINATION

2 BY MR. BRUCE:

1

- 3 Q. Mr. Sommer, in looking at your Exhibit 6, why
- 4 does the unitized zone, unitized formation, commence 100
- 5 feet below the base of the Mancos Shale, rather than at
- 6 the top of the Mancos Shale?
- 7 A. Well, all geologists will likely not make that
- 8 formation top interpretation the same way. It's a
- 9 conformable rock sequence, where you're going from a near
- 10 shore marine sandstone down into shalier and shalier
- 11 rocks, so it's kind of a gradational contact. So you
- 12 have to pick some sort of criteria to place that top. We
- just wanted to give a 100-foot buffer to allow for
- 14 potential different interpretations there.
- 15 Q. If you turn to your Exhibit 8 -- and I don't
- 16 know if you have this data handy. But just looking at
- 17 the vertical wells inside the unit area, the vertical
- 18 Gallup wells, what type of -- what were the cums on these
- 19 wells?
- 20 A. So a lot of them are commingled Gallup and
- 21 Dakota wells. We see oil cumulative production from
- 22 anywhere approximately perhaps 10,000 to 30,000 barrels.
- 23 Most of the wells have been on line for decades, and
- 24 essentially what they cum is probably very close to their
- 25 ultimate recovery.

- On the gas side, you're probably looking at
- 2 maybe a quarter bcf to three-quarters of a bcf. There
- 3 could be a fairly wide range on the variability on the
- 4 gas cums. They've been produced and completed in
- 5 different ways, so there's variability due to that.
- 6 Q. The initial unit well, why is it being drilled
- 7 at about -- why is it not being drilled as a stand-up or
- 8 lay-down? Why is it at the angle?
- 9 A. Sure. We try to orient wells perpendicular to
- 10 the maximum horizontal stress field in the basin to allow
- 11 for the hydraulic fracture stimulations to achieve
- 12 maximum length from the wellbore to maximize the
- 13 stimulated rock volume. And we've observed the maximum
- 14 horizontal stress in the Gallup to be at approximately
- 15 north 45, north 50 degrees to azimuth.
- Q. At this time, are there any plans to drill
- 17 wells outside of the Gallup, your initial target zone?
- 18 A. At this time, no.
- MR. BRUCE: That's all I have,
- 20 Mr. Examiner.
- 21 EXAMINATION
- 22 BY EXAMINER BROOKS:
- 23 Q. I've heard several geologists testify here
- 24 about the Mancos play. And there seems to be a view
- 25 among many of them that -- well, the statement has been

- 1 categorically made from the witness stand that the Gallup
- 2 formation is not present in the productive part of the
- 3 San Juan Basin.
- 4 And my belief is that that is more a
- 5 difference of opinion about what is properly called the
- 6 Gallup than it is a difference of opinion about what
- 7 geologic strata actually exist.
- If you were one of those geologists, what name
- 9 would you use?
- 10 A. I would probably call the sandstones -- I use
- 11 the term, "Gallup," because that's what it's been
- 12 traditionally known as to not create confusion. I agree
- 13 it's probably misnamed.
- 14 The sandstones are more genetically related to
- 15 the Mancos Shale that was deposited in the ocean at that
- 16 time, as opposed to the beach sand, which is the Gallup.
- 17 There are other names that have been given to
- 18 individual sands, such as Tocito, the Alvarado. We use
- 19 those names to discriminate the Lower and the Upper
- 20 Gallup, respectively.
- 21 . Q. Those would be within the area that you have
- 22 designated on your cross-sections, this Gallup --
- 23 A. Correct. The classic Tocito sand, really, the
- 24 type logs and where that was established is further to
- 25 the west. But we have sands that are time equivalent, so

- 1 we would call it the Tocito interval, not the actual
- 2 individual Tocito sandstones.
- 3 EXAMINER BROOKS: Thank you.
- 4 Mr. Ezeanyim?
- 5 EXAMINER EZEANYIM: No questions.
- 6 EXAMINER BROOKS: Mr. Goetze?
- 7 EXAMINER GOETZE: I do have one request,
- 8 that we get the API number for your type section well.
- 9 THE WITNESS: I looked at that last night.
- 10 It's 30, I believe, 04320468. I can confirm that.
- MR. FELDEWERT: Hold on a minute. I know
- 12 I wrote that down someplace.
- 13 THE WITNESS: I apologize for not
- 14 including that, especially since there's two Gallo Canyon
- 15 Number 1 wells.
- 16 EXAMINER GOETZE: Yeah, it's confusing.
- 17 And also you're making a petition, so it would be nice to
- 18 have it on the record.
- 19 MR. FELDEWERT: It's 3004320684.
- 20 EXAMINER GOETZE: No further questions.
- 21 EXAMINER BROOKS: Anything further?
- MR. BRUCE: No, sir.
- 23 MR. FELDEWERT: No, Mr. Examiner.
- 24 EXAMINER BROOKS: Very good. The witness
- 25 may stand down. Case 14987 will be taken under

1	advisement.	Page 40
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9	do hereby certify that the foregoing to a somplete record of the proceedings in the Examiner hearing of Creekly 2022	
10	the Examiner beauty proceedings in	
11	heard by me on 5-16-13	
12	Oil Conservation Division	
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