

1 APPLICATION BY COTERRA ENERGY OPERATING CO. FOR
2 HEARING DE NOVO

3 STATE OF NEW MEXICO OIL CONSERVATION COMMISSION

4 Thursday, September 18, 2025

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R E C O R D I N G

THE CHAIR: Mr. Haddock. Good morning. Good morning, noting the time, I'll call the commission meeting back to order. We were on Mr. Haddock. Thank you. If I recall correctly, we had just concluded cross last evening. That's correct. Commissioner Thompson, do you have any questions for this witness?

COMMISSIONER THOMPSON: No questions.

THE CHAIR: Thank you. No questions? Any redirect?

COMMISSIONER THOMPSON: No redirect.

THE CHAIR: Great. Thank you for coming all the way up. In that case, you may call your next witness.

MS. VANCE: Mr. Commissioner, we'd like to call Davro Clements, our facilities engineer.

THE CHAIR: Thank you. Mr. Clements, do you solemnly swear or affirm that the testimony you're about to give in this hearing will be the truth, the whole truth, and nothing but the truth under penalty of law?

THE WITNESS: I do.

THE CHAIR: Thank you. Your witness.

MS. VANCE: Thank you. So, Mr. Clements, can you, for the court reporter, go ahead and spell your

1 name?

2 THE WITNESS: Yes, it's D-A-V-R-O C-L-E-M-E-
3 N-T-S.

4 DIRECT EXAMINATION

5 BY MS. VANCE:

6 Q And by whom are you employed?

7 A Permian Resources.

8 Q And in what capacity?

9 A I work as a senior facilities engineer.

10 Q Okay. And have you previously testified
11 before the division or the commission?

12 A I have.

13 Q And your credentials have been accepted as a
14 matter of record?

15 A They have.

16 Q And you're familiar with the applications in
17 these contested matters?

18 A Yes.

19 MS. VANCE: I know we already have stipulated
20 to this, but I would tender Mr. Clements as an expert
21 in facilities engineering.

22 THE CHAIR: Without objection?

23 MR. ZIMSKY: No objection.

24 BY MS. VANCE:

25 Q And, Mr. Clements, you prepared Exhibits for

1 this contested matter, correct?

2 A I did, correct.

3 Q And those are marked as D-1 through D-6?

4 A Yes.

5 Q And you also prepared rebuttal Exhibits?

6 A Correct.

7 Q And those are marked as D-7 through D-8?

8 A Correct.

9 Q I think there's D-7 through D-9 potentially.

10 MS. VANCE: I think you're correct. So I'm
11 going to go ahead and -- give me one moment to share
12 my screen. I'm going to stop sharing because I thought
13 I already had this up, but I don't. Can I have just
14 one moment to pull up the --

15 MR. ZIMSKY: Please, yeah. Let her --

16 THE CHAIR: Thank you. We're trying to do the
17 same up here. Remind me which Exhibit you had just
18 said you were looking for.

19 MS. VANCE: So it's going to be Exhibit D --

20 THE CHAIR: D?

21 MS. VANCE: -- and it's in Part 3 of our
22 hearing packet.

23 THE CHAIR: Yes, but D -- D- 5 -- D-3 or just
24 all the Ds?

25 MS. VANCE: It's all the Ds.

1 THE CHAIR: Okay.

2 MS. VANCE: That's correct, Commissioner. All
3 right. So it finally came up for me.

4 BY MS. VANCE:

5 Q All right. You can see that clearly?

6 A Yes, I can.

7 Q Exhibit D-1. All right. Mr. Clements, we're
8 looking at, it appears to be a diagram of the
9 development area. Is that correct? Over on the right-
10 hand side?

11 A Yes, that's correct.

12 Q And I see a number of different pads. How
13 many pads does Permian plan to dedicate, and how many
14 CTBs does Permian plan to dedicate to this
15 development?

16 A For the Joker Bane development, we will
17 create four well pads and one CTB.

18 Q Okay. And I also see Riddler over here off to
19 the right-hand side on the diagram. Can you explain
20 why you've included the Riddler CTB?

21 A Yes. The Riddler development is an active
22 development now, which will be turned online
23 in January 2026. With that and the CTB created for
24 that development, it creates an opportunity to bring
25 the Bane wells over to that facility, minimizing

1 surface damages.

2 Q And so it sounds like there's some
3 flexibility here that Permian is creating with having
4 this -- these -- the Riddler available for the
5 production from both the Bane -- the Bane and Joker.
6 Is that right?

7 A That's correct. Our primary focus is bringing
8 the Bane over to the Riddler CTB and the Joker wells
9 to the Joker CTB.

10 Q And as far as steps that Permian has taken
11 for permitting, what steps has Permian taken for their
12 surface facilities?

13 A All drill island reviews have been completed.
14 We've completed the environmental assessments,
15 including the involvement of CEHMM, which is the
16 Center for Environmental Health Monitoring and
17 Management. They have been an instrumental part of
18 ensuring that all of our pad locations and flow line
19 locations are not going to be impactful on endangered
20 species habitats, including the -- the
21 Dune's Sagebrush lizard. So all of these have been
22 vetted by them, which allowed us to create a plan that
23 we could present to the BLM through an on-site
24 meeting, which was ultimately approved.

25 Q And you heard Mr. Boyle's testimony

1 yesterday, and you've looked at his Exhibits. To your
2 knowledge, are you aware that Cimarex has taken any
3 steps similar to Permian as far as permitting goes for
4 this area and development?

5 A Yeah. It was not listed in their Exhibits.

6 Q Okay. And also in terms of you know, your
7 review, does Permian have -- is Permian creating less
8 of a surface disturbance than Cimarex's proposed
9 development?

10 A Yes, so here I'm showing surface disturbance
11 related to facilities alone with a CTV surface
12 disturbance of 3.61 acres and a temporary flow line
13 disturbance of 5.85 acres. Later in my rebuttal
14 slides, I will show the full surface impact, as that
15 is what Coterra laid out as well, and that will show
16 that we will disturb 30.98 acres versus their 33.9,
17 which is about 8.2 percent less.

18 Q Excellent. So we'll move to the next slide
19 here. All right, can you just tell us a little bit
20 about these critters, these Dune Sagebrush lizards,
21 and why we care about them?

22 A Yes, and I'll refer to them as the DSL, just
23 for ease. So the -- the map on the right shows in
24 yellow our DSUs, including the Joker Bane, and the
25 hatch lines show that these DSUs are within the DSL

1 habitats. The DSL was deemed as an endangered species
2 in June of last year, and with that we have
3 voluntarily partnered with CEHMM to -- which again is
4 the Center for Environmental Health Management and
5 Monitoring, to ensure that we work alongside them and
6 not disturb any of this endangered species habitat.

7 Q So just from your perspective, it sounds like
8 Permian is proactive with addressing any kind of
9 environmental factors, specifically for any kind of
10 conservation of animal habitat, is that right?

11 A That is correct.

12 Q All right, so I'm looking at this diagram
13 here or this picture over on the right-hand side. Is
14 this a typical setup -- facility setup for Permian?

15 A Yes, this is the Batman CTB, which was built
16 in 2023, which will be the same design we use on
17 Riddler and Joker.

18 Q And we've talked a lot about allocation in
19 these contested matters, so can you just walk us
20 through what kind of well testing that Permian is
21 doing to ensure accurate accountability, or accurate
22 allocation of production?

23 A Sure. So our facility design includes a
24 three-phase test separator for every well, which
25 ensures the most accurate point of measurement for all

1 three phases, oil, gas, and water. That will help to
2 ensure that proper allocations, surface allocations,
3 are occurring for mineral interest owners. This also
4 provides real-time and a comprehensive data set for
5 our reservoir engineers so they can best understand
6 this development and developments going forward.

7 Q And I see here you've got listed over on the
8 left-hand side this breakout. You've also got
9 separation. Can you talk just very briefly about your
10 process for your oil production, the separation stages
11 for that?

12 A Sure. Yeah, so our oil production goes
13 through four stages of separation within our facility.
14 First is the test separators that I just mentioned.
15 The oil then goes to a heater-treater. From there it
16 goes to a vapor recovery tower, and it ultimately goes
17 to oil storage tanks, which would then be utilized to
18 send the oil to market. This process, these four
19 stages of separation, ensures that we capture the most
20 vapor prior to the tanks and in a position to capture
21 vapor within the tanks themselves, and also ensures
22 that the oil in the storage tanks are at the best --
23 is at the best quality for sales.

24 Q And -- and next you've got here listed
25 facility capacity. So, you know, obviously there's

1 been a lot of discussion about the number of wells
2 that Permian has listed as far as their initial wells
3 go. Would this facility be able to accommodate the
4 number of wells and the production that Permian is
5 planning for with these initial wells?

6 A Yes, it will.

7 Q And also we talked yesterday about tank-
8 versus-tank lists with Coterra, and I
9 apologize, for saying Cimarex. I know they've changed
10 their name. So with Coterra's Mr. Boyle, can you just
11 talk about your -- the Permian using tanks?

12 A Yeah, so our tank design, as Mr. Boyle
13 mentioned yesterday, the industry standard previously
14 has been 8 or 16 oz tanks. We made a change in 2023 to
15 utilize 40 oz tanks, which is 150 percent increase in
16 operating pressure of those tanks. So those tanks,
17 coupled with our oversized vapor recovery systems,
18 including a vapor recovery tower and redundant VRUs,
19 ensures that our tank facility is capable of capturing
20 similar emissions or vapors compared to Coterra.

21 Q And what about your pneumatics? What -- You
22 know, how do they address any kind of environmental
23 impacts?

24 A All of our facilities, the pneumatic devices,
25 are equipped with instrument air through an air

1 compressor versus other options other operators may
2 use, instrument gas. Those pneumatic devices vent the
3 supplied air or gas to the atmosphere, so having
4 instrument air is a critical point of emissions
5 control.

6 Q Okay, and we'll go to the next slide. So
7 let's start with the left-hand side here with the gas
8 capture. Where is Permian at in terms of meeting New
9 Mexico's waste -- waste rule?

10 A Yeah, so New Mexico's methane waste rule,
11 which will come into effect December 31, 2026, targets
12 a 98 percent gas capture. Looking at the chart on the
13 bottom left, it shows our gas capture in New Mexico
14 2023 through 2025. You can see from 2023 at 94
15 percent, now up to 99 percent in 2025. The last two
16 years have put us in a position to be ahead of meeting
17 that goal.

18 Q Excellent. And -- and then let's move to the
19 right-hand side here with the vapor recovery. Again,
20 going back to that conversation about the tanks versus
21 tankless, can you talk to what kind of steps Permian
22 is taking, what kind of proactive steps Permian is
23 taking to address these -- any kind of vapor recovery
24 or environmental impacts related to it?

25 A Sure. So, yeah, the 40-ounce tank change was

1 the first big step change in our -- our design. But
2 the -- the secondary advancements have been focused
3 more so on operations. So we have developed an in-
4 house vapor recovery team, which includes foremans and
5 techs spread out between all of our assets. And their
6 sole responsibility is to go to all locations, ensure
7 those vapor recovery systems are functioning properly,
8 and meeting our KPIs. The second thing that we're
9 doing is installing continuous emissions monitoring
10 systems. Those are installed on sites accounting for
11 80 percent of our oil production. And what those
12 systems do is they will alarm our operators if there
13 are any fugitive emissions events, which would then
14 request the attention of the operator to get to
15 location, resolve the issue, and communicate any kind
16 of design flaws or problematic tendencies of the
17 facilities and engineers.

18 Q So it sounds like Permian is able to respond
19 to any kind of environmental concerns or issues in
20 real time.

21 A That's correct.

22 Q All right. So looking at this diagram we have
23 on the right-hand side, it looks like it's scrolled
24 out from where we started with the Exhibit D1. Can you
25 explain or just give a general overview of what -- why

1 we're looking at a scrolled-out version?

2 A Sure. So the Joker-Bane Riddler development
3 we talked about previously is on the north side. On
4 the lower half of it, the south side, is the Batman
5 and Robin development. So this encompasses what we
6 call our Jewett development area. And what I'm showing
7 here is more of a look at our overall infrastructure.
8 Primarily here I'm showing our water gathering
9 systems, which is owned and operated by Permian
10 Resources and connected to multiple midstream
11 gatherers. And in this case, for this area, a
12 treatment pit offered by Select, which treats and
13 stores produced water.

14 Q And -- and just to be clear, your water
15 takeaway infrastructure, that -- that's these blue
16 lines. Is that correct?

17 A That's correct. The line there that you're
18 hovering over is a line that we're actively
19 constructing, which will connect to the Riddler CTV.
20 And that puts us in -- in a good developer -- in a
21 good position to then later develop the Joker-Bane
22 approved.

23 Q Okay. And so it sounds like just looking at
24 this larger area, Permian is invested in a full-scale
25 development here.

1 A Yes. Between us and our midstream companies,
2 we have fully invested in this area.

3 Q Can you just explain what is water recycling?

4 A Water recycling involves a process of taking
5 produced water from the wells and then treating it and
6 potentially storing it to then be used for beneficial
7 use, such as completions activities.

8 Q And why -- why is it important?

9 A It's important for a few different reasons.
10 One, it helps on the capital side of things for the
11 completions activities, using produced water -- reused
12 water, versus sourcing other means of water is
13 cheaper. It helps on the lease operating expenses
14 because the water doesn't need to be disposed of. It
15 helps on the takeaway side of things, having the
16 ability to treat and store millions of barrels of
17 water. At times of high production provides a great
18 resource for us. And then finally, from the
19 environmental standpoint, having reuse as an option
20 prevents us -- prevents the need of having to bring
21 other water sources into that -- that produced water
22 ecosystem, which would then be barrels that would have
23 to be handled and likely disposed of in the future.

24 Q And -- and last thing here on this slide, I
25 see right here this -- this diagram here in the

1 middle. I see Batman and Robin. You've mentioned them.
2 Can you just explain -- Hearing stuff go off. Can you
3 just explain, it looks like things are going up here
4 and you guys are increasing your capability to be able
5 to use this recycled water. Is that correct?

6 A That's correct. Yeah. So the image on the
7 right is the Select Water Reuse Pits that I mentioned
8 in the previous slide. This is infrastructure
9 connected to our water gathering systems are able to
10 treat and store 2 million barrels of water. So the --
11 the chart on the -- the left that you're referring to
12 is our development through Batman and Riddler over
13 time. The first three columns represent reuse
14 percentages before infrastructure is in place. And the
15 final column represents reuse percentages after that
16 infrastructure is in place. This just goes to show
17 that we're heavily invested in investing -- investing
18 in infrastructure for water reuse and Jewett, the
19 overall area encompassing Joker-Bane would see similar
20 numbers as what we're seeing here at 96 percent.

21 MS. VANCE: Thank you. And that's all for
22 direct, but I would like to go into addressing our
23 rebuttal exhibits. We did offer that to opposing
24 counsel to be able to roll right into rebuttal. If
25 that's okay.

1 MR. ZIMSKY: No objection.

2 MS. VANCE: Okay. Just can I have one minute
3 to bring up the rebuttal Exhibits?

4 BY MS. VANCE:

5 Q Mr. Clements. So we've got a couple of slides
6 here that you prepared as a rebuttal. Can you just
7 explain, it looks like over on the left-hand side,
8 this just kind of outlines what you had in your
9 testimony? Is that correct?

10 A Yes.

11 Q And -- and again, what is the total surface
12 acreage that Permian will cover in terms of any kind
13 of disturbance?

14 A Yeah. So just to clarify, in my initial
15 testimony, we just commented on facility locations,
16 including the CTP and -- and flow lines. So we want to
17 do an apples to apples comparison with the services
18 that Coterra included, which is roads and well pads.
19 So when you look at that as a whole, we stand to
20 impact 30.98 acres where they show 33.9. So it's an 8
21 percent -- 8.6 percent reduction in surface
22 disturbance for the entire development.

23 Q And again, I know you just -- I think you
24 just said this, but in your analysis, you did include
25 the flow lines, temporary disturbances, correct?

1 A I showed it in the initial testimony. I'm
2 showing it here, but it's not included in the -- the -
3 - the 30.98. Just for transparency, we're showing what
4 the temporary easement disturbance would look like.

5 Q But total, it would be adding together this
6 30.98 and then the 5.85. Is that correct?

7 A That's -- that's correct. And again, Coterra
8 didn't know yesterday that they also didn't include
9 their -- include their flow line disturbance. So we
10 wouldn't have an apples to apples comparison with
11 that.

12 Q Got it. All right. We'll go to the next one.
13 All right. Now on this Exhibit, I see -- I see a lot
14 of stuff going on. Can we just start with each of
15 these charts and -- and walk through it? I'm looking
16 at this red line, and it appears to be one. Let me
17 back up here. So in each of these, it looks like
18 you're expanding over a six-year period. Is that
19 correct?

20 A That's correct. 2020 through 2024 is data
21 pulled from EPA subpart W and then 2025 is estimated
22 values.

23 Q And again, these are obviously rebuttals. So
24 this is in response to Coterra and I -- I meant to
25 bring up their Exhibit so we could look at it. But

1 they also provided a snapshot of -- of Permian's flare
2 intensity, methane intensity, and then the GHG
3 greenhouse gas intensity in their Exhibits, correct?

4 A That's correct. They showed it from 2021
5 through 2023.

6 Q Okay. And you -- you got to my next question.
7 So they -- they only provided a overview of three
8 years versus what we're showing here as six years,
9 correct?

10 A That's correct.

11 Q And so let's start with this red line. This
12 red line is showing what?

13 A This is showing our gas production over the
14 course of that same period, which represents a 510
15 percent increase.

16 Q And then these yellow -- blocks -- Sorry, my
17 brain is not working this morning. These yellow scales
18 that you've got here, what is that representing?

19 A That represents the yearly flare intensity
20 value.

21 Q So what I'm -- I'm getting from this and
22 correct me if I'm wrong, you are produ -- Permian is
23 producing more, but reducing their flare intensity
24 over this period of time. Is that correct?

25 A That's correct.

1 Q Okay. And let's go ahead and jump down here
2 to the greenhouse gas. So this green line right here,
3 it looks like it's oil production. Is that correct?

4 A Correct.

5 Q And it's going up over time.

6 A That's correct. It's increased by 342 percent
7 over the five years.

8 Q And then these -- these bars that you've got
9 here, excuse me. What is that? What is that?

10 A That is the greenhouse gas intensity value
11 for each year.

12 Q Okay. And then -- So just again, correct me
13 if I'm wrong, but it appears that you -- that Permian
14 is producing more, but reducing their greenhouse gas.

15 A Correct.

16 Q Is there anything else on this slide that you
17 wanted to talk to?

18 A No, I think that's all.

19 Q All right. Again, we talked with Mr. Boyle
20 about tank versus tankless. Can you just provide maybe
21 a -- just an overview on some, what are the positives
22 of using a tank facility?

23 A Yes. So the biggest positive that we see from
24 a tank facility is having the ability to manage the
25 midstream upsets, which would be kind of the

1 disadvantage that we do see from a tankless facility.
2 So having the tanks on location gives us opportunity
3 to work with midstream companies, temporary --
4 temporary -- remedy temporary upsets and potentially
5 store or haul off oil or water if needed.

6 Q And then as far as tankless, can you maybe
7 just address any of the concerns that would go along
8 with having a tankless facility?

9 A Yeah. So we see two big concerns with the --
10 the tankless facility. One, just from a product
11 standpoint, there's -- it's hard to get perfect
12 separation through a facility. So there's a high
13 probability that you would carry oil over with your
14 water. And then that water will be sent to a water
15 gathering system where your product would be lost.
16 Inversely, you can send water with your oil and that
17 would be sent to the oil gatherer. And overall that
18 creates a lower value product, which would turn, be
19 lower revenue for mineral interest owners. The second
20 part of it is -- is handling the temporary upsets that
21 occur with midstream companies. There's always going
22 to be planned outages, unplanned outages, high line
23 pressure, contaminated products that will all require
24 shut ins for any types of those events.

25 Q And -- and I heard you talk about possible

1 impact to the value using the tankless, just to be
2 clear, it could have an impact on the value of the
3 production, correct?

4 A That's correct. If you're shutting in for
5 temporary upsets or any upsets on the midstream side,
6 you could be damaging artificial lift systems, which
7 ultimately results in less production for your
8 facility and less revenue for mineral interest
9 owners.

10 MS. VANCE: Those are all the questions that
11 I have on direct. And I would offer Mr. Clements as
12 available for any questions from the commission
13 for cross-examination.

14 THE CHAIR: We'll start with the cross.

15 CROSS-EXAMINATION

16 BY MR. ZIMSKY:

17 Q Good morning, Mr. Clements. My name is
18 William Zimsky. I'm representing the Coterra here.

19 A Good morning.

20 Q And I'm going to share from the land Exhibit.
21 It was filed in this case, particularly paragraph 48.
22 Coterra has approved APDs for Lucy Goosey wells, those
23 wells listed. And you testified, you weren't aware of
24 whether they did have permits.

25 A I had said that I didn't see that they had a

1 onsite approved or had worked with like CAM for
2 environmental assessment.

3 Q But they -- but you do admit that they have
4 APDs for Lucy Goosey?

5 A Yes, I agree.

6 Q And you testified at the August 2023 hearing
7 and on cross-examination, you're in -- you were
8 present at that hearing, at least by virtually,
9 correct?

10 A That's correct.

11 Q And you heard the depo -- the questioning by
12 Mr. Rankin, your attorney, Mr. Boyle about being a
13 member of CCA. Do you recall that testimony?

14 A No. Sir, I don't.

15 Q And I am sharing. This is from the day one
16 transcript. Page 227. Actually on page 228. "Mr.
17 Rankin, are you guys a member of, and I'm going to
18 mangle it, but you can correct me the CCA or CCAA or
19 whatever it is. The conservation agreement dealing
20 with native species." Yes, sir. We are." Does that
21 help refresh your recollection?

22 A That does. Yes.

23 Q Okay. Thank you. So they are a member of CCA.

24 A Yes, it looks like it.

25 Q In almost every operator in the basin is a

1 member of CCA.

2 A I'm not sure.

3 Q Okay. And -- Would there be a need for any
4 additional equipment at the Riddler facility to handle
5 the Bane volumes?

6 A No, sir.

7 Q So the Bane -- the Riddler facility has
8 enough equipment there to handle the --

9 A I --

10 Q -- the joke -- the Joker-Bane volumes.

11 A Yeah, I should clarify the equipment that
12 would be set at the -- at the Riddler CTB would be the
13 test separators for the Bane wells themselves, but
14 there wouldn't be any additional components added to
15 the -- the base design of the facility.

16 Q So the Joker-Bane working interest owners are
17 going to enjoy the facilities, the Riddler facilities,
18 right?

19 A Can you ask that again?

20 Q The Joker-Bane working interest owners will
21 enjoy the benefits of the Riddler facilities.

22 A Our accounting team deals with the capital
23 allocation for these types of projects. So I would
24 have to refer to someone on that side, which is not
25 present today.

1 Q But did you create the facility AFE's, AFE's
2 mean authorize -- authority for expenditure for the
3 CapEx spending?

4 A That's right. That's based off our standard
5 facility design.

6 Q And are you going to build the Joker-Bane
7 working interest owners for their share of those
8 facilities?

9 A Yes.

10 Q And that's in your AFE's accounting for it?

11 A Yes.

12 Q Your Exhibit D 9 -- D 8. I'm sharing that
13 with you now. How do your numbers on these flare
14 intensity, methane intensity, greenhouse gas intensity
15 -- Do you show these, the numbers, how they compare to
16 Coterra's numbers?

17 A No, we do not. That is shown on the Coterra's
18 Exhibits.

19 Q And you would agree that Coterra's metrics
20 for all three of those emissions are better than
21 Permian's

22 A I agree.

23 MR. ZIMSKY: That's all the questions I have.

24 THE CHAIR: Commissioner Thompson.

25 CROSS-EXAMINATION

1 BY MR. THOMPSON:

2 Q Good morning. A set of question in regard to
3 you (INAUDIBLE) the Joker and Bane facilities. How are
4 you guys going to be allocating production? Are you --
5 are you going to be having allocation meters at
6 separators?

7 A Every test separator will have allocation
8 meters.

9 Q Okay, and so you're (INAUDIBLE) testing?

10 A No.

11 COMMISSIONER THOMPSON: Okay. Thank you.

12 THE CHAIR: Commission counsel. No questions.
13 Redirect.

14 MS. VANCE: Yeah. Just two questions.

15 REDIRECT EXAMINATION

16 BY MS. VANCE:

17 Q Mr. Clements, Permian -- would you agree that
18 Permian takes steps to consolidate facilities and
19 reduce costs where possible for interest owners?

20 A Yes, absolutely.

21 Q Okay. And then as far as addressing
22 environmental concerns, would you characterize Permian
23 as being proactive, addressing environmental factors
24 to reduce methane emissions, greenhouse gas, and flare
25 intensity?

1 A Yes. I think that's evidenced by our
2 improvement on KPIs for emissions, as well as our gas
3 capture and the design changes we've made to the
4 facility and operational enhancements.

5 MS. VANCE: Those are all the questions that
6 I have on redirect.

7 COMMISSIONER THOMPSON: No further questions.

8 THE CHAIR: Thank you very much.

9 THE WITNESS: Thank you. Thank you.

10 THE CHAIR: Your next witness.

11 MR. RANKIN: Thank you, Chair. Next witness
12 is Mr. Ira Bradford.

13 THE CHAIR: Do you swear and affirm that the
14 testimony you're about to give in this hearing will be
15 the truth, the whole truth, nothing but the truth,
16 under penalty of law?

17 THE WITNESS: I do.

18 THE CHAIR: Thank you. Your witness.

19 MR. RANKIN: Thank you, Mr. Chair.

20 DIRECT EXAMINATION

21 BY MR. RANKIN:

22 Q Mr. Bradford, please state your full name for
23 the record. Tell us by whom you're employed and what
24 capacity.

25 A My name is Ira Bradford. I'm employed by

1 Permian Resources, and I am the New Mexico Asset
2 Geoscience Manager.

3 Q Have you previously testified before the
4 division or the commission?

5 A Yes, I have.

6 Q And have you had your credentials as an
7 expert in petroleum geology accepted as a matter of
8 record?

9 A Yes.

10 Q Are you familiar with the cases filed, the
11 cases and the applications filed in the competing
12 cases?

13 A Yes.

14 Q And have you conducted a study of the geology
15 in the subject area?

16 A Yes.

17 Q This time -- so I'm going to stipulate it to
18 you. And then, Mr. Bradford, just for the record, you
19 have a resume updated that's attached as Exhibit E to
20 your Exhibit Packet.

21 A Yes.

22 MR. RANKIN: This time, Mr. Chair, I just re-
23 tender Mr. Bradford as an expert in petroleum geology.

24 THE CHAIR: Without objection, it's all
25 accepted.

1 MR. ZIMSKY: No objection.

2 BY MR. RANKIN:

3 Q Mr. Bradford, I'm going to put up on the
4 screen here your first Exhibit, Exhibit E1. If you
5 would just give us a high-level overview of what this
6 shows.

7 A Of course. This is a regional or sub-regional
8 locator map showing the New Mexico portion of the
9 Delaware Basin and highlighting where the Joker and
10 Bane Project areas are located in the northern part of
11 Lee County. I've highlighted some of the major
12 geologic and geographic features in the area on this
13 map. Primarily, the Secretary's area, Potash --
14 Potash Order area, which is the Great Polygon, the
15 Capitan Reef, which is between the two blue lines on
16 the map and the well site in red.

17 Q If you would just review for us your next
18 slide, Exhibit E2, to explain what it shows and how it
19 describes the plan here put forward by Permian
20 Resources.

21 A Yes, this is a -- a activity map showing the
22 activity Permian Resources has completed in the joker
23 -- in the immediate area around Joker and Bane over
24 the last two years since our initial hearing. So we
25 have been extremely active in this area. On the left-

1 hand side of the slide is a locator map showing all of
2 the PR operated DSUs, Drill Spacing Units in this
3 immediate area. When I built this slide on 9/11/2025,
4 we had seven rigs running on offset -- acreage
5 immediately offset to the Joker and Bane. And as you
6 can see, based on the gun barrels from these different
7 developments, we have drilled 68 horizontal well bones
8 in the Bone Spring and the Wolfcamp in these DSUs.
9 We've completed and brought online 28 of those over
10 the last two years and are planning to bring the rest
11 of those on in the upcoming months as we finish our
12 drilling program in the area. So you can see we are --
13 we are executing a very dense development that we --
14 we have tested on the Batman and the Robin, and now
15 with the Eileen and the Riddler, we've moved to full-
16 scale development on all of these DSUs with the
17 information that we learned as we tested targeting and
18 spacing on the Batman and the Robin. I think it's also
19 important to note on this slide, too, that the Third
20 Bone Spring Wolfcamp XY drilling pattern that we are
21 proposing on Joker and Bane isn't unique to those two
22 DSUs. It is our standard development in this area. The
23 final point of this slide is that I've highlighted two
24 blue stars on the map that are pilot holes that
25 Permian has invested significant resources into taking

1 pilot holes down through the Wolfcamp, collecting
2 high-quality wireline logs and cores to help us better
3 understand the rock and -- and where the hydrocarbon
4 is and where it's coming from and -- and how to best
5 develop this acreage.

6 Q Next slide here is your Exhibit E3. I think
7 it shows an overview of the Joker and Bane. Just give
8 us a high-level overview of what -- what this
9 development plan is and how it's set up.

10 A Of course. This is the -- This is what we had
11 proposed as initial wells for the Joker and Bane
12 section for the initial contested hearing. And this is
13 still our current plan for the development of these
14 DSUs. I've -- I've also highlighted on the left-hand
15 side where the Wolf-Bone Pool and Bone Spring Pool is
16 so you can see where the relative wells in each
17 different pool are located.

18 Q Anything further on this slide?

19 A No, sir.

20 Q Next slide here, Exhibit E4. I think this
21 refers to the Bone -- Wolf-Bone Pool. If you just give
22 a quick overview of the Wolf-Bone Pool here and
23 particularly the depth severance location. Yes.

24 A This is the -- the slide that I tendered
25 during the Wolf-Bone Pooling hearing to define the top

1 and the base of the Wolf-Bone Pool. We selected the
2 Matador five number one well, which is located in the
3 Joker DSU, and have selected the dual-lateral
4 automatic load SFL raster log to define the top and
5 the base of the pool. So the header for that log is
6 located in the upper left of the slide. On the block
7 right below that is a locator map with the blue
8 outline showing where the Wolf-Bone Pool has been
9 approved. And then I have captures of the top and the
10 base of the pool right there between that showing the
11 top of the pool as defined at 10,598 feet measured
12 depth where that is the top of the Third Bone Spring
13 Sand. And then the base is 11,236 feet, which is the
14 base of the Wolfcamp A shale. I have this entire log,
15 Matador 5 Federal No. 1, the digital logs, located
16 right next to that to show the entirety of the pool.
17 So we define this pool because we believe that these -
18 - that these three units, the Third Bone Spring Sand,
19 the Wolfcamp X1, the Wolfcamp A shale, are all
20 hydrocarbon ferrite units that are contributing
21 reserves to wells drilled within this pool. I've also
22 highlighted on that log where the depth severance
23 that's been under contention here is at the top of the
24 Wolfcamp formation.

25 Q Anything further on this log -- on this

1 Exhibit?

2 A No, sir.

3 Q Let's turn to Exhibit E5, if you would
4 explain -- explain what's on this and how it relates
5 to your analysis regarding the target -- target
6 development here in the Wolf-Bone Pool.

7 A Yes, sir. So this is -- I'm going to start
8 with the type log in the middle of this slide. So this
9 -- this is -- this is, again, from the Matador 5
10 Federal No. 1 type log that we've been using
11 throughout this case. And it shows the top of the --
12 of Wolf-Bone Pool at the top of the Third Bone Spring
13 Sand, the base of the Wolfcamp Pool at the base of the
14 Wolfcamp A shale. On the tracks we have a gamma ray We
15 have a depth track, we have a resistivity track, and
16 we have a porosity track. So we can see that on the
17 porosity track, the entire pool is porous. Permian
18 Resources has collected data that has shown that all
19 of these units are hydrocarbon-bearing units. And I do
20 agree with Coterra's assessment that there are no
21 baffles separating the Third Bone Spring, the Wolfcamp
22 XY sand, or the Wolfcamp A shale. I've also
23 highlighted on that log our two targets, being the
24 basal Third Bone Spring sand and the lower sand lobe
25 in the Wolfcamp XY, which I'm going to refer to as the

1 Y sand throughout the rest of my testimony. So based
2 on the extent of the pool and where the depth
3 severance is, I chose to map all of the rock above the
4 pool, which is the Third Bone Spring map interval,
5 which is highlighted in the light red box next to the
6 log, and then everything below the depth severance,
7 which is the Wolfcamp map interval. I chose to map
8 porosity height as well for this, because, again, it's
9 a simple, easily replicated method that -- it -- it
10 shows hydrocarbon storage potential in the different
11 units. It doesn't necessarily show how much
12 hydrocarbon or what the different extents are. The map
13 on the left -- on the upper part of the left-hand side
14 is the gross Third Bone Spring sand phi-H map, showing
15 good -- good hydrocarbon storage potential there, and
16 then also below that, the gross Wolfcamp A phi-H map.
17 That's a combination of the XY and a shale, so it's
18 showing very good hydrocarbon storage potential in
19 those units as well. It is -- it is PR's belief that
20 due to a lack of baffles in the reservoir units, it's
21 nearly impossible to accurately allocate out where the
22 oil is coming from based off the different landing
23 zones proposed and -- and the complexities in the rock
24 and the hydrocarbon system in -- in this area. So, we
25 believe the only real equitable way to honor depth

1 severance interest is to drill wellwaters on both
2 sides of severance and allocate on a surface acreage
3 basis. And that is like I -- like I said earlier, that
4 is irregardless of depth severance. That is still
5 Permian's plan, standard development plan to drill
6 wells in the basal third and in the Y sand because we
7 think it recovers the most reserves from the entire
8 Wolfcamp pool and provides the best economic results
9 for all owners involved.

10 Q On this slide, before we move off it, Mr.
11 Bradford, what are some of the factors here that may
12 impact the ability of using phi-H as a means of
13 allocating? What are some of the considerations based
14 on differences between the third well spring and the
15 Wolfcamp A that would argue against being able to use
16 phi-H as a simple allocation method?

17 A Yes, but I mean -- but phi-H, like I said, is
18 only hydrocarbon-related storage potential for
19 hydrocarbon and water, so without an oil or water
20 saturation, it's impossible to know exactly -- exactly
21 where that's coming from. Even with that data, it's --
22 it's hard to tell exactly what is being produced from
23 the different zones because different rock types,
24 different permeabilities -- different relative
25 permeabilities in those rock types all affect how much

1 oil and water move in these different formations.

2 Q Let's move on to your next Exhibit here. This
3 is your revised Exhibit E6. If you would, just review
4 going to that point that you just touched on, the
5 challenges of using phi-H as a basis for allocation.
6 Explain what this slide shows and how-- how phi-H is
7 not capable, in this instance, in this location, for
8 use as an allocation formula.

9 A I'd be happy to, yes. So I have -- I elected
10 to share proprietary core data that Permian Resources
11 collected over the pooled interval on our Batman 132H
12 pilot hole log. So I have the Batman 132H pilot hole
13 log on the left-hand side of this slide. Again,
14 highlighted the pooled interval, highlighted all of
15 our different stratigraphic units, the Third Bone
16 Spring upper, the basal, the Wolfcamp XY, the Wolfcamp
17 A shale. If you look at the depth track in the middle,
18 you'll see a bunch of red ticks. Those are the actual
19 locations of all the cores that we took in this pilot
20 hole. And also, I've highlighted on this -- on this
21 log where Cimarex has been forming the main basis for
22 their allocation formula. So -- so they are taking the
23 top of the Third Bone Spring sand to the base of the
24 Wolfcamp A shale and claiming that that is where all
25 the hydrocarbon is coming from, and they're totally

1 disregarding any hydrocarbon that might be produced
2 out of the Wolfcamp A shale. And then I just did a
3 simple phi-H breakout showing you know, the Third Bone
4 Spring sand, both of its units are 42 percent, but the
5 total phi-H, the total pool, the Wolfcamp XY is 16
6 percent, and then the Wolfcamp A shale is 42 percent.
7 So they're discounting almost half of the storage
8 potential in this formation by only looking at the
9 basal and the Third Bone Spring sands and the Wolfcamp
10 XY.

11 Q Just before you go on any further, I just
12 want to make sure, I think, to clarify the record, I
13 think you said that they're using down at the base of
14 the Wolfcamp A shale, but I want to make sure that's
15 correct for the record, but you're saying that they're
16 only using the Third Bone Spring to the top of the
17 Wolfcamp A shale, correct?

18 A That is correct.

19 Q Okay, just want to make sure that was clear
20 for the record, okay. Sorry to interrupt.

21 A Yep, so then I've also included the core data
22 in the next slide, and so -- and so instead of walking
23 through these different columns, we have saturate --
24 we have the measured saturations from the core, we
25 have the porosity, we have TOC and Tmax, and I'll get

1 to those in a little bit, but starting at the porosity
2 column, we see the core data confirms that there are -
3 - there are good porosities throughout the whole
4 interval off of every plug that we took in this -- in
5 this -- in the pooled interval. And then moving over
6 to the saturations is, I think, where the data gets
7 really -- gets really interesting is -- is where you
8 can see the two landing zones, the basal and the
9 Wolfcamp XY, have the highest oil saturations and some
10 of the lowest water saturations, which, to me indicate
11 that those are the two primary hydrocarbon storage
12 areas of tanks in the -- in the pooled interval. When
13 we go up to the upper Third Bone Spring, you can see
14 the water -- the oil saturations drop off pretty
15 significantly, and then the -- then also the water
16 saturations jump pretty significantly, which means
17 it's still a hydrocarbon-producing interval, but it's
18 probably not as -- not providing as much hydrocarbon
19 to the system as the Third Bone and the XY are. And
20 based off of Cimarex's allocations, they're giving
21 equal weight to all these different zones. Then
22 looking down at the Wolfcamp A shale, we can see that
23 the upper part of the Wolfcamp A shale has very good
24 oil saturations and lower water saturations, very in
25 line with what is seen in the Third Bone basal and the

1 XY. And then as we go down deeper, the -- the oil
2 saturations drop a little bit and -- and the water
3 saturations jump a little bit, kind of the same what
4 we see in the Third Bone. This data does help us
5 confirm that the A shale is a hydrocarbon-bearing
6 formation that is providing reserves to what was
7 drilled in the pooled interval. I would like -- Just
8 to further reinforce that point, I've included TOC and
9 Tmax. So the A shale is different -- different rock
10 type than the Third Bone Spring sand in the Wolfcamp
11 XY. It is a -- it is a organic-rich mud rock, and
12 there are certain things that we look at in the
13 industry to prove that they are hydrocarbon-bearing
14 and potential -- been able to provide hydrocarbons to
15 well bone that are drilled in and around them. The
16 first thing we look at is TOC, which is total organic
17 carbon, and generally the energy standards you want to
18 see above 2 percent, and most of the samples that we
19 took out of the A shale are above 2 percent TOC. Then
20 Tmax, which is from the pyro -- pyrolysis data, it's -
21 - it's a measure of the maximum temperature of the
22 rock saw when it was generating hydrocarbons, and the
23 industry standard for that is if you want to see a
24 Tmax above 435 to indicate a mature hydrocarbon source
25 rock that has produced and expelled oil. As you can

1 see, all these points are well above 435.

2 Q Bottom line, then, reviewing this slide,
3 Mr. Bradford, what's your takeaway on Coterra's use of
4 an allocation formula that, number one, relies solely
5 on phi-H, and number two, that excludes the Wolfcamp A
6 shale from the ratio in their formula?

7 A Yeah, so -- so using only phi-H definitely
8 does not account for variations in water saturations
9 that we have measured throughout the course, and then
10 exclusion of the Wolfcamp A shale discounts any
11 reserves that are being produced out of the Wolfcamp A
12 shales by these well bones and will not adequately pay
13 their owners for the share of oil that is being
14 produced from that formation.

15 Q And you heard the testimony from Coterra's
16 engineering witness stating that they intend to, by
17 increasing the frac size, entirely target the entirety
18 of the -- the Wolfcamp formation in the Wolf-Bone
19 Pool, correct?

20 A Correct.

21 Q Okay. And that -- that is an indication to
22 you that their allocation formula on its face is -- is
23 unfair. Is that correct?

24 A Yes.

25 Q Okay. Next slide is Exhibit E7. If you would,

1 just highlight the key takeaways from the
2 stratigraphic cross-section.

3 A Yes, this is a -- this one's pretty simple.
4 This is a stratigraphic cross-section going from the
5 Batman Project where we just saw all the poor data up
6 through Joker Bay. Really the main takeaway here is
7 that we -- we see similar rock types across this whole
8 area of interest in all the formations that are being
9 targeted by Permian Resources.

10 Q So the takeaway is that the Joker Bay is
11 analogous to essentially the Batman unit?

12 A Correct.

13 Q Okay. Next slide here is your Exhibit E8.
14 Just review this. I guess it's a comparison between
15 the development projects between Coterra and Permian.
16 Just give us your key takeaways.

17 A Yes, so this -- this slide is just a high-
18 level comparison of the gun barrel diagram showing the
19 -- all the proposed wells by Permian Resources in
20 Joker Bay and then what -- what Coterra has proposed
21 in the Mighty Pheasant and Lucy Goosey sections. I did
22 highlight the initial wells that -- that -- that
23 Coterra had proposed in the Third Bone Spring sand and
24 then one well each in the second Bone Spring as their
25 initial wells, whereas PR proposed everything as

1 initial wells.

2 Q And just to be clear, you don't have -
3 - you're not showing here Coterra's development plan
4 on the upper second Bone Spring wells that they're
5 saying they're currently vetting. Is that correct?

6 A Yes, I built this slide before we -- we got
7 their Exhibits for the -- for the hearing, so we were
8 not aware of that information at the time.

9 Q And just to be clear, what's your
10 understanding currently based off of Coterra's
11 testimony about what their plans are for the upper
12 second Bone Spring?

13 A That they are -- that they are planning to
14 drill it at this point.

15 Q But it's also subject to their vetting
16 process. Is that right?

17 A Correct.

18 Q And do you understand where their status is
19 at this point on their vetting of those wells?

20 A No, I do not.

21 Q All right. Next here is a slide that I
22 believe these are basically the basic sort of
23 compulsory pooling slides that establish the basis and
24 propriety for development -- development of this
25 acreage on a horizontal basis. Is that correct?

1 A Correct.

2 Q So just to help set the scene here just for
3 ease of discussion, but this -- each slide here we
4 have a locator map, correct, for identifying the
5 location of your cross-sections for each -- each of
6 your target benches. Is that correct?

7 A Correct.

8 Q Okay. So this one, Exhibit E9, this addresses
9 you being -- you being Bane spring target interval?

10 A Correct. Yeah, this one's for Bane. I did
11 separate this for Bane and joker so --

12 Q So going down through, what does this next
13 slide show, your Exhibit E10?

14 A This is the first Bone Spring structure map
15 showing that the structure is fairly uniform across
16 the Bane unit.

17 Q And this is for the Bone Spring portion of
18 the development, correct?

19 A Yeah, for the first Bone.

20 Q Okay. And next slide is your Exhibit E11.
21 What does this slide show?

22 A This is for the second Bone Spring showing
23 that similar to the first Bone showing that there is
24 uniform geology and structure across the Bane drilling
25 unit.

1 Q And E12, what does this slide show?

2 A This is for the Harkey zone showing the same
3 thing the previous slide did for that bench.

4 Q And finally, you've got a -- not finally, but
5 next slide here is a stratigraphic cross-section.
6 Explain what this shows as to each of your benches.

7 A Yes, this is for the Bane 4-9. So it is
8 showing that the geology is uniform. We do not see any
9 faults or pinch-outs that would change the geology
10 across the DSU in any of these benches.

11 Q And -- and for clarity these lines are going
12 to be running from north to south?

13 A Yes.

14 Q And do you agree that north-south orientation
15 is appropriate in this area?

16 A Yes, based off the SHMAX data, it is.

17 Q And as to the structure, any faulting pinch-
18 outs or other geologic impediments to development of
19 horizontal wells in this area?

20 A No.

21 Q And are you seeing in your cross-section any
22 continuous target across the entire development area?

23 A Yes.

24 Q How did you choose your wells for this cross-
25 section?

1 A These wells are the closest proximity wells I
2 could find to the Bane.

3 Q In your opinion, are they representative of
4 the geology in the area?

5 A Yes.

6 Q And then the last Exhibit of this series is
7 E-14. It's a gun barrel to show. Explain a few of what
8 this shows.

9 A So the blue boxes are each proposed pooled
10 unit across the Bane section showing the wells that
11 are contained within each individual quarter-section
12 pooled unit.

13 Q Moving through the next series of slides,
14 this is for the Wolf-Bone Pool, right? The immediate
15 set-aside wells and spacing is below the Bone Spring,
16 correct?

17 A Yes.

18 Q And in -- I'm just going to flip through
19 them, but basically these are the same exact series of
20 slides as you just went through for the Bone Spring
21 section, correct?

22 A Correct.

23 Q So, you've got a cross-section locator map,
24 structure maps for the E-16 would be structure maps
25 for the target intervals, correct?

1 A Yeah, Third Bone Spring and Wolf Canopy.

2 Q And E-17?

3 A It's the Wolf Canopy, yes.

4 Q Okay. Is -- And then your stratigraphic
5 cross-section, what does this show?

6 A It shows -- this shows that the targets are
7 present and continuous across the Bane traverse
8 barricade.

9 Q And then the gun barrel just shows your
10 vertical arrangement for that development of that
11 pool, correct?

12 A Correct.

13 Q Okay. Anything further on the Bane gun
14 barrel?

15 A No.

16 Q Okay. And then you've got the same series of
17 slides for Joker as well, correct?

18 A Correct.

19 Q Okay. So E-20 through E-30 are -- are the
20 analogous slides showing the geologic analysis for the
21 entirety of the Joker unit?

22 A Yes.

23 Q Having conducted your geologic analysis, in
24 your opinion, are the Bone Spring and Wolfcamp
25 formations that Permian is targeting in this acreage,

1 in both Joker and Bane, suitable for development by
2 horizontal wells in this area?

3 A Yes.

4 Q In your opinion, are there any pinch-outs,
5 faulting, or other geologic impediments across any of
6 the development acres that would impede horizontal
7 drilling?

8 A No.

9 Q In your opinion, will each quarter-quarter
10 section within the tracks that you're identifying for
11 horizontal wells continue more or less equally to
12 production from horizontal wells that you drill?

13 A Yes.

14 Q Mr. Bradford, you also reviewed the
15 geology exhibits and testimony of Coterra, did you
16 not?

17 A I have, yes.

18 Q And have you prepared an analysis of their
19 testimony and Exhibits as part of your presentation
20 today?

21 A I have.

22 Q And those rebuttal slides are marked as
23 Exhibits E31 through E34?

24 A Yes, sir.

25 Q Okay. I'm going to go ahead, and I've got

1 these up on -- on the screen. These have been shared
2 and served to Coterra and filed with the division,
3 correct?

4 A Correct.

5 Q Looking at what's been marked as rebuttal
6 slide E31, just review what this slide shows and what
7 testimony or Exhibits it responds to that Coterra and
8 filed.

9 A Right. So I built this slide to help Coterra
10 make several references in their testimony that they
11 believe the A shale is not contributing hydrocarbons
12 to the pool -- to the well that was drilled in Third
13 Bone Spring or XY because the A shale is not being
14 targeted. And I built this slide to show, like -- like
15 -- like, I agree the A shale is not being targeted and
16 is not an ideal target in this area, but I think there
17 is a very specific geologic reason why it is not an
18 ideal target for horizontal development in -- in this
19 -- in this area. So it centers around a -- a
20 measurement that we use called phi diff, which is the
21 difference between the neutron and density curves on a
22 -- an -- an electric log. So if we look at the log,
23 and we look at the right-hand most column, you'll see
24 the density porosity is in black and the neutron
25 porosity is in green. And I have shaded the difference

1 between those two in -- in green. And so when we see
2 those two curves start to separate, it can mean a
3 bunch of different things. But in a organic-rich
4 mudstone, it typically indicates higher clay content.
5 And this is corroborated based off of XRD data we took
6 on our Batman course. It showed up to 40 percent clay
7 in the Wolfcamp A shale. So we know that increased
8 clay content, especially in mudrocks, can negatively
9 impact drilling and completion operations and -- and
10 negatively impact well performance. And I think that's
11 very clearly shown on the Little Bear project, which
12 is about a mile, mile and a half southeast of the
13 Robin, where Concho back in the day targeted the Third
14 Bone Spring, and the Wolfcamp A shale co-developed
15 those benches together at the same time and saw pretty
16 significant nonperformance in the A shale wells. And I
17 think this is because of the mechanical issues. The
18 high clay content impacted the well pores. The A shale
19 is a productive hydrocarbon reservoir. The wells made
20 oil, but -- but they did not perform as well as the
21 Third Bone Spring wells.

22 Q Just to -- just to be clear, as a result of
23 that, can you explain how that learning has influenced
24 Permian's approach here?

25 A Right. So -- so -- so that learning -- so --

1 so -- so can we go to the next slide? Because I think
2 that's -- that's best talked about in the next slide
3 here.

4 Q Sure. This is a rebuttal Exhibit E3 to just
5 review what this shows and explain how the Little Bear
6 project helped inform Permian's approach in this
7 project.

8 A Right. So this gets back to the fact that the
9 high clay shale is not ideal landing targets. And that
10 targeting does matter. So -- and -- and Permian
11 Resources believes that by targeting the basal sand
12 and the XY, the Y sand, that we are accessing reserves
13 contained in the A shale and producing those in the
14 most economic fashion possible. And I think the proof
15 is when you compare the Little Bear project to the
16 Robin project, we're seeing a massive uplift in the
17 Wolfcamp performance between what was done at the
18 Little Bear and what we did at the Robin.

19 Q So just in kind of a summary and to be clear,
20 there's a lot of discussion about targeting. And so
21 just -- just to define terms, oftentimes I think,
22 would you agree that when folks use the word
23 targeting, they can mean where you're landing your
24 well?

25 A Yes, that's exactly what I mean. It's where

1 the well boner is being landed.

2 Q But it also, sometimes, I think people use it
3 to indicate that they're also seeking to develop
4 reserves in a particular zone, correct?

5 A Correct, yeah.

6 Q So in this case, when we talk about
7 targeting, people are talking about actually where
8 they land the horizontal well.

9 A Correct, yes. Yeah, you generally want to try
10 to have your well in the best rock possible.

11 Q But because you're nevertheless -- because
12 nevertheless, even though you're seeking or targeting
13 the Wolfcamp XY, that's where you're landing, you're
14 actually seeking to produce the Wolfcamp A with that
15 well, correct?

16 A Correct.

17 Q Next slide, rebuttal Exhibit E33. What does
18 this slide show and explain what testimony and
19 Exhibits this is referring to here?

20 A Yeah, so this is just showing further proof
21 that reserves contained in the Wolfcamp A shale are --
22 are being recovered in the Wolf-Bone pool by wells
23 that are targeting them. So this is the black and
24 tan. this focus on the black and tan development that
25 was done by Apache back in the day. It's -- it's right

1 next door to Little Bear Development, so it's in --
2 it's in the immediate AOI for development. And what
3 Apache did is they drilled six Third Bone Spring sand
4 wells, and then they came back a year and a half to
5 two years later and drilled a combination of A shale
6 and XY wells. And I took the production plot directly
7 from Cimarex's initial Exhibits, showing that the --
8 the Wolfcamp wells massively underperformed the Third
9 Bone Spring wells. And based off of Mr. Weinkauff's own
10 testimony, which I'll read, "The performance
11 difference is not surprising to Coterra as the Third
12 Bone Spring sand wells had 1.5 years of drainage
13 without competition before the upper Wolfcamp wells
14 were developed. When this dynamic is observed, it
15 typically indicates a large amount of completion
16 occurred before the additional wells were drilled." So
17 they are acknowledging that the Third Bone Spring
18 wells are negatively impacting wells drilled in the XY
19 and the Wolfcamp A shale and recovering reserves from
20 those intervals.

21 Q Anything further on this slide?

22 A No.

23 Q Okay. Looking at your next -- You know, one
24 thing I need to do here real quick, I want to bring up
25 -- I want to bring up Coterra's Exhibits here. A

1 moment. I'm showing on my screen Coterra Exhibit C13.
2 I think you had some -- some comments to make in
3 response to this Exhibit regarding the topic you were
4 discussing, the development of the Wolfcamp A. What
5 specifically do you have to say in response to this
6 Exhibit and the information on it?

7 A I believe we talked about this several times
8 already, but Coterra expressly comments that by
9 increasing their frac size, they -- they will
10 cause the increase in well cost until we talk about
11 the Wolf-Bone Pool, and it will better access the
12 entirety of the Wolfcamp Pool, which is why they're
13 increasing their frac size to 2,600 pounds per foot.
14 And by -- and by that, I -- Infer that the entirety of
15 the Wolf-Bone Pool includes the A shale.

16 Q Switching back to your rebuttal slides, going
17 to your rebuttal to the E34, what does this slide show
18 and explain how it relates to your analysis regarding
19 the impropriety of Coterra's proposed allocation
20 method?

21 A This is -- I really just aggregated some of
22 their different Exhibits and some of the changes we've
23 seen throughout the trial on these different Exhibits
24 to show how big the -- the wings in allocation have
25 been based off of all the different methods. So the

1 method one, which is the pure phi-H calculation at 73
2 and 27, is kind of the starting point. And then -- and
3 then they also did method two and method three. They -
4 - they revised their method three from their initial
5 filing to their new filing and -- and had a 9 percent
6 change in the allocation formula within several days
7 of looking at those. I'm not sure what drove that, but
8 -- but there was a large difference there. And then
9 when you look between their final method three, method
10 one, and method two, there's 5 percent variance in the
11 different models they're using and then a 9 percent
12 variance from those models and the actual allocation
13 formula of 70-30 that they have proposed.

14 So I think these Exhibits actually show that
15 -- that -- that there is not a reliable way to
16 properly allocate out how -- how much oil is coming
17 from each of these different formations. It's very
18 subjective based off of the cutoffs that you want to
19 use and the methodology you want to use and -- and the
20 interval you want to use. They are still discounting
21 the Wolfcamp A shale in all three of these -- in all
22 three of these allocation formulas. And -- and --
23 and small variances in oil allocation relate to -- and
24 I think Carlos is going to testify to this some more,
25 I'm not an oil refinery engineer, I know the

1 economics, but -- but -- but large swings in value to
2 the owners and what they are receiving.

3 Q And just so I understand, have you seen any
4 evidence tying phi-H or any of these various methods
5 for potentially allocating to actual demonstrated oil
6 production?

7 A I have not.

8 Q And if you would, just expand a little bit on
9 the problem with that.

10 A Right, because -- because of, like I said
11 earlier, because that there is heterogeneity in the
12 rock and the oil saturations and the porosity and the
13 permeability, it is -- it is very difficult to
14 properly allocate exactly where oil is being produced
15 from across the Wolf-Bone Pool.

16 Q In your opinion, Mr. Bradford, is there any
17 reliable methodology available based on the data
18 evidence that you're aware of to allow for an
19 allocation formula between production in the Wolf-Bone
20 Pool, between Bone Spring and Wolfcamp?

21 A I do not.

22 Q And in your opinion, is the statutory
23 requirement of surface allocation the most prudent and
24 fair method to allocate production?

25 A Yes.

1 Q In your opinion, Mr. Bradford, would be --
2 would the granting of Permian applications and the
3 denial of quoterios be in the best interest of
4 conservation, the prevention of waste, and the
5 protection of corollable rights?

6 A Yes.

7 Q Were these Exhibits, including your resume,
8 in E1 through E30, and then your rebuttal Exhibits,
9 E31 through E34, prepared by you?

10 A Yes.

11 MR. RANKIN: At this time, Mr. Chair, I would
12 move the admission of Exhibits E and E1 through E34 to
13 the record.

14 THE CHAIR: Hearing no objections, so I'll
15 admit it.

16 (Permian Exhibits E and E1 through
17 E34 admitted into evidence.)

18 MR. ZIMSKY: Yeah, I'll also, just for my
19 clarification, I don't recall if your Exhibits D were
20 moved for admission.

21 MS. VANCE: Oh. Copy. Oh, whoops. What am I
22 doing? I'd like to move for Exhibits D and D1 through
23 D9 to be admitted into the record. Thank you.

24 MR. ZIMSKY: No objection.

25 THE CHAIR: So, admitted. Thank you.

1 (Permian Exhibits D and D1 through
2 D9 admitted into evidence.)

3 MR. RANKIN: Thank you, Mr. Chair. So, upon
4 admission of Exhibits E and their attachments, I have
5 no further questions of Mr. Bradford, and make him
6 available for cross-examination.

7 THE CHAIR: Your witness.

8 CROSS-EXAMINATION

9 BY MR. SAVAGE:

10 Q Thank you. Thank you, Mr. Bradford. I just
11 have a few questions here.

12 A Of course.

13 Q First of all, I heard you testify that, you
14 testified that, if I'm correct, 8 wells per section is
15 standard. Is there an offset development drilled at 8
16 wells per section?

17 A No, there's not.

18 Q Okay. On Exhibit E6, you revised E6. You
19 showed measured oil. On your -- on your -- on your
20 revised E6, you showed measured oil and water
21 saturations from the upper third sand down through the
22 Wolfcamp A shell. Do you agree?

23 A Yes.

24 Q Okay. So, I reviewed your original hear --
25 statements and Exhibits at the original hearing. Why

1 did you not include measurements from the Wolfcamp A
2 shell in the original hearing?

3 A I didn't think it was necessary at the time
4 to include -- to include that in.

5 Q If the Wolfcamp A shell is, as you say, a
6 porous, organic-rich, thermally mature, hydrocarbon-
7 rich shale, as you state in Exhibit EC, why is Permian
8 Resources not targeting this shale?

9 A I already addressed that question in my
10 rebuttal.

11 Q Okay. Do you believe that phi-H correlates to
12 total fluid production in any capacity?

13 A I have not seen data that -- that correlates
14 it very well to any produced fluid measurements
15 because there's too many other variables in the system
16 to -- to make that link.

17 Q Okay. So -- You said in your testimony that -
18 - in your recent testimony that -- that phi-H related
19 to really good hydrocarbon storage potential. Does
20 really good -- good hydrocarbon storage potential
21 relate to oil production?

22 A Well, I said it -- I said it -- it relates to
23 good fluid storage potential and potential hydrocarbon
24 production. Yes.

25 Q So, does it relate to potential hybrid

1 hydrocarbon production?

2 A No.

3 Q Okay. Do you believe that phi-H correlates to
4 oil production in any capacity?

5 A I have not seen any data that shows that is
6 predictive of hydrocarbon production.

7 Q Well, so the question was, do you believe
8 that phi-H correlates to oil production in any
9 capacity?

10 A I'm thinking about the question here, sorry.
11 Well, without porosity, you can't have oil in the
12 rock. So, it is an indication of hydrocarbon presence
13 in the rock, of course, and you can't produce
14 hydrocarbon without having it in place. So, it is
15 a indirect indicator that, yes, there is potential for
16 hydrocarbon production in the rock.

17 Q Okay. Thank you. What -- On 5 -- On Exhibit
18 E5 why did you map phi-H on that Exhibit if you claim
19 phi-H is not reliable?

20 A Can you show me the Exhibit, please?

21 Q Sure.

22 A Right. And -- and like I testified in my
23 testimony, I used phi-H because it is a indicator of
24 the storage capacity in the rock. Without storage
25 capacity, you cannot have hydrocarbons present. So,

1 and -- and like I said, it is a simple, easily --
2 easily replicated method that you can use to show that
3 there is potential for hydrocarbon storage in a given
4 area.

5 Q Okay. You said that there are no baffles. You
6 acknowledged there's no baffles between the Third Bone
7 Spring and the XY.

8 A Yes.

9 Q Okay. Do you agree that your Wolfcamp wells
10 will acquire hydrocarbons from Third Bone Spring sand?

11 A Yes, and the vice versa is true as well.

12 Q Okay. I'm going to go to Exhibit E31. I've
13 got to switch here to do that. If you're looking at
14 E31, you say that when you drill in the Wolfcamp A and
15 counter mechanical issues related to clay that
16 negatively impacts performance, and you criticized
17 Coterra for excluding the Wolfcamp A to avoid these
18 negative impacts to performance. Is that a fair
19 statement?

20 A No, it is not.

21 Q Can you -- can you explain why?

22 A I -- I am criticizing Coterra for not
23 including reserves contained in the Wolfcamp A shale
24 that are being drained by well bones in proximity to
25 it.

1 Q Okay. What evidence have you presented that
2 shows you can recover Wolfcamp A reserves more
3 efficiently by drilling the Y sand?

4 A I think the proof is in the performance we
5 have seen in our co-developed projects in --
6 in relationship to other co-developed projects
7 targeted differently in the area.

8 Q If you believe your -- your -- your wolfcamp
9 -- Y sand Wolfcamp Wells can efficiently recover
10 Wolfcamp A reserves. Why couldn't Coterra's FRAC not
11 do so when they would be landed 95 feet from your --
12 from your Wolfcamp wells?

13 A Oh, I think they are draining reserves out of
14 the A shale, which is the basis for my argument that
15 their allocation formula is wrong and improper.

16 Q And you testified about homogeneity in the
17 Wolf-Bone pool. Does the Little Bear results speak to
18 the lack of homogeneity in the reservoir?

19 A I believe I said heterogeneity. Did I say
20 homogeneity or heterogeneity?

21 Q Heterogeneity. Heterogeneity.

22 A Can you rephrase the question for me? That
23 confused me.

24 Q Okay, so you testified about heterogeneity.

25 A Yes.

1 Q Heterogeneity in the Wolf-Bone pool. Does the
2 Little Bear result speak to the lack of heterogeneity
3 in the reservoir?

4 A I think it speaks to the fact that there is
5 heterogeneity in the reservoir because they saw such a
6 different result than what we assumed with the change
7 in targeting.

8 Q I'm going to go to Exhibit E33. Okay, on this
9 Exhibit you agreed with Mr. Weinkauf (PH) that the
10 Wolfcamp wells of the Black and Tan had already
11 significantly depleted the common source of supply in
12 the Wolfcamp, and the Wolfcamps, therefore, were poor
13 because of the completions. Is that correct?

14 A Well, no. The Wolfcamp wells were poor
15 because the reserves there had been already recovered
16 in part by the Third Bone stream wells.

17 MR. SAVAGE: I have no further questions.

18 THE CHAIR: Thank you. Commissioner Thompson?

19 COMMISSIONER THOMPSON: No questions. Thank
20 you.

21 Thank you, Commissioner. Counsel? Redirect.

22 REDIRECT EXAMINATION

23 BY MR. RANKIN:

24 Q Just one question. Mr. Bradford, Mr. Savage
25 was asking you questions about phi-H and why you're

1 using phi-H for some reasons, but for other reasons it
2 may not be appropriate. You're saying you're
3 criticizing it. If you would just distinguish between,
4 in your view, the utility of phi-H for targeting
5 landing zones with your horizontal wells versus using
6 it as an accurate, predictable, and reliable method
7 for actually allocating production to owners under a
8 compulsory pooling order.

9 A Yeah, so -- so phi-H is -- is a geo -- is a
10 tool we use in our geologic certificate to help us map
11 where porosity is present in the reservoir to help us
12 figure out if we should be looking at a certain area
13 for targeting in certain zones. It's -- it's one of
14 the very first steps that we use, and like I said,
15 it's easy to replicate and -- and very good to show
16 kind of where the -- where the different porosities
17 are in different units at a hearing like this. There
18 are a lot more steps that you have to, or hurdles you
19 have to clear from phi-H to a producing well
20 bone, i.e., oil in place, rock type, reservoir
21 heterogeneity or continuity, all these things you have
22 to, you know, do before you actually put a well bone
23 in the ground. So, phi-H is -- is a strong indicator
24 that you have a porous rock in a subsurface that could
25 be holding hydrocarbon, but once it comes to actually

1 figuring out where that hydrocarbon is coming from in
2 the formations, there's -- there -- there are such a
3 multitude of other factors that impact the actual oil
4 production from the rock that is not a -- that I do
5 not believe is a good way to allocate out production
6 to severed depth owners.

7 MR. RANKIN: Thank you. No further questions.

8 THE WITNESS: Thank you.

9 MR. RANKIN: Thank you. Mr. Chair, we'd like
10 to call our next witness, Mr. Carlos Sanka (PH).

11 THE CHAIR: Mr. Sanka, do you solemnly swear
12 or affirm that the testimony you're about to give in
13 this hearing will be the truth, the whole truth,
14 nothing but the truth, under penalty of law?

15 THE WITNESS: I do.

16 THE CHAIR: Thank you. Your witness.

17 MR. RANKIN: Thank you, Mr. Chair. I'm just
18 reminded by my colleague, we're fine going forward,
19 but we're at 10.20, and if you wanted to take a
20 morning break for the benefit of the court reporter or
21 anybody else, now might be a good time.

22 THE CHAIR: Actually, that would be fine if
23 there's no objections to that?

24 MR. RANKIN: No objections.

25 THE CHAIR: I see you all in 15 minutes.

1 (Off the record.)

2 THE CHAIR: I think we're a few seconds
3 early, but it looks like we're all ready to go back on
4 the record, so I'll reconvene, and I will also make a
5 note to thank counsel for reminding me to get my
6 coffee. All right. Please proceed.

7 MR. RANKIN: Thank you, Mr. Chair,
8 Commissioners, please, the Commission.

9 DIRECT EXAMINATION

10 BY MR. RANKIN:

11 Q Mr. Sanka, will you please state your name,
12 by whom you're employed, and what capacity?

13 A My name is David Carlos Sanka. I'm employed
14 by Permian Resources as their New Mexico Asset
15 Reservoir Engineering Manager.

16 Q Have you previously testified before the
17 Division or Commission?

18 A I have.

19 Q Are you familiar with the applications filed
20 in these consolidated cases?

21 A I am.

22 Q And is Exhibit F a copy of your resume?

23 A It is.

24 Q And does it reflect your expertise and
25 background in education and training in oil and gas

1 economics and reservoir engineering?

2 A Yes.

3 Q Have you conducted a reservoir engineering
4 analysis and economic analysis over the competing
5 development proposals offered by Coterra and Permian?

6 A Yes.

7 MR. RANKIN: At this time, Mr. Chair, I would
8 like to tender Mr. Sanka as an expert witness in
9 reservoir engineering and oil and gas economics.

10 THE CHAIR: Hearing no objection.

11 MR. ZIMSKY: No objection.

12 BY MR. RANKIN:

13 Q Mr. Sanka, have you prepared slides
14 summarizing your analysis and your testimony?

15 A Yes.

16 Q And those are marked as Permian Exhibits F1
17 through F18, correct?

18 A Correct.

19 Q And you've also prepared rebuttal slides to
20 address the testimony and Exhibits presented by
21 Coterra in their case in chief?

22 A Yes.

23 Q And those are marked as Exhibits F -- One
24 moment, I think they're F20, sorry, F19 through F28?

25 A Yes.

1 Q Now, I'm going to ask you -- once I get my
2 screen sharing set up -- I'm going to ask you to -
3 - Reviewing what's indicated here on your F1 Exhibit,
4 just if you would walk through this and explain some
5 of the key differences between Coterra's development
6 proposal and Permian's development proposal, both in
7 this case as to the initial wells that are included in
8 the applications.

9 A So, like you mentioned, this is comparing
10 solely the initial wells, and so what I've done is
11 created an economic analysis for each well bone, and
12 then summarized the results in the table. So, the --
13 the table includes, you know, a couple of acronyms I
14 wanted to explain. Just like Coterra, engineering
15 testimony included MBO, which was thousands of barrels
16 of oil. I'm using MMBOE, which is millions of barrels
17 of oil equivalent. I think Coterra did a good job
18 explaining what the -- the PV10 metric is, but just to
19 refresh, PV10 is the summation of all the cash flows
20 adjusted for the time period in which they occur. So,
21 cash flows in time period 1 would be divided by 1 plus
22 the discount rate raised to the first power, et
23 cetera. And so, as cash flows are pushed further out
24 in time, they become less valuable. And then what I've
25 done is include some other metrics, such as the

1 severance and ad valorem taxes that each of these
2 generate, just to get a better picture for all the
3 stakeholders that are affected by these plans. And so,
4 as to just the initial wells, Coterra is planning on
5 drilling, as I understand, their initial wells, four
6 Third Bone wells and one second Bone well,
7 whereas Permian Resources is planning to develop 48
8 wells, targeting each of the formations that we think
9 is economic in the Joker and Bane area. And so, as a
10 result of the 38 additional wells, my analysis
11 indicates that Permian's plan will recover 30 million
12 additional barrels of oil equivalents. The value
13 creation for all the stakeholders is \$400 million
14 different.

15 And then, given the facts of these competing
16 applications, I've broken out the Third Bone owners
17 and how they fare under each plan. So, on the Coterra
18 case, I've taken what I understood to be the correct
19 allocation formula of 72 percent -- 72.8 percent. I
20 understand that that's changed, but that change was
21 made after I prepared these Exhibits, and so you'll
22 see on several of them I still reference that now
23 outdated allocation formula. But anyway, what I've
24 done is I've taken the Third Bone production and cash
25 flows and split them based on that allocation formula

1 under Coterra's plan. And under PR's plan, I do not
2 split them, and owners just receive the cash flows
3 that are generated from the formation in which they
4 own. And so, the delta here is that the Third Bone
5 owners receive \$45 million in additional PV10 under
6 PR's plan, and the Wolfcamp owners generate another
7 \$107 million. And so, the main difference for the
8 Third Bone owners is instead of getting 70 percent of
9 the well, they're getting 100 percent of the well, and
10 that's really beneficial in terms of the -- the cash
11 flows that they receive, ultimately.

12 On the next slide, what I did was to compare
13 more apples to apples, so Exhibit F2. I've taken all
14 the wells that Coterra's proposed, and so again, I
15 understand that after the time that this Exhibit was
16 prepared, Coterra served as Exhibits that indicate
17 that there's some interest in vetting the upper second
18 Bone, and that you know, there may -- there may be
19 three more wells in the second Bone, but I didn't know
20 that at the time that I prepared this, and so it was
21 certainly not trying to exclude Coterra wells to
22 minimize their cash flows. That was just the --the
23 knowledge I had at the time and I understand that
24 there's still some vetting that needs to happen before
25 those wells are drilled. So, all that to say,

1 comparing all the wells that have been proposed, you
2 can see that Coterra's well count has now jumped to
3 24. The resource recovery has also improved. The value
4 creation is much improved. The Third Bone numbers
5 don't change any because the -- their proposal doesn't
6 change as to the Third Bone or Wolf-Bone pool. So,
7 there's a couple of things to note here. The first is
8 that I'm considering that Coterra will drill all of
9 these on the same sort of timeframe as Permian
10 Resources.

11 So, Permian Resources is ready and willing
12 and able to go drill, execute the full 48 wells within
13 a year. I've heard testimony from Coterra that they
14 think 10 wells a year is enough, so I can't really
15 speak to their cadence, but given the fact that they
16 have a five-year plan, it seems like there may be some
17 delays in the realization of these cash flows. And
18 none of that is incorporated in the Coterra column,
19 but it would serve to compress the value of those cash
20 flows because they'll be discounted by a greater
21 factor. So, the last thing to note is that if there is
22 some suboptimal sequencing and one second Bone well is
23 drilled, and then subsequent wells are drilled, the
24 subsequent wells will suffer because of depletion
25 effects. And so, the depletion effects

1 are one. There's a material balance effect in that
2 some of the reserves may have been produced by an
3 offsetting well, and they're not available for the
4 infill well to produce, but the main depletion effect
5 is that due to natural fractures in the fracture
6 network, the pressure in the drainage area may be
7 reduced, and that creates a lot of inefficiency on the
8 completion of the infill well because fractures now
9 propagate asymmetrically into the low pressure, and
10 they also generate less complexity. And so, none of
11 that is accounted in any of these cash flows, but it
12 would serve to -- to lower Coterra's if the sequencing
13 is suboptimal in the end.

14 So, that's everything that's on this Exhibit
15 besides the table on the bottom right, and the table
16 on the bottom right is sort of an agenda for what the
17 remaining Exhibits show. The first one will show that
18 our development plan cadence is typical for this area.
19 This isn't anything new for PR. Then there's a large
20 body of Exhibits that show PR's development plan
21 appropriately develops these sections. So, we'll go
22 through, where are we coming up with the wells per
23 section in the second Bone, and where are we coming up
24 with all these, you know, Wolf-Bone pool wells. We'll
25 show actual results of wells that are immediately

1 adjacent to the subject areas and the production of
2 those wells. And then at the end, we'll address the
3 phi-H. So, we'll show phi-H is not a reasonable or
4 logical production allocation method.

5 So, moving on to Exhibit F3, this is the
6 subject area highlighted in red, and what I've done is
7 make an AOI of five miles in every direction. And just
8 within these five miles, at the time I prepared this
9 Exhibit, which was on September 4th, Permian Resources
10 was running six rigs in this area. Now we've moved one
11 of those rigs to Batman and brought in an additional
12 rig, as Mr. Bradford testified. So, this is an area of
13 very high activity for us. And then as to the
14 development size, our proposal includes 48 wells,
15 which is 24 per DSU. And that's -- that's you know,
16 potentially sounds like a lot of wells, but I point to
17 Eileen. We're currently doing 21 wells there. In
18 Robin, we actually did 18 wells. In Riddler, there's a
19 couple of existing wells that we had to either make a
20 U-turn locations for, so the well count's a little bit
21 depressed, but we're drilling 14 wells right now. So
22 this -- this sort of package size and speed of
23 development is -- is typical. As to the second Bone
24 targets, we've targeted multiple targets in the second
25 Bone. Batman, Robin, Riddler, even further away in

1 DeLorean. The Third Bone shale, which is the Harkeyes
2 sand, sand shale, we drilled that at Menace.

3 Jade, Avant, drilled it at five wells per
4 section at Sandra Jean, and we're currently drilling
5 it at Eileen. As to the XY, we'll show very in-depth
6 information regarding our results at Robin and Batman,
7 and we're currently drilling it at eight wells per
8 section in Riddler, although only half the section is
9 being developed because of existing Third Bone
10 production. So all this to say is that everything that
11 PR is showing in its development plan is reasonable,
12 has some grounding and an analog, and you can tell
13 from the activity in the area that Joker and Bane are
14 a priority for PR to get to. We're very excited to go
15 out and drill these wells as to our development plan.

16 Q And just to be clear, if you would, just
17 explain in terms of how -- how important this acreage
18 is to the company.

19 A It's, yeah, of the utmost importance. All our
20 rigs are in the area drilling. This is where we want
21 to allocate our capital. We're very excited about the
22 -- the economic potential of this area.

23 Q And if Permian were to be awarded
24 operatorship by the Commission, what's the estimated
25 drill schedule for the Joker and Bane units?

1 A We'll drill all the wells within a year.

2 Q Exhibit F4, I think these next set of slides
3 start getting into your analysis of Permian's
4 development plan and substantiating the basis for it.
5 Looking at Exhibit F4, if you would just start
6 reviewing, explain what's on this slide and how it
7 relates to your analysis that supports your proposed
8 development.

9 A Yes, the first thing I'll say is that neither
10 Coterra nor PR has put forth any analysis of the first
11 Bone because our proposals don't contrast at all. And
12 so that's why we skipped to the second Bone. And my
13 understanding was that Coterra was going to drill four
14 wells and PR was going to drill eight, so there's a
15 significant contrast. And so this is showing why PR
16 and I believe that eight is the proper spacing in the
17 second Bone. And so this is PR's test of the Batman.
18 And what we did was we drilled at eight wells a
19 section, although we only drilled six total wells. And
20 similar to Coterra's sort of monitoring of the bounded
21 versus unbounded wells, we were looking as to these
22 pink wells, which are completely bounded, and just
23 wanting to understand how much nonperformance there
24 would be versus the unbounded wells.

25 And that would be an indication that we're

1 perhaps spaced too tightly or these wells are
2 competing for reserves. And what we see from the
3 cumulative production chart is over a very sustained
4 period of time, the pink wells look unremarkable.
5 They're in the middle of the pack. And so what this is
6 indicating is that they're not competing for reserves
7 and the inclusion of these wells is driving up the
8 section recovery creating incremental resource
9 recovery and generating additional value.

10 And the other thing to note is that this has
11 been sustained for a very long time. So in a lot of
12 downspacing exercises, there's a question as
13 to whether incremental reserves are being created or
14 if reserves are just being accelerated. And so the --
15 you know it takes a little bit of time for the
16 pressure transients to investigate the reservoir. But
17 typically at about four months, you enter boundary-
18 dominated flow, and you've seen the extent, and now
19 you're just reducing the pressure within that extent.
20 And so the -- the time period from four months on,
21 everything looks good. These were incrementally
22 additive.

23 Q Question. I want to point out, Mr. Sanka,
24 that on your y-axis, you're showing cumulative oil.
25 And I want you to just touch on you know, the fact

1 that in your slides I think you're using actual
2 production data -- public production data, as opposed
3 to EUR, correct?

4 A That's correct. My slides only show the
5 actual public production data that anyone can access
6 on the NMSEG website. I don't include forecasts of
7 EUR, except for in very specific instances where I
8 expose Permian resources, internal underwriting of
9 these projects to demonstrate the economic, you know,
10 sort of returns and profiles. But it's used in a very
11 limited sense where there is no production data
12 associated with those wells. Everything else is the
13 actual barrels that have made it to the tanks and been
14 sold.

15 Q So these charts that we're going to walk
16 through, they don't include any assumptions,
17 projections, interpretations. It's just the actual
18 data, right?

19 A That's correct. And the reason why I did that
20 is twofold. The first is that, like you mentioned,
21 there's a lot of assumptions in EUR. It seems like
22 Coterra is using technical EUR, which gets rid of some
23 of the assumptions, but there's still abandonment
24 pressure and fluid properties that can impact the
25 ultimate technical EUR. And so this is just a very

1 clean look at what's actually happened.

2 Q Okay. Let's move on to your next Exhibit, F5.
3 I think this gets more into the bound versus unbound
4 wells. Explain what's on this Exhibit and how, again,
5 it relates to your analysis.

6 A So you're absolutely right. It does get into
7 the bound versus unbound, but it also gets into the--
8 the sort of sequence of learning that PR has
9 experienced in the area. So we just showed you a test
10 at six wells per section, and then this is a test at
11 seven wells per section with even tighter spacing than
12 what we're proposing in our development plan. And so
13 once again, we're keeping an eye on this lime green
14 and the pink well, which are the most bound. And it
15 doesn't seem like they're degraded at all. In fact,
16 they're the two best performers of the bunch. And so
17 that 127 you see at the bottom, that would be the edge
18 well. And there's no second well to the east that
19 would set up any sort of depletion effect or bounding.
20 So this is just another example of, first of all, the
21 evolving and improving gun barrel diagram. And then
22 secondly, eight wells per section can -- can all make
23 good reserves in the second well spring.

24 Q Are each of these wells in the raw and
25 economic?

1 A Yes.

2 Q Next slide is Exhibit F6. Explain again what
3 this shows in terms of your learning and how it
4 relates to your analysis.

5 A This is sort of ground-truthing because we've
6 been explaining that the inner wells aren't any worse
7 than the edge wells, but maybe all the wells are
8 worse. And so what I've done is I've summed up the
9 total for each of these DSUs, and you can see the
10 brown, the green, and the maroon are all at four wells
11 per section. And then the two blue colors and the lime
12 green are at six or seven wells per section. And so
13 truly, on a DSU level, you're recovering more when you
14 -- when you down-space.

15 Q Anything further on this slide?

16 A No.

17 Q Next slide is Exhibit F7. Explain what this
18 shows and how, again, it relates to your analysis and
19 assessment of the proposed Harkey sand in this
20 instance of the wells.

21 A So the Harkey sand has been developed
22 immediately offset, the Joker and Bane, by the legacy
23 Hammond FedCon wells. So those you see on the
24 production chart are the oldest, and they're the worst
25 performers. But since then, every subsequent modern

1 development has outperformed those wells. And so for
2 that reason, we're drilling this target at Eileen. We
3 have imminent plans to drill it at two Face at the
4 four wells per section. And there's some key other
5 information. I would say these Franklin Mountain wells
6 have helped delineate the northeast substantially,
7 because my understanding is that the sand portion of
8 the target is not present at the third-Bone well. So
9 the fact that -- that even those wells are
10 outperforming is very encouraging for the Joker and
11 Bane. And so that's why we think this is an economic
12 target.

13 Q And so I understand, are each of the wells on
14 this chart economic?

15 A The legacy wells are not economic. So that --
16 that was sort of my -- I didn't explain that, but my
17 approach was to start with those and understand why
18 and why should we expect uplift. And then the -- I do
19 want to mention on this -- on this slide --

20 MR. RANKIN: Hold on one second.

21 THE CHAIR: If we could, yeah, pause for
22 technical issues. Please, go ahead.

23 THE WITNESS: There was nothing about the
24 Harkey sand economics in Coterra's direct case. And in
25 fact, we've been served a copy of a rebuttal slide.

1 And on that slide, Coterra indicates that the
2 Harkey sand is economic. So you'll see on a table in
3 the top right of that slide, the PV10 is reported as
4 zero. And so the definition of IRR is the discount
5 rate at which the PV is zero. So what Coterra didn't
6 add to that slide was the IRR. But their understanding
7 of it is that it's 10 percent. And then another
8 problem that benefits the economics of the Harkey sand
9 is that they didn't use PR's current well costs. And
10 so the savings associated with the drop in the well
11 costs between what Coterra is using for that economic
12 model and PR's current well costs would serve to only
13 bolster the economics. So there's no fight as to the
14 economics of the Harkey sand.

15 BY MR. RANKIN:

16 Q You used the term IRR. If you would, just for
17 the record, explain what that means.

18 A IRR is the internal rate of return. Some
19 companies just use ROR. It's the same metric, but it's
20 a solution, iterative solution to the NPV equation
21 where you take the summation of all the cash flows and
22 the time that they occur, and you iterate by feeding
23 an R as the discount factor. And then when that
24 crosses from positive to negative, you know you've
25 gone through zero, and that's the IRR of the project.

1 Q Anything further on this slide?

2 A That's all.

3 Q Exhibit F8 gets into the co-development
4 analysis. Explain what this shows and how it initiated
5 or kicked off the consideration of co-development of
6 the whole pool area here.

7 A So now we're switching into the whole idea of
8 the Wolfcamp and the co-development of these Wolfcamp
9 targets. And so this was a very critical test because
10 it was the first. First test in the area. This was
11 done by Matador. And what they did was they developed
12 two third-Bone sand wells. And on one side of the
13 development, they included the XY. And so what I've
14 done on this slide and all the other tests of the XY
15 is I've made the orange color the third-Bone well that
16 is offset the XY, and the maroon color the third-Bone
17 well that is a standalone development with no XY co-
18 developed. And then the XY well is in green. And so
19 what I'm looking for in all of these is, is the third-
20 Bone getting worse with the inclusion of this XY well?
21 And so as you look at the rate-time plot in the bottom
22 left, the orange well, throughout its life,
23 outperforms the maroon well, which is the standalone
24 third-Bone.

25 And so again, this is over a very, very long

1 period of time, six years into the producing life. The
2 cumulative oil shows the same thing. The third-Bone
3 well that was offset the XY has recovered way more oil
4 than the third-Bone well that wasn't offset. And the
5 XY well is the best of these three. So all this is to
6 conclude is that there's not any degradation as to the
7 third-Bone with the inclusion of the XY within the
8 Brenner ray. Further on Exhibit F9, this sort of gets
9 into why.

10 And so as our geologist testified, the XY
11 contains a lot more oil, you know, per unit of pore
12 space than the third-Bone. And so we see that in the
13 producing water cut of these wells. The maroon well
14 has the highest fraction of liquids that are water.
15 And the orange well, for a long period of time, is
16 significantly lower than that well. And then the
17 oiliest of all the wells is the well that's targeting
18 the Wolfcamp XY. So based on this development, Permian
19 Resources in Exhibit F10.

20 Q Before I leave this Exhibit real quick, just,
21 if you wouldn't mind, just taking a moment to explain
22 in relation to what Mr. Bradford testified about the
23 Wolfcamp X -- I'm sorry, the Wolfcamp A. What does
24 this indicate to you about the -- the benefit of co-
25 development in terms of accessing the Wolfcamp A?

1 A Yeah, the -- the Wolfcamp A has a, you know,
2 a good oil saturation as well. You know, more oily
3 than, say, the upper third-Bone Spring. And so this is
4 indicating that as you're lowering that landing zone,
5 you're accessing it well and getting that -- that
6 oilier cut of fluids into the well more.

7 Q Okay, thanks for that sidetrack. Exhibit F10
8 show -- explain what this shows and, again, how --
9 how it continues to relate to your assessment of the
10 necessity of co-developing these targets.

11 A So, very similar to what Matador realized in
12 Brenner Ray Permian Resources came in in 2023 and
13 investigated the same co-development strategy. So on
14 the west half of this DSU, there were third-Bone wells
15 drilled with an XY well. And so, again, those are
16 colored orange. The XY wells colored green. And then
17 on the east half, there were third-Bone wells without
18 an XY. And so those are colored maroon. And so the
19 rate time's a little bit messy, but as you look at the
20 cumulative production of over two and half years, the
21 orange wells don't seem to be any worse than the
22 maroon wells. In fact, they're significantly better.
23 And the XY well isn't just some dud. I mean, it's
24 right in the middle of the pack. So it's driving
25 incremental recovery from the west half versus the

1 east half. So this is immediately adjacent, you know,
2 diagonally, catty-corner to the Joe Kern Bay and
3 subject area.

4 Q Any further comment on this slide?

5 A No.

6 Q Exhibit F11. Explain what this shows, and
7 again, how does this relate to the necessity of
8 drilling these wells simultaneously as co-development?

9 A Again, just like Matador saw in Brenner Ray,
10 Permian Resources realized the same phenomenon where
11 the orange wells have lower-producing water cuts than
12 the maroon wells. And so this is tying in the co-
13 development of the XY and the third-Bone is -- is
14 helping tie in more of this oilier Wolfcamp and
15 produce those fluids out of the well pores. And this
16 is sustained over the life of the wells. So, once
17 again, the Wolfcamp seems to be oilier and the co-
18 developed wells are getting a benefit from that.

19 Q Anything further on this slide?

20 A No.

21 Q Looking at your next slide, Exhibit F12,
22 explain how the economic analysis here supports the
23 need to co-develop, and the benefit realized for each
24 of the owners in both zones in the Wolf-Bone.

25 A So, what I've done here is say, well, the

1 west half is co-developed and that's analogous to what
2 PR is proposing. It's not exact, but it's closer than
3 the east half. And then the east half is what
4 Coterra's proposing to develop with, which is just
5 third-Bone wells. And then once again, what I've done
6 is taken the actual oil production and the actual
7 cumulative cash flows that have been generated. So
8 these cumulative cash flows as well as those on the
9 first slide include the capital that was spent, the
10 operating expenses, the taxes that were paid, the GP&T
11 expenses, every expense, every cash flow is accounted
12 for. And so on the western side or the left-hand side
13 of this Exhibit, there's no adjustment to any of the
14 production or cash flows.

15 On the right-hand side, what I've done is
16 I've taken 72.8 percent of the oil and allocated it to
17 the Third Bone owners and 27.2 percent of the oil
18 in cash flows of both of these and allocated it to the
19 Wolfcamp owners. And so this is a pretty good
20 comparison of how the owners would fare under both
21 development plans. So as to the Permian Resources
22 analogous portion of this GSU, the third-Bone owners
23 recover 960,000 barrels of oil and receive \$40 million
24 in cumulative cash flow. The Wolfcamp owners get
25 everything that the Wolfcamp Oil made, and they get

1 390,000 barrels of oil and \$14.5 million in cumulative
2 cash flow. And then everybody summed up gets 1.35
3 million barrels of oil and \$55 million in cumulative
4 cash flow. So in this case, the production and revenue
5 are just allocated where the well is drilled and
6 completed. Now moving over to the right-hand side,
7 this is analogous tool to -- to
8 Coterra's proposal with only third-Bone development
9 and splitting that between the owners in both
10 formations.

11 And so in this case, the third-Bone owners
12 only get over half a million, 540,000 barrels and \$18
13 million. And then the Wolfcamp owners are getting some
14 of that third-Bone production, but they're only
15 getting 200,000 barrels and 6.8 million. And so in
16 total, the total is worse off, but owners in each
17 discrete formation are actually worse off under this
18 allocation and single-bench development.

19 Q And just to be clear, on the Permian side,
20 the owners in the third-Bone Spring are getting 100
21 percent of production from that well, correct?

22 A Correct.

23 Q And the Wolfcamp owners, and that's a
24 separate spacing unit under Permian's plan, right?

25 A Correct.

1 Q And the Wolfcamp owners are getting 100
2 percent of production from their well, correct?

3 A Correct.

4 Q And that's a separate spacing unit under
5 Permian's plan, correct?

6 A Correct.

7 Q And as we look at Coterra's plan, the third-
8 Bone Spring owners are only getting, under the new
9 approach, 70 percent of the production from that well,
10 correct?

11 A Right. Not in these numbers. These numbers
12 still have the -- the allocation formula that was
13 known to me as of, you know, a week ago.

14 Q Okay, so in this specific example, 72.8
15 percent of production from that well, correct?

16 A Correct.

17 Q And again, Coterra's not proposing a Wolfcamp
18 well so that there's only the one well in their Wolf-
19 Bone spacing unit, correct?

20 A Correct.

21 Q And then Wolfcamp owners are getting, in this
22 instance, for example, 27.2 percent of production from
23 that well, correct?

24 A Correct.

25 Q Anything further on this Exhibit?

1 A The only thing I want to emphasize is these
2 are all actual, actual numbers. No forecasts. So as we
3 saw in the previous slide that the out
4 performance seems sustained, so as time passes, these
5 numbers will only grow barring any unforeseen
6 convergence or whatever -- production disruptions.

7 Q Next slide here is Exhibit F13. What does
8 this show, and what is your -- what are your key
9 takeaways here regarding your analysis?

10 A So what we've been working -- sort of walking
11 through is the -- the evolution of co-development from
12 20 --, you know, the 2017 to 2023 and now 2024. And so
13 with each development, Permian Resources is
14 incorporating learnings from the previous one. And so
15 this is moving off of Batman and now instead of just
16 one Wolfcamp well, we've co-developed a density,
17 meaning we drilled all three XY wells and all three
18 third-Bone wells. And one thing to note here is that
19 the Robin was completely surrounded by offset
20 depletion. So in every direction there had been fluids
21 removed from the area. And so -- And there were
22 significant amounts. It was over a million barrels
23 produced offset the Robin. There is a little bit -
24 - there is a half a mile that doesn't overlap that
25 nonetheless is significant amount of -- of depletion.

1 And that's manifest in the 201 that you can see sort
2 of underperforming the wells here. But as to the
3 eastern wells, the lighter colors on the production
4 plot, they're right in the middle. And so the Permian
5 Resources buffering offset the depletion helped, which
6 was a good learning for us. But as we move into the
7 subject area, we don't think that -- that drilling at
8 3 and 3 for depletion are any bufferings necessary.
9 And I'll show why in a second. But the first thing to
10 notice is that only half of the laterals will be
11 depleted. And the depletion amount that the -- the
12 Joker and Bane wells will encounter is much lower than
13 what was encountered at Robin.

14 Q Before we move off, you mentioned that you,
15 that Permian Resources buffered off from the depletion
16 in the Robin. Explain what you mean by that.

17 A The well bones are just drilled a little bit
18 further west than they would have in sort of a
19 symmetrical spacing. The other thing that -- Sorry,
20 you reminded me of this. Now we have a true analog of
21 a fully bound 133 and 202H which are completely
22 surrounded by Wolf-Bone wells. And those are the two
23 best performers of the -- of these wells. So that's a
24 very encouraging result as well.

25 Q And just to be clear, I'm looking at the top

1 right gun barrel. When you say buffering, you're
2 moving the 134H and the 203H further west to avoid the
3 degradation and depletion effects from the offset to
4 the Robin, correct?

5 A Right.

6 Q Okay. Just wanted to make sure that was
7 clear. Anything further on this Exhibit?

8 A That's it.

9 Q Okay. Looking at the next slide, F14. Again,
10 explain what this shows and how it relates to your
11 assessment of the potential impacts from drilling at
12 this density.

13 A So in the previous slides, I've shown you
14 know, within the DSUs that the Third Bone wells aren't
15 any worse via the inclusion of the XY. We saw that at
16 Brenner Ray. We saw that at Batman. And so what I'm
17 showing here is now moving from Batman to Robin, we're
18 totally surrounded by depletion, and we drilled two
19 more XY wells and so now every Third Bone well has an
20 XY well offset it. And despite the depletion and the
21 inclusion of these wells, so far these wells have
22 produced very similar as those Batman wells which had
23 fewer XY wells and didn't have any depletion effects.

24 Q Tell me what your takeaway is then about the
25 need or the benefit of drilling at the higher density

1 in Robin. In order to accomplish this production
2 curve.

3 A Right. As we're adding more and more wells
4 and the average production is staying constant, we're
5 generating much, much more resource recovery and
6 associated value. And so as we're seeing this, this is
7 what's driving our understanding that eight wells are
8 needed to drain the Wolf-Bone Pool appropriately.

9 Q And in this instance, but for the density of
10 the Robin, what would you have expected the outcome to
11 be compared to Batman here?

12 A I would have expected it to be worse because
13 of the depletion. I mean a million barrels of offset
14 withdrawal is a significant amount.

15 Q So in other words, are you saying the only
16 reason the Robin performed as close -- as well as it
17 did relative to Batman is because of the --
18 the density that you drilled it at?

19 A I will testify to that a little bit later on,
20 but as to this, this is just the average well compared
21 to the diameter.

22 Q Let's go to your next slide, Exhibit F15.
23 What does this show, and how does it again relate to
24 your analysis about these densities?

25 A This shows why there's no reason to expect

1 Permian to drop the offset depletion wells in
2 geocurrent Bane. So what we did here is we offset
3 depletion with the Robin 201. We did not buffer on
4 this side. And we got, you know, this is fully bound,
5 the entire lateral saw depletion effects. And so it's
6 really sort of a worst case outcome in the depletion
7 effects did manifest themselves in the production. So
8 you can see on the production plot, the 201 under --

9 THE CHAIR: Excuse the interruption.

10 BY MR. RANKIN:

11 Q Mr. Sanka, can you pick up where you left
12 off? I think you were talking about the 201H, I think.

13 A Yes, would it be possible to -- to spotlight
14 the Exhibit view, please?

15 Q Oh, did we lose it? Let's see. I'm sorry,
16 spotlight the what?

17 A I have it very small on the top right.

18 Q Oh, Ms. Apodaca (PH) -- thank you very much.

19 A So, as I was saying, the 201 underperforms
20 the 203. And then what's important to note is that the
21 202, which is fully bound as to the Wolfcamp, is the
22 best performer. And it looks very similar, slightly
23 lower than the Batman 201. And so it doesn't seem that
24 there's any degradation on the fully bound 202, or
25 very slight degradation. And then the depletion

1 effects, what I've done is I've taken this worst 201
2 that did actually experience the full lateral of
3 depletion, and I've done look-back economics. And so
4 what that means is I've gone back and stitched all the
5 actual cash flows and then created a forecast of the
6 EUR. So this is one of the examples I am using EUR.
7 And considering all the cash flows, this 201 is
8 expected to generate a 57 percent IRR. It actually
9 pays out next month in this forecast. And then it
10 generates 490,000 barrels of oil and \$5.7 million in
11 PV10. And so what this demonstrates is that the
12 Wolfcamp XY economics are totally robust enough to
13 support depletion impacts, even in a fully bound case.
14 And so our underwriting for the geocurrent Bane wells
15 that will be offset depletion, you know, again,
16 supports the drilling of those wells.

17 Q Turning to Exhibit -- Anything further on
18 this slide?

19 A Yes. The one thing I'd like to say further on
20 this slide is -- is because we just saw that the Robin
21 third-run wells aren't any worse than the Batman
22 wells. The economics that you're seeing and the
23 production that you're seeing here is truly
24 incremental. There's not some destruction of reserves
25 or destruction of PV that need to be considered in

1 conjunction with these economics.

2 Q And just to be clear, I think you've been
3 talking throughout your testimony so far about
4 incremental reserves. If you would just take a moment
5 to distinguish incremental reserves from acceleration
6 of production and -- and explain why it's important to
7 distinguish here.

8 A Well, there's -- there's two things going on.
9 So the -- the -- the first, sort of the way that
10 Coterra is talking about incremental reserves and a
11 very common way to talk about them is that if you
12 drill a well, and it degrades another well, then you
13 should be thinking about that degradation as to the --
14 the creation of reserves and cash flows for the well
15 that you drilled. So that's -- that's how I was
16 meaning incremental reserves when I was just
17 discussing it. But the incremental reserves versus
18 acceleration is a -- is a slightly different concept
19 where the incremental reserves are actually raising
20 the reserves of the development and the acceleration
21 is just making them happen earlier on. And so making
22 reserves happen earlier on can be economic, but it
23 doesn't improve the ultimate recovery.

24 Q So just to be clear, when we talk about
25 incremental reserves, you're talking about reserves

1 that would otherwise not be recovered under -- under
2 Coterra's plan, for example.

3 A Correct.

4 Q Okay. And so the -- the difference between
5 incremental reserves obtained as projected by Permian
6 versus what Coterra's plan proposes would be
7 potentially stranded reserves, correct?

8 A Yes. There's been a lot of testimony that
9 shows that, you know, the Black and Tan example, you
10 can't come back in later and get a second bite at the
11 XY. It needs to be co-developed in the initial
12 development for this to work. If you come back in
13 later, because of those depletion effects I was
14 discussing, because of the fracing efficiencies, it's
15 just no longer economic. These locations would be
16 destroyed.

17 Q And that's the same analysis and assessment
18 as to the second Bone Spring, correct?

19 A Similar.

20 Q In other words, if they come back, if Coterra
21 drills them asynchronously and not a proper sequence,
22 it potentially degrades the -- the -- the resource.

23 A Yes.

24 Q Okay. Looking at -- Thank you for that
25 sidetrack. Exhibit F-16, what does this Exhibit show,

1 and again, how does it relate to your analysis, and
2 particularly the comparison between the two competing
3 plans?

4 A So this is looking at, you know, the depleted
5 wells on the outermost extent of the Joker and Bane,
6 so it would be the Joker 131 and the Bane 204. These
7 wells I've highlighted with a thick outer outline just
8 to denote them as being offset depletion. And so based
9 on what we saw at Robin, we've been able to describe
10 the depletion impacts that we expect, and those are
11 incorporated into our underwriting of this project. So
12 what I've done is I've exposed PR's internal
13 underwriting to show that the depleted Joker Third
14 Bone well is expected to generate 115 percent IRR,
15 create 820 MBO of UR, and generate \$13.2 million in
16 PV.

17 Similarly, although not quite as robust, the
18 Wolfcamp well, which is depleted, has a very healthy
19 77 percent IRR, 560 MBO of UR, and \$7.2 million of
20 value creation. So these are highly economic
21 locations. And then it has to be said in any
22 discussion about depletion is that Coterra's
23 development plan will suffer from very similar
24 effects. Their Third Bone wells will also be depleted.
25 And as we've been you know -- as we've

1 been discussing, improper sequencing of the second
2 Bone could create additional effects of depletion on
3 subsequent infill wells.

4 Q Anything further on this?

5 A No, that's all.

6 Q Now, in addition to your assessment of the
7 competing development plans, you've also prepared some
8 testimony and analysis regarding Coterra's proposed
9 allocation methodology, correct?

10 A Yes.

11 Q Let's look at your next slide here, Exhibit
12 F17, and if you would just explain why, in your
13 opinion, Coterra's proposed allocation methodology is
14 -- is inappropriate here.

15 A Yes, so this is an attempt to tie the D phi -
16 - or the -- sorry phi-H of the Third Bone in XY to the
17 Third Bone wells. And so what I've done is I've used
18 the 12-month cumulative oil produced, because that
19 keeps the mist wells in the dataset and also is a nice
20 representative time frame. And I've normalized them up
21 to 10,000 feet. And so then I've cross-plotted the
22 third -- the Third Bone in XY, phi-H, on the x-axis,
23 and the oil recovery on the y-axis. And then I've
24 calculated the R-squared value that you see in the top
25 right. And so the -- an R-squared of 0.02 means that

1 the allocation formula variable is explaining 2.8
2 percent of the wells' production variance. And so what
3 that means, sort of in a simplified way, is that it's
4 97 percent random. And so I've -- I've reviewed
5 rebuttal Exhibits, and so you'll maybe see those this
6 afternoon, but Coterra is doing to justify this.
7 There's nothing tying D phi or phi-H to production in
8 their case-in-chief.

9 And then their rebuttal Exhibits exclude all
10 the wells that aren't described by this relationship.
11 So they're taking out wells that have 999 -- 999
12 pounds of proppant per foot, but not 1,000. And
13 there's four or five different filters where they're
14 taking out all the wells that don't conform to this
15 relationship. And then, although they've been
16 presenting R-squared, they change the variable to show
17 correlation. And so the - the correlation is higher
18 than the R-squared, because the R-squared is actually
19 the square of the correlation. And so even still, if
20 you look in the rebuttal Exhibits, they're having
21 trouble tying this, taking out all kinds of wells. And
22 then they end up with an R-squared of like 0.64.

23 Q Anything further on this slide? Let me ask
24 you this before we move off it. In your opinion, first
25 of all, in conclusion, is phi-H a reasonable,

1 accurate, fair basis to allocate production in this
2 acreage?

3 A No. I think this slide shows it, and then
4 just sort of relying on my engineering experience,
5 although I haven't done any of the tracer studies that
6 Commissioner was referencing in this area, I have done
7 them in other basins and within this basin and other
8 areas. And there's all kinds of problems with trying
9 to determine where the fluids are coming from, because
10 you can run oil tracers, you can run water tracers,
11 you can do geochemical fingerprinting of the oils. And
12 what you find is that the contribution from different
13 zones is not stable through time. So in early time, it
14 might be one thing, and then the next day, it could be
15 another thing. And then a month later, it'll be
16 shifting. And the other thing that I've noticed in
17 doing those studies is that it doesn't tie to phi H.

18 Q Anything further on this slide or ask to
19 allocate? So just on that point, then, in your
20 opinion, is there any data -- is there data available
21 or any analytical method currently available that's
22 practical for purposes of potentially allocating
23 production in a fair, accurate, reliable method
24 between the Dillon Spring and Wolfcamp within the
25 Wolf-Bone Pool?

1 A No.

2 Q And in your opinion, then, is a statutory
3 application the most fair and equitable method to
4 achieve protection of correlative rights?

5 A Yes.

6 Q Now, last slide here, F-18, just at a high
7 level, explain what this shows and why it's on the
8 screen here.

9 A This is showing -- I noticed in the original
10 cases that Coterra had described this -- the subject
11 area to its investors and held it out to the public as
12 containing prolific Wolfcamp. And so I was curious to
13 see if that had maybe changed based on their admission
14 of the XY from the development plan. And this was
15 presented publicly on their third quarter 2024
16 investor presentation. So describing the Wolfcamp in
17 this area is prolific.

18 Q Anything further on this slide?

19 A That's it.

20 Q So looking now at -- you've -- you've had the
21 opportunity to review and analyze Coterra's
22 engineering and geology testimony Exhibits, correct?

23 A I have.

24 Q And you've had a chance to prepare a response
25 or rebuttal to those?

1 A Yes.

2 Q Moving into your next slide, Exhibit F --
3 Exhibit F-19, give us an overview of what this slide
4 shows, in particular what testimony and -- and or
5 Exhibits it's specifically referring to.

6 A So I don't want to spend too much of the
7 commission's time on this because there's been an
8 amended Exhibit. But this was made in response to
9 Coterra's Exhibit C-4, illustrating the multiplication
10 error that Coterra changed after it received this
11 Exhibit. And so I don't want to dwell on the --- the
12 multiplication error, but there's still an
13 inconsistency and a logic error that has persisted
14 even after their change. And so what I want to draw
15 everyone's attention to is that in Coterra's economic
16 modeling, which includes recoveries of all the
17 development patterns, right here on this table,
18 they're saying that five wells per section should
19 recover 7.2 million barrels of oil. And in the same
20 way, six wells per section should recover 7.6 million
21 barrels of oil. But if we go to F-26 --

22 Q One moment. Oh F-26. My apologies.

23 A Coterra has prepared estimates of wells that
24 are on production that are immediately south, and that
25 with the net pay map showing they're analogous to the

1 Joker and Bane units, and instead of that 7.2 million
2 barrels of recovery and the 7.6 million barrels of
3 recovery, these are only recovering 5.6 million
4 barrels. So Coterra, in their economic modeling, is
5 saying that the Joker and Bane will recover 30 to 35
6 percent more than what they're seeing in the immediate
7 offset, right here. And the only reason, in reviewing
8 Coterra's testimony, I can think of why they would do
9 this, is because the fracture size will be slightly
10 larger.

11 And so the Batman and Robin were
12 approximately 2,400 pounds per foot and 2,500 pounds
13 per foot, respectively. And Coterra is planning at
14 2,600 pounds per foot, so 100 to 200 pounds per foot
15 more. But that only explains a few percentage points
16 of why they're anticipating better recoveries at Joker
17 and Bane than at Batman and Robin. And then I went to
18 try and understand that proper relationship I went
19 back to Coterra's Exhibit C7. And this is a
20 correlation of groups of proppant intensity and the
21 total fluid. So this is what Coterra testified was the
22 reason the -- the better frac -- why the better
23 proppant loading would improve recoveries. But if you
24 look at this slide, they're showing this R-squared.

25 And foundationally, R-squared is a

1 measurement of variance. That's how it's calculated.
2 It's one over the unexplained variance -- one minus
3 the unexplained variance over the total variance. And
4 so if there's no unexplained variance, it's very high.
5 It's near one. And if there's a ton of unexplained
6 variance, it's very low, because the unexplained
7 variance is a fraction of the total variance. It's
8 high. And so if you're trying to understand
9 variance, that -- that's fine.

10 But what they've done is they've taken 46
11 wells in the data point that they called out that all
12 have the same x-axis but could have very spread y-axis
13 values. And somehow they've aggregated it, assuming
14 it's the average. When you average things, you take
15 out all the variance. You can represent 46 different
16 things with one single point. And so they've taken out
17 all the variance, and then they say, "wow, there's not
18 a lot of variance." In effect, what they've done is
19 they've put a very, very strong smoothing filter on
20 this data. And there's some legitimate applications to
21 use a smoothing filter.

22 But what it does is it completely
23 overestimates the predictivity as to an individual
24 data point. And so if they took off the aggregation on
25 this slide, you would see the R-squared collapse, in -

1 - in my experience looking at similar plots. And so I
2 don't think that there really is a strong correlation
3 between the proppant intensity and the total fluid,
4 but it's certainly not 0.84. But anyway, leaving that
5 alone, I wanted to go back to Exhibit F20, I believe.
6 Permian rebuttal Exhibit 20. So, I mean, what -- what
7 I'm showing through this is -- is -- is inalibical
8 errors in Coterra's methodology.

9 So they've already applied a very smooth --
10 very strong smoothing factor. And then on -- on this
11 page, which references their Exhibit C4, they show on
12 the top left, top left is from Exhibit C4 and all the
13 rest is -- is my work. And so they show this sort of
14 concave down logarithmic trend. And the -- the comment
15 says the model is based on additional data points, but
16 they're just showing it against the recent unilogs to
17 show, I guess, that it's a good model. But if you
18 digitize these points and just put a simple -- simple
19 log-normal fit through them, you get the same, same
20 trend line.

21 It goes through the 2, 5 point and the 9 and
22 just short of 8. And so I think that that's actually
23 the model. And the problem with the model is that it
24 includes this little bear point, which has Wolfcamp A
25 wells. And both -- both operators have testified that

1 the Wolfcamp A is a suboptimal target. And so it's not
2 analogous to what the proposal, PR's proposal for
3 Joker and Bane. This non-analogous data point is just
4 adding noise to the correlation. And so what I've done
5 in the bottom right is I've removed that point. You
6 can see the fit improves. Now the R squared is up to
7 0.6. And what that does mechanically is that the 8
8 wells per section case is now expected to recover much
9 more oil. So the way this flows through all the
10 economic model, if we can go to F21, I've shown the
11 Coterra's Exhibit C5 at the top.

12 And this -- the PR proposal incremental PB10
13 is Coterra's showing of economic waste. And so they're
14 saying PR's proposal destroys \$9.5 million in value.
15 Previous to the revision to the multiplication error,
16 this middle table was useful because it was taking out
17 the erroneous barrels. Now it's not as useful, but I
18 do -- I would like to point out that even in this
19 case, the top row of this, the recovery is higher than
20 Coterra's estimates for the Batman and Robin, which
21 include additional wells. And so reducing the 4-well
22 unit recovery any further will only drive up the
23 bolded cell, which is PR proposal incremental PB10 in
24 the middle.

25 Secondly, if you correct the spacing

1 relationship to account for the additional recovery at
2 8 wells per section, it drives it up even higher.
3 Exhibit F21 is the same, just looking at instead of
4 Coterra's Exhibit C5, Coterra's Exhibit C6. So I don't
5 want to spend any of the commission's time on this,
6 because if we go to the next slide, Exhibit F23, we
7 don't even need to -- we don't even need to adjust the
8 recoveries in Coterra's model to show that they can't
9 show any economic waste. These are the well costs
10 based on both parties' latest AFEs, their current well
11 costs, and you can see I've compared for like
12 formations.

13 PR is 11 percent cheaper on average. And if
14 we go -- Oh, sorry, I wanted to point out paragraph 24
15 of the engineering testimony acknowledges that PR did
16 not use Coterra -- I'm sorry, Coterra did not use PR's
17 current costs for any of its underwriting as to the
18 economic waste. And so if we move to F24, this is
19 Coterra's unadjusted Exhibit C5. We're taking
20 their economic -- their demonstration of economic
21 waste totally at face value, and the only thing that
22 we're doing is we're updating PR's costs to reflect
23 the current costs. And so they actually got into this
24 a little bit on direct, and the question from counsel
25 was if -- if they were cheaper, would this flip? And

1 their testimony, well, if it was \$5 million cheaper,
2 it wouldn't flip. And that's because 5 is less than
3 9.5. But if you actually do the math, which is a
4 walkthrough in the table below, the -- the savings
5 just updating to PR's current costs are \$12.6 million,
6 which is more than 9.5, and now there's no
7 demonstration of economic waste. Using Coterra's own
8 numbers at face value and only updating the capital,
9 PR's plan generates \$3 million more in present value.
10 The next slide is the same analysis on Coterra's
11 Exhibit C6, which is their Hyola case. It shows
12 similarly \$9.8 million in additional value created.

13 Q Anything further on this slide?

14 A No.

15 Q What does this next slide show, and if you
16 would, refer to what testimony and Exhibits you are
17 referencing as you -- for purposes of rebuttal here.

18 A I -- I think we've addressed this one. I
19 don't want to use any more of the commission's time.
20 This is the -- Coterra's Exhibit C5 -- C3, which shows
21 their forecast for all the Batman and Robin, and their
22 map showing that they're analogous to the Joker and
23 Bane.

24 Q This next slide here, F27, what does it show
25 and explain your takeaway from -- from the points on

1 this slide.

2 A This is sort of illustrate -- you know
3 an attempt to illustrate the amount of money that is
4 being discussed as all these different methods are
5 used and as allocation formulas that aren't supported
6 by any method are being proposed. How -- what --
7 what's at stake? And so going through Coterra's
8 testimony, their written testimony, the geologist in
9 paragraph 24 says, "If only one method were used, it
10 could be questionable." And so to resolve the risk
11 about that, they did another method and got a
12 different answer. Then they did yet a third method and
13 got a third answer. And then they propose an
14 allocation formula that isn't any of them, and it
15 isn't the average of them, and it isn't the median.
16 It's just between the lowest and the highest, but it's
17 not any more valid than 66 and -- and 34 or 66.5 and
18 33.5 and -- I mean, these may -- 1 percent or 2
19 percent doesn't seem that big, but across the entire
20 spread, it's \$23 million in value that is being moved
21 around as you allocate these differently.

22 In my understanding from the rebuttal
23 Exhibits is that there's now a fifth box we need to
24 throw up here, which is 60-40. These have moved on me
25 in the past week, but they've actually moved since

1 Wednesday night. So I think that dynamism in these
2 really speaks to the unreliability.

3 Q Then I guess the -- the point I want to ask
4 you about, then is, we heard a little bit from Mr.
5 Bradford about whether there's been a demonstration
6 that any of these methodologies can be tied or have
7 been tied to actual oil production. Tell me your
8 opinion about whether that's the case, based on what
9 you've seen, and whether it's possible to do so.

10 A I haven't seen any testimony tying any of
11 this to actual oil production, and I don't think it's
12 -- it's practical to do so.

13 Q In your opinion, is there any data,
14 evidence, or available methodologies to properly
15 allocate as between owners in the Wolfcamp and the
16 Bone Spring within the Wolf-Bone pool?

17 A Only by allocating on the statutory
18 surface acreage.

19 Q Final slide, I believe, F28. What does this
20 say, and how does it relate to your analysis?

21 A This is Coterra's geology written testimony,
22 paragraph 18. It says, "this method predicts total
23 fluid production rather than oil production," but
24 there's no evidence that accompanies that
25 statement. So if you look here, it's a little bit

1 better than oil, but as Mr. Bradford mentioned,
2 there's all kinds of different things that impact
3 what's coming into the well bone from the
4 reservoir. So all -- all of this phi-H and so phi-H,
5 it would be accurate if everything were recovered from
6 the reservoir, but Coterra's engineering indicates
7 only about 8 percent of it is recovered, and that
8 seems like a reasonable number to me. Coterra's
9 engineer testified that he doesn't know where the
10 fractures are, and that's true. We know that there's
11 frac baffles above and below the pool that will arrest
12 fractures, but within the pool, nobody knows where
13 these fractures are propagating.

14 Q Anything further on this Exhibit?

15 A No.

16 Q That concludes your Exhibits. In your
17 opinion, Mr. Sanka, are the Granning and Permian's
18 applications in the denial of Coterra's in the best
19 interest of conservation, preventative waste, and
20 protection of correlative rights?

21 A Yes.

22 Q And were Permian Exhibits F and then F1
23 through F28 prepared by you?

24 A Yes.

25 MR. RANKIN: At this time, Mr. Chair, I would

1 move the admission of Exhibits F and F1 through F28
2 into the record.

3 MR. ZIMSKY: No objection.

4 THE CHAIR: So admitted.

5 (Permian Exhibits F and then F1 through
6 F28 admitted into evidence.)

7 MR. RANKIN: At this time, Mr. Chair and
8 Commission members, I would make Mr. Sanka available
9 for cross-examination.

10 THE CHAIR: Do you have an estimate of how
11 long this cross going to take?

12 MR. ZIMSKY: Before lunch.

13 THE CHAIR: Before lunch. Please proceed.

14 CROSS-EXAMINATION

15 BY MR. ZIMSKY:

16 Q Good morning, Mr. Sanka.

17 A Good morning.

18 Q My name is William Zimsky on behalf
19 of Coterra. I'm going to be asking you some questions.
20 First let's go to slide F2. And in calculating Permian
21 Resources' production in this table, what frac design
22 did you assume? What was your appropriate volumes and
23 pounds per foot?

24 A So our -- our frac designs are finalized
25 immediately prior to frac, and they're fine-tuned if

1 we think it's value additive. But generally, they
2 don't change very much. And so these are just the same
3 sort of things that all these analog examples that we
4 looked at would have been faced with. So there's not
5 a -- there's no changing frac design between all of
6 these.

7 Q Well, can you give me a number? What --
8 what's your number right now, pounds per foot?

9 A The -- the Robin and the Batman are 2,400 to
10 2,500 pounds. There will be some variation around that
11 on a per-well basis, but it's not material.

12 Q Would it affect the cost of the completion?

13 A Very slightly. propant is, you know, sans 3
14 to 4 cents a pound.

15 Q But isn't there other factors in going with a
16 higher propant value? Are there cost factors involved?

17 A Not really. I'm not a completions engineer
18 and can't speak to all of that.

19 Q Okay. On the bottom right-hand side of
20 Exhibit F2, you represented to the commission that,
21 quote, PR's development plan cadence is typical for
22 the area. Do you see that?

23 A Yes.

24 Q Isn't it true that there are no developments
25 in the surrounding units that have had 4 Third Bone

1 Spring wells and 4 Wolfcamp XY wells drilled and
2 producing within one year of issuance of a polling
3 order?

4 A That's correct. We're currently drilling the
5 Riddler, which are immediately offset, which will be
6 at the same spacing, but because it's a half-DSU, it
7 will only be two and two.

8 Q And you don't have any production data from
9 those wells, so you can't say whether that spacing is
10 optimal spacing at this time.

11 A Correct.

12 Q Now, there's some testimony about the Batman,
13 and you -- you have some rigs on that development
14 right now.

15 A Yes.

16 Q Are you planning to go back and drill the -
17 - any Wolfcamp XY wells?

18 A No.

19 Q So, summing up here, PR's development plan
20 cadence, your assertion that it's typical for this
21 area -- that's -- it's not typical for this area
22 because you've never done it before.

23 A The cadence is typical for the area, sir.

24 Q The cadence of 8 well -- of 48 or 24 wells in
25 one section for two-section development?

1 A Right. I mean, we looked at examples where
2 it's 21 wells all at once, 18 wells all at once.

3 Q But not -- but not 24?

4 A No.

5 Q Lets go to Exhibit F3. And you represented
6 the commission that PR has demonstrated, quote,
7 demonstrated ability and willingness to execute on a
8 plan. But isn't it true that PR did not fully execute
9 the Batman, less than 50 percent developed from pooled
10 well locations or the Robin development plans within a
11 year of the pooling order?

12 A That's my understanding.

13 Q So, on what basis do you rest your claim that
14 PR has, quote, demonstrated ability and willingness to
15 execute on the plan if PR has not executed on its
16 recent developments?

17 A To get to the -- to your question, that's why
18 I showed the sequential evolution of all these gun
19 barrel diagrams. And further, the Batman and the
20 Robin, as I understand them, were under different
21 pooling rules.

22 Q But it's a fact that you didn't follow
23 through on the plan as originally proposed, correct?

24 A That's my understanding.

25 Q Now, let's go to Exhibit F12. Do you have

1 that there?

2 A Yes.

3 Q Do you see it? To the left of the well rack
4 depiction of the Batman wells, you state there is,
5 quote, no novel allocation method. What do you mean by
6 the word novel?

7 A You know, I wouldn't -- that's just novel to
8 me. I don't know if these are novel or not. I haven't
9 seen an example of wells ever being allocated based
10 on phi H. But that's not to say that one doesn't
11 exist.

12 Q But have you ever seen wells allocated in the
13 Wolf-Bone pool between the Third Bone Spring sand?
14 Wolfcamp.

15 A No.

16 Q So you're not aware? And so what did you look
17 at before you made this statement, that -- know that -
18 - implying that it was novel allocation method?

19 A You know, the allocation method in the
20 reservoir engineering space is just a way to split the
21 cash flows in production. And so it's probably not the
22 correct term to use, novel allocation method, in terms
23 of a legal or even regulatory setting. That's just
24 what I meant by that, is that I wasn't splitting any
25 of the production or cash flows between the wells and

1 just allocating it to that well bone.

2 Q Are you aware that there are two parties in a
3 contested hearing involving nearby lands in which the
4 designated Wolf-Bone pool and the parties agreed that
5 an allocation formula was needed to properly allocate
6 production from the Third Bone Spring and the
7 Wolfcamp? And each of the parties proposed an
8 allocation formula to distribute production between
9 the Third Bone Spring sand and the upper Wolfcamp?

10 A No.

11 Q Did you read the pre-hearing statement when
12 we cited a number of cases where an allocation formula
13 was used?

14 A Yes, I did read it. But, you know, it was
15 quite a bit, and I don't know how good my
16 comprehension of it was.

17 Q Okay. So, but getting back to this use of the
18 word novel, you would agree that it's not novel to
19 have an allocation formula.

20 A I've really never studied allocation
21 formulas. My focus is on what makes the most oil and
22 the most money, recovers the most resources.

23 Q I understand that, but you use the word
24 novel, so I'm just trying to tie that up that to -
25 - Isn't it true that it isn't novel to have an

1 allocation formula to distribute between different
2 formations when there's a depth severance?

3 A I don't know.

4 Q Is there a difference in ownership between
5 the third sand versus the -- the Wolfcamp -- upper
6 Wolfcamp and the Batman?

7 A I don't know.

8 Q Now, for the west half of the Batman
9 development, it currently consists of three Bone
10 Spring sand wells and one Wolfcamp XY well, correct?

11 A No.

12 Q And correct me, what is the current status of
13 the west half of the Batman development plan?

14 A It consists of two Third Bone Spring sand
15 wells and one XY well.

16 Q Sorry, I misread that. If you were to
17 replicate the west half of the Batman development
18 across another entirely undeveloped area, then you
19 would have four Bone Spring sand wells and two upper
20 camp -- upper Wolfcamp wells, correct?

21 A I mean, every DSU that I prepare a
22 development plan for has its own sort of optimal that
23 we're solving for.

24 Q So, isn't it correct that such a development
25 would not be representative of what you were proposing

1 at Joker Bay? In other words --

2 A I don't understand that.

3 Q In other words, Harvey two, you would have
4 four Bone Spring sand wells and two upper camp --
5 upper Wolfcamp wells across a development unit, and
6 that -- that is not the same as what you're proposing
7 at Joker Bay, correct?

8 A Correct.

9 Q Let's go to F-17. You show a plot of
10 cumulative oil versus phi-H. Does phi-H describe the
11 total produced reservoir fluid or total oil
12 production?

13 A No.

14 Q So it doesn't describe either the total
15 produced reservoir fluid or total oil production?

16 A Correct. And you have an area of interest on
17 the left-hand side.

18 Q Isn't it true that the water cuts across your
19 map area of interest differ by a considerable margin?

20 A Yes.

21 Q Did you take the time to model total -- total
22 fluid productivity versus phi-H of the Wolf-Bone?

23 A That's marked as rebuttal Exhibit, I believe
24 F26, F-27 or 28.

25 Q Let's go to your rebuttal Exhibits. Let's

1 start at F-19. You said it was a multiplication error,
2 but wasn't it an error of placing the -- THE rows
3 correctly?

4 A It was a multiplication error because column
5 A and column B didn't -- the product of those columns
6 wasn't column C. How it happened, what exactly went
7 wrong in Excel, I can't speak to. I know there's been
8 some testimony that cells were shifted into the
9 improper locations, but I don't have any knowledge of
10 what exactly went wrong with that analysis.

11 Q And you -- you -- you heard the testimony of
12 Mr. Weinkauff about that?

13 A Yes. I believe he testified that the --
14 the cells were shifted into the wrong location.

15 Q He also testified it didn't affect the
16 economic analysis that was shown on within Exhibit C-
17 4.

18 A Correct.

19 Q Let's go to Exhibit F-20. Now, Mr. Weinkauff
20 testified that the analog shown at the top left plat
21 is based on additional wells that are not shown on
22 this plot, correct?

23 A Correct.

24 Q He also testified that the model was grounded
25 to bound wells when he derived the spacing model.

1 A Correct.

2 Q Let's go to F-23. Now, you used this on the -
3 on the left-hand side, it's \$141 million. You heard
4 Mr. Weinkauff's testimony that current Coterra's
5 estimated current costs are approximately 5 percent
6 lower than in 2024 estimated costs, which is in line
7 with PR's recent press statement that PR has been able
8 to reduce costs by 8 percent. Do you recall that
9 testimony?

10 A Yes, I do.

11 Q But you think -- did you use that lower - you
12 didn't use that lower thing. I'm not blaming you
13 because that -- that was just testimony.

14 A No, I just used what was in Coterra's Exhibit
15 C-14.

16 Q And if you used the updated numbers, it would
17 be an effect upon the - upon your calculations,
18 correct?

19 A I don't think so.

20 Q So have you testified that because of Permian
21 Resources' 11 percent reduced expenses that it -- it
22 was favorable to - that outcome was favorable to PR?

23 A Yes, I suppose it would because I was
24 thinking it would affect both rows of that, but it
25 would.

1 Q If I could have one moment, please. So let's
2 go to Exhibit F-24. Now, you're aware that - sorry,
3 isn't it true that Coterra's modeling was for a larger
4 completion of 2,600 pounds per foot? Did you model for
5 that?

6 A I didn't model anything in here. There's just
7 arithmetic that's explained.

8 Q Now, Coterra asserts that the cost to
9 complete a well is lower for a smaller completion
10 design. Do you agree?

11 A Yes.

12 Q Do you recall that Coterra stated that
13 additional frac volumes can lead to additional
14 recovers?

15 A Yes.

16 Q And you would agree that Coterra is - plans
17 to have a larger completion model at 2,600 pounds? And
18 would you testify that Joker-Bane is probably about
19 what you guys are going to use?

20 A Yes, this was my testimony as to Coterra's
21 Exhibit C-7 showing the relationship between profit
22 per foot in New York.

23 Q And so you agree that with the higher
24 completion that Coterra is going to use, they'll have
25 a better recovery than a lower completion?

1 A Potentially, but there is a lot of
2 inconsistencies in this economic modeling. That's what
3 my testimony pointed out.

4 Q So if permitting resources cost are lower
5 because the completion design is smaller, then the
6 revenue generated from the wells will be -- with the
7 smaller completion design would be less. Do you agree?

8 A I -- I don't agree with the assumptions
9 you're making in this question.

10 Q Okay, let's go to F-26. Now, do you recall
11 Coterra's recovery factor model, Exhibit C-4,
12 specifically the recovery factor plot?

13 A Yes, that's what I testified to in my
14 rebuttal Exhibit showing that it included non-
15 analogous points.

16 Q And Coterra showed that the recovery factor
17 of the Robin was in line with other developments in
18 the area. Is that correct?

19 A I would have to see that Exhibit again to --
20 to opine on that.

21 MR. ZIMSKY: Okay, let me -- Okay, let me
22 move on here. That's all the questions I have.

23 THE CHAIR: Commissioner Thompson do you have
24 any questions for this particular witness?

25 COMMISSIONER THOMPSON: No questions, thank

1 you commission.

2 THE CHAIR: Counsel?

3 MR. RANKIN: I do. Can someone call Exhibit
4 F-23?

5 THE WITNESS: I'll get it for you.

6 BY MR. RANKIN:

7 Q Okay, so this goes to the criteria of
8 comparison of costs. In the division's order,
9 Paragraph 31 talked about how Cimarex's applications
10 had an associated cost of \$283 million. Paragraph 32
11 reads, / Kermin's application for \$539 million. And
12 Coterra's made a major point about this, and I think
13 it appears from Paragraph 31 and 32 that cost of wells
14 is one of the big drivers. Okay, so I'm just trying to
15 compare apples to apples. Here in Coterra's Exhibit C-
16 14, the first Bone Spring has four, the second Bone
17 Spring has seven now, and then they said Wolf-Bone is
18 four. Do you see that?

19 A Yes, I do.

20 Q Okay. Now if you could go back to Exhibit F-
21 2. So on the right-hand side of my screen has Permian,
22 and so F-B-S-G, I -- Imagine that's first Bone Spring?

23 A Yes, sir.

24 Q And so it seems like both sides agree,
25 four in the first Bone Spring, correct?

1 A There doesn't seem to be any contrast between
2 the points.

3 Q The second level down is SBSG, which I take
4 to mean second Bone Spring, do you agree?

5 A Yes.

6 Q And from the slide, we just looked at the
7 updated Coterra is up to seven. Do you agree?

8 A Yes.

9 Q And on the right Permian Resources is how
10 many?

11 A Eight.

12 Q Yes. We're off by one right now. Okay. Then
13 we get to the HKY and Coterra has zero in there. Do
14 you agree?

15 A Yes.

16 Q And Permian has four?

17 A Yes.

18 Q Okay. And then it has TBSG for Coterra, where
19 you've labeled that four and then they had labeled
20 that as Wolf-Bone. So how do we reconcile what you
21 call that?

22 A What I've shown is the formation that the
23 wells are targeting and -- and not the pool that
24 they're draining from.

25 Q Okay. But that -- are those the four wells

1 that were indicated on that third column?

2 A Yes. I believe from Coterra's testimony
3 they're targeting the basal third sand, which is what
4 I was representing in this gun barrel.

5 Q And so reading across, Permian also has four
6 wells there, correct?

7 A Yes.

8 Q And then in the WFNP, I guess that's the
9 Wolfcamp?

10 A Yes, sir.

11 Q Okay, so Coterra is showing zero there, and
12 Permian is showing how many?

13 A Four per GSR.

14 Q All right, so we're in a dispute of really
15 just the HKY and the WFNP.

16 A Excellent, yes.

17 Q All right, so here's your chance. They say
18 that's wasteful. These are too many wells in these two
19 areas. Tell the Commission why they're wrong.

20 A Yeah, I think looking at the entire body of
21 our Exhibits, you can see every time that the XY has
22 been developed, it's driven additional resources. The
23 Harkey sand is economic. It generates significant
24 additional recoveries, and all the modern completions
25 show that. And now there's -- there's delineation in

1 the northeast showing that even when the sand portion
2 of that target isn't present, you can make economic
3 wells, or -- or at least improving on that. And so
4 there's actually no fight about the Harkey because
5 Coterra says it's economic. We say it's economic. The
6 fight's about the XY, and I think there's overwhelming
7 examples of actual production data that are very easy
8 to understand, are not subjective, don't rely on any
9 interpretations, and they're immediately adjacent to
10 the west, to the southwest, to the south, that show
11 that the XY Permian plan as to the development is
12 correct.

13 Q A follow-up question. On cross-examination
14 there was discussion of the -- I guess the near
15 adjacent Batman well, it seems like commission could
16 have -- mostly counsel was saying that there's a
17 difference, that that was like only two. Did I hear
18 that correctly?

19 A I believe so.

20 Q So tell the commission why there should be
21 four here where in Batman there was just two. Explain
22 that.

23 A Because between Batman and now, we drilled
24 Robin at three and really liked the results.

25 Q All right, so why not go to three instead of

1 four? We're trying to get a middle number from 48 down
2 to 30. Why can't there just be three there?

3 A We think the fourth well creates incremental
4 recoveries and incremental value and is necessary to
5 develop it.

6 MS. VANCE: Your mic's not on.

7 THE WITNESS: Sorry.

8 THE CHAIR: You might want to repeat that
9 answer just for the record because I wasn't sure
10 whether it was captured.

11 BY MR. RANKIN:

12 Q Okay. So I think when the mic went off, I was
13 asking why not three as opposed to four.

14 A We think the fourth well is necessary. We
15 think it'll create incremental recoveries, incremental
16 value, and is the appropriate development for the
17 section.

18 COMMISSIONER THOMPSON: Thank you.

19 THE CHAIR: I'll just follow up on that and
20 just push a little bit, okay? I'm not trying to get
21 you to repeat the entirety of your testimony, but if
22 you could just elaborate on that, why you think that,
23 and just give us a few more bullet points, that'd be
24 helpful.

25 THE WITNESS: I mean, at Robin, I think, but

1 for our concerns about the depletion, we would have
2 drilled four and four. And because there was a million
3 barrels withdrawn, we went a little conservative and
4 did three and three. And the depletion effects, you
5 know, were largely mitigated and still generated
6 economic results, so now we're not as worried about
7 it. We feel like we understand it better and can model
8 it. And now those fourth wells, our underwriting
9 indicates, are highly economic. And so that's why we
10 want to drill them.

11 THE CHAIR: Okay, thank you. I know we're a
12 little past lunch, how about redirect? But do you want
13 to just wrap up before we break?

14 MR. RANKIN: Yeah, I think I just maybe have
15 one or two questions, and I think we can do that real
16 fast.

17 THE CHAIR: In that case, please proceed.

18 BY MR. RANKIN:

19 Q You heard testimony -- you heard questions
20 from Coterra counsel asking about cadence, and -- and
21 -- and I think maybe a little confusion about whether
22 cadence is the same thing as well density. And I would
23 like for you just to clarify, when you say cadence,
24 that Coterra -- permian is able to achieve this
25 drilling at this density, based on -- on the cadence

1 and offsetting wells, exactly what do you mean by
2 that?

3 A Yeah, I think you hit it on the head. You
4 know the cadence is the -- the speed of development
5 and Coterra has testified that -- that five wells per
6 DSU for a total of ten wells is enough, so that would
7 be a slower cadence. They've laid out a five-year
8 plan, so that would be a longer extension and a slower
9 cadence. Permian Resources is just going to drill at
10 the same cadence we're drilling at Eileen at 21, or
11 even slightly above that, similar.

12 Q Now, counsel for the Commission asked you
13 about the hard-key wells that Permian is proposing and
14 made the point that Coterra has been arguing from the
15 beginning that Permian Resources' development plan of
16 48 wells is wasteful. Do you recall that?

17 A Yes.

18 Q And in your review and presence during the
19 entire course of Coterra's direct testimony, have you
20 heard or seen any evidence or testimony or Exhibits or
21 any analysis that address whether the hard-key wells
22 are going to be wasteful or non-economic?

23 A No.

24 Q So in the case-in-chief presented by Coterra,
25 they haven't addressed or mentioned the Harkey at all,

1 have they?

2 A Correct.

3 Q And there's been no economic analysis or any
4 -- any evidence or demonstration that they're
5 economically wasteful?

6 A Correct.

7 MR. RANKIN: No further questions?

8 MR. ZIMSKY: No questions.

9 THE CHAIR: Thank you. In which case, go
10 ahead.

11 MR. RANKIN: Once he's excused, and I'll ask
12 the counsel to do it.

13 THE WITNESS: Yes, thank you. No, excuse me.
14 Thank you.

15 MR. RANKIN: So the Commission, we're going
16 to eat lunch together, and we may discuss what to do
17 going forward in terms of we've reached a place a
18 little faster than we thought. There won't be
19 deliberations. But in order to abide by the Open
20 Meetings Act, we're going to have to do a little
21 mechanical follow-around on the record. So we're,
22 since it's a Chief Coterra proceeding under the Open
23 Meetings Act, the Commission is allowed to go into
24 executive session. So we're going to walk through
25 this. Can I get a motion to go into

1 executive discussion before deliberations are made?

2 MR. ZIMSKY: Mr. Chair, if I may, we have a
3 number of rebuttal experts -- Exhibits to go
4 through. About -- We have like 20 minutes of
5 testimony. So I just want you guys to keep an open
6 mind that there's more coming from our side to rebutt.

7 THE CHAIR: I -- I --

8 COMMISSIONER THOMPSON: We're not
9 deliberating.

10 MR. RANKIN: I understand. Yeah.

11 COMMISSIONER THOMPSON: We're planning
12 procedures.

13 THE CHAIR: Yeah, so, yes. The plan is to go
14 into a closed session to discuss sandwiches and salads
15 and logistics for the rest of the afternoon. So that's
16 about it. But, yes, I'll keep in mind that there will
17 be more testimony to come, and we will stay away from
18 the merits of the case.

19 MR. RANKIN: Thank you, Mr. Chair.

20 THE CHAIR: And so I move that -- I guess
21 I'll ask -- I'll invite Commissioner Thompson to move
22 that we go into a closed session for the purposes of
23 lunch.

24 COMMISSIONER THOMPSON: Everybody go in their
25 own sessions.

1 THE CHAIR: I have a motion to go into closed
2 session for the purposes of discussing logistics and
3 lunch. I'll second that.

4 MR. RANKIN: (INAUDIBLE)

5 MS. VANCE: (INAUDIBLE)

6 COMMISSIONER THOMPSON: Aye.

7 MS. VANCE: Commissioner Thompson?

8 COMMISSIONER THOMPSON: Aye.

9 THE CHAIR: Thank you all. We'll head into
10 closed session, and I will see you all at -- since
11 we're a little bit over, I will see you all at 1:40.

12 (Off the record.)

13 THE CHAIR: Well, good afternoon. Thank you,
14 everybody. Welcome back. Zach, I think we've got
15 Commissioner Thompson.

16 COMMISSIONER THOMPSON: In order to return to
17 open session, I need you to attest that the related
18 matters discussed in the closed session were listed in
19 the motion. Can you so attest?

20 THE CHAIR: Yes, I can.

21 COMMISSIONER THOMPSON: Thank you.

22 THE CHAIR: So, returning to regular order,
23 regular session. My understanding is both sides have
24 closed your cases in chief, but you are now turning to
25 rebuttal, starting with the application. Is that

1 correct? Please proceed.

2 MR. RANKIN: And we call Stacey Frey. Stacey
3 are you there? Stacey? Oh, there she is.

4 THE WITNESS: Hello? Can you hear me?

5 MR. RANKIN: Yes.

6 DIRECT EXAMINATION

7 BY MR. RANKIN:

8 Q Okay, Ms. Frey, I'm just going to ask you a
9 question about this Exhibit R1. As a geologist, what
10 did you do on this Exhibit?

11 A So, this Exhibit shows a map of the phi-H of
12 the third-bump spring sand and the WolfcAMP --
13 Wolfcamp XY sand across the Dububan area, where high
14 phi-H is in red and low phi-H is in blue. The map also
15 shows the third sand and upper Wolfcamp wells filtered
16 down by a set of criteria determined by Mr. Weinkopf,
17 our reservoir engineer. I cross-plotted phi-H versus
18 total fluid EUR per foot on the right side of the
19 slide, which shows a correlation of 0.81, which means
20 that these variables have a high positive linear
21 relationship. I've also broken out the correlation by
22 a few different segments of the Wolf Bump Reservoir.
23 The upper third sand on the left, the lower or basal
24 third sand, which is Coterra's Landing, the Wolfcamp
25 XY, and the Wolfcamp A shale. The correlations are the

1 highest in the upper and lower third sand, and only a
2 0.37 in the Wolfcamp XY and a 0.08 in the Wolfcamp A
3 shale, which means that the Wolfcamp A shale has a
4 negligible relationship with production, and the
5 third-bump spring sand is the driver of production in
6 the area.

7 Q Do you have any other geological testimony
8 with respect to this Exhibit?

9 A No, I do not.

10 MR. RANKIN: Mr. Chair, that's all the
11 questions I have for Ms. Frey. I -- Intend to her for
12 cross.

13 UNIDENTIFIED SPEAKER 4: Cross six.

14 CROSS-EXAMINATION

15 BY MR. ZIMSKY:

16 Q Good afternoon, Ms. Frey. Looking at your
17 rebuttal Exhibit R1, my understanding is that this
18 relates to correlations, not to an R-squared analysis,
19 correct?

20 A Correct.

21 Q And so if we were to convert this to an R-
22 squared analysis, we would -- analysis we would simply
23 square the correlation coefficient, correct?

24 A Correct.

25 Q So in all the previous discussions about

1 relationship between fluids, either total fluids or
2 oil, and phi-H, we've been talking about it in terms
3 of R-squared, correct?

4 A Correct.

5 Q So in order to -- to make this apples-to-
6 apples, we would simply square your correlation
7 coefficient to get a 0.64 R-squared relationship,
8 correct?

9 A Let me calculate that real quick. It would be
10 a 0.66.

11 Q Okay, so we're still looking at essentially
12 almost over 40 percent of the data I've identified in
13 your correlation as being explainable by mere
14 randomness, correct?

15 A Variance, yes, but I still believe that this
16 is a strong positive linear relationship.

17 Q Well, is it a correlation relationship, or is
18 it -- I mean, I know, you know, the idea about
19 something's correlated, like, oh, every time I wake
20 up, the sun's up. Therefore, when I wake up, I cause
21 the sun to rise, right? It's a little different than
22 actually a direct causal relationship, correct?

23 A I mean, yes.

24 Q Correlation doesn't-- doesn't -- doesn't say
25 that there's a causal relationship, it just is related

1 to, correct?

2 A Correct.

3 Q And then, so we're looking at a 0.66 R-
4 squared relationship based on your, I guess that would
5 be for the third sand in Wolfcamp, XY, phi-H analysis,
6 correct?

7 A Third sand in Wolfcamp, XY, yes.

8 Q Okay, and so based on what I understand here,
9 you say that you've -- you've filtered some data
10 points in order to achieve that correlation, or that
11 R-squared, now that we've calculated it. And the
12 filters that you've applied are underneath the --
13 the map in the bottom left, correct?

14 A I did not apply those, my reservoir engineer
15 did.

16 Q Okay, so you're not -- you don't --
17 you didn't do this, but there are, I'm going to count,
18 one, two, three, four different filters applied,
19 right? One being the proppant used, correct?

20 A Yes.

21 Q One being the yield, correct?

22 A Correct.

23 Q Another being the water cut, is that correct?

24 A Yes.

25 Q And then the -- then the fourth one being the

1 density of the wells, correct?

2 A Correct.

3 Q And -- and so there are four filters applied,
4 which eliminated a number of other data points,
5 correct?

6 A Correct.

7 Q And you didn't yourself do this, but somebody
8 at the engineering team did this for you, correct?

9 A Yes.

10 Q So was it -- was it your decision to apply
11 these filters, or theirs?

12 A It was theirs.

13 Q So can I -- I can't ask you the rationale
14 behind those choices, can I?

15 A I would refer to Mr. Weinkauff.

16 Q Okay. But this is your rebuttal testimony,
17 right, your rebuttal Exhibit, correct?

18 A It's kind of a combination.

19 Q Okay. So as to that, as to the rationale,
20 then I would direct my, I would be better served
21 directing my questions on that point to him, correct?

22 A Yes.

23 MR. ZIMSKY: Okay. No further questions.

24 MR. RANKIN: Nothing on redirect.

25 THE CHAIR: And that's the end of the

1 testimony for Ms. Frey. Now I'll call Mr. Weinkauf.
2 Oh, excuse me, I apologize.

3 THE CHAIR: Commissioner Thompson, any
4 questions?

5 COMMISSIONER THOMPSON: No questions, thank
6 you.

7 THE CHAIR: Counsel?

8 THE CHAIR: All right, thank you, Ms. Frey.
9 You may proceed to your next witness.

10 MR. ZIMSKY: I recall to the stand Mr.
11 Weinkauf.

12 DIRECT EXAMINATION

13 BY MR. ZIMSKY:

14 Q Mr. Weinkauf, can you elaborate on Exhibit R1
15 from a reservoir engineering standpoint? And hit the
16 points that Mr. Rankin was talking about, the filters.

17 A Yes, absolutely. So in reservoir engineering,
18 we try to understand what well results are genuinely
19 analogous. This is a common practice in reservoir
20 engineering. And so in order to do that, we need to
21 properly characterize the -- the wells that would be
22 analogous. And so when we look at each of these filter
23 -- filters or the criteria that we've submitted, we're
24 trying to narrow the scopes that would be roughly the
25 range of characters -- characteristics for each

1 component that we might observe at Mighty Pheasant
2 Lucy Goosey. And so when we look at, for example,
3 yield, there are differences in recovery depending on
4 fuel of the fluid type is much more mature, meaning
5 it's gassier than what it is. So we are applying these
6 again to -- to try to characterize the -- the offsets
7 similar to what Mighty Pheasant Lucy Goosey could be.

8 Q And is there any other reservoir engineering
9 testimony on this slide for you?

10 A Yes, I I-- what I would comment on the
11 correlation versus the R-squared. An R-squared above a
12 0.6, I think Coterra's geologist had stated 0.66, the
13 exact number, would be considered a strong core --
14 strong R-squared or a strong linear regression for the
15 data. So even though there's the point that the number
16 is a correlation, we would still look at this as a --
17 as a very strong correlation between total porosity
18 height and total fluid height.

19 Q Is there anything else on this slide you want
20 to comment on?

21 A There's not.

22 Q Let's go to R2. And can you tell the
23 commissioners what this slide is depicting?

24 A Yes, so this is taking the next step when
25 converting total fluid to predicting oil recoveries.

1 And so what we're effectively doing is looking at a
2 relationship between total fluid on the y-axis and oil
3 EUR on the x-axis. And the data points are
4 concentrated around Mighty Pheasant Lucy Goosey just
5 to illustrate the well results near there. And
6 specific -- specifically, there we have called out the
7 developments that are called out on the map.

8 And so what we're showing here is that when
9 we narrow the focus even more so, we see that there is
10 a strong correlation with the offsets between total
11 fluid and oil EUR. So this -- this -- this is evidence
12 that contradicts what Permian Resources technical
13 experts have said, that there is not a strong
14 correlation or there is no correlation. So we believe
15 that total fluid can be representative of the -- the
16 oil recoveries. It just requires two steps in the
17 process to do the conversion from porosity height to
18 total fluid to oil EUR.

19 Q And this is a rebuttal to F17?

20 A That's correct. There was also verbal
21 testimony given talking about how there wasn't a
22 strong relationship with porosity height in oil.

23 Q Is there anything else on this slide that
24 you'd like to discuss?

25 A There is not.

1 Q Moving to R-3, can you discuss this slide?

2 A Yes, R-3 is important because it walks
3 through an example of looking at revenue versus
4 looking at an economic metric that accounts for
5 revenue and the total cost that the wells observe. In
6 Permian's pre-hearing statement, they reference a
7 couple of times about revenue being a good -- being
8 a reason why all stakeholders would benefit from
9 Permian Resources' plan. But revenue doesn't include
10 operating expenditures or capital expenditures that
11 would be -- or production taxes that the working
12 interest holders would observe.

13 So if you're trying to understand what the
14 working interest holder will ultimately receive
15 monetarily, you need to look at a number like a BFIT
16 cash flow, which again, that's before income tax. So
17 that accounts for revenue and all the costs. The table
18 on the bottom right walks through an example of that
19 using an example of Coterra had put together showing
20 Coterra's plan versus Permian Resources' plan. And
21 just simply shows the values of the revenue versus
22 what the units BFIT PD10 would be. And you can see
23 that when you compare the revenues, you might come to
24 an answer that says PR's plan would generate more
25 revenue.

1 However, when we look at the cost fully
2 burdened onto the working interest owners, we see that
3 the value the working interest owners will receive
4 actually states, at least in this example that we're
5 showing, that Coterra's plan is better. So you need to
6 take into account all the costs to be able to
7 determine what is actually optimal for working
8 interest holders.

9 Q Is there anything else on this slide that you
10 want to talk about?

11 A There is not.

12 Q And let's go to this slide R4 -- Exhibit R4.

13 A Yes, we're submitting a rebuttal Exhibit R4
14 because there is actually a couple slides that do not
15 represent Coterra's full development plan.

16 Q They would be Exhibits F1 and F2?

17 A That's correct. They are missing the second
18 Bone -- upper second Bone Spring wells that --
19 that Coterra has on their wine rack in their direct
20 testimony. And so because these wells are left off of
21 the PR's Exhibit, they are also left off the table
22 where they try to illustrate what the economics could
23 be for Coterra's plan. And so I do want to state that
24 earlier in this testimony, we've -- we've talked about
25 Coterra's plan and how it plans to develop. And it's

1 important to look at the timing because timing impacts
2 the BFIT PB10. If you recall from my testimony in PR's
3 reservoir engineering, we're trying to model cash flow
4 over time. And so I do want to comment about the
5 timing.

6 So on this Exhibit, what we're illustrating
7 on the table specifically is PR's plan. Now this table
8 has PR's updated cost that they provided for this
9 hearing. And we ran it against what Coterra believes
10 that that plan will ultimately recover. And -- and as
11 far as timing goes, we've made a timing assumption
12 that PR would develop all those wells at the end of Q1
13 of 2026 or the first quarter of 2026. Coterra's plan,
14 full development plan, highlights that we would drill
15 the first, all the second Bone Spring, and the Third
16 Bone Spring wells.

17 And so looking at the timing of Coterra's
18 development, we have the first -- the Third Bone
19 Springs being developed before the end of the year.
20 Coterra already has permits for one of the
21 developments. And we can get the permits for the other
22 development within the next couple of months. And then
23 as far as the remaining first and second Bone Spring
24 developments, we have timed those out a year from
25 today for the second Bone, and a year and a half for

1 the first Bone Spring development. And that would be
2 our time and plan going forward. So we're giving
3 Permian Resources the benefit that their full
4 development plan is being drilled in Q1, but Coterra's
5 is being drilled over a series of time.

6 And so when we -- when you look at the table,
7 we're illustrating the economics of both plans on a
8 flat 65 price file. And so you can see Coterra's well
9 count is 30, PR's is 48. We've listed the oil
10 recoveries. We've listed the capex -- the capex to
11 develop both units, which this is an important note,
12 because Coterra's plan only requires about \$280
13 million, where Permian Resources' plan per their
14 provided 2025 costs would deliver -- would cost \$411
15 million. We would estimate that the BFIT cash flows
16 based on Coterra's models, but PR's capex provided,
17 would deliver PR roughly \$409 million, compared to
18 Coterra's \$415 million.

19 Now, for Coterra, those millions of dollars
20 matter. However, if someone were to say, well, that's
21 close enough, right? What are we doing here? I would
22 direct your attention to the bottom two rows of the
23 table, which are there to really illustrate the
24 capital efficiency of both plans. So effectively, I
25 spend \$1 of capex, what did I actually get in return?

1 So if we look at PR's plan, for every \$1 of capex that
2 they spend, Coterra would predict that they would
3 roughly get \$1 in return. Compared to Coterra's plan,
4 if Coterra spent \$1, we would expect just under \$1.50
5 in return. And so that illustrates that Coterra's
6 capital is working more efficiently, and that savings
7 that Coterra is providing for working interest holders
8 can be utilized to invest in other projects in the
9 area, and thus provide them more money. This is only
10 focusing on this project, but the savings, again, that
11 we're providing -- that Coterra is providing to
12 working interest holders actually would allow the
13 working interest holders to make additional money not
14 captured in this.

15 The last row illustrates a similar column
16 that we've shown in our direct testimony, which is how
17 much oil did I get per -- per \$1,000 of capex spent?
18 And again, this is reinforcing the capital
19 efficiencies and oil recovery space of Coterra's plan.
20 Because Coterra has well spacings that are more
21 reasonable, we are able to recover higher oil amounts
22 per \$1,000 of capital spend. Again, these economics
23 assumptions assume a flat 65 oil price, but include
24 Coterra's 2025 costs and PR's 2025 costs.

25 Q Anything else on this slide you'd like to

1 discuss?

2 A The only other thing I would add, and this
3 goes to the timing element, was Coterra's landman
4 testified that Coterra could only drill 10 wells as of
5 today. And she's basing that on her land, her --
6 her specialty as -- as a landman, and that that would
7 be the permits Coterra would have to be able to drill
8 today. But the reality of it is we'd be in the process
9 of getting the second Bone and first Bone Springs
10 permits as time allowed. As far as operationally,
11 Coterra could drill all of these wells today if it
12 wanted to, but we have to go through the proper
13 permitting processes with the governing bodies.

14 Q Let's go to Exhibit R5. Can you talk about
15 this Exhibit?

16 A I can. So on PR's Exhibit F -- F7, they state
17 that modern developments are outperforming legacy
18 results, offsetting permitting resources, and the
19 Harkey sand. And so they state that there's economic
20 potential. Coterra finds issue with this because the
21 wells that they're referencing to make this statement
22 are not located near Mighty Pheasants and Lucy Goosey
23 units. The chart -- chart on the bottom right, the
24 cross-section of the logs, illustrates the Harkey sand
25 and effectively is highlighting the net sand that we

1 believe the Harkey sand provides. And so what we walk
2 through is on -- on the western side -- on the west
3 side or the left side of the cross-section, that's
4 starting from the southernmost developments. That's
5 where PR showed the best well results.

6 So we can see the Harkey sand is very thick
7 there. As you move north and towards Mighty Pheasant,
8 you can see that sand body thins out. So the Harkey-
9 specific interval is getting worse. They reference the
10 sandro jeane as being a positive low result. If we
11 look at the -- the Harkey sand, we're estimating
12 roughly 142 feet.

13 But yet at Lucy Goosey, we would estimate
14 roughly 22 feet. That is significant reservoir
15 degradation. So the potential recovery of the Lucy
16 Goosey unit has -- has a potential to be compromised.
17 And it's -- it's my, in my geologist's opinion, that
18 the well results will be much worse than the southern
19 area that PR is referencing for promising results.
20 There was a statement made by Permian Resources
21 Engineer that Coterra thinks the Harkey's
22 economic. And we do not believe that. They made that
23 assertion based on the table on the top right-hand
24 side of the rebuttal Exhibit. And they're claiming
25 that we're showing a PBI 10 to zero. That column is

1 titled Added Unit BFIT PBI 10. We're stating that
2 these wells add zero. The actual BFIT PB10 of these
3 wells is negative. And so we're just illustrating that
4 there's no added value on that column.

5 So it's very important to see the added label
6 on that column. So effectively, for both units, \$73
7 million is spent, but yet \$0 is gained on a BFIT PB10
8 basis, assuming a 65 oil price file. The plot on the
9 bottom left illustrates the Coterra's forecast to
10 model these wells. And so if we look at the
11 Sandro Jean, which is referenced in red, as a modern
12 development, we can see, based on my comments earlier,
13 that the sand body is thicker. The Hammond unit, which
14 is offsetting the Mighty Pheasants and Lucy Goosey,
15 was claimed to be vintage. And although -- although it
16 doesn't have the 2,500 or the 2,200 pounds completion
17 that some might test, it's still a 1,500 pound per
18 foot profit job. And so Coterra is modeling upside
19 from those well results, and yet we're still not
20 seeing any economics. So we do not believe the Harkey
21 landings add any value. And that is very important
22 when looking at the full development plan.

23 Q And anything else on R5?

24 A No.

25 Q Let's go to R6.

1 A So Permian Resources also claimed in Exhibit
2 F10 that the -- that the west half of the Batman Third
3 Bone Spring wells were not degraded by the inclusion
4 of the XY wells, stating that the XY wells were not
5 impactful. However, they did not show you the Robin
6 development compared to those in isolation like they
7 did the west half of the Batman.

8 So on the top right-hand side, you can see a
9 wine rack where we've got the Batman on the left and
10 the Robin on the right. And boxed in blue and red are
11 the Third Bone Spring wells, modeling the east half of
12 the Batman as one average and modeling the Robin's
13 Third Bone Spring together on average. And so what
14 we're trying to show here is another example to
15 contradict what PR has shown, where the XY sands were
16 not -- were impacted by the -- it's like that the
17 Third Bone Spring wells of Robin were impacted by the
18 XY sand. The plot on the bottom left illustrates the -
19 - the productivity difference and the ultimate
20 recovery difference between these two groups of wells.
21 So the Batman east half, which does not have any XY
22 sand wells drilled beneath it, is in blue. And the
23 Robin Third Bone Spring wells, which are in red, you
24 can see that the ultimate recovery is predicted to be
25 lower.

1 Now PR also asserts that the Robin
2 potentially may not be a valid well point because
3 there's offsetting depletion. Coterra does not agree
4 with this. If we look at the -- the bottom right plot,
5 we can see Coterra's oil recovery versus well spacing.
6 And we've flagged where the Robin is on that plot. So
7 oil recovery factor again is the well's EUR divided by
8 the oil in place. If a well observes depletion, then
9 those are reserves removed out of the system. And thus
10 the EUR that that well would potentially have would be
11 less.

12 So we would expect the oil recovery factors
13 to be lower if there were depletion signatures. As can
14 be clearly observed on our oil recovery factor plot,
15 the Robin is in line with surrounding developments and
16 the trend that Coterra is modeling. And so we would
17 look at this and say this is hard evidence that states
18 that the Robin does not observe depletion and should
19 be considered an analog for comparison. And that's
20 very important.

21 Q And anything else on this Exhibit?

22 A No.

23 Q Let's go to R7.

24 A Please explain this Exhibit. So on F12, PR
25 incorrectly asserts that Third Bone Spring working

1 interest owners would benefit from their development
2 plan. We've heard testimony from PR's geologists that
3 they expect that the XY Wolfcamp wells will drain into
4 the Third Bone Spring. Now while he also asserts that
5 the Third Bone Spring wells will drain into the XY,
6 there's a question of what percentage of drainage
7 happens between those wells.

8 And that has already been heard and there's
9 already been a ruling provided in 2024 where the Third
10 Bone Spring and upper Wolfcamps together combined are
11 the Wolf-Bone and are a common source that is located
12 predominantly, that supply is predominantly located
13 within the Third Bone Spring sand.

14 So if Permian Resources's geologist is
15 admitting that, in combination with the ruling that
16 was issued last year, this would state that
17 effectively the Third Bone Spring working interest
18 owners are losing reserves to the Wolfcamp owners
19 because that common source of supply is predominantly
20 located in the Third Bone Spring. To illustrate the
21 potential magnitude of not having an allocation
22 formula, I direct your attention to the bottom of the
23 slide. The table we're showing of Coterra's proposal
24 and PR plan was already shown early, but it's rolled
25 up between both units.

1 So Coterra's proposed plans of eight wells is
2 for the Mighty Pheasant, Lucy Goosey and PR's proposed
3 development is for 16 wells, eight wells for Joker,
4 eight wells for Bane, and next to it, we've got the
5 associated CapEx and BFIT that those plans would
6 generate based on Coterra's cost. This Exhibit is
7 based on Coterra's cost and a flat 65 oil price. The
8 box highlights PR's plan and the impact to Third Bone
9 Spring working interest holders and Wolfcamp working
10 interest holders. The left side is the Third Bone
11 Spring work interest holder. So this example looks at
12 it on a gross basis.

13 So Third Bone Spring working interest owner
14 has 100 percent in that unit and we're assuming a net
15 revenue interest of 77.5. The table below shows the
16 difference between having allocation formula or not
17 having allocation formula. And so the 70-30 allocation
18 formula would provide Third Bone Spring working
19 interest holders approximately \$161 million of BFIT
20 PB10. The total oil EUR on the 70-30 allocation would
21 provide Third Bone Spring working interest holders
22 approximately 11.5 million. If there is no allocation
23 formula or effectively if we simply let surface acres
24 dictate this then the Third Bone Spring working
25 interest holders would only receive half of PR's plan

1 which would be \$115 million of BFIT PB10. So to state
2 this plainly, Third Bone Spring working interest
3 holders comparing these two approaches would lose \$46
4 million and in total oil space they would lose 3.3
5 million barrels. That's significant.

6 If we compare that to the Wolfcamp working
7 interest holders we're observing 100 percent working
8 interest holder in the Wolfcamp and the same net
9 revenue interest. And the table below again compares
10 the 70-30 to the no allocation formula. And what we're
11 illustrating here is, the reserves that are being
12 increased and that the economics of the Wolfcamp
13 owners are seeing an increase in is directly coming
14 from the Third Bone Spring working interest holders.
15 So, despite a ruling stating that the majority of the
16 supply is coming from the Third Bone Spring and that
17 the Wolfcamp is one common source if we don't have an
18 allocation formula, Third Bone Spring working interest
19 holders will lose money and oil reserves. And that's
20 very important.

21 Q Mr. Weinkauff, do you recall the question the
22 general counsel asked of PR's reservoir engineer about
23 waste and whether our case is for waste, economic
24 waste? I'm not sure if he's going to ask that question
25 of you, so I'll ask you.

1 A I recall some of that testimony, yes. With
2 respect to what we're seeing here we're looking at
3 economic waste in several ways what the wells will
4 ultimately recover for what is spent. So we can think
5 of the Harkey Bones -- the Harkey sand where we're not
6 going to observe additional monies. And we can look at
7 economic waste in the -- the result of potentially
8 robbing a working interest holder of their -- not
9 having their proportion, equitable proportion of
10 production and monetary compensation.

11 Q Is there anything else on R7?

12 A There's none.

13 MR. ZIMSKY: That's all the questions I have
14 for this witness on direct.

15 THE CHAIR: Any calls?

16 THE WITNESS: Yes.

17 CROSS-EXAMINATION

18 BY MR. RANKIN:

19 Q Let me get up to my Exhibits for a moment.
20 Okay, starting back at rebuttal Exhibit R1 were you
21 the engineer who applied the filters in this case as
22 part of the analysis?

23 A Yes.

24 Q And the filter you applied at least as the
25 well spacing was that you included wells with two to

1 six wells per section?

2 A Yes.

3 Q And you excluded all others?

4 A That's correct.

5 Q And so in this instance you don't have any
6 wells at the spacing that Permian is proposing, do
7 you?

8 A No, I do not. There are no eight wells per
9 section Bone Spring developments in this area as PR's
10 technical staff has testified to.

11 Q Are there not -- Are there not at that
12 density?

13 A When you say at that density what are you
14 referring to?

15 Q At the density -- at the full section density
16 that Permian is proposing.

17 A You're asking me to -- To clarify that
18 question, you're asking is there a -- a Wolf-Bone or
19 Wolf-Bone equivalent development that has eight wells
20 producing in it today?

21 Q That's not what I was asking you, but --
22 but I'll reframe my question. In this instance here
23 you've not included any well -- any -- any wells that
24 at eight well per section density or that there are no
25 wells in your database because there are --

1 A No, in this area we have not what we have
2 filtered down to does not include any eight well per
3 section developments.

4 Q Thank you. Slide R2. My understanding is when
5 we're talking about phi-H or porosity that basically
6 when you've got porosity either -- either you've got
7 water or oil that fills that space, correct?

8 A No, that's not correct. It's not water or
9 oil. It's water and oil.

10 Q Okay. So, let me -- let me rephrase. It's
11 either water and or oil, correct? Water --

12 A If you -- if you wanted to generalize that
13 statement I have not observed a reservoir that had not
14 -- did not have water in the pore space.

15 Q Okay, so my point is that we're looking at
16 it's a binary system, right? It's water and oil.
17 That's it, right? Those are the two material physical
18 things that could be filling the pore space, right?

19 A For the maturity of this reservoir, yes.
20 Reservoirs that are more mature gas can sometimes be
21 out of solution and also be in the pore space but in
22 this particular area in what we're talking about oil
23 and water, that's correct.

24 Q So you're telling me that whenever you
25 find water or oil -- wherever you find oil you're

1 going to find water, right?

2 A Can you rephrase that question?

3 Q Yeah, wherever -- wherever you find oil
4 you're going to find water, right?

5 A Yes, to some extent.

6 Q So there's -- In other words, this
7 relationship is just telling you what we already know,
8 right? Is that whenever you're going to find oil or
9 water, there's going to be the other, correct?

10 A No, that's not necessarily the correct
11 conclusion.

12 Q But you just told me that it's always
13 oil and water.

14 A Yes, but you didn't take into account the
15 percentage of each of those and the characteristics of
16 the reservoir that dictate that.

17 Q Does that -- does this tell me what the
18 percentages are?

19 A So what -- what we're looking at is units
20 around the Mighty Pheasant, Lucy Goosey, where we
21 believe the water cut or the water percentage in the
22 reservoir would be similar to that of the Mighty
23 Pheasant, Lucy Goosey. So we're not explicitly saying
24 that because we're using the surrounding analogs that
25 would be roughly analogous.

1 Q And again, your -- on your x-axis you're
2 using EUR, correct?

3 A That's correct.

4 Q And again, that incorporates your
5 assessments, interpretations, and experience as an
6 engineer?

7 A Yes.

8 Q And they're not absolute values, right?

9 A They're based on my estimates, that's
10 correct.

11 Q Going back to slide one, or Exhibit R1,
12 again, when we made the correction -- correction or
13 modified the correlation to an R-square, and the
14 result is 0.66, do you agree with that, converting
15 that to R-square?

16 A I didn't do the -- the exact conversion, so I
17 would trust the math that the geologists had done, and
18 I believe you stated it as well in your question.

19 Q Right. So, basically, that -- that tells me
20 that we're looking at 36 percent of the data being
21 explained by randomness.

22 A It's not explained by randomness --
23 randomness necessarily, it's explained by other
24 characteristics that aren't being represented on this
25 plot. So linear regression is a trend line through a

1 dependent -- independent and dependent variable to
2 create a relationship, and that value determines you
3 know, how much of that independent variable will
4 impact the dependent variable. So as I stated earlier
5 in my testimony anything above -- really anything
6 above a 0.55 would be very good for the oil and gas
7 industry.

8 Q For what purpose?

9 A If we're trying to determine how well a--
10 a variable correlates or predicts, is the way to say
11 that when we're considering R-squared, how well it
12 predicts another variable?

13 Q How about allocating tens of millions of
14 dollars?

15 A What's the question? Can you just state the
16 whole question, please?

17 Q I'm I'm just following up on what you said,
18 was that it -- it performs very well for the oil and
19 gas industry. An R-squared of 0.66 is a -- is a very
20 good relationship for the oil and gas industry. I'm
21 asking you, how about for allocating tens of millions
22 of dollars?

23 A So far what we've looked at, this is one of
24 the stronger correlations to do that. I've not seen an
25 alternative method that has proved a better

1 correlation.

2 Q Okay. So in your opinion, as you sit here
3 today, you stand behind, this is the best correlation
4 to come up with, that that relationship where 0.34
5 accounts for essentially randomness of the data is
6 sufficient to allocate tens of millions of dollars.

7 MR. ZIMSKY: Objection. I think he's
8 mischaracterized his testimony.

9 THE CHAIR: Would you like to rephrase?

10 BY MR. RANKIN:

11 Q So -- so -- so you're telling me -- what is
12 the inverse of the 0.66 R-squared? What does the R-
13 squared represent to you?

14 A You -- you said two differing pieces in
15 there. You said, what does the inverse mean? And then
16 you stated, what does the 0.66 mean?

17 Q So tell me, what does the 0.66 mean in terms
18 of a relationship between the factors, the variables?

19 A Yeah, so if you had to state the range of an
20 R-squared between 0 and 1, that would be 0 being
21 this -- this variable does not -- is not that
22 predictive in predicting the dependent variable. So in
23 this case, the dependent variable is the total fluid
24 you are. And a 1 would be it predicts it very well.
25 And so when I -- when I see an R-squared of 0.61, I'm

1 seeing that this variable is characterizing most of
2 the -- is predicting most of the amount of what total
3 fluid is, given total porosity height.

4 Q And as you're sitting here today, you're
5 telling me that that's sufficient to allocate tens of
6 millions of dollars to different owners across the
7 different depths?

8 A I believe I've answered that already in
9 stating this is one of the -- the best ways I've seen.
10 I haven't seen a way that's provided a tighter
11 correlation.

12 Q Would you want your tens of millions of
13 dollars allocated with that ratio?

14 A In the oil and gas industry, our job is to
15 characterize a reservoir beneath the ground, and we
16 utilize producing well results, we utilize log
17 correlations to make the best prediction that we can.
18 And so the data is not always clean, and in fact, in
19 this part of the reservoir, and I would expect Permian
20 Resources to state something similar, we do the best
21 job we can with the data that we have. So based on the
22 data that we have today that's available to us, I do
23 believe so.

24 Q So you're comfortable with -- you'd be okay
25 with it allocating your -- your money?

1 A I believe I've already answered that
2 question.

3 Q Well, I just, I wasn't clear from your
4 answer, actually, so I wanted to make sure.

5 A Yes, using the best data available that we --
6 that I have, I would -- I would feel comfortable using
7 this.

8 Q Let's move on to your next. Let me just see
9 if I covered what I wanted to here. On R3, did you
10 hear Permian Resources engineer witness testify that
11 in his economic analysis he included all cash flows in
12 every aligned item that you included here as part of
13 his economic analysis

14 A I did, but this slide refers to the pre-
15 hearing statement.

16 Q Okay. And as to Exhibit R4, rebuttal at R4,
17 those upper second Bone Spring wells were not included
18 in Coterra's well proposals, were they?

19 A Can you be -- can you be more clear? What
20 well proposals are you referring to?

21 Q Sure. As part of Coterra's Exhibit packet and
22 the wells that Coterra proposed for its development
23 plan, these upper Bone Spring wells were not included
24 in -- in that well proposal, were they?

25 A When you say well proposal, do you mean in

1 2023 when the wells were initially proposed?

2 Q Yeah.

3 A They were not.

4 Q And they haven't been proposed at any time
5 since then to the working interest owners in these --
6 in these units, have they?

7 A No, we have not.

8 Q Nor are they included in the five-year
9 development plan that was submitted to the commission
10 as part of Coterraist Exhibit packet?

11 A I'd -- I'd have to -- to look at it to
12 refresh my memory.

13 Q Okay. Well, I guess the record speaks for
14 itself. Would you agree with me?

15 A If the record states that, then yes, I accept
16 the record.

17 Q Looking at Exhibit R4 on rebuttal here, as
18 part of the case-in-chief, Coterra has alleged or
19 claimed that all of Permian's development constitutes
20 economic waste, agree?

21 A We state that the development plan creates
22 economic waste.

23 Q And -- and that the begin -- and -- and
24 for initially it's part of the case that Coterra has
25 always claimed that the drilling of these Harkey wells

1 would constitute economic waste. Agree?

2 A I'd have to refresh myself on previous
3 testimony, but my testimony today is that it creates
4 economic waste because we do not think they want
5 value.

6 Q Okay. And in your -- and in none of Coterra's
7 direct testimony in its direct case, did any of
8 Coterra's witnesses address the Harkey wells? Is that
9 -- is that true?

10 A We did not address it because we didn't think
11 it was worth addressing something that had zero value.

12 Q So it was not -- not part of your case-in-
13 chief, correct?

14 A When you say case-in-chief, we don't -- When
15 you say case-in-chief, we don't list the wells in our
16 development plan, so therefore we are stating that we
17 don't think the Harkey will add value, so it is in our
18 case-in-chief.

19 Q Let me just say this more directly. In your
20 direct case in this hearing proceeding before the
21 commission, none of Coterra's witnesses addressed the
22 Harkey wells as demonstrating economic waste, correct?

23 A We did not comment on the Harkey wells.

24 Q Thank you. Okay. Going back to R6, you
25 testified that, and this is a change in the testimony

1 from Coterra, that actually Coterra could actually
2 drill more than 10 wells in a year. Is that correct?

3 A So, as I stated in my testimony, just a
4 moment ago, the testimony was given by a landman,
5 and she gave that perspective from her expertise,
6 which would be around permits that Coterra has.
7 Coterra is in the process of or has part of the 10
8 wells, so from her perspective, from a landman's
9 expertise, that's all we can drill today because you
10 can't drill a well without a permit. However, she was
11 not making any -- any assertion as I understood it
12 from her expert testimony in her area of expertise
13 around whether Coterra could or could not
14 operationally drill more wells today.

15 Q But I guess her testimony would -- whatever
16 it says, is in the record, and it stands for itself,
17 correct?

18 A It's on record.

19 Q Okay. But you're telling me as you sit here
20 today that Coterra does have the capability, setting
21 aside whether it has the permits or not, to drill more
22 than 10 wells.

23 A That's correct, operationally.

24 Q But even if you could drill more than 10
25 wells and drill all 30 wells at one time, you couldn't

1 because of the infill well -- infill well rule,
2 correct?

3 A I'll have to defer you to legal counsel on
4 the determination of 2023 guidelines when these wells
5 were proposed versus what the guidelines are today.

6 Q Okay. So, yeah, I mean, the regulations are
7 what they are, correct?

8 A Yeah, the regulations are what they are in
9 2023 as they are what they are today.

10 Q And if you don't have an initial well
11 drilled, then you wouldn't be able to drill infill
12 wells.

13 A I believe I -- I told you that that's not in
14 my area of expertise.

15 Q Very good. In Exhibit R5, where you've got
16 this columnary unit, CAPEX, are these based off of
17 Coterra's costs?

18 A As stated on the footnote right below the
19 table, they are based on Coterra's CAPEX.

20 Q Okay, so these are not using
21 Permian Resources 2025 AFE costs, correct?

22 A They are not.

23 Q I spent a little time on this Exhibit here,
24 because I want to make sure it's clear.

25 A Can you zoom out a little bit? I can't see

1 the full Exhibit on my screen, please.

2 Q Well, when I -- I'll put it on full screen
3 mode, and then we can deal with it that way.

4 A I appreciate that.

5 Q So, as I understand, the premise of this
6 slide is that there was an order issued by the
7 Division that suggests that there is a -- most of the
8 reservoir is in the Third Bone Spring, right?

9 MR. ZIMSKY: I would object to the
10 characterization of it being a suggestion.

11 MR. RANKIN: I'm asking -- Well, we'll get to
12 it. I'm asking him to tell me if I'm right or wrong.

13 THE WITNESS: Can you restate your question,
14 please?

15 BY MR. RANKIN:

16 Q The premise of this slide is that there's an
17 order from the Division that identifies or appears to
18 state that there's -- the majority of the reservoir
19 comes from the Third Bone Spring. Is that right?

20 MR. ZIMSKY: I would object as to the use of
21 the word appears to indicate. It either indicates it
22 or it doesn't.

23 THE CHAIR: I think you can -- Does the --
24 Your question seems to function just as well without
25 the word appears, right?

1 MR. RANKIN: That's fine. We can extract the
2 word appear. That's fine.

3 MR. ZIMSKY: I can pull up the language of
4 the order if that's going to be helpful. So let -- let
5 me do that, okay? Let me go ahead and do that. One
6 moment.

7 BY MR. RANKIN:

8 Q Okay. Have I highlighted the language here
9 that is the premise for the analysis in that slide we
10 were just discussing?

11 A That is one piece of that, correct.

12 Q Okay. So when I go back to this slide, my
13 understanding then is that based on that paragraph
14 that I just showed from the order, you've indicated
15 here that you've shifted the production from -- based
16 on Permian's plan and data, and you shifted 70 percent
17 of that production up to the Third Bone Spring owners,
18 correct?

19 A I'm illustrating what the allocation formula,
20 how that looks relative to no allocation formula
21 between Third Bone Spring working interest holders and
22 Wolfcamp working interest owners.

23 Q Okay, so my question is in this analysis
24 you've taken 70 percent of the production from the
25 Wolfcamp well that Permian is proposing, and you put

1 it up into the Third Bone Spring, correct?

2 A That's -- that's our allocation formula that
3 we've represented.

4 Q Yeah, the answer is yes or no. You took 70
5 percent of the production from Permian's Wolfcamp
6 well, and you put it into the Third Bone Spring,
7 correct?

8 A That's correct.

9 Q Okay, and you did that on the premise of that
10 -- that statement in this order 2308 -- 23089
11 paragraph 6, correct?

12 A Yes, you're referring to where the order
13 explicitly says the common source of supply located
14 predominantly in the Third Bone Spring.

15 Q That's correct.

16 MR. ZIMSKY: Yes, that's correct.

17 BY MR. RANKIN:

18 Q Okay, so in that same order, okay, that we're
19 just looking at 23089, at the conclusion of it, the
20 division orders and states that the record is left
21 open in order to allow the parties to propose a -- a
22 Wolf-Bone pool. Do you recall that?

23 A I -- I don't recall that. That full piece of
24 that portion of it.

25 Q Do you disagree that I'm showing you that

1 language here in that order right now?

2 A You're showing me one sentence that says that
3 so I agree that you're showing me that.

4 Q Okay, "So the division after making those
5 findings left the record open for such a proposal and
6 will prompt a reopening of the hearing record on both
7 applications." Did I read that correctly?

8 A Yes, I believe so.

9 Q Okay, and then it goes on to say that, "OCD
10 retains jurisdiction on this matter for entry of such
11 orders as may be deemed necessary." Did I read that
12 correctly?

13 A You did.

14 Q Okay, so did both parties actually reopen the
15 record by filing a proposal for a Wolf-Bone pool?

16 A That's out of my expertise.

17 Q Did both parties -- you're not aware whether
18 they did or didn't?

19 A I wasn't over this area, I'd have to refer
20 back to you.

21 Q Okay, so if I can represent to you that both
22 parties did, in fact your counsel even discussed it
23 during the hearing today.

24 A Okay.

25 Q So both parties did file an application for a

1 Wolf-Bone pool, correct?

2 A Okay.

3 Q And as a result, wasn't the record reopened
4 based on the language of this order?

5 A You're taking one piece of the order but
6 there's another piece that's -- that provides an
7 actual statement.

8 Q Okay.

9 A And that's the premise of Coterra's
10 allocation formula.

11 Q Very well, I understand that, we discussed
12 that. So now that we have the record open, the
13 division issued a subsequent order, R23089A, correct?

14 A I will take you out of your work, you're
15 showing me it here right now.

16 Q Okay. And in that order, did they make a
17 similar finding? Did they reconfirm the finding that
18 actually there is the -- finding that there's a
19 predominant portion of the reservoir in the Third Bone
20 Spring?

21 MR. ZIMSKY: I would object to the question
22 because I think as a legal matter, well, he's calling
23 for some legal testimony from the witness on the scope
24 of reopening the record. I think as Mr. Rankin is --
25 is apt to say, the record stands for itself. It was

1 reopened in order to create the Wolf-Bone pool. And
2 the finding that it's predominantly from the Third
3 Bone Springs was never contested by either party after
4 that. So that -- although the record was open as a
5 legal matter, it was open to do the Wolf-Bone
6 applications. And Permian didn't appeal that part of
7 the record. It made the finding that he referred to
8 earlier, about the predominant source of hydrocarbons.

9 THE CHAIR: So the basis of the objection,
10 just -- just--

11 MR. ZIMSKY: The basis of the objection is,
12 well, first of all, he's asking for Mr. Weinkauff, the
13 reservoir engineer, to analyze an order and the scope
14 of the order and what's allowed under the order. He
15 doesn't have the expertise to say that. And as a
16 matter of law, Mr. Rankin's proposition that the
17 record was reopened to challenge that is wrong. And as
18 a matter of fact, no one ever did challenge that. And
19 that was a final order that was never appealed.

20 MR. RANKIN: May I have a moment to respond?
21 I'll take a second.

22 THE CHAIR: Yeah, but I might help you in --
23 Because I'm also -- So the record is -- I mean, the
24 administrative record, we're going to take notice of
25 what it is, right? All of these orders that the

1 division is already able -- And I don't think
2 anybody's challenging their authenticity. So if you
3 can help me understand what you're hoping that this
4 witness can add to these orders, that would help me.

5 MR. RANKIN: So just -- just for context,
6 what's happening here is that Coterra's taken the
7 position that the division has issued a finding about
8 where the predominant reservoir is located. And I'm
9 not asking the witness to make any legal conclusions.
10 I'm asking factual questions about what the order says
11 or doesn't say and the procedure that followed. I
12 understand that there are potential legal issues
13 around those, but I'm not asking him to draw any legal
14 conclusions or make any legal statements. I'm just
15 asking, because he testified in his testimony several
16 times, what the order says. And I'm asking him to
17 identify other aspects of what the order says. Here,
18 the point is that it was an interlocutory order. It
19 wasn't a final order. The record was reopened. And
20 from that point forward, actually, the entire time,
21 Permian has contested the allegation or claim that the
22 -- that the Third Bone -- that the Third Bone Spring
23 is the predominant source of the reservoir. And as was
24 demonstrated through this hearing and at the
25 conclusion of the division, is that no, it isn't. In

1 fact, they modified their finding to just simply say
2 that Cimarex's test -- testimony was that's how the
3 reservoir is allocated. And my point about this is
4 that his premise for his rebuttal Exhibit is based on
5 a mis -- misunderstanding of what the procedural
6 aspects of the -- of the record are. And I can leave
7 it there, and we can deal with it in closing, but
8 that's -- that's the gist of it, is that the
9 contention of what the record provides is not -- does
10 not square with the witness's testimony.

11 THE CHAIR: I think that is something that
12 you can deal with in closing, but if you want to
13 narrow your question or somehow reframe it to -- if
14 there was something specific to this, you know, that
15 you -- that this witness -- that you want this witness
16 to testify as to his understanding or impression or
17 otherwise how he -- Yeah. If you could narrow the
18 scope of that question so that it's not merely you
19 know what is in the order. Because that --

20 MR. RANKIN: I believe I've -- I've
21 accomplished my goal here. And he's indicated that he
22 has -- the premise of the rebuttal is that it's based
23 on this provision in the order and I think I've
24 established that for the record and that's -- that's
25 all I wanted to do. So thank you.

1 THE CHAIR: In that case, we'll move on to
2 the next question then?

3 MR. RANKIN: Yeah, on to the next question.
4 Yeah. Let me just confer with my client for one moment
5 to make sure I covered everything that I would have
6 been asked to cover. No further questions.

7 THE CHAIR: In that case, Commissioner
8 Thompson?

9 COMMISSIONER THOMPSON: No questions, thank
10 you.

11 THE CHAIR: Commission Counsel?

12 MR. RANKIN: Yes. Members controlling the
13 screen, can you go to Permian C-11?

14 UNIDENTIFIED SPEAKER 4: Permian C-11, yes.
15 Let me do that.

16 CROSS-EXAMINATION

17 BY MR. RANKIN:

18 Q So earlier in response to some questions from
19 counsel, I believe you said there's two big wastes.
20 One, too many wells, and that the Bone Spring owners'
21 interests are being wasted. Correct me if I didn't say
22 that right. What did you say?

23 A Yes. So the second piece specifically is what
24 you're asking about.

25 Q Well, first I need to confirm that we're on

1 the same page.

2 A Okay. I did state -- I did make a statement
3 about two pieces, one being the amount of wells
4 drilled and one being the impact of Third Bone Spring
5 interest holders.

6 Q Okay. So help me out here. We're at the
7 closing hours, and I'm getting ready to write some
8 findings as we go forward. So think of yourself as
9 dictating, okay? The way I read C11, at the very
10 bottom it says, "entities with greater interest in the
11 Bone Spring." Can you see that on your screen?

12 A At bottom left there?

13 Q Yes.

14 A Okay. I do see that.

15 Q Okay. So the way I -- Interpret that is that
16 these are the people that are being harmed. Is that
17 how you interpret that?

18 A Yeah. It would be people who have
19 disproportionately higher ownership on the Third Bone
20 than the Wolfcamp. That's correct.

21 Q So when you're -- when you're counseled, you
22 -- you talked about the people, the wastes to the Bone
23 Spring owners. This is our universe of people that are
24 being harmed.

25 A Yes, in -- in this unit.

1 Q Okay. In the Joker unit. So the way I
2 understand this is that one of them is Magnum Hunter,
3 okay? The next one is Highland, then Avalon, PR, and
4 Prime Rock. Did I read that correctly?

5 A You're -- you're referring to the far left
6 column of -- of their table?

7 Q Entities with greater interest in the Bone
8 Spring, Magnum Hunter, Highland, Avalon, PR, and Prime
9 Rock.

10 A Oh, down there. Okay. Yes, I see that.

11 Q Okay. And then looking at the status, it
12 looks like Highland is on Permian side, Avalon is on
13 Permian side, and Prime Rock is neutral. Did I read
14 the status column correctly?

15 A Let's see. I'm not -- I -- I -- This isn't my
16 Exhibit, so I have to read it as you ask me this
17 question. Yes, I believe that that is correct.

18 Q So there's nothing wrong with Magnum Hunter
19 feeling like they've been wronged, but I just want to
20 clarify, when you talk about the pool, the group of
21 Bone Spring owners that have been harmed, that are on
22 Coterra's side, it's only Magnum Hunter. Can I write
23 that as a finding?

24 A Based on their testimony. If you would like
25 to -- to say that, then that's what their -- their

1 testimony Exhibit says. So if you're going to base
2 that on that, then yes.

3 Q Okay. And -- and your -- your counsel will
4 have a chance at closing to clean things up if I'm
5 saying these wrong. I'm just trying to get my fingers
6 ready. The next line says, "entities with greater
7 interest in the Wolfcamp." Do you see that one?

8 A Yes.

9 Q I -- Interpret that to mean these are people
10 that will be harmed by Coterra's plan. Am I right? Am
11 I wrong if I type that up?

12 A I think harmed implies wrongdoing. So
13 Coterra's position is, what is -- where's the
14 production actually coming from? And that's important
15 in the matter. So it's Coterra's stance that the
16 production is predominantly coming from the Third Bone
17 Springs. So when you say harmed, you're making an
18 assumption that they were owed the production that
19 Coterra states is not theirs to begin with, or a
20 percentage of it's not, based on where the
21 production's coming from.

22 Q Okay.

23 A So that -- that would be my only
24 qualification.

25 MR. RANKIN: Okay. That makes sense to me. So

1 -- I just was trying to narrow the universe so we
2 could be as precise as possible when it comes to
3 closing statements and the findings. Who actually,
4 naming names, has been harmed? And the reason is, and
5 this isn't a question, I'm just going to tell you the
6 context, is that there's a statutory allocation
7 formula, and Coterra's asking OCC to use discretion
8 and move away from that. And they're saying there's
9 lots of grounds for it. So I'm trying to figure out
10 what the lots of grounds are for that. That's all I
11 have. Thank you.

12 THE CHAIR: Redirect?

13 MR. ZIMSKY: Yes, I have just a few
14 questions.

15 REDIRECT EXAMINATION

16 BY MR. ZIMSKY:

17 Q Mr. Rankin asked you about the Harkey wells
18 and -- and from the get-go was Coterra alleged that
19 the totality of the development plan 48 wells is --
20 constitutes economic waste.

21 A We do.

22 Q And the Harkeys are part of that?

23 A That's correct.

24 Q Now the order on -- that you refer to on
25 Exhibit R7, that's not the only basis upon which you

1 are premising the 70-30 split, correct? Are there
2 other reasons why you're not just relying on that
3 order saying it's predominant?

4 A No, we're not only relying on that order,
5 Coterra's geologist has outlined the reasons why the
6 production should be allocated predominantly. That
7 order is just in agreement with our findings.

8 Q And as far as people being harmed, as far as
9 the economic side goes, step away from the allocation
10 but the economics, is it your testimony that Coterra's
11 plan will benefit all the working interest owners vis-
12 a-vis permitting resources?

13 A It is. We showed a rebuttal Exhibit that
14 showed the full project economics with timing and PR's
15 costs and Coterra's costs, and we not only showed that
16 our plan would lead to more capital -- sorry, BFIT PV-
17 10, or more money, but we also showed how we were
18 being more efficient with the money they spent, so
19 permitting resources would also benefit from Coterra's
20 plan.

21 Q And were you here for Ms. St. Pierre's
22 testimony?

23 A I was.

24 Q And do you recall her testifying that
25 Coterra's development plan included those upper, we

1 went from 24 to 30 wells, do you recall that?

2 A Yeah, I believe she stated that that was in
3 our full development plan.

4 MR. ZIMSKY: Okay. If you'd give me one --
5 That's all the questions I have on redirect. Okay.

6 THE CHAIR: Well, thank you. If nobody else
7 has any questions for this witness. Thank you for your
8 time.

9 THE WITNESS: Absolutely.

10 MR. ZIMSKY: At this time, I would like to
11 move into evidence, rebuttal Exhibits R1 through R7.

12 THE CHAIR: Any -- I'm not hearing any
13 objections.

14 MR. ZIMSKY: I was going to make one comment,
15 and it's not a formal objection, but I was going to
16 make a comment. I believe, I would urge that this
17 comment goes to weighing of the Exhibits. Exhibit R1
18 goes, and R2, are the type of evidence that were
19 required to be presented as part of the direct case,
20 because they go to the allegation or claim, assertion,
21 that the phi-H, it correlates to oil production, and
22 that should have been on direct. And it wasn't a
23 proper -- proper rebuttal Exhibit. Same thing with R5.
24 As we just heard, Coterra's been alleging that the
25 entirety of Permian's development is economic waste,

1 particularly the Harkey, and yet they waited until
2 rebuttal to present any evidence.

3 MR. RANKIN: So, I'm going to make an
4 objection, that you can't testify.

5 MR. ZIMSKY: Okay. Well, that was the basis
6 of my objection. I was just explaining why. I mean,
7 I'm not going to go so far as to seek to strike them,
8 but I just wanted to make the point and urge that the
9 Commission maybe consider as to the weight of the
10 evidence. With that, I'll -- I'll stop.

11 MR. RANKIN: And since he sort of opened the
12 door, I would say the R1, R2 are directly in response
13 to Exhibits that were filed by -- by Permian
14 Resources, and that the same goes for the other
15 Exhibit, which I believe he said was R5, the Harkey.

16 THE CHAIR: Well, thank you both. But since
17 there's no objection, it sounds like it's a minute. So,
18 they'll be -- But -- but all -- comments on both sides
19 have been noted, so I appreciate it. Do you have
20 further witnesses to present?

21 MR. RANKIN: No further witnesses.

22 THE CHAIR: Okay. In that case, is there
23 anything further to be presented by anybody else?
24 Seeing no further presentations, I believe I'm now
25 ready, unless Commission counsel advises otherwise,

1 but I believe we're now ready to close the up-to-entry
2 record and proceed to closing arguments. Any
3 objections to that?

4 MR. RANKIN: No.

5 THE CHAIR: All right. In that case, we'll
6 proceed to closing arguments, starting with the
7 applicant.

8 MR. ZIMSKY: Mr. Chair, our closing attorney,
9 Mr. Anderson, is having connection issues. I've been
10 designated to give the close.

11 MR. ANDERSON: I'm back on. Sorry. I think
12 I'm back on.

13 MR. RANKIN: Oh, thank you.

14 MR. RANKIN: Sorry. I was sending that to you
15 just in case I got knocked off in the middle of my
16 closing.

17 THE CHAIR: Can you --

18 MR. RANKIN: (INAUDIBLE) I can proceed.

19 THE CHAIR: Can you identify yourself?

20 MR. ANDERSON: They're letting you hear me.

21 THE CHAIR: Actually, I'm sorry. I just noted
22 the time. Do the parties wish to take the afternoon
23 break now before closing arguments?

24 MR. RANKIN: Yes.

25 THE CHAIR: I hate it. Sorry.

1 MR. ZIMSKY: Well, I tell you what, since
2 he's on and he's having trouble, let's just run
3 through.

4 THE CHAIR: Okay. In that case, please
5 proceed, Mr. Anderson.

6 MR. ZIMSKY: Mr. Chair, if you can indulge
7 me, how much time? I think we need to consult on how
8 much time we have left. That's fine. So he knows, you
9 know -- Mr. Chair, after consulting with the two
10 parties that agreed that Coterra has 34 minutes left.

11 THE CHAIR: Works for me. Professor Anderson,
12 you have 34 minutes.

13 MR. ANDERSON: Okay. Thank you very much. May
14 I proceed, then?

15 THE CHAIR: Please.

16 MR. ANDERSON: My name is Owen Anderson. I'm
17 speaking from my residence in Georgetown, Texas. I've
18 been a professor of oil and gas law since 1979. I
19 served as general counsel to the North Dakota
20 Industrial Commission Oil and Gas Division for six
21 years. I'm a member of the North Dakota-Texas bar.
22 North Dakota and Texas bars, but the state bar was
23 retired from Oklahoma at the end of 2023. I've been a
24 member of the Interstate Oil and Gas Conservation
25 Commission's legal committee for over 45 years, and I

1 chaired and served as the chief drafter of the IOGCC's
2 2004 Model Conservation Act.

3 I have been a visit to Mohawk Beach to help
4 represent Coterra in this case -- Coterra in this
5 case. I will first address the question on waste.

6 Under the New Mexico Oil and Gas Act, when evaluating
7 competing applications, the Division and Commission
8 are charged with a duty to prevent waste. Section 70-
9 2-3 of the Act broadly defines waste as including,
10 among other things, its quote, ordinary meaning on
11 hold. The ordinary meaning of waste includes wasting
12 money, i.e., economic waste. In the oil and gas
13 regulatory context, the prevention of economic waste
14 includes the duty to eliminate unnecessary expenses,
15 including the drilling of unnecessary wells. The duty
16 to prevent economic waste is built into the
17 Prohibition and Enforcement Statute.

18 New Mexico Statute 70-2-17, subsection C,
19 explicitly states that the Division's authority to
20 pool lands must be exercised so as to avoid the
21 drilling of unnecessary wells. While the drilling of
22 unnecessary wells often prevents underground waste, it
23 also prevents economic waste.

24 Indeed, this same subsection C explicitly
25 states that all orders affecting drilling shall be

1 just and reasonable, and the owner or owners of each
2 tract or interest in the unit the opportunity to
3 recover or receive without unnecessary expense is just
4 an equitable share of oil and gas or both.

5 An article written in 1963 by Richard S.
6 Morris published in the University of New Mexico
7 Natural Resources Journal, entitled Compulsory Pooling
8 of Oil and Gas Interests in New Mexico, concludes that
9 his -- his exam -- that his examination of New Mexico
10 conservation cases revealed that waste meant, and I'm
11 quoting here, quote, meant economic waste rather than
12 physical waste of oil and gas. The protection
13 of correlative rights and the prevention of economic
14 waste caused by the drilling of unnecessary wells were
15 the chief considerations in order of pooling. He then
16 goes on, and I'm at page 319 of Volume 3, Natural
17 Resources Journal, he then goes on and talks about
18 that occasionally physical waste was also relevant.
19 The Morris paper is cited with approval by Kramer and
20 Martin in their authoritative treatise on the law of
21 pooling and unitization in section 10.2 -- 10.02 sub
22 4, noting that economic waste has been considered in
23 pooling cases in New Mexico going back almost 70
24 years.

25 Adoption of Perlman's argument that economic

1 waste is irrelevant would not only be at odds with the
2 plain language of the statute, it would establish a
3 precedent and policy that would thwart the primary
4 purpose of the division's and commission's duty, which
5 is to prevent waste. Economic waste can and should be
6 considered here especially at present when the short
7 term oil and gas pricing outlook looks so
8 grim. Coterra's evidence establishes that Permian's
9 plan to drill unnecessary additional wells at
10 significantly more cost would produce only negligible
11 additional reserves and thus constitute economic
12 waste.

13 If Coterra turns out to be wrong, infield
14 drilling can always be permitted in the future if
15 additional wells are proven to be necessary, but once
16 an unnecessary well is drilled, the resulting economic
17 waste cannot be undone.

18 Next I will address protection of correlative
19 rights. Protection of correlative rights is a
20 mandatory duty of the division and commission. While
21 the duty to prevent waste is primary, the division's
22 and commission's authority to prevent waste must still
23 be exercised so that correlative rights are protected.
24 Fortunately, in the present case, the commission can
25 easily do both. Here, a horizontal depth severance

1 bisects a common source of supply. Because of this
2 severance, the division has maintained distance-facing
3 proration units drawn along the severance boundary.
4 Thus, an allocation formula is needed to protect
5 correlative rights because the hydrocarbon
6 contributions of each severance zone are very unequal.

7 The Oil and Gas Act grants broad authority to
8 allocate production. Again, Section 70-2-17C provides
9 that all orders affecting pooling shall be just and
10 reasonable and will afford to the owner or owners of
11 each tract or interest in the unit the opportunity to
12 recover or receive without unnecessary expense is just
13 and equitable share (INAUDIBLE)

14 No language in the Oil and Gas Act dictates
15 how production must be specifically allocated. No
16 explicit language prohibits the use of an allocation
17 formula in addition to a surface acreage allocation.
18 In this case, a surface acreage allocation alone makes
19 no sense when the correlative rights problem arises
20 from a horizontal depth severance that cuts through
21 the common source of supply.

22 As discussed in the pre-hearing statement,
23 there is ample division precedent and case law
24 supporting the use of an allocation formula to
25 allocate production when it is necessary and

1 practicable to do so. Given the factual circumstances
2 in this case, an allocation formula along the lines of
3 what Coterra proposes is the only one that is just and
4 reasonable to all owners of the Wolf's Bone Pool. It
5 is ordinarily true that absent substantial and
6 credible evidence of the contrary, a surface acreage
7 allocation is adequate when vertical severances are
8 encountered, that is when small tracts are included
9 within a spacing proration unit. This is true for most
10 vertical and horizontal wells, and is true even in the
11 case of a horizontal depth severance that does not cut
12 through a common source of supply.

13 But here, a horizontal depth severance does
14 cut through a common source of supply, and so a pure
15 surface acreage allocation is grossly unjust and
16 unreasonable. With a surface acreage only allocation
17 and single space -- and a single spacing unit, which
18 we don't have here, the shallow portion and the deeper
19 portion would share equally in production, even though
20 the horizontal boundary line might not divide the
21 common pool equally or otherwise result in either the
22 shallow or deeper depth being shortchanged by an
23 allocation, by a surface acreage allocation.
24 Artificially separating the common source of supply by
25 creating separate spacing and proration units using

1 the horizontal depth severance boundary, as the
2 division chose to do here, is even worse, because
3 absent an allocation between the units, individual
4 well, production would be solely allocated to either
5 the shallow owners or the deep owners based on the
6 location of the well pool.

7 So something further must be done to allocate
8 production equitably, justly, reasonably, and fairly.
9 Permian proposes to award all production to either the
10 shallow or deep owners solely on the basis of the well
11 or location. They would then, of course, allocate it
12 on a surface acreage basis to take into account the
13 small tracks. By analogy, consider a vertical
14 severance cutting downward through a common source of
15 supply with a spacing proration unit within a spacing
16 proration unit. To be more specific, imagine a
17 vertical severance that divides a spacing proration
18 unit into two tracks consisting of the north quarter
19 of the unit and the south three quarters of the unit.
20 What would the division and commission do?

21 Well, absent voluntary pooling, they would
22 force pool the two tracks and allocate production on a
23 surface acreage basis because without more
24 information, a surface acreage allocation would be
25 equitable, just, reasonable, and fair. Thus, the north

1 portion of the unit would get a quarter of the
2 production and the south portion of the unit would get
3 three quarters. A horizontal depth severance is
4 conceptually no different except that a horizontal
5 severance cutting through a common pool cannot be
6 equitably, justly, reasonably, or fairly allocated on
7 a purely surface acreage basis.

8 Permian argues that Coterra's -- that
9 Coterra's allocation is unfair. What is Permian --
10 Permian's solution? To divide the production on a
11 surface acreage basis and by well or location without
12 regard to hydrocarbon drainage from the common source
13 of supply from both above and below the depth
14 severance line. This brings me to Permian's
15 misconstruction of the Oil and Gas Act. Permian's
16 position is that the surface acreage allocation is
17 mandatory because of -- of its misconstruction of law.
18 Regulatory spacing and pooling laws were enacted to
19 address waste that rose due to what I call the small
20 track problem. Because pooling led to combining small
21 tracks, production from a unit well had to be
22 allocated to protect their relative -- correlative
23 rights.

24 Through his pre-hearing statements -
25 - statement, Permian states over and over that the

1 compulsory pooling statute mandates appears there from
2 surface acreage allocation rather than an allocation
3 that better protects correlative rights. Permian's
4 argument relies on a flawed interpretation of a single
5 sentence in the compulsory pooling statute that
6 mentions surface acreage allocations. That's in
7 subsection C of 70-2-17. In relying on this single
8 sentence, Permian fails to read the Oil and Gas Act as
9 a whole and fails to read the proration pooling
10 statute as a whole.

11 When reading and construing a statute, no
12 part of the statute can be ignored. All words and
13 phrases in a statute are to have meaning and should be
14 given equal weight with other provisions. Instead,
15 Permian singles out one sentence and then misreads it.
16 If that single sentence addressing surface acreage is
17 all that matters, then the other portions of the
18 statute, indeed many sentences, would be neutered. And
19 there would be little for the division or commission
20 to do or issue in the pooling order because a title
21 attorney could determine line descriptions and then
22 allocate production based on surface acres and then
23 merely file a title opinion with the division and
24 commission which could then be summer -- which
25 could then be summarily approved. Well, let's

1 consider this sentence on which Permian relies. It
2 provides, quote, for purposes of determining the
3 portions of production owned by the person's owning
4 interest in the pool, oil, or gas, or both, such
5 production shall be allocated to the respective tracts
6 within the unit in the proportion that the number of
7 surface acres included within each tract bears to the
8 number of surface acres included in the entire unit,
9 unquote.

10 This provision does nothing more than require
11 production within a unit to be allocated on a tract
12 basis where a spacing for a ratio unit consists of
13 multiple tracts. Tracts, both surface interest and
14 mineral interest, are always expressed in terms of
15 acreage in land pacts, land surveys, and when forming
16 spacing for a ratio and pool units. Surface acreage is
17 used by title examiners when doing drilling in
18 division order title opinions, when assembling unit
19 acreage, and surface acreage is customarily sufficient
20 for allocating production in an art and variety
21 pooling situation.

22 But here, Permian conveniently ignores the
23 fact that this is not an art and variety pooling
24 situation due to the horizontal depth severance that
25 cuts through a common source -- a common source of

1 supply and the division's creation of a separate
2 spacing of a ratio unit along the boundary lines of
3 that horizontal severance. Permian ignores both of
4 those facts.

5 Again, pure surface acreage allocation
6 typically works well without further allocation. For
7 example, where a spacing for a ratio unit is 320 acres
8 and is comprised of four equally sized tracts, then
9 each tract would be allocated 80 over 320, or one-
10 fourth of the production from the unit. In this common
11 example, a simple surface acreage allocation can be,
12 and generally is, equitable, just, reasonable, and
13 fair, and it does not offend other provisions of the
14 statute. A surface acreage allocation also works if
15 there is a horizontal depth severance that does not
16 cut through the common source of supply because the
17 severance would have no effect on ownership within the
18 common source of supply.

19 However, where a horizontal depth severance
20 cuts through a common source of supply, application of
21 a pure surface acreage formula for pooling small
22 tracts within a spacing unit requires an additional
23 step to account for the portion of recoverable
24 reserves that lie above and below the severance
25 boundary. Indeed, allocating production to account for

1 recoverable reserves above and below the severance
2 boundary is the only way to equitably, justly,
3 reasonably, and fairly allocate production in the
4 pool.

5 So to build on this example, assume that a
6 horizontal depth severance cuts through the 320-acre
7 unit within the common source of supply. Assume that
8 horizontal depth severance boundary cuts through the
9 common source of supply, leaving 90 percent of the
10 recoverable reserves above the boundary line and 10
11 percent of the recoverable reserves below that
12 horizontal boundary line. This is easily resolved by
13 further allocating production by reserves above and
14 below the horizontal boundary line, allocating 90
15 percent of production to the owners holding the
16 shallow rights and 10 percent holding the deep rights,
17 and then further allocating production to each 80-acre
18 tract. This is what Coterra is proposing to do. It is
19 simple, equitable, just, reasonable, and fair, and
20 moreover, it is practical.

21 In contrast, a surface acreage allocation
22 would give the deep owners 50 percent of the
23 production and the shallow owners 50 percent of the
24 production, which would be grossly inequitable, unjust
25 and unfair. Yet, Permian's proposal would further

1 exacerbate this situation and this unfairness by
2 artificially subdividing the common source of supply
3 by allocating all production solely based on where the
4 well bone is located, and then further allocating
5 production of surface -- on -- on surface acreage
6 basis.

7 In my example, a well drilled into the deep
8 formation would get 100 percent of the production even
9 though it only hold -- holds only 10 percent of the
10 recoverable reserves, and the uncompensated draining
11 would result in the detriment of the shallow owners
12 whose zone holds 90 percent of the reserves. Note
13 again, this artificial subdivision would never be
14 allowed if this boundary line was a vertical one.
15 Permian has argued that the surface acreage allocation
16 sentence prohibits allocations because any other
17 allocation would deny either the Bone Spring or
18 Wolfcamp owners 100 percent of their prorated surface
19 acreage share.

20 That much is true, but completely inapposite
21 in this case. If the surface acreage sentence in 17c
22 is read to prohibit an allocation formula beyond one
23 acre, then the sentence nullifies other provisions of
24 7217, namely subsection a, which states, quote, so far
25 as it's practical to do so, afford to the owner of

1 each property in a pool the opportunity to produce his
2 just and equitable share of oil and gas, et cetera.
3 This, if you read the whole provision, it's a
4 statement about geology, not geography. This surface
5 acreage sentence -- this -- this surface acreage
6 sentence would also nullify the first sentence of the
7 second paragraph of subsection c, which requires that
8 orders affecting pooling resolve in a just,
9 reasonable, and fair allocation of production. Just
10 because surface acreage allocations are the most
11 common does not mean they are exclusive, where
12 substantial and credible evidence indicates that
13 something further should and can be done.

14 Even Permian admits this when it says such
15 allocations are rare in its pre-hearing statement at
16 page 21. When you combine all the terms in 72- -- 70-
17 2-17 that describe what a pooling order must be, it
18 must be practicable, equitable, just, reasonable, and
19 fair. Taken in context, what do these words mean?
20 Practicable means that something is capable of being
21 accomplished. Equitable means to protect the party's
22 rights. In other words, doing what is right under the
23 circumstance. Just means in accordance with the facts.
24 Reasonable means objectively appropriate under the
25 circumstances. And fair means to act with impartiality

1 and honesty.

2 Adopting -- adopting Permian's position
3 resulted in a dangerous precedent for two reasons.
4 First, it would prevent the division and commission
5 from performing their complete statutory duty to
6 protect correlative rights equitably, justly,
7 reasonably, and fairly in a practicable way. Secondly,
8 nefarious oil and gas investors might take advantage
9 of less-informed persons by taking an assignment of a
10 horizontal depth severance, bisecting a common source
11 of supply for the sole purpose of creating an
12 advantageous condition for their share of production.
13 And what would happen if the division and commission
14 faced a horizontal depth severance that in
15 artfully cut through an existing productive common
16 pool?

17 One that had already been spaced and pooled.
18 In modifying the pooling order in this circumstances,
19 what would the division and commission do? Throw up
20 their hands and say our hands are tied because we can
21 only allocate production on a surface acreage basis? I
22 respectfully suggest such a conclusion would be
23 absurd.

24 Lastly, I'll now consider and compare
25 Permian's plan and positions in this

1 case. Permian proposes 48 initial wells to be drilled
2 in one year, with production being allocated only to
3 the owners within the interval where the well is being
4 drilled.

5 Thus, a single Wolfcamp well could be
6 initially drilled, and in the meantime, all production
7 would go to the upper Wolfcamp owners to the detriment
8 of the third Wolfcamp owners. If most of the initial
9 well drills were in the upper Wolfcamp, then the third
10 Wolfcamp owners will essentially suffer loss of
11 production as if the units were being developed under
12 the rule of capture, rather than in accordance with
13 sound conservation principles. But worse than the rule
14 of capture development, the third Wolfcamp owners
15 would be unable to prevent drainage because Permian
16 would be the operator of both the upper Wolfcamp and
17 third Wolfcamp, and thus control the drilling of the
18 wells in both zones.

19 Coterra's' plan proposes 24 wells, but shares
20 production across the entire common source of supply,
21 based on a calculation of recoverable hydrocarbons at
22 each of the intervals. 70 percent to the Bone Spring
23 interval, 30 percent to the upper Wolfcamp interval.
24 This will occur for every well, regardless of when and
25 where the wells are drilled, thus assuring that

1 everyone gets an equitable, just, reasonable, and fair
2 share of production. Coterra's' allocation is based on
3 the phi H porosity, essentially an acre-to-inch-times
4 porosity calculation.

5 A similar allocation method, not based on
6 surface acreage, was sustained in Santa Fe Exploration
7 vs. Oil and Gas Conservation Commission, 835 Pacific
8 2nd, 818. In paragraph 29, the court sustained an
9 allocation based on a determination of the oil and gas
10 beneath each tract. The amount of oil beneath each
11 tract was determined by estimating the oil-productive
12 rock volume and then allocating an appropriate share
13 in each tract.

14 As I previously mentioned, historically,
15 compulsory pooling has been about solving what has
16 commonly been called the small-tract problem. Thus,
17 pooling combines small tracts in units to avoid
18 drilling unnecessary wells under the rule of capture.
19 For illustrative purposes, let's imagine rotating the
20 horizontal severance in this case 90 degrees. In other
21 words, imagine that the horizontal --
22 horizontal severance is a vertical severance that
23 divides the common source of supply into two separate
24 tracts, or -- or depths. What would a conservation
25 agency do? It would force-pool the entire unit, which

1 is what ideally should have been done in this
2 manner. A vertical subdivision should never prevail
3 over the boundaries of a normal proration unit, and a
4 horizontal depth severance should be treated no
5 differently.

6 Now, I trust that you recall Mr. Rankin's
7 cross-examination of Ms. Frey, where he nitpicked over
8 her rounding down the allocations to 70-30. Permian's
9 witnesses offered up similar critiques. Such criticism
10 should be disregarded when they offer no alternative
11 solution that is equitable, just, reasonable, and
12 fair.

13 Instead, all the witnesses did, and all that
14 Mr. Rankin does, is pivot back to a surface acreage
15 allocation by WellBore, which is obviously
16 inequitable, unjust, unreasonable, and unfair. I
17 continue to use the words equitable, just, reasonable,
18 and fair, because those are the words used in a
19 pooling statute. A pooling statute need not be, and
20 cannot be, precise, because preciseness is not
21 possible in oil and gas conservation regulation. But
22 some pooling allocations can be more equitable, more
23 just, more reasonable, and more fair than others. The
24 legal requirement for determining allocations and
25 other conservation issues is that there be some,

1 quote, substantial and credible evidence, unquote,
2 supporting the conservation agency's resulting work.
3 This evidentiary standard is less than the
4 preponderance of evidence standard approved, and far
5 below a reasonable ballot standard approved.

6 Yesterday, Ms. Frey testified on what she
7 believed would be an equitable, just, reasonable, and
8 fair allocation as required by the Prohibition Pooling
9 Statute. Permian's witness testimony and Exhibits
10 criticized Ms. Frey's good faith effort to allocate
11 production on a just -- equitable, just, reasonable,
12 and fair basis, but they offered no solution except to
13 go back to a surface acreage allocation that clearly
14 violates correlative rights in this case. In a
15 nutshell, Permian's witnesses were largely
16 nonresponsive regarding the real -- real merits of
17 this case, preventing economic waste while protecting
18 correlative rights with an allocation that is
19 equitable, just, reasonable, and fair.

20 Permian's witnesses criticized Frey's study
21 and testimony, noting that each of the messages she
22 used resulted in a somewhat different allocation. I
23 suggest Permian's witnesses should have applauded
24 Frey's effort to arrive at an equitable, just,
25 reasonable, and fair allocation of production. If her

1 allocation recommendations are clearly inequitable,
2 unfair, and unjust, then they should have offered a
3 different allocation based on reservoir
4 characteristics rather than a default to an
5 allocation-based surface acreage that has absolutely
6 no relationship to a determination of what is fair,
7 just, reasonable, and equitable when faced with a
8 horizontal depth severance that cuts through a common
9 source of supply, creating diverse ownership above and
10 below that boundary. In closing, here are my basic
11 points in a nutshell.

12 Permian's plan does not prevent the economic
13 waste resulting from drilling unnecessary wells into a
14 common source of supply. Coterra's does. Permian's
15 plan does not protect correlative rights because it
16 fails to co-allocate common pool production from each
17 well to the owners of the Upper Wolfcamp and to the
18 owners of the Third Bone spring on an equitable, just,
19 reasonable, and fair basis. This total failure to
20 protect correlative rights equitably, justly, and
21 fairly constitutes a regulatory taking of private
22 property for the benefit of other private owners,
23 something that can be easily avoided by adopting
24 Coterra's plan.

25 And lastly, but perhaps most importantly,

1 Permian's plan allows a voluntary oil and gas
2 transaction, in this case a horizontal depth
3 severance, to mandate an allocation of production that
4 is contrary to the most basic principles of oil and
5 gas conservation regulation. This dispute arose
6 because of an unfortunate depth severance that cuts
7 through a common source of supply. This horizontal
8 depth severance should be treated no differently from
9 a vertical severance that cuts through a common source
10 of supply, except that a horizontal depth severance
11 requires a division and commission to allocate
12 production to provide an equitable, just, reasonable,
13 and fair share to those owners above and below the
14 severance boundary line, something that a surface
15 acreage allocation simply cannot do.

16 So what the commission must do is weigh the
17 evidence based on what is equitable, just, reasonable,
18 and fair under the circumstances. If you look at Ms.
19 Frey's testimony and Exhibits, she gives the Upper
20 Wolfcamp owners some benefit of the doubt. She looked
21 at three scientific approaches to arrive at an
22 equitable, just, reasonable, and fair allocation. Two
23 of the three methods supported her 70-30 allocation,
24 and her third study came closer to an 80-20
25 allocation, which would have been more detrimental to

1 the Upper Wolfcamp owners. Her testimony, to me, seems
2 to epitomize what is equitable, just, reasonable, and
3 fair. The commission must weigh what she says, I said,
4 against Permian's witnesses and make the best
5 judgmental decision it can. Permian's witnesses have
6 offered surface acreage allocation that is
7 inequitable, unjust, unreasonable and unfair, on its
8 face.

9 Admittedly, I think Permian's witnesses did
10 so because its counsel misconstrued the Pooling Act
11 and thus instructed the witnesses based on that
12 misconception. So we end today with Coterra having
13 offered a development plan that prevents economic
14 waste and protects for correlative rights. When the
15 commission granted Coterra's motion to stay in this
16 case, that meant that the commission believed that --
17 that Coterra would prevail on -- on merits. I have
18 heard nothing from Permian in the last two days that
19 should cause you to change that belief. At the end of
20 two days of testimony and Exhibits, all that Permian
21 has done is criticize Coterra's allocation based on
22 nitpicking its allocation at the margins. It has not
23 shown Coterra's allocation to be inequitable,
24 unreasonable, unjust, or unfair under the
25 circumstances, especially when compared to a surface

1 acreage allocation. Finally, under *Grace v. Oil and*
2 *Gas Conservation Commission* 531 P.2d 939, a commission
3 or pooling order must be practicable, citing, of
4 course, 17-2-17a, which uses that term. Practicable
5 means capable of being used. Coterra's proposed
6 allocation is easily capable of being used, as
7 production can easily be allocated across the
8 horizontal depth severance boundary on a 70-30 basis.
9 Thank you, for your -- for your indulgence. Do you
10 have any questions?

11 THE CHAIR: Commissioner Thompson, any
12 questions?

13 COMMISSIONER THOMPSON: There's no questions
14 in closing.

15 THE CHAIR: Well, I don't have any questions
16 either, so.

17 MR. ANDERSON: Thank you.

18 THE CHAIR: I presume we can now all take an
19 afternoon break, or do you want?

20 MR. RANKIN: Yeah, an afternoon break's fine.
21 I'm going to have a much shorter closing, but we can
22 take a quick break and resume, and then I can be done.
23 I appreciate it.

24 THE CHAIR: Thank you. Thank you.

25 (Off the record.)

1 THE CHAIR: Thank you all for the recess.
2 I'll call the meeting back to order, and I believe
3 it's now closing arguments from Permian.

4 MR. RANKIN: Thank you very much, may it
5 please, the Commission. Thank you, Director Chang,
6 Commission Member Thompson, thank you very much. We
7 appreciate the time and attention from the Commission
8 during the course of this proceeding. I'll take
9 confirmation and appreciate your attention and
10 consideration.

11 In this matter, Permian has now shown, in its
12 case-in-chief, that it prevails on each of the factors
13 governing award of operatorship and compulsory pooling
14 cases. It has shown that it has the better geologic
15 targets, that through co-development will maximize
16 production, recover incremental reserves, thereby
17 preventing waste, and by doing so, protect a lot of
18 rights. It has shown decisively that it has the vast
19 majority of working interest owner support over
20 Coterra, and that, in fact, not a single working
21 interest owner actively supports Coterra -- Coterra's
22 plan, including those that Coterra alleged will be
23 harmed through Permian's development plan. Their --
24 these two factors alone dictate that Permian Resources
25 should prevail in this case.

1 As to the remaining five factors, we have
2 shown that Permian Resources should prevail on each of
3 them as well. Coterra has -- Coterra has failed to
4 show economic waste and has presented no evidence, in
5 its case-in-chief, of any waste in the Bone Spring
6 Pool.

7 As to the Wolf-Bone Pool, even using
8 Coterra's economic model, once updated with Permian
9 Resources, actual updated AFE costs goes positive.
10 There's no evidence at all of Permian Resources wells
11 being unnecessary or causing economic waste. As to the
12 economic waste argument, we're not saying it's
13 irrelevant. We're saying it doesn't exist. If Coterra
14 doesn't like the plan, they can go non-consent. They
15 can sell their interest. They can trade out. They can
16 -- they can do anything that they want, but they don't
17 have to participate. They don't have to put forward
18 any capital whatsoever. That's the entire point of
19 compulsory pooling in New Mexico. If a party doesn't
20 like the plan, doesn't agree with it, then they can go
21 non-consent, and they can be forced to pool.

22 The statute allows operators the right to
23 pursue production of their own resources without the
24 impediment of recalcitrant owners, which is what we
25 have here. Remember, Coterra is the only party that

1 actually opposes this proposal going forward. Infill
2 wells, if Coterra were to come back and do so, will
3 cause substantial depletion and degradation of
4 resources. Testimony that both parties have presented
5 today. Even setting aside all these other facts that I
6 just reviewed, Coterra cannot show that their plan
7 will be implemented without waste. That's critical.
8 Nor can they say -- nor can they show that their plan
9 can be implemented without impairing
10 the correlative rights, including owners in the Bone
11 Spring Formation, where Coterra proposes to take 30
12 percent of production from Bone Spring owners and
13 allocate it to the Wolfcamp below. Depth severances in
14 New Mexico in -- in -- in pools, in the same pool, is
15 a very common occurrence.

16 It is a garden variety of pooling. It happens
17 nearly every month. Where there's a depth severance in
18 a pool and owners proposing the wells seek to pool
19 uniform portions of the -- of a vertical pool in order
20 to maintain uniform ownership. That is a -- that is a
21 common occurrence. It happens every month. It's
22 important to recognize that we're not talking about
23 proration units. You heard that word over and over
24 again during closing. These are not proration units.
25 In New Mexico, we have spacing units, and we have

1 proration units, and they're very different. It's
2 important to understand that. As to horizontal wells,
3 we do not have proration units. This is a spacing
4 unit. It's a substantial difference, and New Mexico
5 law clearly articulates the difference, and the
6 regulations do as well. In this instance, we do not
7 have a proration unit. Under a spacing unit,
8 allocation is based on a -- on -- strictly on a
9 surface acreage spacing -- strictly on a surface
10 acreage spacing basis for compulsory pooling. In the
11 closing, you've heard no -- no -- no -- the closing
12 failed to articulate any evidence adduced directly in
13 the hearing that supports a 70-30 allocation because
14 there is none.

15 Coterra made no showing that their share of
16 production, nor can they show any impairment of
17 correlative rights. They didn't -- did -- did not do
18 so during -- during the course of the presentation of
19 their case. They made no showing that their share -
20 - what their share of production is or what it should
21 be, and therefore, they have not been able to show
22 that their correla -- correlative rights will be
23 harmed. Similarly, for the same reasons, they cannot
24 show that there will be a taking, nor can they show,
25 or have they shown, that a substantial portion of

1 their ownership rights will be wiped out by --
2 by Permian's plan, which is a requirement to show
3 regulatory taking. Nor can they when, under Permian's
4 plan, they're going to be making far more in revenue
5 than they would be under their own.

6 The Santa Fe Exploration case that you heard
7 reference to both in the pre-hearing statement and
8 again in closing, it's not a compulsory pooling case.
9 It's an allowables case. In that context, the
10 Commission and Division have broad discretion to
11 allocate production as the evidence that supports and
12 as they deem fit -- as the Commission deems fit.
13 Completely separate case, completely inapplicable in
14 the context of this case.

15 As to the Wolf-Bone pool itself, Coterra was
16 a party to that case, was a co-applicant, and proposed
17 that the entire Wolf-Bone pool include not just the
18 Third Bone Spring and the Wolfcamp XY, but also the
19 Wolfcamp A as part of a common source of supply. And
20 they did not object to its inclusion. But now they're
21 saying that there's negligible contributions from that
22 portion of the pool to the reservoir. At the same
23 time, they're also saying that they intend to develop
24 the entirety of the pool. They're in complete
25 conflict, but the point is that their own testimony

1 demonstrates that they intend to develop a substantial
2 portion of the Wolfcamp A without allocating any
3 production to that portion of the pool, excluding
4 effectively 42 percent of the porosity of the pool. So
5 if you're going to use phi-H as a basis for
6 allocation, then use phi-H, but use it across the
7 entire pool. If it's a common source of supply, then
8 the entire pool is a common source -- common source of
9 supply and use the allocation across the entire
10 portion of the pool.

11 But here, the problem is, phi-H is not a
12 reliable indicator of oil production. The evidence
13 clearly shows, at best, even assuming the testimony of
14 Coterra's witnesses is accurate, you're dealing with a
15 34 percent variance. Too big a number to -- to apply
16 in a situation where you're allocating tens of
17 millions of dollars. The evidence does not support
18 that as a basis for -- for allocation. It does not
19 support that it's necessary to overcome any concerns
20 about correlative rights.

21 Instead, under the evidence, the statutory
22 allocation should be applied, whereby surface acreage
23 is the basis for allocation. And that's been the
24 standard for years, and nothing has been presented in
25 this case to overturn that. With that, we ask that the

1 Commission grant the applications of permitting
2 resources, affirm the decision of the division below,
3 and deny Coterra's competing applications. We
4 appreciate your time.

5 THE CHAIR: Thank you very much. Appreciate
6 everybody's time and attention on this matter. I just
7 have a couple of housekeeping items. For the
8 transcriptionists, do we have an idea of when we might
9 be able to get a transcript of the proceedings? No
10 idea?

11 THE CLERK: Video and audio (INAUDIBLE)
12 Veritext.

13 THE CHAIR: Commission clerk do you happen to
14 have an idea?

15 THE CLERK: Our contract with the court
16 reporter is 14 days.

17 THE CHAIR: 14 days?

18 THE CLERK: So we should proceeded 14 days.
19 To close the hearing

20 THE CHAIR: I'm sorry, I didn't quite catch
21 that. Say that again. Fourteen days from today.

22 THE CLERK: Close of the hearing yet.

23 THE CHAIR: Got it. Okay. I -- Imagine
24 transcripts might be helpful for drafting of a natural
25 decision. Okay. I'm going to go into a closed session

1 now. To bring in some preliminary decisions it would -
2 - I'll just say it myself. I do not expect to be able
3 to give the parties a full decision by the end of the
4 day today. We may need to set a special meeting of the
5 Commission to come back to you guys with a decision on
6 -- on -- in an open forum on the record. We will keep
7 you guys appraised of when you might be able to expect
8 that as quickly as possible. But we will go into a
9 closed session to deliberate while questions are still
10 fresh to at least get some preliminary thoughts
11 together.

12 COMMISSIONER THOMPSON: Let's do the
13 mechanics. We need a motion to go into a closed
14 session. Is there any exception in the Open Media Act?
15 Can I have such a motion?

16 THE CHAIR: I second.

17 COMMISSIONER THOMPSON: Ms. Apodaca, roll
18 call, please.

19 MS. APODACA Okay. Commissioner Chang?

20 THE CHAIR: Yes.

21 THE CLERK: Commissioner Thomson?

22 COMMISSIONER THOMPSON: Yes.

23 THE CHAIR: Well, we'll go into closed
24 session. I think everybody else will be adjourned for
25 the day. Thank you guys very much and have a great

1 weekend.

2 MR. RANKIN: Thank you, Mr. Chair.

3 THE CHAIR: Thank you.

4 MR. RANKIN: Mr. Chair, just out of
5 curiosity, should we -- should the parties hang out
6 for a bit or do you think you're --you're advising us
7 that we're free to go because you're not going to come
8 back with a decision today?

9 THE CHAIR: I think -- I think for
10 formality's sake, we'll come back to announce that
11 we're out of closed session, but I don't think we'll
12 have anything for you that will be substantive of
13 interest to the parties today that's ready to be
14 announced, so I think you can all enjoy an early
15 weekend.

16 MR. RANKIN: Thank you.

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CERTIFICATE OF TRANSCRIBER

I, JOHN SMITH, do hereby certify that this transcript was prepared from the digital audio recording of the foregoing proceeding, that said transcript is a true and accurate record of the proceedings to the best of my knowledge, skills, and ability; that I am neither counsel for, related to, nor employed by any of the parties to the action in which this was taken; and, further, that I am not a relative or employee of any counsel or attorney employed by the parties hereto, nor financially or otherwise interested in the outcome of this action.

October 3, 2025

John Smith

JOHN SMITH

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