

STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION DIVISION

IN THE MATTER OF THE HEARING CALLED
BY THE OIL CONSERVATION DIVISION FOR
THE PURPOSE OF CONSIDERING:

APPLICATION OF HILCORP ENERGY
COMPANY FOR AN EXCEPTION TO THE
WELL DENSITY REQUIREMENTS OF THE
SPECIAL RULES AND REGULATIONS OF
THE BLANCO-MESAVERDE GAS POOL,
RIO ARriba COUNTY, NEW MEXICO. CASE NO. 16153

Consolidated with

AMENDED APPLICATION OF HILCORP
ENERGY COMPANY FOR AN EXCEPTION TO
THE WELL DENSITY REQUIREMENTS OF
THE SPECIAL RULES AND REGULATIONS
OF THE BLANCO-MESAVERDE GAS POOL,
RIO ARriba COUNTY, NEW MEXICO. CASE NO. 16154

Consolidated with

APPLICATION OF HILCORP ENERGY
COMPANY FOR AN EXCEPTION TO TE
WELL DENSITY REQUIREMENTS OF THE
SPECIAL RULES AND REGULATIONS OF
THE BLANCO-MESAVERDE GAS POOL,
SAN JUAN COUNTY, NEW MEXICO. CASE NOS. 16194 -
16204

REPORTER'S TRANSCRIPT OF PROCEEDINGS
EXAMINER HEARING
May 31, 2018
Santa Fe, New Mexico

BEFORE: WILLIAM V. JONES, CHIEF EXAMINER
LEONARD LOWE, TECHNICAL EXAMINER
PHILLIP GOETZE, TECHNICAL EXAMINER
DAVID K. BROOKS, LEGAL EXAMINER

This matter came on for hearing before the
New Mexico Oil Conservation Division, William V. Jones,
Chief Examiner, Leonard Lowe and Phillip Goetze,
Technical Examiners, and David K. Brooks, Legal
Examiner, on Thursday, May 31, 2018, at the New Mexico
Energy, Minerals and Natural Resources Department,
Wendell Chino Building, 1220 South St. Francis Drive,
Porter Hall, Room 102, Santa Fe, New Mexico.

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1 APPEARANCES

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1 (2:05 p.m.)

2 EXAMINER JONES: Let's go back on the
3 record this afternoon.

4 This is May the 31st, 2018. We'll continue
5 and call the Hilcorp cases.

6 Which ones do you want to combine?

7 MR. RANKIN: We're going to combine,
8 Mr. Examiner, Case Numbers 16153, 16154 and then 16194
9 through 16204, everything but for Case 16193.

10 EXAMINER JONES: Okay. I'll go through
11 what we're calling this afternoon. Let's call Case
12 Number 16153, application of Hilcorp Energy Company for
13 an exception to the well-density requirements of the
14 special rules and regulations of the Blanco-Mesaverde
15 Gas Pool, Rio Arriba County, New Mexico.

16 Case Number 16154 is the amended
17 application of Hilcorp Energy Company for an exception
18 to the well density requirements of the special rules
19 and regulations of the Blanco-Mesaverde Gas Pool, Rio
20 Arriba County, New Mexico.

21 And on page 10, I'm going to call Case
22 Numbers 16194, 16195, 16196, 16197 and 19198. These are
23 all the application of Hilcorp Energy Company for an
24 exception to the well density requirements of the
25 special rules and regulations of the Blanco-Mesaverde

1 Gas Pool, San Juan County, New Mexico.

2 And on page 11, those all have the same
3 title as before. We're going to Case Numbers 16199,
4 16200, 16201, 16202, 16203. And on page 12, it's the
5 same also. The case name is the same. And let's call
6 Case Number 16204.

7 Call for appearances in these consolidated
8 cases.

9 MR. RANKIN: Thank you, Mr. Examiner.

10 Adam Rankin with the law firm of Holland &
11 Hart in Santa Fe. I've got two witnesses for these
12 consolidated cases.

13 EXAMINER JONES: Any other appearances?

14 There being none, will the witnesses please
15 stand and the court reporter please swear the witnesses?

16 (Mr. Creekmore and Ms. Sivadon sworn.)

17 MR. RANKIN: Mr. Examiner, I'd like to call
18 our first witness, Mr. Chuck Creekmore.

19 CHARLES E. CREEKMORE,
20 after having been first duly sworn under oath, was
21 questioned and testified as follows:

22 DIRECT EXAMINATION

23 BY MR. RANKIN:

24 Q. Good afternoon, Mr. Creekmore. Will you please
25 state your full name for the record?

1 A. Charles Creekmore.

2 Q. By whom are you employed?

3 A. Hilcorp Energy.

4 Q. In what capacity?

5 A. I'm a landman.

6 Q. And have you previously testified before the
7 Division and had your credentials as an expert in
8 petroleum land matters accepted as a matter of record?

9 A. Yes, I have.

10 Q. Have you studied the applications that were
11 filed in this case?

12 A. Yes.

13 Q. Have you conducted a study of the lands at
14 issue in each of these consolidated cases?

15 A. Yes.

16 MR. RANKIN: Mr. Examiner, I would retender
17 Mr. Creekmore as an expert in petroleum land matters.

18 EXAMINER JONES: He's qualified as an
19 expert in petroleum land matters.

20 MR. RANKIN: Thank you, Mr. Examiner.

21 Q. (BY MR. RANKIN) Mr. Creekmore, are the
22 acreages -- the lands at issue in these consolidated
23 cases, are they all subject to the special pool rules
24 for the Blanco-Mesaverde Gas Pool?

25 A. Yes, they are.

1 Q. And what are the special pool rules in that
2 pool? What are the limits at issue?

3 A. Well, the spacing units are on a 320-acre basis
4 and then there is four-well density, two wells per
5 quarter section.

6 Q. And is Hilcorp seeking relief from those
7 density exceptions in these cases?

8 A. Yes, we are.

9 Q. And can you give a brief summary of what
10 Hilcorp is seeking with respect to these consolidated
11 cases?

12 A. Well, let me break them down to the Rio Arriba
13 cases, which are unit cases. In Case Number 16153,
14 which is the 28-6-120 well, we're asking for a fifth
15 vertical well in the spacing unit and three wells in a
16 quarter section.

17 And in Case Number 16154, we are seeking
18 approval for three wells in a quarter section. And
19 we're -- I don't know that we had the two we're carrying
20 over. But they're also asking for a fifth well in the
21 spacing unit in three and a quarter.

22 EXAMINER JONES: Okay.

23 THE WITNESS: And then in the San Juan
24 cases, we're asking for a fifth vertical well in all the
25 spacing units, and, again, three-and-a-quarter section,

1 except for 16194, which are the Burlington Gas Com
2 wells, and we've combined those cases. And we're asking
3 for a fifth and sixth vertical well and four wells in
4 the same quarter section.

5 **Q. (BY MR. RANKIN) Now, do the special pool rules**
6 **provide that the exceptions -- that there may be**
7 **exceptions granted?**

8 A. Yes, sir. They do allow for that.

9 **Q. And is there a provision we have to go to**
10 **hearing for those exceptions?**

11 A. Well, they say that we do have to go to hearing
12 to accomplish that.

13 **Q. Now, if you'd just give a summary,**
14 **Mr. Creekmore, why it is that Hilcorp is seeking these**
15 **density exceptions generally?**

16 A. Well, we have determined -- and we've been here
17 before -- that there are areas, some of them due to
18 terrain and other reasons -- that the 320-acre section
19 or the quarter section weren't fully drained, and there
20 is an opportunity to acquire more production. And to
21 avoid that, we feel like would be waste.

22 **Q. And so for each of these cases, there is an**
23 **existing Dakota completion; is that correct?**

24 A. Yes.

25 **Q. And you're seeking to come uphole in the**

1 **Mesaverde to do a completion in that zone?**

2 A. Yes.

3 **Q. And has the Division previously granted**
4 **preapproval for dual commingling or commingling between**
5 **the Dakota and the Mesaverde Formation?**

6 A. Yes, sir.

7 **Q. So the only limitations imposed that you're**
8 **seeking exceptions for would be the well-density**
9 **exceptions?**

10 A. Yes.

11 **Q. Are there any, to your knowledge, trimingling**
12 **situations in any of these cases presented today? Do**
13 **you understand these are all between the Dakota and the**
14 **Mesaverde; is that correct?**

15 A. Yes, that is correct.

16 **Q. Now, just to reorient the Examiners to the**
17 **exhibit notebook, would you just review for the**
18 **Examiners how the exhibits in the exhibit notebook are**
19 **presented with respect to each case?**

20 A. Well, they're all in the same format, and
21 we've -- the first few -- the first five tabs in each
22 one of the cases deals with the location of the wells,
23 overall location, location of specific wells and then
24 the issues with notice.

25 **Q. Now, speaking of notice, how did -- how has**

1 **Hilcorp provided notice to the affected parties to each**
2 **of these cases?**

3 A. Well, we're the operator. We provide notice to
4 all the other nonoperators and offsetting -- the
5 offsetting wells, we provide notice to the operators,
6 and we have done so.

7 Q. Okay. And if Hilcorp is itself an operator of
8 the offsetting spacing unit, then who do they provide
9 notice to at that point?

10 A. We go further and provide notice to the other
11 parties within those units. Some of those were 100
12 percent, though.

13 Q. So in some circumstances, Hilcorp itself was a
14 100 percent working interest in the offset spacing unit?

15 A. Right. That's correct.

16 Q. So let's talk a little bit about your
17 discretions with the BLM and the State Land Office.
18 Have you maintained contact with the BLM and the State
19 Land Office? And do they remain -- are they in support
20 of this program?

21 A. Yes. Yes. I talked with Dave Mankiewicz with
22 the BLM and Ed Martin with the State Land Office, and
23 they're -- they're encouraging us to go ahead and do
24 these projects.

25 Q. So, Mr. Creekmore, we'll discuss one case as a

1 demonstrative or an example case. And I'd like for you
2 to turn to the first case in your exhibit notebook,
3 which is Case Number 16154, which involves the San Juan
4 28-6 Unit 117 well.

5 A. Yes.

6 Q. Will you flip to the first tab in Exhibit
7 Number 1 and just review for the Examiners what this
8 overview map shows?

9 A. Yes. One thing I do want to point out, the
10 first well is the San Juan 28-6-120, and the 120 got
11 left off. You go down to the next well -- we're showing
12 all the unit wells in this overview here, and all four
13 wells in the units that we're talking about are listed
14 here. And this is the same one in all four of the unit
15 exhibits, this overview map.

16 Q. So you were referencing the legend on the
17 left-hand side of the page?

18 A. Yes.

19 Q. The key left off the identification of the --

20 A. On the top one.

21 Q. -- of the 120 well?

22 A. Yes. And that's the 120.

23 Q. So this overview map shows the location of the
24 spacing units for each of the unit wells that are the
25 subject of these consolidated cases today, correct?

1 A. That is correct.

2 Q. And now Exhibit 1 for the other nonunit cases
3 is a different exhibit, but it's also an overview map
4 showing the location of each of the spacing units for
5 the nonunit cases; is that correct?

6 A. Yes. And the top area, those are two separate
7 wells that are set out up there.

8 Q. What does Exhibit Number 2 show?

9 A. Exhibit Number 2 gives the well specific for
10 the 117, and as you can see, there are four wells which
11 are allowed. When we recomplete the 117, there will be
12 three wells in a quarter-quarter section.

13 Q. So you're not --

14 A. I mean a quarter section, not a
15 quarter-quarter. Sorry.

16 Q. Okay. So for this spacing unit, you're not
17 exceeding the four-well unit, but you're -- you're going
18 to be having a third well in a quarter section?

19 A. Yes, that's correct.

20 Q. All right. So what is the red line -- what is
21 the red box surrounding that spacing unit?

22 A. The red box incorporates all the offsetting
23 operators.

24 Q. Okay. And those are the parties that you
25 provided notice to?

1 A. Right. We're the operator of the 28-6, and
2 then you see at the top of the page the 29-6. We
3 operate both those units.

4 Q. So Exhibit 2 for each of those consolidated
5 cases is a similar map showing the spacing unit and the
6 notice area to whom the affected parties were given
7 notice?

8 A. That is correct.

9 Q. Now, what is Exhibit 3?

10 A. Exhibit 3 are all of the working interest
11 owners inside the 28-6. And then as I said, the 29-6,
12 we combined all the nonoperators in those units to give
13 notice to.

14 Q. Okay. So this is all the parties who received
15 notice -- identified as being affected by the
16 application and to whom you provided notice; is that
17 correct?

18 A. Yes, and just based on the joint interest
19 billing for each of the wells.

20 Q. And is Exhibit Number 4 a copy of the attorney
21 affidavit prepared by me and my office indicating we
22 provided notice to all of those parties you identified
23 to us in Exhibit 3?

24 A. Yes, it is.

25 Q. And behind that affidavit, is that a copy of

1 the notice letters that were sent out to each of those
2 parties?

3 A. Yes.

4 Q. Following those notice letters, is there a copy
5 of the United States Postal Service green card receipt
6 information indicating each of those parties were
7 provided notice?

8 A. Yes.

9 Q. Following that series of pages, is there a
10 confirmation of tracking information for each of those
11 parties?

12 A. Yes.

13 Q. Now, does this show that a few of the parties
14 listed are still -- receipt is still pending?

15 A. Yes. They're showed as in transit.

16 Q. Now, with respect to those folks who have
17 not -- for which the tracking information doesn't show
18 they actually received notice yet, are those the correct
19 and valid addresses for each of those parties?

20 A. Those are the addresses we use for joint
21 interest billing. Yes.

22 Q. And have those individuals previously received
23 mailings at those addresses --

24 A. Yes.

25 Q. So likely it's just a matter of time. They

1 haven't picked them up yet, or it hasn't been reflected
2 in the tracking information?

3 A. That is correct.

4 Q. In addition to providing certified-mail notice
5 to each of the parties, did our office also publish
6 notice in the newspaper in the county --

7 A. Yes.

8 Q. -- reflecting these parties by name?

9 A. Yes.

10 Q. Is that reflected in Exhibit Number 5?

11 A. Yes, that's correct.

12 Q. Have any of the parties in any of these
13 consolidated cases objected in any way to any of these
14 applications prepared by Hilcorp?

15 A. No, they have not.

16 Q. And with respect to each of these cases that
17 are included your exhibit notebook, are each of the
18 addresses you've identified and to which notice has been
19 provided -- are they all valid and correct addresses?

20 A. Yes.

21 Q. And that's based on what? On prior mailings
22 being received by those individuals?

23 A. Yes.

24 Q. And with respect to all the nonunit cases, did
25 every individual who was provided notice actually sign

1 for notice and receive notice in those cases?

2 A. Yes, they did.

3 Q. Okay. And then with respect to the unit cases,
4 there were still some individuals, as in the first case
5 we reviewed, that did not yet indicate they had signed
6 or actually received notice?

7 A. Correct.

8 Q. But for those individuals, were they -- same
9 thing. Were they valid and correct addresses?

10 A. Yes.

11 Q. And that was based on prior notice having been
12 received by those individuals at those addresses?

13 A. Correct. Yes.

14 Q. And in every other case, we also provided
15 Notice of Publication, identifying each and every party
16 in every case by name, correct?

17 A. Yes. Your office had notice in the respective
18 papers in San Juan County.

19 Q. Mr. Creekmore, has the company also brought an
20 engineering witness to discuss the technical aspects of
21 the determination that there are unrecovered reserves
22 for each of these cases; is that correct?

23 A. That's correct.

24 Q. And that witness will be testifying next,
25 right?

1 A. Yes.

2 **Q. Were Exhibits 1 through 3 prepared by you or**
3 **under your direction and supervision?**

4 A. Yes.

5 MR. RANKIN: Mr. Examiner, I would move the
6 admission of Exhibits 1 through 5. Exhibits 4 and 5
7 were prepared by my office or by the newspaper -- we
8 prepared the affidavits of publication in each of the
9 cases consolidated for hearing today.

10 EXAMINER JONES: Exhibits 1 through 5 in
11 each of these consolidated cases are admitted. So 13 of
12 them?

13 MR. RANKIN: 13.

14 EXAMINER JONES: 13.

15 (Hilcorp Energy Company Exhibit Numbers 1
16 through 5 are offered and admitted into
17 evidence.)

18 MR. RANKIN: No further questions. I pass
19 the witness.

20 EXAMINER JONES: Mr. Lowe?

21 CROSS-EXAMINATION

22 BY EXAMINER LOWE:

23 **Q. Have you verified that these were, I guess,**
24 **received on the receiving end, because the dates on here**
25 **are the latter part of April and the beginning of**

1 **April -- of May?**

2 MR. RANKIN: Some of these -- these were
3 just -- I can answer that question because it was our
4 office that prepared the tracking information. We
5 just pulled down the tracking information this week. So
6 that's as updated as they were based on the information
7 we had. So that's --

8 EXAMINER LOWE: Basically you're waiting
9 about a month.

10 MR. RANKIN: Some of them. Mr. Creekmore
11 can actually address one of the individuals. I think
12 it's Ms. Beamon.

13 THE WITNESS: Correct. We've had trouble
14 locating her before. She has a -- she stays here in
15 Santa Fe, and she has another home in California. And
16 we send it to the billing address, but we've had to send
17 it to California where she also has a home.

18 MR. RANKIN: Yeah. So sometimes when we
19 she's not here, it's some time before she picks it up.
20 You know, she's in California.

21 EXAMINER LOWE: That's all the question
22 I've got.

23 EXAMINER JONES: Mr. Goetze?

24 EXAMINER GOETZE: No questions for this
25 witness. Thank you.

1 EXAMINER BROOKS: No questions.

2 CROSS-EXAMINATION

3 BY EXAMINER JONES:

4 Q. So she's here in town, and there are another
5 three in transit listed here. But BP America was in
6 transit. Carolyn Beamon Tilley --

7 A. Again, we've had trouble with BP because
8 they're moving their offices to Denver, and their
9 Houston offices were flooded. But we still have trouble
10 getting them to sign for these for some reason. I don't
11 know.

12 MR. RANKIN: Mr. Examiner, if you turn
13 to -- I think it's the third case in the folder. It's
14 the San Juan 28-6 Unit 133. So some of these
15 individuals for some cases in this set of exhibits or
16 these consolidated cases -- BP signed and received
17 notice, and in some cases, they didn't. So I think it's
18 just a matter of timing. If you look at that notice,
19 you'll see BP is the first party on the first page. The
20 second page shows the status of the delivery, and it
21 shows they did actually receive notice for that case.
22 And the same is true for some of the other individuals.
23 In fact, Sharon Beamon received other notices in some of
24 the other cases. So for some cases, they did receive,
25 and in other cases, they didn't. So I think it's just a

1 matter of timing of when they picked up their mail,
2 seems to be.

3 Q. (BY EXAMINER JONES) BP is another big operator.
4 But have you talked to them lately? Are they still
5 happy with this.

6 A. Yes. They have not objected to this. I've
7 talked to Craig Ferguson today, as a matter of fact --
8 not on this, but I've talked to him, and he's fully
9 aware of what we're doing.

10 Q. Are there any other operators -- big operators
11 that I would recognize that you had to notice in this
12 set of 13 applications, or did you -- they were -- have
13 you talked to any of the other operators? I should say
14 that.

15 A. Well, I defer to -- because of the
16 time-consuming nature, we've allowed the law firm to
17 send out notices.

18 Q. You haven't had objections, though, from
19 anybody?

20 A. No. No. No, we have not. And we have done
21 previous ones in these units, brought previous cases in
22 these units.

23 Q. Can I ask you this: Do you have a data-sharing
24 arrangement with BP or some of these others, or can you
25 say that about the results of these infills?

1 A. Well, I can go call Craig Ferguson -- take a
2 break -- their landman. If you'll excuse me, I can do
3 that real quick.

4 Q. No, no. That's fine. I just -- they're
5 interested in it, but we haven't seen them come up and
6 propose these themselves. So is there a reason for
7 that; do you know? That would be secondhand --

8 A. Yeah.

9 EXAMINER BROOKS: Hearsay.

10 EXAMINER JONES: Yeah, hearsay.

11 THE WITNESS: The units are a little south
12 of their primary area. They're concentrating on -- in
13 the NEBU Unit doing horizontal wells and things like
14 that.

15 Q. (BY EXAMINER JONES) Okay. I guess I should
16 quit asking here, but the Dakota -- I mean, it's got to
17 have spacing units that need an additional well in the
18 Dakota, and that would probably require you to drill
19 another well.

20 A. Right.

21 Q. And you can't afford that right now, or you
22 can't --

23 A. We're avoiding that because these are so
24 economical to drill, and our engineer can get into that
25 a little bit more. But we're trying to avoid new drills

1 and trying to take advantage of existing wellbores and
2 going back in because it has been very economical.

3 Q. Okay. It would be.

4 What about -- if did you do new drills,
5 would you -- would you -- would you in some cases have
6 to do S-shaped wells, or would it always be new surface
7 locations?

8 A. Well, that depends.

9 Q. In the Dakota.

10 A. In the Dakota --

11 Q. Which is not a subject here at all. I'm just
12 asking.

13 A. Right. I don't know how to answer that. We
14 don't have -- I'm not aware of any -- and, of course, I
15 just have one primary area, but I'm not aware of any new
16 drills that we're focusing on because the returns are so
17 much greater when we use an existing wellbore.

18 Q. Okay. Have you had to do any additional
19 pipeline rights-of-way to gather more gas or get it at a
20 lower -- lower pressure or --

21 A. Well, because these are existing wellbores and
22 we already have four producing Mesaverde wells, I'm not
23 aware of that being a problem.

24 Q. It's not a situation where you're requiring
25 more -- a lot more surface infrastructure even on

1 **existing --**

2 A. No. As a matter of fact, we're preventing
3 surface damage by using -- utilizing these existing
4 wellbores, and that's -- that's another advantage of
5 doing these recompletions.

6 Q. Yeah. Because it's downhole commingled, so you
7 have your same surface separator involved.

8 A. Right.

9 Q. Okay. Okay. Thanks very much.

10 **CROSS-EXAMINATION**

11 BY EXAMINER BROOKS:

12 Q. So there are no new drills involved in this
13 package?

14 A. No. No.

15 Q. Okay. Thank you.

16 MR. RANKIN: No further questions,
17 Mr. Examiner.

18 We'd dismiss Mr. Creekmore and call our
19 second witness, Michelle Sivadon.

20 EXAMINER JONES: I think we've seen her
21 before also.

22 EXAMINER GOETZE: While she's coming up,
23 the amended application, what was that about?

24 EXAMINER JONES: I should have asked that.

25 MR. RANKIN: I do not remember the

1 application -- I don't recall what the issue. I didn't
2 review it before today, so I can't recall what the issue
3 was. I think it was a vertical issue. It may be in the
4 wrong county, or -- I just don't remember.

5 EXAMINER GOETZE: A detail?

6 MR. RANKIN: Yeah.

7 EXAMINER GOETZE: Thank you.

8 MICHELLE M. SIVADON,
9 after having been previously sworn under oath, was
10 questioned and testified as follows:

11 DIRECT EXAMINATION

12 BY MR. RANKIN:

13 Q. Ms. Sivadon, would you state your name for the
14 record?

15 A. Yes, sir. Michelle Marie Sivadon.

16 Q. And by whom are you employed?

17 A. Hilcorp Energy Company.

18 Q. In what capacity?

19 A. I am a senior reservoir engineer working in the
20 San Juan, East.

21 Q. Have you previously testified before the
22 Division and had your credentials as an expert reservoir
23 engineering accepted as a matter of record?

24 A. Yes, I have.

25 Q. Are you familiar with the applications filed in

1 **these 13 cases?**

2 A. Yes, sir.

3 **Q. Have you conducted an engineering study with**
4 **respect to each of these cases?**

5 A. Yes.

6 MR. RANKIN: And, Mr. Examiner, I would
7 retender Ms. Sivadon as an expert in reservoir
8 engineering.

9 EXAMINER JONES: She is so qualified.

10 **Q. (BY MR. RANKIN) Ms. Sivadon, just before we**
11 **start, would you just review for the Examiners your**
12 **analytical approach to determining whether the existing**
13 **well density remains the appropriate well density for**
14 **each of these cases?**

15 A. Yes, sir. So for each of the proposed
16 Mesaverde take points that we're proposing, we've looked
17 at it a couple of different ways. We've looked at
18 calculating drainage areas to give us an idea of where
19 there may be undrained reserves and we need an
20 additional take point to drain those reserves. And
21 we've also done volumetric calculations calculating the
22 original gas in place, subtracting what's been produced
23 to date, seeing what that recovery efficiency is, and
24 then also, hence, the remaining gas in place to make
25 sure there are sufficient volumes to justify the capital

1 expenditure to put in another Mesaverde take point.

2 And then we also look at what we estimate
3 we're ultimately going to recover via a decline curve
4 analysis, look at that recovery efficiency as well and
5 make sure that there are additional incremental reserves
6 to be recovered with an additional Mesaverde take point.

7 Q. So based on that analysis in which you look at
8 the gas in place for each of these spacing units, have
9 you determined that there are unrecovered reserves for
10 each case under the existing well-density arrangement?

11 A. Yes.

12 Q. Before we move on and get into your analysis,
13 did you have -- are you able to answer some of
14 Mr. Examiner's questions that he was asking the previous
15 witness?

16 A. Yes, sir.

17 So a couple of questions that you asked:
18 Specific with Dakota wells -- or Dakota new drills, it
19 would be a combination of both probably S-type wells and
20 vertical wells. It would depend upon similar analysis
21 that we've done in the Mesaverde as to where we think
22 those undrained reserves are and what it would take to
23 get there and to topically plan somewhat of a role in
24 that.

25 And then with regards to surface footprint,

1 we're actually doing some things to lessen our surface
2 footprint. As an example, we have a lot of wellhead
3 compression, and we're finding that we actually get
4 better rates and lower our operating expenses by putting
5 in more common compression delivery points and
6 eliminating some of those wellhead compressors.

7 We have not had to do any additional
8 pipeline rights-of-way for any of the Mesaverde projects
9 we've presented. We've actually been very successful
10 with our gas gatherers and with them starting up
11 additional compression and helping us lower the surface
12 gathering pressure so that we can get increased rate and
13 return in the way of reserves.

14 EXAMINER JONES: Thank you.

15 THE WITNESS: You're welcome.

16 Q. (BY MR. RANKIN) And I don't know if you had,
17 maybe, some knowledge about BP.

18 A. The other question you were asking about was if
19 we had any conversations with BP on the results of our
20 Mesaverde projects. BP's been primarily focused on the
21 Mancos, especially in the NEBU Unit.

22 EXAMINER JONES: I bet they are.

23 THE WITNESS: Yes. Yes. So that's the
24 discussions that we've had primarily with BP. In the
25 particular area that I work, we have had one

1 conversation with BP about a well that we've identified
2 that we want to go add the Mesaverde, that they actually
3 own those mineral rights. So that's the only
4 conversation that we've had with them about the
5 Mesaverde, is if we could buy that wellbore from them.

6 Q. (BY MR. RANKIN) So let's go ahead and jump into
7 your analysis here, and we'll start with the same case,
8 Case Number 16154, which is the first case in the
9 exhibit notebook and the rates to the 28-6-117 well.
10 Will you please turn to what is marked as Exhibit Number
11 6?

12 A. Yes, sir.

13 Q. Would you review for the Examiners what this
14 exhibit shows and the analytical approach here?

15 A. Yes, sir. On the left-hand side is a map and
16 showing calculated drainage areas for each of the
17 historic and current Mesaverde take points within a
18 nine-section area of our proposed, or subject well in
19 this case, the San Juan 28-6 Unit 117.

20 The blue wagon wheels are all the current
21 and historic Mesaverde take points in this nine-section
22 area.

23 The red circle highlights the subject well
24 in which we are requesting permission to add the
25 Mesaverde to that Dakota only completion.

1 The size of the circles around each of
2 these blue wagon wheels, the brown circles, each of
3 those circles represents an approximation of what we
4 believe the drainage radius to be. This is just a
5 general representation for us, to help kind of guide us
6 as to where we think there may be undrained reserves.
7 You know, we're using estimated ultimate recoveries for
8 each of these wells, for those wells that are still
9 currently producing. You know, we're doing a decline
10 curve analysis to estimate what we're ultimately going
11 to recover. However, we do also have to assume a
12 recovery efficiency to calculate these drainage areas.
13 So that is an assumption that we're having to make in
14 calculating these drainage areas. So we use this as a
15 guide so it can kind of point us in the right direction
16 where we need additional Mesaverde take points.

17 With this particular location, you can see
18 we have some white space suggesting undrained reserves
19 to the north-northeast of the proposed location into the
20 west-southwest of this proposed location.

21 **Q. So because of those assumptions you just**
22 **referenced, if there is less or no white space, that**
23 **doesn't mean that there are no unrecovered reserves? I**
24 **mean, it doesn't mean that there is not -- the case that**
25 **there are reserves that remain unrecovered, right?**

1 A. Right. It doesn't mean that all the reserves
2 have been recovered and there is nothing left to be had
3 by putting in another additional Mesaverde take point.
4 It could be either that, you know, the assumption that
5 we made behind the recovery efficiency is incorrect, or
6 in some cases, it could be that the offsets that we're
7 calculating the drainage radiuses for, some of those
8 offsets may have been completed in two of the three
9 sands in the Mesaverde. So we would be for sure
10 recovering new reserves in the third sand that had not
11 been completed in those offsets.

12 **Q. So sometimes these bubble maps appear to show**
13 **not many reserves remaining, but, in fact, if you do**
14 **your numerical calculations using the decline curves,**
15 **you would actually see far lower recovery factor than**
16 **what may be depicted on this map; is that right?**

17 A. That is right. That's correct.

18 **Q. So we'll get to that analysis next.**

19 **So what is the next step in your analysis?**

20 A. So the next step in our analysis --

21 **Q. Turn to the next exhibit.**

22 A. Yes, sir. Yes, sir. We'll turn to the next
23 exhibit, Exhibit 7.

24 **Q. Just review your conceptual approach to**
25 **determine where there may be some unrecovered reserves.**

1 A. Yes, sir.

2 So let me start with and what we've
3 presented before is we do calculated original gas in
4 place in the Mesaverde across the entire San Juan Basin.
5 The cooler colors are lower values. Warmer colors,
6 being the reds, the oranges and yellows, are higher
7 values.

8 We also have denoted on here, in a red
9 outline towards the center of the map, what is
10 considered to be the fractured area. There is some
11 evidence that there may be natural fractures
12 contributing to volumes produced in that area.

13 We also have a blue line going from the
14 northwest to the southeast called the Cliff House wet
15 line. What that means is any -- any wells to the left
16 or to the south of that line, we are not assigning any
17 original gas-in-place volumes to the Cliff House Sand,
18 which is one of the three sands within the Mesaverde
19 interval.

20 And what we've also noted on here is the
21 red star indicates this particular subject well, the
22 28-6 well 117. As you can see, it's in the
23 green-yellowish color suggesting that it's on the higher
24 end of original gas-in-place volumes. So we start with
25 that looking for higher gas-in-place volumes.

1 And then the next map behind that within
2 the same exhibit, we look at cumulative gas produced
3 within the Mesaverde across the San Juan Basin. Again,
4 same color scheme. The cooler colors are lower values.
5 The warmer colors are higher values. And you can see
6 the highest concentration of higher produced gas volumes
7 is within this red outline and a naturally fractured
8 area. And actually within the naturally fractured area,
9 some of those produced gas volumes exceed what we
10 calculate to be original gas in place. So that's the
11 other indication that there may be some natural
12 fractures existing there.

13 And, again, the red star denoting the
14 location of the 28-6-117, and you can see that we're in
15 an area that's had moderate volumes of gas produced to
16 date.

17 And so then what we do is we take the
18 original gas in place. We subtract the cumulative gas
19 that's reduced, and we calculate a remaining gas in
20 place, which is the last map that you see in this
21 exhibit, into what I was addressing earlier. You can
22 see within the naturally fractured outlined that it's
23 white, which -- no remaining gas in place in those
24 particular areas. Some areas have actually
25 overproduced.

1 And then the red circle where the 117 is
2 located shows that it's on the higher end of the cooler
3 colors but still enough volume to make an economic
4 Mesaverde take point.

5 **Q. And are there -- have you also conducted -- you**
6 **alluded to an actual calculation of recovery factors for**
7 **each of these -- for this well in the spacing unit?**

8 A. Yes, sir.

9 **Q. And is that reflected -- is that analysis**
10 **reflected on Exhibit Number 8?**

11 A. Yes, it is.

12 **Q. Will you review that?**

13 A. Yes, sir.

14 In the first column are the reference areas
15 that we do volumetric calculations on. We look at three
16 different sizes or levels just to confirm that we're
17 seeing about the same recovery efficiencies and
18 confirming that we have sufficient volumes to propose an
19 additional Mesaverde take point and an economic
20 Mesaverde take point.

21 In the second column are the volumetric
22 original gas-in-place volumes for each of these
23 respective areas.

24 The third column is taking those original
25 gas-in-place volumes and just converting them to a

1 section level. This is just to confirm that we don't
2 see any changes in rock quality or reservoir quality
3 between the different areas that we're looking at.

4 The fourth column, our volumes of what we
5 cumulatively produced to date and their calculated
6 recovery factors.

7 The fifth column is what we're calculating
8 as remaining gas in place. Again, that's original gas
9 in place minus what's been cumulatively produced to
10 date.

11 And then in the last column is what we're
12 estimating we will ultimately recover for each of these
13 areas using the cumulative volumes from the historic
14 completions and doing a decline curve analysis on the
15 current completions to estimate what we will ultimately
16 recover. And also with that corresponding recovery,
17 what the efficiency factor is.

18 So for this particular well, these recovery
19 factors for the EURs are on the higher end of what we've
20 shown to the board so far, the Examiners. However, it's
21 still below what we would expect for a depletion drive
22 gas reservoir. We would expect that recovery factor to
23 be 80 percent to be optimal and to considered
24 sufficiently drained.

25 And so then you can also see, on a

1 quarter-section level, we're estimating that we have
2 3-and-a-half Bcf remaining in place, which is sufficient
3 volume for us to propose an additional Mesaverde take
4 point.

5 Q. Now, you've prepared the same or similar
6 analysis and reflected in the same or similar exhibits
7 for each of these consolidated cases, correct?

8 A. Yes, sir.

9 Q. And in your opinion, will the proposed well for
10 each of these cases recover additional gas in place that
11 would otherwise remain given the existing well density
12 in place?

13 A. Yes, sir. Those reserves would remain
14 undrained.

15 Q. And in your opinion, will the proposed
16 completions for each of these cases adversely impact the
17 reservoir energy, in your opinion?

18 A. No, sir.

19 Q. In your opinion, will the proposed additional
20 completions for each of these cases, will they
21 negatively impact correlative rights in any way?

22 A. No, sir.

23 Q. Now, if we were to go through the exhibits for
24 each of these cases, would your conclusions and analysis
25 be the same with respect to each and every one?

1 A. Yes, sir.

2 Q. In your opinion, Ms. Sivadon, will the granting
3 of Hilcorp's applications in each of these 13
4 consolidated cases be in the best interest of -- the
5 prevention of waste, the protection of correlative
6 rights and in the interest of conservation?

7 A. Yes, sir.

8 MR. RANKIN: With that, Mr. Examiner, I
9 would ask that Exhibits 6, 7 and 8 be admitted to the
10 record in each of these consolidated cases.

11 EXAMINER JONES: Exhibits 6, 7 and 8 are
12 admitted in each of these 13 consolidated cases.

13 MR. RANKIN: Thank you.

14 (Hilcorp Energy Company Exhibit Numbers 6,
15 7 and 8 are offered and admitted into
16 evidence.)

17 MR. RANKIN: No further questions of the
18 witness.

19 EXAMINER JONES: Mr. Lowe?

20 EXAMINER LOWE: I've got no questions.

21 EXAMINER JONES: Mr. Goetze?

22

23

24

25

1 CROSS-EXAMINATION

2 BY EXAMINER GOETZE:

3 Q. Okay. While perusing OCDOnline records, I
4 noticed in Case 16194 that the Burlington wells -- the
5 designated operator is XTO. How are we addressing that?

6 MR. RANKIN: That may be a circumstance
7 where I believe maybe Mr. Creekmore can address, but I
8 believe that there were some XTO assets acquired. So if
9 that hasn't been addressed, we will make sure it's
10 addressed.

11 Q. (BY EXAMINER GOETZE) We'd love to issue the
12 order, but we'd like to have the operator be the
13 operator.

14 A. Yes, sir. We did acquire XTO's assets in the
15 Basin.

16 Q. So before we go ahead and issue an order, we
17 like to make sure the operator's adequate.

18 A. Yes, sir.

19 Q. And then in the same case, again, what made you
20 go for five and six?

21 A. Recovery efficiencies are pretty low in that
22 quarter section and section. What we're proposing to do
23 is we want to start with one of them, see what we get
24 with that, see what we gain over time as far as
25 information and what it suggests that we're ultimately

1 going to recover from it before go forward with the
2 second one.

3 Q. And to gather with the XTO, the acquisition of
4 these properties, we're going to see more areas with the
5 same type of situation where you have more opportunity?

6 A. Yes, sir, probably will.

7 Q. All right. So we would be seeing more stacking
8 of five and six possibly down the road?

9 A. Could possibly, yes, sir. It will be area
10 dependent and what we're seeing from recovery
11 efficiencies for those areas.

12 Q. I know that the -- wells are very deep wells.

13 A. Okay.

14 Q. They're different from what we've been seeing
15 before.

16 A. Right. Right. Right.

17 Q. But they're by themselves, so the opportunity
18 is there.

19 A. Yes, sir.

20 Q. Okay. Thank you. No more questions.

21 A. Okay.

22 EXAMINER JONES: Mr. Brooks?

23 EXAMINER BROOKS: No questions.

24

25

1 CROSS-EXAMINATION

2 BY EXAMINER JONES:

3 Q. These areas that you -- it looks like there is
4 over 100 percent recovery. I know that -- based on
5 assumptions. But does your pressure data show that you
6 still have some remaining in those areas also, but you
7 might be able to recover them with the wells themselves
8 and not --

9 A. Right. So the pressure data is lower in those
10 areas. It's subeconomic --

11 Q. Is it?

12 A. -- right now for us to continue to produce
13 those.

14 Q. Oh, okay.

15 A. So, you know, maybe over time -- as we continue
16 to learn this better and tweak the surface-gathering
17 system, maybe at some point in time, it would make
18 sense, see if we can make those reserves economic.

19 Q. Okay. What about -- do you have -- have you
20 done normalized times zero-type curves of some of these
21 areas to see what the shape looks like?

22 A. Yes, sir. That's part of our standard
23 evaluation process for each of these Mesaverdes. It's
24 part of our standard internal evaluation process, is we
25 build type curves based on offsets to get a feel of what

1 we could expect.

2 **Q. So it's Point Lookout mainly, right?**

3 A. It's Point Lookout and Cliff House mainly, but
4 that's north of that wet Cliff House line. When you go
5 south of that wet Cliff House line, we are still
6 completing. There are lots of Mesaverde wells there as
7 well, but they're just Menefee and Point Lookout.

8 **Q. So there is some Menefee?**

9 A. Yes, sir. There is Menefee.

10 **Q. Okay. And do those decline curves -- are they**
11 **extremely hyperbolic, or are they mostly exponential?**

12 A. They are hyperbolic to exponential. What we
13 see typically, hyperbolic -- I don't know if you want me
14 to get into the details of B factor --

15 **Q. How big -- how big a factor is it starting out**
16 **there?**

17 A. So we see a range of B factors. It varies from
18 area to area. We've seen B factors, you know, as low as
19 just a little over 1 up to north of 2.

20 **Q. Okay.**

21 A. And then we typically see a terminal decline
22 rate -- a terminal exponential decline rate of somewhere
23 in the range of 3 to 5 percent.

24 **Q. 3 to 5?**

25 A. Yes, sir.

1 Q. So if it levels off at the lower -- really low,
2 like 3 percent, and it's still got some -- then you
3 might to want infill drill -- or infill complete --

4 A. Correct.

5 Q. -- in that area?

6 A. Right. Right. Right.

7 Q. Does Hilcorp operate up in the western Colorado
8 Piceance Basin?

9 A. No, sir. We are not currently in the Piceance
10 Basin.

11 Q. I understand that they've gotten the well
12 density down pretty low there.

13 A. Oh, okay. Okay.

14 Q. But --

15 A. We have lots of assets in the Rocky Mountains
16 but not in the Piceance.

17 Q. Oh, really?

18 A. Yes, sir.

19 Q. It's broken a lot of people in the past, I'm
20 sure.

21 A. Yes, sir (laughter).

22 Q. Expensive and I think surface topography
23 issues.

24 A. Yes, sir.

25 Q. But the gas gathering in these areas, is it

1 predominantly gas-fired compression still? You don't
2 have electric-powered compression?

3 A. No, sir, not that I'm aware of.

4 Q. Well, that's just you pay somebody and they
5 guarantee a certain run time.

6 A. Right.

7 Q. And they gather it.

8 A. Yes, sir.

9 Q. Okay. But you're optimistic about getting your
10 gathering pressure down lower?

11 A. Yes, sir. Yes, sir. In fact, in the eastern
12 portion of the Basin, we just recently did a big project
13 with Williams where we got them to bring on additional
14 compression. I forget the exact number of how far they
15 dropped the pressure from where we were, but we got an
16 incremental 7 million per day. I want to say it was
17 just a few pounds that they dropped.

18 Q. That's -- that's really interesting. That
19 means that you can make a lot of money by your doing
20 that.

21 A. Yes, sir. Yes, sir.

22 Q. Okay.

23 EXAMINER JONES: So this Number 16194,
24 we'll wait to hear from you guys on that, on the change
25 of operator, if it hasn't already been done.

1 MR. RANKIN: We'll make sure that's done
2 properly.

3 EXAMINER JONES: Is that the only one you
4 saw, Phil?

5 EXAMINER GOETZE: I only looked at five and
6 six. It provided a unique situation. The wells are
7 fairly deep, and the spacing around them, there is not
8 much activity. So it was a golden opportunity. And we
9 might be able to take some Colorado gas, too, so --

10 THE WITNESS: (Laughter.)

11 EXAMINER JONES: That's true.

12 I don't know if we have any more questions,
13 but thank you very much for coming --

14 THE WITNESS: Okay. Okay. Thank you.

15 EXAMINER JONES: -- and explaining all this
16 to us.

17 MR. RANKIN: No further questions from
18 myself.

19 With that, Mr. Examiner, I would ask that
20 the witness be dismissed, and we ask that these
21 consolidated cases be taken under advisement, with the
22 exception of 16194 so we can provide confirmation that
23 the operator has -- to the existing and current updated
24 operator.

25 EXAMINER JONES: Should we continue that

1 one for two weeks?

2 MR. RANKIN: At the most.

3 EXAMINER GOETZE: You made application for
4 the transfer, and it's still being processed?

5 MR. RANKIN: Yeah. I think the application
6 has been made, and as I understand it, it's being
7 processed in batches. So it should be in process. But
8 maybe perhaps we can confirm by email after today's
9 hearing. But I think I'd rather not have to keep it
10 open. We'd rather confirm by email.

11 EXAMINER JONES: I'm okay with that.

12 EXAMINER GOETZE: We're fine, but the
13 lawyer (indicating) should have a say in it.

14 EXAMINER JONES: Well, he's sitting there
15 chewing on his --

16 EXAMINER BROOKS: I'm trying to figure
17 out -- you suggested we continue this.

18 EXAMINER JONES: I threw that out because
19 of the --

20 EXAMINER BROOKS: I gather you would rather
21 not do that?

22 MR. RANKIN: Yeah. I'd rather be able to
23 address the question by email to supplement the record
24 to confirm that the operatorship -- change of
25 operatorship is in process rather than have to wait

1 another two weeks.

2 EXAMINER BROOKS: Is it okay if it's in
3 process?

4 EXAMINER GOETZE: I think that's enough,
5 just so we get confirmation. I think the scary part
6 would be issuing an order for which you are not an
7 operator.

8 EXAMINER BROOKS: I guess we can take it
9 into -- well, we wouldn't want them recompleting
10 somebody else's well either.

11 (Laughter.)

12 EXAMINER GOETZE: We try.

13 EXAMINER JONES: The system would stop that
14 kind of stuff anyway. And as we go through these --

15 EXAMINER BROOKS: I guess it's okay, bottom
16 line.

17 EXAMINER JONES: Okay. Let's take Cases
18 16153, 16154 and 16194 through 16204 under advisement.

19 Thank you very much.

20 MR. RANKIN: Thank you.

21 THE WITNESS: Thank you.

22 EXAMINER JONES: That's the end of this
23 docket, so the docket is closed.

24 (Case Numbers 16153, 16154 and 16194
25 through 16204 conclude, 2:54 p.m.)

1 STATE OF NEW MEXICO
2 COUNTY OF BERNALILLO

3

4 CERTIFICATE OF COURT REPORTER

5 I, MARY C. HANKINS, Certified Court
6 Reporter, New Mexico Certified Court Reporter No. 20,
7 and Registered Professional Reporter, do hereby certify
8 that I reported the foregoing proceedings in
9 stenographic shorthand and that the foregoing pages are
10 a true and correct transcript of those proceedings that
11 were reduced to printed form by me to the best of my
12 ability.

13 I FURTHER CERTIFY that the Reporter's
14 Record of the proceedings truly and accurately reflects
15 the exhibits, if any, offered by the respective parties.

16 I FURTHER CERTIFY that I am neither
17 employed by nor related to any of the parties or
18 attorneys in this case and that I have no interest in
19 the final disposition of this case.

20 DATED THIS 23rd day of June 2018.

21

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23 MARY C. HANKINS, CCR, RPR
24 Certified Court Reporter
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