

STATE OF NORTH DAKOTA
PUBLIC SERVICE COMMISSION

Coyote Creek Mining Company, L.L.C. : Case No.
Permit NACC-1302 : RC-13-850
Application :

TRANSCRIPT OF
FORMAL HEARING
VOLUME III - (Pages 352 - 478)

Taken At
State Capitol
Bismarck, North Dakota
January 2, 2015

BEFORE WADE MANN
-- ADMINISTRATIVE LAW JUDGE --

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COMMISSIONERS PRESENT:

COMMISSIONER JULIE FEDORCHAK, Chair
COMMISSIONER BRIAN P. KALK
COMMISSIONER RANDY CHRISTMANN

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FOR THE COMMISSION.

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COMPLAINANT'S EXHIBITS

<u>No.</u>	<u>Description</u>	<u>O</u>	<u>R</u>
15	1983 OSM AVF Identification Study Guidelines	462	462

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T A B L E O F C O N T E N T S (Cont'd)

APPLICANT'S EXHIBITS

<u>No.</u>	<u>Description</u>	<u>O</u>	<u>R</u>
13	Alluvial Valley Floor Evaluation Report Prepared by Dr. David Bickel	411	413
14	August 26, 2013, Letter	424	425
15	Readings from Groundwater Monitoring Well CM12-20C	435	438
16	Readings from Groundwater Monitoring Well CM12-08B	435	438

1 (The proceedings reconvened and continued
2 at 8:29 a.m., Friday, the 2nd day of January,
3 2015:)

4 JUDGE MANN: Good morning, everybody. We
5 are back on the record in Public Service Commission
6 Case Number RC-13-850. This is the continuation of
7 the formal hearing in this case that began on
8 December 19, 2014.

9 I believe when we last left off that,
10 Mr. Braaten, you had completed your case; is that
11 correct?

12 MR. BRAATEN: That's correct.

13 JUDGE MANN: Okay. And next up will be
14 Mr. Bjella.

15 I guess just before we get started, are
16 there any preliminary matters that we should
17 address before getting into Coyote Creek's portion
18 of the case?

19 Mr. Braaten, do you have anything?

20 MR. BRAATEN: I don't think so.

21 JUDGE MANN: Okay. Mr. Bjella?

22 MR. BJELLA: No, Your Honor.

23 JUDGE MANN: All right. And,
24 Commissioners, any comments before we get started?

25 Commissioner Christmann.

1 COMMISSIONER CHRISTMANN: Well, a question
2 for you because I'm still not sure exactly what
3 would be typical in a case like this, but do we
4 have kind of a schedule of who's going to testify?
5 Because I mean I've certainly put together a lot of
6 questions based on what I've heard the first two
7 days, but I'm kind of guessing as to who they're
8 for because I don't know --

9 JUDGE MANN: Well, I guess I don't -- we
10 don't have witness -- or I don't have witness
11 lists, but the -- I guess the order now will be
12 Coyote Creek will call each of its witnesses and
13 they'll be subject to examination in the same
14 manner as Mr. Braaten's witnesses were and then
15 followed up by Ms. Jeffcoat-Sacco's case. And she
16 will call her witnesses and it will be conducted in
17 the same manner. I guess I don't know who each of
18 the witnesses are.

19 COMMISSIONER CHRISTMANN: Okay. I have no
20 other comments then.

21 JUDGE MANN: Okay. Commissioner
22 Fedorchak?

23 COMMISSIONER FEDORCHAK: Yeah. Good
24 morning, everybody, and Happy New Year. I haven't
25 heard from you guys since last year.

1 I think it would be helpful at the start
2 of each -- of the cases this morning if you can lay
3 out who you plan to have and what you expect them
4 to address. Typically in some of our hearings
5 people do that, and it is helpful for us to know
6 who to direct our questions at, and it might save
7 the first witness from being bombarded with a bunch
8 of questions they aren't prepared for. So if
9 that's possible, I think that kind of gets to what
10 Randy is saying and I think that's helpful as well.
11 Otherwise, I don't have anything else this morning.

12 JUDGE MANN: Okay. Commissioner Kalk?

13 COMMISSIONER KALK: No, Your Honor.

14 JUDGE MANN: Okay. Thank you.

15 Mr. Bjella, you can proceed.

16 MR. BJELLA: Thank you, Your Honor.

17 Well, just to identify our witnesses, we
18 are going to have four witnesses this morning. The
19 first one is Mr. Jim Melchoir. He's the former
20 land manager of North American Coal and the current
21 president of Coyote Creek Mining Company.

22 Our second witness will be Mr. Dave
23 Bickel, B-i-c-k-e-l. He's the person who prepared
24 the alluvial valley floor determination report for
25 Coyote Creek.

1 The third witness will be Mr. Donn
2 Steffen. That's spelled D-o-n-n S-t-e-f-f-e-n. He
3 is the environmental manager for Coyote Creek
4 Mining Company. He will just testify very briefly
5 on his experience with reclamation.

6 And the last witness is Ms. Sarah Flath
7 with Coyote Creek. She is an environmental
8 specialist and range specialist. Those will be our
9 four witnesses. She will testify primarily as to
10 the PSC's reclamation standards and how those are
11 implemented by the company in preparing its
12 application, and then when reclamation does come
13 about, actually implementing them.

14 JUDGE MANN: Okay. And you can call your
15 first witness.

16 MR. BJELLA: I'll call Mr. Jim Melchoir.

17 JUDGE MANN: Mr. Melchoir, before you
18 testify, I'm required to give you an oath, and I
19 need to advise you of the penalty for perjury in
20 North Dakota. It's a Class C felony, punishable by
21 a maximum fine of \$10,000, maximum five years
22 imprisonment or both.

23 (Witness sworn.)

24 JUDGE MANN: Okay. Go ahead, Mr. Bjella.

25

JAMES MELCHOIR,

1
2 having been first duly sworn, was examined and
3 testified as follows:

EXAMINATION**BY MR. BJELLA:**

4
5
6 Q. Jim, please state your name and business
7 address.

8 A. James Melchoir. Business address is 6502
9 17th Street Southwest, Zap, North Dakota.

10 Q. And, Jim, where were you born and raised?

11 A. Was born in Richardton, North Dakota, and
12 raised on a farm and ranch just seven miles south
13 of there.

14 Q. And what is your position with Coyote
15 Creek Mining Company?

16 A. President.

17 Q. And prior to your appointment as
18 president, what was your position at North American
19 Coal Corporation?

20 A. Land manager.

21 Q. And how long did you serve in that
22 position?

23 A. I worked in North American Coal's land
24 office for about 39 years and about 35 of those I
25 was manager.

1 Q. And was one of your duties as land manager
2 negotiating coal leases?

3 A. Yes.

4 Q. And did you negotiate the coal lease with
5 Julie and Casey Voigt?

6 A. Yes.

7 Q. And were the Voigts represented by an
8 attorney in the negotiation of this coal lease?

9 A. Yes.

10 Q. And were you present with the Voigts and
11 their attorney when they signed the coal lease?

12 A. Yes.

13 MR. BJELLA: This is Exhibit 1, the coal
14 lease.

15 Q. (MR. BJELLA CONTINUING) Showing you what
16 has been marked as Exhibit 1, is this a copy of the
17 coal lease that was signed by the Voigts?

18 A. Yes, it is.

19 Q. And under the terms of the coal lease,
20 will the Voigts be compensated for loss of
21 agricultural production while their lands are being
22 used for mining operations?

23 A. Yes, they will.

24 Q. And could you please just briefly
25 summarize the terms of the coal lease that provide

1 for the compensation for the loss of agricultural
2 production?

3 A. Yes, I can. There's two sections in the
4 surface and coal lease agreement that provide for
5 the loss of agricultural production. The first
6 section is in Section 3. Section 3 provides in
7 addition to a coal royalty, a surface royalty
8 payment per ton for all coal mined from any of the
9 Voigts' land.

10 And then in Section -- the second one is
11 in Section 8. The second paragraph provides for an
12 annual payment based on the loss of net income for
13 any portion of the surface used before the
14 commencement of actual coal removal operations and
15 for any portion of the surface used after coal
16 removal operations to facilitate mining on other
17 lands. The amount of the lost income payments are
18 to be determined annually by mutual agreement of
19 the Voigts and Coyote Creek based on net income
20 generated from similar lands that he owns that are
21 undisturbed.

22 Q. And was this method for this compensation
23 negotiated and agreed to by both parties?

24 A. Yes.

25 Q. And when you were negotiating the terms of

1 the coal lease with the Voigts and their attorney,
2 did you tell them why North American Coal was
3 acquiring the coal lease?

4 A. Yes. The Voigts were informed, and other
5 landowners in the area, that North American Coal
6 was acquiring the leases in that area to have coal
7 in the event North American Coal was successful in
8 getting the contract to supply coal to the Coyote
9 Station.

10 Q. Now, during Mr. Voigt's testimony, he
11 referred to discussions of a land swap as being a
12 distraction created by the company to prevent him
13 from providing comments during the public comment
14 period for the Coyote Creek application. Can you
15 briefly describe how and when the discussions began
16 and how the timing of that compares to the public
17 comment period for the Coyote Creek application?

18 A. Yes, I can. Based on the documentation we
19 have, the Voigts were notified by the Public
20 Service Commission by notice dated March 26 of 2014
21 that they could submit written comments, objections
22 or request an informal hearing related to the
23 application until May 19 of 2014.

24 Mr. Voigt telephoned me on May 13, which
25 is about six days before that deadline, and said

1 that he had found a ranch near Braddock that he
2 wanted -- requested that Coyote Creek purchase and
3 trade to him for his land. The request itself came
4 as somewhat of a surprise to us as they'd given no
5 previous indications that they wanted to sell their
6 ranch nor did we give any indications that we
7 wanted to buy it.

8 Q. So if I understand correctly, the Voigts
9 had from March 26 to May 19 to submit comments, but
10 that they -- but that Mr. Voigt called you just six
11 days before the deadline to request a land swap; is
12 that correct?

13 A. That is correct.

14 Q. And that was -- was that the first time
15 you'd ever discussed a land swap with Mr. Voigt?

16 A. Yes.

17 Q. And so I'm -- do you deny the accusation
18 that Coyote Creek created the land swap as a
19 distraction and delayed discussions to prevent him
20 from providing comments during the public comment
21 period?

22 A. Yes. That's not true.

23 MR. BJELLA: I have no further questions
24 of Mr. Melchoir.

25 JUDGE MANN: Mr. Braaten, you can

1 cross-examine the witness.

2

EXAMINATION

3

BY MR. BRAATEN:

4

Q. Mr. Melchoir, do you recall a meeting with

5

Mr. Voigt on August 27, 2013, at which you

6

instructed him to look for land for a potential

7

land swap?

8

A. No, I do not.

9

Q. I want to direct your attention back to

10

paragraph eight of Exhibit 1. This is the

11

paragraph that you indicated allowed for surface

12

damages to be paid to Mr. Voigt; is that correct?

13

A. Yes. That's one of them. The other

14

section was Section 3.

15

Q. Sure. And the language states that after

16

completion of coal removal operations, if lessee

17

uses all or any portion of the surface, it will pay

18

lessor an amount equal to the net income lost by

19

lessor.

20

After land is released from bond, is the

21

coal company going to be using that land for its

22

coal removal operations?

23

A. After it's released from bond, the company

24

can't use the lands anymore. They have to be fully

25

reclaimed and meet the PSC standards. So we

1 wouldn't be able to use the property at all.

2 Q. And so if Mr. Voigt had any losses to his
3 income as a result of productivity issues after
4 bond release, you would not be compensating him for
5 that under the lease?

6 A. Well, if the land didn't meet the
7 productivity standards that existed before, it
8 wouldn't be released from bond.

9 Q. But if Mr. Voigt did have problems with
10 productivity post bond release, it's not something
11 that you would compensate him for under the coal
12 lease?

13 A. Not if the coal lease had expired, no.

14 Q. If the coal lease hadn't expired?

15 A. Then we would need to visit about it, I
16 guess, but if it's released from bond, there's no
17 obligation for us to pay agricultural losses.

18 MR. BRAATEN: Okay. No further questions.

19 JUDGE MANN: Ms. Jeffcoat-Sacco.

20 MS. JEFFCOAT-SACCO: We have no questions.

21 JUDGE MANN: Okay. Commissioner

22 Christmann.

23 **EXAMINATION**

24 **BY COMMISSIONER CHRISTMANN:**

25 Q. The first day of the hearing Mr. Voigt

1 talked about concern about limiting public access
2 to lands way, way before they're going to be mined.
3 Can you address that? And as I look at the map
4 that I've seen, you know, I don't -- I don't look
5 for the answer to be so detailed. But like
6 specifically the land on the mine map west of
7 County 13, it looks like that is maybe all a decade
8 or more away. So how do you handle that land
9 that's way out?

10 A. Yeah. There -- the signs that we posted,
11 we're obligated to post the limits of the mining
12 permit. Now, the signs that were put up, my
13 understanding was they had no-trespassing language
14 on them, which is typical at our operations that we
15 put that type of language on our permit
16 identification signs. But in this case we -- we --
17 being it's a long ways from where we're starting,
18 they probably shouldn't have been put on, and I
19 think we've removed that language off the bottom of
20 those signs or will be.

21 But the permit signs, we have to mark the
22 boundaries of the permit. That's what the intended
23 use of the sign was, not to limit access.

24 Q. And when -- when operators are farming or
25 grazing land that's in the mine site, who

1 determines -- certainly they're -- they have
2 access, then, to get on there and do their crop
3 work or check their cattle and those types of
4 things, but who determines who all they can bring
5 on to help with their projects or to hunt or those
6 types of things?

7 A. Oh, any lands that -- on an annual basis
8 our landowners are notified what lands that we're
9 going to be using. And wherever we're operating,
10 of course, there's -- general public can't come on
11 to active mining operations or in the vicinity of
12 those.

13 Now, in the event of farmer access,
14 typically we allow landowners who are farming lands
15 to come fairly close to our operations or at least
16 to the farming limits that we've established. You
17 know, we set up routes or trails so that they know
18 where to go and that sort of thing, but general
19 public can't get inside of our mining operations.

20 Q. Okay. And regarding the land swap
21 discussions, sometimes in your mining operations
22 there are land swaps, as I understand it, and
23 sometimes not. So sometimes you own the land
24 that's being mined already and sometimes it's the
25 previous owner. Is that all complete -- really

1 separate of the actual coal lease agreement as far
2 as the PSC mine approval?

3 A. Yes. And, you know, contractually it's
4 two separate -- separate agreements if the swap
5 occurs. Our surface and coal lease agreement that
6 was negotiated has all the terms and provisions
7 necessary to compensate the surface owner and the
8 coal owners through the life of the mining
9 operations. Gives the company all the rights to
10 use the property, sets out consideration, et
11 cetera. Some of our operations we do purchase
12 lands in advance. The -- in some instances the --
13 the leases are older leases and don't have the
14 surface production loss provisions that our newer
15 leases have. Like in the case of Coyote Creek
16 leases, they -- they were drafted to make sure that
17 the surface owners were compensated as if we didn't
18 mine the land so that they've got, you know,
19 payments during mining operations and after mining
20 operations if we were still using the land.

21 In our other operations, most of our lands
22 are purchased. And it's all a matter of economics.
23 Is it, you know, more economical to operate the
24 land owned in fee or is it more economical to
25 purchase the land in advance? Typically, the --

1 most of the ones that we, you know, push real hard
2 to purchase are occupied buildings, you know, that
3 are surrounded by mining operations, which are
4 typically the ones that are most concentrated on.

5 Q. So when -- on lands that you've
6 purchased -- in your other mining operations, do
7 the lands that have been purchased have the exact
8 same reclamation standards as the lands that are
9 in -- are still owned by the original owner or are
10 there sometimes contractual deals where something
11 specific is done on certain parcels to meet the
12 landowner's wishes?

13 A. Well, that might be going a little bit out
14 of my expertise on -- it's all covered under the
15 landowner preference statements. You know, the
16 reclamation standards are what they are, but the
17 operations -- each landowner submits a landowner
18 preference statement so that -- I know there are
19 special provisions that the PSC will approve --
20 Public Service Commissioners will approve to allow
21 some changes in land uses. If the landowner wants
22 them -- if they want fences or certain things
23 installed after reclamation, those types of special
24 provisions are accounted for.

25 Q. And does your permit limit the amount of

1 slope on the hills? Is that what we heard last
2 week or -- in rougher terrain, like Mr. Voigt's, is
3 that going to be similar terrain when it's done or
4 are you limited in how steep that can --

5 A. I think you just passed the line. That
6 question is probably more easily or better answered
7 by somebody who worked on the permit, put the
8 permit stuff together. I think either Sarah Flath
9 or -- would probably be the one to answer that
10 question.

11 COMMISSIONER CHRISTMANN: Okay. No other
12 questions. Thank you.

13 JUDGE MANN: Commissioner Fedorchak.

14 **EXAMINATION**

15 **BY COMMISSIONER FEDORCHAK:**

16 Q. Good morning, Mr. Melchoir. Couple
17 questions. First, I realize that we aren't
18 involved in the lease negotiation, but I would like
19 to better understand the paragraph eight -- or
20 Section 8 where you talk about how the company
21 reimburses the lessee for -- or lessor for losses.
22 So can you just kind of walk through, like, how
23 does that actually work in a mining operation in
24 terms of the land that is being mined and isn't
25 being mined and how you might be reimbursing them

1 in a real-world situation?

2 A. Sure. I think you've got to take Section
3 3 and Section 8 in combination.

4 Q. Okay.

5 A. The second paragraph -- well, take the
6 first paragraph. The first paragraph in Section 8
7 provides for -- for damages to growing crops,
8 equipment, anything that's -- surface improvements
9 that are done or caused by our operations on the
10 premises when we do exploration, drilling, those
11 sorts of things is covered under the first
12 paragraph of eight. Once we start mining --

13 Q. And that's before actual mining?

14 A. Before.

15 Q. Anything that your equipment or operations
16 causes damages, you -- they can -- how do you
17 determine what the damages are? Is that just like
18 a mutual agreement?

19 A. Mutual agreement. Depending on --
20 typically it would be drilling damages from -- we
21 have to punch a lot of holes out there to meet the
22 requirements under the permit, so typically it's
23 damages related to loss of grass- or haylands or in
24 some cases actually crop damage where we'll go and
25 destroy some growing crops, wheat, corn, whatever.

1 Some cases there's compaction damages.

2 In range lands, there could be loss of
3 grass for a couple years. Typically, the ground is
4 cleaned up, the holes are cleaned up, they're
5 reseeded, but the grass doesn't come back
6 overnight. So there's typically maybe some damages
7 that are paid more than once on a site for two
8 years --

9 Q. Okay.

10 A. -- maybe three years. That's your typical
11 drilling damages.

12 Now, once we give notice that we're going
13 to start mining a piece of land, the second
14 paragraph of Section 8 and -- and Section 3 trigger
15 in. And Section 3.A.3 provides for a surface
16 royalty and a coal royalty. Coal owner gets so
17 many cents per ton and the surface owner gets so
18 many cents per ton, which is Section 3.B. So if we
19 go in and start mining the property and we come in,
20 say, two or three years in advance or we use a
21 piece of ground pile, topsoil, subsoil to build
22 upon, those are lands that are used before we
23 actually mine coal. So they would get paid under
24 the first provisions of the second paragraph where
25 it provides that before the commencement of actual

1 coal removal operations, which are defined in the
2 lease as taking the topsoil off, subsoil off and
3 digging down to the coal, that is coal removal
4 operations. So if any of the lands are used before
5 that actually happens, we pay loss of income.

6 Q. Okay.

7 A. Once we start taking coal out of the
8 ground, the surface royalty kicks in or the surface
9 royalty paid for loss of use of that land. After
10 mining operations, coal removal operations are over
11 and the land is reclaimed, it goes into our
12 productivity period, the ten-year bonding period,
13 where the surface royalty covers that.

14 If we use any of the -- the property after
15 coal removal operations for a haul road or keep a
16 stockpile on it or there's pieces of the lands that
17 are not usable, those are -- there's loss of
18 agricultural income on that one also.

19 Now, as soon as the lands are reclaimed
20 and restored during the bond productivity period,
21 the landowner can graze cattle as soon as the --
22 the lands are -- the grass is growing sufficient
23 enough to graze cattle. The landowner in
24 conjunction with the company grazes that land to
25 start the productivity -- the proof of productivity

1 of the property itself.

2 Q. And then what's the payment -- how do you
3 calculate losses in that time period?

4 A. It's based on loss of net income. So it's
5 intended to provide compensation that's based on
6 what the agricultural markets are in a given year.
7 So if the adjoining lands are getting 50 bushels an
8 acre, we've got cropland that are 50, that's
9 basic -- the documentation that you would use to
10 support whatever that payment is.

11 Q. And how do you account for the -- what
12 Mr. Voigt feels is higher productivity in certain
13 areas? Are you paying for the losses on his kind
14 of historic productivity in that area or land next
15 to it that might not have been as productive, you
16 know --

17 A. Well --

18 Q. -- over the course of time?

19 A. -- the loss of productivity of the land --
20 we've got, you know, the -- the lease itself does
21 not provide for losses in productivity during the
22 bonding period. You know, once the land is
23 reseeded, it's not going to produce the same yields
24 the first year of reclamation or the second or
25 third. There's a ten-year period in there where

1 you prove productivity. The -- the landowner
2 will -- and company need to work, in his case, with
3 grazing, will have to figure out, you know, at the
4 time how many -- how many head of cattle or
5 cow/calf pairs can go on a particular piece of
6 land, you know, to graze it to what it needs to be
7 grazed.

8 Q. So you said it was loss of income then?

9 A. Loss of net income. Productivity --

10 Q. And based on what -- what are you
11 referring to then? Income from the adjoining
12 areas?

13 A. Correct. So it assumes if we're using the
14 land for mining operations before or after,
15 productivity is, you know, not a factor. It's
16 whatever the income that's lost and based on
17 similar lands that are undisturbed that are close
18 by.

19 Q. Do you -- are you comfortable that that is
20 going to cover the potential losses that Mr. Voigt
21 is going to be experiencing on this land based on
22 what he's making today --

23 A. Yes.

24 Q. -- in that post bond --

25 A. Between the surface royalties and the loss

1 of income, he will be adequately compensated.

2 Q. Okay. The other area I wanted to talk to
3 you about is the reclamation practices. And I
4 realize you have experts that are coming after you,
5 but just as the president, I want to get your
6 overall thoughts and perspectives on your company's
7 approach.

8 In his letter to us, Mr. Voigt laid out
9 some concerns about the company's practices in
10 general and saying that they're inadequate, they've
11 never been changed, that you've been informed of
12 shortcomings by soil scientists, complaints from
13 landowners. You've got employees that have
14 admitted you've have shortcomings, they'd like to
15 do better, but there's a corporate culture that
16 won't allow it.

17 And since you're the head, I'd like to
18 hear your approach on that and hear more about how
19 you set the tone for your employees on reclamation
20 and standards and improvements.

21 A. North American Coal's corporate culture
22 hasn't changed since we started operating in North
23 Dakota. North American Coal has been and will
24 continue to always be committed to reclaiming the
25 land to as good or better condition as existed

1 before we got there.

2 Some lands that we reclaimed initially,
3 they do not -- if you're reclaiming cropland and
4 you put the topsoil on this year, you're probably
5 not going to get the same yields the next year.
6 That's why the PSC standards -- the reclamation
7 standards provide for a ten-year period to prove
8 this productivity, knowing that it's not going to
9 be as good the first year, the second year, the
10 third year.

11 So there's a -- there's a period of time
12 that's given there to allow the company and the
13 landowner to -- to get this productivity up to
14 where it was before. And our company has been
15 committed to that in the past and we continue to be
16 committed to it.

17 Q. Can you give me examples of your
18 commitment? Like how are you seeking to improve
19 these processes over time and not just doing things
20 the way they've always been done?

21 A. I know operationally there's things that
22 we've done with regard to subsoil placement and
23 those sorts of things, but again, I'm -- I couldn't
24 detail those in -- in any --

25 Q. Right.

1 A. -- professional manner. But we are always
2 committed to work with the PSC under the
3 reclamation standards to adopt improvements that
4 come up. We're certainly not reclaiming the same
5 way right now that we were back in 1980. There are
6 things that through experience and change of
7 methods that become better.

8 And we expect by the time Mr. Voigt's
9 lands will be mined and reclaimed, I'm sure there's
10 going to be other standards out there and -- and
11 documentation on how to do things better than we're
12 doing them today.

13 Q. Do you -- shoot, I lost my thought.
14 Shoot. Well, maybe it will come back to me after
15 Brian asks his questions. I got distracted by the
16 cell phone. Sorry.

17 Okay. One -- one more thing and -- that
18 came up from earlier in Mr. Voigt's testimony. He
19 said that you -- you misrepresented what was in the
20 lease and that he was told that he would be
21 reimbursed for all losses and that he feels that
22 that was misrepresented. Can you tell me what you
23 think is the source of that, why he feels like he's
24 not going to be compensated for all the losses and
25 you feel like he -- you know, it's pretty clear in

1 the contract and he will be or you're confident he
2 will be?

3 A. I'm confident he will be. We spent -- you
4 know, with Mr. Voigt and his attorney, I know we
5 spent quite a bit of time going through these
6 provisions. And, you know, it's hard to settle
7 damages before they occur. You know, the intent is
8 to compensate Mr. Voigt fully for his loss of
9 damages, before mining operations and after.

10 You know, it's real difficult to -- you
11 know, to ascertain, you know, how we're going to do
12 it when I don't know what they are yet. But
13 generally there is methods to compensate while coal
14 is coming out of the ground, if we use lands before
15 we take coal out of the ground and if we use lands
16 after we take. So the -- the -- the basics are
17 here to provide for damages before and after actual
18 coal comes out of the ground.

19 Q. Okay. When it comes to reclamation
20 standards, some of the scientists that testified
21 offered some new approaches and some things that
22 might help improve productivity sooner. If these
23 things aren't required by the PSC, does your
24 company look at implementing them anyway or what's
25 the approach for those kinds of things that aren't

1 necessarily required but might impact the
2 performance and get you out of bond release on time
3 or sooner? What's your company's attitude towards
4 that?

5 A. If there are better ways to do things,
6 I -- our company is wide open to that. You know,
7 we are -- we do operate under the requirements of
8 the PSC. So any -- any change in methods would
9 have to be approved. So, you know, if -- if
10 improvements come around that make it better to
11 reclaim a piece of land different than what we're
12 doing today to make it more product -- the
13 productivity better, certainly you would look at
14 it. You know, there's -- economics, of course,
15 play into it to an extent. There's -- you know,
16 the sky is not the limit, but if there's ways to do
17 things better than we're doing them now, I would
18 think the PSC would want to adopt them and so would
19 we.

20 Q. And another thing that Mr. Voigt said was
21 that the reclamation practices are ineffective and
22 result in lost income. And if that's true, what's
23 the -- what's going to be the result for Mr. Voigt?

24 A. Could you repeat the question?

25 Q. He stated that the reclamation practices

1 are ineffective and it's going to result in lost
2 income for him. How can you refute that?

3 A. Well, if there's lost income before we
4 start, you know, taking coal out of the ground,
5 he's compensated for loss of net income under
6 Section 8 of the lease. If we're mining the land,
7 the surface royalty is intended to replace, in
8 Mr. Voigt's case, his cattle proceeds for those
9 acres and likewise after mining. If he cannot
10 graze as many cattle as he did before because we're
11 using the land for ponds and haul roads, we have to
12 compensate him for that.

13 But while we're mining the land, there's a
14 surface royalty that's being paid per ton -- for
15 every ton coming out that compensates him for his
16 loss of his agricultural income. During our mining
17 operations, his -- his agricultural income is going
18 to be diminished to a certain extent and it's the
19 intent that the royalties and the -- and the loss
20 of net income replace that net income that he would
21 otherwise receive for agricultural purposes.

22 Q. Okay. And then my last question is when
23 it comes to changing and approving reclamation
24 standards, who is responsible for that? Is the PSC
25 ultimately supposed to be doing that? Is it a

1 combination? Tell me how you view that.

2 A. The way I view it, I do not work, you
3 know, on a day-to-day basis with the PSC staff, but
4 I know, you know, they -- our environmental people
5 at all our operations work very closely with PSC
6 staff. And I think there's been changes to the
7 standards over the years, either -- either
8 recommended by the companies or by the staff based
9 on what's happening in the field.

10 And I -- and I'm sure based on our
11 company's practices that that work cooperation will
12 continue, and if there are better ways to -- to
13 improve those standards, I -- I would think that
14 jointly the companies and the PSC with input from
15 landowners -- they're the ones that are out
16 there -- those practices would be adopted. I would
17 hope, anyway.

18 COMMISSIONER FEDORCHAK: Okay. Thank you.

19 JUDGE MANN: Commissioner Kalk.

20 COMMISSIONER KALK: Thank you, Your Honor.

21 **EXAMINATION**

22 **BY COMMISSIONER KALK:**

23 Q. Thank you, Jim, for your testimony today.
24 Just a couple of questions.

25 The way I read the lease is that December

1 of 2010 is when it was signed and in January of
2 2011 it was notarized. Is that the way you read it
3 as well?

4 A. The lease itself is dated December 29,
5 2010. It's effective as of that date. And it was
6 signed by the Voigts on January 5 of 2011.

7 Q. Right. And then notarized and filed in
8 the appropriate county?

9 A. And it was signed by the company on
10 March -- on January 7 of 2011, but it's dated
11 effective as of December 29 of 2010.

12 Q. And you've -- you've talked and I think
13 both sides agree that -- at least I haven't heard
14 anything different -- that Mr. Voigt was
15 represented by an attorney; is that correct?

16 A. Yes.

17 Q. Do you know who that attorney was?

18 A. Yes.

19 Q. Could you give his or her name? I don't
20 think that's a trade secret. It's something we
21 could find. I would just be curious who it is.

22 A. It was the Donovan law firm out of -- in
23 Hazen.

24 Q. Okay. So if we needed -- if that ever
25 became an issue, we could -- someone could easily

1 prove that. I haven't heard the other side, if you
2 will, disagree that Mr. Voigt was represented. I
3 just wanted to get that name on the record.

4 The -- then we jump forward to May of 2014
5 when you said that you were -- received information
6 about a land swap. Was there -- what was the
7 discussion, if any, between January of 2011 when
8 the lease was notarized up until May of 2014 about
9 this lease?

10 A. I know there were discussions on, you
11 know, the matter or the lands that we were going to
12 be disturbing. We had a couple landowner meetings
13 with the landowners to show them our plans. So
14 most of the discussions were centered around our --
15 our using the lands and how they would impact the
16 landowners in that area, not only the Voigts but
17 the other landowners. There's one other large
18 family that owns a lot of land up there.

19 Q. Sure. And maybe I should have asked the
20 question a different way. When did you first
21 become aware that -- the allegations that there was
22 sleight of hand in this lease, if you will? When
23 did you first hear about that? I'm not saying it's
24 true or false. I'm just asking when you first
25 heard about that allegation.

1 A. The day of the first hearing.

2 COMMISSIONER KALK: All right. Thank you.
3 That's all the questions that I have.

4 JUDGE MANN: Mr. Bjella, any follow-up?

5 MR. BJELLA: No, Your Honor.

6 JUDGE MANN: Mr. Braaten?

7 MR. BRAATEN: Yes, Your Honor.

8 **FURTHER EXAMINATION**

9 **BY MR. BRAATEN:**

10 Q. Mr. Melchoir, I'd like to go back to
11 paragraph 8 of Exhibit 1, the coal lease. We've
12 been talking about that damages provision and the
13 other. I want to make sure I'm understanding. So
14 post exploration after you're actually done mining,
15 you're saying that there is compensation for loss
16 of income during the ten-year revegetation period?

17 A. No. That's not what I said.

18 Q. Okay. Can you explain to me if there is
19 any compensation for loss of income during that
20 revegetation period to the landowner?

21 A. No. There's no loss of income on the
22 lands that are reclaimed. The loss of income would
23 be for lands utilized at subparagraph -- it's in
24 the third line of the second paragraph. If --
25 after completion of mining operations if we

1 utilized any of the lands after coal removal to --
2 in conjunction with our mining operations on
3 adjoining lands, those lands are -- loss of income
4 is paid on those properties.

5 Q. Okay. So can you explain to me -- or give
6 me an example of what you mean when you say that
7 you're using land in conjunction with mining
8 operations on other lands?

9 A. Yeah. The most common would be a haul
10 road.

11 Q. Okay.

12 A. You know, to get the coal -- you've got to
13 go through -- through parcels of land as you mine
14 them, you've got to haul the coal out. So that's
15 typically the land uses. Then with the haul road,
16 you'll have -- the topsoil and the subsoil that is
17 required to reclaim that haul road will be piled
18 somewhere. There's got to be water management to
19 take care of runoff. So those are the -- those
20 types of acreages that are utilized for those
21 purposes will be compensated based on loss of
22 income.

23 Q. Okay. And so if -- if there's a field
24 that is in the ten-year reclamation period and you
25 are planting it, trying to prove productivity and

1 Mr. Voigt is using that field and getting decreased
2 yields during that period, there's no compensation
3 under the coal lease for that?

4 A. Yes, there is. It's the surface royalty
5 payment itself under Section 3 --

6 Q. Okay.

7 A. -- that is compensation for the use of --
8 of the surface during the normal mining operations.

9 Q. And the -- we're talking about paragraph
10 3, subparagraph B; correct?

11 A. I believe so. Yes.

12 Q. And the 12 cents per ton of coal, is that
13 tied to any actual damages suffered by the
14 landowner?

15 A. No, I don't -- you can -- it's based on a
16 per-tonnage basis. I would suspect it would be
17 more than actual damages.

18 Q. Do you know that for a fact?

19 A. Pretty confident it is.

20 Q. Okay. It -- and in this situation, the
21 landowner owns both the surface and the coal
22 underneath; is that right?

23 A. It varies on -- you know, we've got title
24 reports on each one of his tracts. I -- I know he
25 and his family, his siblings own a portion of the

1 coal under there and -- and the prior owners'
2 heirs, I think, own some also. So it's split
3 between the Voigt family and the family that owned
4 it before.

5 Q. Do you know what a split estate is?

6 A. Oh, yes.

7 Q. Okay. And can you tell me what that is,
8 briefly?

9 A. It's where the surface -- or minerals are
10 severed from the surface estate to create a
11 separate mineral estate.

12 Q. And so in this lease there's a
13 15-cents-per-ton royalty for the minerals and a
14 12-cents-per-ton royalty for the surface. If
15 you -- if North American has a situation with an
16 owner who owns just the minerals, would they still
17 be receiving only a 15-cent-per-ton royalty or
18 would that per-ton royalty be greater?

19 A. Depends on where you're at. At the Coyote
20 Creek mine it's 15 cents a ton.

21 Q. Okay.

22 A. I think -- excuse me, this lease I think
23 is escalated. There's a 3 percent escalator in it,
24 so, you know, depending on when you sign the lease,
25 it might -- there will be fractions of a penny

1 difference, but for the most part it's all intended
2 to be the same.

3 Q. But if Mr. Voigt, for example, didn't own
4 the surface, he would only be receiving 15 cents
5 per ton as compensation under the lease?

6 A. Based on his undivided interest.

7 Q. Okay. And there was some discussion of
8 landowner preferences and this was in conjunction
9 with the discussion of the instances where the coal
10 company might buy the land in fee simple. If the
11 coal company does buy the land in fee simple, would
12 they have the choice then to change the post-mined
13 land use if that were approved by the PSC?

14 A. Post-mined land use has got to be -- the
15 company just couldn't arbitrarily change it. It's
16 got to be approved by the Public Service Commission
17 and it's got to be approved by the -- the county
18 itself, the land use -- the county commission
19 ultimately.

20 Q. And if the coal company were not the
21 surface owner, the surface owner would also have to
22 approve that?

23 A. Excuse me. Could you repeat the question?

24 Q. If the coal company didn't own the surface
25 of the land, the surface owner would also have to

1 approve that post-mined land use change?

2 A. Yes. Yep.

3 Q. There was some discussion about the
4 general reclamation practices at North American,
5 and you stated that it's your policy to put the
6 land in as good or better condition as it was
7 before mining; is that right?

8 A. That is correct.

9 Q. And you also stated that you're wide open
10 to better ways of conducting reclamation; is that
11 right?

12 A. Yes. We'd consider those.

13 Q. Okay. And so if the PSC found that
14 putting specific conditions on a permit would
15 result in more successful reclamation of the land,
16 you wouldn't be opposed to that?

17 A. Not if it was economically feasible to do
18 it.

19 Q. And you were present at the time that the
20 coal lease was signed with Mr. Voigt; is that
21 right?

22 A. That's correct.

23 Q. And you indicated that he was represented
24 by I believe his name is Patrick Donovan; is that
25 right?

1 A. I didn't say the name, but it -- yes, it
2 was Patrick Donovan.

3 Q. Did Mr. Voigt or Mr. Donovan on his behalf
4 make any changes to the coal lease before signing
5 it?

6 A. I -- I don't remember if -- if -- I know
7 there was letters going back and forth, but I
8 can't -- I would suspect that words had to be
9 changed some places, but I couldn't say right off
10 the top of my head. No.

11 Q. So you don't know?

12 A. No. I'd have to look in the file.

13 Q. After you had the meeting at which the
14 coal lease was signed and up until the date of the
15 first hearing in this matter, how many
16 conversations did you have with Mr. Voigt?

17 A. Boy, I -- I couldn't put a number on it.
18 You know, three, four, five. I know we -- we
19 talked on the phone mostly, a few meetings.

20 MR. BRAATEN: That's all I have.

21 JUDGE MANN: Ms. Jeffcoat-Sacco.

22 MS. JEFFCOAT-SACCO: We have no questions.

23 Thank you.

24 JUDGE MANN: Commissioner Christmann.

25

FURTHER EXAMINATION

BY COMMISSIONER CHRISTMANN:

1 Q. You mentioned a couple of times damages
2 and working with the landowners in reaching an
3 agreement on what they should be. So not
4 specifically Coyote Creek since they haven't gotten
5 started yet, but North American's other operations,
6 you deal with dozens or maybe hundreds of
7 landowners over the years. There's got to be some
8 times where you can't reach agreement, I would
9 think. What's the fallback position? Is that
10 something that if it can't be reached -- an
11 agreement reached mutually, that it goes to
12 district court or does it come to the PSC or what's
13 the fallback?
14

15 A. Well, in my 39 years, it's never happened,
16 so I -- I would guess that a lawyer -- I don't know
17 what the -- what the process would be, but I'm sure
18 there is a legal process to doing it. But, you
19 know, we've always been able to settle. You know,
20 two reasonable people in the same room, you should
21 be able to settle it.
22

23 COMMISSIONER CHRISTMANN: Okay. No other
24 questions.

25 JUDGE MANN: Commissioner Fedorchak.

FURTHER EXAMINATION

BY COMMISSIONER FEDORCHAK:

1
2
3 Q. Sorry to belabor this, but I want to go
4 back again because now after Mr. Braaten's
5 questions, I'm confused again.

6 In terms of the compensation to the
7 landowner for losses, pre-mining you go out there,
8 you disturb anything, you pay damage for loss of
9 productivity?

10 A. Loss of income.

11 Q. Loss of income based on productivity?

12 A. No. Based on adjoining lands.

13 Q. That's pre-mining?

14 A. Pre-mining, yes. We use undisturbed land
15 as the basis, similar undisturbed. So if we're
16 using an acre of cropland where -- that we took out
17 of agricultural production and there's an acre of
18 cropland that the landowner owns next door that he
19 got 50 bushels an acre on it of wheat, that would
20 be the basis to determine that loss of income.

21 Q. Okay. And then during mining, it's the
22 royalties?

23 A. The royalties, yes.

24 Q. Then the area that I'm most confused about
25 is during the post bond -- or bonding time period

1 where you're -- you have the land has been
2 reclaimed and the grass is growing back. In our
3 conversation I thought you said that there was some
4 payment to the landowner during that time period,
5 but then during Mr. Braaten's conversation with you
6 I thought differently. So tell me what happens
7 during that time period where you know the land
8 isn't as productive as -- as the goal is, so the
9 farmer, in this case Mr. Voigt, isn't making as
10 much as he would have pre-mining. How do you
11 compensate him during that time period?

12 A. When the land is being reclaimed, the
13 surface royalty is the compensation for the loss
14 of -- of land use on an acre of land that's just
15 used for mining. You go in and you take the
16 topsoil off --

17 Q. The surface.

18 A. -- you mine it, so you get paid a surface
19 royalty during the mining which covers the loss
20 of -- of agricultural income for the period of time
21 during which it's mined and during the normal
22 reclamation period.

23 Q. So that's the 12 cents or the 15 cents?

24 A. 12 cents.

25 Q. That's the 12 cents.

1 A. Plus the 15 cents is paid, too, if he owns
2 a portion of the coal.

3 Q. But there wouldn't be any coal produced
4 then --

5 A. No.

6 Q. -- because they're done mining. So it's
7 just the 12 cents during the post mining --

8 A. No. 12 cents and the 15 cents are paid
9 exactly at the same time. It's based on coal as
10 it's mined from the ground. It's paid within --
11 quarterly based on production.

12 Q. Right. But I'm -- I'm talking about
13 there's no mining anymore so there's no coal coming
14 out. The land has been reclaimed and the grass is
15 growing again. So there's no coal coming from that
16 land. How are they compensated for --

17 A. They're compensated based on the surface
18 royalty they received, which is -- will be
19 considerably more than the agricultural income
20 during that mining period.

21 Q. But there -- so they continue to receive
22 that or --

23 A. No. They get --

24 Q. -- they received it?

25 A. They received it.

1 Q. So they're compensated a bunch -- they're
2 compensated -- your view is they're compensated
3 more than what they're losing during the actual
4 mining period and that carries over for the
5 post-mining/pre-bond release time period?

6 A. Yes. Basically they're compensated up
7 front --

8 Q. I see.

9 A. -- for those if that's the right way to
10 put it.

11 Q. And is there a negotiation process in
12 coming up with the 15 or 12 cents, that process?
13 Is that negotiated? Does the land -- I mean they
14 can obviously not sign the lease and so that's
15 their ultimate power, but do you know, do
16 landowners sketch it out and figure out like this
17 is how much I can make and, you know, this is how
18 much I would be making if this works or doesn't?
19 What's -- what's that process? Can they say, We
20 want 17 cents, we want 15 cents, we want 20 cents?

21 A. Yes. It's the negotiation process in the
22 beginning. Exactly how we came to those numbers,
23 you know, they ultimately are negotiated, but at
24 the Coyote Creek mine, we were -- once we had the
25 majority of the landowners signing leases at that

1 rate, we were fortunate enough, maybe is the better
2 word, that nearly all the leases in that area are
3 substantially the same royalty rates.

4 Q. And what if it takes longer than ten years
5 to get the land back to production? Is there any
6 compensation -- or the production from prior
7 mining, so is there any compensation to the
8 landowner then or are they still relying on kind of
9 the upfront payment that you described?

10 A. If there's circumstances that -- at that
11 time that were -- there was an inability to prove
12 productivity, that would have to be, you know, done
13 at the time --

14 Q. Yeah.

15 A. -- if something like that occurs, but I
16 would certainly hope that it wouldn't. But, yeah,
17 it would have to be addressed at the time, but it's
18 intended -- you know, the lease itself sets the
19 basis for it, I think.

20 COMMISSIONER FEDORCHAK: Okay. And,
21 again, the elements of the lease are not something
22 we have any authority over or jurisdiction. I just
23 wanted to better understand how Mr. Voigt is being
24 compensated. So all right. Thank you, Jim.

25 JUDGE MANN: Commissioner Kalk.

1 COMMISSIONER KALK: No, Your Honor.

2 JUDGE MANN: Mr. Bjella, anything further?

3 MR. BJELLA: No, Your Honor.

4 JUDGE MANN: Okay. Mr. Braaten.

5 MR. BRAATEN: Yes, Your Honor. Sorry.

6 Commissioner Fedorchak's questions now brought a
7 couple more up for me.

8 **FURTHER EXAMINATION**

9 **BY MR. BRAATEN:**

10 Q. So following on that discussion,
11 Mr. Melchoir, the assumption in the lease -- or
12 your assumption is that once you're done mining,
13 you are going to have the land fully reclaimed and
14 released from bond within ten years?

15 A. Yeah. It's ten years -- you know, from
16 the time it's reclaimed, there's a ten-year bonding
17 period. So it's going to -- it's not -- you know,
18 from the time we take acre one off, it's not going
19 to be released ten years after we take the topsoil
20 off. So it's probably going to be closer to the
21 12- to 15-year thing on a normal acre.

22 Q. The goal at least would be that once you
23 have the coal out and you start putting the subsoil
24 and the topsoil back, that from that point on you'd
25 have -- you would be finished with reclamation and

1 released from bond within ten years?

2 A. Yeah. Should be.

3 Q. And so the surface royalty is intended to
4 compensate based on the assumption that you're
5 going to have that reclamation completed and have
6 the productivity back within those ten years?

7 A. Yes. You could figure it that way, yes.

8 Q. And if you had land that you didn't prove
9 productivity on and was not released from bond for,
10 let's say, 20 years, there would be no obligation
11 under the lease to pay any additional compensation?

12 A. Not -- not -- the basis I think is there.
13 You know, during that productivity period, the
14 landowner is going to be using the land. You know,
15 I suspect the productivity is not going to be zero,
16 you know. So, you know, if there is a difference
17 between, you know, what the adjoining lands are at
18 a hundred percent and the reclaimed lands at
19 90 percent, if there's a -- you know, a deficiency
20 in there, you can -- you know, that would have to
21 be addressed at the time if it's -- if it's an
22 extended period beyond normal.

23 Q. But that adjustment isn't anything that
24 you're obligated to do under the lease?

25 A. Not in -- not -- certainly not in black

1 and white, no.

2 Q. If a surface owner didn't own any
3 minerals, would they still get a lease that gave
4 them a surface royalty?

5 A. Yes.

6 MR. BRAATEN: Okay. That's all I have.

7 JUDGE MANN: Ms. Jeffcoat-Sacco.

8 MS. JEFFCOAT-SACCO: Yes. All this
9 discussion prompted one or two questions.

10 **EXAMINATION**

11 **BY MS. JEFFCOAT-SACCO:**

12 Q. What is your understanding of the role of
13 the lease as it relates to the PSC's jurisdiction
14 for permitting and reclamation?

15 A. In order for a company to get a coal -- to
16 get a mining permit, you have to have 75 percent of
17 the -- of the coal estate leased or controlled,
18 either in lease or fee, and you have to have
19 surface owner consent. So you -- in order for the
20 PSC to allow the land to be permitted, you've got
21 to have surface owner consent.

22 Q. So the company applying for a permit has
23 to submit proof of the right to mine and the right
24 to use the surface for 75 percent at least --

25 A. That is correct.

1 Q. -- is that correct?

2 A. That is correct.

3 Q. Are you aware of any involvement of PSC
4 jurisdiction with lease terms and/or compensation?

5 A. None.

6 MS. JEFFCOAT-SACCO: Thank you.

7 JUDGE MANN: Commissioner Christmann?

8 COMMISSIONER CHRISTMANN: None.

9 JUDGE MANN: Commissioner Fedorchak or
10 Commissioner Kalk?

11 COMMISSIONER KALK: None.

12 JUDGE MANN: Mr. Bjella, did you have
13 anything else?

14 MR. BJELLA: No, Your Honor.

15 JUDGE MANN: Okay. Thank you,
16 Mr. Melchoir. You can step down.

17 I think we'll take about a ten-minute
18 break before you call your next witness,
19 Mr. Bjella.

20 (Recessed at 9:35 a.m. and reconvened at
21 9:43 a.m.)

22 JUDGE MANN: All right. We're back on the
23 record.

24 Mr. Bjella, you can call your next
25 witness. Well --

1 MR. BRAATEN: I was going to say, we don't
2 have Ilonna.

3 JUDGE MANN: We'll just hold on for one
4 moment.

5 All right. Mr. Bjella, you can go ahead
6 and proceed.

7 MR. BJELLA: Thank you, Your Honor. We
8 call Mr. David Bickel.

9 JUDGE MANN: Good morning, Mr. Bickel.

10 MR. BICKEL: Good morning.

11 JUDGE MANN: Before you testify, I'm
12 required to give you the oath and advise you of the
13 penalty for perjury in North Dakota, which is a
14 Class C felony, punishable by a maximum fine of
15 \$10,000, maximum five years' imprisonment or both.

16 (Witness sworn.)

17 JUDGE MANN: Okay. Go ahead, Mr. Bjella.

18 MR. BJELLA: Thank you.

19 **DAVID BICKEL,**
20 having been first duly sworn, was examined and
21 testified as follows:

22 **EXAMINATION**

23 **BY MR. BJELLA:**

24 Q. Please state your name and business
25 address.

1 A. My name is David Bickel. My address is
2 Post Office Box 993, Bismarck, North Dakota 58502.

3 Q. And, Dave, what is the name of your
4 business?

5 A. Bickel Consulting, LLC.

6 Q. And briefly describe your education
7 post-high school.

8 A. I hold a bachelor's and master's degrees
9 from the University of Louisville in the field of
10 biology, specializing in limnology, which is the
11 physical, chemical -- study of the physical,
12 chemical and biological interactions of fresh
13 water. And a PhD from Ohio State University in
14 geology.

15 Q. And what is your experience in hydrology?

16 A. Well, academic training, of course, at
17 Ohio State University. I designed and installed
18 the groundwater monitoring system for the Larson
19 mine, which is up in the northwestern part of the
20 state, and that was in 1974 and '75. And it was
21 designed to anticipate requirements that were then
22 being formulated for SMCRA.

23 And had various consulting projects in the
24 '70s and then throughout a large part of the '80s.
25 And then 17 years from 1989 to 2006 I served as the

1 groundwater and surface water hydrologist for the
2 reclamation division of the Public Service
3 Commission. Then from about 2007 to the present
4 following my retirement I've consulted.

5 Q. Just stepping back a second, you mentioned
6 SMCRA. Could you please define for --

7 A. Surface Mining Control and Reclamation Act
8 of 1977. I think I have that right. And that was
9 the enabling law for the federal regulations and
10 then, of course, the state regulations that are
11 required to be equal to or more stringent than the
12 federal regulations.

13 Q. Okay. And what were your duties with the
14 North Dakota Public Service Commission with respect
15 to hydrology?

16 A. Basically all aspects of surface and
17 groundwater hydrology. That was the review of
18 surface mining permits and related permitting
19 documents. Provide technical support and expertise
20 to the reclamation division and Office of Surface
21 Mining in those matters. Carry out mine
22 inspections relative to hydrology and other matters
23 and to strengthen practices in hydrology in the
24 reclamation division.

25 Q. Okay. And while working for the North

1 Dakota Public Service Commission, did you -- was it
2 part of your job duties to review coal mine
3 alluvial valley floor reports?

4 A. Yes.

5 Q. And what is your experience with respect
6 to alluvial valley floor determinations for coal
7 mines?

8 A. I reviewed them, I don't know, maybe in
9 numbers of dozens. This was not only previously
10 submitted reports and prior to that permit
11 findings. And here again, to look at the extent of
12 coverage and then gain insight for upgrading
13 alluvial valley floor investigations, and then the
14 review of -- in preparation of determinations for
15 alluvial valley reports that were submitted during
16 my tenure.

17 Q. Did this include sharing and transferring
18 information with the federal Office of Surface
19 Mining?

20 A. Yes, it did. And this was a process that
21 allowed us to share information between other
22 states with OSM.

23 Q. And have you made presentations to the
24 federal Office of Surface Mining at seminars with
25 respect to alluvial valley floor determinations?

1 A. Yes. I guess over many years I did this
2 through the U.S. Office of Surface Mining's office
3 of technology transfer, and this included
4 presentations and training at forums, seminars,
5 training workshops, and this related not only to
6 AVF but other aspects of hydrology.

7 Q. Okay.

8 A. And in addition to that, through the --
9 what they call the TIPS program, basically the
10 technical program that deals with software and
11 related technical training, I taught courses.

12 Q. And since you've been in your consulting
13 business, how many alluvial valley floor reports
14 for coal mines have you prepared?

15 A. Oh, roughly five and probably covering
16 close to 150 square miles. Here again, this is in
17 North Dakota.

18 Q. And were those reports reviewed and
19 approved by the Public Service Commission?

20 A. Yes.

21 Q. And were you retained by Coyote Creek
22 Mining Company to prepare an alluvial valley floor
23 report for its proposed new Coyote Creek mine?

24 A. Yes.

25 Q. And when did you prepare that report?

1 A. Started work in May of 2012 and I believe
2 the final draft was completed in August of 2013.

3 Q. And is an alluvial valley floor report, is
4 that prepared prior to the permitting process?

5 A. Yes.

6 Q. Why is that?

7 A. It's prepared ahead of time. It's
8 basically a regulatory requirement, and this is so
9 that the report is available and can be reviewed in
10 detail so that a regulatory authority can make a
11 determination prior to permit submission if an
12 alluvial valley floor is present or not. And this
13 will allow ample time so that the -- the permit can
14 address the needs of alluvial valley floors if they
15 are present.

16 MR. BJELLA: At this time we're going to
17 distribute an exhibit. I've discussed this with
18 the hearing officer, and these exhibit numbers are
19 a bit out of order. This is going to be Exhibit
20 No. 13. We marked these way back 10, 12 days ago
21 before the first hearing, and the way things have
22 developed, it's resulted in a little bit of
23 re-juggling of our testimony. So that's the reason
24 why you're going to see Exhibit No. 13 at this --
25 marked No. 13 now.

1 JUDGE MANN: Hang on just before you
2 continue. Mr. Bjella, I'm just -- you've got it
3 premarked as Exhibit 13. I'm just going to note
4 that it's Coyote Creek Exhibit No. 13, because we
5 do already have Voigt Exhibits 1 through I believe
6 14. So this will be Coyote Creek Exhibit No. 13,
7 just for clarification.

8 MR. BJELLA: Okay. Thank you. And the --
9 also just a point of clarification, this exhibit
10 was in part submitted as part of Mr. Voigt's
11 testimony, but what we have here has a bit more
12 detail from the same report and that's why we're
13 including it as an exhibit for our case.

14 JUDGE MANN: Okay.

15 MR. BJELLA: So --

16 MS. JEFFCOAT-SACCO: Excuse me.

17 Mr. Bjella, could you reference which Voigt exhibit
18 it connects to? Do you know the number?

19 JUDGE MANN: It appears to be Voigt
20 Exhibit No. 5.

21 MR. BJELLA: That's right, Your Honor.

22 MS. JEFFCOAT-SACCO: Thank you.

23 Q. (MR. BJELLA CONTINUING) So showing you,
24 Dave, what has been marked Exhibit No. 13, is this
25 the report you prepared?

1 A. Yes. However, it does not include
2 Exhibit E, and that is because Exhibit E is about
3 305 pages of basic data and -- that show really
4 water quality and quantity and streams in the study
5 area, and the data are summarized in the narrative
6 portion of the report.

7 Q. So we've -- we've left that out just for
8 purposes of brevity today; is that --

9 A. Yeah. Bearing in mind that this report
10 was submitted in digital format so it was
11 convenient to include it there, but obviously not
12 in the printed format.

13 MR. BJELLA: Thank you. We would offer
14 Exhibit No. 13.

15 JUDGE MANN: Mr. Braaten, any objection?

16 MR. BRAATEN: No objection, but I would --
17 no objection, but I would just note that my copy
18 does have an Exhibit E.

19 THE WITNESS: It's listed in the index,
20 but the Exhibit E basic data is -- has been omitted
21 here, I think.

22 MR. BRAATEN: Okay.

23 JUDGE MANN: Ms. Jeffcoat-Sacco?

24 MS. JEFFCOAT-SACCO: We have no objection.

25 JUDGE MANN: Okay.

1 COMMISSIONER KALK: Your Honor, just a
2 question.

3 JUDGE MANN: Go ahead.

4 COMMISSIONER KALK: The -- so the
5 Exhibit E data will be considered as part of the
6 record even though it's not here today? I just
7 want to make -- because I wanted to make sure that
8 data is part of the record somewhere.

9 JUDGE MANN: Well, it -- it won't be
10 unless it's offered and admitted. Is that
11 something that the Commission is looking to -- to
12 have?

13 COMMISSIONER KALK: Well, I think that the
14 data is not what's in question. It's the
15 interpretation of the data. So I think the data
16 needs to be in the record because we have --
17 clearly I think there's a different interpretation
18 of it. No one has suggested the data was wrong.
19 They've suggested the interpretation is wrong.

20 JUDGE MANN: Okay. Mr. Bjella, is
21 Exhibit E something that you can obtain and submit,
22 I guess, as a late-filed exhibit?

23 MR. BJELLA: Yes, we can do that, Your
24 Honor.

25 JUDGE MANN: Okay. Mr. Braaten, any

1 objection?

2 MR. BRAATEN: No, Your Honor.

3 JUDGE MANN: Ms. Jeffcoat-Sacco?

4 MS. JEFFCOAT-SACCO: No. I think it's a
5 good idea.

6 JUDGE MANN: Okay. Coyote Creek Exhibit
7 No. 13 will be admitted and it will be supplemented
8 with the complete data from Exhibit E as a
9 late-filed exhibit.

10 You can continue.

11 MR. BJELLA: Thank you.

12 Q. (MR. BJELLA CONTINUING) Now, Mr. Charles
13 Norris, who testified for Mr. Voigt previously,
14 stated on several occasions that he did not believe
15 that independent data was prepared and considered
16 in your report. Is that accurate?

17 A. No.

18 Q. Please address the Commission.

19 A. No.

20 Q. And what independent data was prepared and
21 reviewed by you in preparation of your AVF report?

22 A. I used information from many sources,
23 including the U.S. government data relating to
24 hydrology, primarily from the U.S. Geological
25 Survey; NRCS data on soils; NOAA data on weather;

1 North Dakota government data; State Water
2 Commission dealing with hydrologic information as
3 well as water permits; Dakota Westmoreland
4 Corporation Beulah mine, their previous AVF reports
5 and surface water quality data from their reports
6 and also groundwater quality data; available
7 vegetation, land use, wetland spring and seep data
8 being collected by extensive field surveys at the
9 time being conducted by Mr. Kelly Krabbenhoft of
10 KDH Consulting; and soils information as was being
11 collected in a preliminary state for the permit
12 area.

13 Now, here again, these data are detailed
14 but were being collected for the mine permit, not
15 specifically for the AVF study. And the
16 information from the soils came from the work under
17 way by Mr. Mike Ulmer and Mr. C.J. Heidt of Prairie
18 Soils Consulting. Existing groundwater monitoring
19 wells that were installed, some in the 1980s and
20 some in 2012, in alluvium and available water
21 levels at the time for those were examined.
22 Preliminary geologic mapping by Coyote Creek Mining
23 Company staff, and this is to relate the geologic
24 strata of coal beds to possible spring and seep and
25 their contributions to streams. Aerial photograph

1 to substantiate and augment Mr. Krabbenhoft's
2 land-use inventories and to review and spatially
3 organize other data.

4 And, finally, PSC staff input. First to
5 review the previously determined AVF areas and also
6 to look at the suitability of an area for this
7 study and also any areas of concern that may have
8 been apparent to them.

9 Q. And so in preparation for your report, do
10 I understand correctly that you used existing data
11 and also new independent data to prepare your
12 report?

13 A. Yes.

14 Q. Now, Mr. Norris also stated in his
15 testimony that he did not believe that the
16 necessary borings and piezometer profiles for an
17 alluvial valley floor determination were completed
18 and thus an accurate AVF determination could not
19 have been made. Do you agree with that statement?

20 A. No.

21 Q. And is the need for new borings and
22 piezometer profiles required in OSM guidelines?

23 A. No.

24 Q. And do Mr. Norris' statements agree with
25 OSM standards for preparing an alluvial valley

1 floor report?

2 A. No.

3 Q. And so new borings and piezometer profiles
4 are not required for an AVF determination; is that
5 correct?

6 A. Yes. Regulations require adequate data be
7 provided to the regulatory agency to make AVF
8 determination. Now, of course, if no data are
9 available in an area data acquisition specifically
10 for an AVF study could possibly be necessary to
11 meet those report requirements.

12 Q. And is this area of North Dakota -- would
13 you deem it data rich or poor in terms of AVF data?

14 A. West central North Dakota is an
15 established coal mining area. Abundant data from
16 the 1970s -- well, principally about 1974, during
17 the period of concern about the rapid expansion of
18 development along the Missouri River, and that data
19 acquisition continued -- continues to the present.
20 The Knife River drainage has established mines and
21 there are data available.

22 Q. So would you describe it as data rich?

23 A. Yes. That's kind of a vernacular term.

24 Q. And all of this data is not included in
25 your report, but can you state why that is the

1 case?

2 A. Here again, these data are available to
3 the regulatory agency, government reports, PSC
4 records and direct personal communication with the
5 sources of the data. And this way they can
6 substantiate and verify my summary. On the other
7 hand, a summary is more meaningful to others. Here
8 again, looking to Exhibit E, Mr. Steffen said we're
9 dealing with over 300 pages of printed information,
10 and if all the data sets, all the e-mails, all the
11 notes -- if all these data were included, it would
12 be make the AVF report extremely voluminous and
13 would probably confuse rather than inform.

14 Q. And have there been other alluvial valley
15 floor reports which have come to the same
16 conclusion as you did in Coyote Creek?

17 A. Yes.

18 Q. Would you please identify those other
19 reports and for whom they were prepared.

20 A. Oh, in general terms, several in the Knife
21 River and Square Butte Creek and the Missouri River
22 proper drainages regarding subirrigation, but most
23 important is Dakota Westmoreland Corporation's AVF
24 report for I believe Revision 22 of KRSB-8603. And
25 this covered Coyote Creek from its mouth south

1 through Section 31 of Township 143 North, Range
2 88 -- 88 West.

3 Basically most of the downstream portions
4 of Coyote Creek in this area since it was
5 previously determined was outside the study area of
6 this report, and to make that a little clearer,
7 let's look at Exhibits A and B of the alluvial
8 valley floor evaluation report of Coyote Creek.
9 Let me see if I can get there too.

10 Exhibit A shows the area covered in the
11 Dakota Westmoreland Corporation -- if I can shorten
12 it to DWC, if everyone will understand. It shows
13 the area covered by that alluvial valley floor
14 report. However, it doesn't -- Exhibit A doesn't
15 clearly, unless you're extremely familiar with the
16 area, show Coyote Creek. But if you flip to
17 Exhibit B, they're not exactly to scale, but
18 they're close enough, that you can basically see
19 Coyote Creek and flipping back and forth you can
20 see the area that was previously determined. And,
21 of course, the boundaries of this AVF report
22 exclude that area.

23 Q. And with respect to the DWC report, was
24 that determined to be an AVF or non-AVF?

25 A. The PSC determined that the -- there were

1 no AVFs present in the area of the DWC report.

2 Q. And are any hayfields of Mr. Voigt
3 included within that Section 31 area?

4 A. Yes, they are.

5 Q. Is there two hayfields?

6 A. Yes. They will not show up on here, but
7 there's -- here again, kind of speaking from
8 memory, I believe there's one to the north portion,
9 probably in the north half of Section 31, and then
10 there's one toward the south half, and they're both
11 in Section 31.

12 MR. BJELLA: We'd offer the further
13 testimony of Mr. Bickel as an expert in hydrology
14 and preparation of alluvial valley floor reports.

15 JUDGE MANN: Mr. Braaten?

16 MR. BRAATEN: No objection.

17 JUDGE MANN: Okay. Mr. Deutsch --
18 Ms. Jeffcoat-Sacco, Mr. Bjella just offered the
19 testimony of Mr. Bickel as that of an expert.

20 MS. JEFFCOAT-SACCO: We have no objection.

21 JUDGE MANN: Okay. The testimony of
22 Mr. Bickel will be received as that of an expert in
23 those areas. You can continue.

24 Q. (MR. BJELLA CONTINUING) And was the
25 Dakota Westmoreland alluvial valley floor report

1 reviewed by PSC staff?

2 A. Yes, it was. And they determined that no
3 AVFs were present in that report's area.

4 Q. And realizing your report is quite
5 detailed, would you please summarize your findings
6 as to whether you found an alluvial valley floor
7 within the evaluation area that you studied?

8 A. I found none. And after review, the
9 reclamation division reached the same conclusion
10 and determined no AVFs were present in the study
11 area evaluated in the Coyote Creek Mining Company
12 2013 report.

13 Q. Now, was the possibility of subirrigation
14 considered in your report?

15 A. Yes.

16 Q. And what does your report state with
17 respect to the possibility of subirrigation?

18 A. No significant areas of potential
19 subirrigation were identified in Mr. Krabbenhoft's
20 vegetation and wetland studies. No areas of soils
21 indicative of subirrigation were observed or mapped
22 by Prairie Soils Consulting. No static water level
23 and groundwater monitoring wells including -- or
24 indicated any shallow saturated zones in the
25 floodplain areas. No areas of standing water

1 within a few feet below basically where soil
2 surfaces come onto the banks of streams were seen
3 and this would indicate a probability of shallow
4 saturated zones under stream floodplains.

5 Now, small trivial bands of subirrigation
6 a few feet wide can occur along banks of all bodies
7 of standing water, and these are small. We're
8 talking in scale of a few square feet. They're
9 often patchy, and these are things I think everyone
10 has commonly observed. Basically we're talking
11 about an area where soils and vegetation slopes
12 down very close to water level. These areas are
13 insignificant in terms of agriculture.

14 There were two small areas, we're talking
15 here in the range of about 15 acres, that were
16 identified along the Knife River that could have
17 been -- or were potentially subirrigated, and these
18 are too small to be considered agriculturally
19 significant. And the observations of Mr. Ulmer
20 showed that they were not managed differently from
21 adjacent areas.

22 Q. And how is that lack of significance of
23 these small areas mentioned reflected in your
24 report?

25 A. I didn't mention the small insignificant

1 patches that you see along every stream because
2 most of the environmental scientists and even most
3 laypeople are familiar with such areas, but the two
4 areas along Knife River are described extensively
5 in the Ulmer and Heidt report, which is Appendix A.

6 Q. Now, pursuant to the Office of Surface
7 Mining standards and guidelines, is it correct that
8 an AVF was not present in the study area of your
9 report?

10 A. Correct.

11 Q. And have you reviewed the report on
12 alfalfa production prepared by Mr. Voigt and
13 included as his Exhibit 7?

14 A. I have examined it, yes.

15 Q. And do you believe there are subirrigated
16 soils on his lands capable of reaching the roots of
17 common grassland plants?

18 A. No. Not capable of reaching the rooting
19 depths of common and assemblages of ray -- or
20 rangeland or hayland, croplands. Static water
21 levels we've observed in the area are eight to ten
22 feet below surface in late summer and most of the
23 year. And these, however, are potentially
24 reachable by deep-rooted species, such as alfalfa,
25 but not by common species.

1 Q. And what does this report actually
2 indicate?

3 A. Well, moving back to the obvious, it -- it
4 shows that regional climate in west central North
5 Dakota enables areas, other than stream
6 floodplains, to produce hay crops, including
7 alfalfa, and thus regional livestock production is
8 not dependent on stream valleys for hay production
9 and other feed as is often the case in arid areas
10 further to the west.

11 Deep-rooted species such as alfalfa can
12 utilize saturated zones on uplands as well as on
13 floodplains. And, here again, this is due to the
14 higher precipitation in west central North Dakota.
15 And alfalfa is often rotated with shallow-rooted
16 crops on many of these areas, here again, depending
17 upon moisture conditions.

18 Q. But is its presence indicative of an AVF?

19 A. No, it is not.

20 Q. Now, pursuant to the Office of Surface
21 Mining guidelines, does subirrigation exist on
22 Mr. Voigt's land in the study area of the Coyote
23 Creek AVF report?

24 A. Not, here again, with the exception of,
25 you know, the planting of alfalfa, but basically

1 no.

2 Q. And did the Public Service Commission's
3 reclamation staff conduct an independent review of
4 your report?

5 A. Yes. As I mentioned before, in
6 consultation with them we determined the previously
7 determined areas and the appropriate areas to be
8 included in this study and again any areas they saw
9 of concern to them at a preliminary stage. To my
10 understanding and knowledge, they carried out
11 informal field visits to the area prior to and
12 during review of the report, and they conducted
13 detailed office review of the data and a formal
14 field review of the study area.

15 Q. I'm going to show you what's marked as
16 Exhibit 14. Is this the PSC letter regarding its
17 review of your AVF report?

18 A. Yes, it is.

19 MR. BJELLA: We would offer Exhibit
20 No. 14.

21 JUDGE MANN: Mr. Braaten, any objection?

22 MR. BRAATEN: No objection.

23 JUDGE MANN: Ms. Jeffcoat-Sacco?

24 MS. JEFFCOAT-SACCO: No objection.

25 JUDGE MANN: Okay. Coyote Creek Exhibit

1 No. 14 is admitted.

2 Q. (MR. BJELLA CONTINUING) And did the
3 Public Service Commission staff conduct its own
4 field investigation prior to making its alluvial
5 valley floor determination?

6 A. Yes. I discussed that before, but they
7 did carry out a formal field review as well as
8 other opportunities to informally -- informally
9 look at the area.

10 Q. And what was the PSC staff recommendation
11 as to whether an alluvial valley floor may exist in
12 the evaluation area?

13 A. Looking at the second paragraph in Coyote
14 Creek Exhibit 14, basically it says, "We have
15 determined that those areas of the AVF evaluation
16 report study area do not constitute alluvial valley
17 floors as defined by North Dakota Century Code
18 38-14.1-02."

19 Q. So if I understand correctly, did the
20 Public Service Commission staff agree with your
21 recommendation that no alluvial valley floors exist
22 within the evaluation area?

23 A. Yes.

24 MR. BJELLA: I have no further questions
25 of Mr. Bickel.

1 JUDGE MANN: Mr. Braaten.

2 MR. BRAATEN: Yes, Your Honor.

3 EXAMINATION

4 BY MR. BRAATEN:

5 Q. Mr. Bickel, there was significant
6 discussion about how this area is so-called data
7 rich with respect to alluvial valley floor
8 determinations. As you indicated in your report,
9 you didn't collect any additional data yourself for
10 purposes of your report; right?

11 A. Correct.

12 Q. I direct your attention back to
13 Exhibit 13, Coyote Creek Exhibit 13. And I'll
14 start by referencing Exhibit C. I'm sorry.
15 Actually, let's look at Exhibit A. Is it your
16 understanding that the area on this map in pink is
17 the Dakota Westmoreland Company study in 2009 for
18 permit Revision 22?

19 A. Yes.

20 Q. If we turn to Exhibit B, if you look at
21 the top right of this, there's an explanation area.

22 A. Mm-hmm.

23 Q. And then there's an indication of areas
24 shaded gray, and it says that they're subirrigated
25 and/or naturally flood irrigated sites. Now, if

1 you can picture where that Dakota Westmoreland 2009
2 study was, the specific sections where that study
3 was conducted, can you point out the section to me
4 that has the most gray-shaded area in it?

5 A. That would be Section 31.

6 Q. And that's the section that contains
7 Mr. Voigt's alfalfa fields?

8 A. That is correct.

9 MR. BRAATEN: At one point when
10 Ms. Jeffcoat-Sacco asked about having Mr. Deutsch
11 and others ask questions, I said I was fine with
12 that if we would have a little bit of leeway for me
13 to consult with experts in questioning other
14 witnesses. And so I'm going to ask if I can take
15 advantage of that now and take just a minute here
16 to discuss something with our expert before
17 continuing with the examination.

18 JUDGE MANN: How much time did you have in
19 mind?

20 MR. BRAATEN: I don't think we need to
21 break necessarily. Maybe a minute.

22 JUDGE MANN: That's fine. Go ahead.

23 (Off the record.)

24 MR. BRAATEN: Okay. Thank you. I
25 appreciate that. I'm ready to go.

1 JUDGE MANN: Okay. Go ahead.

2 Q. (MR. BRAATEN CONTINUING) Mr. Bickel, can
3 I have you turn to page 24 of your report. In
4 number eight you indicate that the water table on
5 floodplains range from 8 to 30 feet below the
6 ground surface in the study area. You would agree
7 that alfalfa could tap a water table at that level;
8 right?

9 A. Yes.

10 Q. And indeed the water table level is not
11 the zone that the roots tap into. It's actually a
12 zone above that; is that right?

13 A. Yes. Well, it can be. Yes.

14 Q. Sure. And then in paragraph number nine
15 you indicate that soils on the floodplains in the
16 study area are dominated by straw loam, and I
17 assume you're familiar with the term capillary
18 rise?

19 A. Yes.

20 Q. And would straw loam be the -- be a type
21 of soil that would be especially conducive to
22 capillary rise?

23 A. Most likely.

24 Q. And so even at a very low water table, the
25 soils in this area would be very conducive to

1 subirrigation?

2 A. They are not considered subirrigated
3 soils. And, here again, yeah, the effect of
4 capillary rise I don't think would overcome the
5 depths we're talking about. And, here again,
6 you're talking about the availability and the
7 function of water in the saturated zone and above
8 it in terms of significantly enhancing productivity
9 or even maintaining crops.

10 Q. And the saturated zone, are you referring
11 to the water table itself?

12 A. Yes.

13 Q. And when we're discussing subirrigation,
14 the water table itself will rise and fall over
15 time; is that right?

16 A. Yes.

17 Q. And above that water table there will be a
18 zone where the soil is additionally saturated as a
19 result of that rising and falling water table?

20 A. Are you speaking of saturated or are you
21 speaking of water in the capillary zone under
22 tension?

23 Q. Water in the capillary zone under tension.

24 A. Yes.

25 Q. And so you would have more water to --

1 more water closer to ground level in soils that are
2 more conducive to capillary rise?

3 A. You will have that in all soils to some
4 degree. Yes.

5 Q. But to a greater degree in straw loam?

6 A. Possibly.

7 Q. And when you say possibly, is it more
8 likely?

9 A. Like I said, it is likely in all soils to
10 some degree. Yes.

11 Q. Is it more likely in some soils?

12 A. Yes.

13 Q. And is straw loam one of those soils?

14 A. It can be, yes.

15 Q. Do you know how deep the water table is in
16 Section 31 within the study area?

17 A. From the two wells that are available in
18 Section 31, I believe one is toward the north end
19 of the section and one toward the south end roughly
20 between eight and ten feet --

21 Q. And --

22 A. -- below surface.

23 Q. -- are you referring to specific readings
24 from those two wells?

25 A. Yes, I am.

1 Q. Okay. And do you recall what the specific
2 readings from each well was?

3 A. Not off the top of my head. Preliminary
4 readings I believe I've cited in the report and
5 other readings are -- have been available
6 subsequent to that.

7 Q. Would it be fair to say, then, that for
8 both wells, the readings were between eight and ten
9 feet?

10 A. I think that would be a fair
11 characterization.

12 Q. How many readings were taken from those
13 wells?

14 A. At the time of the report preparation?

15 Q. Yeah.

16 A. Only a couple. They were installed, you
17 know, almost concurrently with the preparation of
18 the report and gathering of data.

19 Q. And when you say a couple, do you mean one
20 reading from each well or two readings from each
21 well?

22 A. I would have to recall possibly two from
23 each well. And, here again, these were in the late
24 summer and fall of the year, to my recollection.

25 Q. So to your recollection, all of these

1 levels -- or these wells were tested in the late
2 summer to early fall?

3 A. Yes. And then subsequent readings tested
4 in other periods of the year, and it's not a lot of
5 variance as I recall.

6 JUDGE MANN: One moment. Mr. Bickel, I'd
7 just ask that you try to speak up a little bit and
8 stay fairly close to the mike. It is being
9 streamed and recorded, just so we make sure we pick
10 everything up. Thank you.

11 THE WITNESS: Sorry.

12 JUDGE MANN: That's okay.

13 Q. (MR. BRAATEN CONTINUING) Are you aware
14 of -- well, let me ask a different question. You
15 indicated that you had reviewed the production
16 reports that were provided by Mr. Voigt; correct?

17 A. Yes, I looked at them.

18 Q. Are these wells located in the areas where
19 he has increased production?

20 A. They are probably within a couple hundred
21 feet of his field edge.

22 Q. How much do you think the water table or
23 the capillary zone could fluctuate within a couple
24 hundred feet?

25 A. Within these sediments, probably not to

1 any great degree. The two wells are, here again,
2 within that eight- to ten-foot range and they are
3 maybe eight-tenths of a mile apart, north and south
4 part of the section.

5 Q. And when you say not to any great degree,
6 can you put that in any detail for us?

7 A. Here again, I said the variance, in other
8 words the difference between the wells, and as you
9 characterized it, eight- to ten-foot depth, so
10 we're talking a couple of feet.

11 Q. And what is the -- the potential depth of
12 the capillary zone in this area?

13 A. I -- I would not venture a guess.

14 Q. And you're indicating that you think the
15 water table could fluctuate one or two feet within
16 this area; is that fair?

17 A. Yes.

18 Q. And upon what do you base that opinion?

19 A. The readings in the groundwater monitoring
20 wells.

21 Q. The two readings from each of these wells
22 that you indicated and referred to?

23 A. Yes. And then that's been substantiated
24 by subsequent readings in those wells.

25 Q. And what were the subsequent readings in

1 those wells?

2 A. Oh, let me -- I'm looking at the data that
3 were provided to me quite recently by Coyote Creek
4 Mining Company. And for the well toward the north
5 end of Section 31, these are readings from August
6 of 2012 going up to September of 2014, and the
7 depth of water ranged from 8.68 feet to 10.84 feet.

8 In the well that's toward the south end of
9 the section, here again, from September of 2012 to
10 September of 2014, here again, we're talking
11 nine -- nine readings, I believe, from both wells
12 in the south well that ranged from 9.35 feet to
13 10.59 feet.

14 Q. And what were the actual dates of each of
15 those readings?

16 A. Okay. For the north well, 8-12-2012,
17 11-7-2012, 12-14-2012, 1-16-2013, 3-21-2013,
18 5-28-2013, 9-13-2013, 3-24-2014, 6-30-2014 and
19 9-15-2014.

20 For the well in the south part of the
21 section, 9-14-2012, 11-18-2012, 12-14-2012,
22 3-21-2013, 5-28-2013, 9-13-2013, 3-24-2014,
23 6-22-2014 and 9-12-2014.

24 Q. And are these readings and dates contained
25 anywhere in your report?

1 A. No. These are subsequent to my report.

2 Q. And are you reading from a document you
3 received from Coyote Creek Mining Company right
4 now?

5 A. That is correct.

6 Q. And --

7 MR. BRAATEN: Your Honor, may I approach?

8 JUDGE MANN: Approach the witness?

9 MR. BRAATEN: Yeah.

10 JUDGE MANN: Go ahead.

11 MR. BRAATEN: May I take a look at that?

12 THE WITNESS: Certainly. May I deliver
13 these to --

14 JUDGE MANN: Yeah, he'll come get it.

15 MR. BRAATEN: I'll come get it.

16 There are two reports containing data that
17 have formed the basis of Mr. Bickel's testimony
18 here, and I would request that these two reports be
19 made part of the record and entered into evidence.

20 JUDGE MANN: Mr. Bjella, did you want to
21 offer those documents that your witness was
22 testifying from as exhibits?

23 MR. BJELLA: Yes. That would be fine,
24 Your Honor, we can do that.

25 JUDGE MANN: Okay. Can -- I don't know

1 where your premarked exhibits leave off, but it
2 might make sense to have those as Exhibit Nos. --

3 MR. BJELLA: 15 and 16, would that be
4 okay?

5 JUDGE MANN: Sure.

6 MR. BJELLA: We have no objection. It's
7 our understanding that these are publicly available
8 records.

9 JUDGE MANN: Okay. And if -- I guess if I
10 could get -- if the witness is through with them,
11 if I could get a copy of those and have them marked
12 and --

13 THE WITNESS: If there are no further
14 questions on them that I have to refer to them.

15 MR. BRAATEN: No. I don't think so.

16 JUDGE MANN: I think we also need to have
17 copies made so everybody knows what we're looking
18 at. And so I think we'll just take a very brief
19 break at this point, maybe five minutes, and I can
20 get these marked and have copies made. And then
21 when we come back on the record, we can see if
22 there's any objections and we can get those
23 admitted. But I want everybody to have the
24 opportunity -- opportunity to be looking at the
25 same thing before we do that. So let's take a

1 short break.

2 (Recessed at 10:40 a.m. and reconvened at
3 10:48 a.m.)

4 JUDGE MANN: Okay. We are back on the
5 record.

6 When we left off, Mr. Bickel in response
7 to cross-examination from Mr. Braaten had provided
8 a number of dates in response to a question from
9 Mr. Braaten. He was reading from a couple of
10 different documents, and those documents have been
11 marked as Coyote Creek Exhibit No. 15 and Coyote
12 Creek Exhibit No. 16. Mr. Bjella indicated it's
13 his intention to offer these as exhibits.

14 And I guess without, you know, going into
15 too much detail as to testimony that's already been
16 offered, if Mr. Bickel could maybe identify
17 Exhibit 15 and Exhibit 16 and just briefly explain
18 those exhibits -- identify those exhibits for us
19 for the record and where that information came
20 from.

21 THE WITNESS: Coyote Creek Exhibit 15
22 lists nine water level readings from a groundwater
23 monitoring well designated CM12-20C, and it is
24 located approximately in the south portion of
25 Section 31, and it -- my annotation says here

1 roughly 180 to 200 feet west of the south field
2 under discussion. With that is a plot of the data
3 showing ground elevation, water elevation, stream
4 elevation.

5 The same data and information are shown on
6 Coyote Creek Exhibit 16 but for monitoring well
7 designated CM12-08B, which is located in the north
8 portion of Section 31. And, here again, it's the
9 same display of groundwater measurements and a plot
10 of those data.

11 JUDGE MANN: Okay. And Mr. Bjella agreed
12 to offer Exhibits 15 and 16 at the request of
13 Mr. Braaten.

14 Ms. Jeffcoat-Sacco, do you have any
15 objection to the admission of Exhibits 15 and 16,
16 Coyote Creek?

17 MS. JEFFCOAT-SACCO: No, we don't. Thank
18 you.

19 JUDGE MANN: Okay. Coyote Creek
20 Exhibits 15 and 16 are admitted.

21 And, Mr. Braaten, you can continue your
22 cross-examination.

23 MR. BRAATEN: Thank you, Your Honor.

24 Q. (MR. BRAATEN CONTINUING) I'm sorry. I do
25 want to clarify just a couple of things on the

1 exhibits before we move on. There's a column
2 marked Depth to Water. Can you tell me from what
3 point that depth is measured from? Meaning is it
4 the top of the casing or the ground elevation?

5 A. Ground elevation.

6 Q. Okay. What is the proximity of these two
7 monitoring wells to Coyote Creek?

8 A. They're very, very close to the creek
9 proper, and without referencing my mapping, which I
10 don't have at hand, the northmost well, it's on the
11 scale of feet, you know, from the channel of Coyote
12 Creek. And my recollection of the site is it is on
13 the opposite bank of Coyote Creek from Mr. Voigt's
14 field and it would be north of that field.

15 Q. So the -- the north monitoring well would
16 be on the bank of Coyote Creek?

17 A. Yes.

18 Q. Okay. And then the south monitoring well,
19 can you give me the location of that one?

20 A. Again, it's close to Coyote Creek. Here
21 again, without referencing mapping data, I couldn't
22 give you a precise figure, but I estimate that it
23 is probably 180 to 200 feet west of the south
24 field.

25 Q. And can you give us an approximation of

1 how many feet it is from Coyote Creek?

2 A. Probably not. Here again, like I say,
3 we're talking on a scale of feet --

4 Q. So would this one --

5 A. -- tens of feet.

6 Q. Would this one also be on the bank of
7 Coyote Creek?

8 A. Yes. I would describe it as such.

9 Q. And because these monitoring wells are on
10 the banks of Coyote Creek, the water table is going
11 to be more subject to fluctuations in the creek
12 than it would to any kind of subirrigation up on
13 the terrace in the fields; right?

14 A. I would assume so, yes.

15 Q. At the beginning of your report on page
16 two, you list a number of legal descriptions with
17 township, range and sections, and would it be fair
18 to say that that is the area of study covered in
19 this report?

20 A. Yes. That is the intent of that
21 recounting.

22 Q. Okay. And so the rather voluminous data
23 and so forth included in the report relates to that
24 study area?

25 A. Yes.

1 MR. BRAATEN: No further questions.

2 JUDGE MANN: Ms. Jeffcoat-Sacco?

3 MS. JEFFCOAT-SACCO: Excuse me. We have
4 no questions.

5 JUDGE MANN: Commissioner Christmann.

6 COMMISSIONER CHRISTMANN: Thanks, Your
7 Honor.

8 **EXAMINATION**

9 **BY COMMISSIONER CHRISTMANN:**

10 Q. Mr. Norris talked about the boring and
11 piezometer profiles. Can you go through with me
12 again your answer to Mr. Bjella's questioning. I
13 didn't really understand. Did you disagree with
14 Mr. Norris that they were not done or did you
15 disagree that OSM requires them?

16 A. No. They were not done because it is not
17 a requirement for an alluvial valley report. The
18 main requirement for an alluvial valley report is
19 that it provide adequate data so that the
20 regulatory authority can make a determination. And
21 if sufficient data are available to make a
22 demonstration as to the presence or absence of
23 alluvial valley floors and the regulatory authority
24 deems that sufficient data, then the report meets
25 its intended purposes. So here again, it's -- the

1 regulatory authority can demand more data, request
2 more data, however you care to phrase it, if the
3 need is recognized.

4 Q. Well, I'm not familiar with piezometers,
5 but would that have been valuable, useful
6 additional information?

7 A. Basically a piezometer, or as I refer to
8 it as a groundwater monitoring well, are the same
9 features. And, here again, you talk about the
10 desirability of data and you can go to extremes and
11 you can acquire a lot of data. And that all adds
12 information. When you reach a point, it is a point
13 of diminishing returns.

14 So what you need to do is provide adequate
15 data to answer the question at hand. And the
16 question at hand with an AVF report is is an AVF
17 present in the sense of SMCRA. And you have an
18 adequate report when there's enough data for a
19 regulatory agency to make that determination.

20 Q. And then he also talked about -- he also
21 talked about doing -- about monitoring daily water
22 fluctuations in August and September from daytime
23 to nighttime. Now, I see in these exhibits there
24 are some -- some readings in that August and
25 September traditional dry season time frame. But

1 when he went through that, that did sound appealing
2 to me as someone who didn't even know what a
3 piezometer was. But really, you know, to monitor
4 that difference between daytime and nighttime and
5 if it was dropping a lot and consistently, that
6 would seem logical to me to conclude that that
7 meant that the plants were using that water.

8 A. Yes.

9 Q. So should that -- is that something that
10 should have been done here?

11 A. Well, obviously we didn't sense that it
12 was necessary in this instance and it is something
13 that the Public Service Commission's sensed was not
14 necessary. Here again, let us keep in mind that
15 the area in question, Mr. Voigt's two fields that
16 he uses primarily for alfalfa production, are
17 outside the study area of this report. So we're --
18 we're talking about an area that wasn't addressed
19 in this report.

20 To your point about using diurnal
21 observations, day/nighttime observations, we have
22 done this in other instances and we, you know,
23 haven't obtained conclusive results. So, here
24 again, it was not done in this instance and it is
25 not required by SMCRA.

1 Q. And in this case you felt there was enough
2 evidence of no AVF that it wasn't necessary to
3 continue doing more --

4 A. Yes. Correct.

5 Q. -- testing?

6 Okay. Mr. Norris also said that land with
7 AVF is afforded additional protection and OSM
8 regulations. If there were AVF here, since it's
9 outside of the -- of the study area, what would --
10 what would you expect would have been done
11 differently?

12 A. Well, that's stipulated in the -- in the
13 guidelines and also in the North Dakota regulations
14 that there are certain measures that need to be
15 taken to protect the AVF as a -- as a resource.
16 And that -- that is apart from the protection
17 that's provided by the other permitting
18 requirements.

19 Q. Can you give a real broad assessment of
20 what that -- what those protections would be?

21 A. Not off the top of my head, no. I would
22 have to refer to the regs and the guidelines, but
23 not off the top of my head.

24 Q. Okay. So now I'm getting away from the
25 AVF stuff so maybe this isn't your area, but it has

1 to do with water. Were you here last week for the
2 first day of the testimony?

3 A. Yes, I was.

4 Q. Mr. Kessler testified and, you know, much
5 of our discussion when we talk about as good or
6 better has been about crop and hay and -- and
7 grazing production. And Mr. Kessler I think
8 correctly pointed out that water needs to be as
9 good or better also. And what's the end result
10 after mine reclamation as far as access to water
11 for wells and things like that on this land?

12 A. The requirements in the rules are very
13 specific, and I believe in terms of end-use water
14 supply -- Mr. Deutsch could provide the exact
15 quotation -- but during and after any end-use water
16 supplies that are affected have to be replaced so
17 that there is no interruption in the availability
18 of water, and that's whatever measure is necessary.

19 In terms of reclamation, and this is --
20 here again, we're going into the area of the mining
21 permit proper, but effects to groundwater and
22 surface water resources have to be documented, they
23 have to be predicted. And there is a process by
24 which the potential effects are weighed against the
25 reclamation steps that are taken to minimize or

1 remediate those, and the difference of those
2 effects that cannot be remediated are considered
3 consequences of mining and they have to be weighed
4 as such in the permit issuance process. So this is
5 a rather detailed and fairly complex part of the
6 permitting process.

7 COMMISSIONER CHRISTMANN: No other
8 questions, Your Honor.

9 JUDGE MANN: Commissioner Fedorchak.

10 COMMISSIONER FEDORCHAK: Thank you,
11 Mr. Bickel.

12 **EXAMINATION**

13 **BY COMMISSIONER FEDORCHAK:**

14 Q. So I just want to understand here. Your
15 report is outlined in Exhibit A, the black area;
16 correct? Your report covers that area?

17 A. Let me refer to --

18 Q. Your AVF study report, the -- within the
19 black line.

20 A. Yeah. Excuse me. I'm not delaying on
21 answering. I'm just getting to Exhibit A.

22 Q. Sure.

23 A. Yes. That is correct.

24 Q. Okay. And then in evaluating the area
25 within the permit boundaries but outside of your

1 report, did you look at the material from the
2 Dakota Westmoreland Corporation AVF study or was
3 that done by the PSC? I'm sure that's what was
4 relied upon to develop the AVF conclusions for the
5 permit location, those areas not covered by your
6 report.

7 A. I don't understand the question fully.

8 Q. Okay. So you --

9 A. You spoke of the -- in developing the
10 permit or are you speaking of the --

11 Q. I'm sorry.

12 A. -- AVF report?

13 Q. In determining whether or not there is a
14 presence of AVF, your report covered a vast
15 majority of the --

16 A. Right.

17 Q. -- permit location, but some of it is
18 outside. So what was used to evaluate AVF in those
19 areas?

20 A. Okay. You're --

21 Q. The purple areas that are within the
22 permit boundaries but not covered by your report.

23 A. Okay. Those areas have -- and, here
24 again, I'm assuming you're talking about what at
25 the time was assumed to be a probable permit

1 boundary, the yellow line?

2 Q. Right.

3 A. And then there is a portion of the Dakota
4 Westmoreland AVF study that is within there.
5 Basically, that area within the Dakota Westmoreland
6 study has been deemed to not be AVF, so that's why
7 my boundaries around it is disregarded.

8 Q. Okay. So previous studies --

9 A. Now, when you --

10 Q. -- concluded that --

11 A. Oh, I'm sorry.

12 Q. Previous studies concluded that didn't
13 have the presence of AVF, so you studied what
14 hadn't been studied before?

15 A. Right.

16 Q. Okay. And so Mr. -- was it Mr. Norris?
17 Yeah. He had a lot of pretty negative things to
18 say about the Dakota Westmoreland study. Have you
19 reviewed that study?

20 A. Not in full detail, but I certainly have
21 examined it. Yes.

22 Q. Did you complete it? You didn't do that
23 study?

24 A. No.

25 Q. No. He -- one of his conclusions was that

1 the study wasn't performed at the right time. It
2 should have been done in midsummer when -- when you
3 could more appropriately evaluate whether
4 subirrigation is being used to support the plant
5 growth. Do you -- is that a fair assessment of
6 this study?

7 A. As a total assessment of the study? Well,
8 I won't render an opinion on that. My total
9 assessment of the study is that it was adequate for
10 its purposes.

11 Q. So in your expert judgment, this study
12 looked at the appropriate things for determining
13 the presence of AVF and so its conclusions can be
14 trusted?

15 A. Yeah. You can make a logical assumption
16 on that because it went through the review process
17 with the regulatory agency, in this case the
18 reclamation division and the North Dakota Public
19 Service Commission. And to reach the point of
20 issuing a determination, they felt they had
21 adequate data.

22 Q. Okay. Thank you. Can you explain the
23 difference between AVF and subirrigation? Is there
24 a distinction there that's important? People seem
25 to be making that distinction and --

1 A. That's a good question. Subirrigation is
2 one aspect of AVF determination. The concept of an
3 alluvial valley floor was developed early on in the
4 development of SMCRA, and its intent is to protect
5 those areas where stream valleys and the associated
6 agricultural production associated with them was
7 really -- and this is a term that's, I believe,
8 used in the guidelines, it was certainly used in
9 the preliminary work -- is the backbone of the
10 agricultural economy.

11 Put in simple words, if the production of
12 hay and other crops essential to livestock
13 production were not available in those valleys, it
14 would be largely impossible to ranch there with the
15 level of success that currently exists. And
16 classic areas, for instance, along the Powder River
17 and Powder River Basin, these areas are very, very
18 evident. Without hay production in those stream
19 valleys which are greener, more verdant -- it shows
20 up. Go on Google Earth, you can see it. Without
21 that, the regional agricultural economy, which is
22 primarily driven by ranching, would be devastated.

23 Q. Okay. So --

24 A. And that's -- it was designed to protect
25 those areas.

1 Q. So you're -- if I'm understanding you
2 correctly, you're saying that AVF basically makes
3 farming and ranching possible when it's present.
4 Without it, it would be too dry?

5 A. In those arid regions, yes, that --

6 Q. So it's not just added production. It's
7 basically production, just as a --

8 A. Pretty much, yes.

9 Q. -- little benefit.

10 So if it's increased production or you're
11 seeing areas where there's pockets of better
12 irrigation, would that be more indicative of
13 subirrigation?

14 A. Subirrigation is a component of the
15 alluvial valley floor concept, and that's why it's
16 dwelled on here. And in some areas further west,
17 alfalfa production and the presence of
18 subirrigation is critical and in other areas it's
19 not. Many of the areas along streams in this part
20 of North Dakota are cropped. You raise crops not
21 for livestock feeding purposes; you raise other
22 crops. Different times of year depending -- or not
23 different times of year, but depending on wet and
24 dry periods, crops can be rotated on these areas.
25 So it does get to be complex, but an alluvial

1 valley floor is far more than simple subirrigation.
2 And it's --

3 Q. Are there other things that you can point
4 to that might be terms that we could understand
5 that are also present besides subirrigation that
6 are key to an alluvial valley floor?

7 A. The potential for water flooding where you
8 can divert water during high stages of a stream and
9 spread it over land where you can -- and in some
10 areas of the west where you can resort to other
11 forms of irrigation. Here again, it's to look at
12 the critical nature of that production along the
13 stream valleys in terms of the economy of the
14 individual rancher and the community and region.

15 Q. Okay. So flooding and water available for
16 irrigation. Any other major kind of criteria for
17 an AVF?

18 A. There are others I can't come up with off
19 the top of my head.

20 Q. That's fine. Are they unusual, an AVF?
21 Are these rare?

22 A. Oh, you mean these criteria?

23 Q. No. Just the presence of an AVF. Is that
24 kind of a unique thing? Are they kind of rare?

25 A. It depends on climate. North Dakota, the

1 northern and central part of North Dakota is west
2 of the hundredth meridian, and that means the
3 requirements for the Great American West under
4 SMCRA apply to us. But in terms of our climate and
5 our climate history, we're wetter than that, except
6 in the southernmost part of the state and the
7 southwestern part of the state.

8 So that is why alluvial valley floors in
9 the sense of SMCRA are rare. They're almost
10 nonexistent. We have abundant moisture, and this
11 abundant moisture lets hay and other feed
12 materials, cropping to occur on uplands. You get
13 further west in arid areas, that's not the case.

14 Q. Okay. Okay. I was kind of curious and
15 following up on some of Commissioner Christmann's
16 questions about the borings. That was one of the
17 areas where Mr. Norris was most -- he made two --
18 two recommendations. Need to bring boring and
19 water level profiles and detailed and meaningful
20 examination of the data that's pertinent to the
21 evaluation of the AVF. You've already talked about
22 the fact that you think the second element has been
23 done.

24 You mentioned the borings. He thought, in
25 my notes, four or so borings are needed to

1 determine AVF and that there's two been completed.
2 Is there a standard for how many borings you need
3 to determine an AVF?

4 A. No.

5 Q. And does it matter where they are taken?
6 Do you need to do them, you know, right -- right in
7 the middle of the field where there is concern or
8 how -- how close does it need to be?

9 A. Here again, it's -- this has to stay
10 flexible and it is flexible in the regs and the
11 application of the regs -- regulations, I'm sorry.
12 When you deal with arid environments further west,
13 there are different requirements and different
14 needs for documenting alluvial valley floors,
15 largely because they -- they play an extremely
16 critical role in the agricultural economy.

17 Q. So in other areas, maybe areas where
18 Mr. Norris has done more work, it's more common to
19 have additional -- or a larger number of borings?

20 A. That would be my assumption, but --

21 COMMISSIONER FEDORCHAK: Okay. All right.
22 I think that concludes my questions so far. Thank
23 you.

24 JUDGE MANN: Commissioner Kalk.

25 COMMISSIONER KALK: Thank you, Your Honor.

EXAMINATION

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BY COMMISSIONER KALK:

Q. Thank you, Dave, for your testimony. I just have a couple. My colleagues always do such a good job of asking the questions. I appreciate that.

The -- would you agree if I said that there are many things that determine groundwater level? It's not just one thing that determines groundwater level. It could be rainfall, it could be many different things?

A. Yes.

Q. So to say one --

A. Kind of summed up, it's a hydrologic cycle. Yes.

Q. So to say one thing would have an isolated impact on groundwater, it's hard to do that?

A. Pretty much, yeah.

Q. Would you -- what would your thoughts be about -- how important is understanding soil type, understanding hydraulic flow?

A. When you get into the area of soil science, which is outside the area of my expertise, you're dealing with infiltration, rates of infiltration. As was pointed out, you're dealing

1 with capillary responses. But soils -- and, here
2 again, using soils in a general sense as well as
3 the geology of the unaltered materials below the
4 soil, yeah, this is important in understanding the
5 process.

6 Q. Okay. And then the last question I had
7 was the -- how much time did you spend reviewing
8 the -- the data that you talked about earlier in a
9 general sense? Was it a year, a week?

10 A. Well, a scale of months, I would say.

11 Q. Would it have been hard to do that in --
12 review all the data available in a couple weeks?

13 A. No.

14 Q. Would you agree that the longer time you
15 can look at the data, the more thorough your
16 conclusion can be?

17 A. Yes. That -- that is the primary reason
18 why there is this stipulation that the AVF
19 information be generated before the permit proper.

20 COMMISSIONER KALK: Okay. Thank you. I
21 have no further questions.

22 JUDGE MANN: Mr. Bjella, follow-up?

23 MR. BJELLA: No, Your Honor.

24 JUDGE MANN: Mr. Braaten?

25 MR. BRAATEN: Yes, Your Honor.

FURTHER EXAMINATION

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BY MR. BRAATEN:

Q. Mr. Bickel, are you familiar with the SMCRA regulations both in the eastern and western part of the United States?

A. Not to a complete extent in terms of the eastern part of the United States.

Q. You're aware, though, that in the eastern part of the states it's not necessary to make the alluvial valley floor determinations?

A. Yes.

Q. And those are made for any coal mines west of the hundredth meridian?

A. Correct.

Q. And that's because those are considered by federal regulation to be arid or semiarid areas?

A. Yes.

Q. And because in semiarid or arid areas the existence of alluvial valley floors are crucial for successful agricultural production?

A. That was the intent and assumption of SMCRA. Yes.

Q. In your regulatory work, did you ever review a document from the Office of Surface Mining, Reclamation and Enforcement titled Alluvial

1 Valley Floor Identification and Study Guidelines?

2 A. Yes.

3 MR. BRAATEN: I'm going to hand this to
4 the witness. This one's the one that's been
5 discussed by the parties. I think we have some
6 extra copies if anyone needs one, but I think
7 everyone was going to have a copy and the PSC was
8 going to introduce their binder into the record for
9 this one.

10 JUDGE MANN: Mr. Bjella, do you have a
11 copy or do you know what he's referencing?

12 MR. BJELLA: Yes, Your Honor, we have it.

13 JUDGE MANN: Ms. Jeffcoat-Sacco?

14 MS. JEFFCOAT-SACCO: I have no objection,
15 and we can produce a clean -- a non-notes-on-it
16 binder for the record. I think everyone else has
17 it electronically.

18 JUDGE MANN: Okay. Go ahead. Continue,
19 Mr. Braaten.

20 MR. BRAATEN: I just realized the
21 commissioners may not, so --

22 COMMISSIONER FEDORCHAK: Yeah, we've got
23 it.

24 MR. BRAATEN: You do. Okay.

25 JUDGE MANN: But just when you do question

1 him on that, can you just identify, you know, the
2 location, what -- specifically where at on that
3 document.

4 COMMISSIONER FEDORCHAK: Your Honor.

5 JUDGE MANN: Go ahead.

6 COMMISSIONER FEDORCHAK: In my notes, this
7 is Voigt No. 2; correct?

8 MS. JEFFCOAT-SACCO: I think that's
9 something different.

10 JUDGE MANN: I don't believe -- I believe
11 you're referencing a different document,
12 Mr. Braaten?

13 MR. BRAATEN: Yeah, I think so.

14 COMMISSIONER FEDORCHAK: All right. Then
15 maybe we don't have it.

16 MS. JEFFCOAT-SACCO: Do you want me to go
17 upstairs and get one?

18 MR. BRAATEN: No. I can give them copies
19 right now.

20 MS. JEFFCOAT-SACCO: Okay.

21 JUDGE MANN: Have you got additional
22 copies, Mr. Braaten, you're going to supply to the
23 commissioners?

24 MR. BRAATEN: I do. Correct.

25 JUDGE MANN: All right. And I guess just

1 so we're clear, Ms. Jeffcoat-Sacco, you're going to
2 later offer the document that we're reviewing now
3 as an exhibit? It's -- it's the same document,
4 though?

5 MS. JEFFCOAT-SACCO: Well, actually, I
6 think the document Derrick is handing out, correct
7 me if I'm wrong, is a subset. It's not the whole
8 thing.

9 JUDGE MANN: Okay.

10 MS. JEFFCOAT-SACCO: When it was time for
11 me to question -- I was -- I had a question for
12 Dr. Bickel and I was going to ask for it then
13 because we've all been talking about it here for an
14 hour. So I think it might be appropriate to get
15 the binder admitted fairly soon, and I don't care
16 whose it is. It's called -- I just don't have a
17 clean one to give for the record -- 1983 OSM AVF
18 Identification Study Guideline, so that the whole
19 thing is in the record.

20 JUDGE MANN: All right.

21 MS. JEFFCOAT-SACCO: I can get one now or
22 at the next break.

23 MR. BRAATEN: We can use this one.

24 MS. JEFFCOAT-SACCO: If you want to.

25 MR. BRAATEN: I have a complete copy of it

1 in a binder. We can use ours if there's no
2 objections.

3 JUDGE MANN: Well, that's fine from the
4 standpoint of offering that and getting it admitted
5 as the exhibit. We're not going to submit full
6 copies to everybody; is that correct?

7 MS. JEFFCOAT-SACCO: No. Because -- okay.
8 The parties have had it electronically for some --
9 a week or so. We will -- we have an electronic
10 version so that everyone will have access to that
11 and for docketing purposes and then there will be
12 the one hard copy. Now, if commissioners want
13 their own copy, we can do that, too, when there's
14 time. But I didn't think we had to bring 12 copies
15 of this large thing.

16 JUDGE MANN: Sure. I just want to make
17 sure that everybody's referencing the same
18 document. And I guess if we want to get that
19 document admitted now, we can. I guess --

20 MS. JEFFCOAT-SACCO: It's better.

21 JUDGE MANN: Mr. Bjella has the witness on
22 the stand, but it's not really his exhibit and I
23 don't think it's necessary. I think we can just
24 have somebody offer it now and get it admitted. It
25 doesn't have to go through Mr. Bjella's witness

1 right now, as long as counsel all agree to that.

2 MR. BJELLA: Yes, Your Honor.

3 JUDGE MANN: Okay. Do you want to offer
4 that, Mr. Braaten?

5 MR. BRAATEN: Yeah. We will offer the
6 exhibit.

7 JUDGE MANN: Okay. And let's -- let's
8 see. Let's just mark that as Voigt Exhibit No. 15.
9 Mr. Bjella, are you okay with that?

10 MR. BJELLA: Yes, Your Honor.

11 JUDGE MANN: And Ms. Jeffcoat-Sacco?

12 MS. JEFFCOAT-SACCO: Yes. Thank you.

13 JUDGE MANN: All right. Just for
14 reference, this is Voigt Exhibit No. 15.

15 And, Mr. Braaten, you can continue now.

16 Q. (MR. BRAATEN CONTINUING) I'm going to ask
17 you to -- for the commissioners and Mr. Bickel, I
18 have tabbed the page that I'm going to refer to,
19 but it shows up as I believe II-11.

20 MS. JEFFCOAT-SACCO: What was the
21 reference again, Derrick?

22 MR. BRAATEN: I believe it's II-11.

23 MR. BJELLA: Would that be Roman numeral
24 II-11?

25 MR. BRAATEN: Sure.

1 Q. (MR. BRAATEN CONTINUING) Mr. Bickel, as
2 you can see, we -- this page refers to the
3 definition of an alluvial valley floor. And is it
4 your understanding that with respect to number one,
5 the geologic criteria, everybody has agreed that
6 that criteria has been met with respect to an AVF
7 determination in the study area?

8 A. Yes.

9 Q. Okay. And so when we go to number two,
10 sub A states, Water is available by surface water
11 irrigation or subirrigation and is being or has
12 successfully been used to enhance production of
13 agricultural useful vegetation.

14 Would you agree that the importance of the
15 discussion of subirrigation here is that if
16 subirrigation exists in this place, then it also
17 follows that an AVF is present?

18 A. Only to the degree as set aside in 2.A
19 that is used to enhance production. The
20 presence -- mere presence alone does not serve as a
21 criteria.

22 Q. Okay. And so assuming that the
23 subirrigation exists and is being used by Mr. Voigt
24 to enhance his alfalfa production, you'd agree, if
25 those two factors are met, then there is an AVF

1 present here?

2 A. No.

3 Q. And why not?

4 A. Because the whole concept rests -- the AVF
5 concept rests on the significance both of the
6 degree of enhancement of production and the
7 significance and importance of the critical element
8 of that production to the overall operation. It's
9 a matter of scale.

10 Q. Is that with respect to mitigation of the
11 hydrology of the AVF or determining whether or not
12 an AVF actually exists?

13 A. The determination.

14 Q. Okay. And so if it is crucial or
15 important to Mr. Voigt's overall operation and you
16 agree that -- and there is subirrigation occurring,
17 you would agree that there is an AVF present?

18 A. Here again, I think the critical issue is
19 the scale of the resource and its overall role in
20 the individual's operation. That is the intent of
21 it.

22 Q. I understand. And my question is if
23 subirrigation exists in these alfalfa fields and
24 production in those fields is crucial to his
25 overall operation, you admit an AVF exists here?

1 were required, and your response was sort of
2 sufficient data is required and so if you need
3 them --

4 A. Yes.

5 Q. And you said the -- the regs or the
6 guidelines don't require the wells. They require
7 sufficient data for a determination. Were you
8 referring to this document in those answers to
9 these AVF guidelines or to something else?

10 A. I'm referring -- here again, I can't give
11 you the exact citation, but I'm referring to the
12 administrative code, North Dakota Administrative
13 Code, I believe.

14 Q. So there are -- in addition to the
15 guidelines, there are rules on AVF?

16 A. Correct.

17 MS. JEFFCOAT-SACCO: Okay. Thank you.
18 That's all I have.

19 JUDGE MANN: Commissioner Christmann.

20 **FURTHER EXAMINATION**

21 **BY COMMISSIONER CHRISTMANN:**

22 Q. I'm trying to evaluate your definitions of
23 some of the words that you used in answering
24 Mr. Braaten's questions. When you talk about if
25 the operation depends on the subirrigation, so --

1 how are we to evaluate that? Does that mean that
2 we would need for it not to depend on that
3 subirrigated land and the hay -- that we would
4 need -- need to deem that that grazing land is
5 pretty much useless without it or just that the --
6 his specific operation and the exact way that he
7 operates it would need to be changed --

8 A. Yes.

9 Q. -- if not for this?

10 A. There are areas, I cannot cite them,
11 within both the guidelines and I believe in our
12 regulations, that talk about matters of scale. And
13 I think from all -- all testimony there -- there's
14 no refuting that when you plant alfalfa on
15 Mr. Voigt's two fields, there is the potential that
16 those plants can reach and utilize groundwater.

17 The question -- and please repeat your
18 question again.

19 Q. Well --

20 A. I got lost in my own comment. I --

21 Q. I wrote down in my notes that you said if
22 the operation depends on the subirrigation and the
23 subirrigation exists, it would be AVF. And I want
24 to know what you mean by if the operation depends
25 on that. For us to determine that Mr. Voigt's

1 operation depends on this, does that mean as he
2 operates it now, so if it wasn't for this, he'd
3 have to make some changes, or does that mean I
4 should determine in my mind that if not for this,
5 everything else is just gone, it's useless, the
6 grazing is ineffective and everything is useless?

7 A. That was essentially the concern with the
8 AVF provisions in SMCRA, and as pointed out in the
9 western United States is that if that capability of
10 production along major stream courses were damaged,
11 it would be a critical blow to an operator's
12 capability to produce livestock. And if that
13 exists, then you are dealing with an alluvial
14 valley floor situation.

15 And I think what we're dealing with here
16 is a situation of scale. Indeed, Mr. Voigt's two
17 alfalfa fields do provide income. It's part of his
18 operation. But assuming the worst case that they
19 were damaged, that would not be the end of his
20 production. And, here again, you're taking me out
21 on thin ice. I am not, you know, a range scientist
22 and I don't have at hand even the acreage that
23 Mr. Voigt operates, how much of the other areas
24 than these two fields are being cropped, capable of
25 producing hay. But in this region there are upland

1 areas as well as lowland areas that can produce
2 livestock feed.

3 And so that's where the matter of scale is
4 important in this test. Is it a critical factor in
5 his operation? And it's not so much the question,
6 at least in my mind, as to whether his alfalfa is
7 being subirrigated or not. It's the question of
8 the scale of that production in terms of his total
9 operation.

10 Here again, we're talking not about
11 environmental protection because that's dealt with
12 in the permit proper. We're just talking about
13 this initial test to see if an alluvial valley
14 floor is present.

15 Does that help?

16 COMMISSIONER CHRISTMANN: It does. Thank
17 you.

18 JUDGE MANN: Is that it?

19 COMMISSIONER CHRISTMANN: Yes.

20 JUDGE MANN: Commissioner Fedorchak?

21 COMMISSIONER FEDORCHAK: I have no more
22 questions. Thanks.

23 JUDGE MANN: Commissioner Kalk.

24 COMMISSIONER KALK: Thank you, Your Honor.
25

FURTHER EXAMINATION

BY COMMISSIONER KALK:

1 Q. Thank you, once again, Dave.

2 The -- in your Coyote Creek Exhibit 13 you
3 talked about Exhibit B, a portion of OSMRE, 1985.
4 What is that exactly? I'm trying to see if that
5 relates to this 1983 version at all.

6 A. There were two separate reports, the 1983
7 guidelines, and then subsequent to that I believe
8 OSM contracted for a regional -- I forget to what
9 extent or what areas, but it resulted in this
10 reconnaissance survey of west central North Dakota,
11 and they worked primarily with aerial photography.
12 Some work on the ground, but that was fairly
13 limited. And as it says in the introduction of the
14 report, the idea is to look at areas that could
15 potentially be alluvial valley floors. And it was
16 a screening process.

17 Q. Okay. I noticed on page four of your --
18 of Exhibit 13 you talk about the '85, which would
19 be perhaps the updated version, has been
20 subsequently found to have numerous false-positive
21 AVF areas. Could you just explain exactly what
22 that means and how that came about.

23 A. Okay. They -- they produced these maps of
24
25

1 potential alluvial valley floor areas, and
2 subsequent investigation has shown that most of
3 these areas are not alluvial valley floors. And
4 you get back to the crux of the issue and that is
5 is that in west central North Dakota we have a
6 climate that allows production on uplands. Many of
7 these areas there is not subirrigation present as
8 they surmised.

9 And, here again, in the defense of OSM, if
10 you wish, in the introductory parts of that
11 document it says, Well, this is just a
12 reconnaissance survey and they used all of the
13 qualifying words -- in geology we call them weasel
14 words -- to say, Well, this isn't that important.
15 But at the time that document was issued, it
16 carried great weight.

17 And so whenever an alluvial valley floor
18 area comes up, it has to be scrutinized very
19 carefully. And the net result has been that most
20 of these areas are not alluvial valley floors.

21 COMMISSIONER KALK: All right. Thank you.

22 JUDGE MANN: Mr. Bjella, any follow-up?

23 **FURTHER EXAMINATION**

24 **BY MR. BJELLA:**

25 Q. Now, Dave, I believe you had previously

1 indicated that looking at the data you looked at
2 that these lowland hayfields, they are not
3 indicative of subirrigation; would that be correct?

4 A. Are you directing this toward
5 Mr. Voigt's -- Voigt's field?

6 Q. Yes.

7 A. I did not evaluate those in terms of my
8 AVF report. That was outside the area of the
9 report.

10 Q. Right. But what did that report indicate
11 to you with respect to water and runoff and serving
12 those fields?

13 A. Basically what we did see is that fields
14 in long floodplains are more affected by surface
15 water conditions, precip, runoff and so forth, than
16 anything that could be attributed to groundwater.

17 Q. And that would be true of Mr. Voigt's
18 report?

19 A. When you -- yes. And when you look at the
20 Dakota Westmoreland AVF report, I believe on the
21 last pages they summarize the --

22 Q. And did you --

23 A. -- those conclusions.

24 Q. You reviewed that report?

25 A. Not extensively, but enough to

1 familiarize --

2 Q. And do you concur with their findings of
3 no AVF within Section 31 of Mr. Voigt's fields?

4 A. I accept their findings, yes.

5 Q. And that report was issued, I believe,
6 back in 2009; is that correct?

7 A. Oh, give me a moment here. 2009.
8 October 2009 on the copy I have.

9 Q. And that deals with Mr. Voigt's land in
10 Section 31; is that correct?

11 A. Yes. That was included.

12 Q. And, to your knowledge, was that AVF
13 report challenged by Mr. Voigt at this PSC or in
14 any other form?

15 A. I would have no knowledge of that. I'm
16 sorry.

17 MR. BJELLA: That would conclude our
18 examination, Your Honor.

19 JUDGE MANN: Okay. Mr. Braaten.

20 **FURTHER EXAMINATION**

21 **BY MR. BRAATEN:**

22 Q. Mr. Bickel, again, it's your opinion that
23 the determination of an AVF is contingent on both
24 subirrigation as well as the fact that the
25 subirrigation is crucial -- or critical to the

1 farming operation. Do I have that right?

2 A. That the AVF, the ability to produce on a
3 floodplain, is critical to an operation.

4 Q. So the AVF determination is made prior to
5 the determination of whether it's critical to the
6 farming operation?

7 A. That is part of the determination, yes.

8 Q. No. My question is -- I think I'm getting
9 confused here, but the determination of whether or
10 not an AVF exists is made prior to determining
11 whether or not it is critical to a farming
12 operation?

13 A. There is overlap in the process of --
14 because the determination of an AVF being present
15 is not only a hydrologic or scientific
16 determination setting, but in making that initial
17 determination, the scale and the importance of that
18 area comes into play.

19 Here again, you have to keep in mind that
20 what you're dealing with is a screening process to
21 identify a potentially critical area to not only an
22 individual farming and ranching operation, or to
23 the agricultural economy of an area.

24 Q. And so in all of the materials that you
25 reviewed, can you identify the data collected and

1 information collected that related to the impact of
2 AVFs on anyone's farming operation?

3 A. Well, no. There were no economic data
4 collected.

5 Q. I'll have you turn to Roman numeral I-7 of
6 the alluvial valley floor identification and study
7 guidelines. It is the diagram on your page Flow
8 Chart.

9 A. Yes. Figure one?

10 Q. Yes. And we have four blocks at the top
11 and then it goes down to two different blocks, the
12 one looking at the page to the left is AVFs in
13 adjacent area. You'd agree that that's what we
14 have with respect to Mr. Voigt's alfalfa field?

15 A. No. Because there was no determination of
16 an AVF present there.

17 Q. Okay. What you're saying is that they
18 determined there was no AVF?

19 A. Yes.

20 Q. Okay. If there was a determination that
21 there was an AVF, that would have come prior to the
22 next box here which is, Is AVF significant to
23 farming?

24 A. Okay.

25 Q. You referred to the administrative code in

1 North Dakota. Are you familiar with North Dakota
2 Administrative Code Section 69-05.2-10-03 Permit
3 Applications Criteria for Permit Approval or
4 Denial?

5 A. Generally. I can't cite it or recall it
6 off the top of my head.

7 Q. And subsection b(2) of that code says, "If
8 the permit area or adjacent area contains an
9 alluvial valley floor," then you look at the
10 significance of the impact of the operations on
11 farming.

12 Does that change your answer to my prior
13 question at all with respect to whether or not you
14 have to assess the importance of the AVF to farming
15 in making an AVF determination?

16 A. It is still in terms of sound practice to
17 make this decision because there are in terms of
18 guidelines and elsewhere consideration of scale.

19 Q. But as you said, there was absolutely no
20 consideration of the economics with respect to
21 agriculture for this AVF determination that you saw
22 in the record?

23 A. That's correct.

24 MR. BRAATEN: No further questions.

25 JUDGE MANN: Ms. Jeffcoat-Sacco?

1 MS. JEFFCOAT-SACCO: We don't have any
2 questions at this time.

3 JUDGE MANN: Okay. Commissioner
4 Christmann?

5 COMMISSIONER CHRISTMANN: No questions,
6 Your Honor.

7 JUDGE MANN: Commissioner Fedorchak?

8 COMMISSIONER FEDORCHAK: No.

9 JUDGE MANN: Commissioner Kalk?

10 COMMISSIONER KALK: No, Your Honor.

11 JUDGE MANN: Okay. Mr. Bjella, anything
12 further?

13 MR. BJELLA: No, Your Honor.

14 JUDGE MANN: Okay. Mr. Bickel, you can
15 step down. Thank you.

16 I think at this time we'll break for
17 lunch. Start up again at 1 p.m.

18 (Recessed at 11:53 a.m., Friday, the 2nd
19 day of January, 2015.)
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CERTIFICATE OF COURT REPORTER.

I, Stephanie A. Smith, a Registered Professional Reporter,

DO HEREBY CERTIFY that I recorded in shorthand the foregoing proceedings had and made of record at the time and place hereinbefore indicated.

I DO HEREBY FURTHER CERTIFY that the foregoing typewritten pages contain an accurate transcript of my shorthand notes then and there taken.

Dated at Bismarck, North Dakota, this 10th day of February, 2015.

Stephanie A. Smith
Registered Professional Reporter

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