

RC-22-233 Part 1

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SUMMARY KEYWORDS

variance, soil, guess, overburden, area, questions, section, concerns, issues, permit, compaction, mining, psc, void, stockpile, revision, feet, seed, seeding rate, land



00:16

All right, it's 9:28am on October 12 2022 in the PSC hearing room at the State Capitol in Bismarck, North Dakota. This is a time and location scheduled for an informal conference in PSC case number RC Dash 22 Dash 233.



00:37

My office office of administrative hearings has designated this matter as Oh h file number 2022 0259.



00:48

This conference is being held pursuant to a notice of informal conference and notice of informal conference the change in issued by the Public Service Commission.



01:00

My name is Hope Hogan and I have been designated as the administrative law judge for this matter. I've been asked to conduct this conference and then issue a recommended decision to the Public Service Commission. I started passing around in attendance sheet and I'd ask that everybody sign that so that we have a record of everybody that attended today and also has.



01:33

Yeah,



01:35

this is an informal conference requested under North Dakota century code section 68 Dash 14.1 Dash 19. On March 17 2022, the PSE received from Coyote Creek mining company LLC, an application for revision number 12 to the surface mining permit, and a cc dash 1302 revision

number 12 changes the post mined topography on 280 acres in Section six and seven township 142 North range at West and Section One township 142 North range 89 West, the introductory legal financial compliance information environmental operations and reclamation sections have been revised. Casey and Julie void filed comments and objection and requests for informal conference dated August 29 2022. The concerns raised by the voice were generally described as dust, projected topsoil and subsoil re spread depths, Reclamation variants and the timing of revegetation.

 02:57

I'm now going to ask the parties to make their appearances for our record. Mr. Broughton if you want to go first introduce yourself and your clients.

 03:09

Derek Broughton with Broughton law firm Bismarck, North Dakota appearing on behalf of Casey and Julie Voight. Also with me is Lisa Anderson, other attorney in the firm and Deseret is asked my paralegal.

 03:22

All right, thank you, Mr. Man. Do you want to state your appearance for the record and introduce who you have with you today? Yeah, thank you, Your Honor. Wait, man.

 03:32

Wait man PO Box 2798 appearing on behalf of Coyote Creek mining company. I have Jeremy eckroth, the Environmental Manager with the Coyote Creek Mine and Don Stephen, the production manager with the mine. Thank you. And Mr. Chu, do you want to state your appearance for the record and introduce the staff members with you today? Yes, sir. John Schuh on behalf of the reclamation division. I did make a number of our experts available based upon the funding they've received. We haven't granted Myron, we have Monty Johnson, Jonathan Emmer, and Guy Walsh. All right, thank you. It does not appear that we have any members of the public attending our hearing today.

 04:15

We

 04:17

generally spoke about hearing procedure before we began today, and it's my understanding, Mr. Broughton, you're going to present first followed by Mr. Mann and then, Mr. Chu, you'll present any additional information or some general information from PSE staff.



04:35

Is there any questions or concerns or remarks on procedure?



04:42

I think the only thing I would add that we had discussed previously was that we would each do a short presentation but then follow that up with you know, some amount of question and answer primarily, I think with the PSC staff, but just want to note that all right



04:59

and



05:00

With questioning, you know, this is this is meant to be informal. If there's objections, we can record those for the record, but my understanding is generally broad scope for information and everything's going to come in.



05:14

And I'm not planning to cross examine anyone, I really do just have some questions.



05:20

All right. Do we have any exhibits or documents that are getting entered? today? We do have a number of zips will be coming in paper format, but they were actually already provided the computer I know the voids have a video is are there other documents as well? Yeah. So part of our initial presentation will be a video with some pictures.



05:43

And then beyond that, I had mentioned to John that I think, to the extent there's any exhibits, it's probably just using some of the maps as a frame of reference for everyone.



05:55

All right. And are we okay, with just electronic masking you Mr. Chu, as far as a record for this case, if that's acceptable. If you want something hard for the official for the informal conference, as long as we have the actual home files, that'll be fine for the purpose of the

informal hearing.

 06:11

But the one thing I did want to bring up as well just read, before we get we begin, I think it'd be helpful of Jonathan number would just walk through the different various areas on a map, just to kind of set the stage so that we know exactly which areas we're talking about as this kind of moves forward. Sure.

 06:27

Mr. Man, did you have any documents or exhibits we have one map we intend to use? That's it. Okay. All right. Any other preliminary matters? We need to discuss nothing for most, Mister man, do you have anything? No, Your Honor. Mr. Chu, Your Honor. All right.

 06:43

Sara Murray, if you want to start. Alright, so this is out of the permit on this just there reclamation schedule and variance map. So starting off, in the legend, the green patching is variance area one

 06:58

up and section 25 little bit into 36. The blue is variance area to

 07:04

the cyan color is variance area three,

 07:08

this gray area over here is variants area four

 07:13

variants area five is the magenta

 07:17

six is hard to see but it's a very small area northwest corner of Section six, that's purple. And then variants area seven is this light orange color. So the the main variants we'll really be talking about is variance area seven down here in Section six

talking about is variance area seven down here in section six.



07:35

In this will probably be easier to see on the other maps, but we just in generality provide a point at where Mr. Boyd's properties in relation to these debts



07:47

is the central area of section 31 Okay



07:56

thank you



07:59

Miss rotten, you can go ahead. Okay.



08:02

So as I had indicated earlier, our plan is I'm going to have video played and Mr. And Mrs. Void will explain a little bit as the video goes, what we're looking at and that's going to cover some of the storage concerns and bring us up to speed and we have some other pictures that I'll have them explain briefly and then I'm going to just do sort of a summary of some of the other issues that we'd like to primarily just gather some information about so can we have you pulled the actually might need to come over I think



08:35

it'd be under dust.



08:40

There shouldn't just be one MP for



08:43

autumn



08:48

11 08:47

so I'm gonna let you go ahead YouTube and just sort of once it starts playing wherever let us know what we're looking at. I thought the staff had kind of seen most of this but they see most of the staff is different. So other than guy, this should be new to most people. This is an area supposed to be a access corridor to move livestock next to a stockpile This is a whole road with

09:15

old trucks

09:24

you can see the ranch in the background or the yard sorry, all the areas the ranch

09:34

most of the traffic is to the west and uphill from the valley that we live in. So this is our yard and that's where the dust likes to settle because of the predominant west and northwest winds in the mining activity being to the West End appeal

10:00

I guess we had to use some of these pictures in our previous hearing but not the full video.

11:20

Have you allowed the dust to the yard is caused due to the close proximity of the stockpile to the yard

11:29

aside from the obvious eyesore

11:35

is a health concern for my family and my livestock

11:55

here's a pretty good visual of where the stockpile is compared to the yard



12:37

this is Dr Greenberg



12:48

lot of these pictures it's hard to see because the cameras actually filter some of the dust out



12:55

it obviously looks worse in person than it does on these pictures



13:18

that's like a Sunday where they're not even working and just the wind is moving the stockpiles and spoil piles



13:36

this is like three years later from the previous pictures it looks similar



13:41

just an ongoing



13:51

now we go into some access issues where the fencing and disturbance areas are



13:58

not conducive to manage my operation. Seagate there abouts you can't get to the gate the power cables



14:10

another gate in the background was no access.



14:15

This is an area to move cattle and to the left of the fence there's about 100 foot pathway close

This is an area to move cattle and to the left of the fence there's about 100 foot pathway slope up the hill that was inaccessible so we were forced to use rougher terrain to try and move our cattle so they had to climb next and get out of this passage to get to their adjacent pasture. This is what was left for our access to that other pasture.



14:41

Another area where they pushed the fence down into the trees to reduce access.



14:48

This is an area of some wash outs that were to the main side of the fence. The wash outs were non-existent, but to our access side of the fence the wash outs were



15:00

Two feet wide and foot, the foot and a half deep



15:06

narrow pinch point for livestock



15:16

drainage cut into the



15:20

non-disturbed, see the fence back into the trees and then coming back out to where that was our access was here there you can see the four-wheeler and on the fence was back into the trees and back out to where you can't get through anymore.



15:38

Same as the US on offense curves.



15:42

That's the offense a two-year old.



15:46



15:40

There you can see the fence on the other side in the background. Along the trees we can get through



16:03

these are fields next to our yard that have sub irrigation potential irrigate and this would be the fields when they are flooding. So they're obviously flood irrigated also right out in front of our house,



16:18

road coming in or



16:21

some old irrigation equipment from back in the 60s.



16:26

A pump and discharge line.



16:36

Okay, so



16:38

some of the folks here have seen some of these pictures in the video before. And generally what it sums up is issues with dust with access and lack of access. One thing that wasn't clear on the video, I want to have you covered real quick and




16:57


with respect to the map of the mind we were looking at we were that very first picture showed cattle in the dust trying to access going north along the power line. Where was that generally in the mind?





17:10


It would be on the west central part of the mind. So it would be on the very west edge of section 36. Next to county road 13.


 17:20
There's


 17:21
topsoil and subsoil pile, that corridor went alongside.


 17:29
And so as we indicated in the comments, the other concerns that were raised specifically with this revision related to the variances, and specifically that the variances are now without limitation and time. And

 17:48
it's particularly concerning because several of these areas are right above the Boyd house. And so one of the questions we have and concerns we have is whether the PSC grants those variances or not, we want to know what is going to be done to revegetate to mulch to crimp in mulch to do whatever we can to try and stabilize those soils up above the house.

 18:11
And then additionally, the soil Reese Brett depths.

 18:17
There's provisions in the coal use, for example, that require the same amount to be brought in on the void property and it appeared there may be some attempt to reduce the spread depths on the void property. And so we have concerns about that, but also recognize that we don't fully understand policy memo 17 And some of those calculations. So we basically just want to learn what the PSE is doing there and make sure we understand what that means.

 18:44
Some of these other issues are ongoing issues.

 18:50
And they're part of every permit revision because they're things that are



18:57

they were raised in the initial permanent application, the very first one back in I think 2014. And the voids had been involved in a couple of the revisions since then, and raised some of the same concerns.



19:12

So with that, I think, you know, that's essentially what the concerns are from the voids.



19:19

And I think, you know, with respect to the decision that comes out of today's hearing, we still have some questions, but one of the biggest concerns that we're addressing and objecting to is the indefinite time period attached to these variances. And that's a real big concern for us because it impacts not just, you know, overall reclamation, but the voids have a contract by which they receive loss of production payments. And the mines position is that they don't need to pay post mining. And so this has a very real economic impact on the boys as well while we're pushing out this reclamation, it's basically



20:00

and taken out of production that they're not getting any payments for. And that's not what we anticipated entering into that contract. And so in a very real way, these decisions have not just an impact on the overall reclamation process, but on them the voids relationship through their Kohli's. So those are the general concerns we're gonna bring up. And honestly, with respect to some of it, I think we need more information about what those revegetation standards are, if there will be revegetation and how the spread depths are working and some of those plans before we know more, but those are sort of the general concerns we're hoping to have a discussion about today.



20:39

So without any that that concludes, well, actually, no, I'm sorry. We do need I forgot we got to cover the drainage issue as well. So



20:47

one other issue I want to cover briefly.



20:53

Sorry. we have Johnson. No. Matt. Matt. Sorry. Matt. Matt. could you null Okay. so we not to do

Sorry, we have jimbobin no, Matt, Matt sorry, Matt Matt, could you pan okay, so we got to go through a couple more pictures on here and I think we can just kind of click through the pictures



21:07

and I'll have Mr. Boyd just explain what we're looking at with each of these pictures related to the Dustin video.



21:16

This is just the verification of the ongoing issues with us okay um, when approximately was this picture taken?



21:25

I believe in 2021 I would have to double check my phone methods



21:32

let's go to the next picture



21:40

Approximately when was this taken? I believe this one was taken in 2020 in the fall of the year



21:56

another photo from 2020



22:00

dust and then it accumulates on the vehicles and we get do in the morning turns the mud so it's



22:08

not very pleasant leaving the yard some mornings can just go to the next picture please man



22:20

... ..

this is stockpile in Section 30.



22:25

And I believe that is kosher and Russian thistle growing on the stockpile



22:35

do you well the other thing I shouldn't flag that I haven't mentioned is we do have a couple of questions. You know it kind of comes back to dust but also concerns whether the mind has swept in as following sweeps for things like this and whether there's additional things like straw wattles or mulch that could be done to start stabilizing some of this when you don't have a full revegetation



22:59

so let's Can we go to the next picture mad please



23:07

these photos here they are but I don't think they're going to open on here and I think we converted those so you can skip the to AGI C extensions.



23:18

More Dustin the vehicle and I believe that was July 29.



23:25

Okay.




23:28


And then there's one other issue I forgot to mention when I said we were going to cover a few different issues here but it came up in the inspection report that the PSC did recently





23:42


and that was issued I think in mid August and so mad if you pull out of this file folder, there should be another one that says drainage


 23:57
discharge


 24:00
and then we'll just click through these pictures.


 24:05
And case you can use a water line that provide water to my cattle that's a surface water line kind of a poor design and obviously has failed more than once.


 24:22
This is water in Section six that is dammed up from the mine and then backed up onto the topsoil under my pastures.

 24:39
Another view of the same pond that shows you how it is actually stopped by his

 24:45
road used by the mine. The road serves as a dam

 24:57
this is after the pond has been pumped down

 25:00
which I believe I reported it to the mine on July 15. And this was approximately the 25th of July or something like that, that it was pumped down and the grass is dead and now silt on top of the topsoil.

 25:22
I guess the fence that was in that picture was completely underwater. So the previous picture of all the water showed the fence, but it just was not visible because the water was higher than the fence.



25:43

This was reported to me by a neighbor had concerns with the dark water and a quick and somewhat of an odor to the water. He wanted to know what I knew about it. I told them I didn't know much about it. And I told him, he should call the mine and ask them questions. I believe the date of this photo is July 28.



26:07

It was after normal working hours at the mine. So I believe my neighbor called the mine the morning as a 20 nights. And that would have been a Friday. So the pumping continued over the weekend. And on Monday, the pumping was shut down from pond or six or three.



26:28

And then it was approximately 10 days later before they started the pumping again. And at that time, the Crick's stayed a lot clearer. And I did not detect any odor from the water at that time.



26:42

Assuming there should be discharged records from the mine that would validate.



26:51

Okay, so as I attempted to say earlier, that does conclude our portion of just the presentation. And then as I said, we'll probably have some follow up afterwards.



27:03

I guess I should circle back a little bit on that, with the stream water being that dark that was being pumped from pond or six or three previous photos of the ponds that were to the west side of Section six. Those sometime after July 15 were discharged into pond or six or three. So there was a large amount of water pumped into pond, or six or three shortly before pond or six or three was discharged.



27:41

You said that photo was taken on July 28. Is that this year 2220 22.



27:50

Just to follow up on that first video, and photos, I noticed some of the photos were date stamp 2016 2017 was the video from that time period two.

28:06

There was a video on the very beginning. Yes. Okay. That would have been the early stages of mining. I think whatever the latest picture on there, I think it might have been 2018 it was basically everything in the video would have been from around or before that time.

28:26

I think there wasn't.

28:28

That makes sense. Because then the follow up pictures were from 2020 21 and 22.

28:37

Is that still a accurate reflection of how things are today?

28:43

It's still ongoing. I cannot quantify how much dust is increased or decreased? I have no way of monitoring that I guess. But maybe the mind can put some quantum can I'm not asking for anything exact but like the dust that shows in the the photos and the videos. Are you still seeing that? Even today? Yes, that's some of the pictures that we followed up with.

29:09

I would say


29:11


excuse me for not knowing the stockpile number that's directly above her house. But that pile is becoming less active. But it is very obvious what days they are using that stockpile. All right. Thanks,


29:27


sir. Man, did you have any questions? I did have a few questions I get and I guess I'm a little bit


confused on some of this the you got the request for the informal and it's you know, the dress some specific issues. But then looking at the video, you know, we're looking at back at, you know these videos from 2016. Many of these exact same issues were previously addressed at a hearing, informal conference and a hearing in 2019 I believe. Now we've got the video


 30:00
and

 30:02
on the access is that is still an issue. I don't really understand. I mean, apparently it was an issue in 2016. When we took the video, the thought that was addressed, we had a hearing on it, that's all been decided. Bring that up again, I didn't see it in the in the request for informal. But I'm trying to understand are these exact same access issues the exact same there was a picture that said, irrigation? I mean, is there some sort of issue there that they're claiming? I don't, I'm trying to get a better sense of what we're looking at what we're, what we're discussing today. And if it's the exact same thing that we've previously addressed in 2019, at nauseam So, and then with respect to the video, again, much of it was 2016 1718.

 30:52
I think we need foundation on that, you know, who took that when we've got some date stamps, that was helpful to get a perspective of, of when those videos were taken. But in particular, the the subsequent, like the photographs, after that time, were Mr. Void indicated those were 2020 2021 timeframes.

 31:17
We need to we need foundation and that we need to know who took them when

 31:22
date time, you know, where they were taken from, you know, any conditions, you know, when conditions so we can, you know, address source, those types of issues. There's really no foundation for me that I mean, just throwing up pictures of dust on a vehicle in suggesting that, you know, came from a certain source without any foundation for that it's not particularly helpful. So be looking for that.

 31:49
I mean, those are primarily the questions. It's, you know, what, what are we looking at today? You know, are we dredging up the same issues from the past if they've already been addressed? Or are we really focusing on, you know, the revenge issues that they that they've

indicated, we're prepared to address those variances? The Reese bred? revegetation, that's fine.

 32:14

We weren't really prepared to go into things that have already been settled. So those are primarily the questions that I have

 32:22

this right now, no, can you address that? Are we looking at the same access issues?

 32:30

Nothing, you know,

 32:33

let's see you. Okay, dust. Let's take an example.

 32:39

Variant seven. If you don't revegetate variant seven, and the variance is granted, there's going to be more dust in the boatyard.

 32:49

These issues relate to everything the mind does. And they're part and parcel of what the mind does. And so when we're talking about variances, and whether we're going to grant variances, the reason we're concerned is the dust. And so when we're talking about these issues, no, we're not dredging up the past, we showed the past and then we showed the present. And what we're saying is that these issues are the reason that things like variant seven or soil rethread depths are important to us. And we want the PSC to understand that these are ongoing issues that the boys are facing on a day to day basis. And those are the reason that they have specific concerns about things like granting variance requests, or something like that, in the mind is prepared to address the revegetation. And, you know, to the extent that it has impacts on Dust, we certainly understand that and appreciate that.

 33:44

But bringing up things from 2016, when complete conditions were completely different, I mean, really not really indicative or reflective of anything that's going on today. That's not particularly helpful, from a mind standpoint. But yeah, I understand that that position, and we are prepared

to address those revegetation issues. And then just to follow up on the more recent photos, I mean, I understood that when you took those photos, but maybe you want to clarify, all photos are either from myself or my wife, Julie, and they are all of our property. They can all be validated and verified. I just thought beings it was informal. I didn't have to do that today. If this does become formal, we can verify all of that. They were just simply to point out the fact that the same issues from back in 16 1718 still exists today.

 34:42

And I think, Mr. Man, since we're informal, I mean I wrote down some years and when some of those photos were taken, I know we don't have an exact date or anything too specific but I think for the purpose of this proceeding, that's probably sufficient. I understand okay.

 34:59

Or

 35:00

Anything further? Well, we are prepared to have Mr. Aircross address just some of the specific questions just shared equally that were laid out in the request for the informal. And we'll get to that. I'm just gonna see if Mr. Chu has

 35:17

any follow up on questions. Yes, sir. Boy, yeah, no, and then we'll move to you. Yep. Okay. I do have just a couple of questions. And I mean, we're familiar with a lot of these photos from the previous proceeding. And there are a number of issues are brought up in this kind of, I guess, kind of dovetails on Mr. Mann's but it was the purpose of not necessarily to address these issues. But to make the commission aware of some of these issues. For example, we didn't bring somebody down in for service water. We didn't bring anybody here for drainage, or thing to eat to be able to address these issues from that standpoint. So, I mean, I guess the purpose is to inform us. I mean, that's all Yeah, that's great. It's helpful, we actually appreciate knowing these concerns, up to the extent that we're really looking to address it with some sort of result of this informal conference, I guess that there wouldn't be an issue to a degree with that, because, of course, not all parties have been notified that what to bring, we haven't had the opportunity to bring the expertise, we could have brought the records down, we could have brought set information, we could have been a surplus, one person as well.

 36:16

So I guess that's something you might feel and just to give us an explanation of the purpose of it. And I guess I would say that I guess to the extent that the dose issue really is related to the revegetation. To the to show us the reason why you have that concern is that the revegetation

is certainly that's understandable, as well, but to I know, we did have this discussion pretty extensively back in, I think it was 1981 89.

 36:43

And 19 120, I believe back in 2019. And there were a lot of these issues, relate to jurisdiction, so forth, we're we're kind of addressed there as well. So I guess you could just kind of walk me through the actual purpose of demonstrating these and showing us some of these items that'd be helpful.

 37:02

Which ones and prayers like, discharge? You mean? Oh, when we start, start with the ones that were outside the notice, I think there was the the dust issue, you just you provided how it relates to what we're discussing today, there's the access kind of brought up from irrigation photos,

 37:18

the stockpile, I mean, that had to do with the river edge revegetation. Then the last one, I think is really the drainage and the surface water runoff. So those those were the atoms are all inside the what we noticed for the normal, yeah, in, in so the drainage issue, honestly,

 37:37

the PSC staff did an inspection in August. And we haven't seen such an inspection, except for the last time, we asked for an inspection leading up to the informal conference. And so from our percent perception that was part of, you know, doing an inspection related to this informal conference, and so they're in whether it was or not part of the reason for bringing these things up now is that just because of the timing, it was like mid August that we got that report of the investigation that PSC staff did, and that corresponded with some stuff that the boys were seeing out there in July. And so I didn't know if the intent from the Commission was that what they were covering in their investigation report was what they were going to be covering at the informal conference and formal hearing. And so we wanted to make sure we were covering the issues that they were raising and inspecting during that inspection. Sure. I obviously we didn't, you know, think of that as part of this until we saw that investigation report. And that's partly where that came from is just kind of responding to what was in there and making sure you have the information on those issues from the voids as well through

 38:46

the irrigation equipment. I fully understand what Wade's position is. And the Commission's as well, in terms of the ABF determination, we continue to feel it was the wrong determination and may submit additional information just to apprise, the commission of additional facts related to that determination and the ongoing revisions to the permanent, miss any



39:11

there was the access issue.



39:15

But, you know, we I guess we can come back around to some of this, when we have an opportunity to just kind of provide, I guess, the context of maybe how these inspections work, how the provisions work in the first place, or standpoint, because, you know, we do inspections frequently with the minds, we review the revisions, and we review all the variances as well, on a consistent basis. And we don't bring them to informal conferences, we address them unless we need to. We can't come to a conclusion come to agreement that we would actually probably issue a formal hearing or on behalf, you know, against the mine or something like that. So, from that standpoint, how this informal conference as we viewed it was really to address the concerns that you brought forward not to address the concerns that we may have outside of you know, I guess what you express



40:00

Since concerns for the affordable conference, and so, from that standpoint, I guess we'd be happy to continue the conversation on that. But for the purposes of just addressing the issues today, I think that we would, I think we'd be concerned without the opportunity to provide people will actually come out and speak to it to have to address it within this order. Okay. Understood.



40:26

All right. Anything further at this time, Mr. Bratan? No, Your Honor. All right.



40:32

This ran Iran.




40:34

Do you mind with respect to the one of the new issues that was brought up? Can I have just a couple of minutes? Just very briefly to consult my client? Yeah, absolutely.





40:52


I don't know.


 40:55
I think,


 40:57
Jonathan, September 8, I think it was


 41:01
Jack.

 41:08
All right. Go ahead, Mr. Man. Yeah. So I'm Jeremy McGrath. Give some testimony I guess. And Jeremy, if you can just introduce yourself. State your name and your address?

 41:22
Yeah. Jeremy eckroth 6502 17th Street southwest up North Dakota. 58580. And can you tell us who you work for? Coyote Creek Mine? And what's your position? I am the environmental manager at Coyote Creek and just briefly give us what are some of your primary duties at the mine? Okay, just a little background. I started

 41:44
at Coyote Creek in September of 2020. As the environmental manager prior to that, I was

 41:51
at the foul Kirk mine for a little over 20 years

 41:57
in various positions in the environmental department all the way up to the environmental manager there as well. So

 42:05
basically, my job at Coyote Creek is tenger, insurance, environmental compliance.



42:11

I oversee all environmental affairs, including permitting compliance reporting and landowner relations, to name a few things. In Jeremy, are you familiar with Mr. Mrs. Void, and the issues that they've raised with respect to the revision 12 and operation of the mind? Yep.



42:32

Let's move on into the specific



42:37

objections that they've raised on the revision. Beginning they've identified the first one is number one.



42:45

And that's the objection to two point 5.4 And two, point 5.7. Can you explain just explain why those changes were made? Yeah, just a little background two point, section two, point 5.4 Is the soil volume methods. Narrative, it discusses the soil inventory calculations. And then it also discusses how section two, point 5.7, which is the projected soil re spread depth map is put together.



43:16

Basically,



43:18

when I was going through the revision, I was reviewing some of that,



43:23

that section and noticed, there's just really some confusion. I think, by reading this letter, all's I did was update it based on there was an error in the past, on the projected Reese spread depths,



43:41

there were three, there were three areas where it was inadvertently labeled as projected 48 entries spread when it should have been 36 entries spread based off of the overburden samples that were taken pre mine, so I didn't change anything. We didn't do any extra

sampling or or anything, it was just a matter of catching an error that was previously in the permit and correcting it.

 44:08

And really, that doesn't change anything, it doesn't change the amount of SPDM, that's going to be re spread. It's that map is for planning purposes, on potential re spread needed for that area based off of the overburden samples, so it's not going to change the amount as PGM that goes on. It's just a map for planning purposes. So I guess before we move on, Jeremy, just so I'm clear, will will the RE spread that will be done in accordance with the PSCs requirements and the performance standards. Correct? Correct. You're not seeking any type of relief from what the rules require. Correct and we're not.

 44:52

Let's move on then to what the voids have labeled as variances one through seven and address those of you

 45:00

actions and with respect to the objections to the receding timeframes. Can you explain the minds revegetation plan and coordination with Reclamation staff?

 45:11

Yeah, I've I've been in contact with the reclamation staff with Guy Welch on some of this stuff as well throughout the summer.

 45:19

As part of this revision, as I was going through the, the permit, and remember, I'm, I've been here for two years now. So I'm going through the permit and learning the permit and seeing some, some differences on it. And I noticed there were basically two different areas that called out a little bit different reclamation plans for how we're going to do things.

 45:47

I noticed one area stated that the approved final native grasslands seed mix would be seeded within six years, however, and section 4.3 point one which was part of the renewal, revision nine and 2019.

 46:03

It actually was updated. And I know Casey and I have talked about this a little bit as well that we were going to hold off until there's larger blocks of native grassland tracts that weakened seed to the final approved native grassland seed mix. So in order to make the permit,

 46:26

say the same thing and not have to dam for and when, you know, Reclamation plans out there, I updated the permit to reflect the latest and greatest approved

 46:38

narrative that was in the in the permit.

 46:43

But I guess one other thing, I guess I want to make clear, though, that even with these changes that we're we're looking at doing it and the reason we we made those changes was to to help control invasive species coming in Kentucky Bluegrass, smooth Brome. So it was it's strictly a management.

 47:06

It's not to, you know, just delay our requirement to seed it. It's there's a management reason for it.

 47:15

But also, I want to make clear that in order to control wind and water erosion, all these reclaimed areas, regardless of that variance, all these areas are ceded to a cover crop, whether it'd be an annual or the temporary native grassland mix once the topsoil has already spread on him. So even though we're we're asking for variances on this,

 47:41

that area is still getting seeded, it's not being left out there is bare bare ground bare top so

 47:49

then let's move on to the I guess kind of the last point the variance seven, it appears that there might be some misunderstanding by the voids with respect to the location variant seven and the associated reclamation and if we can pull up that map variance seven map that might be

helpful but once we get that up if you can identify for us the you know the variance seven area and it's revegetation plan as opposed to the area that the voids are referencing in the informer request

 48:26

here what I did, I put a map together here it's it's, it's that kind of a lower angle that show the lay of the land a little bit variant seven on this map as shown in that yellow patch.

 48:40

The voit Farmstead, their house is shown up there kind of in the center of section 31

 48:48

can use a pointer

 48:58

Okay, so this is

 49:06

this is variant seven that we're requesting this yellow hatch in here.

 49:11

The Boyd farmstead is located right up here. So it's it's about three quarters of a mile

 49:19

to the basically straight north, the farmsteads, three quarters of a mile straight north from the northernmost portion of this variance area. And, you know, if you look further down, it's all the way up to a little over a mile away from their their farmstead.

 49:37

And I know, I think there's some confusion with the location based on on the letter requesting this hearing because I know the piles that are being talked about in some of those shown in that video. These are the three large stockpiles



49:53

that they discuss above their farmstead. So this variance area does not include those stockpiles. We're not doing



50:00

Looking for variance on the stock files, this variance seven that we're requesting here.



50:06

This is this is an initial mining area down here where we we started mining. So the reason we're asking for the variance on this is because when when you dig this hole, we're actually where the spoil was piled. It's above the approved,



50:24

post mine Topo. So this material has to go somewhere. As we continue to work our way to the southwest here, we'll have more of a hole right here, where we can get rid of that material. So this is a cut area, and we need a fill area to put it. That's what we're looking at having next year then. So we're not we're not asking for an indefinite variance on this. We're just asking for a one year variance with the plan to



50:52

do the final regrade on that. Topsoil subsoil really spread on that and seeding next year with it.



51:03

And then



51:05

it might



51:07

help just to keep this up. But you saw the photos, some of those photos that had some water backup, right in a drainage.



51:16

Ditch, can you kind of explain that what that was, and you bet and how that was handled. So so that

51:26

that clean water sump that was discussed that was that was part of Mr. Boyd's testimony here, that is located right in this area here. And what we have is there's a drainage to the southwest, a large drainage that comes towards the pit.

51:44

So we don't, it's not that we have a road built across there. It's it's the bench that's built up. And as mining continues to work its way to the southwest. This continues to move we we strip this area and create a clean water sump. The water running into that sump is clean water, it's coming off of undisturbed land, it's coming off of the native grassland to the south and west and

52:08

it accumulates in there. And then what we do is we pump it around to this six three pond.

52:15

So that's all approved in the permit. The PSE has looked at that numerous times

52:22

during their inspections. The one thing I want to clear up on the record though,

52:29

Mr. Void said that he contacted the mine. And I don't know what the dates were to see that July 15. But when you July 15, okay, when you contacted me that day, I immediately called Don.

52:44

Don Stephen here. He's our production manager, and asked him to get a pump set up on that sump. We we had received, I think it was around five inches of rain the week before. So that's some backed up.

52:50

11 52:59

So the water backed up in there right away. When Casey called me I contacted Dawn, we got a pump setup that night, and that was pumped down by the next morning.

53:10

So I believe it was a Saturday even and Don came out and made sure it was pumped down. So

53:21

your honor, that's all that I have on behalf of the mind at this time. All right.

53:27

Mr. Bratan. Do you have any questions? Yeah. And to be fair.

53:33

Yeah. And to be fair, I'll leave it up to Mr. Mann, whether he wants to answer the witness.

53:40

There's an indication that you're not asking for a permanent variance. But the mind permit revision literally removes all time limits from all seven variances.

53:49

And so I guess, if something has changed, we'd like to know what that is. Because based on the revisions, there is no time limit. And

54:00

we are fully aware of where variant seven is variants to is right up above the void household and they are requesting to remove time limits from all seven variances, not just variants. Number seven,

54:14

the indication that the water is clean we agree with but once it goes down into a disturbed area full of disturbed soil and open soil with no vegetation on it, that's not clean, and that backs up and you get more dissolved solids in that water while it's sitting there. And we didn't hear

anything about any testing being done there, or where the water was pumped to or when it was discharged from the pond and what the levels were in the pond. And so we still have those concerns and questions about it.

 54:45

And then, in terms of the RE spread depths, we certainly do need more information and a better understanding of how it's being done. But it's not just a question of whether

 54:55

the PSE rules are being followed because of the rules have certain risks. bredereck

 55:00

firemans, but the coal lease has certain reefs read requirements to and it requires the same amount to come back it was was taken off, and only allows a certain type of mixing of soils. And we haven't gotten into that. But we also have concerns about the void, soil being mixed, and specifically,

 55:17

also mixing of soil types, and whether those are being preserved.

 55:22

So I'll leave it at that.

 55:26

But I also have some specific questions. For example, if you're seeding cover crops and annuals, what's the seeding rate? What kind of yields are you getting? Is that sparse? Or is it dense enough to actually hold down the soil? So those are some of the questions that we would have.

 55:44

I think Mr. Graff, Cannon is willing to address some of those. I mean, there were a number of them. I mean, do you want me to just question, no, I mean, got.

 55:55

The first thing I guess, I'll cover is this, this, this sump, that that we discussed here? So like I said, and I did actually mention that one out, when I was discussing this, when this filled up, we pump we have Paulie set up to pump it around with 263. So we don't we don't do any testing on that. Because it goes into the pond. So then we we test the pond when we discharge the pond, so so it is tested before it's discharged off the main site.

 56:26

And then,

 56:29

as far as the What else did you have?

 56:35

With with that in other things that have happened?

 56:42

I guess I'm asking why does it take us to notice this, that water's backed up on our land to have to bother you guys and contact you guys to do something about it? Why was it or why are those things dealt with? without us having to say that they're a problem for us? How come you guys don't realize that that would be a problem, that it's backed up into something? You Yeah, we I mean, we it kcf I've talked to Casey a lot as well on this there. You know, we had five, I think it was five inches of rain, don't quote me on it was it was significant amount of rain that week before four to five inches, whatever it was, but

 57:24

it's something we didn't notice. And when Casey contacted me, I took care of it right away. And I guess that's, you know, we generally catch that. This time, we did not and we we got it pumped down. We're in the process of you know, when when you have that much rain on the Mindsight you're you're paddling the water, and this was the same valley. Guy Welch was with I believe on that tour, Jessica? Preston.

 57:56

Okay. But we were we viewed that same valley.

 58:01

How many years prior to that, with similar trouble where the water had backed up in the catch

areas, the low spots were filled because of it. And they stood in said that, no, you're wrong, that that's just from the runoff, and it isn't. And then this, obviously, once again, you know, I've just, I guess, kind of here's why we have to bring it to your guys's attention when you guys are right there, obviously right beside it, it's happening, these types of things, you know, that's just right. We try to we try to catch everything, I guess. There's, you know, there's a few old alternatives to this. And we're trying to have the best option for you guys to maximize your grazing because the alternative would be to strip the drainage further up, and not have any vegetation in there. And I know you guys are, wouldn't be happy with that.

 59:00

Or to construct a pond upstream to catch up, which would also take out grazing lands as well. So

 59:07

we're trying to, we're trying to provide the best available option for you guys to allow it to maximize your grazing ahead of mining. Fortunately, I feel like there's been many times with that if we do mention something such as this.

 59:25

It does get addressed. But then there's repercussion that we have to pay because of it. They will take out more land or you fences out of more Oriole, take out where there are water tanks had been for cattle defense, it's out of something, because we've made no to something such as this. So

 59:45

I think that's yes, I've never we don't operate like that. And I would hope that you haven't felt that way that that's the way we're not operating that way. So

 59:56

I tried to have real open communications with you guys to me.

 1:00:00

Make sure that, you know we're we're trying to limit any impacts on you

 1:00:11

you had indicated that you're going to seed the reclaimed areas within the variances to a cover

crop, or a temporary native grassland mix. I guess to start with, can you just tell us a little more about that. And specifically, if you're doing annuals, what kind of annuals and what kind of seeding rates? It would, it would depend on the timing, I guess, of when the topsoil is really spread, we have I'd have to it's in the permit, I don't know off the top of my head, what the seeding rate is on the temporary.

 1:00:47

But if we're going to an annual crop, if we're going to put an annual crop on there would be a olts. Most likely that we put on there. And that's strictly to control erosion, until we can get the more perennial seed mix.

 1:01:07

established.

 1:01:09

We also have a we have a temporary native mix, which Casey and I have discussed, maybe not exactly what's in the mix, but we've we've discussed that. And the idea behind putting that temporary mix in is like a the dress was to

 1:01:26

try to control the weeds try to the thought was that there may be some home invasion and Kentucky bluegrass. And if we have that temporary, native seed mix in until we have the larger blocks of land available to see to that final native mix that we can have a better end product when it comes time for the final native mix. But as far as the the rate on

 1:01:55

this one here?

 1:01:57

Yeah, so it'd be 19 pounds 19 and a half pounds per acre on the on that temporary native mix.

 1:02:07

For Speed species consisting of slender wheat grass, Western wheat, grass, sand, Dropseed, and switchgrass.

 1:02:21

Did you catch that? We're 19 and a half pounds per acre is what we're putting down for different species slender wheat grass, Western wheat grass and Dropseed in switchgrass, Okay, how about for the annuals like oats, the annuals? I? Don, do you know off the top of your head? What we're I don't depends on the time. Right, but 30 pounds up to 50 pounds per acre

 1:02:47

sufficient to sufficient to control erosion?

 1:02:54

Are they being planted at

 1:02:57

seeding rates that are recommended for farmers actually growing those crops?

 1:03:03

I don't know what what the recommended rates would be I guess I'd have to take a look at that I can answer that.

 1:03:10

Stop me whenever you want. I'm not trying to get formal here. So I really just don't understand.

 1:03:18

Are there separate seeding rates used by NRCS or the PSC that are specific to erosion control versus growing crop?

 1:03:28

That I'm not aware of? I can't answer that. Okay.

 1:03:34

All these areas, though, when they're seeded, they're also mulched as well, to help control erosion. So we're mulching these areas, as well. So that there's that timeframe between when the crop actually comes up so that there's actually cover on the ground as well. That it's

the crop actually comes up so that there's actually cover on the ground as well. That it's mulched and crimped in



1:03:55

and then do you know what kind of knowledge or where it came from?



1:03:59

And or it used to come from my own work



1:04:02

with PLC inspection records?



1:04:09

of spills?



1:04:13

Yeah.



1:04:19

for signs of erosion.



1:04:23

The other thing, you know, Mr. Ag Roth, you had said that you guys aren't asking for permanent variance in weight. If you want to jump in on this one. I understand. It's kind of a legal question, but my understanding of the revision is that all the revision did is delete the six year limit on variances one through six such that variances one through seven now have no time limit. Do you guys disagree with that? They they don't have a time limit on the final native seed mix that would go in on there, but that doesn't, that doesn't give them a indefinite



1:05:00

From vegetation, so there's a temporary native mix that would go in, that's kind of the idea behind it was to allow for larger blocks. So it's still getting seeded to the temporary native mix.



1:05:12

But that final native mix may not go in there. And in order to make the permit jive with the other areas, that's why that six year was taken off.



1:05:40

If your



1:05:43

thing is my last one, but can you I'll try and ask it open ended to can.



1:05:48

You have a temporary seed mix? And I think you had mentioned that for management reasons.



1:05:54

You want to do that versus doing the permanent native seed mix. Can you explain just a little bit about



1:06:03

why for management reasons you're using the temporary now versus going straight to the permanent.



1:06:13

The the idea behind it was



1:06:17

because it's probably going to have to get



1:06:20

burned off, round up. And and start over. Once you have a larger block, so so that was some of the thinking behind it. We've also discussed just going straight into the native mechs. Now knowing so if we do that, we may if it if it is invaded with Brom in Kentucky because you have these smaller irregular tracks that, you know, the best management would be grazing for

these. So if we go to that, that final native mix on the smaller tracks, and they're invaded with brown, and Kentucky, then we did end up going in and round up and off. Now, Guy was out on the inspection was it UCU guy, I think it was just you that came out, I can't remember that looked over some of these temporary areas. And, and we're finding that, you know, the broom in Kentucky weren't the issues that we thought they were going to be. So we went out and we sprayed off the broom in those tracks. And we've been discussing on whether Do we just go straight to the final native mix on them? And if it if it does show that they are being invaded, then do we just burn them off with roundoff? So we've been discussing that.

 1:07:42

It's definitely something we're open to just doing that.

 1:07:49

It's hard to say, you know, the the those tracks look really good. We've had two years of drought leading up to this year. So that could be part of the reason possibly that you know, we're not seeing the Balmer Kentucky as much it's you know, we're

 1:08:12

okay, I don't think I have any other questions. Thank you. I appreciate it.

 1:08:18

Are there things that you're doing as far as the composite of the soil and the organisms and the makeup of the actual topsoil to ensure that it's

 1:08:28

gets back to the original native state? As far as the soil itself? I'm just gonna tack something on to Julie's question I was gonna ask, but with the temporary mix, are there any forbs early goons or anything like that? That's getting mixed in no four. So that temporary mix was the four native grasses, the slender Western sand, Dropseed, and switchgrass? No forbs at that time, the final native mix has the forbs in it.

 1:08:56

And then kind of back to Julie's question, you know, are you

 1:09:01

doing anything with the soil whether it's additives or working at or not working at specifically

anything like that to try and build up soil health in the meantime, as far as working edits it would be disk then in chisel when it's put that one

 1:09:18

we're not doing any any sampling for organisms I'm not familiar with we're just not doing that that's

 1:09:26

but like cutting and leaving residue on the field, for example, there's mowing while there'd be mowing, you know, there's times where we go in and mow the, you know, mowing down as well. And then like this year, we we had, some of those areas and provided those bales for the voids.

 1:09:51

That's it. Yep. All right. Mr. Schue common question.

 1:09:57

I do and

 1:09:59

Matt, can you

 1:10:00

Little PSC documents.

 1:10:04

Document Number 12.

 1:10:07

You'll be familiar with the suggests section 3.1 point 1.3.

 1:10:18

That's it.



1:10:21

Can I have you Scott the second page?



1:10:26

I think just for



1:10:28

her



1:10:33

Yeah, gotcha. So I guess up here this demonstrates the ferrets are number seven with revegetation in 2023.



1:10:42

But can I? Can you scroll down just a little bit more men? Sonar. footnote number three, says your revegetation for native grasslands and associated land uses such as woodlands will extend to six years from the year of coal removal to allow for processes to eliminate introduced species, so forth. Is that consistent with the other area? No, that's not that's something I noticed when we got technicals back from the PSC was that it was left in there too. And that's that's the problem with these permits are that it's a large document, and sometimes it gets missed in certain areas. And I think that's maybe what happened in revision 19. But I was planning on making that correction as well, depending on how things went. Okay, so that was supposed that'll be updated. Exactly. That'll be updated with the rest of it. Yeah. Okay. So the education, and that is part of that full removal. Right. Correct. That's for our own knowledge as well.



1:11:38

In the you, I know, we discussed I guess the



1:11:42

the Commission approved the larger tract revegetation



1:11:47

larger than 80 acres. And I guess the first question after that is,



1:11:52

I know operationally there's a benefit. But what is the reclamation benefit for that.



1:11:59

So the reclamation, I don't even know if operationally if the benefits, the benefit, it would be on the post mine, the final product more so than than the operation side of things. And like I said earlier, the the benefit is trying to control those invasives there's a big issue in North Dakota and everywhere, really, with the invasion of Kentucky bluegrass and smooth Bromont native prairies. And that's really why we're doing that. That's why that's been put in there to have the larger blocks that you can. The idea behind it is so that you can go to grazing because grazing is the best management on there going in and mowing is not the best management for native grassland. Sure, actually getting cattle back in there and grazing it would be so that's why that's put in there for the 80 acres. It's it's not the benefit is on the operation side. It's It's the final product to you know, ultimately, for the boys is why we're doing gotcha. I think when I was looking through the course the different tracks, it acres is sizable, sizable tract.



1:13:13

When would you think that we'd actually be, you'd be in a position to, to do a revegetation of 8080 acres, we, we've got some areas right now. So in even if, if there's an area that, you know, might be less than 80 acres, if that's kind of the extent of what it's going to be and I can't be exactly the acreage on on one of the tracks that we're thinking of.



1:13:37

But if if it's ready to go and Casey, that's the one that we discussed, where he had asked about possibly putting sheep on there, whatever, you know,



1:13:48

we'll we'll go, we'll see that to native and go forward with it. We had some of those discussions and they've they've dropped off, you know, this year, but



1:13:59

whatever, if, if Casey's comfortable with a 60 acre block, and he's ready to put some cattle on there, and we can we'll we'll get water into that we'll fence it off and we'll start grazing it. But it's got to be logical for the voice to bring cattle in gray, something I don't think they want to

come in and graze a 15 acre tract.

 1:14:20

So we're we're open and that's part of the conversations that I've been you know, wanting to have with the voice and to work towards that to come up with a plan whether it would be for MKC and I've talked about this with Tyler as well for the where the water lines are going to go where the stock tanks are going to go so we can start coming up with some grazing plans. That's that's where we want to get so we can we can move towards that final reclamation and getting these areas seeded and get them back on there with cattle and so we don't have to cut it for hay and and just do the the hang of of this land.

 1:15:00

I

 1:15:01

think that's this all

 1:15:03

right. I think further?

 1:15:06

No, Your Honor.

 1:15:08

Do we want to take a short break for?

 1:15:13

Let's shoot for 11 o'clock? That would be 14 minutes.

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Get ready to go. All right, Mr. Schue?





1:15:27

Sure. Thank you, Your Honor, we did bring a couple of people to make them available to address some of the bronze and voice concerns.



1:15:35

I guess just for the kind of setting the stage of this, though, as part of this process, when they they request a revision, I mean, staff has continually during these review, they'll send out the deficiencies, there'll be corrections, subsequently, there'll be more. So even after this informal conference, it's it's not that everything has been addressed. This is here ever again, to address the voice concerns. Specifically, I anticipate there will still be sending out deficiencies of different things to be addressed. And that's, again, part of the process of final approval. So some of those items, as it relates to the voice concerns. I think Mr. Walsh will probably bring up to a degree and so you know, we're addressing, for example, the foot, or six Starcross broke about, but I think we'll start off with Monty Monty Johnson.



1:16:22

And he'll talk about the spread, and hopefully be able to answer some of the questions for the void. So regarding our process, and what we have been looking at.



1:16:36

So in anticipation of this informal conference, so Monty was good enough to provide a memo, which was available to you for review. And I guess that does provide a little bit of perspective. But for the purpose of moving this forward, I asked that if he'd be prepared, just kind of discussed under these items, and also discuss the content within this memorandum. Yeah. So sounds like you guys had questions on interpreting memorandum 17? Which I don't blame you, it is very confusing if you're not used to it.



1:17:08

Anyway, I know, Jeremy kind of touched on this, that



1:17:12

what they changed were the projected re spread thicknesses. And what's that? What's that used for is essentially, you know, planning purposes. So



1:17:24

before we even issue a mining permit, the mind has to submit, you know, reports on



1:17:31

environmental conditions, environmental resources, before any mining happens. And one of the



1:17:40

ones environmental resources is a professional soil survey.



1:17:45

So essentially, we have to ask the question, how much soil is on this land before mining? So we? And then kind of another important question is, how much of the soil do we anticipate needing to reclaim the land per our rules and regulations. So that's where these projections come in, come into play.



1:18:09

And how that's done is



1:18:14

kind of on top of this. There, the mind is required to



1:18:20

drill a hole every 40 acres before, this is all kind of comes into play of the initial permit application to understand the geology, and also the



1:18:30

soil properties of the overburden.



1:18:34

So



1:18:36

every 40 acres, a hole is drilled, all the way through the Coliseum that they plan on mining.



1:18:44

And they're required to sample the overburden every five feet.



1:18:50

And what's that what that's used for is to project the SPG. And we spread depths based off of the soil properties. And that's kind of where memorandum 17 comes into play.



1:19:06

Yeah.



1:19:09

So I guess the first thing I'd really like to point out is page two, the second paragraph.



1:19:18

So it says since the total SPG and rethread thicknesses are tied to the graded spoil properties, the amount of SPDM to be removed prior to mining will be based on the pre mind overburdened sample analysis. So that's the one hole every 40 acres.



1:19:38

So and then this is also a very good statement that this this process isn't, you know, there's flaws to it. There's really no accurate way you can project the actual re spread thicknesses with overburden samples. It's kind of just



1:19:58

you know, our best guess Oh,



1:20:00

based off of



1:20:02

the practices that we that we are available to us right now.



1:20:07

So it says yeah, there is no model for accurately predicting post mining graded soil properties from the pre mined overburden data. So this is what we have at our disposal.



1:20:20

So like I said, it just kind of gives us a best educated guess as to how much soil the mine should be salvaging to successfully reclaim the land. And what their, what they changed in, or where they're proposing to change and revision 12 is just the projections, and not the actual real spread thickness.



1:20:50

Yeah, please feel free to ask questions. Are you saying that what are the



1:20:58

is the Can you turn your microphone is the RE spread thickness based on those projections, though, it is not.



1:21:07

So



1:21:09

it's kind of the same approach as far as like, what soil properties you're looking at. So when it comes time to actually determine the thickness of SPDM,



1:21:23

the mine is taking the spoils that essentially, you know, the dragline is digging their pit.



1:21:33

And then they're dumping those spoils into an adjacent pit that's already been mined. So they're filling that in.



1:21:42

And then through other processes, you know, their gradient that spoil to what the final Tono

and then through other processes, you know, then gradient that open to what the final top will be. And then once that's done, samples have to be taken on the graded soil surface.

 1:21:57

And depending on those chemical and physical properties, there's really two we're looking at, and that sodium absorption ratio, and then soil texture.

 1:22:09

So depending on the results of those samples, that

 1:22:15

shows what thickness of SPDM they have to be spread. So there there are plenty of

 1:22:23

plenty of times where a certain area will have a 48 entry spread projection. But when it comes time for actual re spread, it can be less than that. And then there's times where, say there's a 24 entry spread projection, it would actually be more than that would be required. So it's kind of a

 1:22:45

in

 1:22:47

so I do have examples of how I

 1:22:52

review projected rethread thicknesses if that if you think that would be helpful.

 1:22:59

In my the other maybe a very basic question I have is in memo 17 They set out the different ways to

 1:23:11

1:23:11
sell two options for handling this PGM. Yep, which one is being used here? Yep, option two.

1:23:21
And I believe it in my experience, that's pretty much all the coal mines in the in the state. Option one is mostly with smaller like leonardite mines, but and the reason they they do option two is we also have a requirement that mines have to

1:23:40
essentially have enough cover over toxic forming materials. And then that's kind of another policy memo. And

1:23:48
yes, correct.

1:23:58
So the specific method

1:24:02
they use. So as you can see, option two, there's a b and c.

1:24:09
They're using option two c. And

1:24:14
that's because

1:24:16
in certain areas where the coal is greater than 85 feet, or the the overburden is greater than 85 feet above the coal seam they're mining.

1:24:28

They take that material that's greater than 85 feet above the coal, and they remove that with their prevent fleet.



1:24:38

And this material is usually your better quality overburden it's the glacial tail typically has a lower sodium absorption ratio, and



1:24:51

they're selectively handling that material. So once the dragline does its thing and removes the overburden and it spoils it



1:25:00

into the pit. And then they grade that out. They come in with this material they they take with the pre bench fleet, and then place it on top of the spoils that the dragon spoiled. So they're essentially selectively handling the better quality stuff because they want that on top. versus, you know, the



1:25:20

and this in this process is all



1:25:24

laid out in the permit.



1:25:27

Do section two point 5.4.



1:25:34

And it's kind of just included in the narrative there. If you wanted to pull that out by, you know, I kind of gave a generalization on that, but



1:25:48

it was better than that.



1:25:50

I go ahead. Yeah. Well, John, do you mind in case? Yes, that's my question.



1:25:55

So if you're saying the pre bench, the hills, are you saying that those hills have better soils in the valleys?



1:26:03

No, I'm talking like, this is



1:26:10

you're talking about? It's like,



1:26:13

it's not as Pete It's not? It's correct. It's not the top. So it's the it's this overburden material, it's not your topsoil or sub soil. This is this is after all that gets removed.



1:26:26

But anything over 85 feet would be the hills.



1:26:36

Oh, I see what you're so I don't know if I follow. Yeah. So you were saying that you take anything greater than 85 feet above the coal seam? Correct. And I think what Casey's saying is, that would generally mean that a lot of what you're taking there would be any hills that has,




1:26:53


you know, because of the hills, obviously, you're going to be most of what's above that. And I don't I mean, sure. And and




1:27:05


spread out overburden on the very top, correct. Yeah, yeah, I know.


 1:27:11
Okay, so as to whether they take the hills,


 1:27:17
that that would be better.


 1:27:20
The projected that soil really spread Depth Map, section two, point 5.7.


 1:27:29
There's a thin red line on that.

 1:27:35
That shows where this process is being conducted. Because it's not actually the entire coal mine, or they do this. It's only aware that overburden is 85 feet above coal.

 1:27:47
Is that anywhere that shows so so the red line?

 1:27:53
And it's actually I guess, when I print it out, you don't see it, but there's like little black hatching or dots? Yeah, it's my understanding. That's, that's the area. And this is determined off of all those drill holes before mining is conducted. It's those areas that there's more than 85 feet above the target coal seam. So those areas outside of that

 1:28:20
they're using

 1:28:22
item two, two, a, on a policy memo 17.



1:28:31

I guess I would just say from looking at the map that it appears to me it is the higher elevations where they are saving.



1:28:37

Sure.



1:28:41

Okay.



1:28:45

So then, I guess, yeah, I'll let you if you have any questions, actually, I kind of prefer to just while you move on, okay. is fine. We just come back and ask these juries. Okay. Yeah, go ahead. So, um, I guess when it comes to revision 12, Coyote, is proposing to change the projected re spread depth of three distinct locations in the West half of section 25.



1:29:16

Do you have that on the map the other projected, so it's that point there.



1:29:23

120 20. And then the one just below it.



1:29:31

Yep. 120 18 And then the one 120 15. Yes, please. Yep. Here. And



1:29:41

yep. Correct.



1:29:43

So I guess it's part of my process when I'm reviewing these permit revisions is then I also check to see if that's within, you know, our regulations like, are they justifiable reduce net 36 inches so



1:30:00

So, I looked at those actual soil samples, and I have that as an exhibit



1:30:15

so this is where it gets technical, and I don't blame you for being confused.



1:30:20

Okay, where to start so



1:30:29

so first of all,



1:30:32

I guess the best description on the process, how we determine the projected is actually kind of narrated and item two A.



1:30:43

Even though that in this case, that's not the the exact process they're using, but basically, we determine the projected re spread by so the risk spread thickness of the area represented by each drill hole will be specified based on the most undesirable material. So in other words, that material requiring the greatest thickness of replaced SPDM occurring and 20% or more of the overburden above the coal scene.



1:31:17

So we're taking that 20% of the most undesirable material to determine the projected SPDM thickness.



1:31:29

But because



1:31:31

in these these spots, coyotes using the truck shovel operation, so we essentially take that same method, but we're only applying it to what they're removing with the truck shovel fleet.



1:31:45

So as you can see here, this is just an example of, of what I do when I review this stuff.



1:31:53

So if you zoom out a little bit



1:31:59

Okay, so the geology section of the permit, they have all their drilling logs. So I looked at that for this specific drill hole. And then I had identified the top of coal, the coal that they plan on mining



1:32:15

is 121.25 feet below ground surface.



1:32:21

So I marked that there. And then from there, the process, which is laid out in the permit, they're telling us that they're removing everything that's 85 feet above that with a truck shovel fleet.



1:32:37

So if you take 120 1.25 Subtract 85 feet from that, it's 36.25 feet.




1:32:48


So that's what they're removing with a truck shovel fleet to selectively handle and spread on top of the adjacent degraded spoils.





1:32:59


So as you can see, we're only they sample every five feet. So that 36.25 feet is in that 35 to 40 foot sample range. So that's kind of why I drew that line below the the 40 foot


 1:33:17
and then


 1:33:19
just one quick clarification. Is the truck shovel fleet removing everything below that 36 feet or above it above it, okay. Minus the SP GM. Okay.


 1:33:31
Well, they remove that. Well, this the scrapers do but Yeah, correct. Okay. Thank you. Yep, yep.


 1:33:41
So then, just kind of what I do is I take, you know, 40 feet. So that's what the traction will for it's taken zero to 40 feet, divided by five, because these are five foot increments. And then that tells me that

 1:34:00
they're required to have eight sample intervals that we analyze above dragline removal depth. So as you can see, I have those sample intervals and numbered out one through eight.

 1:34:13
So then, policy memo 17 tells us that we're looking at the at 20% that make up 20% of the worst soil.

 1:34:26
So when you do eight intervals times 20%.

 1:34:30
That comes out to 1.6 intervals. So well, you can't really have half an interval. So we're looking at two intervals of the least desirable material.

 1:34:42
And that's going to decide the projected re spread depth.



1:34:48

So as you can see,



1:34:50

and what policy meant was 17 and as well as



1:34:54

the administrative code tells us



1:34:58

we're only looking at



1:35:00

sodium absorption ratio in texture



1:35:06

is the texture is something that is determined by the driller while they're drilling. And no it's it's
it's lab analyzed using, like hydrometer certain



1:35:17

geotechnical sampling procedures.



1:35:23

So I guess now let's refer to



1:35:32

mdacc 69 Oh 5.2 Dash 1504



1:35:41

And it'll be item four



1:35:49

so keep going down.



1:35:53

You'll see a table there yelping? Oh, okay.



1:35:59

So this is kind of



1:36:01

how we determine required SP GM thicknesses, they essentially have three options 24 inch, we spread the 36 inch spread or 48 entry spread. And then that depends on the results of the texture of the soil in the sodium absorption ratio.



1:36:21

So as you can see,



1:36:24

if any sample



1:36:27

has a sodium absorption ratio of greater than 20, then it and then it's 48 inches no matter what.



1:36:35

And then you have you know, SAR is between 12 and 20 would be a 36 entry spread. SAR is sort of absorbed Yes, correct. Yep.



1:36:48

Unless you have a coarse texture soil like a sand you know a sandy soil then then we require

Unless you have a coarse texture soil, like a sand, you know, a sandy soil, then then we require at least a 36 inch we spread.

 1:37:04

So anyway, these are these are what we use in the projections. So I guess if you go back now to the

 1:37:12

spoil sample calculations,

 1:37:17

that tab Yeah. Okay. So as you can see, we're analyzing the first eight samples for SAR and texture.

 1:37:29

So so right now I'm seeking out what what's the worst sample? Well, it's that it's that SAR at sample interval eight, that's above 20.

 1:37:41

But now I see that's the only one that's above 20.

 1:37:45

And what I've determined is we need at least two sample intervals that would, that would

 1:37:52

show us a 48 entry spread, but we're only getting one. Everything else above that has an SAR between minus the first 10 feet as an SAR between 12 and 20.

 1:38:07

So that would tell me that it's that it's out there justifiable and projecting a 36 entry spread. And then of course, the textures clay, loam and clay, which is a medium to light texture. So it's not it's not the coarse texture that the sandy loam when we sand or sand.



1:38:27

Does the texture get used in the calculation at any point? Yes. Yes. So wonder if I do have one



1:38:39

that these specific ones.



1:38:42

So say like, hypothetically, because I don't have an example in front of me, like



1:38:49

there was some of them that had textures that were like sand, then I would use those to factor in like, okay, then it needs a 36 inch.



1:39:01

If that makes sense.



1:39:03

I don't know if that's what you're asking.



1:39:06

If you have a coarse textured you're going to treat it similar to how you would treat an SAR above 20. Yes, except, except Well, it'd be how I would treat an SAR between 12 and 20. Okay, and that's an that's based off of the Administrative Code that table.



1:39:29

So if you go back to the table, gotcha, I gotcha. Yep. You see how coarse texture and then the two Asterix next to it. It points us at a sandy loam or coarser



1:39:41

well even though you have if you had a favorable SAR like it showing there in the table like a 12 or anything below 12 which would normally allow for 24 and three spread. But because it's a coarse texture, it would be a minute has to be a 36 entry spread. So



1:40:00

So, you know, just keep in mind, these are, these are all projections, just to kind of, you know, make sure that they're Salvan gene enough SPDM to really spread in the future, when it comes time to actually re spread the the SPDM they're taking the graded spoils, and then they're just taking samples from the from a 12 or 12 inch depth. And then whatever those samples show, then that's what we respect it to. So we're essentially using the same table for the soil sampling, the graded soil sampling, when it comes time to actually really spread the soil



1:40:43

if that makes sense.



1:40:47

And that's kind of, you know, talked about in policy memo 17 as well.



1:40:53

And I think that covers most of the items that you provide in your memorandum, right?



1:40:59

Yeah, I think I think actually, there was a question.



1:41:06

Find that



1:41:09

on.



1:41:12

Let's see here. Yeah, item item two of the,



1:41:17

of the complaint. And it said, it is clear that the depths of soil re spreading, were not inadvertently labeled as the entire table is being revised to reduce the amounts of tonsoil and

inadvertently labeled as the entire table is being revised to reduce the amounts of topsoil and subsoil being read spread, based on what CCMC has represented has available. I guess, I wasn't quite sure what table you guys were referring to on that one.

 1:41:44

I'm gonna have to look at myself. Okay. Okay, we're seeing a table that had a bunch of those numbers being revised. But I wonder if that's a different table, because there's not any of the tables we're looking at right now. No, and I kind of thought maybe you guys were referencing,

 1:42:00

like table 2.5 point one. And then 2.5 point 4.2.

 1:42:08

Which are in the permit, but I did not see that any revisions were made to those tables. So as you can see, this table was last revised revision five.

 1:42:26

So this, this table that we have a man which

 1:42:30

point 5.4 point two Yep, um, that shows, I guess, the the SPG M and the Ri spread across the voice property. And that's the same calculation that's used for this running line or is this one says animals as well as the state of North Dakota, right? Correct. Yep.

 1:43:08


Julius wondered with re spread areas, does the final vegetation have an effect on what your calculations are?


 1:43:18


needed? No, not for total SPDM.


 1:43:23

Yep.


 1:43:31
Is


 1:43:34
to come back to it if you're new, as far as finding the table I was looking at when I wrote that I did, but I don't think the table itself is you know, the main concern at this point. Whenever it's appropriate, I do have just some follow up questions on that issue. Sure. Not the table but just the general explanation for it everything too. Say No, I don't have you can


 1:43:59
fire away okay.


 1:44:04
So

 1:44:06
on memorandum 17 Am I right that

 1:44:12
the mind is using subsection two c with respect to

 1:44:20
how it's conducting its operations

 1:44:24
and the PSC is using the calculations from subsection two a

 1:44:33
with what the mind is doing operationally under to see I know that was a terrible question but no, I give you're saying yes, we're using the



1:44:43

item to seed to for the calculations but yes, we're using the



1:44:49

the Reese red thickness for the the area that's being



1:44:54

mined by the truck shovel fleet, but we're doing the same thing where we're taking a



1:45:00

are the most undesirable material occurring and 20% or more of the overburden above the coal seam?



1:45:09

And then



1:45:11

the way I understand, and admittedly I barely do, but the way I understand to a when they say occurring and 20% or more of the overburden above the coal seam, right, if we were doing that, just based on how that memorandum normally works, putting aside any kind of truck fleet, yep. Would we



1:45:35

take



1:45:37

on your memo with the attach a bias? Oh, it's on the screen.



1:45:43

So if we were applying subdivision to a outside the context of use of a truck and scraper fleet, would we be looking at the samples above? An sar 20? All the way down to 120 feet where the top of the coal says yep, okay. Yep. So if they were, if they were using the dragline, to remove

all the material above coal, then yes, the projected re spread would be a 48 inch.



1:46:14

Just because we can clearly see that 20% or more of the samples have an SAR above 20.



1:46:22

In



1:46:24

this might be a question for you, John. But is the



1:46:36

the change where we don't do we don't apply the 20% of



1:46:44

samples with SAR over 20 to the overburden beneath



1:46:50

where the scraper fleet removes is that just a practice that the PSC has with respect to you know, we do the same calculation from one A, but when we're doing it under or to a but we're doing it under to see the PSC as a policy of



1:47:09

taking out essentially the lower overburden



1:47:14

from that calculation.



1:47:18

I understand you got it. It's, it all depends on the operate the mining operations.



1:47:28

Specifically, whether they're using the truck fleet, correct, right. So as clearly as well as it stated in section two, point 5.4



1:47:40

There's a narrative in there that explains it. Let's see. Okay.



1:47:45

So right there that that paragraph



1:47:53

that's in two point 5.4 Yep.



1:48:02

And it's also



1:48:04

touched on in



1:48:08

I think, like one of the operation sections of the permit that gives me



1:48:14

too many papers in front of me




1:48:18


was




1:48:21


seriously


 1:48:23
theory


 1:48:28
in Section 3.1 point 1.3 Is they also kind of talk about the mining method using the truck travel fleet above 85 feet.


 1:48:47
3.1 point 1.3 Correct.

 1:48:53
So yeah, when I'm when I'm reviewing these, you know, the spoil samples and coyotes, projected re spread thicknesses I take into account what they're telling us how they're how they're mining, and what they're what they're doing.

 1:49:11
So

 1:49:13
I understand that there's different calculations done

 1:49:19
for re spread depths post mining,

 1:49:23
but whether or not they have suitable plant growth material available to spread out those depths is going to be based on what they say then that's going to be based on the

 1:49:34
projections.



1:49:36

Yeah, essentially. Yep. Yep. It's kind of a, it's really like the



1:49:41

best way to really get a accurate projection. And then on top of that, Coyote, in really all the mines they send us an annual soils handling plan that gives us updates on how much soil they



1:50:00

They have stockpiled, and then how much area they have to reclaim. And then it's kind of like a tracking spreadsheet that says, you know, right right now I think coyotes running at a 3.4% surplus in soil, meaning they have enough to reduce spread and reclaim everything that's currently disturbed based on the projections we've been discussing, correct? Yep. Yep. And because,



1:50:30

you know, selectively handling spoil material.



1:50:34

I would say. And I'd say in my limited experience, that typically,



1:50:41

actual soil re spread depths are are less than projected.



1:50:53

In I'll just say candidly, that's the big concern here. Right. It's avoids call these requires everything to be put back in the same amounts. And so our question, I guess, for the PSC is do you guys account for that? If there's a private contract that doesn't follow these calculations, but simply says you need to put back what you take off of our land? Does the PSC account for that in the the total amount required to be saved? You're asked when you please look into a private lease in private outside agreement? Yep. No, we



1:51:28

are regulation is set to the regulatory standards set forth by the state for our purposes.



1:51:38

Do you look?



1:51:43

What about for commingling of soils? You guys look at the lease for that. Maybe gonna discuss the SWOT handling plants, whether that's included in that. Yeah, I believe



1:51:56

that there is a mixing agreement with all surface owners.



1:52:03

Now, what's what's done between coyote in in Casey and, Julie, you know, if they have a different agreement than we don't look, we don't review that?



1:52:14

Well,



1:52:16

okay, I'm not gonna cross examine you. But the mixing agreement is my understanding is that the mixing agreement they're relying on is the Colbys.



1:52:24

So I guess our perspective without getting into an argument is it's either applicable or it's not, but it's not selectively applicable when it's helpful to them, and then not when it's not helpful to us, especially when we're talking about how much suitable plant growth material goes back on the land. That's, that's a big one. So I think for now, I don't want to start an argument with anyone



1:52:46

start cross examining. Yeah, no, I'll just say candidly, that's the concern that we have is, from what I'm understanding, I understand that what's actually put down on the Boyd property hasn't been calculated yet. But I also understand that that might not be consistent with what we're expecting, which is that everything that's taken off is put back on.



1:53:07

And if they're not saving enough soil to do that, there's going to be a question at some point how they're going to do that. And that's our concern. And



1:53:16

in the idea that they can commingle because a coal the says it, but they don't have to follow the provision in the coal, you saying that they have to put the same amount back? I don't agree with that. I think either the coal use applies or it doesn't. But you know, if if the mixing agreement being referenced is just the coal use, then I think that the other provisions and the coal, he's talking about that exact same thing about how your handle is who will plant growth material needs to be reviewed by the PSE as well. So that's, that's my pitch, but I will say you did a really good job. That stuff was super confusing. And both me and Lisa got a migraine trying to dig through it. And I understand it really well now. So thank you. Yeah, no problem.



1:53:58

Do you guys have any questions?



1:54:02

relates to this, I believe, I guess.



1:54:07

My question would be on the compaction of the soil.



1:54:13

Thank you noticed that in the final already spread the test just one foot below for soil sample. Yeah, the graded soils are what's being sampled, okay. And then when it's finally being reclaimed, it's reclaimed. And as it's being reclaimed, is there any testing done is there any consideration given to the compaction of the soil, especially being that much of this is going back into native grasslands, which the roots and trees and you name it are going to be much deeper, more longer established roots then cropland that other reclamation might consider? So I guess my question is on the compaction



1:55:02

Took me a while to catch up. Yeah, I guess there was



1:55:07

moisture absorption. Yeah, I know, I'm not familiar with any regulations on compaction.



1:55:17

But



1:55:19

pretty perhaps, I think I think Mr. Welsh can speak to the compaction. Yeah. Yeah. Might be better suited for them to plan. So he raised education.



1:55:27

Okay. Yeah, he'll be available as well. And I guess to your concern, too, as well, once you've expressed regarding the soil mixing? I, I initially had misunderstood your question. I might have some follow up on that as well. But I would like to have an opportunity to speak to your staff about how that fully does apply within their current situation. So maybe after a quick break, we'll come back to that. Sure. And just so that you, I guess everyone has a heads up there is a landowner preference statement, that's part of the permanent that came from the voids, that says no commingling of soils. There's also a provision in the coal lease that says something about commingling of soils, I'm sure we can argue about what that language means. But there just to be so everyone's on the same page. There's some language in the coal lease and there's also a landowner preference statement.



1:56:22

Any other questions for Mr. Johnson anything?



1:56:26

Anything? No, Your Honor.



1:56:32

Mr. Walston take a



1:56:35

take a seat and hopefully build out some of these additional questions as well.



1:56:44

One real quick question when you're checking the SAR levels in order to do those calculations, is it a composite sample?



1:56:54

I think that I that I'm not sure. You're talking the the pre mine like soil core sample or the or the, you know, the actual soil samples, like the graded soils?



1:57:09

We recommended that it's a composite sample in policy memo 17. But it's not a strict requirement. That's my understanding. I guess I'd have that question. No, I'm not gonna put you on the spot. But if you guys know, I'll answer it. It is a composite. Okay. Yeah, we ended up taking



1:57:27

three or four I suppose that are mixed in. So it's not just one whole credits taken from so yes.



1:57:35

That's all I got sorry.



1:57:50

Can I Can I clarify one other thing, there's the pre mine is done on a 40 acre, one drill per 40 acre. On the post mine, it's every 400 feet. So each one of those has a composite sample taken out a 400 foot grid, just to clarify that. So



1:58:12

the pre mine is just a soil board, basically, that you're sampling every five feet.



1:58:18


heard Mr. Welsh.




1:58:20


We had some discussion over the last few days about a number of the issues related to the revegetation, the erosion and so forth. And I know you have some thoughts on the revision, as well as the some of the issues that the voice have brought forward. And so I just wanted to turn it over to you and let you just walk through some of those thoughts. So the things that you feel maybe need to be clarified, as well as, again, the voice concerns.


 1:58:48
Microphone.


 1:58:50
Thank you.


 1:58:57
You know, with revision 12, and the issues that were raised, it required us to look in more detail about what exactly the permit says and and

 1:59:09
and so of course, we did that.

 1:59:13
And like Jeremy pointed out, the variance areas, one through six, and the delayed native grass seedings was something that was the language was put into the permit with revision nine and 2019. Okay.

 1:59:30
And as I look at the, the permit today, and

 1:59:34
Jeremy said, we, you know, he's mentioned this to me that the language is inconsistent between sections 3.1 point 1.3 And section 4.3 point one of the permit. And so

 1:59:49
with the next round of technical deficiencies, I think there's some further clarification as needed

needed.

 1:59:55

If you would pull up second page, I think

 2:00:00

To

 2:00:01

where,

 2:00:04

where it's already been pointed out that even though the six year

 2:00:09

the six year requirement was removed,

 2:00:12

in one portion of this permit, it still is listed below the table salt.

 2:00:20

So that needs to be addressed.

 2:00:24


was already pointed out, I guess is the variance, the revegetation delay for various proposed variants, area seven is essentially a one year delay because of box, box pits spoils.


 2:00:40


maybe more importantly, some things that need to be cleaned up I think is section


 2:00:45


 2:00:45
4.3.


 2:00:52
In the previous page,


 2:00:55
the we can zoom in on that page. There's actually some conflicting language here, I think that we need to have cleaned up with with this pending revision right now.


 2:01:05
Because it references a hay land, pre cropland mix and section 4.2 point two.

 2:01:13
But when he got to Section 4.2, point two, it says that the delayed native grass seeds will be planted to a different mix the slander the

 2:01:26
the four species, I guess, it'd be item number four here.

 2:01:30
So that specifically says the early native grass plantings will be planted to the Western the slander drops in the switch. So that needs to be cleaned up.

 2:01:43
In one of the things I think, you know, we look at when when a company asked for a variance, and we looked at it with revision nine was we asked the most basic question

 2:01:55
is granting this variance going to delay boundaries?

 2:01:59



Right.



2:02:01

I mean, that's critically important. And And in all cases, the variances that have been granted.



2:02:09

In any practical bond release, tract sense, it's not going to



2:02:16

delay bond or delay final bond release.



2:02:20

Because



2:02:22

final bond release, the tenure liability period applies to the latest planting on a tract. Okay, and so if you were gonna bond or lace a quarter of land, it's it's that last final seeding that initiates or becomes the tenure liability period for the entire tract.



2:02:43

And so when you look at these various areas, all of them



2:02:48

at the front end of mining that and you look at a logical bond relation track, as mining progresses, it's going to be the later the later areas. So that's something that we look at



2:03:01

it it's an important consideration, I think.




2:03:11

So in regards to Section 4.3, point one, in the changes being proposed with revision 12, to

eliminate that six ceding within six years of core removal,

 2:03:27

I think we do need to clean that language up with that with with this pending revision. So quite frankly, there's not a blanket approval for a variance for the entire permit area for the life of mine. And that that

 2:03:43

will be addressed in this next round of deficiencies.

 2:03:49

And given that the mining company has a mind plan, they can provide us with some sense of when they might have a logical area. And I think these areas need to be clearly depicted on a map so that everybody involved is clear. When

 2:04:08


you know how long the variance will be. And then when seeding is plant salt.

 2:04:16


As I look at this, I'm not so sure with revision nine, that some of this language

 2:04:24


that was written wasn't really applying to those variance areas, but it isn't clear. So we really need to clear you know, to clarify

 2:04:34


some of the


 2:04:36


inconsistencies that we're seeing here.


 2:04:40


You know, and along with that, though, I would say


 2:04:45
that


 2:04:49
when it comes to


 2:04:52
you know the whole purpose of the of the delayed natal grass seedings was to


 2:04:59
was to


 2:05:00
delay planting on the front end to end up with a better product. And I think that's a good approach. I, I agree with that approach, but there should be a timeline at limit. And

 2:05:13
the other point I probably want to make is that even though we have granted


 2:05:20
a variance for the seeding of native grassland,


 2:05:24
you know, to delay it, we have not granted any variance for the requirements to mulch to stabilize, to plant cover crops, control erosion.


 2:05:37
That's not part of the variance. It's all these areas, I think, as been stated.


 2:05:43
They need to be


 2:05:47
mulched and planted with a cover crop depending on the time of the year.


 2:05:53
But I guess following up on that, Have you have you found any point in your inspection in the mind that there have been they have not met the permit requirements? And subsequently had concerns or thought about issuing LPV? Regarding the planting, and mulching and, and planting cover crops? No, I haven't seen I guess. I don't necessarily get to the mind


 2:06:18
all the time, quite frankly. But

 2:06:22
I know the last time we were up there were mulching then section 25 On a recent great approval where they had just picked rock. So the picking rocks, especially on cropland.

 2:06:35
You know, something that needs to be done. And that's done right after topsoil really spread. And then

 2:06:42
and then there's areas more often depending on the time of the year may be seeded, if you know this time of the year, you wouldn't necessarily see anything because, you know, unlikely to grow or establish enough vegetation to protect soil from erosion.

 2:06:59
I think that's

 2:07:05

the main points.



2:07:07

There was a stockpile, there was a photo that brought up by the boys and he was stockpile 30 or the



2:07:13

Russian thistle Do you? Are you aware of, I guess the the planting and I guess the alleged noxious weeds that is on on the spoil pile?



2:07:22

Yeah, I think it's the I think the picture was a topsoil pile, immediately Southwest and the white farmstead.



2:07:31

During the last inspection, John and I, we looked at the spoil pile, North pond, or six or three.



2:07:38

And we looked at some salt pond to the north of that, and then a topsole pile further to the north.



2:07:44

And there was evidence that that



2:07:50

portions of the



2:07:52

I guess I probably should deal with these piles and dependents individually. But




2:07:57

the overburden nile is

the overburden pile is

 2:08:02

with the exception of the trail leading to the top it's been seated and there's

 2:08:08

a standard grass established on it, that's protecting it from erosion, I didn't see any evidence of erosion on that overburden pile.

 2:08:18

The subsoil pile if memory serves me it had been added on over time. So the bottom portion of the side slopes is better vegetated than the upper areas.

 2:08:30

And then there's the topsoil pile.

 2:08:33

It had been an active pile, and I think it's no longer active, but I was told that it's

 2:08:42

that it had been seated.

 2:08:46

See,

 2:08:48

and I guess

 2:08:51

just for for the purposes of, I guess the recording on exhibit number nine, would you would you just describe where the locations you are discussing?



2:09:03

And point to them and describe it though?



2:09:07

I'm using the hand I guess.



2:09:10

So this is a topsail pile?



2:09:13

Is it that's the area in the green area on section 31 Correct.



2:09:18

This is the subsoil pile, okay. The solid brown and section 31 Correct. In this hatched area is an Overberg stockpile, okay, strip area 31 And this is sediment pond, All 306 All 3033 Then is the sediment pond directly south



2:09:41

of the disgust piles



2:09:44

crack



2:09:48

so,



2:09:51

I know there's the one issue that the Vice product that has concerns about of course about this, you know, I guess wide open carp launch time period for the revegetation





2:10:00

have expressed some concerns about that you've expressed some concerns upon that.



2:10:04

There probably isn't a direct recommendation, I'm assuming from staff at this point, except for the extent that we would like to see some sort of revision. Or we'd like to see, revise, of course, to accommodate some sort of timeline.



2:10:18

Would you say that's accurate? Crap, I think I think we need to run a deficiency that, that has them provide a better timelines and projections when city may occur on specific areas. Okay.



2:10:36

Should I clarify where that fixture was? Yeah, sure.



2:10:44

So, the picture was taken of the stockpile right here.



2:10:49

And you're acquainting to the green area to the northwest of section 30, or the number 30. On the mount? Yes.



2:11:05

This wall should kneel down before they ask you some questions. No.



2:11:12

Mr. Man.



2:11:15

Mr. Boyd, what was the date on that picture?



2:11:20

2:11:28

It would have been late this summer. So August, September of 2020. Do

2:11:29

you have any other questions from Mr. Flow? I did not write this written questions.

2:11:41

I think yeah, one moment, please, Your Honor.

2:11:49

Mr. Welsh, I want to go back to what you said about the delay to bond release.

2:11:57

What you were saying is that

2:12:01

the final planting.

2:12:05

The final planting is what triggers the bond release period for a tract or a trip or a bond release tract. And usually mining companies will come in with like a quarter of land or some logical unit of land, not not just,

2:12:23

you know, it's unlikely they're gonna bond land in between two ramps, or haul roads, just for access to other reasons. So you know, what, when I looked at this mine, I go up north intersection, actually 24.

2:12:37

You know, once they get

2:12:41

you know, the rest of this area in mind, then I could see them coming in down the road, obviously, 10 years after the last meeting, the bond really set. But when you look at the mind plan, you look at Section 25, which avoids all

 2:12:57

let me just say it's kind of unfortunate, but the void zone section 19, at least a portion of it, where this primary haul road is, they also own section 30 of where the primary haul road is.

 2:13:10

Except for the shop office complex.

 2:13:15

And if you look at the long term mind plan, this whole road that goes through section 25, is going to be used until that date. Right. So, you know, unfortunately, section 25 is going to be tied up with, with several haul roads for a long time.

 2:13:39

I can't say for life of mine, but it's a long time. So when you look at each of these areas, could you scroll down, please?

 2:13:48

When I look at the voids, property, you know, putting myself in their place, if you will, from when what when am I gonna get my land back, because until its bond released, it's still any permit is still under our jurisdiction. And it's still

 2:14:06

it's still, quite frankly, not their property to do whatever they want with because the mining company still needs to manage that land even after it's seated during the liability period

 2:14:16

to demonstrate reclamation success. So with that being said,

 2:14:21

when I look at this mine plan and avoid property. potentially this



2:14:31

disk quarter, the South East quarter of section 30, maybe the first track potentially



2:14:39

that the void, avoid Atlanta could be bond released. But if you look at the mine plan, right, I can't read that. That 2025 2020 636. So you add three years after that, you're getting into 2029 Then you add 10 years that you're looking at the



2:15:00

Your 2040



2:15:02

Before this could potentially be bought or leased.



2:15:07

Likewise,



2:15:10

you look at this haul road that runs out here to Section One which the void zone



2:15:18

I guess.



2:15:22

So these variances is various, for example, on the state land here in section one, this is very unserious seven it's on state school land



2:15:32

Section six,



2:15:34

and providing a variance for one year 2023 Would my name is going to continue until this date,



2:15:44

whatever that date is 20.



2:15:47

It's actually the variance is going to have no bearing on when you you are going to have a logical unit to bond release. That makes sense. So, yeah, that's who decides what the logical units are for bond release? The mining company. Right. And that's our concern is when you look at the other mines in the state Folkert, for example, there's 200 acres of a land that's been released from bond ever. And so the voids concerns really are with bond release. And I think I understand what you're saying, if there's a delay to seating for a couple of years, is that gonna affect bond release? Probably not. But if there's a delay to seating for 10 years, and we'll



2:16:32

I guess even beyond that, I'm not too concerned about the bond releases, I'm having land put back into production.



2:16:41

Right, and I with no compensation.



2:16:44

Right, I can't speak towards the competitive cough sensation. But



2:16:51

you know, when when you when I read section 4.3.



2:16:56

In the delayed seed mix,



2:16:59

the land, we're really not given a variance to take the land out of egg production. If I read it, it says the prophet is going to be hate, it's going to be planted utilized in some manners



2:17:14

during that delay period, so it's



2:17:19

to my understanding, it's not the intent to take the land out of production. But it what it is to



2:17:25

the delayed seeding is simply delaying the final native grass seeding, or associated land uses such as



2:17:38

does the this might be a question for you, John. And if it's too deep and ongoing, we can just talk about it later. But, you know, we talked about stabilizing mulching and so forth.



2:17:50

Is that



2:17:56

something where the PSC is enforcing the stormwater pollution prevention plans are those separate and the PRC has different things that enforces with respect to the revision receiving



2:18:08

to follow up with you. We can talk about that one later. I think that's a little in the weeds.



2:18:24

You gotten the contractions?



2:18:28

Oh yeah No

Oh, yeah. Do



2:18:31

you want to add? So we had? Julie had the question earlier, and we delayed the answer for guide to answer that one.



2:18:40

Yeah.



2:18:43

To my knowledge, there's no specific standard, if you will, regarding compaction.



2:18:51

But it has been our practice when when you have an area that's, for example, a subsoil, there's some haul roads built on a sub soil. Or there's some corridors where, obviously that have been used and compacted by heavy equipment over the years.



2:19:08

We have required extensive chiseling, ripping



2:19:15

to alleviate compaction to the, to the degree that's physically possible with



2:19:22

typical mining equipment, I guess.



2:19:26

And then, specific to this mine, I guess.



2:19:30

We're gonna want you know, there's a couple areas in the primary haul road located north of County Road 12. Where that haul road is built out of subsoil a couple of sections are actually a

some sort of stockpile within the road.



2:19:49

But elsewhere on this mind, to my knowledge, that none of the haul roads are constructed out of subsoil.



2:19:57

But other than to say that when when



2:20:01

When those types types of features work, where you can expect compaction, we require some measures we take into really the compaction. Beyond that I can only say that,



2:20:12

you know, the the order that the Commission provided with



2:20:22

regarding compaction a few years ago for this permit for this mining company to, to begin testing for compaction on reclaimed lands, and there's language in the permit about what the company is planning to do. And I know Jeremy, this even this last fall he he's the company has taken measures and purchase equipment and and have been doing



2:20:46

testing for compassion.



2:20:48

That order was fy 2013. Guy



2:20:52

said the correct case.



2:20:57

I'm not sure it was a 19 or 30. Or?



2:21:02

I'm not sure.



2:21:03

But I just know there's



2:21:06

there was commission order that required



2:21:10

the company test for connection catcher



2:21:16

is there any testing that's going to be in place



2:21:22

during the actual reclamation of the actual land? I know.



2:21:28

Monte noted that they would be doing sampling, you know, 12 inches of the soil. But how about the compaction below that for the roots to penetrate in central there be any type of



2:21:42

testing done that way



2:21:45

to allow for the native species, trees and everything that's going to grow in that land to be able to flourish over years to come?



2:21:57

To my to my knowledge, the the short answer is no. But to my knowledge, testing of compaction involves the topsoil layer and the sub soil layer. When you get below that, I don't believe the order was talking about compaction of the underlying overburden.



2:22:19

That's That's my understanding.



2:22:23

Just so everyone's clear, I mean, one of the concerns is I think you'd agree that your time on native prairie grasses, a lot of those have rooting depths well below what we're talking about a suitable plant growth material here at 48 inches. And the concern is that with anything with a rooting depth below four feet here, we're basically they're gonna hit a wall, because red star, yeah, it's my belief that, that it's the Forbes in the shrubs, but frankly, that that are probably going to have deeper rooting depths than our grasses.



2:22:59

You know, and I know, there was extensive work done at ARS and mandanna, in early years of mining, to, to look into some of these to determine risk spread depths and, and even compaction, quite frankly, but, you know, it's been established that in terms of grass production, it's the top couple of feet is is the giant majority of your mass for grass species. Now, there's exceptions and there's lots of species of grasses and lots of



2:23:29

you know, native species of forbs and shrubs. But as a general rule, that forefoot DAPT is, is my understanding to be



2:23:41

you know,



2:23:42

the high percentage of of



2:23:45

the area where moisture and production is coming from.

 2:23:55

So, just to follow up with that, then, so you're talking about the mass and the growth potential and all that. But as far as moisture absorption and storage, that is suitable for much deeper than four feet.

 2:24:11

Sure, there's going to be moist just store deeper than four feet.

 2:24:15

And then with your temporary grass mixes, not only there they have different species, but there are lighter seeding per acre

 2:24:27

just to speak towards the, the the lighter seeding per acre if you look at NRCS recommended seeding rates for native grasses.

 2:24:36

And I wanted to update it because this is back when CRP was begun. I worked for enters FCS at the time, but now they're called NRCS. But a full readings a seeding rate, for example, for native grasses is typically typically around the seven to eight pounds per acre. And what you're seeing with mining companies is they're doubling and tripling the recommended

 2:25:00

NRCS seeding rate,

 2:25:02

and they do that for a couple of reasons.

 2:25:07

You know, that's one point.



2:25:11

The other point, I guess, would be



2:25:19

that the species being used in the temporary native grassland seed mix. I mean, the criteria was obviously they want them to be native and I, we didn't pick the PRC didn't pick the species to be planted. It was the mining company proposed. And we said that that's what you want to do that, you know, we reviewed it and approved it, but



2:25:43

they've picked slavery grasses, short lived species, quite frankly.



2:25:48

And Western, which is



2:25:51

a wonderful species in its present on the native grassland and your mind.



2:25:57

Throughout.



2:26:00

Sam Dropseed is is more species for sandy



2:26:05

soils, and the switchgrass it's




2:26:11


you know, has done well with Reclamation.





2:26:15


Throughout the mind, salt you have on you do have a combination of warm season and cool season there. Are they the right species, I guess I'll let you know different people could argue if that's the right species to plant.


 2:26:31
Got


 2:26:33
the meeting? That's fine. The gap got me off.

 2:26:38
And we're discussing this compassionate compassion death. But this is notably different than

 2:26:44
any other compassion that we've seen any other minds operationally, which would be with that.

 2:26:51
Like they are not doing anything different from regarding with regards to compassion, the other minds

 2:26:57
are

 2:27:00
to prevent it, other than like a spoke to you know, I don't believe there's any some sort of powers being used in haul road.

 2:27:09
Other than what I mentioned north of, so, you know,

 2:27:14

yes, they're doing some things



2:27:17

such as not many sub Sol in in Oregon, but what I guess what I'm operationally, I guess, when I'm speaking specifically read revegetation success.



2:27:28

Is there anything because we have seen revegetation? Success? Other mines? Correct? Is there anything that they're doing that would indicate to you to you revegetation success would not occur? No. Okay. So this is consistent with your experience what you've seen other coal mines do and we've vegetated t shirt success? Yes.



2:27:55

I guess they'll follow up on that. Well, we're talking about compaction, that means kind of switched off of the temporary grass mix. But



2:28:04

part of our concerns are brought from landowners from other minds that are experiencing compaction problems. So that is where our concerns come from. Back to the temporary mix. It wasn't necessarily the species in the mix. It was the seeding rate. And I just wondered by seeding a lower rate, is there some benefit to them? Why would we not just see the full rate, because they see in some of your inspection reports that you report seeing frills, which is signs of erosion. And to me if you had a heavier seating rate, you would eliminate some of those frills? Like I said, Go on.



2:28:49

Let me grab section 4.2 point two, which is the segment so to speak specifically to it.



2:29:01

What I would have said is that



2:29:08

is on





2:29:10

the originator receiving the planting 19.5 pounds per acre, which is two to three times the NRCS recommended seeding rate. So this is not a light seeding rate now, should they add?



2:29:28

Should they add more cover crop? Perhaps, you know, but I think



2:29:35

regardless of the seeding rate, you know, there's going to be instances where you have drought or or whatever reasons where you maybe have a crust on the soil surface that prevents seedling establishment. So there's a lot of factors that go into



2:29:52

you know the ceiling



2:29:54

number that establish, for example per square foot



2:30:00

There's a lot of factors that come into what establishing, rather than simply the seeding rate. Because as you can see, this is 61 seeds per square foot NRCS. Historically, this they recommended 25 seeds per square foot as a full seeding rate



2:30:22

is the



2:30:24

does the minor does the PSE, calculate the seeding rate, and specifically the PLS, we review we review the plan.



2:30:38

We don't dictate the species being seeded either than I've pushed hard for forbs to be planted on native grassland over the years.



2:30:50

But, but we don't dictate.



2:30:55

We don't dictate that.



2:31:05

I guess you've referenced the NRCS guidelines several times. And I think from our previous hearings, it's been said that you will strictly closely follow the NRC and NRCS recommendations.



2:31:19

That would be correct.



2:31:22

Yeah, there's the mining companies.



2:31:25

As a general rule,



2:31:28

sometimes that's the best technology currently available in terms of



2:31:35

revegetation, for example. So according to the NRCS, and I'm a little remiss, on the actual timing, but I believe it was around 2008, they changed their recommendations from monitoring the chemical makeup of soils, to looking at the biological makeup of the soils. But yet, you guys do not look at that we do not have a performance standard for for, for example, for soil health



2:32:03

needed a smacker. I mean, our rules are as good or better than the federal requirements.



2:32:08

So no, we don't have a performance standard for soil health.



2:32:15

And following up on that, to create a performance standard,



2:32:21

what would the commissioner have to do?



2:32:25

Go through the rulemaking process, I would believe, right? I mean, we have to be approved, we'd I know, you'd have to have the background with NDSU. And whatever the experts are, and figure out what it is and go through the process. So But currently, there are regulations, and our statutes are consistent with MACRA. Correct.



2:32:51

So then, one last question. Back when you're talking about the maps and the bond releases?



2:32:59

Why is it that there's so many small tracts? So I mean, essentially, this mine has been operating for seven years. And there's no sizable tracts that are suitable to be reclaimed? Well, in terms of the native suitable and size for native



2:33:21

mine is a slow process. And obviously, you know, they're spread out for several miles on your property.



2:33:28

For I understand because of coal quality requirements.



2:33:32

With with that being said,



2:33:37

specific, for example, to Section 25, it's my understanding that, that the concrete mine is putting back a significant additional acreage of cropland on section 25. That was previously native grasslands. So



2:33:55

you know, there's factors come into it in terms of the location of the roads, the ramps,



2:34:02

setup ponds, or there's drainage patterns, there's a number of reasons where they may need to leave a drainage pattern open, you know, until end of mining because everything down south is going to drain the pond goes, Oh, 603. So, you know, that pond is I'm taking you out of that watershed, you're gonna have a drainage that's open and that's just not going to make feasible to. It's, it's the way the land lays and in the mind plane, mine plan dictates on



2:34:34

whether or not you're going to have small irregular pieces or not.



2:34:38

Well, now that we get the whole map of boater again, I mean, there's obviously the two main east west drainage is one down in Section six that continues over under section one and the one that's in Section 31 and continues over into section 36. Other than that, most of that



2:35:00

delayed reclamation is because of haul roads.



2:35:05

Well, let me clarify some things in your in that's something that the mind might need to look at with a revision aid or revision pending revision 12. And in many companies do not need a variance from the reclamation requirements for areas actively being used to support mining. In other words, they don't need a variance for a set of a pond. They don't need a variance for a haul road. Okay, it's they don't need a variance for an overburden stockpile. It's actively being used for mining. Okay. So it's only those areas that are not actively being used for mining,



2:35:41

that they would need a variance to the reclamation requirements, the timelines.



2:35:48

So when you look at this, and I a good example, I think is very answer is six. It's a really small area right here.



2:35:56

It's like most of that area they depicted as part of a stockpile and part of the haul route, you look at and go, I don't know that they even in advance for



2:36:07

for this area, quite frankly, you look at their mind plan, and they're planning a haul road coming right down through this variance area,



2:36:16

according to their mind plan, and you look at that, and you go whether you even need them, you even need a variance for that. Right? Typically, where you find variances were



2:36:27

were at the beginning of mining, where you have box gets blown, you can't get rid of the overburden and in a timely manner. And the second way where you have troops pits, where you have two



2:36:39

pits meet each other,



2:36:42

where it's where the mining is staggered, and you have that right here. So it's two pits that are staggered, is what it is why there's variants here, otherwise, they'd be reclaiming and then re disturbing. So



2:36:59



I don't know if that explains it well enough, but



2:37:08

I guess in your first explanation, you just talked a lot about roads.



2:37:26

Is that right, if I really off topic here,



2:37:30

we were talking about the seeding rates. And I guess two things do you know if they're actually using a PLS and to do you know what kind of



2:37:40

seeding methods they're using, specifically, whether they're using the NRCS recommended methods for seeding these grasses.



2:37:51

The pure live seed in Section 4.2. Point two, it says they're seeding pure live seed, so they buy seed that has a lot of seed that isn't going to germinate, or that has other material other than seed in it. That's all factored in to make sure we're seeding pounds of pure live seed, not just walk.



2:38:14

Okay, verify that.



2:38:16

We,



2:38:18

I have not not necessarily at this mine, but at other mines, I've looked at the C tags. And the drills that okay, this is what you said your shooting.



2:38:28

I won't name names, but any, you'd look at it, and you can see it.



2:38:34

Do we have a strict practice to do that? Not necessarily. But



2:38:39

But I have done that. And I'm sure Jeremy would provide us with



2:38:45

you know what to see tags. And in terms of their drill, understand they have



2:38:52

a track drill, and that



2:38:56

it's built it's made for seeding native grasses and fluffy seeds and



2:39:01

it has agitators and it has depth bands and it's designed to seed native grass and I think that's what NRCS would normally recommend.



2:39:20

Don't have anything else.



2:39:23

Back to the soil health just because it is such a



2:39:29

concern of mine



2:39:32

off says ranchers, soil health is everything to us. I mean, people think we raise cattle, we don't actually raise cattle, we raised grass and grass feed their cattle and that's what we make our living on. So soil health is of utmost concern to us at all times. And throughout generations on the trench. It's been



2:39:54

our top concern. Is there anything that's you've said that there isn't anything in place at



2:40:00

This time, but is there anything that we can look at going forward is to implement ways to be concerned with soil health in the reclamation of the ranch, so that when it is reclaimed in its final state that soil health is back to full native capacity.



2:40:22

And I'm not the sole health expert. I'll say that word up front. But But I do know as time has went on, it's it's, it's been a nice buzzword for NRCS. And all and quite frankly, it's an I don't know that people do, there's probably different ways to define it and how to measure it then.



2:40:41

And there's been some, you know, I know there's some university work that's quite extensive. So it's not an easy thing to measure is why I understand. But I think there are becoming methods that are more usable. And I would certainly hope the mining companies would use the best technology currently available. And as



2:41:04

as the measurement methods become more



2:41:10

standardized and simplified, if you will, and not unreasonably costly. I would think that the mining companies worked



2:41:20

would measure that on their own

would measure that on their own.

 2:41:23

I had one specific question to follow up on that.

 2:41:28

Would planting Forbes and other deep rooting species help with compaction below the suitable plant growth material during the reclamation phase?

 2:41:42

I think there are species that could help reduce compaction.

 2:41:47

And I mean, for the record we're asking for that is having species in that seed mix that are going to do the deep rooting and help with some of that compaction long term? So not just being rhetorical? That's just if I can i Are you talking to delayed seeding mix and the permanent seed mix Okay?

 2:42:28

All right, anything else for Mr. Welch? I think I heard this morning. So you were gonna be done by noon?

 2:42:36

I don't have anything, Your Honor. That shouldn't tell you, you won't be done by.

 2:42:43

All right. Mr. Chu, did you have other staff members? You were going to provide information? No, these were really the two we had available to answer some questions, it might be worthwhile just to kind of get out and have a discussion with staff and see if there's anything else that probably needs to be addressed in relation to this. But there's one thing that I think may be helpful. I mean, we've had this informal conference, and, of course, prior to recommendation on the seed mixes, but now that you have the opportunity to have some, you know, extra questions of software that you get to know exactly where you feel there may be deficiencies. Sure, can the in this revision process? And, you know, subsequent remedies, and

so that we can actually have maybe a discussion of what what is required and what paths are favored. Yeah, I guess I'd say I agree with that. I think that makes sense. One, I guess, question I have so that we're not

 2:43:42

Mr. Welch referred to a potential technical deficiency letter coming out. And I guess to the extent anything is going to be addressed in that I just want to know, if we should do this before or after that happens. Because if we do it before, it may be that something we say is addressed in the letter, but also vice versa, if they do the letter first. You know, it affects both. So I think I'm okay either way, but I think, sure.

 2:44:07

I guess I would probably prefer to do both concurrently to integrate, just because, you know, you once we do a final review, I'm not exactly sure what necessarily is going to address your concerns, the better you're going to be concerned unless you are communicated. And we'll probably have a number of subsequent I mean, not absolutely. But we may have number of, of continuing deficiencies as we work towards the final product. So So, of course you'll be aware of yeah, we'll work to get that in.

 2:44:34

As soon as we can here. Does that make sense? Yeah, maybe it is something or can already you can address it.

 2:44:47

I'm just trying to think of timing here.

 2:45:01

We got that to you in one week.

 2:45:04

To be quite honest, that's kind of we can discuss it today. But I understand that maybe you owe time. You know what I mean? I was hoping to actually have some that discussion today to agree to the things, you know, based upon what you've heard. Yeah, yeah. Okay. Sure. I can do that now.

 2:45:20

With the car, take a break, and then come back. Sure. We can take Yeah, why don't we do that? Just so I made sure I'm not leaving anything else? Yeah, sure.



2:45:28

15 minutes.



2:45:30

Down efficient. Yeah, absolutely. Do we want to take a full lunch break? That would be the other option. You know, actually, maybe, maybe half an hour would be nice. Okay, just to sit down and make sure that



2:45:42

staff has their stuff together. So reconvene at one o'clock, okay. Okay.