

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25

OIL CONSERVATION COMMISSION PUBLIC MEETING

C O N T E N T S

OPENING STATEMENT PAGE

(No Opening Statement.)

WITNESS: DX CX RDX RCX

David White

By Mr. Rankin 94 152

By Mr. Tremaine 144

Million Gebermichael

By Mr. Tremaine 185

E X H I B I T S

EXHIBIT DESCRIPTION ADMITTED

NORTHWIND'S

A The Application 141

B The C-108 Application 141

C A Copy of the Special Warranty Deed 142

D A Copy of Notice Letter 142

E A Copy of Notice of Affidavit and
Publication 142

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25

OCD'S

1	Summary of USC Class 2 Acid Gas	
	Injection Well	194
2	Condition of Approval for AGI Wells	194
3	Mr. Gebermichael Curriculum	186

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25

P R O C E E D I N G S

COURT REPORTER: Yes, we're ready.

COMMISSIONER ROZATOS: Awesome. Good morning, everybody, happy Friday Eve. It's Thursday, March the 20, 2025. This is the Oil Conservation Commission Meeting. I'm Gerasmos Rozatos, I go by Gerry, I'm the acting Director for the Oil Conservation Division. I'm also the acting Chair for the Oil Conservation Commission. We'll start our meeting now. We'll do a roll call. As I mentioned, I am Gerasimos Rozatos, and I'm the acting chair, and I'm -- move it over to my right.

COMMISSIONER BLOOM: Morning. I'm Greg Bloom, I'm the designee of the Commissioner of Public Lands.

COMMISSIONER AMPOMAH: Good morning. I'm Dr. William Ampomah, Professor at New Mexico Tech, designee of the Energy secretary.

COMMISSIONER ROZATOS: Thank you, gentlemen. So we got our roll call out of the way. Now we need to approve our March 20th agenda. If I could get a motion for the approval of the agenda.

COMMISSIONER BLOOM: I so move.

COMMISSIONER AMPOMAH: I second.

COMMISSIONER ROZATOS: Excellent. So our

1 agenda is approved. Our agenda stated that our third
2 topic is the approval of the February 20th through the
3 28, 2025 and the March 11, 2025 meeting notes. We do
4 need to augment that a little bit. The March 11th
5 meeting notes are not complete yet, so we will move
6 those to our next meeting. So right now, if I could
7 get a motion to approve the February 20th through 28,
8 2025 meeting notes, please.

9 COMMISSIONER BLOOM: MR. Chair, I believe
10 those first minutes are the Empire Goodnight case.

11 COMMISSIONER ROZATOS: Correct.

12 COMMISSIONER BLOOM: So I will set out the
13 vote on that as I'm not a commissioner there.

14 COMMISSIONER ROZATOS: Okay. Thank you.

15 COMMISSIONER AMPOMAH: I move and I will
16 second it, okay.

17 COMMISSIONER ROZATOS: So our meeting notes
18 for February 2020 -- 20th through the 28th of 2025 are
19 approved. Okay. We'll move on to our pending cases.
20 Our first case is Case Number 25237. It's a de novo
21 appeal of an order of the Division Case 24517. Are
22 all parties present? This is a status conference.
23 Let's start with the OCD.

24 MR. TREMAINE: Good morning, Mr. Chair,
25 Commissioners. This is Jesse Tremain for the Oil

1 Conservation Division.

2 COMMISSIONER ROZATOS: Thank you, Mr.
3 Tremaine.

4 MR. HOLIDAY: Good morning, Mr. Commissioner.
5 This is Ben Holiday (ph) on behalf of Silverback (ph)
6 Operating Team.

7 COMMISSIONER ROZATOS: Mr. Holiday, thank
8 you. Anybody else?

9 MR. SAMANIEGO: Good morning, Mr. Examiner.
10 This is Jonathan Samaniego, representing American
11 Energy -- representative of American Energy.

12 COMMISSIONER ROZATOS: Excellent. Thank you,
13 Mr. Samaniego. Appreciate it. So we've got all three
14 parties here. Mr. Samaniego, you are appealing the
15 Division order, so have you start for us this morning
16 on our status. Just this -- as I've mentioned, this
17 is a status conference, so we're not hearing it de
18 novo right now.

19 MR. SAMANIEGO: Okay. Silverbacks claim of
20 ownership in the chapter of lease, American denies
21 that. Silverbacks claim that American interests were
22 quiet titles, American denies that. Silverbacks claim
23 through the quiet title that interest in the chapter
24 of lease were quiet titled, American denies that.
25 Silverbacks presented list of their notifications.

1 And then the list of the quiet title, American finds
2 that very -- that needs to be cautiously looked at by
3 the Commission and the Division. I mean, American
4 denies the notifications that they submitted out.

5 It's very precarious that the claimants
6 through the quiet title, Silverback is claiming
7 through they didn't notify nobody there, which is --
8 it's -- it just -- I mean, that really needs to be
9 cautiously looked through. American denies all
10 Silverbacks claims. American should have or is
11 required to notice because American is an operator and
12 an interest holder in the chapter of lease. And
13 because notification was not proper, therefore the
14 applications of Silverback must be dismissed under
15 state law and statutes.

16 COMMISSIONER ROZATOS: Okay. So Mr.
17 Samaniego are -- if -- would you -- are you ready to
18 be able to schedule a setting on your side?

19 MR. SAMANIEGO: Yes.

20 COMMISSIONER ROZATOS: Okay. Thank you.
21 I'll move over to Mr. Holiday. Mr. Holiday?

22 MR. HOLIDAY: Where to begin here? So
23 Silverback and case number - gosh. I have to go back
24 and find the Case Number 24517, Silverback is the
25 operator under a two-section unit that was established

1 by order number R23045. All but 2.25 net mineral
2 acres in that entire two section area were subject to
3 a JOA. So it was a very, very small cleanup pooling.
4 We disagree with Mr. Samaniego's characterization of
5 the title. We also disagree that this is the proper
6 forum to try anything. And then the NMOCD and the OCC
7 doesn't have jurisdiction. This is not the proper
8 place to litigate a title dispute, if he has one.

9 COMMISSIONER ROZATOS: Okay.

10 MR. HOLIDAY: And we're happy to set this for
11 a hearing as soon as it pleases the Commission.

12 COMMISSIONER ROZATOS: Excellent. Thank you,
13 Mr. Holiday. Mr. Tremain?

14 MR. TREMAINE: Good morning, Mr. Chair.
15 There's -- two things I want to address here. First
16 is the OCD's entry of appearance and notice of
17 intervention --

18 COMMISSIONER ROZATOS: Mr. Tremain, I'm going
19 to interrupt you. Can you bring the microphone a
20 little closer?

21 MR. TREMAINE: Sorry.

22 COMMISSIONER ROZATOS: Thank you.

23 MR. TREMAINE: I expect OCD's involvement in
24 this case to be likely minimal. The chief question
25 here is a title question as Mr. Holiday indicated.

1 And dispute between the parties as to whether Mr.
2 Samaniego and American Energy Resources was entitled
3 to notice, or in compulsory pooling claim. I will
4 venture -- my suspicion is that the Commission will
5 and should rule based on pleadings associated with
6 those claims. The reason that OCD entered appearance
7 here, based on the record, is that the leasehold
8 interest purported by Mr. Samaniego includes and is
9 arguably held by a particular well, the Rio Penasco.

10 That well is out of compliance and subject to
11 a stipulated final order with another party who is a
12 registered operator at the time of OCDs enforcement
13 action. We're taking additional investigative steps
14 and enforcement actions related to that, and other
15 wells.

16 But to the extent that this Commission
17 considers any rights or permissions associated with
18 that well, OCD needs to reserve its ability to
19 participate to the extent that the Commission is going
20 to consider the title claims, the quiet title
21 arguments, et cetera, between Mr. Samaniego and
22 Silverback. We will abstain from that argument and
23 we're available to schedule either motions or hearing
24 on this at the pleasure of the Commission.

25 The second issue is that Mr. Samaniego's

1 filed a motion to strike my appearance as Commission -
2 - as a Division counsel. I sent a rather strongly
3 worded response to commission clerk regarding that. I
4 don't think we're going to get into the merits of that
5 today, but I urge this Commission to deny that motion.
6 It is true that Mr. Samaniego's filed numerous
7 complaints to any -- essentially any email -- OCD
8 email that he can identify regarding me doing my job.
9 He's exceedingly unhappy with the enforcement
10 practices regarding an act of wells.

11 They're frivolous and unsupported claims, no
12 actions have been taken. I haven't heard back from
13 the U.S. Department of Justice, for instance, about
14 any concerns with my actions. And it's important that
15 the Division has the opportunity to address its
16 interest in its -- in enforcing its rules regarding
17 that well. Again, I don't think we're going to get to
18 that issue in the case. Thank you.

19 COMMISSIONER ROZATOS: Thank you. Mr.
20 Tremaine. As far as the motions to strike Mr. Holiday
21 and to strike Mr. Tremaine, the both motions have come
22 up. Commissioners, I motion that we do strike it. I
23 think that both Mr. Holiday and Mr. Tremaine have the
24 ability to be able to discuss on part of both
25 entities. And if you agree, I would need someone to

1 second that.

2 COMMISSIONER BLOOM: I concurrent and I
3 second.

4 COMMISSIONER AMPOMAH: I also agree to that.

5 COMMISSIONER ROZATOS: Okay. So I think
6 unanimously we're going to agree to strike --

7 COMMISSIONER BLOOM: To deny.

8 COMMISSIONER ROZATOS: -- to deny the motion
9 to strike the two. So let's -- we'll let the record
10 reflect that for now. As far as being ready to take
11 this -- to bring it in front of -- to the Commission,
12 as you all know, the Commission schedule is pretty
13 busy, we are pretty packed. So as far as
14 availabilities, I believe April is out because April
15 has just a massive case going on, in two full weeks in
16 the month of April for that. Sheila (ph), what does
17 May look like right now?

18 MS. SHEILA: The May meeting is May 15th, and
19 there's room on that docket.

20 COMMISSIONER ROZATOS: I'm sorry. can you
21 repeat that?

22 MS. SHEILA: Sure. The meeting is set for
23 May 15th, and there is room on that docket for a case.

24 COMMISSIONER ROZATOS: You say there is or
25 there isn't?

1 MS. SHEILA: Oh, there is. We could schedule
2 it --

3 COMMISSIONER ROZATOS: (Crosstalk), okay.

4 MS. SHEILA: -- on May 15 there.

5 COMMISSIONER ROZATOS: I apologize. I'm in a
6 weird echo in the room and I didn't hear it, so my
7 apologies. Okay. So as soon as we probably could get
8 to this case is June. I know that that's almost three
9 months out, but as I said, the Commission's pretty
10 packed and the calendars are getting pretty full.
11 Does that work for all three parties, Mr. Tremaine?

12 MR. TREMAINE: (crosstalk).

13 COMMISSIONER ROZATOS: I'm sorry, Mr.
14 Tremaine?

15 MR. TREMAINE: Yes, for the Division.

16 COMMISSIONER ROZATOS: Okay. Mr. Samaniengo?

17 MR. SAMANIEGO: Yes.

18 COMMISSIONER ROZATOS: Okay. Mr. Holiday?

19 MR. HOLIDAY: Yes, sir.

20 COMMISSIONER ROZATOS: Okay. Excellent. So
21 we can set this for the June hearing for that
22 instance. Anything else anybody would like to bring
23 up regarding the status conference? The -- yeah. the
24 status conference for this particular case.

25 MR. SAMANIEGO: I would like to make on the

1 record that Jesse Tremaine's statements regarding
2 American, it was out of line. It was patently
3 incorrect.

4 MR. ROZATOS: Okay.

5 MR. SAMANIEGO: For the fact that the topics
6 that he brought up were irrelevant to the matter at
7 hand. The matters he brought forth, those are matters
8 to be brought forward for a matter for violation
9 hearing. This is a matter regarding notice of
10 pulling. For the fact that Tremaine brings up
11 violations whenever we're simply talking about proper
12 notification, is in plain sight of his maliciousness.
13 I reported that I told -- I reported him to the
14 Department of Justice -- the New Mexico Department of
15 Justice, and today here he is maliciously coming into
16 a hearing with irrelevant topics --

17 COMMISSIONER ROZATOS: Mr. --

18 MR. SAMANIEGO: -- with assault --

19 COMMISSIONER ROZATOS: Mr. Samaniego?

20 MR. SAMANIEGO: -- of hurting (inaudible)
21 him.

22 COMMISSIONER ROZATOS: Mr. Samaniego? Mr.
23 Samaniego, I'm going to interrupt you. One second.
24 We're not here to discuss the merits of Mr. Tremaine,
25 and I would appreciate it if we use some decorum and

1 we used respect when we're talking about individuals,
2 just like Mr. Tremaine calls you Mr. Samaniego, I
3 would appreciate it if you also use the same with Mr.
4 Tremaine. Don't just say Tremaine. And second of
5 all, we will be hearing this case. So why don't we --
6 I understand your frustration, and I note it, the
7 Commission definitely understands that there is
8 frustration here. We will -- are happy to discuss the
9 merits of that in June. But let's keep some respect
10 and some decorum, please.

11 MR. SAMANIEGO: If I may just add one more
12 thing. There was two other qualified attorneys,
13 Christopher Moger (ph) and Christie Travo (ph). And
14 those are two qualified attorneys that can hear this
15 matter. The fact that Jesse Tremaine feels it's under
16 his sole obligation to hear American and be involved
17 in American's hearing is erroneous. And for the
18 Commission to allow that, to proceed with him being
19 involved is negligent.

20 COMMISSIONER ROZATOS: Mr. Samaniego?

21 MR. SAMANIEGO: (Crosstalk).

22 COMMISSIONER ROZATOS: Mr. Samaniego, I
23 appreciate it, and we definitely, as I stated, noted
24 that you have your concerns, and that is on the record
25 as well. In June, we will definitely hash all that

1 out, okay?

2 MR. SAMANIEGO: Okay. And can I just get the
3 hearing date one more time? I can write it down.

4 COMMISSIONER ROZATOS: Yeah. It'll be June,
5 2025. And what's the exact date, Sheila, for June?

6 MS. SHEILA: It'll be June 15th.

7 COMMISSIONER ROZATOS: June 15, 2025.

8 MR. SAMANIEGO: Yes, sir.

9 COMMISSIONER BLOOM: Or May 15th?

10 COMMISSIONER ROZATOS: Nope, not May.

11 COMMISSIONER AMPOMAH: It's Sunday.

12 COMMISSIONER ROZATOS: June 15th is Sunday,
13 Sheila.

14 MS. SHEILA: Oh, is that a Sunday? Right now
15 it's scheduled for June 19th, but that is a federal
16 holiday, so I'm going have to move the hearing, and
17 I'm going to move it to the Monday of that week. And
18 I thought it was the 15th, but if it's the 16th --

19 COMMISSIONER ROZATOS: So the 16th. June
20 16th, Mr. Samaniego.

21 MR. SAMANIEGO: Mr. Chair?

22 COMMISSIONER ROZATOS: Yes.

23 MR. SAMANIEGO: I'm not available.

24 COMMISSIONER ROZATOS: You are not available

25 --

1 MR. SAMANIEGO: Yeah.

2 COMMISSIONER ROZATOS: -- on the 16th.

3 MR. SAMANIEGO: Yeah.

4 COMMISSIONER ROZATOS: It'll be that week of
5 June 16th, at some point, Mr. Samaniego. Will have a
6 date solidified and we'll get it to you, okay?

7 MR. SAMANIEGO: Yes, sir.

8 COMMISSIONER ROZATOS: Thank you. Anything
9 else? Excellent. Thank you, everybody. We'll move
10 on to our next case. Our next case is case number
11 24683. It's the application for rulemaking to amend
12 19.15.2, 19.15.5, 19.15.8 19.15.9, and 19.15.25 of the
13 New Mexico administrative code. This is the Status
14 Conference. Are all parties present? We'll start
15 with you.

16 MS. FOX: Thank you Mr. Chair. Tana Fox (ph)
17 representing applicants in this matter. And I'm here
18 today with Morgan O'Grady (ph) from our office and
19 online are Kyle Tisdale (ph) and Matt Niel (ph).

20 MR. ROZATOS: Excellent. Thank you, Ms. Fox.

21 MR. FELDERWORK: Good morning, Mr. Chair.
22 Members of the Commission, Michael Felderwork (ph)
23 with the Santa Fe, Office of Holland and Hart on
24 behalf of (inaudible), USA.

25 COMMISSIONER ROZATOS: Thank you, Mr.

1 Felderwork.

2 MR. TERMAIN: Jesse Tremain on behalf of the
3 Oil Conservation Division.

4 COMMISSIONER ROZATOS: Thank you, Mr.
5 Tremaine. Okay, Ms. Fox, we'll start with you.

6 MR. SUAZO: Good morning, Mr. Chair. Can you
7 hear me?

8 COMMISSIONER ROZATOS: I apologize. Yes, Mr.
9 Suazo, my apologies.

10 MR. SUAZO: All right. Good morning Mr.
11 Chair and Commissioners, Miguel Suazo with Beatty &
12 Wozniak, appearing on behalf of the New Mexico Oil and
13 Gas Association this morning.

14 COMMISSIONER ROZATOS: Excellent. Thank you.
15 I see Mr. Tisdale. Is there anybody else on the
16 platform?

17 MS. TRIPP: Yes, Commissioner. This is Ann
18 Tripp with Hinkle Shanor on behalf of the Independent
19 Petroleum Association of New Mexico.

20 MR. ROZATOS: Thank you, Ms. Tripp. Anybody
21 else?

22 MR. SAYER: Yeah, Mr. Chairman. This is
23 Matthias Sayer on behalf of EOG.

24 MR. ROZATOS: Mr. Sayer, thank you. Anybody
25 else? My apologies. As I always say on these

1 meetings, I haven't had enough coffee by 9:00 a.m. so
2 I slip up sometimes. Ms. Fox, will now start with
3 you.

4 MS. FOX: Thank you. Thank you, Mr. Chair.
5 You might recall at the last status conference last
6 month all the parties concurred that the April hearing
7 that had been set by this Commission should be
8 vacated. And the reason for that was that the parties
9 met in October to discuss applicant's proposals. At
10 that point in time, OCD stated that it would have a
11 red line that would have alternate proposals for the
12 parties. So we were all very interested to know what
13 those were.

14 Those proposals were anticipated to be
15 submitted to the parties before the end of the year,
16 but because of workload issues, they were not, and
17 they were submitted, as you might recall, in the
18 middle of February. And so the industry at that point
19 in time asked for 30 days to try to figure out a new
20 hearing date.

21 Last week, OCD circulated a proposed hearing
22 schedule for the parties and the proposed hearing
23 schedule had dates for applicant's filing a -- an
24 amended petition for the filing of direct testimony
25 and exhibits for the filing of rebuttal testimony and

1 the exhibits. And then a hearing date of about
2 approximately two weeks, maybe two plus weeks starting
3 October 14th. With flexibility within those dates we
4 wrote back to OCD, we concur with its proposed
5 schedule.

6 We haven't heard from industry parties,
7 although I did have a conversation with Mr. Felderwork
8 and Mr. Rankin this morning. We're amenable to -- in
9 terms of the dates that UCD has proposed, were
10 amenable to flexibility within the dates for filing
11 the amended petition, the direct testimony, the
12 rebuttal. The one, I guess, request we have is that
13 for the hearing, that it not extend beyond the first
14 or second week of November that it not bleed over into
15 the holiday season. Because we've got a lot of
16 council, a lot of experts, many of whom are going to
17 be flying in from out of state.

18 We have Commission members, we have the
19 hearing officer. It's a -- these hearings as you
20 know, are a lot of work. And we would like to have
21 this hearing ended before the holiday season get
22 started, and without having the hearing hanging over
23 us. That's our one request.

24 COMMISSIONER ROZATOS: Okay.

25 MS. FOX: Other than that, we're -- we have

1 flexibility between now and the hearing.

2 COMMISSIONER ROZATOS: Okay. Excellent. Mr.
3 Felderwork, we'll go to you next.

4 MR. FELDERWORK: Ms. Fox did a good job of
5 summarizing, I think where we are. The only thing is
6 I am -- I don't see a date on here for filing a -- any
7 kind of an amended petition. But I'm -- I suppose
8 that's something that we can discuss and agree upon in
9 formulating any scheduling order. But we don't have a
10 problem with the proposed October hearing date. I do
11 note that the filing of full testimony and exhibits is
12 June 13th, which if we hold in October would be four
13 months before the hearing. Seems like an awfully long
14 time, but --

15 COMMISSIONER ROZATOS: Four months go fast.

16 MR. FELDERWORK: Yeah. I guess they do go
17 fast, yeah. And then there's provision in here for
18 filing rebuttal testimony. In my experience, the only
19 thing I'd want to reserve is the ability to actually
20 challenge whether it's rebuttal testimony or whether
21 it's something that should have been filed initially.

22 COMMISSIONER ROZATOS: Okay. Mr. Tremaine?

23 MR. TREMAINE: Thank you, Mr. Chair and
24 Commission. I think we've summarized the situation
25 well waiting on feedback on specific dates from the

1 parties. I know Mr. Suazo is traveling, and so I'm
2 hopeful that we can get a joint stipulated order in.
3 I did not put in or propose yet a amended petition
4 deadline, I think that's something we can and should
5 talk about with the parties. But we're discussing the
6 scheduling of additional stakeholder meetings in
7 April. So I was leaving that open-ended for now to
8 allow what we hope and expect will be feedback from
9 the Morgan and other industry partners.

10 But that's something that we can fill in in
11 the next couple weeks. I do think that we want to
12 take the time to hammer out any areas of necessary
13 flexibility with the filing dates, but that the most
14 important thing is the hearing date that we get that
15 scheduled.

16 We share the concern that going into the
17 holidays, this is going to be difficult for all
18 parties in the Commission. And I propose two plus
19 weeks at this point because I think if it's structured
20 that way, we can always pull that back rather than
21 extending it out as we've seen with some other cases
22 that have gone on beyond the current schedule period.
23 So if we could schedule 2 to 3 weeks and then
24 hopefully we can whittle it down from there.

25 COMMISSIONER ROZATOS: Okay. Thank you, Mr.

1 Tremaine. Mr. Suazo?

2 MR. SUAZO: Sure. I think MR. Felderwork and
3 Ms. Fox did a good job summarizing where we are. I
4 did confer with LA MOGA (ph) and I think, you know,
5 there's no issues with the October date per se. I
6 think the better question and maybe the place we
7 should start is to learn whether or not the Commission
8 is available on those dates. And if not, hopefully we
9 can push it back a bit, but in such a way that it
10 won't interfere with the holidays.

11 With respect to the earlier dates I think LA
12 MOGA is still kind of waiting to see what results from
13 the legislative session is. You all can imagine
14 they've been pretty focused on that. There are some
15 pieces of legislation that could impact this rule
16 making. We'll know the outcome of that, I think
17 fairly soon, but we don't know it yet. And so once we
18 have some clarity with respect to how the session ends
19 and what impacts it might have on this rule making, I
20 think that LA MOGA will be prepared to sit down with
21 the parties and agree upon some firm dates. I just
22 don't think that we can do that today, but I do expect
23 we'll be able to do that in the next few weeks.

24 COMMISSIONER ROZATOS: Excellent. Thank you.
25 Ms. Tripp?

1 MS. TRIPP: Yes. Thank you, Commissioner.
2 IPNM is in much a similar situation LA MOGA. We don't
3 have a problem with the October 14, two plus week
4 hearing dates as long as it does accord with the
5 Commission schedule, and we could push a week or two
6 beyond as well. And so I don't have anything
7 additional to add, I think we'll be available in a
8 better position after the legislature close.

9 COMMISSIONER ROZATOS: Okay.

10 MS TRIPP: And I'm aware that there's several
11 parties that may have amendments or revisions, and so
12 I think those interim deadlines, which are discussed
13 right now, are open for conferral between the parties.

14 COMMISSIONER ROZATOS: Excellent. Thank you.
15 Mr. Sayer.

16 MR. SAYER: Thank you, Mr. Chairman. Nothing
17 to add. We generally are supportive of the Division's
18 proposed schedule.

19 COMMISSIONER ROZATOS: Okay. Excellent. And
20 Ms. Fox, you were speaking on behalf of the other two
21 gentlemen on the platform, correct?

22 MS. FOX: (No audible response.)

23 COMMISSIONER ROZATOS: Okay. The -- I
24 believe that this is all fine and done with the
25 Commission as well. The only caveat to it is the

1 Commission Chair is going to be out of the country the
2 first two and a half weeks of October. So it would
3 have to be the week of the 20th instead of the week of
4 the 14th -- 13th. So it would just be moved by one
5 week, if at all possible. As I mentioned, I'll be out
6 of the country. So I just moved it by one week. It'd
7 still be for the holidays but it would just probably
8 be the week of the 20th of October. If that's okay
9 with all the parties. We could tentatively schedule
10 it for that.

11 MS. FOX: That's fine with the applicants.

12 COMMISSIONER ROZATOS: Okay.

13 MR. FELDERWORK: Fine with OXY.

14 MR. TREMAINE: Agreed.

15 COMMISSIONER ROZATOS: Ms. -- I'm going to
16 just go Mr. Suazo.

17 MR. SUAZO: That's fine with LA MOGA, Mr.
18 Chair.

19 COMMISSIONER ROZATOS: Okay. Ms. Tripp?

20 MS. TRIPP: That's fine with IPNM.

21 COMMISSIONER ROZATOS: Okay, Mr. Sayer.

22 MR. SAYER: It's good.

23 COMMISSIONER ROZATOS: Okay. So we can set
24 it for the week of starting Monday the 20th of
25 October. So Commission, does Commissioners still do

1 that work for you all?

2 COMMISSIONER BLOOM: Let me check the third
3 week there.

4 COMMISSIONER ROZATOS: Okay.

5 COMMISSIONER BLOOM: Works for me, Mr. Chair.

6 COMMISSIONER ROZATOS: Okay.

7 COMMISSIONER AMPOMAH: How long will this go
8 for?

9 COMMISSIONER ROZATOS: Third -- they just
10 said two weeks, possibly a little more.

11 COMMISSIONER AMPOMAH: So I ask that when it
12 getting in closer, because I do teach.

13 COMMISSIONER ROZATOS: Right.

14 COMMISSIONER AMPOMAH: You know, and I cannot
15 miss classes for two straight weeks. So -- but I
16 teach only one class so we can work it out in such a
17 way that I can be relieved to go teach at some point.

18 COMMISSIONER ROZATOS: Yeah. I think all
19 parties could take that into account for a day during
20 the week so the Commission -- Commissioner can teach
21 his class. We can work that schedule out and work
22 with that. But it -- does the 20th of October
23 starting this work for you, Commissioner?

24 COMMISSIONER AMPOMAH: Yes.

25 COMMISSIONER ROZATOS: Okay. Then let's plan

1 on that. We'll get -- we'll set it on the books for
2 the week of the 20th of October. We just need another
3 status hearing here. When do you all -- when would
4 you all like another status hearing?

5 MS. FOX: Mr. Chair, I think next month would
6 be good because we should be able to have decided
7 among ourselves the -- you know, sort of these interim
8 dates between now and the hearing October 20th.

9 COMMISSIONER ROZATOS: So the Commission
10 meeting date was canceled for next month because we've
11 got the two weeks for the Goodnight Empire case.
12 We're unhappy to hear it at the beginning of that, but
13 that's April 7th. That gives you less than two weeks
14 to meet.

15 MS. FOX: Whatever the pleasure of the
16 Commission.

17 COMMISSIONER ROZATOS: I mean, even May.

18 MS. FOX: Two -- huh?

19 COMMISSIONER ROZATOS: Should we just do May?
20 Just -- Ms. Fox, I'm just going to interrupt. Being
21 that legislative session is ending this weekend, you
22 all may need a little extra time just to regroup with
23 what comes out of the legislature. So maybe the May
24 hearing would be best for everyone, because as I said,
25 the April one starts right off April 7th. So -- but I

1 leave that up to you. That's just my suggestion.

2 MS. FOX: That's fine. May's fine.

3 COMMISSIONER. ROZATOS: The (inaudible) --

4 MS. FOX: I would like -- I mean, I hope that
5 we can get agreement among the parties in the next,
6 say, two weeks. Because I heard session will end.

7 COMMISSIONER ROZATOS: Sure.

8 MS. FOX: Saturday at noon.

9 COMMISSIONER ROZATOS: Right.

10 MR. TREMAINE: Mr. Chair, I would echo that.
11 I think it would benefit all parties to have this
12 sorted out -- the schedule sorted out in the next
13 couple weeks. I know that session creates a lot of
14 open-ended questions, but tracking what's happening
15 there with the various bills that would potentially
16 impact this particular rule making. I think we're
17 looking at kind of a Hail Mary for any of that to pass
18 at this point.

19 So the particular bills are still on
20 committee, so the likelihood that the statutory
21 foundation upon which the -- this petition is based
22 substantially changes in the next week is exceedingly
23 low. And I think we don't want to push decisions on
24 these filing deadlines out all the way to May because
25 that's going to give all of the parties, as currently

1 proposed, only 30 days to turn around for direct
2 testimony.

3 So we're all preparing for this based on the
4 current red lines with that expectation that there's
5 going to be a direct testimony filing deadline
6 sometime in the middle of the summer and it's -- it
7 doesn't benefit any party to wait to make that
8 decision until the middle of May. So I would say I
9 will encourage the parties to work with us and we'll
10 try to get something filed with the Commission in
11 advance for the next status conference and the
12 Commission can schedule the next status at -- whenever
13 it chooses. But I think we need to get something
14 submitted as soon as possible.

15 COMMISSIONER ROZATOS: Okay. Mr. Felderwork,
16 you still sticking with me?

17 MR. FELDERWORK: It's not a strong opinion,
18 no.

19 COMMISSIONER ROZATOS: Okay. You could go
20 either way.

21 MR FELDERWORK: I'd go either way.

22 COMMISSIONER ROZATOS: Okay. I'll go onto
23 the platform. Mr. Suazo?

24 MR. SUAZO: Yeah. Mr. Chair, I tend to agree
25 with, you know, Mr. Tremaine's position. You know,

1 that being said, the chances of this legislation
2 passing, I think at this point are low, but they're
3 also not zero. And so I would like to, you know, be
4 in the position to work with the parties and agree to
5 a procedural schedule before May, I am hopeful that we
6 can do that. We'll definitely endeavor to do that,
7 but, you know, until we kind of have some clarity, we
8 can't do that just yet.

9 But I agree, given the dates that the parties
10 have proposed, that LA MOGA still needs to assess, you
11 know, we just need a little bit more time. But if we
12 stick to those dates, it's going to be kind of tight
13 in terms of time. You know, if we wait all the way
14 until May to agree to a schedule. So I propose that
15 we put a status conference for May on the schedule,
16 but also, you know, commit to the parties that we'll
17 do our utmost to work with them to try and pin down
18 the actual dates before the May status conference.

19 COMMISSIONER ROZATOS: Okay. Ms. Tripp.

20 MS. TRIPP: Commissioner, I agree that having
21 a -- that May status conference as a backstop, but
22 that IPNM is agreeable to working with everyone well
23 ahead of that.

24 COMMISSIONER ROZATOS: Okay. Thank you. Mr.
25 Sayer?

1 MR: SAYER: Yeah. We agree with them Mr.
2 Tremaine.

3 COMMISSIONER ROZATOS: Okay. So let's do it
4 this way. We'll put a status conference for April the
th

5 7 , we'll begin the day with the status conference,
6 April 7th. And if we need more time, we need more
7 time, we can regroup at that point. How does that
8 sound for everybody?

9 MS. FOX: Mr. Chair, that's perfect.

10 COMMISSIONER ROZATOS: Excellent. Mr.
11 Felderwork, you're okay with that?

12 MR. FELDERWORK: That's fine. Thank you.

13 COMMISSIONER ROZATOS: Okay. Mr. Tremaine?

14 MR. TREMAINE: Excellent. Thank you.

15 COMMISSIONER ROZATOS: Excellent. Mr. Suazo?

16 MR. SUAZO: That's fine with LA MOGA.

17 COMMISSIONER ROZATOS: Ms. Tripp? Thank you,
18 MR. Suaza.

19 Ms. TRIPP: Yes, that's fine. Thank you.

20 COMMISSIONER ROZATOS: Excellent. Thank you.
21 Mr. Sayer?

22 MR. SAYER: Yep. Thank you, Mr. Chairman.

23 COMMISSIONER ROZATOS: Okay. We'll see you
24 all in two weeks. Appreciate it. Thank you.

25 MR. FELDERWORK: Thank you.

1 MS. TRIPP: Thank you.

2 COMMISSIONER ROZATOS: Moving on to our next
3 case. And actually, you know, what we'll do, let's
4 take a 10-minute break just so everybody can regroup,
5 get chairs, et cetera, and we'll meet back here at
6 9:42. Thank you.

7 (Off the record.)

8 COMMISSIONER ROZATOS: Okay. We're back from
9 break. We'll go on to our next case for today. This
10 is an evidentiary hearing before the Oil Conservation
11 Commission. This is case number 24881, it's the
12 application of Northwind Midstream Partners, LLC, for
13 approval of an additional redundant acid gas injection
14 oil. And to amend order number R20913 as amended and
15 SWD 2622 to authorize an increased shared maximum
16 daily injection rate in Lee County, New Mexico. Are
17 all parties present? I'll start from my right and
18 we'll move across. MR. Rankin?

19 MR. RANKIN: Chair Rozatos, Commissioners,
20 may it please the Commission. Adam Rankin appearing
21 this morning on behalf of the applicant in this case
22 with Santa Fe, Office of Holland & Hart.

23 COMMISSIONER ROZATOS: Thank you, Mr. Rankin.

24 MR. MARBLE: Chairman and Commissioners on
25 behalf of Desert Ram South Ranch, Inc. and intervener.

1 I'm Reagan Marble, along with my co-counsel and
2 colleague Ms. Caitlin Locke.

3 COMMISSIONER ROZATOS: Thank you, Mr. Marble.
4 Appreciate it.

5 MR. TREMAINE: Thank you. Chair and
6 Commissioners Jesse Tremaine for the Oil Conservation
7 Division.

8 COMMISSIONER ROZATOS: Excellent. Thank you.
9 Okay. Are we ready to proceed? We'll start with you
10 Mr. Rankin. Okay. Yeah. I'm sorry. We'll do
11 preliminary matters and any motions. So Mr. Marble, I
12 believe you had a motion.

13 MR. MARBLE: We do have a motion to stay.
14 Mr. Chairman, if you'd like us to take that up at this
15 time.

16 COMMISSIONER ROZATOS: Yes, let's take it up
17 please.

18 MR. MARBLE: Good morning again. For the
19 record, my name is Reagan Marble and along with my
20 colleague, Ms. Caitlin Locke, I represent Desert Ram
21 South Ranch Inc. And adjoining surface owner to the
22 Titan facility that's at issue in this application
23 today. This motion to stay and this case from our
24 perspective, is about whether a company can succeed on
25 its application for a permit to inject acid gas

1 beneath land that it does not own an interest in.

2 We ask the Commission to stay the application
3 presented today for a myriad of reasons, but three of
4 which I'll discuss with you this morning. The first
5 is that Northwind does not have a good faith basis as
6 required by this Commission to drill and operate the
7 AGI well. The second is that Northwind's reliance in
8 their response to our motion to stay on the Snyder
9 Ranch's case is misplaced.

10 The third is that this issue is not an issue
11 new to this Commission. And then I'll finally address
12 standing, which we should dispose of rather quickly.
13 Turning to my first point, Northwind does not have a
14 good faith basis to drill and operate the Titan for
15 AGI well. I believe Case Number 13492 by this
16 Commission in the early two thousands states the
17 principles that should form the basis of our analysis
18 and why this Commission should stay the application.
19 13492 involved Chesapeake. Chesapeake had applied for
20 a permit to drill an oil and gas well on the southwest
21 quarter of section 4. It had actually obtained the
22 permit.

23 After the permit was issued, Kaiser Francis
24 (ph) Sampson (ph) and Newburn (ph) came back to the
25 Commission and filed a motion to cancel the permit on

1 the basis that Chesapeake did not own any interest in
2 the Southwest quarter of Section 4. The Commission
3 ended up canceling Chesapeake's permit and they laid
4 forth the analysis in that order, and I believe the
5 analysis that this Commission should follow in the
6 motion to stay today.

7 The first question the Commission presented
8 in its order, that should be part of the analysis that
9 they said the Commission should approach is does the
10 applicant have a good faith claim to both drill and
11 operate the well they are applying for? Then this
12 Commission stated it another way. They said, "Do they
13 have a good faith claim to title for the property?"
14 They then went on to discuss that title is simply a
15 person transferring its interest or a interest in real
16 property to another.

17 Then Chesapeake responded to both Kaiser,
18 Francis and Sampson about this Commission's
19 jurisdiction on title disputes. And Commissioners and
20 Chairman, I understand, I don't want to create any
21 more work for you. I don't want to create any more
22 work for Mr. Tremaine. We should not have title
23 disputes in this tribunal. In Texas, my home state,
24 our neighbor to the east, we approach the title
25 matters very similarly, so does the state of Oklahoma.

1 But there is some preliminary piece that an
2 applicant must show in order to obtain a permit. And
3 that's because both New Mexico, Texas, and Oklahoma
4 have premised their jurisdiction that has been
5 established in this Commission on the premise that an
6 applicant has some scope within property rights to do
7 the thing they are asking the Commission to give them.

8 So in this instance, the Chesapeake applicant
9 said the Commission has no jurisdiction to hear title
10 matters. Even if we don't own an interest in this
11 piece of property, the Commission can't cancel the
12 application on that basis. In its order. This
13 Commission said, "They're right and does not have
14 jurisdiction to determine title or the right to
15 occupy." However, prudence dictates that the
16 Commission ought not to issue a permit where the party
17 applicant clearly does not have the right to conduct
18 the activity contemplated.

19 You will see without a doubt today from their
20 application and from the testimony that will be
21 presented, that Northwind does not have the right to
22 conduct the contemplated activity. The activity
23 contemplated by their application is the injection of
24 acid gas being primarily carbon dioxide with 20
25 percent of the stream being H₂S. That acid gas, under

1 any case model presented by Northwind occupies my
2 client, Desert Ram South Ranch Inc's subsurface. It
3 also occupies the State of New Mexico's subsurface
4 under every model.

5 Turning to my next point, Commissioners and
6 Mr. Chairman, this is not a new concept for this
7 Commission. Last year, and actually the predecessor
8 to Northwind, Salt Creek had filed an application for
9 another AGI well. The State of New Mexico, the
10 largest landowner in the state, intervened on the
11 basis that the plume would migrate under state owned
12 lands and there was no real property instrument or
13 deal in place between Salt Creek and the State of New
14 Mexico to compensate the State of New Mexico for that
15 subsurface.

16 They intervened on the same basis that Desert
17 Ram North Ranch Inc. intervenes on today. There was
18 an agreement struck between the applicant and the
19 state of New Mexico at that time. That is one of the
20 reasons we are asking for the stay, to give Northwind
21 and Desert Ram a chance to negotiate an agreement for
22 occupation of pore space. But that has not happened
23 to date.

24 Turning to my next point. Northwind's
25 reliance on the Snyder Ranch case is misplaced. If

1 you read the response to our motion to stay, it is
2 primarily on two basis. One, that there is no
3 standing and I'll address that here in just a moment.
4 The primary point though is that they wrap themselves
5 in the cloak of the Snyder Ranch's case. If the
6 Commissioners and the Chairman recall the Snyder Ranch
7 case, in Snyder Ranch, the issue was a salt water
8 disposal injection well. And the primary question
9 before this Commission was whether that salt water was
10 going to migrate underneath the ranch known as Snyder
11 Ranch.

12 And there was some discussion in that case
13 about a fault line that ran between the property owned
14 by the applicant and the property owned by Snyder
15 Ranch and whether it would actually migrate across.
16 The Commission and their findings of fact noted that
17 they did not believe the salt water would migrate
18 across underneath Snyder Ranch's. That's important
19 and dispositive for the position that Mr. Rankin and
20 Northwind take today.

21 That is not the issue before this Commission
22 today. There is a clear admittance by Northwind in
23 their application under any plume model that they have
24 submitted that the acid gas injected through the
25 proposed well will cross over onto my client's

1 property and will occupy its pore space. That's
2 important for a couple of reasons because that takes
3 the application from the question of will the
4 substance occupy the pore space of another to we are
5 telling the Commission the substance will occupy the
6 pore space of another.

7 And if this Commission's jurisdiction is
8 premised on a good faith right to conduct the activity
9 that they are asking to do in the application, and
10 they admit that they don't have any property rights to
11 do so, then the Snyder Ranch case doesn't apply
12 because that was a case without the substance crossing
13 over the property line.

14 The last issue that I'll address is part of
15 this motion to stay is the second part of Northwind's
16 response to our motion to stay, which was standing.
17 Northwind argues that Desert Ram does not have
18 standing to intervene in this matter for two reasons.
19 Because one, it isn't the surface owner of the actual
20 tract where the well is drilled, and then two, that
21 they don't fall under the definition of an affected
22 person. And they talk about the definition of the
23 affected person being an operator or working interest
24 owner or a mineral owner.

25 We disagree wholeheartedly and Northwind has

1 presented an argument that is in opposite of the
2 rules. The rules in the State of New Mexico,
3 specifically 1915410A2 state that, "A party to an
4 adjudicatory proceeding -- " excuse me, and in
5 layman's terms, that is a party withstanding, "Shall
6 include a person to whom a statute, rule or order
7 requires notice." 1915412A7 is the rule that required
8 notice to Northwind. And that is to notify a surface
9 owner within one half mile of the site.

10 You can see simply from the application that
11 the surface hole location, if that qualifies as the
12 site or the bottom hole location, if that qualifies as
13 the site or the total track that's being injected
14 into, if that qualifies as a site that Desert Ram
15 South Ranch Inc. is a surface owner within a mile. In
16 fact, they surround the entire site that Northwind has
17 applied with.

18 And we have a witness today that will discuss
19 some of those issues. So because Desert Ram is a
20 surface owner within a half mile of the site, they
21 undoubtedly have standing to intervene in this
22 proceeding. To quickly recap Mr. Commissioners and
23 Mr. Chairman, we ask that this Commission stay the
24 application of Northwind because Northwind does not
25 have a good faith basis to conduct the activity which

1 they're seeking because they have no right to the pole
2 space. That their reliance on Snyder ranches is
3 misplaced. That this is not a new issue for this
4 Commission, and in fact, it is an ever increasing and
5 more important one in the legislature pending right
6 now is a pore space bill. And finally, that we have
7 standing under 1915412A7. I'm happy to answer any
8 questions that the Commission may have. Thank you.

9 COMMISSIONER ROZATOS: Thank you, Mr. Marble.
10 Commissioners, did you have any questions?

11 COMMISSIONER AMPOMAH: Mr. Chair, I want to
12 hear from the other parties, you know, with regards to
13 whether there could be a trespass or not, yeah.

14 COMMISSIONER BLOOM: I would like to hear
15 that as well, but anything specific from Mr. Marble?

16 MR. MARBLE: No, Mr. Chair.

17 MR. RANKIN: No, we'll stay.

18 COMMISSIONER ROZATOS: Excellent. Thank you,
19 Mr. Marble. Appreciate it. Mr. Rankin, we'll turn to
20 you.

21 MR. RANKIN: Thank you. Good morning, Chair
22 Rozatos, Commissioners. May it please the Commission.
23 Desert Ram in this case moves the Commission to see
24 its legislative -- the delegated authority to
25 determine whether or not Northwind's application meets

1 the technical qualifications for approval pending the
2 outcome of what is purely a contractual dispute over
3 private property interest in district court. The
4 Commission should reject Deserts Ram's invitation to
5 abdicate its authority as the Commission has
6 repeatedly done in prior similar circumstances.

7 Desert Ram is already seeking to redress its
8 alleged injuries through a lawsuit filed in district
9 court. That is the form where its claims about
10 potential future subsurface pore-based trespass should
11 be adjudicated, not here. The Commission has long
12 made it clear that where parties have a dispute over
13 property rights or private interests, it's a matter
14 for district court. This includes instances where
15 there may even be, "Some evidence that fluids injected
16 pursuant to the license granted by the Commission's
17 order might migrate beyond the lateral limits of the
18 particular tract on which the injection facility will
19 be located."

20 The Commission nonetheless has concluded
21 that, "It is unnecessary that the Commission make a
22 finding with respect to that possibility." I'm
23 quoting there from Commission order number R12546 at
24 paragraph 26, it's cited in our papers. Now citing
25 the Snyder Ranch's Supreme Court case, the Commission

1 explained in that order that I just cited to that if,
2 "Activity conducted within the scope of the permit
3 exceeds those property rights, this would be a matter
4 for adjudication in the courts and not within the
5 jurisdiction or competence of the Commission". In
6 this case Commissioners, we have clear authority to
7 inject on the property where the well is located,
8 where the bottom hole is located, Northwind owns a
9 hundred -- more than 200 acres where the well's is
10 located and where the bottom hole is located.

11 And so it has clear authority to inject on
12 the location and in the bottom hole where its well is
13 located. And I'll get into the additional arguments
14 shortly. Now, in earlier cases -- in an earlier case,
15 the Commission, again citing Snyder Ranch, has made
16 clear that it does not determine whether an applicant
17 can validly claim property interests in the property
18 subject to the application. And therefore, whether
19 the applicant is duly authorized to manage the
20 operation of the -- injection or operations on that
21 property.

22 That issue is, "Exclusive jurisdiction of the
23 courts". Again, I'm quoting here from another case
24 before the Commission, R -- it's order number R11855B.
25 Again, that's cited in our papers. Now here, Desert

1 Ram contends the Commission cannot issue injection
2 permits that would exceed the limits of the
3 applicant's property rights. And they cite Snyder
4 Ranch's -- the Supreme Court case in support of their
5 position. But if that were a correct interpretation
6 of the law, the Commission would necessarily be
7 required to determine whether the applicant can
8 validly claim the property rights.

9 They'd have to do an assessment and
10 determination of whether or not those property rights
11 are valid. And the Commission has repeatedly said,
12 "That's not our -- it's not in our jurisdiction, it's
13 not within the scope of our authority." It would need
14 to make that determination and it has repeatedly
15 indicated properly that it is not within its
16 legislative authority to do so.

17 Note, nothing the Commission would do here
18 today within its proper authority to determine whether
19 the injection is appropriate or not based on the
20 technical merits of the case, would impede with Desert
21 Ram's ability to seek relief or redress any purported
22 injury in district court. And Desert Ram makes
23 abundantly clear that its objections and claims are
24 entirely related solely to a potential future
25 subsurface, pore spaces dispute, which claims belong

1 only in district court.

2 Now, Desert Ram owns no mineral rights that
3 if only formation in this area has already been
4 determined to be non-hydrocarbon bearing. There's no
5 dispute over corral of rights, there's no dispute over
6 waste. Those are the jurisdiction and the authority
7 over which the Commission has reign, not whether that
8 there's a subsurface trespass or there's impairment of
9 pore space rights. The dispute is that Desert Ram
10 raises here is simply over pore space, plain and
11 simple.

12 Desert Ram makes that unabashedly clear
13 through the evidence it seeks to admit and the permit
14 conditions it's improperly requesting the Commission
15 to impose. 2 of the 4 exhibits it's identified in its
16 pre-hearing statement are the purchase of sale
17 agreement, a contract between the parties and the
18 first amendment to that agreement. They're asking the
19 Commission now to make interpretations of a private
20 contractual agreement between the parties. That's not
21 within the Commission's expertise, it's not within the
22 Commission's jurisdiction, it's something that belongs
23 before the district court, and they have already
24 proceeded down that path.

25 Each permit condition that they've now

1 proposed, it's designed to use the Commission's
2 statutory powers, which is intended to prevent waste
3 and protect corral rights to instead monitor their
4 private property interests. That is an improper use
5 and application of the statutory authority of the
6 Commission and it should be rejected.

7 Desert Ram's objections are based on alleged
8 subsurface pore space trespass that might arise
9 sometime in the future. Those claims implicate
10 property rights that are not legally recognizable
11 before the Commission, as the Commission has long
12 recognized. Not only are Desert Rams claims not
13 proper for commit -- consideration before the
14 Commission, but because their objections are entirely
15 based on a property dispute over private interests,
16 they also cannot set out a proper procedural basis for
17 a -- to stay at this hearing.

18 There's simply no reason to stay when the
19 objections they've raised are not legally cognizable
20 before the Commission. But in support of their motion
21 to stay, they cite and rely on a procedure and
22 authority that governs stays of orders pending appeal
23 only. That procedure has no application here. Now is
24 important, the Commission should deny the motion
25 because Desert Ram is not even a proper party to this

1 proceeding as we -- as Mr. Marble has attempted to
2 refute.

3 The Commission should deny the stay to avoid
4 undermining the Commission's authority to function
5 within its administrative domain. Granting Desert Ram
6 stay would signal to other entities with private
7 contractual property right disputes that they can use
8 the Commission to leverage their position in their
9 private disputes that are unrelated to the
10 Commission's authority. That's a terrible outcome and
11 should be rejected. The motion should be denied and
12 the hearing should be permitted to proceed. Now I
13 want to make a couple of points before I relinquish my
14 time.

15 Desert Ram is making the argument that
16 Northwind has no good faith basis to believe that it
17 has the right to inject on the location and in the
18 property that is -- that has been currently -- that is
19 proposing to inject. As I mentioned, Northwind owns
20 approximately 210 acres of surface estate under two
21 separate warranty deeds that cover all of its surface
22 facilities and the bottom hole locations for all of
23 its existing and proposed AGI wells.

24 We have submitted those as part of the
25 evidence in this case, there are file deeds -- filed

1 of record with the county -- in Lea County, and we'll
2 be presenting that as part of our case. Now,
3 establish now -- Desert Ram and its motion for stay
4 cites to a provision in the purchase and sale
5 agreement between the parties, which is subject to a
6 confidentiality agreement.

7 But they cite to this provision in their
8 motion for stay that they -- that actually provides
9 that Northwind has the express agreement and consent
10 from Hydrosource to inject treated acid gas through
11 multiple AGI wells. Except for limited circumstances
12 that are not applicable here, okay, that provision
13 expressly grants Northwind the right and consents to
14 Northwind's right to inject into the properties,
15 except for limited circumstances that are not
16 applicable here. Hydrosource, to be clear, okay, and
17 to demonstrate the good faith basis to inject
18 Hydrosource and Desert Ram did not object to the most
19 recent Northwind application to amend the AGI number
20 two, which is a Devonian well as well, with a
21 projected plume extending out about two miles into
22 Hydrosource's properties.

23 That application was filed back in June of
24 2024 before Hydrosource sold 140 acres of property to
25 Northwind knowing -- Hydrosource got out -- got notice

1 of that application, knowing that the plume was going
2 to extend more than two miles out into Hydrosource's
3 property.

4 Hydrosource nonetheless made the sale, did
5 not object to the application and conveyed its
6 property interest to Northwind. Now that Northwind is
7 filing a second application with an -- slightly
8 incremental increase in the extent of that plume,
9 Hydrosource is objecting claiming that they had no
10 notion or didn't understand that the plume has been
11 extend onto their property.

12 They're making a claim here that is a private
13 property interest claim, they're asking the Commission
14 to review and interpret private contractual rights and
15 interest between the party that the Commission has no
16 authority to do. All we need to do at this point, Mr.
17 Chair and Commissioners, is demonstrate that Northwind
18 has a good faith basis to make the injection that it
19 proposes to do. It has done that through the special
20 warranty deed and through the express provision that
21 Hydrosource itself relies on.

22 Which indicates clearly that they have the
23 consent and agreement of Hydrosource to inject through
24 multiple AGI wells, except for these limited
25 circumstances that are not applicable here. With

1 that, we ask that the Commission deny the motion for
2 stay, allow the parties to present their -- Northwind
3 to present its evidence and take the matter under
4 consideration.

5 COMMISSIONER ROZATOS: Thank you, Mr. Rankin.
6 Appreciate it. Mr. Marble, I saw your finger over the
7 microphone. I'd like to hear from OCD and then we can
8 circle back.

9 MR. TREMAINE: Mr. Chair and Commissioners,
10 thank you. I'd like to provide a couple observations
11 to hopefully help establish the lay of the land here.
12 The Division does agree that in various matters, OCD
13 and OCC need to rely upon and verify limited access --
14 limited aspects of ownership, mineral rights,
15 operating rights, et cetera. The way that happens is
16 typically in reliance on certification and
17 representation of the parties. Those are not mineral
18 rights and ownership are not things that OCD or OCC in
19 my knowledge have ever affirmatively adjudicated where
20 there's a dispute.

21 So these cases do involve aspects and
22 representations of ownership. However, where there
23 are property disputes, those properly belong in
24 district court or subsequent appeal. The second issue
25 in this case is the issue of pore space. And I will

1 note that this is not, in my opinion, definitively
2 settled law.

3 There are indications in all New Mexico case
4 file that New Mexico is likely to adopt the American
5 rule, i.e. that pore space belongs to the surface
6 owner. OCD agrees with that interpretation and would
7 advocate for that interpretation as a general matter,
8 but I can't point to a case that says that. This --
9 contrary to my comments in the last case, this is
10 something that hopefully we may see some resolution on
11 in the legislative session and OCD has provided
12 comments consistent with my statements here today.

13 So issues of pore space ownership and
14 severability are central to dispute between Northwind
15 and Desert Ram. OCD has a position that we advocate
16 for regarding who owns that and whether pore space is
17 severable, but it's not entirely settled. So absent
18 that clarity that -- may be an issue that is
19 appropriate for this record as well.

20 I think it's -- there's clear Division and
21 Commission authority to pool minerals, I don't believe
22 that is disputed. I would argue that under existing
23 authorities that it also extends to pooling of pore
24 space. Again, we haven't tested that to my knowledge.
25 So I think that when approving injection into pore

1 space such as salt water disposal wells, AGI wells, I
2 believe that already exists under OCD Authority.
3 Ultimately, where I land is that I have to agree in
4 certain respects with Mr. Rankin that the issue here
5 is a property and valuation dispute.

6 I think that the Division and the Commission
7 have the authority to essentially pool their space and
8 to authorize the injection of the AGI. That's been
9 the practice in the past for various different forms
10 of injection. I think we -- what's important to the
11 Division in this matter is that we get to the
12 technical merits. And that the central question is,
13 let's examine this plume modeling in the various
14 filings between the parties. There are discrepancies
15 between what the plume modeling says and what it
16 doesn't say. I think that technical question is
17 central to how their Commission should view aspects of
18 the motions and we need to get to that through the
19 technical testimony.

20 So with those observations and statements
21 regarding arguably unsettled law, I think that
22 ultimately to the extent that the motions are related
23 to a dispute between -- about property and valuations,
24 OCD does not take a position. But we do take the
25 position that the Commission has the authority to

1 authorize the AGI and that's regardless of its
2 projected impact on pore space, and we need to examine
3 the modeling relative to previous models submitted for
4 the other AGI wells injecting into the same formation.

5 COMMISSIONER ROZATOS: Thank you, Mr. Rankin.
6 Mr. Marble.

7 MR. MARBLE: Thank you Mr. Chairman and
8 Commissioners. Short rebuttal. First to answer Dr.
9 Ampomah's question earlier about whether this is a
10 trespass, it is undoubtedly a trespass is the
11 occupation of space not owned by a person. However, I
12 want to be clear that this Commission does not have
13 jurisdiction over trespass. As much as I want you
14 guys to decide issues like that, that is exclusive
15 jurisdiction within the district court. But I think
16 the question is relevant for purposes of determining
17 whether someone has a good faith basis to conduct the
18 activity that they seek from this Commission.

19 Turning to a point that Mr. Rankin made, he
20 stated that I and Desert Ram are requesting that this
21 Commission interpret a contract. We are not. There
22 is no way, shape, or form we are asking this
23 Commission to interpret a contract or a deed.

24 We have filed, confidentially, the purchase
25 and sale agreement between my client and Northwind in

1 the event that Northwind raised the no interference
2 clause so that we could discuss why the no
3 interference clause does not apply. But we are not
4 asking this Commission to interpret the status of an
5 oil and gas lease, right? You hear that all the time
6 in applications for permit to drill, just like Texas
7 and Oklahoma do. That lease terminated, that's not
8 within the jurisdiction of this court. That's not the
9 property rights analysis we're asking this Commission
10 to do.

11 In fact, we're not asking this Commission to
12 do any property rights analysis. The sole question we
13 are asking this Commission to ask Northwind is the
14 same question that this Commission asked Chesapeake in
15 the 13,492 matter. And that question that the
16 Commission asked Chesapeake was, do you have any
17 evidence of a claim to title?

18 And here Northwind does not. They can't
19 point to a deed, they can't point to a lease, they
20 can't point to a license that gives them the right to
21 conduct the activity that they ask this Commission to
22 give them. And that activity Northwind is asking you
23 to look just at a portion, the portion of pore space
24 that they own. But that's not the activity that they
25 seek permission to do here today. They're asking you

1 for permission to inject a plume that over 30 years
2 occupies multiple miles.

3 And whether it's a condition at the end of
4 this proceeding that addresses that issue or a
5 temporary stay, so the parties in the OCD can go work
6 this out, I'm not sure what the answer is. But I can
7 tell you that there's no good faith basis for that
8 portion of the activity that they seek permission to
9 do today. A few more brief points on rebuttal.

10 I appreciated Mr. Tremaine's OCD position
11 that pore space may not be a settled issue in the
12 state of New Mexico. I disagree slightly. I believe
13 that it's all but settled. And in fact, I rely on a
14 very important paper been written by a very smart
15 lawyer named Mr. Rankin back in 2007 that says that
16 pore space should be an attribute of the surface that
17 he prepared with two other lawyers for the state of
18 New Mexico. I don't think there is any legal position
19 in this room where any of us would disagree that pore
20 space would belong to the surface owner, which is what
21 Desert Ram is to today.

22 The point that I do want to raise in response
23 to Mr. Tremaine's rebuttal, is he talks about
24 authority that an applicant may have to force pool in
25 the context of a disposal well. He says that that has

1 not been done in this context yet, but that they may
2 have that authority. I want to be very clear that
3 authority has not been exercised in this case. It has
4 not been exercised in this case, despite multiple case
5 models that talk about impacting property that is not
6 owned by Northwind. And a solution may be a temporary
7 stay and a request to file a force pooling application
8 in the context of an AGI well. But that has not
9 happened today. It's for these reasons, Commissioners
10 and Mr. Chairman, that we ask this Commission to stay
11 this application. Thank you.

12 COMMISSIONER ROZATOS: Thank you, Mr. Marble.
13 Commissioners?

14 COMMISSIONER AMPOMAH: Mr. Jud (ph), this
15 seems to be a matter of law in this argument, so I
16 want to hear from the Commission Council if he has any
17 advice.

18 COMMISSIONER ROZATOS: Agreed.

19 COMMISSIONER CHANDLER: Mr. Chair, good
20 morning. This revolves around commission rule
21 1915423B, stays of commission orders. It has two
22 elements. First, a party, and then it's the stay is
23 necessary to prevent waste, protect qualitative
24 rights, protect public health or the environment, or
25 prevent gross negative consequences to an affected

1 party. So two elements, a party, and then the
2 ramifications. I think what you've heard today, and
3 from the papers, there is a dispute on the first
4 element of whether Desert Ram is a party. I think
5 Desert Ram's argument is they are a party because they
6 are a successor and in interest or a business of Hydro
7 soil (sic. I think the record reflects that Hydro
8 soil did receive notice from Northwind.

9 So the first question is, if Hydro Soil is a
10 party, then does that extend to Desert Ram? There's
11 dispute about that. And then the second element is,
12 is it necessary to prevent waste...? And that goes to
13 your question, professor. Again, there seems to be
14 dispute from the papers and from the argument that
15 Desert Ram says it's undisputed where Northwind says
16 issue of the plume is not -- well, he had some precise
17 language, but he disputed that it was going to go
18 across property.

19 So it's possible that you may want to hear
20 more technical testimony. It may be, at this point
21 you feel like there is enough information to prove
22 that second element, that there are gross negative
23 consequences to affected party. Or you may say, "I'm
24 not ready to reach that conclusion. I'd like to hear
25 from the experts, since there seems to be some

1 technical dispute about the plumes potential." So
2 reiterate two elements; a party, and then the negative
3 consequences.

4 You may reach those conclusions now or you
5 may say, "There's just not enough evidence right now
6 for me to make those determinations. I'll deny the
7 motion, let's hear the technical evidence, see where
8 the facts take us." And then you may deny the permit,
9 grant the permit, grant the permit with conditions.
10 At that point you may say, "We're going to not make a
11 decision today and let the parties enter to
12 negotiations." There's a universe of different
13 options, but I'm speaking too much. Again, the rule
14 has two elements of party and whether there's been
15 proof of negative consequence.

16 COMMISSIONER AMPOMAH: Counsel, I thought Mr.
17 Rankin then made a statement that there is a
18 possibility of plume moving to, let's say, the
19 opposing party's property. But you said it is a
20 matter of dispute.

21 COMMISSIONER CHANDLER: Well, don't let me
22 answer the factual question. Why didn't you ask Mr.
23 Rankin if he disputes that?

24 COMMISSIONER AMPOMAH: Yeah. I want some
25 clarification on that.

1 COMMISSIONER CHANDLER: Sure.

2 MR. RANKIN: Let me address that. And if I
3 may, Mr. Chandler and Mr. Chair, I think there's a
4 little question around the party issue, and I can --
5 if I may, I'd like to address that as well. Mr.
6 Clarity -- and Mr. Marble can respond as well. But on
7 the question that Mr. -- Dr. Ampomah is asking about
8 whether or not there's a dispute over whether the
9 projected plume will extend onto Desert Ram or
10 Hydrosources property. And I think one of the
11 questions I have as well is what is the relationship
12 between Hydrosources and Desert Ram?

13 I'll talk about that briefly when I address
14 the party status question. But in the plume modeling,
15 Dr. Ampomah, that has been presented to the Commission
16 over time from the beginning, prior even to
17 Northwind's acquisition of these interests, its
18 predecessor and interest, has always demonstrated --
19 has projected that based on the volumes expected to be
20 injected, that the plumes would extend anywhere from
21 2.6 miles to around two miles, in this case, about 1.8
22 miles from the Desert -- from the Titan treating
23 facility.

24 So the plume modeling has indicated, based on
25 -- as it's been refined over time, based on additional

1 data, 3D seismic information, additional information
2 on the porosity and permeability, the plume modeling
3 has been -- has changed over time. But currently,
4 based on the best information we have today, as
5 presented in the testimony and evidence, the plume
6 modeling is suggests that during maximum injection
7 rates over 30 years that the plume is likely to extend
8 or may extend out to about two miles, which would go
9 into offsetting property owned by Hydrosource and/or
10 Desert Ram.

11 Now, the point on that I made in the opening
12 -- in the legal argument is that Northwind believes
13 that it has the consent in agreement of Hydrosource to
14 inject through multiple AGIs into the pore space. And
15 that is a -- an issue of dispute. And that in our
16 view is a matter for the district court to determine.
17 But as for purposes of the Commission today, what we
18 will show and what the evidence shows is that we have
19 over -- more than 200 acres of property rights that
20 include the bottom hole locations, the surface
21 locations of the facilities, and the AGI wells.

22 And that Northwind has previously presented
23 testimony and evidence showing that the plume is going
24 to extend beyond that distance prior to acquiring
25 additional property from Hydrosource. And Hydrosource

1 has never objected strongly indicating that they
2 understood and had consented to and agreed to the
3 injection as has been proposed for many years.

4 So that's the plume issue. The party issue,
5 just to clarify, is the following; under the
6 Commission's rules, parties and division or commission
7 hearings are limited to those persons who are required
8 to receive notice under the Division's regulations.

9 In this instance, for purposes of injection, parties -
10 - persons are required to receive notice if they are
11 an owner of the land surface on which the injection
12 well is to be located. In this instance, the location
13 of the surface where the injection well is to be
14 located is Northwind itself, not Hydrosource, not
15 Desert Ram, okay?

16 So the first group of part -- of parties who
17 are required to receive notice is the surface owner on
18 the wells location. That is Northwind, it is not --
19 and the bottom hole location as well. It is not
20 Hydrosource or Desert Ram. The next group of people
21 who are required to receive notice for an application
22 to inject are other affected persons within any tract,
23 wholly or partially contained within one half mile of
24 the well. Under the definition of affected persons is
25 the following, a -- an operator as shown in division

1 records.

2 So a division designated operator, somebody
3 who has a mineral right, or is an operator of a -- of
4 an -- of a well. In the absence of an operator, each
5 working interest owner who has a mineral interest,
6 whose interest is evidenced by a conveyance or a
7 document record. And if there's no working interest
8 owner, then any lessee -- or a lease or any mineral
9 interest owner of a lease within one of those tracks.
10 Again, it's limited to the mineral interests or
11 mineral rights.

12 Under the Divisions and Commissions express
13 regulations, the only parties who are required to
14 receive notice, therefore, are parties who have a
15 ownership interest at the location of the surface of
16 the well. And this case, that's Northwind, who also
17 owns at the bottom hole location or any other operator
18 under the Division's records or owner over a mineral
19 interest right.

20 That excludes Hydrosource and Desert Ram,
21 they inadvertently received notice in this case. They
22 did -- weren't required to receive notice. And then
23 may be an all fact that of their prior ownership of
24 the surface where the well was located. But in this
25 instance, they were not required to receive notice,

1 but they did. So under the Division's regulations,
2 they're not a proper party to this proceeding.

3 The other alternative for them is to have
4 intervened in this matter and intervention requires
5 them to show standing, okay? Standing in this context
6 requires them to show some injury that is legally
7 cognizable or relevant to the proceeding before the
8 Commission. Here, the proceeding before the
9 Commission is the technical question of whether or not
10 Northwind's application for an AGI well should be
11 approved. That -- the arguments -- the technical
12 merits around that case do not extend to or include or
13 implicate pores space rights concerns about subsurface
14 trespass.

15 Therefore, the alleged injuries, the gross
16 negative consequences that they're alleging, okay, are
17 not within or not relevant to the proceeding currently
18 before the Commission. And they do not confer on
19 Hydrosource or Desert Ram standing necessary to be a
20 proper intervener. Not only that, but Desert Ram and
21 Hydrosource did not properly intervene in the case.
22 They did not file a motion. They have not established
23 any basis for standing relevant to the claims before
24 the Commission in this case.

25 So for that reason the first element that Mr.

1 Chandler has articulated to you, they have not met --
2 they're not a party, and so therefore, they have no
3 basis to seek a stay. Second -- the second elements
4 is whether or not it's necessary to prevent waste or
5 protect for all of rights. Again, they have no
6 mineral interests, there's no waste allegations
7 because there are no mineral interests or minerals at
8 risk here in the Devonian. The Commission and the
9 Division have already determined that there are no
10 mineral rights or minerals at risk in the Devonian
11 because they've already approved previously in the
12 same exact location AGI disposal.

13 And then finally, on the last element about
14 gross negative consequences. Again, gross negative
15 consequences must be read to be understood in the
16 terms of whether there's some aspect implicated by the
17 Commission's authority, which relates solely to
18 protecting waste, corral rights, human health or the
19 environment. None of those issues have been raised or
20 articulated as a basis for stay by Desert Ram. So for
21 that reason the motion for stay in our view should be
22 denied.

23 COMMISSIONER ROZATOS: Mr. Marble, please.

24 MR. MARBLE: Brief, sir, rebuttal. Mr. Chair
25 and Commissioners. To address what council discussed

1 earlier as the two elements being a party and then a
2 party who has suffered gross negative consequences.
3 I'll admit, I'm happy to play dumbest guy in the room
4 very often, but I'm very confused by Mr. Rankin's
5 argument that we do not have standing. It is very
6 clear from the Commission's rules that a party to an
7 adjudicatory proceeding shall include -- that is a
8 party with standing to the proceeding, shall include a
9 person to whom statute rule or order requires notice.
10 1915412A7 requires notice to any surface owner within
11 a half mile of the site.

12 There is zero factual question here that
13 Desert Ram North Ranch Inc is a surface owner within a
14 half mile of the site. And under the rule that I
15 mentioned just a moment ago, that is a statute
16 requiring notice, thus they're a party. So we satisfy
17 the first element of what counsel mentioned a moment
18 ago. The second element is that if a stay is
19 necessary to protect gross negative consequences. And
20 let me divert just for a moment about a question that
21 Dr. Ampomah had a second ago about the deviations
22 between plume models.

23 We are not offering, as Desert Ram, any
24 alternative plume model because every plume model
25 offered by Northwind shows that it encroaches on the

1 property of Desert Ram. You'll see here in a moment
2 when we begin to present evidence, but the land that
3 was sold by Desert Ram to Northwind has a U-shape
4 around it. That is land that was retained by Desert
5 Ram. And then there is more land to the northeast,
6 more land to the southeast, and then Desert Ram is
7 also the lessor of -- excuse me, the lessee of state
8 lands on the other borders.

9 So almost the entire tract is surrounded by
10 Desert Ram, either a surface owner or as the State's
11 lessee. Another question to address that I believe
12 Mr. Chairman, might have mentioned a moment ago, and
13 Mr. Rankin addressed was the relationship -- or excuse
14 me, council addressed a moment ago, was the
15 relationship between Hydrosource and Desert Ram.
16 Hydrosource is merely an operating entity with common
17 ownership from Desert Ram. Desert Ram is actually the
18 entity that owns the surface.

19 Now, I'll tell you that when you look at
20 Northwind's application figure B1, page 81 of 88,
21 you'll see that Northwind provided notice to
22 Hydrosource, most likely because they read the
23 requirement that they have to provide notice to a
24 surface owner within a half mile. That was incorrect.
25 We could have filed an objection in this on what might

1 ranch -- New Mexico ranching grandfather would've
2 called chicken scratch, that they didn't qualify
3 properly under notice to any of the parties.

4 But we received notice Hydrosorce and Desert
5 Ram South Ranch, Inc. office out of the same offices.
6 So we received notice of the application after we had
7 sold the property to Northwind and that's when we
8 decided to properly intervene in this proceeding.
9 That's all I have on, sir, on rebuttal, Mr. Chair.

10 COMMISSIONER ROZATOS: Thank you.
11 Commissioner Bloom?

12 COMMISSIONER BLOOM: Mr. Tremaine, any input
13 on standing or a --

14 COMMISSIONER ROZATOS: I was going to ask
15 that too. If you lead (crosstalk).

16 COMMISSIONER BLOOM: I guess part, yeah,
17 standing and topic of gross negative consequences or
18 things along those lines.

19 MR. TREMAINE: This -- Commissioner, I have
20 some questions about -- I think from a technical
21 basis, how that's being calculated, but it has been my
22 understanding that every plume model has indicated
23 encroachment on what's currently referenced as
24 affected pore space from the prior applications. But
25 again, whether Desert Ram or Hydrosorce transacted

1 into the nuisance, so to speak, is a question for the
2 district court. And I'm not going -- I don't think
3 that the Division has any further position on
4 standing, I think the notice to affected interest
5 within a half surface mile may require some
6 clarification.

7 That's not an issue that I've looked into,
8 but I don't know if they're calculating that from the
9 edge of the modeled plume or if they are calculating
10 that from the well site. That's not at all clear to
11 me and I think that may be in dispute. So I'm
12 answering your question with the question. If they
13 are within a half mile of the affected, you know, the
14 area as the Commission chooses to define it then I
15 would have to concede that they would have standing in
16 the case. But I'm not clear on how that's being
17 calculated.

18 COMMISSIONER BLOOM: So Mr. Tremaine,
19 following-up a little bit. Northwind makes an
20 application to the OCD, correct?

21 MR. TREMAIM: Correct. Because it is in AGI,
22 those applications automatically come to the Oil
23 Conservation Commission, but yes.

24 COMMISSIONER BLOOM: And potential loss of
25 use of pore space or economic damages are not

1 something the OCD looks at currently?

2 MR. TREMAINE: In the injection context,
3 there is no current rule establishing how pooling of
4 those resources occur. And I have not done an
5 exhaustive analysis of whether any previous SWD or AGI
6 has affected a pore space of differing ownership.
7 That would be something we would have to look into.
8 My concern here is that it has been the accepted
9 practice for both salt water injection and AGIs for
10 decades that the Division and the Commission have that
11 authority.

12 But I can't possibly today speak exhaustively
13 as to whether or not there's differing ownership in
14 those previous cases. We agree that pore space
15 attaches to the surface and that is interest of some
16 value to be determined by the parties or the courts.
17 Did that answer your question, Commissioner?

18 COMMISSIONER BLOOM: I think so. More
19 directly, do you believe that this potential threat to
20 pore space damages -- loss of pore space rises to the
21 occasion of gross negative consequences?

22 MR. TREMAINE: I would have to revisit case
23 law on that point, Commissioner, because I don't know
24 what economic value attaches to gross economic
25 consequences or -- yeah, gross negative consequences,

1 pardon me. I think it's undisputed that if you inject
2 treated acid gas into a pore space that that will
3 conflict with other alternative uses. I don't believe
4 that there's any technical basis to argue with that
5 unless there's an argument that you can combine
6 different forms of injection. I'm not aware of that
7 argument. So I would say, "Yes," if you're filling
8 pore space that is going to affect a party's economic
9 interest in that pore space.

10 COMMISSIONER BLOOM: Might have further
11 questions on some of this for everybody, but I'll
12 leave it there for now. Thank you.

13 COMMISSIONER CHANDLER: So I have questions
14 as well. I think the questions just can keep coming
15 with this. Because this is very gray area and as was
16 mentioned, there's certain parts that have to go in
17 front of the district court and let the courts figure
18 that out. And then there's the questions that this
19 Commission is required to kind of fill out as well. I
20 think as was brought out by Commission Council there
21 are some aspects to 10 -- what was it 1915423B,
22 especially with, you know, who is the actual party and
23 then the consequences that go therein.

24 And I think that potentially this Commission
25 would want to potentially hear what's going on, at

1 least to see where this gross negative consequence
2 would be. My concern though is, that Desert Ram --
3 and it's not necessarily concern it's a thought I'd
4 like everybody to think about. Desert Ram suggested
5 as of last night some conditions that they would like
6 to see in an eventual order at the end that they would
7 want this Commission to potentially add on to any
8 decision that they would make.

9 Now some of these, and I'm not going to go
10 into details you all -- everybody got it, you read it,
11 you know, what's going on with it. But it seems to
12 me, and Commissioners I'd like your position on this
13 as well, that some of these sound reasonable and maybe
14 it -- you go back to the drawing table outside of this
15 Commission and come to some conclusion with
16 potentially these in mind, they're an option. I don't
17 know if it's an option that has been considered as of
18 such, they were submitted late yesterday afternoon, so
19 I don't know how much time Northwind had to review
20 them and I'm not going to try to force anything down
21 anybody's throat.

22 But my suggestion is potentially going back
23 to the drawing table and seeing if there's something
24 that could be written up between a consensus between
25 the two parties -- three parties, including the OC D

1 and getting the OCDs opinion in on this as well, to
2 see if there could be some kind of amicable conclusion
3 that can come up between the parties.

4 Because either way -- anyway this Commission
5 goes, the parties will not be happy, though there is
6 an option here to be able to provide a path.
7 Commissioners, I don't know how you feel about that,
8 but my suggestion is that the parties kind of go back
9 to the drawing table and see if they can find an
10 amicable solution with the potential of these
11 conditions to be added. I'm not saying that they're
12 right, I'm not saying that they're wrong. I'm just
13 saying they provide a path that as of last night was
14 not possible. That's my decision -- not decision,
15 that's my opinion.

16 Commissioners, I'm happy to entertain
17 questions and I will open it up as well, if you get --
18 Commissioners, if you want a moment to think, I'll
19 open it up to the other parties and we go from there.

20 COMMISSIONER AMPOMAH: Mr. Chair. So, you
21 know, Mr. Rankin made some points, you know, with -- I
22 just want to know that, let's say, if we're injected
23 into your pore space and you move into someone's pore
24 space, is Mr. Rankin saying that -- or is it the
25 position of the petitioner that the -- let's say, if

1 you inject into someone's -- you know, more or less
2 move into someone's space, they do not have the right
3 to, more or less question why you put in the -- that
4 gas into my space because I could use it for something
5 else. So Hydrosorce did not oppose to your earlier
6 applications. They knew that there was more or less a
7 movement of the CO2 or let's say, attack moving into
8 their space, they decided not to oppose.

9 But now here comes another owner who says,
10 "No, I'll oppose to that." So I find it so confusing
11 that you say that they do not have a stay, like, they
12 do not have any position on this with regards to
13 there's no oil and gas there, you know, to be
14 impacted, but it is in the pore space. So I do
15 support the Chair that I feel like they have to go
16 back and talk through this. I mean, can we -- I don't
17 think we should neglect the fact that, let's say tag
18 moving into someone's space, we should neglect that.

19 COMMISSIONER CHANDLER: I agree. Let's throw
20 it back as an option so that they can --

21 COMMISSIONER AMPOMAH: But --

22 COMMISSIONER CHANDLER: -- give us their
23 ideas and then we go from there. But please,
24 Commissioner.

25 COMMISSIONER AMPOMAH: Yeah. So you talked

1 about if these conditions could be accepted, you know,
2 or let's say could be discussed and then come to a
3 consensus. But when I look at these conditions, I
4 mean, why would you -- how would you say that, "Permit
5 limited to 50 years." I mean, Northwind is required
6 to report to OCD, the status of monitoring wells
7 result. This should be OCDs conditions, not an
8 opposing party's condition. So I do not -- I don't
9 know. I would not agree that, let's say, Northwind
10 should not more or less agree to these conditions
11 without evidential evidence to substantiate why these
12 conditions, you know, should even come into play.

13 COMMISSIONER RAZATOS: And I'm -- and I just
14 want to clarify, one more time. I'm not saying that
15 these conditions are right or wrong. I'm not saying
16 that we have to adopt these conditions or anybody has
17 to adopt the conditions. I'm saying it opened the
18 means for some more dialogue outside of this
19 Commission. That's what I'm saying. And I think it
20 would be more amicable to everybody if there was --
21 not amicable, it would be more favorable to everybody
22 if there was an amicable consensus. That's what I am
23 throwing out.

24 I'm happy to hear this. I'm -- I get paid,
25 you know, either way. My job is to sit here and to do

1 this, and so is the other two Commissioners. I just
2 think that you're not, "Oh, well, no you're on your
3 own, right?" We love you anyway. But I'm just saying
4 that it opens the door that was not open up until
5 yesterday afternoon, Mr. Marble.

6 MR. MARBLE: Understood, Mr. Chairman. And
7 to make sure that we're all on the same page. There
8 has been no meaningful conferral on these conditions.
9 Partly because of time, partly because of what was
10 going on earlier this morning and other involvement of
11 counsel. I do think it's worth a shot for meaningful
12 conferral. I know in some other jurisdictions at this
13 point in the hearing, it would not be unorthodox to
14 say, "let's take a 30-minute break so that you can
15 confer."

16 I'm happy to state on the record that if we
17 could get these conditions or some version of these
18 conditions, we would be happy to withdraw our
19 intervention and protest subject to no prejudice of
20 our district court filing and you guys can go on with
21 your day as normal. So if it pleases the Commission,
22 I would love the opportunity for meaningful conferral
23 with opposing counsel.

24 COMMISSIONER ROZATOS: Mr. Rankin?

25 MR. RANKIN: Well, whether or not to even

1 confer, I need to confer with my client. You know, my
2 position at the outset is that many of these are
3 problematic. Not least because it's inappropriate
4 to even concede that they're appropriate for inclusion
5 within a commission order. We're the motivation and
6 the purpose behind them is to protect -- the
7 protection of private property interests that
8 unrelated to mineral rights or corral rights or any of
9 the underlying authority of jurisdiction that
10 underlies the Commission's powers.

11 So I have grave concerns about even agreeing
12 to allow these to be included in a Commission order
13 issued under the auspices or -- and premature of the
14 Commission, okay, number one. To address Dr. Ampomah
15 concerns, I'm not saying -- we're not saying that they
16 don't have a right to make a claim, that the plume
17 intruding into their alleged property rights or pore
18 space is something that they have a right to bring
19 forward, okay?

20 They absolutely do, but not here, not -- and
21 not at the Division or Commission. They have a right
22 to do it, and they've done so as they recognize before
23 the district court, they filed a complaint, and
24 they're pursuing that action in district court. And
25 that's the venue through which they have the right and

1 the proper proceeding to pursue those claims.

2 As to the Commission, you know, whether or
3 not this results in a gross negative consequence to
4 them to -- does Desert Ram or Hydrosource requires the
5 Commission to make a determination about ownership
6 ultimately. They have to make some -- you'll have to
7 make some determination about whether there's a valid
8 claim as between Northwind or Desert Ram or
9 Hydrosource about whether or whose interests are being
10 impaired or not. That -- at some level, that's a
11 requirement that you're going to have to make based on
12 what Desert Ram or Hydrosource is asking you to do.

13 And our point simply is, all we need to do is
14 show that there's a good faith basis, and we have that
15 based on the deeds that are of record and we have that
16 based on the consent and acknowledgement of
17 Hydrosource from the prior applications and approvals
18 that have gone forward in the language that they put
19 forward before the Commission and their motion to
20 stay. So I've got -- I do have grave concerns about
21 even acknowledging or putting these conditions in an
22 order.

23 You know, if -- at the Commission's pleasure,
24 I would happily take a, you know, 15-minute break to
25 confer with my clients to see if they would like to

1 say, (inaudible). Yeah. Whether they would like to,
2 you know, engage on discussions about this. But I
3 think the answer is probably going to be no, just
4 given the -- this -- the nature of the requests and
5 the venue here. Parties have been having some
6 discussions, and that's haven't been fruitful, which
7 is why we're here, and which is why they've filed a
8 lawsuit.

9 And so I -- you know, I'd love to be able to
10 tell you that there's a way -- a path forward for
11 resolution but at this point in time there isn't. And
12 my sense is that I think some of these -- to Dr.
13 Ampomah's point, whether these conditions are
14 appropriate, should be heard. There's some
15 evidentiary issues that need to be addressed. Is it
16 appropriate to put additional penetrations into an
17 acid gas plume providing additional potential pathways
18 for acid gas for CO2 to escape into shallow
19 reformations? That's a concern. The expense of it is
20 a concern.

21 Drilling monitoring wells into the Devonian
22 is an expensive undertaking and does to the costs
23 outweigh the benefits. There's a number of issues I
24 think that would need to be addressed, not least of,
25 which is whether or not this even falls within the

1 authority of the Commission to require.

2 COMMISSIONER ROZATOS: Thank you, Mr. Rankin.
3 I do want to hear from the OCD first, MR. Tremaine.

4 MR. TREMAINE: Mr. Chair, Commissioners on
5 the topic to limit my comments to the topic of the
6 additional conditions. I think that the --
7 notwithstanding the relative position statements of
8 the other parties, I think getting an adequate,
9 factual basis and OCDs review of the additional
10 conditions requiring monitoring -- Devonian monitoring
11 wells, is going to take more than 15 to 30 minutes.
12 We're going to need some time to do that.

13 We saw these last night. There are some very
14 legitimate concerns with those conditions. I'm not
15 coming out with a strong position that they should or
16 should not be included in the Commission order.
17 Except for, I would note that, you know, in prior
18 monitoring, whether surface monitoring or wells
19 requested by the Division and imposed by this
20 Commission have always been, in our opinion, for the
21 purposes of alerting the Division and the Commission
22 if something went wrong right?

23 We have surface monitoring near potential
24 points of egress or migration of treated acid gas from
25 neighboring well bores, there's a concern related to

1 previously plugged well bores, et cetera. So we ask
2 for surface monitoring in those locations. I believe
3 we have requested downhole monitoring or other surface
4 monitoring at existing well bores at the perimeter of
5 the projected plume.

6 So in every case that I can think of and that
7 we've discussed with the tech -- OCDs monitoring
8 whether it's a well or surface location, have been for
9 the purposes of either verifying the accuracy of the
10 plume modeling or early detection in the case there is
11 migration of treated acid gas, or CO2 as a precursor
12 to the migration of treated acid gas. So those are
13 safety -- human health and safety environmental
14 concerns that are addressed.

15 The wells that are proposed here, one, are a
16 set of wells that I believe will necessarily be placed
17 in the middle of the projected plume. They are not
18 for the purpose of determining whether the plume
19 modeling's accurate. They're not for the purpose of
20 determining whether treated acid gas is migrating out
21 of -- outside of the containing zone. So they're not
22 a typical monitoring purpose that OCD has requested.
23 With -- I do understand and respect that as part of
24 the Commission's duties to protect relative rights.

25 So there may be some need to consider such

1 monitoring wells here, but the purpose seems to be for
2 identifying, for the neighboring property when, not
3 if, their pore space is encroached, right? And that
4 ultimately comes down to a question of when can they
5 start billing the opposing party for that
6 encroachment. That financial consideration or that
7 dispute, I do agree is not necessarily for the
8 Commission.

9 And so I think -- or not appropriately before
10 the Commission. So there's that, there's also
11 additional technical basis. OCD does have a
12 generalized concern that additional perforations from
13 surface to the Devonian cause potential migration
14 pathways for treated acid gas. Those wells as you can
15 see with all the other wells that are referenced in
16 OCDs, conditions of approval, et cetera, we're asking
17 for corrosion resistant alloys, corrosion resistant
18 cement, addition -- surface monitoring, et cetera.

19 So I don't know how many wells they want, I
20 don't know where they're located, they're not pled in
21 the conditions with, I think, reasonable specificity.
22 So OCD would need to know how many they are, where
23 they are, what those well bore schematics are going to
24 look like. Are they using appropriate corrosion
25 resistant materials, et cetera. And, you know, again

1 pushing back on whether those financial considerations
2 are appropriately before the Division, I would
3 acknowledge Mr. Rankin's comment that those wells are
4 expensive, and that is going to weigh into the
5 consideration of the parties.

6 But if they are determined to be appropriate
7 safeguards, that question is really not before -- I
8 think that economic analysis is similar to my comments
9 related to Desert Ram. Those considerations by
10 Northwind are not before the Commission either. I
11 think the question is -- before the Commission is, are
12 these wells necessary for the protection of
13 correlative rights? And then are there appropriate
14 safeguards in place to protect those correlative
15 rights, public health, in the environment, underground
16 sources of drinking water, et cetera.

17 And because of the way that the plume is
18 currently modeled, I think the area that we're talking
19 about for monitoring is known or expected to be
20 impacted by treated acid gas in terms of the pore
21 space. So poking more holes there, it's hard to
22 justify from the Division's perspective as safe and
23 appropriate. It really gets to the question of the
24 gross negative consequences that may or may not be
25 experienced by Desert Ram.

1 So we need to know what they actually want
2 those to look like, where they are, how many they are,
3 et cetera, before Mr. Gebremichael can actually
4 perform an analysis of whether those are one necessary
5 and appropriate, and two, have appropriate safeguards.

6 COMMISSIONER AMPOMAH: Mr. Tremaine, you
7 know, to say that, let's say, even these monitor --
8 requested monitoring wells are appropriate or not, I
9 mean, are these typical conditions that are ever,
10 ever, you know, attached to any AGI, let's say, wells?

11 MR. TREMAINE: No. I believe I can try to
12 pull the order, Commissioner Ampomah, but I believe
13 that we have requested well bore monitoring at
14 neighboring existing wells. But again, those are
15 whether that's surface or down hole monitoring, those
16 were always requested for the purpose of verifying,
17 did the plume go farther than it was projected to go
18 there? There we're going to say, "This is the
19 perimeter, if you get to this point, something's gone
20 wrong." If you trigger a surface monitor at a
21 neighboring well bore of a previously plugged well,
22 for instance, like we're requesting, and I believe OCD
23 condition of approval, either 11 or 13, I can pull it
24 up.

25 But we are requesting surface monitoring and

1 neighboring plugged and abandoned well pores because
2 there's a potential that there could be corrosive
3 reaction and CO2 or treated as gas migrate to the
4 surface at those locations. Again, public health
5 safety, verifying the science and the plume modeling
6 in place, we've never used or advocated for additional
7 perforations to see when treated acid gas gets to a
8 certain point. And I do agree with Mr. Rankin that
9 the purpose of those monitoring wells is to alert
10 Desert Ram to -- when their pore space is impacted.
11 And that's a money dispute between the parties -- a
12 timing and a money dispute.

13 COMMISSIONER AMPOMAH: Mr. Chair, you know, I
14 don't know, let's say, how you want us to proceed with
15 this, but I will require that probably we go in a
16 close session to just look at this quickly and
17 probably return because I do have some questions for
18 the council.

19 COMMISSIONER ROZATOS: Before we entertain
20 that Commissioner, Mr. Marble, you wanted to state
21 something?

22 MR. MARBLE: I do. A couple of small points
23 to the doctor's point about the appropriateness of
24 these conditions on the permit, I understand that they
25 are unique and different. Two things that I'd like to

1 say to that regard. One, my client does operate water
2 wells within the area that could theoretically be
3 impacted by this plume. In fact, in the application
4 from Northwind, you'll see that they got notice in the
5 context of being a water well owner that they could be
6 impacted by the application.

7 The second piece of that is I'd like to point
8 you back to Snyder Ranch. Snyder Ranch is kind of
9 been the seminal case on describing the function of
10 this Commission. When it issues a permit, they go on
11 to describe it as a license. And then the Snyder
12 Ranch case goes on to say that license is limited to
13 bestow upon someone their right to engage in
14 activities within their property rights.

15 And here, I believe it would be appropriate
16 for the condition that the Commission places on the
17 permit in the context of that Snyder Ranch's dictate
18 on what the Commission's power is, to make sure that
19 the applicant is engaging in activities within the
20 scope of their property rights. And one thing I want
21 to say in response to something Mr. Rankin said in his
22 last statement. He mentioned that it is inappropriate
23 for this Commission to make interpretations or to
24 determine who has a valid claim to property. I agree
25 with him. I agree that that's inappropriate for this

1 Commission, but the difference here is that there is
2 no claim to property that Northwind is making.
3 There's not one document that they can put in front of
4 this Commission saying they have the right to do what
5 they want to do on Desert Ram's land. Those are the
6 only small points I'd like to make.

7 COMMISSIONER ROZATOS: Thank you, Mr. Marble.
8 Mr. -- Commissioner Bloom, did you have any questions,
9 thoughts?

10 COMMISSIONER BLOOM: So I -- Mr. Chair, I
11 think we did hear from Mr. Rankin that he could use 15
12 minutes to confer with his client. If nothing else,
13 that'll give us a bathroom break. I was --

14 COMMISSIONER RAZATOS: I was coming up to
15 that one. You're just a step ahead of me today.

16 COMMISSIONER BLOOM: Okay. Okay. And then,
17 you know, after that there might be some potential for
18 the parties to talk and then I guess, I'm trying to
19 think where we're at. I think my allergies are just
20 killing me today. My eyes are bothering me, I feel
21 sluggish. but the -- that's --

22 COMMISSIONER RAZATOS: Yeah.

23 COMMISSIONER BLOOM: -- like a -- We need to
24 figure out -- yeah. We need to figure out the ruling
25 on the -- potentially on the motion. And then I think

1 then potentially hear a permit discussion. Is that
2 right, evidentiary hearing?

3 COMMISSIONER RAZATOS: So correct. I think
4 we do need to go to a break and allow for stuff, all
5 of us to stand up and maybe get some fresh air. I -
6 please.

7 MR. CHANDLER: Hi, Mr. Chair. In the
8 consideration of the entire universe is Northwind have
9 they had a chance to review the OCD conditions? And
10 do we just -- can you proffer whether they're going to
11 be contested or not?

12 MR. TREMAINE: Thank you, Mr. Chandler. No,
13 no. The conditions that the Division has proposed,
14 which were filed at the time of its pre-hearing
15 statement, and its exhibits have been reviewed by
16 Northwind. And as we will testify, those conditions
17 are acceptable to Northwind.

18 COMMISSIONER RAZATOS: So I still throw it
19 out there to pose potentially for discussion. I'm not
20 saying and I don't think this Commission is saying
21 that what Desert Ram has proposed is what needs to be
22 done by any means. I think it just, as I mentioned,
23 opens the door for conversation for them and for
24 Northwind to be able to potentially find some type of
25 middle ground. I realize, Mr. Rankin, the

1 conversation has been going on and that's why we're
2 here, where we're at. But it did look like an 11th
3 hour effort to potentially open up the discussions.

4 And so I would urge you and your client just
5 to look at it. I'm not saying be open to the thought,
6 I'm not saying that you have to, and I'm not saying
7 you don't have to. Be open to the thought and do
8 that. So why don't we take -- let's take a good --
9 what time is it? Would a half hour be good for you?
10 Okay. Let's take a half-hour break and we'll
11 reconvene at 11:30. Thank you.

12 (Off the record.)

13 COMMISSIONER RAZATOS: Good morning to
14 everybody that's on the platform. The parties needed
15 15 more minutes, so we will reconvene at 11:45.

16 (Off the record.)

17 MR. TREMAINE: Now they have more votes.

18 COMMISSIONER RAZATOS: Okay. Thank you for -
19 - everybody for holding on the platform. We need
20 about five more minutes, they think they have a
21 decision, so we'll get back in five minutes.

22 (Off the record.)

23 COMMISSIONER RAZATOS: Okay, Sheila. On the
24 platform, thank you. We're back on the record. It
25 was an extended period of time, the half hour took an

1 hour, but that's okay. Is there a resolution to what
2 we have? I'll start with you Mr. Marble, if you'll
3 turn on your microphone, please.

4 MR. MARBLE: There is -- Mr. Chairman, if
5 it's okay with Mr. Rankin, I will -- would you like me
6 to walk through it on the record? In exchange for
7 withdrawing our notice of intervention to the
8 application pending today, the applicant will accept
9 all the conditions imposed by the OCD.

10 COMMISSIONER RAZATOS: Okay.

11 MR. MARBLE: And specifically as to condition
12 18, which is relating to plume modeling. The
13 applicant has agreed that instead of every five years,
14 it will be every two years. And as it relates to
15 condition 13, there will be -- did you want to read
16 this one onto the record or did you want to address
17 it?

18 MR. RANKIN: Yeah. I guess one thing, just
19 to be clear. So in the Division's conditions, it's
20 condition number 13, the Division has proposed that
21 Northwind implement surface monitoring at certain
22 plugged in abandoned wells that penetrate the
23 Devonian. And what we've agreed to do is have a side
24 agreement between the parties, where Northwind will
25 put a surface monitoring device on one of hydrosources

1 water wells, in section 29. So we would do that
2 outside of the permit conditions, but have an
3 agreement separate between the parties to implement
4 additional monitoring on one of their water wells in
5 section 29.

6 MR. MARBLE: And then I think the only other
7 thing to be addressed in the site agreement was as
8 updated plume modeling information relating to the
9 permit condition on 13, all becomes available, that
10 would be simultaneously provided to Desert Ram at the
11 same time as provided to the Commission.

12 COMMISSIONER RAZATOS: Okay. Mr. Stewart?

13 MR. STEWART: So thank you, Mr. Marble. Mr.
14 Rankin, you're good with what was stated?

15 MR. RANKIN: Yeah. So just to reiterate,
16 just for purposes of the record and to confirm my
17 understanding. That what we've agreed to do in
18 exchange for Hydrosource, Desert Rams withdrawal of
19 their objection to the proceeding in this case is that
20 we would agree, as a condition of approval, to
21 increase the updating of the modeling and data
22 provision under condition 18 to two years instead of
23 five. And we would -- separately on a separate site
24 agreement, we would agree to give Desert Ram and
25 Hydrosource all the information that we provide to the

1 Division and Commission at the same time as part of
2 the conditions of approval of the permit. That would
3 be a separate site agreement.

4 And then the third item is also under
5 separate site agreement that we would agree to put a
6 monitoring device on one of their water wells in
7 section 29. And then we just would need to be
8 authorized to get access to do it. Because I think we
9 have to check the equipment and update the data every
10 month or so, whatever the frequency is. But those
11 would be addressed through the site agreement. The
12 only thing that would go into the conditions of
13 approval here would be to increase the cycling of the
14 modeling in the condition 18 to every two years.

15 COMMISSIONER RAZATOS: Excellent. Thank you.

16 MR. RANKIN: Uh-huh.

17 COMMISSIONER RAZATOS: Appreciate it. Mr.
18 Tremaine?

19 MR. TREMAINE: More plume modeling updates is
20 probably more better, no objections.

21 COMMISSIONER RAZATOS: More better. Your
22 English grammar is awesome there, Mr. Tremaine. Okay.
23 Commissioners, any questions on what was stated?

24 COMMISSIONER BLOOM: Not from my side. Thank
25 you.

1 COMMISSIONER AMPOMAH: No questions, Mr.
2 Chair.

3 COMMISSIONER RAZATOS: Excellent. Mr.
4 Marble, we'll ask if you could write up all of the
5 conditions and submit them for the record so we could
6 have it all ready to go and then get every party to
7 sign off on it and then submit it to the Commission.

8 MR. MARBLE: Absolutely, Mr. Chairman.

9 COMMISSIONER RAZATOS: Mr. Tremaine, did you
10 have something? Oh, okay. Go ahead, Mr. Chandler.

11 MR. CHANDLER: So what needs to be
12 memorialized? Are parties looking for a motion from
13 the Commission today?

14 MR. RANKIN: I'm not sure that anything needs
15 to be memorialized other than, I guess, that the
16 Desert Ram will submit a -- maybe a formal withdrawal
17 of their objection at -- as and when we've -- when
18 they're satisfied that we have entered into the site
19 agreement. And then the only other element would be,
20 which I think is sufficient for the statement of the
21 record, maybe the Division can submit a revised
22 Exhibit 1, which would be simply just to update the
23 frequency of the flow modeling and data to two years
24 instead of five.

25 COMMISSIONER RAZATOS: Mr. Tremaine?

1 MR. TREMAINE: I think at the close of the
2 factual record to come, it'll need to be memorialized
3 that condition 18 is -- has been modified. But I
4 think we can do that either in writing, submit an
5 updated condition 18 or -- on the record. It's a
6 simple correction. I don't think any of the site
7 agreement settlement between the parties needs to be
8 memorialized by motion or order of the Commission.

9 MR. CHANDLER: Okay.

10 COMMISSIONER RAZATOS: Mr. Chandler, did that
11 suffice for your question?

12 MR. CHANDLER: I beg your forgiveness and I'm
13 so new. Did you say Mr. Counsel, that you needed some
14 technical testimony put on the record?

15 MR. TREMAINE: Well, I think I was operating
16 counsel under the assumption that the Commission was
17 going to still want to hear the underlying application
18 by Northwind because there isn't yet a -- it wasn't
19 submitted by affidavit, and so there is not a record
20 upon which the Commission may approve the -- I thought
21 we still had to have a hearing, yeah.

22 COMMISSIONER RAZATOS: Commissioners?

23 MR. TREMAINE: So we'll still have a quick
24 hearing.

25 COMMISSIONER AMPOMAH: When you say a quick

1 hearing, I mean, there's a -- probably not quick, but
2 yes.

3 MR. TREMAINE: It won't be quick, but I don't
4 think it will be as long as it was slated to be.

5 COMMISSIONER AMPOMAH: When will we be doing
6 that, Mr. Chair?

7 COMMISSIONER RAZATOS: How long do the
8 parties need?

9 MR. TREMAINE: I think we have lunch waiting
10 for us at our office, so probably just an hour. If we
11 can be back here at 1:00, maybe 1:15, that we can
12 start. I think probably we can walk through,
13 depending on Dr. Ampomah's questions or the
14 Commission's questions, I think it might be in maybe
15 just a little more than an hour, hour and a half maybe
16 to complete the record. And with Mr. -- with the
17 Division's witness, maybe another 20 minutes, hour and
18 a half maybe to complete the presentation of the case.

19 COMMISSIONER RAZATOS: Commissioners?

20 COMMISSIONER BLOOM: That works for me.

21 COMMISSIONER AMPOMAH: That works for me too,
22 and I promise we'll get it done today.

23 COMMISSIONER RAZATOS: You're limiting factor
24 with questions. Okay. So it is 12:03, we'll give
25 ourselves a little bit of a longer lunch. Let's come

1 back at about 1:15. We'll proceed with the case but
2 at least we won't have it as controversial. So thank
3 you all, we'll see you at 1:15. Thank you.

4 (Off the record.)

5 COMMISSIONER RAZATOS: Okay. We'll get back
6 on record. This is the continuation of when we were
7 hearing Case Number 24881, regarding Midstream Wind --
8 I'm sorry, Northwind Midstream Partners for approval
9 of an additional redundant acid gas injection well,
10 and to amend Order Number R20903 as amended and SWD
11 2622 to authorize an increased shared maximum daily
12 injection rate in Lea County, New Mexico. Mr. Rankin,
13 we turn it over to you.

14 MR. RANKIN: Thank you, Mr. Chair and
15 Commissioners. May it please the Commission. We have
16 one witness today to present the testimony on the
17 request for approval of this additional redundant AGI
18 in the Devonian. So at this time unless the
19 Commission has any questions of me, I would ask that
20 Mr. David White take the stand and so we can present
21 our case on request for approval.

22 COMMISSIONER RAZATOS: Sure. Mr. White, if
23 you'll come have a seat here. And when you take a
24 seat, if you'll just make sure that the microphone is
25 on, it'll be the little person with a half circle

1 right up around them. There you go. And Mr.
2 Chandler, will you swear in the witness for us,
3 please?

4 MR. CHANDLER: Sure. Please raise your right
5 hand.

6 WHEREUPON,

7 DAVID ALLEN WHITE,
8 called as a witness, and having been first duly sworn
9 to tell the truth, the whole truth, and nothing but
10 the truth, was examined and testified as follows:

11 MR. CHANDLER: Please state your name for the
12 record.

13 MR. WHITE: David Allen White.

14 DIRECT EXAMINATION BY COUNSEL FOR NORTHWIND MIDSTREAM
15 PARTNERS

16 BY MR. RANKIN:

17 Q Good afternoon, Mr. White. Will you please
18 let us know by whom you're employed and in what
19 capacity?

20 A I'm employed by Geo-Lakes Incorporated and
21 I'm the vice president.

22 Q And have you previously testified before the
23 Commission?

24 A I have, yes.

25 Q And have you been recognized as an expert in

1 geology, hydrogeology, seismic interpretation and
2 Fault Slip modeling and acid-gas injection while
3 permitting and operations?

4 A Yes.

5 Q Are you familiar with the application that's
6 filed in this case?

7 A Yes, I am.

8 Q Did you also prepare or oversee the
9 preparation of the C-108 that was submitted as part of
10 this application, in fact, Exhibit A?

11 A Yes, I did.

12 Q And do your duties include project -- well,
13 I'll skip over all that. Now let me -- since we're
14 not -- no longer contesting it, I think that there's
15 no objection. Let me skip forward here. Rather than
16 reviewing your background and testimony -- background
17 and your history of education and experience, I'm just
18 going to ask you, have you conducted a study of the
19 geology and hydrogeology of the lands in the area of
20 the application?

21 A Yes, I have.

22 Q And have you conducted analysis and modeled
23 the potential plume that would result from injection
24 of the proposed treated acid gas?

25 A Yes, I have.

1 Q And have you also prepared a model analyzing
2 the Fault Slip probability based on the proposed
3 injection?

4 A Yes, I have.

5 Q And were Exhibits A and B that were submitted
6 as part of the hearing packet, prepared by you or
7 compiled under your direction and supervision?

8 A Yes.

9 Q Any corrections or changes at this time to
10 Exhibits A or B?

11 A Not at this time, no.

12 Q Okay.

13 MR. RANKIN: Mr. Chair, I would tend --
14 retend Mr. White as an expert witness in geology,
15 hydrogeology seismic interpretation and Fault Slip
16 modeling and acid gas injection and well permitting an
17 operation.

18 COMMISSIONER RAZATOS: Okay. Mr. Germaine?

19 MR. GERMAINE: No objection.

20 COMMISSIONER RAZATOS: Okay. He shall be
21 entered.

22 MR. RANKIN: All right. Mr. Chair, at this
23 time, I'll share my screen.

24 BY MR. RANKIN:

25 Q And Mr. White, let me know when you can see

1 the images before you. This is a copy of the
2 application that was --

3 A Uh-huh.

4 Q -- or exhibit packet that was filed as part
5 of this case. On the table of contents, you'll see
6 that there's a -- the application with the C-108 --
7 exhibit A to the application was a C-108. Is that
8 correct?

9 A That's correct.

10 Q And is all the information required for
11 approval of the proposed Titan AGI number 4, included
12 in the application and in the C-108?

13 A Yes, it is.

14 Q And the application for hearing was filed
15 back on September 17, 2024, correct?

16 A That's correct.

17 COMMISSIONER RAZATOS: Mr. Rankin, I'm just
18 going to stop you one second. Can we just move your
19 microphone a little closer to you just to make sure
20 that the Court reporters can hear?

21 MR. RANKIN: Thank you.

22 BY MR. RANKIN:

23 Q And have you prepared a slide presentation
24 reviewing the details of the C-108 and the application
25 filed with the Commission and the basis for approval?

1 A Yes, I have.

2 Q And that's marked as Exhibit B. Is that
3 correct?

4 A Yes.

5 Q Here's the tick of contents. Let's go ahead
6 and I'll skip down to your overview of the
7 application. And if you would just give us a -- an
8 overview of what's being requested in this application
9 by Northwind.

10 A Yeah. So it's been previously kind of
11 mentioned Northwind is seeking approval of an
12 additional acid gas injection well at their Titan
13 treatment facility. That will serve both the purposes
14 of improving the redundancy in their processes at that
15 facility, as well as allow for an incremental increase
16 -- or an increase in the total allowable action --
17 injection volume shared between those wells.

18 Specifically, Northwind is requesting
19 approval of up to 28.8 million standard cubic feet per
20 day in preparation for their anticipated asset gas
21 disposal needs of the area. As you had previously
22 mentioned, the form C-108 does include all relevant
23 sections and supporting materials necessary to
24 substantiate that request and to allow for approval of
25 that application. And as many of you all are likely

1 aware, these types of wells are really becoming the
2 preferred method for midstream operators in terms of
3 sour gas handling and the Northwind facility itself,
4 the Titan treatment facility has been designed such
5 that it does rely and incorporate those preferred
6 methods.

7 Q So in order to speed this along Mr. White,
8 I'm not going to ask you questions directly. You've
9 prepared this presentation, and if it's okay with the
10 Commission and Mr. Chair, I'm just going to ask you to
11 go ahead and review each slide and go through the
12 supporting materials that support approval in this
13 case. And I may interject here, there for
14 clarification or to make sure something is clear for
15 the Commission.

16 But with that, I'll just go ahead and ask you
17 to walk through your slides and then I may interject
18 here and there until you're complete.

19 A Okay. Sure. So in this first slide, as some
20 of you may be aware, the history and the planning for
21 acid gas injection wells at this facility is -- has a
22 bit of a history when the original application and
23 project development began in 2018. So I think it's a
24 good idea and what I wanted to show in this map is
25 give everyone kind of a general layout of what the

1 facility looks like in terms of its well placement
2 proposed and active.

3 The facility itself is located approximately
4 7.5 miles Southwest of the City of Jail, New Mexico,
5 specifically in Section 21 of Township, 26 South,
6 range 36 East. The well as you can see and
7 unfortunately the ArcGIS base map layers show -- do
8 not show the absolute current configuration of the
9 surface facility. It's showing only the facility as
10 it was prior or around the time of Northwind's
11 acquisition of it.

12 So currently, the surface layout and
13 disturbance does extend to the south -- to the lease
14 road that's kind of slightly inclined northeast and to
15 the north of that facility across that east-west
16 pipeline disturbance that you see there. But on the
17 disturbance of the property that's shown here, the red
18 injection well symbol was the originally permitted
19 Salt Creek AGI number 1 location permitted back in
20 2019. That well was ultimately plugged and abandoned
21 due to some downhole difficulties. And as part of the
22 history of it, we came back seeking the approval to
23 relocate and redesign that well to accommodate for
24 those downhole difficulties.

25 The new location is shown by the blue

1 injection well symbol to the southeast labeled as Salt
2 Creek AGI number 3. Now that change in the numeric
3 sequence is ultimately because at the time that that
4 relocation request was being made, application for
5 Salt Creek AGI number 2, the Commissions required
6 redundant deep AGI well had already been submitted.
7 So that numeric sequence is a little bit abnormal
8 because of that.

9 So to the north of that pipeline track, the
10 black injection well shown is Salt Creek AGI number 2,
11 which was approved administratively as the Commission
12 had remanded it back to the Division for decision and
13 subsequently amended from a vertical injection well to
14 a deviated injection well. So that well was drilled
15 and recently completed from the surface location shown
16 to a bottom hole location to the Southeast.

17 The final marker on that map shows the
18 proposed Titan AGI number 4, which is the well
19 relating to the matter we're discussing today. So as
20 I briefly mentioned, AGI wells in general, and what
21 we'll talk about for a couple slides here, is just the
22 key elements of Northwind's application and some of
23 the benefits of AGI wells.

24 As I mentioned, AGI wells have become a
25 preferred sour gas handling method for these types of

1 facilities, not only because it simplifies treatment
2 processes a bit and reduces potential downtime
3 associated with alternative sulfur control measures,
4 but it has a strong environmental benefit that along
5 with handling the more -- the dangerous hydrogen
6 sulfide, it also results in the permanent
7 sequestration of significant amounts of CO2.

8 With respect to Northwind's application, our
9 review of the project area has shown that oil and gas
10 wells, water wells, and surface waters in the area of
11 the proposed AGI number 4, are all protected via
12 design considerations for the proposed well. Which
13 includes adequate surface casing installation to
14 protect groundwater sources, as well as multiple
15 additional strings that provide physical barriers
16 between the injection string and adjacent geologic
17 strata.

18 Throughout the long history of the project,
19 the ability -- the access to data and the depth of our
20 geologic investigation, has also continued. And as a
21 result of that, our geologic analysis, which most
22 recently incorporates utilization of 3D seismic data,
23 has really allowed for a good delineation and good
24 characterization of the injection reservoir in this
25 zone.

1 Furthermore, Fault Slip probability modeling
2 based on those geologic analysis, shows that, as
3 proposed and the volumes proposed and operating
4 conditions, the wells, the series of wells in the
5 Devonian do not produce any elevated risk for
6 injection induced seismic events.

7 With respect to reservoir modeling and
8 characterization of the reservoir, as I mentioned, the
9 -- this project does have a bit of a long history and
10 the product of reservoir modeling and simulation that
11 you're seeing today, and that has been provided in the
12 C-108 application and in the exhibits, is really a
13 refined version that has begun initially with well
14 control in 2019 and 2020 to incorporating 3D seismic
15 data and derivative analyses of those data to really
16 generate a reservoir characterization model and plume
17 forecast that we think are adequately supportive of
18 Northwind's operations and adequately prepares
19 Northwind to understand the impacts of their plume and
20 their injection activities.

21 In general, the C-108 application, includes
22 all relevant subsections for approval as is required
23 of these facilities and these types of operations.
24 Northwind does have an existing hydrogen sulfide
25 contingency plan, which upon approval of this well and

1 construction of this well, will of course be
2 incorporated and submitted to an MED and relevant
3 parties to ensure that all -- that plan reflects all
4 of the proposed operations and as approved conditions.

5 All interested parties requiring notification
6 have been provided copies of Northwind's application
7 and have received notice. And as of today, no parties
8 are intervening on the matter.

9 And so just to kind of reiterate a little bit
10 of the history. We'll talk mostly about the kind of
11 flow chart shown on the right here. But just to make
12 sure everyone has some perspective about the evolution
13 of this project and the current status of the
14 facility. The original application for a acid gas
15 injection well at this facility was submitted in 2019,
16 with the approval of that application and the first
17 order being issued in January of 2020. Now that owing
18 to the sour gas disposal needs of that facility, that
19 drilling activities for that well did not occur until
20 Q4 of 2022, when those sour gas disposal volumes were
21 -- became required at that facility.

22 So the drilling of that well ultimately began
23 at the end of 2022. When drilling that well, as I
24 mentioned, there were some down hole issues that
25 prevented completion of that well. And so Salt Creek,

1 Northwind's predecessor -- operator prior to
2 Northwind's acquisition, sought amendment to relocate
3 and redesign that well to address those issues. And
4 the NMOCC issued order 20913F approving that redesign
5 in June of 2023. After that Northwind did acquire the
6 facility and proceeded to drill the Salt Creek AGI
7 number 3, in Q4 of 2023, after which the redundant
8 Salt Creek AGI number 2 was authorized via the
9 administrative process.

10 And I'm sorry. The associated order on this
11 is incorrect. Rather than being SWD 2622, it should
12 be SWD 2580 which was issued to Northwind. However,
13 they did not drill the well based on that order. That
14 order in -- was planned for a vertical well, at that
15 time, however, upon acquisition of 3D seismic data and
16 additional geologic analysis, it was determined that a
17 deviated well to a more higher quality interval of
18 Siluro-Devonian injection zone, would be more
19 preferable.

20 So there was an amendment application
21 submitted requesting that change of plans, which was
22 ultimately approved in August of 2024. And Salt Creek
23 AGI number 2, was drilled and most recently completed
24 in early 2025. And I recognize that's a very
25 complicated history, so feel free to ask any

1 questions, if anything doesn't make sense.

2 So here we take -- in this slide, we're
3 taking a look at the general project area, both from a
4 more regional perspective, where in the map shown to
5 the left, you see the city of Jal to the northeast,
6 and the position of the general position of the
7 proposed Titan AGI number 4 and the Salt Creek
8 facility in the Southwest of Jal, New Mexico. And
9 again, in the panel to the right, we just see, again,
10 the kind of arrangement of AGI wells at the facility
11 currently.

12 In accordance with the normal C-108
13 development processes for determining a maximum
14 allowable operating pressure, this slide includes the
15 calculations and the assumptions we made in
16 determining the requested maximum allowable operating
17 pressure. Which for acid gas wells, utilizes an NMOCD
18 approved method in which the specific gravity or
19 average density of the acid gas is utilized to
20 determine and calculate the maximum allowable
21 operating pressure.

22 Of course, with -- oh, sorry. Can you hold
23 there one more --

24 Q Yeah.

25 A -- one second. Of course, with -- you know,

1 as is stipulated by, you know, most orders that are
2 issued with respect to AGI Wells and SWD Wells, the
3 intent will be that once the well is constructed step
4 rate injection testing will be completed to confirm
5 the adequacy of that requested allowable operating
6 pressure.

7 So in this slide, we're summarizing a little
8 bit of the general design of the acid gas injection
9 well system in the proposed operations as in
10 accordance with Northwind's current gas inlet
11 compositions, the Titan AGI number 4 is anticipated to
12 inject mixed acid gas stream, predominantly containing
13 carbon dioxide, H₂S and trace amounts of nitrogen and
14 hydrocarbons.

15 The tag is transmitted from the amine
16 treatment system at low pressure. And for this
17 description, we can begin looking at the kind of
18 schematic diagram on the right there. But tag is
19 transmitted from the amine system to a compression
20 process unit where it is, through successive stages of
21 compression, compressed and dehydrated through inner
22 stage cooling, and then transmitted to each of the AGI
23 wells via high pressure NACE compliant lines.

24 In the well profile shown to the right, we do
25 have some annotations of key design standards that are

1 in characteristic of all of Northwind's well and most
2 AGI wells currently. Specifically, in that the AGI
3 wells are constructed with, not only surface safety
4 valves that are automated and tied into plant control
5 systems, but as well downhole subsurface safety valves
6 that allow for integrated control through the plant
7 control systems.

8 The AGI Wells in general are designed to be
9 robust in potentially corrosive conditions, where they
10 incorporate corrosion resistant alloy materials,
11 constructed with acid resistant cements and ultimately
12 are designed such that they are suitable for the dry
13 acid gas injection conditions proposed. In addition,
14 they -- Northwind's wells and many AGI wells,
15 incorporate continuous bottom hole monitoring of
16 pressure and temperature. Which are important to
17 understanding reservoir pressure evolution, informing
18 geologic characterization models and injection
19 simulations. And these have been incorporated in all
20 of Northwind's AGI wells.

21 In this slide, we show the proposed design of
22 the Titan AGI number 4, which is very consistent with
23 AGI wells constructed in this area of New Mexico. And
24 in accordance with the needs of the specific geology
25 that you encounter in this area, just kind of at a

1 high-level summarizing that, you can see from the
2 diagram that five casing strings are proposed for the
3 design of this well. The first of which includes
4 surface casing down to a depth of approximately 2,100
5 feet, with the ultimate purpose of isolating and
6 protecting groundwater resources in the area.

7 Secondly, the first intermediate casing would
8 be proposed to be installed down to an approximate
9 depth of 3,660 feet, ultimately isolating intervals,
10 which may contain salt and hydrides in this particular
11 part of the basin that overly the Capitan Reef, which
12 is expected in this area.

13 The second intermediate casing proposed would
14 be drill -- would be set at a depth of 5,590 feet,
15 utilizing DV tools to ensure adequate cementation,
16 isolating the Capitan, which in this area has been
17 observed as a potential loss circulation zone.
18 Following the second intermediate, the third
19 intermediate casing interval would be proposed to be
20 drilled down to approximately 11,820 feet, ultimately
21 isolating an interval of potentially lower pressure
22 across the Delaware Mountain Group and Bone Springs
23 interval. Because we do have an existing acid gas
24 injection well that injects into the shallow Delaware
25 Mountain Group.

1 Along this interval, we would incorporate and
2 utilize acid resistant cements to make sure that this
3 well is protected from any formation fluids containing
4 acid gas that might be detrimental to the integrity of
5 Titan AGI number 4. The production casing would be
6 set at approximately 17,570 feet, ultimately isolating
7 the high-pressure gas intervals of geologic formation
8 such as the strinatocamaro (ph). And within this
9 string, we would utilize corrosion resistant alloy and
10 cements, again, in the overlying caprock intervals to
11 ultimately protect downhole AGI well components.

12 The plan is that all strings will be cemented
13 to the surface, and those cement operations will be
14 verified via wire line cement bond logging. In terms
15 of data acquisition, well logging and reservoir
16 testing and monitoring for this well, while drilling
17 activities are ongoing, mud logging is -- we would
18 propose to commence below the 24-inch surface casing
19 and be continued throughout the total depth of the
20 well. In terms of wire line geophysical logs, we
21 would -- our intent is to collect, you know, normal
22 routine gamma density resistivity, neutron porosity
23 and sonic tools.

24 And for the purposes of understanding
25 potential fracture, gradients and fracture pressures,

1 we would also incorporate dipole sonic logs, which
2 have been collected for the offsetting Salt Creek AGI
3 number 2 well, but would continue to collect those
4 data in the Titan AGI number 4. In addition to this,
5 with respect to the caprock, the primary and secondary
6 caprock intervals, as well as the injection zone,
7 those intervals would be imaged using Full Bore
8 Formation Micro Imaging tools or similar tools based
9 on the drilling fluids program for that particular
10 interval.

11 As is normal with AGI wells, we would also
12 collect rotary sidewall cores for analysis in the
13 caprock intervals, secondary caprock intervals, and as
14 well as the injection zone proper. In addition to the
15 logging activities, the well would also be injection
16 tested via separate injection test and pressure
17 falloff tests, to inform model simulations, get a
18 better understanding of the injectivity potential for
19 these wells or this well, and to ultimately confirm
20 any preliminary analysis with respect to fracture
21 pressures and things like that.

22 Once completed drilling the well, the well
23 will be outfitted with all of its permanent downhole
24 pressure and temperature sensors, corrosion resistant
25 alloy tubulars and subsurface safety valves and other

1 AGI equipment.

2 Now in this slide, we overview the general
3 geology of the project area. In the map shown to the
4 left, we have a map probably seen many times around
5 this -- in this setting with the proposed AGI well
6 denoted as the red square in Southeastern New Mexico.
7 As we can see from this map, the proposed well
8 location is in the Eastern margin of the Delaware
9 Basin, where surface sediments are generally
10 characterized by aeolian and fluvial units with local
11 exposures of red beds.

12 Approximately 11,000 feet of Permian strata,
13 which at -- in places, contain producing intervals
14 overly the lower Paleozoic strata. Which are
15 intervals of gas, you know, the stranatocamaro,
16 Pennsylvanian section, being gas bearing intervals and
17 gas producing intervals. Overlying the proposed
18 injection interval, the Woodford Shale, a well-known
19 and well demonstrated confining unit in this area, is
20 greater than 370 feet thick and makes up the primary
21 confining strata for this injection well.

22 In addition to this, the overlying
23 Mississippian carbonates provide secondary caprock
24 intervals and shales of the Barnett, that in this area
25 are expected to be about 800 feet of secondary

1 confining strata. As we'll talk a little bit later,
2 we do have access to 3D seismic survey data, with
3 respect to this project location which has allowed us
4 to get a good characterization of the geology and
5 identify faults in the area such that they can
6 adequately be evaluated with respect to induced
7 seismicity risk.

8 In this slide, we're just putting into
9 perspective the project location with respect to the
10 producing intervals in the area and the geologic
11 strata that are -- that comprise the section. The
12 highlighted section of this chart indicates or shows
13 the Delaware Basin units, with red stars showing
14 commonly producing intervals, whether that's oil or
15 natural gas.

16 In this particular area, we are towards the
17 Delaware Basin margin, so depending on where you at --
18 where you're at, you may see some other productive
19 intervals, which would be listed in the Central Basin
20 Platform section, inclusive of things like the
21 Tansill, Yates, Seven Rivers, depending on where
22 you're at in the project area.

23 Again, with respect to what geology we expect
24 to encounter, as I mentioned, the Salt Creek AGI
25 number 2 well, which is of very similar design and

1 deviates towards the southeast was just recently
2 completed. Not in operation, but was recently
3 completed, and so that has been able to give us a good
4 sense of where and what formations we're going to see
5 drilling Titan AGI number 4. So as you can see in the
6 tabulated summary there, the geologic formations we
7 expect, and the current prognosis for measured depths
8 that we find those formation tops.

9 In this slide, we can see in the map shown to
10 the right, a structure contour map, which was derived
11 from the seismic data that were acquired and reflect
12 the top of the Siluro-Devonian. So the top of the
13 proposed injection zone. As we can see from this
14 structure, contour map, where cooler colors reflect
15 increased depth to the top, and warmer colors would
16 reflect shallower depths to the top.

17 That in general, the top of the Siluro-
18 Devonian section is dipping towards the southwest, in
19 the -- kind of the center of the map where those well
20 locations are annotated, we see the two locations of
21 Salt Creek AGI number 2, the existing well, as well as
22 the proposed Titan AGI number 4, existing down dip of
23 a structural high to the approximate northeast.

24 In this slide, we're taking a look at a cross
25 section of wells across that project area, which shows

1 a couple things -- a couple key things. The brown
2 shaded interval that is shown in those wells from a
3 prime, show the continuous-- the continuity of the
4 Woodford Shale across the project area. In addition
5 to this, the highlighted sections that underlie that
6 brown shaded area, show intervals of the Siluro-
7 Devonian, the proposed injection zone, which we
8 identify porosity development within those zones.

9 And as I mentioned briefly, the thickness of
10 the Woodford Shale at the Titan AGI number 4 location,
11 is significant in the offset -- well, we see it as
12 approximately 370 feet thick and overlaying by tight
13 carbonates and shales of the Barnett and Osage
14 Formation. Next one -- next slide.

15 Q Yeah.

16 A Yeah.

17 Q Sorry.

18 A That works. And so with this slide, what I
19 wanted to provide the Commission with is, you know,
20 part of the -- this was not included in the original
21 C-108 application, as it reflects well logs that were
22 collected from the recently completed Salt Creek AGI
23 number 2. And so these are -- in these slides and
24 what I wanted to highlight is the level of porosity
25 development that we are seeing in this well. You

1 know, we ultimately made requests prior to deviate the
2 well, based on concerns that the -- a current -- a
3 vertical well would not access quality reservoir. And
4 ultimately, I think that came down to be a good
5 decision.

6 And for comparison, you know, in the upper
7 Devonian section, we see porosity development that's
8 very similar to very to analog AGI wells in this area.
9 However, in the Fussman section, we do see porosity
10 development being substantially better than we've seen
11 in some other analog wells. And so ultimately, we
12 just wanted to highlight that the methodology used to
13 determine a bottom hole location for AGI number 2, was
14 a similar methodology for Titan AGI number 4. And so
15 we hope to -- hope that that methodology will produce
16 a similarly productive well.

17 As part of the supporting material
18 requirements for the C-108 application, we've also
19 looked at groundwater conditions in the area and
20 reviewed the wells area of review for existing
21 groundwater wells, points of diversion. And when we -
22 - just to be clear, when we're -- when I'm referring
23 to the area of review for this project, because we are
24 proposing a deviated well, we do not -- we've kind of
25 modified the area of review to go beyond one mile.

1 So rather than just being a one-mile radius,
2 it is the composite shape of a one-mile radius at the
3 surface hole location, a one-mile radius at the bottom
4 hole location, and a one-mile buffer along the
5 deviated well path. So it actually is a larger area
6 of review than just a standard one mile.

7 In this modified area of review, we find 14
8 water wells. The nearest of which being just over a
9 half mile from the Titan AGI number 4 locations. And
10 in reviewing those well records, all of these wells
11 are shallow, not extending beyond a thousand feet in
12 total depth. And ultimately, the design of the Titan
13 AGI number 4, considers those wells in order to
14 provide adequate casing protection and cementing
15 protection.

16 As I mentioned in a previous slide, surface
17 casing for this well will extend down beyond 2,000
18 feet to ultimately isolate those intervals of
19 potential groundwater resources. In characterizing
20 oil and gas activities or injection activities within
21 the area of review, our review of records and records
22 analysis, shows that there are 83 wells within the
23 total area of review which is the one-mile buffer
24 area. 22 of which are active with 32 permitted
25 locations and 29 plugged wells.

1 Reviewing the records for those wells, many
2 of them are shallow wells, which would have total
3 depths significantly overlying the proposed interval
4 of injection, commonly producing or previously
5 producing from the Tansill, Yates, Seven Rivers. And
6 with some newer wells, producing from the Bone Springs
7 and Wolfcamp Formations. Again, overlying the --
8 targets that overly the proposed injection zone by
9 thousands of feet.

10 In the one-mile area of review, there is one
11 well that was drilled and penetrated, the Siluro-
12 Devonian proposed injection zone, that being the South
13 Lea Federal number 1. And it is shown in the
14 northwestern extent of that area of review circular
15 area, and it is 23197. The well was drilled to a
16 total depth within the injection zone, but was
17 ultimately found to be not productive and was isolated
18 with cast iron bridge plugs and cement plugs and
19 recompleted shallow, and then ultimately, fully
20 plugged back to the surface and -- in 2015.

21 So in confirming a location to be suitable
22 for acid gas injection, there's really some major
23 components that we're looking to satisfy with any
24 particular location. And I think for this location
25 and our understanding of the subsurface, the Titan AGI

1 number 4 project does meet all of the requirements.
2 Which include very critical characteristics such as
3 geologic seals, that permanently contain the injected
4 fluid, that pose no risk to fresh groundwater or
5 groundwater resources. They don't impact -- or the
6 project area doesn't have significant history of
7 production. And the reservoir both is confined,
8 laterally, but also is characterized by porosity and
9 permeability attributes laterally.

10 And then ultimately, identifying reservoir
11 suitable for your proposed operations with respect to
12 capacity and with respect to formation fluid
13 chemistry.

14 Q Mr. White, does the C 1 -- you talk about
15 fresh water and geologic seals. Does the C-108 also
16 contain in affirmative statement by you that you've
17 prepared confirming that there are no communication
18 between the injection zone and any known sources of
19 drinking water?

20 A Yes, it does.

21 Q Just to point out for the Commission, that's
22 on PDF page 40 of the exhibit packet. Is that
23 correct?

24 A Yes, it is.

25 Q Thank you. I know that Division cares to

1 make sure you've got the signed statement confirming
2 that there are no communication pathways. I'll return
3 you back to where you were, I believe it was -- you're
4 going to get into your Fault Slip analysis. Is that
5 right?

6 A Yeah. So as we mentioned at the beginning of
7 my testimony or as it -- in accordance with Mr.
8 Rankin's introduction to the testimony, in evaluating
9 this location in the proposed well, we did evaluate
10 the potential for Fault Slip or injection induced
11 seismic events, which I'm sure most are aware of is a
12 point of concern in many areas of the world right now.

13 The -- ultimately, for our analysis, the
14 major components included review and interpretation of
15 seismic survey data to under -- to make sure we have a
16 clear understanding as best we can of the subsurface
17 features in the area of our proposed well. And
18 subsequent -- or additionally, that modeling and that
19 or that assessment, included modeling of injection
20 well scenarios. In this case, a five well injection
21 scenario, in which acid gas injection is simulated and
22 in a model simulation capable in -- of considering
23 fault structures in the area and calculating or
24 projecting and associated risk with that scenario.

25 Specifically for this work, as most are

1 probably familiar with, we utilize the Stanford Center
2 for Induced and Triggered Seismicity Fault Slip
3 Potential model.

4 And in this slide, we show kind of the
5 general results of our analysis of seismic data where
6 we have plotted generally the faults that we see in
7 the area of the proposed well. These faults were
8 utilized for the Fault Slip probability simulations.
9 And as you can see, in order to express those faults
10 in the model, some of those were broken up into fault
11 segments in order to accurately characterize their
12 non-linear expression.

13 In general, looking at these, we see 13
14 faults in the area, which we've subdivided for
15 modeling purposes into 23 fault segments. Most of
16 these, you see a couple different populations of
17 either north, south to east -- or east-west trending
18 faults. In general, these faults in our analysis of
19 seismic survey data, the offset along these faults or
20 the fault throw, does not exceed from what we've seen
21 the thickness of the Woodford Shale. So we don't see
22 any evidence that the primary confining layer of the
23 Woodford Shale would be offset in any way that
24 compromises its containment.

25 Now for this work, like I mentioned, we

1 included five injection wells in the Fault Slip
2 probability simulations. This particular part of
3 Southeastern New Mexico, is not really inundated with
4 disposal activities at the moment. In the map shown,
5 you see the two Northwind AGI wells at the facility
6 Titan AGI 4, and the Salt Creek AGI number 2, as well
7 as north of the facility, there are two existing AGI
8 wells about six miles north. The independence AGI
9 number -- AGI wells, those were included in the slip
10 probability assessment. And to the northeast of the
11 facility, one salt water disposal well, the Kimberly
12 SWD Well.

13 So with modeling injection and the evaluating
14 the risk for induced seismicity, this particular
15 Stanford model requires input parameters and some
16 assumptions with respect to fault orientations, local
17 stress conditions in order to evaluate and determine
18 pressures required to induce slip in this simulation.
19 And so the table here shows the modeling assumptions
20 or the stress conditions that were assumed for these
21 simulations.

22 And in this slide, we show the model's
23 initial kind of assessment of what pressures are
24 required to induce slip. So we see -- with a range of
25 fault orientations, we see that the model predicts

1 that -- of these 24 fault segments, the anticipated
2 pore-pressure increase to induce slip ranging between
3 approximately 1,080 to 6,930 PSI. In this area of the
4 world, maximum horizontal stress is oriented
5 approximately North 75 East.

6 And that's in accordance with stress
7 characterization of folks like Losni (ph) and Zobacka
8 and utilizing their state of stress maps. With
9 respect to this project area, there is some faults
10 segments that we identify as having the increased risk
11 of slip which are shown or annotated here as fault
12 segments 1, 2, 9, 10, and 21. Which are those that
13 are identified as having less than 1,500 PSI to induce
14 slip.

15 In this slide, we summarize the injection
16 wells that are included in this simulation, the five
17 injection wells, two of which being AGI wells operated
18 and proposed by Northwind, as well as the reservoir
19 barrel equivalent volumes that the simulation assumes,
20 as well as the total duration of the simulation
21 period. So the objective with this modeling and
22 simulation is to consider at least the proposed AGI
23 wells for a period of 30 years.

24 However, often there are wells that have been
25 operating from -- before that time. And so for those

1 wells, the simulation period would've been extended to
2 history match, and ultimately, include prior
3 contributions of those wells. So you'll see some,
4 like the Kimberly SWD, where the simulation begins in
5 2019. In accordance with the limitations of the
6 Stanford model, one conservative approach we take with
7 these simulations is that that model can only account
8 for one fluid type at a time.

9 So for all of these wells, we do assume the
10 fluid characteristics of produced water rather than
11 acid gas. Which provides us a little bit more
12 conservative estimates with respect to result in
13 pressure increase, as the water is greater density and
14 greater viscosity than what would be seen in a pure
15 acid gas injection alone.

16 Here we see the hydrologic results of that
17 simulation. Where in panel A, we see a kind of
18 generalized map that shows, from cooler to warmer
19 colors, the model's prediction for pore-pressure
20 increase in association with that injection scenario.
21 So this would be the point 30 years or 30 plus years,
22 depending on what the level of history match was and
23 the anticipated pore-pressure increase after the full
24 simulation.

25 So as you can see around the AGI wells,

1 which, you know, both the Northwind proposed and
2 existing AGI wells, as well as the offsetting AGI
3 wells to the north, the ultimate pressure impacts are
4 a little bit -- are less than a higher volume SWD.
5 Ultimately, owing to the smaller volumes that actually
6 are placed in the reservoir in association with acid
7 gas wells.

8 With the hydrologic simulation results, the
9 model also then calculates utilizing a range of
10 uncertainty and various model parameters such as fault
11 orientation or density of fluids. It calculates
12 utilizing a Monte Carlo simulation, the ultimate Fault
13 Slip probability associated with this. So in panel A
14 to the left, we see a cross plot of time versus Fault
15 Slip potential.

16 And were there any potential for Fault Slip?
17 In this injection scenario, you would see a series of
18 trend lines that go up or move with time. However --
19 for each fault segment, however, owing to the minimal
20 amount of injection that is actually going on in this
21 area and the geomechanical risk for slip, all fault
22 segments within this simulation are shown to be at
23 zero probability for slip.

24 In the panel to the right, we show a similar
25 results where the Fault Slip probability is

1 graphically displayed in association with the various
2 AGI or the injection wells in the project area.
3 Again, all of those fault segments colored green, as
4 the model predicts zero probability.

5 As I mentioned before, a critical point of
6 identifying a suitable location for acid gas injection
7 well is confirmation that your confining strata are
8 adequate for containing injected acid gas. And as I
9 mentioned, in terms of subsurface review and fault
10 identification, we don't see any offset and faults
11 that allow for the lateral continuity of the Woodford
12 Shale to be offset. But we also want to take that a
13 step further and look at pressure conditions as best
14 we can in the Siluro-Devonian versus overlying strata.

15 And so what we've -- what we commonly do is
16 look at drilling fluid records and confirm that, you
17 know, the pressure conditions we expect to anticipate
18 are such that injected gas will remain in the
19 reservoir. Could you move to the next slide. So this
20 will make a little bit more sense now.

21 So in the interval overlying the proposed
22 injection zone, we see gas containing units of the
23 stranatocamaro, which have been studied, and an
24 interval of over pressure has been identified in the
25 Eastern Delaware Basin across this interval. And so

1 the maps shown in this slide, is from Rittenhouse et
2 al, who evaluated as you can see there, 23,000 mud
3 weight records and greater than 4,000 drill stem tests
4 to kind of characterize this interval of over
5 pressure.

6 And so this pore-pressure increase has been
7 identified, you know, beginning in the Bone Springs
8 down through the Woodford Shale. And commonly within
9 the proposed injection zone, we see relatively under
10 pressured conditions. So what we want to ultimately
11 confirm is that this same circumstance will be present
12 in our project area. Because ultimately, if you have
13 this pressure isolation, then you can assume you're
14 not going to be losing acid gas out of the reservoir.

15 And so this is just another diagram that
16 shows the results of Rittenhouse work, where in the
17 tracks to the right, this diagram is showing
18 essentially stratigraphy and log data from the
19 Delaware down through the Bone Springs, Wolfcamp, all
20 the way down to the injection zone, and then the
21 Siluro-Devonian. And when you look at the tracks to
22 the right, you see the two red traces, where within
23 the Bone Springs, Rittenhouse compilation of data
24 shows increases in pore-pressure all the way down
25 through the Woodford, and then returning to normally

1 pressured conditions below that.

2 And so now we ultimately want to kind of take
3 that high level interpretation of the Eastern Delaware
4 Basin and see if local drilling fluid records are
5 supportive of that. Because ultimately, we want to be
6 prepared to understand if while drilling the well, we
7 need to deal with high pressure gas from those
8 intervals, construct the well in such a way that those
9 intervals can be isolated and understand what
10 conditions we're going to encounter.

11 And so what we see in the map shown to the
12 right here, is drilling fluid records, scout tickets
13 and things like that, for wells in the area.
14 Ultimately, see -- we see in those intervals
15 anticipated to contain higher pressures, we see
16 drilling mud densities that were utilized, ranging
17 from just under 12 pounds per gallon to up to 15
18 pounds per gallon in this project area. That
19 corresponds to an average density of 13.4 and those
20 drilling fluid records also do indicate and confirm
21 once moving into the Siluro-Devonian, we see more
22 normally pressured depth intervals.

23 And this is all consistent with what was
24 observed in the recent drilling of Salt Creek AGI
25 number 2. So in reviewing these data and, you know,

1 kind of premised on the work of more regional data and
2 identification of an over pressured Eastern Delaware
3 Basin, we don't expect that -- and confirming that
4 those over-pressured conditions are present within the
5 project area, we don't expect that there's going to be
6 any risk for vertical migration or any pressure drive
7 out of the intended reservoir.

8 This is supported by the drilling fluid
9 characteristics that we see in records, supported by
10 the -- our experiences drilling the Salt Creek AGI
11 number 2, and ultimately, we think maintaining this
12 pressure differential in this project area will help
13 to contain fluids in the zone. And that's really only
14 complimenting the fact that we have physical competent
15 Woodford Shale caprock laterally extensive across the
16 area.

17 Now in these next few slides, we'll talk, I'm
18 guessing, pretty extensively about the reservoir
19 characterization and injection simulations that were
20 completed to support this application. As AGI Well,
21 applications have evolved so has the kind of
22 assessments and evaluations that are utilized to
23 forecast where these plumes are going and what the
24 results and impacts to the subsurface are going to be.

25 As I mentioned previously, this particular

1 project has had all -- a good amount of history. And
2 what we will look at today are kind of the most recent
3 evolution and refinement of those plume estimates.
4 Following the original AGI number 1 well, all of the
5 plume forecasts have been completed utilizing
6 Schlumberger's Petrel and eclipse platforms for
7 geologic characterization modeling and injection
8 simulation respectively. However, they have been
9 refined over time in that -- and rebuilt completely to
10 incorporate things like the additional data provided
11 by 3D seismic survey.

12 And so in this slide, the figure to the right
13 shows just a three-dimensional render of the existing
14 geologic characterization model. Which as I mentioned
15 was, you know, really leverages the recent acquisition
16 of 3D seismic survey data. Having those data
17 available to us, recently we were able to characterize
18 the reservoir utilizing seismic inversion analysis
19 methods. Ultimately, where you're able to transform
20 seismic data to rock properties, a method that's been
21 very well demonstrated and successful for identifying
22 quality reservoirs within carbonate injection zones.

23 These data were incorporated into this model,
24 so porosity attributes within the model are derived
25 from those inversion data. In evaluating the

1 potential impacts to the project area, we did conduct
2 multiple simulations under conditions in which, you
3 know, faults were transmissive to fluids, faults were
4 non transmissive to fluids, to ultimately make sure
5 all of the stones were turned over and ensure we
6 understood where the potential directions of this
7 plume could go.

8 Comprising the geologic characterization
9 model that was shown in the previous slide, the model
10 was built out to generally be subdivided into eight
11 zones, generally based on the porosity and
12 permeability characteristics observed. However, the
13 model itself does contain 151 kind of sliced
14 horizontal layers that are all informed through the
15 seismic impedance data. The model in total is three -
16 - almost 3.4 million cells with dimensions of
17 approximately 165 by 165 by 10 feet.

18 The table to the right shows kind of the
19 summary of characteristics of those zones, their
20 numeric sequence, their thickness, and then the
21 average porosity and permeability within those zones.
22 The total model itself has an average permeability or
23 an average porosity of 2.1 percent and average
24 permeability of 5.1 millidarcys. And ultimately,
25 these are based on both published literature with

1 respect to carbonate and dolomite permeability,
2 available test data as well as sidewall core data and
3 data -- history-match data from other analog AGI
4 wells.

5 In this slide, we're communicating and
6 summarizing what the distribution of that porosity and
7 permeability looks like within the model. These two
8 charts, panels A and B, are essentially bar charts
9 showing a range of porosity and the percentage of
10 cells within the model that see those porosity
11 attributes. The same thing with permeability shown in
12 panel B to the right, we see the permeability range --
13 the permeability values within the model and the
14 percentage of sales that -- within the model that
15 attribute those permeability values.

16 And just to summarize, that was -- can you go
17 back up one more, Adam or Mr. Rankin? Up one more
18 slide. That -- just to reiterate, that would be 2.1
19 percent average porosity in the model. So as I
20 summarized, when in the earlier portions of the slide
21 presentation, in accordance with Northwinds
22 anticipated operating conditions, the simulation does
23 consider a mixed acid gas stream of approximately 80
24 percent CO₂ and 20 percent H₂S. And the simulation
25 was completed for 30 years of the Northwind activities

1 for those wells -- I'm sorry. Excuse me.

2 The model leverages ultimately has to be a
3 little bit informed by -- with respect to acid gas
4 density and fluid characteristics. And for
5 determining those for this mixed acid gas stream and
6 anticipated reservoir conditions, we utilize the NIST
7 REFPROP software, which if you've seen other acid gas
8 injection applications would be comparable or similar
9 software to something like equilibrium.

10 For all of our simulations, wells were
11 operated at the maximum allowable or the maximum
12 proposed inject -- daily injection volume, ultimately,
13 to make sure we have a most conservative estimate of
14 the plume footprint such that we can identify all
15 wells that may be in its path or potentially impacted
16 by it.

17 This reservoir -- or this simulation also
18 assumes the reservoir is fully saturated with brine,
19 it doesn't consider any prior production history in
20 accordance with the records and activities in this
21 area. And as I mentioned earlier, we do present
22 multiple case simulations in which faults are both
23 transmissive or alternatively non transmissive to
24 fluid. Ultimately, with the aims of identifying the
25 maximum area that could be impacted.

1 In this slide, just summarizes those case
2 studies where we have Titan AGI number 4 and Salt
3 Creek AGI number 2, splitting the proposed volume with
4 14.4 million standard cubic feet per day being
5 injected into each well and under fault flow
6 conditions of both transmissive and non-transmissive.
7 And for perspective, you know, the 28.8 million
8 standard cubic feet, it may be a little bit difficult
9 to envision exactly what that is. So with respect to
10 that under reservoir conditions, that would typically
11 equate to about 13,760 barrels per day.

12 So in the next two slides, we show the
13 results of those case simulations. And you'll have to
14 forgive me, but I believe that panel B on this slide,
15 is switched with the panel B that should be on the
16 next slide. But we can talk about that as we work
17 through it. But in the panel shown to the left, the -
18 - we show a contour map which is ultimately displaying
19 the resultant gas saturation that we anticipate at the
20 end of the 30-year injection scenario.

21 So under transmissive fault conditions, the
22 outermost contour line would reflect the total
23 footprint of the injection plume. And so -- and this
24 is specifically showing concentration for the zone,
25 the vertical interval of injection that has the

1 greatest aerial footprint. So these contours and
2 concentrations of gas that we are showing do not
3 necessarily mean that, you know, that's the
4 concentration from top to bottom. It's just for this
5 particular zone, which has the greatest aerial extent.

6 So with respect to the aerial footprint
7 across the project area, we see -- in this simulation,
8 we see gas extending approximately 1.8 miles from the
9 Titan facility. In the panel to the right, we are
10 showing a cross-sectional view of the geologic model
11 where, again, colors from warm to cool, correspond to
12 higher to lower resultant gas saturations. So towards
13 looking at either map -- the map to the left or the
14 cross section to the right, we see the highest
15 concentrations of acid gas, of course, being towards
16 the point of injection at the well bores and becoming
17 more diffuse with respect to saturation as we move
18 outwards towards the plume.

19 Here we see the results from the case 2
20 simulation, in which faults are considered to be non-
21 transmissive to flow. So ultimately, in the immediate
22 project area, the Salt Creek wells are not bounded in
23 close proximity by any faults that we've seen. And so
24 we don't really see too much restriction or fault
25 control on the ultimate expression of the plume. We

1 do see a little bit of the fault impact to the north
2 with the kind of little knot shown in the contour map
3 where acid gases not being able to cross -- flow
4 across that boundary, but rather has to kind of move
5 around it. But ultimately, we see a very similar
6 footprint.

7 Now for -- just for reference, the contour
8 intervals that are shown on both of these maps,
9 correspond to about 4 to 5 percent gas saturation.
10 Ultimately, the model -- the simulation, we kicks out
11 1 percent contour intervals, but then that makes for a
12 quite a messy little diagram to look at, so we did
13 simplify that with displaying these.

14 In addition to giving us some perspective on
15 where the injection plumes might migrate or what the
16 ultimate impact to the subsurface is, we also want to
17 ensure with these simulations that the operations that
18 we propose can be completed within reasonable surface
19 operating pressures and make sure we have the
20 consistent ability to inject as we propose.

21 So in these two cross plots, we show -- which
22 are cross plots of pressure injection rate versus
23 time, we see that for both scenarios, fault
24 transmissive and non-transmissive, each case injection
25 can be maintained at 28.8 million standard cubic feet

1 per day all within surface injection pressures, well
2 below the proposed maximum allowable operating
3 pressure.

4 So in summary, with respect to the reservoir
5 simulations as we -- as modeled, the proposed
6 injection reservoir is -- appears fully capable of
7 receiving the quantities of treated acid gas that is
8 being proposed or specifically at a rate of up to 28.8
9 million standard cubic feet per day. This simulation
10 did include a complete 30-year simulation period.
11 Ultimately, under conservative conditions where the
12 maximum injection volume is maintained day in and day
13 out for 30 years, ultimately, giving us a good
14 conservative footprint that we can ultimately ensure
15 we know which wells these could potentially encounter.

16 In accordance with normal application
17 practices, we both -- we did multiple case studies
18 under various fault flow conditions. And in all
19 cases, the proposed activities can be maintained
20 within the allowable operating pressures expected. In
21 general, the plume in both cases, because of a lack of
22 particular restriction from any faults, we see the
23 plume extending approximately 1.8 miles from the
24 treatment facility.

25 Moving back to some of the more required

1 supporting materials for a C-108 application, this
2 application and complete copies of the C-108, and as
3 well as a letter notifying the recipient of
4 Northwind's application, were sent via certified mail
5 for all interested parties per the normal scheduling
6 processes. The public notice of this hearing was
7 issued by the Commission, as well as instructions on
8 how to participate.

9 In general, the AGI Well is supportive to
10 local oil and gas operations as it allows for
11 increased capacity of sour gas resources, ultimately
12 increasing royalties potentially paid to the State of
13 New Mexico. And the proposed design of the well is
14 fully protective of groundwater and the project's
15 protective of correlative rights.

16 Just to recap and summarize some of the
17 application. Northwind specifically requests approval
18 to drill and operate an additional redundant Siluro-
19 Devonian acid gas injection well as well as they seek
20 approval for an increase in the allowable injection
21 volume for those wells. The wells currently completed
22 and the surface facilities have all been designed such
23 that they can safely accommodate an injection system
24 of this type.

25 All relevant interested parties have been

1 properly notified, there is no production within the
2 proposed injection zone, within at least two miles of
3 this area. And in our analysis of the low -- the
4 subsurface and greater project area we've confirmed
5 that the well has sufficient caprock both primary
6 through the Woodford Shale, which is extensive in this
7 area, as well as secondary caprock, overlying that.

8 The well design is fully protective of
9 groundwater resources that are utilized in this area,
10 and in addition to that, the total well design, which
11 includes multiple telescoping strings of casing,
12 provides numerous redundant physical barriers of
13 cement and steel casing between any adjacent strata
14 and the injection stream

15 Within the one-mile area of review, we do
16 know there's one plugged and abandoned well that
17 penetrated the injection zone. We discussed that
18 briefly, the South Lea Federal number 1. But we have
19 reviewed the records for that well. Seeing its kind
20 of completion and recompletion history and understand
21 that well to be properly plugged in a state -- in an
22 adequate state. Within -- and I'm sure we'll talk
23 about this and we've talked about it already, but
24 within two miles and within the plume, there are
25 additional penetrations that have been identified and

1 we have plans to monitor and ensure those wells are
2 not risk.

3 Fault Slip probability, modeling and
4 injection modeling has been completed for the proposed
5 activities, ultimately resulting in a determination
6 that the proposed operations are not going to
7 contribute to an elevated risk for induced seismicity.
8 And ultimately, our characterization and our
9 expectations about where this plume will go, show that
10 we'll -- we anticipate the plume extending about 1.8
11 miles from the Titan facility.

12 So ultimately, in breaking it down, Northwind
13 seeks the Commission's approval to drill, test and
14 operate Titan AGI number 4, as specified in their C-
15 108 application. Which will also include approval of
16 an increase to the combined daily injection volume for
17 Siluro-Devonian Wells. The Silurian -- or the
18 proposed 28.8 million as I mentioned previously,
19 equates to approximately 13,760 barrels under
20 reservoir conditions. Which is commonly very much
21 lower than what we see in some salt water disposal
22 wells, just for kind of perspective.

23 Northway is requesting permission to operate
24 the well with a maximum allowable operating pressure
25 of 5,811 PSI, which is both determined utilizing OCDs

1 approved methods and in accordance with the MAOP that
2 was approved for the offsetting Salt Creek AGI number
3 2. In general, approval of this well will increase
4 overall treating capacity at this area, is
5 preventative of waste and significantly reduces the
6 potential for flaring both at this facility and in the
7 field.

8 And ultimately, prevent any atmospheric
9 release or minimize the atmospheric release potential
10 for any production related CO2. These wells can be
11 operated as proposed in accordance with the results of
12 geologic modeling and as well without producing
13 seismicity risk. And ultimately, we'll be fully
14 protective of groundwater and correlative rights.

15 Q Mr. White, just in summary in your opinion,
16 will the granting of this application prevent waste?

17 A Yes.

18 Q And protect correlative rights?

19 A Yes.

20 Q And in your opinion, will it be protective of
21 human health and the environment and sources of fresh
22 water?

23 A Yes.

24 Q Thank you very much, Mr. White.

25 MR. RANKIN: At this time, I have no further

1 questions for Mr. White. It would move the admission
2 of Exhibits A and B, and I can come back at the end --
3 actually, Mr. Chair, I think at this point I may just
4 go ahead and move the admission of all the exhibits
5 that we have -- that we've been intending to submit
6 with the -- to the Commission. If that's acceptable,
7 I would move the admission of Exhibits A and B which
8 are the application and the C-108, and then the
9 presentation that Mr. White just presented.

10 (NORTHWIND'S Exhibit A and B was marked for
11 identification.)

12 COMMISSIONER RAZATOS: Exhibit C is a copy of
13 the special warranty deeds that represent Northwind's
14 -- at least part of Northwind's good faith basis for
15 its rights to inject.

16 (NORTHWIND'S Exhibit C was marked for
17 identification.)

18 MR. RANKIN: Exhibit D is a copy of the
19 notice letter that went out providing notice of the
20 application and hearing today.

21 (NORTHWIND'S Exhibit D was marked for
22 identification.)

23 MR. RANKIN: And then Exhibit E is a copy of
24 the notice of our affidavit and publication reflecting
25 that we have provided notification of the hearing and

1 application in the newspaper, identifying each of the
2 parties required to receive notice by name.

3 (NORTHWIND'S Exhibit E was marked for
4 identification.)

5 MR. RANKIN: So those are exhibits D and E as
6 well. So I would move the admission of Exhibits A, B,
7 C, D, and E to the record.

8 COMMISSIONER RAZATOS: Mr. Tremaine?

9 MR. TREMAINE: No objection.

10 COMMISSIONER RAZATOS: They shall be entered.

11 MR. RANKIN: Thank you, Mr. Chair. I have no
12 further questions of the witness and make him
13 available for cross-examination.

14 COMMISSIONER RAZATOS: Mr. Tremaine, do you
15 have cross-examination?

16 MR. TREMAINE: I do have a few questions.

17 COMMISSIONER RAZATOS: Could we take a break
18 then?

19 MR. TREMAINE: Certainly.

20 COMMISSIONER RAZATOS: Okay. Let's take a
21 10-minute break --

22 MR. TREMAINE: Okay.

23 COMMISSIONER RAZATOS: -- and then we'll be
24 back. Thank you.

25 (Off the record.)

1 COMMISSIONER RAZATOS: On to track here. Mr.
2 Tremaine, you were at the cusp of cross-examining Mr.
3 White.

4 MR. TREMAINE: Thank you Mr. Chair,
5 Commission.

6 CROSS-EXAMINATION BY COUNSEL FOR THE DIVISION
7 BY MR. TREMAINE:

8 Q Good afternoon, Mr. White. I just have a few
9 clarifying questions for you. So first, as a general
10 matter, I want to ask if you agree to adopt a position
11 stated earlier that Northwind stipulates to the
12 conditions of release outlined in OCD Exhibit Number 2
13 as amended by the agreement discussed on the record
14 earlier?

15 A Yes.

16 Q Okay. Thank you. I want to ask you a couple
17 clarifying questions about the tag plume expansion.
18 OCD reviewed prior records and there was a reference
19 in Salt Creek AGI number 2 to a plume area of 138
20 acres. That reference -- we want to reconcile that
21 reference with later plume modeling because it didn't
22 appear to comport with the plume depiction. So I
23 think the best way to do that is to have you explain
24 to us and the Commission, exactly how and how much the
25 plume expansion or the modeling has changed from the

1 Salt Creek AGI number 2, to inclusion of the Salt
2 Creek -- or sorry, the Titan AGI number 4. What was
3 it before and how much bigger did it get? Does that
4 make sense?

5 A Yeah, absolutely. And as I mentioned
6 previously, the history of this particular facility
7 and acid gas injection is a long one. Going back to
8 2018 project development, 2019 application submitted,
9 and so there is a long history of evaluating this
10 site. And at the time, the application that you're
11 referencing, was the original Salt Creek AGI number 2
12 application, which was originally filed on -- by Salt
13 Creek Midstream in accordance with the Commission's
14 requirements for the redundant well.

15 That original order required an application
16 be submitted within 12 months of approval, and then
17 construction of that well along another commission
18 defined schedule. At that time the history of
19 characterizing acid gas plumes was a little diverse.
20 The reference to 138 acres is based on simply a
21 volumetric determination where average anticipated
22 reservoir porosity is utilized to calculate a
23 volumetric footprint. Ultimately a scenario in which
24 perfect displacement of water is occurring and is
25 ultimately just a one earlier method in describing

1 those plumes.

2 That being said and recognizing that there
3 are more sophisticated tools for characterizing acid
4 gas plumes, that application, as well as all
5 subsequent applications, did include also reservoir
6 characterization and injection simulation modeling via
7 the patrell and eclipse platforms (ph). So while that
8 reference was in there, a complete application section
9 also described the additional reservoir modeling and
10 simulation.

11 And with respect to that, I can't recall -- I
12 think Adam may -- Mr. Rankin may have those materials
13 available. But the plume has increased in size from
14 that initial as additional wells are being proposed up
15 to the Titan AGI 4, and ultimately, the combined
16 impacts of Salt Creek AGI number 2 and Titan AGI 4.

17 Q Okay. Thank you for that clarification. I
18 want to move on to kind of reiterate questions about
19 the additional wells. So we've heard today some
20 discussion and some testimony about the four plugged
21 and abandoned wells that are within the model plume.
22 These are -- I want to clarify, these are the wells
23 that are referenced on page 38 of Northwind's pre-
24 hearing statement exhibits, correct? And so I just
25 want to clarify that in discussion with the parties in

1 the Division that Northwind is going to comply with
2 condition of approval number 13 in placing surface CO2
3 and H2S monitors at each of those locations, not
4 inclusive of any that may be installed by agreement
5 with Desert Ram.

6 A Yes, that's correct.

7 Q Okay. Thank you. I have one question on
8 faults. So you testified a little while ago about the
9 13 observed faults and subdivided into 24 fault
10 portions. Do you recall that?

11 A Yes, sir.

12 Q Okay. I'm referring if we need to reference
13 to pages 30 and 51 of the exhibits, and also to figure
14 on page 113 that you referenced earlier. The question
15 I have is about fault number 9 listed on that sheet.
16 And if I can pull that up -- if I can share, if that's
17 helpful. Pardon. Oh, boy. Okay.

18 A (Inaudible).

19 Q No, it's the -- sorry. Apologize. The
20 banners get in my way. All right. So scrolling down
21 to the bottom here, do you see the fault listed as
22 number 9?

23 A Uh-huh.

24 Q Okay. That particular fault is the
25 orientation of that fault fail -- favorable for

1 failure?

2 A So with respect to the group of faults that
3 are north to south trending, it would be more likely
4 to slip based on the assumption of maximum horizontal
5 stress in a North 75 East orientation.

6 Q Okay. And what is the extent of the fault?

7 A The extent -- do you mean the offset or the
8 lateral extent?

9 Q Is it -- what is the length of the fault and
10 is it a closed or open fault?

11 A So the -- with the -- as shown in the scale
12 here, I mean, the length of that particular fault
13 segment would probably be about a 10th of a mile
14 utilizing the scale on this particular map. And I'm
15 sorry. What was the -- is it an open or closed?

16 Q Is it closed or open?

17 A So in many cases, what we -- obviously, we
18 haven't drilled through it or seen this fault, but in
19 many cases where we have these deep faults, you know,
20 these are often locations where oil and gas resources
21 are preserved in three-way closures and things like
22 that. So while we don't have any direct evidence of
23 whether this is transmissive or non-transmissive, if
24 it's isolating pressure across it or anything like
25 that, it -- a lot of these deeper faults are often

1 unhealed and non-transmissive.

2 Q And are you confident that it is as limited
3 laterally as is portrayed on the map?

4 A In accordance with our evaluation of the
5 seismic data and the ability to identify it across
6 those seismic volumes.

7 Q Okay. And apologies if you've already
8 answered this, but was that specific fault observed in
9 3D seismic data or gravity maps?

10 A The -- these traces are reflective of our
11 interpretation of the 3D seismic.

12 Q Okay. And for all of the questions that I
13 just asked you about that particular fault, did you --
14 and did you include all -- consideration of all of
15 those factors in your assessment?

16 A Yes.

17 Q Okay. Thank you. I'm going to ask you
18 couple -- one question about the Delaware Mounting
19 Group. So being as Salt Creek agent number 3 is
20 currently injecting into the Delaware Mountain Group
21 and the Titan number 4 extends through the Delaware
22 Mountain Group zones, is it Northwind's intention that
23 the portion of the subject well will be cemented and
24 encased with H2S and CO2 resistant or otherwise
25 corrosive resistant cement and string?

1 A Yes. And that's included in your proposed --
2 or the OCDs proposed conditions of approval. We have
3 no objection to those conditions.

4 Q Okay. Condition number 11. Thank you. I'm
5 going to ask you a question referring back to the Salt
6 Creek AGI number 2. As I think you've outlined in
7 some detail during the drilling of Salt Creek AGI
8 number 2 well, there was a loss of circulation of
9 drilling mud and weak cement bonds encountered during
10 cementation during the -- in the DMG Jones and
11 Pennsylvania Group including specific other
12 formations. But what is Northwind's strategy for
13 adjusting drilling mud density to avoid overbalanced
14 drilling?

15 A So with respect to the down hole issues that
16 were difficult in cementing, are -- we are currently
17 evaluating the log data that (inaudible) sonic data to
18 really get some well specific information about
19 potential breakdowns and see if we need to ultimately
20 isolate those problematic intervals with an extension
21 of casing or whatnot. Additionally, we will plan to
22 work with cementers to ensure that an appropriate plan
23 is developed for that particular interval, the
24 majority of which was observed in the third
25 intermediate -- or the production casing interval from

1 the lower Wolfcamp and below.

2 Q Okay. Are you planning to employ managed
3 pressure drilling while drilling through the DMG and
4 Pennsylvanian Group sections?

5 A I think we would be receptive to that.

6 Q Okay. Thank you. All right. I have a
7 question about Step Rate Test. So following Step Rate
8 Test, it's our understanding that Northwind intends to
9 stimulate reserve bound fractures, secondary porosity
10 zones, and dissolve any natural carbonate cement.
11 What stimulation surface pressure do you plan to
12 utilize?

13 A I mean, I think it would be ultimately in
14 accordance with what the Step Rate Test could -- would
15 show as being within fracture pressure boundaries.

16 Q Thank you. One more question. Has Northwind
17 observed any hydrate formation in the subsurface
18 safety valves in Salt Creek AGI number 3 or any other
19 AGI Wells operated by Northwind?

20 A Not that's observable. I mean, those
21 components were installed and haven't been, you know,
22 removed from the well. But any operating conditions
23 that would be indicative of potential hydrate
24 formation and perforation plugging has not been
25 observed.

1 Q Okay. And -- okay. So just to clarify. Do
2 you agree that hydrate formation can potentially occur
3 in subsurface valves due to the (inaudible) effect?

4 A I haven't observed that happening.

5 Q Has not observed, okay. Thank you. No
6 further questions.

7 COMMISSIONER RAZATOS: Mr. Rankin, did you
8 have anything to redirect?

9 MR. RANKIN: Just a one small series.

10 REDIRECT EXAMINATION BY COUNSEL FOR THE NORTHWIND

11 MIDSTREAM PARTNERS

12 BY MR. RANKIN:

13 Q Mr. White, Mr. Tremaine asked you a couple
14 questions about some of the earlier volumetric
15 simplified approaches that you undertook or GLX (ph)
16 undertook to evaluate the plume extent for the AGI
17 number 2. Do you recall those questions?

18 A Yes, I do.

19 Q I just want to understand the -- make sure
20 the record is clear about the timing of when that was
21 last presented to the Commission and what the current
22 model for the AGI 2 is that was last presented to the
23 Commission, just so we're clear on the timeline. So
24 the last time that the GLX submitted that simplified
25 volumetric approach, that was part of the analysis --

1 or first pass analysis of the plume extent was -- was
2 that -- that was back in October of 2023 under Case
3 Number 23943 involving the AGI number 2, correct?

4 A That's correct. And ultimately as I
5 mentioned, that was just another method in
6 characterizing a plume. And at -- to be clear, at
7 that time in 2023, that characterization and that
8 description was no longer utilized. It was included
9 in that resubmittal of that application only because
10 that application had previously been submitted to the
11 OCD for technical review by Salt Creek Midstream in
12 2020. So we ultimately, in resubmitting that on
13 behalf of Northwind Midstream at the NMOCD's request,
14 we didn't want to muddy the waters by taking something
15 they'd seen, reviewed and start changing things, you
16 know, and ultimately muddy the water.

17 Q So that -- based on that application back in
18 October, 2023, the Commission remanded that
19 application to the Division and that was approved
20 under SWD 2580, correct?

21 A That's correct.

22 Q But that -- but Northwind never drilled that
23 well under that approved order and instead submitted a
24 -- an application to amend 2580, correct?

25 A That is correct.

1 Q And in that application to amend 2580, did
2 GLX include the simplified volumetric analysis of the
3 plume extent?

4 A No, that description was not included.

5 Q Okay. And so in that second application to
6 amend the AGI number 2, only the more detailed, robust
7 plume modeling using the most up-to-date geologic data
8 was submitted to the Division, correct?

9 A That's correct.

10 Q Okay. And then that was submitted to the
11 Division in June of 2024, correct?

12 A That's correct.

13 Q And then it was approved by the Division
14 under SWD 2622, correct?

15 A That's correct.

16 Q Okay. And so the most -- the current ballot
17 order that that under which AGI number 2 operates has
18 no reference to -- or reliance on any plume model that
19 references 138 acres or anything on that order,
20 correct?

21 A That's correct.

22 Q Okay. Just want to make sure the record was
23 clear about that. No further questions.

24 MR. RANKIN: Excellent. Thank you. Can this
25 witness be excused unless the Commission has

1 questions?

2 COMMISSIONER RAZATOS: Oh, sorry. Forgot.
3 Do you have -- I -- it was a part I was forgetting
4 about, my apologies. All right. Thank you.
5 Commissioners. Sorry, Mr. White. Mr. Commissioner
6 Bloom, we'll start with you.

7 MR. BLOOM: We'll let Dr. Ampomah go first
8 here.

9 COMMISSIONER RAZATOS: Okay.

10 COMMISSIONER AMPOMAH: Okay. Mr. White,
11 thanks so much for being here today. I do have a
12 couple of questions for you, I guess probably you
13 might have anticipated that, but hopefully we'll be
14 quick. So I'm going to go through -- I do have
15 questions on some of your slides. So you mentioned
16 that the new well that has been proposed, that is AGI
17 number 4, is going to be a deviated well. Why a
18 deviated well?

19 MR. WHITE: So with Northwind's acquisition
20 of the facility, they -- one of their ultimate goals
21 was to better understand the subsurface and make sure
22 prior to constructing any of these that they
23 understood that they had the best chance of a good
24 performing well. And so that ultimately led to their
25 acquisition of 3D seismic data. Which both improved

1 our characterization of the structure as well as
2 allowed us the opportunity to better characterize
3 porosity and porosity interconnectivity through
4 seismic impedance analysis.

5 That -- the results of that analysis showed
6 very little porosity development directly underlying
7 the facility. So a vertical well was a greater risk
8 to not being able to meet the injection volumes that
9 they desired. So Salt Creek AGI number 2, we
10 submitted that amendment application that Mr. Rankin
11 referenced to change from a vertical well to a
12 deviated well. And the subsequent development of the
13 Titan AGI 4 application also proposed a deviated well
14 for the same anticipated problems of low porosity in a
15 vertical well. However, another porosity anomaly to
16 the northwest was targeted ultimately to reduce any
17 potential interference between the two wells and
18 separate the points of injection.

19 COMMISSIONER AMPOMAH: So is the -- let's say
20 the bottom hole location, is it still on Northwind
21 facility or land?

22 MR. WHITE: Yes.

23 COMMISSIONER AMPOMAH: Okay. Then why did --
24 why you -- why was it not -- like, why was the well
25 not proposed to be drilled at that location?

1 MR. WHITE: At a -- as a vertical well?

2 COMMISSIONER AMPOMAH: Yes.

3 MR. WHITE: Ultimately, because the design of
4 the Titan facility now, Northwind's facility, does
5 centralize acid gas injection and compression and
6 process units there. So we could -- that could be a
7 valid move, but it's -- it tips the scales a little
8 bit. Then you have to transmit treated acid gas at
9 the surface where personnel are and poses a little bit
10 more environmental risk.

11 COMMISSIONER AMPOMAH: Oh, so that is mostly
12 to protect the environment and also the health of the
13 people --

14 MR. WHITE: Correct.

15 COMMISSIONER AMPOMAH: -- that are working --
16 okay. Thank you.

17 COMMISSIONER BROOM: Okay. So Mr. Tremaine
18 tried to discuss with you a little bit about some of
19 the lessons learned --

20 MR. WHITE: Uh-huh.

21 COMMISSIONER BROOM: -- you know, with
22 regards to how are you going to be able to drill
23 through DMG Group that already do have, let's say,
24 acid gas already in there. Do you have -- based on
25 your responses back and forth, it sounds to me that

1 there's not more like a written documentation as to
2 the process as to how Northwind is going to -- the
3 measures that you're going to take to make sure that
4 this world is not junk. Is there a documentation that
5 really lays that out?

6 MR. WHITE: I'm sorry. Can you repeat that?

7 COMMISSIONER BROOM: Is the documentation
8 that lays out the procedure to be able to incorporate
9 all the lessons learned from the previous well to make
10 sure --

11 MR. WHITE: Uh-huh.

12 COMMISSIONER BROOM: -- that this well is not
13 junked?

14 MR. WHITE: So, so there's not any
15 documentation at the moment. In planning the drilling
16 activities for a Titan AGI 4, drilling plans will be
17 developed that are -- the vehicle for submitting those
18 to the agency would be the C-102, C-10 - C-101
19 application for permit to drill. So that will be a
20 document of how we plan to address those potential
21 hazard zones.

22 And as I mentioned, if we will be continuing
23 to review the recently collected log data from AGI
24 number 2 to see if we can better suss out exactly
25 where those intervals of greater risk are. And if we

1 need to coordinate any slight change in casing setting
2 depths or anything that -- to be able to better
3 account for that, then we would coordinate that with
4 the agencies and make sure that an appropriate plan is
5 determined.

6 COMMISSIONER BROOM: Is it your testimony
7 that analyst pressure is going to be utilized or
8 considered?

9 MR. WHITE: In the form of MPD?

10 COMMISSIONER BROOM: Uh-huh.

11 MR. WHITE: I mean, I think I may not be the
12 one drilling the well. So I think my testimony as to
13 what will be utilized, you know, I may not have the
14 ability to say, "Yes, we will utilize that."

15 COMMISSIONER BROOM: So would that be part of
16 the drilling prognosis that will be discussed with
17 NMOCD? Because there has to be a plan to make sure
18 that, you know, we are protecting the environment --

19 MR. WHITE: Uh-huh.

20 COMMISSIONER BROOM: -- the people that are
21 also drilling. And from the previous experience, I
22 mean, this could be very dangerous --

23 MR. WHITE: Uh-huh.

24 COMMISSIONER BROOM: -- right? So I want to
25 see that Northwind is committing, you know, to more or

1 less document the approach that they are going to
2 utilize to make sure they minimize the risk and that
3 needs to be more or less discussed with the Division
4 for their approval. You know, I want to see something
5 like that.

6 MR. WHITE: Yeah. And my thoughts and my
7 testimony would be in my interactions with Northwind,
8 my suspicion is they probably would not have any
9 issues making that commitment and that planning and
10 drilling this next well. However, like I said, I may
11 not be the one involved with it, so.

12 COMMISSIONER BROOM: Okay. And then you
13 talked about the maximum allowable operating pressure,
14 just based on the information that is available today
15 and after the Step Rate Test, that number is going to
16 be more or less updated if necessary. Is that your
17 testimony?

18 MR. WHITE: Yeah, if necessary. Obviously,
19 if we see the results of injection testing that make
20 that proposed pressure not a feasible or realistic,
21 then yes. And that's -- I think the -- that language
22 and that expectation is also included in NMOCDS
23 conditions of approval and guidance.

24 COMMISSIONER BROOM: So AGI number 2 and AGI
25 number 4, which one is the main well and which one

1 would be a redundant well or they are all main wells?

2 MR. WHITE: Well, so I think between AGI 2
3 and number 4, they're deep Siluro-Devonian wells, both
4 targeting similar porosity anomalies. So I think --
5 ideally, I think they're run at the same time in order
6 to maintain their operational readiness. But I think
7 based on our results simulation and hopefully
8 supported by operating press -- operating conditions,
9 that either one of them could be the redundant.

10 COMMISSIONER BROOM: Okay. So what is the
11 distance between AGI number 2 and AGI number 4,
12 possibly on the bottom holes?

13 MR. WHITE: From the two bottom holes?

14 COMMISSIONER BROOM: Yeah. From the -- yeah.

15 MR. WHITE: This is purely from memory, but
16 the AGI number 2 was deviated approximately 1,200 feet
17 to the southeast. A similar deviation is anticipated,
18 I think it might be a little longer for the Titan AGI
19 4. So you're probably looking at, you know, 20 -- or
20 somewhere just shy of 3,000 feet.

21 COMMISSIONER BROOM: Oh, 3000 feet between
22 them?

23 MR. WHITE: Between the two. Or maybe a
24 little -- actually a little more because their surface
25 locations are separated as well, so greater than 3,000

1 feet. It's probably very comparable to the separation
2 distance between the independence AGI wells to the
3 north.

4 COMMISSIONER BROOM: So the reason why -- I'm
5 sure probably you know where I'm going with the
6 distance between them. So when those locations were
7 identified, was there discussion whether to more or
8 less utilize these well separately or one is going to
9 be dependent or more or less one is going to be
10 redundant?

11 MR. WHITE: At this time, I don't think any
12 of those discussions have been had. I think it would
13 be, you know, ultimately based on the reservoir
14 characteristics and their ability to receive gas
15 rather than having something preliminary as one versus
16 the other.

17 COMMISSIONER BROOM: Yeah. So let's say --
18 and if you can specify in your application
19 specifically on the summary side -- specifically the
20 distance between them, I'm more concern about the
21 pressure interference, you know, in your simulation
22 models, you didn't show any pressure between the two
23 wells --

24 MR. WHITE: Uh-huh.

25 COMMISSIONER BROOM: -- from the two, let's

1 say, scenarios that you provided. So I don't know how
2 that pressure is evolving, you only showed bottom low
3 pressures, which gets to about, let's say, 9,000. But
4 if you do the calculation for what the fracture
5 pressure will be, you're probably around like, let's
6 say, 11,000 PSI, but I didn't see any pressure maps to
7 show the evolution of the pressure compared to, let's
8 say, how you showed the CO2 or the tag gas.

9 MR. WHITE: Uh-huh. Yeah. And those bottom
10 holes are reflective of, you know, point of injection.
11 You know, just like, you know, where we might expect
12 those pressures to be the highest at the end of the
13 30-year simulation.

14 COMMISSIONER BROOM: Let me run quickly to
15 the simulation side, so I can at least check and go
16 home soon. You know, and you also showed the pressure
17 conditions using the resistivity logs and then also
18 the sonic log. On your slide 32, you know, I really
19 do like that pressure profile -- pressure profiles
20 based on the logs. But my question is, which log was
21 that? Which log did you use for that?

22 MR. WHITE: Mr. Rankin, could you get me the
23 slide he's referencing?

24 COMMISSIONER BROOM: Slide 32.

25 MR. WHITE: So this -- these logs are -- this

1 is an excerpt from that Rittenhouse publication where
2 he's summarizing pore-pressure and over-pressured
3 conditions based on his analysis of those data. So
4 this is more generally representative of the Eastern
5 Delaware Basin.

6 COMMISSIONER BROOM: But not your, let's say,
7 information from the AGI number 2, or was it 3?

8 MR. WHITE: Well, yeah. But AGI 2 at this
9 time, the application was put together, was not
10 drilled.

11 COMMISSIONER BROOM: I got you. I got you.

12 MR. WHITE: We just recently drilled it.

13 COMMISSIONER BROOM: I got you. I got you.

14 MR. WHITE: Yeah.

15 COMMISSIONER BROOM: I got you.

16 MR. WHITE: But yes. And not part of this
17 application, so it would be something else brought in
18 in the 11th hour, but we did just file the reservoir
19 evaluation and some of the final documents for that
20 well, that do have the preliminary fracture gradient
21 analysis and things like that.

22 COMMISSIONER BROOM: Okay. I got you. Now
23 on your slide number 37, you showed the averages of
24 the porosity permeability that were utilized on the
25 eight layers. Is this a heterogeneous model or

1 homogeneous model?

2 MR. WHITE: With respect to -- I mean, it's
3 not homogeneous. I mean, it is the -- these are the
4 average values for those layers, but that is
5 heterogeneous in that it is guided by the impedance
6 attributes

7 COMMISSIONER BROOM: On slide 38, quick one.
8 So which formation are you representing here?

9 MR. WHITE: This is the model -- total model.

10 COMMISSIONER BROOM: It includes all the
11 injection zones?

12 MR. WHITE: That's correct.

13 COMMISSIONER BROOM: And which of these
14 target zones was taking most of the fluid -- most of
15 the tack?

16 MR. WHITE: The fussman.

17 COMMISSIONER BROOM: The fussman. Now on
18 slide 40, so you showed the two scenarios that you run
19 transmissive and non-transmissive faults. Now -- so
20 Mr. Tremaine asks about the faults that were shown,
21 whether these are transmissive or not. You know, you
22 present this scenario to more or less show either case
23 scenario, it either be the worst case scenario or more
24 promising scenario. But, you know, I know that
25 geologists do have another way to calculate the

1 transmissibility. So why did you not use that,
2 especially if you have wells within that area?

3 MR. WHITE: Ultimately, it's in accordance
4 with the kind of end member conditions that are
5 conservative that these applications are commonly
6 presenting.

7 COMMISSIONER BROOM: So you don't believe
8 that we have to use more robust approach, like, let's
9 say using the shield guard ratio (ph), the shield
10 stavic models (ph) to be able to get a more
11 representative for transmissibility?

12 MR. WHITE: No, I'm not saying I don't -- I'm
13 not on board with that. But it's ultimately, the
14 question of where do you want to be able to have --
15 get to both end members versus are you trying to
16 history match and get to, you know, replicate the
17 exact, right?

18 COMMISSIONER BROOM: So let's use one of your
19 maps case -- so probably slide 41. You know, if we
20 could have superimposed the thoughts on this, you
21 know, could have been really great. Because your case
22 1 and case 2, you are predicting almost the same thing
23 --

24 MR. WHITE: Uh-huh.

25 COMMISSIONER BROOM: -- and I just want to

1 see that superimposed on the fault, so I can more or
2 less visualize and be able to more or less ask more
3 in-depth questions on that. But it's okay. How is
4 this map that you're showing us, how is it going to
5 change post injection?

6 MR. WHITE: So this would be speculative, but
7 I mean, I would think, you know, in terms of acid gas
8 injecting into saline fluids, there will be a buoyancy
9 components. So structure will likely exert some
10 control on what this does. In this area where we do
11 see the injections are dipping to the southwest, we
12 might expect that as it kind of reaches a
13 stabilization point, that that does move slightly
14 towards the east -- northeast. But ultimately, I
15 mean, that's just kind of speculating, you know, based
16 on the geometries of the reservoir.

17 COMMISSIONER BROOM: So is there no
18 requirement with regards to post-injection monitoring
19 for AGI wells?

20 MR. WHITE: Not under the UIC program in
21 terms of --

22 COMMISSIONER BROOM: So once the injection is
23 done, no monitoring will take place after that?

24 MR. WHITE: I mean, I think it's in -- that's
25 going to be in accordance with the plugging and

1 abandonment procedures when these things are ready.
2 Which I'm -- when ready to be brought offline. I
3 think realistically, during those activities and
4 appropriate monitoring plan will be in place for these
5 types of wells.

6 COMMISSIONER BROOM: Okay. I think probably
7 that would be a question for OCD, since you said it's
8 not really a requirement. And then I like the
9 simulation that was done, but I read through the
10 document. So I do know that you initialized the model
11 with 0.433 PSI per foot as a normal pressure for the
12 reservoir pressure, right? But aside that, and then
13 also the policy permeability, you don't have any
14 information with regards to the initial --
15 initialization, how you initialize the model? I did
16 not see any relative firm in your -- let's say, in
17 anywhere in your document, I didn't see any of that.

18 MR. WHITE: Okay. I mean, those materials
19 are available, just not included in the package of C-
20 108 application and these presentation materials.

21 COMMISSIONER BROOM: Then let me ask you,
22 what was the residual water saturation?

23 MR. WHITE: I mean, I don't have those values
24 handy at the moment. I think we could probably find
25 those, but it would be speculative for me to tell you

1 what the residual water saturation is.

2 COMMISSIONER BROOM: So on your slide 43,
3 like I said earlier on, you showed the injection
4 profile, you showed the BHP, that is the bottom hole
5 pressure, you've shown the surface pressure, and then
6 also you've shown the maximum allowable pressure. But
7 what I do not see here is the actual reservoir
8 pressure.

9 MR. WHITE: (Crosstalk).

10 COMMISSIONER BROOM: So can you -- yeah. Can
11 you superimpose the actual reservoir pressure on this
12 particular plan?

13 MR. WHITE: I mean, at what point? I mean,
14 we can provide ultimately the outputs of the model. I
15 mean, we can provide mapped reservoir pressure, but I
16 mean, where would be the appropriate place to report
17 reservoir pressure, upgradient (ph)?

18 COMMISSIONER BROOM: No, no, no. I mean, you
19 run Eccles (ph), Eccles can show you what is the
20 average of reservoir pressure.

21 MR. WHITE: Uh-huh.

22 COMMISSIONER BROOM: That would be the
23 pressure for the entire model.

24 MR. WHITE: Okay.

25 COMMISSIONER BROOM: Because, you know, as I

1 did the calculation, your fracture pressure, and I --
2 let me ask. What was the fracture pressure though?
3 What was the fracture pressure?

4 MR. WHITE: (Crosstalk).

5 COMMISSIONER BROOM: Yeah.

6 MR. WHITE: So in Salt Creek AGI number 2
7 injections testing, which went up to 10 barrels per
8 minute, we did not identify a clear fracture pressure.
9 And utilizing -- we didn't reach it in terms of those
10 data. And utilizing the dipole sonic, well, we could
11 show those curves -- or those curves are available in
12 the final reservoir evaluation. But if I'm recalling
13 correctly, for average fracture pressures in the
14 Devonian basin or Fussman, they were upwards of 0.65
15 PSI per foot. There was a minimal point observed
16 potentially in the top of the Devonian that went down
17 to 0.59 according to that fracture gradient analysis.
18 But for this particular well, that ended up behind
19 casing.

20 COMMISSIONER BROOM: Yeah. Then if we did
21 not reach the fracture pressure, what was the purpose
22 of the step test in the first place?

23 MR. WHITE: Well ultimately, I mean, the
24 purpose would be to see if we can flow volumes that we
25 think -- that the well is being designed for through

1 the well under what we have approved as a maximum
2 allowable operating pressure.

3 COMMISSIONER BROOM: So then was it more like
4 -- you utilize that as more like as an injection test?
5 More than a Step Rate Test?

6 MR. WHITE: Well, I mean, ultimately, we'd
7 like to do both --

8 COMMISSIONER BROOM: Uh-huh.

9 MR. WHITE: -- but eventually, you know,
10 within those limits of testing tubing, you know, we're
11 -- we end up getting a lot of friction for another
12 rate in the Step Rate Test when we start reaching 9,
13 10, 11 barrels per minute. And so ultimately, the
14 objective of the test would be to try and identify
15 exactly what that fracture pressure is, but it doesn't
16 always happen.

17 COMMISSIONER BROOM: You know, definitely, in
18 the future when you are presenting this, definitely I
19 want to see what you are showing here, unless maybe
20 you labeled the pressure as a BHP, probably -- that
21 was a BHP at that particular well --

22 MR. WHITE: Uh-huh.

23 COMMISSIONER BROOM: -- that, let's say --
24 but which of these wells are you showing for case 1
25 and case 2 though?

1 MR. WHITE: So this would be Titan, the well
2 (crosstalk) --

3 COMMISSIONER BROOM: And that (crosstalk).

4 MR. WHITE: -- subject of today.

5 COMMISSIONER BROOM: Okay. So definitely, a
6 reservoir pressure, you know, if you go to your table,
7 you looked at -- you showed -- now on this particular
8 model, did you also include any additional wells in
9 the area?

10 MR. WHITE: So we did not for this ultimately
11 because the nearest wells are AGI wells about seven
12 miles away. The one SWD well that was included in
13 Fault Slip probability simulations is even
14 significantly farther. So ultimately, we don't expect
15 to have much impact on dispersion directions and -- or
16 anything like that.

17 COMMISSIONER BROOM: So is it your testimony
18 that after reviewing all the pressure profiles, the
19 pressure at the bottom hole -- the average of
20 reservoir pressure at the bottom hole did not exceed
21 the 0.65 PSI per (inaudible)?

22 MR. WHITE: That's correct.

23 COMMISSIONER BROOM: But it would be great if
24 you can show some evidence of that, you know, to,
25 let's say, the Commission. Like I said, I do

1 appreciate the simulation that was done, but
2 certainly, giving more information about how the model
3 was set up, you know, help us to be able to fully
4 understand. But Chair, I yield to you. I don't want
5 to continue. I'm good.

6 COMMISSIONER RAZATOS: Thank you,
7 Commissioner Broom.

8 MR. CHANDLER: Thank you very much for your
9 testimony today and your time in the chair there.
10 Just a couple quick questions. Looking at page 110 in
11 the presentation, you mentioned the South Lea Federal
12 number 1, noting that it's about 1.1 miles from
13 proposed AGI well. It's the only one that goes down
14 to that same depth into the Siluro-Devonian, it was
15 plugged in 2015. You know, in many ways, and I think
16 this has been mentioned here before, that AGI is also
17 function as a carbon capture. And we've had some
18 carbon capture legislation recently in the state, and
19 I know there's been at least one place in the U.S.
20 where there was communication between carbon capture
21 well and some water wells.

22 Clearly the water wells here are, you know, I
23 don't know, 16,000 feet higher or something like that.
24 But how do we know that -- I mean, I guess two
25 questions. One, do we anticipate, and I think we

1 would, that the plume will reach the South Lea Federal
2 number 1? And then how do we know that the plugs are
3 sufficient to be protective?

4 MR. WHITE: Well, I think we ultimately want
5 to review those well documents to see what exactly was
6 in place there. I don't think you're going to find a
7 lot of instances where a well is plugged with some
8 very modern acid resistance cement that's going to
9 make you very comfortable with it. But we ultimately
10 want to identify which wells are potentially in the
11 path of the plume and make sure we have a good
12 understanding of what's been put in there.

13 So we look for -- in evaluating those well
14 documents, we look to see what the production history
15 of the well was, what was done after that. In this
16 particular well, we know that it was perforated in the
17 Devonian, that those perforations were squeezed and
18 that that interval was isolated via cement plugs in a
19 cast iron bridge plug, pretty much directly overlying
20 the Devonian. Where it was then recompleted to the
21 Mississippian section, stranatocamaro, I think it was
22 the Toka and ultimately served its operational life
23 there.

24 From that point, we know that multiple plugs
25 were placed in that well as it was fully completed.

1 So at least from that perspective, we know that, you
2 know, this didn't just get one, what plug in a cast
3 iron bridge plug and then it's put to bed. We know
4 that the level of plugging was substantial. Outside
5 of that, I think identifying it as a potential well
6 with risk to encountering the plume, having that
7 understanding upfront and knowing it is something that
8 needs -- you know, we need to keep an eye on or is
9 potentially in that path, is also what we do.

10 And then most recently, you know, this
11 particular well, as we've kind of discussed here and
12 there throughout today, we'll have surface monitoring
13 as well that kind of help to close the loop on that.
14 This will be one of the four penetrating wells that is
15 referenced by the Division's conditions regarding
16 monitoring of that well site.

17 MR. CHANDLER: How -- and so this -- the
18 South Lea Federal number 1, that will be part of the
19 monitoring program?

20 MR. WHITE: Yes.

21 MR. CHANDLER: Okay.

22 MR. WHITE: The four wells included in it.

23 MR. CHANDLER: Okay. And can you say a
24 little bit more about what that monitoring program
25 looks like with respect to this well?

1 MR. WHITE: So the monitoring program, and
2 this is something that the Division has been helping
3 with lately, with respect to AGI wells, but it
4 ultimately involves around a plugged well installing
5 soiled CO2 flux monitors. And those monitors are
6 positioned around the wells, ultimately because
7 they're the direct conduit, should those cement plugs
8 fail to the zone that's being utilized for acid gas.
9 And so ultimately, if there is issues with those wells
10 from an integrity standpoint where they are
11 transmitting, pass acid gas to the surface, then it
12 would be detectable in those types of monitoring
13 programs or identifiable.

14 MR. CHANDLER: So is it the hydrogen sulfide
15 that would trigger an alarm and then there's a
16 shutdown or how does that work?

17 MR. WHITE: So in this case, the monitoring
18 that is proposed is -- would -- or those soil monitors
19 would be carbon dioxide. Those hydrogen sulfide
20 detectors are commonly utilized at gas facilities and
21 could also be a component of that monitoring system.

22 MR. CHANDLER: Okay. Thank you.

23 COMMISSIONER RAZATOS: And that just leaves
24 me. I -- Commissioner Bloom actually kind of hit the
25 questions that I had regarding the Lea Federal, so

1 thank you for that also, and thank you for your
2 testimony today. Mr. Rankin, do you mind bringing up,
3 I believe it was slide 40 and 41 or 41 and 42, which
4 were the plume models? Nope, that's okay. I
5 apologize. I may have the wrong number. Perfect.

6 So between these two case simulation results,
7 on case number 1, you stated that the approximate
8 predicted plume would be about 1.8 miles from the
9 Titan treating a facility --

10 MR. WHITE: Uh-huh.

11 COMMISSIONER RAZATOS: -- and I understood
12 that one. In number 2, the part I didn't quite catch
13 in the testimony is that case number 2 also 1.8 miles
14 from the treating facility as a plume?

15 MR. WHITE: Yeah, ultimately. And, you know,
16 measuring it more precisely, it may differ, it may not
17 be exact. But ultimately, there -- while there are
18 faults in the area, they're not, you know,
19 significantly continuous big walls that are going to
20 significantly deflect which way the plume is going.
21 So there are faults in the area, but none of them are
22 particularly restricted or restrictive of flow at the
23 location of the well.

24 So we see the morphology or the shape of the
25 footprint of the plume looking very similar between

1 the two of them. Where it does encounter with what
2 Mr. Rankin has up showing right now, where this
3 simulation, which is under faults being non
4 transmissive to fluids, we do see some deflection of
5 the plume a little bit --

6 COMMISSIONER RAZATOS: Uh-huh.

7 MR. WHITE: -- where it does get in in
8 proximity to those faults. But in general, the
9 immediate area doesn't really have any big walls that
10 would prevent, you know, normal kind of displacement
11 of those gases.

12 COMMISSIONER RAZATOS: Okay. Thank you.
13 That's the only question I had.

14 COMMISSIONER BROOM: Mr. Chair?

15 COMMISSIONER RAZATOS: Yes, Commissioner?

16 COMMISSIONER BROOM: I do have one. So
17 looking at this and then also the faults, can you tell
18 us, you know, how you set the fault in your model?
19 What was the vertical displacement of your fault in
20 your model?

21 MR. WHITE: So you can see, if you were to go
22 back -- Mr. Rankin, if you could go back to the 3D
23 render of the model. So the top layer is essentially
24 informed by -- oh, can you keep going back? So there
25 was one slide, I don't know what figure it is, but it

1 shows a screen capture of the model -- the 3D -- yeah.
2 So you can see how the seismic data you can see kind
3 of faults in the area and how those seismic surfaces
4 are character -- showing those faults.

5 COMMISSIONER BROOM: Well, so what is the top
6 layer though, the one blue? What is that?

7 MR. WHITE: So that would be the zone one of
8 the model. So from the structural grid, the model was
9 just built down evenly based on those thicknesses.

10 COMMISSIONER BROOM: So the Devonian -- the
11 Woodford is now shown here.

12 MR. WHITE: Yeah. This shows the top -- this
13 is an -- render showing the top of the Siluro-
14 Devonian. So the Woodford Devonian interface.

15 COMMISSIONER BROOM: But I remember Mr.
16 Tremaine asked you about the lateral -- or let's say
17 the extent of the fault you -- and even in your
18 testimony you're saying that the fault does not go
19 through the Devonian -- the Woodford, right? You said
20 it doesn't go to the top rock. So where does it get
21 to?

22 MR. WHITE: No, I said it doesn't displace
23 it. It's not offsetting strata greater than the
24 thickness of the Woodford. So it's not --

25 COMMISSIONER BROOM: I thought I heard that -

1 - no even I read that -- and I don't want to delay,
2 but essentially, based on the exchange between you and
3 Mr. Tremaine, it was more like the fault doesn't go
4 through the Devonian -- the Woodford. That was my
5 understanding. Because if you look at this, and then
6 you're saying that that is the top of the Devonian,
7 then right there you can see the displacement right
8 there. So there's a high possibility that some of the
9 faults are cutting through the Woodford.

10 MR. WHITE: Yeah. And that's kind of
11 characteristic of many of these deep faults, often go
12 through the Woodford and die out in the Mississippian
13 or something like that. But what -- what's critical
14 is -- or one thing that we want to make sure of is
15 that the throw on that fault doesn't exceed the
16 thickness of the Woodford, so that over the project
17 area you're not in replacing, you know, porous
18 Devonian strata, you know, next to your -- offsetting
19 your caprock.

20 COMMISSIONER BROOM: But you didn't show any
21 testimony to show us, in terms of vertical sense,
22 where there's the plume -- I think you had one plot
23 that was showing the extent vertically of the plume.
24 Would that be correct? I think you had --

25 MR. WHITE: Yeah. There's cross-section of

1 the (crosstalk).

2 COMMISSIONER BROOM: Yeah. There's cross-
3 section. So let's go to one of the cross-sections.
4 So definitely, you'll see the CO2, right? Assuming
5 that is the top of the Devonian or which one?

6 MR. WHITE: (Crosstalk) zone. Uh-huh.

7 COMMISSIONER BROOM: No, on the right. So
8 the top will be what?

9 MR. WHITE: The top of the injection zone
10 (crosstalk).

11 COMMISSIONER BROOM: But you see right at the
12 top, so I wanted to see if you can superimpose the
13 Woodford right on there so we can see whether there is
14 any vertical migration of your plume into the Woodford
15 and at what point does it stop? Is it going above the
16 Woodford?

17 MR. WHITE: Well, I think for this particular
18 model, that wasn't incorporated into it. We -- you
19 know, the Woodford itself is a, you know, well
20 demonstrated in terms of confinement. But this
21 particular model did not include the overlying
22 Woodford.

23 COMMISSIONER BROOM: Then you are making --
24 so then that is where you're confusing me. Because
25 your model, you just built it right from the Devonian

1 without any caprock on top of it. And then we say
2 that there is a fault that can probably penetrate
3 through the Woodford, and we want to know whether
4 that's -- that tag is going to be contained or not.
5 But this model is not really showing. That right at
6 the top, you'll see that right at the Woodford
7 interface, assuming the Woodford is there, you just
8 build a model based on the injection zone without any
9 caprock in there. So you are not showing us the
10 extent of the vertical migration of your plume. So
11 how does this model help us with containment?

12 MR. WHITE: Well, I think the primary
13 objective of the model being to understand tag -- or
14 tag displacement within the injection zone, I think
15 it's not -- it -- in this form, it doesn't consider
16 variabilities in the caprock, but rather relies on the
17 demonstrated nature of -- or the demonstrated
18 performance of the Woodford in the Permian.

19 COMMISSIONER BROOM: So in this area, is
20 there any activity in the Woodford that you know of?

21 MR. WHITE: In terms of production?

22 COMMISSIONER BROOM: Yeah.

23 MR. WHITE: No.

24 COMMISSIONER BROOM: No. But no horizontal
25 wells --

1 MR. WHITE: No.

2 COMMISSIONER BROOM: -- in this area? Well,
3 I don't know how an NMOCD looked at this, but I mean,
4 if you look at right on top, and it's good that the
5 Chair brought it up, you see right top here you have
6 the tag saturation, and we do have faults that can
7 penetrate through that. And we are not seeing how
8 those faults in the -- on the Woodford, how is shaping
9 up the plume. So I don't know how this model shows us
10 the containment of the tag.

11 Especially right on top, you'll see that it
12 is of higher saturation, you know, above 30 percent,
13 so I'm not sure how this model helps us with
14 containment. But let me say that in subsequent
15 updates, definitely you need to add a caprock to it
16 and show us, you know, the faults, how the plume of
17 the tag, you know, is responding to that of the
18 faults.

19 MR. WHITE: Yeah.

20 COMMISSIONER BROOM: Thank you.

21 COMMISSIONER RAZATOS: Okay. It's been a
22 long one. I have no other questions, I think from the
23 Commission for Mr. White. Can Mr. White be excused
24 now?

25 MR. RANKIN: No questions for me.

1 COMMISSIONER RAZATOS: Okay.

2 MR. TREMAINE: Yes.

3 COMMISSIONER RAZATOS: Excellent. Mr. White,
4 thank you. Appreciate it. Let's take a five-minute
5 break and then we'll get with the OCD. We'll be back
6 at 3:51.

7 (Off the record.)

8 COMMISSIONER RAZATOS: Okay. We'll get back
9 on the record. Mr. Rankin, were there any other
10 witnesses that you had for today?

11 MR. RANKIN: We had no other witnesses Mr.
12 Chair. So we close our case and I'll allow for other
13 parties to present their cases.

14 COMMISSIONER RAZATOS: Excellent. Thank you.
15 Mr. Tremaine?

16 MR. TREMAINE: Thank you, Mr. Chair. The
17 Division would call Mr. Million Gebremichael.

18 COMMISSIONER RAZATOS: Excellent. Mr.
19 Gebremichael, if you'll come up, please.

20 MR. GEBREMICHAEL: Yes, sir.

21 COMMISSIONER RAZATOS: You can take your
22 (inaudible). Please don't forget to turn on the
23 microphone. Excellent. And Mr. Chandler will swear
24 you in.

25 MR. CHANDLER: Please raise your right hand.

1 WHEREUPON,
2 MILLION GEBREMICHAEL,
3 called as a witness, and having been first duly sworn
4 to tell the truth, the whole truth, and nothing but
5 the truth, was examined and testified as follows:

6 MR. CHANDLER: Can you state your name and
7 spell your name?

8 MR. GEBREMICHAEL: My name is Million
9 Gebremichael. Spelled M-I-L-L-I-O-N. And last name
10 is G-E-B-R-E-M-I-C-H-A-E-L.

11 MR. CHANDLER: Thank you.

12 COMMISSIONER RAZATOS: Mr. Germaine, he's
13 been sworn in.

14 MR. TREMAINE: Thank you, Mr. Chair,
15 Commissioners.

16 DIRECT EXAMINATION BY COUNSEL FOR THE DIVISION
17 BY MR. TREMAINE:

18 Q Good afternoon, Mr. Gebremichael. Mr.
19 Gebremichael, where do you work and what is your
20 position?

21 A I work for the Energy Minerals and the
22 Natural Resource Department, as part of the group
23 responsible oversight for the Underground Ejection
24 Control Program for Oil and Gas Conservation Division.

25 Q And did you prepare a curriculum vitae in

1 preparation for this hearing?

2 A Yes, I did.

3 Q Is that OCD Exhibit Number 3?

4 A Yes, sir.

5 Q Have you testified before the Commission
6 before?

7 A Yes, I did.

8 Q And have you been tendered and -- as -- and
9 admitted as an expert in the areas of petroleum
10 engineering previously by the Commission?

11 A Yes.

12 MR. TREMAINE: If there's no objection, I
13 would move admission of OCD Exhibit Number 3 and
14 tender Mr. Gebremichael as an expert in the area of
15 petroleum engineering.

16 MR. RANKIN: No objection.

17 COMMISSIONER RAZATOS: Okay. It -- now it
18 shall be entered.

19 (OCD'S Exhibit 3 was marked for
20 identification.)

21 COMMISSIONER RAZATOS: Mr. Gebremichael, can
22 we just have your microphone just a little lower so
23 it'll be closer to your mouth? Thank you.

24 BY MR. TREMAINE:

25 Q Mr. Gebremichael, have you reviewed the

1 application and submission by Northwind related to the
2 Titan AGI number 4 application?

3 A Yes.

4 Q And what is your summary opinion of the
5 application?

6 A The Northwind Midstream Partners application
7 to the injection -- the tag into the Siluro-Devonian
8 formation through Titan Number 4, is designed to
9 ensure safe and effective injection. The acquisition
10 of well -- tailored 3D seismic data for the injection
11 project area, addresses concern regarding the presence
12 of faults that would be impacted by the injection
13 pressure and then lead to the induced seismicity.

14 Additionally, Northwind's proposed use of
15 managed pressure drilling will significantly reduce
16 the likelihood of the weather under balance or over
17 balance conditions while drilling. Constructing the
18 well with premium H2S, CO2 resistant cement and
19 strings will ensure that the well will inject safe in
20 an efficient manner.

21 Q Mr. Gebremichael, were there -- did OCD have
22 any concerns with the application and the proposed
23 location and depth of the proposed AGI well the Titan
24 number 4?

25 A Yes. Part of our concern was addressed

1 during the testimony, but the plume model constructed
2 by Northwind for Salt Creek AGI number 2, covers an
3 area of 138 acres, while the resultant plume expansion
4 for both Salty Creek AGI number 2 and the Titan AGI
5 number 4, is estimated to be 5.22 square miles, which
6 is e equivalent to 3,328 acres.

7 The 24-fold expansion of the plume upon
8 adding the new subject well requires a detailed
9 explanation, but I am afraid it was explained
10 adequately. Furthermore, there are four plagued wells
11 that penetrate the Devonian or the injection zone of
12 the subject well. These wells are located between 1
13 to 2 miles from the bottom hole subject well were
14 constructed and abandoned using non H2S and then non
15 CO2 resistant strings and cement. So OCD believes
16 that the tag eventually would migrate through those
17 wells. So as a condition of approval, OCD will
18 require Northwind to regularly monitor those wells for
19 any presence of tag plume at the surface.

20 Also, the OCD would like them to integrate
21 those into their H2S contingency plan. Both the
22 Northwind, also the owners of the abandoned wells, it
23 has to be integrated in their H2S contingency plan.

24 Q Thank you. Mr. Gebremichael, did you prepare
25 OCD Exhibit Number 1, a summary of USC Class II acid

1 gas injection wells?

2 A Yes, I did.

3 Q And what was the purpose of preparing OCD's
4 Exhibit Number 1?

5 A Well, the purpose is it reflects -- it
6 mirrors what the Northwind expert explained, the
7 timeline between the wells to avoid any confusion with
8 the sequence of numerical numbers, AGI 1, AGI 2, AGI
9 3. Basically, AGI 3 is AGI -- the abandoned AGI
10 number 1 once got abandoned. So they had to drill AGI
11 number 3, 120 feet away from the abandoned well, so
12 they have to change the name to AGI number 3.

13 So the reason we prepared that timeline is to
14 clarify to the Commission, which well is plugged and
15 abandoned, which is AGI number 1, and then which well
16 is actively injecting, which is AGI number 3, which is
17 the Delaware Mountain Group 1, right. Which is the
18 shallowest one. And then AGI number 2, just got -- it
19 went through the MIT and then it just got completed.
20 And then AGI Titan number 4, is the subject we're
21 discussing, and then the authority to inject hasn't
22 been granted yet. So the whole purpose is to clarify
23 to the Commission what those sequence numbers are.

24 Q Mr. Gebremichael, you heard the testimony
25 earlier today of Mr. David White. Is there any part

1 of his testimony or explanation that needs to be
2 clarified or -- in terms of what you just explained or
3 any other content on that slide that you need to bring
4 to the attention of the Commission?

5 A Yeah. There are quite a few of them. For
6 instance, the one that was requested by the Commission
7 Member, Dr. Ampomah, is the nature of the fault number
8 9 that we discussed. We -- OCD would like to know the
9 full nature of that fault in terms of its extent, in
10 terms of its orientation, to address the question,
11 whether it cuts through the Woodford or not. We
12 really need to know a full detail nature of that
13 fault.

14 Q Okay. Thank you for that, Mr. Gebremichael.
15 I think I asked a poorly constructed question. In
16 terms of the timeline and understanding of the process
17 of the permitting of these wells, the content of OCD
18 Exhibit Number 1, do you have any discrepancies
19 between your understanding and what was presented
20 earlier?

21 A No.

22 Q Do we need to go over that?

23 A No.

24 Q Okay.

25 A Sorry.

1 Q Thank you. Did you also prepare for this
2 exhibit OCD -- or for this hearing OCD Exhibit Number
3 2?

4 A Yes.

5 Q And what is the content of OCD Exhibit Number
6 2?

7 A Well, the content number 2 is the condition
8 of approval for AGI wells. The Commission is aware of
9 our regular condition of approvals for AGI wells.
10 Except for this subject well, we added three new
11 conditions, which are condition number 3. Condition
12 number 3 is about the assignment of the maximum
13 surface injection pressure will be determined after
14 the operator conducts a Step Rate Test. And then we
15 also going to subtract at 10 percent of safety factor
16 as depicted in the Step Rate Test graph pressure
17 versus rate.

18 So the other also we added is also the
19 injection rate will be depending on the outcome of the
20 Step Rate pressure. So if you go to the graph, once
21 you locate the pressure, the corresponding rate is
22 going to be the maximum injection rate. If you would
23 like me to clarify this. What I meant is the operator
24 is requesting a 28.8 million per day, right? However,
25 it will be determined based on the Step Rate Test.

1 Once you find your fracture gradient determine the
2 maximum pressure, the corresponding rate is going to
3 be the rate.

4 Q So, Mr. Gebremichael, let me clarify for a
5 second. So the Exhibit Number 2, in general, are
6 conditions of approval that OCD has recommended before
7 and that the Commission has reviewed before in prior
8 AGI applications, correct?

9 A Exactly.

10 Q Okay. And condition number 3, as you just
11 outlined, that's a new condition, and you just
12 explained that, correct?

13 A Yes, sir.

14 Q Okay. Are there -- is condition number 11 is
15 that a new condition?

16 A It is a new condition given the situation
17 that we have a shallower well, the AGI Number 3, which
18 is injecting into a Delaware Mountain Group. And
19 also, we have a subject well, that goes through the
20 Delaware Mountain Group. So the subject well will be
21 subjected by that active injections zone at the
22 Delaware Mountain Group, and then OCD is recommending
23 that part of the well covered with corrosion
24 resistance alloys and then corrosion resistance
25 cement.

1 Q Okay. Thank you. Are there any other -- I
2 believe you referenced three. What's the other new or
3 modified condition?

4 A Well, there is condition number 13 as well.

5 Q Could you please explain that one for the
6 Commission?

7 A So the condition number 13 is given the
8 nature of the project area. As we mentioned earlier,
9 we have four plugged wells. And then the Commission -
10 - the Division is requesting that a surface monitoring
11 of CO₂, H₂S being deployed, and then also this
12 procedure integrated in their H₂S contingency
13 platform.

14 Q Okay. Mr. Gebremichael, I believe that you
15 heard -- would've heard earlier today the discussion
16 of the party's agreement to modify the monitoring plan
17 and condition number 18. In terms of the rate -
18 actually, I should split those up. So I believe, did
19 you hear the testimony or discussion about modifying
20 the placement of additional surface monitoring?

21 A Yes, I did. And then we concur with that
22 increasing the frequency of updating the plume model.
23 Traditionally, we have it every five years, but given
24 the situation in lieu of having a monitoring well by
25 updating the plume model every two years, would help

1 us to monitor the plume gross.

2 Q Great. Thank you. So that's in respect to
3 condition number 18 modification?

4 A Yes.

5 Q And does OCD have any concerns with the
6 placement of an -- any additional surface monitoring
7 equipment at the water wells that were discussed
8 earlier?

9 A No, we don't. We don't. It an abundance of
10 precaution and then we agree with that one.

11 Q Okay. Is there anything else in OCDs
12 conditions of approval, OCD Exhibit Number 2, that you
13 need to bring to the attention of the Commission?

14 A No.

15 MR. TREMAINE: Okay. At this time, Mr.
16 Chair, I would move admission of OCD Exhibit Number 1
17 and OCD Exhibit Number 2.

18 COMMISSIONER RAZATOS: Mr. Rankin?

19 MR. RANKIN: No objection.

20 COMMISSIONER RAZATOS: Okay. It shall be
21 admitted.

22 (OCD'S Exhibits 1 and 2 was marked for
23 identification.)

24 MR. TREMAINE: One moment, Mr. Chair.

25 BY MR. TREMAINE:

1 Q Mr. Gebremichael, what -- when you review an
2 application such as the AGI application for the Titan
3 AGI number 4, what standard of review do you apply and
4 what -- in your role, what are you evaluating the
5 application for?

6 A So we review the application that it
7 protects, you know, the correlative rights and then
8 protects, you know, health and property, and then the
9 natural resources. Those are the standards that we
10 put.

11 Q Okay. And we've talked through the exhibits
12 already. In OCD Exhibit Number 2., so you -- and
13 those have been admitted. Do you believe that the --
14 after your review, the content of the application and
15 including the conditions of approval listed in OCD
16 Exhibit Number 2 that an order and permit will be
17 protective of correlative rights, public health in the
18 environment, including underground sources of drinking
19 water?

20 A Yes.

21 MR. TREMAINE: And those are my questions in
22 direct. Nothing further.

23 COMMISSIONER RAZATOS: Excellent. Mr.
24 Rankin?

25 MR. RANKIN: I have no questions of Mr.

1 Gebremichael.

2 COMMISSIONER RAZATOS: Okay. Thank you.
3 Commissioners?

4 COMMISSIONER AMPOMAH: Mr. Chair, I do have a
5 few. Thank you so much for your testimony. So I just
6 want to start with the condition number 3. And you've
7 explained to us with regards to after the Step Rate
8 Test, you're going to make that is when the maximum
9 surface injection pressure, and even the rate is going
10 to be more or less settled. Not necessarily what is
11 being proposed today.

12 MR. GEBREMICHAEL: Yes, sir.

13 COMMISSIONER AMPOMAH: Now based on Mr.
14 White's testimony, he talked about the -- just the
15 well that they just drilled, right? When they did a
16 Step Rate Test, they did not get to the fracture
17 pressure. So when that instance happens --

18 MR. GEBREMICHAEL: What we --

19 COMMISSIONER AMPOMAH: -- what happens to
20 number 3?

21 MR. GEBREMICHAEL: Yeah. So what we did with
22 Salt Creek number 2 is it does happen sometimes. You
23 could reach a maximum pressure and then you don't
24 notice the breakdown of the formation. So what we did
25 is we asked them to provide us with a poisons ratio.

1 Based on the poisons ratio, and then offsetting well
2 fracture grading in the past. Actually, the Salt
3 Creek AGI number 2, the fractured gradient was in par
4 with the historical offsetting wells and then it agree
5 also with the poisonous ratio. So 0.67 is an
6 acceptable fracture gradient.

7 So what makes it different to this one is, so
8 now once you have that fracture gradient and then you
9 calculate your maximum pressure, the corresponding
10 rate on the X axis is going to be your rate. And then
11 our experience from AGI number 2 -- Salt Creek number
12 2, is that rate is actually, is even higher than what
13 they are requesting.

14 COMMISSIONER AMPOMAH: There's more room
15 there, okay.

16 MR. GEBREMICHAEL: There's more room there to
17 wiggle. That's why we take that 10 percent safety
18 factor. You know we deducted 10 percent safety factor
19 always.

20 COMMISSIONER AMPOMAH: Okay. So you -- I
21 believe you reviewed the model. Do you believe this
22 model is sufficient, you know, to be able to answer
23 questions like the faults --

24 MR. GEBREMICHAEL: Faults.

25 COMMISSIONER AMPOMAH: -- the plume movement,

1 and more or less like the containment?

2 MR. GEBREMICHAEL: I do agree with your
3 assessment, Mr. Commissioner, in terms of including
4 the Woodford or integrating in part of the model. The
5 reason why we ask that fault number 9 that we
6 mentioned, is we really want to know the extent, you
7 know, its orientation, its lengths, whether it's
8 sealed fault or an open fault. If we know the extent
9 of that fault, we would have a good idea whether it's
10 going to cut through the 370 feet of Woodford
11 confining or not. So that was the question that we
12 asked. So in the future, it would be prudent to add
13 the confining zone part of the modeling.

14 COMMISSIONER AMPOMAH: Okay. So is your
15 testimony that for today it is not a concern, but we
16 can push it to next two years when they do the update
17 on the model?

18 MR. GEBREMICHAEL: Yes, I would. It's not a
19 concern because of what we have seen with Salt Creek
20 number 2, other AGI wells. We believe the Woodford
21 provides sufficient, but that changes with your 3D
22 seismicity. When new 3D seismics come, and then they
23 identify new faults, you really want to learn the
24 nature of those faults. And this scenario, the
25 question that we posed, OCD would like to really know

1 the nature of that fault.

2 COMMISSIONER AMPOMAH: Okay. So I went back
3 and forth with Mr. White about the plume extent, you
4 know, that he showed with transmissive and the non-
5 transmissive faults. Now this is at the end of 30
6 years, but it's generally a concern, you know, like in
7 terms of the monitoring. So as part of the AGIs,
8 NMOCD doesn't require the monitoring post injection.

9 MR. GEBREMICHAEL: Yeah. That -- basically,
10 a post injection to us is when they cease injecting
11 the well is being plugged and abandoned.

12 COMMISSIONER AMPOMAH: But, you know, in the
13 model, it's not shown when the tag is going to stop
14 moving even after the injection.

15 MR. GEBREMICHAEL: It doesn't. That is
16 something we really need to implement in our future
17 requirements, yeah.

18 COMMISSIONER AMPOMAH: So would you -- is
19 this something that you're more or less telling the
20 Commission that you're going to look into it?

21 MR. GEBREMICHAEL: Yes. Our understanding in
22 the past was the, you know, tagging and abandoning the
23 well would sequester it and then stop it moving. But
24 it's something that we can consider, yeah.

25 COMMISSIONER AMPOMAH: Okay. And then I will

1 also suggest that in future applications, at least,
2 they have -- let's say you plug the well at the end of
3 the injection, but the plume, they need to show us
4 when is the plume going to stop? You know, because if
5 the plume is still moving after, let's say, you've
6 shut the well and everything is all, let's say,
7 plugged, where is that plume going? Is it --

8 MR. GEBREMICHAEL: Yes. Even the nature of
9 the CO2 buoyancy nature, it's not going to be an easy
10 fit, but it's something that we could ask the
11 operators and then the Division to come up with some
12 kind of monitoring and post injection, yeah.

13 COMMISSIONER AMPOMAH: Okay. Thank you, sir.
14 Thank you.

15 MR. GEBREMICHAEL: Yeah.

16 COMMISSIONER RAZATOS: Thank you,
17 Commissioner. Commissioner Bloom?

18 COMMISSIONER BROOM: No questions. Thank
19 you.

20 COMMISSIONER RAZATOS: Okay. Thank you,
21 Commissioner. Mr. Gebremichael, just so, like, the
22 Commission understands, just to solidify it. With the
23 proposed injection rates and with the components of --
24 that the OCD has put into place to make sure that this
25 works out, you think that public safety is maintained

1 -- correlative rights are maintained, that this model
2 will suffice and provide what this Commission would be
3 concerned with from now and potentially into the
4 future?

5 MR. GEBREMICHAEL: Yes.

6 COMMISSIONER RAZATOS: Okay. That's my only
7 question as well. There's no other -- Mr. Tremaine,
8 no other questions. Mr. Rankin?

9 MR. RANKIN: No. I appreciate the
10 opportunity.

11 COMMISSIONER RAZATOS: Excellent. May Mr.
12 Gebremichael be excused?

13 MR. TREMAINE: Yes.

14 COMMISSIONER RAZATOS: Okay. Excellent. So
15 now Commissioners, we just need to decide what we want
16 to do, correct? You may step down. Sorry, Mr.
17 Gebremichael, my apologies. Okay. Commissioners, I
18 guess, do we -- the question is, is there a motion to
19 approve the way it was provided to us? And if so, can
20 I get a motion for it?

21 COMMISSIONER BROOM: Mr. Chair, I move to
22 approve the permit in this case.

23 COMMISSIONER RAZATOS: Okay.

24 COMMISSIONER AMPOMAH: Mr. Chair, I second.

25 COMMISSIONER RAZATOS: Okay. So the permit

1 will be approved with the conditions that were set out
2 by the OCD. Mr. Tremaine?

3 MR. TREMAINE: Point of information. I think
4 the Commission may want to consider a motion to
5 approve with the conditions, but as -- but with
6 condition number eight, modified to reflect a two-year
7 modeling. We have not during the day modified
8 condition number 18 as far as the submission and
9 that's the five years. The agreement of the other
10 parties was to modify condition number 18 to reflect
11 the two-year modeling period.

12 COMMISSIONER RAZATOS: My apologies. I
13 thought we did that this morning. So okay. With
14 modified -- we can modify in number 8 or number 18?

15 MR. TREMAINE: Eighteen.

16 COMMISSIONER RAZATOS: Okay.

17 MR. TREMAINE: I may have misunderstood. I
18 just wanted to be clear for the record, Mr. Chair.
19 Because when you referenced the exhibit as submitted,
20 it still says five years.

21 COMMISSIONER RAZATOS: Okay. So with the
22 modification for number 18, so we will do with -- what
23 the OCD submitted with the modification for number 18
24 to two years instead of five years. Just to make sure
25 that we're all on the same page. Mr. Termaine, did I

1 say that correctly?

2 MR. TREMAINE: I believe so.

3 COMMISSIONER RAZATOS: Okay. Mr. Rankin, you
4 agree?

5 MR. RANKIN: I do.

6 COMMISSIONER RAZATOS: Okay. Commissioners?

7 MR. CHANDLER: Mr. Chair, I'm wondering if we
8 want to see a draft order and then perhaps approve it
9 at the next meeting and sign after? Or perhaps trying
10 to think of another way to do this -- to finish the
11 business today. Perhaps an order is drafted and we
12 review. Sheila could typically send it to us to sign,
13 if we want to do it that way. I'm not quite sure what
14 your preference is.

15 COMMISSIONER RAZATOS: Suggestion from the
16 parties.

17 MR. RANKIN: Well, in the old days Mr. Chair,
18 we would draft a proposed order for the Commission to
19 consider after sharing it with the parties and getting
20 their input. And in order to facilitate the work of
21 the Commission and Commission Council, I'm more than
22 happy to work with Mr. Tremaine and get a draft
23 proposed order submitted in advance of the next
24 commission meeting so that the Commission may consider
25 the proposed order and adopt -- or adopt with

1 modifications at the next regular scheduled commission
2 meeting.

3 COMMISSIONER RAZATOS: Thank you. Mr.
4 Tremaine?

5 MR. TREMAINE: We concur.

6 COMMISSIONER RAZATOS: Okay. Excellent. Mr.
7 Rankin, if you don't mind doing that, that would be
8 great. Did you want us -- did you want the Commission
9 to hear it at the April 7th at the beginning of that
10 or -- because then there is no other April ones, it
11 would go out to May, so it depends. I want to just
12 make sure we solidify that.

13 MR. RANKIN: Yeah. I know. I guess --

14 COMMISSIONER RAZATOS: And you're in the
15 April 7th one as well?

16 MR. RANKIN: I am. There's a lot going on
17 between now and then.

18 COMMISSIONER RAZATOS: No stress.

19 MR. RANKIN: Yeah. I wonder, you know, there
20 is a second week in April.

21 COMMISSIONER RAZATOS: I'm happy to tack it
22 onto the second week as well, if you want the
23 beginning of the second week in April.

24 MR. RANKIN: And I'm sure the -- I'm sure
25 Northwind wouldn't mind have an order sooner than

1 later. And so I -- if possible, just to give a little
2 bit of breathing room if we would be authorized or
3 permitted to submit a draft proposal order in advance
4 for consideration during one of the mornings of the
5 April 21st week of the Commission's meeting --

6 COMMISSIONER RAZATOS: Mr. --

7 MR. RANKIN: -- (crosstalk) ideal.

8 COMMISSIONER RAZATOS: Mr. Tremaine?

9 MR. TREMAINE: No objection.

10 COMMISSIONER RAZATOS: So let's do it for
11 that Monday the 21st. We can start it off -- we'll
12 consider this one right off the that.

13 MR. RANKIN: I appreciate the consideration.
14 Thank you.

15 COMMISSIONER RAZATOS: No problem. I realize
16 you have a lot on your plate right at the moment, so.
17 If there's nothing else for this particular case, Mr.
18 Tremaine, you had the finger on the button, so I'm
19 just looking.

20 MR. TREMAINE: Nothing else.

21 COMMISSIONER RAZATOS: Okay. Mr. Rankin?

22 MR. RANKIN: Appreciate the Commission's
23 attention and engagement in this case and
24 consideration of the application, and we look forward
25 to getting you guys a draft proposed order.

1 COMMISSIONER RAZATOS: Excellent. Thank you.
2 Okay. So we're done with that part of this meeting.
3 There's no -- Mr. Chandler, is there any pending
4 litigation right at the moment?

5 MR. CHANDLER: No.

6 COMMISSIONER RAZATOS: Okay. There's no
7 other business. Our next meeting is April the 7th
8 through the 11th of 2025. So if there's nothing else
9 to bring up, this meeting is adjourned for today.
10 Thank you, everybody. We appreciate it. Have a good
11 rest of the day. And those on the platform, we thank
12 you as well.

13 (Whereupon, the proceeding was concluded.)
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I, LLOYD BASS, do hereby certify that this transcript was prepared from the digital audio recording of the foregoing proceeding, that said transcript is a true and accurate record of the proceedings to the best of my knowledge, skills, and ability; that I am neither counsel for, related to, nor employed by any of the parties to the action in which this was taken; and, further, that I am not a relative or employee of any counsel or attorney employed by the parties hereto, nor financially or otherwise interested in the outcome of this action.

May 27, 2025

LLOYD BASS

&	101 158:18	13.4 128:19	19.15.2 15:12
& 16:11 30:22	102 158:18	13492 32:15,19	19.15.25 15:12
0	108 1:20 95:9	138 144:19	19.15.5 15:12
0.433 168:11	97:6,7,12,24	145:20 154:19	19.15.8 15:12
0.59 170:17	98:22 103:12	188:3	19.15.9 15:12
0.65 170:14	103:21 106:12	13th 19:12 23:4	1915410a2 38:3
172:21	115:21 116:18	14 22:3 117:7	1915412a7 38:7
0.67 197:5	119:15 138:1,2	14.4 134:4	39:7 63:10
1	140:15 142:8	140 46:24	1915423b
1	168:20	141 1:19,20	54:21 68:21
1 2:2 90:22	10th 148:13	142 1:21,22,24	194 2:3,4
100:19 118:13	11 4:3 81:23	144 1:12	19th 14:15
119:14 123:12	150:4 171:13	14th 18:3 23:4	1:00 92:11
130:4 136:11	192:14	15 11:4 14:7	1:15 92:11 93:1
139:18 166:22	11,000 112:12	75:24 77:11	93:3
171:24 173:12	163:6	84:11 86:15	2
174:2 175:18	11,820 109:20	128:17	2 2:2,4 20:23
177:7 188:12	110 173:10	151 131:13	43:15 101:5,10
188:25 189:4,8	113 147:14	152 1:11	105:8,23 111:3
189:10,15,17	11:30 86:11	15th 10:18,23	113:25 114:21
190:18 194:16	11:45 86:15	14:6,9,12,18	115:23 116:13
194:22	11th 4:4 86:2	16,000 173:23	122:6 123:12
1,080 123:3	164:18 206:8	165 131:17,17	128:25 129:11
1,200 161:16	12 128:17	16th 14:18,19	134:3 135:19
1,500 123:13	145:16	14:20 15:2,5	141:3 144:12
1.1 173:12	120 189:11	17 97:15	144:19 145:1
1.8 57:21 135:8	12:03 92:24	17,570 110:6	145:11 146:16
137:23 140:10	13 81:23 87:15	18 87:12 88:22	150:6,8 152:17
177:8,13	87:20 88:9	89:14 91:3,5	152:22 153:3
10 30:4 68:21	121:13 147:2,9	193:17 194:3	154:6,17 156:9
123:12 131:17	193:4,7	202:8,10,14,22	158:24 160:24
143:21 158:18	13,492 52:15	202:23	161:2,11,16
170:7 171:13	13,760 134:11	185 1:14	164:7,8 166:22
191:15 197:17	140:19	186 2:5	170:6 171:25
197:18			177:12,13

188:2,4,13 189:8,18 191:3 191:6,7 192:5 194:12,17,22 195:12,16 196:22 197:3 197:11,12 198:20 2,000 117:17 2,100 109:4 2.1 131:23 132:18 2.25 7:1 2.6 57:21 20 3:5 34:24 92:17 132:24 161:19 200 41:9 58:19 2007 53:15 2015 118:20 173:15 2018 99:23 145:8 2019 100:20 103:14 104:15 124:5 145:8 2020 4:18 103:14 104:17 153:12 2022 104:20,23 2023 105:5,7 153:2,7,18 2024 46:24 97:15 105:22 154:11	2025 3:5 4:3,3 4:8,18 14:5,7 105:24 206:8 207:13 20913f 105:4 20th 3:21 4:2,7 4:18 23:3,8,24 24:22 25:2,8 21 100:5 123:12 210 45:20 21st 205:5,11 22 117:24 23 121:15 23,000 127:2 23197 118:15 23943 153:3 24 110:18 123:1 147:9 188:7 24517 4:21 6:24 24683 15:11 24881 30:11 93:7 25237 4:20 2580 105:12 153:20,24 154:1 26 40:24 100:5 2622 30:15 93:11 105:11 154:14 27 207:13	28 4:3,7 28.8 98:19 134:7 136:25 137:8 140:18 191:24 28th 4:18 29 88:1,5 89:7 117:25 3 3 2:5 20:23 101:2 105:7 149:19 151:18 164:7 186:3,13 186:19 189:9,9 189:11,12,16 191:11,12 192:10,17 196:6,20 3,000 161:20,25 3,328 188:6 3,660 109:9 3.4 131:16 30 17:19 27:1 53:1 58:7 73:14 77:11 123:23 124:21 124:21 132:25 134:20 137:10 137:13 147:13 163:13 183:12 199:5 3000 161:21 32 117:24 163:18,24	36 100:6 37 164:23 370 112:20 115:12 198:10 38 146:23 165:7 3:51 184:6 3d 58:1 102:22 103:14 105:15 113:2 130:11 130:16 149:9 149:11 155:25 178:22 179:1 187:10 198:21 198:22 4 4 32:21 33:2 43:15 97:11 101:18 102:11 106:7 107:11 108:22 110:5 111:4 114:5,22 115:10 116:14 117:9,13 119:1 122:6 134:2 136:9 140:14 145:2 146:15 146:16 149:21 155:17 156:13 158:16 160:25 161:3,11,19 187:2,8,24 188:5 189:20 195:3
---	--	---	---

[4,000 - acid]

4,000 127:3	9	157:22 158:8	132:21 133:20
40 119:22	9 123:12	159:2 166:10	137:16 141:1
165:18 177:3	147:15,22	166:14 167:2	141:11 145:13
41 166:19	171:12 190:8	173:3 197:22	149:4 151:14
177:3,3	198:5	abnormal	166:3 167:25
42 177:3	9,000 163:3	101:7	account 24:19
43 169:2	94 1:11	above 181:15	124:7 159:3
5	9:00 17:1	183:12	accuracy 78:9
5 136:9	9:42 30:6	absence 60:4	accurate 78:19
5,590 109:14	a	absent 49:17	207:5
5,811 140:25	a.m. 17:1	absolute 100:8	accurately
5.1 131:24	abandoned	absolutely	121:11
5.22 188:5	82:1 87:22	74:20 90:8	acid 2:2 30:13
50 72:5	100:20 139:16	145:5	31:25 34:24,25
51 147:13	146:21 188:14	abstain 8:22	36:24 46:10
6	188:22 189:9	abundance	68:2 76:17,18
6,930 123:3	189:10,11,15	194:9	77:24 78:11,12
7	199:11	abundantly	78:20 79:14
7 29:5	abandoning	42:23	80:20 82:7
7.5 100:4	199:22	accept 87:8	93:9 95:2,24
75 123:5 148:5	abandonment	acceptable	96:16 98:12
7th 25:13,25	168:1	85:17 142:6	99:21 104:14
29:6 204:9,15	abdicate 40:5	197:6	106:17,19
206:7	ability 8:18	accepted 67:8	107:8,12
8	9:24 19:19	72:1	108:11,13
8 202:14	42:21 102:19	access 48:13	109:23 110:2,4
80 132:23	136:20 149:5	89:8 102:19	118:22 120:21
800 112:25	159:14 162:14	113:2 116:3	124:11,15
81 64:20	207:7	accommodate	125:6 126:6,8
83 117:22	able 6:18 9:24	100:23 138:23	127:14 132:23
88 64:20	21:23 25:6	accord 22:4	133:3,5,7
	70:6 76:9	accordance	135:15 136:3
	85:24 114:3	106:12 107:10	137:7 138:19
	130:17,19	108:24 120:7	145:7,19 146:3
	136:3 156:8	123:6 124:5	157:5,8,24

[acid - admission]

167:7 174:8 176:8,11 188:25 acknowledge 80:3 acknowledge... 75:16 acknowledging 75:21 acquire 105:5 acquired 114:11 acquiring 58:24 acquisition 57:17 100:11 105:2,15 110:15 130:15 155:19,25 187:9 acres 7:2 41:9 45:20 46:24 58:19 144:20 145:20 154:19 188:3,6 act 9:10 acting 3:7,8,11 action 8:13 74:24 98:16 207:8,12 actions 8:14 9:12,14 active 100:2 117:24 192:21	actively 189:16 activities 83:14 83:19 103:20 104:19 110:17 111:15 117:20 117:20 122:4 132:25 133:20 137:19 140:5 158:16 168:3 activity 34:18 34:22,22 37:8 38:25 41:2 51:18 52:21,22 52:24 53:8 182:20 actual 28:18 37:19 68:22 169:7,11 actually 19:19 30:3 32:21 35:7 36:15 46:8 64:17 81:1,3 117:5 125:5,20 142:3 161:24 176:24 193:18 197:2 197:12 adam 30:20 132:17 146:12 add 13:11 22:7 22:17 69:7 183:15 198:12 added 70:11 191:10,18	adding 188:8 addition 79:18 108:13 111:4 111:14 112:22 115:4 136:14 139:10 additional 8:13 20:6 22:7 30:13 41:13 57:25 58:1,25 76:16,17 77:6 77:9 79:11,12 82:6 88:4 93:9 93:17 98:12 102:15 105:16 130:10 138:18 139:25 146:9 146:14,19 172:8 193:20 194:6 additionally 120:18 150:21 187:14 address 7:15 9:15 32:11 36:3 37:14 57:2,5,13 62:25 64:11 74:14 87:16 105:3 158:20 190:10 addressed 64:13,14 76:15 76:24 78:14 88:7 89:11	187:25 addresses 53:4 187:11 adequacy 107:5 adequate 77:8 102:13 109:15 117:14 126:8 139:22 adequately 103:17,18 113:6 188:10 adjacent 102:16 139:13 adjoining 31:21 adjourned 206:9 adjudicated 40:11 48:19 adjudication 41:4 adjudicatory 38:4 63:7 adjusting 150:13 administrative 15:13 45:5 105:9 administrativ... 101:11 admission 142:1,4,7 143:6 186:13 194:16
---	---	--	--

[admit - aims]

admit 37:10 43:13 63:3 admittance 36:22 admitted 1:17 186:9 194:21 195:13 adopt 49:4 72:16,17 144:10 203:25 203:25 advance 27:11 203:23 205:3 advice 54:17 advocate 49:7 49:15 advocated 82:6 aeolian 112:10 aerial 135:1,5,6 affect 68:8 affected 37:21 37:23 54:25 55:23 59:22,24 65:24 66:4,13 67:6 affidavit 1:23 91:19 142:24 affirmative 119:16 affirmatively 48:19 afraid 188:9 afternoon 69:18 73:5 94:17 144:8	185:18 agencies 159:4 agency 158:18 agenda 3:21,22 4:1,1 agent 149:19 agi 2:4 32:7,15 35:9 45:23 46:11,19 47:24 50:1,8 51:1,4 54:8 58:21 61:10 62:12 66:21 67:5 81:10 93:17 97:11 100:19 101:2,5,6,10,18 101:20,23,24 102:11 105:6,8 105:23 106:7 106:10 107:2 107:11,22 108:2,2,8,14,20 108:22,23 110:5,11 111:2 111:4,11 112:1 112:5 113:24 114:5,21,22 115:10,22 116:8,13,14 117:9,13 118:25 122:5,6 122:6,7,8,9 123:17,22 124:25 125:2,2 126:2 128:24	129:10,20 130:4 132:3 134:2,3 138:9 140:14 141:2 144:19 145:1,2 145:11 146:15 146:16,16 150:6,7 151:18 151:19 152:16 152:22 153:3 154:6,17 155:16 156:9 156:13 158:16 158:23 160:24 160:24 161:2 161:11,11,16 161:18 162:2 164:7,8 167:19 170:6 172:11 173:13,16 176:3 187:2,23 188:2,4,4 189:8,8,8,9,9,9 189:10,12,15 189:16,18,20 191:8,9 192:8 192:17 195:2,3 197:3,11 198:20 agis 58:14 67:9 199:7 ago 63:15,18,21 64:12,14 147:8 agree 9:25 10:4 10:6 19:8	21:21 27:24 28:4,9,14,20 29:1 48:12 50:3 67:14 71:19 72:9,10 79:7 82:8 83:24,25 88:20 88:24 89:5 144:10 152:2 194:10 197:4 198:2 203:4 agreeable 28:22 agreed 23:14 54:18 59:2 87:13,23 88:17 agreeing 74:11 agreement 26:5 35:18,21 43:17 43:18,20 46:5 46:6,9 47:23 51:25 58:13 87:24 88:3,7 88:24 89:3,5 89:11 90:19 91:7 144:13 147:4 193:16 202:9 agrees 49:6 ahead 28:23 84:15 90:10 98:5 99:11,16 142:4 aims 133:24
--	--	--	--

[air - anticipated]

air 85:5 al 127:2 alarm 176:15 alert 82:9 alerting 77:21 allegations 62:6 alleged 40:8 44:7 61:15 74:17 alleging 61:16 allen 94:7,13 allergies 84:19 allow 13:18 20:8 48:2 74:12 85:4 98:15,24 108:6 126:11 184:12 allowable 98:16 106:14 106:16,20 107:5 133:11 137:2,20 138:20 140:24 160:13 169:6 171:2 allowed 102:23 113:3 156:2 allows 138:10 alloy 108:10 110:9 111:25 alloys 79:17 192:24 alternate 17:11	alternative 61:3 63:24 68:3 102:3 alternatively 133:23 amenable 18:8 18:10 amend 15:11 30:14 46:19 93:10 153:24 154:1,6 amended 17:24 18:11 19:7 20:3 30:14 93:10 101:13 144:13 amendment 43:18 105:2,20 156:10 amendments 22:11 american 5:10 5:11,20,21,22 5:24 6:1,3,9,10 6:11 8:2 12:2 13:16 49:4 american's 13:17 amicable 70:2 70:10 72:20,21 72:22 amine 107:15 107:19 amount 125:20 130:1	amounts 102:7 107:13 ampomah 3:16 3:17,24 4:15 10:4 14:11 24:7,11,14,24 39:11 54:14 56:16,24 57:7 57:15 63:21 70:20 71:21,25 74:14 81:6,12 82:13 90:1 91:25 92:5,21 155:7,10 156:19,23 157:2,11,15 190:7 196:4,13 196:19 197:14 197:20,25 198:14 199:2 199:12,18,25 200:13 201:24 ampomah's 51:9 76:13 92:13 analog 116:8 116:11 132:3 analyses 103:15 analysis 32:17 33:4,5,8 52:9 52:12 67:5 80:8 81:4 95:22 102:21 103:2 105:16	111:12,20 117:22 120:4 120:13 121:5 121:18 130:18 139:3 152:25 153:1 154:2 156:4,5 164:3 164:21 170:17 analyst 159:7 analyzing 96:1 ann 16:17 annotated 114:20 123:11 annotations 107:25 anomalies 161:4 anomaly 156:15 answer 39:7 51:8 53:6 56:22 67:17 76:3 197:22 answered 149:8 answering 66:12 anticipate 126:17 134:19 140:10 173:25 anticipated 17:14 98:20 107:11 123:1 124:23 128:15 132:22 133:6
---	---	--	---

[anticipated - approve]

<p>145:21 155:13 156:14 161:17 anybody 5:8 11:22 16:15,20 16:24 72:16 anybody's 69:21 anyway 70:4 73:3 apologies 11:7 16:9,25 149:7 155:4 201:17 202:12 apologize 11:5 16:8 147:19 177:5 appeal 4:21 44:22 48:24 appealing 5:14 appear 144:22 appearance 7:16 8:6 9:1 appearing 16:12 30:20 appears 137:6 applicable 46:12,16 47:25 applicant 30:21 33:10 34:2,6,8 34:17 35:18 36:14 41:16,19 42:7 53:24 83:19 87:8,13 applicant's 17:9,23 42:3</p>	<p>applicants 15:17 23:11 application 1:19,20 15:11 30:12 31:22,25 32:2,18 34:12 34:20,23 35:8 36:23 37:3,9 38:10,24 39:25 41:18 44:5,23 46:19,23 47:1 47:5,7 54:7,11 59:21 61:10 64:20 65:6 66:20 83:3,6 87:8 91:17 95:5,10,20 97:2,6,7,12,14 97:24 98:7,8 98:25 99:22 101:4,22 102:8 103:12,21 104:6,14,16 105:20 115:21 116:18 129:20 137:16 138:1,2 138:4,17 140:15 141:16 142:8,20 143:1 145:8,10,12,15 146:4,8 153:9 153:10,17,19 153:24 154:1,5 156:10,13 158:19 162:18</p>	<p>164:9,17 168:20 187:1,2 187:5,6,22 195:2,2,5,6,14 205:24 applications 6:14 52:6 65:24 66:22 71:6 75:17 129:21 133:8 146:5 166:5 192:8 200:1 applied 32:19 38:17 apply 37:11 52:3 195:3 applying 33:11 appreciate 5:13 12:25 13:3,23 29:24 31:4 39:19 48:6 89:17 173:1 184:4 201:9 205:13,22 206:10 appreciated 53:10 approach 33:9 33:24 124:6 152:25 160:1 166:8 approaches 152:15 appropriate 42:19 49:19</p>	<p>74:4 76:14,16 79:24 80:6,13 80:23 81:5,5,8 83:15 150:22 159:4 168:4 169:16 appropriately 79:9 80:2 appropriaten... 82:23 approval 2:4 3:22 4:2 30:13 40:1 79:16 81:23 88:20 89:2,13 93:8 93:17,21 97:11 97:25 98:11,19 98:24 99:12 100:22 103:22 103:25 104:16 138:17,20 140:13,15 141:3 145:16 147:2 150:2 160:4,23 188:17 191:8 192:6 194:12 195:15 approvals 75:17 191:9 approve 3:21 4:7 91:20 201:19,22 202:5 203:8</p>
---	--	---	--

[approved - attempted]

approved 4:1 4:19 61:11 62:11 101:11 104:4 105:22 106:18 141:1,2 153:19,23 154:13 171:1 202:1 approving 49:25 105:4 approximate 109:8 114:23 177:7 approximately 18:2 45:20 100:3 109:4,20 110:6 112:12 115:12 123:3,5 131:17 132:23 135:8 137:23 140:19 161:16 april 10:14,14 10:16 17:6 20:7 25:13,25 25:25 29:4,6 204:9,10,15,20 204:23 205:5 206:7 arctgis 100:7 area 7:2 43:3 66:14 68:15 80:18 83:2 95:19 98:21 102:9,10 106:3 108:23,25	109:6,12,16 112:3,19,24 113:5,10,16,22 114:25 115:4,6 116:8,19,20,23 116:25 117:5,7 117:21,23,24 118:10,14,15 119:6 120:17 120:23 121:7 121:14 123:3,9 125:21 126:2 127:12 128:13 128:18 129:5 129:12,16 131:1 133:21 133:25 135:7 135:22 139:3,4 139:7,9,15 141:4 144:19 166:2 167:10 172:9 177:18 177:21 178:9 179:3 180:17 182:19 183:2 186:14 187:11 188:3 193:8 areas 20:12 120:12 186:9 arguably 8:9 50:21 argue 49:22 68:4 argues 37:17	argument 8:22 38:1 45:15 54:15 55:5,14 58:12 63:5 68:5,7 arguments 8:21 41:13 61:11 arrangement 106:10 articulated 62:1,20 aside 168:12 asked 17:19 52:14,16 149:13 152:13 179:16 190:15 196:25 198:12 asking 34:7 35:20 37:9 43:18 47:13 51:22 52:4,9 52:11,13,22,25 57:7 75:12 79:16 asks 165:20 aspect 62:16 aspects 48:14 48:21 50:17 68:21 assault 12:18 assess 28:10 assessment 42:9 120:19 122:10,23	149:15 198:3 assessments 129:22 asset 98:20 assignment 191:12 associated 8:5 8:17 102:3 105:10 120:24 125:13 association 16:13,19 124:20 125:6 126:1 assume 124:9 127:13 assumed 122:20 assumes 123:19 133:18 assuming 181:4 182:7 assumption 91:16 148:4 assumptions 106:15 122:16 122:19 atmospheric 141:8,9 attached 81:10 attaches 67:15 67:24 attack 71:7 attempted 45:1
---	---	--	--

[attention - basis]

attention 190:4 194:13 205:23 attorney 207:10 attorneys 13:12 13:14 attribute 53:16 132:15 attributes 119:9 130:24 132:11 165:6 audible 22:22 audio 207:3 augment 4:4 august 105:22 auspices 74:13 authorities 49:23 authority 39:24 40:5 41:6,11 42:13,16,18 43:6 44:5,22 45:4,10 47:16 49:21 50:2,7 50:25 53:24 54:2,3 62:17 67:11 74:9 77:1 189:21 authorize 30:15 50:8 51:1 93:11 authorized 41:19 89:8 105:8 205:2	automated 108:4 automatically 66:22 availabilities 10:14 available 8:23 14:23,24 21:8 22:7 88:9 130:17 132:2 143:13 146:13 160:14 168:19 170:11 average 106:19 128:19 131:21 131:22,23,23 132:19 145:21 165:4 169:20 170:13 172:19 averages 164:23 avoid 45:3 150:13 189:7 aware 22:10 68:6 99:1,20 120:11 191:8 awesome 3:3 89:22 awfully 19:13 axis 197:10	142:2,7,10 143:6 185:10 b1 64:20 back 6:23 9:12 18:4 20:20 21:9 30:5,8 32:24 46:23 48:8 53:15 69:14,22 70:8 71:16,20 80:1 83:8 86:21,24 92:11 93:1,5 97:15 100:19 100:22 101:12 118:20 120:3 132:17 137:25 142:2 143:24 145:7 150:5 153:2,17 157:25 178:22 178:22,24 184:5,8 199:2 background 95:16,16 backstop 28:21 balance 187:16 187:17 ballot 154:16 banners 147:20 bar 132:8 barnett 112:24 115:13 barrel 123:19 barrels 134:11 140:19 170:7	171:13 barriers 102:15 139:12 base 100:7 based 8:5,7 26:21 27:3 40:10 42:19 44:7,15 57:19 57:24,25 58:4 75:11,15,16 96:2 103:2 105:13 111:8 116:2 131:11 131:25 145:20 148:4 153:17 157:24 160:14 161:7 162:13 163:20 164:3 167:15 179:9 180:2 182:8 191:25 196:13 197:1 basically 189:9 199:9 basin 109:11 112:9 113:13 113:17,19 126:25 128:4 129:3 164:5 170:14 basis 32:5,14 32:17 33:1 34:12 35:11,16 36:2 38:25 44:16 45:16
	b		
	b 1:16,20 96:5 96:10 98:2 132:8,12 134:14,15		

[basis - bounded]

46:17 47:18 51:17 53:7 61:23 62:3,20 65:21 68:4 75:14 77:9 79:11 97:25 142:14 bass 207:2,15 bathroom 84:13 bearing 43:4 112:16 beatty 16:11 becoming 99:1 135:16 bed 175:3 beds 112:11 beg 91:12 began 99:23 104:22 beginning 25:12 57:16 120:6 127:7 204:9,23 begins 124:4 begun 103:13 behalf 5:5 15:24 16:2,12 16:18,23 22:20 30:21,25 153:13 believe 4:9 10:14 22:24 31:12 32:15 33:4 36:17	45:16 49:21 50:2 53:12 64:11 67:19 68:3 78:2,16 81:11,12,22 83:15 120:3 134:14 166:7 177:3 193:2,14 193:18 195:13 197:21,21 198:20 203:2 believes 58:12 188:15 belong 42:25 48:23 53:20 belongs 43:22 49:5 ben 5:5 beneath 32:1 benefit 26:11 27:7 102:4 benefits 76:23 101:23 best 25:24 58:4 120:16 126:13 144:23 155:23 207:6 bestow 83:13 better 21:6 22:8 89:20,21 111:18 116:10 155:21 156:2 158:24 159:2 beyond 18:13 20:22 22:6	40:17 58:24 116:25 117:11 117:17 bhp 169:4 171:20,21 big 177:19 178:9 bigger 145:3 bill 39:6 billing 79:5 bills 26:15,19 bit 4:4 21:9 28:11 66:19 92:25 99:22 101:7 102:2 103:9 104:9 107:8 113:1 124:11 125:4 126:20 133:3 134:8 136:1 157:8,9,18 175:24 178:5 205:2 black 101:10 bleed 18:14 bloom 3:13,14 3:23 4:9,12 10:2,7 14:9 24:2,5 39:14 65:11,12,16 66:18,24 67:18 68:10 84:8,10 84:16,23 89:24 92:20 155:6,7 176:24 200:17	blue 100:25 179:6 board 166:13 bond 110:14 bonds 150:9 bone 109:22 118:6 127:7,19 127:23 books 25:1 borders 64:8 bore 79:23 81:13,21 111:7 bores 77:25 78:1,4 135:16 bothering 84:20 bottom 38:12 41:8,10,12 45:22 58:20 59:19 60:17 101:16 108:15 116:13 117:3 135:4 147:21 156:20 161:12 161:13 163:2,9 169:4 172:19 172:20 188:13 bound 151:9 boundaries 151:15 boundary 136:4 bounded 135:22
---	--	---	--

[boy - case]

boy 147:17 break 30:4,9 73:14 75:24 84:13 85:4 86:10 143:17 143:21 184:5 breakdown 196:24 breakdowns 150:19 breaking 140:12 breathing 205:2 bridge 118:18 174:19 175:3 brief 53:9 62:24 briefly 57:13 101:20 115:9 139:18 brine 133:18 bring 7:19 10:11 11:22 74:18 190:3 194:13 206:9 bringing 177:2 brings 12:10 broken 121:10 broom 157:17 157:21 158:7 158:12 159:6 159:10,15,20 159:24 160:12 160:24 161:10	161:14,21 162:4,17,25 163:14,24 164:6,11,13,15 164:22 165:7 165:10,13,17 166:7,18,25 167:17,22 168:6,21 169:2 169:10,18,22 169:25 170:5 170:20 171:3,8 171:17,23 172:3,5,17,23 173:7 178:14 178:16 179:5 179:10,15,25 180:20 181:2,7 181:11,23 182:19,22,24 183:2,20 200:18 201:21 brought 12:6,7 12:8 68:20 164:17 168:2 183:5 brown 115:1,6 buffer 117:4,23 build 182:8 built 131:10 179:9 181:25 buoyancy 167:8 200:9 business 55:6 203:11 206:7	busy 10:13 button 205:18 c c 1:4,20,21 3:1 95:9 97:6,7,12 97:24 98:22 103:12,21 106:12 115:21 116:18 119:14 119:15 138:1,2 140:14 142:8 142:12,16 143:7 158:18 158:18,18 168:19 185:10 caitlin 31:2,20 calculate 106:20 145:22 165:25 197:9 calculated 65:21 66:17 calculates 125:9,11 calculating 66:8,9 120:23 calculation 163:4 170:1 calculations 106:15 calendars 11:10 call 3:10,20 184:17 called 65:2 94:8 185:3	calls 13:2 cancel 32:25 34:11 canceled 25:10 canceled 33:3 capable 120:22 137:6 capacity 94:19 119:12 138:11 141:4 capitan 109:11 109:16 caprock 110:10 111:5,6,13,13 112:23 129:15 139:5,7 180:19 182:1,9,16 183:15 capture 173:17 173:18,20 179:1 carbon 34:24 107:13 173:17 173:18,20 176:19 carbonate 130:22 132:1 151:10 carbonates 112:23 115:13 cares 119:25 carlo 125:12 case 4:10,20,20 4:21 6:23,24 7:24 9:18
---	--	---	--

[case - chandler]

10:15,23 11:8 11:24 13:5 15:10,10,10 25:11 30:3,9 30:11,21 31:23 32:9,15 35:1 35:25 36:5,7 36:12 37:11,12 39:23 40:25 41:6,14,23 42:4,20 45:25 46:2 48:25 49:3,8,9 54:3,4 54:4 57:21 60:16,21 61:12 61:21,24 66:16 67:22 78:6,10 83:9,12 88:19 92:18 93:1,7 93:21 95:6 97:5 99:13 120:20 133:22 134:1,13 135:19 136:24 137:17 153:2 165:22,23 166:19,21,22 171:24,25 176:17 177:6,7 177:13 184:12 201:22 205:17 205:23 cases 4:19 20:21 41:14 48:21 67:14	137:19,21 148:17,19 184:13 casing 102:13 109:2,4,7,13,19 110:5,18 117:14,17 139:11,13 150:21,25 159:1 170:19 cast 118:18 174:19 175:2 catch 177:12 cause 79:13 cautiously 6:2 6:9 caveat 22:25 cease 199:10 cells 131:16 132:10 cement 79:18 110:13,14 118:18 139:13 149:25 150:9 151:10 174:8 174:18 176:7 187:18 188:15 192:25 cementation 109:15 150:10 cemented 110:12 149:23 cementers 150:22	cementing 117:14 150:16 cements 108:11 110:2,10 center 114:19 121:1 central 49:14 50:12,17 113:19 centralize 157:5 certain 50:4 68:16 82:8 87:21 certainly 143:19 173:2 certificate 207:1 certification 48:16 certified 138:4 certify 207:2 cetera 8:21 30:5 48:15 78:1 79:16,18 79:25 80:16 81:3 chair 3:8,11 4:9 4:24 7:14 14:21 15:16,21 16:6,11 17:4 19:23 23:1,18 24:5 25:5 26:10 27:24 29:9 30:19	31:5 39:11,16 39:21 47:17 48:9 54:19 57:3 62:24 65:9 70:20 71:15 77:4 82:13 84:10 85:7 90:2 92:6 93:14 96:13,22 99:10 142:3 143:11 144:4 173:4,9 178:14 183:5 184:12 184:16 185:14 194:16,24 196:4 201:21 201:24 202:18 203:7,17 chairman 16:22 22:16 29:22 30:24 31:14 33:20 35:6 36:6 38:23 51:7 54:10 64:12 73:6 87:4 90:8 chairs 30:5 challenge 19:20 chance 35:21 85:9 155:23 chances 28:1 chandler 54:19 56:21 57:1,3 62:1 68:13 71:19,22 85:7
--	---	--	--

[chandler - client]

85:12 90:10,11 91:9,10,12 94:2,4,11 173:8 175:17 175:21,23 176:14,22 184:23,25 185:6,11 203:7 206:3,5 change 101:2 105:21 156:11 159:1 167:5 189:12 changed 58:3 144:25 changes 26:22 96:9 198:21 changing 153:15 chapter 5:20,23 6:12 character 179:4 characteristic 108:1 180:11 characteristics 119:2 124:10 129:9 131:12 131:19 133:4 162:14 characterizati... 7:4 102:24 103:8,16 108:18 113:4 123:7 129:19	130:7,14 131:8 140:8 146:6 153:7 156:1 characterize 121:11 127:4 130:17 156:2 characterized 112:10 119:8 characterizing 117:19 145:19 146:3 153:6 chart 104:11 113:12 charts 132:8,8 check 24:2 89:9 163:15 chemistry 119:13 chesapeake 32:19,19 33:1 33:17 34:8 52:14,16 chesapeake's 33:3 chicken 65:2 chief 7:24 chooses 27:13 66:14 christie 13:13 christopher 13:13 circle 48:8 93:25 circular 118:14	circulated 17:21 circulation 109:17 150:8 circumstance 127:11 circumstances 40:6 46:11,15 47:25 cite 42:3 44:21 46:7 cited 40:24 41:1,25 cites 46:4 citing 40:24 41:15 city 100:4 106:5 claim 5:19,21 5:22 8:3 33:10 33:13 41:17 42:8 47:12,13 52:17 74:16 75:8 83:24 84:2 claimants 6:5 claiming 6:6 47:9 claims 6:10 8:6 8:20 9:11 40:9 42:23,25 44:9 44:12 61:23 75:1 clarification 56:25 66:6	99:14 146:17 clarified 190:2 clarify 59:5 72:14 146:22 146:25 152:1 189:14,22 191:23 192:4 clarifying 144:9,17 clarity 21:18 28:7 49:18 57:6 class 2:2 24:16 24:21 188:25 classes 24:15 clause 52:2,3 cleanup 7:3 clear 36:22 40:12 41:6,11 41:16 42:23 43:12 46:16 49:20 51:12 54:2 63:6 66:10,16 87:19 99:14 116:22 120:16 152:20 152:23 153:6 154:23 170:8 202:18 clearly 34:17 47:22 173:22 clerk 9:3 client 35:2 51:25 74:1 83:1 84:12
---	---	---	---

[client - commissioner]

86:4 client's 36:25 clients 75:25 cloak 36:5 close 22:8 82:16 91:1 135:23 175:13 184:12 closed 148:10 148:15,16 closer 7:20 24:12 97:19 186:23 closures 148:21 co2 71:7 76:18 78:11 82:3 102:7 132:24 141:10 147:2 149:24 163:8 176:5 181:4 187:18 188:15 193:11 200:9 code 15:13 coffee 17:1 cognizable 44:19 61:7 colleague 31:2 31:20 collect 110:21 111:3,12 collected 111:2 115:22 158:23 colored 126:3 colors 114:14 114:15 124:19	135:11 combine 68:5 combined 140:16 146:15 come 9:21 66:22 69:15 70:3 72:2,12 91:2 92:25 93:23 142:2 184:19 198:22 200:11 comes 25:23 71:9 79:4 comfortable 174:9 coming 12:15 68:14 77:15 84:14 commence 110:18 comment 80:3 comments 49:9 49:12 77:5 80:8 commission 1:1 3:6,9 6:3 7:11 8:4,16,19,24 9:1,3,5 10:11 10:12 13:7,18 15:22 17:7 18:18 19:24 20:18 21:7 22:5,25 23:1 23:25 24:20 25:9,16 27:10	27:12 30:11,20 32:2,6,11,16,18 32:25 33:2,5,7 33:9,12 34:5,7 34:9,11,13,16 35:7 36:9,16 36:21 37:5 38:23 39:4,8 39:22,23 40:4 40:5,11,20,21 40:23,25 41:5 41:15,24 42:1 42:6,11,17 43:7,14,19 44:6,11,11,14 44:20,24 45:3 45:8 47:13,15 48:1 49:21 50:6,17,25 51:12,18,21,23 52:4,9,11,13,14 52:16,21 54:10 54:16,20,21 57:15 58:17 59:6 61:8,9,18 61:24 62:8 66:14,23 67:10 68:19,20,24 69:7,15 70:4 72:19 73:21 74:5,12,14,21 75:2,5,19 77:1 77:16,20,21 79:8,10 80:10 80:11 83:10,16	83:23 84:1,4 85:20 88:11 89:1 90:7,13 91:8,16,20 93:15,19 94:23 97:25 99:10,15 101:11 115:19 119:21 138:7 142:6 144:5,24 145:17 152:21 152:23 153:18 154:25 172:25 183:23 186:5 186:10 189:14 189:23 190:4,6 191:8 192:7 193:6,9 194:13 199:20 200:22 201:2 202:4 203:18,21,21 203:24,24 204:1,8 commission's 11:9 33:18 37:7 40:16 43:21,22 44:1 45:4,10 59:6 62:17 63:6 74:10 75:23 78:24 83:18 92:14 140:13 145:13 205:5 205:22 commissioner 3:3,13,14,16,19
--	---	---	---

[commissioner - common]

3:23,24,25 4:9	62:23 65:10,11	163:14,24	202:12,16,21
4:11,12,13,14	65:12,14,16,19	164:6,11,13,15	203:3,6,15
4:15,17 5:2,4,7	66:18,24 67:17	164:22 165:7	204:3,6,14,18
5:12 6:16,20	67:18,23 68:10	165:10,13,17	204:21 205:6,8
7:9,12,18,22	68:13 70:20	166:7,18,25	205:10,15,21
9:19 10:2,4,5,7	71:19,21,22,24	167:17,22	206:1,6
10:8,20,24	71:25 72:13	168:6,21 169:2	commissioners
11:3,5,13,16,18	73:24 77:2	169:10,18,22	4:25 9:22
11:20 12:17,19	81:6,12 82:13	169:25 170:5	16:11 23:25
12:22 13:20,22	82:19,20 84:7	170:20 171:3,8	30:19,24 31:6
14:4,7,9,10,11	84:8,10,14,16	171:17,23	33:19 35:5
14:12,19,22,24	84:22,23 85:3	172:3,5,17,23	36:6 38:22
15:2,4,8,25	85:18 86:13,18	173:6,7 176:23	39:10,22 41:6
16:4,8,14,17	86:23 87:10	176:24 177:11	47:17 48:9
18:24 19:2,15	88:12 89:15,17	178:6,12,14,15	51:8 54:9,13
19:22 20:25	89:21,24 90:1	178:15,16	62:25 69:12
21:24 22:1,9	90:3,9,25	179:5,10,15,25	70:7,16,18
22:14,19,23	91:10,22,25	180:20 181:2,7	73:1 77:4
23:12,15,19,21	92:5,7,19,20,21	181:11,23	89:23 91:22
23:23 24:2,4,5	92:23 93:5,22	182:19,22,24	92:19 93:15
24:6,7,9,11,13	96:18,20 97:17	183:2,20,21	155:5 185:15
24:14,18,20,23	142:12 143:8	184:1,3,8,14,18	196:3 201:15
24:24,25 25:9	143:10,14,17	184:21 185:12	201:17 203:6
25:17,19 26:3	143:20,23	186:17,21	commissions
26:7,9 27:15	144:1 152:7	194:18,20	60:12 101:5
27:19,22 28:19	155:2,5,9,10	195:23 196:2,4	commit 28:16
28:20,24 29:3	156:19,23	196:13,19	44:13
29:10,13,15,17	157:2,11,15,17	197:14,20,25	commitment
29:20,23 30:2	157:21 158:7	198:3,14 199:2	160:9
30:8,23 31:3,8	158:12 159:6	199:12,18,25	committee
31:16 39:9,11	159:10,15,20	200:13,16,17	26:20
39:14,18 48:5	159:24 160:12	200:17,18,20	committing
51:5 54:12,14	160:24 161:10	200:21 201:6	159:25
54:18,19 56:16	161:14,21	201:11,14,21	common 64:16
56:21,24 57:1	162:4,17,25	201:23,24,25	

[commonly - conditions]

commonly 113:14 118:4 126:15 127:8 140:20 166:5 176:20 communicating 132:5 communication 119:17 120:2 173:20 company 31:24 comparable 133:8 162:1 compared 163:7 comparison 116:6 compensate 35:14 competence 41:5 competent 129:14 compilation 127:23 compiled 96:7 complaint 74:23 complaints 9:7 complete 4:5 92:16,18 99:18 137:10 138:2 146:8 completed 101:15 105:23	107:4 111:22 114:2,3 115:22 129:20 130:5 132:25 136:18 138:21 140:4 174:25 189:19 completely 130:9 completion 104:25 139:20 compliance 8:10 compliant 107:23 complicated 105:25 complimenting 129:14 comply 147:1 component 176:21 components 110:11 118:23 120:14 151:21 167:9 200:23 comport 144:22 composite 117:2 compositions 107:11 compressed 107:21 compression 107:19,21	157:5 comprise 113:11 comprising 131:8 compromises 121:24 compulsory 8:3 concede 66:15 74:4 concentration 134:24 135:4 concentrations 135:2,15 concept 35:6 concern 20:16 67:8 69:2,3 76:19,20 77:25 79:12 120:12 162:20 187:11 187:25 198:15 198:19 199:6 concerned 201:3 concerns 9:14 13:24 61:13 74:11,15 75:20 77:14 78:14 116:2 187:22 194:5 concluded 40:20 206:13 conclusion 55:24 69:15 70:2	conclusions 56:4 concur 18:4 193:21 204:5 concurred 17:6 concurrent 10:2 condition 2:4 43:25 53:3 72:8 81:23 83:16 87:11,15 87:20 88:9,20 88:22 89:14 91:3,5 147:2 150:4 188:17 191:7,9,11,11 192:10,11,14 192:15,16 193:3,4,7,17 194:3 196:6 202:6,8,10 conditions 43:14 56:9 69:5 70:11 72:1,3,7,10,12 72:15,16,17 73:8,17,18 75:21 76:13 77:6,10,14 79:16,21 81:9 82:24 85:9,13 85:16 87:9,19 88:2 89:2,12 90:5 103:4 104:4 108:9,13
--	---	--	---

[conditions - containment]

116:19 122:17 122:20 126:13 126:17 127:10 128:1,10 129:4 131:2 132:22 133:6 134:6,10 134:21 137:11 137:18 140:20 144:12 150:2,3 151:22 160:23 161:8 163:17 164:3 166:4 175:15 187:17 191:11 192:6 194:12 195:15 202:1,5 conduct 34:17 34:22 37:8 38:25 51:17 52:21 131:1 conducted 41:2 95:18,22 conducts 191:14 conduit 176:7 confer 21:4 61:18 73:15 74:1,1 75:25 84:12 conference 4:22 5:17 11:23,24 15:14 17:5 27:11 28:15,18,21 29:4,5	conferral 22:13 73:8,12,22 confident 149:2 confidentiality 46:6 confidentially 51:24 configuration 100:8 confined 119:7 confinement 181:20 confining 112:19,21 113:1 121:22 126:7 198:11 198:13 confirm 88:16 107:4 111:19 126:16 127:11 128:20 confirmation 126:7 confirmed 139:4 confirming 118:21 119:17 120:1 129:3 conflict 68:3 confused 63:4 confusing 71:10 181:24 confusion 189:7	consensus 69:24 72:3,22 consent 46:9 47:23 58:13 75:16 consented 59:2 consents 46:13 consequence 56:15 69:1 75:3 consequences 54:25 55:23 56:3 61:16 62:14,15 63:2 63:19 65:17 67:21,25,25 68:23 80:24 conservation 1:1 3:5,8,9 5:1 16:3 30:10 31:6 66:23 185:24 conservative 124:6,12 133:13 137:11 137:14 166:5 consider 8:20 78:25 123:22 132:23 133:19 182:15 199:24 202:4 203:19 203:24 205:12 consideration 44:13 48:4 79:6 80:5 85:8	149:14 205:4 205:13,24 considerations 80:1,9 102:12 considered 69:17 135:20 159:8 considering 120:22 considers 8:17 117:13 consistent 49:12 108:22 128:23 136:20 construct 128:8 constructed 107:3 108:3,11 108:23 188:1 188:14 190:15 constructing 155:22 187:17 construction 104:1 145:17 contain 109:10 112:13 119:3 119:16 128:15 129:13 131:13 contained 59:23 182:4 containing 78:21 107:12 110:3 126:8,22 containment 121:24 182:11 183:10,14
---	---	---	---

[containment - course]

<p>198:1</p> <p>contemplated 34:18,22,23</p> <p>contends 42:1</p> <p>content 190:3 190:17 191:5,7 195:14</p> <p>contents 97:5 98:5</p> <p>contested 85:11</p> <p>contesting 95:14</p> <p>context 53:25 54:1,8 61:5 67:2 83:5,17</p> <p>contingency 103:25 188:21 188:23 193:12</p> <p>continuation 93:6</p> <p>continue 111:3 173:5</p> <p>continued 102:20 110:19</p> <p>continuing 158:22</p> <p>continuity 115:3 126:11</p> <p>continuous 108:15 115:3 177:19</p> <p>contour 114:10 114:14 134:18 134:22 136:2,7 136:11</p>	<p>contours 135:1</p> <p>contract 43:17 51:21,23</p> <p>contractual 40:2 43:20 45:7 47:14</p> <p>contrary 49:9</p> <p>contribute 140:7</p> <p>contributions 124:3</p> <p>control 102:3 103:14 108:4,6 108:7 135:25 167:10 185:24</p> <p>controversial 93:2</p> <p>conversation 18:7 85:23 86:1</p> <p>conveyance 60:6</p> <p>conveyed 47:5</p> <p>cool 135:11</p> <p>cooler 114:14 124:18</p> <p>cooling 107:22</p> <p>coordinate 159:1,3</p> <p>copies 104:6 138:2</p> <p>copy 1:21,22,23 97:1 142:12,18 142:23</p>	<p>core 132:2</p> <p>cores 111:12</p> <p>corral 43:5 44:3 62:18 74:8</p> <p>correct 4:11 22:21 42:5 66:20,21 85:3 97:8,9,15,16 98:3 119:23 146:24 147:6 153:3,4,20,21 153:24,25 154:8,9,11,12 154:14,15,20 154:21 157:14 165:12 172:22 180:24 192:8 192:12 201:16</p> <p>correction 91:6</p> <p>corrections 96:9</p> <p>correctly 170:13 203:1</p> <p>correlative 80:13,14 138:15 141:14 141:18 195:7 195:17 201:1</p> <p>correspond 135:11 136:9</p> <p>corresponding 191:21 192:2 197:9</p>	<p>corresponds 128:19</p> <p>corrosion 79:17,17,24 108:10 110:9 111:24 192:23 192:24</p> <p>corrosive 82:2 108:9 149:25</p> <p>costs 76:22</p> <p>council 18:16 54:16 62:25 64:14 68:20 82:18 203:21</p> <p>counsel 9:2 31:1 56:16 63:17 73:11,23 91:13,16 94:14 144:6 152:10 185:16 207:7 207:10</p> <p>country 23:1,6</p> <p>county 30:16 46:1,1 93:12</p> <p>couple 20:11 26:13 37:2 45:13 48:10 82:22 101:21 115:1,1 121:16 144:16 149:18 152:13 155:12 173:10</p> <p>course 104:1 106:22,25 135:15</p>
---	---	---	---

[court - decide]

court 3:2 40:3 40:9,14,25 42:4,22 43:1 43:23 48:24 51:15 52:8 58:16 66:2 68:17 73:20 74:23,24 97:20 courts 41:4,23 67:16 68:17 cover 45:21 covered 192:23 covers 188:2 create 33:20,21 creates 26:13 creek 35:8,13 100:19 101:2,5 101:10 104:25 105:6,8,22 106:7 111:2 113:24 114:21 115:22 122:6 128:24 129:10 134:3 135:22 141:2 144:19 145:1,2,11,13 146:16 149:19 150:6,7 151:18 153:11 156:9 170:6 188:2,4 196:22 197:3 197:11 198:19 critical 119:2 126:5 180:13	cross 36:25 114:24 125:14 135:10,14 136:3,21,22 143:13,15 144:2,6 180:25 181:2,3 crossing 37:12 crosstalk 11:3 11:12 13:21 65:15 169:9 170:4 172:2,3 181:1,6,10 205:7 cubic 98:19 134:4,8 136:25 137:9 current 20:22 27:4 67:3 100:8 104:13 107:10 114:7 116:2 152:21 154:16 currently 26:25 45:18 58:3 61:17 65:23 67:1 80:18 100:12 106:11 108:2 138:21 149:20 150:16 curriculum 2:5 185:25 curves 170:11 170:11	cusps 144:2 cut 198:10 cuts 190:11 cutting 180:9 cx 1:9 cycling 89:13	179:2 187:10 date 14:3,5 15:6 17:20 18:1 19:6,10 20:14 21:5 25:10 35:23 154:7 dates 17:23 18:3,9,10 19:25 20:13 21:8,11,21 22:4 25:8 28:9 28:12,18 david 1:10 93:20 94:7,13 189:25 day 24:19 29:5 73:21 98:20 134:4,11 137:1 137:9,12,12 191:24 202:7 206:11 days 17:19 27:1 203:17 de 4:20 5:17 deadline 20:4 27:5 deadlines 22:12 26:24 deal 35:13 128:7 decades 67:10 decide 51:14 201:15
		d	
		d 1:22 3:1 69:25 142:18 142:21 143:5,7 daily 30:16 93:11 133:12 140:16 damages 66:25 67:20 dangerous 102:5 159:22 data 58:1 88:21 89:9 90:23 102:19,22 103:15,15 105:15 110:15 111:4 113:2 114:11 120:15 121:5,19 127:18,23 128:25 129:1 130:10,16,16 130:20,23,25 131:15 132:2,2 132:3,3 149:5 149:9 150:17 150:17 154:7 155:25 158:23 164:3 170:10	

[decided - design]

decided 25:6 65:8 71:8 decision 27:8 56:11 69:8 70:14,14 86:21 101:12 116:5 decisions 26:23 decorum 12:25 13:10 deducted 197:18 deed 1:21 47:20 51:23 52:19 deeds 45:21,25 75:15 142:13 deep 101:6 148:19 161:3 180:11 deeper 148:25 define 66:14 defined 145:18 definitely 13:7 13:23,25 28:6 171:17,18 172:5 181:4 183:15 definition 37:21,22 59:24 definitively 49:1 deflect 177:20 deflection 178:4 dehydrated 107:21	delaware 109:22,24 112:8 113:13 113:17 126:25 127:19 128:3 129:2 149:18 149:20,21 164:5 189:17 192:18,20,22 delay 180:1 delegated 39:24 delineation 102:23 demonstrate 46:17 47:17 demonstrated 57:18 112:19 130:21 181:20 182:17,17 denied 45:11 62:22 denies 5:20,22 5:24 6:4,9 denoted 112:6 densities 128:16 density 106:19 110:22 124:13 125:11 128:19 133:4 150:13 deny 9:5 10:7,8 44:24 45:3 48:1 56:6,8	department 9:13 12:14,14 185:22 dependent 162:9 depending 92:13 113:17 113:21 124:22 191:19 depends 204:11 depicted 191:16 depiction 144:22 deployed 193:11 depth 102:19 109:4,9,14 110:19 114:15 117:12 118:16 128:22 167:3 173:14 187:23 depths 114:7 114:16 118:3 159:2 derivative 103:15 derived 114:10 130:24 describe 83:11 described 146:9 describing 83:9 145:25	description 1:17 107:17 153:8 154:4 desert 30:25 31:20 35:2,16 35:21 37:17 38:14,19 39:23 40:7 41:25 42:20,22 43:2 43:9,12 44:7 44:12,25 45:5 45:15 46:3,18 49:15 51:20 53:21 55:4,5 55:10,15 57:9 57:12,22 58:10 59:15,20 60:20 61:19,20 62:20 63:13,23 64:1 64:3,4,6,10,15 64:17,17 65:4 65:25 69:2,4 75:4,8,12 80:9 80:25 82:10 84:5 85:21 88:10,18,24 90:16 147:5 deserts 40:4 design 102:12 107:8,25 108:21 109:3 113:25 117:12 138:13 139:8 139:10 157:3
--	--	---	---

[designated - discuss]

designated 60:2 designed 44:1 99:4 108:8,12 138:22 170:25 187:8 designee 3:14 3:18 desired 156:9 despite 54:4 detail 150:7 190:12 detailed 154:6 188:8 details 69:10 97:24 detectable 176:12 detection 78:10 detectors 176:20 determination 42:10,14 75:5 75:7 140:5 145:21 determinations 56:6 determine 34:14 39:25 41:16 42:7,18 58:16 83:24 106:20 116:13 122:17 192:1 determined 43:4 62:9	67:16 80:6 105:16 140:25 159:5 191:13 191:25 determining 51:16 78:18,20 106:13,16 133:5 detrimental 110:4 developed 150:23 158:17 development 99:23 106:13 115:8,25 116:7 116:10 145:8 156:6,12 deviate 116:1 deviated 101:14 105:17 116:24 117:5 155:17,18 156:12,13 161:16 deviates 114:1 deviation 161:17 deviations 63:21 device 87:25 89:6 devonian 46:20 62:8,10 76:21 77:10 79:13 87:23 93:18	103:5 105:18 114:12,18 115:7 116:7 118:12 126:14 127:21 128:21 138:19 140:17 161:3 170:14 170:16 173:14 174:17,20 179:10,14,14 179:19 180:4,6 180:18 181:5 181:25 187:7 188:11 diagram 107:18 109:2 127:15,17 136:12 dialogue 72:18 dictate 83:17 dictates 34:15 die 180:12 differ 177:16 difference 84:1 different 50:9 56:12 68:6 82:25 121:16 197:7 differential 129:12 differing 67:6 67:13 difficult 20:17 134:8 150:16	difficulties 100:21,24 diffuse 135:17 digital 207:3 dimensional 130:13 dimensions 131:16 dioxide 34:24 107:13 176:19 dip 114:22 dipole 111:1 170:10 dipping 114:18 167:11 direct 17:24 18:11 27:1,5 94:14 148:22 176:7 185:16 195:22 direction 96:7 directions 131:6 172:15 directly 67:19 99:8 156:6 174:19 director 3:7 disagree 7:4,5 37:25 53:12,19 discrepancies 50:14 190:18 discuss 9:24 12:24 13:8 17:9 19:8 32:4 33:14 38:18
--	---	--	--

[discuss - drill]

<p>52:2 157:18 discussed 22:12 62:25 72:2 78:7 139:17 144:13 159:16 160:3 175:11 190:8 194:7 discussing 20:5 101:19 189:21 discussion 36:12 85:1,19 146:20,25 162:7 193:15 193:19 discussions 76:2,6 86:3 162:12 dismissed 6:14 dispersion 172:15 displace 179:22 displacement 145:24 178:10 178:19 180:7 182:14 displayed 126:1 displaying 134:18 136:13 disposal 36:8 50:1 53:25 62:12 98:21 104:18,20 122:4,11 140:21</p>	<p>dispose 32:12 dispositive 36:19 dispute 7:8 8:1 40:2,12 42:25 43:5,5,9 44:15 48:20 49:14 50:5,23 55:3 55:11,14 56:1 56:20 57:8 58:15 66:11 79:7 82:11,12 disputed 49:22 55:17 disputes 33:19 33:23 45:7,9 48:23 56:23 dissolve 151:10 distance 58:24 161:11 162:2,6 162:20 distribution 132:6 district 40:3,8 40:14 42:22 43:1,23 48:24 51:15 58:16 66:2 68:17 73:20 74:23,24 disturbance 100:13,16,17 diverse 145:19 diversion 116:21</p>	<p>divert 63:20 division 3:8 4:21 5:1,15 6:3 9:2,15 11:15 16:3 31:7 48:12 49:20 50:6,11 59:6 59:25 60:2 62:9 66:3 67:10 74:21 77:19,21 80:2 85:13 87:20 89:1 90:21 101:12 119:25 144:6 147:1 153:19 154:8 154:11,13 160:3 176:2 184:17 185:16 185:24 193:10 200:11 division's 22:17 59:8 60:18 61:1 80:22 87:19 92:17 175:15 divisions 60:12 dmg 150:10 151:3 157:23 docket 10:19 10:23 doctor's 82:23 document 60:7 84:3 158:20 160:1 168:10</p>	<p>168:17 documentation 158:1,4,7,15 documents 164:19 174:5 174:14 doing 9:8 92:5 204:7 dolomite 132:1 domain 45:5 door 73:4 85:23 doubt 34:19 downhole 78:3 100:21,24 108:5 110:11 111:23 downtime 102:2 dr 3:16 51:8 57:7,15 63:21 74:14 76:12 92:13 155:7 190:7 draft 203:8,18 203:22 205:3 205:25 drafted 203:11 drawing 69:14 69:23 70:9 drill 32:6,14,20 33:10 52:6 105:6,13 109:14 127:3 138:18 140:13</p>
---	--	---	---

[drill - energy]

157:22 158:19 189:10 drilled 37:20 101:14 105:23 109:20 118:11 118:15 148:18 153:22 156:25 164:10,12 196:15 drilling 76:21 104:19,22,23 110:16 111:9 111:22 114:5 126:16 128:4,6 128:12,16,20 128:24 129:8 129:10 150:7,9 150:13,14 151:3,3 158:15 158:16 159:12 159:16,21 160:10 187:15 187:17 drinking 80:16 119:19 195:18 drive 129:6 dry 108:12 due 100:21 152:3 duly 41:19 94:8 185:3 dumbest 63:3 duration 123:20	duties 78:24 95:12 dv 109:15 dx 1:9 e e 1:4,16,23 3:1 3:1 142:23 143:3,5,7 185:10,10,10 188:6 earlier 21:11 41:14,14 51:9 63:1 71:5 73:10 132:20 133:21 144:11 144:14 145:25 147:14 152:14 169:3 189:25 190:20 193:8 193:15 194:8 early 32:16 78:10 105:24 east 33:24 100:6,15 121:17,17 123:5 148:5 167:14 eastern 112:8 126:25 128:3 129:2 164:4 easy 200:9 eccles 169:19 169:19 echo 11:6 26:10	eclipse 130:6 146:7 economic 66:25 67:24,24 68:8 80:8 edge 66:9 education 95:17 effect 152:3 effective 187:9 efficient 187:20 effort 86:3 egress 77:24 eight 131:10 164:25 202:6 eighteen 202:15 either 8:23 27:20,21 64:10 70:4 72:25 78:9 80:10 81:23 91:4 121:17 135:13 161:9 165:22 165:23 ejection 185:23 element 55:4 55:11,22 61:25 62:13 63:17,18 90:19 elements 54:22 55:1 56:2,14 62:3 63:1 101:22	elevated 103:5 140:7 email 9:7,8 empire 4:10 25:11 employ 151:2 employed 94:18,20 207:8 207:11 employee 207:10 encased 149:24 encounter 108:25 113:24 128:10 137:15 178:1 encountered 150:9 encountering 175:6 encourage 27:9 encroached 79:3 encroaches 63:25 encroachment 65:23 79:6 endeavor 28:6 ended 18:21 20:7 26:14 33:3 170:18 ends 21:18 energy 3:18 5:11,11 8:2 185:21
---	---	--	---

[enforcement - examine]

enforcement 8:12,14 9:9 enforcing 9:16 engage 76:2 83:13 engagement 205:23 engaging 83:19 engineering 186:10,15 english 89:22 ensure 104:3 109:15 131:5 136:17 137:14 140:1 150:22 187:9,19 enter 56:11 entered 8:6 90:18 96:21 143:10 186:18 entertain 70:16 82:19 entire 7:2 38:16 64:9 85:8 169:23 entirely 42:24 44:14 49:17 entities 9:25 45:6 entitled 8:2 entity 64:16,18 entry 7:16 environment 54:24 62:19 80:15 141:21	157:12 159:18 195:18 environmental 78:13 102:4 157:10 envision 134:9 eog 16:23 equate 134:11 equates 140:19 equilibrium 133:9 equipment 89:9 112:1 194:7 equivalent 123:19 188:6 erroneous 13:17 escape 76:18 especially 68:22 166:2 183:11 essentially 9:7 50:7 127:18 132:8 178:23 180:2 establish 46:3 48:11 established 6:25 34:5 61:22 establishing 67:3 estate 45:20	estimate 133:13 estimated 188:5 estimates 124:12 130:3 et 8:21 30:5 48:15 78:1 79:16,18,25 80:16 81:3 127:1 evaluate 120:9 122:17 152:16 evaluated 113:6 127:2 evaluating 120:8 122:13 130:25 145:9 150:17 174:13 195:4 evaluation 149:4 164:19 170:12 evaluations 129:22 eve 3:4 evenly 179:9 event 52:1 events 103:6 120:11 eventual 69:6 eventually 171:9 188:16 everybody 3:4 15:9 29:8 30:4	68:11 69:4,10 72:20,21 86:14 86:19 206:10 evidence 40:15 43:13 45:25 48:3 52:17 56:5,7 58:5,18 58:23 64:2 72:11 121:22 148:22 172:24 evidenced 60:6 evidential 72:11 evidentiary 30:10 76:15 85:2 evolution 104:12 108:17 130:3 163:7 evolved 129:21 evolving 163:2 exact 14:5 62:12 166:17 177:17 exactly 134:9 144:24 158:24 171:15 174:5 192:9 examination 94:14 143:13 143:15 144:6 152:10 185:16 examine 50:13 51:2
--	---	--	--

[examined - extensively]

examined 94:10 185:5 examiner 5:9 examining 144:2 exceed 42:2 121:20 172:20 180:15 exceedingly 9:9 26:22 exceeds 41:3 excellent 3:25 5:12 7:12 11:20 15:9,20 16:14 19:2 21:24 22:14,19 29:10,14,15,20 31:8 39:18 89:15 90:3 154:24 184:3 184:14,18,23 195:23 201:11 201:14 204:6 206:1 except 46:11,15 47:24 77:17 191:10 excerpt 164:1 exchange 87:6 88:18 180:2 excludes 60:20 exclusive 41:22 51:14 excuse 38:4 64:7,13 133:1	excused 154:25 183:23 201:12 exercised 54:3 54:4 exert 167:9 exhaustive 67:5 exhaustively 67:12 exhibit 1:17 90:22 95:10 97:4,7 98:2 119:22 142:10 142:12,16,18 142:21,23 143:3 144:12 186:3,13,19 188:25 189:4 190:18 191:2,2 191:5 192:5 194:12,16,17 195:12,16 202:19 exhibits 17:25 18:1 19:11 43:15 85:15 96:5,10 103:12 142:2,4,7 143:5,6 146:24 147:13 194:22 195:11 existing 45:23 49:22 78:4 81:14 103:24 109:23 114:21 114:22 116:20	122:7 125:2 130:13 exists 50:2 expansion 144:17,25 188:3,7 expect 7:23 20:8 21:22 113:23 114:7 126:17 129:3,5 163:11 167:12 172:14 expectation 27:4 160:22 expectations 140:9 expected 57:19 80:19 109:12 112:25 137:20 expense 76:19 expensive 76:22 80:4 experience 19:18 95:17 159:21 197:11 experienced 80:25 experiences 129:10 expert 94:25 96:14 186:9,14 189:6 expertise 43:21 experts 18:16 55:25	explain 144:23 193:5 explained 41:1 188:9 189:6 190:2 192:12 196:7 explanation 188:9 190:1 exposures 112:11 express 46:9 47:20 60:12 121:9 expression 121:12 135:25 expressly 46:13 extend 18:13 47:2,11 55:10 57:9,20 58:7,8 58:24 61:12 100:13 117:17 extended 86:25 124:1 extending 20:21 46:21 117:11 135:8 137:23 140:10 extends 49:23 149:21 extension 150:20 extensive 129:15 139:6 extensively 129:18
---	--	--	---

[extent - felderwork]

extent 8:16,19 47:8 50:22 118:14 135:5 148:6,7,8 152:16 153:1 154:3 179:17 180:23 182:10 190:9 198:6,8 199:3 extra 25:22 eye 175:8 eyes 84:20	38:16 39:4 52:11 53:13 60:23 71:17 83:3 95:10 129:14 factor 92:23 191:15 197:18 197:18 factors 149:15 facts 56:8 factual 56:22 63:12 77:9 91:2 fail 147:25 176:8 failure 148:1 fairly 21:17 faith 32:5,14 33:10,13 37:8 38:25 45:16 46:17 47:18 51:17 53:7 75:14 142:14 fall 37:21 falloff 111:17 falls 76:25 familiar 95:5 121:1 far 9:20 10:10 10:13 202:8 farther 81:17 172:14 fast 19:15,17 fault 36:13 95:2 96:2,15	103:1 120:4,10 120:23 121:2,8 121:10,15,20 122:1,16,25 123:1,11 125:10,12,14 125:16,19,21 125:25 126:3,9 134:5,21 135:24 136:1 136:23 137:18 140:3 147:9,15 147:21,24,25 148:6,9,10,12 148:18 149:8 149:13 167:1 172:13 178:18 178:19 179:17 179:18 180:3 180:15 182:2 190:7,9,13 198:5,8,8,9 199:1 faults 113:5 121:6,7,9,14,18 121:18,19 123:9 126:10 131:3,3 133:22 135:20,23 137:22 147:8,9 148:2,19,25 165:19,20 177:18,21 178:3,8,17 179:3,4 180:9	180:11 183:6,8 183:16,18 187:12 197:23 197:24 198:23 198:24 199:5 favorable 72:21 147:25 fe 15:23 30:22 feasible 160:20 features 120:17 february 4:2,7 4:18 17:18 federal 14:15 118:13 139:18 173:11 174:1 175:18 176:25 feedback 19:25 20:8 feel 55:21 70:7 71:15 84:20 105:25 feels 13:15 feet 98:19 109:5,9,14,20 110:6 112:12 112:20,25 115:12 117:11 117:18 118:9 131:17 134:4,8 136:25 137:9 161:16,20,21 162:1 173:23 189:11 198:10 felderwork 15:21,22 16:1
f			
facilitate 203:20 facilities 45:22 58:21 102:1 103:23 138:22 176:20 facility 31:22 40:18 57:23 98:13,15 99:3 99:4,21 100:1 100:3,9,9,15 104:14,15,18 104:21 105:6 106:8,10 122:5 122:7,11 135:9 137:24 140:11 141:6 145:6 155:20 156:7 156:21 157:4,4 177:9,14 fact 12:5,10 13:15 36:16			

[felderwork - formation]

18:7 19:3,4,16 21:2 23:13 27:15,17,21 29:11,12,25 field 141:7 figure 17:19 64:20 68:17 84:24,24 130:12 147:13 178:25 file 45:25 49:4 54:7 61:22 164:18 filed 9:1,6 19:21 27:10 32:25 35:8 40:8 45:25 46:23 51:24 64:25 74:23 76:7 85:14 95:6 97:4,14 97:25 145:12 filing 17:23,24 17:25 18:10 19:6,11,18 20:13 26:24 27:5 47:7 73:20 filings 50:14 fill 20:10 68:19 filling 68:7 final 8:11 101:17 164:19 170:12	finally 32:11 39:6 62:13 financial 79:6 80:1 financially 207:11 find 6:24 70:9 71:10 85:24 114:8 117:7 168:24 174:6 192:1 finding 40:22 findings 36:16 finds 6:1 fine 22:24 23:11,13,17,20 26:2,2 29:12 29:16,19 finger 48:6 205:18 finish 203:10 firm 21:21 168:16 first 4:10,20 7:15 18:13 23:2 32:4,13 33:7 43:18 51:8 54:22 55:3,9 59:16 61:25 63:17 77:3 94:8 99:19 104:16 109:3,7 144:9 153:1 155:7 170:22 185:3	fit 200:10 five 86:20,21 87:13 88:23 90:24 109:2 120:20 122:1 123:16 184:4 193:23 202:9 202:20,24 flaring 141:6 flexibility 18:3 18:10 19:1 20:13 flow 90:23 104:11 134:5 135:21 136:3 137:18 170:24 177:22 fluid 119:4,12 124:8,10 126:16 128:4 128:12,20 129:8 133:4,24 165:14 fluids 40:15 110:3 111:9 125:11 129:13 131:3,4 167:8 178:4 fluvial 112:10 flux 176:5 flying 18:17 focused 21:14 fold 188:7 folks 123:7	follow 33:5 following 59:5 59:25 66:19 109:18 130:4 151:7 follows 94:10 185:5 foot 168:11 170:15 footprint 133:14 134:23 135:1,6 136:6 137:14 145:23 177:25 force 53:24 54:7 69:20 forecast 103:17 129:23 forecasts 130:5 foregoing 207:4 forget 184:22 forgetting 155:3 forgive 134:14 forgiveness 91:12 forgot 155:2 form 32:17 40:9 51:22 98:22 159:9 182:15 formal 90:16 formation 43:3 51:4 110:3,7
--	--	---	---

[formation - gebremichael]

111:8 114:8 115:14 119:12 151:17,24 152:2 165:8 187:8 196:24 formations 114:4,6 118:7 150:12 forms 50:9 68:6 formulating 19:9 forth 12:7 33:4 157:25 199:3 forum 7:6 forward 12:8 74:19 75:18,19 76:10 95:15 205:24 found 118:17 foundation 26:21 four 19:12,15 146:20 175:14 175:22 188:10 193:9 fox 15:16,16,20 16:5 17:2,4 18:25 19:4 21:3 22:20,22 23:11 25:5,15 25:18,20 26:2 26:4,8 29:9 fracture 110:25 110:25 111:20 151:15 163:4	164:20 170:1,2 170:3,8,13,17 170:21 171:15 192:1 196:16 197:2,6,8 fractured 197:3 fractures 151:9 francis 32:23 33:18 free 105:25 frequency 89:10 90:23 193:22 fresh 85:5 119:4,15 141:21 friction 171:11 friday 3:4 frivolous 9:11 front 10:11 68:17 84:3 fruitful 76:6 frustration 13:6,8 full 10:15 11:10 19:11 111:7 124:23 190:9 190:12 fully 118:19 133:18 137:6 138:14 139:8 141:13 173:3 174:25	function 45:4 83:9 173:17 further 66:3 68:10 126:13 141:25 143:12 152:6 154:23 195:22 207:9 furthermore 103:1 188:10 fussman 116:9 165:16,17 170:14 future 40:10 42:24 44:9 171:18 198:12 199:16 200:1 201:4 g g 3:1 185:10 gallon 128:17 128:18 gamma 110:22 gas 2:2 16:13 30:13 31:25 32:20 34:24,25 36:24 46:10 52:5 68:2 71:4 71:13 76:17,18 77:24 78:11,12 78:20 79:14 80:20 82:3,7 93:9 95:2,24 96:16 98:12,20 99:3,21 101:25 102:9 104:14	104:18,20 106:17,19 107:8,10,12 108:13 109:23 110:4,7 112:15 112:16,17 113:15 117:20 118:22 120:21 124:11,15 125:7 126:6,8 126:18,22 127:14 128:7 132:23 133:3,5 133:7 134:19 135:2,8,12,15 136:9 137:7 138:10,11,19 145:7,19 146:4 148:20 157:5,8 157:24 162:14 163:8 167:7 176:8,11,20 185:24 189:1 gases 136:3 178:11 gebermichael 1:13 2:5 gebremichael 81:3 184:17,19 184:20 185:2,8 185:9,18,19 186:14,21,25 187:21 188:24 189:24 190:14 192:4 193:14
--	--	--	--

[gebremichael - good]

195:1 196:1,12 196:18,21 197:16,24 198:2,18 199:9 199:15,21 200:8,15,21 201:5,12,17 general 49:7 99:25 101:20 103:21 106:3,6 107:8 108:8 112:2 114:17 121:5,13,18 137:21 138:9 141:3 144:9 178:8 192:5 generalized 79:12 124:18 generally 22:17 112:9 121:6 131:10,11 164:4 199:6 generate 103:16 gentlemen 3:19 22:21 geo 94:20 geologic 102:16 102:20,21 103:2 105:16 108:18 110:7 113:10 114:6 119:3,15 130:7 130:14 131:8 135:10 141:12	154:7 geologists 165:25 geology 95:1,19 96:14 108:24 112:3 113:4,23 geomechanical 125:21 geometries 167:16 geophysical 110:20 gerasimos 3:11 gerasmos 3:6 germaine 96:18 96:19 185:12 gerry 3:7 getting 11:10 24:12 70:1 77:8 171:11 203:19 205:25 give 26:25 34:7 35:20 52:22 71:22 84:13 88:24 92:24 98:7 99:25 114:3 205:1 given 28:9 76:4 192:16 193:7 193:23 gives 25:13 52:20 giving 136:14 137:13 173:2	glx 152:15,24 154:2 go 3:6 6:23 19:3,15,16 23:16 24:7,17 27:19,21,22 30:9 53:5 55:17 58:8 68:16,23 69:9 69:14 70:8,19 71:15,23 73:20 81:17,17 82:15 83:10 85:4 89:12 90:6,10 94:1 98:5 99:11,11,16 116:25 125:18 131:7 132:16 140:9 142:4 155:7,14 163:15 172:6 178:21,22 179:18,20 180:3,11 181:3 190:22 191:20 204:11 goals 155:20 goes 55:12 70:5 83:12 173:13 192:19 going 7:18 8:19 9:4,17 10:6,15 12:23 14:16,17 18:16 20:16,17 23:1,15 25:20	26:25 27:5 28:12 36:10 47:1 55:17 56:10 58:23 65:14 66:2 68:8,25 69:9 69:11,20,22 73:10 75:11 76:3 77:11,12 79:23 80:4 81:18 85:10 86:1 91:17 95:18 97:18 99:8,10 114:4 120:4 125:20 127:14 128:10 129:5,23,24 140:6 145:7 147:1 149:17 150:5 155:14 155:17 157:22 158:2,3 159:7 160:1,15 162:5 162:8,9 167:4 167:25 174:6,8 177:19,20 178:24 181:15 182:4 191:15 191:22 192:2 196:8,9 197:10 198:10 199:13 199:20 200:4,7 200:9 204:16 good 3:3,16 4:24 5:4,9 7:14
--	---	--	--

[good - hart]

<p>15:21 16:6,10 19:4 21:3 23:22 25:6 31:18 32:5,14 33:10,13 37:8 38:25 39:21 45:16 46:17 47:18 51:17 53:7 54:19 75:14 86:8,9 86:13 88:14 94:17 99:24 102:23,23 113:4 114:3 116:4 130:1 137:13 142:14 144:8 155:23 173:5 174:11 183:4 185:18 198:9 206:10 goodnight 4:10 25:11 gosh 6:23 governs 44:22 gradient 164:20 170:17 192:1 197:3,6 197:8 gradients 110:25 grading 197:2 grammar 89:22 grandfather 65:1</p>	<p>grant 56:9,9 granted 40:16 189:22 granting 45:5 141:16 grants 46:13 graph 191:16 191:20 graphically 126:1 grave 74:11 75:20 gravity 106:18 149:9 gray 68:15 great 166:21 172:23 194:2 204:8 greater 112:20 124:13,14 127:3 139:4 156:7 158:25 161:25 179:23 greatest 135:1 135:5 green 126:3 greg 3:13 grid 179:8 gross 54:25 55:22 61:15 62:14,14 63:2 63:19 65:17 67:21,24,25 69:1 75:3 80:24 194:1</p>	<p>ground 85:25 groundwater 102:14 109:6 116:19,21 117:19 119:4,5 138:14 139:9 141:14 group 59:16,20 109:22,25 148:2 149:19 149:20,22 150:11 151:4 157:23 185:22 189:17 192:18 192:20,22 guard 166:9 guess 18:12 19:16 65:16 84:18 87:18 90:15 155:12 173:24 201:18 204:13 guessing 129:18 guidance 160:23 guided 165:5 guy 63:3 guys 51:14 73:20 205:25</p>	<p>187:18 188:14 188:21,23 193:11,12 hail 26:17 half 23:2 38:9 38:20 59:23 63:11,14 64:24 66:5,13 86:9 86:10,25 92:15 92:18 93:25 117:9 hammer 20:12 hand 12:7 94:5 184:25 handling 99:3 101:25 102:5 handy 168:24 hanging 18:22 happen 171:16 196:22 happened 35:22 54:9 happening 26:14 152:4 happens 48:15 196:17,19 happily 75:24 happy 3:4 7:10 13:8 39:7 63:3 70:5,16 72:24 73:16,18 203:22 204:21 hard 80:21 hart 15:23 30:22</p>
		<p>h</p>	
		<p>h 1:16 185:10 h2s 34:25 107:13 132:24 147:3 149:24</p>	

[hash - huh]

hash 13:25	73:13 85:2,14	hinkle 16:18	18:15,21
hazard 158:21	91:21,24 92:1	historical 197:4	holidays 20:17
health 54:24	93:7 96:6	history 95:17	21:10 23:7
62:18 78:13	97:14 138:6	99:20,22	holland 15:23
80:15 82:4	142:20,25	100:22 102:18	30:22
141:21 157:12	146:24 186:1	103:9 104:10	home 33:23
195:8,17	191:2	105:25 119:6	163:16
hear 11:6 13:14	hearings 18:19	124:2,22 130:1	homogeneous
13:16 16:7	59:7	132:3 133:19	165:1,3
25:12 34:9	held 8:9	139:20 145:6,9	hope 20:8 26:4
39:12,14 48:7	help 48:11	145:18 166:16	116:15,15
52:5 54:16	129:12 173:3	174:14	hopeful 20:2
55:19,24 56:7	175:13 182:11	hit 176:24	28:5
68:25 72:24	193:25	hold 19:12	hopefully 20:24
77:3 84:11	helpful 147:17	106:22	21:8 48:11
85:1 91:17	helping 176:2	holder 6:12	49:10 155:13
97:20 193:19	helps 183:13	holding 86:19	161:7
204:9	hereto 207:11	hole 38:11,12	horizontal
heard 9:12 18:6	heterogeneous	41:8,10,12	123:4 131:14
26:6 55:2	164:25 165:5	45:22 58:20	148:4 182:24
76:14 146:19	hi 85:7	59:19 60:17	hour 86:3,9,10
179:25 189:24	high 107:23	81:15 101:16	86:25 87:1
193:15,15	109:1 110:7	104:24 108:15	92:10,15,15,17
hearing 5:17	114:23 128:3,7	116:13 117:3,4	164:18
7:11 8:23	180:8	150:15 156:20	huh 25:18
11:21 12:9,16	higher 105:17	169:4 172:19	89:16 97:3
13:5,17 14:3	125:4 128:15	172:20 188:13	147:23 157:20
14:16 17:6,20	135:12 173:23	holes 80:21	158:11 159:10
17:21,22 18:1	183:12 197:12	161:12,13	159:19,23
18:13,19,21,22	highest 135:14	163:10	162:24 163:9
19:1,10,13	163:12	holiday 5:4,5,7	166:24 169:21
20:14 22:4	highlight	6:21,21,22	171:8,22
25:3,4,8,24	115:24 116:12	7:10,13,25	177:10 178:6
30:10 43:16	highlighted	9:20,23 11:18	181:6
44:17 45:12	113:12 115:5	11:19 14:16	

[human - included]

<p>human 62:18 78:13 141:21 hundred 41:9 hurting 12:20 hydrate 151:17 151:23 152:2 hydrides 109:10 hydro 55:6,7,9 hydrocarbon 43:4 hydrocarbons 107:14 hydrogen 102:5 103:24 176:14,19 hydrogeology 95:1,19 96:15 hydrologic 124:16 125:8 hydrosorce 46:10,16,18,24 46:25 47:4,9 47:21,23 57:12 58:9,13,25,25 59:14,20 60:20 61:19,21 64:15 64:16,22 65:4 65:25 71:5 75:4,9,12,17 88:18,25 hydrosorce's 46:22 47:2 57:10</p>	<p>hydrosources 87:25</p> <p>i</p> <p>i.e. 49:5 idea 99:24 198:9 ideal 205:7 ideally 161:5 ideas 71:23 identifiable 176:13 identification 126:10 129:2 142:11,17,22 143:4 186:20 194:23 identified 43:15 123:13 126:24 127:7 139:25 162:7 identify 9:8 113:5 115:8 123:10 133:14 149:5 170:8 171:14 174:10 198:23 identifying 79:2 119:10 126:6 130:21 133:24 143:1 175:5 ii 188:25 imaged 111:7 images 97:1</p>	<p>imagine 21:13 imaging 111:8 immediate 135:21 178:9 impact 21:15 26:16 51:2 119:5 136:1,16 172:15 impacted 71:14 80:20 82:10 83:3,6 133:15 133:25 187:12 impacting 54:5 impacts 21:19 103:19 125:3 129:24 131:1 146:16 impaired 75:10 impairment 43:8 impedance 131:15 156:4 165:5 impede 42:20 implement 87:21 88:3 199:16 implicate 44:9 61:13 implicated 62:16 important 9:14 20:14 36:18 37:2 39:5 44:24 50:10</p>	<p>53:14 108:16 impose 43:15 imposed 77:19 87:9 improper 44:4 improperly 43:14 improved 155:25 improving 98:14 inadvertently 60:21 inappropriate 74:3 83:22,25 inaudible 12:20 15:24 26:3 76:1 147:18 150:17 152:3 172:21 184:22 inc's 35:2 inch 110:18 inclined 100:14 include 38:6 58:20 61:12 63:7,8 95:12 98:22 119:2 124:2 137:10 140:15 146:5 149:14 154:2 172:8 181:21 included 74:12 77:16 97:11 115:20 120:14 120:19 122:1,9</p>
---	---	---	---

[included - injection]

123:16 150:1 153:8 154:4 160:22 168:19 172:12 175:22 includes 8:8 40:14 102:13 103:21 106:14 109:3 139:11 165:10 including 69:25 150:11 195:15 195:18 198:3 inclusion 74:4 145:1 inclusive 113:20 147:4 incorporate 99:5 108:10,15 110:1 111:1 130:10 158:8 incorporated 94:20 104:2 108:19 130:23 181:18 incorporates 102:22 incorporating 103:14 incorrect 12:3 64:24 105:11 increase 47:8 88:21 89:13 98:15,16 123:2 124:13,20,23 127:6 138:20	140:16 141:3 increased 30:15 93:11 114:15 123:10 138:11 146:13 increases 127:24 increasing 39:4 138:12 193:22 incremental 47:8 98:15 independence 122:8 162:2 independent 16:18 indicate 128:20 indicated 7:25 42:15 57:24 65:22 indicates 47:22 113:12 indicating 59:1 indications 49:3 indicative 151:23 individuals 13:1 induce 122:18 122:24 123:2 123:13 induced 103:6 113:6 120:10 121:2 122:14 140:7 187:13	industry 17:18 18:6 20:9 inform 111:17 information 55:21 58:1,1,4 88:8,25 97:10 150:18 160:14 164:7 168:14 173:2 202:3 informed 131:14 133:3 178:24 informing 108:17 initial 122:23 146:14 168:14 initialization 168:15 initialize 168:15 initialized 168:10 initially 19:21 103:13 inject 31:25 41:7,11 45:17 45:19 46:10,14 46:17 47:23 53:1 58:14 59:22 68:1 71:1 107:12 133:12 136:20 142:15 187:19 189:21	injected 36:24 38:13 40:15 57:20 70:22 119:3 126:8,18 134:5 injecting 51:4 149:20 167:8 189:16 192:18 199:10 injection 2:3 30:13,16 34:23 36:8 40:18 41:20 42:1,19 47:18 49:25 50:8,10 58:6 59:3,9,11,13 67:2,9 68:6 93:9,12 95:2 95:23 96:3,16 98:12,17 99:21 100:18 101:1 101:10,13,14 102:16,24 103:6,20 104:15 105:18 107:4,8 108:13 108:18 109:24 111:6,14,15,16 112:18,21 114:13 115:7 117:20 118:4,8 118:12,16,22 119:18 120:10 120:19,20,21 122:1,13
---	---	--	---

[injection - intervals]

123:15,17 124:15,20 125:17,20 126:2,6,22 127:9,20 129:19 130:7 130:22 133:8 133:12 134:20 134:23,25 135:16 136:15 136:22,24 137:1,6,12 138:19,20,23 139:2,14,17 140:4,16 145:7 146:6 156:8,18 157:5 160:19 163:10 165:11 167:5,18,22 169:3 171:4 181:9 182:8,14 187:7,9,10,12 188:11 189:1 191:13,19,22 196:9 199:8,10 199:14 200:3 200:12,23 injections 167:11 170:7 192:21 injectivity 111:18 injects 109:24 injuries 40:8 61:15	injury 42:22 61:6 inlet 107:10 inner 107:21 input 65:12 122:15 203:20 installation 102:13 installed 109:8 147:4 151:21 installing 176:4 instance 9:13 11:22 34:8 59:9,12 60:25 81:22 190:6 196:17 instances 40:14 174:7 instructions 138:7 instrument 35:12 integrate 188:20 integrated 108:6 188:23 193:12 integrating 198:4 integrity 110:4 176:10 intended 44:2 129:7 intending 142:5	intends 151:8 intent 107:3 110:21 intention 149:22 interactions 160:7 interconnecti... 156:3 interest 5:23 6:12 8:8 9:16 32:1 33:1,15 33:15 34:10 37:23 40:3 47:6,13,15 55:6 57:18 60:5,5,6,7,9,15 60:19 66:4 67:15 68:9 interested 17:12 104:5 138:5,25 207:12 interests 5:21 40:13 41:17 44:4,15 57:17 60:10 62:6,7 74:7 75:9 interface 179:14 182:7 interfere 21:10 interference 52:1,3 156:17 162:21	interim 22:12 25:7 interject 99:13 99:17 intermediate 109:7,13,18,19 150:25 interpret 47:14 51:21,23 52:4 interpretation 42:5 49:6,7 95:1 96:15 120:14 128:3 149:11 interpretations 43:19 83:23 interrupt 7:19 12:23 25:20 interval 105:17 109:19,21,23 110:1 111:10 112:18 115:2 118:3 126:21 126:24,25 127:4 134:25 150:23,25 174:18 intervals 109:9 110:7,10 111:6 111:7,13,13 112:13,15,16 112:17,24 113:10,14,19 115:6 117:18 128:8,9,14,22
--	---	--	---

[intervals - kind]

136:8,11 150:20 158:25 intervene 37:18 38:21 61:21 65:8 intervened 35:10,16 61:4 intervener 30:25 61:20 intervenes 35:17 intervening 104:8 intervention 7:17 61:4 73:19 87:7 introduction 120:8 intruding 74:17 inundated 122:3 inversion 130:18,25 investigation 102:20 investigative 8:13 invitation 40:4 involve 48:21 involved 13:16 13:19 32:19 160:11 involvement 7:23 73:10	involves 176:4 involving 153:3 ipnm 22:2 23:20 28:22 iron 118:18 174:19 175:3 irrelevant 12:6 12:16 isolate 117:18 150:20 isolated 118:17 128:9 174:18 isolating 109:5 109:9,16,21 110:6 148:24 isolation 127:13 issue 8:25 9:18 31:22 32:10,10 34:16 36:7,21 37:14 39:3 41:22 42:1 48:24,25 49:18 50:4 53:4,11 55:16 57:4 58:15 59:4,4 66:7 issued 32:23 74:13 104:17 105:4,12 107:2 138:7 issues 17:16 21:5 38:19 49:13 51:14 62:19 76:15,23	83:10 104:24 105:3 150:15 160:9 176:9 it'd 23:6 it'll 14:4,6 15:4 91:2 93:25 186:23 item 89:4 j jail 100:4 jal 106:5,8 january 104:17 jesse 4:25 12:1 13:15 16:2 31:6 joa 7:3 job 9:8 19:4 21:3 72:25 joint 20:2 jonathan 5:10 jones 150:10 jud 54:14 june 11:8,21 13:9,25 14:4,5 14:6,7,12,15,19 15:5 19:12 46:23 105:5 154:11 junk 158:4 junked 158:13 jurisdiction 7:7 33:19 34:4,9 34:14 37:7 41:5,22 42:12 43:6,22 51:13	51:15 52:8 74:9 jurisdictions 73:12 justice 9:13 12:14,15 justify 80:22 k kaiser 32:23 33:17 keep 13:9 68:14 175:8 178:24 key 101:22 107:25 115:1 kicks 136:10 killling 84:20 kimberly 122:11 124:4 kind 19:7 21:12 26:17 28:7,12 68:19 70:2,8 83:8 98:10 99:25 100:14 104:9,10 106:10 107:17 108:25 114:19 116:24 121:4 122:23 124:17 127:4 128:2 129:1,21 130:2 131:13,18 136:2,4 139:19 140:22 146:18 166:4 167:12 167:15 175:11
--	--	---	--

[kind - leaves]

175:13 176:24 178:10 179:2 180:10 200:12 knew 71:6 knot 136:2 know 10:12 11:8 17:12 18:20 20:1 21:4,16,17 24:14 25:7 26:13 27:25,25 28:3,7,11,13,16 30:3 39:12 66:8,13 67:23 68:22 69:11,17 69:19 70:7,21 70:21,22 71:1 71:13 72:1,9 72:12,25 73:12 74:1 75:2,23 75:24 76:2,9 77:17 79:19,20 79:22,25 81:1 81:7,10 82:13 82:14 84:17 94:18 96:25 106:25 107:1 110:21 112:15 115:19 116:1,6 119:25 125:1 126:17 127:7 128:25 130:15 131:3 134:7 135:3 137:15 139:16 148:19	151:21 153:16 157:21 159:13 159:18,25 160:4 161:19 162:5,13,21 163:1,10,11,11 163:16,18 165:21,24,24 166:16,19,21 167:7,15 168:10 169:25 171:9,10,17 172:6,24 173:3 173:15,19,22 173:23,24 174:2,16,24 175:1,2,3,8,10 177:15,18 178:10,18,25 180:17,18 181:19,19 182:3,20 183:3 183:9,12,16,17 190:8,12 195:7 195:8 197:18 197:22 198:6,7 198:8,25 199:4 199:6,12,22 200:4 204:13 204:19 knowing 46:25 47:1 175:7 knowledge 48:19 49:24 207:6	known 36:10 80:19 112:18 119:18 kyle 15:19 l l 185:9,9,10 la 21:4,11,20 22:2 23:17 28:10 29:16 labeled 101:1 171:20 lack 137:21 laid 33:3 lakes 94:20 land 32:1 48:11 50:3 59:11 64:2,4,5,6 84:5 156:21 landowner 35:10 lands 3:15 35:12 64:8 95:19 language 55:17 75:18 160:21 larger 117:5 largest 35:10 late 69:18 lately 176:3 lateral 40:17 126:11 148:8 179:16 laterally 119:8 119:9 129:15 149:3	law 6:15 42:6 49:2 50:21 54:15 67:23 lawsuit 40:8 76:8 lawyer 53:15 lawyers 53:17 lay 48:11 layer 121:22 178:23 179:6 layers 100:7 131:14 164:25 165:4 layman's 38:5 layout 99:25 100:12 lays 158:5,8 lea 46:1 93:12 118:13 139:18 173:11 174:1 175:18 176:25 lead 65:15 187:13 learn 21:7 198:23 learned 157:19 158:9 lease 5:20,24 6:12 52:5,7,19 60:8,9 100:13 leasehold 8:7 leave 26:1 68:12 leaves 176:23
--	---	--	---

[leaving - longer]

<p>leaving 20:7</p> <p>led 155:24</p> <p>lee 30:16</p> <p>left 106:5 112:4 125:14 134:17 135:13</p> <p>legal 53:18 58:12</p> <p>legally 44:10 44:19 61:6</p> <p>legislation 21:15 28:1 173:18</p> <p>legislative 21:13 25:21 39:24 42:16 49:11</p> <p>legislature 22:8 25:23 39:5</p> <p>legitimate 77:14</p> <p>length 148:9,12</p> <p>lengths 198:7</p> <p>lessee 60:8 64:7 64:11</p> <p>lessons 157:19 158:9</p> <p>lessor 64:7</p> <p>letter 1:22 138:3 142:19</p> <p>level 75:10 109:1 115:24 124:22 128:3 175:4</p>	<p>leverage 45:8</p> <p>leverages 130:15 133:2</p> <p>license 40:16 52:20 83:11,12</p> <p>lieu 193:24</p> <p>life 174:22</p> <p>likelihood 26:20 187:16</p> <p>likely 7:24 49:4 58:7 64:22 98:25 148:3 167:9</p> <p>limit 77:5</p> <p>limitations 124:5</p> <p>limited 46:11 46:15 47:24 48:13,14 59:7 60:10 72:5 83:12 149:2</p> <p>limiting 92:23</p> <p>limits 40:17 42:2 171:10</p> <p>line 12:2 17:11 36:13 37:13 110:14,20 134:22</p> <p>linear 121:12</p> <p>lines 27:4 65:18 107:23 125:18</p> <p>list 5:25 6:1</p> <p>listed 113:19 147:15,21 195:15</p>	<p>literature 131:25</p> <p>litigate 7:8</p> <p>litigation 206:4</p> <p>little 4:4 7:20 24:10 25:22 28:11 57:4 66:19 92:15,25 93:25 97:19 101:7 104:9 107:7 113:1 124:11 125:4 126:20 133:3 134:8 136:1,2 136:12 145:19 147:8 156:6 157:7,9,18 161:18,24,24 175:24 178:5 186:22 205:1</p> <p>llc 30:12</p> <p>lloyd 207:2,15</p> <p>local 112:10 122:16 128:4 138:10</p> <p>locate 191:21</p> <p>located 40:19 41:7,8,10,10,13 59:12,14 60:24 79:20 100:3 188:12</p> <p>location 38:11 38:12 41:12 45:17 59:12,18 59:19 60:15,17</p>	<p>62:12 78:8 100:19,25 101:15,16 112:8 113:3,9 115:10 116:13 117:3,4 118:21 118:24,24 120:9 126:6 156:20,25 177:23 187:23</p> <p>locations 45:22 58:20,21 78:2 82:4 114:20,20 117:9,25 147:3 148:20 161:25 162:6</p> <p>locke 31:2,20</p> <p>log 127:18 150:17 158:23 163:18,20,21</p> <p>logging 110:14 110:15,17 111:15</p> <p>logs 110:20 111:1 115:21 163:17,20,25</p> <p>long 19:13 22:4 24:7 40:11 44:11 92:4,7 102:18 103:9 145:7,9 183:22</p> <p>longer 92:25 95:14 153:8 161:18</p>
--	--	--	--

[look - marked]

look 10:17 52:23 64:19 67:7 72:3 79:24 81:2 82:16 86:2,5 106:3 114:24 126:13,16 127:21 130:2 136:12 174:13 174:14 180:5 183:4 199:20 205:24 looked 6:2,9 66:7 116:19 172:7 183:3 looking 26:17 90:12 107:17 118:23 121:13 135:13 161:19 173:10 177:25 178:17 205:19 looks 67:1 100:1 132:7 175:25 loop 175:13 losing 127:14 losni 123:7 loss 66:24 67:20 109:17 150:8 lot 18:15,16,20 26:13 148:25 171:11 174:7 204:16 205:16	love 73:3,22 76:9 low 26:23 28:2 107:16 139:3 156:14 163:2 lower 109:21 112:14 135:12 140:21 151:1 186:22 lunch 92:9,25 m m 185:9,10 made 40:12 41:15 47:4 51:19 56:17 58:11 70:21 101:4 106:15 116:1 mail 138:4 main 160:25 161:1 maintain 161:6 maintained 136:25 137:12 137:19 200:25 201:1 maintaining 129:11 major 118:22 120:14 majority 150:24 make 11:25 27:7 40:21 42:14 43:19	45:13 47:18 56:6,10 69:8 73:7 74:16 75:5,6,7,11 83:18,23 84:6 93:24 97:19 99:14 104:11 106:1 110:2 120:1,15 126:20 131:4 133:13 136:19 143:12 145:4 152:19 154:22 155:21 158:3,9 159:4,17 160:2 160:19 174:9 174:11 180:14 196:8 200:24 202:24 204:12 makes 42:22 43:12 66:19 112:20 136:11 197:7 making 21:16 21:19 26:16 45:15 47:12 84:2 160:9 181:23 maliciously 12:15 maliciousness 12:12 manage 41:19 managed 151:2 187:15	manner 187:20 maop 141:1 map 99:24 100:7 101:17 106:4 112:3,4 112:7 114:9,10 114:14,19 122:4 124:18 128:11 134:18 135:13,13 136:2 148:14 149:3 167:4 mapped 169:15 maps 123:8 127:1 136:8 149:9 163:6 166:19 marble 30:24 31:1,3,11,13,18 31:19 39:9,15 39:16,19 45:1 48:6 51:6,7 54:12 57:6 62:23,24 73:5 73:6 82:20,22 84:7 87:2,4,11 88:6,13 90:4,8 march 3:5,21 4:3,4 margin 112:8 113:17 marked 98:2 142:10,16,21 143:3 186:19 194:22
---	--	--	---

[marker - midstream]

marker 101:17	171:1 191:12	4:17 10:18,22	42:20 50:12
mary 26:17	191:22 192:2	25:10 203:9,24	61:12
massive 10:15	196:8,23 197:9	204:2 205:5	messy 136:12
match 124:2,22	may's 26:2	206:2,7,9	met 17:9 62:1
132:3 166:16	mean 6:3,8	meetings 17:1	method 99:2
material	25:17 26:4	20:6	101:25 106:18
116:17	71:16 72:4,5	meets 39:25	130:20 145:25
materials 79:25	81:9 92:1	member 166:4	153:5
98:23 99:12	135:3 148:7,12	190:7	methodology
108:10 138:1	151:13,20	members 15:22	116:12,14,15
146:12 168:18	159:11,22	18:18 166:15	methods 99:6
168:20	165:2,3 167:7	memorialized	130:19 141:1
matt 15:19	167:15,24	90:12,15 91:2	mexico 3:17
matter 12:6,8,9	168:18,23	91:8	12:14 15:13
13:15 15:17	169:13,13,15	memory 161:15	16:12,19 30:16
37:18 40:13	169:16,18	mentioned 3:10	34:3 35:9,14
41:3 48:3 49:7	170:23 171:6	5:16 23:5	35:14,19 38:2
50:11 52:15	173:24 183:3	45:19 63:15,17	49:3,4 53:12
54:15 56:20	meaningful	64:12 68:16	53:18 65:1
58:16 61:4	73:8,11,22	83:22 85:22	93:12 100:4
101:19 104:8	means 72:18	98:11,22	106:8 108:23
144:10	85:22	101:20,24	112:6 122:3
matters 12:7,7	meant 191:23	103:8 104:24	138:13
31:11 33:25	measured	113:24 115:9	mexico's 35:3
34:10 48:12	114:7	117:16 120:6	michael 15:22
matthias 16:23	measures 102:3	121:25 126:5,9	micro 111:8
maximum	158:3	129:25 130:14	microphone
30:15 58:6	measuring	133:21 140:18	7:19 48:7 87:3
93:11 106:13	177:16	145:5 153:5	93:24 97:19
106:16,20	med 104:2	155:15 158:22	184:23 186:22
123:4 133:11	meet 25:14	173:11,16	middle 17:18
133:11,25	30:5 119:1	193:8 198:6	27:6,8 78:17
137:2,12	156:8	merely 64:16	85:25
140:24 148:4	meeting 1:1 3:6	merits 9:4	midstream
160:13 169:6	3:10 4:3,5,6,8	12:24 13:9	30:12 93:7,8

[midstream - modified]

<p>94:14 99:2 145:13 152:11 153:11,13 187:6 migrate 35:11 36:10,15,17 40:17 82:3 136:15 188:16 migrating 78:20 migration 77:24 78:11,12 79:13 129:6 181:14 182:10 miguel 16:11 mile 38:9,15,20 59:23 63:11,14 64:24 66:5,13 116:25 117:1,2 117:3,4,6,9,23 118:10 139:15 148:13 miles 46:21 47:2 53:2 57:21,21,22 58:8 100:4 122:8 135:8 137:23 139:2 139:24 140:11 172:12 173:12 177:8,13 188:5 188:13 millidarcys 131:24</p>	<p>million 1:13 98:19 131:16 134:4,7 136:25 137:9 140:18 184:17 185:2,8 191:24 mind 69:16 177:2 204:7,25 mineral 7:1 37:24 43:2 48:14,17 60:3 60:5,8,10,11,18 62:6,7,10 74:8 minerals 49:21 62:7,10 185:21 minimal 7:24 125:19 170:15 minimize 141:9 160:2 minute 30:4 73:14 75:24 143:21 170:8 171:13 184:4 minutes 4:10 77:11 84:12 86:15,20,21 92:17 mirrors 189:6 misplaced 32:9 35:25 39:3 mississippian 112:23 174:21 180:12 misunderstood 202:17</p>	<p>mit 189:19 mixed 107:12 132:23 133:5 model 35:1,4 36:23 63:24,24 65:22 96:1 103:16 111:17 120:22 121:3 121:10 122:15 122:25 124:6,7 125:9,10 126:4 130:14,23,24 131:9,9,13,15 131:22 132:7 132:10,13,14 132:19 133:2 135:10 136:10 146:21 152:22 154:18 164:25 165:1,9,9 168:10,15 169:14,23 172:8 173:2 178:18,20,23 179:1,8,8 181:18,21,25 182:5,8,11,13 183:9,13 188:1 193:22,25 197:21,22 198:4,17 199:13 201:1 model's 122:22 124:19</p>	<p>modeled 66:9 80:18 95:22 137:5 modeling 50:13 50:15 51:3 57:14,24 58:2 58:6 78:10 82:5 87:12 88:8,21 89:14 89:19 90:23 95:2 96:16 103:1,7,10 120:18,19 121:15 122:13 122:19 123:21 130:7 140:3,4 141:12 144:21 144:25 146:6,9 154:7 198:13 202:7,11 modeling's 78:19 models 51:3 54:5 63:22 108:18 162:22 166:10 177:4 modern 174:8 modification 194:3 202:22 202:23 modifications 204:1 modified 91:3 116:25 117:7 193:3 202:6,7</p>
--	---	--	--

[modified - nature]

202:14 modify 193:16 202:10,14 modifying 193:19 moga 21:4,12 21:20 22:2 23:17 28:10 29:16 moger 13:13 moment 36:3 63:15,17,20 64:1,12,14 70:18 122:4 158:15 168:24 194:24 205:16 206:4 monday 14:17 23:24 205:11 money 82:11 82:12 monitor 44:3 81:7,20 140:1 188:18 194:1 monitoring 72:6 76:21 77:10,10,18,18 77:23 78:2,3,4 78:7,22 79:1 79:18 80:19 81:8,13,15,25 82:9 87:21,25 88:4 89:6 108:15 110:16 167:18,23	168:4 175:12 175:16,19,24 176:1,12,17,21 193:10,16,20 193:24 194:6 199:7,8 200:12 monitors 147:3 176:5,5,18 monte 125:12 month 10:16 17:6 25:5,10 89:10 months 11:9 19:13,15 145:16 morgan 15:18 20:9 morning 3:4,13 3:16 4:24 5:4,9 5:15 7:14 15:21 16:6,10 16:13 18:8 30:21 31:18 32:4 39:21 54:20 73:10 86:13 202:13 mornings 205:4 morphology 177:24 motion 3:22 4:7 9:1,5,22 10:8 31:12,13,23 32:8,25 33:6 36:1 37:15,16	44:20,24 45:11 46:3,8 48:1 56:7 61:22 62:21 75:19 84:25 90:12 91:8 201:18,20 202:4 motions 8:23 9:20,21 31:11 50:18,22 motivation 74:5 mountain 109:22,25 149:20,22 189:17 192:18 192:20,22 mounting 149:18 mouth 186:23 move 3:12,23 4:5,15,19 6:21 14:16,17 15:9 30:18 70:23 71:2 97:18 125:18 126:19 135:17 136:4 142:1,4,7 143:6 146:18 157:7 167:13 186:13 194:16 201:21 moved 23:4,6 movement 71:7 197:25	moves 39:23 moving 30:2 56:18 71:7,18 128:21 137:25 199:14,23 200:5 mpd 159:9 mud 110:17 127:2 128:16 150:9,13 muddy 153:14 153:16 multiple 46:11 47:24 53:2 54:4 58:14 102:14 131:2 133:22 137:17 139:11 174:24 myriad 32:3
n			
n 1:4,4 3:1 185:9 nace 107:23 name 31:19 94:11 143:2 185:6,7,8,9 189:12 named 53:15 natural 113:15 151:10 185:22 195:9 nature 76:4 182:17 190:7,9 190:12 193:8 198:24 199:1			

[nature - northwind]

200:8,9 near 77:23 nearest 117:8 172:11 necessarily 42:6 69:3 78:16 79:7 135:3 196:10 necessary 20:12 54:23 55:12 61:19 62:4 63:19 80:12 81:4 98:23 160:16 160:18 need 3:20 4:4 9:25 25:2,22 27:13 28:11 29:6,6 42:13 47:16 48:13 50:18 51:2 74:1 75:13 76:15,24 77:12 78:25 79:22 81:1 84:23,24 85:4 86:19 89:7 91:2 92:8 128:7 147:12 150:19 159:1 175:8 183:15 190:3,12,22 194:13 199:16 200:3 201:15 needed 86:14 91:13	needs 6:2,8 8:18 28:10 85:21 90:11,14 91:7 98:21 104:18 108:24 160:3 175:8 190:1 negative 54:25 55:22 56:2,15 61:16 62:14,14 63:2,19 65:17 67:21,25 69:1 75:3 80:24 neglect 71:17 71:18 negligent 13:19 negotiate 35:21 negotiations 56:12 neighbor 33:24 neighboring 77:25 79:2 81:14,21 82:1 neither 207:7 net 7:1 neutron 110:22 never 59:1 82:6 153:22 new 3:17 12:14 15:13 16:12,19 17:19 30:16 32:11 34:3 35:3,6,9,13,14 35:19 38:2 39:3 49:3,4	53:12,18 65:1 91:13 93:12 100:4,25 106:8 108:23 112:6 122:3 138:13 155:16 188:8 191:10 192:11 192:15,16 193:2 198:22 198:23 newburn 32:24 newer 118:6 newspaper 143:1 niel 15:19 night 69:5 70:13 77:13 nist 133:6 nitrogen 107:13 nmocc 105:4 nmocd 7:6 106:17 159:17 183:3 199:8 nmocd's 153:13 nmocds 160:22 non 43:4 121:12 131:4 133:23 134:6 135:20 136:24 148:23 149:1 165:19 178:3 188:14,14 199:4	noon 26:8 nope 14:10 177:4 normal 73:21 106:12 110:21 111:11 137:16 138:5 168:11 178:10 normally 127:25 128:22 north 35:17 63:13 100:15 101:9 121:17 122:7,8 123:5 125:3 136:1 148:3,5 162:3 northeast 64:5 100:14 106:5 114:23 122:10 167:14 northway 140:23 northwest 156:16 northwestern 118:14 northwind 30:12 32:5,13 34:21 35:1,8 35:20 36:20,22 37:17,25 38:8 38:16,24,24 41:8 45:16,19 46:9,13,19,25 47:6,6,17 48:2
---	--	--	---

[northwind - number]

49:14 51:25 52:1,13,18,22 54:6 55:8,15 58:12,22 59:14 59:18 60:16 63:25 64:3,21 65:7 66:19 69:19 72:5,9 75:8 80:10 83:4 84:2 85:8 85:16,17,24 87:21,24 91:18 93:8 94:14 98:9,11,18 99:3 103:19,24 105:5,12 122:5 123:18 125:1 132:25 138:17 140:12 144:11 147:1 151:8,16 151:19 152:10 153:13,22 156:20 158:2 159:25 160:7 187:1,6 188:2 188:18,22 189:6 204:25 northwind's 1:18 32:7 35:24 37:15 39:25 46:14 57:17 61:10 64:20 100:10 101:22 103:18 104:6 105:1,2	107:10 108:1 108:20 138:4 142:10,13,14 142:16,21 143:3 146:23 149:22 150:12 155:19 187:14 northwinds 132:21 northwind's 102:8 108:14 157:4 note 13:6 19:11 42:17 49:1 77:17 noted 13:23 36:16 notes 4:3,5,8,17 notice 1:22,23 6:11 7:16 8:3 12:9 38:7,8 46:25 55:8 59:8,10,17,21 60:14,21,22,25 63:9,10,16 64:21,23 65:3 65:4,6 66:4 83:4 87:7 104:7 138:6 142:19,19,24 143:2 196:24 notification 6:13 12:12 104:5 142:25	notifications 5:25 6:4 notified 139:1 notify 6:7 38:8 notifying 138:3 noting 173:12 notion 47:10 notwithstandi... 77:7 november 18:14 novo 4:20 5:18 nuisance 66:1 number 4:20 6:23,24 7:1 15:10 30:11,14 32:15 40:23 41:24 46:19 74:14 76:23 87:20 93:7,10 97:11 100:19 101:2,5,10,18 102:11 105:7,8 105:23 106:7 107:11 108:22 110:5 111:3,4 113:25 114:5 114:21,22 115:10,23 116:13,14 117:9,13 118:13 119:1 122:6,9 128:25 129:11 130:4 134:2,3 139:18	140:14 141:2 144:12,19 145:1,2,11 146:16 147:2 147:15,22 149:19,21 150:4,6,8 151:18 152:17 153:3,3 154:6 154:17 155:17 156:9 158:24 160:15,24,25 161:3,11,11,16 164:7,23 170:6 173:12 174:2 175:18 177:5,7 177:12,13 186:3,13 187:2 187:8,24 188:2 188:4,5,25 189:4,10,11,12 189:15,16,18 189:20 190:7 190:18 191:2,5 191:7,11,12 192:5,10,14,17 193:4,7,17 194:3,12,16,17 195:3,12,16 196:6,20,22 197:3,11,11 198:5,20 202:6 202:8,10,14,14 202:22,23
---	---	---	---

[numbers - okay]

numbers 189:8 189:23 numeric 101:2 101:7 131:20 numerical 189:8 numerous 9:6 139:12	131:12 147:9 149:8 150:24 151:17,25 152:4,5 170:15 obtain 34:2 obtained 32:21 obviously 148:17 160:18 oc 69:25 occ 7:6 48:13 48:18 occasion 67:21 occupation 35:22 51:11 occupies 35:1,3 53:2 occupy 34:15 37:1,4,5 occur 67:4 104:19 152:2 occurring 145:24 ocd 4:23 8:6,18 9:7 17:10,21 18:4 48:7,12 48:18 49:6,11 49:15 50:2,24 53:5,10 66:20 67:1 72:6 77:3 78:22 79:11,22 81:22 85:9 87:9 144:12,18 153:11 168:7 184:5 186:3,13 187:21 188:15	188:17,20,25 190:8,17 191:2 191:2,5 192:6 192:22 194:5 194:12,16,17 195:12,15 198:25 200:24 202:2,23 ocd's 2:1 7:16 7:23 186:19 189:3 194:22 ocds 8:12 70:1 72:7 77:9 78:7 79:16 140:25 150:2 194:11 october 17:9 18:3 19:10,12 21:5 22:3 23:2 23:8,25 24:22 25:2,8 153:2 153:18 offered 63:25 offering 63:23 office 15:18,23 30:22 65:5 92:10 officer 18:19 offices 65:5 offline 168:2 offset 115:11 121:19,23 126:10,12 148:7 offsetting 58:9 111:2 125:2	141:2 179:23 180:18 197:1,4 oh 11:1 14:14 73:2 90:10 106:22 147:17 155:2 157:11 161:21 178:24 oil 1:1 3:5,7,9 4:25 16:3,12 30:10,14 31:6 32:20 52:5 66:22 71:13 102:9 113:14 117:20 138:10 148:20 185:24 okay 4:14,16 4:19 5:19 6:16 6:20 7:9 10:5 11:3,7,16,18,20 12:4 14:1,2 15:6 16:5 18:24 19:2,22 20:25 22:9,19 22:23 23:8,12 23:19,21,23 24:4,6,25 27:15,19,22 28:19,24 29:3 29:11,13,23 30:8 31:9,10 46:12,16 59:15 61:5,16 74:14 74:19 84:16,16 86:10,18,23 87:1,5,10
o			
o 1:4 3:1 185:9 o'grady 15:18 object 46:18 47:5 objected 59:1 objecting 47:9 objection 64:25 88:19 90:17 95:15 96:19 143:9 150:3 186:12,16 194:19 205:9 objections 42:23 44:7,14 44:19 89:20 objective 123:21 171:14 182:13 obligation 13:16 observable 151:20 observations 48:10 50:20 observed 109:17 128:24			

[okay - orders]

88:12 89:22 90:10 91:9 92:24 93:5 96:12,18,20 99:9,19 143:20 143:22 144:16 146:17 147:7 147:12,17,24 148:6 149:7,12 149:17 150:4 151:2,6 152:1 152:1,5 154:5 154:10,16,22 155:9,10 156:23 157:16 157:17 160:12 161:10 164:22 167:3 168:6,18 169:24 172:5 175:21,23 176:22 177:4 178:12 183:21 184:1,8 186:17 190:14,24 192:10,14 193:1,14 194:11,15,20 195:11 196:2 197:15,20 198:14 199:2 199:25 200:13 200:20 201:6 201:14,17,23 201:25 202:13 202:16,21	203:3,6 204:6 205:21 206:2,6 oklahoma 33:25 34:3 52:7 old 203:17 once 21:17 107:3 111:22 128:21 167:22 189:10 191:20 192:1 197:8 ones 204:10 ongoing 110:17 online 15:19 open 20:7 22:13 26:14 70:17,19 73:4 86:3,5,7 148:10,15,16 198:8 opened 72:17 opening 1:5,7 58:11 opens 73:4 85:23 operate 32:6,14 33:11 83:1 138:18 140:14 140:23 operated 123:17 133:11 141:11 151:19 operates 154:17	operating 5:6 48:15 64:16 91:15 103:3 106:14,16,21 107:5 123:25 132:22 136:19 137:2,20 140:24 151:22 160:13 161:8,8 171:2 operation 41:20 96:17 114:2 operational 161:6 174:22 operations 41:20 95:3 103:18,23 104:4 107:9 110:13 119:11 136:17 138:10 140:6 operator 6:11 6:25 8:12 37:23 59:25 60:2,3,4,17 105:1 191:14 191:23 operators 99:2 200:11 opinion 27:17 49:1 70:1,15 77:20 141:15 141:20 187:4	opportunity 9:15 73:22 156:2 201:10 oppose 71:5,8 71:10 opposing 56:19 72:8 73:23 79:5 opposite 38:1 option 69:16,17 70:6 71:20 options 56:13 order 4:21 5:15 7:1 8:11 19:9 20:2 30:14 33:4,8 34:2,12 38:6 40:17,23 41:1,24 63:9 69:6 74:5,12 75:22 77:16 81:12 91:8 93:10 99:7 104:17 105:4 105:10,13,14 117:13 121:9 121:11 122:17 145:15 153:23 154:17,19 161:5 195:16 203:8,11,18,20 203:23,25 204:25 205:3 205:25 orders 44:22 54:21 107:1
--	---	---	---

[orientation - particular]

orientation 125:11 147:25 148:5 190:10 198:7 orientations 122:16,25 oriented 123:4 original 99:22 104:14 115:20 130:4 145:11 145:15 originally 100:18 145:12 osage 115:13 ought 34:16 outcome 21:16 40:2 45:10 191:19 207:12 outermost 134:22 outfitted 111:23 outlined 144:12 150:6 192:11 outputs 169:14 outset 74:2 outside 69:14 72:18 78:21 88:2 175:4 outwards 135:18 outweigh 76:23 overall 141:4 overbalanced 150:13	overlying 115:12 overly 109:11 112:14 118:8 overlying 110:10 112:17 112:22 118:3,7 126:14,21 139:7 174:19 181:21 oversee 95:8 oversight 185:23 overview 98:6 98:8 112:2 owing 104:17 125:5,19 own 32:1 33:1 34:10 52:24 73:3 owned 35:11 36:13,14 51:11 54:6 58:9 owner 31:21 37:19,24,24 38:9,15,20 49:6 53:20 59:11,17 60:5 60:8,9,18 63:10,13 64:10 64:24 71:9 83:5 owners 188:22 ownership 5:20 48:14,18,22	49:13 60:15,23 64:17 67:6,13 75:5 owns 41:8 43:2 45:19 49:16 60:17 64:18 oxy 23:13 <p style="text-align: center;">p</p> p 3:1 package 168:19 packed 10:13 11:10 packet 96:6 97:4 119:22 page 1:5 64:20 73:7 119:22 146:23 147:14 173:10 202:25 pages 147:13 paid 72:24 138:12 paleozoic 112:14 panel 106:9 124:17 125:13 125:24 132:12 134:14,15,17 135:9 panels 132:8 paper 53:14 papers 40:24 41:25 55:3,14 par 197:3 paragraph 40:24	parameters 122:15 125:10 pardon 68:1 147:17 part 9:24 33:8 37:14,15 45:24 46:2 59:16 65:16 78:23 89:1 95:9 96:6 97:4 100:21 109:11 115:20 116:17 122:2 142:14 152:25 155:3 159:15 164:16 175:18 177:12 185:22 187:25 189:25 192:23 198:4 198:13 199:7 206:2 partially 59:23 participate 8:19 138:8 particular 8:9 11:24 26:16,19 40:18 109:10 111:9 113:16 118:24 122:2 122:14 129:25 135:5 137:22 145:6 147:24 148:12,14 149:13 150:23 169:12 170:18 171:21 172:7
--	---	--	--

[particular - permit]

<p>174:16 175:11 181:17,21 205:17 particularly 177:22 parties 4:22 5:14 8:1 11:11 15:14 17:6,8 17:12,15,22 18:6 20:1,5,18 21:21 22:11,13 23:9 24:19 26:5,11,25 27:9 28:4,9,16 30:17 39:12 40:12 43:17,20 46:5 48:2,17 50:14 53:5 56:11 59:6,9 59:16 60:13,14 65:3 67:16 69:25,25 70:3 70:5,8,19 76:5 77:8 80:5 82:11 84:18 86:14 87:24 88:3 90:12 91:7 92:8 104:3,5,7 138:5,25 143:2 146:25 184:13 202:10 203:16 203:19 207:8 207:11</p>	<p>partly 73:9,9 partners 20:9 30:12 93:8 94:15 152:11 187:6 parts 68:16 party 8:11 27:7 34:16 38:3,5 44:25 47:15 54:22 55:1,1,4 55:5,10,23 56:2,14 57:4 57:14 59:4 61:2 62:2 63:1 63:2,6,8,16 68:22 79:5 90:6 party's 56:19 68:8 72:8 193:16 pass 26:17 153:1 176:11 passing 28:2 past 50:9 197:2 199:22 patently 12:2 path 43:24 70:6 70:13 76:10 117:5 133:15 174:11 175:9 pathways 76:17 79:14 120:2 patrell 146:7</p>	<p>pdf 119:22 penasco 8:9 pending 4:19 39:5 40:1 44:22 87:8 206:3 penetrate 87:22 182:2 183:7 188:11 penetrated 118:11 139:17 penetrating 175:14 penetrations 76:16 139:25 pennsylvania 150:11 pennsylvanian 112:16 151:4 people 59:20 157:13 159:20 percent 34:25 131:23 132:19 132:24,24 136:9,11 183:12 191:15 197:17,18 percentage 132:9,14 perfect 29:9 145:24 177:5 perforated 174:16 perforation 151:24</p>	<p>perforations 79:12 82:7 174:17 perform 81:4 performance 182:18 performing 155:24 perimeter 78:4 81:19 period 20:22 86:25 123:21 123:23 124:1 137:10 202:11 permanent 102:6 111:23 permanently 119:3 permeability 58:2 119:9 131:12,21,22 131:24 132:1,7 132:11,12,13 132:15 164:24 168:13 permian 112:12 182:18 permission 52:25 53:1,8 140:23 permissions 8:17 permit 31:25 32:20,22,23,25 33:3 34:2,16</p>
--	--	---	--

[permit - plume]

<p>41:2 43:13,25 52:6 56:8,9,9 72:4 82:24 83:10,17 85:1 88:2,9 89:2 158:19 195:16 201:22,25 permits 42:2 permitted 45:12 100:18 100:19 117:24 205:3 permitting 95:3 96:16 190:17 person 33:15 37:22,23 38:6 51:11 63:9 93:25 personnel 157:9 persons 59:7,10 59:22,24 perspective 31:24 80:22 104:12 106:4 113:9 134:7 136:14 140:22 175:1 petition 17:24 18:11 19:7 20:3 26:21 petitioner 70:25</p>	<p>petrel 130:6 petroleum 16:19 186:9,15 ph 5:5,5 10:16 13:13,13 15:16 15:18,19,19,22 21:4 32:24,24 32:24 54:14 110:8 123:7 146:7 152:15 166:9,10 169:17,19 physical 102:15 129:14 139:12 piece 34:1,11 83:7 pieces 21:15 pin 28:17 pipeline 100:16 101:9 place 7:8 21:6 35:13 80:14 82:6 167:23 168:4 169:16 170:22 173:19 174:6 200:24 placed 78:16 125:6 174:25 placement 100:1 193:20 194:6 places 83:16 112:13 placing 147:2</p>	<p>plagued 188:10 plain 12:12 43:10 plan 24:25 103:25 104:3 110:12 150:21 150:22 151:11 158:20 159:4 159:17 168:4 169:12 188:21 188:23 193:16 planned 105:14 planning 99:20 151:2 158:15 160:9 plans 105:21 140:1 158:16 plant 108:4,6 plate 205:16 platform 16:16 22:21 27:23 86:14,19,24 113:20 193:13 206:11 platforms 130:6 146:7 play 63:3 72:12 pleadings 8:5 please 4:8 13:10 30:20 31:17 39:22 62:23 71:23 85:6 87:3 93:15 94:3,4 94:11,17</p>	<p>184:19,22,25 193:5 pleases 7:11 73:21 pleasure 8:24 25:15 75:23 pled 79:20 plot 125:14 180:22 plots 136:21,22 plotted 121:6 plug 174:19 175:2,3 200:2 plugged 78:1 81:21 82:1 87:22 100:20 117:25 118:20 139:16,21 146:20 173:15 174:7 176:4 189:14 193:9 199:11 200:7 plugging 151:24 167:25 175:4 plugs 118:18 118:18 174:2 174:18,24 176:7 plume 35:11 36:23 46:21 47:1,8,10 50:13,15 53:1 55:16 56:18 57:9,14,24</p>
---	--	---	--

[plume - possible]

58:2,5,7,23 59:4 63:22,24 63:24 65:22 66:9 74:16 76:17 78:5,10 78:17,18 80:17 81:17 82:5 83:3 87:12 88:8 89:19 95:23 103:16 103:19 130:3,5 131:7 133:14 134:23 135:18 135:25 137:21 137:23 139:24 140:9,10 144:17,19,21 144:22,25 146:13,21 152:16 153:1,6 154:3,7,18 174:1,11 175:6 177:4,8,14,20 177:25 178:5 180:22,23 181:14 182:10 183:9,16 188:1 188:3,7,19 193:22,25 194:1 197:25 199:3 200:3,4 200:5,7 plumes 56:1 57:20 129:23 136:15 145:19	146:1,4 plus 18:2 20:18 22:3 124:21 point 15:5 17:10,18 20:19 24:17 26:18 28:2 29:7 32:13 35:5,24 36:4 47:16 49:8 51:19 52:19,19,20 53:22 55:20 56:10 58:11 67:23 73:13 75:13 76:11,13 81:19 82:8,23 83:7 119:21 120:12 124:21 126:5 135:16 142:3 163:10 167:13 169:13 170:15 174:24 181:15 202:3 points 45:13 53:9 70:21 77:24 82:22 84:6 116:21 156:18 poisonous 197:5 poisons 196:25 197:1 poking 80:21 pole 39:1	policy 168:13 pool 49:21 50:7 53:24 pooling 7:3 8:3 49:23 54:7 67:3 poorly 190:15 populations 121:16 pore 35:22 37:1 37:4,6 39:6 40:10 42:25 43:9,10 44:8 48:25 49:5,13 49:16,23,25 51:2 52:23 53:11,16,19 58:14 65:24 66:25 67:6,14 67:20,20 68:2 68:8,9 70:23 70:23 71:14 74:17 79:3 80:20 82:10 123:2 124:19 124:23 127:6 127:24 164:2 pores 61:13 82:1 porosity 58:2 110:22 115:8 115:24 116:7,9 119:8 130:24 131:11,21,23 132:6,9,10,19	145:22 151:9 156:3,3,6,14,15 161:4 164:24 porous 180:17 portion 52:23 52:23 53:8 149:23 portions 132:20 147:10 portrayed 149:3 pose 85:19 119:4 posed 198:25 poses 157:9 position 22:8 27:25 28:4 36:19 42:5 45:8 49:15 50:24,25 53:10 53:18 66:3 69:12 70:25 71:12 74:2 77:7,15 106:6 106:6 144:10 185:20 positioned 176:6 possibility 40:22 56:18 180:8 possible 23:5 27:14 55:19 70:14 205:1
--	--	--	---

[possibly - pressure]

<p>possibly 24:10 67:12 161:12</p> <p>post 167:5,18 199:8,10 200:12</p> <p>potential 40:10 42:24 56:1 66:24 67:19 70:10 76:17 77:23 79:13 82:2 84:17 95:23 102:2 109:17 110:25 111:18 117:19 120:10 121:3 125:15,16 131:1,6 141:6 141:9 150:19 151:23 156:17 158:20 175:5</p> <p>potentially 26:15 68:24,25 69:7,16,22 84:25 85:1,19 85:24 86:3 108:9 109:21 133:15 137:15 138:12 152:2 170:16 174:10 175:9 201:3</p> <p>pounds 128:17 128:18</p> <p>power 83:18</p> <p>powers 44:2 74:10</p>	<p>practice 50:9 67:9</p> <p>practices 9:10 137:17</p> <p>pre 43:16 85:14 146:23</p> <p>precarious 6:5</p> <p>precaution 194:10</p> <p>precise 55:16</p> <p>precisely 177:16</p> <p>precursor 78:11</p> <p>predecessor 35:7 57:18 105:1</p> <p>predicted 177:8</p> <p>predicting 166:22</p> <p>prediction 124:19</p> <p>predicts 122:25 126:4</p> <p>predominantly 107:12</p> <p>preferable 105:19</p> <p>preference 203:14</p> <p>preferred 99:2 99:5 101:25</p> <p>prejudice 73:19</p>	<p>preliminary 31:11 34:1 111:20 162:15 164:20</p> <p>premature 74:13</p> <p>premise 34:5</p> <p>premised 34:4 37:8 129:1</p> <p>premium 187:18</p> <p>preparation 95:9 98:20 186:1</p> <p>prepare 95:8 185:25 188:24 191:1</p> <p>prepared 21:20 53:17 96:1,6 97:23 99:9 119:17 128:6 189:13 207:3</p> <p>prepares 103:18</p> <p>preparing 27:3 189:3</p> <p>presence 187:11 188:19</p> <p>present 4:22 15:14 30:17 48:2,3 64:2 93:16,20 127:11 129:4 133:21 165:22 184:13</p>	<p>presentation 92:18 97:23 99:9 132:21 142:9 168:20 173:11</p> <p>presented 5:25 32:3 33:7 34:21 35:1 38:1 57:15 58:5,22 142:9 152:21,22 190:19</p> <p>presenting 46:2 166:6 171:18</p> <p>preserved 148:21</p> <p>president 94:21</p> <p>press 161:8</p> <p>pressure 106:14,17,21 107:6,16,23 108:16,17 109:21 110:7 111:16,24 123:2 124:13 124:19,23 125:3 126:13 126:17,24 127:5,6,13,24 128:7 129:6,12 136:22 137:3 140:24 148:24 151:3,11,15 159:7 160:13 160:20 162:21</p>
--	--	---	--

[pressure - professor]

162:22 163:2,5 163:6,7,16,19 163:19 164:2 168:11,12 169:5,5,6,8,11 169:15,17,20 169:23 170:1,2 170:3,8,21 171:2,15,20 172:6,18,19,20 187:13,15 191:13,16,20 191:21 192:2 196:9,17,23 197:9 pressured 127:10 128:1 128:22 129:2,4 164:2 pressures 110:25 111:21 122:18,23 128:15 136:19 137:1,20 163:3 163:12 170:13 pretty 10:12,13 11:9,10 21:14 129:18 174:19 prevent 44:2 54:23,25 55:12 62:4 141:8,16 178:10 preventative 141:5	prevented 104:25 previous 51:3 67:5,14 117:16 131:9 158:9 159:21 previously 58:22 62:11 78:1 81:21 94:22 98:10,21 118:4 129:25 140:18 145:6 153:10 186:10 primarily 34:24 36:2 primary 36:4,8 111:5 112:20 121:22 139:5 182:12 prime 115:3 principles 32:17 prior 40:6 57:16 58:24 60:23 65:24 75:17 77:17 100:10 105:1 116:1 124:2 133:19 144:18 155:22 192:7 private 40:3,13 43:19 44:4,15 45:6,9 47:12 47:14 74:7	probability 96:2 103:1 121:8 122:2,10 125:13,23,25 126:4 140:3 172:13 probably 11:7 23:7 76:3 82:15,17 89:20 92:1,10,12 112:4 121:1 148:13 155:12 160:8 161:19 162:1,5 163:5 166:19 168:6 168:24 171:20 182:2 problem 19:10 22:3 205:15 problematic 74:3 150:20 problems 156:14 procedural 28:5 44:16 procedure 44:21,23 158:8 193:12 procedures 168:1 proceed 13:18 31:9 45:12 82:14 93:1 proceeded 43:24 105:6	proceeding 38:4,22 45:1 53:4 61:2,7,8 61:17 63:7,8 65:8 75:1 88:19 206:13 207:4 proceedings 207:6 process 105:9 107:20 157:6 158:2 190:16 processes 98:14 102:2 106:13 138:6 produce 103:5 116:15 produced 124:10 producing 112:13,17 113:10,14 118:4,5,6 141:12 product 103:10 production 110:5 119:7 133:19 139:1 141:10 150:25 174:14 182:21 productive 113:18 116:16 118:17 professor 3:17 55:13
---	--	--	---

[proffer - prove]

proffer 85:10 profile 107:24 163:19 169:4 profiles 163:19 172:18 prognosis 114:7 159:16 program 111:9 167:20 175:19 175:24 176:1 185:24 programs 176:13 project 95:12 99:23 102:9,18 103:9 104:13 106:3 112:3 113:3,9,22 114:25 115:4 116:23 119:1,6 123:9 126:2 127:12 128:18 129:5,12 130:1 131:1 135:7,22 139:4 145:8 180:16 187:11 193:8 project's 138:14 projected 46:21 51:2 57:9,19 78:5 78:17 81:17 projecting 120:24	promise 92:22 promising 165:24 proof 56:15 proper 6:13 7:5 7:7 12:11 42:18 44:13,16 44:25 61:2,20 75:1 111:14 properly 42:15 48:23 61:21 65:3,8 139:1 139:21 properties 46:14,22 130:20 property 33:13 33:16 34:6,11 35:12 36:13,14 37:1,10,13 40:3,13 41:3,7 41:17,17,21 42:3,8,10 44:4 44:10,15 45:7 45:18 46:24 47:3,6,11,13 48:23 50:5,23 52:9,12 54:5 55:18 56:19 57:10 58:9,19 58:25 64:1 65:7 74:7,17 79:2 83:14,20 83:24 84:2 100:17 195:8	proposal 205:3 proposals 17:9 17:11,14 propose 20:3 20:18 28:14 110:18 136:18 136:20 proposed 17:21 17:22 18:4,9 19:10 22:18 27:1 28:10 36:25 44:1 45:23 59:3 78:15 85:13,21 87:20 95:24 96:2 97:11 100:2 101:18 102:11,12 103:3,3 104:4 106:7 107:9 108:13,21 109:2,8,13,19 112:5,7,17 114:13,22 115:7 118:3,8 118:12 119:11 120:9,17 121:7 123:18,22 125:1 126:21 127:9 133:12 134:3 137:2,5 137:8,19 138:13 139:2 140:4,6,18 141:11 146:14	150:1,2 155:16 156:13,25 160:20 173:13 176:18 187:14 187:22,23 196:11 200:23 203:18,23,25 205:25 proposes 47:19 proposing 45:19 116:24 protect 44:3 54:23,24 62:5 63:19 74:6 78:24 80:14 102:14 110:11 141:18 157:12 protected 102:11 110:3 protecting 62:18 109:6 159:18 protection 74:7 80:12 117:14 117:15 protective 138:14,15 139:8 141:14 141:20 174:3 195:17 protects 195:7 195:8 protest 73:19 prove 55:21
---	---	---	---

[provide - quickly]

<p>provide 48:10 64:23 70:6,13 88:25 102:15 112:23 115:19 117:14 169:14 169:15 196:25 201:2</p> <p>provided 49:11 64:21 88:10,11 103:11 104:6 130:10 142:25 163:1 201:19</p> <p>provides 46:8 124:11 139:12 198:21</p> <p>providing 76:17 142:19</p> <p>provision 19:17 46:4,7,12 47:20 88:22</p> <p>proximity 135:23 178:8</p> <p>prudence 34:15</p> <p>prudent 198:12</p> <p>psi 123:3,13 140:25 163:6 168:11 170:15 172:21</p> <p>public 1:1 3:14 54:24 80:15 82:4 138:6 195:17 200:25</p> <p>publication 1:24 142:24 164:1</p>	<p>published 131:25</p> <p>pull 20:20 81:12,23 147:16</p> <p>pulling 12:10</p> <p>purchase 43:16 46:4 51:24</p> <p>pure 124:14</p> <p>purely 40:2 161:15</p> <p>purported 8:8 42:21</p> <p>purpose 74:6 78:18,19,22 79:1 81:16 82:9 109:5 170:21,24 189:3,5,22</p> <p>purposes 51:16 58:17 59:9 77:21 78:9 88:16 98:13 110:24 121:15</p> <p>pursuant 40:16</p> <p>pursue 75:1</p> <p>pursuing 74:24</p> <p>push 21:9 22:5 26:23 198:16</p> <p>pushing 80:1</p> <p>put 20:3 28:15 29:4 71:3 75:18 76:16 84:3 87:25 89:5 91:14</p>	<p>164:9 174:12 175:3 195:10 200:24</p> <p>putting 75:21 113:8</p> <p>q</p> <p>q4 104:20 105:7</p> <p>qualifications 40:1</p> <p>qualified 13:12 13:14</p> <p>qualifies 38:11 38:12,14</p> <p>qualify 65:2</p> <p>qualitative 54:23</p> <p>quality 105:17 116:3 130:22</p> <p>quantities 137:7</p> <p>quarter 32:21 33:2</p> <p>question 7:24 7:25 21:6 33:7 36:8 37:3 50:12,16 51:9 51:16 52:12,14 52:15 55:9,13 56:22 57:4,7 57:14 61:9 63:12,20 64:11 66:1,12,12 67:17 71:3 79:4 80:7,11</p>	<p>80:23 91:11 147:7,14 149:18 150:5 151:7,16 163:20 166:14 168:7 178:13 190:10,15 198:11,25 201:7,18</p> <p>questions 26:14 39:8,10 57:11 65:20 68:11,13 68:14,18 70:17 82:17 84:8 89:23 90:1 92:13,14,24 93:19 99:8 106:1 142:1 143:12,16 144:9,17 146:18 149:12 152:6,14,17 154:23 155:1 155:12,15 167:3 173:10 173:25 176:25 183:22,25 195:21,25 197:23 200:18 201:8</p> <p>quick 91:23,25 92:1,3 155:14 165:7 173:10</p> <p>quickly 32:12 38:22 82:16</p>
---	---	---	---

[quickly - razatos]

163:14 quiet 5:22,23 5:24 6:1,6 8:20 quite 136:12 177:12 190:5 203:13 quoting 40:23 41:23	61:19,20 62:20 63:13,23 64:1 64:3,5,6,10,15 64:17,17 65:5 65:25 69:2,4 75:4,8,12 80:9 80:25 82:10 85:21 88:10,24 90:16 147:5 ram's 40:4 42:21 44:7 55:5 84:5 ramifications 55:2 rams 44:12 88:18 ran 36:13 ranch 30:25 31:21 35:2,17 35:25 36:6,7 36:10,11,15 37:11 38:15 41:15 63:13 65:1,5 83:8,8 83:12 ranch's 32:9 36:5 40:25 42:4 83:17 ranche's 36:18 ranches 39:2 ranching 65:1 range 100:6 122:24 125:9 132:9,12	ranging 123:2 128:16 rankin 1:11 18:8 30:18,19 30:20,23 31:10 36:19 39:17,19 39:21 48:5 50:4 51:5,19 53:15 56:17,23 57:2 64:13 70:21,24 73:24 73:25 77:2 82:8 83:21 84:11 85:25 87:5,18 88:14 88:15 89:16 90:14 93:12,14 94:16 96:13,22 96:24 97:17,21 97:22 132:17 141:25 142:18 142:23 143:5 143:11 146:12 152:7,9,12 154:24 156:10 163:22 177:2 178:2,22 183:25 184:9 184:11 186:16 194:18,19 195:24,25 201:8,9 203:3 203:5,17 204:7 204:13,16,19 204:24 205:7	205:13,21,22 rankin's 63:4 80:3 120:8 rate 30:16 93:12 107:4 136:22 137:8 151:7,7,14 160:15 171:5 171:12,12 191:14,16,17 191:19,20,21 191:22,25 192:2,3 193:17 196:7,9,16 197:10,10,12 rates 58:7 200:23 rather 9:2 20:20 32:12 95:15 105:11 117:1 124:10 136:4 162:15 182:16 ratio 166:9 196:25 197:1,5 razatos 72:13 84:14,22 85:3 85:18 86:13,18 86:23 87:10 88:12 89:15,17 89:21 90:3,9 90:25 91:10,22 92:7,19,23 93:5,22 96:18 96:20 97:17
r			
r 3:1 41:24 185:10 r11855b 41:24 r12546 40:23 r20903 93:10 r20913 30:14 r23045 7:1 radius 117:1,2 117:3 raise 53:22 94:4 184:25 raised 44:19 52:1 62:19 raises 43:10 ram 30:25 31:20 35:2,17 35:21 37:17 38:14,19 39:23 40:7 42:1,22 43:2,9,12 44:25 45:5,15 46:3,18 49:15 51:20 53:21 55:4,10,15 57:9,12 58:10 59:15,20 60:20			

[razatos - records]

<p>142:12 143:8 143:10,14,17 143:20,23 144:1 152:7 155:2,9 173:6 176:23 177:11 178:6,12,15 183:21 184:1,3 184:8,14,18,21 185:12 186:17 186:21 194:18 194:20 195:23 196:2 200:16 200:20 201:6 201:11,14,23 201:25 202:12 202:16,21 203:3,6,15 204:3,6,14,18 204:21 205:6,8 205:10,15,21 206:1,6 rcx 1:9 rdx 1:9 reach 55:24 56:4 170:9,21 174:1 196:23 reaches 167:12 reaching 171:12 reaction 82:3 read 36:1 62:15 64:22 69:10 87:15 168:9 180:1</p>	<p>readiness 161:6 ready 3:2 6:17 10:10 31:9 55:24 90:6 168:1,2 reagan 31:1,19 real 33:15 35:12 realistic 160:20 realistically 168:3 realize 85:25 205:15 really 6:8 80:7 80:23 99:1 102:23 103:12 103:15 118:22 122:3 129:13 130:15 135:24 150:18 158:5 163:18 166:21 168:8 178:9 182:5 190:12 198:6,23,25 199:16 reason 8:6 17:8 44:18 61:25 62:21 162:4 189:13 198:5 reasonable 69:13 79:21 136:18 reasons 32:3 35:20 37:2,18 54:9</p>	<p>rebuilt 130:9 rebuttal 17:25 18:12 19:18,20 51:8 53:9,23 62:24 65:9 recall 17:5,17 36:6 146:11 147:10 152:17 recalling 170:12 recap 38:22 138:16 receive 55:8 59:8,10,17,21 60:14,22,25 143:2 162:14 received 60:21 65:4,6 104:7 receiving 137:7 recent 46:19 128:24 130:2 130:15 recently 101:15 102:22 105:23 114:1,2 115:22 130:17 158:23 164:12 173:18 175:10 receptive 151:5 recipient 138:3 recognizable 44:10 recognize 74:22 105:24</p>	<p>recognized 44:12 94:25 recognizing 146:2 recommended 192:6 recommending 192:22 recompleted 118:19 174:20 recompletion 139:20 reconcile 144:20 reconvene 86:11,15 record 8:7 10:9 12:1 13:24 30:7 31:19 46:1 49:19 55:7 60:7 73:16 75:15 86:12,16,22,24 87:6,16 88:16 90:5,21 91:2,5 91:14,19 92:16 93:4,6 94:12 143:7,25 144:13 152:20 154:22 184:7,9 202:18 207:5 recording 207:4 records 60:1,18 117:10,21,21</p>
---	--	---	---

<p>118:1 126:16 127:3 128:4,12 128:20 129:9 133:20 139:19 144:18 red 17:11 27:4 100:17 112:6 112:11 113:13 127:22 redesign 100:23 105:3,4 redirect 152:8 152:10 redress 40:7 42:21 reduce 156:16 187:15 reduces 102:2 141:5 redundancy 98:14 redundant 30:13 93:9,17 101:6 105:7 138:18 139:12 145:14 161:1,9 162:10 reef 109:11 reference 136:7 144:18,20,21 145:20 146:8 147:12 154:18 referenced 65:23 79:15 146:23 147:14</p>	<p>156:11 175:15 193:2 202:19 references 154:19 referencing 145:11 163:23 referring 116:22 147:12 150:5 refined 57:25 103:13 130:9 refinement 130:3 reflect 10:10 114:11,14,16 134:22 202:6 202:10 reflecting 142:24 reflective 149:10 163:10 reflects 55:7 104:3 115:21 189:5 reforms 76:19 refprop 133:7 refute 45:2 regard 83:1 regarding 9:3,8 9:10,16 11:23 12:1,9 49:16 50:21 93:7 175:15 176:25 187:11</p>	<p>regardless 51:1 regards 39:12 71:12 157:22 167:18 168:14 196:7 regional 106:4 129:1 registered 8:12 regroup 25:22 29:7 30:4 regular 191:9 204:1 regularly 188:18 regulations 59:8 60:13 61:1 reign 43:7 reiterate 56:2 88:15 104:9 132:18 146:18 reject 40:4 rejected 44:6 45:11 related 8:14 42:24 50:22 77:25 80:9 141:10 187:1 207:7 relates 62:17 87:14 relating 87:12 88:8 101:19 relationship 57:11 64:13,15</p>	<p>relative 51:3 77:7 78:24 168:16 207:10 relatively 127:9 release 141:9,9 144:12 relevant 51:16 61:7,17,23 98:22 103:22 104:2 138:25 reliance 32:7 35:25 39:2 48:16 154:18 relief 42:21 relies 47:21 182:16 relieved 24:17 relinquish 45:13 relocate 100:23 105:2 relocation 101:4 rely 44:21 48:13 53:13 99:5 remain 126:18 remanded 101:12 153:18 remember 179:15 removed 151:22 render 130:13 178:23 179:13</p>
--	---	---	--

[repeat - response]

repeat 10:21 158:6 repeatedly 40:6 42:11,14 replacing 180:17 replicate 166:16 report 72:6 169:16 reported 12:13 12:13 reporter 3:2 reporters 97:20 represent 31:20 142:13 representation 48:17 representations 48:22 representative 5:11 164:4 166:11 representing 5:10 15:17 165:8 request 18:12 18:23 54:7 93:17,21 98:24 101:4 153:13 requested 77:19 78:3,22 81:8,13,16 98:8 106:16 107:5 190:6	requesting 43:14 51:20 81:22,25 98:18 105:21 140:23 191:24 193:10 197:13 requests 76:4 116:1 138:17 require 66:5 77:1 82:15 188:18 199:8 required 6:11 32:6 38:7 42:7 59:7,10,17,21 60:13,22,25 68:19 72:5 97:10 101:5 103:22 104:21 122:18,24 137:25 143:2 145:15 requirement 64:23 75:11 167:18 168:8 requirements 116:18 119:1 145:14 199:17 requires 38:7 61:4,6 63:9,10 75:4 122:15 188:8 requiring 63:16 77:10 104:5	reserve 8:18 19:19 151:9 reservoir 102:24 103:7,8 103:10,16 108:17 110:15 116:3 119:7,10 123:18 125:6 126:19 127:14 129:7,18 130:18 133:6 133:17,18 134:10 137:4,6 140:20 145:22 146:5,9 162:13 164:18 167:16 168:12 169:7 169:11,15,17 169:20 170:12 172:6,20 reservoirs 130:22 residual 168:22 169:1 resistance 174:8 192:24 192:24 resistant 79:17 79:17,25 108:10,11 110:2,9 111:24 149:24,25 187:18 188:15 resistivity 110:22 163:17	resolution 49:10 76:11 87:1 resource 185:22 resources 8:2 67:4 109:6 117:19 119:5 138:11 139:9 148:20 195:9 respect 13:1,9 21:11,18 40:22 78:23 102:8 103:7 107:2 111:5,20 113:3 113:6,9,23 119:11,12 122:16 123:9 124:12 132:1 133:3 134:9 135:6,17 137:4 146:11 148:2 150:15 165:2 175:25 176:3 194:2 respectively 130:8 respects 50:4 respond 57:6 responded 33:17 responding 183:17 response 9:3 22:22 32:8
--	---	--	---

[response - rock]

36:1 37:16 53:22 83:21 responses 157:25 responsible 185:23 rest 206:11 restricted 177:22 restriction 135:24 137:22 restrictive 177:22 resubmittal 153:9 resubmitting 153:12 result 72:7 95:23 102:21 124:12 resultant 134:19 135:12 188:3 resulting 140:5 results 21:12 75:3 102:6 121:5 124:16 125:8,25 127:16 129:24 134:13 135:19 141:11 156:5 160:19 161:7 177:6 retained 64:4	retend 96:14 return 82:17 120:2 returning 127:25 review 47:14 69:19 77:9 85:9 99:11 102:9 116:20 116:23,25 117:6,7,21,21 117:23 118:10 118:14 120:14 126:9 139:15 153:11 158:23 174:5 195:1,3 195:6,14 203:12 reviewed 85:15 116:20 139:19 144:18 153:15 186:25 192:7 197:21 reviewing 95:16 97:24 117:10 118:1 128:25 172:18 revised 90:21 revisions 22:11 revisit 67:22 revolves 54:20 right 3:12 4:6 5:18 10:17 14:14 16:10 22:13 24:13	25:25 26:9 30:17 34:13,14 34:17,21 37:8 39:1,5 45:7,17 46:13,14 52:5 52:20 56:5 60:3,19 70:12 71:2 72:15 73:3 74:16,18 74:21,25 77:22 79:3 83:13 84:4 85:2 94:1 94:4 96:22 104:11 106:9 107:18,24 114:10 120:5 120:12 125:24 127:17,22 128:12 130:12 131:18 132:12 135:9,14 147:20 151:6 155:4 159:24 166:17 168:12 178:2 179:19 180:7,7 181:4 181:7,11,13,25 182:5,6 183:4 183:5,11 184:25 189:17 191:24 196:15 205:12,16 206:4 rights 8:17 34:6 37:10	40:13 41:3 42:3,8,10 43:2 43:5,9 44:3,10 47:14 48:14,15 48:18 52:9,12 54:24 58:19 60:11 61:13 62:5,10,18 74:8,8,17 78:24 80:13,15 83:14,20 138:15 141:14 141:18 142:15 195:7,17 201:1 rio 8:9 rises 67:20 risk 62:8,10 103:5 113:7 119:4 120:24 122:14 123:10 125:21 129:6 140:2,7 141:13 156:7 157:10 158:25 160:2 175:6 rittenhouse 127:1,16,23 164:1 rivers 113:21 118:5 road 100:14 robust 108:9 154:6 166:8 rock 130:20 179:20
--	---	--	---

[role - says]

role 195:4 roll 3:10,20 room 10:19,23 11:6 53:19 63:3 197:14,16 205:2 rotary 111:12 routine 110:22 royalties 138:12 rozatos 3:3,6 3:11,19,25 4:11,14,17 5:2 5:7,12 6:16,20 7:9,12,18,22 9:19 10:5,8,20 10:24 11:3,5 11:13,16,18,20 12:4,17,19,22 13:20,22 14:4 14:7,10,12,19 14:22,24 15:2 15:4,8,20,25 16:4,8,14,20,24 18:24 19:2,15 19:22 20:25 21:24 22:9,14 22:19,23 23:12 23:15,19,21,23 24:4,6,9,13,18 24:25 25:9,17 25:19 26:3,7,9 27:15,19,22 28:19,24 29:3 29:10,13,15,17	29:20,23 30:2 30:8,19,23 31:3,8,16 39:9 39:18,22 48:5 51:5 54:12,18 62:23 65:10,14 73:24 77:2 82:19 84:7 rule 8:5 21:15 21:19 26:16 38:6,7 49:5 54:20 56:13 63:9,14 67:3 rulemaking 15:11 rules 9:16 38:2 38:2 59:6 63:6 ruling 84:24 run 161:5 163:14 165:18 169:19	sales 132:14 saline 167:8 salt 35:8,13 36:7,9,17 50:1 67:9 100:19 101:1,5,10 104:25 105:6,8 105:22 106:7 109:10 111:2 113:24 114:21 115:22 122:6 122:11 128:24 129:10 134:2 135:22 140:21 141:2 144:19 145:1,1,11,12 146:16 149:19 150:5,7 151:18 153:11 156:9 170:6 188:2 196:22 197:2 197:11 198:19 salty 188:4 samaniengo 5:9 5:10,13,14,19 6:17,19 8:2,8 8:21 11:17,25 12:5,18,19,20 12:22,23 13:2 13:11,20,21,22 14:2,8,20,21,23 15:1,3,5,7 samaniego's 7:4 8:25 9:6	samaniengo 11:16 sampson 32:24 33:18 santa 15:23 30:22 satisfied 90:18 satisfy 63:16 118:23 saturated 133:18 saturation 134:19 135:17 136:9 168:22 169:1 183:6,12 saturation 135:12 saturday 26:8 saw 48:6 77:13 sayer 16:22,23 16:24 22:15,16 23:21,22 28:25 29:1,21,22 saying 70:11,12 70:13,24 72:14 72:15,17,19 73:3 74:15,15 84:4 85:20,20 86:5,6,6 166:12 179:18 180:6 says 49:8 50:15 53:15,25 55:15 55:15 71:9 202:20
	s 1:4,16 3:1 safe 80:22 187:9,19 safeguards 80:7,14 81:5 safely 138:23 safety 78:13,13 82:5 108:3,5 111:25 151:18 191:15 197:17 197:18 200:25 sale 43:16 46:4 47:4 51:25		

<p>scale 148:11,14</p> <p>scales 157:7</p> <p>scenario</p> <p>120:21,24</p> <p>124:20 125:17</p> <p>134:20 145:23</p> <p>165:22,23,23</p> <p>165:24 198:24</p> <p>scenarios</p> <p>120:20 136:23</p> <p>163:1 165:18</p> <p>schedule 6:18</p> <p>8:23 10:12</p> <p>11:1 17:22,23</p> <p>18:5 20:22,23</p> <p>22:5,18 23:9</p> <p>24:21 26:12</p> <p>27:12 28:5,14</p> <p>28:15 145:18</p> <p>scheduled</p> <p>14:15 20:15</p> <p>204:1</p> <p>scheduling</p> <p>19:9 20:6</p> <p>138:5</p> <p>schematic</p> <p>107:18</p> <p>schematics</p> <p>79:23</p> <p>schlumberger's</p> <p>130:6</p> <p>science 82:5</p> <p>scope 34:6 41:2</p> <p>42:13 83:20</p>	<p>scout 128:12</p> <p>scratch 65:2</p> <p>screen 96:23</p> <p>179:1</p> <p>scrolling</p> <p>147:20</p> <p>se 21:5</p> <p>sealed 198:8</p> <p>seals 119:3,15</p> <p>season 18:15</p> <p>18:21</p> <p>seat 93:23,24</p> <p>second 3:24</p> <p>4:16 8:25 10:1</p> <p>10:3 12:23</p> <p>13:4 18:14</p> <p>32:7 37:15</p> <p>47:7 48:24</p> <p>55:11,22 62:3</p> <p>62:3 63:18,21</p> <p>83:7 97:18</p> <p>106:25 109:13</p> <p>109:18 154:5</p> <p>192:5 201:24</p> <p>204:20,22,23</p> <p>secondary</p> <p>111:5,13</p> <p>112:23,25</p> <p>139:7 151:9</p> <p>secondly 109:7</p> <p>secretary 3:18</p> <p>section 6:25 7:2</p> <p>32:21 33:2</p> <p>88:1,5 89:7</p> <p>100:5 112:16</p>	<p>113:11,12,20</p> <p>114:18,25</p> <p>116:7,9 135:14</p> <p>146:8 174:21</p> <p>180:25 181:3</p> <p>sectional</p> <p>135:10</p> <p>sections 98:23</p> <p>115:5 151:4</p> <p>181:3</p> <p>sediments</p> <p>112:9</p> <p>see 16:15 19:6</p> <p>21:12 29:23</p> <p>34:19 38:10</p> <p>39:23 49:10</p> <p>56:7 64:1,21</p> <p>69:1,6 70:2,9</p> <p>75:25 79:15</p> <p>82:7 83:4 93:3</p> <p>96:25 97:5</p> <p>100:6,16 106:5</p> <p>106:9 109:1</p> <p>112:7 113:18</p> <p>114:4,5,9,13,20</p> <p>115:11 116:7,9</p> <p>121:6,9,13,16</p> <p>121:21 122:5</p> <p>122:24,25</p> <p>124:3,16,17,25</p> <p>125:14,17</p> <p>126:10,22</p> <p>127:2,9,22</p> <p>128:4,11,14,14</p> <p>128:15,21</p>	<p>129:9 132:10</p> <p>132:12 135:7,8</p> <p>135:14,19,24</p> <p>136:1,5,23</p> <p>137:22 140:21</p> <p>147:21 150:19</p> <p>158:24 159:25</p> <p>160:4,19 163:6</p> <p>167:1,11</p> <p>168:16,17</p> <p>169:7 170:24</p> <p>171:19 174:5</p> <p>174:14 177:24</p> <p>178:4,21 179:2</p> <p>179:2 180:7</p> <p>181:4,11,12,13</p> <p>182:6 183:5,11</p> <p>203:8</p> <p>seeing 69:23</p> <p>103:11 115:25</p> <p>139:19 183:7</p> <p>seek 42:21</p> <p>51:18 52:25</p> <p>53:8 62:3</p> <p>138:19</p> <p>seeking 39:1</p> <p>40:7 98:11</p> <p>100:22</p> <p>seeks 43:13</p> <p>140:13</p> <p>seems 19:13</p> <p>54:15 55:13,25</p> <p>69:11 79:1</p> <p>seen 20:21</p> <p>112:4 116:10</p>
---	--	---	---

[seen - showing]

<p>121:20 124:14 133:7 135:23 148:18 153:15 198:19 segment 125:19 148:13 segments 121:11,15 123:1,10,12 125:22 126:3 seismic 58:1 95:1 96:15 102:22 103:6 103:14 105:15 113:2 114:11 120:11,15 121:5,19 130:11,16,18 130:20 131:15 149:5,6,9,11 155:25 156:4 179:2,3 187:10 seismicity 113:7 121:2 122:14 140:7 141:13 187:13 198:22 seismics 198:22 seminal 83:9 send 203:12 sense 76:12 106:1 114:4 126:20 145:4 180:21</p>	<p>sensors 111:24 sent 9:2 138:4 separate 45:21 88:3,23 89:3,5 111:16 156:18 separated 161:25 separately 88:23 162:8 separation 162:1 september 97:15 sequence 101:3 101:7 131:20 189:8,23 sequester 199:23 sequestration 102:7 series 103:4 125:17 152:9 serve 98:13 served 174:22 session 21:13 21:18 25:21 26:6,13 49:11 82:16 set 4:12 7:10 10:22 11:21 17:7 23:23 25:1 44:16 78:16 109:14 110:6 173:3 178:18 202:1</p>	<p>setting 6:18 112:5 159:1 settled 49:2,17 53:11,13 196:10 settlement 91:7 seven 113:21 118:5 172:11 severability 49:14 severable 49:17 several 22:10 shaded 115:2,6 shale 112:18 115:4,10 121:21,23 126:12 127:8 129:15 139:6 shales 112:24 115:13 shallow 76:18 109:24 117:11 118:2,19 shallower 114:16 192:17 shallowest 189:18 shanor 16:18 shape 51:22 64:3 117:2 177:24 shaping 183:8 share 20:16 96:23 147:16</p>	<p>shared 30:15 93:11 98:17 sharing 203:19 sheet 147:15 sheila 10:16,18 10:22 11:1,4 14:5,6,13,14 86:23 203:12 shield 166:9,9 short 51:8 shortly 41:14 shot 73:11 show 34:2 58:18 61:5,6 75:14 99:24 100:7,8 108:21 115:3,6 121:4 122:22 125:24 134:12,18 136:21 140:9 151:15 162:22 163:7 165:22 169:19 170:11 172:24 180:20 180:21 183:16 200:3 showed 156:5 163:2,8,16 164:23 165:18 169:3,4 172:7 199:4 showing 58:23 100:9 113:13 127:17 132:9 134:24 135:2</p>
---	--	--	---

[showing - sliced]

135:10 167:4 171:19,24 178:2 179:4,13 180:23 182:5,9 shown 59:25 100:17,25 101:10,15 102:9 104:11 106:4 107:24 112:3 114:9 115:2 118:13 122:4 123:11 125:22 127:1 128:11 131:9 132:11 134:17 136:2,8 148:11 165:20 169:5,6 179:11 199:13 shows 58:18 63:25 101:17 103:2 113:12 114:25 117:22 122:19 124:18 127:16,24 130:13 131:18 179:1,12 183:9 shut 200:6 shutdown 176:16 shy 161:20 sic 55:7 side 6:18 87:23 89:24 162:19 163:15	sidewall 111:12 132:2 sight 12:12 sign 90:7 203:9 203:12 signal 45:6 signed 120:1 significant 102:7 115:11 119:6 significantly 118:3 141:5 172:14 177:19 177:20 187:15 silurian 140:17 siluro 105:18 114:12,17 115:6 118:11 126:14 127:21 128:21 138:18 140:17 161:3 173:14 179:13 187:7 silverback 5:5 6:6,14,23,24 8:22 silverbacks 5:19,21,22,25 6:10 similar 22:2 40:6 80:8 111:8 113:25 116:8,14 125:24 133:8 136:5 161:4,17	177:25 similarly 33:25 116:16 simple 43:11 91:6 simplified 152:15,24 154:2 simplifies 102:1 simplify 136:13 simply 12:11 33:14 38:10 43:10 44:18 75:13 90:22 145:20 simulated 120:21 simulation 103:10 120:22 122:18 123:16 123:19,20,22 124:1,4,17,24 125:8,12,22 130:8 132:22 132:24 133:17 135:7,20 136:10 137:9 137:10 146:6 146:10 161:7 162:21 163:13 163:15 168:9 173:1 177:6 178:3	simulations 108:19 111:17 121:8 122:2,21 124:7 129:19 131:2 133:10 133:22 134:13 136:17 137:5 172:13 simultaneously 88:10 sir 11:19 14:8 15:7 62:24 65:9 147:11 184:20 186:4 192:13 196:12 200:13 sit 21:20 72:25 site 38:9,12,13 38:14,16,20 63:11,14 66:10 88:7,23 89:3,5 89:11 90:18 91:6 145:10 175:16 situation 19:24 22:2 192:16 193:24 six 122:8 size 146:13 skills 207:6 skip 95:13,15 98:6 slated 92:4 sliced 131:13
--	---	---	--

[slide - special]

<p>slide 97:23 99:11,19 106:2 106:14 107:7 108:21 112:2 113:8 114:9,24 115:14,18 117:16 121:4 122:22 123:15 126:19 127:1 130:12 131:9 132:5,18,20 134:1,14,16 163:18,23,24 164:23 165:7 165:18 166:19 169:2 177:3 178:25 190:3</p> <p>slides 99:17 101:21 115:23 129:17 134:12 155:15</p> <p>slight 159:1</p> <p>slightly 47:7 53:12 100:14 167:13</p> <p>slip 17:2 95:2 96:2,15 103:1 120:4,10 121:2 121:8 122:1,9 122:18,24 123:2,11,14 125:13,15,16 125:21,23,25 140:3 148:4 172:13</p>	<p>sluggish 84:21</p> <p>small 7:3 82:22 84:6 152:9</p> <p>smaller 125:5</p> <p>smart 53:14</p> <p>snyder 32:8 35:25 36:5,6,7 36:10,14,18 37:11 39:2 40:25 41:15 42:3 83:8,8,11 83:17</p> <p>software 133:7 133:9</p> <p>soil 55:7,8,9 176:18</p> <p>soiled 176:5</p> <p>sold 46:24 64:3 65:7</p> <p>sole 13:16 52:12</p> <p>solely 42:24 62:17</p> <p>solidified 15:6</p> <p>solidify 200:22 204:12</p> <p>solution 54:6 70:10</p> <p>somebody 60:2</p> <p>someone's 70:23 71:1,2 71:18</p> <p>something's 81:19</p>	<p>sonic 110:23 111:1 150:17 163:18 170:10</p> <p>soon 7:11 11:7 21:17 27:14 163:16</p> <p>sooner 204:25</p> <p>sophisticated 146:3</p> <p>sorry 7:21 10:20 11:13 31:10 93:8 105:10 106:22 115:17 133:1 145:2 147:19 148:15 155:2,5 158:6 190:25 201:16</p> <p>sort 25:7</p> <p>sorted 26:12,12</p> <p>sought 105:2</p> <p>sound 29:8 69:13</p> <p>sounds 157:25</p> <p>sour 99:3 101:25 104:18 104:20 138:11</p> <p>sources 80:16 102:14 119:18 141:21 195:18</p> <p>south 30:25 31:21 35:2 38:15 65:5 100:5,13 118:12 121:17</p>	<p>139:18 148:3 173:11 174:1 175:18</p> <p>southeast 64:6 101:1,16 114:1 161:17</p> <p>southeastern 112:6 122:3</p> <p>southwest 32:20 33:2 100:4 106:8 114:18 167:11</p> <p>space 35:22 37:1,4,6 39:2,6 43:9,10 44:8 48:25 49:5,13 49:16,24 50:1 50:7 51:2,11 52:23 53:11,16 53:20 58:14 61:13 65:24 66:25 67:6,14 67:20,20 68:2 68:8,9 70:23 70:24 71:2,4,8 71:14,18 74:18 79:3 80:21 82:10</p> <p>spaces 42:25</p> <p>speak 66:1 67:12</p> <p>speaking 22:20 56:13</p> <p>special 1:21 47:19 142:13</p>
---	---	---	--

[specific - sticking]

<p>specific 19:25 39:15 106:18 108:24 149:8 150:11,18 specifically 38:3 87:11 98:18 100:5 108:2 120:25 134:24 137:8 138:17 162:19 162:19 specificity 79:21 specified 140:14 specify 162:18 speculating 167:15 speculative 167:6 168:25 speed 99:7 spell 185:7 spelled 185:9 split 193:18 splitting 134:3 springs 109:22 118:6 127:7,19 127:23 square 112:6 188:5 squeezed 174:17 ss 122:6 stabilization 167:13</p>	<p>stage 107:22 stages 107:20 stakeholder 20:6 stand 85:5 93:20 standard 98:19 117:6 134:4,8 136:25 137:9 195:3 standards 107:25 195:9 standing 32:12 36:3 37:16,18 38:21 39:7 61:5,5,19,23 63:5,8 65:13 65:17 66:4,15 standpoint 176:10 stanford 121:1 122:15 124:6 stars 113:13 start 3:9 4:23 5:15 15:14 16:5 17:2 21:7 30:17 31:9 79:5 87:2 92:12 153:15 155:6 171:12 196:6 205:11 started 18:22 starting 18:2 23:24 24:23</p>	<p>starts 25:25 state 6:15 18:17 33:23,25 35:3,9,10,11,13 35:14,19 38:2 38:3 53:12,17 64:7 73:16 82:20 94:11 123:8 138:12 139:21,22 173:18 185:6 state's 64:10 stated 4:1 13:23 17:10 33:12 51:20 88:14 89:23 144:11 177:7 statement 1:5,7 43:16 56:17 83:22 85:15 90:20 119:16 120:1 146:24 statements 12:1 49:12 50:20 77:7 states 32:16 status 4:22 5:16,17 11:23 11:24 15:13 17:5 25:3,4 27:11,12 28:15 28:18,21 29:4 29:5 52:4 57:14 72:6 104:13</p>	<p>statute 38:6 63:9,15 statutes 6:15 statutory 26:20 44:2,5 stavic 166:10 stay 31:13,23 32:2,8,18 33:6 35:20 36:1 37:15,16 38:23 39:17 44:17,18 44:21 45:3,6 46:3,8 48:2 53:5 54:7,10 54:22 62:3,20 62:21 63:18 71:11 75:20 stays 44:22 54:21 steel 139:13 stem 127:3 step 84:15 107:3 126:13 151:7,7,14 160:15 170:22 171:5,12 191:14,16,20 191:25 196:7 196:16 201:16 steps 8:13 stewart 88:12 88:13 stick 28:12 sticking 27:16</p>
---	---	---	---

[stimulate - suggested]

<p>stimulate 151:9</p> <p>stimulation 151:11</p> <p>stipulated 8:11 20:2 107:1</p> <p>stipulates 144:11</p> <p>stones 131:5</p> <p>stop 97:18 181:15 199:13 199:23 200:4</p> <p>straight 24:15</p> <p>stranatocamaro 110:8 112:15 126:23 174:21</p> <p>strata 102:17 112:12,14,21 113:1,11 126:7 126:14 139:13 179:23 180:18</p> <p>strategy 150:12</p> <p>stratigraphy 127:18</p> <p>stream 34:25 107:12 132:23 133:5 139:14</p> <p>stress 122:17 122:20 123:4,6 123:8 148:5 204:18</p> <p>strike 9:1,20,21 9:22 10:6,9</p> <p>string 102:16 110:9 149:25</p>	<p>strings 102:15 109:2 110:12 139:11 187:19 188:15</p> <p>strong 27:17 77:15 102:4</p> <p>strongly 9:2 59:1</p> <p>struck 35:18</p> <p>structural 114:23 179:8</p> <p>structure 114:10,14 156:1 167:9</p> <p>structured 20:19</p> <p>structures 120:23</p> <p>studied 126:23</p> <p>studies 134:2 137:17</p> <p>study 95:18</p> <p>stuff 85:4</p> <p>suaza 29:18</p> <p>suazo 16:6,9,10 16:11 20:1 21:1,2 23:16 23:17 27:23,24 29:15,16</p> <p>subdivided 121:14 131:10 147:9</p> <p>subject 7:2 8:10 41:18 46:5 73:19</p>	<p>149:23 172:4 188:8,12,13 189:20 191:10 192:19,20</p> <p>subjected 192:21</p> <p>submission 187:1 202:8</p> <p>submit 90:5,7 90:16,21 91:4 142:5 205:3</p> <p>submitted 6:4 17:15,17 27:14 36:24 45:24 51:3 69:18 91:19 95:9 96:5 101:6 104:2,15 105:21 145:8 145:16 152:24 153:10,23 154:8,10 156:10 202:19 202:23 203:23</p> <p>submitting 158:17</p> <p>subsections 103:22</p> <p>subsequent 48:24 120:18 146:5 156:12 183:14</p> <p>subsequently 101:13</p>	<p>substance 37:4 37:5,12</p> <p>substantial 175:4</p> <p>substantially 26:22 116:10</p> <p>substantiate 72:11 98:24</p> <p>subsurface 35:2,3,15 40:10 42:25 43:8 44:8 61:13 108:5 111:25 118:25 120:16 126:9 129:24 136:16 139:4 151:17 152:3 155:21</p> <p>subtract 191:15</p> <p>succeed 31:24</p> <p>successful 130:21</p> <p>successive 107:20</p> <p>successor 55:6</p> <p>suffered 63:2</p> <p>suffice 91:11 201:2</p> <p>sufficient 90:20 139:5 174:3 197:22 198:21</p> <p>suggest 200:1</p> <p>suggested 69:4</p>
---	---	---	---

[suggestion - tag]

suggestion 26:1 69:22 70:8 203:15 suggests 58:6 suitable 108:12 118:21 119:11 126:6 sulfide 102:6 103:24 176:14 176:19 sulfur 102:3 summarize 123:15 132:16 138:16 summarized 19:24 132:20 summarizes 134:1 summarizing 19:5 21:3 107:7 109:1 132:6 164:2 summary 2:2 114:6 131:19 137:4 141:15 162:19 187:4 188:25 summer 27:6 sunday 14:11 14:12,14 superimpose 169:11 181:12 superimposed 166:20 167:1	supervision 96:7 support 42:4 44:20 71:15 99:12 129:20 supported 129:8,9 161:8 supporting 98:23 99:12 116:17 138:1 supportive 22:17 103:17 128:5 138:9 suppose 19:7 supreme 40:25 42:4 sure 10:22 21:2 26:7 53:6 57:1 73:7 83:18 90:14 93:22,24 94:4 97:19 99:14,19 104:12 110:2 120:1,11,15 131:4 133:13 136:19 139:22 152:19 154:22 155:21 158:3 158:10 159:4 159:17 160:2 162:5 174:11 180:14 183:13 200:24 202:24 203:13 204:12 204:24,24	surface 31:21 37:19 38:8,11 38:15,20 45:20 45:21 49:5 53:16,20 58:20 59:11,13,17 60:15,24 63:10 63:13 64:10,18 64:24 66:5 67:15 77:18,23 78:2,3,8 79:13 79:18 81:15,20 81:25 82:4 87:21,25 100:9 100:12 101:15 102:10,13 108:3 109:4 110:13,18 112:9 117:3,16 118:20 136:18 137:1 138:22 147:2 151:11 157:9 161:24 169:5 175:12 176:11 188:19 191:13 193:10 193:20 194:6 196:9 surfaces 179:3 surround 38:16 surrounded 64:9 survey 113:2 120:15 121:19 130:11,16	suspicion 8:4 160:8 suss 158:24 swd 30:15 67:5 93:10 105:11 105:12 107:2 122:12 124:4 125:4 153:20 154:14 172:12 swear 94:2 184:23 switched 134:15 sworn 94:8 185:3,13 symbol 100:18 101:1 system 107:9 107:16,19 138:23 176:21 systems 108:5,7 <hr/> t <hr/> t 1:4,4,16 table 69:14,23 70:9 97:5 122:19 131:18 172:6 tabulated 114:6 tack 165:15 204:21 tag 71:17 107:15,18 144:17 163:8 182:4,13,14
--	---	--	--

[tag - thank]

<p>183:6,10,17 187:7 188:16 188:19 199:13 tagging 199:22 tailored 187:10 take 10:10 20:12 24:19 30:4 31:14,16 36:20 48:3 50:24,24 56:8 73:14 75:24 77:11 86:8,8 86:10 93:20,23 106:2 124:6 126:12 128:2 143:17,20 158:3 167:23 184:4,21 197:17 taken 9:12 207:9 takes 37:2 talk 20:5 37:22 54:5 57:13 71:16 84:18 101:21 104:10 113:1 119:14 129:17 134:16 139:22 talked 71:25 139:23 160:13 195:11 196:14 talking 12:11 13:1 80:18</p>	<p>talks 53:23 tana 15:16 tansill 113:21 118:5 target 165:14 targeted 156:16 targeting 161:4 targets 118:8 teach 24:12,16 24:17,20 team 5:6 tech 3:17 78:7 technical 40:1 42:20 50:12,16 50:19 55:20 56:1,7 61:9,11 65:20 68:4 79:11 91:14 153:11 telescoping 139:11 tell 53:7 64:19 76:10 94:9 168:25 178:17 185:4 telling 37:5 199:19 temperature 108:16 111:24 temporary 53:5 54:6 tend 27:24 96:13</p>	<p>tender 186:14 tendered 186:8 tentatively 23:9 termain 16:2 termaine 202:25 terminated 52:7 terms 18:9 28:13 38:5 62:16 80:20 99:2 100:1 110:14,20 126:9 167:7,21 170:9 180:21 181:20 182:21 190:2,9,10,16 193:17 198:3 199:7 terrible 45:10 test 111:16 132:2 140:13 151:7,8,14 160:15 170:22 171:4,5,12,14 191:14,16,25 196:8,16 tested 49:24 111:16 testified 94:10 94:22 147:8 185:5 186:5 testify 85:16 testimony 17:24,25 18:11</p>	<p>19:11,18,20 27:2,5 34:20 50:19 55:20 58:5,23 91:14 93:16 95:16 120:7,8 146:20 159:6,12 160:7 160:17 172:17 173:9 177:2,13 179:18 180:21 188:1 189:24 190:1 193:19 196:5,14 198:15 testing 107:4 110:16 160:19 170:7 171:10 tests 111:17 127:3 texas 33:23 34:3 52:6 th 29:4 thank 3:19 4:14 5:2,7,12 6:20 7:12,22 9:18 9:19 15:8,9,16 15:20,25 16:4 16:14,20,24 17:4,4 19:23 20:25 21:24 22:1,14,16 28:24 29:12,14 29:17,19,20,22 29:24,25 30:1 30:6,23 31:3,5</p>
--	--	--	--

[thank - time]

31:8 39:8,9,18 39:21 48:5,10 51:5,7 54:11 54:12 65:10 68:12 77:2 84:7 85:12 86:11,18,24 88:13 89:15,24 93:2,3,14 97:21 119:25 141:24 143:11 143:24 144:4 144:16 146:17 147:7 149:17 150:4 151:6,16 152:5 154:24 155:4 157:16 173:6,8 176:22 177:1,1 178:12 183:20 184:4 184:14,16 185:11,14 186:23 188:24 190:14 191:1 193:1 194:2 196:2,5 200:13 200:14,16,18 200:20 204:3 205:14 206:1 206:10,11 thanks 155:11 that's 29:9 theoretically 83:2	thick 112:20 115:12 thickness 115:9 121:21 131:20 179:24 180:16 thicknesses 179:9 thing 13:12 19:5,19 20:14 34:7 83:20 87:18 88:7 89:12 132:11 166:22 180:14 things 7:15 48:18 65:18 82:25 111:21 113:20 115:1,1 128:13 130:10 148:21 153:15 164:21 168:1 think 9:4,17,23 10:5 19:5,24 20:4,11,19 21:2,4,6,11,16 21:20,22 22:7 22:12 24:18 25:5 26:11,16 26:23 27:13 28:2 49:20,25 50:6,10,16,21 51:15 53:18 55:2,4,7 57:3 57:10 65:20 66:2,4,11 67:18 68:1,14	68:20,24 69:4 70:18 71:17 72:19 73:2,11 76:3,12,24 77:6,8 78:6 79:9,21 80:8 80:11,18 84:11 84:19,19,25 85:3,20,22 86:20 88:6 89:8 90:20 91:1,4,6,15 92:4,9,12,14 95:14 99:23 103:17 116:4 118:24 129:11 142:3 144:23 146:12 150:6 151:5,13 159:11,12 160:21 161:2,4 161:5,6,18 162:11,12 167:7,24 168:3 168:6,24 170:25 173:15 173:25 174:4,6 174:21 175:5 180:22,24 181:17 182:12 182:14 183:22 190:15 200:25 202:3 203:10 third 4:1 24:2,9 32:10 89:4	109:18 150:24 thought 14:18 56:16 69:3 86:5,7 91:20 179:25 202:13 thoughts 84:9 160:6 166:20 thousand 117:11 thousands 32:16 118:9 threat 67:19 three 5:13 11:8 11:11 32:3 69:25 130:13 131:15 148:21 191:10 193:2 throat 69:21 throw 71:19 85:18 121:20 180:15 throwing 72:23 thursday 3:4 tick 98:5 tickets 128:12 tied 108:4 tight 28:12 115:12 time 8:12 14:3 17:10,19 19:14 20:12 25:22 28:11,13 29:6 29:7 31:15 35:19 45:14 52:5 57:16,25
---	--	--	--

[time - transmissive]

58:3 69:19	134:2 135:9	175:12 177:2	167:14
72:14 73:9	140:11,14	184:10 189:25	township 100:5
76:11 77:12	145:2 146:15	193:15 196:11	trace 107:13
85:14 86:9,25	146:16 149:21	198:15 203:11	traces 127:22
88:11 89:1	156:13 157:4	206:9	149:10
93:18 96:9,11	158:16 161:18	together 164:9	track 38:13
96:23 100:10	172:1 177:9	toka 174:22	101:9 144:1
101:3 105:15	187:2,8,23	told 12:13	tracking 26:14
123:25 124:8	188:4 189:20	took 86:25	tracks 60:9
125:14,18	195:2	tools 109:15	127:17,21
130:9 136:23	title 5:23 6:1,6	110:23 111:8,8	tract 37:20
141:25 145:10	7:5,8,25 8:20	146:3	40:18 59:22
145:18 152:24	8:20 33:13,14	top 114:12,12	64:9
153:7 161:5	33:19,22,24	114:15,16,17	traditionally
162:11 164:9	34:9,14 52:17	135:4 170:16	193:23
173:9 194:15	titled 5:24	178:23 179:5	transacted
timeline 152:23	titles 5:22	179:12,13,20	65:25
189:7,13	today 9:5 12:15	180:6 181:5,8	transcriber
190:16	15:18 21:22	181:9,12 182:1	207:1
times 112:4	30:9 31:23	182:6 183:4,5	transcript
timing 82:12	32:3 33:6	183:11	207:3,5
152:20	34:19 35:17	topic 4:2 65:17	transferring
tips 157:7	36:20,22 38:18	77:5,5	33:15
tisdale 15:19	42:18 49:12	topics 12:5,16	transform
16:15	52:25 53:9,21	tops 114:8	130:19
titan 31:22	54:9 55:2	total 38:13	transmissibility
32:14 57:22	56:11 58:4,17	98:16 110:19	166:1,11
97:11 98:12	67:12 84:15,20	117:12,23	transmissive
99:4 101:18	87:8 90:13	118:2,16	131:3,4 133:23
106:7 107:11	92:22 93:16	123:20 131:15	133:23 134:6,6
108:22 110:5	101:19 103:11	131:22 134:22	134:21 135:21
111:4 114:5,22	104:7 130:2	139:10 165:9	136:24,24
115:10 116:14	142:20 146:19	towards 113:16	148:23,23
117:9,12	155:11 160:14	114:1,18	149:1 165:19
118:25 122:6	172:4 173:9	135:12,15,18	165:19,21

[transmissive - uh]

<p>178:4 199:4,5 transmit 157:8 transmitted 107:15,19,22 transmitting 176:11 traveling 20:1 travo 13:13 treated 46:10 68:2 77:24 78:11,12,20 79:14 80:20 82:3,7 95:24 137:7 157:8 treating 57:22 141:4 177:9,14 treatment 98:13 99:4 102:1 107:16 137:24 tremaim 66:21 tremain 4:25 7:13,18 9:23 16:2 tremaine 1:12 1:14 4:24 5:3 7:14,21,23 9:20,21 11:11 11:12,14,15 12:10,24 13:2 13:4,4,15 16:5 19:22,23 21:1 23:14 26:10 29:2,13,14 31:5,6 33:22</p>	<p>48:9 65:12,19 66:18 67:2,22 77:3,4 81:6,11 85:12 86:17 89:18,19,22 90:9,25 91:1 91:15,23 92:3 92:9 143:8,9 143:14,16,19 143:22 144:2,4 144:7 152:13 157:17 165:20 179:16 180:3 184:2,15,16 185:14,17 186:12,24 194:15,24,25 195:21 201:7 201:13 202:2,3 202:15,17 203:2,22 204:4 204:5 205:8,9 205:18,20 tremaine's 12:1 27:25 53:10,23 trend 125:18 trending 121:17 148:3 trespass 39:13 40:10 43:8 44:8 51:10,10 51:13 61:14 tribunal 33:23 tried 157:18</p>	<p>trigger 81:20 176:15 triggered 121:2 tripp 16:17,18 16:20 21:25 22:1,10 23:19 23:20 28:19,20 29:17,19 30:1 true 9:6 207:5 truth 94:9,9,10 185:4,4,5 try 7:6 17:19 27:10 28:17 69:20 81:11 171:14 trying 84:18 166:15 203:9 tubing 171:10 tubulars 111:25 turn 27:1 39:19 87:3 93:13 184:22 turned 131:5 turning 32:13 35:5,24 51:19 two 6:25 7:2,15 10:9,15 13:12 13:14 18:2,2 20:18 22:3,5 22:20 23:2 24:10,15 25:11 25:13,18 26:6 29:24 32:16 36:2 37:18,20</p>	<p>45:20 46:20,21 47:2 53:17 54:21 55:1 56:2,14 57:21 58:8 63:1 69:25 73:1 81:5 82:25 87:14 88:22 89:14 90:23 114:20 122:5,7 123:17 127:22 132:7 134:12 136:21 139:2 139:24 156:17 161:13,23 162:22,25 165:18 173:24 177:6 178:1 193:25 198:16 202:6,11,24 type 85:24 124:8 138:24 types 99:1 101:25 103:23 168:5 176:12 typical 78:22 81:9 typically 48:16 134:10 203:12</p>
u			
<p>u 64:3 u.s. 9:13 173:19 ucd 18:9 uh 89:16 97:3 147:23 157:20</p>			

[uh - update]

158:11 159:10 159:19,23 162:24 163:9 166:24 169:21 171:8,22 177:10 178:6 181:6 uic 167:20 ultimate 109:5 125:3,12 135:25 136:16 155:20 ultimately 50:3 50:22 75:6 79:4 100:20 101:3 104:22 105:22 108:11 109:9,20 110:6 110:11 111:19 116:1,4,11 117:12,18 118:17,19 119:10 120:13 124:2 125:5 127:10,12 128:2,5,14 129:11 130:19 131:4,24 133:2 133:12,24 134:18 135:21 136:5,10 137:11,13,14 138:11 140:5,8 140:12 141:8 141:13 145:23	145:25 146:15 150:19 151:13 153:4,12,16 155:24 156:16 157:3 162:13 166:3,13 167:14 169:14 170:23 171:6 171:13 172:10 172:14 174:4,9 174:22 176:4,6 176:9 177:15 177:17 unabashedly 43:12 unanimously 10:6 uncertainty 125:10 under 6:14,25 13:15 34:25 35:4,11 36:23 37:21 39:7 45:20 48:3 49:22 50:2 59:5,8,24 60:12,18 61:1 63:14 65:3 74:13 88:22 89:4 91:16 96:7 120:15 127:9 128:17 131:2 134:5,10 134:21 137:11 137:18 140:19	153:2,20,23 154:14,17 167:20 171:1 178:3 187:16 underground 80:15 185:23 195:18 underlie 115:5 underlies 74:10 underlying 74:9 91:17 156:6 undermining 45:4 underneath 36:10,18 understand 13:6 33:20 47:10 78:23 82:24 103:19 128:6,9 139:20 152:19 155:21 173:4 182:13 understanding 65:22 88:17 108:17 110:24 111:18 118:25 120:16 151:8 174:12 175:7 180:5 190:16 190:19 199:21 understands 13:7 200:22 understood 59:2 62:15	73:6 131:6 155:23 177:11 undertaking 76:22 undertook 152:15,16 undisputed 55:15 68:1 undoubtedly 38:21 51:10 unfortunately 100:7 unhappy 9:9 25:12 unhealed 149:1 unique 82:25 unit 6:25 107:20 112:19 units 112:10 113:13 126:22 157:6 universe 56:12 85:8 unnecessary 40:21 unorthodox 73:13 unrelated 45:9 74:8 unsettled 50:21 unsupported 9:11 update 89:9 90:22 198:16
---	---	---	--

updated 88:8 91:5 160:16 updates 89:19 183:15 updating 88:21 193:22,25 upfront 175:7 upgradient 169:17 upper 116:6 upwards 170:14 urge 9:5 86:4 usa 15:24 usc 2:2 188:25 use 12:25 13:3 44:1,4 45:7 66:25 71:4 84:11 163:21 166:1,8,18 187:14 used 13:1 82:6 116:12 uses 68:3 using 79:24 111:7 154:7 163:17 166:9 188:14 utilization 102:22 utilize 110:2,9 121:1 133:6 151:12 159:14 160:2 162:8 171:4	utilized 106:19 121:8 128:16 129:22 139:9 145:22 153:8 159:7,13 164:24 176:8 176:20 utilizes 106:17 utilizing 109:15 123:8 125:9,12 130:5,18 140:25 148:14 170:9,10 utmost 28:17	125:10 126:1 137:18 vehicle 158:17 venture 8:4 venue 74:25 76:5 verified 110:14 verify 48:13 verifying 78:9 81:16 82:5 version 73:17 103:13 versus 125:14 126:14 136:22 162:15 166:15 191:17 vertical 101:13 105:14 116:3 129:6 134:25 156:7,11,15 157:1 178:19 180:21 181:14 182:10 vertically 180:23 vice 94:21 view 50:17 58:16 62:21 135:10 violation 12:8 violations 12:11 viscosity 124:14	visualize 167:2 vitae 185:25 volume 98:17 125:4 133:12 134:3 137:12 138:21 140:16 volumes 57:19 103:3 104:20 123:19 125:5 149:6 156:8 170:24 volumetric 145:21,23 152:14,25 154:2 vote 4:13 votes 86:17
	v		w
	vacated 17:8 valid 42:11 75:7 83:24 157:7 validly 41:17 42:8 valuation 50:5 valuations 50:23 value 67:16,24 values 132:13 132:15 165:4 168:23 valves 108:4,5 111:25 151:18 152:3 variabilities 182:16 various 26:15 48:12 50:9,13		wait 27:7 28:13 waiting 19:25 21:12 92:9 walk 87:6 92:12 99:17 walls 177:19 178:9 want 7:15 19:19 20:11 26:23 33:20,21 39:11 45:13 51:12,13 53:22 54:2,16 55:19 56:24 68:25 69:7 70:18,22 72:14 77:3 79:19 81:1

[want - wells]

82:14 83:20	102:10 117:8	139:4,23 142:5	83:2 87:22
84:5 87:15,16	119:15,19	146:19 173:17	88:1,4 89:6
91:17 126:12	122:11 124:10	175:11 195:11	98:17 99:1,21
127:10 128:2,5	124:13 140:21	weak 150:9	101:20,23,24
136:16 144:10	141:22 145:24	weather 187:16	102:10,10
144:16,20	153:16 168:22	week 14:17	103:4,4 106:10
146:18,22,25	169:1 173:21	15:4 17:21	106:17 107:2,2
152:19 153:14	173:22 194:7	18:14 22:3,5	107:23 108:2,3
154:22 159:24	195:19	23:3,3,5,6,8,24	108:8,14,14,20
160:4 166:14	waters 102:10	24:3,20 25:2	108:23 111:11
166:25 171:19	153:14	26:22 204:20	111:19 114:25
173:4 174:4,10	way 3:20 20:20	204:22,23	115:2 116:8,11
180:1,14 182:3	21:9 24:17	205:5	116:20,21
196:6 198:6,23	26:24 27:20,21	weekend 25:21	117:8,10,13,22
201:15 202:4	28:13 29:4	weeks 10:15	117:25 118:1,2
203:8,13 204:8	33:12 48:15	18:2,2 20:11	118:6 122:1,5
204:8,11,22	51:22 70:4	20:19,23 21:23	122:8,9 123:16
wanted 82:20	72:25 76:10	23:2 24:10,15	123:17,17,23
99:24 115:19	80:17 121:23	25:11,13 26:6	123:24 124:1,3
115:24 116:12	127:20,24	26:13 29:24	124:9,25 125:2
181:12 202:18	128:8 144:23	weigh 80:4	125:3,7 126:2
warm 135:11	147:20 148:21	weight 127:3	128:13 132:4
warmer 114:15	165:25 177:20	weird 11:6	133:1,10,15
124:18	201:19 203:10	well's 41:9	135:22 137:15
warranty 1:21	203:13	wells 2:4 8:15	138:21,21
45:21 47:20	ways 173:15	9:10 45:23	140:1,17,22
142:13	we've 5:13	46:11 47:24	141:10 146:14
waste 43:6 44:2	18:15 19:24	50:1,1 51:4	146:19,21,22
54:23 55:12	20:21 25:10	58:21 59:18	151:19 156:17
62:4,6,18	78:7 82:6	72:6 76:21	161:1,3 162:2
141:5,16	87:23 88:17	77:11,18 78:15	162:23 166:2
water 36:7,9,17	90:17 116:10	78:16 79:1,14	167:19 168:5
50:1 67:9	116:18,24	79:15,19 80:3	171:24 172:8
80:16 83:1,5	121:14,20	80:12 81:8,10	172:11,11
88:1,4 89:6	126:15 135:23	81:14 82:9	173:21,22

[wells - yates]

174:10 175:14 175:22 176:3,6 176:9 182:25 188:10,12,17 188:18,22 189:1,7 190:17 191:8,9 193:9 194:7 197:4 198:20 went 33:14 77:22 142:19 170:7,16 189:19 199:2 west 100:15 121:17 whatnot 150:21 white 1:10 93:20,22 94:7 94:13,13,17 96:14,25 99:7 119:14 141:15 141:24 142:1,9 144:3,8 152:13 155:5,10,19 156:22 157:1,3 157:14,20 158:6,11,14 159:9,11,19,23 160:6,18 161:2 161:13,15,23 162:11,24 163:9,22,25 164:8,12,14,16 165:2,9,12,16 166:3,12,24	167:6,20,24 168:18,23 169:9,13,21,24 170:4,6,23 171:6,9,22 172:1,4,10,22 174:4 175:20 175:22 176:1 176:17 177:10 177:15 178:7 178:21 179:7 179:12,22 180:10,25 181:6,9,17 182:12,21,23 183:1,19,23,23 184:3 189:25 199:3 white's 196:14 whittle 20:24 wholeheartedly 37:25 wholly 59:23 wiggle 197:17 william 3:17 wind 93:7 wire 110:14,20 withdraw 73:18 withdrawal 88:18 90:16 withdrawing 87:7 withstanding 38:5	witness 1:9 38:18 92:17 93:16 94:2,8 96:14 143:12 154:25 185:3 witnesses 184:10,11 wolfcamp 118:7 127:19 151:1 wonder 204:19 wondering 203:7 woodford 112:18 115:4 115:10 121:21 121:23 126:11 127:8,25 129:15 139:6 179:11,14,19 179:24 180:4,9 180:12,16 181:13,14,16 181:19,22 182:3,6,7,18,20 183:8 190:11 198:4,10,20 worded 9:3 work 11:11 18:20 24:1,16 24:21,21,23 27:9 28:4,17 33:21,22 53:5 120:25 121:25 127:16 129:1	134:16 150:22 176:16 185:19 185:21 203:20 203:22 working 28:22 37:23 60:5,7 157:15 workload 17:16 works 24:5 92:20,21 115:18 200:25 world 120:12 123:4 158:4 worst 165:23 worth 73:11 would've 65:1 124:1 193:15 wozniak 16:12 wrap 36:4 write 14:3 90:4 writing 91:4 written 53:14 69:24 158:1 wrong 70:12 72:15 77:22 81:20 177:5 wrote 18:4
			x
			x 1:16 197:10
			y
			yates 113:21 118:5

[yeah - zones]

yeah 11:23	123:23 124:21
14:4 15:1,3	124:21 132:25
16:22 19:16,17	137:13 193:23
24:18 27:24	193:25 198:16
29:1 31:10	199:6 202:9,20
39:13 56:24	202:24,24
65:16 67:25	yep 29:22
71:25 76:1	yesterday
84:22,24 87:18	69:18 73:5
88:15 91:21	yield 173:4
98:10 106:24	z
115:15,16	zero 28:3 63:12
120:6 145:5	125:23 126:4
160:6,18	zobacka 123:7
161:14,14	zone 78:21
162:17 163:9	102:25 105:18
164:8,14	109:17 111:6
169:10 170:5	111:14 114:13
170:20 177:15	115:7 118:8,12
179:1,12	118:16 119:18
180:10,25	126:22 127:9
181:2 182:22	127:20 129:13
183:19 190:5	134:24 135:5
196:21 199:9	139:2,17 176:8
199:17,24	179:7 181:6,9
200:12,15	182:8,14
204:13,19	188:11 192:21
year 17:15 35:7	198:13
134:20 137:10	zones 115:8
163:13 202:6	130:22 131:11
202:11	131:19,21
years 53:1 58:7	149:22 151:10
59:3 72:5	158:21 165:11
87:13,14 88:22	165:14
89:14 90:23	