

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

STATE OF NEW MEXICO  
OIL CONSERVATION COMMISSION

Case No. 23580

Tuesday, November 12, 2024  
9:00 a.m.

Pecos Hall, Wendell Chino Building  
1220 South St. Francis Drive  
Santa Fe, NM 87505

Reported by: James Cogswell  
JOB NO.: 6866904

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

A P P E A R A N C E S

ON BEHALF OF NMOCC:

DANIEL R. RUBIN, ESQUIRE  
New Mexico Department of Justice  
408 Galisteo Street  
Santa Fe, NM 87501  
drubin@nmdoj.gov  
(505) 537-4477

ON BEHALF OF COG OPERATING / CONCHO OIL & GAS LLC:

JACLYN M. MCLEAN, ESQUIRE  
Hinkle Shanor LLP  
218 Montezuma Avenue  
Santa Fe, NM 87501  
jmclean@hinklelawfirm.com  
(505) 982-4554

ON BEHALF OF AVANT OPERATING LLC:

DEANA M. BENNETT, ESQUIRE (by videoconference)  
Modrall Sperling  
500 4th Street Northwest #1000  
Albuquerque, NM 87102  
deana.bennett@modrall.com  
(505) 848-1800

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

A P P E A R A N C E S (Cont'd)

ON BEHALF OF PBEX LLC / E.G.L. RESOURCES:

MICHAEL H. FELDEWERT, ESQUIRE  
Holland & Hart LLP  
110 North Guadalupe Street #1  
Santa Fe, NM 87501  
mfeldewert@hollandhart.com  
(505) 988-4421

ON BEHALF OF APACHE CORPORATION:

DALVA MOELLENBERG, ESQUIRE  
Gallagher & Kennedy PA  
1239 Paseo de Peralta  
Santa Fe, NM 87501  
dlm@gknet.com  
(505) 989-7278

ON BEHALF OF NMOCD:

JESSE K. TREMAINE, ESQUIRE  
State of New Mexico Oil Conservation Division  
1220 South Saint Francis Drive  
Santa Fe, NM 87505  
jessek.tremaine@emnrd.nm.gov  
(505) 231-9312

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

A P P E A R A N C E S (Cont'd)

ON BEHALF OF NMOGA:

CRISTINA MULCAHY, ESQUIRE  
Holland & Hart LLP  
110 North Guadalupe Street #1  
Santa Fe, NM 87501  
camulcahy@hollandhart.com  
(505) 988-4421

ON BEHALF OF EOG RESOURCES:

JORDAN L. KESSLER, ESQUIRE  
EOG Resources, Inc.  
125 Lincoln Avenue, Suite 213  
Santa Fe, NM, US, 87501  
jordan\_kessler@eogresources.com  
(432) 488-6108

ON BEHALF OF NMOGA:

ADAM G. RANKIN, ESQUIRE  
Holland & Hart LLP  
110 North Guadalupe Street #1  
Santa Fe, NM 87501  
agrarkin@hollandhart.com  
(505) 988-4421

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

A P P E A R A N C E S (Cont'd)

ON BEHALF OF WILDEARTH GUARDIANS:

TIMOTHY M. DAVIS, ESQUIRE  
WildEarth Guardians  
301 North Guadalupe Street, Suite 201  
Santa Fe, NM 87501  
tdavis@wildearthguardians.org  
(205) 913-6425

ALSO PRESENT:

Felicia Orth, Hearing Officer  
Gerasimos Razatos, Acting Director - State of New Mexico Oil Conservation Division  
Greg Bloom, Commissioner - State of New Mexico Oil Conservation Commission  
Dr. William Ampomah, Commissioner - State of New Mexico Oil Conservation Commission  
Sheila Apodaca, Law Clerk - State of New Mexico Oil Conservation Commission  
Madai Corral, Law Clerk - State of New Mexico Oil Conservation Commission  
Norman Gaume, Member of Public  
Kathleen McCloud, Member of Public  
Nancy Yuen, Member of Public (by videoconference)

1 ALSO PRESENT (Cont'd):  
2 Amy Christian, Member of Public (by  
3 videoconference)  
4 Nodiah Brent, Member of Public (by  
5 videoconference)  
6 Savanna Woods, Member of Public (by  
7 videoconference)  
8 Paul Pino, Member of Public (by videoconference)  
9 Lauri Costello, Member of Public (by  
10 videoconference)  
11 Erica Lea-Simka, Member of Public (by  
12 videoconference)  
13 Stephen Schmidt, Member of Public, By  
14 Videoconference  
15 Caroline Knapp, Member of Public (by  
16 videoconference)  
17 Gail Robin Seycel, Member of Public (by  
18 videoconference)  
19 Elaine Cimino, Member of Public (by  
20 videoconference)  
21 Michael Sweringen, Member of Public (by  
22 videoconference)  
23 Evalyn Bemis, Member of Public (by  
24 videoconference)  
25

1 ALSO PRESENT (Cont'd):

2 Sofia Jenkins-Nieto, Member of Public

3 Feleecia Guillen, Member of Public

4 Ennedith Lopez, Member of Public

5 Zephyr Jaramillo, Member of Public

6 Jonathan Juarez, Member of Public

7 Stephany Aguirre, Member of Public

8 Briana Reviere, Member of Public

9 Michael Dolce, Member of Public

10 Miriam Luebano, Member of Public

11 Megan Taros, Member of Public

12 Miguel Acosta, Member of Public

13 Mick Nickel, Member of Public

14 Stephen Meyer, Member of Public

15 Mykayla Trujillo, Member of Public

16 Pat Leahan, Member of Public (by videoconference)

17 Robin Schuett-Hames, Member of Public (by  
18 videoconference)

19 Nell Burrus, Member of Public (by  
20 videoconference)

21 Rayellen Smith, Member of Public (by  
22 videoconference)

23 Xavier Barraza, Member of Public, By  
24 Videoconference

25

1 ALSO PRESENT (Cont'd):  
2 Bianca Sopoci-Belknap, Member of Public (by  
3 videoconference)  
4 Mary Martinez-White, Member of Public (by  
5 videoconference)  
6 Nancy Singham, Member of Public (by  
7 videoconference)  
8 Rachel Carson, Member of Public (by  
9 videoconference)  
10 Ryan Tate, Member of Public (by videoconference)  
11 Anna Rondon, Member of Public (by  
12 videoconference)  
13 Susan Schuurman, Member of Public (by  
14 videoconference)  
15 Brandon Powell, Deputy Director - State of New  
16 Mexico Oil Conservation Division  
17 Nicholas R. Maxwell, Participant from Lea County,  
18 By Videoconference  
19 Raife Juarez, Member of Public  
20  
21  
22  
23  
24  
25

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

INDEX

PAGE

OPENING STATEMENT by Mr. Davis	140
OPENING STATEMENT by Mr. Tremaine	156
OPENING STATEMENT by Ms. Mulcahy	165

WITNESSES: DX CX RDX RCX

DUSTY HORWITT

By Mr. Davis	179		
By Ms. Mulcahy		193	
DR. DAVID ROBERT BROWN			
By Mr. Davis	226		
By Mr. Rankin		231	
By Mr. Tremaine		244	

E X H I B I T S

NO. DESCRIPTION ID/EVD

WildEarth Guardians:

Exhibit 9	WG Exhibit 9	180/191
Exhibit 10	WG Exhibit 10	180/191
Exhibit 11	WG Exhibit 11	180/191
Exhibit 12	WG Exhibit 12	180/191
Exhibit 13	WG Exhibit 13	180/191
Exhibit 14	WG Exhibit 14	180/191
Exhibit 15	WG Exhibit 15	180/191

Page 9

	E X H I B I T S (Cont'd)		
	NO.	DESCRIPTION	ID/EVD
1			
2			
3	Exhibit 16	WG Exhibit 16	180/191
4	Exhibit 17	WG Exhibit 17	180/191
5	Exhibit 18	WG Exhibit 18	180/191
6	Exhibit 19	WG Exhibit 19	180/191
7	Exhibit 20	WG Exhibit 20	180/191
8	Exhibit 21	WG Exhibit 21	180/191
9	Exhibit 22	WG Exhibit 22	180/191
10	Exhibit 23	WG Exhibit 23	180/191
11	Exhibit 24	WG Exhibit 24	180/191
12	Exhibit 25	WG Exhibit 25	180/191
13	Exhibit 26	WG Exhibit 26	180/191
14	Exhibit 27	WG Exhibit 27	180/191
15	Exhibit 28	WG Exhibit 28	180/191
16	Exhibit 29	WG Exhibit 29	180/191
17	Exhibit 30	WG Exhibit 30	180/191
18	Exhibit 31	WG Exhibit 31	180/191
19	Exhibit 32	WG Exhibit 32	180/191
20	Exhibit 33	WG Exhibit 33	180/191
21	Exhibit 34	WG Exhibit 34	180/191
22	Exhibit 35	WG Exhibit 35	180/191
23	Exhibit 36	WG Exhibit 36	180/191
24	Exhibit 37	WG Exhibit 37	180/191
25	Exhibit 38	WG Exhibit 38	180/191

1	E X H I B I T S (Cont'd)		
2	NO.	DESCRIPTION	ID/EVD
3	Exhibit 39	WG Exhibit 39	180/191
4	Exhibit 40	WG Exhibit 40	180/191
5	Exhibit 41	WG Exhibit 41	180/191
6	Exhibit 42	WG Exhibit 42	180/191
7	Exhibit 43	WG Exhibit 43	180/191
8	Exhibit 44	WG Exhibit 44	180/191
9	Exhibit 45	WG Exhibit 45	180/191
10	Exhibit 46	WG Exhibit 46	180/191
11	Exhibit 47	WG Exhibit 47	180/191
12	Exhibit 48	WG Exhibit 48	180/191
13	Exhibit 49	WG Exhibit 49	180/191
14	Exhibit 50	WG Exhibit 50	180/191
15	Exhibit 51	WG Exhibit 51	180/191
16	Exhibit 52	WG Exhibit 52	180/191
17	Exhibit 53	WG Exhibit 53	180/191
18	Exhibit 54	WG Exhibit 54	180/191
19	Exhibit 55	WG Exhibit 55	180/191
20	Exhibit 56	WG Exhibit 56	229/230
21	Exhibit 57	WG Exhibit 57	229/230
22	Exhibit 58	WG Exhibit 58	229/230
23	Exhibit 59	WG Exhibit 59	229/230
24	Exhibit 60	WG Exhibit 60	229/230
25	Exhibit 61	WG Exhibit 61	229/230

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

E X H I B I T S (Cont'd)

NO.	DESCRIPTION	ID/EVD
Exhibit 62	WG Exhibit 62	229/230
Exhibit 63	WG Exhibit 63	229/230
Exhibit 64	WG Exhibit 64	229/230
Exhibit 65	WG Exhibit 65	229/230
Exhibit 66	WG Exhibit 66	229/230
Exhibit 67	WG Exhibit 67	229/230
Exhibit 68	WG Exhibit 68	229/230
Exhibit 69	WG Exhibit 69	229/230
Exhibit 70	WG Exhibit 70	229/230
Exhibit 71	WG Exhibit 71	229/230
Exhibit 72	WG Exhibit 72	229/230
Exhibit 73	WG Exhibit 73	229/230
Exhibit 74	WG Exhibit 74	229/230
Exhibit 75	WG Exhibit 75	229/230
Exhibit 76	WG Exhibit 76	229/230
Exhibit 77	WG Exhibit 78	229/230
Exhibit 94	WG Exhibit 94	81/191
Exhibit 97	WG Exhibit 97	229/231

I N F O R M A T I O N R E Q U E S T E D

NO.	DESCRIPTION	PAGE
1	Well Depth Data	271

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

MR. RAZATOS: Okay. Happy Tuesday to everybody. Good to see everybody here. We are going to start our meeting. Today, we are going to start our commission meeting that we had planned. It will be really brief, and then we'll go into our rule making. So we've got that today.

So I'm officially calling this meeting to start. I'm going to do a roll call. My name is Gerasimos Razatos. I am the acting Division Director for the Oil Conservation Division, and I'm also the Oil Conservation Commission Chair. And I'll pass it on to my right here. You don't have it?

MR. BLOOM: Good morning, everyone. Greg Bloom. I'm the Designee of the Commissioner of Public Lands. Good morning.

DR. AMPOMAH: Good morning. My name is Dr. William Ampomah. I'm the Designee of the Energy Secretary.

MR. RUBIN: And Daniel Rubin, Counsel to the OCC, from the Office of the Attorney General.

MR. RAZATOS: Madai, can we get a battery for this one, please? Thank you. Awesome. So we're all here. Excellent. Our next agenda item is to approve the November 12, 2024, agenda. Can we

1 get a motion for that?

2 MR. BLOOM: I so move.

3 DR. AMPOMAH: Mr. Chair, can we check  
4 page number 3? The next meeting is December 12, 2024,  
5 and I just want to clarify that.

6 MR. RAZATOS: Okay. I didn't print my  
7 notes for that, so I apologize. Is that what we have  
8 on there?

9 DR. AMPOMAH: Yes.

10 MR. RAZATOS: Okay. And is there a  
11 concern with that?

12 DR. AMPOMAH: I thought our next  
13 meeting is tomorrow.

14 MR. RAZATOS: No. We were going to  
15 combine the November meeting in here, and then we're  
16 having the December meeting as well, on December 12th.

17 DR. AMPOMAH: So then it's correct?

18 MR. RAZATOS: Yes.

19 DR. AMPOMAH: Okay. I second.

20 MR. RAZATOS: Okay. Excellent. Mr.  
21 Rubin, do we need to do an official call for this one?

22 MR. RUBIN: You can simply say, "All in  
23 favor say Aye."

24 MR. RAZATOS: Awesome. All in favor,  
25 say, "Aye."

1 MULTIPLE SPEAKERS: Aye.

2 MR. RAZATOS: Great. The agenda for  
3 the November 12th has been approved. We also need to  
4 do an approval for the minutes for the October 9,  
5 2024, meeting. Can I get a motion to approve it?

6 MR. BLOOM: I so move.

7 DR. AMPOMAH: I second.

8 MR. RAZATOS: Excellent. All in favor,  
9 please say, "Aye."

10 MULTIPLE SPEAKERS: Aye.

11 MR. RAZATOS: Excellent. So we approve  
12 that. Our next agenda item is the ratification of the  
13 Commission Motion for Limited Intervention in case  
14 number D-506-CV-2023001180. Mr. Rubin, you're going  
15 to take that one. Right?

16 MR. RUBIN: Thank you. Chairman and  
17 Commission, as you are already aware, the commission  
18 has intervened in the case of Empire versus Goodnight  
19 in district court. We have moved to intervene to  
20 limited purpose of expressing the position to the  
21 court, the district court, that the commission's  
22 adjudication that is set for February should be heard  
23 before the district court weighs in on similar issues.

24 So because of the timing of the  
25 litigation, I necessitated filing the motion and

1 rather than having a special meeting to approve it,  
2 I'm asking for ratification of that motion. So if I  
3 could hear that motion?

4 MR. RAZATOS: I move.

5 DR. AMPOMAH: I second.

6 MR. RUBIN: All in favor?

7 MULTIPLE SPEAKERS: Aye.

8 MR. RUBIN: Thank you.

9 MR. RAZATOS: Okay. So we got that one  
10 out of the way, as well. Thank you, Mr. Rubin. We're  
11 going to start with our two cases. Our computer space  
12 up here, up front, is kind of limited, so if you're  
13 going to be talking and you're not part of this, we  
14 can use the witness stand so, you know, so then people  
15 don't have to move and do all of that. You can  
16 actually. No? Okay. Well he moved. Never mind.  
17 We'll do it that way then.

18 We're moving on to our pending cases.  
19 So our first case is going to be case number 24816 and  
20 case number 24878. These are applications from Avant  
21 Operating LLC for approval of nonstandard unit and  
22 compulsory pooling in Lea County, New Mexico. Are all  
23 present for this particular case?

24 MS. BENNETT: Good morning, Mr. Chair,  
25 Commissioner, this is Deana Bennett on behalf of

1 Avant, and I'm appearing for Julie today. Thank you.

2 MR. RAZATOS: Thank you, Ms. Bennett.

3 MS. MCLEAN: Good morning. Jackie  
4 McLean from Hinkle Shanor on behalf of COG Operating  
5 and Concho Oil & Gas.

6 MR. RAZATOS: Excellent. Thank you.

7 MR. FELDEWERT: Good morning, Mr.  
8 Chair, members of the commission. Michael Feldewert  
9 with the Santa Fe office of Holland & Hart, appearing  
10 on behalf of PBEX LLC and E.G.L. Resources.

11 MR. RAZATOS: Excellent. Thank you,  
12 Mr. Feldewert. Ms. Bennett, I will turn it over to  
13 you.

14 MS. BENNETT: Thank you very much. I  
15 appreciate that. Since we have this -- excuse  
16 me -- the agenda noted that there were two items  
17 pending for these cases, but really at this point  
18 there's only one pending, which is to consolidate  
19 these cases, these two cases, for the moment.

20 And the reason that things have changed  
21 a bit is in the intervening month since we last met,  
22 Avant and PBEX have been working diligently towards a  
23 deal that, if it's resolved, it would result in PBEX  
24 dropping it's de novo applications, meaning that we  
25 would no longer need to be before the commission.

1                   And so Avant's request at this time is  
2 that the commission grant the unopposed motion to  
3 consolidate these two cases, and then set these two  
4 cases for a status conference on the December 12th  
5 docket, by which time hopefully we'll have an update  
6 on the parties' discussions, and hopefully PBEX will  
7 be able to dismiss it's de novo applications at that  
8 time.

9                   MR. RAZATOS:   Okay.   Thank you, Ms.  
10 Bennett.   Any other comments from anybody?

11                  MR. FELDEWERT:   No, Mr. Chair.   I think  
12 that makes sense to consolidate, number one, and then  
13 move it to the December 12th docket for a status  
14 conference.

15                  MR. RAZATOS:   Okay.   Any questions from  
16 the commission for this?

17                  MR. BLOOM:   No, Mr. Chair.

18                  MR. RAZATOS:   No?   Okay.

19                  MR. RUBIN:   Mr. Chair, I think you  
20 could either move to table it or simply decide to take  
21 no action.

22                  MR. RAZATOS:   Okay.

23                  MR. FELDEWERT:   I'll interrupt anyway.  
24 Mr. Rubin, should we consolidate certainly today?

25                  MR. RUBIN:   Thank you, Mr. Feldewert.

1 Yes, if --

2 MR. RAZATOS: Okay. That's what threw  
3 me off.

4 MR. RUBIN: Okay. Yes, that  
5 certainly -- I apologize. That should be -- that  
6 could be moved upon today.,

7 MR. RAZATOS: Okay. I think we should  
8 consolidate the cases. Commissioners, do you have any  
9 concerns with that?

10 MR. BLOOM: No, Mr. Chair.

11 MR. RAZATOS: Okay. Excellent. So  
12 let's definitely consolidate the cases so we can put  
13 them together. That's not a problem. And I think we  
14 can move it to the December -- is that what you mean  
15 by tabling? I'm not understanding what you meant by  
16 tabling, Mr. Rubin.

17 MR. RUBIN: That if, to the extent the  
18 parties wish to have the commission hear some further  
19 settlement to the case, right now to what is being  
20 consolidated, the commission will have it on its  
21 docket, and at a subsequent meeting it will have to be  
22 disposed in some manner.

23 MR. RAZATOS: Yeah. Okay. No, I think  
24 it's okay to move it to the December, and then we have  
25 the status hearing then, and then they can bring up

1 anything else that they want in the interim.

2 MR. RUBIN: Yes, Mr. Chair. So just a  
3 motion to consolidate as requested by the parties.

4 MR. RAZATOS: Okay. So motion to  
5 consolidate, I believe everybody said yes, but let's  
6 hear it again?

7 MR. RUBIN: Commissioner Bloom?

8 MR. BLOOM: I don't know if we need a  
9 second.

10 MR. RAZATOS: Do we need a second?

11 MR. RUBIN: I believe we do need a  
12 second.

13 MR. BLOOM: Okay. Good. Then I  
14 second.

15 MR. RAZATOS: Excellent. And I  
16 definitely was motioning for it. So it's approved.  
17 Let's --

18 MR. RUBIN: Wait. We do need a vote.

19 MR. RAZATOS: A vote.

20 MR. RUBIN: All in favor?

21 MULTIPLE SPEAKERS: Aye.

22 MR. RUBIN: Any opposed? Motion  
23 passes.

24 MR. RAZATOS: Motion passed. There we  
25 go. The coffee will settle in at some point and I'll

1 get this right someday, so I apologize. Excellent.  
2 So thank you. Thank you for your time. We'll see you  
3 in the December hearing.

4 MS. BENNETT: Thank you so much.  
5 Appreciate it.

6 MR. RAZATOS: Excellent. Our next case  
7 was case number 24912, application of Apache  
8 Corporation for and adjudicatory hearing to contest  
9 the Division's conditions of approval on Apache  
10 Corporation's scope of work for additional  
11 investigation in Lea County. This is a status  
12 conference and motion to consolidate as well, I  
13 believe. Are the parties present?

14 MR. MOELLENBERG: Mr. Chairman, Members  
15 of the commission, my name is Dal Moellenberg.

16 MR. RAZATOS: Please click your green  
17 button. There you go. There we go.

18 MR. MOELLENBERG: Mr. Chairman, Members  
19 of the commission, my name is Dal Moellenberg. I'm  
20 here on behalf of the petitioner, Apache Corporation.

21 MR. RAZATOS: Thank you.

22 MR. TREMAINE: And I am Jesse Tremaine  
23 for the Oil Conservation Division. First item, Mr.  
24 Chair, I think we're in agreement there. I believe  
25 the agenda noted that there was a motion to

1 consolidate. There is not a motion to consolidate in  
2 this case. I think that was just an error.

3 MR. RAZATOS: Okay. Excellent. So we  
4 have a status conference for this. Okay. Mr.  
5 Moellenberg?

6 MR. MOELLENBERG: Thank you, Mr. Chair,  
7 Members. This case, as the title indicates, relates  
8 to an investigation following a release. It's been  
9 going on for some time. The current status is Apache  
10 submitted a plan for investigation, which the division  
11 approved subject to conditions that require extensive  
12 additional investigation.

13 I think our expectation at this point  
14 is that this will go to hearing, and so I think -- Mr.  
15 Tremaine and I have consulted, and I think we're ready  
16 to set a hearing date and proceed with it.

17 MR. RAZATOS: Okay. Mr. Tremaine?

18 MR. TREMAINE: I agree with that, Mr.  
19 Chair. I think depending on how long Apache's case  
20 proceeds, I expect we're going to need a full day,  
21 potentially longer. The Division will likely be  
22 calling two witnesses and need between two and four  
23 hours to present our direct and response. So I'm  
24 suspecting that this is going to go probably around a  
25 full day but potentially longer.

1 MR. RAZATOS: Okay.

2 MR. TREMAINE: Sorry. The Division's  
3 primary witness is not available on December 12th, so  
4 we're recommending the next earliest date in January.

5 MR. RAZATOS: Okay. Excellent. And  
6 when is our hearing for January, Sheila? Sorry.

7 MS. APODACA: Let me look it up.

8 MR. BLOOM: The 16th of January.

9 MR. RAZATOS: Sixteenth of January.  
10 All right. Any concerns from the commissioners?

11 MR. BLOOM: No, Mr. Chair.

12 MR. RAZATOS: Commissioner Ampomah?  
13 No? Okay. So I think we can set it for the 16th.  
14 Mr. Rubin, do I need to do anything else?

15 MR. RUBIN: No, Mr. Chair, just make  
16 sure we have it on the agenda with notice to the  
17 parties.

18 MR. RAZATOS: Excellent. So Sheila, if  
19 you could put it on the agenda for the 16th, the  
20 Apache case.

21 MR. BLOOM: Mr. Chair.

22 MR. RAZATOS: Yes, sir.

23 MR. BLOOM: Can we check availability  
24 for the 17th, as well, if this spills over?

25 MR. RAZATOS: We probably should.

1 MR. BLOOM: And I am available.

2 MR. RAZATOS: I am, as well.

3 DR. AMPOMAH: I believe I am.

4 MR. RUBIN: I should be, as well. May  
5 I ask, do the parties need any preliminary matters  
6 decided? Are there going to be any preliminary  
7 motions or just any scheduling orders that need to be  
8 entered, that you anticipate?

9 MR. MOELLENBERG: Yep, Counsel, at this  
10 point we don't anticipate anything.

11 MR. RUBIN: Okay. Thank you.

12 MR. TREMAINE: Agreed.

13 MR. RAZATOS: We'll just wait on Dr.  
14 Ampomah and see his schedule.

15 DR. AMPOMAH: I'm good.

16 MR. RAZATOS: He's good. Okay. So  
17 let's schedule it for the 16th and possibly also for  
18 the 17th, Sheila, in case it spills over.

19 MS. APODACA: Okay.

20 MR. RAZATOS: Mr. Moellenberg, Mr.  
21 Trehaine, anything else?

22 MR. TREHAINE: No.

23 MR. MOELLENBERG: Nothing from me.

24 MR. RAZATOS: Excellent. Thank you.

25 MR. MOELLENBERG: Thank you very much.

1 MR. RAZATOS: Okay. Now this will take  
2 us into our next case, which is case number 23580,  
3 which is application of WildEarth Guardians to Amend  
4 the Commission's Rules to Address PFAS, Amendments to  
5 19.15.2, 19.15.7, 19.15.14, 19.15.16, and 19.15.25 in  
6 the New Mexico Administrative Code.

7 This is going to be a hearing, so we'll  
8 ask for a hearing officer to come up, Ms. Orth,  
9 Felicia Orth, will be doing that. And once you get  
10 settled in, Ms. Orth, we'll transfer it over to you.

11 THE HEARING OFFICER: That's on. Good  
12 morning. My name is Felicia Ortho, the Hearing  
13 Officer as appointed by the Oil Conservation  
14 Commission to conduct a hearing in case number 23580.

15 These are proposed amendments to the  
16 commission's rules to address chemical disclosure and  
17 the use of perfluoroalkyl and polyfluoroalkyl  
18 substances, which we'll be referring to as PFAS all  
19 week long, in oil and gas extraction. The affected  
20 rules are 19.15.2, 19.15.7, 19.15.14, 19.15.16, and  
21 19.15.25.

22 The hearing procedures are set out in  
23 the commission's rulemaking rules, which is 19.15.3.  
24 We do have five parties in the action. These are  
25 folks who entered their appearance timely and most are

1 presenting technical witnesses. I will name them and  
2 invite appearances in the order in which we will be  
3 hearing from them, at least generally, with  
4 accommodation for witness time constraints. The  
5 petitioner is WildEarth Guardians. Mr. Davis?

6 MR. DAVIS: Good morning, Madam Hearing  
7 Officer, Commissioners. I'm Tim Davis. I represent  
8 WildEarth Guardians in this matter.

9 THE HEARING OFFICER: Thank you. I  
10 know that I excused New Energy Economy from part of  
11 this based on international travel, but if someone is  
12 here from NEE, happy to accept your appearance. Okay.  
13 NEE is the second party we'll hear from subject to  
14 time constraints. Then the Oil Conservation Division.  
15 Mr. Tremaine?

16 MR. TREMAINE: Thank you, Madam Hearing  
17 Officer, Chair, and Commissioners. This is Jesse  
18 Tremaine on behalf of Oil Conservation Division.

19 THE HEARING OFFICER: Thank you so  
20 much. Nick Maxwell is ordinarily on the platform.  
21 Mr. Maxwell are you with us?

22 MR. MAXWELL: Good morning. Can you  
23 hear me?

24 THE HEARING OFFICER: Yes, we can.

25 MR. MAXWELL: Thank you for having me.

1 My name's Nicholas Maxwell. I'm one of the people of  
2 Lea County, New Mexico. It's good to be here. Thank  
3 you.

4 THE HEARING OFFICER: Thank you, Mr.  
5 Maxwell. And finally, NMOGA, the New Mexico Oil and  
6 Gas Association.

7 MS. MULCAHY: Good morning, Madam  
8 Hearing Officer, and good morning, Commission. I'm  
9 Chris Mulcahy of Holland & Heart Law Firm with my  
10 colleague, Adam Rankin, on behalf of NMOGA.

11 THE HEARING OFFICER: Thank you so  
12 much. In addition --

13 MS. KESSLER: Good morning, Madam  
14 Hearing Examiner and members of the commission. EOG  
15 Resources had also entered an appearance in this case.  
16 We will not be presenting any technical testimony, we  
17 will not be objecting to exhibits, but we're simply  
18 here on record to monitor. Along with me is Deana  
19 Bennett from Modrall Sperling.

20 THE HEARING OFFICER: All right. Well  
21 thank you very much. In addition to the presentations  
22 by the five parties, we will also be hearing from  
23 public commenters, up to three minutes each. We'll  
24 have public comment a couple of times each day, and  
25 actually we'll begin with accepting whatever public

1 comment there is to be given in just a moment. So if  
2 you're on the platform or in the room to offer public  
3 comment, we just need a few more minutes to address  
4 preliminary matters.

5 The parties and I had a prehearing  
6 conference before the holiday, the weekend, and the  
7 two snow days, and we addressed a few things there  
8 that I should mention to the commission before we  
9 begin.

10 Firstly, there were four motions, each  
11 of them addressing the testimony of witnesses and  
12 design to exclude or otherwise restrict that testimony  
13 based on a reading of what counted as technical  
14 testimony, for example.

15 Those four motions were denied with the  
16 exception of an acknowledgement that as to Ms.  
17 Troutman, she really is a fact witness rather than  
18 someone who will be testifying as to specialized  
19 knowledge or expert knowledge in a specialized area.  
20 You will hear from her, though.

21 The parties presented basically an  
22 agreement amongst themselves. They were all agreed  
23 that in order to try to finish the evidentiary record  
24 this week, so that we do not have to schedule extra  
25 days when we get to Friday, they wanted to forego

1 witness summaries.

2 We've all had the actual testimony in  
3 hand, in writing, full narrative, for a couple of  
4 weeks now, and so each witness will be sworn, because  
5 the rules require that they be sworn; they will adopt  
6 their written testimony under oath; and then they will  
7 stand for cross.

8 We'll begin with cross by the other  
9 parties and then come to the commission in the event  
10 the commissioners have questions. Some of the  
11 witnesses have prepared rebuttal, and all direct and  
12 rebuttal will be given in the same witness testimony  
13 session so that we're not going back and forth  
14 multiple times.

15 There will be opening statements of 20  
16 minutes each, and we won't address closing statements  
17 until we get to the end of the evidentiary record.  
18 The commission will decide when we have completed the  
19 evidentiary record whether it chooses to deliberate  
20 immediately or chooses to deliberate in a subsequent  
21 meeting.

22 If you choose to deliberate  
23 immediately, the parties would like the courtesy of a  
24 verbal closing statement before you do that. It could  
25 be limited to 20 minutes, for example. If you choose,

1 on the other hand, to deliberate at a subsequent  
2 meeting, they would like to be invited to submit  
3 written closing statements that you would be able to  
4 refer to before you met again.

5 So do the commissioners have any  
6 questions about anything I've said in my opening  
7 statement? If not, I will proceed to invite public  
8 comment.

9 MR. RAZATOS: I do not have any  
10 questions.

11 MR. BLOOM: Okay. Nope.

12 DR. AMPOMAH: I do not.

13 THE HEARING OFFICER: Thank you very  
14 much.

15 MR. DAVIS: Madam Hearing Officer.

16 THE HEARING OFFICER: Yes.

17 MR. DAVIS: I just wanted to make you  
18 and the parties aware that I filed Mr. Horwitt's  
19 written rebuttal this morning, and you know, that  
20 is -- the acceptance of that testimony, I understand,  
21 is contingent upon a finding from the commission that  
22 it is actually offered for rebuttal purposes.

23 And so when Mr. Horwitt takes the  
24 stand, hopefully today, this afternoon, maybe this  
25 morning, I just wanted to get some direction as to

1 whether the commission wanted him to actually read  
2 that, to make that determination, or if there was  
3 another procedure you'd like for us to follow prior to  
4 me moving for its admission.

5 THE HEARING OFFICER: All right. Well  
6 let's address that when we get Mr. Horwitt on the  
7 stand. I will ask the other parties, sooner rather  
8 than later, let me know if you have an objection along  
9 those lines, and I will take an opportunity at our  
10 break to read it myself.

11 MR. DAVIS: Thank you.

12 THE HEARING OFFICER: Thank you. All  
13 right. Let's turn then to public comment. Once  
14 again, public comment will be taken from those in the  
15 room and those on the platform. Please gather your  
16 thoughts. Public comment is limited to three minutes,  
17 and just one comment for each person.

18 If you have more to say than can be fit  
19 into three minutes, we invite you to put your thoughts  
20 into writing and submit them to Sheila Apodaca, the  
21 Commission Administrator. The commission will  
22 consider your written comment as having the whole  
23 weight as anything you said verbally.

24 So let me ask first, is there someone  
25 in the room who is here to offer public comment this

1 morning? There will be lots of other chances. I  
2 think I saw you, Mr. Gaume. First? Yes. And you,  
3 ma'am, I'll call on you next. Is there anyone else in  
4 the room who is going to want to give public comment?  
5 No? All right. Would you please, Mr. Gaume. And I'm  
6 going to ask everyone to spell your name for the  
7 transcript and to ask if you swear or affirm to tell  
8 the truth.

9 MR. GAUME: Thank you. My name's  
10 Norman Gaume, G-A-U-M-E.

11 THE HEARING OFFICER: And do you swear  
12 or affirm to tell the truth?

13 MR. GAUME: I do.

14 THE HEARING OFFICER: Thank you. I'll  
15 start your three minutes now.

16 MR. GAUME: Good morning, Madam Hearing  
17 Officer and Commissioners. I'm Norm Gaume. I live in  
18 rural Sandoval County. I have expertise and formal  
19 training, a Master's Degree in Water and Wastewater  
20 Engineering.

21 I'm an expert in the state's water  
22 resources, having served for six years as the New  
23 Mexico Interstate Stream Commission Director. My  
24 concern is that New Mexico has -- is in dire straits  
25 with regard to water resilience, and the contaminants

1 such as PFAS need to be prevented as opposed to having  
2 to deal with the aftermath more than we already have.

3 I'm president of the New Mexico Water Advocates, and

4 I'm making these comments on behalf of  
5 the organization and myself. My topic is the New  
6 Mexico Water Quality Control Commission 11-day rules  
7 hearing on making rules for the treatment and use of  
8 produced water. I was an expert witness.

9 I attended all of that hearing, an  
10 expert witness for New Mexico Energy Economy. I'm not  
11 affiliated with them here. Let me tell you what was  
12 said.

13 First of all, during and before the  
14 hearing, there were claims without evidence that PFAS  
15 is not used in oil and gas drilling and completions.  
16 The NMOGA president and CEO wrote editorials in the  
17 Albuquerque Journal and the Santa Fe New Mexican  
18 saying that no PFAS was used.

19 At the hearing I talked to an Oxy,  
20 Occidental, vice president from Houston that I met in  
21 2020, when I was on the Produced Water Research  
22 Consortium, the technical steering committee. He  
23 assured me that there was nothing that was added to  
24 drilling fluids and completion fluids that I would  
25 object to. Those were his words.

1           The sworn testimony painted a different  
2 picture. Mike Hightower, who is the Director of the  
3 New Mexico -- sorry, the New Mexico Produced Water  
4 Research Consortium, testified under  
5 cross-examination, sworn testimony, that whether or  
6 not PFAS is used is up to individual operators.

7           The NMOGA CEO and president was listed  
8 as an expert witness, but she chose not to testify,  
9 and so nothing that she said was sworn testimony and  
10 subject to cross-examination. The facts are  
11 different.

12           There's no data in the consortium's  
13 produced water characterization database. None. PFAS  
14 has been found in produced water in the limited  
15 samples that are available, and we know that operators  
16 guard the quality of their produced water. They're  
17 free with the quantity information, but they won't say  
18 anything about the quality of it.

19           I did a quick calculation after EPA set  
20 a new limit on 2 PFAS chemicals. One and a half  
21 ounces of PFAS would contaminate 100,000 acre-feet  
22 above the safe drinking water limit that was just set.  
23 One and a half ounces, 100,000 acre-feet.

24           THE HEARING OFFICER: Mr. Gaume, would  
25 you wrap up, please?

1 MR. GAUME: I will. The governor in  
2 her 2018 campaign platform advocated for full  
3 disclosure. Colorado mandates full disclosure. The  
4 oil and gas industry says they don't use PFAS. Your  
5 job at this point is to ban the use of PFAS and to  
6 require disclosure. Thank you.

7 THE HEARING OFFICER: Thank you, Mr.  
8 Gaume. Ma'am? Spell your name first, please.

9 MS. MCCLOUD: Good morning, Madam  
10 Commissioner -- I'm sorry, I don't know your  
11 title -- and Commissioners. My name is Kathleen  
12 McCloud, M-C-C-L-O-U-D, and I am -- this is rather  
13 short notice for me. I live in La Cieneguilla.

14 THE HEARING OFFICER: Hold on.

15 MS. MCCLOUD: Yes.

16 THE HEARING OFFICER: Do you swear or  
17 affirm to tell the truth?

18 MS. MCCLOUD: All right. And I'll  
19 start your three minutes.

20 THE HEARING OFFICER: Okay. I live in  
21 La Cieneguilla. I'm up north. I know a lot of the  
22 oil and gas happens down south; however, we have had a  
23 recent misfortune with our water, which is currently  
24 under investigation by the Department of the Defense,  
25 the Army National Guard, regarding a plume, which has

1 contaminated the water of several wells in La  
2 Cieneguilla. So that's my reason for being here, and  
3 my own interest in PFAS.

4 I'm also a long-term resident of New  
5 Mexico. So I'm all about supporting WildEarth  
6 Guardians and New Energy Economy. Full disclosure,  
7 there has been nothing but duplicity and lies  
8 surrounding PFAS and the new science -- not new. The  
9 science has been there, but the information coming out  
10 that it is, indeed, very dangerous for the future of  
11 the planet.

12 So I would just say to the  
13 commissioners here, be on the solution -- or be in the  
14 solution or be in the problem, but this is our state,  
15 this is our land, and it belongs to our children.  
16 That's all I have to say. Do the right thing. Full  
17 disclosure. Thank you.

18 THE HEARING OFFICER: Thank you very  
19 much. Let me move to the platform now. Let's see. I  
20 am unable to see the names, Sheila. Would you unmute  
21 one of them at a time? Oh now I see Nancy Yuen. All  
22 right. Ms. Yuen?

23 MS. YUEN: Yes.

24 THE HEARING OFFICER: If you would  
25 spell your name for the transcript, please?

1 MS. YUEN: My last name is Yuen,  
2 spelled Y-U-E-N.

3 THE HEARING OFFICER: Thank you. Do  
4 you swear or affirm to tell the truth?

5 MS. YUEN: I do.

6 THE HEARING OFFICER: Thank you. I'll  
7 start your three minutes.

8 MS. YUEN: The New Mexico Oil  
9 Conservation Commission has the authority and  
10 obligation to demand disclosure of all chemicals used  
11 in oil and gas exploration and retrieval within the  
12 state of New Mexico. There are several chemical  
13 substances that are illegal to use in any context, and  
14 companies operating within the state of New Mexico  
15 must ensure the commission that these chemicals are  
16 not in use in their operations.

17 It is incumbent upon these companies to  
18 provide a complete list of chemicals used, and that  
19 unannounced well inspections must be allowed to ensure  
20 not only public safety but compliance with the  
21 company's own stated list of chemicals used. Among  
22 the chemicals used in exploration and extraction  
23 operations, per- and polyfluoroalkyl substances must  
24 be prohibited due to their permanence in the  
25 environment.

1           Since these chemicals do not break down  
2 under natural conditions, they must never be released  
3 into the natural environment under any circumstances.  
4 These reasons are inarguably clear and pertinent to  
5 the discussion at hand.

6           Companies who either explore or extra  
7 oil, gas, or any other resources must provide complete  
8 lists of chemicals used using the ingredients,  
9 chemical names, and not trademarked or proprietary  
10 names, which can be used to hide their actual chemical  
11 makeup. So-called trade secrets prevent other  
12 companies from using proprietary formulations, but all  
13 companies must disclose these formulations to the New  
14 Mexico Oil Conservation Commission for safety and  
15 accountability. Thank you.

16           THE HEARING OFFICER: thank you, Ms.  
17 Yuen. Sheila, would you move to the second hand  
18 there, Amy Christian? Ms. Christian?

19           MS. CHRISTIAN: Yes.

20           THE HEARING OFFICER: Hello. Would you  
21 spell your name for the transcript, please?

22           MS. CHRISTIAN: Christian,  
23 C-H-R-I-S-T-I-A-N.

24           THE HEARING OFFICER: Thank you. Do  
25 you swear or affirm to tell the truth?

1 MS. CHRISTIAN: I do.

2 THE HEARING OFFICER: Thank you. I'll  
3 start your three minutes.

4 MS. CHRISTIAN: Thank you. Thank you.  
5 I am a resident of the Pojoaque River Valley here in  
6 northern Santa Fe County, and I am coming to you today  
7 as both a private citizen, a mother who has raised  
8 their kids here on this land, a resident teacher in  
9 the public schools and in schools throughout New  
10 Mexico, and also a representative of Northern New  
11 Mexico SURJ, which is a local chapter of the national  
12 Showing Up for Racial Justice organization.

13 I am deeply concerned that this issue  
14 is even needing to be discussed. I'm wondering how it  
15 can be possible that we're entrusting industry with  
16 the health and wellbeing of our children, our  
17 families, and the very water that supplies life to New  
18 Mexicans across our state. We know for a fact, it's  
19 not conjecture, it's been proven, well-documented,  
20 that PFAS are highly toxic, even in tiny amounts, and  
21 that they can contaminate entire ecosystems.

22 They present a high risk of  
23 contaminating both surface and groundwater, but  
24 groundwater here in New Mexico, the groundwater is  
25 even more susceptible to this risk, and 87 percent of

1 our public water comes from groundwater, meaning that  
2 our state, more than any other place in the country,  
3 is -- is very susceptible to this risk. It's been  
4 proven that any exposure to PFAS can be linked to  
5 cancer, kidney cancer, testicular cancer, thyroid  
6 disease, high cholesterol, reproductive and  
7 developmental toxicity -- the list goes on.

8 And our younger generations are already  
9 seeing an increase in these cancer rates. And the oil  
10 and gas industry are amplifying this already present  
11 threat by injecting the PFAS underground, which is not  
12 how it's used in many other contexts. Why are we  
13 protecting industry over our own health and the health  
14 and future of our future generations? We have to  
15 stop -- we have to move away from protecting the  
16 profits over people.

17 What will all this be worth if our  
18 children and grandchildren can't even live healthy  
19 lives. I'm sorry. I'm getting emotional. Pardon me,  
20 but I just implore you. It's in your hands. We have  
21 to end this lack of disclosure and accountability as  
22 the concept of trade secrets is just a farce.

23 There's absolutely no excuse for the  
24 lack of a disclosure that leaves our people  
25 unknowingly exposed and unprotected. We need public

1 protection and it's in your hands to do it. Please,  
2 we need the industry to be held accountable for the  
3 average of four spills a day of fracking wastewater.  
4 We must restrict production until there is adequate  
5 treatment and discharge methods. Thank you for  
6 listening.

7 THE HEARING OFFICER: Thank you, Ms.  
8 Christian. Sheila, move to the next hand, Nodiah.

9 MS. BRENT: Hi. My name is Nodiah  
10 Brent.

11 THE HEARING OFFICER: Nodiah. Spell  
12 the --

13 MS. BRENT: B-R-E-N-T.

14 THE HEARING OFFICER: Okay. And would  
15 you spell the first name, as well, Nodiah?

16 MS. BRENT: Yeah. N-O-D-I-A-H.

17 THE HEARING OFFICER: Thank you so  
18 much. Do you swear or affirm to tell the truth?

19 MS. BRENT: I do.

20 THE HEARING OFFICER: I'll start your  
21 three minutes.

22 MS. BRENT: I would like to thank our  
23 hosts at the OCC. I appreciate this opportunity to  
24 speak. I want to acknowledge the environmental  
25 nonprofits that worked tirelessly on our behalf. Your

1 conviction, compassion, and wisdom are a source of  
2 great comfort and inspiration to the citizens that  
3 attend these meetings and beyond.

4 I would also like to express deep  
5 gratitude to our native communities. Thank you for  
6 your prayers for all creation. Your energy feeds the  
7 spirit of these lands, and your teachings are the  
8 touchstone of conservation.

9 I'm here to ask the OCC to exercise its  
10 authority to ban the inclusion of PFAS in fracking  
11 operations and prohibit the designation of chemical  
12 identities as trade secrets, plus implement regular  
13 testing to ensure compliance. After much research on  
14 the subject of PFAS, I remain unconvinced of the wisdom  
15 of poisoning our water in order to gain access to more  
16 fossil fuels that will further heat the planet,  
17 potentially ensuring that our species and others will  
18 perish prematurely.

19 I don't understand how we as a state  
20 and a country could believe that it's morally  
21 acceptable to contribute disproportionately to this  
22 horrific preventable demise that would affect, and is,  
23 in fact, already affecting the whole world. Our  
24 elected officials and the regulatory agencies that  
25 they helped to create exist to safeguard public

1 health.

2 We entrust them to hold the line  
3 between us and bad actors. The pollutants that have  
4 been endorsed in my lifetime alone are all waterborne  
5 and airborne due to evaporation. We may not be able  
6 to escape any of them, but we can choose not to boost  
7 their saturation levels.

8 I would like to think that cleanup and  
9 mitigation are a taxpayer priority, rather than the  
10 continued proliferation of toxins. I understand that  
11 the United States rests on a foundation of  
12 unremediated decay, namely genocide and slavery. Is  
13 this why we seem to be able to build decisively in the  
14 direction of stability? We must turn this around.

15 Our country will soon be under the  
16 administration of officials who have promised to enact  
17 sweeping environmental deregulations. Let's resolve  
18 to uphold principles of respect for earth and all  
19 life, not because it's a guarantee of immunity but  
20 because it's who our children and their children need  
21 us to be.

22 Speaking of respect, Commissioners,  
23 before you knew your mics were on, we on Zoom heard  
24 you make a series of disrespectful remarks about the  
25 people who were coming in to join this meeting. Would

1 you be willing to apologize for that?

2 THE HEARING OFFICER: Ms. Brent, that  
3 may have to remain a rhetorical question at this  
4 point. I'm sorry. I wasn't here.

5 MS. BRENT: I tried to alert you. I  
6 posted the remarks plus an alert telling you that you  
7 could be heard, but nobody responded. So I did try to  
8 help you be aware of what was going on.

9 THE HEARING OFFICER: All right. Thank  
10 you. I'll ask the chair later if he'd like to address  
11 that. Thank you very much for your comment.

12 MS. BRENT: Thank you.

13 THE HEARING OFFICER: Would you move to  
14 the next hand, please, Sheila? This is Savanna Woods.  
15 Ms. Woods?

16 MS. WOODS: Yes.

17 THE HEARING OFFICER: Would you spell  
18 your name for the record, please?

19 MS. WOODS: S-A-V-A-N-N-A W-O-O-D-S.

20 THE HEARING OFFICER: And do you swear  
21 or affirm to tell the truth?

22 MS. WOODS: Yes.

23 THE HEARING OFFICER: All right. I'll  
24 start your three minutes.

25 MS. WOODS: I support a prohibition on

1 PFAS and PFOA in oil and gas operations and a  
2 requirement to disclose chemicals used in downhole  
3 operations because PFAS and PFOA do not break down and  
4 are known to accumulate in land, water, and our  
5 bodies, leading to their nickname of "forever  
6 chemicals."

7 There is no level of exposure to these  
8 contaminants that is safe. Even a tiny amount can  
9 contaminate entire ecosystems. Exposure to toxic  
10 chemicals like PFAS is a serious public health risk,  
11 and oil and gas regulations must prevent drilling  
12 operations from contaminating our lands and water.  
13 Without disclosure requirements, there's no way for  
14 regulators to verify or enforce a prohibition on PFAS  
15 on PFAS in oil and gas operations.

16 That is why I am advocating for  
17 disclosure requirements such as those that are in  
18 place in California and Colorado. As a young person,  
19 I am concerned about cancer showing up in younger  
20 generations due to exposure to carcinogens like PFAS.  
21 Also PFAS bioaccumulates, so our babies will have more  
22 PFAS in their bodies than we do.

23 But what I'm especially concerned about  
24 is the protection of profits over people. New Mexico  
25 is the second-largest oil and gas producer in the

1 nation, and I'm concerned that our failure to require  
2 disclosure, as other states do, is an attempt to  
3 protect the fossil fuel industry's profits.

4 Every year American taxpayers pay about  
5 \$20,000,000,000 to subsidize the fossil fuel industry.  
6 We cannot keep allowing them to get away with murder  
7 for the sake of my generation and your grandchildren's  
8 generation. The oil and gas industry has known about  
9 climate change for decades, and they continue to  
10 double down on production, spending millions in  
11 misinformation campaigns so they can continue to  
12 profit.

13 They're not known for their integrity.  
14 Your duty is to keep us safe, not corporations. I ask  
15 the Oil Conservation Commission to ensure that the  
16 rules governing oil and gas drilling prevent  
17 contamination of New Mexico water with PFAS and any  
18 other harmful chemicals that can accumulate in soil  
19 and water, and harm public health. Thank you for your  
20 time.

21 THE HEARING OFFICER: Thank you, Ms.  
22 Woods. If you would move to the next name. No, we've  
23 already heard from Nodiah Woods. Let's see here.  
24 Paul Pino. Okay.

25 DR. COSTELLO: I think it's me, Lauri

1 Costello, or no?

2 THE HEARING OFFICER: I think since I  
3 have Mr. Pino on the screen, can I take you next,  
4 please?

5 DR. COSTELLO: Absolutely. I'm sorry  
6 to interrupt.

7 THE HEARING OFFICER: All right. Thank  
8 you.

9 MR. PINO: Sorry about that, Lauri.  
10 Yeah.

11 MR. ORTH: Mr. Pino, if you would spell  
12 your name for the record, please.

13 MR. PINO: Paul Pino, P-I-N-O.

14 THE HEARING OFFICER: Do you swear or  
15 affirm to tell the truth?

16 MR. PINO: Yes.

17 THE HEARING OFFICER: I will start your  
18 three minutes.

19 MR. PINO: Okay. So I'm a retired  
20 teacher. I'm a rancher, a great-grandfather, a  
21 downwinder, songwriter, and my people have been here  
22 in New Mexico for at least 10,000 years. And I'm just  
23 a regular guy. I don't study this stuff, and so this  
24 is what I understand.

25 The Federal Government, led by Dick

1 Cheney and republicans, created a law that made it  
2 legal to pollute water if you were drilling for oil,  
3 if you're an oil company, and if that isn't, like,  
4 demon-level stuff, I don't know what is, you know.  
5 The EPA says that these chemicals are not safe at any  
6 level, and they last for a very, very long time, even  
7 longer than my family has been here.

8 So since the Feds created this problem,  
9 you know, it's up to you guys, it's up to us to  
10 protect ourselves, you know. The Feds aren't going to  
11 do it for us. They're -- they're bought off for sure,  
12 you know. But we can protect ourselves, you know, if  
13 want to, if we have the cojones to do it, you know.  
14 Here's something that's, kind of, funny but it's, kind  
15 of, but it's not funny also.

16 I heard this thing that said, "The  
17 worst thing that can happen to a third-world country  
18 is for someone to discover oil, gold, or diamonds  
19 there." You know? And so here we are, blessed with  
20 all this oil, and then what happens?

21 You know, people come in that just want  
22 to monetize everything, take all the money out of here  
23 and leave us with the filth. And that's exactly what  
24 happened with the uranium industry. You know,  
25 there's, I heard, like, around 500 abandoned uranium

1 mines that the companies just -- they just went  
2 bankrupt or just, like, left, and nobody's holding  
3 them accountable.

4 Who's going to have to pay for that?  
5 Taxpayers. I don't want to see that happen again  
6 here, so please stop the use of these chemicals and  
7 absolutely require disclosure, be standup people. And  
8 that's it. Thank you very much for listening today.

9 THE HEARING OFFICER: Thank you very  
10 much, Mr. Pino. I would take Ms. Costello next, and  
11 I'll get to you very soon, Ms. Costello. But right  
12 now the chair would like to pause the public comment  
13 in order to address the hot mic.

14 MR. RAZATOS: So the comment was made  
15 that there was a hot mic and I can, first off, want to  
16 apologize for anything that was said on a hot mic.  
17 Our mics were off here on the dais. So it may have  
18 been someone on the actual platform that said it, but  
19 we respect everybody's opinions; we respect  
20 everybody's point of view; and that's the whole point  
21 of this hearing, to be able to take this information  
22 and to be able to accept what's coming in from the  
23 public, what's coming in from oil and gas, what's  
24 coming in from the environmental groups, and make the  
25 best decision possible.

1           We -- I can speak for the three of  
2       us -- respect every single one of you. So we -- not  
3       only for us but for all the comments that were made,  
4       we need to be respectful. So if you're going to be on  
5       the public comment access, as well, either make sure  
6       your comments are going to be acceptable or keep your  
7       microphone shut until the time to be able to make your  
8       comments. This is a respectful place.

9           I expect -- we expect everybody to show  
10       the same level of respect for everyone else. We're  
11       all entitled to our opinions. So again I apologize  
12       for any comments that were made. I can tell you that  
13       the three of us commissioners did not say that.

14           Our microphones were off, but it may  
15       have been said on the public platform. This morning,  
16       there was quite a lot of chatter before we started,  
17       prior to us even having our microphones on here. So  
18       please make sure that you're respectful, we're going  
19       to be respectful, and then this makes it the best  
20       hearing possible. So thank you.

21           THE HEARING OFFICER: Thank you, Mr.  
22       Chair. Let's turn to Ms. Costello.

23           DR. COSTELLO: Thank you, Mr. Chair,  
24       for those comments. My name is Lauri, L-A-U-R-I,  
25       Costello, C-O-S-T-E-L-L-O.

1 THE HEARING OFFICER: Do you swear or  
2 affirm to tell the truth?

3 DR. COSTELLO: I do.

4 THE HEARING OFFICER: I'll start your  
5 three minutes.

6 DR. COSTELLO: I'm a family physician  
7 living in Las Cruces. I urge you to prohibit the use  
8 of PFAS along the oil and gas lifecycle and to further  
9 prohibit the use of any undisclosed chemicals in  
10 fracking operations.

11 Let me first clarify that PFAS refers  
12 to per- and polyfluoroalkyl substances. PFOS is  
13 simply the most ubiquitous, since it was first  
14 marketed for widespread use in the 1940's. PFOA is  
15 the other most common of more than 5,000 of these  
16 toxins. Some of them already exist in the  
17 bloodstreams of essentially everyone in the U.S., and  
18 likely in the world.

19 Many PFAS chemicals are carcinogens  
20 and/or endocrine disruptors. Endocrine disruptors  
21 cause malfunction of hormone pathways and affect every  
22 system in our bodies, including thyroid, which  
23 regulates our metabolism, neurologic,  
24 gastrointestinal, cardiovascular, reproductive.  
25 Endocrine disruptor contamination of water in Garfield

1 County, Colorado, was documented in 2016 while I was  
2 living in that state.

3 In medicine we used to subscribe to the  
4 precautionary principle, and emphasized caution,  
5 pausing, and review before promoting new innovations  
6 that may prove disastrous. For the last many decades,  
7 however, industry has emphasized denial, refusal to  
8 acknowledge scientific proof, false accusations, and  
9 externalization of costs.

10 The result is harm to people, wildlife,  
11 and to the environment that used to sustain us. This  
12 harm tends to disproportionately affect marginalized  
13 populations in sacrifice zones, such as Northwest New  
14 Mexico and the Permian Basin area. The complicity of  
15 regulatory agencies and of some politicians is  
16 astounding.

17 The fact that there are no publicly  
18 available lab tests to analyze for PFAS and few, if  
19 any, public health systems addressing the problem,  
20 there is essentially no provision for public  
21 protection from PFAS. How ironic that the governor  
22 has supposedly championed the fight against PFAS in  
23 our drinking water, yet she continues to advocate for  
24 the reuse of produced water contaminated by much more  
25 than just these forever toxins.

1           The OCC cannot claim to lead the  
2 state's charge toward clean energy, as stated on your  
3 website, while ignoring the fracking crisis. Please  
4 prohibit the use of PFAS along the oil and gas  
5 lifecycle, and further prohibit the use of any  
6 undisclosed chemicals in fracking operations. Thank  
7 you.

8           THE HEARING OFFICER: Thank you, Dr.  
9 Costello. If you would move to the next hand, please,  
10 Sheila. I see Erica Lea-Simka.

11           MS. LEA-SIMKA: Yes. So that's Erica,  
12 E-R-I-C-A, Lea, L-E-A, hyphen, Simka, S-I-M-K-A.

13           THE HEARING OFFICER: Do you swear or  
14 affirm to tell the truth?

15           MS. LEA-SIMKA: I affirm.

16           THE HEARING OFFICER: Thank you. I'll  
17 start your three minutes now.

18           MS. LEA-SIMKA: Yes. My name is  
19 Reverend Erica Lea-Simka and I am a parent, a pastor,  
20 and a two-time cancer survivor. I beat ovarian cancer  
21 in 2006 and thyroid cancer in 2021. The thyroid  
22 cancer is back now, and it is classified as chronic.  
23 I am 36 years old, and I am essentially making a third  
24 go at fighting cancer.

25           While I can't be 110 percent sure of

1 the causes of my cancers, genetic predispositions have  
2 been ruled out. I believe my repeated cancers are  
3 connected to environmental carcinogens. If I had  
4 known about these forever chemicals in the water  
5 before now, I believe I would have made different  
6 choices for mine and my child's consumption. Some  
7 people's bodies, like mine, really aren't that  
8 sensitive, but I didn't know.

9 I implore you to update the chemical  
10 disclosures so people, including myself and my baby,  
11 too, can take precautions as I now know that exposure  
12 of any amount can have health impacts. These changes  
13 you are considering about disclosures, and I'd even  
14 like to see stricter standards for waste in the  
15 future, these are not a matter of feeling sorry for  
16 the girl with cancer.

17 This is about recognizing the harm you  
18 cause yourself by choosing to even risk harming a  
19 neighbor. Whatever your faith or none, the golden  
20 rule is phrased differently but is essentially  
21 universal: Treat others the way you want to be  
22 treated.

23 And finally as a partner of a  
24 non-English speaker, I'd like to be on record as  
25 objecting to what I understand to be the commission's

1 deliberate refusal to provide interpreter services,  
2 specifically for Spanish speakers, who are some of the  
3 most impacted by these issues as workers and residents  
4 of New Mexico. Thank you.

5 THE HEARING OFFICER: Thank you,  
6 Reverend Lea-Simka, for your comments. Let me correct  
7 one impression there. The denial of the original  
8 request for an interpreter was the result of the fact  
9 that the request came from an organization and not an  
10 individual, and Commission Counsel wanted to make sure  
11 that, in fact, monolingual Spanish speakers appearing  
12 as individuals in these hearings were making that  
13 request. It is an expensive and time-consuming  
14 proposition for the agency to provide those  
15 interpretive services.

16 When I heard last Wednesday that there  
17 would be some folks, individuals, desiring  
18 interpretation between English and Spanish,  
19 notwithstanding the fact that we did not have a timely  
20 request for that service, I did ask Ms. Apodaca to try  
21 to find an interpreter for some time this week that we  
22 could identify. I wanted to confirm with her this  
23 morning and haven't yet done it. I understand,  
24 though, that she has, in fact, found an interpreter  
25 for a couple of hours on Friday, and as soon as I

1 confirm that I'll be announcing it all week and hoping  
2 that the monolingual Spanish speakers who'd like to  
3 offer their comment can make their comment during that  
4 time.

5 I do have a plan B and a plan C, if  
6 that doesn't work for the individuals who are  
7 affected, but it really is our intention to include as  
8 much public input as we can. That's why the  
9 commission does these hearings in the first place. So  
10 but thank you for raising that.

11 MS. LEA-SIMKA: Thank you. I  
12 understand.

13 THE HEARING OFFICER: All right.  
14 Sheila, if you would move to SS. Let's see here.  
15 Stephen --

16 MR. SCHMIDT: Schmidt.

17 THE HEARING OFFICER: Schmidt. All  
18 right. Thank you. Mr. Schmidt, would you spell your  
19 name for the transcript?

20 MR. SCHMIDT: S-T-E-P-H-E-N  
21 S-C-H-M-I-D-T.

22 THE HEARING OFFICER: Do you swear or  
23 affirm to tell the truth?

24 MR. SCHMIDT: Yes.

25 THE HEARING OFFICER: Thank you. I'll

1 start your three minutes.

2 MR. SCHMIDT: I probably won't need  
3 three. I just wanted to speak for -- as someone who  
4 has been affected by PFAS in their well. I live in La  
5 Cieneguilla. My well has been verified as containing  
6 PFAS chemicals.

7 I don't know how long that has been  
8 occurring. It may be that, most likely the 20 years,  
9 or 18 years that I've been living here. I've spent  
10 about \$1,500.00 to try to mitigate that so I can drink  
11 the water.

12 I don't know what the health cost will  
13 be for me in the future and what that will cost me.  
14 It may be my death. Who knows? And so I'd like to  
15 say if industry has claims that they don't use PFAS,  
16 then I don't see why they would have any opposition to  
17 testing for those chemicals.

18 If they're not using them, they'll come  
19 up clean, and they're cleared. And they can't be  
20 taken to court or anything like that, if it's true.  
21 I'm very much for disclosing what is used by  
22 chemical -- by the industry and these chemicals, and I  
23 hope to prevent other people in New Mexico having to  
24 deal with the issues I've had to deal with, along with  
25 my neighbors, which also have contaminated wells.

1 Thank you very much.

2 THE HEARING OFFICER: Thank you, Mr.  
3 Schmidt. Sheila, will you move to CK, please? She  
4 has her camera on. There we go.

5 MS. KNAPP: Hi. Is that me?

6 THE HEARING OFFICER: Yes. That's  
7 Caroline Knapp.

8 MS. KNAPP: That's me.

9 THE HEARING OFFICER: Would you spell  
10 your name for the transcript, please?

11 MS. KNAPP: It's Caroline Knapp, with a  
12 K, K-N-A-P-P.

13 THE HEARING OFFICER: And do you swear  
14 or affirm to tell the truth?

15 MS. KNAPP: I do.

16 THE HEARING OFFICER: And if you would,  
17 please speak up. You're a little soft.

18 MS. KNAPP: Okay. Thank you. Can you  
19 hear me better now?

20 THE HEARING OFFICER: Yes, I'll start  
21 your three minutes.

22 MS. KNAPP: Great. So like the last  
23 two speakers, I'm here to comment as someone whose  
24 health and community have already been damaged by PFAS  
25 contamination in groundwater. My husband and I, like

1 Stephen Schmidt, live in La Cieneguilla, which is a  
2 beautiful and historic rural community just south of  
3 Santa Fe. We're near an ancestral pueblo village site  
4 at the foot of the Caja del Rio and beside the Santa  
5 Fe River. We are also a few miles downhill from the  
6 National Guard Training Center at the Santa Fe  
7 Airport.

8 One year ago exactly on a Friday  
9 afternoon at three o'clock, I happened to open an  
10 email from the Santa Fe County Sustainability Program  
11 because its title mentioned La Cieneguilla. As I read  
12 it, I got chills. The email said that PFAS had been  
13 found in a few test wells, and as I scrutinized the  
14 map I realized that one of them was on our street.

15 That was the only notification we got  
16 that something was wrong. The next weeks were a blur  
17 of activism and urgent fact-finding about water  
18 testing and filtration. When the dust settled, it was  
19 clear that the water that my husband and I had been  
20 drinking, showering in, watering our vegetable garden  
21 with, and feeding to our chickens was deeply  
22 contaminated.

23 We have -- our well has the highest  
24 levels of PFAS in our neighborhood, and because we eat  
25 our own vegetables, and eggs, and our neighbor's goat

1 milk, we were taking PFAS into our bodies at high  
2 rates. I have since had my blood tested, and I have  
3 abnormally elevated levels of PFAS circulating through  
4 my body in a signature that matches exactly that of  
5 the PFAS found in our water.

6           Though I have no other risk factors for  
7 it, I now have very high levels of bad LDL  
8 cholesterol, which is a known effect of PFAS. My  
9 husband and I now have to live with, for the rest of  
10 our lives, increased risk for heart attack and stroke,  
11 for kidney and testicular cancer, as well as reduced  
12 immunity and scores of other vulnerabilities, many of  
13 them still being discovered.

14           We have to live with all of that  
15 because of the negligence of the National Guard, which  
16 released firefighting foams directly into the soil,  
17 permanently contaminating the groundwater. None of  
18 the individual guardsmen would have wished to harm us.  
19 They themselves were almost certainly harmed by the  
20 same foams.

21           The villain here is the lack of  
22 regulation. The Oil Conservation Commission has an  
23 opportunity to change that pattern, preventing the  
24 harm that was done to us in La Cieneguilla from being  
25 inflicted on countless communities across our state.

1 I urge you to ban PFAS compounds and all undisclosed  
2 chemicals from use in oil and gas drilling development  
3 and production. You truly hold our health and the  
4 health of future generations in your hands. Thank  
5 you.

6 THE HEARING OFFICER: Thank you, Ms.  
7 Knapp. Sheila, if you would move to G -- to  
8 Gail -- let's see here -- I just see the first name,  
9 Gail. All right.

10 MS. SEYCEL: Yeah.

11 THE HEARING OFFICER: All right. And  
12 also, Sheila, hold on one sec. Would you please mute  
13 SS because I -- I see the screen going in and out.  
14 There we go. So Ms. Gail, if you would, give us your  
15 full name and spell it for the transcript.

16 MS. SEYCEL: It's Gail Robin Seycel,  
17 G-A-I-L R-O-B-I-N S-E-Y-C-E-L.

18 THE HEARING OFFICER: All right. Thank  
19 you. Do you swear or affirm to tell the truth?

20 MS. SEYCEL: I do.

21 THE HEARING OFFICER: I'll start your  
22 three minutes.

23 MS. SEYCEL: Thank you. Thank you so  
24 much for having this hearing. It's very important  
25 that you use your regulatory powers to really protect

1 New Mexicans. I grew up in a cancer cluster  
2 community, in which the water table that we all drank  
3 out of, underneath our homes and farms, was  
4 contaminated with endocrine disrupting chemicals.

5 My mother and my aunt, who lived next  
6 door, all died very young, as did many of the adults  
7 in the community that I grew up in. Many of us were  
8 also affected, the children, and many of us have  
9 different kinds of health issues from those exposures  
10 at very young ages. So I would request that you ban  
11 the inclusion of all PFAS and PFOA chemicals in future  
12 industrial oil and gas processes; that you also  
13 require full disclosure -- and you can do this without  
14 impacting so-called trade secrets, industrial trade  
15 secrets.

16 So please do that, as well as please  
17 champion regular testing of the chemicals in use of  
18 our water. You have a great responsibility as a  
19 watchdog and community protector, and we really hope  
20 you do. And just finally, I would say, you know, I  
21 see five of you up on the dais there, and  
22 statistically speaking, if you look to your right and  
23 you look to your left, one in -- of the three of you  
24 will get cancer and die of it in your lifetime.

25 And we are all having massive exposure

1 to PFAS and other endocrine disrupting chemicals. In  
2 fact, Albuquerque had the first public conference in  
3 1993 on endocrine disrupting chemicals, which these  
4 chemicals are, and was very impactful in terms of  
5 promoting many organic processes in food production  
6 throughout the state. And I hope that you will take  
7 up that banner and really regulate the oil and gas  
8 industry and protect the people of New Mexico. Thank  
9 you very much.

10 THE HEARING OFFICER: Thank you very  
11 much. Finally, Sheila, would you move to -- thank  
12 you -- yes, E -- Elaine Cimino, I believe. Ms.  
13 Cimino? Still muted.

14 MS. CIMINO: Hello.

15 THE HEARING OFFICER: Hello. Would you  
16 spell your name for the transcript, please?

17 MS. CIMINO: Hello. My name is Elaine  
18 Cimino. That's C-I-M-I-N-O. I'm the director of --

19 THE HEARING OFFICER: Do you --

20 MS. CIMINO: Okay.

21 THE HEARING OFFICER: Do you swear or  
22 affirm to tell the truth?

23 MS. CIMINO: Yes.

24 THE HEARING OFFICER: All right. I'll  
25 start your three minutes.

1 MS. CIMINO: Okay. I'm the Director of  
2 Common Ground Rising. Please see our written report.  
3 I lived in La Cieneguilla for ten years, near the  
4 Santa Fe River in a row of houses impacted by nitrate  
5 pollution that had caused blue baby syndrome in  
6 infants. And despite this known hazard, no  
7 investigation was conducted into other contaminants  
8 that could have seeped into our aquifer from the  
9 nearby National Guard sludge fields and wastewater  
10 treatment plan.

11 The PFAS exposure found by the USGS has  
12 lasting impacts on health, of which I now have severe  
13 autoimmune issues. I am deeply concerned for my  
14 neighbors, their children, their grandchildren, who  
15 continue to face these unresolved health risks.

16 In 2004 I witnessed a sludge truck  
17 illegally dumping sludge waste into a ditch that  
18 flowed directly into the river. When I reported it,  
19 instead of the State Police, representatives from the  
20 company arrived along with the Sheriff who circled my  
21 car and took no action. This incident exemplifies the  
22 enforcement failures that communities like La  
23 Cieneguilla face.

24 Unfortunately, Rio Rancho has suffered  
25 from the city's same practices. In 2018, 288

1 truckloads of radioactive TENORM sludge from the Rio  
2 West Brine Wells in a waste injection field were  
3 illegally dumped into the municipal landfill by  
4 fracking Baker tank truck operators. This toxic waste  
5 was also used for dust control during the evap pond  
6 reconstruction, allowing dangerous particles to become  
7 airborne, increasing exposure risk, the site that has  
8 not been cleaned up, and those responsible have not  
9 been held accountable.

10           These incidents highlight the  
11 confounding risks that toxic waste and PFAS present  
12 across New Mexico, especially given our fractured  
13 geology, which makes contaminants even more likely to  
14 spread into our soils, ground drinking water, and air.  
15 With nearly half of New Mexico's population on  
16 Medicaid, these health impacts fall hardest on  
17 vulnerable communities.

18           Continuing to allow PFAS use will lead  
19 to escalating healthcare costs, environmental  
20 degradation, that ultimately strain our economy. It's  
21 time to ban PFAS, close trade secret loopholes, and  
22 prioritize the health and safety of all New Mexicans.  
23 Thank you very much.

24           THE HEARING OFFICER: Thank you, Ms.  
25 Cimino. All right. We'll do one more online and then

1 I'll return to the room here. Let's see -- Michael  
2 Sweringen?

3 MR. SWERINGEN: Yes. Thank you.

4 THE HEARING OFFICER: Hello. Spell  
5 your name for the record, please.

6 MR. SWERINGEN: Michael, M-I-C-H-A-E-L,  
7 Sweringen, S-W-E-R-I-N-G-E-N.

8 THE HEARING OFFICER: Thank you. Do  
9 you swear or affirm to tell the truth?

10 MR. SWERINGEN: I do.

11 THE HEARING OFFICER: I'll start your  
12 three minutes.

13 MR. SWERINGEN: Good morning. Name is  
14 Michael Sweringen. I was a science teacher and taught  
15 biology, earth science, and the science of climate  
16 change. PFAS are some of the most dangerous and toxic  
17 chemicals that exist. Any dose is too high.

18 No thoughtful person would ever release  
19 PFAS into the environment for any reason, ever. I'm  
20 going to talk about two things. One is the chemistry  
21 of what makes these last forever, and the other is one  
22 of the reasons why they're so dangerous.

23 So what makes PFAS forever chemicals?  
24 So the most important chemical of life is called  
25 carbon. Here is a carbon atom. There are also atoms

1 called fluorine. Here's a fluorine atom. When they  
2 get together, they make the strongest chemical bond  
3 that carbon can make, and that's why PFAS, which have  
4 lots of these carbon-fluorine bonds, they're almost  
5 impossible to get rid of.

6 So what are they used for? These  
7 super-strong chemical bonds make them very good at  
8 some things where there's a lot of heat or a lot of  
9 pressure. PFAS don't melt or gum up the works. And  
10 that's why they're used in fracking fluid in oil and  
11 gas wells, to keep the gas and oil flowing, don't gum  
12 up the works under the heat and heavy pressure of  
13 fracking wells.

14 So today you're going to hear a lot  
15 about the very real dangers of PFAS, and we already  
16 have heard, but I want to focus on one particular  
17 danger. These forever chemicals basically also last  
18 forever in our bodies. Once they get in our  
19 bloodstream, they can't be filtered out.

20 We start getting PFAS into our bodies  
21 from the placenta before we are born and in mother's  
22 milk. Even at very low exposures, they slowly build  
23 up and we can't get rid of them, so the damage gets  
24 worse over time. We get them from contaminated water,  
25 from fracking, from fire retardant foams, contaminated

1 air, and nonstick pots and utensils.

2 Each company has a fracking fluid  
3 recipe using PFAS chemicals, and they won't tell us  
4 what's in it because it's a trade secret. This has to  
5 change. At a bare minimum, they should report all the  
6 chemicals they use in fracking, since they leave  
7 behind toxic sacrifice zones they will never fix.

8 In my opinion, PFAS should never be  
9 allowed in the environment. Why would we allow a  
10 poison into our food and water that we can never get  
11 rid of? The answer is obvious. Tens of millions of  
12 dollars in profit for the oil and gas industry, and  
13 this is just one of the reasons we need to leave the  
14 oil and gas industries behind and use new ways of  
15 powering our world. Thank you.

16 THE HEARING OFFICER: Thank you, Mr.  
17 Sweringen. I'm going to move now back to the room.  
18 Is there anyone else in the room who would like to  
19 offer public comment this morning? There will be  
20 other opportunities. Ma'am in the plaid, I saw your  
21 hand first, and then I'll call on those of you in the  
22 back row.

23 And for everyone there's a three-minute  
24 limit. Please gather your thoughts. I will ask you  
25 to spell your name and I will ask you to swear or

1 affirm to tell the truth. So ma'am, if you would  
2 state and spell your name.

3 MS. BEMIS: My name's Evalyn Bemis,  
4 E-V-A-L-Y-N, last name B-E-M-I-S.

5 THE HEARING OFFICER: Do you swear or  
6 affirm to tell the truth?

7 MS. BEMIS: I do.

8 THE HEARING OFFICER: Thank you. I'll  
9 start your three minutes.

10 MS. BEMIS: I am a resident of Santa Fe  
11 that just absolutely loves this environment, the  
12 people, the wildlife, and I'm not here on behalf of  
13 any organization. I'm a photographer, and I was  
14 honored in 2014 to take one of the very first fracking  
15 reality tours that Daniel Tso conducted. Actually, he  
16 did it just for me, which was amazing.

17 And we got to see this whole huge  
18 swathe of New Mexico, up on that northwest quadrant,  
19 and the impacts on -- on people there, particularly  
20 homesteads that -- where there had been a waiver of  
21 setback, and they had the flaring, you know, the VOCs  
22 from that, all the other impacts going on with their  
23 livestock, their children.

24 And so I -- I was rather astonished at  
25 what was going on with very little knowledge to the

1 public. So when the BLM started to do their Resource  
2 Management Plan Amendment to address fracking, which  
3 should never have been -- wasn't in existence when the  
4 first plan was created.

5 And I went to a scoping meeting at the  
6 Counselor Chapter, and afterwards there were questions  
7 and answers you could do with the staff. And I said,  
8 "What about what do you do with those abandoned oil  
9 pipelines," that we had seen. And they said,  
10 "We -- we just leave them to rot in place." And I was  
11 really astonished by that.

12 And subsequently they stopped -- at the  
13 scoping meetings, they stopped having the staff be  
14 able to answer questions directly. And now here we  
15 are, ten years later, and the Resource Management Plan  
16 has been abandoned. They -- they just gave up on it  
17 after hundreds of meetings and testimony.

18 And so I'm speaking on behalf of the  
19 people who live up there, the environment that's been  
20 really taking a hit. It's -- it's been considered a  
21 sacrifice zone. And that's just one part of New  
22 Mexico. We know there's something, like, four spills  
23 a day of fracking fluids. Those are the ones that are  
24 reported.

25 So at the very minimum, this thing

1 you're being asked to do, to restrict the -- ban the  
2 use of these chemicals that are known to be so  
3 dangerous, something that you can do and we can't rely  
4 on the Feds to do it, obviously -- they had a chance,  
5 during all that Resource Management Plan Amendment  
6 process to address, and it's certainly not going to  
7 happen in the new administration. So thank you, guys,  
8 for giving this a really serious consideration.

9 THE HEARING OFFICER: Thank you, Ms.  
10 Bemis. If those of you in the back would like to come  
11 up one at a time and offer your comment? Please state  
12 and spell your name first.

13 MS. JENKINS-NIETO: My name is Sofia  
14 Jenkins-Nieto, S-O-F-I-A, Jenkins is J-E-N-K-I-N-S.

15 THE HEARING OFFICER: Do you swear or  
16 affirm to tell the truth?

17 MS. JENKINS-NIETO: Yes.

18 THE HEARING OFFICER: I'll start your  
19 three minutes.

20 MS. JENKINS-NIETO: Good morning, Chair  
21 and Commissioners. My name is Sofia Jenkins-Nieto. I  
22 moved to Albuquerque for college and have built my  
23 life here ever since. As a young person I always feel  
24 the weight of the climate crisis pressing on my  
25 generation, causing uncertainty over our future.

1 But it's not just the existential  
2 threat of a warming planet. It's also about toxic  
3 exposure that we didn't ask for, that we are not even  
4 being told about.

5 PFAS are called forever chemicals for a  
6 reason. They persist in our environment, accumulating  
7 in water, soil, and ultimately our bodies. These  
8 chemicals are toxic even in tiny amounts, and have  
9 been linked to cancers, thyroid disease, reproductive  
10 toxicity, and immune dysfunction.

11 As a young woman, this isn't just an  
12 abstract danger. It's deeply personal. A threat of  
13 PFAS means facing increased cancer risks, potential  
14 harm to fertility and pregnancy, and a legacy of  
15 health crises we'll pass down if nothing changes.

16 Here in New Mexico over 80 percent of  
17 our public water comes from our groundwater, making  
18 our communities especially vulnerable to  
19 contamination. When oil and gas companies inject PFAS  
20 underground, on top of the leaks, spills, and fracking  
21 wastewater mishandling they're already responsible  
22 for, they're putting every one of us at risk.

23 Worse yet, they hide behind trade  
24 secrets, refusing to disclose the chemicals they use.  
25 This lack of transparency leaves our families,

1 children, and neighbors unknowingly exposed to a toxic  
2 stew with no recourse for protection.

3 In New Mexico we average around four  
4 spills of fracking wastewater per day, and without  
5 adequate treatment and regulation, these chemicals can  
6 seep into our groundwater, polluting what we drink and  
7 rely on to live. It's unacceptable.

8 The very least these companies can do  
9 is ensure that PFAS isn't among the substances they're  
10 releasing when these inevitable spills occur. PFAS  
11 isn't a hypothetical risk. Studies show younger  
12 generations are already experiencing higher cancer  
13 rates.

14 This isn't just an issue for tomorrow;  
15 it's harming us today. We need a ban on PFAS use in  
16 oil and gas operations. We need full disclosure of  
17 chemicals used. We need enforcement, transparency,  
18 and accountability.

19 I'm calling on the commission to act  
20 for our health, our environment, and our future by  
21 passing this rule. We can't afford to wait any  
22 longer. Thank you.

23 THE HEARING OFFICER: Thank you, Ms.  
24 Jenkins-Nieto. Anyone else? State and spell your  
25 name first?

1 MS. GUILLEN: Feleecia Guillen,  
2 F-E-L-E-E-C-I-A, last name G-U-I-L-L-E-N.

3 THE HEARING OFFICER: Thank you. Do  
4 you swear or affirm to tell the truth?

5 MS. GUILLEN: I do.

6 THE HEARING OFFICER: Thank you. I'll  
7 start your three minutes.

8 MS. GUILLEN: Thank you so much for  
9 allowing me to speak today. I was originally going to  
10 give my comment in Spanish, but because I woke up a  
11 little tired today, I decided not to. Frankly it  
12 would have been more dramatic in Spanish, but that's  
13 okay.

14 My name is Feleecia Guillen. I am a  
15 student at the University of New Mexico, studying  
16 Business Administration and Sustainability Studies. I  
17 grew up in Edgewood, New Mexico, where our water has  
18 always been precious and scarce.

19 Today I am here because our water faces  
20 a new dangerous threat, contamination from PFAS  
21 chemicals. As a young person, I often feel  
22 overwhelmed by the constant battles we need to fight  
23 against the oil and gas industry. Why do we have to  
24 work so hard to protect our natural resources? Why  
25 must we fight so hard for what should a basic human

1 right, clean water?

2 PFAS chemicals are extremely toxic,  
3 even in small amounts, and they pose a real danger to  
4 our environment. In New Mexico 80 percent of our  
5 drinking water comes from underground. This water is  
6 now at risk. Being exposed to these chemicals can  
7 cause cancer and other serious health problems,  
8 especially for our young people and for our elders.

9 It is not fair that the oil and gas  
10 industry to destroy our land, to pollute our water,  
11 and to put our health at the risk just for their own  
12 economic gain. We are tired of being treated like a  
13 danger or a sacrifice zone, a dumping ground where  
14 companies think they can do whatever they want with  
15 our land. Companies should not be allowed to hide  
16 what they are putting into our land.

17 We need to know what chemicals are  
18 being used. We need to protect our land and our water  
19 for everyone's sake. So I ask that the commission ban  
20 the use of PFAS in oil and gas operations, and to make  
21 sure companies tell us what chemicals they are using.  
22 Our communities, our health, and our very way of life  
23 are under threat.

24 As someone who has seen the effects of  
25 water scarcity firsthand, from watching local farmers

1 struggle and community wells run dry, I cannot stress  
2 enough the urgency to take decisive action. The  
3 safety and security of our water supply are ultimately  
4 nonnegotiable.

5 We cannot let our health and our future  
6 be put in danger. Thank you so much for listening to  
7 me today. Please make the right decision to protect  
8 all of us in New Mexico.

9 THE HEARING OFFICER: Thank you, Ms.  
10 Guillen. Next? If you would, please state and spell  
11 your name?

12 MS. LOPEZ: Yes. My name is Ennedith  
13 Lopez, you spell it as E-N-N-E-D-I-T-H L-O-P-E-Z.

14 THE HEARING OFFICER: Thank you. Do  
15 you swear or affirm to tell the truth?

16 MS. LOPEZ: Yes.

17 THE HEARING OFFICER: I'll start your  
18 three minutes.

19 MS. LOPEZ: My name is Ennedith Lopez,  
20 and I'm the Policy Campaign Manager at Youth United  
21 for Climate Crisis Action, also known as YUCCA. We  
22 are led by young indigenous and people of color, which  
23 has thousands of supporters across the state. We are  
24 deeply committed to fighting for environmental  
25 justice.

1 I am here today to urge you to support  
2 WildEarth Guardians and New Energy Economy's petition  
3 to ban the use of PFAS on the oil field and ensure the  
4 disclosure of the industry's proprietary chemical  
5 components to the public. In New Mexico we face a  
6 series of emergencies because of environmental  
7 pollution and the climate crisis.

8 We see the imbalance between the state  
9 prioritizing a polluting industry, which is known to  
10 cause the climate crisis, over the public health in  
11 our communities, and protecting the sacred lands that  
12 are sacred to indigenous communities. Families and  
13 entire communities must endure the extremes of the  
14 climate crisis, from losing energy and power due to an  
15 unexpected record-breaking snowstorm in Northern New  
16 Mexico, to the flooding of a landlocked city like  
17 Roswell due to a record-breaking rainfall, all within  
18 one month.

19 If we continue to fail to hold industry  
20 accountable for their crimes against our environment  
21 and our communities, we will continue to see these  
22 crises time and time again. This petition offers a  
23 step towards safeguarding our land, air, and water.

24 New Mexico's groundwater accounts for  
25 80 percent of our drinking resources. PFAS poses a

1 risk of groundwater contamination, which we all know  
2 is a scarce resource due to the mega-draught that I've  
3 had to endure for my entire existence.

4 It is outrageous for the industry to  
5 sit here and claim that PFAS are not intentionally  
6 used in fracking in New Mexico, when we know from the  
7 Physicians for Social Responsibility's report of its  
8 use in 2022. Regardless of its intentional use or  
9 not, the irreversible harm still exists and will  
10 continue to exist for generations.

11 It is unjust and inhumane to expect  
12 communities in proximity to these fracking, drilling,  
13 and maintenance operations to endure this level of  
14 toxicity. As we know, PFAS exposure over a long  
15 period of time can guarantee the development of  
16 cancers, reproductive hazards, and thyroid disease.  
17 Environmental racism and climate inaction can no  
18 longer be accepted as a practice and the norm for the  
19 sake of the economy or for the sake of one single  
20 industry over thousands and millions of people.

21 Ensuring the protection of our health  
22 and water resources ensures to deliver justice for our  
23 communities who have suffered so much for generations.  
24 We bear a duty to protect our water, which is sacred,  
25 precious, and irreplaceable. New Mexico is positioned

1 to do just that by banning PFAS in oil and gas  
2 operations and ensuring the disclosure of its  
3 proprietary chemical components to the public.

4 Lastly I really do want to address the  
5 language issue. I am a Latina woman, and I  
6 proactively work with my community to inform them of  
7 what's going on. And I fail to understand as how the  
8 commission can expect for a monolingual Spanish  
9 speaker to navigate the website on their own, find the  
10 times, the dates, the email to come to this Commission  
11 hearing and still not have that available in Spanish.

12 It is the responsibility of the State  
13 for you to use your resources to ensure that this is  
14 equitably accessible to our communities across the  
15 entire week. It is not acceptable to only allocate  
16 one single day to monolingual speakers. Thank you.

17 THE HEARING OFFICER: Thank you, Ms.  
18 Lopez. Are there any other commenters? If you would,  
19 please state and spell your name?

20 MS. JARAMILLO: Zephyr Jaramillo,  
21 Z-E-P-H-Y-R J-A-R-A-M-I-L-L-O.

22 THE HEARING OFFICER: Do you swear or  
23 affirm to tell the truth?

24 MS. JARAMILLO: I do.

25 THE HEARING OFFICER: Thank you. I'll

1 start your three minutes.

2 MS. JARAMILLO: Good morning. My name  
3 is Zephyr Jaramillo, and I come from the Pueblos of  
4 Isleta and San Felipe. In our communities we honor  
5 the longstanding tradition of safeguarding our lands  
6 and waters. We have witnessed the insidious effects  
7 of pollution from oil and gas extraction, effects that  
8 often remain hidden.

9 One of the most harmful and covert  
10 threats is the use of PFAS chemicals. The April 2023  
11 report from Physicians for Social Responsibility  
12 documented the use of PFAS, including PTFE, in New  
13 Mexico oil and gas wells. This report highlighted not  
14 only confirmed use across multiple counties but the  
15 lack of comprehensive disclosure due to industry  
16 reliance on trade secrets.

17 This means that the true extent of PFAS  
18 contamination remains concealed, putting our  
19 communities at profound risk. PFAS persists in the  
20 environment, accumulating in water and within our  
21 bodies over time. This persistence makes their use  
22 for the oil and gas industry particularly dangerous.

23 Here in New Mexico, where over 80  
24 percent of our public water supply comes from the  
25 groundwater, the stakes could not be higher. The

1 industry's routine injection of PFAS-containing  
2 materials underground, on top of daily spills and  
3 leaks of fracking wastewater endangers our health and  
4 our precious water resources. Unlike other sources of  
5 PFAS, oil and gas operators inject these chemicals  
6 directly into the earth, where they can infiltrate and  
7 contaminate aquifers.

8 Industry representatives claim that  
9 PFAS is not intentionally used in fracking here, but  
10 the evidence tells a different story. The Physicians  
11 for Social Responsibility report documented PFAS use  
12 and pointed out that due to limited disclosure  
13 requirements, we cannot know the full extent of their  
14 use or their impact.

15 Industry spokespeople hide behind  
16 "trade secrets" to obscure critical information,  
17 claiming transparency while keeping New Mexicans in  
18 the dark. It is a dangerous distraction to argue that  
19 PFAS contamination is ubiquitous. While PFAS  
20 contamination is indeed a widespread issue, the oil  
21 and gas industry's unique role in injecting these  
22 chemicals underground makes it a special threat.

23 This poses a direct risk to our state's  
24 groundwater, and yet our current regulations only  
25 require partial chemical disclosure, leaving us

1 vulnerable. We have the right to know what chemicals  
2 are being used in our water and land. Our families  
3 deserve protection and healthcare providers need  
4 access to chemical information to respond to exposure  
5 incidents.

6 This is about transparency,  
7 accountability, and ending the toxic legacy that puts  
8 all of us at risk. Ban PFAS in oil and gas  
9 operations, demand full chemical disclosure, and  
10 protect our water, our health, and our future.

11 THE HEARING OFFICER: Thank you, Ms.  
12 Jaramillo. Is there another commenter? If you would,  
13 state and spell your name, please.

14 MR. JUAREZ: It's going to be Jonathan,  
15 J-O-N-A-T-H-A-N, and then Juarez, J-U-A-R-E-Z.

16 THE HEARING OFFICER: Thank you. Do  
17 you swear or affirm to tell the truth?

18 MR. JUAREZ: I do.

19 THE HEARING OFFICER: I'll start your  
20 three minutes.

21 MR. JUAREZ: Good morning,  
22 Commissioners. My name is Jonathan Juarez. I am from  
23 the Pueblos of Laguna and Isleta, but I've grown up in  
24 Albuquerque my entire life as a result of the  
25 contamination and environmental racism left behind by

1 the Jackpile Uranium Mine, which is less than a mile  
2 from the village that my family has called home for  
3 thousands of years, where our culture and traditions  
4 have evolved with the land.

5 To pueblo people water is more than  
6 life-giving. It is sacred. It connects us to our  
7 ancestors and to future generations. It also plays  
8 vital roles in our ceremonies, and we've always  
9 understood it as our relative, not a commodity.

10 This belief in the sanctity of water is  
11 shared by New Mexicans from all walks of life and  
12 across political spectrums, from chile farmers down in  
13 Hatch, who rely on the acequias to irrigate their  
14 fields to the families in Albuquerque's South Valley  
15 who are fighting tirelessly to preserve the Rio Grande  
16 for their children and grandchildren.

17 In a desert region like ours, we all  
18 understand the interdependent role that water plays,  
19 and yet toxic fracking waste is spilling onto our  
20 lands at an unprecedented rate. It contaminates  
21 sacred lands, threatens the health and livelihoods of  
22 thousands, and is treated as though it can simply be  
23 hidden or ignored.

24 These spills, which are happening at a  
25 rate of at least four times a day, according to the

1 industry's own self-reporting statistics, contain  
2 dangerous levels of PFAS forever chemicals, adding  
3 another layer of harm to our water, our air, and our  
4 bodies.

5 PFAS do not break down. They  
6 accumulate. They seep into our ecosystems. They move  
7 through our livestock and into the food we eat. And  
8 they even pass from parents to their children. It's a  
9 toxic cycle that ripples through generations. And  
10 this contamination is not just an emergency, it's a  
11 generational threat.

12 PFAS endangers not only those of us  
13 here now but also our children and their children.  
14 Now as a pueblo person, my elders have taught me that  
15 our decisions today must reflect the needs of seven  
16 generations to come, and that if we're making those  
17 choices with future generations in mind, then our  
18 children's children will have clean air to breathe and  
19 water to drink. And there's nothing more important  
20 than that, certainly not profits.

21 The oil and gas industry is willing to  
22 sacrifice New Mexico's future, treating our people and  
23 our lands as disposable. How dare they poison our  
24 water, our air, and our connection to our homelands,  
25 and then attempt to hide behind trade secrets to

1 justify their actions? They profit while communities  
2 suffer, our health declines, and our lands are left  
3 barren.

4 Remember that while the fossil fuel  
5 industry can finance pipelines stretching hundreds of  
6 miles and extracting billions of dollars from  
7 communities in Northwestern New Mexico, those same  
8 communities, primarily on the Navajo Nation, still  
9 lack basic access to running water and electricity.  
10 The least that our government and state agencies can  
11 do is protect us from these toxic chemicals.

12 Banning PFAS in oil and gas isn't just  
13 harm reduction, it's essential.

14 THE HEARING OFFICER: Please wrap up,  
15 Mr. Juarez.

16 MR. JUAREZ: So I call on you to act.  
17 Please ban PFAS in oil and gas operations, demand full  
18 chemical disclosure, and enforce real protections. We  
19 cannot afford to keep sacrificing our health, our  
20 families, or our lands for an industry that profits  
21 while we despair. Thank you for your time.

22 THE HEARING OFFICER: Thank you, Mr.  
23 Juarez. All right. We'll take a few more commenters,  
24 take a break soon, but we will move through all  
25 commenters present online or in the room before we

1 turn to the technical case. If you would state and  
2 spell your name, please?

3 MR. JUAREZ: Raife, R-A-I-F-E, Juarez,  
4 J-U-A-R-E-Z.

5 THE HEARING OFFICER: Okay. Do you  
6 swear or affirm to tell the truth?

7 MR. JUAREZ: Yes.

8 THE HEARING OFFICER: I'll start your  
9 three minutes.

10 MR. JUAREZ: Good morning,  
11 Commissioners. My name is Raife Juarez and I'm a U.S.  
12 Army veteran. I served my country to protect our  
13 people, our lands, and our future, but here at home I  
14 see a new battle, a fight against toxic contamination  
15 that endangers everything I thought I was fighting to  
16 defend. As a veteran, I know firsthand how vital  
17 clean water, fresh air, and healthy land are, not just  
18 for survival but for resilience and strength, and yet  
19 right here in New Mexico, those basic rights are under  
20 attack.

21 PFAS contamination, those so-called  
22 forever chemicals, is spreading through our  
23 communities, leaching into the water, the soil, and  
24 the bodies of our people. These chemicals don't just  
25 disappear. They accumulate and leave a lasting

1 impact.

2 It's as if we're in a perpetual  
3 struggle, and this time the enemy attacks our health,  
4 our environment, and our future. PFAS contamination  
5 is a betrayal to every New Mexican. These chemicals  
6 used recklessly by the oil and gas industry are  
7 poisoning the same lands and waters we veterans swore  
8 to protect.

9 Each spill, each like, each trade  
10 secret these companies hide behind, these are the  
11 scars that they leave on our homeland. They get rich  
12 off of our resources, but they leave the damage behind  
13 for us to clean up for our families to suffer through.  
14 The government has a duty here.

15 When I served we learned the value of  
16 integrity and of taking responsibility. It's time our  
17 government holds the oil and gas industry to the same  
18 standard. We can't let them behind a legacy of poison  
19 in the name of profit. Every day we wait the  
20 contamination spreads further, embedding itself deeper  
21 into our lands, our food, our families.

22 I am asking you to do your duty to  
23 protect the people of New Mexico, ban PFAS in oil and  
24 gas operations, demand full transparency from the  
25 industry, enforce the protections that can spare our

1 communities from this slow-moving disaster. We  
2 veterans were willing to put our lives on the line for  
3 this country. The least our leaders can do is ensure  
4 our families aren't left to suffer the fallout from  
5 corporate greed. Thank you.

6 THE HEARING OFFICER: Thank you, Mr.  
7 Juarez. Would you state and spell your name, please?

8 MS. AGUIRRE: Stephany Aguirre.  
9 Stephany, S-T-E-P-H-A-N-Y, Aguirre, it's  
10 A-G-U-I-R-R-E.

11 THE HEARING OFFICER: Thank you. Do  
12 you swear or affirm to tell the truth?

13 MS. AGUIRRE: Yes.

14 THE HEARING OFFICER: Thank you. I'll  
15 start your three minutes.

16 MS. AGUIRRE: I would like to say it in  
17 Spanish.

18 THE HEARING OFFICER: We don't have an  
19 interpreter at this point. I believe we will have an  
20 interpreter Friday at the Friday public comment  
21 session. Stefany, is that something you're able to  
22 confirm -- sorry, Stefany. You're Stefany. Sheila,  
23 is that something you're able to confirm at this time?

24 MS. APODACA: It hasn't been completely  
25 confirmed. That is the time that we're working with.

1 THE HEARING OFFICER: Okay.

2 MS. AGUIRRE: I just don't have another  
3 time to come and say it. But I can -- I have it  
4 written in Spanish and English.

5 THE HEARING OFFICER: That's terrific.  
6 That would be my plan B, frankly. If you give it to  
7 us, we will have it interpreted for the commission  
8 before they deliberate.

9 MS. AGUIRRE: Okay. Or I -- may I say  
10 a suggestion?

11 THE HEARING OFFICER: Yes. Yes, you  
12 may.

13 MS. AGUIRRE: I brought someone that  
14 can say it, can read it with me.

15 THE HEARING OFFICER: Okay. That would  
16 be fine.

17 MS. AGUIRRE: And can interpret it for  
18 you.

19 THE HEARING OFFICER: That's fine. Do  
20 it however you'd like.

21 MS. AGUIRRE: Thank you.

22 MS. AGUIRRE (THROUGH INTERPRETER): My  
23 name is Stefany Aguirre. I'm a resident of Santa Fe  
24 and I currently reside within the city limits. I'm a  
25 mother of four kids under the age of 18. I'd like to

1 thank you for giving us the opportunity to speak  
2 today.

3 One unfortunate thing I would like to  
4 mention is that interpreters were not provided for  
5 this meeting. This is important because we want to be  
6 heard, and this includes our Spanish-speaking  
7 communities, because they and their families are at  
8 risk, as well. I would like to proceed with my  
9 speech.

10 Today I would like to shed light on an  
11 environmental and public health concern that has been  
12 increasingly getting attention, PFAS for per- and  
13 polyfluoroalkyl substances. These are manmade  
14 chemicals that have been used in various industries  
15 around the world since the 1940's. PFAS is found in a  
16 wide range of consumer products such as nonstick  
17 cookware, water-repellant clothing, stain resistant  
18 fabrics, and some firefighting foam.

19 One of the most concerning aspects of  
20 PFAS is their persistence in the environment and in  
21 the human body. These chemicals do not break down  
22 easily, earning them the nickname of "forever  
23 chemicals." As a result, PFAS can accumulate over  
24 time, leading to potential adverse health effects.  
25 Studies have linked PFAS exposure to various health

1 problems including liver damage, thyroid disease,  
2 decreased fertility, high cholesterol, obesity,  
3 hormone suppression, and even cancer.

4 The widespread use of PFAS has led to  
5 contamination of water resources, soil, and air.  
6 Communities near manufacturing facilities, military  
7 bases, and areas where firefighting foam has been used  
8 are particularly at risk. As we become more aware of  
9 the dangers posed by PFAS, it is crucial to take  
10 action to reduce exposure and mitigate their impact.  
11 This includes advocating for stricter regulations on  
12 the use of PFAS, reporting research into safer  
13 alternatives, and ensuring proper cleanup of  
14 contaminated sites.

15 In conclusion, addressing the issue of  
16 PFAS is not just about protecting the environment, but  
17 also about safeguarding public health. By working  
18 together we can push for the necessary changes to  
19 reduce the presence of these harmful chemicals in our  
20 lives and create a safer, healthier future for all.  
21 Thank you.

22 THE HEARING OFFICER: Thank you very  
23 much, Ms. Aguirre. We need a break. The Commission  
24 has been going since nine o'clock. It's 10:45. Let's  
25 return at eleven.

1 (Off the record.)

2 THE HEARING OFFICER: We are back from  
3 the break and Mr. Rubin has requested an opportunity  
4 to make a statement.

5 MR. RUBIN: Thank you, Madam Hearing  
6 Officer. Members of the commission and also to the  
7 benefit of the parties, clearly trade secrets is going  
8 to be something that's going to be hotly contested,  
9 both factually and perhaps legally. I just wanted to  
10 give the parties of the benefit my initial thinking,  
11 and I do apologize if this is something the party's  
12 already anticipated in their exhibits, which I have  
13 not sorted through yet.

14 But obviously the Uniform Trade Secrets  
15 Act is a constraint on what can be passed by rule;  
16 however, I do note that there is a provision under  
17 74.615, which relates to water quality, which  
18 is -- which may or may not act as an exception to  
19 trade secrets to the extent they have been disclosed  
20 as part of a Water Quality Control Commission meeting.

21 And I read that, or as I quote, under  
22 74-6-15(A)(3), "when relevant in any proceeding  
23 pursuant to the Water Quality Act or the federal Act."  
24 There is an equivalent statute relating to air quality  
25 and trade secrets.

1 I do not know this will ultimately sort  
2 out, but to the extent the parties want to account for  
3 that possibility in their presentations, as I know  
4 there was -- there has been some discussion of within  
5 the water quality context, it might be helpful to know  
6 that ahead of time. Thank you. And with that, I turn  
7 it back over to our capable hearing examiner.

8 THE HEARING OFFICER: Thank you, Mr.  
9 Rubin. We are back after a break and we will continue  
10 accepting -- sorry. I'm very sorry. Thank you. So  
11 the Chair did invite me to proceed regardless of  
12 whether he was on the dais. We had that conversation  
13 earlier this morning.

14 All right. We're going to continue to  
15 accept public comment, both in the room and on the  
16 platform. Let me ask if there's anyone else in the  
17 room who would like to offer public comment during  
18 this session. There will be lots of other  
19 opportunities. All right. If you would come up one  
20 at a time please. And you have three minutes. I will  
21 ask you to state and spell your name, and I will ask  
22 you if you swear or affirm to tell the truth. If you  
23 would state and spell your name?

24 MS. REVIERE: My name is Briana  
25 Reviere, B-R-I-A-N-A R-E-V-I-E-R-E.

1 THE HEARING OFFICER: And do you swear  
2 or affirm to tell the truth?

3 MS. REVIERE: I do.

4 THE HEARING OFFICER: Thank you. I'll  
5 start your three minutes.

6 MS. REVIERE: Good morning,  
7 Commissioners. My name is Briana Reviere. I am here  
8 to express my deep concern regarding the presence of  
9 PFAS in water, air, and healthcare systems of New  
10 Mexico. These toxic chemicals, known as forever  
11 chemicals, due to their ability to persist in the  
12 environment and the human body for decades, are being  
13 detected at alarming levels in various parts of our  
14 state.

15 Prolonged exposure to PFAS is directly  
16 linked to a wide range of adverse health effects in  
17 the New Mexican residents, who are already facing  
18 public health challenges due to poverty and limited  
19 access to healthcare and other social inequities. The  
20 impact of health of the New Mexican residents due to  
21 PFAS has proven to be highly harmful to human health,  
22 even at low levels of exposure.

23 In particular, scientific studies have  
24 shown that these chemicals can cause the following  
25 health problems in people who have been exposed:

1 cancer, hormonal and reproductive disorders, immune  
2 system damage, metabolic disorders, impact on child  
3 development.

4 In Santa Fe, as many other areas of New  
5 Mexico, PFAS contamination is beginning to have a  
6 serious impact on community health. The city, which  
7 relies heavily on groundwater sources and local  
8 springs, has seen an increase in levels of PFAS in  
9 drinking water in some areas, putting the health of  
10 thousands of residents at risk.

11 The people of Santa Fe, especially  
12 those living near industrial areas or military bases,  
13 where these toxic chemicals have historically been  
14 used, are particularly exposed to these harmful  
15 compounds. Additionally, growing concerns about  
16 health effects such as increased respiratory diseases,  
17 endocrine disorders, and reproductive health problems  
18 are disproportionately affecting young families and  
19 the elderly.

20 In Santa Fe, where public health  
21 already faces challenges due to poverty and limited  
22 access to healthcare, exposure to PFAS only worsens  
23 the situation, placing an even greater burden on local  
24 healthcare systems and exposing vulnerable communities  
25 to long-term consequences. The presence of PFAS in

1 drinking water, air, and soil of New Mexico is a  
2 serious and growing threat to the health of our  
3 residents, especially those in rural and marginalized  
4 communities, who are the most vulnerable to  
5 contamination.

6 It is urgent that authorities take  
7 decisive action to reduce and eliminate PFAS levels in  
8 our state, that stricter policies be implemented for  
9 PFAS regulation, that water quality and air pollution  
10 laws be strengthened, and that further scientific  
11 research can be conducted to understand the long-term  
12 effects of these compounds on human health and the  
13 environment. Additionally, it is essential that New  
14 Mexican residents receive clear and accessible  
15 information about the risks associated with PFAS, as  
16 well as resources for testing and protecting their  
17 health.

18 I urge immediate action to protect the  
19 health and wellbeing of future generations. PFAS can  
20 no longer be allowed to affect New Mexican  
21 communities. It is our responsibility as a society to  
22 take swift action to address this issue. Thank you  
23 for your time.

24 THE HEARING OFFICER: Thank you, Ms.  
25 Reviere. Next? State and spell your name.

1 MR. DOLCE: My name is Michael Dolce,  
2 M-I-C-H-A-E-L D-O-L-C-E.

3 THE HEARING OFFICER: Do you swear or  
4 affirm to tell the truth?

5 MR. DOLCE: I do.

6 THE HEARING OFFICER: Thank you. I'll  
7 start your three minutes.

8 MR. DOLCE: Thank you for allowing me  
9 to speak with you today. As a long-time educator, my  
10 entire focus of my career has been the future, and I  
11 have to ask, what are we doing? What are we doing to  
12 our planet and to our children?

13 Eighty-seven percent of our water is  
14 groundwater. The EPA warns that fracking chemicals  
15 can contaminate this water through spills, faulty  
16 casings, or direct injection. With New Mexico's water  
17 already strained by draught and climate challenges,  
18 protecting it from toxins like PFAS is essential.  
19 What are we doing? I don't want to sound like a  
20 broken record.

21 A lot of people have talked about the  
22 health problems that are associated with PFAS. I will  
23 simply say that no level of exposure to these  
24 chemicals can be considered safe. What are we doing?

25 Oil and gas companies won't prevent

1 contamination and won't disclose the chemicals they  
2 us, citing trade secrets. Well transparency about  
3 ingredients is standard in other industries, food,  
4 medicine, cleaners, so people can make informed health  
5 choices. The same should apply to oil and gas.

6 We have a right to know what chemicals  
7 are injected into our land and our very precious  
8 water. What are we doing? It's simple. Oil and gas  
9 companies override the will of people through  
10 lobbying, political influence, and legal exemptions  
11 that prioritize industry interests over public health  
12 and environmental protection.

13 Their money silences my voice and the  
14 voice of others like me. And what do they think  
15 they're doing? Acting like collective psychopaths.  
16 Corporations act without empathy. They lie,  
17 manipulate, evade accountability, and pursue profit at  
18 any cost. Don't their leaders consider the world  
19 they've leaving for their own children, let alone  
20 people like us? What are we doing?

21 When profit is prioritized over ethics  
22 and social responsibility, we have to stop allowing  
23 it. I urge the Oil Conservation Commission to take  
24 bold action by prohibiting PFAS in oil and gas  
25 operations, and by requiring full disclosure of

1 chemicals used in downhole operations. Safeguard the  
2 future of New Mexico's water supply, essential to the  
3 sustainability of life for ourselves and future  
4 generations.

5 I look at the students I've taught over  
6 the years, and I want to promise them a future, but  
7 year after year, as we spoil our land and our water,  
8 I'm not even sure they're going to have one. Please  
9 hear us on this matter. Thank you.

10 THE HEARING OFFICER: Thank you, Mr.  
11 Dolce. Next? State and spell your name.

12 MS. LUEBANO: Good morning. My name is  
13 Miriam, M-I-R-I-A-M, Luebano, L-U-E-B-A-N-O.

14 THE HEARING OFFICER: Do you swear or  
15 affirm to tell the truth?

16 MS. LUEBANO: Yes.

17 THE HEARING OFFICER: Thank you. I'll  
18 start your three minutes.

19 MS. LUEBANO: Thank you for the  
20 opportunity, but I prefer doing it in Spanish. I  
21 don't know if you have an interpreter here to help me.

22 THE HEARING OFFICER: I believe we may  
23 have an interpreter Friday morning.

24 MS. LUEBANO: I can't come in Friday  
25 because I need to work.

1 UNKNOWN SPEAKER: I can translate for  
2 her.

3 THE HEARING OFFICER: All right. Thank  
4 you very much for your assistance, ma'am.

5 MS. LUEBANO (THROUGH INTERPRETER): My  
6 name is Miriam Luebano. I am a mother of three  
7 children, a resident of Santa Fe, and part of Earth  
8 Care. I understand the profound importance of the  
9 necessity to protect our health and environment.

10 My youngest son, who suffers from  
11 asthma and allergies, is especially vulnerable to the  
12 environmental contaminants. The exposure to toxic  
13 chemicals like PFAS further heightens the risk of our  
14 health for people who struggle with respiratory  
15 conditions and allergies.

16 Conscious of the devastating effects of  
17 these forever chemicals within our environment and our  
18 health, I join in the petition to regulate and  
19 prohibit the use of PFAS in operations of oil and gas  
20 in New Mexico. Every day we depend on clean water and  
21 clean air for the health of our families.

22 Without a doubt, PFAS represents a real  
23 threat for various resources. These chemicals, which  
24 do not degrade easy in the environment, contaminate  
25 our groundwater and our surface water, from which 80

1 percent of our drinking water of our state comes from.  
2 Without a doubt, we cannot ignore that prolonged  
3 exposure of PFAS has led to serious problems of  
4 health, such as cancer, problems of the thyroid, and  
5 reproductive toxicity.

6 In a moment, where federal  
7 environmental protections are at risk, it is crucial  
8 that we take the necessary measures at a state level  
9 to protect our communities. We cannot continue to  
10 permit for industries to continue to contaminate our  
11 water and our air under the pretext of trade secrets.  
12 The lack of transparency and regulation leaves us  
13 exposed to dangerous chemicals without knowing where  
14 or when these chemicals are being injected into our  
15 ground.

16 Our resources are limited and precious,  
17 and it is our responsibility to protect it for the  
18 future generations. We cannot allow for the interests  
19 of corporations to put our health at risk and the  
20 future of our children at risk. Thank you for  
21 listening to my testimony and for taking into  
22 consideration the importance of implementing strict  
23 regulations and the prohibition of the use of PFAS in  
24 oil and gas operations.

25 THE HEARING OFFICER: Thank you very

1 much, and thank you, ma'am, for your assistance. Are  
2 there any other public commenters?

3 MS. TAROS: Morning.

4 THE HEARING OFFICER: Good morning. If  
5 you would state and spell your name, please?

6 MS. TAROS: My name is Megan Taros,  
7 M-E-G-A-N T-A-R-O-S.

8 THE HEARING OFFICER: And do you swear  
9 or affirm to tell the truth?

10 MS. TAROS: Yes, I do.

11 THE HEARING OFFICER: I'll start your  
12 three minutes.

13 MS. TAROS: So I prefer to give my  
14 comment in Spanish. I hear you don't have an  
15 interpreter until Friday, so I found my own  
16 accommodation.

17 THE HEARING OFFICER: Okay. Thank you  
18 very much.

19 MS. TAROS (THROUGH INTERPRETER): Good  
20 morning, members of the commission. My name is Megan  
21 Taros and I am a representative with Poder Familiar.  
22 I am urging you today to vote to end the use of PFAS  
23 in New Mexico. PFAS are highly toxic chemicals that  
24 destroy entire ecosystems and are dangerous at any  
25 level.

1           The use of PFAS risks contaminating our  
2 surface and groundwater, leading to higher incidences  
3 of kidney cancer, thyroid disease, and reproductive  
4 and developmental toxicity. In a state where 87  
5 percent of the public's water supply comes from  
6 groundwater, it is unconscionable to gamble with  
7 people's lives, especially with a lack of disclosure  
8 that shields industries from accountability.

9           It is reprehensible that our  
10 communities are not even allowed to know where PFAS  
11 are being injected or what types are being used. This  
12 robs them of their right to know if their health is  
13 being endangered and to protect themselves from that  
14 harm. We have already seen the effects of these  
15 dangerous chemicals from La Cieneguilla to Clovis,  
16 where residents have been sickened and cannot drink  
17 their tap water.

18           Also in Clovis, several cows had to be  
19 euthanized due to being poisoned with PFAS. This  
20 shows that PFAS can damage our food and food systems.  
21 We cannot allow this to continue a dangerous trend  
22 around our state and that is why I urge you to ban the  
23 use of PFAS. Thank you.

24           THE HEARING OFFICER: Thank you very  
25 much, and thank you, ma'am, for your assistance. Are

1 there others who would like to offer? I see a  
2 gentleman. If you would state and spell your name for  
3 the record?

4 MR. ACOSTA (THROUGH INTERPRETER):  
5 Miguel Acosta, M-I-G-U-E-L A-C-O-S-T-A.

6 THE HEARING OFFICER: Thank you. Do  
7 you swear or affirm to tell the truth?

8 MR. ACOSTA (THROUGH INTERPRETER): Yes.

9 THE HEARING OFFICER: All right. Thank  
10 you very much. Go ahead.

11 MR. ACOSTA (THROUGH INTERPRETER): Good  
12 morning, Commission Members, my name is Miguel Acosta.  
13 I'm the director for Poder Familiar, and I am from  
14 Santa Fe, New Mexico. I urge the members of the Oil  
15 Conservation Commission to support the proposed  
16 rulemaking petition.

17 I live and work in an area of Santa Fe  
18 that experienced the worst impacts of COVID in terms  
19 of the number of infections, long-term complications,  
20 and deaths. We found out that our community also had  
21 the highest rates of preexisting health challenges and  
22 the lowest rates of health insurance and access to  
23 healthcare. We recently found out that our  
24 communities are also being exposed to PFAS.

25 We were told it was by accident. Our

1 neighbors are primarily low-income and people of  
2 color, and that's why I'm here. Across New Mexico,  
3 those most likely to be impacted by PFAS contamination  
4 are poor people of color. This is especially true in  
5 and around oil production sites, where PFAS are  
6 injected into the ground, not by accident but as  
7 standard practice. You can change that.

8           These communities also have high  
9 preexisting health challenges and lower health  
10 insurance rates. Research shows clearly that these  
11 cumulative impacts on communities lead to higher rates  
12 of several types of cancer, affect childhood  
13 development, impact life expectancy, contaminate water  
14 sources, kill livestock, and destroy crops. You can  
15 change that.

16           New Mexico has been a sacrifice zone  
17 for decades. Nuclear mining, corporate farming, and  
18 chemical industries have contaminated water, ruined  
19 habitats, and killed people. It's still happening,  
20 and now a preventable source of contamination and  
21 death has been introduced to our land. You can change  
22 that.

23           You have the power to decide in favor  
24 of people's lives and a healthy environment, or in  
25 support of death and destruction in the name of

1 profits. I urge you all to support the proposed  
2 rulemaking petition and give our children a better  
3 future.

4 I also urge you to provide appropriate  
5 interpretation and translation as required by the New  
6 Mexico Constitution, the Civil Rights Act of 1964, and  
7 the Treaty of Guadalupe Hidalgo. Thank you, and thank  
8 you for youth of YUCCA for attending our hearing.

9 THE HEARING OFFICER: Thank you very  
10 much, Mr. Acosta and ma'am. Are there other public  
11 commenters? Other public commenters? Sir, in the  
12 green jacket. If you would state and spell your name  
13 first?

14 MR. MICKEL: Good morning. My name is  
15 Mick Nickel, M-I-C-K N-I-C-K-E-L.

16 THE HEARING OFFICER: Do you swear or  
17 affirm to tell the truth?

18 MR. MICKEL: Yes, ma'am.

19 THE HEARING OFFICER: All right. I'll  
20 start your three minutes.

21 MR. MICKEL: Good morning. All earth  
22 citizens, here and everywhere else, are suffering from  
23 Stockholm syndrome, of human lies from corporate crude  
24 capitalism and its toxic stream of 6,000 products.  
25 The data are everywhere. A black gold supplies a line

1 of, more or less, 350,000 spin-off toxins, most  
2 unstudied and unregulated, including 15,000 PFAX  
3 [sic], all deemed health hazards.

4 How are dominant lies delivered?

5 Propaganda via manipulative advertising, pandering to  
6 citizens' fears, needs, and wants; exaggeration and  
7 distortion; denial or obfuscation; downplaying or  
8 misdirecting; projection leading to transference;  
9 intimidation; gaslighting; newspeak and doublethink.

10 The tools of this delivery are bribery, extortion, red  
11 herrings, false flags, and bullying -- stressed out,  
12 dumbed down, drugged up, malnourished, and poisoned.

13 Why the lies? Well they work. Note  
14 this year's electioneering. Oil and gas create  
15 massive financial reward, power, and influence; the  
16 reaping of rewards while avoiding punishments; keeping  
17 secrets; avoiding laws, rules, distrust,  
18 embarrassment, shame, guild, and condemnation from us.

19 To maintain all this requires creating  
20 illusions, fantasies, imagery that hide mistakes,  
21 errors, bad behaviors, and fear of failure with  
22 telling more lies. Lies are terrorist acts, more  
23 addictive than fentanyl, coke, tobacco, or booze.  
24 Lies destroy trust, they create chaos, and they  
25 promote nihilistic violence.

1 Failure is not an option, so laissez  
2 faire, anything goes until it does not. All this  
3 lying puts you and the rest of us in the crosshairs.  
4 Without black goo, capitalism would be just another  
5 Chamber of Commerce focus group.

6 We are here for you. For you,  
7 troubled, angry, and seasoned citizens from all walks,  
8 who have struggled through life's challenges to  
9 discover the values and complexities of civic,  
10 personal, professional, and planetary responsibility.  
11 Responsibility is our birthright. It reveals respect;  
12 fosters courage, dignity, strength, honor, and  
13 humility. This respect reveals truth, creates trust,  
14 empowers resolve to discover and cultivate wisdom,  
15 leading to reverence for life and earth, as our home  
16 and its gifts of peace, and come back.

17 We must pass this rule now and much  
18 more, to put our fingers in the toxin leaking dam of  
19 crude capital and drive our steel-toed boot in this  
20 toxic door. Reverse and revolutionize this cancerous  
21 culture now, not somewhere down the yellow brick road  
22 of intimidating fantasies. Lies work until they do  
23 not. Then things fall apart. Thank you.

24 THE HEARING OFFICER: Thank you, Mr.  
25 Nickel. Are there any other commenters in the room?

1 I do see two more on the platform, but if there's  
2 someone else in the room. Come on up, sir, in the  
3 gray. If you would, state and spell your name,  
4 please.

5 MR. MEYER: My name is Stephen Meyer,  
6 S-T-E-P-H-E-N M-E-Y-E-R. I live in Taos, New Mexico.

7 THE HEARING OFFICER: Do you swear or  
8 affirm to tell the truth?

9 MR. MEYER: I do.

10 MR. ORTH: All right. I'll start your  
11 three minutes.

12 MR. MEYER: I don't think I'll need  
13 three minutes. I'm a member of Renewable Taos, which  
14 is an advocacy group in Taos County, and I came here  
15 just to really understand what was going on with PFAS.  
16 And the issue that I would like you to consider is the  
17 trade secrets issue related to what the fracking fluid  
18 comprises.

19 And if we do nothing more than just  
20 have people tell us what is in this fluid, and not  
21 hide behind trade secrets, then I think we'll have a  
22 clearer path to -- to fix many of the problems that  
23 are -- that are occurring. Thank you.

24 THE HEARING OFFICER: Thank you very  
25 much, Mr. Meyer. Anyone else in the room before I go

1 back to the platform? Ma'am? If you would, state and  
2 spell your name.

3 MS. TRUJILLO: Mykayla Trujillo,  
4 M-Y-K-A-Y-L-A.

5 THE HEARING OFFICER: Okay. And do you  
6 swear or affirm to tell the truth?

7 MS. TRUJILLO: Yes.

8 THE HEARING OFFICER: I'll start your  
9 three minutes.

10 MS. TRUJILLO: Okay. I'm here  
11 representing La Milpa, which is a community garden and  
12 food justice organization here in Santa Fe, and I am  
13 here to express my concern about the PFAS use,  
14 especially as it's considered a trade secret or a lack  
15 of clarity that's expected for these companies to  
16 express to the people who live here in Santa Fe and  
17 New Mexico.

18 It's not a trade secret. It's a public  
19 health crisis. And more than that, it's an  
20 environmental justice crisis. Most of our water  
21 coming from groundwater here in New Mexico is directly  
22 impacted by the use of these chemicals, so it affects  
23 every single person who drinks water, as well as every  
24 single organism that uses water, which is all of life.

25 It's in our food, it's in our bodies.

1 There's not someone who's not affected or above this  
2 decision to keep it a secret from the public. And so  
3 this decision to allow the secrecy to continue will  
4 affect not only us right now, but for future  
5 generations and passed, you know, the terms that we  
6 serve and the policies that we get to control.

7 And I would also like to point out that  
8 I've been to a few public hearings and there hasn't  
9 been a lot of access in terms of language  
10 interpretation, and a lot of my coworkers have a lot  
11 of very valid points as a lot of New Mexicans speak  
12 Spanish -- and this is definitely a barrier to a lot  
13 of our access to health, and live healthy lives. So  
14 those are my concerns. Thank you.

15 THE HEARING OFFICER: Thank you, Ms.  
16 Trujillo. Anyone else in the room before we go back  
17 to the platform? No? All right. Sheila, would you  
18 take number 1 there. I think it was Patricia Leahan.  
19 All right. Would you state and spell your name, Ms.  
20 Leahan?

21 MS. LEAHAN: Sure. Pat Leahan. The  
22 last name is L-E-A-H-A-N.

23 THE HEARING OFFICER: All right. Do  
24 you swear or affirm to tell the truth?

25 MS. LEAHAN: I swear to tell the truth,

1 yes.

2 THE HEARING OFFICER: Thank you. And  
3 I'll start your three minutes.

4 MS. LEAHAN: Thank you. I'm  
5 representing the Las Vegas Peace and Justice Center  
6 here in Northeast New Mexico. Madam Hearing Officer  
7 Orth and members of the commission, speaking of  
8 telling the truth, just this morning as a result of  
9 investigations into the oil and gas industry, newly  
10 unearthed documents have come to light, including  
11 those from as far back as the 1950's. Theguardian.org  
12 published an article today about what was found.

13 Other earlier investigations showed the  
14 industry spent decades internally studying the  
15 consequences of their industry on our air, land, and  
16 water. One study from 2023 discovered that Exxon  
17 scientists made what was labeled "breathtakingly  
18 accurate predictions of global heating" in the 1970's  
19 and 1980's.

20 So what did the industry do next? They  
21 spent decades hiding what they found, while also  
22 sewing global doubts about climate science. So the  
23 basic takeaway? We now have further proof that the  
24 oil and gas industry has consistently been lying to  
25 us. They cannot be believed. They cannot be trusted.

1 Why would we give an entity like that such power?

2           You've heard from so many articulate  
3 speakers here today about the known hazards of PFAS,  
4 including of those already sick and those who live on  
5 sacred land that's been contaminated. The industry  
6 needs to be better monitored and regulated and should  
7 not be allowed to hide the truth from us. Their  
8 formula needs to be disclosed, as is done in  
9 California and Colorado. Why not New Mexico as well?  
10 And the PFAS chemicals need to be banned.

11           This water -- water came out of the  
12 spigots of homes in Denton County, Texas. A mayor of  
13 a city in Denton County, when he heard that the oil  
14 and gas industry had come looking in our pristine area  
15 here in Northern New Mexico, he drove here with his  
16 family and jars of this toxic water. This came out of  
17 the spigots of kitchens, in people's homes there.

18           He shared how his children are now  
19 sick, and he is on a mission to protect other  
20 children, our children and yours, Commissioners.  
21 Please do the same, care about the children. And  
22 remember that the industry's not telling us the truth,  
23 and they're not even telling you the truth. They just  
24 cannot be trusted.

25           In your hearts, Commissioners, you know

1 this. So please do the right thing. Lack of  
2 regulation is deadly, so ban PFAS and require full  
3 disclosure. Do it for your kids and they'll be deeply  
4 grateful some day for your decision on this issue.  
5 Thank you.

6 THE HEARING OFFICER: Thank you, Ms.  
7 Leahan. Sheila, if you would move to hand number 2  
8 there. This is Robin Schuett-Hames. If you would,  
9 please state and spell your name. You're muted.  
10 You're muted.

11 MS. SCHUETT-HAMES: Robin  
12 Schuett-Hames, R-O-B-I-N S-C-H-U-E-T-T, dash,  
13 H-A-M-E-S.

14 THE HEARING OFFICER: Do you swear or  
15 affirm to tell the truth?

16 MS. SCHUETT-HAMES: Yes, I do.

17 THE HEARING OFFICER: Thank you. I'll  
18 start your three minutes.

19 MS. SCHUETT-HAMES: Thank you,  
20 Commissioners. I live in rural Taos County, and I am  
21 unfortunately one of many people who are ill from what  
22 turns out to be environmental causes. I am very aware  
23 that there is a whole community of people suffering,  
24 often silently, throughout -- throughout New Mexico  
25 and the West.

1 I, you know, I was once a bright and  
2 enthusiastic college student with a wonderful future,  
3 and career, and public contributions awaiting me, and  
4 then I spent decades being often bedridden, homebound  
5 with strange ailments, pains, fatigue, thyroid  
6 disorders, infertility, inflammation, joint pain, and  
7 it was only after, you know, seeing literally hundreds  
8 of doctors that I began to make a connection between  
9 my own health, those of other friends and community  
10 members of mine, and environmental exposures.

11 And it's only recently that I've  
12 learned about the science relating to PFAS, and that  
13 PFAS are linked to my illness, including things that,  
14 well, in some ways are even worse, like cancer,  
15 thyroid cancers, and ulcerative colitis. And I'm  
16 watching my generation and the generation after mine  
17 be sicker and sicker. We're already losing people to  
18 cancer in our 30's, and I'm seeing people developing  
19 neuroinflammatory disorders like Alzheimer's in their  
20 50's.

21 I'm, you know, I'm not a scientist. I  
22 understand that science is complicated, and it is  
23 difficult for science to say that, with any certainty,  
24 that one chemical leads to one health ailment, but I  
25 do know this: We're seeing a pattern. And we have to

1 have the data.

2 We can't have this data obfuscated by  
3 secrecy, in order to bring these things to light, and  
4 study them, and begin to gain some idea about what is  
5 happening to our water, and whatever happens to our  
6 water happens to our bodies.

7 One thing I've learned from being sick  
8 all this time is that any illusion I had that my body  
9 or my life was separate from our water, our earth, and  
10 our air, is completely delusional.

11 THE HEARING OFFICER: Ms. Hames, would  
12 you wrap up, please?

13 MS. SCHUETT-HAMES: Yes. Thank you.  
14 So I -- I just want to say that above all, this is a  
15 moral issue, and you, Commissioners, have a profound  
16 responsibility to protect our water and our bodies for  
17 all New Mexicans. Thank you very much.

18 THE HEARING OFFICER: Thank you, Ms.  
19 Schuett-Hames. Sheila, if you would move to hand  
20 number 1 now, Nell Burrus, it looks like.

21 MS. BURRUS: Yes.

22 THE HEARING OFFICER: Hello. If you  
23 would state and spell your name?

24 MS. BURRUS: My name is Nell Burrus,  
25 N-E-L-L B-U-R-R-U-S.

1 THE HEARING OFFICER: Do you swear or  
2 affirm to tell the truth?

3 MS. BURRUS: Yes, I do.

4 THE HEARING OFFICER: Thank you. I'll  
5 start your three minutes.

6 MS. BURRUS: Good morning, Madam  
7 Chairperson and Commissioners. Thank you for your  
8 time. My name is Nell Burrus, a retired APS teacher,  
9 here to ask the New Mexico Oil and Gas Commission to  
10 ban the use of PFAS, particularly in fracking, since  
11 that process can introduce PFAS chemicals into our  
12 life-sustaining groundwater. In New Mexico, there are  
13 approximately four spills a day of fracking wastewater  
14 from the oil and gas industry, which adds to the risk  
15 of drinking water contamination.

16 This is a relatively new topic for me,  
17 and to understand it better I decided to compare PFAS  
18 chemicals to DDT, a now-banned toxic chemical I  
19 remember from my childhood. DDT has a half-life of 2  
20 to 15 years, which means about half of it breaks down  
21 within that timeframe. PFAS, on the other hand, are  
22 reported to last thousands of years. They do not  
23 break down easily.

24 The State of New Mexico has set a  
25 standard for DDT in drinking water that it should not

1 exceed 2 micrograms per liter. A microgram is very  
2 small, but a nanogram is 1,000 times smaller than a  
3 microgram. So doing the conversion, 2,000 nanograms  
4 per liter is the New Mexico standard for DDT in  
5 drinking water.

6 Let's compare 2,000 nanograms per liter  
7 for DDT to the EPA standards for PFAS chemicals in  
8 drinking water. The EPA standard for PFOA is seven  
9 one-thousandths of a nanogram per liter. That's 0.007  
10 nanograms per liter. And for another chemical in this  
11 same class, PFOS, the standard is 1 nanogram per  
12 liter. Compared to 2,000 nanograms for DDT.

13 It is questionable whether there is any  
14 safe level, since at even a very, very low level there  
15 is documented link to kidney and testicular cancer, as  
16 well as other health problems, which have already been  
17 mentioned. The takeaway for me is that PFAS chemicals  
18 last way longer than toxic chemicals that the U.S. has  
19 banned, and that even very, very low concentrations of  
20 PFAS in drinking water are very dangerous.

21 We should not allow companies to  
22 obscure their use of PFAS and their attempt to avoid  
23 regulation. We need to know when and where these  
24 chemicals have been and are being used. Thousands of  
25 years of health and environmental impacts is too big

1 of a risk to take for the sake of profits.

2 Physicians for Social Responsibility  
3 has carefully laid out the science of why we should  
4 stop using PFAS and why we should greatly expand the  
5 disclosure requirements for PFAS use, especially in  
6 fracking operations.

7 I hope you have read every word of that  
8 report, the 2023 report. To me their recommendations  
9 seem logical, sensible, and urgent. Let's follow the  
10 lead of Colorado and other states that have already  
11 taken the necessary steps to protect residents from  
12 these dangerous chemicals. Thank you for your time.

13 THE HEARING OFFICER: Thank you, Ms.  
14 Burrus. I see another hand. I believe it's Rayellen  
15 Smith?

16 MS. SMITH: Hello, yes.

17 THE HEARING OFFICER: Hello. If you  
18 would state and spell your name, please?

19 MS. SMITH: Rayellen Smith,  
20 R-A-Y-E-L-L-E-N, last name Smith, S-M-I-T-H.

21 THE HEARING OFFICER: Do you swear or  
22 affirm to tell the truth?

23 MS. SMITH: I do.

24 THE HEARING OFFICER: I'll start your  
25 three minutes.

1 MS. SMITH: Thank you, members of the  
2 commission. I am the President of Indivisible  
3 Albuquerque and Reboot Our Democracy. I represent  
4 2,500 activists statewide who are all very interested  
5 in this issue, and we are mad.

6 For almost 20 years, U.S. public health  
7 advocates have worried that toxic chemicals are  
8 getting into groundwater and harming human health  
9 because of an exemption to the Federal Safe Water  
10 Drinking Act that allows operators of oil and gas  
11 fracking operations to use chemicals that would be  
12 regulated if used for any other purpose. The  
13 so-called Halliburton loophole means that the industry  
14 can use fracking fluid containing chemicals linked to  
15 negative health effects, and we've heard many people  
16 giving testimony about that, without being subject to  
17 regulation under the Act.

18 So this makes poisoning Americans  
19 legal. This has to be fixed, and you can fix it.  
20 Fracking companies can keep data about dangerous  
21 chemicals from state regulators and the public in all  
22 but two states. California and Colorado require all  
23 chemicals to be disclosed, even those that frackers  
24 claim are trade secrets. Twenty-four other states  
25 have disclosure laws but allow frackers to keep their

1 secrets to themselves.

2 From 2014 through 2021, 62 to 73  
3 percent of reported fracks each year used at least one  
4 chemical that the Safe Water Drinking Act recognizes  
5 as detrimental to human health and the environment.  
6 If not for the Halliburton loophole, these projects  
7 would have been subject to permitting and monitoring  
8 requirements, providing information for local  
9 communities about this potential risk.

10 In total, fracking companies reported  
11 using 282,000,000 pounds of chemicals that would  
12 otherwise be regulated under the Safe Water Drinking  
13 Act through 2021. This is likely an underestimate,  
14 since the information is self-reported and only covers  
15 23 states.

16 It's unconscionable to me that New  
17 Mexico would allow chemical disposition of fracked  
18 water, we don't know what's in it, and in any  
19 circumstance. Until the Federal Government overturns  
20 the Halliburton rule, which isn't very likely, and  
21 goes back to supporting the Clean Water Act, we run  
22 the risk of killing New Mexicans, wildlife, whole  
23 scale ecologies, and our children. We can fix it.  
24 It's easy.

25 I'm pretty confident when I say that no

1 oil and gas company executive would ever allow these  
2 trade secrets to be disposed of in their water supply,  
3 put in their glass of water, put in their swimming  
4 pool. So why don't the rest of us matter?

5 Members of this Committee need to think  
6 about the broader implications to our water supply and  
7 insist on disclosure laws requiring full disclosure of  
8 all chemicals, including the super-dangerous PFAS  
9 being discussed today. Thank you for your time.  
10 Protect us. It's your job.

11 THE HEARING OFFICER: Thank you, Ms.  
12 Smith. Let me ask if there's anyone else on the  
13 platform who is present to offer public comment.  
14 Please raise your hand on that platform. I don't see  
15 any more hands. All right. Let me make another sweep  
16 of the room here. Is there anyone else in the room  
17 who is here to offer public comment? There will be  
18 lots of other opportunities this week, tomorrow,  
19 Thursday, Friday.

20 All right. Let me just get  
21 confirmation maybe from Counsel that this would  
22 actually be a better time to take a lunch break than  
23 to leap into opening statements? Yeah. If we come  
24 back at one o'clock, is that enough time to --

25 MR. BARRAZA: Hello. Are we -- does

1 that include those of us who called in?

2 THE HEARING OFFICER: Yes. I hear a  
3 voice. Hold on one second. Is this -- no. Okay.

4 MR. BARRAZA: I called in.

5 THE HEARING OFFICER: So I see -- yes I  
6 see a phone number ending in 7751. Sir, if you would  
7 identify yourself, please?

8 MR. BARRAZA: Yes. This is Xavier  
9 Barraza. X-A-V-I-E-R, last name's B-A-R-R-A-Z-A.

10 THE HEARING OFFICER: Okay. Thank you  
11 for that. Do you swear or affirm to tell the truth?

12 MR. BARRAZA: Absolutely.

13 THE HEARING OFFICER: All right. I'm  
14 going to start your three minutes.

15 MR. BARRAZA: Thank you. I'm calling  
16 also on behalf of Los Jardines Institute, that's the  
17 Gardens Institute here in Albuquerque, New Mexico,  
18 which is a historical organization working on issues  
19 of environmental and economic issues and injustices.

20 So much has been said, and thank you,  
21 Hearing Examiner, and those listening, and those who  
22 have spoken. Because I'm not sure what else to say.  
23 But what I will say is I did a quick research on the  
24 news around PFAS, and I'm just going to -- these  
25 are -- this is all within the last couple of months.

1 "PFAS forever chemicals found in South  
2 Florida rain. Over 21 types of PFAS forever chemicals  
3 have been found in South Florida's rainwater." That's  
4 the Sun Sentinel. The Atlanta Journal just in the  
5 last couple of days, "Georgia judge lets forever  
6 chemicals lawsuits over wastewater sludge advance."

7 Let's keep going, because  
8 there's -- there's dozens and dozens. The Montpelier,  
9 "Delays costly PFAS solution for wastewater plant," in  
10 this looks like Minnesota. Everyone uses Miracle-Gro.  
11 Well there was PFAS in Miracle-Gro, the lawsuit,  
12 versus Scotts and GreenTechnologies, which just closed  
13 on October 28th, was sued because there was PFAS from  
14 sewage sludge in the Miracle-Gro. So watch your  
15 Miracle-Gro, folks.

16 "Forever chemicals reach extraordinary  
17 levels in wildlife at Holloman Air Force Base."  
18 Hunters are told not to shoot or kill wildlife near  
19 Holloman Air Force Base in Alamogordo, New Mexico,  
20 because of PFAS. Brown University, "Using personal  
21 care products during and after pregnancy can increase  
22 exposure to toxic PFAS chemicals, especially in people  
23 who are pregnant or lactating." EHN, "Maine has  
24 invested over \$200,000,000 in PFAS litigation,  
25 prioritizing the safety of local foods, while many

1 other states lag in protections."

2 Let's keep going, because there's tons.  
3 "Register today for the upcoming virtual Great Lakes  
4 PFAS Summit. 1,147 registrants from 46 states are  
5 gathering to talk about PFAS in the Great Lakes.  
6 Let's keep going. "Brunswick Group organizing to do  
7 widespread PFAS screening in the wake of a toxic foam  
8 spill," because PFAS levels are through the roof in  
9 Maine.

10 Let's keep going. "Processors ditching  
11 PFAS," so this is microchip processors, "are ditching  
12 PFAS to create PFAS-free products in future microchip  
13 processors, because the costs are getting too high to  
14 use PFAS, a.k.a. litigation and getting sued, and  
15 disclosures. "PFAS chemicals are in young adults and  
16 may harm bacteria, leading to reduced kidney  
17 function." This is from the Environmental Health  
18 Network, published November 7, 2024.

19 Let's keep going. "Banning PFAS  
20 forever chemicals in Massachusetts will protect our  
21 health." This is from MASSPIRG, the local news outlet  
22 in Massachusetts who's trying to ban PFAS from  
23 drinking water. Let's keep going. "PFAS may affect  
24 kidneys via micro gut biomes and blood metabolites."  
25 This is from Medscape, from November 12, 2024.

1 THE HEARING OFFICER: Sir. Would you  
2 wrap up, please?

3 MR. BARRAZA: Yeah. I could keep  
4 going. There's probably about another 42 or so  
5 articles I pulled up that involve PFAS in other  
6 communities around the nation, really concerned about  
7 this issue, so we're not alone. Oil and gas is not  
8 the only industry poisoning ourselves, each other,  
9 themselves with PFAS. This is a major issue.

10 Ms. Hearing Examiner and others, thank  
11 you for your due diligence in not allowing this any  
12 further as many other states, and localities, and  
13 governments are not, as well. Thank you.

14 THE HEARING OFFICER: Thank you very  
15 much. And if you'd like to submit the rest of your  
16 comment in writing, we'd be happy to include it as  
17 part of the record. Sheila, would you go to that  
18 hand, please? Bianca Sopoci-Belknap, I think. Can  
19 you hear my voice?

20 MS. SOPOCI-BELKNAP: I can. Can you  
21 hear me?

22 THE HEARING OFFICER: Yes. If you  
23 would, please state and spell your name for the  
24 record.

25 MS. SOPOCI-BELKNAP: I'm actually not

1 wanting to give public comment. I work for one of the  
2 parties that's intervened in this case. But I'm  
3 wanting clarification, because it was our  
4 understanding that public comment would resume after  
5 the lunch break if there are public commenters, and I  
6 know of several folks who are planning to comment in  
7 the afternoon. So I just wanted to clarify. I heard  
8 you talking about going to opening statements after  
9 lunch, so --

10 THE HEARING OFFICER: Yes. I'm going  
11 to keep taking public comment for so long as it is  
12 here to be given, and again, there will be lots of  
13 opportunities, this afternoon, tomorrow morning,  
14 tomorrow afternoon, every morning and every afternoon  
15 really. But when I believed that there was no more to  
16 be given, I was going to get the jump on a lunch break  
17 and opening statements. And now I'm seeing hands  
18 again.

19 We do have to take a lunch break. When  
20 we come back, if there are folks in the room or on the  
21 platform still around to give public comment, I will  
22 invite it at that point. All right. Shall we take  
23 one more comment, then, from -- let's see -- Mary  
24 Martinez-White?

25 MS. MARTINEZ-WHITE: Yes. Thank you

1 very much. Can you hear me?

2 THE HEARING OFFICER: Yes. If you  
3 would state and spell your name, please?

4 MS. MARTINEZ-WHITE: Certainly. My  
5 name is Mary Martinez-White, and I'm Native Nuevo  
6 Mexicana. Thank you to the oil --

7 THE HEARING OFFICER: Hold on. Do you  
8 swear or affirm to tell the truth?

9 MS. MARTINEZ-WHITE: Yes, I do.

10 THE HEARING OFFICER: And I'll start  
11 your three minutes.

12 MS. MARTINEZ-WHITE: Thank you to the  
13 Oil Conservation Commission for your public service  
14 and for taking these comments. I urge you to approve  
15 the application to amend the commissions rules to  
16 address PFAS, case number 23580.

17 In New Mexico, 80 percent of our water  
18 comes from groundwater. Our cultures and traditions  
19 are intertwined with water, land, and the environment.  
20 None of us takes kindly to the abuse of our beloved  
21 state of the harming of our children and the  
22 degradation of the health in each and every one of us.  
23 Mega corporations hide behind trade secrets, and we  
24 all know that. Those who refuse to hold them  
25 accountable are complicit in the harm caused by profit

1 at any price.

2 Profiteers must understand that New  
3 Mexico is not their dumping ground, and we will not be  
4 a sacrifice zone to their economic gain. I support a  
5 100 percent ban on any use of PFAS and PFOA in New  
6 Mexico or elsewhere, but relative to this meeting I  
7 support the prohibition on PFAS and PFOA chemicals in  
8 oil and gas operations in New Mexico, and I ask that  
9 we require a ban on these chemicals in order to  
10 prevent them from contaminating our water and our  
11 land.

12 The question is why would we ever make  
13 anything that would be a forever problem? PFAS is  
14 linked to kidney cancer, testicular cancer, thyroid  
15 disease, high cholesterol, preeclampsia, and  
16 ulcerative colitis. These forever chemicals  
17 accumulate in our land, in our water, and in our  
18 bodies. Our children deserve to be protected from  
19 this dangerous exposure.

20 Exposure to toxic chemicals like PFAS  
21 and PFOA are a serious public health risk and cancers  
22 are increasing in our children because of increased  
23 exposure compared with previous generations. PFAS and  
24 PFOA fluids can migrate to rivers and aquifers. OCC  
25 must prohibit PFAS in oil and gas operations because

1 without a prohibition there's no guarantee that  
2 contamination of our drinking water will not occur.

3 Because more than 3,600 New Mexico  
4 wells have already been contaminated, the harm is  
5 already being done. To stem the tide, the OCC should,  
6 at a minimum, set rules in place governing oil and gas  
7 drilling to prevent these contaminations. Requiring  
8 those disclosure requirements does not make us safe,  
9 but disclosure is a minimal step in the right  
10 direction.

11 Again thank you for the opportunity to  
12 provide comment, and we ask you to be guardians of our  
13 wellbeing by passing a prohibition of the use of PFAS  
14 and PFOA chemicals in oil and gas operations.

15 THE HEARING OFFICER: Thank you, Ms.  
16 White. We'll take one more comment. I see a hand,  
17 NS. Let's see. Nancy Singham?

18 MS. SINGHAM: That's me.

19 THE HEARING OFFICER: Hello. If you  
20 would state and spell your name of the record?

21 MS. SINGHAM: Nancy Singham. It's  
22 spelled N-A-N-C-Y. Singham is S as in Sam,  
23 I-N-G-H-A-M.

24 THE HEARING OFFICER: Do you swear or  
25 affirm to tell the truth?

1 MS. SINGHAM: I do.

2 THE HEARING OFFICER: Thank you. I'll  
3 start your three minutes.

4 MS. SINGHAM: Thank you, Commissioners.  
5 I'm a retired kindergarten teacher, I'm 75 years old,  
6 and yet I have a very vivid memory of two small events  
7 from my childhood I'd like to share.

8 One must have dated from about 1957 or  
9 so. I was standing next to my dad in our plot at the  
10 neighborhood garden as he was dusting his garden with  
11 a hand-cranked metal cannister duster, which certainly  
12 contained DDT to kill insect pests. By the way, the  
13 products from this era carried tradenames from their  
14 oil company manufacturers such as, I looked it up,  
15 "Shell Tox Aerosol," and "Standard Oil Aerosol Insect  
16 Killer."

17 A few short years later, maybe 1962 or  
18 1963, I distinctly remember my mom, who was an avid  
19 bird watcher, telling me about a shocking new book she  
20 was reading by a scientist named Rachel Carson, about  
21 how the chemical DDT was causing eagle eggs to crack  
22 and species numbers to plummet.

23 Now the point of these reminiscences is  
24 this: Through my entire lifetime, we have been  
25 affected by multiple examples of products and

1 processes launched for profit with deceptive and false  
2 promises, without testing or without concern for the  
3 health impacts on people, air, water, and land,  
4 leaving us, the victims, to belatedly resist in  
5 hearings such as this one.

6           Jumping to the present, knowing as I do  
7 that New Mexico has already allocated every drop of  
8 water available, I took note of a recent article  
9 referencing a major study in the respected journal,  
10 "Science." It's the -- with the headline, "Millions  
11 of People in Lower 48 States May Be Relying on PFAS  
12 Contaminated Groundwater for Drinking."

13           This is a really long, complicated  
14 study that appeared in Science Magazine, October 24th  
15 of this year, so I urge you to have a look at it.  
16 They studied both deeper community wells as well as  
17 shallower private wells used for drinking water, where  
18 their models results indicated that 71 to 95 million  
19 people in the United States potentially rely on  
20 groundwater with detectible concentrations of PFAS for  
21 their drinking water supplies.

22           And they also listed, in great detail,  
23 24 -- they were looking for 24 different PFAS type  
24 products, and looking for sources. And their sources  
25 included airports, plastic and resin manufacturing

1 plants, oil and gas extraction sites, refineries,  
2 power plants, mining operations, fire training areas,  
3 national defense sites, and at least a dozen more.

4 The danger of drinking water  
5 contamination by PFAS use in oil and gas drilling is  
6 real. We need to learn from history before it's too  
7 late. So I support a prohibition on PFAS and PFOA in  
8 oil and gas operations and a requirement to disclose  
9 chemicals used in these operations. Thank you very  
10 much.

11 THE HEARING OFFICER: Thank you, Ms.  
12 Singham. I will -- one more, and if anyone else is on  
13 the platform wishing to offer public comment, I'll  
14 invite you to rejoin us at 1:15. But for right now,  
15 we're going to hear from Ryan Tate. Ryan Tate?

16 MR. TATE: Hi, how are you doing?  
17 Sorry about that.

18 THE HEARING OFFICER: Hello. Hi.  
19 That's all right.

20 MR. TATE: Hi.

21 THE HEARING OFFICER: If you would  
22 state and spell your name, please?

23 MR. TATE: Of course I can. It's going  
24 to be R-Y-A-N T-A-T-E.

25 THE HEARING OFFICER: Thank you. And

1 do you swear or affirm to tell the truth?

2 MR. TATE: Yes, I do.

3 THE HEARING OFFICER: All right. I'll  
4 start your three minutes.

5 MR. TATE: Wonderful. Thank you very  
6 much. So my full title is Reverend Ryan Tate, and I  
7 am actually the youth minister at First Congregational  
8 United Church of Christ. I am also the head pastor at  
9 the First Spiritual Church of the Rio Grande in  
10 Albuquerque, New Mexico.

11 Now environmental contamination is a  
12 violation of land autonomy. We walk on the soft  
13 dirt-laden belly of a family member, the mother of us  
14 all -- separable or your destiny is separate from her.  
15 When speaking of PFAS, I believe we must ask ourselves  
16 if we would consent to the unregulated disposal of  
17 these forever chemicals into our very own bodies.  
18 Would we allow our own government officials and  
19 corporate overseers to hook us up to an IV filled with  
20 these carcinogenic mutagens as we helplessly watch on?

21 We live in a country with a tenuous  
22 grasp of bodily autonomy and dissonant understandings  
23 of ownership and possession. We see it play out in  
24 how we treat our most vulnerable and how we treat the  
25 earth. Would you allow your own mother to be forced

1 to take the IV of these PFAS on behalf of the few?  
2 Would you at least want her to speak or give her the  
3 chance to do so?

4 In the scenario we're entertaining, an  
5 earth without autonomy, we would not listen to her  
6 cries, we would ignore her plight, and instead subject  
7 the earth and our mothers, and all living things, to  
8 the dangers of PFAS. These are particularly nefarious  
9 when entering our waterways in an already ecologically  
10 vulnerable environment which is the Southwest.

11 Water is life and water is the gateway  
12 that links our past, present, and future. Our  
13 children will drink the poison of our actions if we do  
14 not act now. It is a spiritual imperative that we  
15 take care of one another, as well as all living  
16 beings.

17 That means stricter environmental  
18 regulations for forever chemicals and other  
19 long-lasting contaminants, and for the companies,  
20 corporations, and government entities that produce  
21 them, as well. And that is the end of my statement.

22 THE HEARING OFFICER: Thank you very  
23 much, Reverend Tate. Great.

24 MR. TATE: Thank you. Have a good day.

25 THE HEARING OFFICER: Thank you. We

1 are going to break for lunch now. We'll return at  
2 1:15. If there is more public comment to be given, we  
3 will take it. Otherwise, we will move to opening  
4 statements. Thank you all.

5 (Off the record.)

6 THE HEARING OFFICER: Let's come back  
7 from the lunch break, please. All right. We broke  
8 from lunch. We are back now. First let me ask in the  
9 room, is there anyone here who would like to offer a  
10 public comment who has not already commented? No.  
11 All right. Is there anyone on the platform who would  
12 like to offer public comment who has not already  
13 commented? Please raise your hand. I see AR. And  
14 this is Anna Rondon?

15 MS. RONDON: Yes.

16 THE HEARING OFFICER: Would you state  
17 and spell your name, please?

18 MS. RONDON: I'm Anna Rondon, A-N-N-A  
19 R-O-N-D-O-N.

20 THE HEARING OFFICER: Thank you. Do  
21 you swear or affirm to tell the truth?

22 MS. RONDON: Yes, I do.

23 THE HEARING OFFICER: All right. I  
24 will start your three minutes.

25 MS. RONDON: Thank you. Dear Members

1 of the New Mexico Oil and Gas Commission, my name is  
2 Anna Rondon and I stand before you as an indigenous  
3 woman, Navajo woman, deeply committed to protection  
4 and wellbeing of our communities. I am here to urge  
5 the full disclosure of PFAS contents in our water  
6 sources, and to highlight the critical need for  
7 transparency and accountability.

8           Throughout history, and in particularly  
9 United States history, there has been significant and  
10 tragic incidents where industries have withheld  
11 crucial information from the public resulting in  
12 severe health consequences. The tobacco industry's  
13 failure to disclose the addictive chemicals in  
14 cigarettes stands as a stark reminder of devastating  
15 impacts that a lack of transparency can have.

16           Despite clear evidence of the harm, the  
17 tobacco industry chose profit over people's lives,  
18 leading to the widespread addiction, illness, and  
19 death. The people won major lawsuits with this  
20 industry, and any industry that has posed damage and  
21 harm to our people should have lawsuits filed.

22           We now face a similar threat with PFAS,  
23 often referred to as forever chemicals, due to their  
24 persistence in their environment and the body. PFAS  
25 contamination has been linked to numerous health

1 issues, including cancer, liver damage, and  
2 developmental problems. As these chemicals infiltrate  
3 our water supplies, the health and safety of New  
4 Mexico residents are at risk.

5 It is imperative that New Mexico's Oil  
6 and Gas Commissioners take decisive action to protect  
7 its citizens. We demand full disclosure of PFAS on  
8 tainting our water sources. The public has a right to  
9 know what's in their water, and transparency is the  
10 first step towards addressing and mitigating this  
11 serious issue. The parallels between the tobacco  
12 industry's past actions and the current situation with  
13 PFAS are very clear. Both involve the concealment of  
14 dangerous substances and their resulting harm to the  
15 public health.

16 As an indigenous woman, a Kin Ya'aanii  
17 Clan woman, I am acutely aware of the profound  
18 connection between communities and the land and water  
19 that sustains us. We have a responsibility to  
20 safeguard these resources for future generations, and  
21 we must be protected from the effects of PFAS. I urge  
22 the New Mexico Oil and Gas Commissioners, I plead with  
23 you, to prioritize transparency, accountability, and  
24 public health.

25 Let us not repeat the mistakes of the

1 past. Full disclosure of PFAS contents is not just a  
2 necessity, it's a moral imperative. Thank you for  
3 your attention and the commitment in the oath that you  
4 took as Commissioners to stand for the citizens of New  
5 Mexico. In beauty it shall be. Ahehee. Thank you.

6 THE HEARING OFFICER: Thank you, Ms.  
7 Rondon. Is there anyone else on the platform who  
8 would like to offer a public comment now? There will  
9 be more opportunities tomorrow, Thursday, and Friday.  
10 I don't see -- Sue Schuurman?

11 MS. SCHUURMAN: Can you hear me?

12 THE HEARING OFFICER: Yes. Would you  
13 state and spell your name for the record, please?

14 MS. SCHUURMAN: Sure. Thank you very  
15 much. My first name is Susan, S-U-S-A-N, and my last  
16 name is Schuurman, S-C-H-U-U-R-M-A-N.

17 THE HEARING OFFICER: Do you swear or  
18 affirm to tell the truth?

19 MS. SCHUURMAN: Yes, I do.

20 THE HEARING OFFICER: I'll start your  
21 three minutes.

22 MS. SCHUURMAN: Sure. Thank you very  
23 much. I just have a very brief statement. I would  
24 like to urge the OCC to take the reasonable step to  
25 require companies to disclose what chemicals are in

1 the drilling fluid, because the health of workers and  
2 everyone who drinks water is at risk. PFAS is just  
3 too dangerous in tiny amounts not to take this  
4 protective action. Thank you very much.

5 THE HEARING OFFICER: Thank you very  
6 much. Anyone else on the platform interested in  
7 offering public comment at this time? All right. In  
8 that case, we are going to turn to the technical case,  
9 consistent with the public notice of this matter.

10 And Sheila, before I forget, if you  
11 would please, if someone else gets on the platform and  
12 asks when they might be able to make public comment,  
13 please tell them I won't invite it again until after  
14 the first technical witness, and if they want a more  
15 time certain, they can join us at 8:30 tomorrow  
16 morning.

17 MS. APODACA: Okay. Thank you.

18 THE HEARING OFFICER: All right. So we  
19 have five -- six parties, excuse me, with EOG, and  
20 each party is allotted 20 minutes for an opening  
21 statement. You may make your opening statement right  
22 now or you may reserve it. Certainly, I think NEE's  
23 going to reserve, as I don't believe they're with us  
24 right now. Mr. Davis, would you like to start?

25 MR. DAVIS: I would. Thank you, Madam

1 Hearing Officer. Good afternoon, Commissioners. My  
2 name is Tim Davis. I represent WildEarth Guardians.  
3 And the petition that you accepted asked a very simple  
4 question of you. It asked you to ban the use of PFAS  
5 substances in downhole operations, and then it  
6 requests full disclosure of all chemicals that are  
7 used in downhole operations in order to enforce that  
8 ban.

9           And if we don't know the chemicals that  
10 are going down hole, then we can't be certain that  
11 those chemicals are not PFAS. This proposed rule is  
12 rooted in the fact that PFAS poses a serious public  
13 health threat and an environmental threat. It also  
14 recognizes that as the law currently stands,  
15 regulators do not know all chemicals that are being  
16 used in downhole operations, and neither does the  
17 public.

18           It is important to note that Guardians'  
19 proposed rule does not require the disclosure of trade  
20 secret chemicals. It simply prohibits the use of  
21 undisclosed chemicals. So in other words, it puts a  
22 choice to the holder of the trade secret. They can  
23 either disclose it and use it or they can keep it as  
24 undisclosed but not use it in New Mexico.

25           The oil and gas industry is currently

1 disclosing a significant amount of chemical  
2 information per the regulations that we have right  
3 now, and they're disclosing that on the FracFocus  
4 database. And in an op-ed that NMOGA submitted on  
5 Saturday to the Santa Fe New Mexican, they recognized  
6 the fact that they're already disclosing chemicals in  
7 the FracFocus database. But in this same op-ed, NMOGA  
8 misrepresents the law and misleads the public into  
9 believing that all chemicals are disclosed,  
10 conveniently leaving out that current disclosures  
11 include chemicals whose names and chemical abstract  
12 numbers are withheld as proprietary.

13           Obviously if there was already a  
14 requirement for full chemical disclosure in New  
15 Mexico, like there is in California and Colorado, we  
16 wouldn't be here today asking you to require it. In  
17 order to carry out our proposed provisions to ban PFAS  
18 and undisclosed chemicals in downhole operations,  
19 we've also included proposed changes to the  
20 definitions and adopted proposed redlines from OCD  
21 that are related to testing for groundwater  
22 contamination, and we've also included proposed  
23 community notification provisions.

24           And again I'd like to make clear that  
25 Guardians' request is to ban PFAS and undisclosed

1 chemicals in all downhole operations. And my  
2 experience with these rulemaking hearings is that I  
3 often learn during the course of the hearing. And so  
4 acknowledging that, I'd also request that Guardians  
5 has an opportunity to present a final proposed redline  
6 rule to the commission to ensure that our proposed  
7 redline does carry out our intent here, which is to  
8 ban all PFAS in downhole operations and ban all  
9 undisclosed chemicals in downhole operations.

10 So I'd like to briefly just state that  
11 you have statutory authority to adopt our proposed  
12 regulation, and that is in the rulemaking provisions  
13 powers that you're given under 70-2-12(B)(15) relating  
14 to the regulation of produced water, as well as  
15 subsections 21 and 22 related to the regulation of  
16 nondomestic waste.

17 You will hear from three technical  
18 witnesses from Guardians. First, you'll hear from  
19 Dusty Horwitt, and Mr. Horwitt is in the hearing room  
20 with us today. He's a lawyer and the author of seven  
21 reports related to the use of PFAS and loopholes which  
22 prevent full disclosure of chemicals used in oil  
23 operations, including a report focused on New Mexico.

24 His testimony draws on his reports and  
25 his research to explain that the use of PFAS has

1 already been disclosed by oil and gas operators in New  
2 Mexico, gaps exist in our chemical disclosure  
3 reporting requirements, and that these gaps prevent  
4 regulators and the public from knowing all chemicals  
5 that are used in oil and gas downhole operations,  
6 including ones that may not start off as PFAS but  
7 could break down into PFAS. Mr. Horwitt's testimony  
8 further explains that other states have closed similar  
9 data gaps.

10           You will also hear from Professor John  
11 Speer. He's a professor of civil and environmental  
12 engineering at the Colorado School of Mines, and his  
13 specialty is subsurface environmental microbiology.  
14 His testimony explains that oil and gas wells will  
15 eventually leak at some point, and this is due to  
16 microbial-induced corrosivity, seismicity, or a  
17 combination of those two factors, and that this  
18 requires indefinite retention of the disclosed  
19 chemical information.

20           Dr. Speer also explains that the  
21 subsurface is alive and is an ecosystem itself, and  
22 that should also be protected from PFAS and  
23 undisclosed chemicals. We should at least know what  
24 we are putting down hole. His testimony further shows  
25 that chemicals used in downhole operations can spread

1 through fate and transport processes, and that deep  
2 strata can and do communicate with shallower strata.  
3 Dr. Speer will also appear in person.

4 Next you will hear from Dr. David  
5 Brown. He's a public health toxicologist. He has  
6 extensive experience working on public health issues  
7 affecting communities in the Marcellus Shale oil and  
8 gas fields, and has co-led several studies of oil and  
9 gas impacts on communities at the Southwest  
10 Pennsylvania Environmental Health Project.

11 Dr. Brown's testimony focuses on the  
12 toxicity of PFAS, the need for complete chemical  
13 disclosure from a public health standpoint, and the  
14 public health lessons learned from the Marcellus  
15 Shale. Dr. Brown will appear on the Microsoft Teams  
16 platform.

17 We also have one fact witness. That is  
18 Melissa Troutman. Ms. Troutman is the climate and  
19 energy advocate with WildEarth Guardians, where she  
20 works with communities and individuals impacted by oil  
21 and gas spills and emissions. Her testimony is a  
22 compilation of state held data. This data comes from  
23 OCD databases and acknowledges that fluid spills can  
24 and do happen, and at times these spills affect our  
25 freshwater resources.

1                   Because fluid spills can contain  
2                   contaminant used in downhole operations and are a  
3                   potential pathway to exposure, Guardians submitted Ms.  
4                   Troutman's testimony to make sure this state data is  
5                   part of the record in this proceeding. Mr. Troutman  
6                   also references an NED webpage, where the Environment  
7                   Department acknowledges that 78 percent of us get our  
8                   drinking water, in New Mexico, from groundwater  
9                   sources.

10                   Because the overwhelming majority of  
11                   New Mexicans get our drinking water from groundwater,  
12                   we should know the universe of potential contaminants  
13                   when a spill occurs or when the integrity of a well is  
14                   in question. Also note that WildEarth Guardians  
15                   exhibit 7 is the New Mexico Bureau of Geology and  
16                   Mineral Resources report entitled "Climate Change in  
17                   New Mexico Over the Next 50 Years Impacts on Water  
18                   Resources." As the report acknowledges, our  
19                   freshwater resources are only going to become more  
20                   scarce through climate change.

21                   I'd like to briefly talk about the fact  
22                   that what we're asking for is already law in  
23                   California and Colorado. California and Colorado both  
24                   require full chemical disclosure in the oil field  
25                   without regard to trade secrets. Those laws are

1 WildEarth Guardians exhibits 4 and 5, and just like  
2 the proposed rule, require full disclosure.

3 This means that each individual  
4 chemical in a chemical product that's used in  
5 California and also in Colorado must be disclosed.  
6 And if that same chemical product is used in New  
7 Mexico, it does not have to be disclosed. In New  
8 Mexico, those chemicals could be claimed as  
9 proprietary, and this rule seeks to change that. We  
10 ask that New Mexicans are afforded the same  
11 protections and access to chemical safety data that  
12 Californians and Coloradans already have.

13 I'd like to touch briefly again about  
14 the op-ed that was published on Saturday by NMOGA,  
15 just to clear up what I think is something that is  
16 probably misleading. The op-ed stated that "the  
17 industry is already required by law to report their  
18 chemical usage and ensure that PFAS are not  
19 intentionally utilized while protecting proprietary  
20 information and trade secrets, to keep American  
21 companies competitive." There is no PFAS ban in New  
22 Mexico. There is no requirement for full chemical  
23 disclosure in New Mexico.

24 As I think some of the commenters  
25 pointed out this morning, before the governor was

1 elected, she made a promise, and that campaign promise  
2 was that as governor she would "require the mandatory  
3 disclosure of what chemicals are used in hydraulic  
4 fracturing to better protect groundwater." That was  
5 in 2018, released during her gubernatorial campaign.  
6 And this proposed rule is aligned with that campaign  
7 promise. And it's an opportunity to further  
8 groundwater protections in New Mexico.

9           Next I'd like to just address some of  
10 the arguments that NMOGA made in their prehearing  
11 statement. First there is an argument that Guardians  
12 is seeking to somehow conflate produced water with  
13 nondomestic waste or change the definition of produced  
14 water. We are not doing that. If wanted to do that,  
15 we would have included a change in those definitions  
16 in our redline. So I just want to make clear that  
17 that is not what we're trying to do, and I don't think  
18 we need to spend any time on that at this hearing.

19           Second, one of NMOGA's witnesses  
20 alleges that full chemical disclosure could cause  
21 something called "chemophobia." That's a type of  
22 anxiety among communities in areas of oil and gas  
23 extraction. Interestingly, however, NMOGA does not  
24 argue that chemophobia already exists. After all,  
25 partial disclosure is already happening on FracFocus.

1 It's hard to understand how full chemical disclosure  
2 would be so much scarier than partial disclosure or  
3 how it would somehow lead to an epidemic of anxiety.

4 The bottom line is the public should  
5 have a right to know what chemicals they are  
6 potentially exposed to so they can make the best  
7 decisions for themselves, their healthcare providers  
8 should have access to that data, and that would help  
9 with diagnosis and treatment of ailments, which many  
10 peer reviewed studies have confirmed do increase with  
11 close proximity to oil and gas operations.

12 First responders should know chemicals  
13 they and patients are exposed to emergent situations.  
14 Researchers should are know chemicals they are looking  
15 for in characterization efforts or studies of  
16 subterranean ecosystems. And last, but certainly not  
17 least, the regulators should know the universe of  
18 chemicals present at a spill site, or when there is a  
19 well blowout, or when a mechanical integrity issue is  
20 present. This would make cleanup and remediation more  
21 thorough and less expensive.

22 In short the industry is saying, "Trust  
23 us, but not the public," a public that includes  
24 professionals across many fields: Doctors, emergency  
25 personnel, academic researchers, not to mention

1 mothers, fathers, elders, children, oil field workers  
2 and their families. We believe that trust requires  
3 transparency and accountability, and this is what New  
4 Mexicans deserve.

5 Next I'd like to talk about the  
6 definition of PFAS. NMOGA points out that six states  
7 use the PFAS definition proposed by their experts,  
8 assert that this definition is appropriate because it  
9 covers PFAS that we already know has been used in oil  
10 and gas. What they failed to say is that 23 states  
11 use Guardians' proposed definition, and that includes  
12 the Colorado PFAS Ban and Disclosure Law. WildEarth  
13 Guardians' Exhibit 8 compiles all these definitions  
14 from these 23 states.

15 NMOGA also does not acknowledge that we  
16 only know certain PFAS have been used in oil and gas  
17 because those are the ones that have been disclosed.  
18 Without full chemical disclosure, we simply do not  
19 know what has been used, and there is no restriction  
20 on what could be used in the future.

21 The Uniform Trade Secrets Act is not a  
22 barrier to promulgating the proposed rule. We would  
23 request the opportunity to brief this issue for the  
24 commission. I think this is a very important issue  
25 and I'm going to briefly touch on it, but I would

1 really like to be able to provide something in  
2 writing.

3 The Uniform Trade Secrets Act does not  
4 prohibit disclosure of trade secrets. It provides a  
5 cause of action for "the misappropriation of a trade  
6 secret," and it provides that you can sue for damages  
7 and/or injunctive relief. "Misappropriate" is defined  
8 in the statute, but the bottom line is that disclosure  
9 by the holder of the trade secret is not  
10 misappropriation.

11 The proposed rule does not require  
12 disclosure of trade secrets. It does not, however,  
13 also prevent a trade secret holder from voluntarily  
14 disclosing. If a trade secret holder will not  
15 disclose the trade secret, the rule simply says, "Well  
16 then you cannot use that in New Mexico," but it is a  
17 decision for the holder of the trade secret to make.

18 By the way, Colorado also has passed  
19 the Uniform Trade Secrets Act, and they require full  
20 disclosure. Quite simply, the proposed rule does not  
21 "nullify" the protections of the Uniform Trade Secrets  
22 Act as alleged by NMOGA.

23 The Commission has independent  
24 authority to regulate produced water and nondomestic  
25 waste, and protect human health and the environment,

1 and it can exercise that authority to ban the use of  
2 PFAS and undisclosed chemicals, and it can leave the  
3 decision of whether to disclose chemical identifies to  
4 the holder of the trade secret. When a trade secret  
5 holder discloses, it is not misappropriation under the  
6 Act.

7 Additionally the disclosure of a  
8 chemical identify is like disclosing the ingredient to  
9 a recipe. We are not asking for disclosure of  
10 recipes. We're asking for disclosure of ingredients.  
11 It's notable that NMOGA acknowledges the trade secrets  
12 definition in the Uniform Act protects formulas, but  
13 it applies that definition to fracking constituents,  
14 and that's on page 20 of the prehearing statement.

15 NMOGA then characterizes the choice to  
16 disclose as a Hobson choice, but it fails to  
17 acknowledge that the entities benefitting from the  
18 choice to disclose -- doctors, researchers, government  
19 agencies, elected officials, emergency medical  
20 professionals, teachers, mothers, elders, et  
21 cetera -- they fail to acknowledge that a chemical  
22 identify is not a trade secret.

23 And if you read the Colorado and  
24 California acts, you'll see that that's what they've  
25 done in those states. They say in those laws that

1 chemical abstract service numbers are not trade  
2 secrets. Formulas are. Ingredients are not.

3 In order to properly communicate the  
4 risks associated with injecting toxic chemicals  
5 underground at high pressure, especially in  
6 earthquake-prone areas, as well as risks associated  
7 with routine spills that can contain chemicals,  
8 community notification of what chemicals are involved  
9 is necessary. In our petition we have proposed  
10 specific community stakeholders that should receive  
11 such communications, and there are no restrictions on  
12 how this communication can be delivered. I'd also  
13 like to point out that it tracts the Colorado law that  
14 their legislature passed.

15 That brings me to my last point about  
16 NMOGA's prehearing statement. While we agree that OCD  
17 and OCC have very limited jurisdiction to regulate to  
18 protect the environment and public health, for  
19 example, it cannot consider environmental impacts in  
20 permitting new wells; however, this Commission can  
21 regulate produced water and nondomestic waste for the  
22 protection of the environment and the public health.  
23 That's the only place that those words appear in the  
24 Oil and Gas Act.

25 NMOGA argues that the commission has no

1 jurisdiction to regulate the "generation of produced  
2 water and nondomestic waste," because the word  
3 "generation" does not appear in the Oil and Gas Act;  
4 however, in order to properly regulate produced water  
5 and nondomestic waste, OCD needs to know what  
6 constituents may be added in drilling, fracking, and  
7 other downhole operations. Chemical disclosure is  
8 needed to do this.

9           Additionally once chemicals are  
10 disclosed, the commission and Division can regulate  
11 the disposition of a toxic constituent by banning it  
12 in the first place. In other words, the power to  
13 regulate what constituents might be added to produced  
14 water and nondomestic waste is inherent in its power  
15 to regulate the disposition of produced water and  
16 nondomestic waste.

17           As an example, OCD has authority to  
18 regulate the disposition of waste contained in the Pit  
19 Rule. OCD has many rules governing that waste,  
20 including regulations about specific constituents.  
21 For instance, OCD is regulate the amount of chloride  
22 in waste that oil and gas operators want to bury. The  
23 Pit Rule requires operators to fill out form C144  
24 detailing the well information, the API number, the  
25 OCD permit number, well location, and the amount of

1 chloride in the waste stream.

2 And it also requires an oil field waste  
3 stream characterization of waste streams to be  
4 permanently buried. If OCD has the authority to  
5 regulate chloride in wastes, it also has the authority  
6 to regulate other constituents in oil and gas wastes,  
7 like PFAS.

8 So in conclusion, again, Guardians is  
9 asking you to ban PFAS and undisclosed chemicals in  
10 downhole operations. We request an opportunity to  
11 submit a final redline proposed rule after the  
12 hearing. And if the industry has transitioned away  
13 from using PFAS, then they should disclose all  
14 chemicals used in downhole operations to show that.  
15 If we don't ban PFAS now, nothing prevents its use in  
16 the future. Thank you.

17 THE HEARING OFFICER: Thank you, Mr.  
18 Davis. We don't have NEE with us today, so they will  
19 necessarily be reserving their opening statement. Let  
20 me ask the division. Mr. Tremaine, would you like to  
21 do it now or later?

22 MR. TREMAINE: Yes, I'll proceed now.  
23 Thank you.

24 THE HEARING OFFICER: All right. Thank  
25 you.

1 MR. TREMAINE: Good morning, or  
2 afternoon at this point, pardon me, Madam Hearing  
3 Examiner, and Mr. Chair, and the commission, and the  
4 public. I want to start by thanking the parties and  
5 the commission. At the time of the first petition in  
6 this matter, the proposal looked remarkably different  
7 than it does today, and at that time that was a  
8 proposal that OCD could not support.

9 OCD requested time to secure expert  
10 services and engage in stakeholder discussions, and I  
11 want to highlight, before we start this process, that  
12 both the petitioner, WildEarth Guardians, and the  
13 regulating community engaged in discussions with OCD  
14 to find the appropriate way to make the core elements  
15 of this petition work. In particular, the petitioner  
16 worked with OCD and ultimately proposed a quite  
17 substantial revision to the original proposal.

18 I also want to thank the public  
19 commenters and observers for their participation and  
20 thank everyone in advance for their patience and  
21 understanding. We're halfway through the first day of  
22 a four-day hearing on extremely technical issues,  
23 which we are necessarily discussing in the framework  
24 of a discrete and very limited statutory authority.  
25 Some of the issues raised generally in the public

1 comment cannot be addressed by this motion. But we  
2 are here, particularly the division is here, to work  
3 through this very complicated and sensitive topic to  
4 address it in a most equitable way possible in the  
5 context on oil and gas development and production.

6 The purpose, in my mind, of this  
7 rulemaking is in large part to address the specific  
8 potential use of PFAS that is not addressed as part of  
9 the larger PFAS problem from other sources.

10 Ultimately we arrive at a proposal that includes a ban  
11 on the use of PFAS in completion activities, requires  
12 certification that qualifying PFAS were not used by  
13 operators, creates a reporting and disclosure  
14 requirement to the OCD in the event of potential  
15 contamination, and trigger necessary investigations  
16 and remediation under existing Commission rules.

17 During the course of this hearing, we  
18 will be putting forward the testimony of three  
19 witnesses, Dr. Court Sandau and Dr. Erik Martin.  
20 We'll respectively address the chemistry and  
21 toxicology of PFAS, the foundation for the division's  
22 proposed rule definition of PFAS, and the rule and  
23 limits of PFAS testing methodologies. And then Mr.  
24 Brandon Powell, Deputy Director of the OCD, will  
25 provide testimony to explain the remaining structure

1 of OCD's proposal and the reasons why OCD is  
2 recommending changes to the latest petition to allow  
3 that, to allow the core elements of this petition to  
4 work within the existing statutory framework and  
5 resource limitations of the Oil Conservation Division.

6 At the end of this hearing we believe  
7 that the record will show that PFAS chemicals as  
8 proposed to be defined by OCD warrant regulation as to  
9 their use in oil and gas due to the consensus that at  
10 least some of the chemicals are harmful to human  
11 health in reliance on industry representation that  
12 PFAS are not currently used, it is not necessary for  
13 use in completions operations, and the prohibition on  
14 their use achieves the goals of protecting public  
15 health and the environment without harming industry.

16 The scope of the definition in our  
17 proposal is appropriate regardless of history or  
18 current use of PFAS, as chemicals falling under the  
19 proposed definition have the potential for future use,  
20 so this prohibition on their use and structure  
21 proposed by the division is forward-looking. We  
22 believe that the record will show that there are  
23 possible pathways from completion liquids to  
24 groundwater, so the proposal is warranted and  
25 addresses a real if potential or debated to its extent

1 problem.

2 We do expect extensive debate and  
3 disagreement on a periphery of terms, or at least the  
4 most robustly stated conclusions, but I believe that  
5 the record should fairly review a consensus on those  
6 core issues, that PFAS can be harmful to human health,  
7 the use of PFAS in oil and gas completions activities  
8 creates at least a potential pathway of exposure to  
9 humans, that prohibiting use in completions will not  
10 materially detriment oil and gas operations, and that  
11 oil and gas operations may proceed in the future  
12 effectively without the use of PFAS.

13 I would like to clarify a few things  
14 that we do not believe will be shown in the record and  
15 that the division disagrees with. Full public  
16 disclosures of proprietary information are not  
17 supported by the OCD at this time in observance of the  
18 Uniform Trade Secrets Act. OCD does not take a  
19 position on the voracity of such of a public policy,  
20 but this, we believe, would necessitate a legislative  
21 update.

22 In addition to the Uniform Trade  
23 Secrets Act, one statute of particular concern to the  
24 division is that trade secrets within the possession  
25 of the division, if held and marked, identified as

1 trade secrets, are accepted from the Inspection of  
2 Public Records Act.

3           There is a potential that PFAS could be  
4 addressed as part of a Groundwater Discharge Permit  
5 under Water Quality Act; however, that's a very small  
6 component of OCD's purview, and we believe that the  
7 current structure of the petition as we proposed  
8 anticipates OCD addressing any such impacts under part  
9 29 or 30, which are promulgated under the authority of  
10 the Oil and Gas Act. So as stated earlier, in  
11 reference to Counsel's statements, we do not believe  
12 that the bulk of the proposal is going to fall under  
13 the exception, as stated -- as referenced in the other  
14 statute.

15           OCD's proposal does not contemplate a  
16 definition inclusive of all possible PFAS chemicals,  
17 and there's a very practical reason for this, that  
18 until OCD is able to test or order testing to verify  
19 for any particular chemical, OCD cannot possibly  
20 enforce prohibition. So if there is a rule  
21 promulgated that prohibits the use of an expansive  
22 list of potentially thousands of chemical compounds,  
23 OCD will have no means or ability until testing  
24 methodologies are updated to actually verify the  
25 existence or the amounts of those chemical compounds.

1 And so you will see, as we work through the division's  
2 proposal, that we have identified a definition of PFAS  
3 generally that is more broad than that proposed in the  
4 redline from NMOGA but is limited to existing and  
5 future updates to testing methodologies.

6 There are number of things that this  
7 rule -- that this hearing will not address, which is  
8 that it will not change the way that the division  
9 addresses releases or groundwater abatement once those  
10 occur. It will not address potential surface uses of  
11 PFAS, and it does not address air quality or PFAS from  
12 non-oil and gas sources.

13 In terms of the other party proposals,  
14 OCD does not support a ban on the use of all  
15 proprietary chemicals. This relates to the Uniform  
16 Trade Secret Act, but also, as will be explained,  
17 there are numerous other proprietary or trade secret  
18 compounds that we do not believe will be supported by  
19 the record necessary to support a ban that have  
20 nothing to do with PFAS. So essentially this proposal  
21 of banning the use of anything that's listed as  
22 proprietary would ban the use of chemicals that we're  
23 not talking about during this hearing from a  
24 perspective of human health impacts.

25 OCD does not concede NMOGA's generation

1 versus disposition argument. There is a legal  
2 distinction to debate there, but within the context of  
3 this petition's language, I don't see a difference in  
4 effect, and I'm hoping, I do not believe that this  
5 needs to be litigated, simply clarified in terms of  
6 discussing the petition.

7 Further, OCD cannot support proposed  
8 language that elevates the requisite intent of  
9 operators to an unreasonable degree. Essentially  
10 operators must be held responsible for additives in  
11 completions fluids. This is an important distinction  
12 because OCD's authority does not extend to, for  
13 instance, chemical manufacturers outside of the oil  
14 and gas industry.

15 So to effectively regulate PFAS,  
16 operators must be held responsible for additives that  
17 are included by manufacturers and used by the  
18 operator, whether or not the operator at the time took  
19 the necessary steps to know of their use, so  
20 essentially creating an impetus for operators to  
21 require that information so that that they know  
22 exactly what they are certifying that they are not  
23 using.

24 The rule must require operators to  
25 obtain, as I said, obtain necessary details related to

1 any completion act additive. Now the nuance here, the  
2 flip side of this, is that it is not OCD's intent to  
3 hold operators accountable for PFAS contamination that  
4 originates from sources outside of oil and gas, and  
5 that is a very complicated proposition potentially.

6 I think it will become necessary during  
7 this hearing to clarify the rules proposed coverage  
8 of -- potential coverage of drilling fluids, which we  
9 will address, and I will notice separately through  
10 rebuttal testimony from Mr. Powell. I think that this  
11 contemplates the necessary modifications to sections  
12 of the rule, to different sections of the rule.  
13 Depending on exactly how it's proposed for a PFAS ban  
14 to address using drilling fluids, we will need to  
15 clarify that the structure is appropriately noticed in  
16 appropriate outgrowth of the current petition.

17 Additionally there are other safeguards  
18 related to the drilling processes, drilling fluids,  
19 and materials that are used, that Mr. Powell is able  
20 to explain. So drilling fluids, and references, and  
21 WildEarth Guardians' testimony to downhole operations  
22 was not really contemplated by OCD in review of the  
23 revised petition due to the use of completions and  
24 recompletions language, but I think it's something  
25 that we're going to need to talk about as we move

1 through the hearing. We will continue to work with  
2 the parties during this hearing to address those  
3 concerns and ultimately it's OCD's understanding that  
4 fluids used while drilling through freshwater zones  
5 are already limited under OCD rule and practice, which  
6 we can address at a later time.

7 So ultimately when you look at the  
8 division's redline, OCD proposes a definition of PFAS  
9 that will automatically grow with the scientific  
10 consensus and testing methods available, which will  
11 allow OCD to actually and effectively enforce the  
12 rule. We do support if the petition does support a  
13 triggered reporting mechanism, where complete  
14 information is disclosed to OCD, so in the event of,  
15 like, a loss of containment from a casing failure, for  
16 instance, full chemical disclosures will be required  
17 under our proposal to the OCD. So that's the line  
18 we're drawing, where we don't believe that there's  
19 authority to require that disclosure publicly -- that  
20 has to be a legislative mandate -- but in terms of  
21 effective enforcement, we do believe that that  
22 information in specific circumstances can and should  
23 be held by the division absent a legislative  
24 amendment. We believe OCD's authority allows us to  
25 require that disclosure.

1                   Further as a rulemaking petition rather  
2 than a legislative proposal, it's imperative that the  
3 commission adopt a version of the rule that's  
4 effective, given the existing statutory authority and  
5 the resources of the division, as this Commission, as  
6 you know, is not authorized and enabled to expand  
7 either the authority or those resources. We believe  
8 that OCD's redline proposal achieves each of these  
9 goals and should be adopted, with any modifications  
10 and clarifications deemed necessary and appropriate by  
11 the commission, at the summation of the hearing.  
12 Thank you.

13                   THE HEARING OFFICER: Thank you, Mr.  
14 Tremaine. Let's see. Mr. Maxwell, do you have an  
15 opening statement?

16                   MR. MAXWELL: Your Honor, I would  
17 reserve my time.

18                   THE HEARING OFFICER: All right. Thank  
19 you very much. Let's see. Is the EOG representative  
20 on? No? All right. They can reserve if they'd like.  
21 And to NMOGA, Ms. Mulcahey.

22                   MS. MULCAHEY: Good afternoon. Thank  
23 you, Madam Hearing Officer and thank you to the  
24 commission. Thank you to the other parties in this  
25 matter, as well as all of the folks that provided

1 public comment this morning. We appreciate everyone's  
2 time.

3 I would start by saying NMOGA supports  
4 prohibiting intentionally added perfluoro- and  
5 polyfluoroalkyl substances, PFAS, to the chemical  
6 additives used in hydraulic fracturing fluids in the  
7 completion of recompletion of oil and gas wells. We  
8 want to make that position very clear.

9 NMOGA supports the proposed regulations  
10 where they are consistent with (1) up-to-date  
11 scientific standards, data, and understandings of  
12 PFAS, (2) where they are technically feasible and  
13 technically correct, and (3) consistent with the  
14 commission's statutory authority. As NMOGA will  
15 demonstrate, based on the disclosures in FracFocus,  
16 the oil and gas industry has already discontinued  
17 using two PFAS compounds historically used in downhole  
18 operations.

19 The Physicians for Social  
20 Responsibility report on New Mexico identified two  
21 specific PFAS compounds that were historically used  
22 downhole in New Mexico. These compounds are (1) PTFE,  
23 which has not been used since 2020. (2) fluoroalkyl  
24 alcohol substituted polyethylene glycol. My lord, is  
25 that a mouthful. We are going to call that FPEG, for

1 short. FPEG has not been used in operations in New  
2 Mexico since 2015.

3 NMOGA has proposed a definition of PFAS  
4 in this rulemaking. NMOGA proposes the following  
5 definition of PFAS: "Substances with two or more  
6 fully fluorinated carbon atoms." NMOGA proposed this  
7 definition for two reasons: (1) it is the definition  
8 of PFAS that the Environmental Protection Agency, the  
9 agency tasked with regulating the manufacture, import,  
10 and control of PFAS and PFAS containing substances,  
11 adopted under the Toxic Substances Control Act, or  
12 TSCA. This is the TSCA definition. Second, this  
13 definition is both tangible, and executable, and  
14 enforceable.

15 No analytical method currently exists  
16 that can analyze for a single fluorinated carbon  
17 compound, like WEG and New Energy Economy proposes.  
18 Not a single analytical method. Without any method to  
19 verify compliance through analytical sampling, any  
20 definition of PFAS that contains a single fluorinated  
21 carbon atom would be unenforceable.

22 In the alternative, NMOGA supports the  
23 definition of PFAS propounded by the division. While  
24 the division's definition does include a single  
25 fluorinated carbon atom, it also specifically

1 identifies analytical methods to be used for  
2 compliance. Currently these analytical methods all  
3 require two or more fully fluorinated carbon atoms,  
4 which makes the division's proposed definition  
5 tangible, executable, and enforceable, because as I  
6 already mentioned, WEG's definition has no analytical  
7 method that exists today.

8 At the same time, the division's  
9 definition, while including a single fluorinated  
10 carbon atom, defines PFAS in a manner to allow it to  
11 be a living definition. That is, as the scientific  
12 understanding and analytical capabilities of PFAS  
13 advance in the future, analytical methods can be added  
14 to this definition.

15 Relatedly, NMOGA has also proposed a  
16 definition for "intentionally added PFAS." NMOGA  
17 proposes the following definition: "PFAS that are  
18 deliberately added during the manufacture of a  
19 chemical product to serve an intended function in the  
20 final product." NMOGA's proposal to include a  
21 definition of intentionally added PFAS is consistent  
22 with those statutes and regulations passed by all  
23 states that have banned the use of PFAS in various  
24 industrial applications. These states are identified  
25 in WildEarth Guardians' -- I'll call them WEG or

1 Guardian -- Exhibit 8. Each of these states in  
2 WildEarth Guardians' Exhibit 8 have included a  
3 definition of intentionally added PFAS -- every one of  
4 them.

5 NMOGA has included the term  
6 "intentionally added PFAS" with its proposed revisions  
7 to account for the numerous potential sources of PFAS  
8 that are unrelated to oil and gas operations but may  
9 nonetheless result in PFAS being present in the  
10 environment. These sources can include septic  
11 systems, treated wastewater from wastewater treatment  
12 plants, biosolids used for agriculture, consumer  
13 textiles, like this jacket that I'm wearing,  
14 firefighting foams, and many other sources. The  
15 Division has proposed a similar backstop in its  
16 redline revision to account for PFAS that may be in  
17 the environment and that is unrelated to oil and gas  
18 operations.

19 Any regulations that the commission  
20 adopts to prohibit the use of PFAS compounds in  
21 hydraulic fracturing fluid additives must be tangible,  
22 executable, and enforceable. That means the  
23 regulation needs to be clear, so that it can be easily  
24 implemented by the division and followed by the  
25 industry. The regulation must be science-based so the

1 rule accurately reflects the actual analytical  
2 capabilities to sample for PFAS compounds, and the  
3 regulation must be flexible to keep pace with  
4 advancement in scientific understanding of and  
5 analytical capabilities related to PFAS.

6 Furthermore, any final rule also needs  
7 to be tailored to the PFAS that has been documented in  
8 the oil and gas industry so (1) the rule is not overly  
9 broad in scope, (2) stays within the commission's  
10 authority, and (3) provides a predictable regulatory  
11 framework that can actually be implemented. In  
12 addition to supporting the ban on PFAS intentionally  
13 added to hydraulic fracture fluids, NMOGA also  
14 supports requiring oil and gas operators to certify  
15 that no PFAS containing fluids have been used in the  
16 fracturing of an oil and gas well.

17 To implement this rule, NMOGA urges the  
18 commission to continue to use FracFocus as the  
19 platform for industry chemical disclosures. It is a  
20 proven framework for managing these disclosures. It  
21 is a tried and true system. There is simply no good  
22 reason to abandon it.

23 On the issue of disclosures, NMOGA  
24 cannot support either (1) petitioner's proposal to  
25 provide hydraulic fracturing disclosures to a litany

1 of individuals outside of and in addition to the  
2 mandated disclosures in FracFocus. So to be clear,  
3 NMOGA has no issue with continuing to make disclosures  
4 in FracFocus, but the additional disclosures that WEG  
5 proposes to a whole litany of individuals is  
6 ridiculous. Second, petitioner's proposal to wholly  
7 ban the use of any chemicals downhole that are not  
8 fully disclosed in FracFocus is something NMOGA cannot  
9 agree to.

10           Petitioner has proposed requiring  
11 additional disclosures outside of FracFocus to  
12 building owners, area residents, tribal members,  
13 schools, government actors, public water systems  
14 administrators, and many, many other individuals and  
15 entities. As Dr. Janet Anderson has testified in her  
16 pre-filed written draft testimony, Petitioner's  
17 proposal to provide scattershot disclosures to this  
18 litany of individuals and entities without any context  
19 and whom lack the necessary expertise to understand  
20 and interpret such disclosures is contrary to standard  
21 risk communication best practices utilized by  
22 toxicologists such as Dr. Anderson. Such scattershot  
23 disclosures can and have caused more harm than good in  
24 communities, as Dr. Anderson also testifies.

25           New Mexico Law recognizes the

1 importance -- excuse me. Likewise, Petitioner's  
2 proposal to ban the use of any undisclosed chemicals  
3 violates New Mexico's law and public policy.

4 New Mexico's law recognizes the  
5 importance of maintaining the confidentiality of  
6 valuable commercial information, also known as trade  
7 secrets. There has been much discussion already here  
8 today about trade secrets. This morning, Mr. Rubin  
9 mentioned sectioned 74-6-15, which is the statutory  
10 provision that applies to the Water Quality Control  
11 Commission. 74-6-15 does not apply in this rulemaking  
12 because the commission is not acting pursuant to the  
13 Water Quality Act. Additionally, even if you were to  
14 assume that this Commission was acting pursuant to its  
15 constituent Water Quality Act authority, the plain  
16 language of 74-6-15 demonstrates both a strong public  
17 policy and legal protections for trade secrets. In  
18 fact, that statute continues to protect trade secrets.

19 New Mexico's Uniform Trade Secret Act  
20 also protects trade secrets from being publicly  
21 disclosed. The prohibition against public disclosure  
22 of trade secrets has been codified by statute in this  
23 state and has been case law for at least 35 years.  
24 New Mexico Law and public policy on trade secrets  
25 apply equally, whether the trade secret information is

1 a manufacturing process, software program, or a  
2 chemical additive for hydraulic fracturing. In fact,  
3 the term used by 57-3(a)(2) for a trade secret  
4 includes information, a formula, a pattern, a  
5 compilation, a program, a device, a method, a  
6 technique, or a process. It is quite broad.

7           Petitioner's proposed rule that  
8 requires the full disclosure of trade secreted  
9 fracturing fluids or the inability to use those fluids  
10 downhole runs afoul of New Mexico Law and public  
11 policy. It seeks to prohibit the use of valuable,  
12 useful, and entirely legal chemical additives that  
13 have nothing to do with PFAS, just because the  
14 chemical is trade secreted.

15           Petitioners and their supporters are  
16 making the exact same arguments here today that the  
17 commission heard back in 2011, when it first adopted  
18 the hydraulic fracturing disclosure rule, and again in  
19 2017, when the commission updated the rule to adopt  
20 the FracFocus form. The only difference now is that  
21 Petitioners are pointing to Colorado and California,  
22 which recently made legislative changes -- not  
23 regulatory changes, legislative changes to address the  
24 disclosure of chemicals in oil and gas operations.

25           In our prehearing statement on page 8,

1 NMOGA discusses why a legislative process is different  
2 from a rulemaking process, and why that matters. Here  
3 the commission has no legal authority to codify  
4 Colorado's legislative approach into this regulatory  
5 framework. It makes no sense and would be contrary to  
6 public policy to prohibit downhole use of effective  
7 hydraulic fracturing chemicals just because they are  
8 not publicly disclosed in their entirety.

9 Nevertheless in its redlines to WildEarth's amended  
10 regulations, NMOGA has proposed a process by which  
11 operators could fully disclose all chemicals to the  
12 Division in the event that such disclosure is needed.

13 I would also point the commission to  
14 19.15.16.19(B)(2), where the commission has adopted by  
15 reference 29 CFR 1910.1200. Those are the hazard  
16 communication regulations from OSHA. Under the OSHA  
17 regulation at 1910.1200(I)(2) there is already a  
18 process in place whereby healthcare providers and  
19 force responders can obtain full chemical disclosures.  
20 That exists already in the rules today. NMOGA's  
21 proposal to do a full disclosure to the Division  
22 strikes the right balance between continued protection  
23 of trade secrets under New Mexico Law while also  
24 providing regulators with all information when and if  
25 needed.

1                   Finally, NMOGA has provided a full  
2 response to the proposed rulemaking here today,  
3 including our legal arguments and our prehearing  
4 statement. NMOGA has also included its modifications  
5 to the proposed rule in redline strikeout format in  
6 NMOGA Exhibit A. Those documents appear in this giant  
7 binder that we have provided to the commission. As  
8 the commission will see in these documents, NMOGA is  
9 substantially in agreement with the Division over what  
10 portion of the rules should be adopted, what portion  
11 should be rejected, and how the rules should be  
12 modified to make them tangible, executable, and  
13 enforceable.

14                   I will not go over every legal argument  
15 or technical position in detail that we have provided  
16 in our prehearing statement, but I do want to draw the  
17 commission's attention to a few important  
18 considerations that are necessary to bear in mind as  
19 you consider the testimony over the coming days.  
20 First it is important to keep in mind that the  
21 commission has no statutory authority over the  
22 "generation" of nondomestic waste, only the  
23 disposition of nondomestic waste, as enumerated in the  
24 Oil and Gas Act.

25                   Petitioners seek to prohibit the

1 "generation of PFAS contaminated produced water and  
2 nondomestic waste." If indeed the commission had this  
3 authority, it could have been included here expressly  
4 in 70-2-12, where, such as in other statutes governing  
5 oil and gas regulations, specifically generation has  
6 been mentioned. You don't see that language in these  
7 statutes.

8 MR. RAZATOS: Hold on. Ms. Mulcahy,  
9 can you just hang on? It seems we -- I believe we're  
10 back on. Are we back on, Sheila?

11 MS. APODACA: Let me make sure. Let me  
12 make sure.

13 MR. RAZATOS: I can ask. Brittany, can  
14 you hear us? Paul, can you hear us?

15 UNKNOWN SPEAKER: Yes.

16 UNKNOWN SPEAKER: Yes.

17 MR. RAZATOS: Okay. We're back on.  
18 Sorry, Ms. Mulcahy.

19 MS. MULCAHY: Okay. No problem.  
20 Section 72-12(B)(15) provides the commission with  
21 authority to "regulate the disposition, handling,  
22 transport, storage, recycling, treatment, and disposal  
23 of produced water." It makes no mention or  
24 enumeration of generation. Likewise, section  
25 70-2-12(E)(21) empowers the commission to "regulate

1 the disposition of nondomestic waste resulting from  
2 the exploration, development, or storage of crude oil  
3 or natural gas to protect public health and the  
4 environment." Again, these enumerated powers are  
5 specific and they are intentional.

6 Second and relatedly, Petitioner's  
7 attempt to conflate produced water and nondomestic  
8 waste with one another. That is both procedurally and  
9 substantively improper. Produced water and  
10 nondomestic waste are defined by statute. Under both  
11 the Division's regulations and the Produced Water Act,  
12 produced water is defined as "an incidental byproduct  
13 from drilling for or the production of oil and gas."  
14 Nondomestic waste, which is statutorily defined at  
15 74-3-43(A), is "waste associated with the exploration,  
16 development, production, transportation, storage,  
17 treatment, or refinement of crude oil, natural gas,  
18 and carbon dioxide gas, but does not include produced  
19 water."

20 THE HEARING OFFICER: Could you wrap  
21 up, Ms. Mulcahy?

22 MS. MULCAHY: Third, as I mentioned in  
23 this opening statement, NMOGA supports a prohibition  
24 on intentionally added PFAS in the completion or  
25 recompletion of wells. NMOGA's Exhibit A contains

1 redline to WEG's proposed amendment. NMOGA's Exhibit  
2 D contains the written direct testimony of Dr. Stephen  
3 Richardson, PE, PEng, and Ph.D. NMOGA's Exhibit E  
4 contains the written direct testimony of Dr. Janet  
5 Anderson, Ph.D., Toxicology.

6 Together with its prehearing statement,  
7 these exhibits provide NMOGA's detailed science-based  
8 revision to WildEarth Guardians' proposed regulatory  
9 amendment. NMOGA and its technical experts have  
10 carefully considered and has agreed with WildEarth's  
11 proposed amendment where they consistent with  
12 up-to-date scientific standards, technically feasible  
13 and technically correct, and consistent with the  
14 commission's authority.

15 At the end of the day and at the end of  
16 this rulemaking, if there is no way to ensure  
17 regulatory compliance through sampling and analysis,  
18 then any regulations banning the use of PFAS in oil  
19 and gas operations are essentially meaningless. Thank  
20 you.

21 THE HEARING OFFICER: All right. Thank  
22 you, Ms. Mulcahy. Can we turn now to our first  
23 witness, Mr. Horwitt?

24 MR. DAVIS: WildEarth Guardians calls  
25 Dusty Horwitt.

1 THE HEARING OFFICER: Perfect. Do you  
2 swear or affirm that you will tell the truth, Mr.  
3 Horwitt?

4 MR. HORWITT: I do.

5 THE HEARING OFFICER: Thank you very  
6 much. Go ahead, Mr. Davis.

7 EXAMINATION

8 BY MR. DAVIS:

9 Q Good afternoon, Mr. Horwitt. Could you  
10 please state and spell your name for the record?

11 A Yes. It's Dusty, D-U-S-T-Y, Horwitt,  
12 H-O-R-W-I-T-T.

13 Q Did you prepare direct testimony on behalf  
14 of WildEarth Guardians in this matter?

15 A Yes.

16 Q And that is WildEarth Guardians Exhibit 10?

17 A Yes.

18 Q Did you prepare rebuttal testimony in this  
19 matter?

20 A Yes.

21 Q And that is WildEarth Guardians Exhibit 94?

22 A Yes.

23 Q Do you have any changes to that written  
24 testimony?

25 A No.

1 Q Did you review and/or rely on any documents  
2 to prepare your testimony?

3 A Yes.

4 Q Are those the documents that are in  
5 WildEarth Guardians Exhibits 11 through 55?

6 A Yes.

7 Q And your CV is also an exhibit to your  
8 testimony?

9 A Yes.

10 Q Is that WildEarth Guardians Exhibit 9?

11 A Yes.

12 Q Is your written testimony, direct and  
13 rebuttal, true and accurate to the best of your  
14 knowledge?

15 A Yes.

16 Q Do you adopt your written direct and written  
17 rebuttal as WildEarth Guardians Exhibit 10 and 94 as  
18 your sworn testimony today?

19 A Yes.

20 MR. DAVIS: With that, Madam Hearing  
21 Officer, I would move for the admission for the  
22 admission of WildEarth Guardians Exhibits 9 through  
23 55, and WildEarth Guardians Exhibit 94.

24 (WildEarth Exhibits 9 through 55 were  
25 marked for identification.)

1 (WildEarth Exhibit 94 was marked for  
2 identification.)

3 THE HEARING OFFICER: Okay. Let me ask  
4 if there are objections from the other parties.  
5 Please just speak up.

6 MS. MULCAHY: Yep.

7 THE HEARING OFFICER: Ms. Mulcahy?

8 MS. MULCAHY: Yes, Madam Hearing  
9 Officer. We've had an objection to parts of Exhibit  
10 94, and I guess right now I will not only make an  
11 objection to the admission of parts of Exhibit 94, I  
12 would also make an oral motion in limine to exclude  
13 parts of Exhibit 94, and I have highlighted those  
14 parts here on my screen, which I am willing and able  
15 to share if it's easier to visualize it that way.

16 THE HEARING OFFICER: Yeah. All right.  
17 Sheila, would you allow Ms. Mulcahy to screen share,  
18 please?

19 MS. APODACA: Yes, she should be  
20 allowed to share.

21 MR. BLOOM: And if we could pause for a  
22 moment. We're up here looking for Exhibit 94.

23 THE HEARING OFFICER: Okay. We'll take  
24 just a moment here to settle ourselves. Mr. Bloom,  
25 are you ready?

1 MR. BLOOM: Yes.

2 THE HEARING OFFICER: Okay. Great. Go  
3 ahead, Ms. Mulcahy.

4 MS. MULCAHY: Thank you, Madam Hearing  
5 Officer. NMOGA would object to and also would seek to  
6 exclude certain comments in Mr. Horwitt's rebuttal  
7 testimony. I have highlighted those here in red on  
8 the screen. And we seek to exclude them because they  
9 are conclusions about the chemistry and toxicology of  
10 PFAS that Mr. Horwitt makes in his testimony. And I'm  
11 looking at WEG Exhibit 9.

12 Mr. Horwitt is an attorney and an  
13 advocate. He has no scientific, technical, or  
14 engineering training. He is not qualified to opine on  
15 whether or not certain PFAS are exceptionally toxic.  
16 He is not qualified to opine on the chemistry of these  
17 PFAS.

18 He is not qualified to opine on  
19 exposure pathways to these PFAS, and what, if any,  
20 might be the results of any such exposures. I'm happy  
21 to go line by line here, sharing my screen, to  
22 demonstrate what it is that we seek to exclude.

23 THE HEARING OFFICER: Let me first ask  
24 Mr. Davis for a more general response to your  
25 objection. I do remember that Mr. Horwitt is an

1 attorney, and I understand that he has a lot of  
2 research in his background into this highly  
3 specialized area, and yet we do have to make sure that  
4 we don't have attorneys testifying as chemists.

5 MR. DAVIS: Yeah, in addition to that,  
6 I'll just add on that if we look at the citations in  
7 Mr. Horwitt's testimony, he relies on reliable and  
8 publicly available sources, and some of those are  
9 actually the drinking water regulations.

10 So any argument that NMOGA has that he  
11 cannot simply compile this information from these  
12 publicly available sources and apply them to his  
13 testimony regarding regulations, legal loopholes,  
14 would just go to the weight, but I don't think that  
15 that makes it inadmissible at all.

16 It's certainly relevant, which is the  
17 standard for admission in this proceeding, and Mr.  
18 Horwitt has already been qualified as a technical  
19 expert. And so again I would just ask the commission  
20 to take a look at what he cited and then make a  
21 determination based on how much weight you believe  
22 that deserves.

23 THE HEARING OFFICER: All right. So  
24 I'm going to stay with you there, Mr. Davis. For  
25 example, on page 2, the part here that Ms. Mulcahy has

1 highlighted in pink, "PFAS are exceptionally toxic," I  
2 don't see a citation right there. Are there -- yeah,  
3 go ahead.

4 MR. DAVIS: There are many citations  
5 under that heading and if we, you know, in order to  
6 move this process along we're more than happy to  
7 strike his heading.

8 MS. DAVIS: So Ms. Mulcahy, let me ask  
9 you then, to the extent the commission were to be  
10 advised clearly that Mr. Horwitt is a lawyer, that  
11 anything that resembles a conclusion that would  
12 require a chemistry degree, for example, to reach,  
13 would not be his own but would be made only in  
14 reliance of the work of others, and to the extent  
15 those others are included by citation in the  
16 materials, do you think that would remedy it?

17 MS. MULCAHY: Thank you, Madam Hearing  
18 Officer. No, I don't believe it would remedy it.  
19 First of all, it's not just merely the heading here.  
20 That's just one example that I've provided. But there  
21 are a number of numerous other examples in this  
22 document, and I would also say that -- two things in  
23 response to Mr. Davis.

24 Mr. Horwitt has not been identified as  
25 a technical expert. He has been identified as a

1 technical witness. And to the extent that he has  
2 relied on other scientific statements in this paper,  
3 again he is not a scientific expert, so he has no  
4 authority, even under a relaxed evidentiary standard,  
5 to rely on those documents, because he himself is not  
6 a technical expert in those fields.

7 For example, here, on page 2, lines 15  
8 through 18, he opines on the need for greater toxicity  
9 studies because there is significant toxicological  
10 data that exists that puts the public at risk and  
11 these PFAS are exceptionally toxic. He is not  
12 qualified to make that statement. Neither does he  
13 cite to any authority for making that statement.

14 And so to the extent that he goes  
15 through this paper, through this rebuttal testimony,  
16 in which there are numerous instances which I have  
17 highlighted here about, you know, human carcinogens  
18 and analogizing PFAS to other chemicals and why  
19 they're similar or different than other chemicals, he  
20 is not qualified to make those statements, Madam  
21 Hearing Officer.

22 THE HEARING OFFICER: Okay. Part of my  
23 challenge, of course, is that I -- I walked through  
24 this very quickly.

25 MS. MULCAHY: Sure.

1 THE HEARING OFFICER: Because we  
2 received it this morning. So Mr. Davis, I share Ms.  
3 Mulcahy's concern that -- again I certainly  
4 recognized, even in our prehearing conference last  
5 Wednesday, that Mr. Horwitt had a background and  
6 expertise in research. Right? In legal research in  
7 this area of law. That's who I understood he was  
8 being offered, if you will, as a technical witness  
9 last week.

10 This just seems different to me this  
11 week, and it seems different to Ms. Mulcahy, as well.  
12 The statements that seem to me typically would rely on  
13 expertise in chemistry or toxicology, for example.

14 MR. DAVIS: If I can offer a quick  
15 response to that?

16 THE HEARING OFFICER: Please.

17 MR. DAVIS: First of all, the statement  
18 that's highlighted in purple I believe is something  
19 that NMOGA's own witnesses acknowledge, so that,  
20 combined with the fact that we are in front of a  
21 Commission that by statute must have expertise in the  
22 matters over which they regulate, I believe the  
23 commission is absolutely qualified to take a look at  
24 this testimony, look at the citations to things like  
25 the Federal Register, Federal Government websites,

1 scientific studies, and make a determination based on  
2 weight.

3 We are not protecting a lay jury here  
4 and again, I think that the commission's more than  
5 capable of reading this and assigning weight, but Mr.  
6 Horwitt does have to have some facts to which he can  
7 apply, you know, these regulations to show the gaps  
8 that exist in chemical reporting and why that's  
9 important.

10 THE HEARING OFFICER: Okay. Is there  
11 any other party who would like to offer a comment on  
12 this objection? I forgot to ask.

13 MS. MULCAHY: If I may?

14 THE HEARING OFFICER: Yes.

15 MS. MULCAHY: Madam Hearing Officer,  
16 regardless of whether NMOGA agrees with some of these  
17 statements or not does not still qualify Mr. Horwitt  
18 to speak on them. And certainly the NMOGA witnesses  
19 that have agreed with some of these statements are  
20 technically qualified. They're Ph.D. toxicologists  
21 working specifically on PFAS. They are chemists  
22 working specifically on PFAS.

23 And regardless of the commission's own  
24 amazing experience and expertise, this witness still  
25 must be qualified in and of himself, and, like I

1 stated originally, Mr. Horwitt cannot rely on these  
2 articles because even under the most relaxed  
3 evidentiary standards, he still has to have the  
4 technical expertise to independently analyze, and  
5 understand, and make his own conclusions about these  
6 very scientific topics, including toxicology,  
7 chemistry, exposure pathways.

8 He's not qualified to do that.  
9 Otherwise it's all just hearsay. It's all hearsay.

10 MR. DAVIS: I'll just add that hearsay  
11 is not something that makes anything inadmissible in  
12 this proceeding.

13 THE HEARING OFFICER: Yeah, I --

14 MR. DAVIS: Rules of evidence don't  
15 apply.

16 THE HEARING OFFICER: Yeah. No, I  
17 understand, Mr. Davis. The rules of evidence do not  
18 apply. And this is a more sophisticated body -- I say  
19 that with affection -- than your typical jury. Sorry.  
20 By this, I think I said last Wednesday, I really do  
21 try to take my role seriously as something of a  
22 gatekeeper, even if that gate is full of holes, around  
23 making sure that what the commission is focusing on  
24 and has before it can be relied upon to make their  
25 decision. That's -- that's my -- that's my focus.

1 And I'm concerned about some of the -- some of the  
2 rebuttal testimony. I wasn't concerned about the  
3 direct testimony, but some of this rebuttal testimony  
4 raises concerns for me. Having said that, I don't  
5 know that it is helpful at this moment to either  
6 strike it all or accept it all, or to walk through  
7 paragraph by paragraph. I don't know that that's  
8 helpful either, so --

9 MR. BLOOM: Madam Hearing Officer?

10 THE HEARING OFFICER: Yes, Commissioner  
11 Bloom. Yeah.

12 MR. BLOOM: Yes. So as a commission,  
13 could we be in a position then that we can only hear  
14 from scientific experts and there can be no consensus  
15 around anything that any PFAS is toxic unless we hear  
16 it from a scientific expert?

17 THE HEARING OFFICER: So let me just  
18 offer an example that we talked about last Wednesday.  
19 It was a hearing I did a very long time ago in Eunice,  
20 New Mexico. There was a man offered as a witness to  
21 talk about karst near the LES plant proposed, and  
22 there was an objection because he had a degree in  
23 geography, the landscape, if you will, not geology.

24 And so the way I handled that and the  
25 way -- well let me put it this way: The court of

1 appeals, I think, tends to prefer administrative  
2 bodies and agencies to handle it, is to accept it as  
3 part of an offer of proof so that it is in the record,  
4 that is to say, anyone reviewing the record can  
5 actually see what was offered.

6           It's not going to be stricken as in  
7 tear it up, but a warning, if you will, or a caution  
8 that relying on what appears to be a toxicological  
9 conclusion reached by a lawyer is not going to form a  
10 great basis for a final decision for it. Okay? Legal  
11 analysis, great. Toxicological conclusions, you ought  
12 to hear that from a toxicologist or a chemist. That's  
13 all.

14           So let's do it this way. Ms. Mulcahy,  
15 please, on your cross-examination of Mr. Horwitt draw  
16 a few lines there, in terms of his -- his background  
17 or experience, and for now, I think we -- we have this  
18 caution here, and I won't admit 94 without reservation  
19 for the moment unless we have further conversations  
20 about it, I'll accept it as part of an offer of proof.

21           So please assume that it's in. Please  
22 assume that we haven't yet -- obviously we haven't yet  
23 walked through it line by line. I would like to keep  
24 going. I'd like to keep going. So where were we?  
25 Are there objections to any of the other exhibits that

1 were offered? It's just 94? Okay. So 94 is accepted  
2 for the moment as part of an offer of proof, and all  
3 the other exhibits -- Mr. Davis would you repeat the  
4 numbers, please? Nine through --

5 MR. DAVIS: Nine through 55.

6 MR. ORTH: Fifty-five. And 94. Yes?

7 MR. DAVIS: Correct.

8 THE HEARING OFFICER: Thank you. So 9  
9 through 55 are admitted, and 94 is accepted as part of  
10 an offer of proof and may be the subject of additional  
11 discussion.

12 (WildEarth Exhibits 9 through 55 were  
13 received into evidence.)

14 (WildEarth Exhibit 94 was received into  
15 evidence.)

16 All right. Is there anything else, Mr.  
17 Davis?

18 MR. DAVIS: The witness is available  
19 for questions from the commission and the parties.

20 THE HEARING OFFICER: Thank you. I'm  
21 going to start with the parties, and I'm going to go  
22 in the order of presentation. And then I will go to  
23 the commissioners. So again, we don't have NEE. It  
24 would be the division's turn to ask questions of Mr.  
25 Horwitt if they have them.

1 MR. DAVIS: Madam Hearing Examiner, I'm  
2 sorry. I'm not sure we discussed this on Wednesday or  
3 not. I may be remembering wrong from the hearings  
4 over the summer, but I was under the impression that  
5 we would cross in reverse order to presentation, so I  
6 just wanted to get a clarification on what the order  
7 of cross will be.

8 THE HEARING OFFICER: All right. How  
9 do the other counsel feel about that?

10 MS. MULCAHY: We did discuss it at the  
11 procedural hearing on the 6th, and we said we would go  
12 in the order that the parties proceed, but we're  
13 happy, and I just conferred with Mr. Tremaine, and he  
14 said he's fine if NMOGA goes. I don't mean to step in  
15 front of any other party, if there's another party  
16 that would like to go and have me to wait.

17 THE HEARING OFFICER: All right. Any  
18 other comments? I see your camera on, Mr. Maxwell.  
19 Do you have a comment on the order in which cross is  
20 held?

21 MR. MAXWELL: I do not.

22 THE HEARING OFFICER: Okay. Thank you.  
23 Go ahead, Ms. Mulcahy. We can go in reverse order.

24 MS. MULCAHY: Thank you.

25 //

CROSS-EXAMINATION

BY MR. MULCAHY:

Q Thank you, Mr. Horwitt, for being here. We appreciate it. Mr. Horwitt, your professional experience, if I'm not mistaken, is listed in WEG Exhibit 9. Is that correct?

A I think so.

Q Okay. And Mr. Horwitt, looking at WEG Exhibit 9, you are an advocate against -- you've spent your career advocating against oil and gas. Is that correct?

A I've spent my career advocating to try to protect communities from pollution caused by oil and gas.

Q So the answer is "yes" then. Thank you.

A I wouldn't characterize it that way, but --

Q Okay.

A -- it's up to you.

Q And Mr. Horwitt, you are not a chemist. Correct?

A That's right.

Q And Mr. Horwitt, you are not a chemical engineer. Correct?

A That's correct.

Q And Mr. Horwitt, you are not a toxicologist.

1 Correct?

2 A That's correct.

3 Q And Mr. Horwitt, you have no scientific  
4 education. Is that correct?

5 A I have -- I don't have a degree in science,  
6 but I have taken multiple courses in science in  
7 college.

8 Q Okay. You do not have a degree in  
9 engineering. Correct?

10 A That's right.

11 MS. MULCAHY: Nothing further. Thank  
12 you.

13 THE HEARING OFFICER: All right. Thank  
14 you. Mr. Maxwell, do you have questions of Mr.  
15 Horwitt?

16 MR. MAXWELL: Your Honor, I do not.  
17 Thank you.

18 THE HEARING OFFICER: Thank you. Mr.  
19 Tremaine, do you have questions of Mr. Horwitt?

20 MR. TREMAINE: No, no further  
21 questions.

22 THE HEARING OFFICER: All right. Mr.  
23 Davis, any redirect before I go to the commission?

24 MR. DAVIS: I do not have any redirect.  
25 Thank you.

1 THE HEARING OFFICER: All right. Thank  
2 you. Mr. Chair, do you have questions of this  
3 witness?

4 MR. RAZATOS: I do not.

5 THE HEARING OFFICER: Okay.  
6 Commissioner Bloom?

7 MR. BLOOM: Madam Hearing Officer,  
8 thank you. Can you hear me? It's live? Yeah. Okay.  
9 Probably screaming.

10 MR. BLOOM: Yesterday at this time, I'm  
11 sure I clearly remembered Mr. Horwitt's testimony and  
12 the issues that he spoke to. At this point, having  
13 heard a little bit from all sides, I'm Mr. Horwitt, if  
14 you could give us a two-minute summary of the issues  
15 you spoke to, I do have some questions. I'm just not  
16 sure which person to ask them of, so --

17 A I'm sorry? The issues I spoke to?

18 Q The issues on which you provided testimony.

19 A Oh yes. Yes, so basically we're -- we are  
20 concerned about the use of PFAS in oil and gas  
21 operations in New Mexico. The organization that I  
22 wrote a report for, Physicians for Social  
23 Responsibility, found that over about a ten-year  
24 period, oil and gas companies have used two types of  
25 PFAS as Ms. Mulcahy mentioned in -- in New Mexico,

1 PTFE and -- I'll try to attempt this one  
2 also -- fluoroalkyl alcohol substituted polyethylene  
3 glycol, I think.

4 And we are concerned that those -- that  
5 those types of PFAS could pose toxic risks given the  
6 evidence we know about the types of PFAS that have  
7 been studies for toxicity, which have been found to  
8 have a variety of health harms, including cancer,  
9 preeclampsia, which is a dangerous condition for  
10 pregnant women, low birth weight babies, and others.  
11 We're also concerned that there are many, many, many  
12 examples over this ten-year period, 2013 to 2022, of  
13 oil and gas operators in New Mexico using at least one  
14 trade secret chemical in their oil and gas wells,  
15 which could be additional PFAS.

16 We counted 8,000 some wells out of a total  
17 of 9,000 wells we examined in that period. And so  
18 given the extreme toxicity of the PFAS that have been  
19 studied for toxicity, you know, we -- we believe it's  
20 very important to have full disclosure of the  
21 chemicals going into oil and gas wells in New Mexico  
22 so that the public can know the extent of the use of  
23 PFAS, and we think it's very important to have a  
24 prohibition on PFAS.

25 I'll just add, there are two other pathways

1 through which oil and gas companies in New Mexico  
2 could use PFAS without disclosing them to the public,  
3 and one is that under New Mexico's law, companies have  
4 to disclose to the public only chemicals they use in  
5 hydraulic fracturing but not the chemicals they use in  
6 other stages or methods of oil and gas production,  
7 like drilling that precedes fracking, chemical  
8 flooding, anything else.

9 And so chemicals that could be PFAS could be  
10 used in those other stages and methods. And then New  
11 Mexico's law also -- also says that disclosure does  
12 not have to extend beyond what's in safety data sheets  
13 related to the chemical products. And what we found  
14 in our research is that those safety data sheets, at  
15 least in other states where we've been able to examine  
16 them, often do not disclose the full list of chemicals  
17 in the chemical product.

18 So in other words, a company might use a  
19 chemical product in an oil and gas well. The safety  
20 data sheet could say something like, "This product  
21 contains 5 percent methanol and 25 percent water," and  
22 that's it, and the 75 percent -- 75 percent of the  
23 ingredients could be missing. And we've seen multiple  
24 data sheets like that. So if that's the basis for the  
25 disclosure, it could be incomplete and there could be

1 PFAS used without being disclosed.

2 Q Okay. Thank you, Mr. Horwitt. Mr. Horwitt  
3 and Mr. Davis, I do have some questions for y'all, and  
4 if you feel that there's somebody coming after you  
5 that would be more appropriate to answer that, just  
6 please let us know. Mr. Horwitt, are you comfortable  
7 speaking to some of the public disclosure related  
8 issues?

9 A I think so.

10 Q Okay. And I'll ask this of NMOGA's witness,  
11 too, but we heard, I believe, from NMOGA today that  
12 PTFE and FPEG have not been used in New Mexico in a  
13 number of years, but how do we know something like  
14 that with certainty when there are protections for  
15 proprietary information? Do we actually know what has  
16 gone down the well bore in a frack job?

17 A Yeah. We don't know that with certainty.  
18 We examined in our report the records listed with  
19 FracFocus, which at least some of the witnesses  
20 mentioned, that that is the repository, the legally  
21 required repository for fracking chemicals for the  
22 State of New Mexico.

23 And we also looked at the disclosures to the  
24 State of New Mexico, which used to be -- the  
25 disclosures used to be made under the law to the state

1 rather than FracFocus, or rather than solely to  
2 FracFocus, and then at a certain point, I think it  
3 was -- I can't remember exactly what year, there was a  
4 switch so that the fracking chemicals are disclosed  
5 only to FracFocus. That's the universe of reference  
6 we looked at.

7 And it is correct that the disclosed uses of  
8 PTFE and I will call it PEG, stopped at a certain  
9 point. I think PTFE did stop in 2020. The other one  
10 stopped in, I think it was 2015. But we cannot be  
11 confident that that means that those types of PFAS  
12 were not used beyond those dates or that other types  
13 of PFAS were not used during that ten-year period we  
14 looked at or beyond those dates, because of the gaps  
15 in disclosure that I mentioned.

16 Q Okay. Thank you. And then as part of  
17 WildEarth Guardians' proposal you would have a much  
18 more robust disclosure regimen, including people  
19 living nearby, police departments, fire departments,  
20 the BLM, the State Land Office. I'm not sure, and I  
21 might have missed it, but how would the public be  
22 advised in these cases?

23 A You mean how would they receive those  
24 disclosures? I think perhaps -- perhaps WildEarth  
25 Guardians could speak to that directly. I -- my

1 understanding, having looked at multiple different  
2 states' disclosure regimes, I -- I recall that in  
3 California they have a similar requirement that  
4 certain parties that live close to the fracking  
5 operation must receive disclosure, chemical  
6 disclosure, directly, and I believe they do that by  
7 certified mail. I'd have to double-check on that.

8 And let me just add that I do think it's  
9 important for people living close to the oil and gas  
10 wells to have that type of disclosure, especially if  
11 there were an emergency situation.

12 As Ms. Mulcahy said, there are some avenues  
13 for first responders to access trade secret  
14 information, which may not be available for certain  
15 wells; however, based on my conversation with a  
16 long-time first responder, time is of the essence in  
17 those situations, and having that data on hand would  
18 be very important so that a first responder would not  
19 have to contact a federal agency and perhaps wait some  
20 period of time to get that information.

21 And for people who are not first responders,  
22 it's also important to have the information as soon as  
23 possible so that people can make decisions about  
24 whether they want to ask for water testing for  
25 themselves or for their community, whether they want

1 to confer with scientific experts to determine if  
2 certain chemicals do pose a risk that are being used  
3 nearby. So there's several reasons I think it's  
4 important.

5 Q It looks like Mr. Davis went away, and I had  
6 one more follow-up regarding FracFocus, but Mr. Davis.

7 MR. DAVIS: Yeah, I'll just say that  
8 the proposed rule does not require any method for  
9 notification, nor does it restrict any method of  
10 notification.

11 MR. BLOOM: Would then this be left to  
12 the OCD to determine, or do we need to determine that  
13 in the course of this hearing?

14 MR. DAVIS: I would say that the  
15 division could do that. If we determine it in the  
16 course of this hearing, I'm certainly open to  
17 discussing that with the parties.

18 BY MR. BLOOM:

19 Q Very good. And Mr. Horwitt, do you know in  
20 the case that a company invokes their proprietary  
21 information, like a status under FracFocus, who has  
22 that information of what was used in that frack job?  
23 Is it just the company, or is it filed and held aside  
24 by FracFocus? Does OCD have that information? Do you  
25 know?

1           A       I have not seen any requirement that anybody  
2 besides the company has that information, and that's  
3 in contrast to Pennsylvania, which is the state [sic]  
4 that leaps to mind, which requires trade secret  
5 information to be filed with the state [sic]. So the  
6 State [sic] of Pennsylvania has fracking trade secret  
7 information at least for it's horizontal gas wells,  
8 and they keep that, but that's not disclosed to the  
9 public.

10           Q       Mr. Horwitt, we've seen a lot of M&A  
11 activity, merger and acquisition activity in the  
12 Permian Basin in the last decade plus. I don't know  
13 that too many people would imagine that -- that ending  
14 any time soon. I guess, does this raise questions for  
15 you about the longevity or the ability to get that  
16 information from a company when it hasn't been filed  
17 with the state, or FracFocus, or a third party that  
18 has an enduring presence, rather than a company that  
19 can be swallowed up by another one or frankly go out  
20 of business?

21                       Which is something I'm hearing from the Land  
22 Office, that's something that we deal with more than  
23 you'd imagine -- complete loss of records, both  
24 through hacking, companies shutting down. We've seen  
25 all that. Is that a concern?

1           A       Yes, it is a concern.  And I would add that  
2       under Colorado's newly enacted law that requires full  
3       disclosure of chemicals used underground in the oil  
4       and gas wells, all of that chemical information has to  
5       be shared with the state.  Although as Mr. Davis  
6       indicated, when the chemical information is disclosed  
7       to the public, it's disclosed in a way that is just a  
8       list of individual chemicals that would make it  
9       difficult for anybody to be able to link those  
10      chemicals back to particular chemical products that  
11      went into the well.

12                 And that's a -- you know, that's a type of  
13      chemical disclosure that has been recommended at least  
14      since 2014, when a panel of the Department -- U.S.  
15      Department of Energy recommended that type of  
16      disclosure for fracking chemicals as a way to make the  
17      public fully informed of what kind of chemicals are  
18      going into oil and gas wells without creating, you  
19      know, undue risks for the oil and gas companies that  
20      their intellectual property could be stolen by a  
21      competitor.

22           Q       A different angle on this perhaps, and this  
23      might be more of a question for Mr. Davis or someone  
24      else, or maybe it's irrelevant, but I mean, what do  
25      you hope that the public gains from this more

1 widespread disclosure? I think all of us get a lot of  
2 mail sometimes that we didn't ask for.

3           You know, if it was certified mail arriving  
4 in our boxes. We're someone that lives in the oil  
5 patch and we're receiving a lot of this. What do we  
6 do with it? How do we handle it? You know, would it  
7 help a fire department if the city, say, of Carlsbad,  
8 receives 400 notifications a year.

9           You know, we don't know that that's going to  
10 be organized in any helpful way. I'm wondering if  
11 there's another way to make information more  
12 accessible. I guess it's kind of an open question  
13 there.

14           A       That's a good question. I -- I think for an  
15 institution like a fire department, they -- they could  
16 receive, as you suggested, multiple  
17 certifications -- or multiple lists of chemicals if  
18 they cover the territory involving multiple oil and  
19 gas wells.

20           I would -- I -- I think it would be in their  
21 interest to keep those on file in some kind of  
22 organized way. As far as individuals, you know, I  
23 think it would be possibly unlikely that an individual  
24 would live near, you know, hundreds of wells or dozens  
25 of wells.

1 I think -- I think it would be a manageable  
2 amount of information. And you know, people can  
3 decide what to do with that, if they want to follow-up  
4 on it or not, but at least they would have access to  
5 it and they would know that there are chemicals being  
6 used close to them and, you know, and what those  
7 chemicals are. Yeah.

8 MR. DAVIS: Commissioner Bloom, I'd  
9 just like to add that Dr. David Brown will be  
10 testifying as well in this proceeding. He is a public  
11 health expert who has dealt with these disclosure  
12 issues in Pennsylvania. So just in terms of the  
13 importance of that, why it might be important to  
14 disclose, I would ask you to direct some of those  
15 questions to him and --

16 I'm not sure how the rest of this is  
17 going, but I think we may have just tried to contact  
18 him because I didn't expect that we might call him  
19 today, but I don't know, maybe we'll hear from him  
20 this afternoon.

21 MS. MULCAHY: Madam Hearing Officer, if  
22 I may --

23 THE HEARING OFFICER: Yes.

24 MS. MULCAHY: I want to make sure that  
25 it's clear that I continue to have a standing

1 objection to a lot of this testimony from Mr. Horwitt,  
2 particularly testimony about the toxicity of PFAS.

3 THE HEARING OFFICER: Would you speak  
4 up just a little?

5 MR. MULCAHY: I apologize. I'm sorry.  
6 I just wanted to make clear, because it wasn't clear  
7 from your last ruling, that this objection to Mr.  
8 Horwitt's testimony, a large part of it, I have a  
9 standing objection to it on the record, especially  
10 this stuff about, like, risk communications. He's not  
11 a toxicologist. Toxicity. He's not a toxicologist.  
12 I just wanted to understand that that is a standing  
13 objection.

14 THE HEARING OFFICER: Yes. All right.  
15 Your standing objection is on the record, and before I  
16 forget, I would ask you to send me and the other  
17 parties the document with the pink and purple  
18 highlighting that you showed on the screen.

19 MS. MULCAHY: Sure. I can do that. I  
20 just have to take some other information out of there  
21 that's not public.

22 THE HEARING OFFICER: That's fine.

23 MS. MULCAHY: Okay. Thank you.

24 THE HEARING OFFICER: I'm sorry for the  
25 interruption, Mr. Davis. You said you were going to

1 try to contact Dr. Brown. We'll hear whether he's  
2 available or not. Commissioner Bloom, were you  
3 finished with your questions?

4 MR. BLOOM: Just one more question.  
5 Mr. Horwitt, we heard from both the OCD and the Oil  
6 and Gas Association of New Mexico today that -- what's  
7 my question again here? That we need a narrower  
8 definition of PFAS because there are some PFAS  
9 chemicals that can't be tested for, and I'll ask this  
10 of their witnesses as well. Any reaction to that?

11 MR. HORWITT: I would say that's  
12 outside the scope of my testimony.

13 MR. BLOOM: Okay. Mr. Horwitt, one of  
14 the concerns I would have, and I think somebody  
15 mentioned ingredients in the foods we eat, like, I'm  
16 getting into law school type questions here or those  
17 sorts of hypothetical situations. But would it make  
18 sense to not say you couldn't put a novel poison in  
19 food because we can't test for it, because no test  
20 exists?

21 For example, and if you're still not  
22 comfortable answering these sorts of questions, I  
23 think -- theoretically what I'm struggling with is we  
24 can't -- to say we can't ban something because we  
25 can't test for it would say that there are other sorts

1 of things we couldn't introduce into certain types of  
2 supply chains simply because we don't have a test for  
3 them yet.

4 MR. HORWITT: I think I can just  
5 generally speak to this and maybe add one specific  
6 point. I think the regulation here that's being  
7 proposed falls generally under, you know, taking  
8 precautions based on what we do know to prevent very  
9 serious harm in the future based on what we don't  
10 know.

11 I mean, we do know that there are nine  
12 different types of PFAS that are regulated in drinking  
13 water by I think it's eight different states and the  
14 EPA. Not all of the states and the EPA regulate all  
15 of the types, but they, you know, together they  
16 regulate those -- those types.

17 And we know from -- from the  
18 Intergovernmental Technology and Regulatory Counsel,  
19 which is a consortium of states that come together to  
20 work on various issues, that there is very  
21 little -- that -- that for the PFAS that have been  
22 studied for toxicology, we know that -- that those are  
23 mostly the ones that are regulated. And they're  
24 regulated at very, very low concentrations in drinking  
25 water.

1                   And you can look at the state  
2 regulations, you can look at the EPA's regulations,  
3 and you know, draw your own conclusions about the  
4 toxicity there, but they're -- they're very low  
5 concentrations. And so based on what we know about  
6 the ones that have been studied, it would be prudent  
7 to act with caution and -- and say, you know, "This  
8 class of chemicals, from what we know, is very  
9 dangerous, and let's have a prohibition on their use,  
10 especially in this process, oil and gas extraction,  
11 that EPA has found has multiple potential pathways for  
12 water contamination."

13                   That's in the EPA's 2016 report on  
14 fracking and drinking water. This is not, you know,  
15 inside a laboratory where, you know, the chemicals can  
16 be carefully controlled. This is, you know, outside  
17 where you're injecting chemicals under high pressure.

18                   You can have leaks, spills, the -- the  
19 well integrity can be compromised underground,  
20 chemicals can get out into the drinking water. And  
21 that's happened in New Mexico. That's been documented  
22 in those, you know, documented cases of pit leakage  
23 led to the New Mexico Pit Rule.

24                   So there is some evidence here in New  
25 Mexico that yes, there are pathways with oil and gas

1 operations that can lead to water contamination, and  
2 you've got this class of chemicals that has some very,  
3 very high levels of toxicity associated with it. And  
4 so it's -- based on that information, it would be wise  
5 to put a prohibition on the further use of these  
6 chemicals in oil and gas wells.

7 MR. BLOOM: So just two last quick  
8 questions. Mr. Horwitt, so you're an attorney.  
9 You've been working for many years for Physicians for  
10 Social Responsibility. You've been advising states in  
11 regulatory matters. In that capacity, do you think  
12 regulators are better off when they -- scratch that.  
13 I think I heard that already.

14 But I guess the last question I would  
15 have for you, and I don't know if somebody else at  
16 WildEarth Guardians would want to address this, but  
17 are you all okay with adding this language that the  
18 ban on PFAS would be for -- and whatever that may  
19 be -- intentionally added PFAS?

20 MR. DAVIS: Just to give Guardians'  
21 position, we are not okay with that. And then to the  
22 extent that Mr. Horwitt could explain, you know, why  
23 "intentionally added" as a ban is different from a ban  
24 on PFAS without that language, I'd let him do that.  
25 But I'm -- I'm just saying that Guardians' position is

1 that we do not support that language, "intentionally  
2 added," to be added to the proposed rule.

3 MR. HORWITT: From my own perspective,  
4 I -- I would be concerned about limiting the ban to  
5 intentionally added PFAS because there are, you know,  
6 the largest source of fluid that goes into oil and gas  
7 wells is likely to be the water used in hydraulic  
8 fracturing. You know, wells can be injected with  
9 millions of gallons of water, an individual well can  
10 be injected with millions of gallons of water.

11 And that water can come from surface  
12 water, groundwater, and it can be -- it can come from  
13 water that is reused from previous hydraulic  
14 fracturing treatments.

15 If, you know, any of those sources have  
16 very high levels of PFAS in them, and we know that  
17 those levels can be astronomical based on what we know  
18 about, for example, Cannon and Holloman Air Force  
19 Bases here in New Mexico, then you could be injecting  
20 or introducing very high levels of PFAS into an oil  
21 and gas well with the potential that that water could  
22 leak, spill.

23 It could be in the wastewater that  
24 could come back to the surface. That could leak.  
25 That could spill. And so I think the commission

1 should consider expanding the prohibition to at least  
2 to certain concentrations in the water used in  
3 hydraulic fracturing, because that's such a large  
4 volume of fluid used in oil and gas wells.

5 The levels could be, you know, set at  
6 the same level that exists in, like, the EPA's  
7 drinking water regulation or other state drinking  
8 water regulations. You have to make sure -- the  
9 regulation could say, "You have to make sure your PFAS  
10 levels in your fracking water are at this level or  
11 lower."

12 MR. BLOOM: Thank you, Mr. Horwitt. No  
13 further questions.

14 THE HEARING OFFICER: All right. Thank  
15 you. Commissioner Ampomah, do you have questions of  
16 the witness?

17 DR. AMPOMAH: Yes, I do. Thank you so  
18 much for taking time to be here today to present your  
19 testimony to the commission. I do have a couple of  
20 questions. So in your testimony, on page 2 of your  
21 testimony, there's a statement that I'll read. "They  
22 are a class of laboratory-made chemicals that have  
23 useful properties, including being oil and  
24 gas" -- no -- "that have useful properties."

25 So I just want to know, based on your

1 studies, what are the, let's say, the usefulness of  
2 PFAS, you know, as utilized in oil and gas industry?  
3 What is the importance of that?

4 MR. HORWITT: I wish I could tell you,  
5 but there is a lot of confidentiality in the record we  
6 looked at, and -- and whether intentional  
7 confidentiality or not, it's very difficult to tell  
8 from FracFocus what the PFAS are being used for in the  
9 oil and gas operations.

10 There's a scientific paper that I cite  
11 in the report that I co-authored for Physicians for  
12 Social Responsibility written by a Gluge, G-L-U-G-E,  
13 and other authors, that surveys the use of PFAS across  
14 multiple industries, and in that article they -- they  
15 looked at patent records and other sources.

16 And they found that PFAS had at least  
17 been proposed for use in oil and gas extraction for a  
18 variety of purposes -- drilling, fracking, chemical  
19 flooding -- but it's not clear if the PFAS was used  
20 for those purposes or where. So I can't tell you  
21 exactly how it's used in the industry.

22 DR. AMPOMAH: So I want to ask, based  
23 on your studies, is there any specific example in the  
24 state of New Mexico in the two major basins, the San  
25 Juan Basin and then also in the Permian Basin, has

1 there been any leak of PFAS into underground source of  
2 drinking water that has been documented?

3 MR. HORWITT: You mean associated with  
4 oil and gas operations?

5 DR. AMPOMAH: Yes.

6 MR. HORWITT: Not that I know of, but I  
7 will add there have been very few studies that we know  
8 of examining the link between PFAS use in oil and gas  
9 operations and water contamination. There's -- there  
10 are three that I know of that are more -- more than  
11 just anecdotal.

12 One was a peer-reviewed paper published  
13 about investigating private water wells in West  
14 Virginia. It came out, I believe, in 2023. The  
15 researchers looked at, I think, 45 private water  
16 wells, and they did find a number of those wells -- 45  
17 water wells in areas near oil and gas  
18 extraction -- and they found that many of those wells  
19 had PFAS in them.

20 And in three of those wells, they  
21 concluded that it was likely that the PFAS originated  
22 from oil and gas production. In the other wells,  
23 they -- they could not be sure, because even though  
24 there was oil and gas production nearby, there was  
25 also another major source of PFAS pollution nearby,

1 the DuPont and Chemours chemical factory in  
2 Parkersburg, West Virginia. So that's one study that  
3 did a link between the use of PFAS in oil and gas  
4 wells and water pollution.

5 And then there are two other studies,  
6 one by the U.S. Geological Survey, which  
7 found -- which studied. Sorry. I have to remember  
8 which state they looked at. It was West Virginia.  
9 They looked at water supplies in West Virginia, and  
10 they did find PFAS in those supplies. Some of those  
11 water supplies were co-located in areas where oil and  
12 gas production is common, but they did not draw any  
13 conclusions about the sources of PFAS in those water  
14 supplies.

15 And then the third study came out in  
16 2023. The U.S. Geological Survey and the Pennsylvania  
17 Department of Environmental Protection looked at PFAS  
18 in streams in Pennsylvania, and they found PFAS in a  
19 number of the streams. And one of the findings was  
20 that some of the PFAS levels were close -- were  
21 associated with areas of oil and gas production and  
22 sewer system outfalls, but they said that more  
23 research was necessary to try to determine a link.

24 Those are -- those are the three  
25 studies I'm aware of that, you know,

1 have -- some -- have looked at some connection between  
2 PFAS use in oil and gas operations and groundwater,  
3 and you know, I would say that more research is  
4 necessary.

5 DR. AMPOMAH: Yeah, so are you aware of  
6 how oil and gas well is built?

7 MR. HORWITT: I have some familiarity  
8 with it.

9 DR. AMPOMAH: Yeah, so, you know, in  
10 your testimony, you talk about you found that oil and  
11 gas companies have used PFAS for fracking in New  
12 Mexico. You cited several wells that they've injected  
13 PFAS in there, and even you cited a company in your  
14 testimony.

15 So I just want to know, if you look at  
16 how oil and gas well are being constructed, to about,  
17 let's say 10,000 feet, you know, and how the stuff  
18 is -- the USDW, the lowest, or let's say they are  
19 probable with USDW, the surface most USDW, the way the  
20 wells are built up to protect, you know, I'm still  
21 curious because I don't see it anywhere here in terms  
22 of how, or let's say where it's documented,  
23 where -- in oil and gas wells, in about, let's say,  
24 10,000 feet, all the way gets into the surface water.

25 You know, I'm curious, based on your

1 research, these wells that you found in New Mexico,  
2 has there been any determinations that any of these  
3 injections, more or less, resulted in contamination?

4 MR. HORWITT: Of water with PFAS?

5 DR. AMPOMAH: Yes.

6 MR. HORWITT: In New Mexico, I'm  
7 not -- I'm not aware of any. But I would refer again  
8 to the EPA's 2016 report on fracking and drinking  
9 water, as well as the evidence from New Mexico of  
10 groundwater contamination from oil and gas waste pits,  
11 which documented 400 cases of groundwater  
12 contamination. It's certainly possible that oil and  
13 gas operations can contaminate drinking water through  
14 a variety of different pathways.

15 You know, it doesn't -- it doesn't  
16 necessarily have to come from the fracking that is  
17 10,000 feet below the surface. There could be a spill  
18 of the wastewater that comes up after fracking is  
19 complete. There could a spill on the surface before  
20 fracking is conducted or before drilling is conducted  
21 of chemicals.

22 There could be -- in the drilling  
23 process, there could be chemicals used in drilling the  
24 well prior to fracking. And if the wellbore goes  
25 through the groundwater when those chemicals are being

1 used, it could go directly into the groundwater. So  
2 there are multiple pathways. I think that more study  
3 is necessary to see if there is a link, because there  
4 has been very little study to date, and yet some  
5 concerning information.

6 I just want to add quickly, when I said  
7 I'm not sure how PFAS has been used in the oil and gas  
8 industry, what I mean is we know that it's been used  
9 in fracking, but I can't say precisely how it's been  
10 used, whether it's been used for, you know, a friction  
11 reducer, or a biocide, or, you know -- I -- I don't  
12 know that.

13 DR. AMPOMAH: So in your testimony are  
14 you saying that the petition that is the subject of  
15 this week's hearing asks the New Mexico Oil  
16 Conservation Commission to implement rules similar to  
17 the law enacted by Colorado, and, more or less,  
18 California. So I just want to know were those rules  
19 through legislation or through, more or less, like, a  
20 rulemaking?

21 MR. HORWITT: They were through  
22 legislation.

23 DR. AMPOMAH: So then do you believe  
24 that this probably should be in the New Mexico  
25 Legislature, more or less, and not these guideline

1 rules?

2 MR. HORWITT: I have not researched  
3 that aspect of New Mexico Law, but I would -- I would  
4 say that New Mexico should follow particularly in  
5 Colorado's footsteps one way or another. You know,  
6 California's legislation is also a step forward. It  
7 covers fracking chemicals only or stimulation  
8 chemicals only, whereas Colorado's legislation covers  
9 all chemicals used underground in oil and gas wells.

10 DR. AMPOMAH: Yeah, so the NMOGA  
11 position is that this has to be through legislation.  
12 So that is what I want to know your position on that,  
13 whether it is appropriate, you know, or not.

14 MR. HORWITT: I -- that's one aspect of  
15 New Mexico Law I've not researched. Sorry.

16 DR. AMPOMAH: So in your testimony you  
17 also talk about full disclosure to public. Now my  
18 question to you is why not to the divisions, but to  
19 the general public, in regards to the full  
20 disclosures?

21 MR. HORWITT: I'm sorry. Can you  
22 repeat the question?

23 DR. AMPOMAH: So my question is that  
24 with regards to the full disclosure and also you  
25 compound it with the trade secret provisions, why

1 not -- there has to be a full disclosure of the  
2 chemicals used by the operators to, let's say, for  
3 example, NMOCC, for instance, and not necessarily to  
4 the general public?

5 MR. HORWITT: You mean why not have the  
6 disclosure only to the division and not the public?

7 DR. AMPOMAH: Yes.

8 MR. HORWITT: Because the public has a  
9 right to know what chemicals they might be exposed to,  
10 so they can take action to protect themselves. For  
11 example, somebody might want to conduct, you know,  
12 what's called a baseline water test on their water  
13 well before any fracking occurs. So if they knew that  
14 certain chemicals were being used in the oil and gas  
15 industry, and they know that a well's going to be  
16 drilled near them, then they could test for those  
17 particular chemicals.

18 But under the current law, when there  
19 are some gaps, whether trade secret provisions or the  
20 fact that New Mexico does not require disclosure of  
21 drilling chemicals or chemicals used for any purpose  
22 other than fracking, it's impossible for the public to  
23 know the full universe of -- of chemicals being used  
24 in oil and gas wells, and they may not be able to  
25 conduct a baseline test on their water that would be

1 comprehensive.

2           They could test for those chemicals  
3 likely to be used, and then come back again after an  
4 oil and gas well were drilled or fracked and test  
5 again to see if there's any change in water quality,  
6 looking for those chemicals that have been known to be  
7 used. It would also empower regulators and scientists  
8 to conduct similar testing, maybe not -- maybe across  
9 multiple drinking water wells.

10           DR. AMPOMAH: So in your conclusion on  
11 the last page, so that would be, more or less, a  
12 summary of your findings, you say that, "The findings  
13 is these studies, that PFAS has contaminated water  
14 supplies near oil and gas extractions."

15           So on that one, I'm sure you are  
16 referring to the case in Pennsylvania or West  
17 Virginia. Would you be very specific on that, you  
18 know, not necessarily making it more broad, to see  
19 more -- to show probably more, like, this probably  
20 happened in New Mexico.

21           MR. HORWITT: I'm sorry. Could you  
22 just refer me to the exact page, please?

23           DR. AMPOMAH: So page 19. And I  
24 presume that would be the summary of your testimony.

25           MR. HORWITT: And, sir, which line on

1 page 19?

2 DR. AMPOMAH: Line number 5. You know,  
3 as I read through your testimony, it's very broad.  
4 You know, so you are, more or less, making inferences  
5 from West Virginia, Pennsylvania, and more or less, I  
6 don't see how you link that to New Mexico.

7 So this here, on line number 5, "The  
8 findings in these studies that PFAS had contaminated  
9 water supplies near oil and gas extraction." So on  
10 that one, I'm saying, can you, more or less, be very  
11 specific, you know, to the examples that you are  
12 citing in here? Because this statement, more or less,  
13 looks very, very broad.

14 MR. HORWITT: I can talk about  
15 the -- the studies that I mentioned. I -- I'd just be  
16 repeating them. The study from West Virginia, which  
17 found PFAS contamination in three wells that the  
18 researchers do link to oil and gas operations nearby,  
19 and they found PFAS in multiple other water wells in  
20 the same study, and those wells were located near oil  
21 and gas operations, though they could not conclude  
22 that the contamination came from the oil and gas wells  
23 because of possible confounding sources.

24 And then the other two studies, one  
25 in -- the one in West Virginia with the water supplies

Page 222

1 and the one in Pennsylvania with the streams, that  
2 showed association between PFAS contamination and oil  
3 and gas operations. There just isn't a lot of data  
4 out there that specifically looks at that connection,  
5 but we know that where oil and gas operations have  
6 been conducted, including in New Mexico, there has  
7 been groundwater contamination of some type linked to  
8 those operations.

9 In other words, oil and gas extraction  
10 can contaminate nearby water supplies. And we know  
11 that from New Mexico, as well as from other states.  
12 And so if PFAS is being used in New Mexico, if it's  
13 being used elsewhere, there is a chance that the  
14 contamination associated with oil and gas wells could  
15 contain PFAS. So it's a risk.

16 DR. AMPOMAH: Okay. So line number 11,  
17 and I just want to be straightforward on this  
18 particular statement, you know, we've talked about in  
19 trade secrets. Now you say that you present this in  
20 your testimony that, "Oil and gas well operators would  
21 have to disclose all individual chemicals injected  
22 into their wells without exception for trade secrets.

23 They would have to disclose chemicals  
24 used in all steadies and methods of extraction." So  
25 you want the commission to, more or less, agree to

1 you -- to agree to, more or less, and not this rule.  
2 Now my question to you is that does this not violate  
3 the trade secret provisions?

4 MR. HORWITT: Are you talking about the  
5 Uniform Trade Secret Act we mentioned earlier?

6 DR. AMPOMAH: Yes, yes.

7 MR. HORWITT: I have not researched  
8 that aspect in New Mexico Law.

9 DR. AMPOMAH: Now but you are  
10 making -- you are saying, it is your testimony that  
11 the commission should enact a law that where all well  
12 operators would have to disclose, so why would you,  
13 let's say, write a testimony like this without, more  
14 or less, digging deeper into, let's say, whether or  
15 not it is -- whether we, the commission, do have  
16 authority to, more or less, enact this law -- enact  
17 this rule?

18 MR. HORWITT: So my -- my understanding  
19 is that they did, but I can take their word for it.

20 DR. AMPOMAH: Okay. Thank you.

21 THE HEARING OFFICER: Okay. Thank you,  
22 Commissioner Ampomah. We need a break. It's been 2  
23 hours and 15 minutes. So let's take a 15-minute break  
24 until 3:45. Oh first, is there any reason not to  
25 excuse Mr. Horwitt? I guess, no? Terrific. Thank

1 you, Mr. Horwitt. You're excused.

2 When we come back, I will issue a brief  
3 invitation in the event someone has been waiting on  
4 the platform to offer public comment, since we're  
5 between technical witnesses. Mr. Davis?

6 MR. DAVIS: A quick announcement.  
7 During the questions from the commission, I was able  
8 to put some page numbers and an exhibit number on Dr.  
9 Brown's rebuttal testimony. It's two pages. And my  
10 understanding is that he is on the platform, so again,  
11 contingent on a ruling that his rebuttal is offered.  
12 First the rebuttal is there for everyone to see. I'm  
13 sorry I don't have any hard copies. But we -- I do  
14 believe we can call Dr. Brown next on the platform.

15 THE HEARING OFFICER: Terrific. Thank  
16 you very much for that. Let's take a break.

17 (Off the record.)

18 THE HEARING OFFICER: I don't know that  
19 we have Mr. Tremaine but I'll count on him coming  
20 back. Thank you, Mr. Rubin. Oh thank you. All  
21 righty. We are back after an afternoon break. Let me  
22 ask first whether there's anyone in the room who would  
23 like to offer public comment? I see no hands.

24 Is there anyone on the platform who has  
25 not already provided public comment who has comment to

1 offer at this time? There will be additional  
2 opportunities this week, but if you'd like to offer  
3 comment at this time, and I'm not referring to you,  
4 Dr. Brown. I'm going to take your testimony.

5 I'm talking about non-technical public  
6 comment. Non-technical public comment. All right. I  
7 see no hands raised on the platform. So again, the  
8 next opportunity for nonpublic -- non-technical public  
9 comment, excuse me, will be at 8:30 tomorrow morning.  
10 Please join us then if you'd like to offer something.

11 And now we have Mr. Tremaine and Mr.  
12 Powell. That's terrific. Mr. Davis, would you call  
13 Dr. Brown, please?

14 MR. DAVIS: WildEarth Guardians calls  
15 Dr. David Brown.

16 THE HEARING OFFICER: All right. Dr.  
17 Brown, if you would join us, turn on your camera  
18 there, I believe you'll be pinned to our screen. And  
19 do you swear or affirm to tell the truth?

20 DR. BROWN: I -- I do.

21 THE HEARING OFFICER: Thank you very  
22 much. Mr. Davis?

23 EXAMINATION

24 BY MR. DAVIS:

25 Q Good afternoon, Dr. Brown. Could you please

1 state your name and spell it for the record?

2 A My name is David Robert Brown, and it's  
3 spelled D-A-V-I-D, Robert, R-O-B-E-R-T, and Brown,  
4 B-R-O-W-N.

5 Q Did you prepare direct testimony on behalf  
6 of WildEarth Guardians in this matter, and is that  
7 Exhibit 57?

8 A Yes. I'm having some trouble with my screen  
9 going off. Is it you or is it me?

10 Q We're seeing it. We're losing your image.

11 THE HEARING OFFICER: I don't think  
12 it's us, Dr. Brown.

13 MR. RAZATOS: It's more than likely on  
14 his end.

15 THE HEARING OFFICER: But you know  
16 what, if it makes your connection unstable, you can  
17 offer your testimony without the -- the image. It's  
18 more important, at least for my purposes, to hear you.

19 THE WITNESS: Okay. It looks like it's  
20 okay now.

21 THE HEARING OFFICER: Okay. Thank you.

22 BY MR. DAVIS:

23 Q I believe I left off asking you, Dr. Brown,  
24 if your direct testimony was Exhibit 57. Is that  
25 correct?

1 A Yes, it is.

2 Q And did you prepare rebuttal testimony in  
3 this matter?

4 A Yes, I did.

5 Q And is that WildEarth Guardians Exhibit 97?

6 A It is.

7 Q Do you have any changes to that written  
8 testimony?

9 A No, I don't.

10 Q Did you review and rely on any documents to  
11 prepare your written testimony?

12 A Yes.

13 Q Are those documents WildEarth Guardians  
14 Exhibits 58 through 77?

15 A Yes, they are.

16 Q Your CV is also an exhibit to your  
17 testimony?

18 A Yes.

19 Q Is that WildEarth Guardians Exhibit 56?

20 A Yes, it is.

21 Q Is your written direct and written rebuttal  
22 testimony true and accurate to the best of your  
23 knowledge?

24 A It is.

25 Q Do you adopt your written direct and written

1 rebuttal testimony as your sworn testimony today?

2 A I do.

3 MR. DAVIS: Madam Hearing Officer,  
4 WildEarth Guardians moves for admission of WildEarth  
5 Guardians Exhibits 56 through 77 and WildEarth  
6 Guardians Exhibit 97.

7 (WildEarth Guardians Exhibits 56  
8 through 77 were marked for  
9 identification.)

10 (WildEarth Guardians Exhibit 97 was  
11 marked for identification.)

12 THE HEARING OFFICER: Thank you, Mr.  
13 Davis. Are there objections?

14 MR. RANKIN: No objections from NMOGA,  
15 Madam Hearing Officer.

16 THE HEARING OFFICER: Okay. All right.  
17 Thank you. Hearing no objections, Exhibits 56 --

18 DR. AMPOMAH: Quick one. Do we have  
19 the 97?

20 THE HEARING OFFICER: Yes, it was  
21 emailed recently. Mr. Davis?

22 MR. DAVIS: My apologies. I actually  
23 was able to put an exhibit number and page numbers on  
24 that during Mr. Horwitt's examination, and I emailed  
25 that to the hearing officer, parties, and to Ms.

1 Apodaca, and I did not directly email anything to the  
2 commission.

3 THE HEARING OFFICER: Ms. Apodaca,  
4 would you email Mr. Davis's -- forward Mr. Davis's  
5 email of Dr. Brown's rebuttal to the commissioners,  
6 please?

7 MS. APODACA: Yes, ma'am. I'll do it  
8 right now.

9 THE HEARING OFFICER: Thank you.

10 MR. DAVIS: And my apologies for that  
11 and not having a printed copy for the commission, but  
12 it is two pages, double-spaced, I believe.

13 THE HEARING OFFICER: All right. I'm  
14 wondering, Sheila, if it is possible for another staff  
15 member to assist you in making a hard copy just for  
16 those of us on the dais up here.

17 MS. APODACA: Yes, I'll get that done.

18 THE HEARING OFFICER: Thank you so  
19 much. Let me go back to the admission of the  
20 exhibits. I'm admitting Exhibits 56 through 77, and  
21 97.

22 (WildEarth Guardians Exhibits 56  
23 through 77 were accepted into  
24 evidence.)

25 //

1 (WildEarth Guardians Exhibit 97 was  
2 accepted into evidence.)

3 Let's see. We are going to go to NMOGA  
4 first for questions. Is that true, Mr. Rankin?

5 MR. RANKIN: Good afternoon, Madam  
6 Hearing Officer, commissioners, members of the  
7 commission. Yes, I'll be conducting the cross of Dr.  
8 Brown.

9 CROSS-EXAMINATION

10 BY MR. RANKIN:

11 Q Good afternoon, Dr. Brown. I'm sorry that  
12 your technology makes it hard for us to engage in a  
13 more personal way, but thank you for being here and  
14 thank you for your testimony. Dr. Brown, I understand  
15 from your dialog with Counsel that WildEarth Guardians  
16 Exhibit 56 is your -- your curriculum vitae. Is that  
17 right?

18 A That should be right, yep.

19 Q And that includes your education, work  
20 experience, and relevant training, relevant to this  
21 hearing on this rulemaking?

22 A Yes, it does.

23 Q And you would have included all relevant  
24 work and experience that would pertain to this  
25 specific rulemaking on that CV. Correct?

Page 231

1           A     I would.

2           Q     But I don't see any -- in your relevant  
3 experience, I don't see any discussion of work with  
4 PFAS or PFAS-related substances.

5           A     I -- I've been on a commission in the State  
6 of Massachusetts, their expert panel, and we've  
7 discussed and gone into the detail of PFAS.

8           Q     When did you join that commission?

9           A     Approximately 12, 15 years ago.

10          Q     Okay. But you didn't -- is that commission  
11 reflected on your CV or your work experience?

12          A     I'm not sure which CV I sent you. It might  
13 not have gotten on that one.

14          Q     Well let me see if I can just assist, not to  
15 belabor the point, but I want to make sure that we are  
16 able to reflect what -- I want to make sure I  
17 understand your history and background here. Are you  
18 able to see my -- my page on your screen, Dr. Brown?

19          A     I do.

20          Q     Okay. I'm going to just scroll through, and  
21 if you would, just tell me, you recognize this as your  
22 CV. Right?

23          A     Yeah, I think it was -- yes, it is.

24          Q     Okay. Do you recognize the commission on  
25 this CV that you're referring to?

1 A I may not have put it on that CV.

2 Q Okay. But you had some exposure to -- let  
3 me change that phraseology -- some experience working  
4 with PFAS on that commission. Is that right?

5 A We did.

6 Q Okay. And what was the context of that  
7 commission? Was the name of the commission?

8 A It was the Hazardous Substances Commission  
9 with Massachusetts Department of Health, and it was a  
10 group of experts who reviewed water and other issues  
11 that came before the toxicology group at the  
12 department.

13 Q What years were you on that commission?

14 A I've been on it since it was founded.

15 Q Do you recall what years those were?

16 A 2019, 2018.

17 Q To the present?

18 A Yeah, I'm sure -- that should have been '19,  
19 '18, to -- '19. It -- '95 to the present. Yeah.

20 Q Okay. So from 1995 to the present, you've  
21 served on that commission on the Massachusetts  
22 Department of Health?

23 A Right.

24 Q Okay. And in that commission, have you done  
25 research or prepared any reports or papers

1 specifically addressing PFAS?

2 A Yeah, we have. We've -- the State of  
3 Massachusetts, department, prepared papers. We  
4 reviewed them. This is a panel of experts from the  
5 New England area. We reviewed them, and we issued  
6 directives on drinking water levels for Massachusetts.  
7 And those are required to be reviewed every three  
8 years, so we've done that twice, and our most recent  
9 review was in 2023.

10 Q Okay. Thank you, Dr. Brown. In your  
11 testimony -- I'm going to go ahead and scroll down,  
12 just because it's probably easier since -- since I'm  
13 not sure if you have it in front of you -- on page 9.  
14 If you do happen to have it in front of you, that's  
15 great; and if you don't then I'll try to direct you to  
16 the portion that I'm interested in here. Down on page  
17 9 of your testimony, and I apologize if I'm making  
18 anybody dizzy by scrolling rapidly. I'm looking at  
19 page 9 in footnote 13.

20 A Okay.

21 Q You state her that, "Health risks associated  
22 with certain oil and gas fracking chemicals are shown  
23 in the document prepared by the Health Project, and  
24 you cite WildEarth Guardians Exhibit 68. Do you see  
25 that?"

1 A Yes.

2 Q Okay. Now you agree with me that health  
3 risks symptoms or health effects "associated with" a  
4 chemical exposure do not establish causation for  
5 purposes of public health toxicology. Do you agree?

6 A Not exactly. If you have no information at  
7 all in a public health setting, you would look at  
8 exposure risks and look at the classes of chemicals,  
9 and seeing if they are capable of producing the  
10 effects that you're seeing in the population.

11 Q So --

12 A I think I'm not sure I understood your  
13 question, but that --

14 Q I guess my question is isn't there a  
15 distinction between something that determined  
16 causation versus associating an exposure with a  
17 certain health effect. Isn't there a distinction  
18 between confirming that something is caused by an  
19 exposure versus associating a health effect with it?

20 A Well certainly there is. It's a little more  
21 complicated than that. You have to think about what  
22 are the chemicals that you're looking at capable of  
23 doing. And in a public health situation, when you  
24 have a population that's showing health effects, you  
25 have to think about how to -- whether those health

1 effects could be related to that chemical. If you're  
2 doing an analytical research study, you would -- or an  
3 epidemiology study, you would actually spend more time  
4 looking at chemicals and risks.

5           These chemicals fell in classes that  
6 produced those kinds of actions, and many of them  
7 actually, there is data available showing that they  
8 are health risks of various sorts. And that data's  
9 been tabulated by OSHA and other people, so you can  
10 get some feeling for them.

11           Q     So if I were -- in other words, you're  
12 saying that, if I understand you correctly, that  
13 public health agencies have tabulated the data and  
14 have evaluated whether there is an association with an  
15 exposure for a certain health risk?

16           A     There is -- there is -- to use the term  
17 "exposure" -- there's an exposure level at which that  
18 health risk would be expected, yes.

19           Q     Okay. But there's a difference between a  
20 health risk and an association with a health effect  
21 and determining causation with that exposure. Agree?

22           A     I don't.

23           Q     Why not?

24           A     I don't. I don't agree because I think your  
25 question was is there an association between -- is

1 there a difference between saying "this chemical, this  
2 health action was caused by a specific chemical," as  
3 opposed to the fact that this chemical is present and  
4 we're seeing health actions, which could be caused by  
5 this chemical or possibly another one. Generally we  
6 don't have, in environmental exposures, single  
7 chemicals; we have mixtures of chemicals present.

8 Q So based on that exposure to mixture of  
9 chemicals, how do you determine causation to any one  
10 specific chemical?

11 A Well you identify "this is a plausible  
12 health link" and since you're in a public health  
13 setting, you act to remove that chemical that possibly  
14 could be producing the effect.

15 Q Now also in your testimony, skipping down to  
16 page 15 -- sorry it will take me a moment to get  
17 there.

18 A That's okay.

19 Q In looking at lines 12 to 14. I'll  
20 highlight it here just for ease of reference. You  
21 state that, and I'll read it, then you tell me if I've  
22 done a good job, "It also has been confirmed that  
23 exposure to PFAS can cause hepatotoxicity,  
24 neurotoxicity, reproductive toxicity, immune toxicity,  
25 thyroid disruption, cardiovascular toxicity in humans,

1 and pulmonary toxicity and renal toxicity in  
2 laboratory animals." Did I read that correctly?

3 A That's correct.

4 Q And then you cite here to a paper that is  
5 attached to one of your exhibits -- it's one of your  
6 exhibits, it's Exhibit 73-A. And I'm not going to  
7 read the whole title of that exhibit, but that's the  
8 basis that you rely on for that statement. Correct?

9 A Well not the entire basis, but -- but that  
10 and the fact that -- that and the fact that you'll see  
11 those links are links that are in the literature.  
12 They're -- I read the, actually the papers, the  
13 original papers on it, and they show that there is  
14 hepatotoxicity effects, and there are other effects at  
15 very low doses.

16 Q So I just want to, you know, work through  
17 the nuance, or the language here, because I think it  
18 is important. Here in your testimony you used the  
19 word "confirmed."

20 A That's right.

21 Q And then you also use the word "cause." And  
22 I want to understand whether that paper that you cite  
23 to, because I read through it and I don't -- I'm  
24 not -- I'm not aware -- I can't determine -- I don't  
25 see where in that paper it establishes or confirms

1 that any of those conditions are caused by PFAS. Do  
2 you agree with me that that paper does not establish  
3 causation?

4 A No, I -- I think given the current level of  
5 understanding of PFAS, PFAS has -- I've actually  
6 looked at the basic actions of PFAS. PFAS is very,  
7 very toxic because at low concentrations it tends to  
8 bind with receptors, and it tends to interfere with  
9 membranes.

10 It also has effects on endocrine with  
11 endocrine factors. It -- it -- there's no doubt that  
12 it does that. It does that in animals. And in people  
13 there are similar -- reports of similar effects.  
14 Cause may be too strong a word, but if you want to put  
15 "plausibly cause" in front of that, you can do that.  
16 But it is a plausible cause of these effects.

17 In fact, the problem with PFAS is we don't  
18 know exactly how it acts in the receptor system to  
19 make these changes happen in the body that people are  
20 experiencing. But it's confirmed that  
21 that's -- that's what's happening. I mean, there's  
22 multiple studies -- not multiple, but at least five to  
23 ten, that show that those effects are occurring. The  
24 question is what dose do they occur at.

25 Q Okay. Just a couple of questions. I mean,

1 I think I understood you to say, I mean, are you  
2 changing your testimony that it maybe should be  
3 restated as "plausible cause"?

4 A No. I'm -- I'm -- I'm convinced that they  
5 have -- that that, within the sense of, as well if we  
6 know the effects of those things, that those  
7 are -- they are linked to that -- to those exposures,  
8 and I think the word "cause" is descriptive of what's  
9 going on with the general public.

10 Q Just to be clear, you're using two different  
11 terms. One is "linked" and also "caused." I want to  
12 understand. Do you use those synonymously, linked and  
13 caused to mean the same?

14 A It depends on where I'm talking. It  
15 depends. And if I'm talking to a population, I  
16 would -- I would be -- I would get a strong response  
17 to that. If I was in front of the Society of  
18 Toxicology, I would give them more information about  
19 why I believe those relationships are causal.

20 Q Okay. But as to this citation on this paper  
21 here that I was referring to and footnote 24, is it  
22 your testimony that that paper that you cite to does  
23 establish causation for those health effects that you  
24 referenced in your testimony?

25 A It -- it -- it was -- not entirely, but as a

1 group of papers that we looked at, it was a key paper.

2 Q Okay. Now on page 8. I'm going to flip  
3 back again. I apologize for bouncing around. I wish  
4 I could say there was a reason to my madness, but I  
5 don't think there really is.

6 A I'll try and help you out.

7 Q All right. Page 8. I'm looking at lines 2  
8 to 6. And this is, sort of, jumping into a discussion  
9 where I think there were some public health  
10 assessments going on in Pennsylvania. Do I have that,  
11 sort of, general description correct for this portion  
12 of your testimony?

13 A Would you say your description again?

14 Q That starting at -- well it's really the  
15 bottom of page 7 at line 22, this portion of your  
16 testimony is discussing some public health assessment  
17 that was occurring in Pennsylvania. Is that correct?

18 A Yes. It was a -- it was a situation where  
19 people who were exposed to fracking and exposed to gas  
20 development were experiencing health effects and other  
21 concerns, and we were asked to -- I was asked to come  
22 in and form a group, to see what it -- what -- what  
23 was happening. So it was the beginning of a public  
24 health investigation of the type that we would have  
25 done if we were -- or someplace else, and they wanted

1 to do the investigation. That -- that is the  
2 description of the beginning of that project.

3 Q Okay. Now on that topic, reading through  
4 your testimony, your experience here, as I understand,  
5 is intended to relate your experience in Pennsylvania.  
6 Correct?

7 A Well it is -- it does relate my experience  
8 in Pennsylvania, but it was attempting to emphasize  
9 the fact of what problems occur if you're trying to  
10 investigate a public health outbreak where people are  
11 sick and you don't have information on what they're  
12 being exposed to, and you don't have information on  
13 the capability of the community where they're living.  
14 So our objective was to try to do something to  
15 ameliorate their health issues.

16 Q And so in your testimony, it's limited to  
17 your experiences with oil and gas operations in  
18 Pennsylvania?

19 A This was done in Pennsylvania, but we also  
20 looked at other states.

21 Q In your testimony --

22 A From the organization, there was an  
23 organization formed that was called  
24 environmental -- it's now called the Environmental  
25 Health Project. It was called the Southwest

1 Environmental Health Project. The initial studies  
2 were done in Southwest Pennsylvania. It extended  
3 further our from that and ultimately it was, we're  
4 working areas nationwide.

5 Q Okay. In your testimony, though, Dr. Brown,  
6 I didn't see anything outside of Pennsylvania. Do you  
7 agree with me that your testimony was limited to your  
8 experiences with oil and gas operations and public  
9 health effects in Pennsylvania?

10 A Well including my entire experience, but  
11 most of the data that I showed you came from  
12 Pennsylvania, yes.

13 Q Okay.

14 A And came from that project.

15 Q Okay. Thank you, Dr. Brown.

16 MR. RANKIN: I have no further  
17 questions.

18 THE HEARING OFFICER: Thank you, Mr.  
19 Rankin. Mr. Maxwell, do you have any questions of Dr.  
20 Brown?

21 MR. MAXWELL: Your Honor, I have no  
22 questions.

23 THE HEARING OFFICER: All right. Thank  
24 you very much. Mr. Tremaine?

25 MR. TREMAINE: Yes, Madam Hearing

1 Officer, I do have a few questions. Thank you.

2 CROSS-EXAMINATION

3 BY MR. TREMAINE:

4 Q Good afternoon, Dr. Brown. Thank you for  
5 being here, and I thank you for your time. I just  
6 have a few clarifying questions.

7 A Okay.

8 Q In WildEarth Guardians Exhibit 57, on page  
9 13, you've included a table including a list of  
10 symptoms. Do you recall that?

11 A On page 13? Yeah, I did.

12 Q Okay. Is my understanding correct that this  
13 is a list of symptoms that were reported to Project  
14 Health -- or excuse me, Health Project staff by  
15 individuals in the community?

16 A You're correct, but they were -- the way we  
17 set this up, we would send a nurse practitioner, or a  
18 nurse, or a health professional to each one of  
19 those -- each one of those people. They were  
20 families.

21 We selected one person out of each family,  
22 usually the adult, and these questions were -- there  
23 was a questionnaire. I didn't give it to you, but a  
24 questionnaire that asked, typically as a clinician  
25 would look at a case, starting from the head on down,

Page 244

1 each -- each system identified, we asked a question  
2 about that system. For example, "Do you have any  
3 problems with dizziness?" or "Do you have any problems  
4 with that?" And people would say, "Well I may be  
5 woozy, or I may be something else."

6 But because we had professionals asking  
7 them, they would say, "Well, that's dizziness," or  
8 "That's nausea," or we would rate that as that. So  
9 these -- each one of these items was defined as a  
10 clinician would define them, who was looking at the  
11 people.

12 We did that both in Pennsylvania, near the  
13 fracking areas, mainly as people were there. We also  
14 did it in New York State, which is similar, but no  
15 fracking or nothing had happened to these people, but  
16 they were identified as places where fracking would  
17 occur, or a compressor station or something would  
18 occur.

19 Q Okay.

20 A So it just isn't -- it just isn't a  
21 questionnaire where somebody wrote something down. It  
22 was identified by a clinician.

23 Q And is my understanding correct that  
24 your -- that the purpose of this table is to indicate  
25 your findings that, or conclusions that individuals

1 reporting to Health Project that were within a certain  
2 proximity to gas development experienced this list of  
3 symptoms at a higher rate than individuals who did not  
4 live within that proximity?

5 A Yeah. What we were trying to do is to  
6 identify which symptoms we had appeared to be most  
7 likely the most reasonably to be related to the health  
8 area.

9 For example, if you go down and look at  
10 joint pain, which is about the 12th from the bottom,  
11 there -- it -- this table suggested that's unlikely to  
12 be related to the health problem. But if you go up  
13 and look at nausea, for example, or abdominal pain,  
14 that was more likely to be related to the health  
15 problem.

16 What we're trying to do is to -- what we  
17 were really trying to do was to create an  
18 epidemiologic case description, so we could work and  
19 take the next step. And this told us what we should  
20 be looking for to designate this as a case.

21 Q Okay.

22 A For affects. So it's -- it's more than  
23 that. And there is some statistical significance  
24 within it, but we didn't -- we didn't test the  
25 statistical significance of this because it was not a

1 research study; it was trying to direct our -- our  
2 project.

3 Q Okay. So Dr. Brown, when you -- in this  
4 analysis, when you're looking at individuals, or  
5 getting reports from individuals who are living in  
6 proximity to gas development, can you please clarify  
7 what is the radius of that proximity that you're  
8 looking at?

9 A Yes, I can. It's -- it's usually within  
10 two -- two miles, or about three point something  
11 kilometers. Because we -- we -- we restricted our  
12 looking at where we -- we were calling it cases. We  
13 thought we had cases further out, but we wanted to be  
14 certain that we were not getting something else.

15 Q So is it your testimony that after  
16 performing this analysis you associate a list of -- a  
17 certain list of symptoms to living in proximity to gas  
18 development in Pennsylvania?

19 A It's my analysis that we see an increase in  
20 those symptoms. Because for example, you get a  
21 headache for some other reason, but these -- this  
22 population, which is a pretty large group -- it's 72  
23 people -- that they -- that that was a real increase.

24 Q Is my understanding correct that at the time  
25 of performing this analysis, you were not aware of the

1 potential of PFAS as a contributing factor to these  
2 potential health impacts?

3 A At that point in time, we had no idea that  
4 PFAS had any involvement whatsoever with -- with oil  
5 and gas, and that was -- and other compounds also, and  
6 that was a major problem from a public health  
7 standpoint, because what we were trying to do was  
8 identify where the likely causes of this are coming  
9 from. Using "causes" again, per the earlier  
10 gentleman.

11 And in public health when that -- when  
12 you're at that stage and you don't know what is  
13 happening, you take a step to break the chain of  
14 transmission. You're not trying to prove anything  
15 about this chemical does something or doesn't do it.  
16 You're trying to protect as many people as you can, as  
17 quickly as you can.

18 Q Dr. Brown, I took as a core tenant or  
19 takeaway from your testimony that one of your primary  
20 concerns was that you, due to a lack of information  
21 you do not actually know what might be causing  
22 potential symptoms such as those listed in this chart  
23 on page 13. Is that fair?

24 A It's fair up to a point. We know that some  
25 of those chemicals that were there were capable of

1 causing that, and it seemed reasonable to include  
2 that, but we also knew there were other chemicals  
3 there, which could have been synergizing and  
4 increasing the responses to these chemicals.

5 It's those other chemicals that we didn't  
6 know, so we were having to make the best judgment we  
7 could to protect the people with the information that  
8 was available. When we didn't have information  
9 available, we had no way to do anything with it,  
10 because we didn't have any information. Is that  
11 clear?

12 Q I think it was. Thank you, Dr. Brown. The  
13 wells that -- in this analysis, when you're talking  
14 about these wells in Pennsylvania, for which -- or  
15 reporting individuals are living within that two-mile  
16 radius, or assumed proximity, are you aware of the  
17 producing depth of those wells?

18 A That -- that information is available in  
19 Pennsylvania. It's -- the Pennsylvania DEP keeps  
20 that, provides that data. So on any given well at any  
21 given time, you can go and look at the depth of the  
22 well and see whether it's a shallow well or a fracking  
23 well. We looked only at hydrofracking wells.

24 Q Okay. Can you characterize the average  
25 depth of the wells that were considered?

1           A     No.

2           Q     Okay.  Would you agree that gas development  
3     in Pennsylvania typically occurs at a shallower depth  
4     than that occurring in New Mexico?

5           A     I don't know.

6           Q     Okay.  Are you able to characterize the  
7     difference between the production depth of these wells  
8     and the water depth?

9           A     Most of the wells were going through the  
10    water table, and then the fracking was occurring below  
11    the wells, if that's your question.

12          Q     Yes, Dr. Brown, that's essentially my  
13    question.  I'm trying to get at how far -- what's the  
14    delta in depth between the fracking depth that you're  
15    looking at and the water table.

16          A     It was -- I -- I don't -- I can get that  
17    actual data for you if you want them.  It's  
18    probably -- somebody knows that, I mean, but the fact  
19    is that the flowback water that was coming back and  
20    the produced water that was coming back was getting,  
21    sometimes and the flaring, was reaching the homes and  
22    people who we were working with.

23          Q     Thank you.  Dr. Brown, I think -- I just  
24    want to clarify.  Did you draw any conclusions as to  
25    whether the potential health systems you note in your

1 testimony and in your project were associated with air  
2 impacts or exposure to water contaminants?

3 A Yes.

4 Q Could you articulate that distinction?

5 A Sure. If we took -- the evidence that we  
6 had, we -- we looked at people who were drinking  
7 groundwater in wells and were also getting exposed by  
8 the air and compared them to people who were drinking  
9 public -- what we called public water, water that was  
10 from a community or such, and compared the two.

11 And we would see, in both cases we saw the  
12 health -- the pattern of health effects we were  
13 seeing. But we saw that those patterns were higher in  
14 those people who were drinking groundwater.

15 MR. TREMAINE: Thank you for that, Dr.  
16 Brown. I have no further questions.

17 THE HEARING OFFICER: Thank you, Mr.  
18 Tremaine. Mr. Davis, any follow-up?

19 MR. DAVIS: I do not.

20 THE HEARING OFFICER: All right. Let  
21 me move to the commissioners then. Commissioner  
22 Ampomah, would you like to start this time? No?  
23 Sorry. Commissioner Bloom? That's what I meant to  
24 say.

25 MR. BLOOM: All right. Thank you, Dr.

1 Brown. Can you hear me okay?

2 DR. BROWN: I can hear you fine. Thank  
3 you.

4 MR. BLOOM: All right. From my  
5 perspective at this point, some of the issues we have  
6 to resolve during the course of this hearing are what  
7 definition of PFAS do we use? Should we prohibit the  
8 use of undisclosed chemicals in New Mexico? We also  
9 need to talk about how studies are performed  
10 post -- post accident in our state. And should  
11 notification be changed? And if so, how do we do  
12 that?

13 So I think my questions for you are do  
14 you have any thoughts on which definition of PFAS we  
15 should use? There's a broader one that WildEarth  
16 Guardians has proposed, and I believe OCD and NMOGA  
17 have different -- a different definition or  
18 definitions. Oh I think I'll make the question. Do  
19 you have any thoughts on which definition we should  
20 use, the broader or more narrow one?

21 DR. BROWN: I would use the broader  
22 definition, and the reason is that if we look at  
23 PFAS -- first of all, PFAS is amazingly toxic. It is  
24 probably more toxic than dioxane, the -- the water  
25 levels set by EPA for all of these agents are very

1 low -- they're in parts per trillion.

2 Of the compounds that we've studied  
3 well, that have been studied well, I think only one or  
4 two have been shown not to be as toxic as the  
5 extremely toxic ones, although they're still toxic.  
6 So every compound that has been tested carefully has  
7 been shown to be a very hazardous compound.

8 I think if other chemicals come in, we  
9 would be acting too hopefully that they would not be a  
10 toxic chemical. I think the, you know, seven, I think  
11 it's seven out of nine chemicals are in the highly  
12 toxic range. I think there's a message for us there.

13 MR. BLOOM: And this is -- your  
14 thinking on this based as a Doctor of Physiology and  
15 Toxicology?

16 DR. BROWN: Yeah, more -- more on my  
17 chemistry and my biology background. We think about  
18 compounds in toxicology in groups. We think about  
19 aldehydes. We think about groups of chemicals. And  
20 we think about what target organ do they have. We  
21 don't have a specific target organ necessarily for  
22 these compounds, but wherever they turn up they seem  
23 to produce effects at very, very low doses.

24 There's a piece of data from Minnesota  
25 that I didn't provide to you where the State of

1 Minnesota put strong controls on PFAS and the blood  
2 levels in their people actually went down after a  
3 couple of years, so I think that there's no doubt that  
4 they get in the body, they produce blood levels that  
5 are within the range that we would be worried about as  
6 health professionals, and not having them there is  
7 better.

8 And to come back to your question,  
9 I -- I think we would be making a too -- don't want to  
10 use the term "faulty," but this: If we were to assume  
11 that these compounds only occurred, the ones we've  
12 had, we've found all the toxic ones and the others are  
13 not toxic, I don't think that that's a logical  
14 assumption.

15 MR. BLOOM: And Dr. Brown, do you feel  
16 comfortable talking about public health?

17 DR. BROWN: Yes, I do.

18 MR. BLOOM: Okay. I think one of the  
19 reasons there's a more broad and more narrow proposal  
20 is the more narrow one would limit what we can test  
21 for, saying that there aren't tests for all of these  
22 substances out there, and therefore, we shouldn't ban  
23 them. Do you have any comments on that?

24 DR. BROWN: I'll try to keep myself in  
25 control. I -- I -- not knowing whether something is

1 toxic doesn't make it safe to anyone. And we have a  
2 history in our country, and the world, of finding  
3 toxic chemicals that we've been breathing for years.  
4 Lead would be one of them, and others, mercury and  
5 things of that sort. When we got the chemicals out of  
6 the environment, people showed increased robustness  
7 and stuff.

8           So from a public health standpoint, if  
9 you don't know that something is safe, the only thing  
10 you can say is, "I don't know whether it is safe or  
11 not." And if somebody asks you what to do, you need  
12 to avoid the exposure or reduce it, if you can. The  
13 problem with PFAS and its danger is individuals don't  
14 have a way to reduce it. They -- they can move away,  
15 is basically -- is all they can do.

16           And people in Pennsylvania, some of  
17 them just abandoned their homes and moved away because  
18 they couldn't be certain their children were safe. I  
19 don't think we personally, as a toxicologist, or a  
20 professional, or anybody -- I don't want people moving  
21 away from their houses because they don't know whether  
22 it's safe or not.

23           MR. BLOOM: So in your professional  
24 opinion, you would say that we should establish a  
25 chemical as safe before we allow it versus allowing it

1 and then trying to find out later if it's toxic?

2 DR. BROWN: That -- that would be the  
3 only moral thing to do, but we don't do that.

4 We -- we don't have a precautionary principle. So but  
5 we do -- FDA, for example, with drugs, carefully  
6 follows exposures in people when something new is put  
7 out there, so that they would -- each year, they would  
8 go back and make sure the drug didn't have some  
9 unforeseen effect.

10 And in occupational medicine, we  
11 usually could do that by -- and I worked in  
12 occupational medicine for some time -- we actually can  
13 look at the workers and see how the workers are doing  
14 after the exposures. With the oil and gas industry,  
15 there really is no available, that I know of, health  
16 information on their workers, their workforce,  
17 available to the public. So you don't have that clue.

18 You have to go to the public, as we had  
19 to go in Pennsylvania and say, first, "Were these  
20 people plausibly exposed? They were? Were they  
21 showing health effects? They were. Were there  
22 chemicals there that could have caused these health  
23 effects? They were there. Do we know what to tell  
24 them to do?" We -- we didn't.

25 MR. BLOOM: Thank you. Yeah, thank

1 you. Just changing tact, maybe two more questions.

2 DR. BROWN: Okay.

3 MR. BLOOM: So WildEarth Guardians'  
4 proposal would greatly expand disclosure to residents,  
5 police departments, fire departments, the Bureau of  
6 Land Management, the State Land Office, where I work,  
7 anyone within one mile of where the frack job's taking  
8 place.

9 We're not quite sure yet what form that  
10 communication would take. You know, it could be a  
11 postcard, it could be a certified piece of mail. What  
12 would you want? I looked at some of the citations you  
13 made. You talked about the EPA's SALT program.

14 DR. BROWN: Yeah.

15 MR. BLOOM: I'll call it SALT program.  
16 And you know, it talks about providing in, kind of,  
17 actionable information, following up so that there's  
18 education, things like that. Just your thoughts,  
19 please.

20 DR. BROWN: I'll try to stay on point.  
21 First if you don't tell somebody that somethings toxic  
22 or something is there and you know it, and they find  
23 out that you didn't tell it to them, you -- you cease  
24 becoming a trusted source. SALT talked about trusted  
25 sources.

1           And once you cease to become a public  
2 trusted source, the public health community and the  
3 government overall loses its ability to protect the  
4 population, because they just don't believe you. They  
5 think you lie. So you don't want to do that.

6           Water companies in some areas have  
7 systematic ways where they warn you. I just got  
8 something in the mail from my water company saying  
9 they didn't know whether there was toxic lead in the  
10 pipe coming to my house or not. I should test it  
11 myself. That's -- but they have frequent requirements  
12 that they do that.

13           Some communities have put data on  
14 websites, so that you can get to websites. The  
15 FracFocus website is a nice website, but it doesn't  
16 tell you enough. It tells you that there's a chemical  
17 there. It doesn't tell you what, sort of, organ  
18 system would be affected, which a clinician would  
19 need. It doesn't tell you what the signs and symptoms  
20 would be, which is what a patient would want. Can  
21 that problem be solved? I think it can.

22           I think that we -- we have to change.  
23 In some cases we might do it at the county level if  
24 you have counties. You might do it at the  
25 public -- department of public health level if -- if

1 you have an aggressive public health department or a  
2 thoughtful public health department. But I think the  
3 failure to tell somebody that something is there, you  
4 lose so much of your ability to do your job when they  
5 decide "I can't trust those people." I think you have  
6 to do something.

7 MR. BLOOM: Thank you. No further  
8 questions. Thank you, Dr. Brown.

9 THE HEARING OFFICER: All right. Thank  
10 you. Mr. Chair, do you have questions?

11 MR. RAZATOS: Thank you, Dr. Brown.  
12 Appreciate it. I do have some questions. On the  
13 charts that you have on page 13 with the symptoms in  
14 the exposed population from Pennsylvania and the  
15 non-exposed population in New York, just out of  
16 curiosity, why is your sample size different, an n of  
17 77 and an n of 88?

18 DR. BROWN: It -- it -- it is  
19 different. It wasn't a study. This was a collection.  
20 We got --

21 MR. RAZATOS: Dr. Brown, your -- your  
22 volume, kind of, went down. You changed something  
23 with your microphone. I can barely hear you.

24 DR. BROWN: Can you hear me now?

25 MR. RAZATOS: Yes, sir.

1 DR. BROWN: Okay. It wasn't exactly a  
2 study. We -- we were looking in New York State for  
3 health effects that were occurring. We managed to get  
4 88 families. We looked at Pennsylvania, and we  
5 were -- remember I was restricting the families to a  
6 certain distance around the -- around the site, and  
7 that's the number we got. Statistically, I'm -- I've  
8 got a doctorate -- not a doctorate in statistics, but  
9 I studied statistics at Berkeley and Harvard. And  
10 those -- those numbers we could do statistics with if  
11 we wanted.

12 MR. RAZATOS: So thank you for that,  
13 but I do have a question. Then on page 7 of your  
14 testimony, you spoke about "The table on page 9 shows  
15 a comparison of health complaints between fracking  
16 communities in Pennsylvania and similar population in  
17 New York." Is this the same table, just different,  
18 wrong page number?

19 DR. BROWN: Yeah, it's -- it's the same  
20 table. It got moved around when I was doing it. And  
21 the reason I stated it that way is we didn't go to  
22 Manhattan and look at people.

23 MR. RAZATOS: Sure.

24 DR. BROWN: We -- we -- we went to  
25 rural New York, which was, kind of, like rural

1 Pennsylvania with different food.

2 MR. RAZATOS: So thank you for that,  
3 but for rural New York, did you apply the same  
4 criteria? You said that the area in New York was  
5 planned to have gas wells, but the drilling had not  
6 happened yet. So did you still follow, like, they  
7 would be within two miles of these proposed gas wells,  
8 et cetera, et cetera?

9 DR. BROWN: That's a very good  
10 question --

11 MR. RAZATOS: I can't hear you again,  
12 Dr. Brown. You -- you changed something.

13 DR. BROWN: Sorry. I know what's  
14 happening. Okay. That's -- that's a very good  
15 question. I think we may have made the distance a  
16 little bit bigger just because there wasn't anything  
17 going on. There would be a farmhouse, and this would  
18 be the farmhouse within a mile or so, or half a mile,  
19 of where they were predicting they were going to put  
20 the well, or in some cases it was a compressor  
21 station.

22 MR. RAZATOS: Okay. So we're not  
23 really dealing with apples and apples, and oranges  
24 with oranges. We're fruit, but not the same  
25 statistics. So when you state we could draw

1 statistical comparisons off of this, we really can't  
2 because you're really not dealing with the same  
3 dataset.

4 DR. BROWN: And we didn't.

5 MR. RAZATOS: Or criteria.

6 DR. BROWN: Yeah. We didn't. What we  
7 were doing was looking at people who had the same SRS  
8 background in New York and comparing them to similar  
9 people in Pennsylvania. And we were trying to  
10 identify which of those health effects we were seeing  
11 would be more likely than not to be associated with  
12 the, being near the wells.

13 MR. RAZATOS: Okay. And just to  
14 clarify, the criteria, such as being within the  
15 two-mile radius of a well, or a proposed well, was not  
16 applied. Correct?

17 DR. BROWN: Well it was in  
18 Pennsylvania.

19 MR. RAZATOS: In Pennsylvania but not  
20 in New York?

21 DR. BROWN: There was no well in New  
22 York.

23 MR. RAZATOS: I know, but there was a  
24 proposed site. Correct?

25 DR. BROWN: Yeah. We didn't -- we did

1 not do that, no.

2 MR. RAZATOS: Okay. Thank you for  
3 that. My next question was, in the questioning, that  
4 the Oil Conservation Division asked you, you stated  
5 that chemicals can synergize.

6 DR. BROWN: Sorry.

7 MR. RAZATOS: I beg your pardon?

8 DR. BROWN: I'm sorry. I'm --

9 MR. RAZATOS: It's been a long day, I  
10 know, Doctor. I apologize. It's long for us all, and  
11 it's --

12 DR. BROWN: I'm -- it's beyond seven in  
13 New York.

14 MR. RAZATOS: Yes, I know. So if you  
15 could just bear with me, I apologize.

16 DR. BROWN: Yeah.

17 MR. RAZATOS: You stated that these  
18 chemicals can synergize, and I wanted to know,  
19 synergizing in what way? Do we have any of that data?

20 DR. BROWN: Yeah, we do, a little bit.

21 MR. RAZATOS: Okay.

22 DR. BROWN: Synergism, particularly  
23 these chemicals tend to attach themselves to fine  
24 particulate and PM2.5, and the PM2.5 carries the  
25 chemical into the deep lung.

1 MR. RAZATOS: And Doctor, could  
2 you -- I'm sorry. Could you tell me what PM2.5,  
3 because that was going to be one of my questions, as  
4 well? I was trying to find it in your testimony here,  
5 but you didn't say what PM stood for.

6 DR. BROWN: I'm sorry. It's  
7 particulate matter. It's -- that is --

8 MR. RAZATOS: Smoke.

9 DR. BROWN: Smoke. But very fine  
10 smoke, less than the width of a human hair.

11 MR. RAZATOS: 2.5 microns, 2.5  
12 nanometers?

13 DR. BROWN: Microns. No, 2.5 microns.

14 MR. RAZATOS: Okay. Thank you.

15 DR. BROWN: Very fine particulate. And  
16 that size particulate absorbs water-soluble toxic  
17 chemicals, water-soluble chemicals to the surface.  
18 Those water-soluble chemicals, if they're not on  
19 particulate, are trapped in the upper respiratory  
20 tract and -- and are relatively nontoxic. If they're  
21 on particulate, they don't -- they go by that trap and  
22 go to the deep lung, where they can be absorbed into  
23 the -- into the bloodstream.

24 MR. RAZATOS: Okay.

25 DR. BROWN: So that -- and that effect

1 is about a ten-fold effect in terms of toxicity. So  
2 if you put a toxic chemical in the air and expose some  
3 animal to it, and then put fine particulate with it,  
4 mix it, and then it will make the animal ten times as  
5 sensitive.

6 MR. RAZATOS: Okay.

7 DR. BROWN: And unfortunately almost  
8 all of the chemicals that we're getting around these  
9 sites are in the presence of fine particulate, PM2.5  
10 and smaller.

11 MR. RAZATOS: Okay. That made more  
12 sense. Thank you for clarifying that. But I just  
13 have two more questions, and they should be fairly  
14 simple.

15 DR. BROWN: Sure.

16 MR. RAZATOS: In the table with the  
17 Southwest Pennsylvania and all the symptoms that they  
18 were seeing, was bloodwork done on these individuals,  
19 and if so, was PFAS in these people's blood?

20 DR. BROWN: There was -- in some cases,  
21 there was bloodwork done that was gathered from NIOSH,  
22 National Institute for Occupational Health Data. In  
23 some cases, there was bloodwork done on those  
24 chemicals. In other cases, it was just an air -- it  
25 was not just an air exposure, it was another effect.

1 And I don't think they looked for PFAS.

2 MR. RAZATOS: Okay. But there was some  
3 PFAS data collected on some of the samples?

4 DR. BROWN: In that -- for that table,  
5 we didn't know PFAS was a problem when we prepared  
6 that table, so we didn't look for it.

7 MR. RAZATOS: Okay. Sorry. That  
8 generated another question for me then.

9 DR. BROWN: Okay.

10 MR. RAZATOS: So then you're  
11 extrapolating that PFAS is present in the area, PFAS  
12 can have these particular effects on an individual;  
13 hence, PFAS could be an attributing cause to, for  
14 instance, as you brought out, and I apologize, I  
15 flipped the page so I need to get back, headaches,  
16 shortness of breath, hair loss, skin cysts, any of  
17 these gamut of issues. Is that what I'm  
18 understanding, you're extrapolating that PFAS could  
19 potentially cause these issues?

20 DR. BROWN: Well some of them, they  
21 could. It's -- some of them are consistent with what  
22 PFAS is known to do. Others it's not. But there are  
23 certain ones in here. I can -- if you'll bear with  
24 me, I can take a look and see if I can show those.  
25 Shortness of breath may -- maybe all. The skin rash,

1 the weakness, and there's -- there's probable others  
2 in there, too -- are also consistent with PFAS being  
3 there. But there's other chemicals that could do  
4 that, too, in the -- in the chemicals that we found  
5 present in fracking.

6 MR. RAZATOS: Okay. So it could be any  
7 gamut of these chemicals that are in fracking,  
8 including PFAS, could cause these issues. Correct?

9 DR. BROWN: Sure.

10 MR. RAZATOS: Okay. So you're not  
11 necessarily saying PFAS is doing this. You're saying  
12 any gamut of these compounds could be contributing to  
13 this -- these causes in these individuals?

14 DR. BROWN: Yeah, the -- the -- the big  
15 problem is that nobody's getting exposed to just PFAS  
16 or just nitrogen oxide. People there are getting  
17 exposed to all of it. And when they get exposed to it  
18 because of the weather system, they get exposed to  
19 very high levels.

20 MR. RAZATOS: Sure, and --

21 DR. BROWN: So you're faced with "I  
22 don't know."

23 MR. RAZATOS: Okay. And as you can  
24 see, I mean, I -- I understand that there's other  
25 chemicals, as well, but we're strictly talking about

1 PFAS, so I'm keeping it strictly on the PFAS here.

2 DR. BROWN: Okay.

3 MR. RAZATOS: So I do appreciate your  
4 answers on that. My last question for you, in your  
5 conclusion on page 20, on, starting with line 5, it  
6 says, "Additionally, it requires community  
7 identification of chemicals used downhole in oil and  
8 gas operations." And you were stating how, in this  
9 particular paragraph, that undisclosed chemicals down  
10 the hole in New Mexico right now is a problem. Did  
11 Pennsylvania notify individuals of downhole chemicals?

12 DR. BROWN: No. That was part of the  
13 problem. They -- they eventually began to  
14 put -- their -- they strengthened their  
15 identification. This project went over nine years,  
16 and it's still going on, but at the beginning people  
17 didn't receive any information at all. Ultimately,  
18 they did. There was an attorney general's report, I  
19 think you might want to look at, that caused the  
20 public health department to become more aggressive.

21 MR. RAZATOS: Okay. Awesome. So then  
22 in your professional opinion, who should be notifying  
23 these individuals? Would it be the actual company  
24 that is using PFAS? Is it the Department of Health?  
25 Is it in this instance, like, the Oil Conservation

1 Division, who regulates in the State of New Mexico?  
2 Who would be issuing these notifications?

3 DR. BROWN: I would think the person  
4 that -- the group that is most trusted in this is the  
5 Department of Health.

6 MR. RAZATOS: Okay.

7 DR. BROWN: That -- that  
8 would -- that's who I would think should do it. The  
9 least trusted -- my apologies to people from -- are  
10 the companies.

11 MR. RAZATOS: Sure.

12 DR. BROWN: Now there were companies in  
13 Pennsylvania who we had a great deal of confidence in,  
14 who came to us with information and were interested in  
15 what we were finding and what they could do about it.  
16 So it isn't a blanket, every company is bad. None of  
17 them were bad, but some companies were very, very  
18 concerned about the health issues that they might be  
19 creating.

20 MR. RAZATOS: Excellent. Thank you,  
21 Dr. Brown. No further questions from me.

22 THE HEARING OFFICER: Okay. Thank you.  
23 Commissioner Ampomah?

24 DR. AMPOMAH: Thank you. Dr. Brown,  
25 thank you so much.

1 DR. BROWN: You're welcome.

2 DR. AMPOMAH: So I do have a couple of  
3 questions. On page 4, line 5, in your testimony you  
4 said that, "WildEarth Guardians has asked that I  
5 describe any experiences responding to the human  
6 health risks from those chemical exposures encountered  
7 by residents in communities near oil and gas  
8 extraction." So my question to you is that, as you  
9 were preparing for your testimony, did you get any  
10 data from the state of New Mexico, especially within  
11 the two basins that produce oil and gas in the state?

12 DR. BROWN: I didn't -- I didn't use  
13 any data from New Mexico in doing that. In our  
14 history, we had worked with the Navajo Nation and on  
15 issues that they had with gas extraction, and of  
16 course, I considered that. There's a report on that  
17 someplace. But I didn't include it as it wasn't  
18 central to any point that I was making.

19 DR. AMPOMAH: So basically your studies  
20 were, more or less, centered in Pennsylvania. So why  
21 do you believe that the state [sic] of Pennsylvania  
22 has not banned PFAS?

23 DR. BROWN: I really don't have any  
24 professional knowledge on what the state [sic] of  
25 Pennsylvania does or doesn't do.

1 DR. AMPOMAH: Can you provide to the  
2 commission, you know, the depth, you know, based on  
3 your study, the depth where oil and gas operations  
4 were occurring in your study area, specifically in  
5 this -- in Pennsylvania?

6 DR. BROWN: I -- I could do that. It  
7 would require that I go back and dig it out. It would  
8 be -- it would be a significant effort.

9 DR. AMPOMAH: Yeah, then certainly that  
10 can be provided to us, since we do have a couple of  
11 days within the hearing. Definitely it is good for  
12 the commission, more or less, since there has not been  
13 any specific study in the state of New Mexico, and we  
14 are, more or less, relying on other states, as I think  
15 it is fair to the commission for us to get all the  
16 information for us to, more or less, make a very good  
17 decisive decision on this matter.

18 DR. BROWN: Yeah. I -- I think I  
19 suspect one of the people that I was talking to  
20 earlier can go online and get that depth information  
21 through Washington County in Pennsylvania.

22 DR. AMPOMAH: So in your study, as  
23 you -- or in your testimony -- so is your testimony  
24 that you don't have any data, or you do not have any  
25 information with regards to exposure of PFAS to oil

1 and gas operations in the state of New Mexico?

2 DR. BROWN: I don't.

3 DR. AMPOMAH: Okay. You talk about the  
4 pathways of exposure on page 10, page 10 of your  
5 testimony. I want to ask you, are you familiar with  
6 oil and gas operations, especially how we drill a  
7 well, we stimulate a well, we complete a well?

8 DR. BROWN: I -- I'm not an expert in  
9 that area, but in the work we were doing we had to  
10 understand how the wells were being drilled, the  
11 number of wells that would be on a site, and how they  
12 displayed what the air exposures were around the wells  
13 and what the potential water pathways were.

14 DR. AMPOMAH: So then can you explain  
15 to me, you know, it's not really clear, on the  
16 pathways of exposure? I do know that you've mentioned  
17 water contamination and airborne exposure.

18 So based on your understanding as to  
19 how oil and gas wells are operated, can you, more or  
20 less, explain to the commission how, based on your  
21 study, you've seen water contamination through, let's  
22 say with PFAS, and then also airborne exposures, for  
23 us to fully understand, with regards to the pathways  
24 of exposure?

25 DR. BROWN: I think you asked for PFAS.

1 We didn't know PFAS was there, so we didn't look for  
2 PFAS. We know other chemicals were there, and I can  
3 explain how we determined that there was a -- we would  
4 call that an open pathway of exposure by -- through  
5 water or through air. I could explain that to you.

6 DR. AMPOMAH: So you're saying that  
7 even now, because you still made mention of the PFAS  
8 in that session of your testimony? So can you  
9 describe to the commission how you see the  
10 contamination of, let's say, USDW on the ground source  
11 of drinking water, but let's say PFAS, and then also  
12 the airborne exposure, as well?

13 DR. BROWN: Well they're both pretty  
14 easy. If -- if PFAS -- everything that goes down the  
15 well that isn't utilized in the fracking process  
16 is -- eventually comes up the well with the gas, and  
17 it's released in -- I don't want to go into a lot of  
18 detail on that. Sometimes it's just released into the  
19 air in a blowdown. Sometimes it's released to the air  
20 and the gas is -- the gas is dried -- we had wet gas  
21 in Pennsylvania. The gas goes through a drying  
22 process and chemicals are released into the air that  
23 way.

24 Sometimes the water comes back and the  
25 wastewater and the produced water is used for various

1 uses. At one point in Pennsylvania, they were using  
2 it on the highway to control dust. So all of those  
3 were ways that information could get from a well to a  
4 person who could breathe it and be affected by it.  
5 That would be a closed -- we would call that an open  
6 pathway.

7           What we were trying to do, or our goal,  
8 was to close as many pathways as we could. We could  
9 close water pathways by simply saying, "Don't drink  
10 water. Drink it out of a, you know, a bottled water  
11 instead." We -- we closed that pathway partly by  
12 saying, "Don't take showers in any shower that  
13 doesn't -- isn't well-ventilated." We could say,  
14 "Take short cold showers." It didn't go over big with  
15 the teenage kids.

16           But our goal was to reduce the exposure  
17 because we did not know exactly what was causing this  
18 group of people to be sick, but we knew that they were  
19 ill and we knew that those people who were more ill  
20 were near sites with open pathways of exposure.

21           DR. AMPOMAH: Dr. Brown, so on page 12  
22 to page 13, you talk about the table of health  
23 symptoms. Now can you explain to the commission how  
24 was utilized this table. You know, especially where  
25 there is no data from the state of New Mexico, you

1 know, you are presenting two different, let's say  
2 scenarios, and even the Chair probed a little bit, you  
3 know, to comparing if it is apples to apples. How  
4 would you want the commission to view this table, and  
5 also how would you want to us to incorporate that into  
6 our decision-making?

7 DR. BROWN: I can -- I can only go so  
8 far with that. The way you would use a table like  
9 this is really three steps. First you would look at  
10 what is the -- these are symptoms, and you would say,  
11 "What organ system, the brain, the lungs, or soever,  
12 are affected by these systems?" We did that in our  
13 process. We would then take that -- that data and  
14 create what we called a case description.

15 The case description is actually in our  
16 files. It's online. It says, if you have one or more  
17 of these symptoms, or three or more of these symptoms,  
18 and you are in a position where you could be in a  
19 pathway of exposure, then we should consider your  
20 effect as potentially associated with the well -- or  
21 with the fracking process.

22 That -- that -- that table is as  
23 complete as we could make it when we made it,  
24 but -- but once you have a case description, then a  
25 public health agency or anyone else can screen a

1 population and find out who is being affected and  
2 who's not being affected. There's another step, of  
3 course, of identifying where are the possible sources  
4 of exposure to these people.

5           If I were doing this, I would ask the  
6 health department -- I've done this, actually. I  
7 would say to the health department, "If people call  
8 you with this series of effects and they are in an  
9 area where there's gas drilling, you should be  
10 concerned about a contaminated well or a downwind  
11 exposure that they're getting that's unduly high. The  
12 health department then is going to have to decide what  
13 it wants to do to protect those people.

14           DR. AMPOMAH: Thank you.

15           DR. BROWN: It -- it can be done. I  
16 will assure you that it can be done, but somebody with  
17 public health background or a health background is  
18 going to need to think through the steps for New  
19 Mexico, because I'm not from New Mexico. I'm from  
20 Connecticut. We have an ocean right next to us, and  
21 you guys are high desert, so it's different.

22           DR. AMPOMAH: Yeah, so even on that  
23 point, would you agree with me that it would have been  
24 more effective if, more or less, being an expert, you  
25 might want to, more or less, contact someone in New

1 Mexico who really do understand what is going on in  
2 New Mexico to give you some guidance on your  
3 testimony?

4 DR. BROWN: No, I don't think I need  
5 guidance on my testimony. I -- I actually worked at  
6 CDC where I was responsible for public health practice  
7 and safety at all the superfund sites in the country.  
8 So I know pretty much how it's done. If there were  
9 some unique things about New Mexico, they would  
10 be -- they would focus on the government of New Mexico  
11 and the ability of your communication system to get  
12 information out in a way that's trusted.

13 And I don't -- somebody would need to  
14 do that. But if you went to your health agency and  
15 asked some of the policy people, they could design it  
16 for you.

17 DR. AMPOMAH: Thank you, Dr. Brown. So  
18 this question is more general. I don't know whether  
19 you can respond to that or WildEarth Guardians do have  
20 some response to that.

21 The question is, as you prepare  
22 for -- let's say as you were preparing for this  
23 hearing, did WildEarth Guardians, more or less, talk  
24 to community members in the state of New Mexico,  
25 specifically within the basins where oil and gas

1 operations -- where we do have oil and gas operations?

2 You know, I took notes of all  
3 the -- all the public comments that we received so  
4 far. You know, some of the community members are from  
5 Santa Fe, talking about being exposed to PFAS in the  
6 water, you know, and in my mind, I'm like, "Okay, is  
7 there oil and gas operations in Santa Fe?" Right?

8 So do you have any, you know, do you  
9 have any data, you know, based on the communities,  
10 more or less, directly impacted by oil and gas  
11 operations in the state of New Mexico to back, let's  
12 say, some of the -- some of the research that has been  
13 done in West Virginia and Pennsylvania to, more or  
14 less, support the case?

15 DR. BROWN: I heard this morning, in  
16 fact, I've been listening to your -- your people, and  
17 it's just the same song in a new cafe. That's exactly  
18 what people were telling me in Pennsylvania. It's  
19 exactly, people were coming to our offices and telling  
20 the very same kind of stories.

21 They -- they -- they have limited water  
22 and they have limited resources to change it, but  
23 they're very concerned about the potential exposures.  
24 I don't think any of them that I heard this morning  
25 would want to repeat the experience that the people of

1 Pennsylvania experienced.

2 But I -- I would be very surprised if  
3 the natural -- the nature is the same in North -- in  
4 New Mexico as it is in Pennsylvania and in  
5 Connecticut, in Maine and in various other states, and  
6 countries around the world. There's air pathways that  
7 people are exposed to. We know that. There's water  
8 pathways that people are exposed to. Your people have  
9 very limited water.

10 Just thinking about the amount of water  
11 that you would use to frack a well is breathtaking how  
12 much of your water supply it would use. I don't think  
13 as an expert as I am in this area I would be able to  
14 go to any particular state and say, "This is what this  
15 state ought to do or not to." I can give you the  
16 information, but that's up to you to decide how you  
17 want to deal with it.

18 DR. AMPOMAH: Yeah, so Mr. Davis can  
19 you respond to the other part of my question, whether  
20 data were collected in these counties?

21 MR. DAVIS: Can you repeat the question  
22 again?

23 DR. AMPOMAH: Yeah, so most of the  
24 testimony is all based on West Virginia and  
25 Pennsylvania. Right? So are there any direct, let's

1 say, data collected in the state of New Mexico?

2 MR. DAVIS: Commissioner Ampomah,  
3 commissioners, I'll do my best to answer your  
4 question. And I think I would put it this way: And  
5 this really relates to the chart that people have been  
6 discussing, is that this chart, as I understand it,  
7 from what Dr. Brown said, is not to be used as a  
8 guideline in New Mexico. It is an example of the  
9 lengths that public health professionals had to go to,  
10 to try to solve a problem when they did not know what  
11 chemicals were present.

12 And the reason they didn't know what  
13 chemicals were present was because Pennsylvania did  
14 not require full disclosure to the public, and Dr.  
15 Brown was a member of the public. I hope that answers  
16 your question.

17 DR. AMPOMAH: Yeah, so --

18 DR. BROWN: If I could add just one  
19 thing. The data that I showed you was the data we had  
20 on the fly, several as we went through this process.  
21 All the data that I'm showing you, if you look at some  
22 of the more recent papers, showed that we were pretty  
23 close to being on target. We had -- we had identified  
24 the same effects.

25 Now there are papers that say,

1 "Here -- here's what the chemicals are," and they've  
2 been analyzed by research studies. But we were not  
3 doing a research study. We were trying to respond to  
4 a public health outbreak, what we would call an  
5 outbreak. And we were gathering data on the fly and  
6 making decisions on the fly.

7 DR. AMPOMAH: David, so my main concern  
8 here is that, you know, WildEarth Guardians, you are  
9 asking a big -- you know, you are asking a big ask of  
10 the commission. One is banning PFAS and the other one  
11 is banning all undisclosed chemicals. All right. So,  
12 you know, as I sit here, I really want to see evidence  
13 of how, with -- let's say, there has been numerous oil  
14 and gas operations in the state of New Mexico.

15 All right. So definitely I want to see  
16 real data in our state. That should push us to, more  
17 or less, go the extreme of even banning undisclosed  
18 chemicals, you know, where there's no data to support  
19 the claims.

20 DR. BROWN: Your experience with  
21 undisclosed chemicals will be in my judgment the same  
22 as the experience we had in Pennsylvania when we were  
23 working with undisclosed chemicals. Physicians and  
24 public health people simply cannot guess as to what  
25 the effects are, and you simply cannot assume the

1 compounds are safe.

2 We don't assume every compound is not  
3 safe, but when there are chemicals that are in the  
4 toxic category, which these are, we assume that we  
5 need to protect the public health.

6 DR. AMPOMAH: Yeah, I do understand  
7 that, but as I sit here, I really want to see some  
8 work done in New Mexico, at least real evidence, data  
9 from New Mexico, that can support the commission, you  
10 know, if we're asked to, more or less, go the extreme  
11 of even banning undisclosed chemicals.

12 You know, these are great examples, but  
13 what is happening in New Mexico? You know, I -- I  
14 want to see some real evidence based on, let's say,  
15 this week-long hearing. I want to see some community  
16 members in the direct oil and gas operations who are  
17 going through these problems. At least there has to  
18 be some kind of evidence, you know, because you are,  
19 more or less, using West Virginia and Pennsylvania.

20 And based on Jesse's comment, probably  
21 they operated in the shallow zones in the state. So  
22 it's definitely different from the state of New  
23 Mexico. So I really want to see more information, you  
24 know, based on any work study done in the state of New  
25 Mexico.

1 DR. BROWN: The Sierra Club is a study  
2 with the Navajos, which we worked with. I think  
3 if -- I think the Navajo Nation is in New Mexico, and  
4 if you find that study, I'm sure that WildEarth  
5 Guardians can find it for you and give it to you;  
6 you'll see the damage that we identified in New  
7 Mexico. So if you want data directly from New Mexico,  
8 it's -- it exists. You see, you only have to go look  
9 for it.

10 THE HEARING OFFICER: And thank you,  
11 Commissioner Ampomah. Is there any reason at this  
12 time not to excuse Dr. Brown? No? All right. Thank  
13 you very much for your testimony, Dr. Brown.

14 DR. BROWN: Thank you for -- for  
15 listening to me, and if you need any other thoughts,  
16 I'd be happy to share them with you.

17 THE HEARING OFFICER: Thank you very  
18 much.

19 DR. BROWN: Bye.

20 THE HEARING OFFICER: All righty. So  
21 we've come to the vicinity of the end of the workday.  
22 Mr. Davis, I know you have two more witnesses, Dr.  
23 Speer and Ms. Troutman. What order do you suppose  
24 you'll be presenting them in?

25 MR. DAVIS: I have not heard from Dr.

1 Speer yet today, but he's supposed to be traveling.  
2 He may be en route, so if possible, I'd like to call  
3 Dr. Speer in the morning, assuming he gets here on  
4 time, and then we would call Ms. Troutman. If he does  
5 not get here on time, we will reverse that order.

6 THE HEARING OFFICER: All right. Thank  
7 you very much for that. We will start tomorrow  
8 morning at 8:30. I'll take public comment for at  
9 least a half-hour for it to be given, and then we'll  
10 turn to the technical case whenever we run out of  
11 public commenters.

12 Is there anything else we need to talk  
13 about before we break today? Sheila, would you  
14 confirm this room will be locked and we can leave  
15 nonvaluable things overnight?

16 MS. APODACA: Yes, I will lock it up at  
17 the end of the day.

18 THE HEARING OFFICER: All right. Thank  
19 you.

20 MS. APODACA: And we may have somebody  
21 on who's been waiting to make a public comment. I  
22 don't know if she's still here.

23 THE HEARING OFFICER: Okay.

24 MS. APODACA: But her name was Ruth,  
25 Ruth Striegel.

1 THE HEARING OFFICER: Okay. Ms.  
2 Striegel, are you still on the platform? I see an RS.  
3 No, that's Rebecca. Ms. Striegel, are you here? No?

4 MS. APODACA: Yeah, she may return  
5 tomorrow morning. I told her she -- she could.

6 THE HEARING OFFICER: Okay. Well thank  
7 you very much for that, Sheila. All right. We will  
8 see you all tomorrow morning at 8:30.

9 (Whereupon, the meeting concluded at  
10 5:15 p.m.)

11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25

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

CERTIFICATE

I, JAMES COGSWELL, the officer before whom the foregoing proceedings were taken, do hereby certify that any witness(es) in the foregoing proceedings, prior to testifying, were duly sworn; that the proceedings were recorded by me and thereafter reduced to typewriting by a qualified transcriptionist; that said digital audio recording of said proceedings are a true and accurate record 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  
outcome of this action.



JAMES COGSWELL  
Notary Public in and for the  
State of New Mexico

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

CERTIFICATE OF TRANSCRIBER

I, JOHN WHISENHUNT, 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.



JOHN WHISENHUNT

<b>&amp;</b>	<b>1220</b> 1:12 3:21	10:11,12,13,14	<b>1970's</b> 112:18
<b>&amp;</b> 2:10 3:4,12 4:4,20 17:5,9 27:9	<b>1239</b> 3:13	10:15,16,17,18	<b>1980's</b> 112:19
<b>0</b>	<b>125</b> 4:13	10:19,20,21,22	<b>1993</b> 63:3
<b>0.007</b> 118:9	<b>12th</b> 14:16 15:3 18:4,13 23:3 246:10	10:23,24,25 11:3,4,5,6,7,8,9 11:10,11,12,13 11:14,15,16,17	<b>1995</b> 233:20 <b>1:15</b> 133:14 136:2
<b>1</b>	<b>13</b> 9:23,23 234:19 244:9 244:11 248:23 259:13 274:22	11:18,19	<b>2</b>
<b>1</b> 3:5 4:5,21 12:24 111:18 116:20 118:11 166:10,22 167:7 170:8,24 <b>1,000</b> 118:2 <b>1,147</b> 125:4 <b>1,500.00</b> 57:10 <b>10</b> 9:20,20 179:16 180:17 272:4,4 <b>10,000</b> 47:22 216:17,24 217:17 <b>100</b> 129:5 <b>100,000</b> 34:21 34:23 <b>1000</b> 2:21 <b>10:45</b> 91:24 <b>11</b> 9:21,21 33:6 180:5 223:16 <b>110</b> 3:5 4:5,21 53:25 <b>12</b> 1:7 9:22,22 13:25 14:4 125:25 232:9 237:19 274:21	<b>14</b> 9:24,24 237:19 <b>140</b> 9:3 <b>15</b> 9:25,25 117:20 143:13 176:20 185:7 224:23,23 232:9 237:16 <b>15,000</b> 107:2 <b>156</b> 9:4 <b>16</b> 10:3,3 <b>165</b> 9:5 <b>16th</b> 23:8,13,19 24:17 <b>17</b> 10:4,4 <b>179</b> 9:9 <b>17th</b> 23:24 24:18 <b>18</b> 10:5,5 57:9 89:25 185:8 233:19 <b>180/191</b> 9:19 9:20,21,22,23 9:24,25 10:3,4 10:5,6,7,8,9,10	<b>19</b> 10:6,6 221:23 222:1 233:18,19 <b>19.15.14</b> 25:5 25:20 <b>19.15.16</b> 25:5 25:20 <b>19.15.16.19</b> 174:14 <b>19.15.2</b> 25:5,20 <b>19.15.25</b> 25:5 <b>19.15.25.</b> 25:21 <b>19.15.3.</b> 25:23 <b>19.15.7</b> 25:5,20 <b>1910.1200</b> 174:17 <b>1910.1200.</b> 174:15 <b>193</b> 9:10 <b>1940's</b> 51:14 90:15 <b>1950's</b> 112:11 <b>1957</b> 131:8 <b>1962</b> 131:17 <b>1963</b> 131:18 <b>1964</b> 106:6	<b>2</b> 34:20 114:7 117:19 118:1 166:12,23 170:9 173:3 174:14,17 183:25 185:7 212:20 224:22 241:7 <b>2,000</b> 118:3,6 118:12 <b>2,500</b> 120:4 <b>2.5</b> 264:11,11 264:13 <b>20</b> 10:7,7 29:15 29:25 57:8 120:6 140:20 152:14 268:5 <b>20,000,000,0...</b> 46:5 <b>200,000,000</b> 124:24 <b>2004</b> 64:16 <b>2006</b> 53:21 <b>201</b> 5:5 <b>2011</b> 173:17 <b>2013</b> 196:12 <b>2014</b> 69:14 121:2 203:14

<p><b>2015</b> 167:2 199:10 <b>2016</b> 52:1 209:13 217:8 <b>2017</b> 173:19 <b>2018</b> 35:2 64:25 148:5 233:16 <b>2019</b> 233:16 <b>2020</b> 33:21 166:23 199:9 <b>2021</b> 53:21 121:2,13 <b>2022</b> 78:8 196:12 <b>2023</b> 80:10 112:16 119:8 214:14 215:16 234:9 <b>2023001180</b> 15:14 <b>2024</b> 1:7 13:25 14:4 15:5 125:18,25 <b>205</b> 5:8 <b>21</b> 10:8,8 124:2 143:15 176:25 <b>213</b> 4:13 <b>218</b> 2:13 <b>22</b> 10:9,9 143:15 241:15 <b>226</b> 9:12 <b>229/230</b> 11:20 11:21,22,23,24 11:25 12:3,4,5</p>	<p>12:6,7,8,9,10 12:11,12,13,14 12:15,16,17,18 <b>229/231</b> 12:20 <b>23</b> 10:10,10 121:15 150:10 150:14 <b>231</b> 9:13 <b>231-9312</b> 3:24 <b>23580</b> 1:4 25:2 25:14 128:16 <b>24</b> 10:11,11 132:23,23 240:21 <b>244</b> 9:14 <b>24816</b> 16:19 <b>24878</b> 16:20 <b>24912</b> 21:7 <b>24th</b> 132:14 <b>25</b> 10:12,12 197:21 <b>26</b> 10:13,13 <b>27</b> 10:14,14 <b>271</b> 12:24 <b>28</b> 10:15,15 <b>282,000,000</b> 121:11 <b>288</b> 64:25 <b>28th</b> 124:13 <b>29</b> 10:16,16 160:9 174:15 <b>29874</b> 287:14</p>	<p><b>3</b> <b>3</b> 14:4 92:22 166:13 170:10 <b>3,600</b> 130:3 <b>30</b> 10:17,17 160:9 <b>30's</b> 115:18 <b>301</b> 5:5 <b>31</b> 10:18,18 <b>32</b> 10:19,19 <b>32311</b> 286:16 <b>33</b> 10:20,20 <b>34</b> 10:21,21 <b>35</b> 10:22,22 172:23 <b>350,000</b> 107:1 <b>36</b> 10:23,23 53:23 <b>37</b> 10:24,24 <b>38</b> 10:25,25 <b>39</b> 11:3,3 <b>3:45</b> 224:24</p> <p><b>4</b> <b>4</b> 147:1 270:3 <b>40</b> 11:4,4 <b>400</b> 204:8 217:11 <b>408</b> 2:5 <b>41</b> 11:5,5 <b>42</b> 11:6,6 126:4 <b>43</b> 11:7,7 <b>432</b> 4:16 <b>44</b> 11:8,8 <b>45</b> 11:9,9 214:15,16</p>	<p><b>46</b> 11:10,10 125:4 <b>47</b> 11:11,11 <b>48</b> 11:12,12 132:11 <b>488-6108</b> 4:16 <b>49</b> 11:13,13 <b>4th</b> 2:21</p> <p><b>5</b> <b>5</b> 147:1 197:21 222:2,7 268:5 270:3 <b>5,000</b> 51:15 <b>50</b> 11:14,14 146:17 <b>50's</b> 115:20 <b>500</b> 2:21 48:25 <b>505</b> 2:8,16,24 3:8,16,24 4:8 4:24 <b>506</b> 15:14 <b>51</b> 11:15,15 <b>52</b> 11:16,16 <b>53</b> 11:17,17 <b>537-4477</b> 2:8 <b>54</b> 11:18,18 <b>55</b> 11:19,19 180:5,23,24 191:5,9,12 <b>56</b> 11:20,20 228:19 229:5,7 229:17 230:20 230:22 231:16 <b>57</b> 11:21,21 227:7,24 244:8</p>
--	--	---	---

[57-3 - absolutely]

<p><b>57-3</b> 173:3  <b>58</b> 11:22,22  228:14  <b>59</b> 11:23,23  <b>5:15</b> 285:10</p>	<p><b>73</b> 12:14,14  121:2 238:6  <b>74</b> 12:15,15  <b>74-3-43</b> 177:15  <b>74-6-15</b> 92:22  172:9,11,16  <b>74.615</b> 92:17  <b>75</b> 12:16,16  131:5 197:22  197:22  <b>76</b> 12:17,17  <b>77</b> 12:18  228:14 229:5,8  230:20,23  259:17  <b>7751</b> 123:6  <b>78</b> 12:18 146:7</p>	<p><b>88</b> 259:17  260:4  <b>8:30</b> 140:15  226:9 284:8  285:8</p>	<p><b>a.m.</b> 1:8  <b>abandon</b>  170:22  <b>abandoned</b>  48:25 70:8,16  255:17  <b>abatement</b>  161:9  <b>abdominal</b>  246:13  <b>ability</b> 94:11  160:23 202:15  258:3 259:4  277:11 286:10  287:7  <b>able</b> 18:7 30:3  43:5,13 49:21  49:22 50:7  70:14 88:21,23  140:12 151:1  160:18 163:19  181:14 197:15  203:9 220:24  225:7 229:23  232:16,18  250:6 279:13  <b>abnormally</b>  60:3  <b>above</b> 34:22  111:1 116:14  <b>absent</b> 164:23  <b>absolutely</b>  40:23 47:5  49:7 69:11  123:12 186:23</p>
<p><b>6</b></p>	<p><b>8</b></p>	<p><b>9</b></p>	
<p><b>6</b> 241:8  <b>6,000</b> 106:24  <b>60</b> 11:24,24  <b>61</b> 11:25,25  <b>62</b> 12:3,3 121:2  <b>63</b> 12:4,4  <b>64</b> 12:5,5  <b>65</b> 12:6,6  <b>66</b> 12:7,7  <b>67</b> 12:8,8  <b>68</b> 12:9,9  234:24  <b>6866904</b> 1:19  <b>69</b> 12:10,10  <b>6th</b> 192:11</p>	<p><b>8</b> 150:13 169:1  169:2 173:25  241:2,7  <b>8,000</b> 196:16  <b>80</b> 72:16 75:4  77:25 80:23  100:25 128:17  <b>81/191</b> 12:19  <b>848-1800</b> 2:24  <b>87</b> 39:25 103:4  <b>87102</b> 2:22  <b>87501</b> 2:6,14  3:6,14 4:6,14  4:22 5:6  <b>87505</b> 1:13  3:22</p>	<p><b>9</b> 9:19,19 15:4  180:10,22,24  182:11 191:8  191:12 193:6,9  234:13,17,19  260:14  <b>9,000</b> 196:17  <b>913-6425</b> 5:8  <b>94</b> 12:19,19  179:21 180:17  180:23 181:1  181:10,11,13  181:22 190:18  191:1,1,6,9,14  <b>95</b> 132:18  233:19  <b>97</b> 12:20,20  228:5 229:6,10  229:19 230:21  231:1  <b>982-4554</b> 2:16  <b>988-4421</b> 3:8  4:8,24  <b>989-7278</b> 3:16  <b>9:00</b> 1:8</p>	
<p><b>7</b></p>		<p><b>a</b></p>	
<p><b>7</b> 125:18  146:15 241:15  260:13  <b>70</b> 12:11,11  <b>70-2-12</b> 143:13  176:4,25  <b>71</b> 12:12,12  132:18  <b>72</b> 12:13,13  247:22  <b>72-12</b> 176:20</p>		<p><b>a.k.a.</b> 125:14</p>	

[absorbed - actually]

<p><b>absorbed</b> 264:22</p> <p><b>absorbs</b> 264:16</p> <p><b>abstract</b> 72:12 142:11 153:1</p> <p><b>abuse</b> 128:20</p> <p><b>academic</b> 149:25</p> <p><b>accept</b> 26:12 49:22 93:15 189:6 190:2,20</p> <p><b>acceptable</b> 42:21 50:6 79:15</p> <p><b>acceptance</b> 30:20</p> <p><b>accepted</b> 78:18 141:3 160:1 191:1,9 230:23 231:2</p> <p><b>accepting</b> 27:25 93:10</p> <p><b>access</b> 42:15 50:5 82:4 85:9 94:19 95:22 104:22 111:9 111:13 147:11 149:8 200:13 205:4</p> <p><b>accessible</b> 79:14 96:14 204:12</p> <p><b>accident</b> 104:25 105:6 252:10</p>	<p><b>accommodati...</b> 26:4 102:16</p> <p><b>account</b> 93:2 169:7,16</p> <p><b>accountability</b> 38:15 40:21 73:18 82:7 98:17 103:8 137:7 138:23 150:3</p> <p><b>accountable</b> 41:2 49:3 65:9 77:20 128:25 163:3</p> <p><b>accounts</b> 77:24</p> <p><b>accumulate</b> 45:4 46:18 84:6 86:25 90:23 129:17</p> <p><b>accumulating</b> 72:6 80:20</p> <p><b>accurate</b> 112:18 180:13 228:22 286:9 287:5</p> <p><b>accurately</b> 170:1</p> <p><b>accusations</b> 52:8</p> <p><b>acequias</b> 83:13</p> <p><b>achieves</b> 158:14 165:8</p> <p><b>acknowledge</b> 41:24 52:8 150:15 152:17</p>	<p>152:21 186:19</p> <p><b>acknowledge...</b> 28:16</p> <p><b>acknowledges</b> 145:23 146:7 146:18 152:11</p> <p><b>acknowledging</b> 143:4</p> <p><b>acosta</b> 7:12 104:4,5,8,11,12 106:10</p> <p><b>acquisition</b> 202:11</p> <p><b>acre</b> 34:21,23</p> <p><b>act</b> 73:19 85:16 92:15,18,23,23 98:16 106:6 120:10,17 121:4,13,21 135:14 150:21 151:3,19,22 152:6,12 153:24 154:3 159:18,23 160:2,5,10 161:16 163:1 167:11 172:13 172:15,19 175:24 177:11 209:7 224:5 237:13</p> <p><b>acting</b> 5:12 13:10 98:15 172:12,14 253:9</p>	<p><b>action</b> 18:21 25:24 64:21 76:2,21 91:10 96:7,18,22 98:24 138:6 140:4 151:5 220:10 237:2 286:12,16 287:8,12</p> <p><b>actionable</b> 257:17</p> <p><b>actions</b> 85:1 135:13 138:12 236:6 237:4 239:6</p> <p><b>activism</b> 59:17</p> <p><b>activists</b> 120:4</p> <p><b>activities</b> 157:11 159:7</p> <p><b>activity</b> 202:11 202:11</p> <p><b>actors</b> 43:3 171:13</p> <p><b>acts</b> 107:22 152:24 239:18</p> <p><b>actual</b> 29:2 38:10 49:18 170:1 250:17 268:23</p> <p><b>actually</b> 16:16 27:25 30:22 31:1 69:15 122:22 126:25 134:7 160:24 164:11 170:11</p>
---	--	---	--

[actually - affected]

<p>183:9 190:5  198:15 229:22  236:3,7 238:12  239:5 248:21  254:2 256:12  275:15 276:6  277:5  <b>acutely</b> 138:17  <b>adam</b> 4:19  27:10  <b>add</b> 183:6  188:10 196:25  200:8 203:1  205:9 208:5  214:7 218:6  280:18  <b>added</b> 33:23  154:6,13 166:4  168:13,16,18  168:21 169:3,6  170:13 177:24  210:19,23  211:2,2,5  <b>addiction</b>  137:18  <b>addictive</b>  107:23 137:13  <b>adding</b> 84:2  210:17  <b>addition</b> 27:12  27:21 159:22  170:12 171:1  183:5  <b>additional</b>  21:10 22:12</p>	<p>171:4,11  191:10 196:15  226:1  <b>additionally</b>  95:15 96:13  152:7 154:9  163:17 172:13  268:6  <b>additive</b> 163:1  173:2  <b>additives</b>  162:10,16  166:6 169:21  173:12  <b>address</b> 25:4,16  28:3 29:16  31:6 44:10  49:13 70:2  71:6 79:4  96:22 128:16  148:9 157:4,7  157:20 161:7  161:10,11  163:9,14 164:2  164:6 173:23  210:16  <b>addressed</b> 28:7  157:1,8 160:4  <b>addresses</b>  158:25 161:9  <b>addressing</b>  28:11 52:19  91:15 138:10  160:8 234:1</p>	<p><b>adds</b> 117:14  <b>adequate</b> 41:4  73:5  <b>adjudication</b>  15:22  <b>adjudicatory</b>  21:8  <b>administration</b>  43:16 71:7  74:16  <b>administrative</b>  25:6 190:1  <b>administrator</b>  31:21  <b>administrators</b>  171:14  <b>admission</b> 31:4  180:21,22  181:11 183:17  229:4 230:19  <b>admit</b> 190:18  <b>admitted</b> 191:9  <b>admitting</b>  230:20  <b>adopt</b> 29:5  143:11 165:3  173:19 180:16  228:25  <b>adopted</b> 142:20  165:9 167:11  173:17 174:14  175:10  <b>adopts</b> 169:20  <b>adult</b> 244:22</p>	<p><b>adults</b> 62:6  125:15  <b>advance</b> 124:6  156:20 168:13  <b>advancement</b>  170:4  <b>adverse</b> 90:24  94:16  <b>advertising</b>  107:5  <b>advised</b> 184:10  199:22  <b>advising</b>  210:10  <b>advocacy</b>  109:14  <b>advocate</b> 52:23  145:19 182:13  193:9  <b>advocated</b> 35:2  <b>advocates</b> 33:3  120:7  <b>advocating</b>  45:16 91:11  193:10,12  <b>aerosol</b> 131:15  131:15  <b>affect</b> 42:22  51:21 52:12  96:20 105:12  111:4 125:23  145:24  <b>affected</b> 25:19  56:7 57:4 62:8  111:1 131:25</p>
--	---	---	---

[affected - allow]

<p>258:18 274:4  275:12 276:1,2  <b>affecting</b> 42:23  95:18 145:7  <b>affection</b>  188:19  <b>affects</b> 110:22  246:22  <b>affiliated</b> 33:11  <b>affirm</b> 32:7,12  35:17 37:4  38:25 41:18  44:21 47:15  51:2 53:14,15  56:23 58:14  61:19 63:22  66:9 69:1,6  71:16 74:4  76:15 79:23  82:17 86:6  88:12 93:22  94:2 97:4  99:15 102:9  104:7 106:17  109:8 110:6  111:24 114:15  117:2 119:22  123:11 128:8  130:25 134:1  136:21 139:18  179:2 226:19  <b>afford</b> 73:21  85:19  <b>afforded</b>  147:10</p>	<p><b>afoul</b> 173:10  <b>aftermath</b> 33:2  <b>afternoon</b>  30:24 59:9  127:7,13,14,14  141:1 156:2  165:22 179:9  205:20 225:21  226:25 231:5  231:11 244:4  <b>age</b> 89:25  <b>agencies</b> 42:24  52:15 85:10  152:19 190:2  236:13  <b>agency</b> 55:14  167:8,9 200:19  275:25 277:14  <b>agenda</b> 13:24  13:25 15:2,12  17:16 21:25  23:16,19  <b>agents</b> 252:25  <b>ages</b> 62:10  <b>aggressive</b>  259:1 268:20  <b>ago</b> 59:8  189:19 232:9  <b>agrarkin</b> 4:23  <b>agree</b> 22:18  153:16 171:9  223:25 224:1  235:2,5 236:21  236:24 239:2  243:7 250:2</p>	<p>276:23  <b>agreed</b> 24:12  28:22 178:10  187:19  <b>agreement</b>  21:24 28:22  175:9  <b>agrees</b> 187:16  <b>agriculture</b>  169:12  <b>aguirre</b> 7:7  88:8,8,9,13,16  89:2,9,13,17,21  89:22,23 91:23  <b>ahead</b> 93:6  104:10 179:6  182:3 184:3  192:23 234:11  <b>ahehee</b> 139:5  <b>ailment</b> 115:24  <b>ailments</b> 115:5  149:9  <b>air</b> 65:14 68:1  77:23 84:3,18  84:24 86:17  91:5 92:24  94:9 96:1,9  100:21 101:11  112:15 116:10  124:17,19  132:3 161:11  211:18 251:1,8  265:2,24,25  272:12 273:5  273:19,19,22</p>	<p>279:6  <b>airborne</b> 43:5  65:7 272:17,22  273:12  <b>airport</b> 59:7  <b>airports</b> 132:25  <b>alamogordo</b>  124:19  <b>alarming</b> 94:13  <b>albuquerque</b>  2:22 33:17  63:2 71:22  82:24 120:3  123:17 134:10  <b>albuquerque's</b>  83:14  <b>alcohol</b> 166:24  196:2  <b>aldehydes</b>  253:19  <b>alert</b> 44:5,6  <b>aligned</b> 148:6  <b>alive</b> 144:21  <b>alleged</b> 151:22  <b>alleges</b> 148:20  <b>allergies</b>  100:11,15  <b>allocate</b> 79:15  <b>allocated</b> 132:7  <b>allotted</b> 140:20  <b>allow</b> 65:18  68:9 101:18  103:21 111:3  118:21 120:25  121:17 122:1</p>
---	--	--	--

[allow - apodaca]

<p>134:18,25 158:2,3 164:11 168:10 181:17 255:25 <b>allowed</b> 37:19 68:9 75:15 96:20 103:10 113:7 181:20 <b>allowing</b> 46:6 65:6 74:9 97:8 98:22 126:11 255:25 <b>allows</b> 120:10 164:24 <b>alternative</b> 167:22 <b>alternatives</b> 91:13 <b>alzheimer's</b> 115:19 <b>amazing</b> 69:16 187:24 <b>amazingly</b> 252:23 <b>ameliorate</b> 242:15 <b>amend</b> 25:3 128:15 <b>amended</b> 174:9 <b>amendment</b> 70:2 71:5 164:24 178:1,9 178:11 <b>amendments</b> 25:4,15</p>	<p><b>american</b> 46:4 147:20 <b>americans</b> 120:18 <b>amount</b> 45:8 54:12 142:1 154:21,25 205:2 279:10 <b>amounts</b> 39:20 72:8 75:3 140:3 160:25 <b>amplifying</b> 40:10 <b>ampomah</b> 5:16 13:17,18 14:3 14:9,12,17,19 15:7 16:5 23:12 24:3,14 24:15 30:12 212:15,17 213:22 214:5 216:5,9 217:5 218:13,23 219:10,16,23 220:7 221:10 221:23 222:2 223:16 224:6,9 224:20,22 229:18 251:22 269:23,24 270:2,19 271:1 271:9,22 272:3 272:14 273:6 274:21 276:14 276:22 277:17</p>	<p>279:18,23 280:2,17 281:7 282:6 283:11 <b>amy</b> 6:2 38:18 <b>analogizing</b> 185:18 <b>analysis</b> 178:17 190:11 247:4 247:16,19,25 249:13 <b>analytical</b> 167:15,18,19 168:1,2,6,12,13 170:1,5 236:2 <b>analyze</b> 52:18 167:16 188:4 <b>analyzed</b> 281:2 <b>ancestors</b> 83:7 <b>ancestral</b> 59:3 <b>anderson</b> 171:15,22,24 178:5 <b>anecdotal</b> 214:11 <b>angle</b> 203:22 <b>angry</b> 108:7 <b>animal</b> 265:3,4 <b>animals</b> 238:2 239:12 <b>anna</b> 8:11 136:14,18 137:2 <b>announcement</b> 225:6</p>	<p><b>announcing</b> 56:1 <b>answer</b> 68:11 70:14 193:15 198:5 280:3 <b>answering</b> 207:22 <b>answers</b> 70:7 268:4 280:15 <b>anticipate</b> 24:8 24:10 <b>anticipated</b> 92:12 <b>anticipates</b> 160:8 <b>anxiety</b> 148:22 149:3 <b>anybody</b> 18:10 202:1 203:9 234:18 255:20 <b>anyway</b> 18:23 <b>apache</b> 3:10 21:7,9,20 22:9 23:20 <b>apache's</b> 22:19 <b>apart</b> 108:23 <b>api</b> 154:24 <b>apodaca</b> 5:18 23:7 24:19 31:20 55:20 88:24 140:17 176:11 181:19 230:1,3,7,17 284:16,20,24 285:4</p>
--	--	---	---

[apologies - associated]

<p><b>apologies</b> 229:22 230:10 269:9</p> <p><b>apologize</b> 14:7 19:5 21:1 44:1 49:16 50:11 92:11 206:5 234:17 241:3 263:10,15 266:14</p> <p><b>appeals</b> 190:1</p> <p><b>appear</b> 145:3 145:15 153:23 154:3 175:6</p> <p><b>appearance</b> 25:25 26:12 27:15</p> <p><b>appearances</b> 26:2</p> <p><b>appeared</b> 132:14 246:6</p> <p><b>appearing</b> 17:1 17:9 55:11</p> <p><b>appears</b> 190:8</p> <p><b>apples</b> 261:23 261:23 275:3,3</p> <p><b>application</b> 21:7 25:3 128:15</p> <p><b>applications</b> 16:20 17:24 18:7 168:24</p> <p><b>applied</b> 262:16</p> <p><b>applies</b> 152:13 172:10</p>	<p><b>apply</b> 98:5 172:11,25 183:12 187:7 188:15,18 261:3</p> <p><b>appointed</b> 25:13</p> <p><b>appreciate</b> 17:15 21:5 41:23 166:1 193:4 259:12 268:3</p> <p><b>approach</b> 174:4</p> <p><b>appropriate</b> 106:4 150:8 156:14 158:17 163:16 165:10 198:5 219:13</p> <p><b>appropriately</b> 163:15</p> <p><b>approval</b> 15:4 16:21 21:9</p> <p><b>approve</b> 13:25 15:5,11 16:1 128:14</p> <p><b>approved</b> 15:3 20:16 22:11</p> <p><b>approximately</b> 117:13 232:9</p> <p><b>april</b> 80:10</p> <p><b>aps</b> 117:8</p> <p><b>aquifer</b> 64:8</p> <p><b>aquifers</b> 81:7 129:24</p>	<p><b>ar</b> 136:13</p> <p><b>area</b> 28:19 52:14 104:17 113:14 171:12 183:3 186:7 234:5 246:8 261:4 266:11 271:4 272:9 276:9 279:13</p> <p><b>areas</b> 91:7 95:4 95:9,12 133:2 148:22 153:6 214:17 215:11 215:21 243:4 245:13 258:6</p> <p><b>argue</b> 81:18 148:24</p> <p><b>argues</b> 153:25</p> <p><b>argument</b> 148:11 162:1 175:14 183:10</p> <p><b>arguments</b> 148:10 173:16 175:3</p> <p><b>army</b> 35:25 86:12</p> <p><b>arrive</b> 157:10</p> <p><b>arrived</b> 64:20</p> <p><b>arriving</b> 204:3</p> <p><b>article</b> 112:12 132:8 213:14</p> <p><b>articles</b> 126:5 188:2</p> <p><b>articulate</b> 113:2 251:4</p>	<p><b>aside</b> 201:23</p> <p><b>asked</b> 71:1 141:3,4 241:21 241:21 244:24 245:1 263:4 270:4 272:25 277:15 282:10</p> <p><b>asking</b> 16:2 87:22 142:16 146:22 152:9 152:10 155:9 227:23 245:6 281:9,9</p> <p><b>asks</b> 140:12 218:15 255:11</p> <p><b>aspect</b> 219:3,14 224:8</p> <p><b>aspects</b> 90:19</p> <p><b>assert</b> 150:8</p> <p><b>assessment</b> 241:16</p> <p><b>assessments</b> 241:10</p> <p><b>assigning</b> 187:5</p> <p><b>assist</b> 230:15 232:14</p> <p><b>assistance</b> 100:4 102:1 103:25</p> <p><b>associate</b> 247:16</p> <p><b>associated</b> 96:15 97:22 153:4,6 177:15 210:3 214:3</p>
--	---	---	---

[associated - baby]

<p>215:21 223:14 234:21 235:3 251:1 262:11 275:20</p> <p><b>associating</b> 235:16,19</p> <p><b>association</b> 27:6 207:6 223:2 236:14 236:20,25</p> <p><b>assume</b> 172:14 190:21,22 254:10 281:25 282:2,4</p> <p><b>assumed</b> 249:16</p> <p><b>assuming</b> 284:3</p> <p><b>assumption</b> 254:14</p> <p><b>assure</b> 276:16</p> <p><b>assured</b> 33:23</p> <p><b>asthma</b> 100:11</p> <p><b>astonished</b> 69:24 70:11</p> <p><b>astounding</b> 52:16</p> <p><b>astronomical</b> 211:17</p> <p><b>atlanta</b> 124:4</p> <p><b>atom</b> 66:25 67:1 167:21,25 168:10</p> <p><b>atoms</b> 66:25 167:6 168:3</p>	<p><b>attach</b> 263:23</p> <p><b>attached</b> 238:5</p> <p><b>attack</b> 60:10 86:20</p> <p><b>attacks</b> 87:3</p> <p><b>attempt</b> 46:2 84:25 118:22 177:7 196:1</p> <p><b>attempting</b> 242:8</p> <p><b>attend</b> 42:3</p> <p><b>attended</b> 33:9</p> <p><b>attending</b> 106:8</p> <p><b>attention</b> 90:12 139:3 175:17</p> <p><b>attorney</b> 13:21 182:12 183:1 210:8 268:18 286:14 287:10</p> <p><b>attorneys</b> 183:4</p> <p><b>attributing</b> 266:13</p> <p><b>audio</b> 286:8 287:3</p> <p><b>aunt</b> 62:5</p> <p><b>author</b> 143:20</p> <p><b>authored</b> 213:11</p> <p><b>authorities</b> 96:6</p> <p><b>authority</b> 37:9 42:10 143:11 151:24 152:1 154:17 155:4,5</p>	<p>156:24 160:9 162:12 164:19 164:24 165:4,7 166:14 170:10 172:15 174:3 175:21 176:3 176:21 178:14 185:4,13 224:16</p> <p><b>authorized</b> 165:6</p> <p><b>authors</b> 213:13</p> <p><b>autoimmune</b> 64:13</p> <p><b>automatically</b> 164:9</p> <p><b>autonomy</b> 134:12,22 135:5</p> <p><b>availability</b> 23:23</p> <p><b>available</b> 23:3 24:1 34:15 52:18 79:11 132:8 164:10 183:8,12 191:18 200:14 207:2 236:7 249:8,9,18 256:15,17</p> <p><b>avant</b> 2:18 16:20 17:1,22</p> <p><b>avant's</b> 18:1</p> <p><b>avenue</b> 2:13 4:13</p>	<p><b>avenues</b> 200:12</p> <p><b>average</b> 41:3 73:3 249:24</p> <p><b>avid</b> 131:18</p> <p><b>avoid</b> 118:22 255:12</p> <p><b>avoiding</b> 107:16,17</p> <p><b>awaiting</b> 115:3</p> <p><b>aware</b> 15:17 30:18 44:8 91:8 114:22 138:17 215:25 216:5 217:7 238:24 247:25 249:16</p> <p><b>awesome</b> 13:23 14:24 268:21</p> <p><b>aye</b> 14:23,25 15:1,9,10 16:7 20:21</p>
<b>b</b>			
<p><b>b</b> 9:16 10:1 11:1 12:1 41:13 56:5 61:17 69:4 89:6 93:25 99:13 114:12 116:25 123:9 143:13 174:14 176:20 227:3,4</p> <p><b>babies</b> 45:21 196:10</p> <p><b>baby</b> 54:10 64:5</p>			

[back - believe]

<p><b>back</b> 29:13 53:22 68:17,22 71:10 92:2 93:7,9 108:16 110:1 111:16 112:11 121:21 122:24 127:20 136:6,8 173:17 176:10,10,17 203:10 211:24 221:3 225:2,20 225:21 230:19 241:3 250:19 250:20 254:8 256:8 266:15 271:7 273:24 278:11</p> <p><b>background</b> 183:2 186:5 190:16 232:17 253:17 262:8 276:17,17</p> <p><b>backstop</b> 169:15</p> <p><b>bacteria</b> 125:16</p> <p><b>bad</b> 43:3 60:7 107:21 269:16 269:17</p> <p><b>baker</b> 65:4</p> <p><b>balance</b> 174:22</p> <p><b>ban</b> 35:5 42:10 61:1 62:10 65:21 71:1 73:15 75:19 77:3 82:8</p>	<p>85:17 87:23 103:22 114:2 117:10 125:22 129:5,9 141:4 141:8 142:17 142:25 143:8,8 147:21 150:12 152:1 155:9,15 157:10 161:14 161:19,22 163:13 170:12 171:7 172:2 207:24 210:18 210:23,23 211:4 254:22</p> <p><b>bankrupt</b> 49:2</p> <p><b>banned</b> 113:10 117:18 118:19 168:23 270:22</p> <p><b>banner</b> 63:7</p> <p><b>banning</b> 79:1 85:12 125:19 154:11 161:21 178:18 281:10 281:11,17 282:11</p> <p><b>bare</b> 68:5</p> <p><b>barely</b> 259:23</p> <p><b>barraza</b> 7:23 122:25 123:4,8 123:9,12,15 126:3</p> <p><b>barren</b> 85:3</p> <p><b>barrier</b> 111:12 150:22</p>	<p><b>base</b> 124:17,19</p> <p><b>based</b> 26:11 28:13 166:15 169:25 178:7 183:21 187:1 200:15 208:8,9 209:5 210:4 211:17 212:25 213:22 216:25 237:8 253:14 271:2 272:18 272:20 278:9 279:24 282:14 282:20,24</p> <p><b>baseline</b> 220:12 220:25</p> <p><b>bases</b> 91:7 95:12 211:19</p> <p><b>basic</b> 74:25 85:9 86:19 112:23 239:6</p> <p><b>basically</b> 28:21 67:17 195:19 255:15 270:19</p> <p><b>basin</b> 52:14 202:12 213:25 213:25</p> <p><b>basins</b> 213:24 270:11 277:25</p> <p><b>basis</b> 190:10 197:24 238:8,9</p> <p><b>battery</b> 13:23</p> <p><b>battle</b> 86:14</p> <p><b>battles</b> 74:22</p>	<p><b>bear</b> 78:24 175:18 263:15 266:23</p> <p><b>beat</b> 53:20</p> <p><b>beautiful</b> 59:2</p> <p><b>beauty</b> 139:5</p> <p><b>becoming</b> 257:24</p> <p><b>bedridden</b> 115:4</p> <p><b>beg</b> 263:7</p> <p><b>began</b> 115:8 268:13</p> <p><b>beginning</b> 95:5 241:23 242:2 268:16</p> <p><b>behalf</b> 2:2,10 2:18 3:2,10,18 4:2,10,18 5:2 16:25 17:4,10 21:20 26:18 27:10 33:4 41:25 69:12 70:18 123:16 135:1 179:13 227:5</p> <p><b>behaviors</b> 107:21</p> <p><b>beings</b> 135:16</p> <p><b>belabor</b> 232:15</p> <p><b>belatedly</b> 132:4</p> <p><b>belief</b> 83:10</p> <p><b>believe</b> 20:5,11 21:13,24 24:3 42:20 54:2,5</p>
---	--	---	--

[believe - born]

63:12 88:19 99:22 119:14 134:15 140:23 150:2 158:6,22 159:4,14,20 160:6,11 161:18 162:4 164:18,21,24 165:7 176:9 183:21 184:18 186:18,22 196:19 198:11 200:6 214:14 218:23 225:14 226:18 227:23 230:12 240:19 252:16 258:4 270:21 <b>believed</b> 112:25 127:15 <b>believing</b> 142:9 <b>belknap</b> 8:2 126:18,20,25 <b>belly</b> 134:13 <b>belongs</b> 36:15 <b>beloved</b> 128:20 <b>bemis</b> 6:23 69:3 69:3,7,10 71:10 <b>benefit</b> 92:7,10 <b>benefitting</b> 152:17 <b>bennett</b> 2:19 16:24,25 17:2 17:12,14 18:10	21:4 27:19 <b>berkeley</b> 260:9 <b>best</b> 49:25 50:19 149:6 171:21 180:13 228:22 249:6 280:3 286:10 287:6 <b>betrayal</b> 87:5 <b>better</b> 58:19 106:2 113:6 117:17 122:22 148:4 210:12 254:7 <b>beyond</b> 42:3 197:12 199:12 199:14 263:12 <b>bianca</b> 8:2 126:18 <b>big</b> 118:25 267:14 274:14 281:9,9 <b>bigger</b> 261:16 <b>billions</b> 85:6 <b>bind</b> 239:8 <b>binder</b> 175:7 <b>bioaccumulates</b> 45:21 <b>biocide</b> 218:11 <b>biology</b> 66:15 253:17 <b>biomes</b> 125:24 <b>biosolids</b> 169:12	<b>bird</b> 131:19 <b>birth</b> 196:10 <b>birthright</b> 108:11 <b>bit</b> 17:21 195:13 261:16 263:20 275:2 <b>black</b> 106:25 108:4 <b>blanket</b> 269:16 <b>blessed</b> 48:19 <b>blm</b> 70:1 199:20 <b>blood</b> 60:2 125:24 254:1,4 265:19 <b>bloodstream</b> 67:19 264:23 <b>bloodstreams</b> 51:17 <b>bloodwork</b> 265:18,21,23 <b>bloom</b> 5:14 13:14,15 14:2 15:6 18:17 19:10 20:7,8 20:13 23:8,11 23:21,23 24:1 30:11 181:21 181:24 182:1 189:9,11,12 195:6,7,10 201:11,18 205:8 207:2,4 207:13 210:7	212:12 251:23 251:25 252:4 253:13 254:15 254:18 255:23 256:25 257:3 257:15 259:7 <b>blowdown</b> 273:19 <b>blowout</b> 149:19 <b>blue</b> 64:5 <b>blur</b> 59:16 <b>bodies</b> 45:5,22 51:22 54:7 60:1 67:18,20 72:7 80:21 84:4 86:24 110:25 116:6 116:16 129:18 134:17 190:2 <b>bodily</b> 134:22 <b>body</b> 60:4 90:21 94:12 116:8 137:24 188:18 239:19 254:4 <b>bold</b> 98:24 <b>bond</b> 67:2 <b>bonds</b> 67:4,7 <b>book</b> 131:19 <b>boost</b> 43:6 <b>boot</b> 108:19 <b>booze</b> 107:23 <b>bore</b> 198:16 <b>born</b> 67:21
--	--	---	---

[bottled - c]

<p><b>bottled</b> 274:10  <b>bottom</b> 149:4  151:8 241:15  246:10  <b>bought</b> 48:11  <b>bouncing</b> 241:3  <b>boxes</b> 204:4  <b>brain</b> 275:11  <b>brandon</b> 8:15  157:24  <b>break</b> 31:10  38:1 45:3 84:5  85:24 90:21  91:23 92:3  93:9 117:23  122:22 127:5  127:16,19  136:1,7 144:7  224:22,23  225:16,21  248:13 284:13  <b>breaking</b> 77:15  77:17  <b>breaks</b> 117:20  <b>breath</b> 266:16  266:25  <b>breathe</b> 84:18  274:4  <b>breathing</b>  255:3  <b>breathtaking</b>  279:11  <b>breathtakingly</b>  112:17</p>	<p><b>brent</b> 6:4 41:9  41:10,13,16,19  41:22 44:2,5  44:12  <b>briana</b> 7:8  93:24 94:7  <b>bribery</b> 107:10  <b>brick</b> 108:21  <b>brief</b> 13:6  139:23 150:23  225:2  <b>briefly</b> 143:10  146:21 147:13  150:25  <b>bright</b> 115:1  <b>brine</b> 65:2  <b>bring</b> 19:25  116:3  <b>brings</b> 153:15  <b>brittany</b> 176:13  <b>broad</b> 161:3  170:9 173:6  221:18 222:3  222:13 254:19  <b>broader</b> 122:6  252:15,20,21  <b>broke</b> 136:7  <b>broken</b> 97:20  <b>brought</b> 89:13  266:14  <b>brown</b> 9:11  124:20 145:5  145:15 205:9  207:1 225:14  226:4,13,15,17</p>	<p>226:20,25  227:2,3,12,23  231:8,11,14  232:18 234:10  243:5,15,20  244:4 247:3  248:18 249:12  250:12,23  251:16 252:1,2  252:21 253:16  254:15,17,24  256:2 257:2,14  257:20 259:8  259:11,18,21  259:24 260:1  260:19,24  261:9,12,13  262:4,6,17,21  262:25 263:6,8  263:12,16,20  263:22 264:6,9  264:13,15,25  265:7,15,20  266:4,9,20  267:9,14,21  268:2,12 269:3  269:7,12,21,24  270:1,12,23  271:6,18 272:2  272:8,25  273:13 274:21  275:7 276:15  277:4,17  278:15 280:7  280:15,18</p>	<p>281:20 283:1  283:12,13,14  283:19  <b>brown's</b> 145:11  225:9 230:5  <b>brunswick</b>  125:6  <b>build</b> 43:13  67:22  <b>building</b> 1:11  171:12  <b>built</b> 71:22  216:6,20  <b>bulk</b> 160:12  <b>bullying</b> 107:11  <b>burden</b> 95:23  <b>bureau</b> 146:15  257:5  <b>buried</b> 155:4  <b>burrus</b> 7:19  116:20,21,24  116:24 117:3,6  117:8 119:14  <b>bury</b> 154:22  <b>business</b> 74:16  202:20  <b>button</b> 21:17  <b>bye</b> 283:19  <b>byproduct</b>  177:12</p>
			<b>c</b>
			<p><b>c</b> 2:1 3:1 4:1 5:1  13:1 35:12,12  38:23 50:25  53:12 56:5,21</p>

[c - cases]

<p>61:17 63:18  66:6 74:2 97:2  97:2 104:5  106:15,15  114:12 130:22  139:16  <b>c144</b> 154:23  <b>cafe</b> 278:17  <b>caja</b> 59:4  <b>calculation</b>  34:19  <b>california</b>  45:18 113:9  120:22 142:15  146:23,23  147:5 152:24  173:21 200:3  218:18  <b>california's</b>  219:6  <b>californians</b>  147:12  <b>call</b> 13:9 14:21  32:3 68:21  85:16 166:25  168:25 199:8  205:18 225:14  226:12 257:15  273:4 274:5  276:7 281:4  284:2,4  <b>called</b> 38:11  62:14 66:24  67:1 72:5 83:2  86:21 120:13</p>	<p>123:1,4 148:21  220:12 242:23  242:24,25  251:9 275:14  <b>calling</b> 13:8  22:22 73:19  123:15 247:12  <b>calls</b> 178:24  226:14  <b>camera</b> 58:4  192:18 226:17  <b>campaign</b> 35:2  76:20 148:1,5  148:6  <b>campaigns</b>  46:11  <b>camulcahy</b> 4:7  <b>cancer</b> 40:5,5,5  40:9 45:19  53:20,20,21,22  53:24 54:16  60:11 62:1,24  72:13 73:12  75:7 91:3 95:1  101:4 103:3  105:12 115:14  115:18 118:15  129:14,14  138:1 196:8  <b>cancerous</b>  108:20  <b>cancers</b> 54:1,2  72:9 78:16  115:15 129:21</p>	<p><b>cannister</b>  131:11  <b>cannon</b> 211:18  <b>capabilities</b>  168:12 170:2,5  <b>capability</b>  242:13  <b>capable</b> 93:7  187:5 235:9,22  248:25  <b>capacity</b>  210:11  <b>capital</b> 108:19  <b>capitalism</b>  106:24 108:4  <b>car</b> 64:21  <b>carbon</b> 66:25  66:25 67:3,4  167:6,16,21,25  168:3,10  177:18  <b>carcinogenic</b>  134:20  <b>carcinogens</b>  45:20 51:19  54:3 185:17  <b>cardiovascular</b>  51:24 237:25  <b>care</b> 100:8  113:21 124:21  135:15  <b>career</b> 97:10  115:3 193:10  193:12</p>	<p><b>carefully</b> 119:3  178:10 209:16  253:6 256:5  <b>carlsbad</b> 204:7  <b>caroline</b> 6:15  58:7,11  <b>carried</b> 131:13  <b>carries</b> 263:24  <b>carry</b> 142:17  143:7  <b>carson</b> 8:8  131:20  <b>case</b> 1:4 15:13  15:18 16:19,19  16:20,23 19:19  21:6,7 22:2,7  22:19 23:20  24:18 25:2,2  25:14 27:15  86:1 127:2  128:16 140:8,8  172:23 201:20  221:16 244:25  246:18,20  275:14,15,24  278:14 284:10  <b>cases</b> 16:11,18  17:17,19,19  18:3,4 19:8,12  199:22 209:22  217:11 247:12  247:13 251:11  258:23 261:20  265:20,23,24</p>
---	---	---	--

[casing - characterize]

<p><b>casing</b> 164:15  <b>casings</b> 97:16  <b>category</b> 282:4  <b>causal</b> 240:19  <b>causation</b>  235:4,16  236:21 237:9  239:3 240:23  <b>cause</b> 51:21  54:18 75:7  77:10 94:24  148:20 151:5  237:23 238:21  239:14,15,16  240:3,8 266:13  266:19 267:8  <b>caused</b> 64:5  128:25 171:23  193:13 235:18  237:2,4 239:1  240:11,13  256:22 268:19  <b>causes</b> 54:1  114:22 248:8,9  267:13  <b>causing</b> 71:25  131:21 248:21  249:1 274:17  <b>caution</b> 52:4  190:7,18 209:7  <b>cdc</b> 277:6  <b>cease</b> 257:23  258:1  <b>center</b> 59:6  112:5</p>	<p><b>centered</b>  270:20  <b>central</b> 270:18  <b>ceo</b> 33:16 34:7  <b>ceremonies</b>  83:8  <b>certain</b> 140:15  141:10 150:16  182:6,15 199:2  199:8 200:4,14  201:2 208:1  212:2 220:14  234:22 235:17  236:15 246:1  247:14,17  255:18 260:6  266:23  <b>certainly</b> 18:24  19:5 60:19  71:6 84:20  128:4 131:11  140:22 149:16  183:16 186:3  187:18 201:16  217:12 235:20  271:9  <b>certainty</b>  115:23 198:14  198:17  <b>certificate</b>  286:1 287:1  <b>certification</b>  157:12  <b>certifications</b>  204:17</p>	<p><b>certified</b> 200:7  204:3 257:11  <b>certify</b> 170:14  286:4 287:2  <b>certifying</b>  162:22  <b>cetera</b> 152:21  261:8,8  <b>cfr</b> 174:15  <b>chain</b> 248:13  <b>chains</b> 208:2  <b>chair</b> 13:12  14:3 16:24  17:8 18:11,17  18:19 19:10  20:2 21:24  22:6,19 23:11  23:15,21 26:17  44:10 49:12  50:22,23 71:20  93:11 156:3  195:2 259:10  275:2  <b>chairman</b>  15:16 21:14,18  <b>chairperson</b>  117:7  <b>challenge</b>  185:23  <b>challenges</b>  94:18 95:21  97:17 104:21  105:9 108:8  <b>chamber</b> 108:5</p>	<p><b>champion</b>  62:17  <b>championed</b>  52:22  <b>chance</b> 71:4  135:3 223:13  <b>chances</b> 32:1  <b>change</b> 46:9  60:23 66:16  68:5 105:7,15  105:21 146:16  146:20 147:9  148:13,15  161:8 221:5  233:3 258:22  278:22  <b>changed</b> 17:20  252:11 259:22  261:12  <b>changes</b> 54:12  72:15 91:18  142:19 158:2  173:22,23,23  179:23 228:7  239:19  <b>changing</b> 240:2  257:1  <b>chaos</b> 107:24  <b>chapter</b> 39:11  70:6  <b>characterizati...</b>  34:13 149:15  155:3  <b>characterize</b>  193:16 249:24</p>
--	---	---	---

[characterize - chemistry]

<p>250:6  <b>characterizes</b>  152:15  <b>charge</b> 53:2  <b>chart</b> 248:22  280:5,6  <b>charts</b> 259:13  <b>chatter</b> 50:16  <b>check</b> 14:3  23:23 200:7  <b>chemical</b> 25:16  37:12 38:9,10  42:11 54:9  57:22 66:24  67:2,7 77:4  79:3 81:25  82:4,9 85:18  105:18 115:24  117:18 118:10  121:4,17  131:21 142:1  142:11,14  144:2,19  145:12 146:24  147:4,4,6,11,18  147:22 148:20  149:1 150:18  152:3,8,21  153:1 154:7  160:19,22,25  162:13 164:16  166:5 168:19  170:19 173:2  173:12,14  174:19 187:8</p>	<p>193:22 196:14  197:7,13,17,19  200:5 203:4,6  203:10,13  213:18 215:1  235:4 236:1  237:1,2,3,5,10  237:13 248:15  253:10 255:25  258:16 263:25  265:2 270:6  <b>chemicals</b>  34:20 37:10,15  37:18,21,22  38:1,8 45:2,6  45:10 46:18  48:5 49:6 51:9  51:19 53:6  54:4 57:6,17  57:22 61:2  62:4,11,17  63:1,3,4 66:17  66:23 67:17  68:3,6 71:2  72:5,8,24 73:5  73:17 74:21  75:2,6,17,21  80:10 81:5,22  82:1 84:2  85:11 86:22,24  87:5 90:14,21  90:23 91:19  94:10,11,24  95:13 97:14,24  98:1,6 99:1</p>	<p>100:13,17,23  101:13,14  102:23 103:15  110:22 113:10  117:11,18  118:7,17,18,24  119:12 120:7  120:11,14,21  120:23 121:11  122:8 124:1,2  124:6,16,22  125:15,20  129:7,9,16,20  130:14 133:9  134:17 135:18  137:13,23  138:2 139:25  141:6,9,11,15  141:20,21  142:6,9,11,18  143:1,9,22  144:4,23,25  147:8 148:3  149:5,12,14,18  152:2 153:4,7  153:8 154:9  155:9,14 158:7  158:10,18  160:16 161:15  161:22 171:7  172:2 173:24  174:7,11  185:18,19  196:21 197:4,5  197:9,16</p>	<p>198:21 199:4  201:2 203:3,8  203:10,16,17  204:17 205:5,7  207:9 209:8,15  209:17,20  210:2,6 212:22  217:21,23,25  219:7,8,9  220:2,9,14,17  220:21,21,23  221:2,6 223:21  223:23 234:22  235:8,22 236:4  236:5 237:7,7  237:9 248:25  249:2,4,5  252:8 253:8,11  253:19 255:3,5  256:22 263:5  263:18,23  264:17,17,18  265:8,24 267:3  267:4,7,25  268:7,9,11  273:2,22  280:11,13  281:1,11,18,21  281:23 282:3  282:11  <b>chemist</b> 190:12  193:19  <b>chemistry</b>  66:20 157:20  182:9,16</p>
---	---	--	---

[chemistry - clear]

<p>184:12 186:13 188:7 253:17 <b>chemists</b> 183:4 187:21 <b>chemophobia</b> 148:21,24 <b>chemours</b> 215:1 <b>cheney</b> 48:1 <b>chickens</b> 59:21 <b>child</b> 95:2 <b>child's</b> 54:6 <b>childhood</b> 105:12 117:19 131:7 <b>children</b> 36:15 39:16 40:18 43:20,20 62:8 64:14 69:23 73:1 83:16 84:8,13,13,18 97:12 98:19 100:7 101:20 106:2 113:18 113:20,20,21 121:23 128:21 129:18,22 135:13 150:1 255:18 <b>children's</b> 84:18 <b>chile</b> 83:12 <b>chills</b> 59:12 <b>chino</b> 1:11</p>	<p><b>chloride</b> 154:21 155:1,5 <b>choice</b> 141:22 152:15,16,18 <b>choices</b> 54:6 84:17 98:5 <b>cholesterol</b> 40:6 60:8 91:2 129:15 <b>choose</b> 29:22 29:25 43:6 <b>chooses</b> 29:19 29:20 <b>choosing</b> 54:18 <b>chose</b> 34:8 137:17 <b>chris</b> 27:9 <b>christ</b> 134:8 <b>christian</b> 6:2 38:18,18,19,22 38:22 39:1,4 41:8 <b>chronic</b> 53:22 <b>church</b> 134:8,9 <b>cienuilla</b> 35:13,21 36:2 57:5 59:1,11 60:24 64:3,23 103:15 <b>cigarettes</b> 137:14 <b>cimino</b> 6:19 63:12,13,14,17 63:18,20,23 64:1 65:25</p>	<p><b>circled</b> 64:20 <b>circulating</b> 60:3 <b>circumstance</b> 121:19 <b>circumstances</b> 38:3 164:22 <b>citation</b> 184:2 184:15 240:20 <b>citations</b> 183:6 184:4 186:24 257:12 <b>cite</b> 185:13 213:10 234:24 238:4,22 240:22 <b>cited</b> 183:20 216:12,13 <b>citing</b> 98:2 222:12 <b>citizen</b> 39:7 <b>citizens</b> 42:2 106:22 107:6 108:7 138:7 139:4 <b>city</b> 77:16 89:24 95:6 113:13 204:7 <b>city's</b> 64:25 <b>civic</b> 108:9 <b>civil</b> 106:6 144:11 <b>ck</b> 58:3 <b>claim</b> 53:1 78:5 81:8 120:24</p>	<p><b>claimed</b> 147:8 <b>claiming</b> 81:17 <b>claims</b> 33:14 57:15 281:19 <b>clan</b> 138:17 <b>clarification</b> 127:3 192:6 <b>clarifications</b> 165:10 <b>clarified</b> 162:5 <b>clarify</b> 14:5 51:11 127:7 159:13 163:7 163:15 247:6 250:24 262:14 <b>clarifying</b> 244:6 265:12 <b>clarity</b> 110:15 <b>class</b> 118:11 209:8 210:2 212:22 <b>classes</b> 235:8 236:5 <b>classified</b> 53:22 <b>clean</b> 53:2 57:19 75:1 84:18 86:17 87:13 100:20 100:21 121:21 <b>cleaned</b> 65:8 <b>cleaners</b> 98:4 <b>cleanup</b> 43:8 91:13 149:20 <b>clear</b> 38:4 59:19 96:14</p>
--	--	--	---

[clear - commenter]

<p>137:16 138:13  142:24 147:15  148:16 166:8  169:23 171:2  205:25 206:6,6  213:19 240:10  249:11 272:15  <b>cleared</b> 57:19  <b>clearer</b> 109:22  <b>clearly</b> 92:7  105:10 184:10  195:11  <b>clerk</b> 5:18,20  <b>click</b> 21:16  <b>climate</b> 46:9  66:15 71:24  76:21 77:7,10  77:14 78:17  97:17 112:22  145:18 146:16  146:20  <b>clinician</b>  244:24 245:10  245:22 258:18  <b>close</b> 65:21  149:11 200:4,9  205:6 215:20  274:8,9 280:23  <b>closed</b> 124:12  144:8 274:5,11  <b>closing</b> 29:16  29:24 30:3  <b>clothing</b> 90:17  <b>clovis</b> 103:15  103:18</p>	<p><b>club</b> 283:1  <b>clue</b> 256:17  <b>cluster</b> 62:1  <b>code</b> 25:6  <b>codified</b> 172:22  <b>codify</b> 174:3  <b>coffee</b> 20:25  <b>cog</b> 2:10 17:4  <b>cogswell</b> 1:18  286:2,17  <b>cojones</b> 48:13  <b>coke</b> 107:23  <b>cold</b> 274:14  <b>colitis</b> 115:15  129:16  <b>colleague</b> 27:10  <b>collected</b> 266:3  279:20 280:1  <b>collection</b>  259:19  <b>collective</b> 98:15  <b>college</b> 71:22  115:2 194:7  <b>color</b> 76:22  105:2,4  <b>coloradans</b>  147:12  <b>colorado</b> 35:3  45:18 52:1  113:9 119:10  120:22 142:15  144:12 146:23  146:23 147:5  150:12 151:18  152:23 153:13</p>	<p>173:21 218:17  <b>colorado's</b>  174:4 203:2  219:5,8  <b>combination</b>  144:17  <b>combine</b> 14:15  <b>combined</b>  186:20  <b>come</b> 25:8 29:9  48:21 57:18  71:10 79:10  80:3 84:16  89:3 93:19  99:24 108:16  109:2 112:10  113:14 122:23  127:20 136:6  208:19 211:11  211:12,24  217:16 221:3  225:2 241:21  253:8 254:8  283:21  <b>comes</b> 40:1  72:17 75:5  80:24 101:1  103:5 128:18  145:22 217:18  273:16,24  <b>comfort</b> 42:2  <b>comfortable</b>  198:6 207:22  254:16</p>	<p><b>coming</b> 36:9  39:6 43:25  49:22,23,24  110:21 175:19  198:4 225:19  248:8 250:19  250:20 258:10  278:19  <b>comment</b> 27:24  28:1,3 30:8  31:13,14,16,17  31:22,25 32:4  44:11 49:12,14  50:5 56:3,3  58:23 68:19  71:11 74:10  88:20 93:15,17  102:14 122:13  122:17 126:16  127:1,4,6,11,21  127:23 130:12  130:16 133:13  136:2,10,12  139:8 140:7,12  157:1 166:1  187:11 192:19  225:4,23,25,25  226:3,6,6,9  282:20 284:8  284:21  <b>commented</b>  136:10,13  <b>commenter</b>  82:12</p>
--	---	--	--

[commenters - community]

<p><b>commenters</b>  27:23 79:18  85:23,25 102:2  106:11,11  108:25 127:5  147:24 156:19  284:11</p> <p><b>comments</b>  18:10 33:4  50:3,6,8,12,24  55:6 128:14  182:6 192:18  254:23 278:3</p> <p><b>commerce</b>  108:5</p> <p><b>commercial</b>  172:6</p> <p><b>commission</b> 1:2  5:15,17,19,21  13:5,12 15:13  15:17,17 17:8  17:25 18:2,16  19:18,20 21:15  21:19 25:14  27:8,14 28:8  29:9,18 30:21  31:1,21,21  32:23 33:6  37:9,15 38:14  46:15 55:10  56:9 60:22  73:19 75:19  79:8,10 89:7  91:23 92:6,20  98:23 102:20</p>	<p>104:12,15  112:7 117:9  120:2 128:13  137:1 143:6  150:24 151:23  153:20,25  154:10 156:3,5  157:16 165:3,5  165:11,24  169:19 170:18  172:11,12,14  173:17,19  174:3,13,14  175:7,8,21  176:2,20,25  183:19 184:9  186:21,23  188:23 189:12  191:19 194:23  211:25 212:19  218:16 223:25  224:11,15  225:7 230:2,11  231:7 232:5,8  232:10,24  233:4,7,7,8,13  233:21,24  271:2,12,15  272:20 273:9  274:23 275:4  281:10 282:9</p> <p><b>commission's</b>  15:21 25:4,16  25:23 54:25  166:14 170:9</p>	<p>175:17 178:14  187:4,23</p> <p><b>commissioner</b>  5:14,16 13:15  16:25 20:7  23:12 35:10  189:10 195:6  205:8 207:2  212:15 224:22  251:21,23  269:23 280:2  283:11</p> <p><b>commissioners</b>  19:8 23:10  26:7,17 29:10  30:5 32:17  35:11 36:13  43:22 50:13  71:21 82:22  86:11 94:7  113:20,25  114:20 116:15  117:7 131:4  138:6,22 139:4  141:1 191:23  230:5 231:6  251:21 280:3</p> <p><b>commissions</b>  128:15</p> <p><b>commitment</b>  139:3</p> <p><b>committed</b>  76:24 137:3</p> <p><b>committee</b>  33:22 122:5</p>	<p><b>commodity</b>  83:9</p> <p><b>common</b> 51:15  64:2 215:12</p> <p><b>communicate</b>  145:2 153:3</p> <p><b>communication</b>  153:12 171:21  174:16 257:10  277:11</p> <p><b>communicati...</b>  153:11 206:10</p> <p><b>communities</b>  42:5 60:25  64:22 65:17  72:18 75:22  77:11,12,13,21  78:12,23 79:14  80:4,19 85:1,7  85:8 86:23  88:1 90:7 91:6  95:24 96:4,21  101:9 103:10  104:24 105:8  105:11 121:9  126:6 137:4  138:18 145:7,9  145:20 148:22  171:24 193:13  258:13 260:16  270:7 278:9</p> <p><b>community</b>  58:24 59:2  62:2,7,19 76:1  79:6 95:6</p>
--	--	--	---

[community - concerned]

104:20 110:11 114:23 115:9 132:16 142:23 153:8,10 156:13 200:25 242:13 244:15 251:10 258:2 268:6 277:24 278:4 282:15	<b>compared</b> 118:12 129:23 251:8,10 <b>comparing</b> 262:8 275:3 <b>comparison</b> 260:15 <b>comparisons</b> 262:1 <b>compassion</b> 42:1 <b>competitive</b> 147:21 <b>competitor</b> 203:21 <b>compilation</b> 145:22 173:5 <b>compile</b> 183:11 <b>compiles</b> 150:13 <b>complaints</b> 260:15 <b>complete</b> 37:18 38:7 145:12 164:13 202:23 217:19 272:7 275:23 <b>completed</b> 29:18 <b>completely</b> 88:24 116:10 <b>completion</b> 33:24 157:11 158:23 163:1 166:7 177:24	<b>completions</b> 33:15 158:13 159:7,9 162:11 163:23 <b>complexities</b> 108:9 <b>compliance</b> 37:20 42:13 167:19 168:2 178:17 <b>complicated</b> 115:22 132:13 157:3 163:5 235:21 <b>complications</b> 104:19 <b>complicit</b> 128:25 <b>complicity</b> 52:14 <b>component</b> 160:6 <b>components</b> 77:5 79:3 <b>compound</b> 167:17 219:25 253:6,7 282:2 <b>compounds</b> 61:1 95:15 96:12 160:22 160:25 161:18 166:17,21,22 169:20 170:2 248:5 253:2,18 253:22 254:11	267:12 282:1 <b>comprehensive</b> 80:15 221:1 <b>compressor</b> 245:17 261:20 <b>comprises</b> 109:18 <b>compromised</b> 209:19 <b>compulsory</b> 16:22 <b>computer</b> 16:11 <b>concealed</b> 80:18 <b>concealment</b> 138:13 <b>concede</b> 161:25 <b>concentrations</b> 118:19 132:20 208:24 209:5 212:2 239:7 <b>concept</b> 40:22 <b>concern</b> 14:11 32:24 90:11 94:8 110:13 132:2 159:23 186:3 202:25 203:1 281:7 <b>concerned</b> 39:13 45:19,23 46:1 64:13 126:6 189:1,2 195:20 196:4 196:11 211:4
<b>companies</b> 37:14,17 38:6 38:12,13 49:1 72:19 73:8 75:14,15,21 87:10 97:25 98:9 110:15 118:21 120:20 121:10 135:19 139:25 147:21 195:24 197:1,3 202:24 203:19 216:11 258:6 269:10,12,17 <b>company</b> 48:3 64:20 68:2 122:1 131:14 197:18 201:20 201:23 202:2 202:16,18 216:13 258:8 268:23 269:16 <b>company's</b> 37:21 <b>compare</b> 117:17 118:6			

[concerned - constituent]

<p>269:18 276:10 278:23 <b>concerning</b> 90:19 218:5 <b>concerns</b> 19:9 23:10 95:15 111:14 164:3 189:4 207:14 241:21 248:20 <b>concho</b> 2:10 17:5 <b>conclude</b> 222:21 <b>concluded</b> 214:21 285:9 <b>conclusion</b> 91:15 155:8 184:11 190:9 221:10 268:5 <b>conclusions</b> 159:4 182:9 188:5 190:11 209:3 215:13 245:25 250:24 <b>condemnation</b> 107:18 <b>condition</b> 196:9 <b>conditions</b> 21:9 22:11 38:2 100:15 239:1 <b>conduct</b> 25:14 220:11,25 221:8 <b>conducted</b> 64:7 69:15 96:11</p>	<p>217:20,20 223:6 <b>conducting</b> 231:7 <b>confer</b> 201:1 <b>conference</b> 18:4,14 21:12 22:4 28:6 63:2 186:4 <b>conferred</b> 192:13 <b>confidence</b> 269:13 <b>confident</b> 121:25 199:11 <b>confidentiality</b> 172:5 213:5,7 <b>confirm</b> 55:22 56:1 88:22,23 284:14 <b>confirmation</b> 122:21 <b>confirmed</b> 80:14 88:25 149:10 237:22 238:19 239:20 <b>confirming</b> 235:18 <b>confirms</b> 238:25 <b>conflate</b> 148:12 177:7 <b>confounding</b> 65:11 222:23</p>	<p><b>congregational</b> 134:7 <b>conjecture</b> 39:19 <b>connected</b> 54:3 <b>connecticut</b> 276:20 279:5 <b>connection</b> 84:24 115:8 138:18 216:1 223:4 227:16 <b>connects</b> 83:6 <b>conscious</b> 100:16 <b>consensus</b> 158:9 159:5 164:10 189:14 <b>consent</b> 134:16 <b>consequences</b> 95:25 112:15 137:12 <b>conservation</b> 1:2 3:20 5:13 5:15,17,19,21 8:16 13:11,12 21:23 25:13 26:14,18 37:9 38:14 42:8 46:15 60:22 98:23 104:15 128:13 158:5 218:16 263:4 268:25 <b>consider</b> 31:22 98:18 109:16</p>	<p>153:19 175:19 212:1 275:19 <b>consideration</b> 71:8 101:22 <b>considerations</b> 175:18 <b>considered</b> 70:20 97:24 110:14 178:10 249:25 270:16 <b>considering</b> 54:13 <b>consistent</b> 140:9 166:10 166:13 168:21 178:11,13 266:21 267:2 <b>consistently</b> 112:24 <b>consolidate</b> 17:18 18:3,12 18:24 19:8,12 20:3,5 21:12 22:1,1 <b>consolidated</b> 19:20 <b>consortium</b> 33:22 34:4 208:19 <b>consortium's</b> 34:12 <b>constant</b> 74:22 <b>constituent</b> 154:11 172:15</p>
--	---	--	---

[constituents - conveniently]

<p><b>constituents</b> 152:13 154:6 154:13,20 155:6</p> <p><b>constitution</b> 106:6</p> <p><b>constraint</b> 92:15</p> <p><b>constraints</b> 26:4,14</p> <p><b>constructed</b> 216:16</p> <p><b>consulted</b> 22:15</p> <p><b>consumer</b> 90:16 169:12</p> <p><b>consuming</b> 55:13</p> <p><b>consumption</b> 54:6</p> <p><b>cont'd</b> 3:1 4:1 5:1 6:1 7:1 8:1 10:1 11:1 12:1</p> <p><b>contact</b> 200:19 205:17 207:1 276:25</p> <p><b>contain</b> 84:1 146:1 153:7 223:15</p> <p><b>contained</b> 131:12 154:18</p> <p><b>containing</b> 57:5 81:1 120:14 167:10 170:15</p>	<p><b>containment</b> 164:15</p> <p><b>contains</b> 167:20 177:25 178:2,4 197:21</p> <p><b>contaminant</b> 146:2</p> <p><b>contaminants</b> 32:25 45:8 64:7 65:13 100:12 135:19 146:12 251:2</p> <p><b>contaminate</b> 34:21 39:21 45:9 81:7 97:15 100:24 101:10 105:13 217:13 223:10</p> <p><b>contaminated</b> 36:1 52:24 57:25 59:22 62:4 67:24,25 91:14 105:18 113:5 130:4 132:12 176:1 221:13 222:8 276:10</p> <p><b>contaminates</b> 83:20</p> <p><b>contaminating</b> 39:23 45:12 60:17 103:1 129:10</p> <p><b>contamination</b> 46:17 51:25</p>	<p>58:25 72:19 74:20 78:1 80:18 81:19,20 82:25 84:10 86:14,21 87:4 87:20 91:5 95:5 96:5 98:1 105:3,20 117:15 130:2 133:5 134:11 137:25 142:22 157:15 163:3 209:12 210:1 214:9 217:3,10 217:12 222:17 222:22 223:2,7 223:14 272:17 272:21 273:10</p> <p><b>contaminations</b> 130:7</p> <p><b>contemplate</b> 160:15</p> <p><b>contemplated</b> 163:22</p> <p><b>contemplates</b> 163:11</p> <p><b>contents</b> 137:5 139:1</p> <p><b>contest</b> 21:8</p> <p><b>contested</b> 92:8</p> <p><b>context</b> 37:13 93:5 157:5 162:2 171:18 233:6</p>	<p><b>contexts</b> 40:12</p> <p><b>contingent</b> 30:21 225:11</p> <p><b>continue</b> 46:9 46:11 64:15 77:19,21 78:10 93:9,14 101:9 101:10 103:21 111:3 164:1 170:18 205:25</p> <p><b>continued</b> 43:10 174:22</p> <p><b>continues</b> 52:23 172:18</p> <p><b>continuing</b> 65:18 171:3</p> <p><b>contrary</b> 171:20 174:5</p> <p><b>contrast</b> 202:3</p> <p><b>contribute</b> 42:21</p> <p><b>contributing</b> 248:1 267:12</p> <p><b>contributions</b> 115:3</p> <p><b>control</b> 33:6 65:5 92:20 111:6 167:10 167:11 172:10 254:25 274:2</p> <p><b>controlled</b> 209:16</p> <p><b>controls</b> 254:1</p> <p><b>conveniently</b> 142:10</p>
--	---	--	---

[conversation - critical]

<p><b>conversation</b> 93:12 200:15</p> <p><b>conversations</b> 190:19</p> <p><b>conversion</b> 118:3</p> <p><b>conviction</b> 42:1</p> <p><b>convinced</b> 240:4</p> <p><b>cookware</b> 90:17</p> <p><b>copies</b> 225:13</p> <p><b>copy</b> 230:11,15</p> <p><b>core</b> 156:14 158:3 159:6 248:18</p> <p><b>corporate</b> 88:5 105:17 106:23 134:19</p> <p><b>corporation</b> 3:10 21:8,20</p> <p><b>corporation's</b> 21:10</p> <p><b>corporations</b> 46:14 98:16 101:19 128:23 135:20</p> <p><b>corral</b> 5:20</p> <p><b>correct</b> 14:17 55:6 166:13 178:13 191:7 193:6,11,20,23 193:24 194:1,2 194:4,9 199:7 227:25 231:25</p>	<p>238:3,8 241:11 241:17 242:6</p> <p>244:12,16 245:23 247:24</p> <p>262:16,24 267:8</p> <p><b>correctly</b> 236:12 238:2</p> <p><b>corrosivity</b> 144:16</p> <p><b>cost</b> 57:12,13 98:18</p> <p><b>costello</b> 6:9 46:25 47:1,5 49:10,11 50:22 50:23,25 51:3 51:6 53:9</p> <p><b>costly</b> 124:9</p> <p><b>costs</b> 52:9 65:19 125:13</p> <p><b>counsel</b> 13:20 24:9 55:10 122:21 192:9 208:18 231:15 286:11,14 287:7,10</p> <p><b>counsel's</b> 160:11</p> <p><b>counselor</b> 70:6</p> <p><b>count</b> 225:19</p> <p><b>counted</b> 28:13 196:16</p> <p><b>counties</b> 80:14 258:24 279:20</p>	<p><b>countless</b> 60:25</p> <p><b>countries</b> 279:6</p> <p><b>country</b> 40:2 42:20 43:15 48:17 86:12 88:3 134:21 255:2 277:7</p> <p><b>county</b> 8:17 16:22 21:11 27:2 32:18 39:6 52:1 59:10 109:14 113:12,13 114:20 258:23 271:21</p> <p><b>couple</b> 27:24 29:3 55:25 123:25 124:5 212:19 239:25 254:3 270:2 271:10</p> <p><b>courage</b> 108:12</p> <p><b>course</b> 133:23 143:3 157:17 185:23 201:13 201:16 252:6 270:16 276:3</p> <p><b>courses</b> 194:6</p> <p><b>court</b> 15:19,21 15:21,23 57:20 157:19 189:25</p> <p><b>courtesy</b> 29:23</p> <p><b>cover</b> 204:18</p> <p><b>coverage</b> 163:7 163:8</p>	<p><b>covers</b> 121:14 150:9 219:7,8</p> <p><b>covert</b> 80:9</p> <p><b>covid</b> 104:18</p> <p><b>coworkers</b> 111:10</p> <p><b>cows</b> 103:18</p> <p><b>crack</b> 131:21</p> <p><b>cranked</b> 131:11</p> <p><b>create</b> 42:25 91:20 107:14 107:24 125:12 246:17 275:14</p> <p><b>created</b> 48:1,8 70:4</p> <p><b>creates</b> 108:13 157:13 159:8</p> <p><b>creating</b> 107:19 162:20 203:18 269:19</p> <p><b>creation</b> 42:6</p> <p><b>cries</b> 135:6</p> <p><b>crimes</b> 77:20</p> <p><b>crises</b> 72:15 77:22</p> <p><b>crisis</b> 53:3 71:24 76:21 77:7,10,14 110:19,20</p> <p><b>cristina</b> 4:3</p> <p><b>criteria</b> 261:4 262:5,14</p> <p><b>critical</b> 81:16 137:6</p>
--	--	--	---

[crops - davis]

<p><b>crops</b> 105:14  <b>cross</b> 29:7,8  34:5,10 190:15  192:5,7,19  193:1 231:7,9  244:2  <b>crosshairs</b>  108:3  <b>cruces</b> 51:7  <b>crucial</b> 91:9  101:7 137:11  <b>crude</b> 106:23  177:2,17  <b>cultivate</b>  108:14  <b>culture</b> 83:3  108:21  <b>cultures</b> 128:18  <b>cumulative</b>  105:11  <b>curiosity</b>  259:16  <b>curious</b> 216:21  216:25  <b>current</b> 22:9  81:24 138:12  142:10 158:18  160:7 163:16  220:18 239:4  <b>currently</b> 35:23  89:24 141:14  141:25 158:12  167:15 168:2  <b>curriculum</b>  231:16</p>	<p><b>cv</b> 15:14 180:7  228:16 231:25  232:11,12,22  232:25 233:1  <b>cx</b> 9:7  <b>cycle</b> 84:9  <b>cysts</b> 266:16</p> <p style="text-align: center;"><b>d</b></p> <p><b>d</b> 12:22 13:1  15:14 35:12  41:16 44:19  56:21 76:13  97:2 136:19  178:2 179:11  227:3,3  <b>dad</b> 131:9  <b>daily</b> 81:2  <b>dais</b> 49:17  62:21 93:12  230:16  <b>dal</b> 21:15,19  <b>dalva</b> 3:11  <b>dam</b> 108:18  <b>damage</b> 67:23  87:12 91:1  95:2 103:20  137:20 138:1  283:6  <b>damaged</b> 58:24  <b>damages</b> 151:6  <b>danger</b> 67:17  72:12 75:3,13  76:6 133:4  255:13</p>	<p><b>dangerous</b>  36:10 65:6  66:16,22 71:3  74:20 80:22  81:18 84:2  101:13 102:24  103:15,21  118:20 119:12  120:20 122:8  129:19 138:14  140:3 196:9  209:9  <b>dangers</b> 67:15  91:9 135:8  <b>daniel</b> 2:3  13:20 69:15  <b>dare</b> 84:23  <b>dark</b> 81:18  <b>dash</b> 114:12  <b>data</b> 12:24  34:12 106:25  116:1,2 120:20  144:9 145:22  145:22 146:4  147:11 149:8  166:11 185:10  197:12,14,20  197:24 200:17  223:3 236:7,13  243:11 249:20  250:17 253:24  258:13 263:19  265:22 266:3  270:10,13  271:24 274:25</p>	<p>275:13 278:9  279:20 280:1  280:19,19,21  281:5,16,18  282:8 283:7  <b>data's</b> 236:8  <b>database</b> 34:13  142:4,7  <b>databases</b>  145:23  <b>dataset</b> 262:3  <b>date</b> 22:16 23:4  166:10 178:12  218:4  <b>dated</b> 131:8  <b>dates</b> 79:10  199:12,14  <b>david</b> 9:11  145:4 205:9  226:15 227:2  281:7  <b>davis</b> 5:3 9:3,9  9:12 26:5,6,7  30:15,17 31:11  140:24,25  141:2 155:18  178:24 179:6,8  180:20 182:24  183:5,24 184:4  184:8,23 186:2  186:14,17  188:10,14,17  191:3,5,7,17,18  192:1 194:23  194:24 198:3</p>
--	---	---	---

[davis - deliberately]

<p>201:5,6,7,14                  203:5,23 205:8                  206:25 210:20                  225:5,6 226:12                  226:14,22,24                  227:22 229:3                  229:13,21,22                  230:10 251:18                  251:19 279:18                  279:21 280:2                  283:22,25  <b>davis's</b> 230:4,4  <b>day</b> 22:20,25                  27:24 33:6                  41:3 70:23                  73:4 79:16                  83:25 87:19                  100:20 114:4                  117:13 135:24                  156:21,22                  178:15 263:9                  284:17  <b>days</b> 28:7,25                  124:5 175:19                  271:11  <b>ddt</b> 117:18,19                  117:25 118:4,7                  118:12 131:12                  131:21  <b>de</b> 3:13 17:24                  18:7  <b>deadly</b> 114:2  <b>deal</b> 17:23 33:2                  57:24,24                  202:22 269:13</p>	<p>279:17  <b>dealing</b> 261:23                  262:2  <b>dealt</b> 205:11  <b>deana</b> 2:19                  16:25 27:18  <b>deana.bennett</b>                  2:23  <b>dear</b> 136:25  <b>death</b> 57:14                  105:21,25                  137:19  <b>deaths</b> 104:20  <b>debate</b> 159:2                  162:2  <b>debated</b> 158:25  <b>decade</b> 202:12  <b>decades</b> 46:9                  52:6 94:12                  105:17 112:14                  112:21 115:4  <b>decay</b> 43:12  <b>december</b> 14:4                  14:16,16 18:4                  18:13 19:14,24                  21:3 23:3  <b>deceptive</b> 132:1  <b>decide</b> 18:20                  29:18 105:23                  205:3 259:5                  276:12 279:16  <b>decided</b> 24:6                  74:11 117:17  <b>decision</b> 49:25                  76:7 111:2,3</p>	<p>114:4 151:17                  152:3 188:25                  190:10 271:17                  275:6  <b>decisions</b> 84:15                  149:7 200:23                  281:6  <b>decisive</b> 76:2                  96:7 138:6                  271:17  <b>decisively</b>                  43:13  <b>declines</b> 85:2  <b>decreased</b> 91:2  <b>deemed</b> 107:3                  165:10  <b>deep</b> 42:4 94:8                  145:1 263:25                  264:22  <b>deeper</b> 87:20                  132:16 224:14  <b>deeply</b> 39:13                  59:21 64:13                  72:12 76:24                  114:3 137:3  <b>defend</b> 86:16  <b>defense</b> 35:24                  133:3  <b>define</b> 245:10  <b>defined</b> 151:7                  158:8 177:10                  177:12,14                  245:9  <b>defines</b> 168:10</p>	<p><b>definitely</b> 19:12                  20:16 111:12                  271:11 281:15                  282:22  <b>definition</b>                  148:13 150:6,7                  150:8,11                  152:12,13                  157:22 158:16                  158:19 160:16                  161:2 164:8                  167:3,5,7,7,12                  167:13,20,23                  167:24 168:4,6                  168:9,11,14,16                  168:17,21                  169:3 207:8                  252:7,14,17,19                  252:22  <b>definitions</b>                  142:20 148:15                  150:13 252:18  <b>degradation</b>                  65:20 128:22  <b>degrade</b> 100:24  <b>degree</b> 32:19                  162:9 184:12                  189:22 194:5,8  <b>del</b> 59:4  <b>delays</b> 124:9  <b>deliberate</b>                  29:19,20,22                  30:1 55:1 89:8  <b>deliberately</b>                  168:18</p>
---	---	--	---

[deliver - different]

<p><b>deliver</b> 78:22  <b>delivered</b> 107:4  153:12  <b>delivery</b> 107:10  <b>delta</b> 250:14  <b>delusional</b>  116:10  <b>demand</b> 37:10  82:9 85:17  87:24 138:7  <b>demise</b> 42:22  <b>democracy</b>  120:3  <b>demon</b> 48:4  <b>demonstrate</b>  166:15 182:22  <b>demonstrates</b>  172:16  <b>denial</b> 52:7  55:7 107:7  <b>denied</b> 28:15  <b>denton</b> 113:12  113:13  <b>dep</b> 249:19  <b>department</b> 2:4  35:24 146:7  203:14,15  204:7,15  215:17 233:9  233:12,22  234:3 258:25  259:1,2 268:20  268:24 269:5  276:6,7,12</p>	<p><b>departments</b>  199:19,19  257:5,5  <b>depend</b> 100:20  <b>depending</b>  22:19 163:13  <b>depends</b> 240:14  240:15  <b>depth</b> 12:24  249:17,21,25  250:3,7,8,14,14  271:2,3,20  <b>deputy</b> 8:15  157:24  <b>deregulations</b>  43:17  <b>describe</b> 270:5  273:9  <b>description</b>  9:17 10:2 11:2  12:2,23 241:11  241:13 242:2  246:18 275:14  275:15,24  <b>descriptive</b>  240:8  <b>desert</b> 83:17  276:21  <b>deserve</b> 82:3  129:18 150:4  <b>deserves</b>  183:22  <b>design</b> 28:12  277:15</p>	<p><b>designate</b>  246:20  <b>designation</b>  42:11  <b>designee</b> 13:15  13:18  <b>desiring</b> 55:17  <b>despair</b> 85:21  <b>despite</b> 64:6  137:16  <b>destiny</b> 134:14  <b>destroy</b> 75:10  102:24 105:14  107:24  <b>destruction</b>  105:25  <b>detail</b> 132:22  175:15 232:7  273:18  <b>detailed</b> 178:7  <b>detailing</b>  154:24  <b>details</b> 162:25  <b>detected</b> 94:13  <b>detectible</b>  132:20  <b>determination</b>  31:2 183:21  187:1  <b>determinations</b>  217:2  <b>determine</b>  201:1,12,12,15  215:23 237:9  238:24</p>	<p><b>determined</b>  235:15 273:3  <b>determining</b>  236:21  <b>detriment</b>  159:10  <b>detrimental</b>  121:5  <b>devastating</b>  100:16 137:14  <b>developing</b>  115:18  <b>development</b>  61:2 78:15  95:3 105:13  157:5 177:2,16  241:20 246:2  247:6,18 250:2  <b>developmental</b>  40:7 103:4  138:2  <b>device</b> 173:5  <b>diagnosis</b> 149:9  <b>dialog</b> 231:15  <b>diamonds</b>  48:18  <b>dick</b> 47:25  <b>die</b> 62:24  <b>died</b> 62:6  <b>difference</b>  162:3 173:20  236:19 237:1  250:7  <b>different</b> 34:1  34:11 54:5</p>
--	---	--	--

[different - disclosures]

62:9 81:10	228:25 234:15	152:3,16,18	142:14 143:22
132:23 156:6	247:1 279:25	155:13 174:11	144:2 145:13
163:12 174:1	282:16	197:4,16	146:24 147:2
185:19 186:10	<b>direction</b> 30:25	205:14 223:21	147:23 148:3
186:11 200:1	43:14 130:10	223:23 224:12	148:20,25
203:22 208:12	<b>directives</b>	<b>disclosed</b> 92:19	149:1,2 150:12
208:13 210:23	234:6	113:8 120:23	150:18 151:4,8
217:14 240:10	<b>directly</b> 60:16	142:9 144:1,18	151:12,20
252:17,17	64:18 70:14	147:5,7 150:17	152:7,9,10
259:16,19	81:6 94:15	154:10 164:14	154:7 157:13
260:17 261:1	110:21 199:25	171:8 172:21	164:19,25
275:1 276:21	200:6 218:1	174:8 198:1	172:21 173:8
282:22	230:1 278:10	199:4,7 202:8	173:18,24
<b>differently</b>	283:7	203:6,7	174:12,21
54:20	<b>director</b> 5:12	<b>discloses</b> 152:5	196:20 197:11
<b>difficult</b> 115:23	8:15 13:10	<b>disclosing</b>	197:25 198:7
203:9 213:7	32:23 34:2	57:21 142:1,3	199:15,18
<b>dig</b> 271:7	63:18 64:1	142:6 151:14	200:2,5,6,10
<b>digging</b> 224:14	104:13 157:24	152:8 197:2	203:3,13,16
<b>digital</b> 286:8	<b>dirt</b> 134:13	<b>disclosure</b>	204:1 205:11
287:3	<b>disagreement</b>	25:16 35:3,3,6	219:17,24
<b>dignity</b> 108:12	159:3	36:6,17 37:10	220:1,6,20
<b>diligence</b>	<b>disagrees</b>	40:21,24 45:13	257:4 280:14
126:11	159:15	45:17 46:2	<b>disclosures</b>
<b>diligently</b> 17:22	<b>disappear</b>	49:7 62:13	54:10,13
<b>dioxane</b> 252:24	86:25	73:16 77:4	125:15 142:10
<b>dioxide</b> 177:18	<b>disaster</b> 88:1	79:2 80:15	159:16 164:16
<b>dire</b> 32:24	<b>disastrous</b> 52:6	81:12,25 82:9	166:15 170:19
<b>direct</b> 22:23	<b>discharge</b> 41:5	85:18 98:25	170:20,23,25
29:11 81:23	160:4	103:7 114:3	171:2,3,4,11,17
97:16 178:2,4	<b>disclose</b> 38:13	119:5 120:25	171:20,23
179:13 180:12	45:2 72:24	122:7,7 130:8	174:19 198:23
180:16 189:3	98:1 133:8	130:9 137:5	198:25 199:24
205:14 227:5	137:13 139:25	138:7 139:1	219:20
227:24 228:21	141:23 151:15	141:6,19	

[discontinued - dolce]

<p><b>discontinued</b> 166:16</p> <p><b>discover</b> 48:18 108:9,14</p> <p><b>discovered</b> 60:13 112:16</p> <p><b>discrete</b> 156:24</p> <p><b>discuss</b> 192:10</p> <p><b>discussed</b> 39:14 122:9 192:2 232:7</p> <p><b>discusses</b> 174:1</p> <p><b>discussing</b> 156:23 162:6 201:17 241:16 280:6</p> <p><b>discussion</b> 38:5 93:4 172:7 191:11 232:3 241:8</p> <p><b>discussions</b> 18:6 156:10,13</p> <p><b>disease</b> 40:6 72:9 78:16 91:1 103:3 129:15</p> <p><b>diseases</b> 95:16</p> <p><b>dismiss</b> 18:7</p> <p><b>disorders</b> 95:1 95:2,17 115:6 115:19</p> <p><b>displayed</b> 272:12</p> <p><b>disposable</b> 84:23</p>	<p><b>disposal</b> 134:16 176:22</p> <p><b>disposed</b> 19:22 122:2</p> <p><b>disposition</b> 121:17 154:11 154:15,18 162:1 175:23 176:21 177:1</p> <p><b>disproportion...</b> 42:21 52:12 95:18</p> <p><b>disrespectful</b> 43:24</p> <p><b>disrupting</b> 62:4 63:1,3</p> <p><b>disruption</b> 237:25</p> <p><b>disruptor</b> 51:25</p> <p><b>disruptors</b> 51:20,20</p> <p><b>dissonant</b> 134:22</p> <p><b>distance</b> 260:6 261:15</p> <p><b>distinction</b> 162:2,11 235:15,17 251:4</p> <p><b>distinctly</b> 131:18</p> <p><b>distortion</b> 107:7</p>	<p><b>distraction</b> 81:18</p> <p><b>district</b> 15:19 15:21,23</p> <p><b>distrust</b> 107:17</p> <p><b>ditch</b> 64:17</p> <p><b>ditching</b> 125:10 125:11</p> <p><b>division</b> 3:20 5:13 8:16 13:10,11 21:23 22:10,21 26:14 26:18 154:10 155:20 157:2 158:5,21 159:15,24,25 161:8 164:23 165:5 167:23 169:15,24 174:12,21 175:9 201:15 220:6 263:4 269:1</p> <p><b>division's</b> 21:9 23:2 157:21 161:1 164:8 167:24 168:4,8 177:11 191:24</p> <p><b>divisions</b> 219:18</p> <p><b>dizziness</b> 245:3 245:7</p> <p><b>dizzy</b> 234:18</p> <p><b>dml</b> 3:15</p>	<p><b>docket</b> 18:5,13 19:21</p> <p><b>doctor</b> 253:14 263:10 264:1</p> <p><b>doctorate</b> 260:8,8</p> <p><b>doctors</b> 115:8 149:24 152:18</p> <p><b>document</b> 184:22 206:17 234:23</p> <p><b>documented</b> 39:19 52:1 80:12 81:11 118:15 170:7 209:21,22 214:2 216:22 217:11</p> <p><b>documents</b> 112:10 175:6,8 180:1,4 185:5 228:10,13</p> <p><b>doing</b> 25:9 97:11,11,19,24 98:8,15,20 99:20 118:3 133:16 148:14 235:23 236:2 256:13 260:20 262:7 267:11 270:13 272:9 276:5 281:3</p> <p><b>dolce</b> 7:9 97:1,1 97:5,8 99:11</p>
---	--	---	---

[dollars - drink]

<p><b>dollars</b> 68:12 85:6 <b>dominant</b> 107:4 <b>door</b> 62:6 108:20 <b>dose</b> 66:17 239:24 <b>doses</b> 238:15 253:23 <b>double</b> 46:10 200:7 230:12 <b>doublethink</b> 107:9 <b>doubt</b> 100:22 101:2 239:11 254:3 <b>doubts</b> 112:22 <b>downhill</b> 59:5 <b>downhole</b> 45:2 99:1 141:5,7 141:16 142:18 143:1,8,9 144:5,25 146:2 154:7 155:10 155:14 163:21 166:17,22 171:7 173:10 174:6 268:7,11 <b>downplaying</b> 107:7 <b>downwind</b> 276:10 <b>downwinder</b> 47:21</p>	<p><b>dozen</b> 133:3 <b>dozens</b> 124:8,8 204:24 <b>dr</b> 5:16 9:11 13:17,18 14:3 14:9,12,17,19 15:7 16:5 24:3 24:13,15 30:12 46:25 47:5 50:23 51:3,6 53:8 144:20 145:3,4,11,15 157:19,19 171:15,22,24 178:2,4 205:9 207:1 212:17 213:22 214:5 216:5,9 217:5 218:13,23 219:10,16,23 220:7 221:10 221:23 222:2 223:16 224:6,9 224:20 225:8 225:14 226:4 226:13,15,16 226:20,25 227:12,23 229:18 230:5 231:7,11,14 232:18 234:10 243:5,15,19 244:4 247:3 248:18 249:12 250:12,23</p>	<p>251:15,25 252:2,21 253:16 254:15 254:17,24 256:2 257:2,14 257:20 259:8 259:11,18,21 259:24 260:1 260:19,24 261:9,12,13 262:4,6,17,21 262:25 263:6,8 263:12,16,20 263:22 264:6,9 264:13,15,25 265:7,15,20 266:4,9,20 267:9,14,21 268:2,12 269:3 269:7,12,21,24 269:24 270:1,2 270:12,19,23 271:1,6,9,18,22 272:2,3,8,14,25 273:6,13 274:21,21 275:7 276:14 276:15,22 277:4,17,17 278:15 279:18 279:23 280:7 280:14,17,18 281:7,20 282:6 283:1,12,13,14 283:19,22,25</p>	<p>284:3 <b>draft</b> 171:16 <b>dramatic</b> 74:12 <b>drank</b> 62:2 <b>draught</b> 78:2 97:17 <b>draw</b> 175:16 190:15 209:3 215:12 250:24 261:25 <b>drawing</b> 164:18 <b>draws</b> 143:24 <b>dried</b> 273:20 <b>drill</b> 272:6 <b>drilled</b> 220:16 221:4 272:10 <b>drilling</b> 33:15 33:24 45:11 46:16 48:2 61:2 78:12 130:7 133:5 140:1 154:6 163:8,14,18,18 163:20 164:4 177:13 197:7 213:18 217:20 217:22,23 220:21 261:5 276:9 <b>drink</b> 57:10 73:6 84:19 103:16 135:13 274:9,10</p>
---	---	---	--

[drinking - educator]

<p><b>drinking</b> 34:22 52:23 59:20 65:14 75:5 77:25 95:9 96:1 101:1 117:15,25 118:5,8,20 120:10 121:4 121:12 125:23 130:2 132:12 132:17,21 133:4 146:8,11 183:9 208:12 208:24 209:14 209:20 212:7,7 214:2 217:8,13 221:9 234:6 251:6,8,14 273:11 <b>drinks</b> 110:23 140:2 <b>drive</b> 1:12 3:21 108:19 <b>drop</b> 132:7 <b>dropping</b> 17:24 <b>drove</b> 113:15 <b>drubin</b> 2:7 <b>drug</b> 256:8 <b>drugged</b> 107:12 <b>drugs</b> 256:5 <b>dry</b> 76:1 <b>drying</b> 273:21 <b>due</b> 37:24 43:5 45:20 77:14,17</p>	<p>78:2 80:15 81:12 94:11,18 94:20 95:21 103:19 126:11 137:23 144:15 158:9 163:23 248:20 <b>duly</b> 286:5 <b>dumbed</b> 107:12 <b>dumped</b> 65:3 <b>dumping</b> 64:17 75:13 129:3 <b>duplicity</b> 36:7 <b>dupont</b> 215:1 <b>dust</b> 59:18 65:5 274:2 <b>duster</b> 131:11 <b>dusting</b> 131:10 <b>dusty</b> 9:8 143:19 178:25 179:11 <b>duty</b> 46:14 78:24 87:14,22 <b>dx</b> 9:7 <b>dysfunction</b> 72:10</p>	<p>61:17 63:12 66:6,7,7 69:4,4 71:14 74:2,2,2 74:2 76:13,13 76:13 79:21 82:15 86:3,4 88:9,10 93:25 93:25,25 97:2 97:2 99:13 102:7 104:5 106:15 109:6,6 109:6,6 111:22 114:12,13 116:25 119:20 119:20 123:9 133:24 176:25 178:3 213:12 227:3 <b>e.g.l.</b> 3:2 17:10 <b>eagle</b> 131:21 <b>earlier</b> 93:13 112:13 160:10 224:5 248:9 271:20 <b>earliest</b> 23:4 <b>earning</b> 90:22 <b>earth</b> 43:18 66:15 81:6 100:7 106:21 108:15 116:9 134:25 135:5,7 <b>earthquake</b> 153:6 <b>ease</b> 237:20</p>	<p><b>easier</b> 181:15 234:12 <b>easily</b> 90:22 117:23 169:23 <b>easy</b> 100:24 121:24 273:14 <b>eat</b> 59:24 84:7 207:15 <b>ecologically</b> 135:9 <b>ecologies</b> 121:23 <b>economic</b> 75:12 123:19 129:4 <b>economy</b> 26:10 33:10 36:6 65:20 78:19 167:17 <b>economy's</b> 77:2 <b>ecosystem</b> 144:21 <b>ecosystems</b> 39:21 45:9 84:6 102:24 149:16 <b>ed</b> 142:4,7 147:14,16 <b>edgewood</b> 74:17 <b>editorials</b> 33:16 <b>education</b> 194:4 231:19 257:18 <b>educator</b> 97:9</p>
	<p><b>e</b></p>		
	<p><b>e</b> 2:1,1 3:1,1 4:1 4:1 5:1,1 9:16 10:1 11:1 12:1 12:22,22,22 13:1,1 32:10 37:2 41:13 50:25 53:12,12 56:20,20 61:17</p>		

[effect - engineering]

<p><b>effect</b> 60:8 162:4 235:17 235:19 236:20 237:14 256:9 264:25 265:1 265:25 275:20</p> <p><b>effective</b> 164:21 165:4 174:6 276:24</p> <p><b>effectively</b> 159:12 162:15 164:11</p> <p><b>effects</b> 75:24 80:6,7 90:24 94:16 95:16 96:12 100:16 103:14 120:15 138:21 235:3 235:10,24 236:1 238:14 238:14 239:10 239:13,16,23 240:6,23 241:20 243:9 251:12 253:23 256:21,23 260:3 262:10 266:12 276:8 280:24 281:25</p> <p><b>effort</b> 271:8</p> <p><b>efforts</b> 149:15</p> <p><b>eggs</b> 59:25 131:21</p> <p><b>ehn</b> 124:23</p>	<p><b>eight</b> 208:13</p> <p><b>eighty</b> 97:13</p> <p><b>either</b> 18:20 38:6 50:5 141:23 165:7 170:24 189:5,8</p> <p><b>elaine</b> 6:19 63:12,17</p> <p><b>elderly</b> 95:19</p> <p><b>elders</b> 75:8 84:14 150:1 152:20</p> <p><b>elected</b> 42:24 148:1 152:19</p> <p><b>electioneering</b> 107:14</p> <p><b>electricity</b> 85:9</p> <p><b>elements</b> 156:14 158:3</p> <p><b>elevated</b> 60:3</p> <p><b>elevates</b> 162:8</p> <p><b>eleven</b> 91:25</p> <p><b>eliminate</b> 96:7</p> <p><b>email</b> 59:10,12 79:10 230:1,4 230:5</p> <p><b>emailed</b> 229:21 229:24</p> <p><b>embarrassment</b> 107:18</p> <p><b>embedding</b> 87:20</p> <p><b>emergencies</b> 77:6</p>	<p><b>emergency</b> 84:10 149:24 152:19 200:11</p> <p><b>emergent</b> 149:13</p> <p><b>emissions</b> 145:21</p> <p><b>emnrd.nm.gov</b> 3:23</p> <p><b>emotional</b> 40:19</p> <p><b>empathy</b> 98:16</p> <p><b>emphasize</b> 242:8</p> <p><b>emphasized</b> 52:4,7</p> <p><b>empire</b> 15:18</p> <p><b>employed</b> 286:11,14 287:8,11</p> <p><b>employee</b> 286:13 287:10</p> <p><b>empower</b> 221:7</p> <p><b>empowers</b> 108:14 176:25</p> <p><b>en</b> 284:2</p> <p><b>enabled</b> 165:6</p> <p><b>enact</b> 43:16 224:11,16,16</p> <p><b>enacted</b> 203:2 218:17</p> <p><b>encountered</b> 270:6</p> <p><b>endangered</b> 103:13</p>	<p><b>endangers</b> 81:3 84:12 86:15</p> <p><b>endocrine</b> 51:20,20,25 62:4 63:1,3 95:17 239:10 239:11</p> <p><b>endorsed</b> 43:4</p> <p><b>endure</b> 77:13 78:3,13</p> <p><b>enduring</b> 202:18</p> <p><b>enemy</b> 87:3</p> <p><b>energy</b> 13:18 26:10 33:10 36:6 42:6 53:2 77:2,14 145:19 167:17 203:15</p> <p><b>enforce</b> 45:14 85:18 87:25 141:7 160:20 164:11</p> <p><b>enforceable</b> 167:14 168:5 169:22 175:13</p> <p><b>enforcement</b> 64:22 73:17 164:21</p> <p><b>engage</b> 156:10 231:12</p> <p><b>engaged</b> 156:13</p> <p><b>engineer</b> 193:23</p> <p><b>engineering</b> 32:20 144:12</p>
---	--	---	--

[engineering - establish]

<p>182:14 194:9  <b>england</b> 234:5  <b>english</b> 54:24  55:18 89:4  <b>ennedith</b> 7:4  76:12,19  <b>ensure</b> 37:15  37:19 42:13  46:15 73:9  77:3 79:13  88:3 143:6  147:18 178:16  <b>ensures</b> 78:22  <b>ensuring</b> 42:17  78:21 79:2  91:13  <b>entered</b> 24:8  25:25 27:15  <b>entering</b> 135:9  <b>entertaining</b>  135:4  <b>enthusiastic</b>  115:2  <b>entire</b> 39:21  45:9 77:13  78:3 79:15  82:24 97:10  102:24 131:24  238:9 243:10  <b>entirely</b> 173:12  240:25  <b>entirety</b> 174:8  <b>entities</b> 135:20  152:17 171:15  171:18</p>	<p><b>entitled</b> 50:11  146:16  <b>entity</b> 113:1  <b>entrust</b> 43:2  <b>entrusting</b>  39:15  <b>enumerated</b>  175:23 177:4  <b>enumeration</b>  176:24  <b>environment</b>  37:25 38:3  52:11 66:19  68:9 69:11  70:19 72:6  73:20 75:4  77:20 80:20  87:4 90:20  91:16 94:12  96:13 100:9,17  100:24 105:24  121:5 128:19  135:10 137:24  146:6 151:25  153:18,22  158:15 169:10  169:17 177:4  255:6  <b>environmental</b>  41:24 43:17  49:24 54:3  65:19 76:24  77:6 78:17  82:25 90:11  98:12 100:12</p>	<p>101:7 110:20  114:22 115:10  118:25 123:19  125:17 134:11  135:17 141:13  144:11,13  145:10 153:19  167:8 215:17  237:6 242:24  242:24 243:1  <b>eog</b> 4:10,12  27:14 140:19  165:19  <b>eogresources....</b>  4:15  <b>epa</b> 34:19 48:5  97:14 118:7,8  208:14,14  209:11 252:25  <b>epa's</b> 209:2,13  212:6 217:8  257:13  <b>epidemic</b> 149:3  <b>epidemiologic</b>  246:18  <b>epidemiology</b>  236:3  <b>equally</b> 172:25  <b>equitable</b> 157:4  <b>equitably</b> 79:14  <b>equivalent</b>  92:24  <b>era</b> 131:13  <b>erica</b> 6:11  53:10,11,19</p>	<p><b>erik</b> 157:19  <b>error</b> 22:2  <b>errors</b> 107:21  <b>es</b> 286:4  <b>escalating</b>  65:19  <b>escape</b> 43:6  <b>especially</b>  45:23 65:12  72:18 75:8  95:11 96:3  100:11 103:7  105:4 110:14  119:5 124:22  153:5 200:10  206:9 209:10  270:10 272:6  274:24  <b>esquire</b> 2:3,11  2:19 3:3,11,19  4:3,11,19 5:3  <b>essence</b> 200:16  <b>essential</b> 85:13  96:13 97:18  99:2  <b>essentially</b>  51:17 52:20  53:23 54:20  161:20 162:9  162:20 178:19  250:12  <b>establish</b> 235:4  239:2 240:23  255:24</p>
---	--	---	--

[establishes - exhibit]

<p><b>establishes</b> 238:25</p> <p><b>et</b> 152:20 261:8 261:8</p> <p><b>ethics</b> 98:21</p> <p><b>eunice</b> 189:19</p> <p><b> euthanized</b> 103:19</p> <p><b>evade</b> 98:17</p> <p><b>evaluated</b> 236:14</p> <p><b>evalyn</b> 6:23 69:3</p> <p><b>evap</b> 65:5</p> <p><b>evaporation</b> 43:5</p> <p><b>evd</b> 9:17 10:2 11:2 12:2</p> <p><b>event</b> 29:9 157:14 164:14 174:12 225:3</p> <p><b>events</b> 131:6</p> <p><b>eventually</b> 144:15 268:13 273:16</p> <p><b>everybody</b> 13:3 13:3 20:5 50:9</p> <p><b>everybody's</b> 49:19,20</p> <p><b>everyone's</b> 75:19 166:1</p> <p><b>evidence</b> 33:14 81:10 137:16 188:14,17 191:13,15</p>	<p>196:6 209:24 217:9 230:24 231:2 251:5 281:12 282:8 282:14,18</p> <p><b>evidentiary</b> 28:23 29:17,19 185:4 188:3</p> <p><b>evolved</b> 83:4</p> <p><b>exact</b> 173:16 221:22</p> <p><b>exactly</b> 48:23 59:8 60:4 162:22 163:13 199:3 213:21 235:6 239:18 260:1 274:17 278:17,19</p> <p><b>exaggeration</b> 107:6</p> <p><b>examination</b> 34:5,10 179:7 190:15 193:1 226:23 229:24 231:9 244:2</p> <p><b>examine</b> 197:15</p> <p><b>examined</b> 196:17 198:18</p> <p><b>examiner</b> 27:14 93:7 123:21 126:10 156:3 192:1</p> <p><b>examining</b> 214:8</p>	<p><b>example</b> 28:14 29:25 153:19 154:17 183:25 184:12,20 185:7 186:13 189:18 207:21 211:18 213:23 220:3,11 245:2 246:9,13 247:20 256:5 280:8</p> <p><b>examples</b> 131:25 184:21 196:12 222:11 282:12</p> <p><b>exceed</b> 118:1</p> <p><b>excellent</b> 13:24 14:20 15:8,11 17:6,11 19:11 20:15 21:1,6 22:3 23:5,18 24:24 269:20</p> <p><b>exception</b> 28:16 92:18 160:13 223:22</p> <p><b>exceptionally</b> 182:15 184:1 185:11</p> <p><b>exclude</b> 28:12 181:12 182:6,8 182:22</p> <p><b>excuse</b> 17:15 40:23 140:19 172:1 224:25 226:9 244:14</p>	<p>283:12</p> <p><b>excused</b> 26:10 225:1</p> <p><b>executable</b> 167:13 168:5 169:22 175:12</p> <p><b>executive</b> 122:1</p> <p><b>exemplifies</b> 64:21</p> <p><b>exemption</b> 120:9</p> <p><b>exemptions</b> 98:10</p> <p><b>exercise</b> 42:9 152:1</p> <p><b>exhibit</b> 9:19,19 9:20,20,21,21 9:22,22,23,23 9:24,24,25,25 10:3,3,4,4,5,5,6 10:6,7,7,8,8,9,9 10:10,10,11,11 10:12,12,13,13 10:14,14,15,15 10:16,16,17,17 10:18,18,19,19 10:20,20,21,21 10:22,22,23,23 10:24,24,25,25 11:3,3,4,4,5,5,6 11:6,7,7,8,8,9,9 11:10,10,11,11 11:12,12,13,13 11:14,14,15,15 11:16,16,17,17</p>
--	--	--	--

[exhibit - exposure]

11:18,18,19,19 11:20,20,21,21 11:22,22,23,23 11:24,24,25,25 12:3,3,4,4,5,5,6 12:6,7,7,8,8,9,9 12:10,10,11,11 12:12,12,13,13 12:14,14,15,15 12:16,16,17,17 12:18,18,19,19 12:20,20 146:15 150:13 169:1,2 175:6 177:25 178:1,3 179:16,21 180:7,10,17,23 181:1,9,11,13 181:22 182:11 191:14 193:6,9 225:8 227:7,24 228:5,16,19 229:6,10,23 231:1,16 234:24 238:6,7 244:8 <b>exhibits</b> 27:17 92:12 147:1 178:7 180:5,22 180:24 190:25 191:3,12 228:14 229:5,7 229:17 230:20 230:20,22 238:5,6	<b>exist</b> 42:25 51:16 66:17 78:10 144:2 187:8 <b>existence</b> 70:3 78:3 160:25 <b>existential</b> 72:1 <b>existing</b> 157:16 158:4 161:4 165:4 <b>exists</b> 78:9 148:24 167:15 168:7 174:20 185:10 207:20 212:6 283:8 <b>expand</b> 119:4 165:6 257:4 <b>expanding</b> 212:1 <b>expansive</b> 160:21 <b>expect</b> 22:20 50:9,9 78:11 79:8 159:2 205:18 <b>expectancy</b> 105:13 <b>expectation</b> 22:13 <b>expected</b> 110:15 236:18 <b>expensive</b> 55:13 149:21 <b>experience</b> 143:2 145:6	187:24 190:17 193:5 231:20 231:24 232:3 232:11 233:3 242:4,5,7 243:10 278:25 281:20,22 <b>experienced</b> 104:18 246:2 279:1 <b>experiences</b> 242:17 243:8 270:5 <b>experiencing</b> 73:12 239:20 241:20 <b>expert</b> 28:19 32:21 33:8,10 34:8 156:9 183:19 184:25 185:3,6 189:16 205:11 232:6 272:8 276:24 279:13 <b>expertise</b> 32:18 171:19 186:6 186:13,21 187:24 188:4 <b>experts</b> 150:7 178:9 189:14 201:1 233:10 234:4 <b>explain</b> 143:25 157:25 163:20 210:22 272:14	272:20 273:3,5 274:23 <b>explained</b> 161:16 <b>explains</b> 144:8 144:14,20 <b>exploration</b> 37:11,22 177:2 177:15 <b>explore</b> 38:6 <b>expose</b> 265:2 <b>exposed</b> 40:25 73:1 75:6 94:25 95:14 101:13 104:24 149:6,13 220:9 241:19,19 242:12 251:7 256:20 259:14 259:15 267:15 267:17,17,18 278:5 279:7,8 <b>exposing</b> 95:24 <b>exposure</b> 40:4 45:7,9,20 54:11 62:25 64:11 65:7 72:3 78:14 82:4 90:25 91:10 94:15,22 95:22 97:23 100:12 101:3 124:22 129:19 129:20,23 146:3 159:8
--	---	---	--

[exposure - farce]

<p>182:19 188:7                  233:2 235:4,8                  235:16,19                  236:15,17,17                  236:21 237:8                  237:23 251:2                  255:12 265:25                  271:25 272:4                  272:16,17,24                  273:4,12                  274:16,20                  275:19 276:4                  276:11  <b>exposures</b> 62:9                  67:22 115:10                  182:20 237:6                  240:7 256:6,14                  270:6 272:12                  272:22 278:23  <b>express</b> 42:4                  94:8 110:13,16  <b>expressing</b>                  15:20  <b>expressly</b> 176:3  <b>extend</b> 162:12                  197:12  <b>extended</b> 243:2  <b>extensive</b> 22:11                  145:6 159:2  <b>extent</b> 19:17                  80:17 81:13                  92:19 93:2                  158:25 184:9                  184:14 185:1                  185:14 196:22</p>	<p>210:22  <b>externalization</b>                  52:9  <b>extortion</b>                  107:10  <b>extra</b> 28:24                  38:6  <b>extracting</b> 85:6  <b>extraction</b>                  25:19 37:22                  80:7 133:1                  148:23 209:10                  213:17 214:18                  222:9 223:9,24                  270:8,15  <b>extractions</b>                  221:14  <b>extraordinary</b>                  124:16  <b>extrapolating</b>                  266:11,18  <b>extreme</b> 196:18                  281:17 282:10  <b>extremely</b> 75:2                  156:22 253:5  <b>extremes</b> 77:13  <b>exxon</b> 112:16</p>	<p><b>faces</b> 74:19                  95:21  <b>facilities</b> 91:6  <b>facing</b> 72:13                  94:17  <b>fact</b> 28:17                  39:18 42:23                  52:17 55:8,11                  55:19,24 59:17                  63:2 141:12                  142:6 145:17                  146:21 172:18                  173:2 186:20                  220:20 237:3                  238:10,10                  239:17 242:9                  250:18 278:16  <b>factor</b> 248:1  <b>factors</b> 60:6                  144:17 239:11  <b>factory</b> 215:1  <b>facts</b> 34:10                  187:6  <b>factually</b> 92:9  <b>fail</b> 77:19 79:7                  152:21  <b>failed</b> 150:10  <b>fails</b> 152:16  <b>failure</b> 46:1                  107:21 108:1                  137:13 164:15                  259:3  <b>failures</b> 64:22  <b>fair</b> 75:9                  248:23,24</p>	<p>271:15  <b>faire</b> 108:2  <b>fairly</b> 159:5                  265:13  <b>faith</b> 54:19  <b>fall</b> 65:16                  108:23 160:12  <b>falling</b> 158:18  <b>fallout</b> 88:4  <b>falls</b> 208:7  <b>false</b> 52:8                  107:11 132:1  <b>familiar</b> 102:21                  104:13 272:5  <b>familiarity</b>                  216:7  <b>families</b> 39:17                  72:25 77:12                  82:2 83:14                  85:20 87:13,21                  88:4 90:7                  95:18 100:21                  150:2 244:20                  260:4,5  <b>family</b> 48:7                  51:6 83:2                  113:16 134:13                  244:21  <b>fantasies</b>                  107:20 108:22  <b>far</b> 112:11                  204:22 250:13                  275:8 278:4  <b>farce</b> 40:22</p>
	<p><b>f</b></p>		
	<p><b>f</b> 12:22 71:14                  74:2 86:3  <b>fabrics</b> 90:18  <b>face</b> 64:15,23                  77:5 137:22  <b>faced</b> 267:21</p>		

[farmers - first]

<p><b>farmers</b> 75:25 83:12</p> <p><b>farmhouse</b> 261:17,18</p> <p><b>farming</b> 105:17</p> <p><b>farms</b> 62:3</p> <p><b>fate</b> 145:1</p> <p><b>fathers</b> 150:1</p> <p><b>fatigue</b> 115:5</p> <p><b>faulty</b> 97:15 254:10</p> <p><b>favor</b> 14:23,24 15:8 16:6 20:20 105:23</p> <p><b>fda</b> 256:5</p> <p><b>fe</b> 1:13 2:6,14 3:6,14,22 4:6 4:14,22 5:6 17:9 33:17 39:6 59:3,5,6 59:10 64:4 69:10 89:23 95:4,11,20 100:7 104:14 104:17 110:12 110:16 142:5 278:5,7</p> <p><b>fear</b> 107:21</p> <p><b>fears</b> 107:6</p> <p><b>feasible</b> 166:12 178:12</p> <p><b>february</b> 15:22</p> <p><b>federal</b> 47:25 92:23 101:6 120:9 121:19</p>	<p>186:25,25 200:19</p> <p><b>feds</b> 48:8,10 71:4</p> <p><b>feeding</b> 59:21</p> <p><b>feeds</b> 42:6</p> <p><b>feel</b> 71:23 74:21 192:9 198:4 254:15</p> <p><b>feeling</b> 54:15 236:10</p> <p><b>feet</b> 34:21,23 216:17,24 217:17</p> <p><b>feldewert</b> 3:3 17:7,8,12 18:11,23,25</p> <p><b>feleecia</b> 7:3 74:1,14</p> <p><b>felicia</b> 5:11 25:9,12</p> <p><b>felipe</b> 80:4</p> <p><b>fell</b> 236:5</p> <p><b>fentanyl</b> 107:23</p> <p><b>fertility</b> 72:14 91:2</p> <p><b>field</b> 65:2 77:3 146:24 150:1 155:2</p> <p><b>fields</b> 64:9 83:14 145:8 149:24 185:6</p> <p><b>fifty</b> 191:6</p> <p><b>fight</b> 52:22 74:22,25 86:14</p>	<p><b>fighting</b> 53:24 76:24 83:15 86:15</p> <p><b>file</b> 204:21</p> <p><b>filed</b> 30:18 137:21 171:16 201:23 202:5 202:16</p> <p><b>files</b> 275:16</p> <p><b>filing</b> 15:25</p> <p><b>fill</b> 154:23</p> <p><b>filled</b> 134:19</p> <p><b>filtered</b> 67:19</p> <p><b>filth</b> 48:23</p> <p><b>filtration</b> 59:18</p> <p><b>final</b> 143:5 155:11 168:20 170:6 190:10</p> <p><b>finally</b> 27:5 54:23 62:20 63:11 175:1</p> <p><b>finance</b> 85:5</p> <p><b>financial</b> 107:15</p> <p><b>financially</b> 286:15 287:11</p> <p><b>find</b> 55:21 79:9 156:14 214:16 215:10 256:1 257:22 264:4 276:1 283:4,5</p> <p><b>finding</b> 30:21 59:17 255:2 269:15</p>	<p><b>findings</b> 215:19 221:12,12 222:8 245:25</p> <p><b>fine</b> 89:16,19 192:14 206:22 252:2 263:23 264:9,15 265:3 265:9</p> <p><b>fingers</b> 108:18</p> <p><b>finish</b> 28:23</p> <p><b>finished</b> 207:3</p> <p><b>fire</b> 67:25 133:2 199:19 204:7 204:15 257:5</p> <p><b>firefighting</b> 60:16 90:18 91:7 169:14</p> <p><b>firm</b> 27:9</p> <p><b>first</b> 16:19 21:23 31:24 32:2 33:13 35:8 41:15 49:15 51:11,13 56:9 61:8 63:2 68:21 69:14 70:4 71:12 73:25 106:13 134:7,9 136:8 138:10 139:15 140:14 143:18 148:11 149:12 154:12 156:5 156:21 173:17 175:20 178:22 182:23 184:19</p>
---	---	---	--

[first - found]

<p>186:17 200:13  200:16,18,21  224:24 225:12  225:22 231:4  252:23 256:19  257:21 275:9  <b>firsthand</b> 75:25  86:16  <b>firstly</b> 28:10  <b>fit</b> 31:18  <b>five</b> 25:24  27:22 62:21  140:19 191:6  239:22  <b>fix</b> 68:7 109:22  120:19 121:23  <b>fixed</b> 120:19  <b>flags</b> 107:11  <b>flaring</b> 69:21  250:21  <b>flexible</b> 170:3  <b>flip</b> 163:2 241:2  <b>flipped</b> 266:15  <b>flooding</b> 77:16  197:8 213:19  <b>florida</b> 124:2  <b>florida's</b> 124:3  <b>flowback</b>  250:19  <b>flowed</b> 64:18  <b>flowing</b> 67:11  <b>fluid</b> 67:10  68:2 109:17,20  120:14 140:1  145:23 146:1</p>	<p>169:21 211:6  212:4  <b>fluids</b> 33:24,24  70:23 129:24  162:11 163:8  163:14,18,20  164:4 166:6  170:13,15  173:9,9  <b>fluorinated</b>  167:6,16,20,25  168:3,9  <b>fluorine</b> 67:1,1  67:4  <b>fluoroalkyl</b>  166:23 196:2  <b>fly</b> 280:20  281:5,6  <b>foam</b> 90:18  91:7 125:7  <b>foams</b> 60:16,20  67:25 169:14  <b>focus</b> 67:16  97:10 108:5  188:25 277:10  <b>focused</b> 143:23  <b>focuses</b> 145:11  <b>focusing</b>  188:23  <b>fold</b> 265:1  <b>folks</b> 25:25  55:17 124:15  127:6,20  165:25</p>	<p><b>follow</b> 31:3  119:9 201:6  205:3 219:4  251:18 261:6  <b>followed</b>  169:24  <b>following</b> 22:8  94:24 167:4  168:17 257:17  <b>follows</b> 256:6  <b>food</b> 63:5 68:10  84:7 87:21  98:3 103:20,20  110:12,25  207:19 261:1  <b>foods</b> 124:25  207:15  <b>foot</b> 59:4  <b>footnote</b> 234:19  240:21  <b>footsteps</b> 219:5  <b>force</b> 124:17,19  174:19 211:18  <b>forced</b> 134:25  <b>forego</b> 28:25  <b>foregoing</b>  286:3,4 287:4  <b>forever</b> 45:5  52:25 54:4  66:21,23 67:17  67:18 72:5  84:2 86:22  90:22 94:10  100:17 124:1,2  124:5,16</p>	<p>125:20 129:13  129:16 134:17  135:18 137:23  <b>forget</b> 140:10  206:16  <b>forgot</b> 187:12  <b>form</b> 154:23  173:20 190:9  241:22 257:9  <b>formal</b> 32:18  <b>format</b> 175:5  <b>formed</b> 242:23  <b>formula</b> 113:8  173:4  <b>formulas</b>  152:12 153:2  <b>formulations</b>  38:12,13  <b>forth</b> 29:13  <b>forward</b> 157:18  158:21 219:6  230:4  <b>fossil</b> 42:16  46:3,5 85:4  <b>fosters</b> 108:12  <b>found</b> 34:14  55:24 59:13  60:5 64:11  90:15 102:15  104:20,23  112:12,21  124:1,3 195:23  196:7 197:13  209:11 213:16  214:18 215:7</p>
--	--	--	--

[found - further]

<p>215:18 216:10                  217:1 222:17                  222:19 254:12                  267:4  <b>foundation</b>                  43:11 157:21  <b>founded</b> 233:14  <b>four</b> 22:22                  28:10,15 41:3                  70:22 73:3                  83:25 89:25                  117:13 120:24                  156:22  <b>fpeg</b> 166:25                  167:1 198:12  <b>fracfocus</b> 142:3                  142:7 148:25                  166:15 170:18                  171:2,4,8,11                  173:20 198:19                  199:1,2,5                  201:6,21,24                  202:17 213:8                  258:15  <b>frack</b> 198:16                  201:22 257:7                  279:11  <b>fracked</b> 121:17                  221:4  <b>frackers</b> 120:23                  120:25  <b>fracking</b> 41:3                  42:10 51:10                  53:3,6 65:4                  67:10,13,25</p>	<p>68:2,6 69:14                  70:2,23 72:20                  73:4 78:6,12                  81:3,9 83:19                  97:14 109:17                  117:10,13                  119:6 120:11                  120:14,20                  121:10 152:13                  154:6 197:7                  198:21 199:4                  200:4 202:6                  203:16 209:14                  212:10 213:18                  216:11 217:8                  217:16,18,20                  217:24 218:9                  219:7 220:13                  220:22 234:22                  241:19 245:13                  245:15,16                  249:22 250:10                  250:14 260:15                  267:5,7 273:15                  275:21  <b>fracks</b> 121:3  <b>fracture</b> 170:13  <b>fractured</b>                  65:12  <b>fracturing</b>                  148:4 166:6                  169:21 170:16                  170:25 173:2,9                  173:18 174:7                  197:5 211:8,14</p>	<p>212:3  <b>framework</b>                  156:23 158:4                  170:11,20                  174:5  <b>francis</b> 1:12                  3:21  <b>frankly</b> 74:11                  89:6 202:19  <b>free</b> 34:17                  125:12  <b>frequent</b>                  258:11  <b>fresh</b> 86:17  <b>freshwater</b>                  145:25 146:19                  164:4  <b>friction</b> 218:10  <b>friday</b> 28:25                  55:25 59:8                  88:20,20 99:23                  99:24 102:15                  122:19 139:9  <b>friends</b> 115:9  <b>front</b> 16:12                  186:20 192:15                  234:13,14                  239:15 240:17  <b>fruit</b> 261:24  <b>fuel</b> 46:3,5 85:4  <b>fuels</b> 42:16  <b>full</b> 22:20,25                  29:3 35:2,3                  36:6,16 61:15                  62:13 73:16</p>	<p>81:13 82:9                  85:17 87:24                  98:25 114:2                  122:7 134:6                  137:5 138:7                  139:1 141:6                  142:14 143:22                  146:24 147:2                  147:22 148:20                  149:1 150:18                  151:19 159:15                  164:16 173:8                  174:19,21                  175:1 188:22                  196:20 197:16                  203:2 219:17                  219:19,24                  220:1,23                  280:14  <b>fully</b> 167:6                  168:3 171:8                  174:11 203:17                  272:23  <b>function</b>                  125:17 168:19  <b>funny</b> 48:14,15  <b>further</b> 19:18                  42:16 51:8                  53:5 87:20                  96:10 100:13                  112:23 126:12                  144:8,24 148:7                  162:7 165:1                  190:19 194:11                  194:20 210:5</p>
--	---	--	--

[further - gatekeeper]

<p>212:13 243:3  243:16 247:13  251:16 259:7  269:21 286:13  287:9  <b>furthermore</b>  170:6  <b>future</b> 36:10  40:14,14 54:15  57:13 61:4  62:11 71:25  73:20 76:5  82:10 83:7  84:17,22 86:13  87:4 91:20  96:19 97:10  99:2,3,6  101:18,20  106:3 111:4  115:2 125:12  135:12 138:20  150:20 155:16  158:19 159:11  161:5 168:13  208:9</p>	<p><b>gain</b> 42:15  75:12 116:4  129:4  <b>gains</b> 203:25  <b>galisteo</b> 2:5  <b>gallagher</b> 3:12  <b>gallons</b> 211:9  211:10  <b>gamble</b> 103:6  <b>gamut</b> 266:17  267:7,12  <b>gaps</b> 144:2,3,9  187:7 199:14  220:19  <b>garden</b> 59:20  110:11 131:10  131:10  <b>gardens</b> 123:17  <b>garfield</b> 51:25  <b>gas</b> 2:10 17:5  25:19 27:6  33:15 35:4,22  37:11 38:7  40:10 45:1,11  45:15,25 46:8  46:16 49:23  51:8 53:4 61:2  62:12 63:7  67:11,11 68:12  68:14 72:19  73:16 74:23  75:9,20 79:1  80:7,13,22  81:5,21 82:8  84:21 85:12,17</p>	<p>87:6,17,24  97:25 98:5,8  98:24 100:19  101:24 107:14  112:9,24  113:14 117:9  117:14 120:10  122:1 126:7  129:8,25 130:6  130:14 133:1,5  133:8 137:1  138:6,22  141:25 144:1,5  144:14 145:8,9  145:21 148:22  149:11 150:10  150:16 153:24  154:3,22 155:6  157:5 158:9  159:7,10,11  160:10 161:12  162:14 163:4  166:7,16 169:8  169:17 170:8  170:14,16  173:24 175:24  176:5 177:3,13  177:17,18  178:19 193:10  193:14 195:20  195:24 196:13  196:14,21  197:1,6,19  200:9 202:7  203:4,18,19</p>	<p>204:19 207:6  209:10,25  210:6 211:6,21  212:4,24 213:2  213:9,17 214:4  214:8,17,22,24  215:3,12,21  216:2,6,11,16  216:23 217:10  217:13 218:7  219:9 220:14  220:24 221:4  221:14 222:9  222:18,21,22  223:3,5,9,14,20  234:22 241:19  242:17 243:8  246:2 247:6,17  248:5 250:2  256:14 261:5,7  268:8 270:7,11  270:15 271:3  272:1,6,19  273:16,20,20  273:20,21  276:9 277:25  278:1,7,10  281:14 282:16  <b>gaslighting</b>  107:9  <b>gastrointestinal</b>  51:24  <b>gate</b> 188:22  <b>gatekeeper</b>  188:22</p>
<b>g</b>			
<p><b>g</b> 4:19 13:1  32:10 61:7,17  66:7 74:2  88:10 102:7  104:5 130:23  213:12,12  <b>gail</b> 6:17 61:8,9  61:14,16</p>			

[gateway - going]

<p><b>gateway</b> 135:11</p> <p><b>gather</b> 31:15 68:24</p> <p><b>gathered</b> 265:21</p> <p><b>gathering</b> 125:5 281:5</p> <p><b>gaume</b> 5:22 32:2,5,9,10,13 32:16,17 34:24 35:1,8</p> <p><b>general</b> 13:21 182:24 219:19 220:4 240:9 241:11 277:18</p> <p><b>general's</b> 268:18</p> <p><b>generally</b> 26:3 156:25 161:3 208:5,7 237:5</p> <p><b>generated</b> 266:8</p> <p><b>generation</b> 46:7,8 71:25 115:16,16 154:1,3 161:25 175:22 176:1,5 176:24</p> <p><b>generational</b> 84:11</p> <p><b>generations</b> 40:8,14 45:20 61:4 73:12 78:10,23 83:7 84:9,16,17</p>	<p>96:19 99:4 101:18 111:5 129:23 138:20</p> <p><b>genetic</b> 54:1</p> <p><b>genocide</b> 43:12</p> <p><b>gentleman</b> 104:2 248:10</p> <p><b>geography</b> 189:23</p> <p><b>geological</b> 215:6,16</p> <p><b>geology</b> 65:13 146:15 189:23</p> <p><b>georgia</b> 124:5</p> <p><b>gerasimos</b> 5:12 13:10</p> <p><b>getting</b> 40:19 67:20 90:12 120:8 125:13 125:14 207:16 247:5,14 250:20 251:7 265:8 267:15 267:16 276:11</p> <p><b>giant</b> 175:6</p> <p><b>gifts</b> 108:16</p> <p><b>girl</b> 54:16</p> <p><b>give</b> 32:4 61:14 74:10 89:6 92:10 102:13 106:2 113:1 127:1,21 135:2 195:14 210:20 240:18 244:23 277:2 279:15</p>	<p>283:5</p> <p><b>given</b> 28:1 29:12 65:12 127:12,16 136:2 143:13 165:4 196:5,18 239:4 249:20 249:21 284:9</p> <p><b>giving</b> 71:8 83:6 90:1 120:16</p> <p><b>gknet.com</b> 3:15</p> <p><b>glass</b> 122:3</p> <p><b>global</b> 112:18 112:22</p> <p><b>gluge</b> 213:12</p> <p><b>glycol</b> 166:24 196:3</p> <p><b>go</b> 13:6 20:25 21:17,17 22:14 22:24 53:24 58:4 61:14 104:10 109:25 111:16 126:17 175:14 179:6 182:2,21 183:14 184:3 191:21,22 192:11,16,23 192:23 194:23 202:19 218:1 230:19 231:3 234:11 246:9 246:12 249:21 256:8,18,19</p>	<p>260:21 264:21 264:22 271:7 271:20 273:17 274:14 275:7 279:14 280:9 281:17 282:10 283:8</p> <p><b>goal</b> 274:7,16</p> <p><b>goals</b> 158:14 165:9</p> <p><b>goat</b> 59:25</p> <p><b>goes</b> 40:7 108:2 121:21 185:14 192:14 211:6 217:24 273:14 273:21</p> <p><b>going</b> 13:3,4,9 14:14 15:14 16:11,13,19 22:9,20,24 24:6 25:7 29:13 32:4,6 44:8 48:10 49:4 50:4,6,18 61:13 66:20 67:14 68:17 69:22,25 71:6 74:9 79:7 82:14 91:24 92:7,8 93:14 99:8 109:15 123:14,24 124:7 125:2,6 125:10,19,23 126:4 127:8,10</p>
--	---	--	---

[going - guadalupe]

<p>127:16 133:15  133:23 136:1  140:8,23  141:10 146:19  150:25 160:12  163:25 166:25  183:24 190:6,9  190:24,24  191:21,21  196:21 203:18  204:9 205:17  206:25 220:15  226:4 227:9  231:3 232:20  234:11 238:6  240:9 241:2,10  250:9 261:17  261:19 264:3  268:16 276:12  276:18 277:1  282:17  <b>gold</b> 48:18  106:25  <b>golden</b> 54:19  <b>goo</b> 108:4  <b>good</b> 13:3,14  13:16,17 16:24  17:3,7 20:13  24:15,16 25:11  26:6,22 27:2,7  27:8,13 32:16  35:9 66:13  67:7 71:20  80:2 82:21  86:10 94:6</p>	<p>99:12 102:4,19  104:11 106:14  106:21 117:6  135:24 141:1  156:1 165:22  170:21 171:23  179:9 201:19  204:14 226:25  231:5,11  237:22 244:4  261:9,14  271:11,16  <b>goodnight</b>  15:18  <b>gotten</b> 232:13  <b>governing</b>  46:16 130:6  154:19 176:4  <b>government</b>  47:25 85:10  87:14,17  121:19 134:18  135:20 152:18  171:13 186:25  258:3 277:10  <b>governments</b>  126:13  <b>governor</b> 35:1  52:21 147:25  148:2  <b>grandchildren</b>  40:18 64:14  83:16  <b>grandchildren's</b>  46:7</p>	<p><b>grande</b> 83:15  134:9  <b>grandfather</b>  47:20  <b>grant</b> 18:2  <b>grasp</b> 134:22  <b>grateful</b> 114:4  <b>gratitude</b> 42:5  <b>gray</b> 109:3  <b>great</b> 15:2 42:2  47:20 58:22  62:18 125:3,5  132:22 135:23  182:2 190:10  190:11 234:15  269:13 282:12  <b>greater</b> 95:23  185:8  <b>greatly</b> 119:4  257:4  <b>greed</b> 88:5  <b>green</b> 21:16  106:12  <b>greentechnol...</b>  124:12  <b>greg</b> 5:14 13:15  <b>grew</b> 62:1,7  74:17  <b>gro</b> 124:10,11  124:14,15  <b>ground</b> 64:2  65:14 75:13  101:15 105:6  129:3 273:10</p>	<p><b>groundwater</b>  39:23,24,24  40:1 58:25  60:17 72:17  73:6 77:24  78:1 80:25  81:24 95:7  97:14 100:25  103:2,6 110:21  117:12 120:8  128:18 132:12  132:20 142:21  146:8,11 148:4  148:8 158:24  160:4 161:9  211:12 216:2  217:10,11,25  218:1 223:7  251:7,14  <b>group</b> 108:5  109:14 125:6  233:10,11  241:1,22  247:22 269:4  274:18  <b>groups</b> 49:24  253:18,19  <b>grow</b> 164:9  <b>growing</b> 95:15  96:2  <b>grown</b> 82:23  <b>guadalupe</b> 3:5  4:5,21 5:5  106:7</p>
---	---	--	--

[guarantee - harm]

<p><b>guarantee</b> 43:19 78:15 130:1 <b>guard</b> 34:16 35:25 59:6 60:15 64:9 <b>guardian</b> 169:1 <b>guardians</b> 5:2 5:4 9:18 25:3 26:5,8 36:6 77:2 130:12 141:2,18 142:25 143:4 143:18 145:19 146:3,14 147:1 148:11 150:11 150:13 155:8 156:12 163:21 168:25 169:2 178:8,24 179:14,16,21 180:5,10,17,22 180:23 199:17 199:25 210:16 210:20,25 226:14 227:6 228:5,13,19 229:4,5,6,7,10 230:22 231:1 231:15 234:24 244:8 252:16 257:3 270:4 277:19,23 281:8 283:5</p>	<p><b>guardsmen</b> 60:18 <b>gubernatorial</b> 148:5 <b>guess</b> 181:10 202:14 204:12 210:14 224:25 235:14 281:24 <b>guidance</b> 277:2 277:5 <b>guideline</b> 218:25 280:8 <b>guild</b> 107:18 <b>guillen</b> 7:3 74:1 74:1,5,8,14 76:10 <b>gum</b> 67:9,11 <b>gut</b> 125:24 <b>guy</b> 47:23 <b>guys</b> 48:9 71:7 276:21</p>	<p><b>hacking</b> 202:24 <b>hair</b> 264:10 266:16 <b>half</b> 34:20,23 65:15 117:19 117:20 261:18 284:9 <b>halfway</b> 156:21 <b>hall</b> 1:11 <b>halliburton</b> 120:13 121:6 121:20 <b>hames</b> 7:17 114:8,11,12,16 114:19 116:11 116:13,19 <b>hand</b> 29:3 30:1 38:5,17 41:8 44:14 53:9 68:21 114:7 116:19 117:21 119:14 122:14 126:18 130:16 131:11 136:13 200:17 <b>handle</b> 190:2 204:6 <b>handled</b> 189:24 <b>handling</b> 176:21 <b>hands</b> 40:20 41:1 61:4 122:15 127:17 225:23 226:7</p>	<p><b>hang</b> 176:9 <b>happen</b> 48:17 49:5 71:7 145:24 234:14 239:19 <b>happened</b> 48:24 59:9 209:21 221:20 245:15 261:6 <b>happening</b> 83:24 105:19 116:5 148:25 239:21 241:23 248:13 261:14 282:13 <b>happens</b> 35:22 48:20 116:5,6 <b>happy</b> 13:2 26:12 126:16 182:20 184:6 192:13 283:16 <b>hard</b> 74:24,25 149:1 225:13 230:15 231:12 <b>hardest</b> 65:16 <b>harm</b> 46:19 52:10,12 54:17 60:18,24 72:14 78:9 84:3 85:13 103:14 125:16 128:25 130:4 137:16 137:21 138:14 171:23 208:9</p>
	<p><b>h</b></p>		
	<p><b>h</b> 3:3 9:16 10:1 11:1 12:1 38:23 41:16 56:20,21 66:6 76:13 79:21 82:15 88:9 97:2 109:6 111:22 114:12 114:13 119:20 130:23 139:16 179:12 <b>habitats</b> 105:19</p>		

[harmed - hearing]

<p><b>harmed</b> 60:19  <b>harmful</b> 46:18  80:9 91:19  94:21 95:14  158:10 159:6  <b>harming</b> 54:18  73:15 120:8  128:21 158:15  <b>harms</b> 196:8  <b>hart</b> 3:4 4:4,20  17:9  <b>harvard</b> 260:9  <b>hatch</b> 83:13  <b>hazard</b> 64:6  174:15  <b>hazardous</b>  233:8 253:7  <b>hazards</b> 78:16  107:3 113:3  <b>head</b> 134:8  244:25  <b>headache</b>  247:21  <b>headaches</b>  266:15  <b>heading</b> 184:5  184:7,19  <b>headline</b>  132:10  <b>health</b> 39:16  40:13,13 43:1  45:10 46:19  52:19 54:12  57:12 58:24  61:3,4 62:9</p>	<p>64:12,15 65:16  65:22 72:15  73:20 75:7,11  75:22 76:5  77:10 78:21  81:3 82:10  83:21 85:2,19  87:3 90:11,24  90:25 91:17  94:16,18,20,21  94:25 95:6,9  95:16,17,20  96:2,12,17,19  97:22 98:4,11  100:9,14,18,21  101:4,19  103:12 104:21  104:22 105:9,9  107:3 110:19  111:13 115:9  115:24 118:16  118:25 120:6,8  120:15 121:5  125:17,21  128:22 129:21  132:3 137:12  137:25 138:3  138:15,24  140:1 141:13  145:5,6,10,13  145:14 151:25  153:18,22  158:11,15  159:6 161:24  177:3 196:8</p>	<p>205:11 233:9  233:22 234:21  234:23 235:2,3  235:5,7,17,19  235:23,24,25  236:8,13,15,18  236:20,20  237:2,4,12,12  240:23 241:9  241:16,20,24  242:10,15,25  243:1,9 244:14  244:14,18  246:1,7,12,14  248:2,6,11  250:25 251:12  251:12 254:6  254:16 255:8  256:15,21,22  258:2,25 259:1  259:2 260:3,15  262:10 265:22  268:20,24  269:5,18 270:6  274:22 275:25  276:6,7,12,17  276:17 277:6  277:14 280:9  281:4,24 282:5  <b>healthcare</b>  65:19 82:3  94:9,19 95:22  95:24 104:23  149:7 174:18</p>	<p><b>healthier</b> 91:20  <b>healthy</b> 40:18  86:17 105:24  111:13  <b>hear</b> 16:3 19:18  20:6 26:13,23  28:20 58:19  67:14 95:12  99:9 102:14  123:2 126:19  126:21 128:1  133:15 139:11  143:17,18  144:10 145:4  176:14,14  189:13,15  190:12 195:8  205:19 207:1  227:18 252:1,2  259:23,24  261:11  <b>heard</b> 15:22  43:23 44:7  46:23 48:16,25  55:16 67:16  90:6 113:2,13  120:15 127:7  173:17 195:13  198:11 207:5  210:13 278:15  278:24 283:25  <b>hearing</b> 5:11  19:25 21:3,8  22:14,16 23:6  25:7,8,11,12,14</p>
--	--	--	--

[hearing - helped]

25:22 26:3,6,9 26:16,19,24 27:4,8,11,14,20 27:22 30:13,15 30:16 31:5,12 32:11,14,16 33:7,9,14,19 34:24 35:7,14 35:16,20 36:18 36:24 37:3,6 38:16,20,24 39:2 41:7,11 41:14,17,20 44:2,9,13,17,20 44:23 46:21 47:2,7,14,17 49:9,21 50:20 50:21 51:1,4 53:8,13,16 55:5 56:13,17 56:22,25 58:2 58:6,9,13,16,20 61:6,11,18,21 61:24 63:10,15 63:19,21,24 65:24 66:4,8 66:11 68:16 69:5,8 71:9,15 71:18 73:23 74:3,6 76:9,14 76:17 79:11,17 79:22,25 82:11 82:16,19 85:14 85:22 86:5,8 88:6,11,14,18	89:1,5,11,15,19 91:22 92:2,5 93:7,8 94:1,4 96:24 97:3,6 99:10,14,17,22 100:3 101:25 102:4,8,11,17 103:24 104:6,9 106:8,9,16,19 108:24 109:7 109:24 110:5,8 111:15,23 112:2,6 114:6 114:14,17 116:11,18,22 117:1,4 119:13 119:17,21,24 122:11 123:2,5 123:10,13,21 126:1,10,14,22 127:10 128:2,7 128:10 130:15 130:19,24 131:2 133:11 133:18,21,25 134:3 135:22 135:25 136:6 136:16,20,23 139:6,12,17,20 140:5,18 141:1 143:3,19 148:18 155:12 155:17,24 156:2,22 157:17 158:6	161:7,23 163:7 164:1,2 165:11 165:13,18,23 177:20 178:21 179:1,5 180:20 181:3,7,8,16,23 182:2,4,23 183:23 184:17 185:21,22 186:1,16 187:10,14,15 188:13,16 189:9,10,17,19 191:8,20 192:1 192:8,11,17,22 194:13,18,22 195:1,5,7 201:13,16 202:21 205:21 205:23 206:3 206:14,22,24 212:14 218:15 224:21 225:15 225:18 226:16 226:21 227:11 227:15,21 229:3,12,15,16 229:17,20,25 230:3,9,13,18 231:6,21 243:18,23,25 251:17,20 252:6 259:9 269:22 271:11 277:23 282:15	283:10,17,20 284:6,18,23 285:1,6 <b>hearings</b> 55:12 56:9 111:8 132:5 143:2 192:3 <b>hearsay</b> 188:9 188:9,10 <b>heart</b> 27:9 60:10 <b>hearts</b> 113:25 <b>heat</b> 42:16 67:8 67:12 <b>heating</b> 112:18 <b>heavily</b> 95:7 <b>heavy</b> 67:12 <b>heightens</b> 100:13 <b>held</b> 41:2 65:9 145:22 159:25 162:10,16 164:23 192:20 201:23 <b>hello</b> 38:20 63:14,15,17 66:4 116:22 119:16,17 122:25 130:19 133:18 <b>help</b> 44:8 99:21 149:8 204:7 241:6 <b>helped</b> 42:25
--	---	--	---

[helpful - horwitt]

<p><b>helpful</b> 93:5 189:5,8 204:10</p> <p><b>helplessly</b> 134:20</p> <p><b>hepatotoxicity</b> 237:23 238:14</p> <p><b>hereto</b> 286:15 287:11</p> <p><b>herrings</b> 107:11</p> <p><b>hi</b> 41:9 58:5 133:16,18,20</p> <p><b>hidalgo</b> 106:7</p> <p><b>hidden</b> 80:8 83:23</p> <p><b>hide</b> 38:10 72:23 75:15 81:15 84:25 87:10 107:20 109:21 113:7 128:23</p> <p><b>hiding</b> 112:21</p> <p><b>high</b> 39:22 40:6 60:1,7 66:17 91:2 105:8 125:13 129:15 153:5 209:17 210:3 211:16 211:20 267:19 276:11,21</p> <p><b>higher</b> 73:12 80:25 103:2 105:11 246:3 251:13</p>	<p><b>highest</b> 59:23 104:21</p> <p><b>highlight</b> 65:10 137:6 156:11 237:20</p> <p><b>highlighted</b> 80:13 181:13 182:7 184:1 185:17 186:18</p> <p><b>highlighting</b> 206:18</p> <p><b>highly</b> 39:20 94:21 102:23 183:2 253:11</p> <p><b>hightower</b> 34:2</p> <p><b>highway</b> 274:2</p> <p><b>hinkle</b> 2:12 17:4</p> <p><b>hinklelawfir...</b> 2:15</p> <p><b>historic</b> 59:2</p> <p><b>historical</b> 123:18</p> <p><b>historically</b> 95:13 166:17 166:21</p> <p><b>history</b> 133:6 137:8,9 158:17 232:17 255:2 270:14</p> <p><b>hit</b> 70:20</p> <p><b>hobson</b> 152:16</p> <p><b>hold</b> 35:14 43:2 61:3,12 77:19 123:3 128:7,24</p>	<p>163:3 176:8</p> <p><b>holder</b> 141:22 151:9,13,14,17 152:4,5</p> <p><b>holding</b> 49:2</p> <p><b>holds</b> 87:17</p> <p><b>hole</b> 141:10 144:24 268:10</p> <p><b>holes</b> 188:22</p> <p><b>holiday</b> 28:6</p> <p><b>holland</b> 3:4 4:4 4:20 17:9 27:9</p> <p><b>hollandhart.c...</b> 3:7 4:7,23</p> <p><b>holloman</b> 124:17,19 211:18</p> <p><b>home</b> 83:2 86:13 108:15</p> <p><b>homebound</b> 115:4</p> <p><b>homeland</b> 87:11</p> <p><b>homelands</b> 84:24</p> <p><b>homes</b> 62:3 113:12,17 250:21 255:17</p> <p><b>homesteads</b> 69:20</p> <p><b>honor</b> 80:4 108:12 165:16 194:16 243:21</p> <p><b>honored</b> 69:14</p>	<p><b>hook</b> 134:19</p> <p><b>hope</b> 57:23 62:19 63:6 119:7 203:25 280:15</p> <p><b>hopefully</b> 18:5 18:6 30:24 253:9</p> <p><b>hoping</b> 56:1 162:4</p> <p><b>horizontal</b> 202:7</p> <p><b>hormonal</b> 95:1</p> <p><b>hormone</b> 51:21 91:3</p> <p><b>horrific</b> 42:22</p> <p><b>horwitt</b> 9:8 30:23 31:6 143:19,19 178:23,25 179:3,4,9,11 182:10,12,25 183:18 184:10 184:24 186:5 187:6,17 188:1 190:15 191:25 193:3,4,8,19,22 193:25 194:3 194:15,19 195:13 198:2,2 198:6 201:19 202:10 206:1 207:5,11,13 208:4 210:8,22 211:3 212:12</p>
--	--	--	---

[horwitt - importance]

<p>213:4 214:3,6                  216:7 217:4,6                  218:21 219:2                  219:14,21                  220:5,8 221:21                  221:25 222:14                  224:4,7,18,25                  225:1  <b>horwitt's</b> 30:18                  144:7 182:6                  183:7 195:11                  206:8 229:24  <b>hosts</b> 41:23  <b>hot</b> 49:13,15,16  <b>hotly</b> 92:8  <b>hour</b> 284:9  <b>hours</b> 22:23                  55:25 224:23  <b>house</b> 258:10  <b>houses</b> 64:4                  255:21  <b>houston</b> 33:20  <b>huge</b> 69:17  <b>human</b> 74:25                  90:21 94:12,21                  96:12 106:23                  120:8 121:5                  151:25 158:10                  159:6 161:24                  185:17 264:10                  270:5  <b>humans</b> 159:9                  237:25  <b>humility</b>                  108:13</p>	<p><b>hundreds</b>                  70:17 85:5                  115:7 204:24  <b>hunters</b> 124:18  <b>husband</b> 58:25                  59:19 60:9  <b>hydraulic</b>                  148:3 166:6                  169:21 170:13                  170:25 173:2                  173:18 174:7                  197:5 211:7,13                  212:3  <b>hydrofracking</b>                  249:23  <b>hyphen</b> 53:12  <b>hypothetical</b>                  73:11 207:17</p> <p style="text-align: center;"><b>i</b></p> <p><b>idea</b> 116:4                  248:3  <b>identification</b>                  180:25 181:2                  229:9,11 268:7                  268:15  <b>identified</b>                  159:25 161:2                  166:20 168:24                  184:24,25                  245:1,22                  280:23 283:6  <b>identifies</b> 152:3                  168:1 245:16  <b>identify</b> 55:22                  123:7 152:8,22</p>	<p>237:11 246:6                  248:8 262:10  <b>identifying</b>                  276:3  <b>identities</b> 42:12  <b>ignore</b> 101:2                  135:6  <b>ignored</b> 83:23  <b>ignoring</b> 53:3  <b>illegal</b> 37:13  <b>illegally</b> 64:17                  65:3  <b>illness</b> 115:13                  137:18  <b>illusion</b> 116:8  <b>illusions</b> 107:20  <b>image</b> 227:10                  227:17  <b>imagery</b> 107:20  <b>imagine</b> 202:13                  202:23  <b>imbalance</b> 77:8  <b>immediate</b>                  96:18  <b>immediately</b>                  29:20,23  <b>immune</b> 72:10                  95:1 237:24  <b>immunity</b>                  43:19 60:12  <b>impact</b> 81:14                  87:1 91:10                  94:20 95:2,6                  105:13</p>	<p><b>impacted</b> 55:3                  64:4 105:3                  110:22 145:20                  278:10  <b>impactful</b> 63:4  <b>impacting</b>                  62:14  <b>impacts</b> 54:12                  64:12 65:16                  69:19,22                  104:18 105:11                  118:25 132:3                  137:15 145:9                  146:17 153:19                  160:8 161:24                  248:2 251:2  <b>imperative</b>                  135:14 138:5                  139:2 165:2  <b>impetus</b> 162:20  <b>implement</b>                  42:12 170:17                  218:16  <b>implemented</b>                  96:8 169:24                  170:11  <b>implementing</b>                  101:22  <b>implications</b>                  122:6  <b>implore</b> 40:20                  54:9  <b>import</b> 167:9  <b>importance</b>                  100:8 101:22</p>
--	--	--	---

[importance - industry]

172:1,5 205:13 213:3 <b>important</b> 61:24 66:24 84:19 90:5 141:18 150:24 162:11 175:17 175:20 187:9 196:20,23 200:9,18,22 201:4 205:13 227:18 238:18 <b>impossible</b> 67:5 220:22 <b>impression</b> 55:7 192:4 <b>improper</b> 177:9 <b>inability</b> 173:9 <b>inaction</b> 78:17 <b>inadmissible</b> 183:15 188:11 <b>inarguably</b> 38:4 <b>incidences</b> 103:2 <b>incident</b> 64:21 <b>incidental</b> 177:12 <b>incidents</b> 65:10 82:5 137:10 <b>include</b> 56:7 123:1 126:16 142:11 167:24 168:20 169:10 177:18 249:1	270:17 <b>included</b> 132:25 142:19 142:22 148:15 162:17 169:2,5 175:4 176:3 184:15 231:23 244:9 <b>includes</b> 90:6 91:11 149:23 150:11 157:10 173:4 231:19 <b>including</b> 51:22 54:10 80:12 91:1 107:2 112:10 113:4 115:13 122:8 138:1 143:23 144:6 154:20 168:9 175:3 188:6 196:8 199:18 212:23 223:6 243:10 244:9 267:8 <b>inclusion</b> 42:10 62:11 <b>inclusive</b> 160:16 <b>income</b> 105:1 <b>incomplete</b> 197:25 <b>incorporate</b> 275:5 <b>increase</b> 40:9 95:8 124:21	149:10 247:19 247:23 <b>increased</b> 60:10 72:13 95:16 129:22 255:6 <b>increasing</b> 65:7 129:22 249:4 <b>increasingly</b> 90:12 <b>incumbent</b> 37:17 <b>indefinite</b> 144:18 <b>independent</b> 151:23 <b>independently</b> 188:4 <b>index</b> 9:1 <b>indicate</b> 245:24 <b>indicated</b> 132:18 203:6 <b>indicates</b> 22:7 <b>indigenous</b> 76:22 77:12 137:2 138:16 <b>individual</b> 34:6 55:10 60:18 147:3 203:8 204:23 211:9 223:21 266:12 <b>individuals</b> 55:12,17 56:6 145:20 171:1,5 171:14,18	204:22 244:15 245:25 246:3 247:4,5 249:15 255:13 265:18 267:13 268:11 268:23 <b>indivisible</b> 120:2 <b>induced</b> 144:16 <b>industrial</b> 62:12,14 95:12 168:24 <b>industries</b> 68:14 90:14 98:3 101:10 103:8 105:18 137:10 213:14 <b>industry</b> 35:4 39:15 40:10,13 41:2 46:5,8 48:24 52:7 57:15,22 63:8 68:12 74:23 75:10 77:9,19 78:4,20 80:15 80:22 81:8,15 84:21 85:5,20 87:6,17,25 98:11 112:9,14 112:15,20,24 113:5,14 117:14 120:13 126:8 137:17 137:20,20 141:25 147:17
---	---	--	--

[industry - interest]

<p>149:22 155:12  158:11,15  162:14 166:16  169:25 170:8  170:19 213:2  213:21 218:8  220:15 256:14  <b>industry's</b> 46:3  77:4 81:1,21  84:1 113:22  137:12 138:12  <b>inequities</b>  94:19  <b>inevitable</b>  73:10  <b>infants</b> 64:6  <b>infections</b>  104:19  <b>inferences</b>  222:4  <b>infertility</b>  115:6  <b>infiltrate</b> 81:6  138:2  <b>inflammation</b>  115:6  <b>inflicted</b> 60:25  <b>influence</b> 98:10  107:15  <b>inform</b> 79:6  <b>information</b>  34:17 36:9  49:21 81:16  82:4 96:15  121:8,14</p>	<p>137:11 142:2  144:19 147:20  154:24 159:16  162:21 164:14  164:22 172:6  172:25 173:4  174:24 183:11  198:15 200:14  200:20,22  201:21,22,24  202:2,5,7,16  203:4,6 204:11  205:2 206:20  210:4 218:5  235:6 240:18  242:11,12  248:20 249:7,8  249:10,18  256:16 257:17  268:17 269:14  271:16,20,25  274:3 277:12  279:16 282:23  <b>informed</b> 98:4  203:17  <b>ingredient</b>  152:8  <b>ingredients</b>  38:8 98:3  152:10 153:2  197:23 207:15  <b>inherent</b>  154:14  <b>inhumane</b>  78:11</p>	<p><b>initial</b> 92:10  243:1  <b>inject</b> 72:19  81:5  <b>injected</b> 98:7  101:14 103:11  105:6 211:8,10  216:12 223:21  <b>injecting</b> 40:11  81:21 153:4  209:17 211:19  <b>injection</b> 65:2  81:1 97:16  <b>injections</b>  217:3  <b>injunctive</b>  151:7  <b>injustices</b>  123:19  <b>innovations</b>  52:5  <b>input</b> 56:8  <b>insect</b> 131:12  131:15  <b>inside</b> 209:15  <b>insidious</b> 80:6  <b>insist</b> 122:7  <b>inspection</b>  160:1  <b>inspections</b>  37:19  <b>inspiration</b>  42:2  <b>instance</b> 154:21  162:13 164:16</p>	<p>220:3 266:14  268:25  <b>instances</b>  185:16  <b>institute</b> 123:16  123:17 265:22  <b>institution</b>  204:15  <b>insurance</b>  104:22 105:10  <b>integrity</b> 46:13  87:16 146:13  149:19 209:19  <b>intellectual</b>  203:20  <b>intended</b>  168:19 242:5  <b>intent</b> 143:7  162:8 163:2  <b>intention</b> 56:7  <b>intentional</b>  78:8 177:5  213:6  <b>intentionally</b>  78:5 81:9  147:19 166:4  168:16,21  169:3,6 170:12  177:24 210:19  210:23 211:1,5  <b>interdependent</b>  83:18  <b>interest</b> 36:3  204:21</p>
--	--	--	--

[interested - janet]

<p><b>interested</b> 120:4 140:6 234:16 269:14 286:15 287:12</p> <p><b>interestingly</b> 148:23</p> <p><b>interests</b> 98:11 101:18</p> <p><b>interfere</b> 239:8</p> <p><b>intergovernm...</b> 208:18</p> <p><b>interim</b> 20:1</p> <p><b>internally</b> 112:14</p> <p><b>international</b> 26:11</p> <p><b>interpret</b> 89:17 171:20</p> <p><b>interpretation</b> 55:18 106:5 111:10</p> <p><b>interpreted</b> 89:7</p> <p><b>interpreter</b> 55:1,8,21,24 88:19,20 89:22 99:21,23 100:5 102:15,19 104:4,8,11</p> <p><b>interpreters</b> 90:4</p> <p><b>interpretive</b> 55:15</p> <p><b>interrupt</b> 18:23 47:6</p>	<p><b>interruption</b> 206:25</p> <p><b>interstate</b> 32:23</p> <p><b>intertwined</b> 128:19</p> <p><b>intervene</b> 15:19</p> <p><b>intervened</b> 15:18 127:2</p> <p><b>intervening</b> 17:21</p> <p><b>intervention</b> 15:13</p> <p><b>intimidating</b> 108:22</p> <p><b>intimidation</b> 107:9</p> <p><b>introduce</b> 117:11 208:1</p> <p><b>introduced</b> 105:21</p> <p><b>introducing</b> 211:20</p> <p><b>invested</b> 124:24</p> <p><b>investigate</b> 242:10</p> <p><b>investigating</b> 214:13</p> <p><b>investigation</b> 21:11 22:8,10 22:12 35:24 64:7 241:24 242:1</p> <p><b>investigations</b> 112:9,13</p>	<p>157:15</p> <p><b>invitation</b> 225:3</p> <p><b>invite</b> 26:2 30:7 31:19 93:11 127:22 133:14 140:13</p> <p><b>invited</b> 30:2</p> <p><b>invokes</b> 201:20</p> <p><b>involve</b> 126:5 138:13</p> <p><b>involved</b> 153:8</p> <p><b>involvement</b> 248:4</p> <p><b>involving</b> 204:18</p> <p><b>ironic</b> 52:21</p> <p><b>irrelevant</b> 203:24</p> <p><b>irreplaceable</b> 78:25</p> <p><b>irreversible</b> 78:9</p> <p><b>irrigate</b> 83:13</p> <p><b>isleta</b> 80:4 82:23</p> <p><b>issue</b> 39:13 73:14 79:5 81:20 91:15 96:22 109:16 109:17 114:4 116:15 120:5 126:7,9 138:11 149:19 150:23 150:24 170:23</p>	<p>171:3 225:2</p> <p><b>issued</b> 234:5</p> <p><b>issues</b> 15:23 55:3 57:24 62:9 64:13 123:18,19 138:1 145:6 156:22,25 159:6 195:12 195:14,17,18 198:8 205:12 208:20 233:10 242:15 252:5 266:17,19 267:8 269:18 270:15</p> <p><b>issuing</b> 269:2</p> <p><b>item</b> 13:24 15:12 21:23</p> <p><b>items</b> 17:16 245:9</p> <p><b>iv</b> 134:19 135:1</p>
			<b>j</b>
			<p><b>j</b> 71:14 79:21 82:15,15 86:4</p> <p><b>jacket</b> 106:12 169:13</p> <p><b>jackie</b> 17:3</p> <p><b>jackpile</b> 83:1</p> <p><b>jaclyn</b> 2:11</p> <p><b>james</b> 1:18 286:2,17</p> <p><b>janet</b> 171:15 178:4</p>

[january - know]

<p><b>january</b> 23:4,6 23:8,9</p> <p><b>jaramillo</b> 7:5 79:20,20,24 80:2,3 82:12</p> <p><b>jardines</b> 123:16</p> <p><b>jars</b> 113:16</p> <p><b>jenkins</b> 7:2 71:13,14,14,17 71:20,21 73:24</p> <p><b>jesse</b> 3:19 21:22 26:17</p> <p><b>jesse's</b> 282:20</p> <p><b>jessek.tremaine</b> 3:23</p> <p><b>jmclean</b> 2:15</p> <p><b>job</b> 1:19 35:5 122:10 198:16 201:22 237:22 259:4</p> <p><b>job's</b> 257:7</p> <p><b>john</b> 144:10 287:2,15</p> <p><b>join</b> 43:25 100:18 140:15 226:10,17 232:8</p> <p><b>joint</b> 115:6 246:10</p> <p><b>jonathan</b> 7:6 82:14,22</p> <p><b>jordan</b> 4:11,15</p> <p><b>journal</b> 33:17 124:4 132:9</p>	<p><b>juan</b> 213:25</p> <p><b>juarez</b> 7:6 8:19 82:14,15,18,21 82:22 85:15,16 85:23 86:3,3,7 86:10,11 88:7</p> <p><b>judge</b> 124:5</p> <p><b>judgment</b> 249:6 281:21</p> <p><b>julie</b> 17:1</p> <p><b>jump</b> 127:16</p> <p><b>jumping</b> 132:6 241:8</p> <p><b>jurisdiction</b> 153:17 154:1</p> <p><b>jury</b> 187:3 188:19</p> <p><b>justice</b> 2:4 39:12 76:25 78:22 110:12 110:20 112:5</p> <p><b>justify</b> 85:1</p> <hr/> <p style="text-align: center;"><b>k</b></p> <hr/> <p><b>k</b> 3:19 53:12 58:12,12 71:14 106:15,15 110:4</p> <p><b>karst</b> 189:21</p> <p><b>kathleen</b> 5:23 35:11</p> <p><b>keep</b> 46:6,14 50:6 67:11 85:19 111:2 120:20,25 124:7 125:2,6</p>	<p>125:10,19,23 126:3 127:11 141:23 147:20 170:3 175:20 190:23,24 202:8 204:21 254:24</p> <p><b>keeping</b> 81:17 107:16 268:1</p> <p><b>keeps</b> 249:19</p> <p><b>kennedy</b> 3:12</p> <p><b>kessler</b> 4:11,15 27:13</p> <p><b>key</b> 241:1</p> <p><b>kidney</b> 40:5 60:11 103:3 118:15 125:16 129:14</p> <p><b>kidneys</b> 125:24</p> <p><b>kids</b> 39:8 89:25 114:3 274:15</p> <p><b>kill</b> 105:14 124:18 131:12</p> <p><b>killed</b> 105:19</p> <p><b>killer</b> 131:16</p> <p><b>killing</b> 121:22</p> <p><b>kilometers</b> 247:11</p> <p><b>kin</b> 138:16</p> <p><b>kind</b> 16:12 48:14,14 203:17 204:12 204:21 257:16 259:22 260:25 278:20 282:18</p>	<p><b>kindergarten</b> 131:5</p> <p><b>kindly</b> 128:20</p> <p><b>kinds</b> 62:9 236:6</p> <p><b>kitchens</b> 113:17</p> <p><b>knapp</b> 6:15 58:5,7,8,11,11 58:15,18,22 61:7</p> <p><b>knew</b> 43:23 220:13 249:2 274:18,19</p> <p><b>know</b> 16:14 20:8 26:10 30:19 31:8 34:15 35:10,21 39:18 48:4,4,9 48:10,12,12,13 48:19,21,24 54:8,11 57:7 57:12 62:20 69:21 70:22 75:17 78:1,6 78:14 81:13 82:1 86:16 93:1,3,5 98:6 99:21 103:10 103:12 111:5 113:25 115:1,7 115:21,25 118:23 121:18 127:6 128:24 138:9 141:9,15</p>
--	---	---	--

[know - language]

144:23 146:12 149:5,12,14,17 150:9,16,19 154:5 162:19 162:21 165:6 184:5 185:17 187:7 189:5,7 196:6,19,22 198:6,13,15,17 201:19,25 202:12 203:12 203:19 204:3,6 204:9,9,22,24 205:2,5,6,19 208:7,8,10,11 208:15,17,22 209:3,5,7,8,14 209:15,16,22 210:15,22 211:5,8,15,16 211:17 212:5 212:25 213:2 214:6,7,10 215:25 216:3,9 216:15,17,20 216:25 217:15 218:8,10,11,12 218:18 219:5 219:12,13 220:9,11,15,23 221:18 222:2,4 222:11 223:5 223:10,18 225:18 227:15 238:16 239:18	240:6 248:12 248:21,24 249:6 250:5 253:10 255:9 255:10,21 256:15,23 257:10,16,22 258:9 261:13 262:23 263:10 263:14,18 266:5 267:22 271:2,2 272:15 272:16 273:1,2 274:10,17,24 275:1,3 277:8 277:18 278:2,4 278:6,8,9 279:7 280:10 280:12 281:8,9 281:12,18 282:10,12,13 282:18,24 283:22 284:22 <b>knowing</b> 101:13 132:6 144:4 254:25 <b>knowledge</b> 28:19,19 69:25 180:14 228:23 270:24 286:10 287:6 <b>known</b> 45:4 46:8,13 54:4 60:8 64:6 71:2 76:21 77:9	94:10 113:3 172:6 221:6 266:22 <b>knows</b> 57:14 250:18 <b>I</b> <b>I</b> 4:11 35:12 50:24,25,25 53:12 61:17,17 66:6 69:4 74:2 74:2,2 76:13 79:21,21 97:2 97:2 99:13 104:5 106:15 110:4 111:22 116:25,25 119:20,20 213:12 <b>la</b> 35:13,21 36:1 57:4 59:1 59:11 60:24 64:3,22 103:15 110:11 <b>lab</b> 52:18 <b>labeled</b> 112:17 <b>laboratory</b> 209:15 212:22 238:2 <b>lack</b> 40:21,24 60:21 72:25 80:15 85:9 101:12 103:7 110:14 114:1 137:15 171:19 248:20	<b>lactating</b> 124:23 <b>laden</b> 134:13 <b>lag</b> 125:1 <b>laguna</b> 82:23 <b>laid</b> 119:3 <b>laissez</b> 108:1 <b>lakes</b> 125:3,5 <b>land</b> 36:15 39:8 45:4 75:10,15 75:16,18 77:23 82:2 83:4 86:17 98:7 99:7 105:21 112:15 113:5 128:19 129:11 129:17 132:3 134:12 138:18 199:20 202:21 257:6,6 <b>landfill</b> 65:3 <b>landlocked</b> 77:16 <b>lands</b> 13:16 42:7 45:12 77:11 80:5 83:20,21 84:23 85:2,20 86:13 87:7,21 <b>landscape</b> 189:23 <b>language</b> 79:5 111:9 162:3,8 163:24 172:16 176:6 210:17
---	---	--	--

[language - levels]

<p>210:24 211:1 238:17 <b>large</b> 157:7 206:8 212:3 247:22 <b>larger</b> 157:9 <b>largest</b> 45:25 211:6 <b>las</b> 51:7 112:5 <b>lasting</b> 64:12 86:25 135:19 <b>lastly</b> 79:4 <b>late</b> 133:7 <b>latest</b> 158:2 <b>latina</b> 79:5 <b>launched</b> 132:1 <b>lauri</b> 6:9 46:25 47:9 50:24 <b>law</b> 5:18,20 27:9 48:1 141:14 142:8 146:22 147:17 150:12 153:13 171:25 172:3,4 172:23,24 173:10 174:23 186:7 197:3,11 198:25 203:2 207:16 218:17 219:3,15 220:18 224:8 224:11,16 <b>laws</b> 96:10 107:17 120:25 122:7 146:25</p>	<p>152:25 <b>lawsuit</b> 124:11 <b>lawsuits</b> 124:6 137:19,21 <b>lawyer</b> 143:20 184:10 190:9 <b>lay</b> 187:3 <b>layer</b> 84:3 <b>ldl</b> 60:7 <b>lea</b> 6:11 8:17 16:22 21:11 27:2 53:10,11 53:12,15,18,19 55:6 56:11 <b>leaching</b> 86:23 <b>lead</b> 53:1 65:18 105:11 119:10 149:3 210:1 255:4 258:9 <b>leaders</b> 88:3 98:18 <b>leading</b> 45:5 90:24 103:2 107:8 108:15 125:16 137:18 <b>leads</b> 115:24 <b>leahan</b> 7:16 111:18,20,21 111:21,25 112:4 114:7 <b>leak</b> 144:15 211:22,24 214:1 <b>leakage</b> 209:22</p>	<p><b>leaking</b> 108:18 <b>leaks</b> 72:20 81:3 209:18 <b>leap</b> 122:23 <b>leaps</b> 202:4 <b>learn</b> 133:6 143:3 <b>learned</b> 87:15 115:12 116:7 145:14 <b>leave</b> 48:23 68:6,13 70:10 86:25 87:11,12 152:2 284:14 <b>leaves</b> 40:24 72:25 101:12 <b>leaving</b> 81:25 98:19 132:4 142:10 <b>led</b> 47:25 76:22 91:4 101:3 145:8 209:23 <b>left</b> 49:2 62:23 82:25 85:2 88:4 201:11 227:23 <b>legacy</b> 72:14 82:7 87:18 <b>legal</b> 48:2 98:10 120:19 162:1 172:17 173:12 174:3 175:3,14 183:13 186:6 190:10</p>	<p><b>legally</b> 92:9 198:20 <b>legislation</b> 218:19,22 219:6,8,11 <b>legislative</b> 159:20 164:20 164:23 165:2 173:22,23 174:1,4 <b>legislature</b> 153:14 218:25 <b>lengths</b> 280:9 <b>les</b> 189:21 <b>lessons</b> 145:14 <b>level</b> 45:7 48:4 48:6 50:10 78:13 97:23 101:8 102:25 118:14,14 212:6,10 236:17 239:4 258:23,25 <b>levels</b> 43:7 59:24 60:3,7 84:2 94:13,22 95:8 96:7 124:17 125:8 210:3 211:16 211:17,20 212:5,10 215:20 234:6 252:25 254:2,4 267:19</p>
---	--	--	--

[lie - lobbying]

<p><b>lie</b> 98:16 258:5  <b>lies</b> 36:7 106:23  107:4,13,22,22  107:24 108:22  <b>life</b> 39:17 43:19  66:24 71:23  75:22 82:24  83:6,11 99:3  105:13 108:15  110:24 116:9  117:12,19  135:11  <b>life's</b> 108:8  <b>lifecycle</b> 51:8  53:5  <b>lifetime</b> 43:4  62:24 131:24  <b>light</b> 90:10  112:10 116:3  <b>likely</b> 22:21  51:18 57:8  65:13 105:3  121:13,20  211:7 214:21  221:3 227:13  246:7,14 248:8  262:11  <b>likewise</b> 172:1  176:24  <b>limine</b> 181:12  <b>limit</b> 34:20,22  68:24 254:20  <b>limitations</b>  158:5</p>	<p><b>limited</b> 15:13  15:20 16:12  29:25 31:16  34:14 81:12  94:18 95:21  101:16 153:17  156:24 161:4  164:5 242:16  243:7 278:21  278:22 279:9  <b>limiting</b> 211:4  <b>limits</b> 89:24  157:23  <b>lincoln</b> 4:13  <b>line</b> 43:2 88:2  106:25 149:4  151:8 164:17  182:21,21  190:23,23  221:25 222:2,7  223:16 241:15  268:5 270:3  <b>lines</b> 31:9 185:7  190:16 237:19  241:7  <b>link</b> 118:15  203:9 214:8  215:3,23 218:3  222:6,18  237:12  <b>linked</b> 40:4  72:9 90:25  94:16 115:13  120:14 129:14  137:25 223:7</p>	<p>240:7,11,12  <b>links</b> 135:12  238:11,11  <b>liquids</b> 158:23  <b>list</b> 37:18,21  40:7 160:22  197:16 203:8  244:9,13 246:2  247:16,17  <b>listed</b> 34:7  132:22 161:21  193:5 198:18  248:22  <b>listen</b> 135:5  <b>listening</b> 41:6  49:8 76:6  101:21 123:21  278:16 283:15  <b>lists</b> 38:8  204:17  <b>litany</b> 170:25  171:5,18  <b>liter</b> 118:1,4,6,9  118:10,12  <b>literally</b> 115:7  <b>literature</b>  238:11  <b>litigated</b> 162:5  <b>litigation</b> 15:25  124:24 125:14  <b>little</b> 58:17  69:25 74:11  195:13 206:4  208:21 218:4  235:20 261:16</p>	<p>263:20 275:2  <b>live</b> 32:17  35:13,20 40:18  57:4 59:1 60:9  60:14 70:19  73:7 104:17  109:6 110:16  111:13 113:4  114:20 134:21  195:8 200:4  204:24 246:4  <b>lived</b> 62:5 64:3  <b>livelihoods</b>  83:21  <b>liver</b> 91:1 138:1  <b>lives</b> 40:19  60:10 88:2  91:20 103:7  105:24 111:13  137:17 204:4  <b>livestock</b> 69:23  84:7 105:14  <b>living</b> 51:7 52:2  57:9 95:12  135:7,15  168:11 199:19  200:9 242:13  247:5,17  249:15  <b>llc</b> 2:10,18 3:2  16:21 17:10  <b>llp</b> 2:12 3:4 4:4  4:20  <b>lobbying</b> 98:10</p>
--	---	---	--

[local - madai]

<p><b>local</b> 39:11 75:25 95:7,23 121:8 124:25 125:21</p> <p><b>localities</b> 126:12</p> <p><b>located</b> 215:11 222:20</p> <p><b>location</b> 154:25</p> <p><b>lock</b> 284:16</p> <p><b>locked</b> 284:14</p> <p><b>logical</b> 119:9 254:13</p> <p><b>long</b> 22:19 25:19 36:4 48:6 57:7 78:14 95:25 96:11 97:9 104:19 127:11 132:13 135:19 189:19 200:16 263:9,10 282:15</p> <p><b>longer</b> 17:25 22:21,25 48:7 73:22 78:18 96:20 118:18</p> <p><b>longevity</b> 202:15</p> <p><b>longstanding</b> 80:5</p> <p><b>look</b> 23:7 62:22 62:23 99:5 132:15 164:7 183:6,20</p>	<p>186:23,24 209:1,2 216:15 235:7,8 244:25 246:9,13 249:21 252:22 256:13 260:22 266:6,24 268:19 273:1 275:9 280:21 283:8</p> <p><b>looked</b> 131:14 156:6 198:23 199:6,14 200:1 213:6,15 214:15 215:8,9 215:17 216:1 239:6 241:1 242:20 249:23 251:6 257:12 260:4 266:1</p> <p><b>looking</b> 113:14 132:23,24 149:14 158:21 181:22 182:11 193:8 221:6 234:18 235:22 236:4 237:19 241:7 245:10 246:20 247:4,8 247:12 250:15 260:2 262:7</p> <p><b>looks</b> 116:20 124:10 201:5 222:13 223:4 227:19</p>	<p><b>loophole</b> 120:13 121:6</p> <p><b>loopholes</b> 65:21 143:21 183:13</p> <p><b>lopez</b> 7:4 76:12 76:13,16,19,19 79:18</p> <p><b>lord</b> 166:24</p> <p><b>los</b> 123:16</p> <p><b>lose</b> 259:4</p> <p><b>loses</b> 258:3</p> <p><b>losing</b> 77:14 115:17 227:10</p> <p><b>loss</b> 164:15 202:23 266:16</p> <p><b>lot</b> 35:21 50:16 67:8,8,14 97:21 111:9,10 111:10,11,12 183:1 202:10 204:1,5 206:1 213:5 223:3 273:17</p> <p><b>lots</b> 32:1 67:4 93:18 122:18 127:12</p> <p><b>loves</b> 69:11</p> <p><b>low</b> 67:22 94:22 105:1 118:14,19 196:10 208:24 209:4 238:15 239:7 253:1,2,3</p> <p><b>lower</b> 105:9 132:11 212:11</p>	<p><b>lowest</b> 104:22 216:18</p> <p><b>luebano</b> 7:10 99:12,13,16,19 99:24 100:5,6</p> <p><b>lunch</b> 122:22 127:5,9,16,19 136:1,7,8</p> <p><b>lung</b> 263:25 264:22</p> <p><b>lungs</b> 275:11</p> <p><b>lying</b> 108:3 112:24</p> <hr/> <p style="text-align: center;"><b>m</b></p> <hr/> <p><b>m</b> 2:11,19 5:3 12:22 32:10 35:12 53:12 56:21 63:18 66:6 69:4 79:21 97:2 99:13,13 102:7 104:5 106:15 109:6 110:4 114:13 119:20 130:23 139:16</p> <p><b>m&amp;a</b> 202:10</p> <p><b>ma'am</b> 32:3 35:8 68:20 69:1 100:4 102:1 103:25 106:10,18 110:1 230:7</p> <p><b>mad</b> 120:5</p> <p><b>madai</b> 5:20 13:22</p>
---	--	---	---

[madam - marked]

<p><b>madam</b> 26:6,16 27:7,13 30:15 32:16 35:9 92:5 112:6 117:6 140:25 156:2 165:23 180:20 181:8 182:4 184:17 185:20 187:15 189:9 192:1 195:7 205:21 229:3,15 231:5 243:25 <b>made</b> 48:1 49:14 50:3,12 54:5 112:17 148:1,10 173:22 184:13 198:25 212:22 257:13 261:15 265:11 273:7 275:23 <b>madness</b> 241:4 <b>magazine</b> 132:14 <b>mail</b> 200:7 204:2,3 257:11 258:8 <b>main</b> 281:7 <b>maine</b> 124:23 125:9 279:5 <b>maintain</b> 107:19 <b>maintaining</b> 172:5</p>	<p><b>maintenance</b> 78:13 <b>major</b> 126:9 132:9 137:19 213:24 214:25 248:6 <b>majority</b> 146:10 <b>make</b> 23:15 30:17 31:2 43:24 49:24 50:5,7,18 55:10 56:3 67:2,3,7 75:20 76:7 92:4 98:4 115:8 122:15 129:12 130:8 140:12,21 142:24 146:4 148:16 149:6 149:20 151:17 156:14 166:8 171:3 175:12 176:11,12 181:10,12 183:3,20 185:12,20 187:1 188:5,24 200:23 203:8 203:16 204:11 205:24 206:6 207:17 212:8,9 232:15,16 239:19 249:6 252:18 255:1</p>	<p>256:8 265:4 271:16 275:23 284:21 <b>makes</b> 18:12 50:19 65:13 66:21,23 80:21 81:22 120:18 168:4 174:5 176:23 182:10 183:15 188:11 227:16 231:12 <b>makeup</b> 38:11 <b>making</b> 13:7 33:4,7 53:23 55:12 72:17 84:16 173:16 185:13 188:23 221:18 222:4 224:10 230:15 234:17 254:9 270:18 275:6 281:6 <b>malfunction</b> 51:21 <b>malnourished</b> 107:12 <b>man</b> 189:20 <b>manageable</b> 205:1 <b>managed</b> 260:3 <b>management</b> 70:2,15 71:5 257:6 <b>manager</b> 76:20</p>	<p><b>managing</b> 170:20 <b>mandate</b> 164:20 <b>mandated</b> 171:2 <b>mandates</b> 35:3 <b>mandatory</b> 148:2 <b>manhattan</b> 260:22 <b>manipulate</b> 98:17 <b>manipulative</b> 107:5 <b>manmade</b> 90:13 <b>manner</b> 19:22 168:10 <b>manufacture</b> 167:9 168:18 <b>manufacturers</b> 131:14 162:13 162:17 <b>manufacturing</b> 91:6 132:25 173:1 <b>map</b> 59:14 <b>marcellus</b> 145:7,14 <b>marginalized</b> 52:12 96:3 <b>marked</b> 159:25 180:25 181:1 229:8,11</p>
---	---	---	---

[marketed - metal]

<p><b>marketed</b> 51:14</p> <p><b>martin</b> 157:19</p> <p><b>martinez</b> 8:4 127:24,25 128:4,5,9,12</p> <p><b>mary</b> 8:4 127:23 128:5</p> <p><b>massachusetts</b> 125:20,22 232:6 233:9,21 234:3,6</p> <p><b>massive</b> 62:25 107:15</p> <p><b>masspirg</b> 125:21</p> <p><b>master's</b> 32:19</p> <p><b>matches</b> 60:4</p> <p><b>materially</b> 159:10</p> <p><b>materials</b> 81:2 163:19 184:16</p> <p><b>matter</b> 26:8 54:15 99:9 122:4 140:9 156:6 165:25 179:14,19 227:6 228:3 264:7 271:17</p> <p><b>matters</b> 24:5 28:4 174:2 186:22 210:11</p> <p><b>maxwell</b> 8:17 26:20,21,22,25 27:1,5 165:14</p>	<p>165:16 192:18 192:21 194:14 194:16 243:19 243:21</p> <p><b>mayor</b> 113:12</p> <p><b>mccloud</b> 5:23 35:9,12,15,18</p> <p><b>mclean</b> 2:11 17:3,4</p> <p><b>mean</b> 19:14 192:14 199:23 203:24 208:11 214:3 218:8 220:5 239:21 239:25 240:1 240:13 250:18 267:24</p> <p><b>meaning</b> 17:24 40:1</p> <p><b>meaningless</b> 178:19</p> <p><b>means</b> 72:13 80:17 117:20 120:13 135:17 147:3 160:23 169:22 199:11</p> <p><b>meant</b> 19:15 251:23</p> <p><b>measures</b> 101:8</p> <p><b>mechanical</b> 149:19</p> <p><b>mechanism</b> 164:13</p> <p><b>medicaid</b> 65:16</p>	<p><b>medical</b> 152:19</p> <p><b>medicine</b> 52:3 98:4 256:10,12</p> <p><b>medscape</b> 125:25</p> <p><b>meeting</b> 13:4,5 13:8 14:4,13 14:15,16 15:5 16:1 19:21 29:21 30:2 43:25 70:5 90:5 92:20 129:6 285:9</p> <p><b>meetings</b> 42:3 70:13,17</p> <p><b>mega</b> 78:2 128:23</p> <p><b>megan</b> 7:11 102:6,20</p> <p><b>melissa</b> 145:18</p> <p><b>melt</b> 67:9</p> <p><b>member</b> 5:22 5:23,24 6:2,4,6 6:8,9,11,13,15 6:17,19,21,23 7:2,3,4,5,6,7,8 7:9,10,11,12,13 7:14,15,16,17 7:19,21,23 8:2 8:4,6,8,10,11 8:13,19 109:13 134:13 230:15 280:15</p> <p><b>members</b> 17:8 21:14,18 22:7</p>	<p>27:14 92:6 102:20 104:12 104:14 112:7 115:10 120:1 122:5 136:25 171:12 231:6 277:24 278:4 282:16</p> <p><b>membranes</b> 239:9</p> <p><b>memory</b> 131:6</p> <p><b>mention</b> 28:8 90:4 149:25 176:23 273:7</p> <p><b>mentioned</b> 59:11 118:17 168:6 172:9 176:6 177:22 195:25 198:20 199:15 207:15 222:15 224:5 272:16</p> <p><b>mercury</b> 255:4</p> <p><b>merely</b> 184:19</p> <p><b>merger</b> 202:11</p> <p><b>message</b> 253:12</p> <p><b>met</b> 17:21 30:4 33:20</p> <p><b>metabolic</b> 95:2</p> <p><b>metabolism</b> 51:23</p> <p><b>metabolites</b> 125:24</p> <p><b>metal</b> 131:11</p>
--	--	---	--

[methanol - mike]

<p><b>methanol</b> 197:21</p> <p><b>method</b> 167:15 167:18,18 168:7 173:5 201:8,9</p> <p><b>methodologies</b> 157:23 160:24 161:5</p> <p><b>methods</b> 41:5 164:10 168:1,2 168:13 197:6 197:10 223:24</p> <p><b>mexican</b> 33:17 87:5 94:17,20 96:14,20 142:5</p> <p><b>mexicana</b> 128:6</p> <p><b>mexicans</b> 39:18 62:1 65:22 81:17 83:11 111:11 116:17 121:22 146:11 147:10 150:4</p> <p><b>mexico</b> 1:1 2:4 3:20 5:13,14 5:17,18,20 8:16 16:22 25:6 27:2,5 32:23,24 33:3 33:6,10 34:3,3 36:5 37:8,12 37:14 38:14 39:10,11,24 45:24 46:17</p>	<p>47:22 52:14 55:4 57:23 63:8 65:12 69:18 70:22 72:16 73:3 74:15,17 75:4 76:8 77:5,16 78:6,25 80:13 80:23 85:7 86:19 87:23 94:10 95:5 96:1 100:20 102:23 104:14 105:2,16 106:6 109:6 110:17 110:21 112:6 113:9,15 114:24 117:9 117:12,24 118:4 121:17 123:17 124:19 128:17 129:3,6 129:8 130:3 132:7 134:10 137:1 138:4,22 139:5 141:24 142:15 143:23 144:2 146:8,15 146:17 147:7,8 147:22,23 148:8 151:16 166:20,22 167:2 171:25 172:24 173:10 174:23 189:20</p>	<p>195:21,25 196:13,21 197:1 198:12 198:22,24 207:6 209:21 209:23,25 211:19 213:24 216:12 217:1,6 217:9 218:15 218:24 219:3,4 219:15 220:20 221:20 222:6 223:6,11,12 224:8 250:4 252:8 268:10 269:1 270:10 270:13 271:13 272:1 274:25 276:19,19 277:1,2,9,10,24 278:11 279:4 280:1,8 281:14 282:8,9,13,23 282:25 283:3,7 283:7 286:19</p> <p><b>mexico's</b> 65:15 77:24 84:22 97:16 99:2 138:5 172:3,4 172:19 197:3 197:11</p> <p><b>meyer</b> 7:14 109:5,5,9,12,25</p> <p><b>mfeldewert</b> 3:7</p>	<p><b>mic</b> 49:13,15 49:16</p> <p><b>michael</b> 3:3 6:21 7:9 17:8 66:1,6,14 97:1</p> <p><b>mick</b> 7:13 106:15</p> <p><b>mickel</b> 106:14 106:18,21</p> <p><b>micro</b> 125:24</p> <p><b>microbial</b> 144:16</p> <p><b>microbiology</b> 144:13</p> <p><b>microchip</b> 125:11,12</p> <p><b>microgram</b> 118:1,3</p> <p><b>micrograms</b> 118:1</p> <p><b>microns</b> 264:11 264:13,13</p> <p><b>microphone</b> 50:7 259:23</p> <p><b>microphones</b> 50:14,17</p> <p><b>microsoft</b> 145:15</p> <p><b>mics</b> 43:23 49:17</p> <p><b>migrate</b> 129:24</p> <p><b>miguel</b> 7:12 104:5,12</p> <p><b>mike</b> 34:2</p>
---	--	---	--

[mile - morning]

<p><b>mile</b> 83:1 249:15 257:7 261:18,18 262:15</p> <p><b>miles</b> 59:5 85:6 247:10 261:7</p> <p><b>military</b> 91:6 95:12</p> <p><b>milk</b> 60:1 67:22</p> <p><b>million</b> 132:18</p> <p><b>millions</b> 46:10 68:11 78:20 132:10 211:9 211:10</p> <p><b>milpa</b> 110:11</p> <p><b>mind</b> 16:16 84:17 157:6 175:18,20 202:4 278:6</p> <p><b>mine</b> 54:6,7 83:1 115:10,16</p> <p><b>mineral</b> 146:16</p> <p><b>mines</b> 49:1 144:12</p> <p><b>minimal</b> 130:9</p> <p><b>minimum</b> 68:5 70:25 130:6</p> <p><b>mining</b> 105:17 133:2</p> <p><b>minister</b> 134:7</p> <p><b>minnesota</b> 124:10 253:24 254:1</p> <p><b>minute</b> 68:23 195:14 224:23</p>	<p><b>minutes</b> 15:4 27:23 28:3 29:16,25 31:16 31:19 32:15 35:19 37:7 39:3 41:21 44:24 47:18 51:5 53:17 57:1 58:21 61:22 63:25 66:12 69:9 71:19 74:7 76:18 80:1 82:20 86:9 88:15 93:20 94:5 97:7 99:18 102:12 106:20 109:11 109:13 110:9 112:3 114:18 117:5 119:25 123:14 128:11 131:3 134:4 136:24 139:21 140:20 224:23</p> <p><b>miracle</b> 124:10 124:11,14,15</p> <p><b>miriam</b> 7:10 99:13 100:6</p> <p><b>misappropriate</b> 151:7</p> <p><b>misappropria...</b> 151:5,10 152:5</p> <p><b>misdirecting</b> 107:8</p>	<p><b>misfortune</b> 35:23</p> <p><b>mishandling</b> 72:21</p> <p><b>misinformation</b> 46:11</p> <p><b>misleading</b> 147:16</p> <p><b>misleads</b> 142:8</p> <p><b>misrepresents</b> 142:8</p> <p><b>missed</b> 199:21</p> <p><b>missing</b> 197:23</p> <p><b>mission</b> 113:19</p> <p><b>mistaken</b> 193:5</p> <p><b>mistakes</b> 107:20 138:25</p> <p><b>mitigate</b> 57:10 91:10</p> <p><b>mitigating</b> 138:10</p> <p><b>mitigation</b> 43:9</p> <p><b>mix</b> 265:4</p> <p><b>mixture</b> 237:8</p> <p><b>mixtures</b> 237:7</p> <p><b>models</b> 132:18</p> <p><b>modifications</b> 163:11 165:9 175:4</p> <p><b>modified</b> 175:12</p> <p><b>modrall</b> 2:20 27:19</p> <p><b>modrall.com</b> 2:23</p>	<p><b>moellenberg</b> 3:11 21:14,15 21:18,19 22:5 22:6 24:9,20 24:23,25</p> <p><b>mom</b> 131:18</p> <p><b>moment</b> 17:19 28:1 101:6 181:22,24 189:5 190:19 191:2 237:16</p> <p><b>monetize</b> 48:22</p> <p><b>money</b> 48:22 98:13</p> <p><b>monitor</b> 27:18</p> <p><b>monitored</b> 113:6</p> <p><b>monitoring</b> 121:7</p> <p><b>monolingual</b> 55:11 56:2 79:8,16</p> <p><b>montezuma</b> 2:13</p> <p><b>month</b> 17:21 77:18</p> <p><b>months</b> 123:25</p> <p><b>montpelier</b> 124:8</p> <p><b>moral</b> 116:15 139:2 256:3</p> <p><b>morally</b> 42:20</p> <p><b>morning</b> 13:14 13:16,17 16:24 17:3,7 25:12</p>
---	---	---	--

[morning - name]

<p>26:6,22 27:7,8                  27:13 30:19,25                  32:1,16 35:9                  50:15 55:23                  66:13 68:19                  71:20 80:2                  82:21 86:10                  93:13 94:6                  99:12,23 102:3                  102:4,20                  104:12 106:14                  106:21 112:8                  117:6 127:13                  127:14 140:16                  147:25 156:1                  166:1 172:8                  186:2 226:9                  278:15,24                  284:3,8 285:5                  285:8  <b>mother</b> 39:7                  62:5 89:25                  100:6 134:13                  134:25  <b>mother's</b> 67:21  <b>mothers</b> 135:7                  150:1 152:20  <b>motion</b> 14:1                  15:5,13,25                  16:2,3 18:2                  20:3,4,22,24                  21:12,25 22:1                  157:1 181:12  <b>motioning</b>                  20:16</p>	<p><b>motions</b> 24:7                  28:10,15  <b>mouthful</b>                  166:25  <b>move</b> 14:2 15:6                  16:4,15 18:13                  18:20 19:14,24                  36:19 38:17                  40:15 41:8                  44:13 46:22                  53:9 56:14                  58:3 61:7                  63:11 68:17                  84:6 85:24                  114:7 116:19                  136:3 163:25                  180:21 184:6                  251:21 255:14  <b>moved</b> 15:19                  16:16 19:6                  71:22 255:17                  260:20  <b>moves</b> 229:4  <b>moving</b> 16:18                  31:4 88:1                  255:20  <b>mulcahey</b>                  165:21,22  <b>mulcahy</b> 4:3                  9:5,10 27:7,9                  176:8,18,19                  177:21,22                  178:22 181:6,7                  181:8,17 182:3                  182:4 183:25</p>	<p>184:8,17                  185:25 186:11                  187:13,15                  190:14 192:10                  192:23,24                  193:2 194:11                  195:25 200:12                  205:21,24                  206:5,19,23  <b>mulcahy's</b>                  186:3  <b>multiple</b> 15:1                  15:10 16:7                  20:21 29:14                  80:14 131:25                  194:6 197:23                  200:1 204:16                  204:17,18                  209:11 213:14                  218:2 221:9                  222:19 239:22                  239:22  <b>municipal</b> 65:3  <b>murder</b> 46:6  <b>mutagens</b>                  134:20  <b>mute</b> 61:12  <b>muted</b> 63:13                  114:9,10  <b>mykayla</b> 7:15                  110:3</p>	<p>38:23 41:13,16                  44:19,19 47:13                  56:20 58:12                  61:17 63:18                  66:7,7 69:4                  71:14,14 74:2                  76:13,13 82:15                  82:15 88:9                  93:25 99:13                  102:7 106:15                  109:6 111:22                  114:12 116:25                  119:20 130:22                  130:22,23                  133:24 136:18                  136:18,19,19                  139:15,16                  227:4 259:16                  259:17  <b>name</b> 13:9,17                  21:15,19 25:12                  26:1 32:6 35:8                  35:11 36:25                  37:1 38:21                  41:9,15 44:18                  46:22 47:12                  50:24 53:18                  56:19 58:10                  61:8,15 63:16                  63:17 66:5,13                  68:25 69:2,4                  71:12,13,21                  73:25 74:2,14                  76:11,12,19                  79:19 80:2</p>
		<b>n</b>	
		<p><b>n</b> 2:1 3:1 4:1                  5:1 12:22,22                  13:1 37:2</p>	

[name - neighbor]

82:13,22 86:2 86:11 87:19 88:7 89:23 93:21,23,24 94:7 96:25 97:1 99:11,12 100:6 102:5,6 102:20 104:2 104:12 105:25 106:12,14 109:3,5 110:2 111:19,22 114:9 116:23 116:24 117:8 119:18,20 126:23 128:3,5 130:20 133:22 136:17 137:1 139:13,15,16 141:2 179:10 227:1,2 233:7 284:24 <b>name's</b> 27:1 32:9 69:3 123:9 <b>named</b> 131:20 <b>names</b> 36:20 38:9,10 142:11 <b>nancy</b> 5:24 8:6 36:21 130:17 130:21 <b>nanogram</b> 118:2,9,11 <b>nanograms</b> 118:3,6,10,12	<b>nanometers</b> 264:12 <b>narrative</b> 29:3 <b>narrow</b> 252:20 254:19,20 <b>narrower</b> 207:7 <b>nation</b> 46:1 85:8 126:6 270:14 283:3 <b>national</b> 35:25 39:11 59:6 60:15 64:9 133:3 265:22 <b>nationwide</b> 243:4 <b>native</b> 42:5 128:5 <b>natural</b> 38:2,3 74:24 177:3,17 279:3 <b>nature</b> 279:3 <b>nausea</b> 245:8 246:13 <b>navajo</b> 85:8 137:3 270:14 283:3 <b>navajos</b> 283:2 <b>navigate</b> 79:9 <b>near</b> 59:3 64:3 91:6 124:18 189:21 204:24 214:17 220:16 221:14 222:9 222:20 245:12	262:12 270:7 274:20 <b>nearby</b> 64:9 199:19 201:3 214:24,25 222:18 223:10 <b>nearly</b> 65:15 <b>necessarily</b> 155:19 156:23 217:16 220:3 221:18 253:21 267:11 <b>necessary</b> 91:18 101:8 119:11 153:9 157:15 158:12 161:19 162:19 162:25 163:6 163:11 165:10 171:19 175:18 215:23 216:4 218:3 <b>necessitate</b> 159:20 <b>necessitated</b> 15:25 <b>necessity</b> 100:9 139:2 <b>ned</b> 146:6 <b>nee</b> 26:12,13 155:18 191:23 <b>nee's</b> 140:22 <b>need</b> 14:21 15:3 17:25 20:8,10 20:11,18 22:20	22:22 23:14 24:5,7 28:3 33:1 40:25 41:2 43:20 50:4 57:2 68:13 73:15,16 73:17 74:22 75:17,18 82:3 91:23 99:25 109:12 113:10 118:23 122:5 133:6 137:6 145:12 148:18 163:14,25 185:8 201:12 207:7 224:22 252:9 255:11 258:19 266:15 276:18 277:4 277:13 282:5 283:15 284:12 <b>needed</b> 154:8 174:12,25 <b>needing</b> 39:14 <b>needs</b> 84:15 107:6 113:6,8 154:5 162:5 169:23 170:6 <b>nefarious</b> 135:8 <b>negative</b> 120:15 <b>negligence</b> 60:15 <b>neighbor</b> 54:19
--	---	--	--

[neighbor's - nine]

<b>neighbor's</b> 59:25	36:8,8 37:8,12 37:14 38:13	132:7 134:10 137:1 138:3,5	262:20,21 263:13 268:10
<b>neighborhood</b> 59:24 131:10	39:9,10,17,24 45:24 46:17	138:22 139:4 141:24 142:5	269:1 270:10 270:13 271:13
<b>neighbors</b> 57:25 64:14 73:1 105:1	47:22 52:5,13 55:4 57:23 62:1 63:8	142:14 143:23 144:1 146:8,11 146:15,17	272:1 274:25 276:18,19,25 277:2,9,10,24
<b>neither</b> 141:16 185:12 286:11 287:7	65:12,15,22 68:14 69:18 70:21 71:7	147:6,7,10,21 147:23 148:8 150:3 151:16	278:11,17 279:4 280:1,8 281:14 282:8,9
<b>nell</b> 7:19 116:20,24 117:8	72:16 73:3 74:15,17,20 75:4 76:8 77:2	153:20 166:20 166:22 167:1 167:17 171:25	282:13,22,24 283:3,6,7 286:19
<b>network</b> 125:18	77:5,15,24 78:6,25 80:12	172:3,4,19,24 173:10 174:23	<b>newly</b> 112:9 203:2
<b>neuroinflamm...</b> 115:19	80:23 81:17 83:11 84:22	189:20 195:21 195:25 196:13	<b>news</b> 123:24 125:21
<b>neurologic</b> 51:23	85:7 86:14,19 87:5,23 94:9	196:21 197:1,3 197:10 198:12	<b>newspeak</b> 107:9
<b>neurotoxicity</b> 237:24	94:17,20 95:4 96:1,13,20	198:22,24 207:6 209:21	<b>nice</b> 258:15
<b>never</b> 16:16 38:2 68:7,8,10 70:3	97:16 99:2 100:20 102:23	209:23,24 211:19 213:24	<b>nicholas</b> 8:17 27:1
<b>nevertheless</b> 174:9	104:14 105:2 105:16 106:5	216:11 217:1,6 217:9 218:15	<b>nick</b> 26:20
<b>new</b> 1:1 2:4 3:20 5:12,14 5:16,18,20 8:15 16:22 25:6 26:10 27:2,5 32:22 32:24 33:3,5 33:10,17 34:3 34:3,20 36:4,6	109:6 110:17 110:21 111:11 112:6 113:9,15 114:24 116:17 117:9,12,16,24 118:4 121:16 121:22 123:17 124:19 128:17 129:2,5,8 130:3 131:19	218:24 219:3,4 219:15 220:20 221:20 222:6 223:6,11,12 224:8 234:5 245:14 250:4 252:8 256:6 259:15 260:2 260:17,25 261:3,4 262:8	<b>nickname</b> 45:5 90:22 <b>nieto</b> 7:2 71:13 71:14,17,20,21 73:24 <b>nihilistic</b> 107:25 <b>nine</b> 91:24 191:4,5 208:11 253:11 268:15

[niosh - numbers]

<p><b>niosh</b> 265:21  <b>nitrate</b> 64:4  <b>nitrogen</b>  267:16  <b>nm</b> 1:13 2:6,14  2:22 3:6,14,22  4:6,14,22 5:6  <b>nmdoj.gov</b> 2:7  <b>nmocc</b> 2:2  220:3  <b>nmocd</b> 3:18  <b>nmoga</b> 4:2,18  27:5,10 33:16  34:7 142:4,7  147:14 148:10  148:23 150:6  150:15 151:22  152:11,15  153:25 161:4  165:21 166:3,9  166:14 167:3,4  167:6,22  168:15,16  169:5 170:13  170:17,23  171:3,8 174:1  174:10 175:1,4  175:6,8 177:23  178:9 182:5  183:10 187:16  187:18 192:14  198:11 219:10  229:14 231:3  252:16</p>	<p><b>nmoga's</b>  148:19 153:16  161:25 168:20  174:20 177:25  178:1,3,7  186:19 198:10  <b>nobody's</b> 49:2  267:15  <b>nodiah</b> 6:4 41:8  41:9,11,15  46:23  <b>non</b> 54:24  161:12 226:5,6  226:8 259:15  <b>nondomestic</b>  143:16 148:13  151:24 153:21  154:2,5,14,16  175:22,23  176:2 177:1,7  177:10,14  <b>nonnegotiable</b>  76:4  <b>nonprofits</b>  41:25  <b>nonpublic</b>  226:8  <b>nonstandard</b>  16:21  <b>nonstick</b> 68:1  90:16  <b>nontoxic</b>  264:20  <b>nonvaluable</b>  284:15</p>	<p><b>nope</b> 30:11  <b>norm</b> 32:17  78:18  <b>norman</b> 5:22  32:10  <b>north</b> 3:5 4:5  4:21 5:5 35:21  279:3  <b>northeast</b>  112:6  <b>northern</b> 39:6  39:10 77:15  113:15  <b>northwest</b> 2:21  52:13 69:18  <b>northwestern</b>  85:7  <b>notable</b> 152:11  <b>notary</b> 286:18  <b>note</b> 92:16  107:13 132:8  141:18 146:14  250:25  <b>noted</b> 17:16  21:25  <b>notes</b> 14:7  278:2  <b>notice</b> 23:16  35:13 140:9  163:9  <b>noticed</b> 163:15  <b>notification</b>  59:15 142:23  153:8 201:9,10  252:11</p>	<p><b>notifications</b>  204:8 269:2  <b>notify</b> 268:11  <b>notifying</b>  268:22  <b>notwithstandi...</b>  55:19  <b>novel</b> 207:18  <b>november</b> 1:7  13:25 14:15  15:3 125:18,25  <b>novo</b> 17:24  18:7  <b>ns</b> 130:17  <b>nuance</b> 163:1  238:17  <b>nuclear</b> 105:17  <b>nuevo</b> 128:5  <b>nullify</b> 151:21  <b>number</b> 14:4  15:14 16:19,20  18:12 21:7  25:2,14 104:19  111:18 114:7  116:20 123:6  128:16 154:24  154:25 161:6  184:21 198:13  214:16 215:19  222:2,7 223:16  225:8 229:23  260:7,18  272:11  <b>numbers</b>  131:22 142:12</p>
--	---	--	---

[numbers - officer]

<p>153:1 191:4 225:8 229:23 260:10 <b>numerous</b> 137:25 161:17 169:7 184:21 185:16 281:13 <b>nurse</b> 244:17 244:18</p>	<p>182:25 187:12 189:22 206:1,7 206:9,13,15 <b>objections</b> 181:4 190:25 229:13,14,17 <b>objective</b> 242:14 <b>obligation</b> 37:10 <b>obscure</b> 81:16 118:22 <b>observance</b> 159:17 <b>observers</b> 156:19 <b>obtain</b> 162:25 162:25 174:19 <b>obvious</b> 68:11 <b>obviously</b> 71:4 92:14 142:13 190:22 <b>occ</b> 13:21 41:23 42:9 53:1 129:24 130:5 139:24 153:17 <b>occidental</b> 33:20 <b>occupational</b> 256:10,12 265:22 <b>occur</b> 73:10 130:2 161:10 239:24 242:9 245:17,18</p>	<p><b>occurred</b> 254:11 <b>occurring</b> 57:8 109:23 239:23 241:17 250:4 250:10 260:3 271:4 <b>occurs</b> 146:13 220:13 250:3 <b>ocd</b> 142:20 145:23 153:16 154:5,17,19,21 154:25 155:4 156:8,9,13,16 157:14,24 158:1,8 159:17 159:18 160:8 160:18,19,23 161:14,25 162:7 163:22 164:5,8,11,14 164:17 201:12 201:24 207:5 252:16 <b>ocd's</b> 158:1 160:6,15 162:12 163:2 164:3,24 165:8 <b>ocean</b> 276:20 <b>october</b> 15:4 124:13 132:14 <b>offer</b> 28:2 31:25 56:3 68:19 71:11 93:17 104:1</p>	<p>122:13,17 133:13 136:9 136:12 139:8 186:14 187:11 189:18 190:3 190:20 191:2 191:10 225:4 225:23 226:1,2 226:10 227:17 <b>offered</b> 30:22 186:8 189:20 190:5 191:1 225:11 <b>offering</b> 140:7 <b>offers</b> 77:22 <b>office</b> 13:21 17:9 199:20 202:22 257:6 <b>officer</b> 5:11 25:8,11,13 26:7,9,17,19,24 27:4,8,11,20 30:13,15,16 31:5,12 32:11 32:14,17 34:24 35:7,14,16,20 36:18,24 37:3 37:6 38:16,20 38:24 39:2 41:7,11,14,17 41:20 44:2,9 44:13,17,20,23 46:21 47:2,7 47:14,17 49:9 50:21 51:1,4</p>
<b>o</b>			
<p><b>o</b> 12:22,22 13:1 35:12 41:16 44:19,19 47:13 50:25,25 61:17 63:18 71:14 76:13 79:21 82:15 97:2 99:13 102:7 104:5 114:12 136:19,19 179:12 227:3,4 <b>o'clock</b> 59:9 91:24 122:24 <b>oath</b> 29:6 139:3 <b>obesity</b> 91:2 <b>obfuscated</b> 116:2 <b>obfuscation</b> 107:7 <b>object</b> 33:25 182:5 <b>objecting</b> 27:17 54:25 <b>objection</b> 31:8 181:9,11</p>			

**[officer - oil]**

53:8,13,16	123:10,13	229:20,25	68:12,14 70:8
55:5 56:13,17	126:1,14,22	230:3,9,13,18	72:19 73:16
56:22,25 58:2	127:10 128:2,7	231:6 243:18	74:23 75:9,20
58:6,9,13,16,20	128:10 130:15	243:23 244:1	77:3 79:1 80:7
61:6,11,18,21	130:19,24	251:17,20	80:13,22 81:5
63:10,15,19,21	131:2 133:11	259:9 269:22	81:20 82:8
63:24 65:24	133:18,21,25	283:10,17,20	84:21 85:12,17
66:4,8,11	134:3 135:22	284:6,18,23	87:6,17,23
68:16 69:5,8	135:25 136:6	285:1,6 286:2	97:25 98:5,8
71:9,15,18	136:16,20,23	<b>offices</b> 278:19	98:23,24
73:23 74:3,6	139:6,12,17,20	<b>official</b> 14:21	100:19 101:24
76:9,14,17	140:5,18 141:1	<b>officially</b> 13:8	104:14 105:5
79:17,22,25	155:17,24	<b>officials</b> 42:24	107:14 112:9
82:11,16,19	165:13,18,23	43:16 134:18	112:24 113:13
85:14,22 86:5	177:20 178:21	152:19	117:9,14
86:8 88:6,11	179:1,5 180:21	<b>oh</b> 36:21	120:10 122:1
88:14,18 89:1	181:3,7,9,16,23	195:19 224:24	126:7 128:6,13
89:5,11,15,19	182:2,5,23	225:20 252:18	129:8,25 130:6
91:22 92:2,6	183:23 184:18	<b>oil</b> 1:2 2:10	130:14 131:14
93:8 94:1,4	185:21,22	3:20 5:13,15	131:15 133:1,5
96:24 97:3,6	186:1,16	5:17,19,20	133:8 137:1
99:10,14,17,22	187:10,14,15	8:16 13:11,12	138:5,22
100:3 101:25	188:13,16	17:5 21:23	141:25 143:22
102:4,8,11,17	189:9,10,17	25:13,19 26:14	144:1,5,14
103:24 104:6,9	191:8,20 192:8	26:18 27:5	145:7,8,20
106:9,16,19	192:17,22	33:15 35:4,22	146:24 148:22
108:24 109:7	194:13,18,22	37:8,11 38:7	149:11 150:1,9
109:24 110:5,8	195:1,5,7	38:14 40:9	150:16 153:24
111:15,23	205:21,23	45:1,11,15,25	154:3,22 155:2
112:2,6 114:6	206:3,14,22,24	46:8,15,16	155:6 157:5
114:14,17	212:14 224:21	48:2,3,18,20	158:5,9 159:7
116:11,18,22	225:15,18	49:23 51:8	159:10,11
117:1,4 119:13	226:16,21	53:4 60:22	160:10 161:12
119:17,21,24	227:11,15,21	61:2 62:12	162:13 163:4
122:11 123:2,5	229:3,12,15,16	63:7 67:10,11	166:7,16 169:8

**[oil - operations]**

169:17 170:8 170:14,16 173:24 175:24 176:5 177:2,13 177:17 178:18 193:10,13 195:20,24 196:13,14,21 197:1,6,19 200:9 203:3,18 203:19 204:4 204:18 207:5 209:10,25 210:6 211:6,20 212:4,23 213:2 213:9,17 214:4 214:8,17,22,24 215:3,11,21 216:2,6,10,16 216:23 217:10 217:12 218:7 218:15 219:9 220:14,24 221:4,14 222:9 222:18,20,22 223:2,5,9,14,20 234:22 242:17 243:8 248:4 256:14 263:4 268:7,25 270:7 270:11 271:3 271:25 272:6 272:19 277:25 278:1,7,10 281:13 282:16	<b>okay</b> 13:2 14:6 14:10,19,20 16:9,16 18:9 18:15,18,22 19:2,4,7,11,23 19:24 20:4,13 22:3,4,17 23:1 23:5,13 24:11 24:16,19 25:1 26:12 30:11 35:20 41:14 46:24 47:19 58:18 63:20 64:1 74:13 86:5 89:1,9,15 102:17 110:5 110:10 123:3 123:10 140:17 176:17,19 181:3,23 182:2 185:22 187:10 190:10 191:1 192:22 193:8 193:17 194:8 195:5,8 198:2 198:10 199:16 206:23 207:13 210:17,21 223:16 224:20 224:21 227:19 227:20,21 229:16 232:10 232:20,24 233:2,6,20,24 234:10,20	235:2 236:19 237:18 239:25 240:20 241:2 242:3 243:5,13 243:15 244:7 244:12 245:19 246:21 247:3 249:24 250:2,6 252:1 254:18 257:2 260:1 261:14,22 262:13 263:2 263:21 264:14 264:24 265:6 265:11 266:2,7 266:9 267:6,10 267:23 268:2 268:21 269:6 269:22 272:3 278:6 284:23 285:1,6 <b>old</b> 53:23 131:5 <b>once</b> 25:9 31:13 67:18 115:1 154:9 161:9 258:1 275:24 <b>ones</b> 70:23 144:6 150:17 208:23 209:6 253:5 254:11 254:12 266:23 <b>online</b> 65:25 85:25 271:20 275:16	<b>op</b> 142:4,7 147:14,16 <b>open</b> 59:9 201:16 204:12 273:4 274:5,20 <b>opening</b> 9:3,4,5 29:15 30:6 122:23 127:8 127:17 136:3 140:20,21 155:19 165:15 177:23 <b>operated</b> 272:19 282:21 <b>operating</b> 2:10 2:18 16:21 17:4 37:14 <b>operation</b> 200:5 <b>operations</b> 37:16,23 42:11 45:1,3,12,15 51:10 53:6 73:16 75:20 78:13 79:2 82:9 85:17 87:24 98:25 99:1 100:19 101:24 119:6 120:11 129:8 129:25 130:14 133:2,8,9 141:5,7,16 142:18 143:1,8 143:9,23 144:5
---	--	---	---

[operations - own]

<p>144:25 146:2  149:11 154:7  155:10,14  158:13 159:10  159:11 163:21  166:18 167:1  169:8,18  173:24 178:19  195:21 210:1  213:9 214:4,9  216:2 217:13  222:18,21  223:3,5,8  242:17 243:8  268:8 271:3  272:1,6 278:1  278:1,7,11  281:14 282:16</p> <p><b>operator</b>  162:18,18</p> <p><b>operators</b> 34:6  34:15 65:4  81:5 120:10  144:1 154:22  154:23 157:13  162:9,10,16,20  162:24 163:3  170:14 174:11  196:13 220:2  223:20 224:12</p> <p><b>opine</b> 182:14  182:16,18</p> <p><b>opines</b> 185:8</p> <p><b>opinion</b> 68:8  255:24 268:22</p>	<p><b>opinions</b> 49:19  50:11</p> <p><b>opportunities</b>  68:20 93:19  122:18 127:13  139:9 226:2</p> <p><b>opportunity</b>  31:9 41:23  60:23 90:1  92:3 99:20  130:11 143:5  148:7 150:23  155:10 226:8</p> <p><b>opposed</b> 20:22  33:1 237:3</p> <p><b>opposition</b>  57:16</p> <p><b>option</b> 108:1</p> <p><b>oral</b> 181:12</p> <p><b>oranges</b> 261:23  261:24</p> <p><b>order</b> 26:2  28:23 42:15  49:13 116:3  129:9 141:7  142:17 153:3  154:4 160:18  184:5 191:22  192:5,6,12,19  192:23 283:23  284:5</p> <p><b>orders</b> 24:7</p> <p><b>ordinarily</b>  26:20</p>	<p><b>organ</b> 253:20  253:21 258:17  275:11</p> <p><b>organic</b> 63:5</p> <p><b>organism</b>  110:24</p> <p><b>organization</b>  33:5 39:12  55:9 69:13  110:12 123:18  195:21 242:22  242:23</p> <p><b>organized</b>  204:10,22</p> <p><b>organizing</b>  125:6</p> <p><b>original</b> 55:7  156:17 238:13</p> <p><b>originally</b> 74:9  188:1</p> <p><b>originated</b>  214:21</p> <p><b>originates</b>  163:4</p> <p><b>orth</b> 5:11 25:8  25:9,10 47:11  109:10 112:7  191:6</p> <p><b>ortho</b> 25:12</p> <p><b>osha</b> 174:16,16  236:9</p> <p><b>ought</b> 190:11  279:15</p> <p><b>ounces</b> 34:21  34:23</p>	<p><b>outbreak</b>  242:10 281:4,5</p> <p><b>outcome</b>  286:16 287:12</p> <p><b>outfalls</b> 215:22</p> <p><b>outgrowth</b>  163:16</p> <p><b>outlet</b> 125:21</p> <p><b>outrageous</b>  78:4</p> <p><b>outside</b> 162:13  163:4 171:1,11  207:12 209:16  243:6</p> <p><b>ovarian</b> 53:20</p> <p><b>overall</b> 258:3</p> <p><b>overly</b> 170:8</p> <p><b>overnight</b>  284:15</p> <p><b>override</b> 98:9</p> <p><b>overseers</b>  134:19</p> <p><b>overturns</b>  121:19</p> <p><b>overwhelmed</b>  74:22</p> <p><b>overwhelming</b>  146:10</p> <p><b>own</b> 36:3 37:21  40:13 59:25  75:11 79:9  84:1 98:19  102:15 115:9  134:17,18,25  184:13 186:19</p>
---	---	--	---

[own - pat]

<p>187:23 188:5 209:3 211:3 <b>owners</b> 171:12 <b>ownership</b> 134:23 <b>oxide</b> 267:16 <b>oxy</b> 33:19</p>	<p><b>pain</b> 115:6 246:10,13 <b>pains</b> 115:5 <b>painted</b> 34:1 <b>pandering</b> 107:5 <b>panel</b> 203:14 232:6 234:4 <b>paper</b> 185:2,15 213:10 214:12 238:4,22,25 239:2 240:20 240:22 241:1 <b>papers</b> 233:25 234:3 238:12 238:13 241:1 280:22,25 <b>paragraph</b> 189:7,7 268:9 <b>parallels</b> 138:11 <b>pardon</b> 40:19 156:2 263:7 <b>parent</b> 53:19 <b>parents</b> 84:8 <b>parkersburg</b> 215:2 <b>part</b> 16:13 26:10 70:21 92:20 100:7 126:17 146:5 157:7,8 160:4 160:8 183:25 185:22 190:3 190:20 191:2,9</p>	<p>199:16 206:8 268:12 279:19 <b>partial</b> 81:25 148:25 149:2 <b>participant</b> 8:17 <b>participation</b> 156:19 <b>particles</b> 65:6 <b>particular</b> 16:23 67:16 94:23 156:15 159:23 160:19 203:10 220:17 223:18 266:12 268:9 279:14 <b>particularly</b> 69:19 80:22 91:8 95:14 117:10 135:8 137:8 157:2 206:2 219:4 263:22 <b>particulate</b> 263:24 264:7 264:15,16,19 264:21 265:3,9 <b>parties</b> 18:6 19:18 20:3 21:13 23:17 24:5 25:24 27:22 28:5,21 29:9,23 30:18 31:7 92:7,10 93:2 127:2</p>	<p>140:19 156:4 164:2 165:24 181:4 191:19 191:21 192:12 200:4 201:17 206:17 229:25 286:12,14 287:8,11 <b>partly</b> 274:11 <b>partner</b> 54:23 <b>parts</b> 94:13 181:9,11,13,14 253:1 <b>party</b> 26:13 140:20 161:13 187:11 192:15 192:15 202:17 <b>party's</b> 92:11 <b>paseo</b> 3:13 <b>pass</b> 13:12 72:15 84:8 108:17 <b>passed</b> 20:24 92:15 111:5 151:18 153:14 168:22 <b>passes</b> 20:23 <b>passing</b> 73:21 130:13 <b>past</b> 135:12 138:12 139:1 <b>pastor</b> 53:19 134:8 <b>pat</b> 7:16 111:21</p>
<b>p</b>			
<p><b>p</b> 2:1,1 3:1,1 4:1,1 5:1,1 13:1 47:13 56:20 58:12,12 76:13 79:21 88:9 109:6 <b>p.m.</b> 285:10 <b>pa</b> 3:12 <b>pace</b> 170:3 <b>page</b> 9:2 12:23 14:4 152:14 173:25 183:25 185:7 212:20 221:11,22,23 222:1 225:8 229:23 232:18 234:13,16,19 237:16 241:2,7 241:15 244:8 244:11 248:23 259:13 260:13 260:14,18 266:15 268:5 270:3 272:4,4 274:21,22 <b>pages</b> 225:9 230:12</p>			

[patch - periphery]

<p><b>patch</b> 204:5  <b>patent</b> 213:15  <b>path</b> 109:22  <b>pathway</b> 146:3  159:8 273:4  274:6,11  275:19  <b>pathways</b>  51:21 158:23  182:19 188:7  196:25 209:11  209:25 217:14  218:2 272:4,13  272:16,23  274:8,9,20  279:6,8  <b>patience</b>  156:20  <b>patient</b> 258:20  <b>patients</b> 149:13  <b>patricia</b> 111:18  <b>pattern</b> 60:23  115:25 173:4  251:12  <b>patterns</b>  251:13  <b>paul</b> 6:8 46:24  47:13 176:14  <b>pause</b> 49:12  181:21  <b>pausing</b> 52:5  <b>pay</b> 46:4 49:4  <b>pbex</b> 3:2 17:10  17:22,23 18:6</p>	<p><b>pe</b> 178:3  <b>peace</b> 108:16  112:5  <b>pecos</b> 1:11  <b>peer</b> 149:10  214:12  <b>peg</b> 199:8  <b>pending</b> 16:18  17:17,18  <b>peng</b> 178:3  <b>pennsylvania</b>  145:10 202:3,6  205:12 215:16  215:18 221:16  222:5 223:1  241:10,17  242:5,8,18,19  243:2,6,9,12  245:12 247:18  249:14,19,19  250:3 255:16  256:19 259:14  260:4,16 261:1  262:9,18,19  265:17 268:11  269:13 270:20  270:21,25  271:5,21  273:21 274:1  278:13,18  279:1,4,25  280:13 281:22  282:19  <b>people</b> 16:14  27:1 40:16,24</p>	<p>43:25 45:24  47:21 48:21  49:7 52:10  54:10 57:23  63:8 69:12,19  70:19 75:8  76:22 78:20  83:5 84:22  86:13,24 87:23  94:25 95:11  97:21 98:4,9  98:20 100:14  105:1,4,19  109:20 110:16  114:21,23  115:17,18  120:15 124:22  132:3,11,19  137:19,21  199:18 200:9  200:21,23  202:13 205:2  236:9 239:12  239:19 241:19  242:10 244:19  245:4,11,13,15  247:23 248:16  249:7 250:22  251:6,8,14  254:2 255:6,16  255:20 256:6  256:20 259:5  260:22 262:7,9  267:16 268:16  269:9 271:19</p>	<p>274:18,19  276:4,7,13  277:15 278:16  278:18,19,25  279:7,8,8  280:5 281:24  <b>people's</b> 54:7  103:7 105:24  113:17 137:17  265:19  <b>peralta</b> 3:13  <b>percent</b> 39:25  53:25 72:16  75:4 77:25  80:24 97:13  101:1 103:5  121:3 128:17  129:5 146:7  197:21,21,22  197:22  <b>perfect</b> 179:1  <b>perfluoro</b>  166:4  <b>perfluoroalkyl</b>  25:17  <b>performed</b>  252:9  <b>performing</b>  247:16,25  <b>period</b> 78:15  195:24 196:12  196:17 199:13  200:20  <b>periphery</b>  159:3</p>
--	--	--	--

[perish - pfas]

<p><b>perish</b> 42:18  <b>permanence</b>  37:24  <b>permanently</b>  60:17 155:4  <b>permian</b> 52:14  202:12 213:25  <b>permit</b> 101:10  154:25 160:4  <b>permitting</b>  121:7 153:20  <b>perpetual</b> 87:2  <b>persist</b> 72:6  94:11  <b>persistence</b>  80:21 90:20  137:24  <b>persists</b> 80:19  <b>person</b> 31:17  45:18 66:18  71:23 74:21  84:14 110:23  145:3 195:16  244:21 269:3  274:4  <b>personal</b> 72:12  108:10 124:20  231:13  <b>personally</b>  255:19  <b>personnel</b>  149:25  <b>perspective</b>  161:24 211:3  252:5</p>	<p><b>pertain</b> 231:24  <b>pertinent</b> 38:4  <b>pests</b> 131:12  <b>petition</b> 77:2  77:22 100:18  104:16 106:2  141:3 153:9  156:5,15 158:2  158:3 160:7  162:6 163:16  163:23 164:12  165:1 218:14  <b>petition's</b> 162:3  <b>petitioner</b>  21:20 26:5  156:12,15  171:10  <b>petitioner's</b>  170:24 171:6  171:16 172:1  173:7 177:6  <b>petitioners</b>  173:15,21  175:25  <b>pfas</b> 25:4,18  33:1,14,18  34:6,13,20,21  35:4,5 36:3,8  39:20 40:4,11  42:10,14 45:1  45:3,10,14,15  45:20,21,22  46:17 51:8,11  51:19 52:18,21  52:22 53:4</p>	<p>57:4,6,15  58:24 59:12,24  60:1,3,5,8 61:1  62:11 63:1  64:11 65:11,18  65:21 66:16,19  66:23 67:3,9  67:15,20 68:3  68:8 72:5,13  72:19 73:9,10  73:15 74:20  75:2,20 77:3  77:25 78:5,14  79:1 80:10,12  80:17,19 81:1  81:5,9,11,19,19  82:8 84:2,5,12  85:12,17 86:21  87:4,23 90:12  90:15,20,23,25  91:4,9,12,16  94:9,15,21  95:5,8,22,25  96:7,9,15,19  97:18,22 98:24  100:13,19,22  101:3,23  102:22,23  103:1,10,19,20  103:23 104:24  105:3,5 109:15  110:13 113:3  113:10 114:2  115:12,13  117:10,11,17</p>	<p>117:21 118:7  118:17,20,22  119:4,5 122:8  123:24 124:1,2  124:9,11,13,20  124:22,24  125:4,5,7,8,11  125:12,12,14  125:15,19,22  125:23 126:5,9  128:16 129:5,7  129:13,20,23  129:25 130:13  132:11,20,23  133:5,7 134:15  135:1,8 137:5  137:22,24  138:7,13,21  139:1 140:2  141:4,11,12  142:17,25  143:8,21,25  144:6,7,22  145:12 147:18  147:21 150:6,7  150:9,12,16  152:2 155:7,9  155:13,15  157:8,9,11,12  157:21,22,23  158:7,12,18  159:6,7,12  160:3,16 161:2  161:11,11,20  162:15 163:3</p>
--	---	--	---

[pfas - play]

163:13 164:8 166:5,12,17,21 167:3,5,8,10,10 167:20,23 168:10,12,16 168:17,21,23 169:3,6,7,9,16 169:20 170:2,5 170:7,12,15 173:13 176:1 177:24 178:18 182:10,15,17 182:19 184:1 185:11,18 187:21,22 189:15 195:20 195:25 196:5,6 196:15,18,23 196:24 197:2,9 198:1 199:11 199:13 206:2 207:8,8 208:12 208:21 210:18 210:19,24 211:5,16,20 212:9 213:2,8 213:13,16,19 214:1,8,19,21 214:25 215:3 215:10,13,17 215:18,20 216:2,11,13 217:4 218:7 221:13 222:8 222:17,19	223:2,12,15 232:4,4,7 233:4 234:1 237:23 239:1,5 239:5,6,6,17 248:1,4 252:7 252:14,23,23 254:1 255:13 265:19 266:1,3 266:5,11,11,13 266:18,22 267:2,8,11,15 268:1,1,24 270:22 271:25 272:22,25 273:1,2,7,11,14 278:5 281:10 <b>pfax</b> 107:2 <b>pfoa</b> 45:1,3 51:14 62:11 118:8 129:5,7 129:21,24 130:14 133:7 <b>pfos</b> 51:12 118:11 <b>ph.d.</b> 178:3,5 187:20 <b>phone</b> 123:6 <b>photographer</b> 69:13 <b>phrased</b> 54:20 <b>phraseology</b> 233:3 <b>physician</b> 51:6	<b>physicians</b> 78:7 80:11 81:10 119:2 166:19 195:22 210:9 213:11 281:23 <b>physiology</b> 253:14 <b>picture</b> 34:2 <b>piece</b> 253:24 257:11 <b>pink</b> 184:1 206:17 <b>pinned</b> 226:18 <b>pino</b> 6:8 46:24 47:3,9,11,13,13 47:16,19 49:10 <b>pipe</b> 258:10 <b>pipelines</b> 70:9 85:5 <b>pit</b> 154:18,23 209:22,23 <b>pits</b> 217:10 <b>place</b> 40:2 45:18 50:8 56:9 70:10 130:6 153:23 154:12 174:18 257:8 <b>placenta</b> 67:21 <b>places</b> 245:16 <b>placing</b> 95:23 <b>plaid</b> 68:20 <b>plain</b> 172:15 <b>plan</b> 22:10 56:5 56:5 64:10	70:2,4,15 71:5 89:6 <b>planet</b> 36:11 42:16 72:2 97:12 <b>planetary</b> 108:10 <b>planned</b> 13:5 261:5 <b>planning</b> 127:6 <b>plant</b> 124:9 189:21 <b>plants</b> 133:1,2 169:12 <b>plastic</b> 132:25 <b>platform</b> 26:20 28:2 31:15 35:2 36:19 49:18 50:15 93:16 109:1 110:1 111:17 122:13,14 127:21 133:13 136:11 139:7 140:6,11 145:16 170:19 225:4,10,14,24 226:7 285:2 <b>plausible</b> 237:11 239:16 240:3 <b>plausibly</b> 239:15 256:20 <b>play</b> 134:23
--	--	---	---

[plays - possibility]

<p><b>plays</b> 83:7,18  <b>plead</b> 138:22  <b>please</b> 13:23  15:9 21:16  31:15 32:5  34:25 35:8  36:25 38:21  41:1 44:14,18  47:4,12 49:6  50:18 53:3,9  58:3,10,17  61:12 62:16,16  63:16 64:2  66:5 68:24  71:11 76:7,10  79:19 82:13  85:14,17 86:2  88:7 93:20  99:8 102:5  109:4 113:21  114:1,9 116:12  119:18 122:14  123:7 126:2,18  126:23 128:3  133:22 136:7  136:13,17  139:13 140:11  140:13 179:10  181:5,18  186:16 190:15  190:21,21  191:4 198:6  221:22 226:10  226:13,25  230:6 247:6</p>	<p>257:19  <b>plight</b> 135:6  <b>plot</b> 131:9  <b>plume</b> 35:25  <b>plummet</b>  131:22  <b>plus</b> 42:12 44:6  202:12  <b>pm</b> 264:5  <b>pm2.5</b> 263:24  263:24 264:2  265:9  <b>poder</b> 102:21  104:13  <b>point</b> 17:17  20:25 22:13  24:10 35:5  44:4 49:20,20  88:19 111:7  127:22 131:23  144:15 153:13  153:15 156:2  174:13 195:12  199:2,9 208:6  232:15 247:10  248:3,24 252:5  257:20 270:18  274:1 276:23  <b>pointed</b> 81:12  147:25  <b>pointing</b>  173:21  <b>points</b> 111:11  150:6</p>	<p><b>poison</b> 68:10  84:23 87:18  135:13 207:18  <b>poisoned</b>  103:19 107:12  <b>poisoning</b>  42:15 87:7  120:18 126:8  <b>pojoaque</b> 39:5  <b>police</b> 64:19  199:19 257:5  <b>policies</b> 96:8  111:6  <b>policy</b> 76:20  159:19 172:3  172:17,24  173:11 174:6  277:15  <b>political</b> 83:12  98:10  <b>politicians</b>  52:15  <b>pollutants</b> 43:3  <b>pollute</b> 48:2  75:10  <b>polluting</b> 73:6  77:9  <b>pollution</b> 64:5  77:7 80:7 96:9  193:13 214:25  215:4  <b>polyethylene</b>  166:24 196:2  <b>polyfluoroalk...</b>  25:17 37:23</p>	<p>51:12 90:13  166:5  <b>pond</b> 65:5  <b>pool</b> 122:4  <b>pooling</b> 16:22  <b>poor</b> 105:4  <b>population</b>  65:15 235:10  235:24 240:15  247:22 258:4  259:14,15  260:16 276:1  <b>populations</b>  52:13  <b>portion</b> 175:10  175:10 234:16  241:11,15  <b>pose</b> 75:3 196:5  201:2  <b>posed</b> 91:9  137:20  <b>poses</b> 77:25  81:23 141:12  <b>position</b> 15:20  159:19 166:8  175:15 189:13  210:21,25  219:11,12  275:18  <b>positioned</b>  78:25  <b>possession</b>  134:23 159:24  <b>possibility</b> 93:3</p>
--	--	---	---

[possible - pressure]

<p><b>possible</b> 39:15 49:25 50:20 157:4 158:23 160:16 200:23 217:12 222:23 230:14 276:3 284:2 <b>possibly</b> 24:17 160:19 204:23 237:5,13 <b>post</b> 252:10,10 <b>postcard</b> 257:11 <b>posted</b> 44:6 <b>potential</b> 72:13 90:24 121:9 146:3,12 157:8 157:14 158:19 158:25 159:8 160:3 161:10 163:8 169:7 209:11 211:21 248:1,2,22 250:25 272:13 278:23 <b>potentially</b> 22:21,25 42:17 132:19 149:6 160:22 163:5 266:19 275:20 <b>pots</b> 68:1 <b>pounds</b> 121:11 <b>poverty</b> 94:18 95:21</p>	<p><b>powell</b> 8:15 157:24 163:10 163:19 226:12 <b>power</b> 77:14 105:23 107:15 113:1 133:2 154:12,14 <b>powering</b> 68:15 <b>powers</b> 61:25 143:13 177:4 <b>practical</b> 160:17 <b>practice</b> 78:18 105:7 164:5 277:6 <b>practices</b> 64:25 171:21 <b>practitioner</b> 244:17 <b>prayers</b> 42:6 <b>pre</b> 171:16 <b>precautionary</b> 52:4 256:4 <b>precautions</b> 54:11 208:8 <b>precedes</b> 197:7 <b>precious</b> 74:18 78:25 81:4 98:7 101:16 <b>precisely</b> 218:9 <b>predictable</b> 170:10 <b>predicting</b> 261:19</p>	<p><b>predictions</b> 112:18 <b>predispositions</b> 54:1 <b>preeclampsia</b> 129:15 196:9 <b>preexisting</b> 104:21 105:9 <b>prefer</b> 99:20 102:13 190:1 <b>pregnancy</b> 72:14 124:21 <b>pregnant</b> 124:23 196:10 <b>prehearing</b> 28:5 148:10 152:14 153:16 173:25 175:3 175:16 178:6 186:4 <b>preliminary</b> 24:5,6 28:4 <b>prematurely</b> 42:18 <b>prepare</b> 179:13 179:18 180:2 227:5 228:2,11 277:21 <b>prepared</b> 29:11 233:25 234:3 234:23 266:5 287:3 <b>preparing</b> 270:9 277:22</p>	<p><b>presence</b> 91:19 94:8 95:25 202:18 265:9 <b>present</b> 5:10 6:1 7:1 8:1 16:23 21:13 22:23 39:22 40:10 65:11 85:25 122:13 132:6 135:12 143:5 149:18 149:20 169:9 212:18 223:19 233:17,19,20 237:3,7 266:11 267:5 280:11 280:13 <b>presentation</b> 191:22 192:5 <b>presentations</b> 27:21 93:3 <b>presented</b> 28:21 <b>presenting</b> 26:1 27:16 275:1 283:24 <b>preserve</b> 83:15 <b>president</b> 33:3 33:16,20 34:7 120:2 <b>pressing</b> 71:24 <b>pressure</b> 67:9 67:12 153:5 209:17</p>
--	--	---	--

[presume - products]

<p><b>presume</b> 221:24</p> <p><b>pretext</b> 101:11</p> <p><b>pretty</b> 121:25 247:22 273:13 277:8 280:22</p> <p><b>prevent</b> 38:11 45:11 46:16 57:23 97:25 129:10 130:7 143:22 144:3 151:13 208:8</p> <p><b>preventable</b> 42:22 105:20</p> <p><b>prevented</b> 33:1</p> <p><b>preventing</b> 60:23</p> <p><b>prevents</b> 155:15</p> <p><b>previous</b> 129:23 211:13</p> <p><b>price</b> 129:1</p> <p><b>primarily</b> 85:8 105:1</p> <p><b>primary</b> 23:3 248:19</p> <p><b>principle</b> 52:4 256:4</p> <p><b>principles</b> 43:18</p> <p><b>print</b> 14:6</p> <p><b>printed</b> 230:11</p> <p><b>prior</b> 31:3 50:17 217:24 286:5</p>	<p><b>prioritize</b> 65:22 98:11 138:23</p> <p><b>prioritized</b> 98:21</p> <p><b>prioritizing</b> 77:9 124:25</p> <p><b>priority</b> 43:9</p> <p><b>pristine</b> 113:14</p> <p><b>private</b> 39:7 132:17 214:13 214:15</p> <p><b>proactively</b> 79:6</p> <p><b>probable</b> 216:19 267:1</p> <p><b>probably</b> 22:24 23:25 57:2 126:4 147:16 195:9 218:24 221:19,19 234:12 250:18 252:24 282:20</p> <p><b>probed</b> 275:2</p> <p><b>problem</b> 19:13 36:14 48:8 52:19 129:13 157:9 159:1 176:19 239:17 246:12,15 248:6 255:13 258:21 266:5 267:15 268:10 268:13 280:10</p> <p><b>problems</b> 75:7 91:1 94:25</p>	<p>95:17 97:22 101:3,4 109:22 118:16 138:2 242:9 245:3,3 282:17</p> <p><b>procedural</b> 192:11</p> <p><b>procedurally</b> 177:8</p> <p><b>procedure</b> 31:3</p> <p><b>procedures</b> 25:22</p> <p><b>proceed</b> 22:16 30:7 90:8 93:11 155:22 159:11 192:12</p> <p><b>proceeding</b> 92:22 146:5 183:17 188:12 205:10 287:4</p> <p><b>proceedings</b> 286:3,5,6,9 287:6</p> <p><b>proceeds</b> 22:20</p> <p><b>process</b> 71:6 117:11 156:11 173:1,6 174:1 174:2,10,18 184:6 209:10 217:23 273:15 273:22 275:13 275:21 280:20</p> <p><b>processes</b> 62:12 63:5 132:1 145:1 163:18</p>	<p><b>processors</b> 125:10,11,13</p> <p><b>produce</b> 135:20 253:23 254:4 270:11</p> <p><b>produced</b> 33:8 33:21 34:3,13 34:14,16 52:24 143:14 148:12 148:13 151:24 153:21 154:1,4 154:13,15 176:1,23 177:7 177:9,11,12,18 236:6 250:20 273:25</p> <p><b>producer</b> 45:25</p> <p><b>producing</b> 235:9 237:14 249:17</p> <p><b>product</b> 147:4 147:6 168:19 168:20 197:17 197:19,20</p> <p><b>production</b> 41:4 46:10 61:3 63:5 105:5 157:5 177:13,16 197:6 214:22 214:24 215:12 215:21 250:7</p> <p><b>products</b> 90:16 106:24 124:21 125:12 131:13</p>
--	---	--	---

[products - propounded]

<p>131:25 132:24 197:13 203:10 <b>professional</b> 108:10 193:4 244:18 255:20 255:23 268:22 270:24 <b>professionals</b> 149:24 152:20 245:6 254:6 280:9 <b>professor</b> 144:10,11 <b>profit</b> 46:12 68:12 85:1 87:19 98:17,21 128:25 132:1 137:17 <b>profiteers</b> 129:2 <b>profits</b> 40:16 45:24 46:3 84:20 85:20 106:1 119:1 <b>profound</b> 80:19 100:8 116:15 138:17 <b>program</b> 59:10 173:1,5 257:13 257:15 <b>prohibit</b> 42:11 51:7,9 53:4,5 100:19 129:25 151:4 169:20 173:11 174:6</p>	<p>175:25 252:7 <b>prohibited</b> 37:24 <b>prohibiting</b> 98:24 159:9 166:4 <b>prohibition</b> 44:25 45:14 101:23 129:7 130:1,13 133:7 158:13,20 160:20 172:21 177:23 196:24 209:9 210:5 212:1 <b>prohibits</b> 141:20 160:21 <b>project</b> 145:10 234:23 242:2 242:25 243:1 243:14 244:13 244:14 246:1 247:2 251:1 268:15 <b>projection</b> 107:8 <b>projects</b> 121:6 <b>proliferation</b> 43:10 <b>prolonged</b> 94:15 101:2 <b>promise</b> 99:6 148:1,1,7 <b>promised</b> 43:16</p>	<p><b>promises</b> 132:2 <b>promote</b> 107:25 <b>promoting</b> 52:5 63:5 <b>promulgated</b> 160:9,21 <b>promulgating</b> 150:22 <b>prone</b> 153:6 <b>proof</b> 52:8 112:23 190:3 190:20 191:2 191:10 <b>propaganda</b> 107:5 <b>proper</b> 91:13 <b>properly</b> 153:3 154:4 <b>properties</b> 212:23,24 <b>property</b> 203:20 <b>proposal</b> 156:6 156:8,17 157:10 158:1 158:17,24 160:12,15 161:2,20 164:17 165:2,8 168:20 170:24 171:6,17 172:2 174:21 199:17 254:19 257:4</p>	<p><b>proposals</b> 161:13 <b>proposed</b> 25:15 104:15 106:1 141:11,19 142:17,19,20 142:22 143:5,6 143:11 147:2 148:6 150:7,11 150:22 151:11 151:20 153:9 155:11 156:16 157:22 158:8 158:19,21 160:7 161:3 162:7 163:7,13 166:9 167:3,6 168:4,15 169:6 169:15 171:10 173:7 174:10 175:2,5 178:1 178:8,11 189:21 201:8 208:7 211:2 213:17 252:16 261:7 262:15 262:24 <b>proposes</b> 164:8 167:4,17 168:17 171:5 <b>proposition</b> 55:14 163:5 <b>propounded</b> 167:23</p>
---	--	---	--

<p><b>proprietary</b>  38:9,12 77:4  79:3 142:12  147:9,19  159:16 161:15  161:17,22  198:15 201:20  <b>protect</b> 46:3  48:10,12 61:25  63:8 74:24  75:18 76:7  78:24 82:10  85:11 86:12  87:8,23 96:18  100:9 101:9,17  103:13 113:19  116:16 119:11  122:10 125:20  138:6 148:4  151:25 153:18  172:18 177:3  193:13 216:20  220:10 248:16  249:7 258:3  276:13 282:5  <b>protected</b>  129:18 138:21  144:22  <b>protecting</b>  40:13,15 77:11  91:16 96:16  97:18 147:19  158:14 187:3  <b>protection</b> 41:1  45:24 52:21</p>	<p>73:2 78:21  82:3 98:12  137:3 153:22  167:8 174:22  215:17  <b>protections</b>  85:18 87:25  101:7 125:1  147:11 148:8  151:21 172:17  198:14  <b>protective</b>  140:4  <b>protector</b> 62:19  <b>protects</b> 152:12  172:20  <b>prove</b> 52:6  248:14  <b>proven</b> 39:19  40:4 94:21  170:20  <b>provide</b> 37:18  38:7 55:1,14  106:4 130:12  151:1 157:25  170:25 171:17  178:7 253:25  271:1  <b>provided</b> 90:4  165:25 175:1,7  175:15 184:20  195:18 225:25  271:10  <b>providers</b> 82:3  149:7 174:18</p>	<p><b>provides</b> 151:4  151:6 170:10  176:20 249:20  <b>providing</b>  121:8 174:24  257:16  <b>provision</b> 52:20  92:16 172:10  <b>provisions</b>  142:17,23  143:12 219:25  220:19 224:3  <b>proximity</b>  78:12 149:11  246:2,4 247:6  247:7,17  249:16  <b>prude</b> 108:19  <b>prudent</b> 209:6  <b>psychopaths</b>  98:15  <b>ptfe</b> 80:12  166:22 196:1  198:12 199:8,9  <b>public</b> 5:22,23  5:24 6:2,4,6,8,9  6:11,13,15,17  6:19,21,23 7:2  7:3,4,5,6,7,8,9  7:10,11,12,13  7:14,15,16,17  7:19,21,23 8:2  8:4,6,8,10,11  8:13,19 13:16  27:23,24,25</p>	<p>28:2 30:7  31:13,14,16,25  32:4 37:20  39:9 40:1,25  42:25 45:10  46:19 49:12,23  50:5,15 52:19  52:20 56:8  63:2 68:19  70:1 72:17  77:5,10 79:3  80:24 88:20  90:11 91:17  93:15,17 94:18  95:20 98:11  102:2 106:10  106:11 110:18  111:2,8 115:3  120:6,21  122:13,17  127:1,4,5,11,21  128:13 129:21  133:13 136:2  136:10,12  137:11 138:8  138:15,24  139:8 140:7,9  140:12 141:12  141:17 142:8  144:4 145:5,6  145:13,14  149:4,23,23  153:18,22  156:4,18,25  158:14 159:15</p>
---	---	--	--

[public - questions]

<p>159:19 160:2  166:1 171:13  172:3,16,21,24  173:10 174:6  177:3 185:10  196:22 197:2,4  198:7 199:21  202:9 203:7,17  203:25 205:10  206:21 219:17  219:19 220:4,6  220:8,22 225:4  225:23,25  226:5,6,8  235:5,7,23  236:13 237:12  240:9 241:9,16  241:23 242:10  243:8 248:6,11  251:9,9 254:16  255:8 256:17  256:18 258:1,2  258:25,25  259:1,2 268:20  275:25 276:17  277:6 278:3  280:9,14,15  281:4,24 282:5  284:8,11,21  286:18  <b>public's</b> 103:5  <b>publicly</b> 52:17  164:19 172:20  174:8 183:8,12</p>	<p><b>published</b>  112:12 125:18  147:14 214:12  <b>pueblo</b> 59:3  83:5 84:14  <b>pueblos</b> 80:3  82:23  <b>pulled</b> 126:5  <b>pulmonary</b>  238:1  <b>punishments</b>  107:16  <b>purple</b> 186:18  206:17  <b>purpose</b> 15:20  120:12 157:6  220:21 245:24  <b>purposes</b> 30:22  213:18,20  227:18 235:5  <b>pursuant</b> 92:23  172:12,14  <b>pursue</b> 98:17  <b>purview</b> 160:6  <b>push</b> 91:18  281:16  <b>put</b> 19:12 23:19  31:19 75:11  76:6 88:2  101:19 108:18  122:3,3 189:25  207:18 210:5  225:8 229:23  233:1 239:14  254:1 256:6</p>	<p>258:13 261:19  265:2,3 268:14  280:4  <b>puts</b> 82:7 108:3  141:21 185:10  <b>putting</b> 72:22  75:16 80:18  95:9 144:24  157:18</p> <p style="text-align: center;"><b>q</b></p> <p><b>quadrant</b> 69:18  <b>qualified</b>  182:14,16,18  183:18 185:12  185:20 186:23  187:20,25  188:8 286:7  <b>qualify</b> 187:17  <b>qualifying</b>  157:12  <b>quality</b> 33:6  34:16,18 92:17  92:20,23,24  93:5 96:9  160:5 161:11  172:10,13,15  221:5  <b>quantity</b> 34:17  <b>question</b> 44:3  129:12 141:4  146:14 203:23  204:12,14  207:4,7 210:14  219:18,22,23  224:2 235:13</p>	<p>235:14 236:25  239:24 245:1  250:11,13  252:18 254:8  260:13 261:10  261:15 263:3  266:8 268:4  270:8 277:18  277:21 279:19  279:21 280:4  280:16  <b>questionable</b>  118:13  <b>questioning</b>  263:3  <b>questionnaire</b>  244:23,24  245:21  <b>questions</b> 18:15  29:10 30:6,10  70:6,14 191:19  191:24 194:14  194:19,21  195:2,15 198:3  202:14 205:15  207:3,16,22  210:8 212:13  212:15,20  225:7 231:4  239:25 243:17  243:19,22  244:1,6,22  251:16 252:13  257:1 259:8,10  259:12 264:3</p>
---	--	--	---

[questions - really]

<p>265:13 269:21 270:3 <b>quick</b> 34:19 123:23 186:14 210:7 225:6 229:18 <b>quickly</b> 185:24 218:6 248:17 <b>quite</b> 50:16 151:20 156:16 173:6 257:9 <b>quote</b> 92:21</p>	<p><b>radioactive</b> 65:1 <b>radius</b> 247:7 249:16 262:15 <b>raife</b> 8:19 86:3 86:11 <b>rain</b> 124:2 <b>rainfall</b> 77:17 <b>rainwater</b> 124:3 <b>raise</b> 122:14 136:13 202:14 <b>raised</b> 39:7 156:25 226:7 <b>raises</b> 189:4 <b>raising</b> 56:10 <b>rancher</b> 47:20 <b>rancho</b> 64:24 <b>range</b> 90:16 94:16 253:12 254:5 <b>rankin</b> 4:19 9:13 27:10 229:14 231:4,5 231:10 243:16 243:19 <b>rapidly</b> 234:18 <b>rash</b> 266:25 <b>rate</b> 83:20,25 245:8 246:3 <b>rates</b> 40:9 60:2 73:13 104:21 104:22 105:10 105:11</p>	<p><b>rather</b> 16:1 28:17 31:7 35:12 43:9 69:24 165:1 199:1,1 202:18 <b>ratification</b> 15:12 16:2 <b>rayellen</b> 7:21 119:14,19 <b>razatos</b> 5:12 13:2,10,22 14:6,10,14,18 14:20,24 15:2 15:8,11 16:4,9 17:2,6,11 18:9 18:15,18,22 19:2,7,11,23 20:4,10,15,19 20:24 21:6,16 21:21 22:3,17 23:1,5,9,12,18 23:22,25 24:2 24:13,16,20,24 25:1 30:9 49:14 176:8,13 176:17 195:4 227:13 259:11 259:21,25 260:12,23 261:2,11,22 262:5,13,19,23 263:2,7,9,14,17 263:21 264:1,8 264:11,14,24 265:6,11,16</p>	<p>266:2,7,10 267:6,10,20,23 268:3,21 269:6 269:11,20 <b>rcx</b> 9:7 <b>rdx</b> 9:7 <b>reach</b> 124:16 184:12 <b>reached</b> 190:9 <b>reaching</b> 250:21 <b>reaction</b> 207:10 <b>read</b> 31:1,10 59:11 89:14 92:21 119:7 152:23 212:21 222:3 237:21 238:2,7,12,23 <b>reading</b> 28:13 131:20 187:5 242:3 <b>ready</b> 22:15 181:25 <b>real</b> 67:15 75:3 85:18 100:22 133:6 158:25 247:23 281:16 282:8,14 <b>reality</b> 69:15 <b>realized</b> 59:14 <b>really</b> 13:6 17:17 28:17 54:7 56:7 61:25 62:19 63:7 70:11,20</p>
<b>r</b>			
<p><b>r</b> 2:1,3 3:1 4:1 5:1 8:17 12:22 12:22 13:1 38:23 41:13 50:24 53:12 61:17 66:7 79:21,21 82:15 86:3,4 88:10 88:10 93:25,25 93:25 99:13 102:7 109:6 114:12 116:25 116:25 119:20 123:9,9,9 133:24 136:19 139:16 179:12 227:3,3,4 <b>rachel</b> 8:8 131:20 <b>racial</b> 39:12 <b>racism</b> 78:17 82:25</p>			

[really - referencing]

<p>71:8 79:4  109:15 126:6  127:15 132:13  151:1 163:22  188:20 241:5  241:14 246:17  256:15 261:23  262:1,2 270:23  272:15 275:9  277:1 280:5  281:12 282:7  282:23  <b>reaping</b> 107:16  <b>reason</b> 17:20  36:2 66:19  72:6 160:17  170:22 224:24  241:4 247:21  252:22 260:21  280:12 283:11  <b>reasonable</b>  139:24 249:1  <b>reasonably</b>  246:7  <b>reasons</b> 38:4  66:22 68:13  158:1 167:7  201:3 254:19  <b>rebecca</b> 285:3  <b>reboot</b> 120:3  <b>rebuttal</b> 29:11  29:12 30:19,22  163:10 179:18  180:13,17  182:6 185:15</p>	<p>189:2,3 225:9  225:11,12  228:2,21 229:1  230:5  <b>recall</b> 200:2  233:15 244:10  <b>receive</b> 96:14  153:10 199:23  200:5 204:16  268:17  <b>received</b> 186:2  191:13,14  278:3  <b>receives</b> 204:8  <b>receiving</b> 204:5  <b>recent</b> 35:23  132:8 234:8  280:22  <b>recently</b> 104:23  115:11 173:22  229:21  <b>receptor</b>  239:18  <b>receptors</b> 239:8  <b>recipe</b> 68:3  152:9  <b>recipes</b> 152:10  <b>recklessly</b> 87:6  <b>recognize</b>  232:21,24  <b>recognized</b>  142:5 186:4  <b>recognizes</b>  121:4 141:14  171:25 172:4</p>	<p><b>recognizing</b>  54:17  <b>recommendat...</b>  119:8  <b>recommended</b>  203:13,15  <b>recommending</b>  23:4 158:2  <b>recompletion</b>  166:7 177:25  <b>recompletions</b>  163:24  <b>reconstruction</b>  65:6  <b>record</b> 27:18  28:23 29:17,19  44:18 47:12  54:24 66:5  77:15,17 92:1  97:20 104:3  126:17,24  130:20 136:5  139:13 146:5  158:7,22 159:5  159:14 161:19  179:10 190:3,4  206:9,15 213:5  225:17 227:1  286:9 287:5  <b>recorded</b> 286:6  <b>recording</b>  286:8 287:4  <b>records</b> 160:2  198:18 202:23  213:15</p>	<p><b>recourse</b> 73:2  <b>recycling</b>  176:22  <b>red</b> 107:10  182:7  <b>redirect</b> 194:23  194:24  <b>redline</b> 143:5,7  148:16 155:11  161:4 164:8  165:8 169:16  175:5 178:1  <b>redlines</b> 142:20  174:9  <b>reduce</b> 91:10  91:19 96:7  255:12,14  274:16  <b>reduced</b> 60:11  125:16 286:7  <b>reducer</b> 218:11  <b>reduction</b>  85:13  <b>refer</b> 30:4  217:7 221:22  <b>reference</b>  160:11 174:15  199:5 237:20  <b>referenced</b>  160:13 240:24  <b>references</b>  146:6 163:20  <b>referencing</b>  132:9</p>
--	---	--	---

[referred - rely]

<p><b>referred</b> 137:23  <b>referring</b> 25:18  221:16 226:3  232:25 240:21  <b>refers</b> 51:11  <b>refinement</b>  177:17  <b>refineries</b>  133:1  <b>reflect</b> 84:15  232:16  <b>reflected</b>  232:11  <b>reflects</b> 170:1  <b>refusal</b> 52:7  55:1  <b>refuse</b> 128:24  <b>refusing</b> 72:24  <b>regard</b> 32:25  146:25  <b>regarding</b>  35:25 94:8  183:13 201:6  <b>regardless</b> 78:8  93:11 158:17  187:16,23  <b>regards</b> 219:19  219:24 271:25  272:23  <b>regimen</b> 199:18  <b>regimes</b> 200:2  <b>region</b> 83:17  <b>register</b> 125:3  186:25</p>	<p><b>registrants</b>  125:4  <b>regular</b> 42:12  47:23 62:17  <b>regulate</b> 63:7  100:18 151:24  153:17,21  154:1,4,10,13  154:15,18,21  155:5,6 162:15  176:21,25  186:22 208:14  208:16  <b>regulated</b>  113:6 120:12  121:12 208:12  208:23,24  <b>regulates</b> 51:23  269:1  <b>regulating</b>  156:13 167:9  <b>regulation</b>  60:22 73:5  96:9 101:12  114:2 118:23  120:17 143:12  143:14,15  158:8 169:23  169:25 170:3  174:17 208:6  212:7,9  <b>regulations</b>  45:11 81:24  91:11 101:23  135:18 142:2</p>	<p>154:20 166:9  168:22 169:19  174:10,16  176:5 177:11  178:18 183:9  183:13 187:7  209:2,2 212:8  <b>regulators</b>  45:14 120:21  141:15 144:4  149:17 174:24  210:12 221:7  <b>regulatory</b>  42:24 52:15  61:25 170:10  173:23 174:4  178:8,17  208:18 210:11  <b>rejected</b> 175:11  <b>rejoin</b> 133:14  <b>relate</b> 242:5,7  <b>related</b> 109:17  142:21 143:15  143:21 162:25  163:18 170:5  197:13 198:7  232:4 236:1  246:7,12,14  286:11 287:7  <b>relatedly</b>  168:15 177:6  <b>relates</b> 22:7  92:17 161:15  280:5</p>	<p><b>relating</b> 92:24  115:12 143:13  <b>relationships</b>  240:19  <b>relative</b> 83:9  129:6 286:13  287:10  <b>relatively</b>  117:16 264:20  <b>relaxed</b> 185:4  188:2  <b>release</b> 22:8  66:18  <b>released</b> 38:2  60:16 148:5  273:17,18,19  273:22  <b>releases</b> 161:9  <b>releasing</b> 73:10  <b>relevant</b> 92:22  183:16 231:20  231:20,23  232:2  <b>reliable</b> 183:7  <b>reliance</b> 80:16  158:11 184:14  <b>relied</b> 185:2  188:24  <b>relief</b> 151:7  <b>relies</b> 95:7  183:7  <b>rely</b> 71:3 73:7  83:13 132:19  180:1 185:5  186:12 188:1</p>
--	--	---	--

[rely - research]

<p>228:10 238:8  <b>relying</b> 132:11  190:8 271:14  <b>remain</b> 42:14  44:3 80:8  <b>remaining</b>  157:25  <b>remains</b> 80:18  <b>remarkably</b>  156:6  <b>remarks</b> 43:24  44:6  <b>remediation</b>  149:20 157:16  <b>remedy</b> 184:16  184:18  <b>remember</b> 85:4  113:22 117:19  131:18 182:25  199:3 215:7  260:5  <b>remembered</b>  195:11  <b>remembering</b>  192:3  <b>reminder</b>  137:14  <b>reminiscences</b>  131:23  <b>remove</b> 237:13  <b>renal</b> 238:1  <b>renewable</b>  109:13  <b>repeat</b> 138:25  191:3 219:22</p>	<p>278:25 279:21  <b>repeated</b> 54:2  <b>repeating</b>  222:16  <b>repellant</b> 90:17  <b>report</b> 64:2  68:5 78:7  80:11,13 81:11  119:8,8 143:23  146:16,18  147:17 166:20  195:22 198:18  209:13 213:11  217:8 268:18  270:16  <b>reported</b> 1:18  64:18 70:24  117:22 121:3  121:10,14  244:13  <b>reporting</b> 84:1  91:12 144:3  157:13 164:13  187:8 246:1  249:15  <b>reports</b> 143:21  143:24 233:25  239:13 247:5  <b>repository</b>  198:20,21  <b>reprehensible</b>  103:9  <b>represent</b> 26:7  120:3 141:2</p>	<p><b>representation</b>  158:11  <b>representative</b>  39:10 102:21  165:19  <b>representatives</b>  64:19 81:8  <b>representing</b>  110:11 112:5  <b>represents</b>  100:22  <b>reproductive</b>  40:6 51:24  72:9 78:16  95:1,17 101:5  103:3 237:24  <b>republicans</b>  48:1  <b>request</b> 18:1  55:8,9,13,20  62:10 142:25  143:4 150:23  155:10  <b>requested</b> 20:3  92:3 156:9  <b>requests</b> 141:6  <b>require</b> 22:11  29:5 35:6 46:1  49:7 62:13  81:25 114:2  120:22 129:9  139:25 141:19  142:16 146:24  147:2 148:2  151:11,19</p>	<p>162:21,24  164:19,25  168:3 184:12  201:8 220:20  271:7 280:14  <b>required</b> 106:5  147:17 164:16  198:21 234:7  <b>requirement</b>  45:2 133:8  142:14 147:22  157:14 200:3  202:1  <b>requirements</b>  45:13,17 81:13  119:5 121:8  130:8 144:3  258:11  <b>requires</b>  107:19 144:18  150:2 154:23  155:2 157:11  173:8 202:4  203:2 268:6  <b>requiring</b>  98:25 122:7  130:7 170:14  171:10  <b>requisite</b> 162:8  <b>research</b> 33:21  34:4 42:13  91:12 96:11  105:10 123:23  143:25 183:2  186:6,6 197:14</p>
--	--	---	--

[research - reuse]

<p>215:23 216:3                  217:1 233:25                  236:2 247:1                  278:12 281:2,3  <b>researched</b>                  219:2,15 224:7  <b>researchers</b>                  149:14,25                  152:18 214:15                  222:18  <b>resembles</b>                  184:11  <b>reservation</b>                  190:18  <b>reserve</b> 140:22                  140:23 165:17                  165:20  <b>reserving</b>                  155:19  <b>reside</b> 89:24  <b>resident</b> 36:4                  39:5,8 69:10                  89:23 100:7  <b>residents</b> 55:3                  94:17,20 95:10                  96:3,14 103:16                  119:11 138:4                  171:12 257:4                  270:7  <b>resilience</b> 32:25                  86:18  <b>resin</b> 132:25  <b>resist</b> 132:4  <b>resistant</b> 90:17</p>	<p><b>resolve</b> 43:17                  108:14 252:6  <b>resolved</b> 17:23  <b>resource</b> 70:1                  70:15 71:5                  78:2 158:5  <b>resources</b> 3:2                  4:10,12 17:10                  27:15 32:22                  38:7 74:24                  77:25 78:22                  79:13 81:4                  87:12 91:5                  96:16 100:23                  101:16 138:20                  145:25 146:16                  146:18,19                  165:5,7 278:22  <b>respect</b> 43:18                  43:22 49:19,19                  50:2,10 108:11                  108:13  <b>respected</b>                  132:9  <b>respectful</b> 50:4                  50:8,18,19  <b>respectively</b>                  157:20  <b>respiratory</b>                  95:16 100:14                  264:19  <b>respond</b> 82:4                  277:19 279:19                  281:3</p>	<p><b>responded</b> 44:7  <b>responder</b>                  200:16,18  <b>responders</b>                  149:12 174:19                  200:13,21  <b>responding</b>                  270:5  <b>response</b> 22:23                  175:2 182:24                  184:23 186:15                  240:16 277:20  <b>responses</b>                  249:4  <b>responsibility</b>                  62:18 79:12                  80:11 81:11                  87:16 96:21                  98:22 101:17                  108:10,11                  116:16 119:2                  138:19 166:20                  195:23 210:10                  213:12  <b>responsibility's</b>                  78:7  <b>responsible</b>                  65:8 72:21                  162:10,16                  277:6  <b>rest</b> 60:9 108:3                  122:4 126:15                  205:16  <b>restated</b> 240:3</p>	<p><b>restrict</b> 28:12                  41:4 71:1                  201:9  <b>restricted</b>                  247:11  <b>restricting</b>                  260:5  <b>restriction</b>                  150:19  <b>restrictions</b>                  153:11  <b>rests</b> 43:11  <b>result</b> 17:23                  52:10 55:8                  82:24 90:23                  112:8 169:9  <b>resulted</b> 217:3  <b>resulting</b>                  137:11 138:14                  177:1  <b>results</b> 132:18                  182:20  <b>resume</b> 127:4  <b>retardant</b>                  67:25  <b>retention</b>                  144:18  <b>retired</b> 47:19                  117:8 131:5  <b>retrieval</b> 37:11  <b>return</b> 66:1                  91:25 136:1                  285:4  <b>reuse</b> 52:24</p>
---	---	---	---

[reused - rondon]

<p><b>reused</b> 211:13  <b>reveals</b> 108:11  108:13  <b>reverence</b>  108:15  <b>reverend</b> 53:19  55:6 134:6  135:23  <b>reverse</b> 108:20  192:5,23 284:5  <b>reviere</b> 7:8  93:24,25 94:3  94:6,7 96:25  <b>review</b> 52:5  159:5 163:22  180:1 228:10  234:9  <b>reviewed</b>  149:10 214:12  233:10 234:4,5  234:7  <b>reviewing</b>  190:4  <b>revised</b> 163:23  <b>revision</b> 156:17  169:16 178:8  <b>revisions</b> 169:6  <b>revolutionize</b>  108:20  <b>reward</b> 107:15  <b>rewards</b> 107:16  <b>rhetorical</b> 44:3  <b>rich</b> 87:11  <b>richardson</b>  178:3</p>	<p><b>rid</b> 67:5,23  68:11  <b>ridiculous</b>  171:6  <b>right</b> 13:13  15:15 19:19  21:1 23:10  27:20 31:5,13  32:5 35:18  36:16,22 44:9  44:23 47:7  49:11 56:13,18  61:9,11,18  62:22 63:24  65:25 75:1  76:7 82:1  85:23 86:19  93:14,19 98:6  100:3 103:12  104:9 106:19  109:10 111:4  111:17,19,23  114:1 122:15  122:20 123:13  127:22 130:9  133:14,19  134:3 136:7,11  136:23 138:8  140:7,18,21,24  142:2 149:5  155:24 165:18  165:20 174:22  178:21 181:10  181:16 183:23  184:2 186:6</p>	<p>191:16 192:8  192:17 193:21  194:10,13,22  195:1 206:14  212:14 220:9  226:6,16  229:16 230:8  230:13 231:17  231:18 232:22  233:4,23  238:20 241:7  243:23 251:20  251:25 252:4  259:9 268:10  276:20 278:7  279:25 281:11  281:15 283:12  284:6,18 285:7  <b>rights</b> 86:19  106:6  <b>righty</b> 225:21  283:20  <b>rio</b> 59:4 64:24  65:1 83:15  134:9  <b>ripples</b> 84:9  <b>rising</b> 64:2  <b>risk</b> 39:22,25  40:3 45:10  54:18 60:6,10  65:7 72:22  73:11 75:6,11  78:1 80:19  81:23 82:8  90:8 91:8</p>	<p>95:10 100:13  101:7,19,20  117:14 119:1  121:9,22  129:21 138:4  140:2 171:21  185:10 201:2  206:10 223:15  236:15,18,20  <b>risks</b> 64:15  65:11 72:13  96:15 103:1  153:4,6 196:5  203:19 234:21  235:3,8 236:4  236:8 270:6  <b>river</b> 39:5 59:5  64:4,18  <b>rivers</b> 129:24  <b>road</b> 108:21  <b>robert</b> 9:11  227:2,3  <b>robin</b> 6:17 7:17  61:16 114:8,11  <b>robs</b> 103:12  <b>robust</b> 199:18  <b>robustly</b> 159:4  <b>robustness</b>  255:6  <b>role</b> 81:21  83:18 188:21  <b>roles</b> 83:8  <b>roll</b> 13:9  <b>rondon</b> 8:11  136:14,15,18</p>
---	---	---	--

[rondon - samples]

<p>136:18,22,25 137:2 139:7 <b>roof</b> 125:8 <b>room</b> 28:2 31:15,25 32:4 66:1 68:17,18 85:25 93:15,17 108:25 109:2 109:25 111:16 122:16,16 127:20 136:9 143:19 225:22 284:14 <b>rooted</b> 141:12 <b>roswell</b> 77:17 <b>rot</b> 70:10 <b>route</b> 284:2 <b>routine</b> 81:1 153:7 <b>row</b> 64:4 68:22 <b>rs</b> 285:2 <b>rubin</b> 2:3 13:20 13:20 14:21,22 15:14,16 16:6 16:8,10 18:19 18:24,25 19:4 19:16,17 20:2 20:7,11,18,20 20:22 23:14,15 24:4,11 92:3,5 93:9 172:8 225:20 <b>ruined</b> 105:18 <b>rule</b> 13:6 54:20 73:21 92:15</p>	<p>108:17 121:20 141:11,19 143:6 147:2,9 148:6 150:22 151:11,15,20 154:19,23 155:11 157:22 157:22 160:20 161:7 162:24 163:12,12 164:5,12 165:3 170:1,6,8,17 173:7,18,19 175:5 201:8 209:23 211:2 224:1,17 <b>ruled</b> 54:2 <b>rulemaking</b> 25:23 104:16 106:2 143:2,12 157:7 165:1 167:4 172:11 174:2 175:2 178:16 218:20 231:21,25 <b>rules</b> 25:4,16 25:20,23 29:5 33:6,7 46:16 107:17 128:15 130:6 154:19 157:16 163:7 174:20 175:10 175:11 188:14 188:17 218:16 218:18 219:1</p>	<p><b>ruling</b> 206:7 225:11 <b>run</b> 76:1 121:21 284:10 <b>running</b> 85:9 <b>runs</b> 173:10 <b>rural</b> 32:18 59:2 96:3 114:20 260:25 260:25 261:3 <b>ruth</b> 284:24,25 <b>ryan</b> 8:10 133:15,15 134:6</p> <hr/> <p style="text-align: center;"><b>s</b></p> <hr/> <p><b>s</b> 2:1 3:1 4:1 5:1 9:16 10:1 11:1 12:1,22 13:1 38:23 44:19,19 50:25 53:12 56:20,21 61:17 66:7 69:4 71:14,14 88:9 102:7 104:5 109:6 114:12 114:13 116:25 119:20 130:22 139:15,15,16 179:11 <b>sacred</b> 77:11,12 78:24 83:6,21 113:5 <b>sacrifice</b> 52:13 68:7 70:21 75:13 84:22</p>	<p>105:16 129:4 <b>sacrificing</b> 85:19 <b>safe</b> 34:22 45:8 46:14 48:5 97:24 118:14 120:9 121:4,12 130:8 255:1,9 255:10,18,22 255:25 282:1,3 <b>safeguard</b> 42:25 99:1 138:20 <b>safeguarding</b> 77:23 80:5 91:17 <b>safeguards</b> 163:17 <b>safer</b> 91:12,20 <b>safety</b> 37:20 38:14 65:22 76:3 124:25 138:3 147:11 197:12,14,19 277:7 <b>saint</b> 3:21 <b>sake</b> 46:7 75:19 78:19,19 119:1 <b>salt</b> 257:13,15 257:24 <b>sam</b> 130:22 <b>sample</b> 170:2 259:16 <b>samples</b> 34:15 266:3</p>
--	---	---	--

[sampling - secrets]

<p><b>sampling</b> 167:19 178:17</p> <p><b>san</b> 80:4 213:24</p> <p><b>sanctity</b> 83:10</p> <p><b>sandau</b> 157:19</p> <p><b>sandoval</b> 32:18</p> <p><b>santa</b> 1:13 2:6 2:14 3:6,14,22 4:6,14,22 5:6 17:9 33:17 39:6 59:3,4,6 59:10 64:4 69:10 89:23 95:4,11,20 100:7 104:14 104:17 110:12 110:16 142:5 278:5,7</p> <p><b>saturation</b> 43:7</p> <p><b>saturday</b> 142:5 147:14</p> <p><b>savanna</b> 6:6 44:14</p> <p><b>saw</b> 32:2 68:20 251:11,13</p> <p><b>saying</b> 33:18 149:22 166:3 210:25 218:14 222:10 224:10 236:12 237:1 254:21 258:8 267:11,11 273:6 274:9,12</p> <p><b>says</b> 35:4 48:5 151:15 197:11</p>	<p>268:6 275:16</p> <p><b>scale</b> 121:23</p> <p><b>scarce</b> 74:18 78:2 146:20</p> <p><b>scarcity</b> 75:25</p> <p><b>scarier</b> 149:2</p> <p><b>scars</b> 87:11</p> <p><b>scattershot</b> 171:17,22</p> <p><b>scenario</b> 135:4</p> <p><b>scenarios</b> 275:2</p> <p><b>schedule</b> 24:14 24:17 28:24</p> <p><b>scheduling</b> 24:7</p> <p><b>schmidt</b> 6:13 56:16,16,17,18 56:20,24 57:2 58:3 59:1</p> <p><b>school</b> 144:12 207:16</p> <p><b>schools</b> 39:9,9 171:13</p> <p><b>schuett</b> 7:17 114:8,11,12,16 114:19 116:13 116:19</p> <p><b>schuurman</b> 8:13 139:10,11 139:14,16,19 139:22</p> <p><b>science</b> 36:8,9 66:14,15,15 112:22 115:12 115:22,23</p>	<p>119:3 132:10 132:14 169:25 178:7 194:5,6</p> <p><b>scientific</b> 52:8 94:23 96:10 164:9 166:11 168:11 170:4 178:12 182:13 185:2,3 187:1 188:6 189:14 189:16 194:3 201:1 213:10</p> <p><b>scientist</b> 115:21 131:20</p> <p><b>scientists</b> 112:17 221:7</p> <p><b>scope</b> 21:10 158:16 170:9 207:12</p> <p><b>scoping</b> 70:5,13</p> <p><b>scores</b> 60:12</p> <p><b>scotts</b> 124:12</p> <p><b>scratch</b> 210:12</p> <p><b>screaming</b> 195:9</p> <p><b>screen</b> 47:3 61:13 181:14 181:17 182:8 182:21 206:18 226:18 227:8 232:18 275:25</p> <p><b>screening</b> 125:7</p> <p><b>scroll</b> 232:20 234:11</p>	<p><b>scrolling</b> 234:18</p> <p><b>scrutinized</b> 59:13</p> <p><b>seasoned</b> 108:7</p> <p><b>sec</b> 61:12</p> <p><b>second</b> 14:19 15:7 16:5 20:9 20:10,12,14 26:13 38:17 45:25 123:3 148:19 167:12 171:6 177:6</p> <p><b>secrecy</b> 111:3 116:3</p> <p><b>secret</b> 65:21 68:4 87:10 110:14,18 111:2 141:20 141:22 151:6,9 151:13,14,15 151:17 152:4,4 152:22 161:16 161:17 172:19 172:25 173:3 196:14 200:13 202:4,6 219:25 220:19 224:3,5</p> <p><b>secretary</b> 13:19</p> <p><b>secreted</b> 173:8 173:14</p> <p><b>secrets</b> 38:11 40:22 42:12 62:14,15 72:24 80:16 81:16</p>
--	--	--	---

[secrets - settled]

<p>84:25 92:7,14  92:19,25 98:2  101:11 107:17  109:17,21  120:24 121:1  122:2 128:23  146:25 147:20  150:21 151:3,4  151:12,19,21  152:11 153:2  159:18,23,24  160:1 172:7,8  172:17,18,20  172:22,24  174:23 223:19  223:22  <b>section</b> 176:20  176:24  <b>sectioned</b> 172:9  <b>sections</b> 163:11  163:12  <b>secure</b> 156:9  <b>security</b> 76:3  <b>see</b> 13:3 21:2  24:14 36:19,20  36:21 46:23  49:5 53:10  54:14 56:14  57:16 61:8,8  61:13 62:21  64:2 66:1  69:17 77:8,21  86:14 104:1  109:1 119:14  122:14 123:5,6</p>	<p>127:23 130:16  130:17 134:23  136:13 139:10  152:24 161:1  162:3 165:14  165:19 175:8  176:6 184:2  190:5 192:18  216:21 218:3  221:5,18 222:6  225:12,23  226:7 231:3  232:2,3,14,18  234:24 238:10  238:25 241:22  243:6 247:19  249:22 251:11  256:13 266:24  267:24 273:9  281:12,15  282:7,14,15,23  283:6,8 285:2  285:8  <b>seeing</b> 40:9  115:7,18,25  127:17 227:10  235:9,10 237:4  251:13 262:10  265:18  <b>seek</b> 175:25  182:5,8,22  <b>seeking</b> 148:12  <b>seeks</b> 147:9  173:11</p>	<p><b>seem</b> 43:13  119:9 186:12  253:22  <b>seemed</b> 249:1  <b>seems</b> 176:9  186:10,11  <b>seen</b> 70:9 75:24  95:8 103:14  197:23 202:1  202:10,24  272:21  <b>seep</b> 73:6 84:6  <b>seeped</b> 64:8  <b>seismicity</b>  144:16  <b>selected</b> 244:21  <b>self</b> 84:1 121:14  <b>send</b> 206:16  244:17  <b>sense</b> 18:12  174:5 207:18  240:5 265:12  <b>sensible</b> 119:9  <b>sensitive</b> 54:8  157:3 265:5  <b>sent</b> 232:12  <b>sentinel</b> 124:4  <b>separable</b>  134:14  <b>separate</b> 116:9  134:14  <b>separately</b>  163:9  <b>septic</b> 169:10</p>	<p><b>series</b> 43:24  77:6 276:8  <b>serious</b> 45:10  71:8 75:7 95:6  96:2 101:3  129:21 138:11  141:12 208:9  <b>seriously</b>  188:21  <b>serve</b> 111:6  168:19  <b>served</b> 32:22  86:12 87:15  233:21  <b>service</b> 55:20  128:13 153:1  <b>services</b> 55:1  55:15 156:10  <b>session</b> 29:13  88:21 93:18  273:8  <b>set</b> 15:22 18:3  22:16 23:13  25:22 34:19,22  117:24 130:6  212:5 244:17  252:25  <b>setback</b> 69:21  <b>setting</b> 235:7  237:13  <b>settle</b> 20:25  181:24  <b>settled</b> 25:10  59:18</p>
---	---	--	---

[settlement - singham]

<p><b>settlement</b> 19:19</p> <p><b>seven</b> 84:15 97:13 118:8 143:20 253:10 253:11 263:12</p> <p><b>several</b> 36:1 37:12 103:18 105:12 127:6 145:8 201:3 216:12 280:20</p> <p><b>severe</b> 64:12 137:12</p> <p><b>sewage</b> 124:14</p> <p><b>sewer</b> 215:22</p> <p><b>sewing</b> 112:22</p> <p><b>seycel</b> 6:17 61:10,16,16,20 61:23</p> <p><b>shale</b> 145:7,15</p> <p><b>shallow</b> 249:22 282:21</p> <p><b>shallower</b> 132:17 145:2 250:3</p> <p><b>shame</b> 107:18</p> <p><b>shanor</b> 2:12 17:4</p> <p><b>share</b> 131:7 181:15,17,20 186:2 283:16</p> <p><b>shared</b> 83:11 113:18 203:5</p> <p><b>sharing</b> 182:21</p>	<p><b>shed</b> 90:10</p> <p><b>sheet</b> 197:20</p> <p><b>sheets</b> 197:12 197:14,24</p> <p><b>sheila</b> 5:18 23:6 23:18 24:18 31:20 36:20 38:17 41:8 44:14 53:10 56:14 58:3 61:7,12 63:11 88:22 111:17 114:7 116:19 126:17 140:10 176:10 181:17 230:14 284:13 285:7</p> <p><b>shell</b> 131:15</p> <p><b>sheriff</b> 64:20</p> <p><b>shields</b> 103:8</p> <p><b>shocking</b> 131:19</p> <p><b>shoot</b> 124:18</p> <p><b>short</b> 35:13 131:17 149:22 167:1 274:14</p> <p><b>shortness</b> 266:16,25</p> <p><b>show</b> 50:9 73:11 155:14 158:7,22 187:7 221:19 238:13 239:23 266:24</p> <p><b>showed</b> 112:13 206:18 223:2</p>	<p>243:11 255:6 280:19,22</p> <p><b>shower</b> 274:12</p> <p><b>showering</b> 59:20</p> <p><b>showers</b> 274:12 274:14</p> <p><b>showing</b> 39:12 45:19 235:24 236:7 256:21 280:21</p> <p><b>shown</b> 94:24 159:14 234:22 253:4,7</p> <p><b>shows</b> 103:20 105:10 144:24 260:14</p> <p><b>shut</b> 50:7</p> <p><b>shutting</b> 202:24</p> <p><b>sic</b> 107:3 202:3 202:5,6 270:21 270:24</p> <p><b>sick</b> 113:4,19 116:7 242:11 274:18</p> <p><b>sickened</b> 103:16</p> <p><b>sicker</b> 115:17 115:17</p> <p><b>side</b> 163:2</p> <p><b>sides</b> 195:13</p> <p><b>sierra</b> 283:1</p> <p><b>signature</b> 60:4 286:16 287:14</p>	<p><b>significance</b> 246:23,25</p> <p><b>significant</b> 137:9 142:1 185:9 271:8</p> <p><b>signs</b> 258:19</p> <p><b>silences</b> 98:13</p> <p><b>silently</b> 114:24</p> <p><b>similar</b> 15:23 137:22 144:8 169:15 185:19 200:3 218:16 221:8 239:13 239:13 245:14 260:16 262:8</p> <p><b>simka</b> 6:11 53:10,11,12,15 53:18,19 55:6 56:11</p> <p><b>simple</b> 98:8 141:3 265:14</p> <p><b>simply</b> 14:22 18:20 27:17 51:13 83:22 97:23 141:20 150:18 151:15 151:20 162:5 170:21 183:11 208:2 274:9 281:24,25</p> <p><b>singham</b> 8:6 130:17,18,21 130:21,22 131:1,4 133:12</p>
--	--	---	--

[single - sources]

<p><b>single</b> 50:2 78:19 79:16 110:23,24 167:16,18,20 167:24 168:9 237:6</p> <p><b>sir</b> 23:22 106:11 109:2 123:6 126:1 221:25 259:25</p> <p><b>sit</b> 78:5 281:12 282:7</p> <p><b>site</b> 59:3 65:7 149:18 260:6 262:24 272:11</p> <p><b>sites</b> 91:14 105:5 133:1,3 265:9 274:20 277:7</p> <p><b>situation</b> 95:23 138:12 200:11 235:23 241:18</p> <p><b>situations</b> 149:13 200:17 207:17</p> <p><b>six</b> 32:22 140:19 150:6</p> <p><b>sixteenth</b> 23:9</p> <p><b>size</b> 259:16 264:16</p> <p><b>skills</b> 286:10 287:6</p> <p><b>skin</b> 266:16,25</p> <p><b>skipping</b> 237:15</p>	<p><b>slavery</b> 43:12</p> <p><b>slow</b> 88:1</p> <p><b>slowly</b> 67:22</p> <p><b>sludge</b> 64:9,16 64:17 65:1 124:6,14</p> <p><b>small</b> 75:3 118:2 131:6 160:5</p> <p><b>smaller</b> 118:2 265:10</p> <p><b>smith</b> 7:21 119:15,16,19 119:19,20,23 120:1 122:12</p> <p><b>smoke</b> 264:8,9 264:10</p> <p><b>snow</b> 28:7</p> <p><b>snowstorm</b> 77:15</p> <p><b>social</b> 78:7 80:11 81:11 94:19 98:22 119:2 166:19 195:22 210:10 213:12</p> <p><b>society</b> 96:21 240:17</p> <p><b>soever</b> 275:11</p> <p><b>sofia</b> 7:2 71:13 71:21</p> <p><b>soft</b> 58:17 134:12</p> <p><b>software</b> 173:1</p>	<p><b>soil</b> 46:18 60:16 72:7 86:23 91:5 96:1</p> <p><b>soils</b> 65:14</p> <p><b>solely</b> 199:1</p> <p><b>soluble</b> 264:16 264:17,18</p> <p><b>solution</b> 36:13 36:14 124:9</p> <p><b>solve</b> 280:10</p> <p><b>solved</b> 258:21</p> <p><b>somebody</b> 198:4 207:14 210:15 220:11 245:21 250:18 255:11 257:21 259:3 276:16 277:13 284:20</p> <p><b>someday</b> 21:1</p> <p><b>someplace</b> 241:25 270:17</p> <p><b>somethings</b> 257:21</p> <p><b>son</b> 100:10</p> <p><b>song</b> 278:17</p> <p><b>songwriter</b> 47:21</p> <p><b>soon</b> 43:15 49:11 55:25 85:24 200:22 202:14</p> <p><b>sooner</b> 31:7</p> <p><b>sophisticated</b> 188:18</p>	<p><b>sopoci</b> 8:2 126:18,20,25</p> <p><b>sorry</b> 23:2,6 34:3 35:10 40:19 44:4 47:5,9 54:15 88:22 93:10,10 133:17 176:18 188:19 192:2 195:17 206:5 206:24 215:7 219:15,21 221:21 225:13 231:11 237:16 251:23 261:13 263:6,8 264:2 264:6 266:7</p> <p><b>sort</b> 93:1 241:8 241:11 255:5 258:17</p> <p><b>sorted</b> 92:13</p> <p><b>sorts</b> 207:17,22 207:25 236:8</p> <p><b>sound</b> 97:19</p> <p><b>source</b> 42:1 105:20 211:6 214:1,25 257:24 258:2 273:10</p> <p><b>sources</b> 81:4 95:7 105:14 132:24,24 137:6 138:8 146:9 157:9 161:12 163:4</p>
---	--	---	---

[sources - staff]

<p>169:7,10,14  183:8,12  211:15 213:15  215:13 222:23  257:25 276:3  <b>south</b> 1:12 3:21  35:22 59:2  83:14 124:1,3  <b>southwest</b>  135:10 145:9  242:25 243:2  265:17  <b>space</b> 16:11  <b>spaced</b> 230:12  <b>spanish</b> 55:2,11  55:18 56:2  74:10,12 79:8  79:11 88:17  89:4 90:6  99:20 102:14  111:12  <b>spare</b> 87:25  <b>speak</b> 41:24  50:1 57:3  58:17 74:9  90:1 97:9  111:11 135:2  181:5 187:18  199:25 206:3  208:5  <b>speaker</b> 54:24  79:9 100:1  176:15,16  <b>speakers</b> 15:1  15:10 16:7</p>	<p>20:21 55:2,11  56:2 58:23  79:16 113:3  <b>speaking</b> 43:22  62:22 70:18  90:6 112:7  134:15 198:7  <b>special</b> 16:1  81:22  <b>specialized</b>  28:18,19 183:3  <b>specialty</b>  144:13  <b>species</b> 42:17  131:22  <b>specific</b> 153:10  154:20 157:7  164:22 166:21  177:5 208:5  213:23 221:17  222:11 231:25  237:2,10  253:21 271:13  <b>specifically</b>  55:2 167:25  176:5 187:21  187:22 223:4  234:1 271:4  277:25  <b>spectrums</b>  83:12  <b>speech</b> 90:9  <b>speer</b> 144:11,20  145:3 283:23  284:1,3</p>	<p><b>spell</b> 32:6 35:8  36:25 38:21  41:11,15 44:17  47:11 56:18  58:9 61:15  63:16 66:4  68:25 69:2  71:12 73:24  76:10,13 79:19  82:13 86:2  88:7 93:21,23  96:25 99:11  102:5 104:2  106:12 109:3  110:2 111:19  114:9 116:23  119:18 126:23  128:3 130:20  133:22 136:17  139:13 179:10  227:1  <b>spelled</b> 37:2  130:22 227:3  <b>spend</b> 148:18  236:3  <b>spending</b> 46:10  <b>spent</b> 57:9  112:14,21  115:4 193:9,12  <b>sperling</b> 2:20  27:19  <b>spigots</b> 113:12  113:17  <b>spill</b> 87:9 125:8  146:13 149:18</p>	<p>211:22,25  217:17,19  <b>spilling</b> 83:19  <b>spills</b> 23:24  24:18 41:3  70:22 72:20  73:4,10 81:2  83:24 97:15  117:13 145:21  145:23,24  146:1 153:7  209:18  <b>spin</b> 107:1  <b>spirit</b> 42:7  <b>spiritual</b> 134:9  135:14  <b>spoil</b> 99:7  <b>spoke</b> 195:12  195:15,17  260:14  <b>spoken</b> 123:22  <b>spokespeople</b>  81:15  <b>spread</b> 65:14  144:25  <b>spreading</b>  86:22  <b>spreads</b> 87:20  <b>springs</b> 95:8  <b>srs</b> 262:7  <b>ss</b> 56:14 61:13  <b>st</b> 1:12  <b>stability</b> 43:14  <b>staff</b> 70:7,13  230:14 244:14</p>
--	---	---	---

[stage - states]

<p><b>stage</b> 248:12</p> <p><b>stages</b> 197:6,10</p> <p><b>stain</b> 90:17</p> <p><b>stakeholder</b> 156:10</p> <p><b>stakeholders</b> 153:10</p> <p><b>stakes</b> 80:25</p> <p><b>stand</b> 16:14 29:7 30:24 31:7 137:2 139:4</p> <p><b>standard</b> 87:18 98:3 105:7 117:25 118:4,8 118:11 131:15 171:20 183:17 185:4</p> <p><b>standards</b> 54:14 118:7 166:11 178:12 188:3</p> <p><b>standing</b> 131:9 205:25 206:9 206:12,15</p> <p><b>standpoint</b> 145:13 248:7 255:8</p> <p><b>stands</b> 137:14 141:14</p> <p><b>standup</b> 49:7</p> <p><b>stark</b> 137:14</p> <p><b>start</b> 13:4,4,9 16:11 32:15 35:19 37:7</p>	<p>39:3 41:20</p> <p>44:24 47:17</p> <p>51:4 53:17</p> <p>57:1 58:20</p> <p>61:21 63:25</p> <p>66:11 67:20</p> <p>69:9 71:18</p> <p>74:7 76:17</p> <p>80:1 82:19</p> <p>86:8 88:15</p> <p>94:5 97:7</p> <p>99:18 102:11</p> <p>106:20 109:10</p> <p>110:8 112:3</p> <p>114:18 117:5</p> <p>119:24 123:14</p> <p>128:10 131:3</p> <p>134:4 136:24</p> <p>139:20 140:24</p> <p>144:6 156:4,11</p> <p>166:3 191:21</p> <p>251:22 284:7</p> <p><b>started</b> 50:16 70:1</p> <p><b>starting</b> 241:14 244:25 268:5</p> <p><b>state</b> 1:1 3:20 5:12,14,16,18 5:20 8:15 36:14 37:12,14 39:18 40:2 42:19 52:2 60:25 63:6 64:19 69:2 71:11 73:24</p>	<p>76:10,23 77:8</p> <p>79:12,19 82:13</p> <p>85:10 86:1</p> <p>88:7 93:21,23</p> <p>94:14 96:8,25</p> <p>99:11 101:1,8</p> <p>102:5 103:4,22</p> <p>104:2 106:12</p> <p>109:3 110:1</p> <p>111:19 114:9</p> <p>116:23 117:24</p> <p>119:18 120:21</p> <p>126:23 128:3</p> <p>128:21 130:20</p> <p>133:22 136:16</p> <p>139:13 143:10</p> <p>145:22 146:4</p> <p>172:23 179:10</p> <p>198:22,24,25</p> <p>199:20 202:3,5</p> <p>202:6,17 203:5</p> <p>209:1 212:7</p> <p>213:24 215:8</p> <p>227:1 232:5</p> <p>234:2,21</p> <p>237:21 245:14</p> <p>252:10 253:25</p> <p>257:6 260:2</p> <p>261:25 269:1</p> <p>270:10,11,21</p> <p>270:24 271:13</p> <p>272:1 274:25</p> <p>277:24 278:11</p> <p>279:14,15</p> <p>280:1 281:14</p>	<p>281:16 282:21</p> <p>282:22,24</p> <p>286:19</p> <p><b>state's</b> 32:21 53:2 81:23</p> <p><b>stated</b> 37:21 53:2 147:16 159:4 160:10 160:13 188:1 260:21 263:4 263:17</p> <p><b>statement</b> 9:3,4 9:5 29:24 30:7 92:4 135:21 139:23 140:21 140:21 148:11 152:14 153:16 155:19 165:15 173:25 175:4 175:16 177:23 178:6 185:12 185:13 186:17 212:21 222:12 223:18 238:8</p> <p><b>statements</b> 29:15,16 30:3 122:23 127:8 127:17 136:4 160:11 185:2 185:20 186:12 187:17,19</p> <p><b>states</b> 43:11 46:2 119:10 120:22,24 121:15 125:1,4</p>
--	---	--	---

[states - studies]

<p>126:12 132:11  132:19 137:9  144:8 150:6,10  150:14 152:25  168:23,24  169:1 197:15  200:2 208:13  208:14,19  210:10 223:11  242:20 271:14  279:5  <b>statewide</b> 120:4  <b>stating</b> 268:8  <b>station</b> 245:17  261:21  <b>statistical</b>  246:23,25  262:1  <b>statistically</b>  62:22 260:7  <b>statistics</b> 84:1  260:8,9,10  261:25  <b>statue</b> 151:8  <b>status</b> 18:4,13  19:25 21:11  22:4,9 201:21  <b>statute</b> 92:24  159:23 160:14  172:18,22  177:10 186:21  <b>statutes</b> 168:22  176:4,7  <b>statutorily</b>  177:14</p>	<p><b>statutory</b>  143:11 156:24  158:4 165:4  166:14 172:9  175:21  <b>stay</b> 183:24  257:20  <b>stays</b> 170:9  <b>steadies</b> 223:24  <b>steel</b> 108:19  <b>steering</b> 33:22  <b>stefany</b> 88:21  88:22,22 89:23  <b>stem</b> 130:5  <b>step</b> 77:23  130:9 138:10  139:24 192:14  219:6 246:19  248:13 276:2  <b>stephany</b> 7:7  88:8,9  <b>stephen</b> 6:13  7:14 56:15  59:1 109:5  178:2  <b>steps</b> 119:11  162:19 275:9  276:18  <b>stew</b> 73:2  <b>stimulate</b> 272:7  <b>stimulation</b>  219:7  <b>stockholm</b>  106:23</p>	<p><b>stolen</b> 203:20  <b>stood</b> 264:5  <b>stop</b> 40:15 49:6  98:22 119:4  199:9  <b>stopped</b> 70:12  70:13 199:8,10  <b>storage</b> 176:22  177:2,16  <b>stories</b> 278:20  <b>story</b> 81:10  <b>straightforward</b>  223:17  <b>strain</b> 65:20  <b>strained</b> 97:17  <b>straits</b> 32:24  <b>strange</b> 115:5  <b>strata</b> 145:2,2  <b>stream</b> 32:23  106:24 155:1,3  <b>streams</b> 155:3  215:18,19  223:1  <b>street</b> 2:5,21  3:5 4:5,21 5:5  59:14  <b>strength</b> 86:18  108:12  <b>strengthened</b>  96:10 268:14  <b>stress</b> 76:1  <b>stressed</b> 107:11  <b>stretching</b> 85:5  <b>stricken</b> 190:6</p>	<p><b>strict</b> 101:22  <b>stricter</b> 54:14  91:11 96:8  135:17  <b>strictly</b> 267:25  268:1  <b>striegel</b> 284:25  285:2,3  <b>strike</b> 184:7  189:6  <b>strikeout</b> 175:5  <b>strikes</b> 174:22  <b>stroke</b> 60:10  <b>strong</b> 67:7  172:16 239:14  240:16 254:1  <b>strongest</b> 67:2  <b>structure</b>  157:25 158:20  160:7 163:15  <b>struggle</b> 76:1  87:3 100:14  <b>struggled</b> 108:8  <b>struggling</b>  207:23  <b>student</b> 74:15  115:2  <b>students</b> 99:5  <b>studied</b> 132:16  196:19 208:22  209:6 215:7  253:2,3 260:9  <b>studies</b> 73:11  74:16 90:25  94:23 145:8</p>
--	---	---	--

[studies - sure]

<p>149:10,15 185:9 187:1 196:7 213:1,23 214:7 215:5,25 221:13 222:8 222:15,24 239:22 243:1 252:9 270:19 281:2 <b>study</b> 47:23 112:16 116:4 132:9,14 215:2 215:15 218:2,4 222:16,20 236:2,3 247:1 259:19 260:2 271:3,4,13,22 272:21 281:3 282:24 283:1,4 <b>studying</b> 74:15 112:14 <b>stuff</b> 47:23 48:4 206:10 216:17 255:7 <b>subject</b> 22:11 26:13 34:10 42:14 120:16 121:7 135:6 191:10 218:14 <b>submit</b> 30:2 31:20 126:15 155:11 <b>submitted</b> 22:10 142:4 146:3</p>	<p><b>subscribe</b> 52:3 <b>subsections</b> 143:15 <b>subsequent</b> 19:21 29:20 30:1 <b>subsequently</b> 70:12 <b>subsidize</b> 46:5 <b>substances</b> 25:18 37:13,23 51:12 73:9 90:13 138:14 141:5 166:5 167:5,10,11 232:4 233:8 254:22 <b>substantial</b> 156:17 <b>substantially</b> 175:9 <b>substantively</b> 177:9 <b>substituted</b> 166:24 196:2 <b>subsurface</b> 144:13,21 <b>subterranean</b> 149:16 <b>sue</b> 139:10 151:6 <b>sued</b> 124:13 125:14 <b>suffer</b> 85:2 87:13 88:4</p>	<p><b>suffered</b> 64:24 78:23 <b>suffering</b> 106:22 114:23 <b>suffers</b> 100:10 <b>suggested</b> 204:16 246:11 <b>suggestion</b> 89:10 <b>suite</b> 4:13 5:5 <b>summaries</b> 29:1 <b>summary</b> 195:14 221:12 221:24 <b>summation</b> 165:11 <b>summer</b> 192:4 <b>summit</b> 125:4 <b>sun</b> 124:4 <b>super</b> 67:7 122:8 <b>superfund</b> 277:7 <b>supplies</b> 39:17 106:25 132:21 138:3 215:9,10 215:11,14 221:14 222:9 222:25 223:10 <b>supply</b> 76:3 80:24 99:2 103:5 122:2,6 208:2 279:12</p>	<p><b>support</b> 44:25 77:1 104:15 105:25 106:1 129:4,7 133:7 156:8 161:14 161:19 162:7 164:12,12 170:24 211:1 278:14 281:18 282:9 <b>supported</b> 159:17 161:18 <b>supporters</b> 76:23 173:15 <b>supporting</b> 36:5 121:21 170:12 <b>supports</b> 166:3 166:9 167:22 170:14 177:23 <b>suppose</b> 283:23 <b>supposed</b> 284:1 <b>supposedly</b> 52:22 <b>suppression</b> 91:3 <b>sure</b> 23:16 48:11 50:5,18 53:25 55:10 75:21 99:8 111:21 123:22 139:14,22 146:4 176:11 176:12 183:3 185:25 188:23</p>
---	--	---	--

[sure - tabulated]

<p>192:2 195:11  195:16 199:20  205:16,24  206:19 212:8,9  214:23 218:7  221:15 232:12  232:15,16  233:18 234:13  235:12 251:5  256:8 257:9  260:23 265:15  267:9,20  269:11 283:4  <b>surface</b> 39:23  100:25 103:2  161:10 211:11  211:24 216:19  216:24 217:17  217:19 264:17  <b>surj</b> 39:11  <b>surprised</b>  279:2  <b>surrounding</b>  36:8  <b>survey</b> 215:6  215:16  <b>surveys</b> 213:13  <b>survival</b> 86:18  <b>survivor</b> 53:20  <b>susan</b> 8:13  139:15  <b>susceptible</b>  39:25 40:3  <b>suspect</b> 271:19</p>	<p><b>suspecting</b>  22:24  <b>sustain</b> 52:11  <b>sustainability</b>  59:10 74:16  99:3  <b>sustaining</b>  117:12  <b>sustains</b> 138:19  <b>swallowed</b>  202:19  <b>swathe</b> 69:18  <b>swear</b> 32:7,11  35:16 37:4  38:25 41:18  44:20 47:14  51:1 53:13  56:22 58:13  61:19 63:21  66:9 68:25  69:5 71:15  74:4 76:15  79:22 82:17  86:6 88:12  93:22 94:1  97:3 99:14  102:8 104:7  106:16 109:7  110:6 111:24  111:25 114:14  117:1 119:21  123:11 128:8  130:24 134:1  136:21 139:17  179:2 226:19</p>	<p><b>sweep</b> 122:15  <b>sweeping</b> 43:17  <b>sweringen</b> 6:21  66:2,3,6,7,10  66:13,14 68:17  <b>swift</b> 96:22  <b>swimming</b>  122:3  <b>switch</b> 199:4  <b>swore</b> 87:7  <b>sworn</b> 29:4,5  34:1,5,9  180:18 229:1  286:5  <b>symptoms</b>  235:3 244:10  244:13 246:3,6  247:17,20  248:22 258:19  259:13 265:17  274:23 275:10  275:17,17  <b>syndrome</b> 64:5  106:23  <b>synergism</b>  263:22  <b>synergize</b> 263:5  263:18  <b>synergizing</b>  249:3 263:19  <b>synonymously</b>  240:12  <b>system</b> 51:22  95:2 170:21  215:22 239:18</p>	<p>245:1,2 258:18  267:18 275:11  277:11  <b>systematic</b>  258:7  <b>systems</b> 52:19  94:9 95:24  103:20 169:11  171:13 250:25  275:12</p>
			<b>t</b>
			<p><b>t</b> 9:16 10:1 11:1  12:1,22,22  38:23 41:13  50:25 56:20,21  76:13 82:15  88:9 102:7  104:5 109:6  114:12,12  119:20 133:24  133:24 179:11  179:12,12  227:3  <b>table</b> 18:20  62:2 244:9  245:24 246:11  250:10,15  260:14,17,20  265:16 266:4,6  274:22,24  275:4,8,22  <b>tabling</b> 19:15  19:16  <b>tabulated</b>  236:9,13</p>

[tact - tell]

<p><b>tact</b> 257:1</p> <p><b>tailored</b> 170:7</p> <p><b>tainting</b> 138:8</p> <p><b>take</b> 15:15 18:20 25:1 31:9 47:3 48:22 49:10,21 54:11 63:6 69:14 76:2 85:23,24 91:9 96:6,22 98:23 101:8 111:18 119:1 122:22 127:19,22 130:16 135:1 135:15 136:3 138:6 139:24 140:3 159:18 181:23 183:20 186:23 188:21 206:20 220:10 224:19,23 225:16 226:4 237:16 246:19 248:13 257:10 266:24 274:12 274:14 275:13 284:8</p> <p><b>takeaway</b> 112:23 118:17 248:19</p> <p><b>taken</b> 31:14 57:20 119:11 194:6 286:3,12 287:9</p>	<p><b>takes</b> 30:23 128:20</p> <p><b>talk</b> 66:20 125:5 146:21 150:5 163:25 189:21 216:10 219:17 222:14 252:9 272:3 274:22 277:23 284:12</p> <p><b>talked</b> 33:19 97:21 189:18 223:18 257:13 257:24</p> <p><b>talking</b> 16:13 127:8 161:23 224:4 226:5 240:14,15 249:13 254:16 267:25 271:19 278:5</p> <p><b>talks</b> 257:16</p> <p><b>tangible</b> 167:13 168:5 169:21 175:12</p> <p><b>tank</b> 65:4</p> <p><b>taos</b> 109:6,13 109:14 114:20</p> <p><b>tap</b> 103:17</p> <p><b>target</b> 253:20 253:21 280:23</p> <p><b>taros</b> 7:11 102:3,6,6,10,13 102:19,21</p>	<p><b>tasked</b> 167:9</p> <p><b>tate</b> 8:10 133:15,15,16 133:20,23 134:2,5,6 135:23,24</p> <p><b>taught</b> 66:14 84:14 99:5</p> <p><b>taxpayer</b> 43:9</p> <p><b>taxpayers</b> 46:4 49:5</p> <p><b>tdavis</b> 5:7</p> <p><b>teacher</b> 39:8 47:20 66:14 117:8 131:5</p> <p><b>teachers</b> 152:20</p> <p><b>teachings</b> 42:7</p> <p><b>teams</b> 145:15</p> <p><b>tear</b> 190:7</p> <p><b>technical</b> 26:1 27:16 28:13 33:22 86:1 140:8,14 143:17 156:22 175:15 178:9 182:13 183:18 184:25 185:1,6 186:8 188:4 225:5 226:5,6 226:8 284:10</p> <p><b>technically</b> 166:12,13 178:12,13 187:20</p>	<p><b>technique</b> 173:6</p> <p><b>technology</b> 208:18 231:12</p> <p><b>teenage</b> 274:15</p> <p><b>tell</b> 32:7,12 33:11 35:17 37:4 38:25 41:18 44:21 47:15 50:12 51:2 53:14 56:23 58:14 61:19 63:22 66:9 68:3 69:1 69:6 71:16 74:4 75:21 76:15 79:23 82:17 86:6 88:12 93:22 94:2 97:4 99:15 102:9 104:7 106:17 109:8,20 110:6 111:24,25 114:15 117:2 119:22 123:11 128:8 130:25 134:1 136:21 139:18 140:13 179:2 213:4,7 213:20 226:19 232:21 237:21 256:23 257:21 257:23 258:16 258:17,19</p>
--	---	---	---

[tell - thank]

<p>259:3 264:2  <b>telling</b> 44:6  107:22 112:8  113:22,23  131:19 278:18  278:19  <b>tells</b> 81:10  258:16  <b>ten</b> 64:3 70:15  195:23 196:12  199:13 239:23  265:1,4  <b>tenant</b> 248:18  <b>tend</b> 263:23  <b>tends</b> 52:12  190:1 239:7,8  <b>tenorm</b> 65:1  <b>tens</b> 68:11  <b>tenuous</b> 134:21  <b>term</b> 36:4  95:25 96:11  104:19 169:5  173:3 236:16  254:10  <b>terms</b> 63:4  104:18 111:5,9  159:3 161:13  162:5 164:20  190:16 205:12  216:21 240:11  265:1  <b>terrific</b> 89:5  224:25 225:15  226:12</p>	<p><b>territory</b>  204:18  <b>terrorist</b>  107:22  <b>test</b> 59:13  160:18 207:19  207:19,25  208:2 220:12  220:16,25  221:2,4 246:24  254:20 258:10  <b>tested</b> 60:2  207:9 253:6  <b>testicular</b> 40:5  60:11 118:15  129:14  <b>testified</b> 34:4  171:15  <b>testifies</b> 171:24  <b>testify</b> 34:8  <b>testifying</b> 28:18  183:4 205:10  286:5  <b>testimony</b>  27:16 28:11,12  28:14 29:2,6  29:12 30:20  34:1,5,9 70:17  101:21 120:16  143:24 144:7  144:14,24  145:11,21  146:4 157:18  157:25 163:10  163:21 171:16</p>	<p>175:19 178:2,4  179:13,18,24  180:2,8,12,18  182:7,10 183:7  183:13 185:15  186:24 189:2,3  189:3 195:11  195:18 206:1,2  206:8 207:12  212:19,20,21  216:10,14  218:13 219:16  221:24 222:3  223:20 224:10  224:13 225:9  226:4 227:5,17  227:24 228:2,8  228:11,17,22  229:1,1 231:14  234:11,17  237:15 238:18  240:2,22,24  241:12,16  242:4,16,21  243:5,7 247:15  248:19 251:1  260:14 264:4  270:3,9 271:23  271:23 272:5  273:8 277:3,5  279:24 283:13  <b>testing</b> 42:13  57:17 59:18  62:17 96:16  132:2 142:21</p>	<p>157:23 160:18  160:23 161:5  164:10 200:24  221:8  <b>tests</b> 52:18  254:21  <b>texas</b> 113:12  <b>textiles</b> 169:13  <b>thank</b> 13:23  15:16 16:8,10  17:1,2,6,11,14  18:9,25 21:2,2  21:4,21 22:6  24:11,24,25  26:9,16,19,25  27:2,4,11,21  30:13 31:11,12  32:9,14 35:6,7  36:17,18 37:3  37:6 38:15,16  38:24 39:2,4,4  41:5,7,17,22  42:5 44:9,11  44:12 46:19,21  47:7 49:8,9  50:20,21,23  53:6,8,16 55:4  55:5 56:10,11  56:18,25 58:1  58:2,18 61:4,6  61:18,23,23  63:8,10,11  65:23,24 66:3  66:8 68:15,16  69:8 71:7,9</p>
--	--	---	--

**[thank - think]**

73:22,23 74:3	140:4,5,17,25	276:14 277:17	147:24 148:17
74:6,8 76:6,9	155:16,17,23	283:10,12,14	150:24 163:6
76:14 79:16,17	155:24 156:18	283:17 284:6	163:10,24
79:25 82:11,16	156:20 165:12	284:18 285:6	183:14 184:16
85:21,22 88:5	165:13,18,22	<b>thanking</b> 156:4	187:4 188:20
88:6,11,14	165:23,24	<b>theguardian....</b>	190:1,17 193:7
89:21 90:1	178:19,21	112:11	196:3,23 198:9
91:21,22 92:5	179:5 182:4	<b>theoretically</b>	199:2,9,10,24
93:6,8,10 94:4	184:17 191:8	207:23	200:8 201:3
96:22,24 97:6	191:20 192:22	<b>thing</b> 36:16	204:1,14,20,23
97:8 99:9,10	192:24 193:3	48:16,17 70:25	205:1,1,17
99:17,19 100:3	193:15 194:11	90:3 114:1	207:14,23
101:20,25	194:13,17,18	116:7 255:9	208:4,6,13
102:1,17	194:25 195:1,8	256:3 280:19	210:11,13
103:23,24,25	198:2 199:16	<b>things</b> 17:20	211:25 214:15
104:6,9 106:7	206:23 212:12	28:7 66:20	218:2 227:11
106:7,9 108:23	212:14,17	67:8 108:23	232:23 235:12
108:24 109:23	224:20,21,25	115:13 116:3	235:21,25
109:24 111:14	225:15,20,20	135:7 159:13	236:24 238:17
111:15 112:2,4	226:21 227:21	161:6 184:22	239:4 240:1,8
114:5,6,17,19	229:12,17	186:24 208:1	241:5,9 249:12
116:13,17,18	230:9,18	240:6 255:5	250:23 252:13
117:4,7 119:12	231:13,14	257:18 277:9	252:18 253:3,8
119:13 120:1	234:10 243:15	284:15	253:10,10,12
122:9,11	243:18,23	<b>think</b> 18:11,19	253:17,18,19
123:10,15,20	244:1,4,5	19:7,13,23	253:20 254:3,9
126:10,13,14	249:12 250:23	21:24 22:2,13	254:13,18
127:25 128:6	251:15,17,25	22:14,15,19	255:19 258:5
128:12 130:11	252:2 256:25	23:13 32:2	258:21,22
130:15 131:2,4	256:25 259:7,8	43:8 46:25	259:2,5 261:15
133:9,11,25	259:9,11	47:2 75:14	266:1 268:19
134:5 135:22	260:12 261:2	98:14 109:12	269:3,8 271:14
135:24,25	263:2 264:14	109:21 111:18	271:18 272:25
136:4,20,25	265:12 269:20	122:5 126:18	276:18 277:4
139:2,5,6,14,22	269:22,24,25	140:22 147:15	278:24 279:12

[think - today]

<p>280:4 283:2,3  <b>thinking</b> 92:10  253:14 279:10  <b>third</b> 48:17  53:23 177:22  202:17 215:15  <b>thorough</b>  149:21  <b>thought</b> 14:12  86:15 247:13  <b>thoughtful</b>  66:18 259:2  <b>thoughts</b> 31:16  31:19 68:24  252:14,19  257:18 283:15  <b>thousands</b>  76:23 78:20  83:3,22 95:10  117:22 118:24  160:22  <b>thousandths</b>  118:9  <b>threat</b> 40:11  72:2,12 74:20  75:23 81:22  84:11 96:2  100:23 137:22  141:13,13  <b>threatens</b> 83:21  <b>threats</b> 80:10  <b>three</b> 27:23  31:16,19 32:15  35:19 37:7  39:3 41:21</p>	<p>44:24 47:18  50:1,13 51:5  53:17 57:1,3  58:21 59:9  61:22 62:23  63:25 66:12  68:23 69:9  71:19 74:7  76:18 80:1  82:20 86:9  88:15 93:20  94:5 97:7  99:18 100:6  102:12 106:20  109:11,13  110:9 112:3  114:18 117:5  119:25 123:14  128:11 131:3  134:4 136:24  139:21 143:17  157:18 214:10  214:20 215:24  222:17 234:7  247:10 275:9  275:17  <b>threw</b> 19:2  <b>thursday</b>  122:19 139:9  <b>thyroid</b> 40:5  51:22 53:21,21  72:9 78:16  91:1 101:4  103:3 115:5,15  129:14 237:25</p>	<p><b>tide</b> 130:5  <b>tim</b> 26:7 141:2  <b>time</b> 18:1,5,8  21:2 22:9 26:4  26:14 36:21  46:20 48:6  50:7 53:20  55:13,21 56:4  65:21 67:24  71:11 77:22,22  78:15 80:21  85:21 87:3,16  88:23,25 89:3  90:24 93:6,20  96:23 97:9  116:8 117:8  119:12 122:9  122:22,24  140:7,15  148:18 156:5,7  156:9 159:17  162:18 164:6  165:17 166:2  168:8 189:19  195:10 200:16  200:16,20  202:14 212:18  226:1,3 236:3  244:5 247:24  248:3 249:21  251:22 256:12  283:12 284:4,5  <b>timeframe</b>  117:21</p>	<p><b>timely</b> 25:25  55:19  <b>times</b> 27:24  29:14 79:10  83:25 118:2  145:24 265:4  <b>timing</b> 15:24  <b>timothy</b> 5:3  <b>tiny</b> 39:20 45:8  72:8 140:3  <b>tired</b> 74:11  75:12  <b>tirelessly</b> 41:25  83:15  <b>title</b> 22:7 35:11  59:11 134:6  238:7  <b>tobacco</b> 107:23  137:12,17  138:11  <b>today</b> 13:4,7  17:1 18:24  19:6 30:24  39:6 49:8  67:14 73:15  74:9,11,19  76:7 77:1  84:15 90:2,10  97:9 102:22  112:12 113:3  122:9 125:3  142:16 143:20  155:18 156:7  168:7 172:8  173:16 174:20</p>
---	--	---	--

[today - transcript]

175:2 180:18 198:11 205:19 207:6 212:18 229:1 284:1,13 <b>toed</b> 108:19 <b>together</b> 19:13 67:2 91:18 178:6 208:15 208:19 <b>told</b> 72:4 104:25 124:18 246:19 285:5 <b>tomorrow</b> 14:13 73:14 122:18 127:13 127:14 139:9 140:15 226:9 284:7 285:5,8 <b>tons</b> 125:2 <b>took</b> 64:21 132:8 139:4 162:18 248:18 251:5 278:2 <b>tools</b> 107:10 <b>top</b> 72:20 81:2 <b>topic</b> 33:5 117:16 157:3 242:3 <b>topics</b> 188:6 <b>total</b> 121:10 196:16 <b>touch</b> 147:13 150:25 <b>touchstone</b> 42:8	<b>tours</b> 69:15 <b>toward</b> 53:2 <b>towards</b> 17:22 77:23 138:10 <b>tox</b> 131:15 <b>toxic</b> 39:20 45:9 65:4,11 66:16 68:7 72:2,8 73:1 75:2 82:7 83:19 84:9 85:11 86:14 94:10 95:13 100:12 102:23 106:24 108:20 113:16 117:18 118:18 120:7 124:22 125:7 129:20 153:4 154:11 167:11 182:15 184:1 185:11 189:15 196:5 239:7 252:23,24 253:4,5,5,10,12 254:12,13 255:1,3 256:1 257:21 258:9 264:16 265:2 282:4 <b>toxicity</b> 40:7 72:10 78:14 101:5 103:4 145:12 185:8 196:7,18,19	206:2,11 209:4 210:3 237:24 237:24,25 238:1,1 265:1 <b>toxicological</b> 185:9 190:8,11 <b>toxicologist</b> 145:5 190:12 193:25 206:11 206:11 255:19 <b>toxicologists</b> 171:22 187:20 <b>toxicology</b> 157:21 178:5 182:9 186:13 188:6 208:22 233:11 235:5 240:18 253:15 253:18 <b>toxin</b> 108:18 <b>toxins</b> 43:10 51:16 52:25 97:18 107:1 <b>tract</b> 264:20 <b>tracts</b> 153:13 <b>trade</b> 38:11 40:22 42:12 62:14,14 65:21 68:4 72:23 80:16 81:16 84:25 87:9 92:7,14,19,25 98:2 101:11 109:17,21 110:14,18	120:24 122:2 128:23 141:19 141:22 146:25 147:20 150:21 151:3,4,5,9,12 151:13,14,15 151:17,19,21 152:4,4,11,22 153:1 159:18 159:22,24 160:1 161:16 161:17 172:6,8 172:17,18,19 172:20,22,24 172:25 173:3,8 173:14 174:23 196:14 200:13 202:4,6 219:25 220:19 223:19 223:22 224:3,5 <b>trademarked</b> 38:9 <b>tradenames</b> 131:13 <b>tradition</b> 80:5 <b>traditions</b> 83:3 128:18 <b>tragic</b> 137:10 <b>training</b> 32:19 59:6 133:2 182:14 231:20 <b>transcriber</b> 287:1 <b>transcript</b> 32:7 36:25 38:21
--	---	---	--

[transcript - tso]

56:19 58:10 61:15 63:16 287:3,5 <b>transcriptionist</b> 286:8 <b>transfer</b> 25:10 <b>transference</b> 107:8 <b>transitioned</b> 155:12 <b>translate</b> 100:1 <b>translation</b> 106:5 <b>transmission</b> 248:14 <b>transparency</b> 72:25 73:17 81:17 82:6 87:24 98:2 101:12 137:7 137:15 138:9 138:23 150:3 <b>transport</b> 145:1 176:22 <b>transportation</b> 177:16 <b>trap</b> 264:21 <b>trapped</b> 264:19 <b>travel</b> 26:11 <b>traveling</b> 284:1 <b>treat</b> 54:21 134:24,24 <b>treated</b> 54:22 75:12 83:22 169:11	<b>treating</b> 84:22 <b>treatment</b> 33:7 41:5 64:10 73:5 149:9 169:11 176:22 177:17 <b>treatments</b> 211:14 <b>treaty</b> 106:7 <b>trehaine</b> 24:21 24:22 <b>tremaine</b> 3:19 9:4,14 21:22 21:22 22:15,17 22:18 23:2 24:12 26:15,16 26:18 155:20 155:22 156:1 165:14 192:13 194:19,20 225:19 226:11 243:24,25 244:3 251:15 251:18 <b>trend</b> 103:21 <b>tribal</b> 171:12 <b>tried</b> 44:5 170:21 205:17 <b>trigger</b> 157:15 <b>triggered</b> 164:13 <b>trillion</b> 253:1 <b>trouble</b> 227:8 <b>troubled</b> 108:7	<b>troutman</b> 28:17 145:18 145:18 146:5 283:23 284:4 <b>troutman's</b> 146:4 <b>truck</b> 64:16 65:4 <b>truckloads</b> 65:1 <b>true</b> 57:20 80:17 105:4 170:21 180:13 228:22 231:4 286:9 287:5 <b>trujillo</b> 7:15 110:3,3,7,10 111:16 <b>truly</b> 61:3 <b>trust</b> 107:24 108:13 149:22 150:2 259:5 <b>trusted</b> 112:25 113:24 257:24 257:24 258:2 269:4,9 277:12 <b>truth</b> 32:8,12 35:17 37:4 38:25 41:18 44:21 47:15 51:2 53:14 56:23 58:14 61:19 63:22 66:9 69:1,6 71:16 74:4	76:15 79:23 82:17 86:6 88:12 93:22 94:2 97:4 99:15 102:9 104:7 106:17 108:13 109:8 110:6 111:24 111:25 112:8 113:7,22,23 114:15 117:2 119:22 123:11 128:8 130:25 134:1 136:21 139:18 179:2 226:19 <b>try</b> 28:23 44:7 55:20 57:10 188:21 193:12 196:1 207:1 215:23 234:15 241:6 242:14 254:24 257:20 280:10 <b>trying</b> 125:22 148:17 242:9 246:5,16,17 247:1 248:7,14 248:16 250:13 256:1 262:9 264:4 274:7 281:3 <b>tsca</b> 167:12,12 <b>tso</b> 69:15
--	---	---	--

[tuesday - understanding]

<p><b>tuesday</b> 1:7 13:2 <b>turn</b> 17:12 31:13 43:14 50:22 86:1 93:6 140:8 178:22 191:24 226:17 253:22 284:10 <b>turns</b> 114:22 <b>twenty</b> 120:24 <b>twice</b> 234:8 <b>two</b> 16:11 17:16,19 18:3 18:3 22:22,22 28:7 53:20 58:23 66:20 109:1 120:22 131:6 144:17 166:17,20 167:5,7 168:3 184:22 195:14 195:24 196:25 210:7 213:24 215:5 222:24 225:9 230:12 240:10 247:10 247:10 249:15 251:10 253:4 257:1 261:7 262:15 265:13 270:11 275:1 283:22 <b>type</b> 132:23 148:21 200:10</p>	<p>203:12,15 207:16 223:7 241:24 <b>types</b> 103:11 105:12 124:2 195:24 196:5,6 199:11,12 208:1,12,15,16 <b>typewriting</b> 286:7 <b>typical</b> 188:19 <b>typically</b> 186:12 244:24 250:3</p> <hr/> <p style="text-align: center;"><b>u</b></p> <hr/> <p><b>u</b> 12:22 32:10 35:12 37:2 50:24 74:2 82:15 86:4 88:10 99:13 104:5 114:12 116:25,25 139:15,16,16 179:11 213:12 <b>u.s.</b> 51:17 86:11 118:18 120:6 203:14 215:6 215:16 <b>ubiquitous</b> 51:13 81:19 <b>ulcerative</b> 115:15 129:16 <b>ultimately</b> 65:20 72:7 76:3 93:1</p>	<p>156:16 157:10 164:3,7 243:3 268:17 <b>unable</b> 36:20 <b>unacceptable</b> 73:7 <b>unannounced</b> 37:19 <b>uncertainty</b> 71:25 <b>unconsciona...</b> 103:6 121:16 <b>unconvince</b> 42:14 <b>under</b> 29:6 34:4 35:24 38:2,3 43:15 67:12 75:23 86:19 89:25 92:16,21 101:11 120:17 121:12 143:13 152:5 157:16 158:18 160:5,8 160:9,12 164:5 164:17 167:11 174:16,23 177:10 184:5 185:4 188:2 192:4 197:3 198:25 201:21 203:2 208:7 209:17 220:18 <b>underestimate</b> 121:13</p>	<p><b>underground</b> 40:11 72:20 75:5 81:2,22 153:5 203:3 209:19 214:1 219:9 <b>underneath</b> 62:3 <b>understand</b> 30:20 42:19 43:10 47:24 54:25 55:23 56:12 79:7 83:18 96:11 100:8 109:15 115:22 117:17 129:2 149:1 171:19 183:1 188:5,17 206:12 231:14 232:17 236:12 238:22 240:12 242:4 267:24 272:10,23 277:1 280:6 282:6 <b>understanding</b> 19:15 127:4 156:21 164:3 168:12 170:4 200:1 224:18 225:10 239:5 244:12 245:23 247:24 266:18 272:18</p>
--	--	--	---

[understandings - use]

<p><b>understandings</b> 134:22 166:11</p> <p><b>understood</b> 83:9 186:7 235:12 240:1</p> <p><b>undisclosed</b> 51:9 53:6 61:1 141:21,24 142:18,25 143:9 144:23 152:2 155:9 172:2 252:8 268:9 281:11 281:17,21,23 282:11</p> <p><b>undue</b> 203:19</p> <p><b>unduly</b> 276:11</p> <p><b>unearthed</b> 112:10</p> <p><b>unenforceable</b> 167:21</p> <p><b>unexpected</b> 77:15</p> <p><b>unforeseen</b> 256:9</p> <p><b>unfortunate</b> 90:3</p> <p><b>unfortunately</b> 64:24 114:21 265:7</p> <p><b>uniform</b> 92:14 150:21 151:3 151:19,21 152:12 159:18 159:22 161:15</p>	<p>172:19 224:5</p> <p><b>unique</b> 81:21 277:9</p> <p><b>unit</b> 16:21</p> <p><b>united</b> 43:11 76:20 132:19 134:8 137:9</p> <p><b>universal</b> 54:21</p> <p><b>universe</b> 146:12 149:17 199:5 220:23</p> <p><b>university</b> 74:15 124:20</p> <p><b>unjust</b> 78:11</p> <p><b>unknowingly</b> 40:25 73:1</p> <p><b>unknown</b> 100:1 176:15,16</p> <p><b>unmute</b> 36:20</p> <p><b>unopposed</b> 18:2</p> <p><b>unprecedented</b> 83:20</p> <p><b>unprotected</b> 40:25</p> <p><b>unreasonable</b> 162:9</p> <p><b>unregulated</b> 107:2 134:16</p> <p><b>unrelated</b> 169:8,17</p> <p><b>unremediated</b> 43:12</p> <p><b>unresolved</b> 64:15</p>	<p><b>unstable</b> 227:16</p> <p><b>unstudied</b> 107:2</p> <p><b>upcoming</b> 125:3</p> <p><b>update</b> 18:5 54:9 159:21</p> <p><b>updated</b> 160:24 173:19</p> <p><b>updates</b> 161:5</p> <p><b>uphold</b> 43:18</p> <p><b>upper</b> 264:19</p> <p><b>uranium</b> 48:24 48:25 83:1</p> <p><b>urge</b> 51:7 61:1 77:1 96:18 98:23 103:22 104:14 106:1,4 128:14 132:15 137:4 138:21 139:24</p> <p><b>urgency</b> 76:2</p> <p><b>urgent</b> 59:17 96:6 119:9</p> <p><b>urges</b> 170:17</p> <p><b>urging</b> 102:22</p> <p><b>usage</b> 147:18</p> <p><b>usdw</b> 216:18,19 216:19 273:10</p> <p><b>use</b> 16:14 25:17 33:7 35:4,5 37:13,16 49:6 51:7,9,14 53:4 53:5 57:15</p>	<p>61:2,25 62:17 65:18 68:6,14 71:2 72:24 73:15 75:20 77:3 78:8,8 79:13 80:10,12 80:14,21 81:11 81:14 91:4,12 100:19 101:23 102:22 103:1 103:23 110:13 110:22 117:10 118:22 119:5 120:11,14 125:14 129:5 130:13 133:5 141:4,20,23,24 143:21,25 150:7,11 151:16 152:1 155:15 157:8 157:11 158:9 158:13,14,18 158:19,20 159:7,9,12 160:21 161:14 161:21,22 162:19 163:23 168:23 169:20 170:18 171:7 172:2 173:9,11 174:6 178:18 195:20 196:22 197:2,4,5,18 209:9 210:5</p>
--	--	---	--

[use - virginia]

<p>213:13,17                  214:8 215:3                  216:2 236:16                  238:21 240:12                  252:7,8,15,20                  252:21 254:10                  270:12 275:8                  279:11,12  <b>used</b> 33:15,18                  34:6 37:10,18                  37:21,22 38:8                  38:10 40:12                  45:2 52:3,11                  57:21 65:5                  67:6,10 73:17                  75:18 78:6                  81:9 82:2 87:6                  90:14 91:7                  95:14 99:1                  103:11 118:24                  120:12 121:3                  132:17 133:9                  141:7,16                  143:22 144:5                  144:25 146:2                  147:4,6 148:3                  150:9,16,19,20                  155:14 157:12                  158:12 162:17                  163:19 164:4                  166:6,17,21,23                  167:1 168:1                  169:12 170:15                  173:3 195:24                  197:10 198:1</p>	<p>198:12,24,25                  199:12,13                  201:2,22 203:3                  205:6 211:7                  212:2,4 213:8                  213:19,21                  216:11 217:23                  218:1,7,8,10,10                  219:9 220:2,14                  220:21,23                  221:3,7 223:12                  223:13,24                  238:18 268:7                  273:25 280:7  <b>useful</b> 173:12                  212:23,24  <b>usefulness</b>                  213:1  <b>uses</b> 110:24                  124:10 161:10                  199:7 274:1  <b>usgs</b> 64:11  <b>using</b> 38:8,12                  57:18 68:3                  75:21 119:4                  121:11 124:20                  155:13 162:23                  163:14 166:17                  196:13 240:10                  248:9 268:24                  274:1 282:19  <b>usually</b> 244:22                  247:9 256:11  <b>utensils</b> 68:1</p>	<p><b>utilized</b> 147:19                  171:21 213:2                  273:15 274:24</p> <hr/> <p style="text-align: center;"><b>v</b></p> <hr/> <p><b>v</b> 44:19 69:4                  93:25 123:9                  227:3  <b>valid</b> 111:11  <b>valley</b> 39:5                  83:14  <b>valuable</b> 172:6                  173:11  <b>value</b> 87:15  <b>values</b> 108:9  <b>variety</b> 196:8                  213:18 217:14  <b>various</b> 90:14                  90:25 94:13                  100:23 168:23                  208:20 236:8                  273:25 279:5  <b>vegas</b> 112:5  <b>vegetable</b> 59:20  <b>vegetables</b>                  59:25  <b>ventilated</b>                  274:13  <b>verbal</b> 29:24  <b>verbally</b> 31:23  <b>verified</b> 57:5  <b>verify</b> 45:14                  160:18,24                  167:19  <b>version</b> 165:3</p>	<p><b>versus</b> 15:18                  124:12 162:1                  235:16,19                  255:25  <b>veteran</b> 86:12                  86:16  <b>veterans</b> 87:7                  88:2  <b>vice</b> 33:20  <b>vicinity</b> 283:21  <b>victims</b> 132:4  <b>videoconfere...</b>                  2:19 5:24 6:3,5                  6:7,8,10,12,14                  6:16,18,20,22                  6:24 7:16,18                  7:20,22,24 8:3                  8:5,7,9,10,12                  8:14,18  <b>view</b> 49:20                  275:4  <b>village</b> 59:3                  83:2  <b>villain</b> 60:21  <b>violate</b> 224:2  <b>violates</b> 172:3  <b>violation</b>                  134:12  <b>violence</b> 107:25  <b>virginia</b> 214:14                  215:2,8,9                  221:17 222:5                  222:16,25                  278:13 279:24                  282:19</p>
---	---	---	--

[virtual - water]

<p><b>virtual</b> 125:3  <b>visualize</b>  181:15  <b>vitae</b> 231:16  <b>vital</b> 83:8 86:16  <b>vivid</b> 131:6  <b>vocs</b> 69:21  <b>voice</b> 98:13,14  123:3 126:19  <b>volume</b> 212:4  259:22  <b>voluntarily</b>  151:13  <b>voracity</b> 159:19  <b>vote</b> 20:18,19  102:22  <b>vulnerabilities</b>  60:12  <b>vulnerable</b>  65:17 72:18  82:1 95:24  96:4 100:11  134:24 135:10</p>	<p><b>walk</b> 134:12  189:6  <b>walked</b> 185:23  190:23  <b>walks</b> 83:11  108:7  <b>want</b> 14:5 20:1  32:4 41:24  48:13,21 49:5  49:15 54:21  67:16 75:14  79:4 90:5 93:2  97:19 99:6  116:14 135:2  140:14 148:16  154:22 156:4  156:11,18  166:8 175:16  200:24,25  205:3,24  210:16 212:25  213:22 216:15  218:6,18  219:12 220:11  223:17,25  232:15,16  238:16,22  239:14 240:11  250:17,24  254:9 255:20  257:12 258:5  258:20 268:19  272:5 273:17  275:4,5 276:25  278:25 279:17</p>	<p>281:12,15  282:7,14,15,23  283:7  <b>wanted</b> 28:25  30:17,25 31:1  55:10,22 57:3  92:9 127:7  148:14 192:6  206:6,12  241:25 247:13  260:11 263:18  <b>wanting</b> 127:1  127:3  <b>wants</b> 107:6  276:13  <b>warming</b> 72:2  <b>warn</b> 258:7  <b>warning</b> 190:7  <b>warns</b> 97:14  <b>warrant</b> 158:8  <b>warranted</b>  158:24  <b>washington</b>  271:21  <b>waste</b> 54:14  64:17 65:2,4  65:11 83:19  143:16 148:13  151:25 153:21  154:2,5,14,16  154:18,19,22  155:1,2,3  175:22,23  176:2 177:1,8  177:10,14,15</p>	<p>217:10  <b>wastes</b> 155:5,6  <b>wastewater</b>  32:19 41:3  64:9 72:21  73:4 81:3  117:13 124:6,9  169:11,11  211:23 217:18  273:25  <b>watch</b> 124:14  134:20  <b>watchdog</b>  62:19  <b>watcher</b> 131:19  <b>watching</b> 75:25  115:16  <b>water</b> 32:19,21  32:25 33:3,6,8  33:21 34:3,13  34:14,16,22  35:23 36:1  39:17 40:1  42:15 45:4,12  46:17,19 48:2  51:25 52:23,24  54:4 57:11  59:17,19 60:5  62:2,18 65:14  67:24 68:10  72:7,17 74:17  74:19 75:1,5,5  75:10,18,25  76:3 77:23  78:22,24 80:20</p>
<p><b>w</b></p>			
<p><b>w</b> 44:19 66:7  179:12 227:4  <b>wait</b> 20:18  24:13 73:21  87:19 192:16  200:19  <b>waiting</b> 225:3  284:21  <b>waiver</b> 69:20  <b>wake</b> 125:7</p>			

[water - weight]

80:24 81:4 82:2,10 83:5 83:10,18 84:3 84:19,24 85:9 86:17,23 90:17 91:5 92:17,20 92:23 93:5 94:9 95:9 96:1 96:9 97:13,15 97:16 98:8 99:2,7 100:20 100:25 101:1 101:11 103:5 103:17 105:13 105:18 110:20 110:23,24 112:16 113:11 113:11,16 116:5,6,9,16 117:15,25 118:5,8,20 120:9 121:4,12 121:18,21 122:2,3,6 125:23 128:17 128:19 129:10 129:17 130:2 132:3,8,17,21 133:4 135:11 135:11 137:5 138:3,8,9,18 140:2 143:14 146:8,11,17 148:12,14 151:24 153:21	154:2,4,14,15 160:5 171:13 172:10,13,15 176:1,23 177:7 177:9,11,12,19 183:9 197:21 200:24 208:13 208:25 209:12 209:14,20 210:1 211:7,9 211:10,11,12 211:13,21 212:2,7,8,10 214:2,9,13,15 214:17 215:4,9 215:11,13 216:24 217:4,9 217:13 220:12 220:12,25 221:5,9,13 222:9,19,25 223:10 233:10 234:6 250:8,10 250:15,19,20 251:2,9,9 252:24 258:6,8 264:16,17,18 272:13,17,21 273:5,11,24,25 274:9,10,10 278:6,21 279:7 279:9,10,12 <b>waterborne</b> 43:4	<b>watering</b> 59:20 <b>waters</b> 80:6 87:7 <b>waterways</b> 135:9 <b>way</b> 16:10,17 45:13 54:21 75:22 118:18 131:12 151:18 156:14 157:4 161:8 178:16 181:15 189:24 189:25,25 190:14 193:16 203:7,16 204:10,11,22 216:19,24 219:5 231:13 244:16 249:9 255:14 260:21 263:19 273:23 275:8 277:12 280:4 <b>ways</b> 68:14 115:14 258:7 274:3 <b>we've</b> 13:7 29:2 46:22 83:8 120:15 142:19 142:22 181:9 197:15,23 202:10,24 223:18 232:6 234:2,8 253:2 254:11,12	255:3 283:21 <b>weakness</b> 267:1 <b>wearing</b> 169:13 <b>weather</b> 267:18 <b>webpage</b> 146:6 <b>website</b> 53:3 79:9 258:15,15 <b>websites</b> 186:25 258:14 258:14 <b>wednesday</b> 55:16 186:5 188:20 189:18 192:2 <b>week</b> 25:19 28:24 55:21 56:1 79:15 122:18 186:9 186:11 226:2 282:15 <b>week's</b> 218:15 <b>weekend</b> 28:6 <b>weeks</b> 29:4 59:16 <b>weg</b> 167:17 168:25 171:4 182:11 193:5,8 <b>weg's</b> 168:6 178:1 <b>weighs</b> 15:23 <b>weight</b> 31:23 71:24 183:14 183:21 187:2,5 196:10
---	--	---	--

[welcome - witnessed]

<p><b>welcome</b> 270:1  <b>well's</b> 220:15  <b>wellbeing</b>  39:16 96:19  130:13 137:4  <b>wellbore</b>  217:24  <b>wells</b> 36:1  57:25 59:13  65:2 67:11,13  76:1 80:13  130:4 132:16  132:17 144:14  153:20 166:7  177:25 196:14  196:16,17,21  200:10,15  202:7 203:4,18  204:19,24,25  210:6 211:7,8  212:4 214:13  214:16,16,17  214:18,20,22  215:4 216:12  216:20,23  217:1 219:9  220:24 221:9  222:17,19,20  222:22 223:14  223:22 249:13  249:14,17,23  249:25 250:7,9  250:11 251:7  261:5,7 262:12  272:10,11,12</p>	<p>272:19  <b>wendell</b> 1:11  <b>went</b> 49:1 70:5  201:5 203:11  254:2 259:22  260:24 268:15  277:14 280:20  <b>west</b> 65:2  114:25 214:13  215:2,8,9  221:16 222:5  222:16,25  278:13 279:24  282:19  <b>wet</b> 273:20  <b>wg</b> 9:19,20,21  9:22,23,24,25  10:3,4,5,6,7,8,9  10:10,11,12,13  10:14,15,16,17  10:18,19,20,21  10:22,23,24,25  11:3,4,5,6,7,8,9  11:10,11,12,13  11:14,15,16,17  11:18,19,20,21  11:22,23,24,25  12:3,4,5,6,7,8,9  12:10,11,12,13  12:14,15,16,17  12:18,19,20  <b>whatsoever</b>  248:4  <b>whisenhunt</b>  287:2,15</p>	<p><b>white</b> 8:4  127:24,25  128:4,5,9,12  130:16  <b>wholly</b> 171:6  <b>wide</b> 90:16  94:16  <b>widespread</b>  51:14 81:20  91:4 125:7  137:18 204:1  <b>width</b> 264:10  <b>wildearth</b> 5:2,4  9:18 25:3 26:5  26:8 36:5 77:2  141:2 145:19  146:14 147:1  150:12 156:12  163:21 168:25  169:2 178:8,24  179:14,16,21  180:5,10,17,22  180:23,24  181:1 191:12  191:14 199:17  199:24 210:16  226:14 227:6  228:5,13,19  229:4,4,5,7,10  230:22 231:1  231:15 234:24  244:8 252:15  257:3 270:4  277:19,23  281:8 283:4</p>	<p><b>wildearth's</b>  174:9 178:10  <b>wildearthgua...</b>  5:7  <b>wildlife</b> 52:10  69:12 121:22  124:17,18  <b>william</b> 5:16  13:18  <b>willing</b> 44:1  84:21 88:2  181:14  <b>wisdom</b> 42:1,14  108:14  <b>wise</b> 210:4  <b>wish</b> 19:18  213:4 241:3  <b>wished</b> 60:18  <b>wishing</b> 133:13  <b>withheld</b>  137:10 142:12  <b>witness</b> 16:14  23:3 26:4  28:17 29:1,4  29:12 33:8,10  34:8 140:14  145:17 178:23  185:1 186:8  187:24 189:20  191:18 195:3  198:10 212:16  227:19 286:4  <b>witnessed</b>  64:16 80:6</p>
--	---	--	--

[witnesses - year]

<p><b>witnesses</b> 9:7 22:22 26:1 28:11 29:11 143:18 148:19 157:19 186:19 187:18 198:19 207:10 225:5 283:22 <b>woke</b> 74:10 <b>woman</b> 72:11 79:5 137:3,3 138:16,17 <b>women</b> 196:10 <b>won</b> 137:19 <b>wonderful</b> 115:2 134:5 <b>wondering</b> 39:14 204:10 230:14 <b>woods</b> 6:6 44:14,15,16,19 44:22,25 46:22 46:23 <b>woozy</b> 245:5 <b>word</b> 119:7 154:2 224:19 238:19,21 239:14 240:8 <b>words</b> 33:25 141:21 153:23 154:12 197:18 223:9 236:11 <b>work</b> 21:10 56:6 74:24 79:6 99:25</p>	<p>104:17 107:13 108:22 127:1 156:15 157:2 158:4 161:1 164:1 184:14 208:20 231:19 231:24 232:3 232:11 238:16 246:18 257:6 272:9 282:8,24 <b>workday</b> 283:21 <b>worked</b> 41:25 156:16 256:11 270:14 277:5 283:2 <b>workers</b> 55:3 140:1 150:1 256:13,13,16 <b>workforce</b> 256:16 <b>working</b> 17:22 88:25 91:17 123:18 145:6 187:21,22 210:9 233:3 243:4 250:22 281:23 <b>works</b> 67:9,12 145:20 <b>world</b> 42:23 48:17 51:18 68:15 90:15 98:18 255:2 279:6</p>	<p><b>worried</b> 120:7 254:5 <b>worse</b> 67:24 72:23 115:14 <b>worsens</b> 95:22 <b>worst</b> 48:17 104:18 <b>worth</b> 40:17 <b>wrap</b> 34:25 85:14 116:12 126:2 177:20 <b>write</b> 224:13 <b>writing</b> 29:3 31:20 126:16 151:2 <b>written</b> 29:6 30:3,19 31:22 64:2 89:4 171:16 178:2,4 179:23 180:12 180:16,16 213:12 228:7 228:11,21,21 228:25,25 <b>wrong</b> 59:16 192:3 260:18 <b>wrote</b> 33:16 195:22 245:21</p> <p style="text-align: center;"><b>x</b></p> <p><b>x</b> 9:16 10:1 11:1 12:1 123:9 <b>xavier</b> 7:23 123:8</p>	<p style="text-align: center;"><b>y</b></p> <p><b>y</b> 37:2 61:17 69:4 79:21 88:9 109:6 110:4,4 119:20 130:22 133:24 179:11 <b>y'all</b> 198:3 <b>ya'aanii</b> 138:16 <b>yeah</b> 19:23 41:16 47:10 61:10 122:23 126:3 181:16 183:5 184:2 188:13,16 189:11 195:8 198:17 201:7 205:7 216:5,9 219:10 232:23 233:18,19 234:2 244:11 246:5 253:16 256:25 257:14 260:19 262:6 262:25 263:16 263:20 267:14 271:9,18 276:22 279:18 279:23 280:17 282:6 285:4 <b>year</b> 46:4 59:8 99:7,7 121:3 132:15 195:23 196:12 199:3 199:13 204:8</p>
--	---	---	---

[year - zoom]

<p>256:7  <b>year's</b> 107:14  <b>years</b> 32:22  47:22 53:23  57:8,9 64:3  70:15 83:3  99:6 117:20,22  118:25 120:6  131:5,17  146:17 172:23  198:13 210:9  232:9 233:13  233:15 234:8  254:3 255:3  268:15  <b>yellow</b> 108:21  <b>yep</b> 24:9 181:6  231:18  <b>yesterday</b>  195:10  <b>york</b> 245:14  259:15 260:2  260:17,25  261:3,4 262:8  262:20,22  263:13  <b>young</b> 45:18  62:6,10 71:23  72:11 74:21  75:8 76:22  95:18 125:15  <b>younger</b> 40:8  45:19 73:11  <b>youngest</b>  100:10</p>	<p><b>youth</b> 76:20  106:8 134:7  <b>yucca</b> 76:21  106:8  <b>yuen</b> 5:24  36:21,22,23  37:1,1,5,8  38:17</p> <hr/> <p style="text-align: center;"><b>z</b></p> <hr/> <p><b>z</b> 76:13 79:21  82:15 86:4  123:9  <b>zephyr</b> 7:5  79:20 80:3  <b>zone</b> 70:21  75:13 105:16  129:4  <b>zones</b> 52:13  68:7 164:4  282:21  <b>zoom</b> 43:23</p>
---	--