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STATE OF NEW MEXICO  
OIL CONSERVATION COMMISSION  
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IN THE MATTER OF PROPOSED  
AMENDMENTS TO 19.15.2,  
19.15.5, 19.15.8, 19.15.9, Case No.  
AND 19.15.25 NMAC 24683  
-----  
HEARING  
DATE: Wednesday, November 5, 2025  
TIME: 9:00 a.m.  
BEFORE: Hearing Officer Felicia Orth  
LOCATION: Wendell Chino Building, Pecos Hall  
1220 St. Francis Drive,  
Santa Fe, NM 87505  
REPORTED BY: Gerald Aragon, Notary Public  
JOB No.: 7626656

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A P P E A R A N C E S  
ON BEHALF OF NEW MEXICO ENERGY MINERALS AND NATURAL  
RESOURCES DEPARTMENT:

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I N D E X

WITNESS:	DX	CX	RDX	RCX
Robert Arscott				
By Mr. Cloutier	29		103	
By Mr. Tisdell		42		
By Mr. Tremaine		80		

E X H I B I T S

NO.	DESCRIPTION	PAGE
	(None marked.)	

1  
2  
3  
4  
5  
6  
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P R O C E E D I N G S

HEARING OFFICER: Let's prepare to begin this morning, please. Good morning. My name is Felicia Orth. The hearing officer appointed by the Oil Conservation Commission to conduct a hearing in OCC-24683 regarding well plugging and financial assurance.

We are on day 13 of the hearing, and we have reached another public comment session. Just a few things about public comment. I'll invite comment from folks in the room and on the platform.

If you're on the platform, please raise your virtual hand. I will ask you to spell your first and last name. I will ask you to swear or affirm to tell the truth, and I will ask you to keep your comments to three minutes. Let's start this morning with Senator Pope. Senator Pope, can you unmute yourself?

SENATOR HAROLD POPE: I can. Thank you. Are you able to hear me?

HEARING OFFICER: Oh, yes. Yes. Thank you very much. Senator, do you swear or affirm to tell the truth?

SENATOR HAROLD POPE: I do.

HEARING OFFICER: Thank you. Please go ahead.

SENATOR HAROLD POPE: Sure. Chair,

1 Commissioners, fellow New Mexicans. Thank you for the  
2 opportunity to speak today.

3 My name is Senator Harold Pope, Jr., and  
4 I'm here because of the people -- because the people of  
5 New Mexico deserve clean water, healthy communities, and  
6 a fair system that puts public wellbeing over corporate  
7 neglect.

8 For more than a century, oil and gas  
9 development has played a role in our state's economy and  
10 identity. But with that history comes responsibility.  
11 Right now, New Mexico faces between \$700-million and  
12 possibly \$1.6 billion in oil and gas cleanup liability.

13 We have nearly 700 known abandoned wells  
14 with the possibility of another 4,400 wells at high risk  
15 if they were to be abandoned by operators who walk away.

16 And in the last five years alone, \$100-  
17 million in state and federal tax payer dollars have  
18 already been used to cleanup orphaned wells. Let me be  
19 clear, New Mexico tax payers should not be the cleanup  
20 crew for corporate pollution. If you drill it, you  
21 should clean it up.

22 Yet today, our bonding rules, the  
23 financial guarantees companies must provide to ensure  
24 cleanup, are drastically outdated.

25 Under current statute, a company with

1 dozens or even hundreds of wells, can post as little as  
2 \$250,000. Meanwhile, the average cost to plug a single  
3 well is \$163,000. And some wells can cost over \$700,000  
4 to reclaim. That math does not add up.

5 We are essentially giving operators a  
6 green light to profit up front, while leaving the public  
7 with the bill when they walk away. That's not  
8 responsible development. That's a corporate subsidy at  
9 the expense of New Mexico families, the land, and water.

10 And New Mexicans understand this. 89  
11 percent of voters across parties agree that companies  
12 should pay to clean up their own messes. This isn't  
13 partisan. This about fairness, accountability, and  
14 fiscal responsibility.

15 Why this matters. This is not an  
16 abstract issue. Abandoned wells leak methane, benzene,  
17 and toxic fluids. They contaminate ground water, hurt  
18 wildlife, and create explosions risks.

19 The wells most likely to be abandoned are  
20 often located in rural communities, tribal communities,  
21 and communities of color. The very places that have  
22 starkly received the least investment and the most  
23 environmental harm.

24 As a New Mexican, we take pride -- as New  
25 Mexicans, we take pride in our land. Our families farm

1 on it, ranch it, hunt on it, recreate on it. And we  
2 tend to pass it down, healthy and whole, to our children  
3 and grandchildren.

4 We cannot allow our landscape to become a  
5 checkerboard of abandoned hazards. Every day New  
6 Mexicans work hard, follow the rules, and clean up after  
7 themselves.

8 The teacher can't leave their classroom  
9 trash and expect the state to pay for it. A small  
10 business owner can't dump waste into a river and walk  
11 away without consequences.

12 Why should wealthy oil and gas  
13 corporations, many based out of state, many earning  
14 record profits, get the break -- get to break that  
15 social contract?

16 This is about smart budgeting. Updating  
17 money requirements is not about punishment. It's about  
18 common-sense fiscal stewardship. The LFC's nonpartisan  
19 analysis supports strengthening these rules. Ensuring  
20 adequate bonding today, will prevent massive liabilities  
21 tomorrow.

22 Especially when industry cycles boom and  
23 bust. If we don't fix this now, we know exactly who  
24 will pay later. It'll be the taxpayers.

25 The message should be simple. This is

1 about our water and land because it's sacred in  
2 protecting it. Our communities deserve protection, and  
3 our taxpayers deserve fairness.

4 If companies profit from drilling in New  
5 Mexico, we must take -- they must take responsibility  
6 for restoring what they disturbed. That is not anti-  
7 industry, that is pro-New Mexico.

8 So I respectfully urge the Oil and  
9 Conservation Commission to strengthen bonding  
10 requirements to reflect real cleanup costs. Ensure that  
11 polluters, not the public, bear the financial burden.  
12 And to protect our water communities and future  
13 generations.

14 And to my fellow New Mexicans listening,  
15 your voice matters. Join us in this, and ensure that if  
16 they drill it, they clean it up.

17 This is about protecting our home, our  
18 health, and our future. Thank you for your time and  
19 commitment to our state. Let's do the right -- let's do  
20 right by our people, and ensure that New Mexico's legacy  
21 is not one of abandoned pollution, but one of  
22 responsibility, stewardship, and pride. Thank you.

23 HEARING OFFICER: Thank you very much,  
24 Senator. We'll go to Robyn Jackson. Can you unmute  
25 yourself?



1 ROBYN JACKSON: Hello.

2 HEARING OFFICER: Hello. Could you spell  
3 your name, please?

4 ROBYN JACKSON: My name Robyn, R-O-B-Y-N.  
5 Last name Jackson, J-A-C-K-S-O-N.

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

8 ROBYN JACKSON: Yes.

9 HEARING OFFICER: Thank you. Please go  
10 ahead.

11 ROBYN JACKSON: Thank you. Good morning,  
12 Chair and Commissioners. My name is Robyn Jackson, and  
13 I'm speaking on behalf of the Navajo Environmental  
14 Justice Organization, Dine C.A.R.E.

15 In strong support of the proposed bonding  
16 rule changes. I've heard the argument that we shouldn't  
17 be changing bonding requirements because our well  
18 plugging system is broken, but I think that gets it  
19 exactly backwards.

20 The reclamation fund is there for  
21 emergencies, not for corporations to rely on as a backup  
22 plan when they walk away. If we don't fix the bonding  
23 system now, the problem only gets bigger and more  
24 expensive.

25 The rule is about preventing the future

1 risk of more abandoned wells. If we require fair  
2 bonding now, we won't need to drain public funds later.  
3 That's not just smart government; it's basic risk  
4 management.

5 A broken system doesn't mean we wait to  
6 act. It means we -- it means we act now to keep things  
7 from getting worse. Right now, there are nearly 700  
8 wells that oil and gas corporations have abandoned. And  
9 another 4,400 that could be abandoned in the future,  
10 which threatens our health and drinking water unless we  
11 make them clean up.

12 New Mexicans are paying the price when  
13 corporations walk away from their responsibilities.  
14 Nearly \$100-million in public funds have been used to  
15 clean up abandoned wells in just the last five years.

16 That's money that could've gone to our  
17 schools, our roads, or our clean energy future. The  
18 truth is, most wells in New Mexico are owned by wealthy  
19 corporations that can afford to do the right thing.

20 If a corporation can't afford to clean  
21 up, then maybe they shouldn't be drilling in the first  
22 place. Please adopt the proposed rules, and protect New  
23 Mexico's future. Thank you.

24 HEARING OFFICER: Thank you, Ms. Jackson.  
25 We'll move then to Clay Arrington.

1 CLAY ARRINGTON: Yes, ma'am.

2 HEARING OFFICER: Hello. Would you spell  
3 your first and last name, please?

4 CLAY ARRINGTON: C-L-A-Y, A-R-R-I-N-G-T-  
5 O-N.

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

8 CLAY ARRINGTON: I do.

9 HEARING OFFICER: Thank you. Please go  
10 ahead.

11 CLAY ARRINGTON: Thank you, Commissioners  
12 to -- for taking the time to listen today. I work for a  
13 company that operates oil and gas wells in New Mexico.

14 I myself do not live in New Mexico, but I  
15 grew up going on vacations with my family multiple times  
16 a year. at least four times every year during my  
17 childhood. I continue this with my children today.

18 The natural beauty of New Mexico  
19 continues to call me back. And preserving this, and the  
20 environment, is of the utmost importance to myself and  
21 the company that I work for, for future generations to  
22 enjoy.

23 The opportunity to work and produce gas  
24 in the state of New Mexico has been the high point of my  
25 career. The rock and the prospectivity is world class,

1 and that future prospectivity will only grow from what  
2 we know today.

3 Our company employs 18 full-time  
4 employees, and utilizes over 140 subcontractors that  
5 employ hundreds more, that call New Mexico home.

6 The wells our company produces are on the  
7 central basin platform, where many of the so-called  
8 marginal wells are located. While a few of these wells  
9 do fall into the marginal category, according to the  
10 proposed rules, there's vast upside to extend and raise  
11 production.

12 We've recently recompleted one such  
13 marginal well, boosting production by 325 percent.  
14 There's more opportunity for this type of work, and for  
15 future horizontal drilling opportunities in all of our  
16 operated properties in the state.

17 We would also like to grow our footprint  
18 in the state. We feel that this state already has  
19 stringent but clear guidelines to operate under.

20 These opportunities for both  
21 recompletions, horizontal drilling, and for future  
22 growth through acquisitions, will not occur if the  
23 proposed financial assurance and transfer limitations  
24 are put in place.

25 My family, 18 families in Eunice, and

1 hundreds of subcontractors and their families, are  
2 asking the NMOCD to put in place fair and smart rules.  
3 Not blanket mandates that will punish good operators  
4 like us.

5 That will force us to become insolvent or  
6 operate elsewhere. Thank you for your time today.

7 HEARING OFFICER: Thank you, Mr.  
8 Arrington. We'll move then to Patty Berry. Ms. Berry,  
9 will you unmute yourself?

10 PATTY BERRY: Yeah. Here I am.

11 HEARING OFFICER: Hello. Would you spell  
12 --

13 PATTY BERRY: Hello.

14 HEARING OFFICER: -- your first and last  
15 name, please?

16 PATTY BERRY: Yes. It's P as in Paul, A-  
17 T-T-Y, B as in boy, E-R-R-Y.

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

20 PATTY BERRY: Absolutely.

21 HEARING OFFICER: Please make your  
22 comment.

23 PATTY BERRY: All right. I'm happy to be  
24 here with you all today. I came to New Mexico as a  
25 young child, and have lived here off and on. Excuse my

1 voice because I've had a bad cough.

2 I've lived here off and on since 1952. I  
3 have been here in Santa Fe the last 40 years. And have  
4 experienced the ups and downs of the New Mexico economy  
5 in relation to education. Affordability in regards to  
6 housing, and the economy in general.

7 We raised four children here in Santa Fe,  
8 and watched the education system go down when funding  
9 was cut. I know the importance of the funding coming  
10 from the oil and gas industry for this state, and the  
11 state's reliance on it over the years.

12 This industry is vitally important to  
13 keeping affordability in the forefront for education in  
14 New Mexico. And is vital in my mind, to rural New  
15 Mexicans for our farmers to operate efficiently, and  
16 continue to prosper.

17 I'm grateful for the advances that have  
18 been made in the industry, and for the opportunities  
19 that have been opened up for smaller communities to  
20 prosper as the oil and gas operations continue.

21 We are blessed to have the resources here  
22 in this state. And can continue to grow as they are  
23 accessed efficiently and safely. The idea of imposing  
24 more restrictive regulations can have unseen  
25 consequences that could harm our children's educational

1 futures.

2 This is what is so important to me right  
3 now. We need more support for those areas that  
4 encourage our children's interests in science and  
5 conservation.

6 So I urge you to not put forth these  
7 regulations. I think that we have to be very careful.  
8 And I'm also open to -- I want honesty and fairness  
9 because they are vital to their continued success.  
10 Thank you for my -- for giving me the opportunity to  
11 speak.

12 HEARING OFFICER: Thank you, Ms. Berry.  
13 We'll move now to Sean Ramey.

14 SEAN RAMEY: Yes, hello.

15 HEARING OFFICER: Hello. Would you  
16 please spell your first and last name?

17 SEAN RAMEY: My name is Sean, S-E-A-N.  
18 Ramey, R-A-M-E-Y.

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

21 SEAN RAMEY: I do.

22 HEARING OFFICER: Please go ahead.

23 SEAN RAMEY: Thank you. Hello everybody.  
24 I am Sean Ramey, a New Mexican resident speaking for  
25 myself. There are three essentially non-exclusive,

1 primary reasons why I'm supporting the changes, and why  
2 I urge you to support the changes to the current bond  
3 legislation on oil wells in New Mexico.

4 First, it is just plainly outright  
5 egregious that almost \$100-million of public funding has  
6 been poured into plugging oil and gas wells in New  
7 Mexico.

8 (Inaudible) oil and gas companies, many  
9 of which are not even in the state, absolutely have the  
10 funds to clean up the mess that they make. And it is  
11 clear that the burden should not be put on the shoulder  
12 of New Mexico residents.

13 Second, increased bonding is backed by  
14 the public, as well as the best available science. I am  
15 someone who works within the legal and policy field with  
16 a scientific background. And I cannot emphasize enough,  
17 the importance of integrating science in our  
18 environmental legislation.

19 Finally, I have been in positions where I  
20 have surveyed abandoned oil wells across the state of  
21 New Mexico. And I have witnessed the impacts they have  
22 on the environments.

23 If you approach them and see them, you  
24 will notice that within the immediate facility vicinity,  
25 there is nothing around them. And that's because these



1 wells, even if they look like they are not leaking, they  
2 are. They have lasting impacts on the soil and the  
3 water beneath it.

4 It is clear to everybody New Mexico has  
5 its issues with obtainable water. And especially, clean  
6 water. Especially to those not represented in  
7 underfunded communities.

8 It is heartbreaking to see the impact on  
9 the environment in the communities that improper  
10 regulations on oil and gas have. Needless to say, oil  
11 and gas has many great things for the state of New  
12 Mexico, as its economy is completely depend on --  
13 dependent on it.

14 However, it is our job as the public to  
15 voice our -- voice our concerns in situations like this.  
16 And that is why I urge you guys, and everyone, to  
17 support increased bonding legislation moving forward.

18 And we cannot let large corporations  
19 essentially put profit over the environment time and  
20 time again. Thank you very much.

21 HEARING OFFICER: Thank you, Mr. Ramey.  
22 We'll move next to Jennifer Grassham. Ms. Grassham, can  
23 you unmute yourself?

24 JENNIFER GRASSHAM: There we go.

25 HEARING OFFICER: Hello. Would you spell

1 your first and last name, please?

2 JENNIFER GRASSHAM: J-E-N-N-I-F-E-R, G-R-  
3 A-S-S-H-A-M.

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

6 JENNIFER GRASSHAM: I do.

7 HEARING OFFICER: Please go ahead.

8 JENNIFER GRASSHAM: My name is Jennifer  
9 Grassham, and I am the president and CEO of the Economic  
10 Development Corporation of Lea County.

11 I am also a proud resident of Hobbs, a  
12 community that depends on oil and gas jobs. There's no  
13 doubt that these rules would inflict real harm to  
14 families like mine.

15 The proposed rule would place impossible  
16 costs on small operators, and threaten the livelihoods  
17 of people who work hard every day to keep this industry  
18 running.

19 These rules don't just affect companies,  
20 they affect people. When a rig shuts down, it's not  
21 just one worker out of a job. It's their family, the  
22 mechanic, the restaurant owner, and the school that  
23 depends on that tax revenue from oil and gas.

24 These are good jobs that pay mortgages,  
25 put food on the table, and keep young people here in New

1 Mexico. Oil and gas production is a cornerstone of our  
2 state's economy. It funds our schools, roads, and  
3 hospitals. When the industry struggles, our entire  
4 state feels it.

5 If this rule is adopted, the irreparable  
6 harm won't just be to the oil and gas industry in our  
7 state. The harm will certainly spill over to the long-  
8 term economic prospects of all New Mexicans trying to  
9 make a living in New Mexico. I urge you to reject this  
10 proposal. Thank you.

11 HEARING OFFICER: Thank you, Ms.  
12 Grassham. We move now to James Brockway. Mr. Brockway,  
13 can you unmute yourself? Hello. Sheila, you might have  
14 to unmute a phone number as well.

15 JAMES BROCKWAY: Is that any better?

16 HEARING OFFICER: There you are. Yes,  
17 thank you.

18 JAMES BROCKWAY: Okay, good.

19 HEARING OFFICER: Would you spell your  
20 first and last name, please?

21 JAMES BROCKWAY: J-A-M-E-S, James.  
22 Brockway, B-R-O-C-K-W-A-Y.

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

25 JAMES BROCKWAY: Yes, I do.

1 HEARING OFFICER: Please go ahead.

2 JAMES BROCKWAY: Okay. Good day to  
3 everyone. And I hope that after the elections -- or  
4 election day, you came out on top.

5 My name is James Brockway. And on the  
6 topic about oil and gas, kind of hits home for me as my  
7 family has been associated with the oil and gas for --  
8 in a very unique way. Been around a long while.

9 My family was the one that -- my father  
10 was born in Oil City, Pennsylvania. And prior to that,  
11 my family kind of started the transportation industry  
12 back over a hundred years ago.

13 On the east coast, they started Brockway  
14 Trucks. On the west coast, they started Ground Coaches.  
15 The ones that made the buses and the fire trucks in the  
16 Los Angeles area.

17 But as a member of the family that  
18 produces the buses and fire trucks under those names,  
19 you know, it's -- I've been very -- very much involved  
20 with the oil and gas industry, and so on.

21 I was in the Air Force, been over in  
22 Europe as well as Vietnam. I worked for the Department  
23 of Defense and I've retired from that.

24 And I have friends of mine who actually  
25 work in the oil industry in southern New Mexico. And

1 very thankful for the work and time that they put in  
2 over there.

3 To update a lot of this, living in  
4 California, lived out there until everything went south  
5 there. Home prices and everything. So I moved to  
6 Albuquerque, and the state is rich in resources.  
7 Especially, oil and gas. We're number two in the  
8 nation.

9 And the bottom line is, I just want to  
10 see, you know, the oil industry stay (inaudible) and  
11 productive. And that if we're going to take and taxes  
12 or fees to that, the mom-and-pop oil, you know, owners,  
13 whatever. They're the ones that are going to suffer.

14 Bottom line really is that if we have it  
15 to where the oil industry is supporting our schools, we  
16 don't want to dumb down New Mexicans or America for that  
17 matter. And that adding these fees or levies will only  
18 hurt us, instead of help us.

19 And that's why everybody is moving away  
20 from Albuquerque or in New Mexico, because we've put so  
21 many restrictions and penalties on it that nobody --  
22 none of the businesses want to move here.

23 And so I'm just begging that you rescind  
24 or, you know, not put in place, the fees or taxes that  
25 the mom-and-pop oil industry has. And that we continue

1 on with what we've got, and make it more profitable.

2 And that's -- that's my saying on that.

3 If you would for us, please, not add the  
4 added fees or taxes. That's all I have to say. Thank  
5 you.

6 HEARING OFFICER: Thank you, Mr.  
7 Brockway. Do we have anyone else on the platform who  
8 would like to offer comment? We're certain that we will  
9 have another public comment session tomorrow morning.

10 That's Thursday morning at 9:00 a.m.  
11 Let's see. Sheila, Greg Petty. Mr. Petty, can you  
12 unmute yourself?

13 GREG PETTY: Yes.

14 HEARING OFFICER: There you are. Would  
15 you spell your first and last name, please?

16 GREG PETTY: Can you see me?

17 HEARING OFFICER: No, but we can hear you  
18 clearly.

19 GREG PETTY: Okay. I'll try to turn the  
20 camera on. I don't know why it's not --

21 HEARING OFFICER: There you are. Now we  
22 can see you.

23 GREG PETTY: Okay. Good morning, Chair  
24 and Commissioners.

25 HEARING OFFICER: Hold on. Would you

1 spell your first and last name, please?

2 GREG PETTY: Yes. Okay. It's Greg, G-R-  
3 E-G. Petty, P-E-T-T-Y.

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

6 GREG PETTY: Yes, I do.

7 HEARING OFFICER: Okay. Go ahead.

8 GREG PETTY: My name is Greg Petty and  
9 I'm here today just as a regular citizen of New Mexico.  
10 A state I grew up in, a state I moved away from, and a  
11 state I was really happy to move back to, regardless of  
12 all the other issues that are going on in our state.

13 It's beautiful, diverse state, and I want  
14 to speak as a citizen to preserve that. As I'm sure you  
15 have already heard, probably many times over the last  
16 few days. If you drill it, you should clean it up. And  
17 that's for 100 percent of the time.

18 Regardless of how many corporations the  
19 well is sold to. Right now those wells are being dumped  
20 on the citizens of New Mexico, and the cost is very  
21 high.

22 But the real reason that I'm concerned is  
23 just simply from the health aspects of what is leaking  
24 from these abandoned wells, or the wells that are very,  
25 very seldom used, or pumping oil and -- or gas anymore.

1                   We can't allow the methane and the  
2       destruction of the -- of the rare water resources to  
3       just be left as they are if a corporation walks away  
4       from them. And I -- you know, I've heard the other  
5       people's comments about, yes, it's -- these could cost  
6       jobs.

7                   And my experience in banking and finance  
8       and other industries, is that every corporation cries  
9       wolf when profits are threatened. So really, what I'm  
10      advocating is, that we just have, and I think this rule  
11      does that, sensible bonds.

12                  And I really don't believe that they will  
13      cost jobs to the average citizens of New Mexico. We  
14      just cannot allow the continued poisoning of our lands.  
15      And the polls -- I'm sure you have the polling data.

16                  The polling data is that 90 percent of  
17      New Mexicans approve of these common-sense rules. So I  
18      would please urge you to vote for stronger bonding  
19      rules, and I thank you for your time.

20                  HEARING OFFICER: Thank you, Mr. Petty.  
21      Is there anyone else on the platform? If you dialed in,  
22      you can hit star 5 to raise your hand. Otherwise, let  
23      me -- Chrissie Waquie. Ms. Waquie, can you unmute  
24      yourself, please?

25                  CHRISSIE WAQUIE: Good morning.



1 HEARING OFFICER: Good morning. Would  
2 you spell your --

3 CHRISSIE WAQUIE: Can you hear me?

4 HEARING OFFICER: Yes. Would you spell  
5 your first and last name, please?

6 CHRISSIE WAQUIE: It's going to be  
7 Chrissie Waquie. C-H-R-I-S-S-I-E.

8 HEARING OFFICER: (Inaudible) --

9 CHRISSIE WAQUIE: W-A -- I'm sorry?

10 HEARING OFFICER: Good, thank you. Keep  
11 going.

12 CHRISSIE WAQUIE: Okay. W-A-Q-U-I-E.

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

15 CHRISSIE WAQUIE: Yes.

16 HEARING OFFICER: Thank you. Please go  
17 ahead.

18 CHRISSIE WAQUIE: Good morning,  
19 Commissioners. My name again, is Chrissie Waquie and  
20 I'm speaking on behalf of our tribal members, our  
21 medicine people, the medicine man association. I am a  
22 member of that through our sweat lodge.

23 I would greatly appreciate that we have a  
24 stronger bonding in our rules, and clearing up all this  
25 mess for our -- through our aquifers. This land has

1     been pristine for a long time, and now it's being  
2     violated in such ways. And the cleanup has just been  
3     disastrous.

4                     Our livestock are being affected. Our  
5     kids are being affected. Schools that are nearby are  
6     being affected with inadequate water. It's bad enough  
7     that we don't have water or electricity on some of these  
8     reservations.

9                     So I just request that, you know, we have  
10    a better understanding and transparency in getting this  
11    cleaned up for our community. It's affecting everybody.  
12    We barely even have any water.

13                    So that's all I'd like to say. And I  
14    greatly appreciate your including my comment in this.  
15    Again, Chrissie Waquie from the Dime Medicine Men  
16    Association.

17                    HEARING OFFICER: Thank you very much,  
18    Ms. Waquie. Is there anyone else on the platform that'd  
19    like to offer comment this morning? All right. Let me  
20    see if there's anyone in the room. Sir, were you here  
21    for comment? If you would join us here up at the front.  
22    Yes, please.

23                    STEPHEN COLLINS: Good morning.

24                    HEARING OFFICER: Your first and last  
25    name, please?

1                   STEPHEN COLLINS: Stephen Collins. S-T-  
2                   E-P-H-E-N. C-O-L-L-I-N-S.

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

5                   STEPHEN COLLINS: I'm sorry?

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

8                   STEPHEN COLLINS: I do.

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

11                  STEPHEN COLLINS: Okay. I've lived in  
12                  Santa Fe for almost 25 years. And I actually first came  
13                  to Santa Fe when I was 12 years old, which is more years  
14                  ago than I care to remember.

15                  Over that time, I've come to develop a  
16                  close connection to this special place, and now consider  
17                  it my home. Over my time here, I've learned that the  
18                  oil and gas industry gets preferential treatment, in  
19                  large part by well-funded lobbying on behalf of big oil.  
20                  In some cases, funded by taxes that we pay.

21                  Industry lobbyists claim the system is  
22                  working fine, but it's not. It's definitely not working  
23                  for the average New Mexican. The state's own reports  
24                  show that existing bonds cover less than 1 percent of  
25                  actual cleanup costs.

1           That's not acceptable and needs to be  
2       changed for the health of our land, water, and the  
3       health of our people. It seems like that should be  
4       self-evident, but apparently it's not.

5           Stated simply, companies should pay  
6       before they drill. There's no earthly reason why oil  
7       and gas companies should be allowed to drill without  
8       posting a promise to leave a well as clean as it was  
9       before they began. And post a bond in advance to cover  
10      the full cost of the cleanup.

11           If they can't afford to do that, they  
12      can't afford to drill in the first place, and should  
13      not. Period. New Mexico already has thousands of  
14      orphaned wells that taxpayers are on the hook to pay  
15      for.

16           Not to mention the leaking methane,  
17      accelerating climate change. The consequence of years  
18      of unregulated extraction and processing that already  
19      adds to the burden New Mexicans must bear.

20           A policy that requires full cost bonding  
21      in advance of any drilling, backed up by rigorous  
22      enforcement, is a bare minimum to protect our valuable  
23      assets. Nothing less than full cost bonding will  
24      address this.

25           If I rent an apartment, I have to show

1 good faith by posting a deposit in advance, or I don't  
2 get to rent the apartment. It's not okay for companies  
3 to come here, take what they want while they make  
4 obscene profits, and then leave like a drunk uncle.  
5 Leaving the rest of us to deal with their mess.

6 They need to do their fair share to  
7 protect our land, air, and water. What they're doing  
8 now only adds to an already existing problem. They need  
9 to be held accountable. Thank you for the opportunity  
10 to make this comment.

11 HEARING OFFICER: Thank you very much,  
12 Mr. Collins. I don't see anyone else in the room. So I  
13 believe we will return to the technical case. So we  
14 need Dr. Arscott up here.

15 MR. CLOUTIER: (Inaudible) hearing  
16 officer, if Dr. Arscott could have access to he can  
17 screen share, please?

18 HEARING OFFICER: Thank you very much,  
19 Mr. Cloutier.

20 DIRECT EXAMINATION

21 BY MR. CLOUTIER:

22 Q Dr. Arscott, for your (inaudible) rebuttal,  
23 first question I have is, and I will not get the  
24 quotation right. So please, I ask nobody think I'm  
25 quoting.

1 I asked Mr. Purvis what the evidence was that  
2 showed that this rulemaking, if adopted, would result in  
3 actual bonds that would actually reimburse the  
4 reclamation fund.

5 And he pointed to your Exhibits 8 and 9. And  
6 I would ask that you tell the commission what you  
7 believe those exhibits evidence, and what they don't.

8 A So I have up here from yesterday's slide deck,  
9 Exhibit 8 is on slide 17. I think most of it was --  
10 most of that comment was in relation to Exhibit 8 as  
11 opposed to Exhibit 9.

12 Exhibit 9 is mostly about the possible effect  
13 under various scenarios to the operating costs to  
14 operators, depending on the cost they face for bonding.  
15 As well as the lease operating expenses they face on  
16 their wells.

17 So I think the most -- the most -- I think the  
18 table that is most related to Mr. Purvis's comment, is  
19 this table 8. I'm just going to -- that a bit bigger.

20 So what this is doing is showing the  
21 disproportionate effect on small operators. This is not  
22 meant to be taken as my opinion as to how much the state  
23 will be able to raise in bonds.

24 What I'm showing you here in the rightmost  
25 column, is the average bond per well under the proposed

1 rules. And the column immediately to its left, is the  
2 average bond per well -- bless you -- under existing  
3 rules.

4 And you can see that the increase for the  
5 smallest of these operators, that would be in column 1.  
6 And then as you move down the table, the column -- or  
7 row 2, row 3, et cetera.

8 These operators are getting larger and larger.  
9 And I'm -- the point I'm trying to make with this, is  
10 that the proposed rule is going to disproportionately  
11 affect these smaller operators.

12 I want to remind everyone that the data that  
13 feeds into this table is limited to vertical wells only.  
14 And that makes this table especially not indicative of  
15 the actual bonds that will be raised for the largest  
16 operators.

17 Because if you look at the bottom row, these  
18 are operators operating more than 500 wells, more than  
19 500 vertical wells each. It's very likely these  
20 operators also have horizontal and directional wells  
21 that are not in these -- these data.

22 And so those operators not only will have  
23 additional wells, which would impact the calculation of  
24 the proposed financial assurance, given the 15 percent  
25 threshold, which would lower the average in expectation.

1 The average bond amount under the proposed rule.

2 But also, these are the most well capitalized,  
3 most financially resourced operators in the state. And  
4 to the extent that I would expect operators to adapt to  
5 any new proposed rule, these are the operators that have  
6 the financial means to adapt quickly.

7 And are the ones that are most able to,  
8 especially with regard to the 15 percent threshold. I  
9 think, either adjust their portfolios by plugging  
10 marginal wells that they may have, or divesting from  
11 those wells in some fashion.

12 And so this isn't a table that's meant to be  
13 interpreted as an opinion of how much money the state  
14 will raise under the proposed rule. It's more a table  
15 to show that the proposed rule will have a  
16 disproportionate effect on small operators.

17 Q Let me just ask a follow up question then on  
18 that. So on the first line of that table, where the  
19 number of wells or operator is one, and you identify 61  
20 operators.

21 Are you offering any prediction there, how  
22 many of those 61, if any, are going to incur the  
23 additional, whatever that is, \$111,000 in costs for the  
24 bond?

25 A So on row one you mean. So if on average



1 under the current rule, that operator is bond amount of  
2 about \$39,000. Would they post a bond in the amount of  
3 \$150,000?

4 Q That's my question.

5 A If I understand --

6 Q Yes, sir.

7 A So I think that assumes -- let's -- we have to  
8 think about the way in which that operator could satisfy  
9 the bonding requirement.

10 If that operator has a revolving credit  
11 facility and could issue letters of credit, then  
12 perhaps. But if, as I believe, most of these very small  
13 operators have no recourse other than to post a cash  
14 bond.

15 The liquidity demands of that cash bond may be  
16 such that that operator may not be able to do it. And  
17 so in that case, if we're talking about a cash bond, I  
18 would be concerned that that operator would not actually  
19 post it.

20 Q All right. Thank you, Dr. Arscott. And I  
21 believe you submitted some rebuttal slides. And ask  
22 that you walk through those for the commission, please.

23 A Yeah. So the first comment I'd like to make,  
24 this is in regard to testimony from Mr. Peltz, and it's  
25 something I agree with.

1           Mr. Peltz has testified that, in his opinion,  
2       a prudent operator is one that is a careful steward of  
3       their resources, and is a good community member. A good  
4       actor essentially. And that's something I agree with.

5           I think that good community members have a  
6       non-monetary incentive to do the right thing, right?  
7       It's sort of like the analogy of, you know, do you put  
8       your shopping cart back in the carousel, right?

9           And so when you pull into the grocery store  
10      parking lot, you'll see occasionally some shopping carts  
11      here and there, but by and large, most of them are in  
12      the carousel.

13          And nobody pays you to do it. And nobody pats  
14      you on the back because nobody's watching you. And yet,  
15      most of us do it. And so I think it's uncharitable,  
16      let's say, to characterize all of the operators in this  
17      state as being ruthless in their exercise of default  
18      options.

19          And this really aligns with my prior testimony  
20      about non-monetary considerations, when -- in deciding  
21      whether or not to improperly abandon a well.

22          If an operator is thinking, you know, about  
23      its community and about the impact that their decision  
24      is having on other people. I don't think that this is a  
25      ruthless unfeeling operator in every sense.

1           So that's something I think is important to  
2     keep in mind. Another comment that Mr. Peltz made in  
3     his testimony that I also agree with. He's testified  
4     that in his opinion, wells that are low producers  
5     exhibit a higher risk of orphaning than higher producing  
6     wells.

7           I think that makes a lot of sense. I mean I  
8     agree with that as well. From the standpoint that a low  
9     producing well is likely far into its economic life, is  
10    approaching the economic limit.

11          The decision to plug or abandon a well is  
12    likely going to be closer, rather than later, in  
13    comparison to a high producing well. And so on that  
14    basis, it makes sense that a low producing well would  
15    have a higher risk of orphaning.

16          However, Mr. Peltz appears to use this as some  
17    justification for the 15 percent threshold. Arguing  
18    that, in his opinion, it's not about bad actors. It's  
19    about portfolio risk. And that's why we have the 15  
20    percent threshold, if I'm understanding it correctly.

21          I actually think that this might have the  
22    opposite effect though. And this goes back to what I  
23    was saying yesterday regarding non-bond related  
24    incentives for the operator to do the right thing.

25          And aside from the reputational costs and

1 being a good member of society. If an operator has a  
2 marginal well, and he's thinking about abandoning it and  
3 shirking his responsibility.

4 He has to take into consideration not just the  
5 forfeiture of the bond, but also the threat to his  
6 continued ability to do business in the state. If that  
7 well is part of a larger portfolio of valuable wells,  
8 maybe higher producing wells.

9 If that operator shirks his responsibility,  
10 he's going to face threat of litigation. He's going to  
11 face potentially fines from the regulator. He's going  
12 to face potentially his ability to do business in the  
13 state (inaudible).

14 And that puts at risk, all of the future  
15 expected profits associated with those other valuable  
16 producing wells. And so even ignoring -- if we put that  
17 in a portfolio with other valuable assets, in my mind,  
18 that reduces the likelihood that that marginal well will  
19 be orphaned.

20 And so to the extent that the 15 percent rule  
21 discourages operators from incorporating marginal wells  
22 into larger portfolios. I think this may have the  
23 opposite of the intended effect.

24 On the topic continued comments on this 15  
25 percent threshold. Mr. Peltz also offered a possible

1 remedy for operators that wanted to avoid the 15 percent  
2 threshold.

3 Because the definition of marginal well is  
4 based in part on the number of days of production. It  
5 could be that the operator could speed up production.  
6 Perhaps produce more barrels of oil equivalent, or  
7 produce in more days during the year.

8 Now my response to that would be, if it were  
9 profitable for the operator to do that, then I would  
10 expect that operators would already be doing it.

11 These types of questions as to what is the  
12 economically efficient rate of production? It strikes  
13 me that the operator is in the best position to  
14 determine what that is.

15 And so to the extent that we are proposing a  
16 rule that is going to encourage operators to adjust  
17 their speed of production in order to meet some  
18 threshold affecting their financial assurance.

19 To me, that means we're encouraging production  
20 which is necessarily less efficient than the profit  
21 maximizing production. This is also similar to Mr.  
22 (Inaudible)'s testimony about how operators of gas wells  
23 may find it strategically optimal to curtail production  
24 during periods of low commodity prices, and increase  
25 production during periods of high commodity prices.

1           And I should add to that, that there's  
2       actually good -- this is actually good for society at  
3       large, if you think about why you have high commodity  
4       prices at all.

5           You have high prices for gas at times when gas  
6       is in high demand. And so it strikes me as this is the  
7       market doing its job. Encouraging operators to supply  
8       additional quantities of gas at specific times when it's  
9       most needed.

10          So again, I'm not sure that encouraging  
11       operators to speed up production in order to meet some  
12       threshold is an economically justified, or economically  
13       efficient, thing to do.

14          Lastly, this is in relation to Mr. Purvis's  
15       testimony, and I've heard it a couple times yesterday  
16       when he was in the room. The question of the expected  
17       3,150 orphaned wells from the state's existing  
18       population of 63,000 unplugged wells.

19          And so this has come up. And in Mr. Purvis's  
20       testimony, he agreed that 5 percent of 63,000 wells  
21       would be 3,150 wells. If we assume that industry plugs  
22       95 percent of wells, that means that we could expect of  
23       the current population, 3,150 would be orphaned.

24          The average plugging cost of \$150,000 and this  
25       isn't an assumption. But at that average cost, that

1 would imply a cost to the state of \$473 million. I  
2 think I've got that math right.

3 Now that testimony was left there. And I  
4 would like to characterize that number, \$473-million, a  
5 little bit differently. I want to think about it in  
6 terms of what that means on an annual basis.

7 Because of course 63,000, that's the number of  
8 currently unplugged wells in the state. Not all of  
9 those 3,150 will need to be plugged right now. They're  
10 not all abandoned now. In fact, some of those wells in  
11 that 3,000 won't be plugged for perhaps decades.

12 And so I want to think about what is that  
13 \$473-million in terms of an annual expected cost? And  
14 we can do this pretty easily if we think about the  
15 average well life. Now this would take another  
16 assumption.

17 So we've got a couple of assumptions here.  
18 One is the 5 percent orphaning rate. The other is the  
19 average life of an oil and gas well in the state.  
20 Assuming average life between 20 and 40 years, we pick  
21 right in the middle, let's just assume an average life  
22 of 30 years.

23 Dividing \$473-million by 30 years gives us  
24 \$15.8 million a year. That is the expected PNA cost to  
25 the state from the 3,000 wells on an annual basis.

1           Now let's say that we can save this cost by  
2     implementing the proposed rule. And let's say that the  
3     majority of these 3,000 wells are in this marginal  
4     status. And there's a lot of focus on marginal wells.

5           And I think the proposed rules will likely  
6     make almost all of the -- probably all of the marginal  
7     status wells in the state economically unviable. They  
8     will be unprofitable to continue to operate.

9           So if we think about the lost revenue  
10    associated with those marginal wells, in order to get  
11    that benefit of saving \$15.8-million a year, what do we  
12    have to give up?

13           So just rough back of the envelope math.  
14    According to my read of the EOCD's natural gas and oil  
15    production, this was downloaded on Friday, October 17th.

16           In 2024, there's about 1.3 billion barrels of  
17    oil equivalent produced. According to Mr. Purvis, .45  
18    percent of that can be attributed to marginal status  
19    wells. Pretty small amount. Maybe in relative terms.  
20    0.45 percent of 1.3 billion BOE however, is 5.85 million  
21    barrels of oil equivalent.

22           And I apologize, there's a typo on the slide.  
23    It should read 5.85, not 58. Assuming, and here's  
24    another assumption, \$60 a barrel, which I think  
25    historically is about where West Texas Intermediate has



1 traded around over the past couple decades.

2 At \$60 a barrel, that's \$351-million. \$350-  
3 million of revenue from these marginal wells, which will  
4 almost certainly be prematurely plugged as a result of  
5 the proposed rules.

6 On an annual basis, assuming a tax rate of  
7 just 7 percent, that equates to about \$24.6-million a  
8 year of lost tax revenue. And I'd like to point out  
9 here, I'm assuming a rate of only 7 percent, which is, I  
10 think, conservative.

11 I believe the current tax rate for oil is  
12 somewhere north of 8 percent. For gas, it's north of 9  
13 percent. So this is, in my opinion, a conservative  
14 estimate of the amount of tax revenue we would be giving  
15 up on an annual basis, in order to save \$15.8-million a  
16 year in expected PNA cost.

17 The assumption of average well life is an  
18 important one in this calculation. If we assume that  
19 average well life is just 20 years, then the expected  
20 cost savings associated with not having to plug those  
21 orphaned wells, increases to \$23.7-million a year.

22 And yet, it still doesn't cover the lost tax  
23 revenue associated with those marginal wells, which  
24 again, will almost certainly be prematurely plugged.

25 This is all back of the envelope math.

1       However, I think it is a reasonable indication of the  
2       tradeoff here on an apples-to-apples basis. As opposed  
3       to just thinking about a single number, \$473-million, I  
4       think we have to put it in the context of what we're  
5       giving up to achieve those savings.

6               I would also point out that none of this  
7       includes any royalty revenues associated with those  
8       marginal wells, which would increase the opportunity  
9       costs lost from plugging those wells even further, which  
10      would make these numbers even more negative. Thank you.

11             Q       All right. Pass the witness for cross.

12                    THE COURT: Thank you, Mr. Cloutier. Ms.  
13      Fox or Mr. Tisdell.

14                    MR. TISDELL: Yes, Madam Hearing Officer.

15                    CROSS EXAMINATION

16      BY MR. TISDELL:

17             Q       Good morning, Dr. Arscott.

18             A       Good morning.

19             Q       I'm Kyle Tisdell. I'm an attorney with the  
20      Western Environmental Law Center and representing the  
21      applicants in this matter. How are you?

22             A       I'm well, thank you.

23             Q       Okay.

24             A       Good morning. How are you?

25             Q       All right, thank you. Thank you for showing

1 up again, on your second day here. You filed direct and  
2 rebuttal testimony in this rulemaking on behalf of  
3 IPANM, correct?

4 A I did.

5 Q And do you have your direct and rebuttal  
6 testimony with you?

7 A I do. I have my machine. I can pull it up.  
8 Would you give me a moment to do so, or?

9 Q Just want to make sure that you have it  
10 available. I'm going to walk through. I'll try to  
11 display what I'm referring to on the screen, but I just  
12 want to make sure that you have it with you if you need  
13 to refer to it.

14 A Okay. Yes, I do. I can get it.

15 Q And you were the author of that testimony?

16 A I was.

17 Q Okay. And have you reviewed the pre-filed  
18 direct and rebuttal testimony by other technical and  
19 fact witnesses in this case?

20 A I've reviewed the submitted testimony of Mr.  
21 Purvis. And I believe I've seen a few other submitted  
22 testimonials. Yes.

23 Q Okay. And I know you were here and heard the  
24 live testimony yesterday, but have you been able to hear  
25 any of the other hearing testimony?

1           A     I have, not all of it. Certainly, Mr.  
2 Purvis's testimony. And I've watched a considerable  
3 amount on the YouTube channel, which I have to say is  
4 very convenient. So thank you to whomever is putting  
5 those up.

6           Q     We all love YouTube.

7           A     Yeah.

8           Q     My kids included. Although, I don't think  
9 this is what they're watching.

10          A     Yeah. We need -- we need OCD shorts.

11          Q     Just at bedtime.

12          A     Right.

13          Q     Let's begin with the expertise you're offering  
14 in this rulemaking. You work at Applied Economics  
15 Consulting Group, providing economic and financial  
16 analysis, is that correct?

17          A     That's correct.

18          Q     And you've done that for the past two years,  
19 is that right?

20          A     That's correct.

21          Q     And as you described, your work has included a  
22 focus on economic analyses of various aspects of the oil  
23 and gas industry.

24          A     Yes.

25          Q     When in the course of your career, did you

1 begin working on oil and gas industry issues?

2 A Two years ago.

3 Q Okay. And the testimony that I'm just  
4 gathering from the sort of written direct and rebuttal,  
5 as well as the sort of slides you brought through.

6 It basically provides broad sort of themes of  
7 economic analysis to the oil and gas industry, but  
8 typically doesn't provide a detailed analysis of  
9 specific finances or economics for New Mexico, is that  
10 correct? Or is that a fair characterization?

11 A Of my testimony in general?

12 Q Yeah. It seems like it -- you know, you're  
13 providing broad economic themes of the oil and gas  
14 industry, but it didn't -- it didn't appear to do a sort  
15 of very specific analysis of oil and gas industry  
16 dynamics in New Mexico. Is that a fair  
17 characterization?

18 A I think it's fair to say that I did not do a  
19 full review of the market dynamic of the oil and gas  
20 industry in this state.

21 Although, as part of my work, I downloaded  
22 data on actual wells in New Mexico and used those  
23 (inaudible) produce Exhibits 8 and 9 that we looked at  
24 earlier.

25 And to look at actual wells in the state that

1 would have been classified as marginal under the  
2 proposed rules.

3 Q Okay, great. I'm going to share my screen.  
4 Mr. Cloutier, I think you're still sharing.

5 MR. CLOUTIER: That's (inaudible).

6 MR. TISDEL: That's -- (inaudible) got --  
7 sorry.

8 UNIDENTIFIED SPEAKER: Apologies. I'm  
9 getting out right now. I should be out.

10 BY MR. TISDEL:

11 Q No. That's fine. So I'm going to pull up --  
12 okay. So we're just going to walk through some of your  
13 direct testimony right now.

14 So let's begin. You provide a chart at IPANM  
15 Exhibit 1 on Page 9 of your direct. And do you see that  
16 on the screen here?

17 A Yes.

18 Q So I'm going to scroll back up to Page 8,  
19 which sort of describes what you're depicting on that  
20 slide, right?

21 So you make the general observation that  
22 revenue from sales of oil and gas produced from a well  
23 declines over time as reserves are depleted, correct?

24 A Correct.

25 Q And you describe such revenues as net cash

1 inflows, correct?

2 A That's correct. It's the revenue from sales  
3 of hydrocarbons, less any variable costs. So if you  
4 think about your costs in terms of two buckets, you have  
5 some costs that you incur with the volume of production.  
6 So per barrel costs.

7 Q Yes.

8 A The fixed costs are the costs that you face  
9 every month invariant to the number of barrels you  
10 produce.

11 Q Okay. Well we'll get into that in a little  
12 bit more detail here in a moment.

13 A Okay.

14 Q But so a well, based on your chart and your  
15 testimony, a well has its greatest value earlier in  
16 life, and less value at the end of its life, correct?

17 A Under this example, you know, I think -- I  
18 think it's a more complicated answer to that question  
19 though when you consider tertiary extraction, and some  
20 of these other technologies.

21 I couldn't say for certain that there isn't a  
22 well out there that ended up having late in his life, an  
23 incredible boom in production.

24 Q Sure.

25 A So this is a sort of general picture of what I

1 think is reasonably typical.

2 Q And you walked through some of those examples  
3 of secondary and tertiary recovery yesterday. But by  
4 and by, right, a well is a depreciating asset. It has a  
5 decline curve, and that decline curve changes by well  
6 based on overall dynamics of that well.

7 But your chart here at 1, sort of just depicts  
8 a typical life of a decline curve on a well, is that  
9 correct?

10 A I would agree that this is my attempt to show  
11 a typical situation.

12 Q Okay. And based on this, you know, production  
13 is a useful factor when evaluating the economics of a  
14 well, correct?

15 A Is production a useful factor --

16 Q Yeah.

17 A -- evaluating the economics? Yeah. I think a  
18 well could be termed economic provided the cash  
19 generated from operations exceeds the costs of operating  
20 the well.

21 Q In your testimony, you described that while --  
22 excuse me -- while variable costs fluctuate with  
23 production volume, fixed costs, or outflows remain more  
24 or less constant, is that correct?

25 A Correct. In this example.



1           Q     Okay. And then at Page 9, you describe T  
2     which is on the chart as the point in which -- a point  
3     in time in which net inflows will drop below the level  
4     of fixed costs.

5           A     At which point, the well becomes unprofitable.  
6     And the operator has a strong economic incentive to plug  
7     and abandon the well. I read that correct, didn't I?

8           A     I think you did.

9           Q     Okay. So T becomes, in this chart, the sort  
10    of breakeven point for the economics of a well, correct?

11          A     In this example, yes. And again, this is  
12    meant to sort of illustrate the mechanism. How the  
13    financial assurance can affect the economic life of a  
14    well.

15          Q     Sure.

16          A     There -- this point T shouldn't be looked at  
17    as an absolute time at which the well should be plugged.  
18    There is an option-like component to well value at this  
19    point.

20                It also precludes the possibility that, if we  
21    look at that declining curve for the net inflows, this  
22    assumes constant commodity prices just unchanging.

23          Q     Yeah.

24          A     And just for simplicity's sake, but let's say  
25    you're at T. If all of a sudden oil prices jump up \$20

1 a barrel tomorrow, then all of a sudden, that entire  
2 curve shifts up. And T moves well to the right.

3 Q Yeah.

4 A So it's -- it is an indication of, just from a  
5 thought experiment perspective, about how to think about  
6 how fixed costs affect the economic life of the well.

7 Q Yeah. And that's essentially your testimony  
8 is this is a generalized theme of what happens. And  
9 obviously, the economics of any individual well.  
10 There's a variety of factors that come into play there.

11 But your testimony is that at that point, at  
12 that T, there's a strong economic incentive for the  
13 operator to plug at that point. That is your testimony,  
14 right?

15 A I would agree with that.

16 Q Okay. And you're familiar with the term  
17 paying quantities as it relates to well operations?

18 A I am.

19 Q And a well that is no longer producing in  
20 paying quantities is where the costs of operation exceed  
21 the revenues from production of that well, correct?

22 A That could be a definition. Is there a  
23 uniform definition of paying quantities that you're  
24 referring to? Because I think it may vary.

25 Q Well there's been a lot of testimony on paying

1 quantities in this case. But based on, again, your  
2 chart and testimony, we're talking in generality.

3 So I'm not trying to get into the specific  
4 economics of a specific well. I'm just trying to  
5 understand that point of T, right, is a point of -- this  
6 is useful for understanding sort of a paying quantities  
7 determination in a general sense, is that correct?

8 A Well it's useful in -- I think the definition  
9 of paying quantities there is a factor in determining T,  
10 if I understand where you're going with that.

11 And I would agree that it is a factor in  
12 determining T. But this is just an abstraction in order  
13 to try to put some -- try and illustrate how the level  
14 of fixed costs relative to net inflows, can affect the  
15 economic life of a well.

16 Q Sure.

17 A And to the extent that if you're going to  
18 define paying quantities as revenue from the well in  
19 excess of the cost of production, then that would be  
20 displayed here.

21 Q Yeah. And that's consistent with a lot of the  
22 other testimony we've heard in this proceeding so far.  
23 Is the cost of plugging and abandonment included in what  
24 you describe as the fixed outflow on this chart?

25 A It is.

1 Q So --

2 A I'm sorry. No, it is not. I thought you were  
3 talking about financial assurance costs.

4 Q Yeah.

5 A Let me restate. The PNA costs are not a  
6 factor in this chart at all.

7 Q Okay. That's what I thought. So PNA costs  
8 are costs that are additional to these operational  
9 costs, correct?

10 A That's correct.

11 Q And PNA is not factored into the economics of  
12 paying quantities determination, is that correct?

13 A Under the definition that you just gave. If  
14 we're just thinking about a comparison of operating  
15 profit, then that's correct.

16 Q Okay. So going back to what you describe as  
17 the point when an operator has a strong economic  
18 incentive to plug, or T on the chart.

19 That incentive is about whether the well  
20 continues to be revenue generating, is that correct?

21 A That's correct. If you have a well that in  
22 expectation, could continue to produce valuable oil and  
23 gas, and you could continue to produce at a profit, then  
24 yes. You would want to keep operating that well.

25 Q Okay. And as you said before, plugging and

1     abandonment is a cost that is external to the economics  
2     of operating a well, correct?

3           A     Have I said that? I don't think I've said  
4     exactly that.

5           Q     I think you just said that.

6           A     But so it's not a part of this picture, but --

7           Q     Okay.

8           A     Give me a moment to think about this. I would  
9     -- I will agree with you if you want to -- let's think  
10    about a hypothetical in this -- with this picture, where  
11    we can agree that the -- whatever the plugging and  
12    abandonment costs are, that they're independent of the  
13    operations of the well. I think that's a reasonable  
14    assumption.

15          Q     Okay. We've heard from other industry  
16    witnesses that funds to PNA are not set aside in their  
17    operations. Did you hear that testimony?

18          A     I have not.

19          Q     Okay. Okay. So referencing your chart at  
20    Exhibit 1 again. So if the externalized costs to plug  
21    and abandon a well were internalized, that would move  
22    forward the T in your chart to some earlier point in  
23    time, is that correct?

24          A     So that, I think, presumes that the current  
25    financial assurance costs are somehow deficient.

1           Q     Yeah. I'm not -- I'm not talking about  
2     financial assurance. I'm just talking about the  
3     externalized costs to plug and abandon a well.

4                 If those were internalized to become part of  
5     the operating expenses, that would move forward in time  
6     the T on this chart, is that correct?

7           A     So I disagree with it a little bit. So I  
8     think -- I think this is maybe the disconnect. So the  
9     costs -- so when you talk about externalities.

10                Here's what I think, just in a general -- from  
11    a general standpoint. We want operators to fully  
12    internalize the costs of their activities.

13                And if a low producing well is producing an  
14    externality imposing a cost on society at large, not  
15    fully being borne by the operator. That would suggest  
16    that that is because the bonding requirement, for  
17    example, might be too low. If you would like to argue  
18    that.

19                So in the fixed outflow is the costs  
20    associated with financial assurance. And so this  
21    picture, to the extent that the fixed outflow  
22    incorporates the costs of financial assurance,  
23    maintaining that bond.

24                Then this absolutely incorporates the costs of  
25    what I think you just referred to as the externality of

1 the plugging and abandonment default.

2 Q Okay. So your testimony yesterday -- and this  
3 is IPANM Exhibit 2. This chart depicts the increased  
4 costs of financial assurance. That premium amount of  
5 financial assurance shifting forward in time. That T.

6 And so my question is, if the full costs of  
7 plugging and abandonment, not the surety premium. But  
8 if the full cost of plugging and abandonment were borne  
9 as an operational expense, that would also shift forward  
10 in time the T on your chart, or the breakeven point of  
11 the well.

12 A So it would in the sense that increasing the  
13 fixed costs, for any reason, would shift the T to the  
14 left.

15 But again, I think the issue is, if the bond -  
16 - if the bonding premium is appropriate to the actual  
17 specifics of the well, then the fixed outflow will  
18 incorporate the costs associated with not plugging the  
19 well, and leaving it in operation.

20 Because the threat to the state in terms of  
21 the potential externality from improper abandonment, is  
22 getting baked into the price of the financial assurance  
23 that the operator is paying on a regular basis.

24 My issue is, if we're going to impose a  
25 financial assurance bonding requirement that is

1 economically unjustified, it shifts that fixed outflow  
2 line up too much.

3           You could argue that the line should increase.  
4 But where I think we disagree, is on where the level of  
5 the financial assurance should be on a well by way --  
6 well basis.

7           Q     Yeah. But my question is not about -- I  
8 understand that that's what you're depicting on this  
9 chart. But my question is not what level of financial  
10 assurance is appropriate?

11           My question is, if an operator were to include  
12 the costs to plug and abandon their well as an  
13 operational expense, that would shift the T to an  
14 earlier point in time. And I think your answer is yes.

15           A     So my answer is that those costs are  
16 effectively incorporated in the financial assurance  
17 premium. And I -- if I can --

18           Q     Those were -- we agreed earlier those were two  
19 very separate things, correct?

20           A     So if they're -- if they're different -- so  
21 can we pull up a slide from my testimony yesterday that  
22 I think would be helpful in answering your question?

23           Q     Can we?

24           A     Hope so.

25           Q     Okay. Well what slide, Dr. Arscott, would you



1     like to pull forward?  Let's actually -- we can leave it  
2     there.  Let me actually move on, okay?

3             So let's look -- we're going to go down to  
4     Page 17 of your direct.

5             A     Okay.

6             Q     And that's pulled up on the screen.  You see  
7     that?

8             A     I do.

9             Q     So you evaluate the effect of increased  
10    financial assurance under the proposed rules on vertical  
11    wells, is that correct?

12            A     Correct.

13            Q     And this was only wells -- only for wells you  
14    determined that would fall into marginal well status,  
15    correct?

16            A     Correct.

17            Q     So these are marginal vertical wells.  And I -  
18    - you made very clear in your testimony, these are --  
19    don't include sort of non-vertical or horizontal wells.

20            A     I'm sorry.  I get confused.  Sorry to  
21    interrupt you.  This is for Exhibit 8?

22            Q     No.

23            A     Or --

24            Q     It is, yes.  For Exhibit 8.

25            A     Right.  And so these would be for all

1 operators, not just the marginal well operators. So  
2 this is the entire volume of Envers Data vertical wells  
3 as of the last month in my data, which my data cut off  
4 in November 2024.

5 And so I'm -- I wrote a little code, and it's  
6 just sort of a series of ifs, ands, ors, looking at, you  
7 know, is this well a marginal well? Is it inactive?

8 And based on these various categories,  
9 determining the amount of bond required for that well  
10 under the existing and proposed rules.

11 Q Thank you for that clarification. I  
12 apologize. So these are vertical wells only, but not  
13 segmented by their marginal status, correct?

14 A Correct.

15 Q Okay.

16 A Although, the marginal status affects the  
17 calculation of the bonding amount.

18 Q Sure. Absolutely. And of the 376 operators  
19 of vertical wells, 61 of those operators had a single  
20 well, is that correct?

21 A I believe that's correct.

22 Q Okay. And so we're going to go down. And  
23 this is again, the sort of chart at IPANM Exhibit 8,  
24 correct? That we're talking about.

25 A Correct.

1           Q     Okay. So at 18 to 19, we're still talking  
2 about this. But you state that large operators  
3 identified as having 51 or more wells, are likely well  
4 capitalized, and are better able to adapt to the  
5 proposed rules by plugging marginal and inactive wells.  
6 That's your testimony, correct?

7           A     That is.

8           Q     And while you don't do the math in your  
9 testimony, according to IPANM Exhibit 8 here -- well let  
10 me actually pull this up as a demonstrative. Give me  
11 one moment.

12                     So just for demonstrative purposes, this is  
13 that IPANM Exhibit 8 chart that you provided. That --  
14 and then the red is something that I'm providing just  
15 for demonstrative purposes. Just to be clear. The red  
16 is not what you've done.

17          A     Okay.

18          Q     Do you accept that?

19          A     Yes.

20          Q     Okay.

21          A     So looking at this, you know, we can see  
22 basically the gap there that exists for -- if you just  
23 take, you know, the 61 wells, for example.

24                     The \$110,000 in the second column there is the  
25 difference between the existing bonding, and then the

1 average proposed bond. Does that make sense to you?

2 Q So, yeah. If I could just restate the -- so  
3 going from the right, the second most right column. The  
4 change in bond value. That's the difference between --  
5 so for row one, that's the difference between \$150,000  
6 and \$39,117.

7 A Correct.

8 Q Okay.

9 A Yeah. And that gets us to the \$110. And then  
10 we multiply that by 61 wells, and we get the \$9-million  
11 bonding.

12 Q So that \$9-million you're saying is the amount  
13 of additional bonds?

14 A Bond (Inaudible), which is --

15 Q Yeah. This is very simple lawyer math. So --

16 A No.

17 Q And correct me if I'm wrong. I'm just taking  
18 wells -- the difference in the proposed and the existing  
19 bonding amounts, and multiplying that by the number of  
20 wells.

21 A I agree. Well without verifying it.

22 Q Yeah.

23 A But the way you describe it, that this is a  
24 calculation that you've made.

25 Q Okay. And the calculation, again, that I've

1     made. This is back of the envelope math, which you also  
2     referred to earlier. That gets us to, you know, \$1.9-  
3     billion about. Do you see that?

4           A     I do.

5           Q     Okay.

6           A     If I may, just to characterize this a little  
7     bit.

8           Q     Okay.

9           A     And I did touch on this. My first statement  
10    actually this morning was in regard to this.

11          Q     I heard that too. Yeah.

12          A     Yeah. So it's sort of interesting this came  
13    up. Let's focus in on that last row. The largest  
14    operators. You've got -- of your -- let's just -- you  
15    have \$1.9-billion of additional bonds here. A full  
16    billion of that is coming from that last row.

17          Q     Correct.

18          A     So in my testimony that you just read, that  
19    the largest operators are well capitalized and are in  
20    better position to adapt to the proposed rules.

21          Q     Right.

22          A     This calculation, because it's only -- the  
23    calculation that I've performed, because it's only  
24    vertical wells. It ignores all the horizontal wells,  
25    directional wells, that these large operators have.

1 Q Yeah.

2 A Which means the \$38,000 number that I've put  
3 there at the bottom, which is why I don't discuss it  
4 much in my testimony, other than to say those operators,  
5 I can't even begin to quantify what the actual bonding  
6 amount is on an average well basis.

7 Is because one, I don't have their horizontal  
8 wells in my data.

9 Q Right.

10 A Which means my code is putting some of those  
11 larger operators above the 15 percent threshold, which  
12 is what's driving that huge increase in the bond.

13 And so I would characterize that that billion-  
14 dollar number -- in fact, I would characterize almost  
15 all of that \$1.9-billion as unreliable in terms of an  
16 estimate of what the incremental amount of bonds would  
17 be, as a result of the proposed rule.

18 Q Yeah. I don't disagree --

19 A Okay.

20 Q That that all of this is unreliable. So let's  
21 go back to your testimony. And so then we've got  
22 Exhibit 9, which is here. And this is the sort of  
23 magnitude of impact that bonding cost increase will  
24 have.

25 But this is only for the 61 operators of

1 single wells, is that correct?

2 A Correct. It's really more of a sensitivity  
3 table to show the varying effects depending on what the  
4 lease operating expenses are, and what the costs of  
5 bonding are.

6 Q Yeah, great. So your focus on these operators  
7 is because you considered these operators to be most  
8 impacted by the proposed rules, correct?

9 A I think that they would be the -- they would  
10 feel a disproportionately large cost from the proposed  
11 rules. Yes.

12 Q Okay. And according to your testimony at 21,  
13 these operators of vertical wells specialize in low  
14 margin assets.

15 And the increases in operating costs could  
16 immediately wipe out the economic incentive to continue  
17 operations, is that correct?

18 A That's my testimony, but I would -- I think I  
19 say likely specialize in.

20 Q (Inaudible).

21 A I'm not making a statement about every one of  
22 these operators. This is -- this is my experience from  
23 having interviewed six independent operators. Four of  
24 which were fairly small. And so this is informed from  
25 those interviews.

1           Q     Yeah. We can certainly stipulate that all of  
2     your commentary is generalized, and not, you know,  
3     specific to an individual well.

4                     And according to our conversation earlier, the  
5     economic incentive doesn't include the external costs to  
6     plug and abandon those wells, does it?

7           A     So when you keep saying external costs to plug  
8     and abandon the well.

9           Q     I might not be using the correct term of  
10    economic (inaudible). So I apologize. I understand  
11    externalized costs are different in the economic realm.

12                    I'm just saying in terms of that first chart  
13    that you depicted. There's operational costs and  
14    plugging abandonment is outside of those operational  
15    costs.

16          A     I would -- yes. I would agree with that.

17          Q     Okay. And so is your testimony that the state  
18    should forego -- again, back of the envelope math here.  
19    But the \$1.9-billion in financial assurance for the 61  
20    vertical wells, because those wells may not be able to  
21    cover the costs of plugging abandonment?

22          A     So could you repeat that question?

23          Q     Yeah. So you basically agreed earlier that  
24    this chart just depicts the magnitude of impact for 61  
25    single well -- operators of a single well, right?



1           And that operators of 51 wells or more, are  
2   larger operators that are able to internalize their  
3   costs. Does that sound right?

4           A     Well --

5           Q     And so the question is, is your testimony that  
6   for the benefit of 61 wells, that the state should  
7   forego the \$1.9-billion of financial assurance that  
8   would result from your Exhibit 8?

9           A     So that's not my testimony. I'm not saying  
10   that we should intentionally adopt a bonding  
11   requirement. To the extent that the bond is intended to  
12   deal with this judgment proof problem, right?

13                   So we have firms that have limited liability.  
14   This creates a moral hazard where firms potentially,  
15   could engage in some fairly risky behavior. The costs  
16   of those risks could be borne by the public.

17                   We want to make sure that operators fully  
18   internalize those costs --

19           Q     Right.

20           A     -- by coming up with -- there are various  
21   schemes, but let's just think in terms of bonds. I'm  
22   not saying that the state should forego bonds on all of  
23   the other wells held in portfolios owned by -- or  
24   operated by larger operators in order to save, if you  
25   want to characterize it that way, the smaller operators.

1           My testimony is really that a lot of the  
2       financial assurance increase is economically  
3       unjustified. And to the extent that it's too high for a  
4       number of wells, including wells operated by smaller  
5       operators.

6           That economically unjustified increase in  
7       financial assurance will put -- will have a distortive  
8       effect on the incentives to produce oil and gas in the  
9       state. And if I can -- if I can just expand on --

10       Q     Yeah. (Inaudible).

11       A     -- the -- what I think the appropriate bond  
12       would be when we're thinking about some of these larger  
13       operators that you just mentioned.

14           Those larger operators by definition have lots  
15       of wells. And to the extent that if I'm an operator,  
16       and I'm thinking about do I shirk my responsibility? Do  
17       I just walk away from this marginal well in my  
18       portfolio? Let's say, I'm just going to abandon it.

19           If I do that, I'm jeopardizing the -- my  
20       ability to continue operating in the state. Puts the  
21       future profitability for my other wells that I operate  
22       in jeopardy. I face potentially litigation.

23           Somebody could sue me for having abandoned  
24       this well improperly. There are lots of non-bond  
25       related deterrents to abandoning that well.

1           And so I think it's really about what is the  
2     appropriate level of financial assurance? I'm not  
3     saying that the state needs a certain bond amount in  
4     every situation.

5           In fact, the existing rules -- I think a lot  
6     of the economic justification for a blanket bonding  
7     condition, is that you have lower per average bond  
8     amounts per well, when you're talking about operators  
9     that have lots of wells. Because of the cross-  
10    collateralization issue that I was just describing,  
11    right?

12          Q     So let's -- let's move onto this issue of  
13    bonding amounts and surety premiums. So on 19 of your  
14    direct, you discuss premiums on surety bonds, which you  
15    say range between 1 and 10 percent. You can see that on  
16    the screen?

17          A     Yes.

18          Q     And did you hear testimony, are you familiar  
19    with the testimony of (Inaudible) witness Emerick, who  
20    offered that premiums for small operators right now  
21    range between two-and-a-half and 5 percent?

22          A     I'm not familiar with that testimony. That  
23    wouldn't shock me. My understanding is typical bonding  
24    costs are 2 to 3 percent.

25          Q     Okay.

1           A     Although --

2           Q     and we heard from Mr. Armstrong as well.

3     Yeah. I think he again was a (Inaudible) witness, but  
4     he stated that his had a 3.5 percent bond premium.

5           A     Okay.

6           Q     Would you accept that?

7           A     Yeah. If you represent to me that that's what  
8     he said --

9           Q     Okay.

10          A     -- then, yeah. And again, that wouldn't  
11     surprise me. But there is a range now. I mean 1 to 10  
12     percent, this is -- and I can't see the footnote here.

13                 But this will have been from SuretyNow, I  
14     think, which is a website that offers surety bonds in  
15     the state.

16          Q     Okay.

17          A     And this is specific to New Mexico. There are  
18     other studies. Boomhauer, you can see later in this  
19     paragraph, Boomhauer in his -- in his study, he notes  
20     that he had noticed premiums exceeding 10 percent, all  
21     the way up to 15 percent.

22                 I think those are likely uncommon. But the 10  
23     percent bonding cost, I think, is a real cost faced by  
24     many operators in the state if they're posting cash  
25     bonds.

1           Because if you recall my testimony yesterday,  
2   I tried to make the case that the appropriate bonding  
3   costs on a cash bond, is really the operator's cost of  
4   capital.

5           Because I'm having to post cash now to satisfy  
6   a future plugging expense. And until I actually plug  
7   the well and get my bond released, that money, whatever  
8   it is, \$150,000 whatever we assume it is. That's  
9   capital that's tied up that's not deployed into my  
10   operations.

11          Q     Okay. So let's use the two-and-a-half to 5  
12   percent range. So that would be a premium of between  
13   \$3,750 and \$7,500 per year. Again, lawyer math. But --

14          A     That sounds right.

15          Q     -- (inaudible) premium. And going back to  
16   your earlier testimony. These premiums would add to the  
17   fixed costs of the well, correct?

18          A     Correct.

19          Q     Okay. So at Page 21, you state that,  
20   considering operators of marginal wells likely  
21   specialize in low margin assets, that increase could  
22   immediately wipe out the economic incentive to continue  
23   operations for many wells, correct?

24          A     Correct.

25          Q     That was your testimony.

1           A     That is my testimony. Yeah.

2           Q     So if an operator cannot internalize the costs  
3 of the surety premium, they would not be able to  
4 internalize the costs for plugging and abandoning the  
5 well. Is that fair to say?

6           A     So -- and internalize here. I think the issue  
7 is if the bond amount is economically justified, if it's  
8 set too high, those bonding costs are too high.

9           Q     Okay. So the question is, if they can't pay  
10 the bond premium, then they couldn't pay to plug and  
11 abandon their well?

12          A     Not necessarily. So for example, let's take a  
13 cash bond. So I may be operating a marginal well, it  
14 may be a low producer, but it may not be ready to be  
15 plugged for some time.

16                Let's say I'm not going to have to plug it for  
17 a couple of years. If I have to post a cash bond,  
18 there's a huge liquidity demand on me as the operator.

19                I have to come up with \$150,000 to post now.  
20 And then in two years' time, I have to actually pay the  
21 \$150,000 to plug the well, if that's what it costs.

22                And so from a liquidity standpoint, it's not  
23 whether I can afford to plug the well. There's a  
24 situation in which I can afford to plug the well.

25                But what we're talking about here in a cash

1 bond situation, is a liquidity demand of \$300,000 which  
2 is double the amount to actually plug the well.

3 Q Okay. So but you said yesterday in your  
4 testimony when you were talking about cash bonds, that  
5 that was an extreme example, correct?

6 A The extreme is in relation to the cost. So  
7 the costs of financial assurance are extreme in cases of  
8 cash bonds. If --

9 Q How many operators do you know in the state  
10 right now, have to post in all cash bond?

11 A I do not know.

12 Q Okay. What types of operators have to post in  
13 all cash bond?

14 A I suppose any operator could elect to post a  
15 cash bond. But because it's expensive, I would expect  
16 that most operators would try to satisfy the financial  
17 assurance obligation in some other way.

18 Either with a surety bond or even a letter of  
19 credit. A couple of the operators that I interviewed  
20 were larger, and had revolving credit facilities that  
21 they could draw upon to issue letters of credit.

22 Although, in those cases, they elected to go  
23 to the surety bond market for their bonding.

24 Q Yeah. So for the typical operator in the  
25 state, like Mr. Armstrong for example, that pays a

1 three-and-a-half percent premium on his surety bond.

2 It would be cheaper to pay the premium than it  
3 would be to plug the well, correct?

4 A It would be cheaper -- sorry. So just to  
5 paraphrase, you're saying it would be cheaper to just  
6 pay the premium than to plug the well? Is that what you  
7 just said?

8 Q It is.

9 A So if I've got to pay a premium at three-and-  
10 a-half percent, right, of \$150,000? That -- I don't  
11 know what the math is right offhand, but that's like  
12 \$6,000, let's say.

13 Q So that \$6,000 annual premium is less  
14 expensive for that operator than to plug and abandon  
15 their well. Even at the operator's average cost to plug  
16 -- excluding OCD's average cost to plug at \$163,000. We  
17 heard a lot of testimony that operators are averaging  
18 about \$120,000 to plug a well right now.

19 \$6,000 annual premium is more advantageous to  
20 that operator than paying the \$120,000 to plug the well.  
21 Would you agree with that?

22 A So I think if you're saying that \$120,000 is  
23 more than \$6,000, I would agree with you. But it's --  
24 really, it's an economic question as to whether or not  
25 they decide to plug the well.



1 I mean if we're in a situation where the well  
2 is still producing, and you know, it's still  
3 economically viable. I have an economic incentive to  
4 continue production.

5 And in order to continue production, I have to  
6 satisfy the state's regulation that I maintain a bond.  
7 So my decision to continue paying that \$6,000 premium,  
8 or whatever we had in our example, isn't necessarily a  
9 decision made based on the value of expected PNA costs  
10 and isolation. It's about, is the well continuing to  
11 produce?

12 Q So let's talk specifically about small  
13 operators. And you talk about small operators starting  
14 at Page 22 of your direct.

15 And you state that the effects of the  
16 amendments would be most pronounced in wells for which  
17 the fixed costs of operation are large in relation to  
18 the net revenue generated from continued production.  
19 That's your testimony, correct?

20 A Correct.

21 Q And you state that stripper well operators  
22 survive through attention to detail, and a focus on  
23 costs, correct?

24 A That is according to the operators I've spoken  
25 with.

1 Q That's your testimony though.

2 A Correct. But earlier in that sentence is the  
3 operators I have spoken with echo that statement.

4 Q Okay. Sounds good.

5 HEARING OFFICER: Mr. Tisdell, you have  
6 about five minutes.

7 MR. TISDELL: Okay.

8 BY MR. TISDELL:

9 Q So let's go to this problem with the -- your  
10 description before about a natural concern. So at the  
11 bottom of Page 22, you agree there is a natural concern  
12 with what you describe as an exploitation of the  
13 judgment-proof problem, i.e., financially distressed  
14 firms operating assets that would not be economically  
15 viable, but for the failure to fully internalize the  
16 costs of their actions. That's your testimony.

17 A It is. And I apologize for how wordy that  
18 was.

19 Q That's okay. And you say it would be unfair  
20 to characterize all small and independent operators as  
21 such. Yes?

22 A Correct.

23 Q And so by inference, some companies do operate  
24 with an intention to exploit the judgment proof problem,  
25 correct?

1           A     I can't state that there are. But my belief  
2     is that there are -- it's very likely you're going to  
3     have bad actors. I would characterize that type of  
4     operator as a bad actor. I think --

5           Q     And those do exist.

6           A     I think they do.

7           Q     Okay.

8           A     I think they do. And -- which is why I think,  
9     you know, in terms of a policy prescription, just in  
10    general, I think it's probably best to come up with a  
11    policy that presents operators with an array of  
12    incentives that entices bad actors to behave like good  
13    actors.

14          Q     Okay. And then at the bottom of Page 23, you  
15    conclude that for small independent operators, the  
16    financial assurance requirement is likely more important  
17    than addressing the moral hazards of limited liability.

18          A     That's --

19          Q     (Inaudible) your testimony there?

20          A     That is correct. And it relates to what I was  
21    remarking on Mr. Peltz's testimony, about the portfolio  
22    risk problem.

23                 The fact that the individual default  
24    likelihood for a marginal well, such that it's higher  
25    than it is for a higher producing well. If that -- as I

1 believe, that the likelihood of orphaning decreases for  
2 a well when it's incorporated into a larger portfolio.  
3 Then, yeah.

4 I think the non-bond deterrence to shirking  
5 responsibilities and abandoning wells. Those non-bond  
6 incentives become more important for larger operators.  
7 And therefore, as you get smaller and smaller portfolios  
8 for smaller operators, the bond becomes more important.

9 Q Okay. The sale of oil and gas wells is quite  
10 common in the industry. Do you agree with that?

11 A I agree.

12 Q Yeah. Let's go quickly to your rebuttal  
13 testimony. This is at 3. So you introduced the  
14 economic concept of the time value of money, which is  
15 the general idea that the value of a dollar today, is  
16 worth more than the value of a dollar tomorrow, correct?

17 A Correct.

18 Q And you provided some oral testimony on this.  
19 And so the example that you provide, is that a dollar  
20 deposited in a risk-free savings account at a rate of 5  
21 percent, would grow to \$1.05 in one year, correct?

22 A Correct.

23 Q And so you provided in your (inaudible)  
24 rebuttal, a number of supplemental exhibits. Exhibits  
25 32 to 34, that showed the added value of early

1 investment, right?

2 So allowing a lesser amount of money. I think  
3 in Exhibit 32, you had \$15.5-million invested, yielding  
4 \$25-million. And you suggested that that early  
5 investment would pay for the eventual plugging of those  
6 wells, correct?

7 A Under those assumptions, yeah. And one of  
8 those assumptions is a 10 percent discount rate.

9 Q Yeah. And as we discussed earlier, operators  
10 survive on attention to detail. And the operators of  
11 more marginal or low producing wells, survive on  
12 attention to detail and focus on costs, correct?

13 A That's my understanding.

14 Q Yeah. And you would agree that there -- that  
15 there are many such operators in New Mexico that focus  
16 on such wells as their sole operations. Those marginal  
17 or stripper wells as they're defined in your testimony.

18 A That is my understanding.

19 Q And did you hear the testimony of Mr.  
20 Armstrong when he said that his company did not set  
21 aside funds to plug?

22 A No, I did not.

23 Q Did you hear him say that this was a common  
24 practice in industry?

25 A No, I did not.

1           Q     Do you agree that it is not atypical for a  
2     operator to not set aside costs to plug and abandon  
3     their wells?

4           A     I don't know if it is or isn't. I know SEC --  
5     sorry. I know SEC regulations, if you're a publicly  
6     traded company, have certain requirements for valuing --  
7     a fair valuation of asset retirement obligations.

8           Q     We're talking about really small operators.

9           A     (Inaudible).

10          Q     So those are probably not subject to the SEC.

11          A     Almost certainly not, which is -- but -- which  
12     is why I said initially. I'm not sure one way or  
13     another --

14          Q     Okay.

15          A     -- because I don't have that information.

16          Q     Okay. So one last question. So based on our  
17     earlier discussion when you said that a marginal well  
18     operator could not afford to cover the costs of their  
19     surety premium.

20                 But let's assume instead that they would  
21     invest that 5 percent surety premium, which at the high  
22     end, would be \$7,500 right? So a 5 percent rate of  
23     return would yield \$375.

24          A     If you represent to me that that's the case --  
25     okay.

1           Q     Okay. So in terms of time value of money,  
2     that is a lot of years of investment to pay for the  
3     plugging and abandonment costs. Let alone remediation  
4     of a well site, do you agree?

5           A     Yes. Although, the slides that we're looking  
6     at here, the one you referenced where you set aside \$15-  
7     and-a-half-million and end up with \$25-million.

8                     The reason why we've assumed a 10 percent  
9     discount rate, is because it's not that you set aside  
10    this money in the bank. It's you redeploy it into  
11    operations, where you earn a rate of return of 10  
12    percent.

13          Q     But you said a stripper well operator, which I  
14    think is defined as 10,000 -- or 10,000 BOE, right? You  
15    said that these operators survive on costs reductions  
16    and attention to detail.

17                    So in that scenario, right, those operators of  
18    low producing wells, do not have money that they're  
19    setting aside for plugging and abandonment, let alone  
20    investment.

21          A     I don't know if they are or aren't. I'm not  
22    sure.

23          Q     Okay. Thank you. No further questions.

24                    HEARING OFFICER: Thank you, Mr. Tisdell.

25                    MR. TISDELL: Thank you, Dr. Ascott.

1 COMMISSIONER GREG SIMPSON: We need a  
2 break. Let's come back at 10:55.

3 (Off the record.)

4 HEARING OFFICER: Let's come back from  
5 the break, please. See we move now to Mr. Tremaine or  
6 Mr. Hall.

7 MR. TREMAINE: Good morning, Madam  
8 Hearing Officer. I'll let Dr. Arscott get settled.

9 CROSS EXAMINATION

10 BY MR. TREMAINE:

11 Q Good morning, Dr. Arscott. Welcome. My name  
12 is Jesse Tremaine. I'm in the legal director for the  
13 oil conservation division. I hope you're well this  
14 morning.

15 A I am, thank you. Good morning to you.

16 Q I have a few questions for you, just -- far  
17 fewer than I -- than I usually ask. So just to start  
18 out, your testimony indicates that you interviewed six  
19 independent operators, is that correct?

20 A Correct.

21 Q Okay. Do you know how many total operators  
22 there are in New Mexico?

23 A I don't have an accurate count of the number  
24 of active operators in New Mexico. No.

25 Q (Inaudible) hundreds?



1           A     It would be hundreds.

2           Q     Okay. Do you know how many IPANM member  
3 operators there are?

4           A     I do not.

5           Q     Okay. How did you pick who to interview?

6           A     They were companies that had come forward and  
7 were willing to discuss their operations.

8           Q     Were those companies also witnesses in this  
9 case?

10          A     I'm not sure. They may have been.

11          Q     Okay. I want to ask you a couple questions  
12 about slide 12. I'm going to share screen here. That's  
13 not working. No. Bear with me. All right.

14                So I'm going back to your witness slides on  
15 slide 12. I just want to clarify. So this talks about  
16 BOE. Did you incorporate 180 productive days in this  
17 analysis?

18          A     Yes.

19          Q     You did.

20          A     Yes.

21          Q     Okay. Thank you.

22          A     So this is based on the definition under the  
23 proposed rule, which is, I believe, less than 1,000  
24 barrels of oil equivalent per year. And fewer than 180  
25 days.

1           Q     Thank you. I just wanted to clarify that  
2 because the slide didn't state it. It just listed BOE.  
3 But thank you for that clarification.

4                     I want to move on to slide number 24, where  
5 you spent some time talking about the opportunity for  
6 investing. Is this -- would you agree that this is an  
7 example of responsible investment by a prudent operator?

8           A     So I think it could be. I mean this is really  
9 just a characterization of a hypothetical example.

10          Q     (Inaudible).

11          A     It may not even be a well. It's meant to sort  
12 of convey the time value of money. And --

13          Q     Thank you, Dr. Arscott. That answered my  
14 question. If all plugging operators did incorporate  
15 this, and comported with this example historically, we  
16 might not having -- be having this discussion, would we?

17          A     I'm sorry. What --

18          Q     I'll move on. Dr. Arscott, there's no rule  
19 that requires operators to invest their revenue  
20 prudently, is there?

21          A     I'm not sure if there is. And there's no rule  
22 that requires operators to reinvest the profits from the  
23 development, or the production of marginal wells, in the  
24 drilling or development of new wells, is there?

25          A     I'm not aware of any specific rule other than

1 the operator's own profit incentive to maximize the  
2 value of his operation.

3 Q Thank you, Dr. Arscott. Would you agree after  
4 sitting through and listening to this hearing, that the  
5 financial assurance statute requires the division to  
6 establish categories of financial assurance?

7 A I believe that they're already under the  
8 existing rules, categories based on inactive or --

9 Q So your testimony is that, yes, those already  
10 exist. So, yes. You agree with my statement.

11 A Yes. There is categorization. Yes.

12 Q Thank you. Would you agree that that statute  
13 does not permit the division or the commission to  
14 mandate prudent investment by operators?

15 A I have no opinion on that.

16 Q And similarly, that statute does not permit  
17 the division or the commission to mandate operators  
18 reinvest revenue into their operations. Would you  
19 agree?

20 A I have no opinion on that.

21 Q Thank you. The hypothetical described on  
22 slide 24. This hypothetical does not -- would you agree  
23 that this hypothetical does not account for real life  
24 situations where the -- where a prudent operator did in  
25 fact invest money for plugging their wells, but then

1 sold those wells to another operator?

2 A I mean the hypothetical you've described is  
3 certainly possible, I suppose. But it's nothing to do  
4 with this example here that's meant to show the time  
5 value of money.

6 Q Okay. Right. And what I'm getting at, Dr.  
7 Arscott, is that your hypothetical example of the time  
8 value of money, is not representative of real-world  
9 operations.

10 Where whether or not the first operator saves  
11 money from the revenue, once they sell the wells, that  
12 invested money is no longer available to the next  
13 operator for plugging.

14 A You're -- I think you're sort of -- you're  
15 adding in this additional element about a sale. A  
16 hypothetical sale to another operator. And that -- this  
17 example says nothing about that.

18 I mean this is a real-world example of how  
19 financial markets work.

20 Q Well my example -- my question to you, Dr.  
21 Arscott, was about applying your hypothetical example of  
22 the time value of money, to real world transactional  
23 realities, which you just testified in response to Mr.  
24 Tisdell, that are commonplace in industry. So that's  
25 what I was trying to clarify, but I can -- I can move

1 on.

2 Does -- Dr. Arscott, does this hypothetical  
3 account for minimally or under -- minimally capitalized  
4 or undercapitalized operators that are impacted by  
5 normal life occurrences?

6 A This says nothing about the capitalization of  
7 operators.

8 Q Okay.

9 A This is a hypothetical to illustrate the time  
10 value of money.

11 Q Okay. And would you agree that an otherwise  
12 prudent, reasonable operator, who's going about their  
13 business the right way, small company. They have a  
14 heart attack, they get cancer, they get in a car  
15 accident. The situation does not apply to them?

16 In those situations, there are other life  
17 factors that would limit their ability to invest -- or  
18 save, invest, or reinvest in the company. Isn't that  
19 true?

20 A Dead people cannot invest.

21 Q Thank you. It similarly does not take into  
22 account -- like this hypothetical savings or  
23 reinvestment does not take into account instances of the  
24 bad actors, like negligent management, or intentional  
25 misuse of funds. Would you agree with that?

1           A     This hypothetical has nothing to do with bad  
2     actors.  It doesn't say anything about bad actors.

3           Q     Okay.  You talked in your direct testimony  
4     quite a bit about -- and I'm paraphrasing here.

5                     But the idea that the specter of increased  
6     financial assurance costs could lead operators to plug  
7     wells instead of incurring those potential financial  
8     assurance costs.  Would you agree with that?

9           A     I would agree that especially in regard to  
10    this 15 percent threshold, that an operator who's facing  
11    paying \$150,000 per well on a large portfolio of wells,  
12    because of a handful of marginal wells, yes.  They have,  
13    I would argue, a very large incentive to plug those  
14    wells prematurely.

15          Q     Okay.  So let me make sure I got that right.  
16    Thank you for that clarification, Dr. Arscott.  So the  
17    incentive to plug wells rather than -- rather than put  
18    up additional (inaudible), is a stronger incentive for  
19    operators under the -- what I'll call the portfolio  
20    disqualification, from (inaudible) bond eligibility.

21          A     So it's all rooted in the idea that the  
22    financial assurance should be, at least in theory,  
23    tailored to the expected cost of default and the  
24    likelihood of default.  To the extent that you --

25          Q     Thank you, Dr. Arscott, but that was not my

1 question. I think the record's clear there. So let me  
2 just move on to see if you -- it seems to me that you  
3 are testifying that if this rule were promulgated, it  
4 might cause operators to change their behavior?

5 A I think that's fair to say, yes.

6 Q Okay. But all of your analysis assumes that  
7 operators will change their behavior in (inaudible) or a  
8 trend of premature plugging.

9 Yet we've heard numerous examples in this  
10 hearing, and I would submit for the record that all of  
11 the examples that have actually been discussed at the  
12 hearing, are wells that could avoid marginal well status  
13 through prudent and active management. Did you hear  
14 that testimony?

15 A I'm not sure if I did hear that testimony.  
16 Although, if we're referring to speeding up production,  
17 I don't know that that's prudent, or at least it's not  
18 an economically efficient way of operating necessarily.  
19 If we're simply speeding up production in order to meet  
20 some 15 percent threshold.

21 Q Okay. You did not provide an analysis of the  
22 behavioral changes that operators would engage in that  
23 would actually improve production, did you?

24 A None other than a discussion of the economic  
25 incentives faced by rational actors.

1           Q     Thank you. Did you quantify the number of  
2     wells that would be plugged, versus the number of wells  
3     that would increase production?

4           A     I did not.

5           Q     Okay. Dr. Arscott, are you aware that in New  
6     Mexico, we're drilling approximately 2,000 new wells per  
7     year?

8           A     That sounds right.

9           Q     Okay. So you testified as to the number of  
10    wells. A lot of examples have been thrown around, but  
11    using this 5 percent threshold.

12                   So we're drilling -- if the status quo remains  
13    and we're drilling 2,000 new wells per year, you would  
14    agree that we're adding 100 new eventual orphans per  
15    year.

16          A     I think mathematically, if you assume that  
17    there is an orphaning rate of 5 percent, if you add  
18    2,000 wells, yes.

19          Q     Okay. The -- you spoke at some length about -  
20    - with Mr. Tisdell about Exhibit 8. And I just want to  
21    verify with you that if the 15 percent marginal well  
22    threshold were modified to -- and I don't have that up  
23    on the screen. I didn't change the screen, Dr. Arscott.  
24    So --

25          A     It's okay.



1           Q     I can -- I was just referring to it generally,  
2     so.

3           A     That's fine. I have it on my laptop.

4           Q     I thought you were looking at the screen. No  
5     problem. I'm getting to the end here. I just want to  
6     verify that if we change the 15 percent to 30 percent,  
7     or you change that 15 percent disqualifier to another  
8     form of noncompliance of wells.

9                     That that analysis would necessarily change  
10    and it would impact a different number of wells.

11          A     It would -- the analysis would change.  
12    Although, it doesn't -- changing the threshold itself  
13    does not change the problem from an economic standpoint  
14    that this threshold would potentially lead to a  
15    financial assurance burden on high producing wells, for  
16    which the likelihood of orphaning is low.

17                    And so it gets to this basic premise that from  
18    a theoretical standpoint, the ideal amount of financial  
19    assurance should be tied to the likelihood of orphaning,  
20    and the costs of plugging and abandoning wells.

21          Q     Thank you, Dr. Arscott. Will you agree as a -  
22    - as an economist that unforeseen conditions could cause  
23    operators to become insolvent and possibly file for  
24    bankruptcy?

25          A     That is plausible.

1           Q     And would you agree that unforeseen or future  
2 market conditions would necessarily change your  
3 analysis?

4                     So for instance, if something completely  
5 outside the control of the state of New Mexico, the  
6 division, the commission, anyone here, causes the price  
7 of crude to drop substantially. That there's an  
8 increased risk of operator insolvency and bankruptcy?

9           A     I think if you reduce the revenue generating  
10 potential of any business, the risk of insolvency would  
11 increase.

12                    Although, are you describing more of like an  
13 emergency? Some unforeseen emergency?

14           Q     I'm just asking you if as an economist, you  
15 can -- you can acknowledge that future market conditions  
16 of various different types, could cause operators to  
17 become insolvent and or file for bankruptcy?

18           A     Well if we're talking about future market  
19 conditions, then I think every operator every day, or  
20 every business person, is going to look out into the  
21 future and make a forecast.

22                    In this case, I'm going to have a forecast of  
23 where oil prices are going to go, for example. And  
24 there's good data points to look at there. I could look  
25 at the (inaudible) strip, for example. We can look at

1 futures pricing.

2 And I'm going to look at that, and it's going  
3 to inform my business decisions, you know. Do I decide  
4 to drill a new well this year? Well a necessary  
5 component of that analysis is where I think oil prices  
6 are going.

7 What I -- what I understood your initial  
8 question to mean, was that there's some unforeseen,  
9 unexpected, catastrophe, right? Which is why I was  
10 asking to clarify if we're talking about an emergency.

11 Because I don't think an unexpected drop in  
12 oil prices would constitute an emergency, but.

13 Q So you're -- okay. So you're contesting that  
14 -- are you saying that you don't foresee a drop in crude  
15 oil prices, absent some emergency situation?

16 A No. I'm saying that people have forecasts as  
17 to the future evolution of oil and gas prices. The fact  
18 that those oil and gas prices will often be much higher  
19 and much lower than our forecast, doesn't affect the  
20 likelihood that I face default today, right? Or that I  
21 face insolvency today. If we move forward in time --

22 Q Well Doctor --

23 A -- and we realize --

24 Q Let me move on here, Dr. Arscott, because I  
25 didn't ask you about changes in your projections for

1 your business. I asked you about changes in marketing  
2 conditions.

3 So for instance, my understanding was that the  
4 price of oil changed because Russia invaded Ukraine.

5 A Okay.

6 Q Right? So world events happen, it impacts the  
7 price accrued. If the price of accrued tanks for  
8 whatever reason, more operators are at risk of  
9 insolvency and or bankruptcy. Can you agree with that  
10 basic premise?

11 A So as a basic premise, yeah. If you -- yes.  
12 If you reduce the amount of revenue generating potential  
13 a business has, all else equal -- holding all else  
14 equal, the threat of insolvency increases. Yes.

15 Q Okay. Thank you. So if you factor in unknown  
16 future unknowns, and the fact that the price of  
17 commodities doesn't -- we have seen instances of  
18 changing over time.

19 Wouldn't you agree that the scope of potential  
20 orphans that we've discussed, is actually more  
21 representative of a floor than a ceiling?

22 A No, I wouldn't conclude that. I don't think  
23 that would say anything about whether there's a floor or  
24 a ceiling.

25 Although, in terms of your example, right? A

1 shock to commodity prices, to the extent that it lowers  
2 how much I can earn from selling my gas. It probably  
3 makes sense for a prudent operator to stop producing gas  
4 and wait for a higher commodity price environment.

5 Q All right. Thank you, Dr. Arscott. Pass the  
6 witness.

7 HEARING OFFICER: Thank you, Mr.  
8 Tremaine. Mr. Biernoff or Mr. Moore? Mr. Graeser.

9 MR. GRAESER: Thank you. I seem to be  
10 having a camera issue, so I apologize for that. Yes.  
11 It's back to me for a little bit.

12 CROSS EXAMINATION

13 BY MR. GRAESER:

14 Q Dr. Arscott, I'm Chris Graeser. I'm with the  
15 New Mexico State Land Office. Let me start with your  
16 discussion -- sorry -- I was trying to share the screen.  
17 It doesn't look like it shared, did it?

18 A I can see it.

19 Q Okay.

20 A I can see the IOGCC plot.

21 Q Yes, thank you. You know, on the topic of  
22 falling oil prices and discussion of costs. This slide  
23 shows a more than doubling of documented orphaned wells  
24 between 2019 and 2021.

25 Couldn't that be related in significant part

1 to the COVID 19 pandemic and significantly lower oil  
2 prices during that time?

3 A So could it be possible that there's a  
4 confounding factor related to COVID-19, or some other  
5 geopolitical events that happened around this time?

6 I suppose anything is possible. To me, the  
7 most likely reason is the Department of the Interior's  
8 grant program being announced around this time. Because  
9 that is directly related to states counts of documented  
10 orphaned wells.

11 Although, I would not represent to you that I  
12 know that with certainty. It appears to be likely based  
13 on the timing of this increase.

14 Q And oil was as low as -- well negative at some  
15 point, and down around \$49 a barrel during this time,  
16 right?

17 A Yeah. So it's true oil became negative on  
18 April 20, I think, 2020. But that was related to some  
19 very unique circumstances driven by the financial  
20 market, not the -- not the actual physical market for  
21 oil and gas.

22 The negative oil price resulted from  
23 speculators, pure financial speculators, in the market  
24 for WTI futures that got caught out with some long  
25 positions without the appropriate quantity of storage

1 capacity in Cushing.

2 So it's a very unique, and sort of one-off  
3 oddity, in terms of prices. I think the next day, the  
4 price jumped back up to about \$10, or a little over \$10.

5 Q Okay. And even more than that, at like say  
6 \$49, where it was for longer. Your testimony is that  
7 that's only potentially a confounding factor. You  
8 wouldn't see that as a significant factor in --

9 A Well --

10 Q -- documented orphaned wells increasing?

11 A Well I would say that oil prices are extremely  
12 volatile, and we've seen lots of wild swings in oil  
13 prices over the years. But this goes back to 1992.

14 I'm sure if we were to plot the volatility in  
15 in WTI against these counts, I think we could see that  
16 there's probably no correlation, but I haven't done that  
17 analysis.

18 But that's the analysis you would have to do  
19 in order to rule that out.

20 Q Right. But you agree with me there was a  
21 significant, more than doubling between 2019 and 2021,  
22 during the pandemic, right?

23 A According to this plot here. But again, I  
24 think that's -- I mean it says in the title, it's  
25 published documented orphaned wells. It's not orphaned

1 wells, it's documented, which I think is the key word  
2 there.

3 Q Okay. And didn't the state land office do a  
4 rule during this time on temporary abandonment  
5 (inaudible) because of that price of oil?

6 A I'm not sure.

7 HEARING OFFICER: Mr. Graeser.

8 MR. GRAESER: I'm sorry. I lost you  
9 there.

10 BY MR. GRAESER:

11 Q Mr. Arscott, in your rebuttal, you referred to  
12 the term cash bond, correct?

13 A Correct.

14 Q And you're aware that Oil Conservation  
15 Division allows an assignment of cash collateral,  
16 correct?

17 A I believe that's correct.

18 Q All right. And under an assignment of cash  
19 collateral, the principle in the account would be held  
20 for OCD's benefit, right?

21 A Sorry. Can you say that one more time?

22 Q Yeah. The -- when you're using an assignment  
23 of cash collateral, the principle in the account, in  
24 other words that cash, is held for the OCD's benefit,  
25 right?



1           A     That is my understanding.

2           Q     Okay. So whatever the commission sets the  
3     bond amount at, that amount would be the principle in  
4     that account?

5           A     I believe that's how it would work.

6           Q     Thank you. So but the interest on that  
7     principle, that doesn't go to OCD, right?

8           A     No. But it's not really interest on that  
9     cash. It's the opportunity cost of capital. So the  
10    cost is really --

11          Q     Well that -- so that -- but that's not what I  
12    was asking. But the interest does not go to OCD, right?

13          A     I'm not sure. Like if you represent to me  
14    that it doesn't, then it doesn't.

15          Q     Well let's see. We can --

16          A     I don't know one way or another.

17          Q     We can pull up the assignment of cash  
18    collateral form. So at (inaudible) -- this is the  
19    assignment of cash collateral form. It's actually on  
20    OCD's website right now.

21                 And if we look at stipulation 6, please read  
22    that.

23          A     Operator principle retains no right, title, or  
24    interest in the account, except the right to interest,  
25    if any, and the return of the account, or such balance

1 as exists following the division's release of the cash  
2 bond or portion thereof.

3 Q So is it fair --

4 A (Inaudible) --

5 Q -- to read this that the interest could go to  
6 the operator or principle, not OCD?

7 A That's true. But I think the -- and my  
8 reading of this is I think that is correct based on what  
9 I just read. But my question would be, what is the cash  
10 deposited in? What is the rate of return?

11 Q Right.

12 A I mean the operator's rate of return is 10  
13 percent.

14 Q (Inaudible) stipulate that, right? I mean if  
15 you want to take a full look at this, it doesn't say  
16 what kind of account it has to be in, does it?

17 A I'm not sure. I haven't read it. But I doubt  
18 --

19 Q Well let me ask that question broader. Do you  
20 have any reason to think that it somehow limits the type  
21 of account that the operator or principle can invest  
22 that money in?

23 A I do. I would expect that the money would be  
24 held in a very safe asset. Probably in securities as  
25 close to risk free as possible.

1           And those securities offer very low rates of  
2     return. And so, if for example, you take the  
3     collateral, and you deposit it in a portfolio of  
4     treasury bonds that are paying 4 percent on average.  
5     Yes.

6           The way I read this, you would be giving the  
7     operator back its, for example, \$150,000 bond principle.  
8     Plus interest on that bond that had accrued over time at  
9     a rate of 4 percent.

10          And yet, the operator's cost though reflects a  
11     rate of return of 10 percent. So for the entire time  
12     that the --

13          Q     All right. But the -- but -- let me stop you  
14     there.

15                   HEARING OFFICER: Mr. Graeser, hold on.

16                   MR. GRAESER: Yes.

17                   HEARING OFFICER: Let's not talk over  
18     each other, please.

19                   UNIDENTIFIED SPEAKER: Yeah. And if we  
20     could stop interrupting the witness, please.

21                   HEARING OFFICER: Yeah.

22     BY MR. GRAESER:

23          Q     So just finish quickly. If the operator's  
24     cost of capital is 10 percent, and you only give them 4  
25     percent back on their money, they're still out a

1 difference between those two interest rates. There's a  
2 difference in the costs for the operator.

3 Q Right. The rule doesn't specify what kind of  
4 account though, right?

5 A Again, I'm not sure. I haven't read this  
6 entire form.

7 Q Okay. Do you have any reason to think it  
8 specifies that it has to be in a particularly safe or  
9 unsafe account?

10 A Again, I have reason to suspect that it should  
11 be held in a safe account. Otherwise, you'd be putting  
12 that money at risk. I mean you could invest that in  
13 Bitcoin. I wouldn't -- I wouldn't recommend that.

14 Q Well nor would I. But you don't have any  
15 reason to think that that's required, do you? That's my  
16 only question.

17 A That it's required -- well again, I have  
18 reason to suspect that a -- that those monies would be  
19 held in a safe vehicle.

20 Q Okay. So let -- let me move on. I think  
21 we've hashed that out. So you wouldn't need to post  
22 cash, or assignment of cash collateral, or a bond, until  
23 a well is -- until an individual well is deemed  
24 marginal. Whatever the definition of marginal is,  
25 correct?

1           A     So my understanding is that a bond is always  
2     needed. Are you -- are you talking about the -- the  
3     proposed rule requiring an additional bonding  
4     requirement at that level?

5           Q     Correct.

6           A     Then, yeah. My understanding --

7           Q     (Inaudible).

8           A     So, yeah. For a specific well, my  
9     understanding is once a well migrates into marginal  
10    status, as it's defined in the proposed rule, then it  
11    would be subject to additional financial assurance.

12          Q     Right. And -- but that's typically not going  
13    to be needed, like from day one over the entire span of  
14    the well, correct?

15          A     Well I would -- I would hope that a well at  
16    day one is not a marginal status. So probably not. But  
17    there is this question of the 15 percent threshold that  
18    if I did have a brand new well, and it happens to be in  
19    a portfolio with more than 15 percent marginal wells,  
20    then yes.

21                That brand new well from the very beginning of  
22    its life, would be subject to the highest financial  
23    assurance categorization.

24          Q     Understood. But as long as we're below that  
25    threshold, that well doesn't need the additional bonding

1 until it's marginal, right?

2 A That is my understanding.

3 Q And that could be 20, 30, 40 years or  
4 whatever, correct?

5 A Possibly.

6 Q Okay. Thank you. I appreciate your time. I  
7 don't have any other questions.

8 A Thank you.

9 HEARING OFFICER: Thank you, Mr. Graeser.  
10 Let's see. I don't -- I think we have Ms. Nanasi. Mr.  
11 Maxwell, do you have questions of Dr. Arscott?

12 MR. MAXWELL: I have no questions. Thank  
13 you very much.

14 HEARING OFFICER: Thank you. Mr. Rankin,  
15 any questions?

16 MR. RANKIN: None for me. Thank you,  
17 Madam Hearing Officer.

18 HEARING OFFICER: All right. I believe  
19 EOG is monitoring. Mr. Suazo, do you have questions?

20 MR. SUAZO: No questions.

21 HEARING OFFICER: Mr. Cloutier, do you  
22 have any redirect?

23 MR. CLOUTIER: I think I've got three,  
24 Madam Hearing Officer. If I could have Ms. Tripp have  
25 access so she can pull up OCD Exhibit 29.

1 REDIRECT EXAMINATION

2 BY MR. CLOUTIER:

3 Q This is OCD Exhibit 29, Dr. Arscott, that --  
4 as I appreciate it as the list of all financial  
5 assurance that has been posted with the division for oil  
6 and gas well activity.

7 And Ms. Tripp is going to go into the column J  
8 and select cash and letter of credit. And could you  
9 just run a count for us, please, Ms. Tripp? So 400 --

10 MS. TRIPP: 488.

11 BY MR. CLOUTIER:

12 Q 488 which may include the very top row.  
13 Number -- line number 1, which is the headings. So  
14 knowing that there are over 480 instances of cash or  
15 letters of credit posted as cash -- as bonds for the  
16 OCD, according to the OCD's records, does that change  
17 your answer to any of Mr. Tisdell's questions?

18 MR. TISDEL: Leading.

19 MR. CLOUTIER: Pardon me?

20 MR. TISDEL: I'm objecting to leading.

21 BY MR. CLOUTIER:

22 Q How would you, if at all, testify differently  
23 to Mr. Tisdell's questions?

24 A Well I think Mr. Tisdell asked me the number of  
25 operators in the state that had cash bonds. And so if I

Page 103

1 had this data up in front of me, I think I would've been  
2 able to give him an accurate count.

3 Which in this case for cash and letter of  
4 credit, it looks like 487.

5 Q And I will, in fairness, state that I think  
6 some operators are listed on here multiple times. So  
7 it's not -- may not be a perfect accurate operator  
8 count. Two other questions, please.

9 When an operator is considering drilling a  
10 well, and projecting owning the well over its life, in  
11 what stage of the process is the operator planning for  
12 the end of life plugging and abandoning costs?

13 A Those expected plugging and abandonment costs  
14 should be incorporated at the very beginning. So if I'm  
15 conducting a financial analysis to determine whether or  
16 not it makes sense to drill a well, I'm going to think  
17 about my cash flows, my capital expenditure initially.  
18 My initial cash outlay to drill the well.

19 I'm going to think about my expected cash  
20 flows from operating the well for a period of time. And  
21 then I'm also going to think about my expected asset  
22 retirement obligation, which will represent a negative  
23 cash flow at the end of the projected life of the well.

24 Q Right. And same question, except this time  
25 presume an operator who is considering the purchase of



1 an existing producing well.

2 A It is the same analysis minus the drilling.  
3 You can replace the drilling capital expenditure, the  
4 initial outlay, with the purchase of the well.

5 Then I'm going to model out the expected cash  
6 flows from operating the well until I think the well  
7 will reach its economic limit.

8 At which point, I will project out the  
9 projected costs of the asset retirement obligation. All  
10 of that feeds into the net present value calculation  
11 that informs the amount that I'm willing to pay for the  
12 well.

13 Q Thank you. Just one last question. You were  
14 interrupted a couple of times. Was there anything you  
15 wanted to tell the commission that you thought was  
16 useful, that you were prevented from saying?

17 A No.

18 Q All right. No further questions, Madam  
19 Hearing Officer.

20 A I wouldn't dare.

21 HEARING OFFICER: All right. Let's move  
22 to commission questions. Commissioner Ampomah, do you  
23 have a question?

24 COMMISSIONER WILLIAM AMPOMAH: Yes, I do.  
25 Ms. Tripp, is it possible to bring up the direct

1 testimony of Dr. Arscott? Thank you. Okay. So I will  
2 probably prefer the slides. Yeah. The witness slides,  
3 yeah. Thank you.

4 Let's start from slide number 5. Dr.  
5 Arscott, thanks so much for your testimony today. And I  
6 will start from slide number 5.

7 So here you're saying that from the first  
8 point, you're saying OCD's plug in costs do not reflect  
9 typical well. You go on to talk about a significant  
10 variation in expected PNA costs.

11 So these examples that you've provided,  
12 my question to you is, are they in the active or  
13 inactive work categories?

14 THE WITNESS: I don't know that the  
15 inactive or active status is in each of these data sets.  
16 I can tell you one by one. If we go from under the  
17 heading, Significant Variation in Expected PNA Costs,  
18 that Ramey et al study, is a recent study.

19 It is the best one I could find on trying  
20 to project or predict what the plugging costs would be  
21 for a well based on observable factors. So this would  
22 include the age of the well. It includes the vertical  
23 depth, it includes elevation, which state the well was  
24 in. New Mexico is one of those states.

25 In fact, this range, 8,000 to 1.1-

1 million, is specific to wells in the study in New  
2 Mexico. And I don't recall whether there was an  
3 indicator variable there for inactive status or not. I  
4 suspect that no, there wasn't.

5 The Texas Railroad Commission's  
6 statistics, I don't believe delineate between inactive  
7 versus active wells when they're plugged. But this is  
8 more just to show that there is significant variation in  
9 the expected costs.

10 And given that the -- at least the  
11 economic theoretical ideal amount of financial  
12 assurance, if we were trying to figure out well, what's  
13 the right amount? It's really well specific because  
14 part of that determination is, what do I think the  
15 actual cost of plugging this well will be?

16 My understanding is the preexisting rules  
17 for a single well bond is a function of vertical depth.  
18 And that is something that is statistically significant.  
19 It's a significant predictor.

20 In fact, this Ramey et al study, if  
21 memory serves, for every 1,000 vertical feet, the cost  
22 of PNA-ing the well went up 20 percent.

23 COMMISSIONER WILLIAM AMPOMAH: So based  
24 on these three options, or let's say based on your  
25 studies, extensive study on this problem. Then let me

1 ask you the level of appropriate bond that you can  
2 suggest.

3 THE WITNESS: So again, the theoretically  
4 like ideal amount of financial assurance, if we could  
5 perfectly predict what the cost of plugging a well would  
6 be, that would give us excellent information in  
7 determining what the right amount of financial assurance  
8 is.

9 Just as a practical matter, it's -- that  
10 is impossible to know in a lot of cases, right? And so  
11 -- which is why I think -- you know, when you think  
12 about the existing rules, there is a match to some  
13 extent in terms of how the existing rules are set up  
14 with what the theoretical ideal is.

15 For example, vertical depth correlates  
16 positively with the costs of plugging a well. And so to  
17 the extent that you make the financial assurance a  
18 function of vertical depth, you're at least moving  
19 toward that theoretical ideal amount.

20 The blanket coverage also takes into  
21 account the other non-bond deterrence that operators  
22 face when deciding whether or not to shirk their  
23 responsibility.

24 If I'm an operator and I'm thinking about  
25 orphaning a well, I have to think about what is the

1 effect of having doing that on the ability that I have  
2 to operate my other hundred wells.

3 And so if I'm an operator with a large  
4 portfolio of wells, it makes sense that the bonding  
5 amount on a per well basis be lower than the expected  
6 costs of plugging and abandonment.

7 COMMISSIONER WILLIAM AMPOMAH: So sir,  
8 thanks for the information. And I think this has been  
9 the continuous response from other experts as well. You  
10 know, the applicant and OCD really presented their case,  
11 showing the commission as to why they believe the  
12 150,000 has to be the number, right?

13 So experts from IPANM and also  
14 (inaudible) are telling us about the risk base, the risk  
15 base, the risk base. You know, but I mean, it's  
16 difficult for us to be able to put a handle on how the  
17 commission, how we should react.

18 You know, we just have only one number  
19 now, but I don't think we do have another number from  
20 the other side, you know, to really compare. So you can  
21 appreciate why I'm asking you what should be the correct  
22 bond based on all the work that you've done.

23 THE WITNESS: So and I sympathize. It is  
24 --

25 COMMISSIONER WILLIAM AMPOMAH:

1 (Inaudible).

2 THE WITNESS: -- as I said. So and I'm  
3 talking a lot about theoretical ideal amounts, right?  
4 That's really just as a guide for how to try and  
5 implement a feasible policy, right?

6 Because obviously, you can't see into the  
7 books of every operator. You can't -- you can't know  
8 exactly what type of casing issues are associated with  
9 the well.

10 And you know, all these other various  
11 factors that are going to bear significantly on what the  
12 cost of plugging a well will be, which is why I'm being  
13 somewhat -- somewhat high level of that in terms of, you  
14 know, knowing what we know about what the theoretical  
15 ideal amount is. How should we craft a policy that  
16 tries to get as close as possible to that theoretical  
17 ideal in a feasible way?

18 And that's where I base my comments on  
19 the preexisting rules. If you have a single well bond  
20 based on vertical depth, vertical depth may be a noisy  
21 proxy for the expected costs of plugging a well. But it  
22 at least is a positively correlated variable with  
23 plugging costs.

24 And so my real objection to the \$150,000  
25 sort of flat across various wells, is that it ignores

1 all of this heterogeneity that exists in plugging costs.  
2 If we're going to choose \$150,000, or any number, based  
3 on the modal or mean cost in some distribution, we are  
4 by definition imposing a higher than economically  
5 justified bonding amount on at least half of the wells.

6 That will create a distortion for the  
7 incentives that producers have to continue producing oil  
8 and gas.

9 COMMISSIONER WILLIAM AMPOMAH: Thank you.  
10 Let's move on to slide number 8. So in slide number 8,  
11 and even in slide number 9, you presented some examples  
12 looking at, let's say, an operator with some number of  
13 wells.

14 And if they fall under -- within the 15  
15 percent and all of that. So I'm looking at the second  
16 portion where you said incentive to immediately plug  
17 under proposed rules.

18 Don't you believe that also with these  
19 rules, it will prompt the operator to really bring the  
20 well onto production above the threshold to avoid the  
21 \$150,000 bond?

22 THE WITNESS: Right. So if the inactive  
23 well -- if there's a feasible plan, right, an  
24 implementable plan to bring that back on. Then I  
25 suppose, yes.

1                   If you could bring that back on into  
2           production in sufficient quantities to lift it out of  
3           the marginal and inactive status, then yes. There's an  
4           incentive in that -- in that respect as well.

5                   Although, given that wells tend to  
6           decline over time, it is more likely that the incentive  
7           here will be to simply plug some of these marginal and  
8           active wells. Regardless of their productive potential.

9                   Because if it results in the tripping of  
10          this 15 percent threshold. If you have a large  
11          portfolio of wells -- here we're only talking about ten  
12          wells. But you can easily imagine if I've got 50, a  
13          hundred wells.

14                   Having to pay \$150,000 on each one of  
15          them, we're moving very far away from the theoretical  
16          ideal that says that large portfolios have on an average  
17          well -- per well basis, lower likelihoods of orphaning.  
18          And so, yeah. Does that answer your question?

19                   COMMISSIONER WILLIAM AMPOMAH: Yeah. But  
20          so the applicant and OCD, they are being generous in  
21          terms of this rule is not going to be implemented on day  
22          one. They are giving operators up to probably mid-2028,  
23          you know, for operators to really assess their  
24          portfolio.

25                   And after that date, then if you're still



1 in the marginal status, then you have to put the bond.  
2 Don't you believe that the time is enough for  
3 (inaudible) to really assess the economics, and then  
4 their portfolio, to make decisive decisions about how to  
5 deal with their wells?

6 THE WITNESS: I think given the amount of  
7 time, I'm not sure that there would be enough time to  
8 even plug all of these wells. That would be my concern  
9 as well.

10 I think time will go by and commodity  
11 prices will move somewhere, and maybe that means that  
12 some -- some marginally productive assets, I want to go  
13 and recomplete a well or something, because commodity  
14 prices that are a higher price environment, right?

15 So that might affect how I look at  
16 turning inactive wells into producers again. But in  
17 terms of taking a sort of just general stance on --  
18 these marginal wells are a problem under the proposed  
19 rule.

20 I have a strong incentive as an operator  
21 to just plug them as soon as I can. I think there is a  
22 physical constraint perhaps, on the amount of plugging  
23 services available in the state. How much concrete is  
24 this going to take, right?

25 This is going to take time. It's going

1 to take -- from a regulatory perspective, every single  
2 one of these plugged wells requires an inspection.

3 So this will be potentially  
4 administratively burdensome, if we're talking about  
5 plugging thousands of wells within the next couple of  
6 years in response to this rule. That would be a  
7 concern.

8 COMMISSIONER WILLIAM AMPOMAH: So if May  
9 2028 is a concern, what time would you believe it works  
10 pretty well?

11 THE WITNESS: What time do I think is  
12 appropriate to give people enough time? I really don't  
13 have the information necessary.

14 I mean I think we could get some  
15 indication from the number of wells that OCD is able to  
16 plug in a given year. And then use that as our rate of  
17 plugging, and compare that to the number of marginal  
18 wells out there right now that we believe would need to  
19 be plugged.

20 Although, I'm not sure that -- just like  
21 the OCD's cost data may not reflect typical costs in  
22 industry. The rates at which the OCD plugs wells may  
23 not be indicative, because it's my understanding by the  
24 time that a well gets to the OCD to plug, it's in bad  
25 shape.

1                   And I have heard testimony at this  
2                   hearing; I think it was called the buckskin well. And  
3                   it was extremely expensive and dangerous work.

4                   So I think given that the OCD is having  
5                   to contend with some of these especially problematic  
6                   wells, their rates of plugging may not reflect the rates  
7                   we would see in industry.

8                   But I think we would just need to collect  
9                   the data in order to determine how much time it would  
10                  take.

11                  COMMISSIONER WILLIAM AMPOMAH: You made a  
12                  good point here where you said when the well gets to OCD  
13                  to plug, the well is in a bad shape. And is that not  
14                  the analysis that OCD used to come up with the \$150,000?  
15                  Saying this is how much a well that I'll be responsible  
16                  for will cost.

17                  THE WITNESS: That is my understanding.  
18                  But the disconnect is that that cost is then being used  
19                  as the barometer for determining the financial assurance  
20                  on operators.

21                  Many of those wells are going to be  
22                  plugged by industry at industry's costs.

23                  COMMISSIONER WILLIAM AMPOMAH: So then  
24                  IPANM and (Inaudible) needs to come up with  
25                  alternatives, right?

1 THE WITNESS: I'm not in a position to  
2 suggest any alternatives. I think -- and I hate to  
3 generalize again.

4 But I think we're all sort of interested  
5 in addressing the orphaned well problem to the extent  
6 that it exists. And there are lots of different  
7 alternatives potentially, to addressing it.

8 COMMISSIONER WILLIAM AMPOMAH: Okay.  
9 Let's go to slide number 10. So you base your analysis  
10 on the 15 percent. Mr. Tremaine asked you about if we  
11 go to 30 percent, the threshold for marginal wells.

12 And even I will add that there has been a  
13 lot of discussion about even putting some exceptions to  
14 these marginal wells that will fall under the bonding --  
15 the individual well bonding.

16 Do you believe that with these  
17 discussions, and even this threshold, it relieves more  
18 prudent operators from really facing the consequences of  
19 the full 150 per well?

20 THE WITNESS: So I understand your  
21 question. You're asking me if an alternative threshold,  
22 maybe not 15 percent, maybe a different number?

23 COMMISSIONER WILLIAM AMPOMAH: Yeah.  
24 (Inaudible).

25 THE WITNESS: I think just -- I think

1 mathematically, you would -- you would catch -- there  
2 would be fewer instances of portfolios being caught up  
3 in this 15 percent threshold, or the enhanced FA cost.

4 My real concern though, is the fact that  
5 there's any threshold at all. And I -- let's think  
6 about if we have a portfolio of say, maybe we've got a  
7 hundred wells. Okay.

8 And we have -- you know, 14 of them are  
9 marginal. And next month, one of the other wells  
10 becomes marginal. So now I'm at 15 percent.

11 It could be that the other 85 wells in my  
12 portfolio, all of which have very low likelihoods of  
13 orphaning. Now all of a sudden, those wells are going  
14 to be burdened with an exceptionally high level of  
15 financial assurance.

16 Certainly higher than what is  
17 economically justified. And so on that basis alone, I  
18 think that this is an inefficient way to go about  
19 bonding. I think it's an inefficient way of setting the  
20 bonding amount.

21 I think an individualized well by well  
22 bond amount makes more sense if you're trying to address  
23 the specific concerns with these very low producing  
24 wells.

25 Again, if we think that the low producing

1 wells have a higher likelihood of being orphaned, then a  
2 policy prescription that addresses those specific wells  
3 makes more sense to me than imposing a large financial  
4 assurance cost on a large portfolio of wells.

5 Which might include many wells that are  
6 extremely highly productive. For which that bonding  
7 amount is economically unjustified.

8 That's really my problem with the 15  
9 percent. It's just that there shouldn't be a percentage  
10 threshold at all.

11 COMMISSIONER WILLIAM AMPOMAH: Well if  
12 you say that (inaudible) it means you are disregarding  
13 the risk -- the potential risk to the state. Because  
14 these low producing wells are the ones that could be  
15 orphaned.

16 THE WITNESS: No. But again, the --  
17 there is a single well bonding amount. So here, this is  
18 distinct from, you know, the proposed rule requiring  
19 bonding on marginal wells specifically, right?

20 So in my earlier example, you've got 15  
21 marginal wells. Under the proposed rules, those would  
22 be bonded at that special qualification, right?

23 The real issue here is that this 15  
24 percent threshold triggers an increase on the remaining  
25 bonds, which are not in marginal status.

1                   And again, just thinking about the --  
2   what the ideal bonding amount is here, when we think  
3   about the risk of the individual marginal well -- a  
4   marginal well in isolation, if we imagine it's off on an  
5   island all by itself. And the operator only operates  
6   that one well.

7                   The likelihood of orphaning might be  
8   high. But now transfer that well into a portfolio of 99  
9   other high producing wells. All of a sudden, the  
10   operator of that 100 well portfolio, has a very strong  
11   economic incentive to plug that single marginal well.  
12   Because he doesn't want it to imperil the profitability  
13   on the other 99 wells.

14                  Assuming that we can put these marginal  
15   wells into portfolios of other wells that are not  
16   judgment proof, that can only reduce the likelihood of  
17   orphaning. Not increase it.

18                  To the extent that this 15 percent  
19   threshold actually provides an disincentive to  
20   incorporate marginal wells into larger portfolios. This  
21   is going to, I think, accomplish the exact opposite of  
22   the intent, which is to reduce the risk to the state.

23                  COMMISSIONER WILLIAM AMPOMAH: Thank you  
24   for that. Let's go to slide number 30. So you talked  
25   about -- yeah. Slide number 30, yeah.

1                   So your first point, you're saying  
2     incentives to produce during poor market conditions.  
3     Now don't you believe that there could be an exception  
4     that could be added to, let's say, the marginal wells  
5     that needs to be bonded to \$150,000?

6                   There has been some discussions about  
7     some instances where there could be some exception. Do  
8     you believe that poor market conditions can also be part  
9     of that?

10                  THE WITNESS: I think it could.

11                  COMMISSIONER WILLIAM AMPOMAH: Number  
12     three, you said bad actors may simply report an error or  
13     falsified days or volumes. You know, this is something  
14     that is very important, but we've not really discussed  
15     about this, you know, extensively at the hearing.

16                  Even though I'm asking you the question,  
17     but I really want OCD to respond to this. You know,  
18     what mechanism they are putting in place to make sure  
19     that the rule is more or less set in place, and followed  
20     by operators.

21                  So I want to ask you, how do we address  
22     this problem though?

23                  THE WITNESS: It would -- it would  
24     require intense market -- intense monitoring and vetting  
25     of the information that you're relying on.



1                   So this is sort of the -- in terms of the  
2     implementation, how feasible is it to implement this  
3     policy? If you require an absolutely accurate number of  
4     production days, clearly the data shows that there's  
5     some wiggle room there in how it's reported. That's a  
6     concern. Right.

7                   So what I would expect is that after you  
8     impose -- if the proposed rule is imposed, you should  
9     see more bunching right around that 15 percent, right --  
10    what's going to trigger that 15 percent threshold.

11                  So the only way to really address it, if  
12    you really wanted to implement the rules as written,  
13    where you're going to define a marginal well as a  
14    function of production days. Then you need an accurate  
15    count of production days.

16                  And you know, from a practical standpoint  
17    that may be difficult. And if it requires compliance on  
18    behalf of the regulated, I think we're going to run up  
19    against the issue of bad actors again.

20                  And in fact, to the extent that good  
21    actors do the right thing and supply honest data, those  
22    are the ones that are going to get disproportionately  
23    caught out.

24                  COMMISSIONER WILLIAM AMPOMAH: Thank you,  
25    Dr. Ascott for your testimony. I have no further

1 questions.

2 HEARING OFFICER: Thank you.

3 Commissioner Bloom, do you have questions?

4 COMMISSIONER GREG BLOOM: Thank you,  
5 Madam Hearing Officer. Dr. Ascott, no questions. Thank  
6 you for your time.

7 HEARING OFFICER: Chair Chang.

8 CHAIR ALBERT CHANG: Can we go back to  
9 those slides? Let's start with slide 5. Actually,  
10 let's start with 10 and then work our way back if that's  
11 okay. Thank you.

12 If I heard you correctly, I think you  
13 said something along the lines -- and forgive me if I'm  
14 misquoting here. I don't have a transcript right in  
15 front of me.

16 But on this -- on slide 10, I thought  
17 during the discussion with the Commissioner Ampomah, you  
18 said something along the lines that an individual well  
19 by well financial assurance would be more efficient. Is  
20 that -- did I capture that correctly?

21 THE WITNESS: That's correct. But  
22 efficient in a theoretical sense. So you know, economic  
23 theory says that the ideal bonding amount is related to,  
24 in part, to the expected costs of plugging the well.

25 CHAIR ALBERT CHANG: Okay. And then

1 let's go back to slide 5, where we talked about averages  
2 or you had this discussion with Commissioner Ampomah  
3 about averages.

4 I understand median costs by definition  
5 is greater than half the population. But also then,  
6 less than half the population, right? Kind of in the  
7 definition of the word median.

8 So between those two positions then, I'm  
9 trying to figure out what your policy prescription would  
10 be. Because if you're asking for us to do well by well  
11 costs instead of averages as what is being proposed  
12 here.

13 I mean there's certainly regulatory  
14 frameworks out there that require project by project  
15 costs analysis and bonding, before permits are issued,  
16 right? New Mexico's Mining Act of 1993, SMCRA 1997 --  
17 1977, excuse me.

18 I mean is it IPANM's position that OCD  
19 should require well by well plugging costs analysis and  
20 bonding at the time before we issue each APD?

21 THE WITNESS: I wouldn't speak for them.  
22 And what I'm saying here is that, you know,  
23 theoretically, what you'd want is that information. But  
24 from a practical standpoint, it's impossible to get that  
25 information.

1                   So the point is that vertical depth is  
2 something that's easily verifiable, right? That's  
3 something that the current financial assurance  
4 requirements take into account.

5                   So for a single bonded well, the amount  
6 of the bond is tied to the depth of the well. And the  
7 depth of the well correlates in a statistically  
8 significant way, with the eventual costs of plugging  
9 that well.

10                  And so my point is that the -- if we're  
11 trying to tailor the financial assurance in an  
12 economically efficient way, the current rules that are  
13 based on vertical depth, are closer to that theoretical  
14 ideal. Even though the theoretical ideal isn't  
15 practically implementable.

16                  CHAIR ALBERT CHANG: Well certainly has  
17 been forced -- or has been enforced and made practical  
18 in other industries. But going -- maybe -- would you  
19 agree with me if I phrased it differently to say that  
20 economically, there's a transaction cost to that kind of  
21 analysis? That would also weigh down the efficiency.

22                  THE WITNESS: That is exactly the way to  
23 characterize it. I would agree with that.

24                  CHAIR ALBERT CHANG: Okay. And you've  
25 mentioned depth then as a proxy for how to better --

1     than to a average here, right?  Depth is one proxy.  I  
2     think I heard you also say that depth is a noisy proxy,  
3     but it sounds like you're saying it's better than no  
4     proxy.  Fair enough.

5                     We've had testimony to the contrary about  
6     how effective depth really is as a proxy.  Other than --  
7     and so putting that dispute aside.  Other than depth,  
8     are there any other proxies that you have looked at or  
9     recommend, that may be -- I won't ask you to say whether  
10    it's better or worse.

11                    But are there other proxies that you  
12    think would be reasonable for this commission to  
13    consider as part of this rulemaking?

14                    THE WITNESS:  So statistically speaking,  
15    there are other proxies like well age.  But -- excuse  
16    me.  The age of the well has been shown to be  
17    statistically significant, as well as whether it's an  
18    oil or gas well.  That's a statistically significant  
19    variable as well.

20                    The type of hydrocarbon maybe is more  
21    easily verifiable at the state level, similar to true  
22    vertical depth, but the age of the well is tricky  
23    though, right?  Because you'd have to have a measure of,  
24    you know, how do you define the age of the well?  Is it  
25    when it was first drilled, or subsequent recompletions?

1                   And so there may be some additional work  
2     that would have to be done there. And I really haven't  
3     given it much thought. I'd have to really think about  
4     it.

5                   But I can tell you there are other  
6     variables that are statistically correlated with  
7     plugging costs. And I would encourage you to read the  
8     Ramey et al paper. It's a good paper.

9                   It's got one regression table with two  
10    specifications. And you can read it in 30 minutes.

11                  CHAIR ALBERT CHANG: Sure, sure. Thank  
12    you. Let's -- I appreciate that. So age and depth.  
13    And we'll definitely take a look at all the other  
14    submissions and part of the record.

15                  We're all, I think, doing our best up  
16    here to try to find the both -- the best --  
17    understanding that all proxies have their limitations.  
18    But trying to find the best way to get to something that  
19    is not administratively as much of a -- or trying to  
20    find a medicine that's not worse than the cure. So --  
21    or worse than disease. So appreciate it. Thank you.

22                  THE WITNESS: Thank you.

23                  HEARING OFFICER: Thank you. Any reason  
24    not to excuse Dr. Arscott? Thank you very much for your  
25    testimony, Dr. Arscott.

1 THE WITNESS: Thank you.

2 HEARING OFFICER: Break for lunch and  
3 come -- wait. Are we coming back at 1:00 or?

4 UNIDENTIFIED SPEAKER: We have -- what we  
5 have discussed, Madam Hearing Officer, Mr. Harvard is  
6 scheduled to be back in the country sometime this  
7 afternoon, but that's -- still traveling.

8 And so I think the best plan is probably  
9 to reconvene tomorrow at 9:00 like we had discussed via  
10 the platform, and present Mr. Nabors and Mr. Harvard.

11 Actually, I think Mr. Harvard then Mr.  
12 Nabors is the order I've told people. And if that's  
13 still the hearing officer and commission's pleasure.

14 HEARING OFFICER: All right. Anyone who  
15 believes we should convene in the room, it will be, I  
16 believe, pretty short tomorrow morning because the  
17 witnesses are shorter witnesses. And the cross exam  
18 will be shorter as well.

19 UNIDENTIFIED SPEAKER: So they're both  
20 fact witnesses.

21 HEARING OFFICER: Yeah.

22 UNIDENTIFIED SPEAKER: And I think 15 or  
23 20 minutes is what we set aside for their direct.

24 HEARING OFFICER: Yeah. All right. So  
25 we're agreed. Tomorrow morning on the platform. Thank

1 you all very much.

2 UNIDENTIFIED SPEAKER: I'm sorry. Those  
3 are our final two witnesses?

4 HEARING OFFICER: Correct.

5 UNIDENTIFIED SPEAKER: Okay.

6 HEARING OFFICER: And our final public  
7 comment session.

8 UNIDENTIFIED SPEAKER: Maybe while we're  
9 all here, just take a few minutes. Maybe we want to  
10 discuss future timelines.

11 HEARING OFFICER: That's right. Thank  
12 you. Commissioner Bloom was wondering -- and the other  
13 commissioners, wondering about the post-hearing process.

14 What I described was kind of the post-  
15 hearing process in its fullness, which is it usually  
16 takes a couple of weeks to get the last of the  
17 transcripts.

18 And then the question is, how long would  
19 the parties like to submit their written closing  
20 arguments? And or, proposed kind of final proposal,  
21 based on the record of the rule changes that you would  
22 like to see or not see.

23 If there's time for me to do a short  
24 report, I do it. It doesn't -- never includes  
25 recommendations. It's really just a compilation of the



1 final proposals, and or a short roadmap for their  
2 deliberations. That's all it ever is.

3 I will say one thing, Commissioner Bloom.  
4 I know the session starts around January 20th, yes? And  
5 Commissioner Bloom is gone on an extended trip beginning  
6 January 15th, is that correct?

7 COMMISSIONER GREG BLOOM: (Inaudible).

8 HEARING OFFICER: So the question is, can  
9 we fit these things in such that they can deliberate by  
10 January 15th?

11 MR. CLOUTIER: So Madam Hearing Officer,  
12 I would observe a couple of things. And I don't know  
13 how to fit them all together, but we do have two  
14 holidays coming up, which makes it difficult. And the  
15 commission has encouraged us to visit.

16 And you know, I think discussions are  
17 still going on within industry, but we've provisionally  
18 set up an initial meeting. The first -- December 5th, I  
19 believe, Ms. Fox.

20 And to meet and discuss, and perhaps  
21 industry may have some suggestions for applicants in the  
22 division. And so I guess part of it is how -- I doubt  
23 that we're going to solve our -- all our issues on  
24 December 5th.

25 I think it would be the beginning of a

1 discussion period at best. And so, I'm wondering  
2 whether -- not knowing how long Commissioner Bloom's  
3 trip is, maybe we ought to be shooting for the end of  
4 that for getting submissions. But I'd welcome everybody  
5 else's thoughts too.

6 HEARING OFFICER: So due to the Chair's  
7 commitments during the session, if it's not by January  
8 15th, it would have to be after the session, which means  
9 the earliest would be late February.

10 Ms. Fox, how would you feel if I -- if I  
11 kind of punted this ball to you? Based on what you know  
12 about what meetings you're likely to have. And  
13 understanding that it would either have to be before  
14 January 15th, or after the session.

15 And again, based on the availability of  
16 the commissioners. And you shared, for example, a  
17 proposed schedule for us.

18 MS. FOX: So Madam Hearing Officer, what  
19 you're suggesting is to work with the parties --

20 HEARING OFFICER: Yeah.

21 MS. FOX: -- and suggest a schedule to  
22 the commission?

23 HEARING OFFICER: Yes.

24 MS. FOX: I think that makes sense.

25 HEARING OFFICER: Okay.

1 MS. FOX: Appreciate that.

2 HEARING OFFICER: All right. Because I  
3 just don't think we're going to be able to settle on  
4 dates here today. All right. Thank you. Is there  
5 anything --

6 CHAIR ALBERT CHANG: Speaking for myself  
7 as just one of the commissioners, I would be -- I would  
8 much prefer a timeline that concludes before January  
9 15th, as opposed to one that drags on after. Just  
10 putting that out there. Thank you.

11 COMMISSIONER WILLIAM AMPOMAH: So Mr.  
12 Chair, you know, I will also propose that at least the  
13 parties have enough time to really think through this  
14 proposal, you know, before they bring it to us. To make  
15 our job easier. Other than that, it's going to be  
16 really tough.

17 HEARING OFFICER: Anything else before we  
18 adjourn here for the day?

19 CHAIR ALBERT CHANG: I have faith.

20 HEARING OFFICER: All right.

21 CHAIR ALBERT CHANG: I have faith in  
22 these guys to be very speedy yet thorough.

23 HEARING OFFICER: All right. We'll see  
24 you tomorrow morning on the platform at 9:00. Thank  
25 you.

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MS. FOX: Thank you.

MR. CLOUTIER: Appreciate your  
confidence.

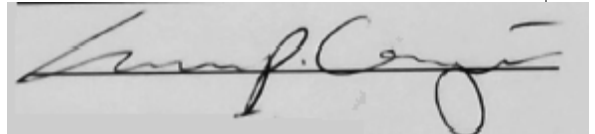
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CERTIFICATE OF NOTARY PUBLIC

I, GERALD ARAGON, 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 interested in the outcome of this action.

November 18, 2025



GERALD ARAGON

Notary Public in and for the

STATE OF NEW MEXICO

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CERTIFICATE OF TRANSCRIBER

I, SONYA LEDANSKI HYDE, 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.

November 18, 2025

A handwritten signature in cursive script, reading "Sonya M. Ledanski Hyde", is written over a horizontal line.

SONYA LEDANSKI HYDE

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<b>0.45</b> 40:20	<b>1220</b> 1:14 2:6	72:16	58:4
<b>1</b>	<b>12:02</b> 132:4	<b>17</b> 30:9 57:4	<b>2025</b> 1:10
<b>1</b> 27:24 31:5	<b>13</b> 4:7	<b>17th</b> 40:15	133:16 134:13
46:15 48:7	<b>14</b> 117:8	<b>18</b> 12:3,25 59:1	<b>2028</b> 112:22
53:20 67:15	<b>140</b> 12:4	133:16 134:13	114:9
68:11 103:13	<b>15</b> 31:24 32:8	<b>180</b> 81:16,24	<b>20th</b> 129:4
<b>1,000</b> 81:23	35:17,19 36:20	<b>19</b> 59:1 67:13	<b>21</b> 63:12 69:19
107:21	36:24 37:1	94:1,4	<b>22</b> 73:14 74:11
<b>1.05</b> 76:21	62:11 68:21	<b>19.15.2</b> 1:5	<b>23</b> 75:14
<b>1.1</b> 106:25	79:6 86:10	<b>19.15.25</b> 1:7	<b>23.7</b> 41:21
<b>1.3</b> 40:16,20	87:20 88:21	<b>19.15.5</b> 1:6	<b>24</b> 82:4 83:22
<b>1.6</b> 5:12	89:6,7 101:17	<b>19.15.8</b> 1:6	<b>24.6</b> 41:7
<b>1.9</b> 61:2,15	101:19 111:14	<b>19.15.9</b> 1:6	<b>24683</b> 1:7 4:6
62:15 64:19	112:10 116:10	<b>1952</b> 14:2	<b>25</b> 27:12 77:4
65:7	116:22 117:3	<b>1977</b> 123:17	79:7
<b>10</b> 67:15 68:11	117:10 118:8	<b>1992</b> 95:13	<b>250,000</b> 6:2
68:20,22 77:8	118:20,23	<b>1993</b> 123:16	<b>29</b> 3:4 102:25
79:8,11 95:4,4	119:18 121:9	<b>1997</b> 123:16	103:3
98:12 99:11,24	121:10 127:22	<b>1:00</b> 127:3	<b>3</b>
116:9 122:10	<b>15.5</b> 77:3	<b>2</b>	<b>3</b> 31:7 67:24
122:16	<b>15.8</b> 39:24	<b>2</b> 31:7 55:3	76:13
<b>10,000</b> 79:14,14	40:11 41:15	67:24	<b>3,000</b> 39:11,25
<b>100</b> 5:16 10:14	<b>150</b> 116:19	<b>2,000</b> 88:6,13	40:3
16:5 23:17	<b>150,000</b> 33:3	88:18	<b>3,150</b> 38:17,21
88:14 119:10	38:24 60:5	<b>20</b> 39:20 41:19	38:23 39:9
<b>103</b> 3:4	69:8 70:19,21	49:25 94:18	<b>3,750</b> 69:13
<b>10:55</b> 80:2	72:10 86:11	102:3 107:22	<b>3.5</b> 68:4
<b>110</b> 60:9	99:7 109:12	127:23	<b>30</b> 39:22,23
<b>110,000</b> 59:24	110:24 111:2	<b>2019</b> 93:24	89:6 102:3
<b>111,000</b> 32:23	111:21 112:14	95:21	116:11 119:24
<b>12</b> 27:13 81:12	115:14 120:5	<b>2020</b> 94:18	119:25 126:10
81:15	<b>15th</b> 129:6,10	<b>2021</b> 93:24	<b>300,000</b> 71:1
<b>120,000</b> 72:18	130:8,14 131:9	95:21	<b>32</b> 76:25 77:3
72:20,22			

<b>325</b> 12:13 <b>34</b> 76:25 <b>34945</b> 133:16 <b>350</b> 41:2 <b>351</b> 41:2 <b>375</b> 78:23 <b>376</b> 58:18 <b>38,000</b> 62:2 <b>39,000</b> 33:2 <b>39,117</b> 60:6 <b>4</b> <b>4</b> 99:4,9,24 <b>4,400</b> 5:14 10:9 <b>40</b> 14:3 39:20 102:3 <b>400</b> 103:9 <b>42</b> 3:5 <b>45</b> 40:17 <b>473</b> 39:1,4,13 39:23 42:3 <b>480</b> 103:14 <b>487</b> 104:4 <b>488</b> 103:10,12 <b>49</b> 94:15 95:6 <b>5</b> <b>5</b> 1:10 24:22 38:20 39:18 67:21 69:11 76:20 78:21,22 88:11,17 106:4 106:6 122:9 123:1 <b>5.85</b> 40:20,23	<b>50</b> 112:12 <b>500</b> 31:18,19 <b>505-469-5527</b> 2:9 <b>51</b> 59:3 65:1 <b>58</b> 40:23 <b>5th</b> 129:18,24 <b>6</b> <b>6</b> 97:21 <b>6,000</b> 72:12,13 72:19,23 73:7 <b>60</b> 40:24 41:2 <b>61</b> 32:19,22 58:19 59:23 60:10 62:25 64:19,24 65:6 <b>63,000</b> 38:18,20 39:7 <b>7</b> <b>7</b> 41:7,9 <b>7,500</b> 69:13 78:22 <b>700</b> 5:11,13 10:7 <b>700,000</b> 6:3 <b>7626656</b> 1:17 <b>8</b> <b>8</b> 30:5,9,10,19 41:12 45:23 46:18 57:21,24 58:23 59:9,13 65:8 88:20 111:10,10	<b>8,000</b> 106:25 <b>80</b> 3:6 <b>85</b> 117:11 <b>87505</b> 1:15 2:7 <b>89</b> 6:10 <b>9</b> <b>9</b> 30:5,11,12 41:12 45:23 46:15 49:1 60:10,12 62:22 111:11 <b>90</b> 24:16 <b>95</b> 38:22 <b>99</b> 119:8,13 <b>9:00</b> 1:11 22:10 127:9 131:24 <b>a</b> <b>a.m.</b> 1:11 22:10 <b>abandon</b> 34:21 35:11 49:7 53:21 54:3 56:12 64:6,8 66:18 70:11 72:14 78:2 <b>abandoned</b> 5:13,15 6:16 6:19 7:5 8:21 10:1,8,9,15 16:20 23:24 39:10 66:23 <b>abandoning</b> 36:2 66:25 70:4 76:5 89:20 104:12	<b>abandonment</b> 51:23 53:1,12 55:1,7,8,21 64:14,21 79:3 79:19 96:4 104:13 109:6 <b>ability</b> 36:6,12 66:20 85:17 109:1 133:9 134:7 <b>able</b> 4:18 30:23 32:7 33:16 43:24 59:4 64:20 65:2 70:3 104:2 109:16 114:15 131:3 <b>above</b> 62:11 111:20 <b>absent</b> 91:15 <b>absolute</b> 49:17 <b>absolutely</b> 13:20 16:9 54:24 58:18 121:3 <b>abstract</b> 6:16 <b>abstraction</b> 51:12 <b>accelerating</b> 28:17 <b>accept</b> 59:18 68:6 <b>acceptable</b> 28:1 <b>access</b> 29:16 102:25
---	---	--	--



<p><b>accessed</b> 14:23</p> <p><b>accident</b> 85:15</p> <p><b>accomplish</b> 119:21</p> <p><b>account</b> 76:20 83:23 85:3,22 85:23 96:19,23 97:4,24,25 98:16,21 100:4 100:9,11 108:21 124:4</p> <p><b>accountability</b> 6:13</p> <p><b>accountable</b> 29:9</p> <p><b>accrued</b> 92:7,7 99:8</p> <p><b>accurate</b> 80:23 104:2,7 121:3 121:14 133:8 134:5</p> <p><b>achieve</b> 42:5</p> <p><b>acknowledge</b> 90:15</p> <p><b>acquisitions</b> 12:22</p> <p><b>act</b> 10:6,6 123:16</p> <p><b>action</b> 133:11 133:15 134:8 134:12</p> <p><b>actions</b> 74:16</p> <p><b>active</b> 80:24 87:13 106:12 106:15 107:7</p>	<p>112:8</p> <p><b>activities</b> 54:12</p> <p><b>activity</b> 103:6</p> <p><b>actor</b> 34:4 75:4</p> <p><b>actors</b> 35:18 75:3,12,13 85:24 86:2,2 87:25 120:12 121:19,21</p> <p><b>actual</b> 27:25 30:3 31:15 45:22,25 55:16 62:5 94:20 107:15</p> <p><b>actually</b> 20:24 27:12 30:3 33:18 35:21 38:2,2 57:1,2 59:10 61:10 69:6 70:20 71:2 87:11,23 92:20 97:19 119:19 122:9 127:11</p> <p><b>adapt</b> 32:4,6 59:4 61:20</p> <p><b>add</b> 6:4 22:3 38:1 69:16 88:17 116:12</p> <p><b>added</b> 22:4 76:25 120:4</p> <p><b>adding</b> 21:17 84:15 88:14</p> <p><b>additional</b> 31:23 32:23</p>	<p>38:8 52:8 60:13 61:15 84:15 86:18 101:3,11,25 126:1</p> <p><b>address</b> 28:24 117:22 120:21 121:11</p> <p><b>addresses</b> 118:2</p> <p><b>addressing</b> 75:17 116:5,7</p> <p><b>adds</b> 28:19 29:8</p> <p><b>adequate</b> 7:20</p> <p><b>adjourn</b> 131:18</p> <p><b>adjust</b> 32:9 37:16</p> <p><b>administrativ...</b> 114:4 126:19</p> <p><b>adopt</b> 10:22 65:10</p> <p><b>adopted</b> 19:5 30:2</p> <p><b>advance</b> 28:9 28:21 29:1</p> <p><b>advances</b> 14:17</p> <p><b>advantageous</b> 72:19</p> <p><b>advocating</b> 24:10</p> <p><b>affect</b> 18:19,20 31:11 49:13 50:6 51:14 91:19 113:15</p>	<p><b>affected</b> 26:4,5 26:6</p> <p><b>affecting</b> 26:11 37:18</p> <p><b>affects</b> 58:16</p> <p><b>affirm</b> 4:13,20 9:6 11:6 13:19 15:20 18:4 19:23 23:4 25:13 27:3,6</p> <p><b>afford</b> 10:19,20 28:11,12 70:23 70:24 78:18</p> <p><b>affordability</b> 14:5,13</p> <p><b>afternoon</b> 127:7</p> <p><b>age</b> 106:22 125:15,16,22 125:24 126:12</p> <p><b>ago</b> 20:12 27:14 45:2</p> <p><b>agree</b> 6:11 33:25 34:4 35:3,8 48:10 50:15 51:11 53:9,11 60:21 64:16 72:21,23 74:11 76:10,11 77:14 78:1 79:4 82:6 83:3 83:10,12,19,22 85:11,25 86:8 86:9 88:14 89:21 90:1</p>
--	--	--	---

[agree - argument]

<p>92:9,19 95:20 124:19,23 <b>agreed</b> 38:20 56:18 64:23 127:25 <b>ahead</b> 4:24 9:10 11:10 15:22 18:7 20:1 23:7 25:17 27:10 <b>air</b> 20:21 29:7 <b>al</b> 106:18 107:20 126:8 <b>albert</b> 122:8,25 124:16,24 126:11 131:6 131:19,21 <b>albuquerque</b> 21:6,20 <b>aligns</b> 34:19 <b>allow</b> 7:4 24:1 24:14 <b>allowed</b> 28:7 <b>allowing</b> 77:2 <b>allows</b> 96:15 <b>alternative</b> 116:21 <b>alternatives</b> 115:25 116:2,7 <b>amendments</b> 1:5 73:16 <b>america</b> 21:16 <b>amount</b> 32:1 33:1,2 40:19 41:14 44:3</p>	<p>55:4 58:9,17 60:12 62:6,16 67:3 70:7 71:2 77:2 89:18 92:12 97:3,3 105:11 107:11 107:13 108:4,7 108:19 109:5 110:15 111:5 113:6,22 117:20,22 118:7,17 119:2 122:23 124:5 <b>amounts</b> 60:19 67:8,13 110:3 <b>ampomah</b> 105:22,24 107:23 109:7 109:25 111:9 112:19 114:8 115:11,23 116:8,23 118:11 119:23 120:11 121:24 122:17 123:2 131:11 <b>analogy</b> 34:7 <b>analyses</b> 44:22 <b>analysis</b> 7:19 44:16 45:7,8 45:15 81:17 87:6,21 89:9 89:11 90:3 91:5 95:17,18 104:15 105:2</p>	<p>115:14 116:9 123:15,19 124:21 <b>ands</b> 58:6 <b>angeles</b> 20:16 <b>announced</b> 94:8 <b>annual</b> 39:6,13 39:25 41:6,15 72:13,19 <b>answer</b> 47:18 56:14,15 103:17 112:18 <b>answered</b> 82:13 <b>answering</b> 56:22 <b>anti</b> 8:6 <b>anymore</b> 23:25 <b>apartment</b> 28:25 29:2 <b>apd</b> 123:20 <b>apodaca</b> 2:4 <b>apologies</b> 46:8 <b>apologize</b> 40:22 58:12 64:10 74:17 93:10 <b>apparently</b> 28:4 <b>appear</b> 45:14 <b>appears</b> 35:16 94:12 <b>apples</b> 42:2,2 <b>applicant</b> 109:10 112:20</p>	<p><b>applicants</b> 42:21 129:21 <b>applied</b> 44:14 <b>apply</b> 85:15 <b>applying</b> 84:21 <b>appointed</b> 4:4 <b>appreciate</b> 25:23 26:14 102:6 103:4 109:21 126:12 126:21 131:1 132:2 <b>approach</b> 16:23 <b>approaching</b> 35:10 <b>appropriate</b> 55:16 56:10 66:11 67:2 69:2 94:25 108:1 114:12 <b>approve</b> 24:17 <b>approximately</b> 88:6 <b>april</b> 94:18 <b>aquifers</b> 25:25 <b>aragon</b> 1:16 133:2,17 <b>area</b> 20:16 <b>areas</b> 15:3 <b>argue</b> 54:17 56:3 86:13 <b>arguing</b> 35:17 <b>argument</b> 9:16</p>
--	---	--	--

[arguments - back]

<b>arguments</b> 128:20 <b>armstrong</b> 68:2 71:25 77:20 <b>array</b> 75:11 <b>arrington</b> 10:25 11:1,4,8 11:11 13:8 <b>arscott</b> 3:3 29:14,16,22 33:20 42:17 56:25 80:8,11 82:13,18 83:3 84:7,21 85:2 86:16,25 88:5 88:23 89:21 91:24 93:5,14 96:11 102:11 103:3 106:1,5 126:24,25 <b>ascott</b> 79:25 121:25 122:5 <b>aside</b> 35:25 53:16 77:21 78:2 79:6,9,19 125:7 127:23 <b>asked</b> 30:1 92:1 103:24 116:10 <b>asking</b> 13:2 90:14 91:10 97:12 109:21 116:21 120:16 123:10 <b>aspects</b> 23:23 44:22	<b>assess</b> 112:23 113:3 <b>asset</b> 48:4 78:7 98:24 104:21 105:9 <b>assets</b> 28:23 36:17 63:14 69:21 74:14 113:12 <b>assignment</b> 96:15,18,22 97:17,19 100:22 <b>associated</b> 20:7 36:15 40:10 41:20,23 42:7 54:20 55:18 110:8 <b>association</b> 25:21 26:16 <b>assume</b> 38:21 39:21 41:18 69:8 78:20 88:16 <b>assumed</b> 79:8 <b>assumes</b> 33:7 49:22 87:6 <b>assuming</b> 39:20 40:23 41:6,9 119:14 <b>assumption</b> 38:25 39:16 40:24 41:17 53:14	<b>assumptions</b> 39:17 77:7,8 <b>assurance</b> 4:6 12:23 31:24 37:18 49:13 52:3 53:25 54:2,20,22 55:4,5,22,25 56:5,10,16 57:10 64:19 65:7 66:2,7 67:2 71:7,17 75:16 83:5,6 86:6,8,22 89:15,19 101:11,23 103:5 107:12 108:4,7,17 115:19 117:15 118:4 122:19 124:3,11 <b>attack</b> 85:14 <b>attempt</b> 48:10 <b>attention</b> 73:22 77:10,12 79:16 <b>attorney</b> 42:19 133:13 134:10 <b>attributed</b> 40:18 <b>atypical</b> 78:1 <b>audio</b> 133:7 134:3 <b>author</b> 43:15 <b>availability</b> 130:15	<b>available</b> 16:14 43:10 84:12 113:23 <b>average</b> 6:2 24:13 27:23 30:25 31:2,25 32:1,25 38:24 38:25 39:15,19 39:20,21 41:17 41:19 60:1 62:6 67:7 72:15,16 99:4 112:16 125:1 <b>averages</b> 123:1 123:3,11 <b>averaging</b> 72:17 <b>avoid</b> 37:1 87:12 111:20 <b>aware</b> 82:25 88:5 96:14
			<b>b</b>
			<b>b</b> 3:8 9:4 13:17 19:22 <b>back</b> 11:19 20:12 23:11 34:8,14 35:22 40:13 41:25 46:18 52:16 61:1 62:21 64:18 69:15 80:2,4 81:14 93:11 95:4,13 99:7,25 111:24 112:1 122:8,10

<p>123:1 127:3,6  <b>backed</b> 16:13  28:21  <b>background</b>  16:16  <b>backup</b> 9:21  <b>backwards</b>  9:19  <b>bad</b> 14:1 26:6  35:18 75:3,4  75:12 85:24  86:1,2 114:24  115:13 120:12  121:19  <b>baked</b> 55:22  <b>balance</b> 97:25  <b>ball</b> 130:11  <b>bank</b> 79:10  <b>banking</b> 24:7  <b>bankruptcy</b>  89:24 90:8,17  92:9  <b>bare</b> 28:22  <b>barely</b> 26:12  <b>barometer</b>  115:19  <b>barrel</b> 40:24  41:2 47:6 50:1  94:15  <b>barrels</b> 37:6  40:16,21 47:9  81:24  <b>base</b> 109:14,15  109:15 110:18  116:9</p>	<p><b>based</b> 7:13 37:4  47:14 48:6,12  51:1 58:8 73:9  78:16 81:22  83:8 94:12  98:8 106:21  107:23,24  109:22 110:20  111:2 124:13  128:21 130:11  130:15  <b>basic</b> 10:3  89:17 92:10,11  <b>basically</b> 45:6  59:22 64:23  <b>basin</b> 12:7  <b>basis</b> 35:14  39:6,25 41:6  41:15 42:2  55:23 56:6  62:6 109:5  112:17 117:17  <b>bear</b> 8:11 28:19  81:13 110:11  <b>beautiful</b> 23:13  <b>beauty</b> 11:18  <b>bedtime</b> 44:11  <b>began</b> 28:9  <b>begging</b> 21:23  <b>beginning</b>  101:21 104:14  129:5,25  <b>behalf</b> 2:2 9:13  25:20 27:19  43:2 121:18</p>	<p><b>behave</b> 75:12  <b>behavior</b> 65:15  87:4,7  <b>behavioral</b>  87:22  <b>belief</b> 75:1  <b>believe</b> 24:12  29:13 30:7  33:12,21 41:11  43:21 58:21  76:1 81:23  83:7 96:17  97:5 102:18  107:6 109:11  111:18 113:2  114:9,18  116:16 120:3,8  127:16 129:19  <b>believes</b> 127:15  <b>beneath</b> 17:3  <b>benefit</b> 40:11  65:6 96:20,24  <b>benzine</b> 6:16  <b>berry</b> 13:8,8,10  13:13,16,20,23  15:12  <b>best</b> 16:14  37:13 75:10  106:19 126:15  126:16,18  127:8 130:1  133:9 134:6  <b>better</b> 19:15  26:10 59:4  61:20 124:25</p>	<p>125:3,10  <b>biernoff</b> 93:8  <b>big</b> 27:19  <b>bigger</b> 9:23  30:19  <b>bill</b> 6:7  <b>billion</b> 5:12  40:16,20 61:3  61:15,16 62:13  62:15 64:19  65:7  <b>bit</b> 30:19 39:5  47:12 54:7  61:7 86:4  93:11  <b>bitcoin</b> 100:13  <b>blanket</b> 13:3  67:6 108:20  <b>bless</b> 31:2  <b>blessed</b> 14:21  <b>bloom</b> 122:3,4  128:12 129:3,5  129:7  <b>bloom's</b> 130:2  <b>boe</b> 40:20  79:14 81:16  82:2  <b>bond</b> 16:2 28:9  30:25 31:2  32:1,24 33:1,2  33:14,15,17  35:23 36:5  54:23 55:15  58:9 60:1,4,14  62:12 65:11</p>
---	---	---	---

[bond - case]

66:11,24 67:3 67:7 68:4 69:3 69:7 70:7,10 70:13,17 71:1 71:10,13,15,18 71:23 72:1 73:6 76:4,5,8 86:20 96:12 97:3 98:2 99:7 99:8 100:22 101:1 107:17 108:1,21 109:22 110:19 111:21 113:1 117:22 124:6 <b>bonded</b> 118:22 120:5 124:5 <b>bonding</b> 5:22 7:20 8:9 9:15 9:17,22 10:2 16:13 17:17 24:18 25:24 28:20,23 30:14 33:9 54:16 55:16,25 58:17 59:25 60:11,19 62:5,23 63:5 65:10 67:6,13 67:23 68:23 69:2 70:8 71:23 101:3,25 109:4 111:5 116:14,15 117:19,20 118:6,17,19	119:2 122:23 123:15,20 <b>bonds</b> 24:11 27:24 30:3,23 31:15 60:13 61:15 62:16 65:21,22 67:14 68:14,25 71:4 71:8 99:4 103:15,25 118:25 <b>books</b> 110:7 <b>boom</b> 7:22 47:23 <b>boomhauer</b> 68:18,19 <b>boosting</b> 12:13 <b>born</b> 20:10 <b>borne</b> 54:15 55:8 65:16 <b>bottom</b> 21:9,14 31:17 62:3 74:11 75:14 <b>boy</b> 13:17 <b>brand</b> 101:18 101:21 <b>break</b> 7:14,14 80:2,5 127:2 <b>breakeven</b> 49:10 55:10 <b>bring</b> 105:25 111:19,24 112:1 131:14 <b>broad</b> 45:6,13	<b>broader</b> 98:19 <b>brockway</b> 19:12,12,15,18 19:21,22,25 20:2,5,13 22:7 <b>broken</b> 9:18 10:5 <b>brought</b> 45:5 <b>buckets</b> 47:4 <b>buckskin</b> 115:2 <b>budgeting</b> 7:16 <b>building</b> 1:13 <b>bunching</b> 121:9 <b>burden</b> 8:11 16:11 28:19 89:15 <b>burdened</b> 117:14 <b>burdensome</b> 114:4 <b>buses</b> 20:15,18 <b>business</b> 7:10 36:6,12 85:13 90:10,20 91:3 92:1,13 <b>businesses</b> 21:22 <b>bust</b> 7:23	58:17 60:24,25 61:22,23 105:10 <b>california</b> 21:4 <b>call</b> 11:19 12:5 86:19 <b>called</b> 12:7 115:2 <b>camera</b> 22:20 93:10 <b>cancer</b> 85:14 <b>capacity</b> 95:1 <b>capital</b> 69:4,9 97:9 99:24 104:17 105:3 <b>capitalization</b> 85:6 <b>capitalized</b> 32:2 59:4 61:19 85:3 <b>capture</b> 122:20 <b>car</b> 85:14 <b>care</b> 27:14 <b>career</b> 11:25 44:25 <b>careful</b> 15:7 34:2 <b>carousel</b> 34:8 34:12 <b>cart</b> 34:8 <b>carts</b> 34:10 <b>case</b> 1:6 29:13 33:17 43:19 51:1 69:2 78:24 81:9
		<b>c</b>	
		<b>c</b> 2:1 4:1 9:5 11:4 19:22 25:7 27:2 <b>c.a.r.e.</b> 9:14 <b>calculation</b> 31:23 41:18	

[case - clear]

<p>90:22 104:3 109:10 <b>cases</b> 27:20 71:7,22 108:10 <b>cash</b> 33:13,15 33:17 46:25 48:18 68:24 69:3,5 70:13 70:17,25 71:4 71:8,10,13,15 96:12,15,18,23 96:24 97:9,17 97:19 98:1,9 100:22,22 103:8,14,15,25 104:3,17,18,19 104:23 105:5 <b>casing</b> 110:8 <b>catastrophe</b> 91:9 <b>catch</b> 117:1 <b>categories</b> 58:8 83:6,8 106:13 <b>categorization</b> 83:11 101:23 <b>category</b> 12:9 <b>caught</b> 94:24 117:2 121:23 <b>cause</b> 87:4 89:22 90:16 <b>causes</b> 90:6 <b>ceiling</b> 92:21,24 <b>center</b> 42:20 <b>central</b> 12:7</p>	<p><b>century</b> 5:8 <b>ceo</b> 18:9 <b>certain</b> 22:8 47:21 67:3 78:6 <b>certainly</b> 19:7 41:4,24 44:1 64:1 78:11 84:3 117:16 123:13 124:16 <b>certainty</b> 94:12 <b>certificate</b> 133:1 134:1 <b>certify</b> 133:3 134:2 <b>cetera</b> 31:7 <b>chair</b> 4:25 9:12 22:23 122:7,8 122:25 124:16 124:24 126:11 131:6,12,19,21 <b>chair's</b> 130:6 <b>chang</b> 122:7,8 122:25 124:16 124:24 126:11 131:6,19,21 <b>change</b> 28:17 60:4 87:4,7 88:23 89:6,7,9 89:11,13 90:2 103:16 <b>changed</b> 28:2 92:4 <b>changes</b> 9:16 16:1,2 48:5</p>	<p>87:22 91:25 92:1 128:21 <b>changing</b> 9:17 89:12 92:18 <b>channel</b> 44:3 <b>characterizati...</b> 45:10,17 82:9 <b>characterize</b> 34:16 39:4 61:6 62:13,14 65:25 74:20 75:3 124:23 <b>chart</b> 46:14 47:14 48:7 49:2,9 51:2,24 52:6,18 53:19 53:22 54:6 55:3,10 56:9 58:23 59:13 64:12,24 <b>cheaper</b> 72:2,4 72:5 <b>checkerboard</b> 7:5 <b>child</b> 13:25 <b>childhood</b> 11:17 <b>children</b> 7:2 11:17 14:7 <b>children's</b> 14:25 15:4 <b>chino</b> 1:13 <b>choose</b> 111:2 <b>chris</b> 93:14</p>	<p><b>chrissie</b> 24:23 24:25 25:3,6,7 25:9,12,15,18 25:19 26:15 <b>circumstances</b> 94:19 <b>citizen</b> 23:9,14 <b>citizens</b> 23:20 24:13 <b>city</b> 20:10 <b>claim</b> 27:21 <b>clarification</b> 58:11 82:3 86:16 <b>clarify</b> 81:15 82:1 84:25 91:10 <b>class</b> 11:25 <b>classified</b> 46:1 <b>classroom</b> 7:8 <b>clay</b> 10:25 11:1 11:4,8,11 <b>clean</b> 5:5,21 6:12 7:6 8:16 10:11,15,17,20 16:10 17:5 23:16 28:8 <b>cleaned</b> 26:11 <b>cleanup</b> 5:12 5:18,19,24 8:10 26:2 27:25 28:10 <b>clear</b> 5:19 12:19 16:11 17:4 57:18</p>
--	--	---	--

[clear - concerns]

<p>59:15 87:1  <b>clearing</b> 25:24  <b>clearly</b> 22:18  121:4  <b>climate</b> 28:17  <b>close</b> 27:16  98:25 110:16  <b>closer</b> 35:12  124:13  <b>closing</b> 128:19  <b>cloutier</b> 3:4  29:15,19,21  42:12 46:4,5  102:21,23  103:2,11,19,21  129:11 132:2  <b>coaches</b> 20:14  <b>coast</b> 20:13,14  <b>code</b> 58:5 62:10  <b>collateral</b> 96:15  96:19,23 97:18  97:19 99:3  100:22  <b>collateralizati...</b>  67:10  <b>collect</b> 115:8  <b>collins</b> 26:23  27:1,1,5,8,11  29:12  <b>color</b> 6:21  <b>column</b> 30:25  31:1,5,6 59:24  60:3 103:7  <b>come</b> 27:15  29:3 38:19</p>	<p>50:10 70:19  75:10 80:2,4  81:6 115:14,24  127:3  <b>comes</b> 5:10  <b>coming</b> 14:9  61:16 65:20  127:3 129:14  <b>comment</b> 4:8,9  4:9 13:22 22:8  22:9 26:14,19  26:21 29:10  30:10,18 33:23  35:2 128:7  <b>commentary</b>  64:2  <b>comments</b> 4:14  24:5 36:24  110:18  <b>commission</b> 1:2  4:5 8:9 30:6  33:22 83:13,17  90:6 97:2  105:15,22  109:11,17  125:12 129:15  130:22  <b>commission's</b>  107:5 127:13  <b>commissioner</b>  80:1 105:22,24  107:23 109:7  109:25 111:9  112:19 114:8  115:11,23</p>	<p>116:8,23  118:11 119:23  120:11 121:24  122:3,4,17  123:2 128:12  129:3,5,7  130:2 131:11  <b>commissioners</b>  5:1 9:12 11:11  22:24 25:19  128:13 130:16  131:7  <b>commitment</b>  8:19  <b>commitments</b>  130:7  <b>commodities</b>  92:17  <b>commodity</b>  37:24,25 38:3  49:22 93:1,4  113:10,13  <b>common</b> 7:18  24:17 76:10  77:23  <b>commonplace</b>  84:24  <b>communities</b>  5:5 6:20,20,21  8:2,12 14:19  17:7,9  <b>community</b>  18:12 26:11  34:3,5,23</p>	<p><b>companies</b> 5:23  6:11 8:4 16:8  18:19 28:5,7  29:2 74:23  81:6,8  <b>company</b> 5:25  11:13,21 12:3  12:6 77:20  78:6 85:13,18  <b>compare</b>  109:20 114:17  <b>comparison</b>  35:13 52:14  <b>compilation</b>  128:25  <b>completely</b>  17:12 90:4  <b>compliance</b>  121:17  <b>complicated</b>  47:18  <b>component</b>  49:18 91:5  <b>comported</b>  82:15  <b>concept</b> 76:14  <b>concern</b> 74:10  74:11 113:8  114:7,9 117:4  121:6  <b>concerned</b>  23:22 33:18  <b>concerns</b> 17:15  117:23</p>
---	--	---	--

[conclude - cost]

<p><b>conclude</b> 75:15 92:22</p> <p><b>concluded</b> 132:5</p> <p><b>concludes</b> 131:8</p> <p><b>concrete</b> 113:23</p> <p><b>condition</b> 67:7</p> <p><b>conditions</b> 89:22 90:2,15 90:19 92:2 120:2,8</p> <p><b>conduct</b> 4:5</p> <p><b>conducting</b> 104:15</p> <p><b>confidence</b> 132:3</p> <p><b>confounding</b> 94:4 95:7</p> <p><b>confused</b> 57:20</p> <p><b>connection</b> 27:16</p> <p><b>consequence</b> 28:17</p> <p><b>consequences</b> 7:11 14:25 116:18</p> <p><b>conservation</b> 1:2 2:5 4:5 8:9 15:5 80:13 96:14</p> <p><b>conservative</b> 41:10,13</p>	<p><b>consider</b> 27:16 47:19 125:13</p> <p><b>considerable</b> 44:2</p> <p><b>consideration</b> 36:4</p> <p><b>considerations</b> 34:20</p> <p><b>considered</b> 63:7</p> <p><b>considering</b> 69:20 104:9,25</p> <p><b>consistent</b> 51:21</p> <p><b>constant</b> 48:24 49:22</p> <p><b>constitute</b> 91:12</p> <p><b>constraint</b> 113:22</p> <p><b>consulting</b> 44:15</p> <p><b>contaminate</b> 6:17</p> <p><b>contend</b> 115:5</p> <p><b>contesting</b> 91:13</p> <p><b>context</b> 42:4</p> <p><b>continue</b> 11:17 14:16,20,22 21:25 40:8 52:22,23 63:16 66:20 69:22 73:4,5,7 111:7</p>	<p><b>continued</b> 15:9 24:14 36:6,24 73:18</p> <p><b>continues</b> 11:19 52:20</p> <p><b>continuing</b> 73:10</p> <p><b>continuous</b> 109:9</p> <p><b>contract</b> 7:15</p> <p><b>contrary</b> 125:5</p> <p><b>control</b> 90:5</p> <p><b>convene</b> 127:15</p> <p><b>convenient</b> 44:4</p> <p><b>conversation</b> 64:4</p> <p><b>convey</b> 82:12</p> <p><b>cornerstone</b> 19:1</p> <p><b>corporate</b> 5:6 5:20 6:8</p> <p><b>corporation</b> 10:20 18:10 24:3,8</p> <p><b>corporations</b> 7:13 9:21 10:8 10:13,19 17:18 23:18</p> <p><b>correct</b> 43:3 44:16,17,20 45:10 46:23,24 47:1,2,16 48:9 48:14,24,25 49:7,10 50:21</p>	<p>51:7 52:9,10 52:12,15,20,21 53:2,23 54:6 56:19 57:11,12 57:15,16 58:13 58:14,20,21,24 58:25 59:6 60:7,17 61:17 63:1,2,8,17 64:9 69:17,18 69:23,24 71:5 72:3 73:19,20 73:23 74:2,22 74:25 75:20 76:16,17,21,22 77:6,12 80:19 80:20 96:12,13 96:16,17 98:8 100:25 101:5 101:14 102:4 109:21 122:21 128:4 129:6</p> <p><b>correctly</b> 35:20 122:12,20</p> <p><b>correlated</b> 110:22 126:6</p> <p><b>correlates</b> 108:15 124:7</p> <p><b>correlation</b> 95:16</p> <p><b>cost</b> 6:2,3 23:20 24:5,13 28:10 28:20,23 30:14 38:24,25 39:1 39:13,24 40:1</p>
---	---	---	---



**[cost - deciding]**

41:16,20 51:19 51:23 53:1 54:14 55:8 62:23 63:10 68:23,23 69:3 71:6 72:15,16 86:23 97:9,10 99:10,24 107:15,21 108:5 110:12 111:3 114:21 115:16,18 117:3 118:4 124:20 <b>costs</b> 8:10 18:16 27:25 30:13 32:23 35:25 42:9 47:3,4,5,6,8,8 48:19,22,23 49:4 50:6,20 51:14 52:3,5,7 52:8,9 53:12 53:20,25 54:3 54:9,12,19,22 54:24 55:4,6 55:13,18 56:12 56:15 63:4,15 64:5,7,11,13,15 64:21 65:3,15 65:18 67:24 69:3,17 70:2,4 70:8,21 71:7 73:9,17,23 74:16 77:12	78:2,18 79:3 79:15 86:6,8 89:20 93:22 100:2 104:12 104:13 105:9 106:8,10,17,20 107:9 108:16 109:6 110:21 110:23 111:1 114:21 115:22 122:24 123:4 123:11,15,19 124:8 126:7 <b>cough</b> 14:1 <b>could've</b> 10:16 <b>counsel</b> 133:10 133:13 134:7 134:10 <b>count</b> 80:23 103:9 104:2,8 121:15 <b>country</b> 127:6 <b>counts</b> 94:9 95:15 <b>county</b> 18:10 <b>couple</b> 38:15 39:17 41:1 70:17 71:19 81:11 105:14 114:5 128:16 129:12 <b>course</b> 39:7 44:25 <b>court</b> 42:12	<b>cover</b> 27:24 28:9 41:22 64:21 78:18 <b>coverage</b> 108:20 <b>covid</b> 94:1,4 <b>craft</b> 110:15 <b>create</b> 6:18 111:6 <b>creates</b> 65:14 <b>credit</b> 33:10,11 71:19,20,21 103:8,15 104:4 <b>crew</b> 5:20 <b>cries</b> 24:8 <b>cross</b> 42:11,15 67:9 80:9 93:12 127:17 <b>crude</b> 90:7 91:14 <b>cure</b> 126:20 <b>current</b> 5:25 16:2 33:1 38:23 41:11 53:24 124:3,12 <b>currently</b> 39:8 <b>curtail</b> 37:23 <b>curve</b> 48:5,5,8 49:21 50:2 <b>cushing</b> 95:1 <b>cut</b> 14:9 58:3 <b>cx</b> 3:2 <b>cycles</b> 7:22	<b>d</b> <b>d</b> 3:1 4:1 <b>dangerous</b> 115:3 <b>dare</b> 105:20 <b>data</b> 24:15,16 31:12,21 45:22 58:2,3,3 62:8 90:24 104:1 106:15 114:21 115:9 121:4,21 <b>date</b> 1:10 112:25 <b>dates</b> 131:4 <b>day</b> 4:7 7:5 18:17 20:2,4 43:1 90:19 95:3 101:13,16 112:21 131:18 <b>days</b> 23:16 37:4 37:7 81:16,25 120:13 121:4 121:14,15 <b>dead</b> 85:20 <b>deal</b> 29:5 65:12 113:5 <b>decades</b> 39:11 41:1 <b>december</b> 129:18,24 <b>decide</b> 72:25 91:3 <b>deciding</b> 34:20 108:22
--	--	--	---

[decision - discount]

<b>decision</b> 34:23 35:11 73:7,9 <b>decisions</b> 91:3 113:4 <b>decisive</b> 113:4 <b>deck</b> 30:8 <b>decline</b> 48:5,5,8 112:6 <b>declines</b> 46:23 <b>declining</b> 49:21 <b>decreases</b> 76:1 <b>deemed</b> 100:23 <b>default</b> 34:17 55:1 75:23 86:23,24 91:20 <b>defense</b> 20:23 <b>deficient</b> 53:25 <b>define</b> 51:18 121:13 125:24 <b>defined</b> 77:17 79:14 101:10 <b>definitely</b> 27:22 126:13 <b>definition</b> 37:3 50:22,23 51:8 52:13 66:14 81:22 100:24 111:4 123:4,7 <b>deliberate</b> 129:9 <b>deliberations</b> 129:2 <b>delineate</b> 107:6 <b>demand</b> 38:6 70:18 71:1	<b>demands</b> 33:15 <b>demonstrative</b> 59:10,12,15 <b>department</b> 2:3 20:22 94:7 <b>depend</b> 17:12 <b>dependent</b> 17:13 <b>depending</b> 30:14 63:3 <b>depends</b> 18:12 18:23 <b>depicted</b> 64:13 <b>depicting</b> 46:19 56:8 <b>depicts</b> 48:7 55:3 64:24 <b>depleted</b> 46:23 <b>deployed</b> 69:9 <b>deposit</b> 29:1 99:3 <b>deposited</b> 76:20 98:10 <b>depreciating</b> 48:4 <b>depth</b> 106:23 107:17 108:15 108:18 110:20 110:20 124:1,6 124:7,13,25 125:1,2,6,7,22 126:12 <b>describe</b> 46:25 49:1 51:24 52:16 60:23	74:12 <b>described</b> 44:21 48:21 83:21 84:2 128:14 <b>describes</b> 46:19 <b>describing</b> 67:10 90:12 <b>description</b> 3:9 74:10 <b>deserve</b> 5:5 8:2 8:3 <b>destruction</b> 24:2 <b>detail</b> 47:12 73:22 77:10,12 79:16 <b>detailed</b> 45:8 <b>determination</b> 51:7 52:12 107:14 <b>determine</b> 37:14 104:15 115:9 <b>determined</b> 57:14 <b>determining</b> 51:9,12 58:9 108:7 115:19 <b>deterrence</b> 76:4 108:21 <b>deterrents</b> 66:25 <b>develop</b> 27:15	<b>development</b> 5:9 6:8 18:10 82:23,24 <b>dialed</b> 24:21 <b>difference</b> 59:25 60:4,5 60:18 100:1,2 <b>different</b> 56:20 64:11 89:10 90:16 116:6,22 <b>differently</b> 39:5 103:22 124:19 <b>difficult</b> 109:16 121:17 129:14 <b>digital</b> 133:7 134:3 <b>dime</b> 26:15 <b>dine</b> 9:14 <b>direct</b> 29:20 43:1,5,18 45:4 46:13,15 57:4 67:14 73:14 86:3 105:25 127:23 <b>directional</b> 31:20 61:25 <b>directly</b> 94:9 <b>director</b> 80:12 <b>disagree</b> 54:7 56:4 62:18 <b>disastrous</b> 26:3 <b>disconnect</b> 54:8 115:18 <b>discount</b> 77:8 79:9
---	---	---	---

[discourages - easily]

<b>discourages</b> 36:21 <b>discuss</b> 62:3 67:14 81:7 128:10 129:20 <b>discussed</b> 77:9 87:11 92:20 120:14 127:5,9 <b>discussion</b> 78:17 82:16 87:24 93:16,22 116:13 122:17 123:2 130:1 <b>discussions</b> 116:17 120:6 129:16 <b>disease</b> 126:21 <b>disincentive</b> 119:19 <b>display</b> 43:11 <b>displayed</b> 51:20 <b>disproportion...</b> 30:21 32:16 <b>disproportion...</b> 31:10 63:10 121:22 <b>dispute</b> 125:7 <b>disqualificati...</b> 86:20 <b>disqualifier</b> 89:7 <b>disregarding</b> 118:12	<b>distinct</b> 118:18 <b>distortion</b> 111:6 <b>distortive</b> 66:7 <b>distressed</b> 74:13 <b>distribution</b> 111:3 <b>disturbed</b> 8:6 <b>diverse</b> 23:13 <b>divesting</b> 32:10 <b>dividing</b> 39:23 <b>division</b> 2:5 80:13 83:5,13 83:17 90:6 96:15 103:5 129:22 <b>division's</b> 98:1 <b>doctor</b> 91:22 <b>documented</b> 93:23 94:9 95:10,25 96:1 <b>doing</b> 29:7 30:20 37:10 38:7 109:1 126:15 <b>dollar</b> 62:14 76:15,16,19 <b>dollars</b> 5:17 <b>double</b> 71:2 <b>doubling</b> 93:23 95:21 <b>doubt</b> 18:13 98:17 129:22	<b>downloaded</b> 40:15 45:21 <b>downs</b> 14:4 <b>dozens</b> 6:1 <b>dr</b> 29:14,16,22 33:20 42:17 56:25 79:25 80:8,11 82:13 82:18 83:3 84:6,20 85:2 86:16,25 88:5 88:23 89:21 91:24 93:5,14 102:11 103:3 106:1,4 121:25 122:5 126:24 126:25 <b>drags</b> 131:9 <b>drain</b> 10:2 <b>drastically</b> 5:24 <b>draw</b> 71:21 <b>drill</b> 5:20 8:16 23:16 28:6,7 28:12 91:4 104:16,18 <b>drilled</b> 125:25 <b>drilling</b> 8:4 10:21 12:15,21 28:21 82:24 88:6,12,13 104:9 105:2,3 <b>drinking</b> 10:10 <b>drive</b> 1:14 2:6 <b>driven</b> 94:19	<b>driving</b> 62:12 <b>drop</b> 49:3 90:7 91:11,14 <b>drunk</b> 29:4 <b>due</b> 130:6 <b>duly</b> 133:5 <b>dumb</b> 21:16 <b>dump</b> 7:10 <b>dumped</b> 23:19 <b>dx</b> 3:2 <b>dynamic</b> 45:19 <b>dynamics</b> 45:16 48:6
			<b>e</b>
			<b>e</b> 2:1,1 3:1,8 4:1 4:1 13:17 15:17,18 18:2 18:2 19:21 23:3,3 25:7,12 27:2,2 <b>earlier</b> 45:24 47:15 53:22 56:14,18 61:2 64:4,23 69:16 74:2 77:9 78:17 118:20 <b>earliest</b> 130:9 <b>early</b> 76:25 77:4 <b>earn</b> 79:11 93:2 <b>earning</b> 7:13 <b>earthly</b> 28:6 <b>easier</b> 131:15 <b>easily</b> 39:14 112:12 124:2

<p>125:21  <b>east</b> 20:13  <b>echo</b> 74:3  <b>economic</b> 18:9  19:8 35:9,10  44:15,22 45:7  45:13 48:18  49:6,13 50:6  50:12 51:15  52:17 63:16  64:5,10,11  67:6 69:22  72:24 73:3  76:14 87:24  89:13 105:7  107:11 119:11  122:22  <b>economically</b>  37:12 38:12,12  40:7 56:1 66:2  66:6 70:7 73:3  74:14 87:18  111:4 117:17  118:7 124:12  124:20  <b>economics</b>  44:14 45:9  48:13,17 49:10  50:9 51:4  52:11 53:1  113:3  <b>economist</b>  89:22 90:14  <b>economy</b> 5:9  14:4,6 17:12</p>	<p>19:2  <b>education</b> 14:5  14:8,13  <b>educational</b>  14:25  <b>effect</b> 30:12,21  32:16 35:22  36:23 57:9  66:8 109:1  <b>effective</b> 125:6  <b>effectively</b>  56:16  <b>effects</b> 63:3  73:15  <b>efficiency</b>  124:21  <b>efficient</b> 37:12  37:20 38:13  87:18 122:19  122:22 124:12  <b>efficiently</b>  14:15,23  <b>egregious</b> 16:5  <b>either</b> 32:9  71:18 130:13  <b>elect</b> 71:14  <b>elected</b> 71:22  <b>election</b> 20:4  <b>elections</b> 20:3  <b>electricity</b> 26:7  <b>element</b> 84:15  <b>elevation</b>  106:23  <b>eligibility</b> 86:20</p>	<p><b>else's</b> 130:5  <b>emergencies</b>  9:21  <b>emergency</b>  90:13,13 91:10  91:12,15  <b>emerick</b> 67:19  <b>emnrd.nm.gov</b>  2:8  <b>emphasize</b>  16:16  <b>employ</b> 12:5  <b>employed</b>  133:10,13  134:8,10  <b>employee</b>  133:13 134:10  <b>employees</b> 12:4  <b>employs</b> 12:3  <b>encourage</b> 15:4  37:16 126:7  <b>encouraged</b>  129:15  <b>encouraging</b>  37:19 38:7,10  <b>ended</b> 47:22  <b>energy</b> 2:2  10:17  <b>enforced</b>  124:17  <b>enforcement</b>  28:22  <b>engage</b> 65:15  87:22</p>	<p><b>enhanced</b>  117:3  <b>enjoy</b> 11:22  <b>ensure</b> 5:23  8:10,15,20  <b>ensuring</b> 7:19  <b>entices</b> 75:12  <b>entire</b> 19:3 50:1  58:2 99:11  100:6 101:13  <b>envelope</b> 40:13  41:25 61:1  64:18  <b>envers</b> 58:2  <b>environment</b>  11:20 17:9,19  93:4 113:14  <b>environmental</b>  6:23 9:13  16:18 42:20  <b>environments</b>  16:22  <b>eocd's</b> 40:14  <b>eog</b> 102:19  <b>equal</b> 92:13,14  <b>equates</b> 41:7  <b>equivalent</b> 37:6  40:17,21 81:24  <b>error</b> 120:12  <b>es</b> 133:4  <b>especially</b> 7:22  17:5,6 21:7  31:14 32:8  86:9 115:5</p>
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[esquire - extent]

<b>esquire</b> 2:4 <b>essentially</b> 6:5 15:25 17:19 34:4 50:7 <b>establish</b> 83:6 <b>estimate</b> 41:14 62:16 <b>et</b> 31:7 106:18 107:20 126:8 <b>eunice</b> 12:25 <b>europe</b> 20:22 <b>evaluate</b> 57:9 <b>evaluating</b> 48:13,17 <b>events</b> 92:6 94:5 <b>eventual</b> 77:5 88:14 124:8 <b>everybody</b> 15:23 17:4 21:19 26:11 130:4 <b>evidence</b> 30:1,7 <b>evident</b> 28:4 <b>evolution</b> 91:17 <b>exact</b> 119:21 <b>exactly</b> 7:23 9:19 53:4 110:8 124:22 <b>exam</b> 127:17 <b>examination</b> 29:20 42:15 80:9 93:12 103:1	<b>example</b> 47:17 48:25 49:11 54:17 59:23 70:12 71:5,25 73:8 76:19 82:7,9,15 84:4 84:7,17,18,20 84:21 90:23,25 92:25 99:2,7 108:15 118:20 130:16 <b>examples</b> 48:2 87:9,11 88:10 106:11 111:11 <b>exceed</b> 50:20 <b>exceeding</b> 68:20 <b>exceeds</b> 48:19 <b>excellent</b> 108:6 <b>except</b> 97:24 104:24 <b>exception</b> 120:3,7 <b>exceptionally</b> 117:14 <b>exceptions</b> 116:13 <b>excess</b> 51:19 <b>excluding</b> 72:16 <b>exclusive</b> 15:25 <b>excuse</b> 13:25 48:22 123:17 125:15 126:24	<b>exercise</b> 34:17 <b>exhibit</b> 30:9,10 30:11,12 35:5 46:15 53:20 55:3 57:21,24 58:23 59:9,13 62:22 65:8 77:3 88:20 102:25 103:3 <b>exhibits</b> 30:5,7 45:23 76:24,24 <b>exist</b> 75:5 83:10 <b>existing</b> 27:24 29:8 31:2 38:17 58:10 59:25 60:18 67:5 83:8 105:1 108:12 108:13 <b>exists</b> 59:22 98:1 111:1 116:6 <b>expand</b> 66:9 <b>expect</b> 7:9 32:4 37:10 38:22 71:15 98:23 121:7 <b>expectation</b> 31:25 52:22 <b>expected</b> 36:15 38:16 39:13,24 41:16,19 73:9 86:23 104:13 104:19,21 105:5 106:10	106:17 107:9 109:5 110:21 122:24 <b>expenditure</b> 104:17 105:3 <b>expense</b> 6:9 55:9 56:13 69:6 <b>expenses</b> 30:15 54:5 63:4 <b>expensive</b> 9:24 71:15 72:14 115:3 <b>experience</b> 24:7 63:22 <b>experienced</b> 14:4 <b>experiment</b> 50:5 <b>expertise</b> 44:13 <b>experts</b> 109:9 109:13 <b>exploit</b> 74:24 <b>exploitation</b> 74:12 <b>explosions</b> 6:18 <b>extend</b> 12:10 <b>extended</b> 129:5 <b>extensive</b> 107:25 <b>extensively</b> 120:15 <b>extent</b> 32:4 36:20 37:15 51:17 54:21
--	--	--	---

[extent - find]

65:11 66:3,15 86:24 93:1 108:13,17 116:5 119:18 121:20 <b>external</b> 53:1 64:5,7 <b>externalities</b> 54:9 <b>externality</b> 54:14,25 55:21 <b>externalized</b> 53:20 54:3 64:11 <b>extraction</b> 28:18 47:19 <b>extreme</b> 71:5,6 71:7 <b>extremely</b> 95:11 115:3 118:6	<b>facing</b> 86:10 116:18 <b>fact</b> 39:10 43:19 62:14 67:5 75:23 83:25 91:17 92:16 106:25 107:20 117:4 121:20 127:20 <b>factor</b> 48:13,15 51:9,11 52:6 92:15 94:4 95:7,8 <b>factored</b> 52:11 <b>factors</b> 50:10 85:17 106:21 110:11 <b>failure</b> 74:15 <b>fair</b> 5:6 10:1 13:2 29:6 45:10,16,18 70:5 78:7 87:5 98:3 125:4 <b>fairly</b> 63:24 65:15 <b>fairness</b> 6:13 8:3 15:8 104:5 <b>faith</b> 29:1 131:19,21 <b>fall</b> 12:9 57:14 111:14 116:14 <b>falling</b> 93:22 <b>falsified</b> 120:13 <b>familiar</b> 50:16 67:18,22	<b>families</b> 6:9,25 12:25 13:1 18:14 <b>family</b> 11:15 12:25 18:21 20:7,9,11,17 <b>far</b> 35:9 51:22 80:16 112:15 <b>farm</b> 6:25 <b>farmers</b> 14:15 <b>fashion</b> 32:11 <b>father</b> 20:9 <b>fe</b> 1:15 2:7 14:3 14:7 27:12,13 <b>feasible</b> 110:5 110:17 111:23 121:2 <b>february</b> 130:9 <b>federal</b> 5:17 <b>feeds</b> 31:13 105:10 <b>feel</b> 12:18 63:10 130:10 <b>feels</b> 19:4 <b>fees</b> 21:12,17 21:24 22:4 <b>feet</b> 107:21 <b>felicia</b> 1:12 4:3 <b>fellow</b> 5:1 8:14 <b>fewer</b> 80:17 81:24 117:2 <b>field</b> 16:15 <b>figure</b> 107:12 123:9	<b>file</b> 89:23 90:17 <b>filed</b> 43:1,17 <b>final</b> 128:3,6,20 129:1 <b>finally</b> 16:19 <b>finance</b> 24:7 <b>finances</b> 45:9 <b>financial</b> 4:6 5:23 8:11 12:23 31:24 32:6 37:18 44:15 49:13 52:3 53:25 54:2,20,22 55:4,5,22,25 56:5,9,16 57:10 64:19 65:7 66:2,7 67:2 71:7,16 75:16 83:5,6 84:19 86:6,7 86:22 89:15,18 94:19,23 101:11,22 103:4 104:15 107:11 108:4,7 108:17 115:19 117:15 118:3 122:19 124:3 124:11 <b>financially</b> 32:3 74:13 133:14 134:11 <b>find</b> 37:23 106:19 126:16
<b>f</b>			
<b>f</b> 18:2 <b>fa</b> 117:3 <b>face</b> 30:14,15 36:10,11,12 47:8 66:22 91:20,21 108:22 <b>faced</b> 68:23 87:25 <b>faces</b> 5:11 <b>facilities</b> 71:20 <b>facility</b> 16:24 33:11			

[find - gas]

<p>126:18,20  <b>fine</b> 27:22  46:11 89:3  <b>finer</b> 36:11  <b>finish</b> 99:23  <b>fire</b> 20:15,18  <b>firms</b> 65:13,14  74:14  <b>first</b> 4:12 10:21  11:3 13:14  15:16 16:4  18:1 19:20  22:15 23:1  25:5 26:24  27:12 28:12  29:23 32:18  33:23 61:9  64:12 84:10  106:7 120:1  125:25 129:18  <b>fiscal</b> 6:14 7:18  <b>fit</b> 129:9,13  <b>five</b> 5:16 10:15  74:6  <b>fix</b> 7:23 9:22  <b>fixed</b> 47:8  48:23 49:4  50:6 51:14,24  54:19,21 55:13  55:17 56:1  69:17 73:17  <b>flat</b> 110:25  <b>floor</b> 92:21,23  <b>flow</b> 104:23</p>	<p><b>flows</b> 104:17,20  105:6  <b>fluctuate</b> 48:22  <b>fluids</b> 6:17  <b>focus</b> 40:4  44:22 61:13  63:6 73:22  77:12,15  <b>folks</b> 4:10  <b>follow</b> 7:6  32:17  <b>followed</b>  120:19  <b>following</b> 98:1  <b>food</b> 18:25  <b>footnote</b> 68:12  <b>footprint</b> 12:17  <b>force</b> 13:5  20:21  <b>forced</b> 124:17  <b>forecast</b> 90:21  90:22 91:19  <b>forecasts</b> 91:16  <b>forefront</b> 14:13  <b>forego</b> 64:18  65:7,22  <b>foregoing</b>  133:3,4 134:4  <b>foresee</b> 91:14  <b>forfeiture</b> 36:5  <b>forgive</b> 122:13  <b>form</b> 89:8  97:18,19 100:6  <b>forth</b> 15:6</p>	<p><b>forward</b> 17:17  53:22 54:5  55:5,9 57:1  81:6 91:21  <b>four</b> 11:16 14:7  63:23  <b>fox</b> 42:13  129:19 130:10  130:18,21,24  131:1 132:1  <b>frameworks</b>  123:14  <b>francis</b> 1:14 2:6  <b>free</b> 76:20  98:25  <b>friday</b> 40:15  <b>friends</b> 20:24  <b>front</b> 6:6 26:21  104:1 122:15  <b>full</b> 12:3 28:10  28:20,23 45:19  55:6,8 61:15  98:15 116:19  <b>fullness</b> 128:15  <b>fully</b> 54:11,15  65:17 74:15  <b>function</b>  107:17 108:18  121:14  <b>fund</b> 9:20 30:4  <b>funded</b> 27:19  27:20  <b>funding</b> 14:8,9  16:5</p>	<p><b>funds</b> 10:2,14  16:10 19:2  53:16 77:21  85:25  <b>further</b> 42:9  79:23 105:18  121:25 133:12  134:9  <b>future</b> 8:12,18  9:25 10:9,17  10:23 11:21  12:1,15,21  36:14 66:21  69:6 90:1,15  90:18,21 91:17  92:16 128:10  <b>futures</b> 15:1  91:1 94:24</p>
			<b>g</b>
			<p><b>g</b> 4:1 11:4 18:2  23:2,3  <b>gap</b> 59:22  <b>gas</b> 5:8,12 7:12  10:8 11:13,23  14:10,20 16:6  16:8 17:10,11  18:12,23 19:1  19:6 20:6,7,20  21:7 23:25  27:18 28:7  37:22 38:5,5,8  39:19 40:14  41:12 44:23  45:1,7,13,15,19  46:22 52:23</p>

[gas - grow]

66:8 76:9 91:17,18 93:2 93:3 94:21 103:6 111:8 125:18 <b>gathering</b> 45:4 <b>general</b> 14:6 45:11 46:21 47:25 51:7 54:10,11 75:10 76:15 113:17 <b>generality</b> 51:2 <b>generalize</b> 116:3 <b>generalized</b> 50:8 64:2 <b>generally</b> 89:1 <b>generated</b> 48:19 73:18 <b>generating</b> 52:20 90:9 92:12 <b>generations</b> 8:13 11:21 <b>generous</b> 112:20 <b>geopolitical</b> 94:5 <b>gerald</b> 1:16 133:2,17 <b>getting</b> 10:7 26:10 31:8 46:9 55:22 84:6 89:5 130:4	<b>give</b> 40:12 43:8 53:8 59:10 99:24 104:2 108:6 114:12 <b>given</b> 31:24 107:10 112:5 113:6 114:16 115:4 126:3 <b>gives</b> 39:23 <b>giving</b> 6:5 15:10 41:14 42:5 99:6 112:22 <b>go</b> 4:23 8:24 9:9 11:9 14:8 15:22 17:24 18:7 20:1 23:7 25:16 27:10 57:3 58:22 62:21 71:22 74:9 76:12 90:23 97:7,12 98:5 103:7 106:9,16 113:10,12 116:9,11 117:18 119:24 122:8 123:1 <b>goes</b> 35:22 95:13 <b>going</b> 11:15 21:11,13 23:12 25:6,11 30:19 31:10 32:22 35:12 36:10,10	36:11 37:16 43:10 46:3,11 46:12,18 51:10 51:17 52:16 55:24 57:3 58:22 60:3 66:18 69:15 70:16 75:2 81:12,14 85:12 90:20,22,23 91:2,2,6 101:12 103:7 104:16,19,21 105:5 110:11 111:2 112:21 113:24,25,25 115:21 117:13 119:21 121:10 121:13,18,22 124:18 129:17 129:23 131:3 131:15 <b>good</b> 4:3 9:11 13:3 18:24 19:18 20:2 22:23 24:25 25:1,10,18 26:23 29:1 34:3,3,5 36:1 38:2,2 42:17 42:18,24 74:4 75:12 80:7,11 80:15 90:24 115:12 121:20 126:8	<b>government</b> 10:3 <b>graeser</b> 93:8,9 93:13,14 96:7 96:8,10 99:15 99:16,22 102:9 <b>grandchildren</b> 7:3 <b>grant</b> 94:8 <b>grassham</b> 17:22,22,24 18:2,6,8,9 19:12 <b>grateful</b> 14:17 <b>great</b> 17:11 46:3 63:6 <b>greater</b> 123:5 <b>greatest</b> 47:15 <b>greatly</b> 25:23 26:14 <b>green</b> 6:6 <b>greg</b> 22:11,13 22:16,19,23 23:2,2,6,8,8 80:1 122:4 129:7 <b>grew</b> 11:15 23:10 <b>grocery</b> 34:9 <b>ground</b> 6:17 20:14 <b>group</b> 44:15 <b>grow</b> 12:1,17 14:22 76:21
--	--	---	---



[growth - home]

<b>growth</b> 12:22 <b>guarantees</b> 5:23 <b>guess</b> 129:22 <b>guide</b> 110:4 <b>guidelines</b> 12:19 <b>guys</b> 17:16 131:22	<b>hashed</b> 100:21 <b>hate</b> 116:2 <b>hazard</b> 65:14 <b>hazards</b> 7:5 75:17 <b>heading</b> 106:17 <b>headings</b> 103:13 <b>health</b> 8:18 10:10 23:23 28:2,3 <b>healthy</b> 5:5 7:2 <b>hear</b> 4:18 22:17 25:3 43:24 53:17 67:18 77:19,23 87:13 87:15 <b>heard</b> 9:16 23:15 24:4 38:15 43:23 51:22 53:15 61:11 68:2 72:17 87:9 115:1 122:12 125:2 <b>hearing</b> 1:9,12 4:2,4,5,7,19,23 8:23 9:2,6,9 10:24 11:2,6,9 13:7,11,14,18 13:21 15:12,15 15:19,22 17:21 17:25 18:4,7 19:11,16,19,23 20:1 22:6,14	22:17,21,25 23:4,7 24:20 25:1,4,8,10,13 25:16 26:17,24 27:3,6,9 29:11 29:15,18 42:14 43:25 74:5 79:24 80:4,8 83:4 87:10,12 93:7 96:7 99:15,17,21 102:9,14,17,18 102:21,24 105:19,21 115:2 120:15 122:2,5,7 126:23 127:2,5 127:13,14,21 127:24 128:4,6 128:11,13,15 129:8,11 130:6 130:18,20,23 130:25 131:2 131:17,20,23 <b>heart</b> 85:14 <b>heartbreaking</b> 17:8 <b>held</b> 29:9 65:23 96:19,24 98:24 100:11,19 <b>hello</b> 9:1,2 11:2 13:11,13 15:14 15:15,23 17:25 19:13	<b>help</b> 21:18 <b>helpful</b> 56:22 <b>hereto</b> 133:14 134:11 <b>heterogeneity</b> 111:1 <b>high</b> 5:14 11:24 23:21 35:13 37:25 38:3,5,6 66:3 70:8,8 78:21 89:15 110:13 117:14 119:8,9 <b>higher</b> 35:5,5 35:15 36:8 75:24,25 91:18 93:4 111:4 113:14 117:16 118:1 <b>highest</b> 101:22 <b>highly</b> 118:6 <b>historically</b> 40:25 82:15 <b>history</b> 5:10 <b>hit</b> 24:22 <b>hits</b> 20:6 <b>hobbs</b> 18:11 <b>hold</b> 22:25 99:15 <b>holding</b> 92:13 <b>holidays</b> 129:14 <b>home</b> 8:17 12:5 20:6 21:5 27:17
<b>h</b>			
<b>h</b> 3:8 18:3 25:7 27:2 <b>half</b> 67:21 69:11 72:1,10 79:7 111:5 123:5,6 <b>hall</b> 1:13 80:6 <b>hand</b> 4:12 24:22 <b>handful</b> 86:12 <b>handle</b> 109:16 <b>happen</b> 92:6 <b>happened</b> 94:5 <b>happens</b> 50:8 101:18 <b>happy</b> 13:23 23:11 <b>hard</b> 7:6 18:17 <b>harm</b> 6:23 14:25 18:13 19:6,7 <b>harold</b> 4:17,22 4:25 5:3 <b>harvard</b> 127:5 127:10,11			

[honest - incentives]

<b>honest</b> 121:21 <b>honesty</b> 15:8 <b>hook</b> 28:14 <b>hope</b> 20:3 56:24 80:13 101:15 <b>horizontal</b> 12:15,21 31:20 57:19 61:24 62:7 <b>hospitals</b> 19:3 <b>housing</b> 14:6 <b>huge</b> 62:12 70:18 <b>hundred</b> 20:12 109:2 112:13 117:7 <b>hundreds</b> 6:1 12:5 13:1 80:25 81:1 <b>hunt</b> 7:1 <b>hurt</b> 6:17 21:18 <b>hyde</b> 134:2,15 <b>hydrocarbon</b> 125:20 <b>hydrocarbons</b> 47:3 <b>hypothetical</b> 53:10 82:9 83:21,22,23 84:2,7,16,21 85:2,9,22 86:1	<b>i</b> <b>i.e.</b> 74:13 <b>idea</b> 14:23 76:15 86:5,21 <b>ideal</b> 89:18 107:11 108:4 108:14,19 110:3,15,17 112:16 119:2 122:23 124:14 124:14 <b>identified</b> 59:3 <b>identify</b> 32:19 <b>identity</b> 5:10 <b>ifs</b> 58:6 <b>ignores</b> 61:24 110:25 <b>ignoring</b> 36:16 <b>illustrate</b> 49:12 51:13 85:9 <b>imagine</b> 112:12 119:4 <b>immediate</b> 16:24 <b>immediately</b> 31:1 63:16 69:22 111:16 <b>impact</b> 17:8 31:23 34:23 62:23 64:24 89:10 <b>impacted</b> 63:8 85:4 <b>impacts</b> 16:21 17:2 92:6	<b>imperil</b> 119:12 <b>implement</b> 110:5 121:2,12 <b>implementable</b> 111:24 124:15 <b>implementati...</b> 121:2 <b>implemented</b> 112:21 <b>implementing</b> 40:2 <b>imply</b> 39:1 <b>importance</b> 11:20 14:9 16:17 <b>important</b> 14:12 15:2 35:1 41:18 75:16 76:6,8 120:14 <b>impose</b> 55:24 121:8 <b>imposed</b> 121:8 <b>imposing</b> 14:23 54:14 111:4 118:3 <b>impossible</b> 18:15 108:10 123:24 <b>improper</b> 17:9 55:21 <b>improperly</b> 34:21 66:24 <b>improve</b> 87:23	<b>inactive</b> 58:7 59:5 83:8 106:13,15 107:3,6 111:22 112:3 113:16 <b>inadequate</b> 26:6 <b>inaudible</b> 16:8 21:10 25:8 29:15,22 36:13 37:22 45:23 46:5,6 60:14 63:20 64:10 66:10 67:19 68:3 69:15 75:19 76:23 78:9 80:25 82:10 86:18,20 87:7 90:25 96:5 97:18 98:4,14 101:7 109:14 110:1 113:3 115:24 116:24 118:12 129:7 <b>incentive</b> 34:6 49:6 50:12 52:18,19 63:16 64:5 69:22 73:3 83:1 86:13,17,18 111:16 112:4,6 113:20 119:11 <b>incentives</b> 35:24 66:8

[incentives - internalize]

<p>75:12 76:6 87:25 111:7 120:2 <b>include</b> 56:11 57:19 64:5 103:12 106:22 118:5 <b>included</b> 44:8 44:21 51:23 <b>includes</b> 42:7 106:22,23 128:24 <b>including</b> 26:14 66:4 <b>incorporate</b> 55:18 81:16 82:14 119:20 <b>incorporated</b> 56:16 76:2 104:14 <b>incorporates</b> 54:22,24 <b>incorporating</b> 36:21 <b>increase</b> 31:4 37:24 42:8 56:3 62:12,23 66:2,6 69:21 88:3 90:11 94:13 118:24 119:17 <b>increased</b> 16:13 17:17 55:3 57:9 86:5 90:8</p>	<p><b>increases</b> 41:21 63:15 92:14 <b>increasing</b> 55:12 95:10 <b>incredible</b> 47:23 <b>incremental</b> 62:16 <b>incur</b> 32:22 47:5 <b>incurring</b> 86:7 <b>independent</b> 53:12 63:23 74:20 75:15 80:19 <b>indicates</b> 80:18 <b>indication</b> 42:1 50:4 114:15 <b>indicative</b> 31:14 114:23 <b>indicator</b> 107:3 <b>individual</b> 50:9 64:3 75:23 100:23 116:15 119:3 122:18 <b>individualized</b> 117:21 <b>industries</b> 24:8 124:18 <b>industry</b> 7:22 8:7 14:10,12 14:18 18:17 19:3,6 20:11 20:20,25 21:10 21:15,25 27:18</p>	<p>27:21 38:21 44:23 45:1,7 45:14,15,20 53:15 76:10 77:24 84:24 114:22 115:7 115:22 129:17 129:21 <b>industry's</b> 115:22 <b>inefficient</b> 117:18,19 <b>inference</b> 74:23 <b>inflict</b> 18:13 <b>inflows</b> 47:1 49:3,21 51:14 <b>inform</b> 91:3 <b>information</b> 78:15 108:6 109:8 114:13 120:25 123:23 123:25 <b>informed</b> 63:24 <b>informs</b> 105:11 <b>ing</b> 107:22 <b>initial</b> 91:7 104:18 105:4 129:18 <b>initially</b> 78:12 104:17 <b>insolvency</b> 90:8 90:10 91:21 92:9,14 <b>insolvent</b> 13:5 89:23 90:17</p>	<p><b>inspection</b> 114:2 <b>instance</b> 90:4 92:3 <b>instances</b> 85:23 92:17 103:14 117:2 120:7 <b>integrating</b> 16:17 <b>intended</b> 36:23 65:11 <b>intense</b> 120:24 120:24 <b>intent</b> 119:22 <b>intention</b> 74:24 <b>intentional</b> 85:24 <b>intentionally</b> 65:10 <b>interest</b> 97:6,8 97:12,24,24 98:5 99:8 100:1 <b>interested</b> 116:4 133:14 134:11 <b>interesting</b> 61:12 <b>interests</b> 15:4 <b>interior's</b> 94:7 <b>intermediate</b> 40:25 <b>internalize</b> 54:12 65:2,18 70:2,4,6 74:15</p>
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[internalized - knowledge]

<b>internalized</b> 53:21 54:4	58:23 59:9,13 81:2 109:13	<b>jeopardizing</b> 66:19	130:11
<b>interpreted</b> 32:13	115:24	<b>jeopardy</b> 66:22	<b>know</b> 7:23 12:2
<b>interrupt</b> 57:21	<b>ipanm's</b> 123:18	<b>jesse</b> 80:12	14:9 20:19
<b>interrupted</b> 105:14	<b>irreparable</b> 19:5	<b>job</b> 1:17 17:14	21:10,12,24
<b>interrupting</b> 99:20	<b>island</b> 119:5	18:21 38:7	22:20 24:4
<b>interview</b> 81:5	<b>isolation</b> 73:10	131:15	26:9 34:7,22
<b>interviewed</b> 63:23 71:19	119:4	<b>jobs</b> 18:12,24	43:23 45:12
80:18	<b>issue</b> 6:16	24:6,13	47:17 48:12
<b>interviews</b> 63:25	33:11 55:15,24	<b>join</b> 8:15 26:21	58:7 59:21,23
<b>introduced</b> 76:13	67:10,12 70:6	<b>jr</b> 5:3	61:2 64:2 71:9
<b>invaded</b> 92:4	71:21 93:10	<b>judgment</b> 65:12 74:13,24	71:11 72:11
<b>invariant</b> 47:9	118:23 121:19	119:16	73:2 75:9 78:4
<b>invest</b> 78:21	123:20	<b>jump</b> 49:25	78:4,5 79:21
82:19 83:25	<b>issued</b> 123:15	<b>jumped</b> 95:4	80:21 81:2
85:17,18,20	<b>issues</b> 17:5	<b>justice</b> 9:14	87:17 91:3
98:21 100:12	23:12 45:1	<b>justification</b> 35:17 67:6	93:21 94:12
<b>invested</b> 77:3	110:8 129:23	<b>justified</b> 38:12	97:16 106:14
84:12	<b>it'll</b> 7:24	70:7 111:5	108:10,11
<b>investing</b> 82:6	<b>j</b>	117:17	109:10,15,18
<b>investment</b> 6:22 77:1,5	<b>j</b> 9:5 18:2 19:21	<b>k</b>	109:20 110:7
79:2,20 82:7	103:7	<b>k</b> 9:5 19:22	110:10,14,14
83:14	<b>jackson</b> 8:24	<b>keep</b> 4:14 10:6	112:23 117:8
<b>invite</b> 4:9	9:1,4,5,8,11,12	18:17,25 25:10	118:18 120:13
<b>involved</b> 20:19	10:24	35:2 52:24	120:15,17
<b>iogcc</b> 93:20	<b>james</b> 19:12,15	64:7	121:16 122:22
<b>ipanm</b> 43:3	19:18,21,21,25	<b>keeping</b> 14:13	123:22 125:24
46:14 55:3	20:2,5	<b>key</b> 96:1	129:4,12,16
	<b>january</b> 129:4	<b>kids</b> 26:5 44:8	130:11 131:12
	129:6,10 130:7	<b>kind</b> 20:6,11	131:14
	130:14 131:8	98:16 100:3	<b>knowing</b> 103:14 110:14
	<b>jennifer</b> 17:22	123:6 124:20	130:2
	17:24 18:2,6,8	128:14,20	<b>knowledge</b> 133:9 134:6
	18:8		

[known - lodge]

<b>known</b> 5:13	<b>lead</b> 86:6 89:14	<b>lfc's</b> 7:18	<b>limits</b> 98:20
<b>kyle</b> 42:19	<b>leading</b> 103:18	<b>liabilities</b> 7:20	<b>line</b> 21:9,14
<b>l</b>	103:20	<b>liability</b> 5:12	32:18 56:2,3
<b>l</b> 11:4 27:2,2	<b>leak</b> 6:16	65:13 75:17	103:13
<b>land</b> 6:9,25 8:1	<b>leaking</b> 17:1	<b>life</b> 35:9 39:15	<b>lines</b> 122:13,18
25:25 28:2	23:23 28:16	39:19,20,21	<b>liquidity</b> 33:15
29:7 93:15	<b>learned</b> 27:17	41:17,19 47:16	70:18,22 71:1
96:3	<b>lease</b> 30:15	47:16,22 48:8	<b>list</b> 103:4
<b>lands</b> 24:14	63:4	49:13 50:6	<b>listed</b> 82:2
<b>landscape</b> 7:4	<b>leave</b> 7:8 28:8	51:15 83:23	104:6
<b>laptop</b> 89:3	29:4 57:1	85:5,16 101:22	<b>listen</b> 11:12
<b>large</b> 17:18	<b>leaving</b> 6:6	104:10,12,23	<b>listening</b> 8:14
27:19 34:11	29:5 55:19	<b>lift</b> 112:2	83:4
38:3 54:14	<b>ledanski</b> 134:2	<b>light</b> 6:6	<b>litigation</b> 36:10
59:2 61:25	134:15	<b>likelihood</b>	66:22
63:10 73:17	<b>left</b> 24:3 31:1	36:18 75:24	<b>little</b> 6:1 39:5
86:11,13 109:3	39:3 55:14	76:1 86:24	47:11 54:7
112:10,16	<b>legacy</b> 8:20	89:16,19 91:20	58:5 61:6
118:3,4	<b>legal</b> 16:15	118:1 119:7,16	93:11 95:4
<b>larger</b> 31:8,8	80:12	<b>likelihoods</b>	<b>live</b> 11:14
36:7,22 62:11	<b>legislation</b> 16:3	112:17 117:12	43:24
65:2,24 66:12	16:18 17:17	<b>likely</b> 6:19	<b>lived</b> 13:25
66:14 71:20	<b>length</b> 88:19	31:19 35:9,12	14:2 21:4
76:2,6 119:20	<b>lesser</b> 77:2	40:5 59:3	27:11
<b>largest</b> 31:15	<b>letter</b> 71:18	63:19 68:22	<b>livelihoods</b>
61:13,19	103:8 104:3	69:20 75:2,16	18:16
<b>lasting</b> 17:2	<b>letters</b> 33:11	94:7,12 112:6	<b>livestock</b> 26:4
<b>lastly</b> 38:14	71:21 103:15	130:12	<b>living</b> 19:9 21:3
<b>late</b> 47:22	<b>level</b> 49:3 51:13	<b>limit</b> 35:10	<b>lobbying</b> 27:19
130:9	56:4,9 67:2	85:17 105:7	<b>lobbyists</b> 27:21
<b>law</b> 42:20	101:4 108:1	<b>limitations</b>	<b>located</b> 6:20
<b>lawyer</b> 60:15	110:13 117:14	12:23 126:17	12:8
69:13	125:21	<b>limited</b> 31:13	<b>location</b> 1:13
<b>lea</b> 18:10	<b>levies</b> 21:17	65:13 75:17	<b>lodge</b> 25:22

[long - math]

<p><b>long</b> 19:7 20:8 26:1 94:24 101:24 128:18 130:2 <b>longer</b> 50:19 84:12 95:6 <b>look</b> 17:1 31:17 45:25 49:21 57:3 90:20,24 90:24,25 91:2 93:17 97:21 98:15 113:15 126:13 <b>looked</b> 45:23 49:16 125:8 <b>looking</b> 58:6 59:21 79:5 89:4 111:12,15 <b>looks</b> 104:4 <b>los</b> 20:16 <b>lost</b> 40:9 41:8 41:22 42:9 96:8 <b>lot</b> 21:3 34:10 35:7 40:4 50:25 51:21 66:1 67:5 72:17 79:2 88:10 108:10 110:3 116:13 <b>lots</b> 66:14,24 67:9 95:12 116:6 <b>love</b> 44:6</p>	<p><b>low</b> 35:4,8,14 37:24 54:13,17 63:13 69:21 70:14 77:11 79:18 89:16 94:14 99:1 117:12,23,25 118:14 <b>lower</b> 31:25 67:7 91:19 94:1 109:5 112:17 <b>lowers</b> 93:1 <b>lunch</b> 127:2</p>	<p><b>majority</b> 40:3 <b>make</b> 10:11 13:21 16:10 19:9 22:1 29:3 29:10 31:9 33:23 40:6 42:10 43:9,12 46:21 60:1 65:17 69:2 86:15 90:21 108:17 113:4 120:18 131:14 <b>makes</b> 31:14 35:7,14 93:3 104:16 109:4 117:22 118:3 129:14 130:24 <b>making</b> 63:21 <b>man</b> 25:21 <b>management</b> 10:4 85:24 87:13 <b>mandate</b> 83:14 83:17 <b>mandates</b> 13:3 <b>margin</b> 63:14 69:21 <b>marginal</b> 12:8 12:9,13 32:10 36:2,18,21 37:3 40:3,4,6 40:10,18 41:3 41:23 42:8 46:1 57:14,17 58:1,7,13,16</p>	<p>59:5 66:17 69:20 70:13 75:24 77:11,16 78:17 82:23 86:12 87:12 88:21 100:24 100:24 101:9 101:16,19 102:1 112:3,7 113:1,18 114:17 116:11 116:14 117:9 117:10 118:19 118:21,25 119:3,4,11,14 119:20 120:4 121:13 <b>marginally</b> 113:12 <b>marked</b> 3:11 <b>market</b> 38:7 45:19 71:23 90:2,15,18 94:20,20,23 120:2,8,24 <b>marketing</b> 92:1 <b>markets</b> 84:19 <b>massive</b> 7:20 <b>match</b> 108:12 <b>math</b> 6:4 39:2 40:13 41:25 59:8 60:15 61:1 64:18 69:13 72:11</p>
	<p><b>m</b></p>		
	<p><b>m</b> 15:18 18:3 19:21 <b>ma'am</b> 11:1 <b>machine</b> 43:7 <b>madam</b> 42:14 80:7 102:17,24 105:18 122:5 127:5 129:11 130:18 <b>made</b> 14:18 20:15 35:2 57:18 60:24 61:1 73:9 115:11 124:17 <b>magnitude</b> 62:23 64:24 <b>maintain</b> 73:6 <b>maintaining</b> 54:23</p>		

**[mathematically - month]**

<b>mathematically</b> 88:16 117:1 <b>matter</b> 1:4 21:17 42:21 108:9 <b>matters</b> 6:15 8:15 <b>maximize</b> 83:1 <b>maximizing</b> 37:21 <b>maxwell</b> 102:11,12 <b>mean</b> 10:5 32:25 35:7 68:11 73:1 82:8 84:2,18 91:8 95:24 98:12,14 100:12 109:15 111:3 114:14 123:13,18 <b>means</b> 10:6,6 32:6 37:19 38:22 39:6 62:2,10 113:11 118:12 130:8 <b>meant</b> 30:22 32:12 49:12 82:11 84:4 <b>measure</b> 125:23 <b>mechanic</b> 18:22 <b>mechanism</b> 49:12 120:18	<b>median</b> 123:4,7 <b>medicine</b> 25:21 25:21 26:15 126:20 <b>meet</b> 37:17 38:11 87:19 129:20 <b>meeting</b> 129:18 <b>meetings</b> 130:12 <b>member</b> 20:17 25:22 34:3 36:1 81:2 <b>members</b> 25:20 34:5 <b>memory</b> 107:21 <b>men</b> 26:15 <b>mention</b> 28:16 <b>mentioned</b> 66:13 124:25 <b>mess</b> 16:10 25:25 29:5 <b>message</b> 7:25 <b>messes</b> 6:12 <b>methane</b> 6:16 24:1 28:16 <b>mexican</b> 6:24 15:24 27:23 <b>mexicans</b> 5:1 6:10,25 7:6 8:14 10:12 14:15 19:8 21:16 24:17 28:19	<b>mexico</b> 1:1 2:2 5:5,11,19 6:9 8:5,7 10:18 11:13,14,18,24 12:5 13:24 14:4,14 16:3,7 16:12,21 17:4 17:12 19:1,9 20:25 21:20 23:9,20 24:13 28:13 45:9,16 45:22 68:17 77:15 80:22,24 88:6 90:5 93:15 106:24 107:2 133:19 <b>mexico's</b> 8:20 10:23 123:16 <b>mid</b> 112:22 <b>middle</b> 39:21 <b>migrates</b> 101:9 <b>million</b> 5:11,17 10:14 16:5 39:1,4,13,23,24 40:11,20 41:2 41:3,7,15,21 42:3 60:10,12 77:3,4 79:7,7 107:1 <b>mind</b> 14:14 35:2 36:17 <b>mine</b> 18:14 20:24 <b>minerals</b> 2:2	<b>minimally</b> 85:3 85:3 <b>minimum</b> 28:22 <b>mining</b> 123:16 <b>minus</b> 105:2 <b>minutes</b> 4:15 74:6 126:10 127:23 128:9 <b>misquoting</b> 122:14 <b>misuse</b> 85:25 <b>modal</b> 111:3 <b>model</b> 105:5 <b>modified</b> 88:22 <b>mom</b> 21:12,25 <b>moment</b> 43:8 47:12 53:8 59:11 <b>monetary</b> 34:6 34:20 <b>money</b> 7:17 10:16 32:13 69:7 76:14 77:2 79:1,10 79:18 82:12 83:25 84:5,8 84:11,12,22 85:10 98:22,23 99:25 100:12 <b>monies</b> 100:18 <b>monitoring</b> 102:19 120:24 <b>month</b> 47:9 58:3 117:9
--	--	---	---

[moore - number]

<b>moore</b> 93:8 <b>moral</b> 65:14 75:17 <b>morning</b> 4:3,3 4:15 9:11 22:9 22:10,23 24:25 25:1,18 26:19 26:23 42:17,18 42:24 61:10 80:7,11,14,15 127:16,25 131:24 <b>mortgages</b> 18:24 <b>move</b> 10:25 13:8 15:13 17:22 19:12 21:22 23:11 31:6 53:21 54:5 57:2 67:12 80:5 82:4,18 84:25 87:2 91:21,24 100:20 105:21 111:10 113:11 <b>moved</b> 21:5 23:10 <b>moves</b> 50:2 <b>moving</b> 17:17 21:19 108:18 112:15 <b>multiple</b> 11:15 104:6 <b>multiply</b> 60:10	<b>multiplying</b> 60:19	43:12 44:10,10 80:1 100:21 101:25 114:18 115:8 121:14 <b>needed</b> 38:9 101:2,13 <b>needless</b> 17:10 <b>needs</b> 28:1 67:3 115:24 120:5 <b>negative</b> 42:10 94:14,17,22 104:22 <b>neglect</b> 5:7 <b>negligent</b> 85:24 <b>neither</b> 133:10 134:7 <b>net</b> 46:25 49:3 49:21 51:14 73:18 105:10 <b>never</b> 128:24 <b>new</b> 1:1 2:2 5:1 5:5,11,19 6:9 6:10,24,24 7:5 8:4,7,14,20 10:12,18,22 11:13,14,18,24 12:5 13:24 14:4,14,14 15:24 16:3,6 16:12,21 17:4 17:11 18:25 19:8,9 20:25 21:16,20 23:9 23:20 24:13,17 27:23 28:13,19	32:5 45:9,16 45:22 68:17 77:15 80:22,24 82:24 88:5,6 88:13,14 90:5 91:4 93:15 101:18,21 106:24 107:1 123:16 133:19 <b>nm</b> 1:15 2:7 <b>nmac</b> 1:7 <b>nmocd</b> 13:2 <b>nobody's</b> 34:14 <b>noisy</b> 110:20 125:2 <b>non</b> 15:25 34:6 34:20 35:23 57:19 66:24 76:4,5 108:21 <b>noncompliance</b> 89:8 <b>nonpartisan</b> 7:18 <b>normal</b> 85:5 <b>north</b> 41:12,12 <b>notary</b> 1:16 133:1,18 <b>notes</b> 68:19 <b>notice</b> 16:24 <b>noticed</b> 68:20 <b>november</b> 1:10 58:4 133:16 134:13 <b>number</b> 19:14 21:7 32:19
	<b>n</b> 2:1 3:1 4:1 9:4,5 11:4,5 15:17 18:2,2 27:2,2 <b>nabors</b> 127:10 127:12 <b>name</b> 4:3,13 5:3 9:3,4,5,12 11:3 13:15 15:16,17 18:1 18:8 19:20 20:5 22:15 23:1,8 25:5,19 26:25 80:11 <b>names</b> 20:18 <b>nanasi</b> 102:10 <b>nation</b> 21:8 <b>natural</b> 2:2 11:18 40:14 74:10,11 <b>navajo</b> 9:13 <b>nearby</b> 26:5 <b>nearly</b> 5:13 10:7,14 <b>necessarily</b> 37:20 70:12 73:8 87:18 89:9 90:2 <b>necessary</b> 91:4 114:13 <b>need</b> 10:2 15:3 29:6,8,14 39:9		



[number - okay]

37:4 39:4,7 42:3 47:9 60:19 62:2,14 66:4 76:24 80:23 82:4 88:1,2,9 89:10 103:13,13,24 106:4,6 109:12 109:18,19 111:2,10,10,11 111:12 114:15 114:17 116:9 116:22 119:24 119:25 120:11 121:3 <b>numbers</b> 42:10 <b>numerous</b> 87:9	<b>observe</b> 129:12 <b>obtainable</b> 17:5 <b>obviously</b> 50:9 110:6 <b>occ</b> 4:5 <b>occasionally</b> 34:10 <b>occur</b> 12:22 <b>occurrences</b> 85:5 <b>ocd</b> 44:10 97:7 97:12 98:6 102:25 103:3 103:16 109:10 112:20 114:15 114:22,24 115:4,12,14 120:17 123:18 <b>ocd's</b> 72:16 96:20,24 97:20 103:16 106:8 114:21 <b>october</b> 40:15 <b>oddity</b> 95:3 <b>offer</b> 22:8 26:19 99:1 <b>offered</b> 36:25 67:20 <b>offering</b> 32:21 44:13 <b>offers</b> 68:14 <b>offhand</b> 72:11 <b>office</b> 93:15 96:3	<b>officer</b> 1:12 4:2 4:4,19,23 8:23 9:2,6,9 10:24 11:2,6,9 13:7 13:11,14,18,21 15:12,15,19,22 17:21,25 18:4 18:7 19:11,16 19:19,23 20:1 22:6,14,17,21 22:25 23:4,7 24:20 25:1,4,8 25:10,13,16 26:17,24 27:3 27:6,9 29:11 29:16,18 42:14 74:5 79:24 80:4,8 93:7 96:7 99:15,17 99:21 102:9,14 102:17,18,21 102:24 105:19 105:21 122:2,5 122:7 126:23 127:2,5,13,14 127:21,24 128:4,6,11 129:8,11 130:6 130:18,20,23 130:25 131:2 131:17,20,23 133:2 <b>oh</b> 4:19 <b>oil</b> 1:2 2:5 4:4 5:8,12 7:12 8:8	10:8 11:13 14:10,20 16:3 16:6,8,20 17:10,10 18:12 18:23 19:1,6 20:6,7,10,20,25 21:7,10,12,15 21:25 23:25 27:18,19 28:6 37:6 39:19 40:14,17,21 41:11 44:22 45:1,7,13,15,19 46:22 49:25 52:22 66:8 76:9 80:13 81:24 90:23 91:5,12,15,17 91:18 92:4 93:22 94:1,14 94:17,21,22 95:11,12 96:5 96:14 103:5 111:7 125:18 <b>okay</b> 19:18 20:2 22:19,23 23:2,7 25:12 27:11 29:2 42:23 43:14,17 43:23 45:3 46:3,12 47:11 47:13 48:12 49:1,9 50:16 52:7,16,25 53:7,15,19,19
<b>o</b>			
<b>o</b> 4:1 9:4,5 11:5 19:22 27:2 <b>objecting</b> 103:20 <b>objection</b> 110:24 <b>obligation</b> 71:17 104:22 105:9 <b>obligations</b> 78:7 <b>obscene</b> 29:4 <b>observable</b> 106:21 <b>observation</b> 46:21			

[okay - opposite]

55:2 56:25 57:2,5 58:15 58:22 59:1,17 59:20 60:8,25 61:5,8 62:19 63:12 64:17 67:25 68:5,9 68:16 69:11,19 70:9 71:3,12 74:4,7,19 75:7 75:14 76:9 78:14,16,25 79:1,23 80:21 81:2,5,11,21 84:6 85:8,11 86:3,15 87:6 87:21 88:5,9 88:19,25 91:13 92:5,15 93:19 95:5 96:3 97:2 100:7,20 102:6 106:1 116:8 117:7 122:11 122:25 124:24 128:5 130:25 <b>old</b> 27:13 <b>once</b> 84:11 101:9 <b>ones</b> 20:15 21:13 32:7 118:14 121:22 <b>open</b> 15:8 <b>opened</b> 14:19 <b>operate</b> 12:19 13:6 14:15	40:8 66:21 74:23 109:2 <b>operated</b> 12:16 65:24 66:4 <b>operates</b> 11:13 119:5 <b>operating</b> 30:13,15 31:18 48:19 52:14,24 53:2 54:5 63:4 63:15 66:20 70:13 74:14 87:18 104:20 105:6 <b>operation</b> 50:20 55:19 73:17 83:2 <b>operational</b> 52:8 55:9 56:13 64:13,14 <b>operations</b> 14:20 48:19 50:17 53:13,17 63:17 69:10,23 77:16 79:11 81:7 83:18 84:9 <b>operator</b> 32:19 33:1,8,10,16,18 34:2,22,25 35:24 36:1,9 37:5,9,13 49:6 50:13 52:17 54:15 55:23 56:11 66:15	70:2,18 71:14 71:24 72:14,20 75:4 78:2,18 79:13 82:7 83:24 84:1,10 84:13,16 85:12 86:10 90:8,19 93:3 97:23 98:6,21 99:7 100:2 104:7,9 104:11,25 108:24 109:3 110:7 111:12 111:19 113:20 119:5,10 <b>operator's</b> 69:3 72:15 83:1 98:12 99:10,23 <b>operators</b> 5:15 6:5 13:3 18:16 30:14,21 31:5 31:8,11,16,18 31:20,22 32:3 32:4,5,16,20 33:13 34:16 36:21 37:1,10 37:16,22 38:7 38:11 54:11 58:1,1,18,19 59:2 61:14,19 61:25 62:4,11 62:25 63:6,7 63:13,22,23 64:25 65:1,2 65:17,24,25	66:5,13,14 67:8,20 68:24 69:20 71:9,12 71:16,19 72:17 73:13,13,21,24 74:3,20 75:11 75:15 76:6,8 77:9,10,15 78:8 79:15,17 80:19,21,24 81:3 82:14,19 82:22 83:14,17 85:4,7 86:6,19 87:4,7,22 89:23 90:16 92:8 103:25 104:6 108:21 112:22,23 115:20 116:18 120:20 <b>opinion</b> 30:22 32:13 34:1 35:4,18 41:13 83:15,20 <b>opportunities</b> 12:15,20 14:18 <b>opportunity</b> 5:2 11:23 12:14 15:10 29:9 42:8 82:5 97:9 <b>opposed</b> 30:11 42:2 131:9 <b>opposite</b> 35:22 36:23 119:21
---	---	--	---

<b>optimal</b> 37:23 <b>option</b> 49:18 <b>options</b> 34:18 107:24 <b>oral</b> 76:18 <b>order</b> 37:17 38:11 40:10 41:15 51:12 65:24 73:5 87:19 95:19 115:9 127:12 <b>organization</b> 9:14 <b>orphaned</b> 5:18 28:14 36:19 38:17,23 41:21 93:23 94:10 95:10,25,25 116:5 118:1,15 <b>orphaning</b> 35:5 35:15 39:18 76:1 88:17 89:16,19 108:25 112:17 117:13 119:7 119:17 <b>orphans</b> 88:14 92:20 <b>ors</b> 58:6 <b>orth</b> 1:12 4:4 <b>ought</b> 130:3 <b>outcome</b> 133:15 134:12 <b>outdated</b> 5:24	<b>outflow</b> 51:24 54:19,21 55:17 56:1 <b>outflows</b> 48:23 <b>outlay</b> 104:18 105:4 <b>outright</b> 16:4 <b>outside</b> 64:14 90:5 <b>overall</b> 48:6 <b>own</b> 6:12 27:23 83:1 <b>owned</b> 10:18 65:23 <b>owner</b> 7:10 18:22 <b>owners</b> 21:12 <b>owning</b> 104:10	<b>paraphrasing</b> 86:4 <b>pardon</b> 103:19 <b>parking</b> 34:10 <b>part</b> 27:19 36:7 37:4 45:21 53:6 54:4 93:25 107:14 120:8 122:24 125:13 126:14 129:22 <b>particularly</b> 100:8 <b>parties</b> 6:11 128:19 130:19 131:13 133:11 133:14 134:8 134:11 <b>partisan</b> 6:13 <b>pass</b> 7:2 42:11 93:5 <b>past</b> 41:1 44:18 <b>pats</b> 34:13 <b>patty</b> 13:8,10 13:13,16,20,23 <b>paul</b> 13:16 <b>pay</b> 6:12 7:9,24 18:24 27:20 28:5,14 70:9 70:10,20 72:2 72:6,9 77:5 79:2 105:11 112:14 <b>payer</b> 5:17	<b>payers</b> 5:19 <b>paying</b> 10:12 50:17,20,23,25 51:6,9,18 52:12 55:23 72:20 73:7 86:11 99:4 <b>pays</b> 34:13 71:25 <b>pecos</b> 1:13 <b>peltz</b> 33:24 34:1 35:2,16 36:25 <b>peltz's</b> 75:21 <b>penalties</b> 21:21 <b>pennsylvania</b> 20:10 <b>people</b> 5:4,4 8:20 18:17,20 18:25 25:21 28:3 34:24 85:20 91:16 114:12 127:12 <b>people's</b> 24:5 <b>percent</b> 6:11 12:13 23:17 24:16 27:24 31:24 32:8 35:17,20 36:20 36:25 37:1 38:20,22 39:18 40:18,20 41:7 41:9,12,13 62:11 67:15,21 67:24 68:4,12
	<p style="text-align: center;"><b>p</b></p> <b>p</b> 2:1,1 4:1 13:16 23:3 27:2 <b>page</b> 3:9 46:15 46:18 49:1 57:4 69:19 73:14 74:11 75:14 <b>pandemic</b> 94:1 95:22 <b>paper</b> 126:8,8 <b>paragraph</b> 68:19 <b>paraphrase</b> 72:5		

[percent - point]

68:20,21,23 69:12 72:1,10 76:21 77:8 78:21,22 79:8 79:12 86:10 87:20 88:11,17 88:21 89:6,6,7 98:13 99:4,9 99:11,24,25 101:17,19 107:22 111:15 112:10 116:10 116:11,22 117:3,10 118:9 118:24 119:18 121:9,10 <b>percentage</b> 118:9 <b>perfect</b> 104:7 <b>perfectly</b> 108:5 <b>performed</b> 61:23 <b>period</b> 28:13 104:20 130:1 <b>periods</b> 37:24 37:25 <b>permit</b> 83:13 83:16 <b>permits</b> 123:15 <b>person</b> 90:20 <b>perspective</b> 50:5 114:1 <b>petty</b> 22:11,11 22:13,16,19,23 23:2,3,6,8,8	24:20 <b>phone</b> 19:14 <b>phrased</b> 124:19 <b>physical</b> 94:20 113:22 <b>pick</b> 39:20 81:5 <b>picture</b> 47:25 53:6,10 54:21 <b>place</b> 10:22 12:24 13:2 18:15 21:24 27:16 28:12 120:18,19 <b>places</b> 6:21 <b>plainly</b> 16:4 <b>plan</b> 9:22 111:23,24 127:8 <b>planning</b> 104:11 <b>platform</b> 4:10 4:11 12:7 22:7 24:21 26:18 127:10,25 131:24 <b>plausible</b> 89:25 <b>play</b> 50:10 <b>played</b> 5:9 <b>please</b> 4:3,11 4:23 9:3,9 10:22 11:3,9 13:15,21 15:16 15:22 18:1,7 19:20 20:1 22:3,15 23:1	24:18,24 25:5 25:16 26:22,25 29:17,24 33:22 80:5 97:21 99:18,20 103:9 104:8 <b>pleasure</b> 127:13 <b>plot</b> 93:20 95:14,23 <b>plug</b> 6:2 35:11 41:20 49:6 50:13 52:18 53:20 54:3 56:12 64:6,7 69:6 70:10,16 70:21,23,24 71:2 72:3,6,14 72:15,16,18,20 72:25 77:21 78:2 86:6,13 86:17 106:8 111:16 112:7 113:8,21 114:16,24 115:13 119:11 <b>plugged</b> 39:9 39:11 41:4,24 49:17 70:15 88:2 107:7 114:2,19 115:22 <b>plugging</b> 4:6 9:18 16:6 32:9 38:24 42:9	51:23 52:25 53:11 55:1,7,8 55:18 59:5 64:14,21 69:6 70:4 77:5 79:3 79:19 82:14 83:25 84:13 87:8 89:20 104:12,13 106:20 107:15 108:5,16 109:6 110:12,21,23 111:1 113:22 114:5,17 115:6 122:24 123:19 124:8 126:7 <b>plugs</b> 38:21 114:22 <b>plus</b> 99:8 <b>pna</b> 39:24 41:16 52:5,7 52:11 53:16 73:9 106:10,17 107:22 <b>point</b> 11:24 31:9 41:8 42:6 49:2,2,5,10,16 49:19 50:11,13 51:5,5 52:17 53:22 55:10 56:14 94:15 105:8 106:8 115:12 120:1 124:1,10
--	---	--	--

[pointed - price]

<p><b>pointed</b> 30:5</p> <p><b>points</b> 90:24</p> <p><b>poisoning</b> 24:14</p> <p><b>policy</b> 16:15 28:20 75:9,11 110:5,15 118:2 121:3 123:9</p> <p><b>polling</b> 24:15 24:16</p> <p><b>polls</b> 24:15</p> <p><b>polluters</b> 8:11</p> <p><b>pollution</b> 5:20 8:21</p> <p><b>poor</b> 120:2,8</p> <p><b>pop</b> 21:12,25</p> <p><b>pope</b> 4:16,16 4:17,22,25 5:3</p> <p><b>population</b> 38:18,23 123:5 123:6</p> <p><b>portfolio</b> 35:19 36:7,17 66:18 75:21 76:2 86:11,19 99:3 101:19 109:4 112:11,24 113:4 117:6,12 118:4 119:8,10</p> <p><b>portfolios</b> 32:9 36:22 65:23 76:7 112:16 117:2 119:15 119:20</p>	<p><b>portion</b> 98:2 111:16</p> <p><b>position</b> 37:13 61:20 116:1 123:18</p> <p><b>positions</b> 16:19 94:25 123:8</p> <p><b>positively</b> 108:16 110:22</p> <p><b>possibility</b> 5:14 49:20</p> <p><b>possible</b> 30:12 36:25 84:3 94:3,6 98:25 105:25 110:16</p> <p><b>possibly</b> 5:12 89:23 102:5</p> <p><b>post</b> 6:1 28:9 33:2,13,19 69:5 70:17,19 71:10,12,14 100:21 128:13 128:14</p> <p><b>posted</b> 103:5 103:15</p> <p><b>posting</b> 28:8 29:1 68:24</p> <p><b>potential</b> 55:21 86:7 90:10 92:12,19 112:8 118:13</p> <p><b>potentially</b> 36:11,12 65:14 66:22 89:14 95:7 114:3</p>	<p>116:7</p> <p><b>poured</b> 16:6</p> <p><b>practical</b> 108:9 121:16 123:24 124:17</p> <p><b>practically</b> 124:15</p> <p><b>practice</b> 77:24</p> <p><b>pre</b> 43:17</p> <p><b>precludes</b> 49:20</p> <p><b>predict</b> 106:20 108:5</p> <p><b>prediction</b> 32:21</p> <p><b>predictor</b> 107:19</p> <p><b>preexisting</b> 107:16 110:19</p> <p><b>prefer</b> 106:2 131:8</p> <p><b>preferential</b> 27:18</p> <p><b>premature</b> 87:8</p> <p><b>prematurely</b> 41:4,24 86:14</p> <p><b>premise</b> 89:17 92:10,11</p> <p><b>premium</b> 55:4 55:7,16 56:17 68:4 69:12,15 70:3,10 72:1,2 72:6,9,13,19 73:7 78:19,21</p>	<p><b>premiums</b> 67:13,14,20 68:20 69:16</p> <p><b>prepare</b> 4:2</p> <p><b>prepared</b> 134:3</p> <p><b>prescription</b> 75:9 118:2 123:9</p> <p><b>present</b> 105:10 127:10</p> <p><b>presented</b> 109:10 111:11</p> <p><b>presents</b> 75:11</p> <p><b>preserve</b> 23:14</p> <p><b>preserving</b> 11:19</p> <p><b>president</b> 18:9</p> <p><b>presume</b> 104:25</p> <p><b>presumes</b> 53:24</p> <p><b>pretty</b> 39:14 40:19 114:10 127:16</p> <p><b>prevent</b> 7:20</p> <p><b>prevented</b> 105:16</p> <p><b>preventing</b> 9:25</p> <p><b>price</b> 10:12 55:22 90:6 92:4,7,7,16 93:4 94:22 95:4 96:5 113:14</p>
--	---	---	---

[prices - prospectivity]

<p><b>prices</b> 21:5 37:24,25 38:4 38:5 49:22,25 90:23 91:5,12 91:15,17,18 93:1,22 94:2 95:3,11,13 113:11,14 <b>pricing</b> 91:1 <b>pride</b> 6:24,25 8:22 <b>primary</b> 16:1 <b>principle</b> 96:19 96:23 97:3,7 97:23 98:6,21 99:7 <b>prior</b> 20:10 34:19 133:4 <b>pristine</b> 26:1 <b>pro</b> 8:7 <b>probably</b> 23:15 40:6 75:10 78:10 93:2 95:16 98:24 101:16 106:2 112:22 127:8 <b>problem</b> 9:23 29:8 65:12 74:9,13,24 75:22 89:5,13 107:25 113:18 116:5 118:8 120:22 <b>problematic</b> 115:5</p>	<p><b>proceeding</b> 51:22 132:4 134:4 <b>proceedings</b> 133:3,4,5,8 134:6 <b>process</b> 104:11 128:13,15 <b>processing</b> 28:18 <b>produce</b> 11:23 37:6,7 45:23 47:10 52:22,23 66:8 73:11 120:2 <b>produced</b> 40:17 46:22 <b>producer</b> 70:14 <b>producers</b> 35:4 111:7 113:16 <b>produces</b> 12:6 20:18 <b>producing</b> 35:5 35:9,13,14 36:8,16 50:19 54:13,13 73:2 75:25 77:11 79:18 89:15 93:3 105:1 111:7 117:23 117:25 118:14 119:9 <b>production</b> 12:11,13 19:1 37:4,5,12,17,19</p>	<p>37:21,23,25 38:11 40:15 47:5,23 48:12 48:15,23 50:21 51:19 73:4,5 73:18 82:23 87:16,19,23 88:3 111:20 112:2 121:4,14 121:15 <b>productive</b> 21:11 81:16 112:8 113:12 118:6 <b>profit</b> 6:6 8:4 17:19 37:20 52:15,23 83:1 <b>profitability</b> 66:21 119:12 <b>profitable</b> 22:1 37:9 <b>profits</b> 7:14 24:9 29:4 36:15 82:22 <b>program</b> 94:8 <b>project</b> 105:8 106:20 123:14 123:14 <b>projected</b> 104:23 105:9 <b>projecting</b> 104:10 <b>projections</b> 91:25</p>	<p><b>promise</b> 28:8 <b>prompt</b> 111:19 <b>promulgated</b> 87:3 <b>pronounced</b> 73:16 <b>proof</b> 65:12 74:13,24 119:16 <b>properties</b> 12:16 <b>proposal</b> 19:10 128:20 131:14 <b>proposals</b> 129:1 <b>propose</b> 131:12 <b>proposed</b> 1:4 9:15 10:22 12:10,23 18:15 30:25 31:10,24 32:1,5,14,15 40:2,5 41:5 46:2 57:10 58:10 59:5 60:1,18 61:20 62:17 63:8,10 81:23 101:3,10 111:17 113:18 118:18,21 121:8 123:11 128:20 130:17 <b>proposing</b> 37:15 <b>prospectivity</b> 11:25 12:1</p>
---	--	---	--

[prospects - range]

<b>prospects</b> 19:8 <b>prosper</b> 14:16 14:20 <b>protect</b> 8:12 10:22 28:22 29:7 <b>protecting</b> 8:2 8:17 <b>protection</b> 8:2 <b>proud</b> 18:11 <b>provide</b> 5:23 45:8 46:14 76:19 87:21 <b>provided</b> 48:18 59:13 76:18,23 106:11 <b>provides</b> 45:6 119:19 <b>providing</b> 44:15 45:13 59:14 <b>provisionally</b> 129:17 <b>proxies</b> 125:8 125:11,15 126:17 <b>proxy</b> 110:21 124:25 125:1,2 125:4,6 <b>prudent</b> 34:2 82:7 83:14,24 85:12 87:13,17 93:3 116:18 <b>prudently</b> 82:20	<b>public</b> 1:16 4:8 4:9 5:6 6:6 8:11 10:2,14 16:5,14 17:14 22:9 65:16 128:6 133:1,18 <b>publicly</b> 78:5 <b>published</b> 95:25 <b>pull</b> 34:9 43:7 46:11 56:21 57:1 59:10 97:17 102:25 <b>pulled</b> 57:6 <b>pumping</b> 23:25 <b>punish</b> 13:3 <b>punishment</b> 7:17 <b>punted</b> 130:11 <b>purchase</b> 104:25 105:4 <b>pure</b> 94:23 <b>purposes</b> 59:12 59:15 <b>purvis</b> 30:1 40:17 43:21 <b>purvis's</b> 30:18 38:14,19 44:2 <b>put</b> 12:24 13:2 15:6 16:11 17:19 18:25 21:1,20,24 34:7 36:16 42:4 51:13 62:2 66:7	86:17 109:16 113:1 119:14 <b>puts</b> 5:6 36:14 66:20 <b>putting</b> 44:4 62:10 100:11 116:13 120:18 125:7 131:10  <div>q</div> <b>qualification</b> 118:22 <b>qualified</b> 133:7 <b>quantify</b> 62:5 88:1 <b>quantities</b> 38:8 50:17,20,23 51:1,6,9,18 52:12 112:2 <b>quantity</b> 94:25 <b>question</b> 29:23 32:17 33:4 38:16 47:18 55:6 56:7,9,11 56:22 64:22 65:5 70:9 72:24 78:16 82:14 84:20 87:1 91:8 98:9 98:19 100:16 101:17 104:24 105:13,23 106:12 112:18 116:21 120:16 128:18 129:8	<b>questions</b> 37:11 79:23 80:16 81:11 102:7,11 102:12,15,19 102:20 103:17 103:23 104:8 105:18,22 122:1,3,5 <b>quickly</b> 32:6 76:12 99:23 <b>quite</b> 76:9 86:4 <b>quo</b> 88:12 <b>quotation</b> 29:24 <b>quoting</b> 29:25  <div>r</div> <b>r</b> 2:1 4:1 9:4 11:4,4 13:17 13:17 15:18 18:2,2 19:22 23:2 25:7 <b>railroad</b> 107:5 <b>raise</b> 4:11 12:10 24:22 30:23 32:14 <b>raised</b> 14:7 31:15 <b>ramey</b> 15:13,14 15:17,18,21,23 15:24 17:21 106:18 107:20 126:8 <b>ranch</b> 7:1 <b>range</b> 67:15,21 68:11 69:12
--	--	--	--

[range - regular]

<p>106:25  <b>rankin</b> 102:14  102:16  <b>rare</b> 24:2  <b>rate</b> 37:12  39:18 41:6,9  41:11 76:20  77:8 78:22  79:9,11 88:17  98:10,12 99:9  99:11 114:16  <b>rates</b> 99:1  100:1 114:22  115:6,6  <b>rather</b> 35:12  86:17,17  <b>rational</b> 87:25  <b>rcx</b> 3:2  <b>rdx</b> 3:2  <b>reach</b> 105:7  <b>reached</b> 4:8  <b>react</b> 109:17  <b>read</b> 40:14,23  49:7 61:18  97:21 98:5,9  98:17 99:6  100:5 126:7,10  <b>reading</b> 98:8  <b>ready</b> 70:14  <b>real</b> 8:10 18:13  23:22 68:23  83:23 84:8,18  84:22 110:24  117:4 118:23</p>	<p><b>realities</b> 84:23  <b>realize</b> 91:23  <b>really</b> 21:14  23:11 24:9,12  34:19 63:2  66:1 67:1 69:3  72:24 78:8  82:8 97:8,10  107:13 109:10  109:20 110:4  111:19 112:23  113:3 114:12  116:18 118:8  120:14,17  121:11,12  125:6 126:2,3  128:25 131:13  131:16  <b>realm</b> 64:11  <b>reason</b> 23:22  28:6 55:13  79:8 92:8 94:7  98:20 100:7,10  100:15,18  126:23  <b>reasonable</b>  42:1 53:13  85:12 125:12  <b>reasonably</b>  48:1  <b>reasons</b> 16:1  <b>rebuttal</b> 29:22  33:21 43:2,5  43:18 45:4  76:12,24 96:11</p>	<p><b>recall</b> 69:1  107:2  <b>received</b> 6:22  <b>recent</b> 106:18  <b>recently</b> 12:12  <b>reclaim</b> 6:4  <b>reclamation</b>  9:20 30:4  <b>recommend</b>  100:13 125:9  <b>recommenda...</b>  128:25  <b>recomplete</b>  113:13  <b>recompleted</b>  12:12  <b>recompletions</b>  12:21 125:25  <b>reconvene</b>  127:9  <b>record</b> 7:14  80:3 87:10  126:14 128:21  133:9 134:5  <b>record's</b> 87:1  <b>recorded</b> 133:6  <b>recording</b>  133:8 134:4  <b>records</b> 103:16  <b>recourse</b> 33:13  <b>recovery</b> 48:3  <b>recreate</b> 7:1  <b>red</b> 59:14,15  <b>redeploy</b> 79:10</p>	<p><b>redirect</b> 102:22  103:1  <b>reduce</b> 90:9  92:12 119:16  119:22  <b>reduced</b> 133:6  <b>reduces</b> 36:18  <b>reductions</b>  79:15  <b>refer</b> 43:13  <b>referenced</b> 79:6  <b>referencing</b>  53:19  <b>referred</b> 54:25  61:2 96:11  <b>referring</b> 43:11  50:24 87:16  89:1  <b>reflect</b> 8:10  106:8 114:21  115:6  <b>reflects</b> 99:10  <b>regard</b> 32:8  33:24 61:10  86:9  <b>regarding</b> 4:6  35:23  <b>regardless</b>  23:11,18 112:8  <b>regards</b> 14:5  <b>regression</b>  126:9  <b>regular</b> 23:9  55:23</p>
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[regulated - revenue]

<b>regulated</b> 121:18 <b>regulation</b> 73:6 <b>regulations</b> 14:24 15:7 17:10 78:5 <b>regulator</b> 36:11 <b>regulatory</b> 114:1 123:13 <b>reimburse</b> 30:3 <b>reinvest</b> 82:22 83:18 85:18 <b>reinvestment</b> 85:23 <b>reject</b> 19:9 <b>related</b> 30:18 35:23 66:25 93:25 94:4,9 94:18 122:23 133:10 134:7 <b>relates</b> 50:17 75:20 <b>relation</b> 14:5 30:10 38:14 71:6 73:17 <b>relative</b> 40:19 51:14 133:12 134:9 <b>release</b> 98:1 <b>released</b> 69:7 <b>reliance</b> 14:11 <b>relieves</b> 116:17 <b>rely</b> 9:21 <b>relying</b> 120:25	<b>remain</b> 48:23 <b>remaining</b> 118:24 <b>remains</b> 88:12 <b>remarking</b> 75:21 <b>remediation</b> 79:3 <b>remedy</b> 37:1 <b>remember</b> 27:14 <b>remind</b> 31:12 <b>rent</b> 28:25 29:2 <b>repeat</b> 64:22 <b>replace</b> 105:3 <b>report</b> 120:12 128:24 <b>reported</b> 1:16 121:5 <b>reports</b> 27:23 <b>represent</b> 68:7 78:24 94:11 97:13 104:22 <b>representative</b> 84:8 92:21 <b>represented</b> 17:6 <b>representing</b> 42:20 <b>reputational</b> 35:25 <b>request</b> 26:9 <b>require</b> 10:1 120:24 121:3 123:14,19	<b>required</b> 58:9 100:15,17 <b>requirement</b> 33:9 54:16 55:25 65:11 75:16 101:4 <b>requirements</b> 7:17 8:10 9:17 78:6 124:4 <b>requires</b> 28:20 82:19,22 83:5 114:2 121:17 <b>requiring</b> 101:3 118:18 <b>rescind</b> 21:23 <b>reservations</b> 26:8 <b>reserves</b> 46:23 <b>resident</b> 15:24 18:11 <b>residents</b> 16:12 <b>resourced</b> 32:3 <b>resources</b> 2:3 14:21 21:6 24:2 34:3 <b>respect</b> 112:4 <b>respectfully</b> 8:8 <b>respond</b> 120:17 <b>response</b> 37:8 84:23 109:9 114:6 <b>responsibilities</b> 10:13 76:5 <b>responsibility</b> 5:10 6:14 8:5	8:22 36:3,9 66:16 108:23 <b>responsible</b> 6:8 82:7 115:15 <b>rest</b> 29:5 <b>restate</b> 52:5 60:2 <b>restaurant</b> 18:22 <b>restoring</b> 8:6 <b>restrictions</b> 21:21 <b>restrictive</b> 14:24 <b>result</b> 30:2 41:4 62:17 65:8 <b>resulted</b> 94:22 <b>results</b> 112:9 <b>retains</b> 97:23 <b>retired</b> 20:23 <b>retirement</b> 78:7 104:22 105:9 <b>return</b> 29:13 78:23 79:11 97:25 98:10,12 99:2,11 <b>revenue</b> 18:23 40:9 41:3,8,14 41:23 46:22 47:2 51:18 52:20 73:18 82:19 83:18 84:11 90:9 92:12
--	---	---	---

[revenues - safe]

<b>revenues</b> 42:7 46:25 50:21 <b>review</b> 45:19 <b>reviewed</b> 43:17 43:20 <b>revolving</b> 33:10 71:20 <b>rich</b> 21:6 <b>rig</b> 18:20 <b>right</b> 5:11 8:19 8:20 10:7,19 13:23 15:2 23:19 26:19 29:24 33:20 34:6,6,8 35:24 39:2,9,21 42:11,25 44:12 44:19 46:9,13 46:20 48:4 50:2,14 51:5 57:25 60:3,3 61:21 62:9 64:25 65:3,12 65:19 67:11,20 69:14 71:10 72:10,11,18 77:1 78:22 79:14,17 81:13 84:6 85:13 86:15 88:8 91:9,20 92:6 92:25 93:5 94:16 95:20,22 96:18,20,25 97:7,12,20,23	97:24 98:11,14 99:13 100:3,4 101:12 102:1 102:18 104:24 105:18,21 107:13 108:7 108:10 109:12 110:3,5 111:22 111:23 113:14 113:24 114:18 115:25 118:19 118:22 121:6,9 121:9,21 122:14 123:6 123:16 124:2 125:1,23 127:14,24 128:11 131:2,4 131:20,23 <b>rightmost</b> 30:24 <b>rigorous</b> 28:21 <b>risk</b> 5:14 10:1,3 35:5,15,19 36:14 75:22 76:20 90:8,10 92:8 98:25 100:12 109:14 109:14,15 118:13,13 119:3,22 <b>risks</b> 6:18 65:16 <b>risky</b> 65:15	<b>river</b> 7:10 <b>roadmap</b> 129:1 <b>roads</b> 10:17 19:2 <b>robert</b> 3:3 <b>robyn</b> 8:24 9:1 9:4,4,8,11,12 <b>rock</b> 11:25 <b>role</b> 5:9 <b>room</b> 4:10 26:20 29:12 38:16 121:5 127:15 <b>rooted</b> 86:21 <b>rough</b> 40:13 <b>row</b> 31:7,7,17 32:25 60:5 61:13,16 103:12 <b>royalty</b> 42:7 <b>rule</b> 9:16,25 18:15 19:5 24:10 31:10 32:1,5,14,15 33:1 36:20 37:16 40:2 62:17 81:23 82:18,21,25 87:3 95:19 96:4 100:3 101:3,10 112:21 113:19 114:6 118:18 120:19 121:8 128:21	<b>rulemaking</b> 30:2 43:2 44:14 125:13 <b>rules</b> 5:22 7:6 7:19 10:22 12:10 13:2 18:13,19 24:17 24:19 25:24 31:1,3 40:5 41:5 46:2 57:10 58:10 59:5 61:20 63:8,11 67:5 83:8 107:16 108:12,13 110:19 111:17 111:19 118:21 121:12 124:12 <b>run</b> 103:9 121:18 <b>running</b> 18:18 <b>rural</b> 6:20 14:14 <b>russia</b> 92:4 <b>ruthless</b> 34:17 34:25
			<b>s</b>
			<b>s</b> 2:1 3:8 4:1 9:5 15:17 18:3,3 19:21 25:7,7 27:1,2 37:22 <b>sacred</b> 8:1 <b>safe</b> 98:24 100:8,11,19

[safely - shirk]

<b>safely</b> 14:23 <b>sake</b> 49:24 <b>sale</b> 76:9 84:15 84:16 <b>sales</b> 46:22 47:2 <b>santa</b> 1:15 2:7 14:3,7 27:12 27:13 <b>satisfy</b> 33:8 69:5 71:16 73:6 <b>save</b> 40:1 41:15 65:24 85:18 <b>saves</b> 84:10 <b>saving</b> 40:11 <b>savings</b> 41:20 42:5 76:20 85:22 <b>saying</b> 22:2 35:23 60:12 64:7,12 65:9 65:22 67:3 72:5,22 91:14 91:16 105:16 106:7,8 115:15 120:1 123:22 125:3 <b>says</b> 84:17 85:6 95:24 112:16 122:23 <b>scenario</b> 79:17 <b>scenarios</b> 30:13 <b>schedule</b> 130:17,21	<b>scheduled</b> 127:6 <b>schemes</b> 65:21 <b>school</b> 18:22 <b>schools</b> 10:17 19:2 21:15 26:5 <b>science</b> 15:4 16:14,17 <b>scientific</b> 16:16 <b>scope</b> 92:19 <b>screen</b> 29:17 43:11 46:3,16 57:6 67:16 81:12 88:23,23 89:4 93:16 <b>scroll</b> 46:18 <b>sean</b> 15:13,14 15:17,17,21,23 15:24 <b>sec</b> 78:4,5,10 <b>second</b> 16:13 43:1 59:24 60:3 111:15 <b>secondary</b> 48:3 <b>securities</b> 98:24 99:1 <b>see</b> 16:23 17:8 21:10 22:11,16 22:22 26:20 29:12 31:4 34:10 46:15 57:6 59:21 61:3 67:15 68:12,18 80:5	87:2 93:18,20 95:8,15 97:15 102:10 110:6 115:7 121:9 128:22,22 131:23 <b>seem</b> 93:9 <b>seems</b> 28:3 45:12 87:2 <b>seen</b> 43:21 92:17 95:12 <b>segmented</b> 58:13 <b>seldom</b> 23:25 <b>select</b> 103:8 <b>self</b> 28:4 <b>sell</b> 84:11 <b>selling</b> 93:2 <b>senator</b> 4:15,16 4:17,20,22,25 5:3 8:24 <b>sense</b> 7:18 24:17 34:25 35:7,14 51:7 55:12 60:1 93:3 104:16 109:4 117:22 118:3 122:22 130:24 <b>sensible</b> 24:11 <b>sensitivity</b> 63:2 <b>sentence</b> 74:2 <b>separate</b> 56:19 <b>series</b> 58:6	<b>serves</b> 107:21 <b>services</b> 113:23 <b>session</b> 4:8 22:9 128:7 129:4 130:7,8,14 <b>set</b> 53:16 70:8 77:20 78:2 79:6,9 108:13 120:19 127:23 129:18 <b>sets</b> 97:2 106:15 <b>setting</b> 79:19 117:19 <b>settle</b> 131:3 <b>settled</b> 80:8 <b>shape</b> 114:25 115:13 <b>share</b> 29:6,17 46:3 81:12 93:16 <b>shared</b> 93:17 130:16 <b>sharing</b> 46:4 <b>sheila</b> 2:4 19:13 22:11 <b>sheila.apodaca</b> 2:8 <b>shift</b> 55:9,13 56:13 <b>shifting</b> 55:5 <b>shifts</b> 50:2 56:1 <b>shirk</b> 66:16 108:22
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[shirking - speaker]

<b>shirking</b> 36:3 76:4 <b>shirks</b> 36:9 <b>shock</b> 67:23 93:1 <b>shooting</b> 130:3 <b>shopping</b> 34:8 34:10 <b>short</b> 127:16 128:23 129:1 <b>shorter</b> 127:17 127:18 <b>shorts</b> 44:10 <b>shoulder</b> 16:11 <b>show</b> 27:24 28:25 32:15 48:10 63:3 84:4 107:8 <b>showed</b> 30:2 76:25 <b>showing</b> 30:20 30:24 42:25 109:11 <b>shown</b> 125:16 <b>shows</b> 93:23 121:4 <b>shuts</b> 18:20 <b>side</b> 109:20 <b>signature</b> 133:16 134:14 <b>significant</b> 93:25 95:8,21 106:9,17 107:8 107:18,19 124:8 125:17	125:18 <b>significantly</b> 94:1 110:11 <b>similar</b> 37:21 125:21 <b>similarly</b> 83:16 85:21 <b>simple</b> 7:25 60:15 <b>simplicity's</b> 49:24 <b>simply</b> 23:23 28:5 87:19 112:7 120:12 <b>simpson</b> 80:1 <b>single</b> 6:2 42:3 58:19 63:1 64:25,25 107:17 110:19 114:1 118:17 119:11 124:5 <b>sir</b> 26:20 33:6 109:7 <b>site</b> 79:4 <b>sitting</b> 83:4 <b>situation</b> 48:11 67:4 70:24 71:1 73:1 85:15 91:15 <b>situations</b> 17:15 83:24 85:16 <b>six</b> 63:23 80:18 <b>skills</b> 133:9 134:6	<b>slide</b> 30:8,9 40:22 46:20 56:21,25 81:12 81:15 82:2,4 83:22 93:22 106:4,6 111:10 111:10,11 116:9 119:24 119:25 122:9 122:16 123:1 <b>slides</b> 33:21 45:5 79:5 81:14 106:2,2 122:9 <b>small</b> 7:9 18:16 30:21 32:16 33:12 40:19 63:24 67:20 73:12,13 74:20 75:15 78:8 85:13 <b>smaller</b> 14:19 31:11 65:25 66:4 76:7,7,8 <b>smallest</b> 31:5 <b>smart</b> 7:16 10:3 13:2 <b>smcra</b> 123:16 <b>social</b> 7:15 <b>society</b> 36:1 38:2 54:14 <b>soil</b> 17:2 <b>sold</b> 23:19 84:1 <b>sole</b> 77:16	<b>solve</b> 129:23 <b>somebody</b> 66:23 <b>somewhat</b> 110:13,13 <b>sonya</b> 134:2,15 <b>soon</b> 113:21 <b>sorry</b> 25:9 27:5 46:7 52:2 57:20,20 72:4 78:5 82:17 93:16 96:8,21 128:2 <b>sort</b> 34:7 45:4,5 45:6,14 46:19 47:25 48:7 49:9,12 51:6 57:19 58:6,23 61:12 62:22 82:11 84:14 95:2 110:25 113:17 116:4 121:1 <b>sound</b> 65:3 <b>sounds</b> 69:14 74:4 88:8 125:3 <b>south</b> 2:6 21:4 <b>southern</b> 20:25 <b>span</b> 101:13 <b>speak</b> 5:2 15:11 23:14 123:21 <b>speaker</b> 46:8 99:19 127:4,19 127:22 128:2,5
---	--	---	--

[speaker - struggles]

<p>128:8  <b>speaking</b> 9:13  15:24 25:20  125:14 131:6  <b>special</b> 27:16  118:22  <b>specialize</b>  63:13,19 69:21  <b>specific</b> 38:8  45:9,15 51:3,4  64:3 68:17  82:25 101:8  107:1,13  117:23 118:2  <b>specifically</b>  73:12 118:19  <b>specifications</b>  126:10  <b>specifics</b> 55:17  <b>specifies</b> 100:8  <b>specify</b> 100:3  <b>specter</b> 86:5  <b>speculators</b>  94:23,23  <b>speed</b> 37:5,17  38:11  <b>speeding</b> 87:16  87:19  <b>speedy</b> 131:22  <b>spell</b> 4:12 9:2  11:2 13:11  15:16 17:25  19:19 22:15  23:1 25:2,4</p>	<p><b>spent</b> 82:5  <b>spill</b> 19:7  <b>spoke</b> 88:19  <b>spoken</b> 73:24  74:3  <b>st</b> 1:14 2:6  <b>stage</b> 104:11  <b>stance</b> 113:17  <b>standpoint</b>  35:8 54:11  70:22 89:13,18  121:16 123:24  <b>star</b> 24:22  <b>starkly</b> 6:22  <b>start</b> 4:15  80:17 93:15  106:4,6 122:9  122:10  <b>started</b> 20:11  20:13,14  <b>starting</b> 73:13  <b>starts</b> 129:4  <b>state</b> 1:1 5:17  7:9,13 8:19  11:24 12:16,18  12:18 14:10,22  16:9,20 17:11  19:4,7 21:6  23:10,10,11,12  23:13 30:22  32:3,13 34:17  36:6,13 39:1,8  39:19,25 40:7  45:20,25 55:20  59:2 64:17</p>	<p>65:6,22 66:9  66:20 67:3  68:15,24 69:19  71:9,25 73:15  73:21 75:1  82:2 90:5  93:15 96:3  103:25 104:5  106:23 113:23  118:13 119:22  125:21 133:19  <b>state's</b> 5:9  14:11 19:2  27:23 38:17  73:6  <b>stated</b> 28:5  68:4  <b>statement</b> 61:9  63:21 74:3  83:10  <b>states</b> 94:9  106:24  <b>statistically</b>  107:18 124:7  125:14,17,18  126:6  <b>statistics</b> 107:6  <b>status</b> 40:4,7,18  57:14 58:13,16  87:12 88:12  101:10,16  106:15 107:3  112:3 113:1  118:25</p>	<p><b>statute</b> 5:25  83:5,12,16  <b>stay</b> 21:10  <b>stephen</b> 26:23  27:1,1,5,8,11  <b>steward</b> 34:2  <b>stewardship</b>  7:18 8:22  <b>stipulate</b> 64:1  98:14  <b>stipulation</b>  97:21  <b>stop</b> 93:3 99:13  99:20  <b>storage</b> 94:25  <b>store</b> 34:9  <b>strategically</b>  37:23  <b>strengthen</b> 8:9  <b>strengthening</b>  7:19  <b>strikes</b> 37:12  38:6  <b>stringent</b> 12:19  <b>strip</b> 90:25  <b>stripper</b> 73:21  77:17 79:13  <b>strong</b> 9:15  49:6 50:12  52:17 113:20  119:10  <b>stronger</b> 24:18  25:24 86:18  <b>struggles</b> 19:3</p>
---	---	---	--

<b>studies</b> 68:18 107:25 <b>study</b> 68:19 106:18,18 107:1,20,25 <b>suazo</b> 102:19 102:20 <b>subcontractors</b> 12:4 13:1 <b>subject</b> 78:10 101:11,22 <b>submissions</b> 126:14 130:4 <b>submit</b> 87:10 128:19 <b>submitted</b> 33:21 43:20,21 <b>subsequent</b> 125:25 <b>subsidy</b> 6:8 <b>substantially</b> 90:7 <b>success</b> 15:9 <b>sudden</b> 49:25 50:1 117:13 119:9 <b>sue</b> 66:23 <b>suffer</b> 21:13 <b>sufficient</b> 112:2 <b>suggest</b> 54:15 108:2 116:2 130:21 <b>suggested</b> 77:4 <b>suggesting</b> 130:19	<b>suggestions</b> 129:21 <b>supplemental</b> 76:24 <b>supply</b> 38:7 121:21 <b>support</b> 9:15 15:3 16:2 17:17 <b>supporting</b> 16:1 21:15 <b>supports</b> 7:19 <b>suppose</b> 71:14 84:3 94:6 111:25 <b>sure</b> 4:25 23:14 24:15 38:10 43:9,12 47:24 49:15 51:16 58:18 65:17 78:12 79:22 81:10 82:21 86:15 87:15 95:14 96:6 97:13 98:17 100:5 113:7 114:20 120:18 126:11,11 <b>surety</b> 55:7 67:13,14 68:14 70:3 71:18,23 72:1 78:19,21 <b>suretynow</b> 68:13	<b>surprise</b> 68:11 <b>surveyed</b> 16:20 <b>survive</b> 73:22 77:10,11 79:15 <b>suspect</b> 100:10 100:18 107:4 <b>swear</b> 4:13,20 9:6 11:6 13:19 15:20 18:4 19:23 23:4 25:13 27:3,6 <b>sweat</b> 25:22 <b>swings</b> 95:12 <b>sworn</b> 133:5 <b>sympathize</b> 109:23 <b>system</b> 5:6 9:18 9:23 10:5 14:8 27:21	<b>tailored</b> 86:23 <b>take</b> 6:24,25 8:5,5 21:11 29:3 36:4 39:15 59:23 70:12 85:21,23 98:15 99:2 113:24,25 114:1 115:10 124:4 126:13 128:9 <b>taken</b> 30:22 133:3,12 134:9 <b>takes</b> 108:20 128:16 <b>talk</b> 54:9 73:12 73:13 99:17 106:9 <b>talked</b> 86:3 119:24 123:1 <b>talking</b> 33:17 51:2 52:3 54:1 54:2 58:24 59:1 67:8 70:25 71:4 78:8 82:5 90:18 91:10 101:2 110:3 112:11 114:4 <b>talks</b> 81:15 <b>tanks</b> 92:7 <b>tax</b> 5:17,19 18:23 41:6,8 41:11,14,22
		<b>t</b>	
		<b>t</b> 3:8 11:4 13:17 13:17 23:3,3 27:1 49:1,9,16 49:25 50:2,12 51:5,9,12 52:18 53:22 54:6 55:5,10 55:13 56:13 <b>table</b> 18:25 30:18,19 31:6 31:13,14 32:12 32:14,18 63:3 126:9 <b>tailor</b> 124:11	

[taxes - think]

<b>taxes</b> 21:11,24 22:4 27:20 <b>taxpayers</b> 7:24 8:3 28:14 <b>teacher</b> 7:8 <b>technical</b> 29:13 43:18 <b>technologies</b> 47:20 <b>tell</b> 4:14,20 9:7 11:7 13:19 15:20 18:5 19:24 23:5 25:14 27:4,7 30:6 105:15 106:16 126:5 <b>telling</b> 109:14 <b>temporary</b> 96:4 <b>ten</b> 112:11 <b>tend</b> 7:2 112:5 <b>term</b> 19:8 50:16 64:9 96:12 <b>termed</b> 48:18 <b>terms</b> 39:6,13 40:19 47:4 55:20 62:15 64:12 65:21 75:9 79:1 92:25 95:3 108:13 110:13 112:21 113:17 121:1 <b>tertiary</b> 47:19 48:3	<b>testified</b> 34:1 35:3 84:23 88:9 <b>testify</b> 103:22 <b>testifying</b> 87:3 133:5 <b>testimonials</b> 43:22 <b>testimony</b> 33:24 34:19 35:3 37:22 38:15,20 39:3 43:2,6,15,18,20 43:24,25 44:2 45:3,11 46:13 47:15 48:21 50:7,11,13,25 51:2,22 53:17 55:2 56:21 57:18 59:6,9 61:18 62:4,21 63:12,18 64:17 65:5,9 66:1 67:18,19,22 69:1,16,25 70:1 71:4 72:17 73:19 74:1,16 75:19 75:21 76:13,18 77:17,19 80:18 83:9 86:3 87:14,15 95:6 106:1,5 115:1 121:25 125:5 126:25	<b>texas</b> 40:25 107:5 <b>thank</b> 4:17,19 4:23 5:1 8:18 8:22,23 9:9,11 10:23,24 11:9 11:11 13:6,7 13:18 15:10,12 15:19,23 17:20 17:21 19:10,11 19:17 22:4,6 24:19,20 25:10 25:16 26:17 27:9 29:9,11 29:18 33:20 42:10,12,22,25 42:25 44:4 58:11 79:23,24 79:25 80:15 81:21 82:1,3 82:13 83:3,12 83:21 85:21 86:16,25 88:1 89:21 92:15 93:5,7,9,21 97:6 102:6,8,9 102:12,14,16 105:13 106:1,3 111:9 119:23 121:24 122:2,4 122:5,11 126:11,21,22 126:23,24 127:1,25 128:11 131:4	131:10,24 132:1 <b>thankful</b> 21:1 <b>thanks</b> 106:5 109:8 <b>that'd</b> 26:18 <b>theme</b> 50:8 <b>themes</b> 45:6,13 <b>theoretical</b> 89:18 107:11 108:14,19 110:3,14,16 112:15 122:22 124:13,14 <b>theoretically</b> 108:3 123:23 <b>theory</b> 86:22 122:23 <b>thereof</b> 98:2 <b>thing</b> 10:19 34:6 35:24 38:13 121:21 129:3 <b>things</b> 4:9 10:6 17:11 56:19 129:9,12 <b>think</b> 9:18 15:7 24:10 29:24 30:9,17,17 32:9 33:7,8 34:5,15,24 35:1,7,21 36:22 38:3 39:2,5,12,14 40:5,9,24
---	--	--	---

**[think - top]**

41:10 42:1,4 44:8 45:18 46:4 47:4,17 47:18 48:1,17 49:8 50:5,24 51:8 53:3,5,8,9 53:13,24 54:8 54:8,10,25 55:15 56:4,14 56:22 63:9,18 65:21 66:11 67:1,5 68:3,14 68:22,23 70:6 72:22 75:4,6,8 75:8,10 76:4 77:2 79:14 82:8 84:14 87:1,5 88:16 90:9,19 91:5 91:11 92:22 94:18 95:3,15 95:24 96:1 98:7,8,20 100:7,15,20 102:10,23 103:24 104:1,5 104:16,19,21 105:6 107:14 108:11,11,25 109:8,19 113:6 113:10,21 114:11,14 115:2,4,8 116:2,4,25,25 117:5,18,19,21	117:25 119:2 119:21 120:10 121:18 122:12 125:2,12 126:3 126:15 127:8 127:11,22 129:16,25 130:24 131:3 131:13 <b>thinking</b> 34:22 36:2 42:3 52:14 66:12,16 108:24 119:1 <b>thorough</b> 131:22 <b>thought</b> 50:5 52:2,7 89:4 105:15 122:16 126:3 <b>thoughts</b> 130:5 <b>thousands</b> 28:13 114:5 <b>threat</b> 36:5,10 55:20 92:14 <b>threaten</b> 18:16 <b>threatened</b> 24:9 <b>threatens</b> 10:10 <b>three</b> 4:15 15:25 72:1,9 102:23 107:24 120:12 <b>threshold</b> 31:25 32:8 35:17,20 36:25	37:2,18 38:12 62:11 86:10 87:20 88:11,22 89:12,14 101:17,25 111:20 112:10 116:11,17,21 117:3,5 118:10 118:24 119:19 121:10 <b>thrown</b> 88:10 <b>thursday</b> 22:10 <b>tied</b> 69:9 89:19 124:6 <b>time</b> 1:11 8:18 11:12 12:3 13:6 17:19,20 21:1 23:17 24:19 26:1 27:15,17 46:23 49:3,17 53:23 54:5 55:5,10 56:14 70:15,20 76:14 79:1 82:5,12 84:4,7 84:22 85:9 91:21 92:18 94:2,5,8,15 96:4,21 99:8 99:11 102:6 104:20,24 112:6 113:2,7 113:7,10,25 114:9,11,12,24 115:9 122:6	123:20 128:23 131:13 <b>timeline</b> 131:8 <b>timelines</b> 128:10 <b>times</b> 11:15,16 23:15 38:5,8 38:15 104:6 105:14 <b>timing</b> 94:13 <b>tisdel</b> 3:5 42:13 42:14,16,19 46:6,10 74:5,7 74:8 79:24,25 84:24 88:20 103:18,20,24 <b>tisdel's</b> 103:17 103:23 <b>title</b> 95:24 97:23 <b>today</b> 5:2,22 7:20 11:12,17 12:2 13:6,24 23:9 76:15 91:20,21 106:5 131:4 <b>together</b> 129:13 <b>told</b> 127:12 <b>tomorrow</b> 7:21 22:9 50:1 76:16 127:9,16 127:25 131:24 <b>top</b> 20:4 103:12
--	---	--	--



[topic - unexpected]

<b>topic</b> 20:6 36:24 93:21 <b>total</b> 80:21 <b>touch</b> 61:9 <b>tough</b> 131:16 <b>toward</b> 108:19 <b>toxic</b> 6:17 <b>traded</b> 41:1 78:6 <b>tradeoff</b> 42:2 <b>transaction</b> 124:20 <b>transactional</b> 84:22 <b>transcriber</b> 134:1 <b>transcript</b> 122:14 134:3,5 <b>transcriptionist</b> 133:7 <b>transcripts</b> 128:17 <b>transfer</b> 12:23 119:8 <b>transparency</b> 26:10 <b>transportation</b> 20:11 <b>trash</b> 7:9 <b>traveling</b> 127:7 <b>treasury</b> 99:4 <b>treatment</b> 27:18 <b>tremaine</b> 3:6 80:5,7,10,12	93:8 116:10 <b>trend</b> 87:8 <b>tribal</b> 6:20 25:20 <b>tricky</b> 125:22 <b>tried</b> 69:2 <b>tries</b> 110:16 <b>trigger</b> 121:10 <b>triggers</b> 118:24 <b>trip</b> 129:5 130:3 <b>tripp</b> 102:24 103:7,9,10 105:25 <b>tripping</b> 112:9 <b>trucks</b> 20:14,15 20:18 <b>true</b> 85:19 94:17 98:7 125:21 133:8 134:5 <b>truth</b> 4:14,21 9:7 10:18 11:7 13:19 15:20 18:5 19:24 23:5 25:14 27:4,7 <b>try</b> 22:19 43:10 51:13,13 71:16 110:4 126:16 <b>trying</b> 19:8 31:9 51:3,4 84:25 93:16 106:19 107:12 117:22 123:9	124:11 126:18 126:19 <b>turn</b> 22:19 <b>turning</b> 113:16 <b>two</b> 21:7 44:18 45:2 47:4 56:18 67:21 69:11 70:20 100:1 104:8 123:8 126:9 128:3 129:13 <b>type</b> 12:14 75:3 98:20 110:8 125:20 <b>types</b> 37:11 71:12 90:16 <b>typewriting</b> 133:6 <b>typical</b> 48:1,8 48:11 67:23 71:24 106:9 114:21 <b>typically</b> 45:8 101:12 <b>typo</b> 40:22	<b>under</b> 5:25 12:19 20:18 30:13,25 31:2 32:1,14 33:1 46:1 47:17 52:13 57:10 58:10 77:7 81:22 83:7 85:3 86:19 96:18 106:16 111:14,17 113:18 116:14 118:21 <b>undercapitali...</b> 85:4 <b>underfunded</b> 17:7 <b>understand</b> 6:10 33:5 51:5 51:10 56:8 64:10 116:20 123:4 <b>understanding</b> 26:10 35:20 51:6 67:23 77:13,18 92:3 97:1 101:1,6,9 102:2 107:16 114:23 115:17 126:17 130:13 <b>understood</b> 91:7 101:24 <b>unexpected</b> 91:9,11
		<b>u</b>	
		<b>u</b> 25:12 <b>ukraine</b> 92:4 <b>unchanging</b> 49:22 <b>uncharitable</b> 34:15 <b>uncle</b> 29:4 <b>uncommon</b> 68:22	

[unfair - want]

<b>unfair</b> 74:19 <b>unfeeling</b> 34:25 <b>unforeseen</b> 89:22 90:1,13 91:8 <b>unidentified</b> 46:8 99:19 127:4,19,22 128:2,5,8 <b>uniform</b> 50:23 <b>unique</b> 20:8 94:19 95:2 <b>unjustified</b> 56:1 66:3,6 118:7 <b>unknown</b> 92:15 <b>unknowns</b> 92:16 <b>unmute</b> 4:16 8:24 13:9 17:23 19:13,14 22:12 24:23 <b>unplugged</b> 38:18 39:8 <b>unprofitable</b> 40:8 49:5 <b>unregulated</b> 28:18 <b>unreliable</b> 62:15,20 <b>unsafe</b> 100:9 <b>unseen</b> 14:24 <b>unviable</b> 40:7 <b>update</b> 21:3	<b>updating</b> 7:16 <b>ups</b> 14:4 <b>upside</b> 12:10 <b>urge</b> 8:8 15:6 16:2 17:16 19:9 24:18 <b>use</b> 35:16 69:11 114:16 <b>used</b> 5:18 10:14 23:25 45:22 115:14,18 <b>useful</b> 48:13,15 51:6,8 105:16 <b>using</b> 64:9 88:11 96:22 <b>usually</b> 80:17 128:15 <b>utilizes</b> 12:4 <b>utmost</b> 11:20	110:22 125:19 <b>variables</b> 126:6 <b>variation</b> 106:10,17 107:8 <b>variety</b> 50:10 <b>various</b> 30:13 44:22 58:8 65:20 90:16 110:10,25 <b>vary</b> 50:24 <b>varying</b> 63:3 <b>vast</b> 12:10 <b>vehicle</b> 100:19 <b>verifiable</b> 124:2 125:21 <b>verify</b> 88:21 89:6 <b>verifying</b> 60:21 <b>versus</b> 88:2 107:7 <b>vertical</b> 31:13 31:19 57:10,17 57:19 58:2,12 58:19 61:24 63:13 64:20 106:22 107:17 107:21 108:15 108:18 110:20 110:20 124:1 124:13 125:22 <b>vetting</b> 120:24 <b>viable</b> 73:3 74:15	<b>vicinity</b> 16:24 <b>vietnam</b> 20:22 <b>violated</b> 26:2 <b>virtual</b> 4:12 <b>visit</b> 129:15 <b>vital</b> 14:14 15:9 <b>vitally</b> 14:12 <b>voice</b> 8:15 14:1 17:15,15 <b>volatile</b> 95:12 <b>volatility</b> 95:14 <b>volume</b> 47:5 48:23 58:2 <b>volumes</b> 120:13 <b>vote</b> 24:18 <b>voters</b> 6:11
			<b>w</b>
			<b>w</b> 19:22 25:9,12 <b>wait</b> 10:5 93:4 127:3 <b>walk</b> 5:15 6:7 7:10 9:22 10:13 33:22 43:10 46:12 66:17 <b>walked</b> 48:2 <b>walks</b> 24:3 <b>want</b> 15:8 21:9 21:16,22 23:13 29:3 31:12 39:5,12 43:9 43:12 52:24 53:9 54:11 65:17,25 81:11 81:15 82:4

[want - witness]

88:20 89:5 98:15 113:12 119:12 120:17 120:21 123:23 128:9 <b>wanted</b> 37:1 82:1 105:15 121:12 <b>waquie</b> 24:23 24:23,25 25:3 25:6,7,9,12,15 25:18,19 26:15 26:18 <b>waste</b> 7:10 <b>watched</b> 14:8 44:2 <b>watching</b> 34:14 44:9 <b>water</b> 5:5 6:9 6:17 8:1,12 10:10 17:3,5,6 24:2 26:6,7,12 28:2 29:7 <b>way</b> 20:8 33:8 56:5 60:23 65:25 68:21 71:17 78:12 85:13 87:18 97:16 99:6 110:17 117:18 117:19 121:11 122:10 124:8 124:12,22 126:18	<b>ways</b> 26:2 <b>we've</b> 12:12 21:20 22:1 39:17 51:22 53:15 62:21 79:8 87:9 92:20 95:12 100:21 117:6 120:14 125:5 129:17 <b>wealthy</b> 7:12 10:18 <b>website</b> 68:14 97:20 <b>wednesday</b> 1:10 <b>weeks</b> 128:16 <b>weigh</b> 124:21 <b>welcome</b> 80:11 130:4 <b>wellbeing</b> 5:6 <b>wells</b> 5:13,14 5:18 6:1,3,16 6:19 10:1,8,15 10:18 11:13 12:6,8,8 16:3,6 16:20 17:1 23:19,24,24 28:14 30:16 31:13,18,19,20 31:23 32:10,11 32:19 35:4,6 36:7,8,16,21 37:22 38:17,18 38:20,21,22	39:8,10,25 40:3,4,7,10,19 41:3,21,23 42:8,9 45:22 45:25 57:11,13 57:13,17,19 58:2,12,19 59:3,5,23 60:10,18,20 61:24,24,25 62:8 63:1,13 64:6,20,20 65:1,6,23 66:4 66:4,15,21 67:9 69:20,23 73:16 76:5,9 77:6,11,16,17 78:3 79:18 82:23,24 83:25 84:1,11 86:7 86:11,12,14,17 87:12 88:2,2,6 88:10,13,18 89:8,10,15,20 93:23 94:10 95:10,25 96:1 101:19 107:1,7 109:2,4 110:25 111:5,13 112:5 112:8,11,12,13 113:5,8,16,18 114:2,5,15,18 114:22 115:6 115:21 116:11 116:14 117:7,9	117:11,13,24 118:1,2,4,5,14 118:19,21 119:9,13,15,15 119:20 120:4 <b>wendell</b> 1:13 <b>went</b> 21:4 107:22 <b>west</b> 20:14 40:25 <b>western</b> 42:20 <b>wiggle</b> 121:5 <b>wild</b> 95:12 <b>wildlife</b> 6:18 <b>william</b> 105:24 107:23 109:7 109:25 111:9 112:19 114:8 115:11,23 116:8,23 118:11 119:23 120:11 121:24 131:11 <b>willing</b> 81:7 105:11 <b>wipe</b> 63:16 69:22 <b>witness</b> 3:2 42:11 67:19 68:3 81:14 93:6 99:20 106:2,14 108:3 109:23 110:2 111:22 113:6 114:11 115:17
--	--	---	---

[witness - youtube]

116:1,20,25 118:16 120:10 120:23 122:21 123:21 124:22 125:14 126:22 127:1 133:4 <b>witnessed</b> 16:21 <b>witnesses</b> 43:19 53:16 81:8 127:17,17,20 128:3 <b>wolf</b> 24:9 <b>wondering</b> 128:12,13 130:1 <b>word</b> 96:1 123:7 <b>words</b> 96:24 <b>wordy</b> 74:17 <b>work</b> 7:6 11:12 11:21,23 12:14 18:17 20:25 21:1 44:14,21 45:21 84:19 97:5 106:13 109:22 115:3 122:10 126:1 130:19 <b>worked</b> 20:22 <b>worker</b> 18:21 <b>working</b> 27:22 27:22 45:1 81:13	<b>works</b> 16:15 114:9 <b>world</b> 11:25 84:8,18,22 92:6 <b>worse</b> 10:7 125:10 126:20 126:21 <b>worth</b> 76:16 <b>would've</b> 104:1 <b>written</b> 45:4 121:12 128:19 <b>wrong</b> 60:17 <b>wrote</b> 58:5 <b>wti</b> 94:24 95:15  <b>x</b>  <b>x</b> 3:1,8  <b>y</b> <b>y</b> 9:4 11:4 13:17,17 15:18 19:22 23:3 <b>yeah</b> 13:10 33:23 44:7,10 45:12 48:16,17 49:23 50:3,7 51:21 52:4 54:1 56:7 60:2 60:9,15,22 61:11,12 62:1 62:18 63:6 64:1,23 66:10 68:3,7,10 70:1 71:24 76:3,12 77:7,9,14	92:11 94:17 96:22 99:19,21 101:6,8 106:2 106:3 112:18 112:19 116:23 119:25,25 127:21,24 130:20 <b>year</b> 11:16,16 37:7 39:24 40:11 41:8,16 41:21 69:13 76:21 81:24 88:7,13,15 91:4 114:16 <b>years</b> 5:16 10:15 14:3,11 20:12 27:12,13 27:13 28:17 39:20,22,23 41:19 44:18 45:2 70:17,20 79:2 95:13 102:3 114:6 <b>yesterday</b> 35:23 38:15 43:24 48:3 55:2 56:21 69:1 71:3 <b>yesterday's</b> 30:8 <b>yield</b> 78:23 <b>yielding</b> 77:3 <b>young</b> 13:25 18:25	<b>youtube</b> 44:3,6
---	--	---	-----------------------