

PUBLIC HEARING  
PROPOSED CLASS III UNDERGROUND INJECTION CONTROL AREA PERMIT  
AND PROPOSED AQUIFER EXEMPTION FOR  
GUNNISON COPPER PROJECT

February 27, 2018  
7:00 p.m.

REPORTED BY:

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Certified Reporter  
Certificate No. 50876

PREPARED FOR:  
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

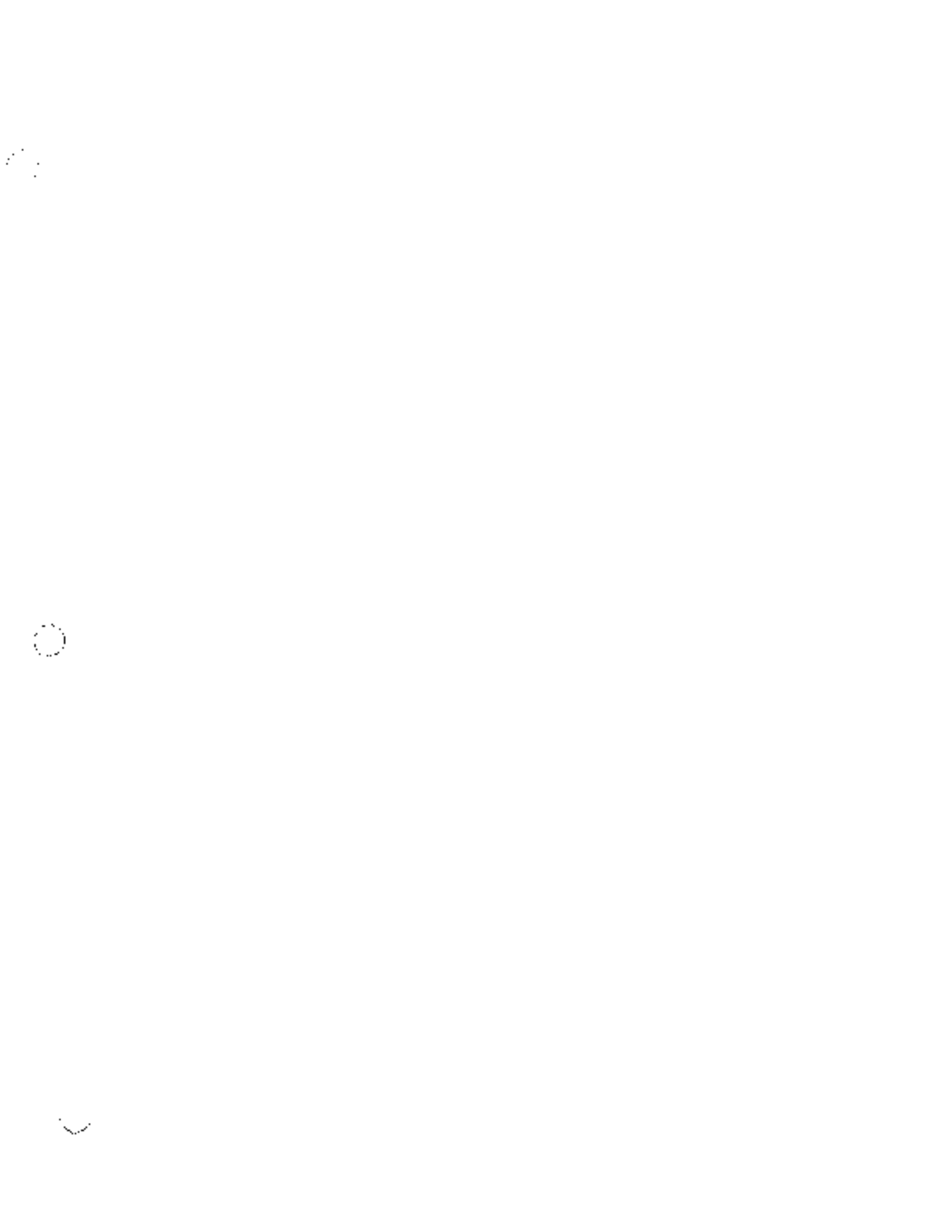
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1 PUBLIC HEARING COMMENTS, taken at 7:00 p.m., on  
2 Tuesday, February 27, 2018, at the Women's Club, 1871 North  
3 Johnson Road, Dagoon, Arizona, before TERESA A. VANMETER, RMR,  
4 a Certified Reporter in and for the State of Arizona, County of  
5 Maricopa, pursuant to the Rules of Civil Procedure.

6  
7 PUBLIC HEARING OFFICER:

8 Beatrice Wong  
9 U.S. Environmental Protection Agency, Region 9  
75 Hawthorne Street  
10 San Francisco, California 94105  
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## P R O C E E D I N G S

1  
2  
3 MS. WONG: Welcome and good evening, everyone.  
4 My name is Beatrice Wong, and I am from the U.S. Environmental  
5 Protection Agency. I am the public hearing officer for this  
6 hearing. I was this public hearing is now in session. You will  
7 have the opportunity to make comments soon, once I've explained  
8 some of the logistics and some ground rules.

9 EPA realizes that this is a complex issue. So  
10 EPA has an information sheet available at the sign-in table,  
11 which is on the side here between the two doors where you came  
12 in.

13 I'd like to introduce a few of the people from  
14 EPA who are with me here tonight. We have, to my right, David  
15 Albright, who's a supervisor of the underground injection  
16 control program. Nancy Rumrill is our staff engineer from that  
17 program, and then to my left is Rich Campbell. He's from the  
18 Office of Regional Counsel.

19 The purpose of this hearing is for EPA to receive  
20 your oral comments regarding the proposed -- their -- our  
21 proposal to issue the UIC area permit for Excelsior Mining  
22 Arizona, Inc., to construct and to operate an in-situ copper  
23 recovery facility, known as the Gunnison Copper Project, near  
24 the town of Willcox, Arizona.

25 This hearing is a formal proceeding. Your

1 comments tonight will become part of EPA's official record on  
2 the matter. We commence -- EPA commenced the public comment on  
3 October 25th, and the period, the original comment period, was  
4 through November 24th for the proposed permit. It was extended  
5 until January 8th, and then when we received a request for the  
6 public hearing, we extended the public comment period again  
7 until today, February 27th, and the comment period closes at the  
8 end of this hearing.

9           You made submit oral comments, written comments  
10 or both today. EPA gives equal consideration to written and to  
11 oral comments before reaching its final decision. EPA will make  
12 a decision on the final UIC permit after considering all of the  
13 comments related to the permit action.

14           Therefore, EPA will not be providing responses to  
15 your comment during this hearing. Instead, EPA will respond to  
16 all comments in writing, and those responses will be available  
17 at the time EPA issues its final decision.

18           Just so you know my role, I am serving as the  
19 presiding officer for today's public hearing. I am not involved  
20 in assessing the permit or in responding to the public comments.  
21 My sole responsibility is to facilitate this process and to make  
22 sure that those who want to make an oral comment can do so, and  
23 it's done in an orderly fashion and that our public record on  
24 this is clear.

25           To that end, we have a certified court reporter

1 who will be recording your comments today. And if you present  
2 oral comments at the hearing, please speak clearly and slowly so  
3 that she can record your comments accurately.

4 To assist her with recording your comments  
5 accurately, I'd just ask that people refrain from shouting, and  
6 that you don't talk over each other, and that the person who's  
7 speaking really just has the opportunity to make the comment  
8 that they have.

9 EPA has a sign-in table, again, right here  
10 between the two entrances where Nancy is standing. You don't  
11 need to sign in in order to attend this hearing, but if you'd  
12 like to receive notice of EPA's final permit decision, then you  
13 can provide your email address on a sign-in form.

14 If you wish to make oral comments at today's  
15 hearing, there is a speaker form that you can put your name on,  
16 and then I'll call them in the order that I receive them. And  
17 if you write your name legibly on it, the court reporter will  
18 use that to record your name properly. Before stating your  
19 comments, I'll just ask that you state your name for the record.

20 If you don't wish to speak tonight, you can still  
21 submit written comments. There are a comment box and sheets of  
22 paper there. If you want to submit something, you can -- if you  
23 have something that's prewritten, you can provide it to her,  
24 also. Provide it in that comment box, also.

25 If you'd like to submit written comments here



1 today, you can feel free to just put the comments in the box.  
2 If you submit written comments, it's not necessary for you to  
3 provide oral comments as well tonight unless you want to add to  
4 something that you you've already written since we're giving  
5 equal consideration to both.

6 It's important that you know that I'm only here  
7 to receive oral comments on EPA's proposed UIC permit for  
8 Excelsior. Therefore, please, I ask that you refrain from  
9 making comments that are not related to this specific permitting  
10 action.

11 EPA's providing a microphone that I'm using for  
12 your convenience. It will -- there's -- it will be available  
13 for you at the podium that's in the front of -- in front of me  
14 here in the front of the room.

15 The hearing is scheduled to last until 9:00  
16 tonight. To ensure that everyone who wishes to speak has the  
17 opportunity to speak, I'm going to initially limit speakers to  
18 five minutes. And David Albright will be keeping track of time.  
19 He'll hold up a card letting you know when one minute is  
20 remaining, and he'll let you know when your time -- when your  
21 time is up and when you should stop your comments.

22 If you want to speak more, if there's -- if all  
23 of the speakers have had an opportunity, you can have another  
24 opportunity after that if time permits. Otherwise, if you have  
25 more to say, I certainly encourage you to submit the remainder

1 of your comments in writing in our comment box today.

2 I will call the speakers in groups of two. When  
3 your name -- if it's called first, just come up to the podium  
4 and you can speak. If your name is the second person that I  
5 call, there's a seat next to the court reporter that you can  
6 just sort of sit and wait for your turn. If you're not in the  
7 room when I announce your turn to speak, I'll place your speaker  
8 request form at the back, and I'll call you when every -- when  
9 all of the other speakers have had an opportunity to speak.

10 And then just to ensure compliance with the  
11 Americans With Disabilities Act, EPA asks that anyone who has a  
12 disability who needs a reasonable accommodation to please let  
13 one of us know that you need an accommodation, and we'll do our  
14 best to accommodate you. So with that -- -- we actually have  
15 quite a few speakers. So I said five minutes is what I'll  
16 initially give you. I'll actually amend that to three minutes  
17 so that we can ensure that we have all of the comments.

18 Okay. So with that, Pete Dronkers and Ellen  
19 Cohen.

20

21

#### COMMENTS

22

MR. DRONKERS: I guess I get to go first, huh?

23

24

25

Okay. My name's Pete Dronkers. I'm with an  
organization called Earthworks. Some of you all know me. We  
have submitted extensive comments on this project, as well as on

1 an aquifer protection permit, and have been involved in this  
2 project for over three years now, doing technical analysis as  
3 well as risk assessment on the project.

4           There's a couple main things that I'd like to  
5 point out now. The most important thing about this project is  
6 how you monitor the groundwater quality around the mine site.  
7 What we found after reviewing both the APP and the UIC, the  
8 draft UIC, is that there just is not sufficient monitoring  
9 protocols in place for this project. There's much too high of a  
10 chance of the contaminants will escape between the existing  
11 point of compliance wells, the POC wells, and because there just  
12 aren't that many, it creates this gap between them where  
13 lixidian (phonetic) or light sulfuric acid solution is -- they  
14 just escape between the proposed point of compliance wells and  
15 migrate downgradient, especially if there's a preferential  
16 pathway underground that we don't know about, which is a pretty  
17 high possibility. So basically, what we've been asking for is  
18 more monitoring wells outside of the area of review.

19           The area of review is also too small. It's not a  
20 holistic look at the broader hydrogeological complex here. It's  
21 really just the mine itself, whereas we would have liked to see  
22 the area of review be bigger and have monitoring wells much  
23 farther away from where active mining will occur, and that way  
24 you can actually see what's happening with water quality over  
25 time, and you can compare that to the baseline levels that we

1 know now. So that's the -- that's the most important thing is  
2 just monitoring is not adequate. It's not even close to  
3 adequate with this project, and our comments detail that  
4 extensively.

5           The other thing is what happens when contaminants  
6 migrate, if they do, and they're detected in monitoring wells  
7 which don't exist and aren't proposed to exist? We have to have  
8 very specific criteria for what happens when baseline conditions  
9 are exceeded in groundwater quality farther -- much farther away  
10 from the mine site, what exactly happens. The draft permit does  
11 not even come close to addressing that and to having strict  
12 criteria for what happens in -- when mining has to stop and  
13 rinsing has to begin, because that's what has to happen if  
14 contaminants are escaping and contaminating the entire  
15 groundwater system of this entire area, which is very possible.

16           We just won't know it unless there's monitoring  
17 and there's adequate, tangible thresholds for what happens when  
18 certain parameters are exceeded and how to correct that, and how  
19 to correct it immediately. None of those things are addressed  
20 properly in the draft permit, and those are what our comments  
21 get at.

22           We also have 35 pages of technical information  
23 using independent hydrologists, and discussing how the models  
24 that EPA used are inadequate, and some of them are flawed. I  
25 can talk for hours on this project, but that's just the basics.

1 MS. COHEN: So my name is Ellen Cohen. Welcome  
2 to Dragoon. These comments are regarded to Gunnison Copper  
3 Project, Class III, Draft Underground Injection Control Permit.  
4 My letter is addressed to Ms. Rumrill, but it's to everybody  
5 here involved.

6 My home lies a scant mile and a half or so  
7 downstream and south of Excelsior's Gunnison Copper Project. If  
8 the EPA approves the permit, as currently submitted by  
9 Excelsior, by default, the Agency, the Environmental Protection  
10 Agency, will also be approving several unexamined environmental  
11 consequences.

12 At full field production, it's my understanding  
13 that the 1,434 wells and bore holes that are up to 1,400 feet  
14 deep will have been drilled through 600 feet of gravels, and  
15 below the water table of the non-recharging Willcox aquifer on  
16 which we rely, into this fissure prone area, and each will have  
17 to be monitored and lighted 24 hours a day, 7 days a week, for  
18 the projected life of the mining operation, which is stated at  
19 20 years. Probably beyond my lifetime.

20 It is not clear if Excelsior plans to truck in  
21 sulfuric acid to be processed on site or if it will produce its  
22 own. Either way, toxic chemicals will be transported along I-10  
23 so they can be injected underground, and I haven't seen any  
24 information in the draft permit application regarding who will  
25 be responsible for any accidents during transport, nor have I

1 found specific monitoring plans for the water treatment plant  
2 effluent, evaporation and drain ponds which Excelsior's 2014  
3 publicity documents say will be covered with a tarp.

4 I could not find any information about  
5 Excelsior's plans for continuous monitoring of the raffinate  
6 pond, the recycled water pond, the sludge storage tanks, and the  
7 runoff from the winnowing plant.

8 Excelsior's 2014 publicity documents also claim,  
9 quote, "There is no active water use downstream or nearby the  
10 site. There's no one living nearby. No special scenic value."  
11 Close quote. I strongly disagree and request that the EPA not  
12 approve this permit as currently submitted. I also request that  
13 a cumulative impact analysis be included in a resubmission of  
14 Excelsior's permit application. This analysis must include  
15 cultural impacts, social impacts, socioeconomic impacts, and  
16 long-term cumulative environmental impacts. Thank you.

17 MS. WONG: Can you hear me if I speak -- can you  
18 hear me?

19 AUDIENCE MEMBER: No.

20 AUDIENCE MEMBER: Barely.

21 MR. ALBRIGHT: Christine Szuter, and then George  
22 Scott would be the one after.

23

24

#### COMMENTS

25

MS. SZUTER: Hello. I'm Christine Szuter,

1 executive director of the Amerind Foundation, as well as a  
2 resident of Dragoon. Amerind is a Native American museum, a  
3 Western and indigenous art gallery, and a research center with  
4 10,000 visitors a year. We house 30,000 aging and contemporary  
5 artifacts, 20,000 volume library, as well as archival materials.

6 Our land's been occupied way back, 13,000 years  
7 ago, and today it's being using by Tohono O'odham basket weavers  
8 who gather plants for their baskets and livelihood, and they  
9 also support the livelihoods of many other native peoples  
10 throughout our museum, store and programs that are conducted by  
11 native peoples from throughout the state of Arizona to the -- to  
12 Mexico.

13 Amerind's concern for the placement of the  
14 Gunnison mine literally in our back yard and that of our  
15 community focuses specifically on the guaranteed future high  
16 quality of that water and the need for additional placements of  
17 monitoring wells, and access without agreements of  
18 confidentiality and the processes behind the mining operations.  
19 And the first two pertain to the EPA UIC permit.

20 The Gunnison mine CEO has made public statements  
21 that offer a 100 percent guarantee that the quality of water  
22 will not be diminished, but these guarantees have not been  
23 backed up with a plan of action and adequate financial planning  
24 and backing as to what we would expect when or if the mining  
25 operation contaminates the water and environment.

1           So in order to guarantee future water quality of  
2 the same high quality we have today, we want a legal guarantee  
3 that no contamination will occur per our comments that you  
4 already have, and that we want a multi-sector committee  
5 overseeing the monitoring data and the ability to require  
6 restoration to the baseline analyte levels of the mine. And  
7 that when or if contamination occurs, either during operation,  
8 post or after -- or during closure, it will be restored to the  
9 quality.

10           Second, as you heard, we're asking for additional  
11 monitoring mines that have been written to you as well. We want  
12 to ensure that when a breach occurs, we would know immediately.  
13 Operations would be shut down and contained to limit damage to  
14 our water supply. We really are stressing that particular  
15 point, as well as the quality of our water.

16           All in our community are going to be faced with  
17 the mine for many, many years, with its associated lighting,  
18 noise, trucks and other factors diminishing our quality of life.  
19 Our greatest concern, however, is the safety and health of our  
20 community, our people, our institutions and our businesses, now  
21 and in the future for centuries to come. This is truly what is  
22 at stake now, and preservation of our groundwater requires that  
23 at a minimum.

24           We thank EPA for being here, for considering our  
25 request for retaining the highest quality of water we now have,



1 and for the required installation of additional monitoring wells  
2 in our detailed comments. And I have the written ones that I  
3 actually went four and a half minutes, under the five-minute  
4 limit. So I'll give you those as well. Thank you very much.

5 MS. WONG: There's a comment box.

6  
7 COMMENTS

8 MR. SCOTT: Thank you.

9 My name is George Scott. I'm a lifelong resident  
10 of Benson. I was born and raised here. My family's always been  
11 in business in the area. I'm a former city councilman, a former  
12 mayor of Benson, and at this time I run an organization called  
13 the Southeast Arizona Economic Development Group, who I'm  
14 representing this evening.

15 We've been involved monitoring what the Excelsior  
16 group has been doing on this project. They've been doing a lot  
17 of work to make sure that this project is safe, that the water  
18 table is protected and that there's going to be a lot of jobs  
19 for the people here in Willcox and Benson area and Dagoon area.

20 This offers people in our area a chance to -- for  
21 employment. As you might know, Cochise County is one of the --  
22 a few counties in -- around the country that are actually losing  
23 population because of there's not enough jobs for them to take,  
24 and this project along with some others offers a great  
25 opportunity for people here to get good paying jobs.

1           The -- you're going to hear from a lot of people  
2           that don't live around here, some people that claim they do.  
3           When I look through this crowd, and I don't see a whole lot of  
4           people I've known. You know, I've been here my whole life. So  
5           this is a -- to me it's a personal thing. I think the people in  
6           Benson and Willcox and the surrounding area deserve to have good  
7           jobs.

8           I know that the Excelsior folks have studied this  
9           for many years. They've done a lot of -- they've done  
10          everything they can to make sure that this project is safe, that  
11          the water is safe and that the wells are monitored. You know,  
12          I've gone through this with them several times, and I assure you  
13          that this is going to be a good project. It's going to be good  
14          economically for Cochise County, and I would encourage the EPA  
15          to take into consideration the people that do need jobs and the  
16          money and stuff that it will bring to Cochise County, and I ask  
17          that you approve this project. Thank you.

18                   MS. WONG: All right. Kathy Jacobs and Alan  
19                   Baker.

20  
21                                   COMMENTS

22                   MS. JACOBS: Hi. My name is Kathy Jacobs. I'm a  
23                   resident of Dragoon. I have some concerns regarding what the  
24                   mine will impact for our property values if we were going to  
25                   resell our property. Are we going to be able to resell our

1 property? What is the restitution of property owners, when  
2 contaminants are found in our wells and the water table drops,  
3 the light pollution, possible unstable ground from the fissures.

4 George just said that Cochise County was losing a  
5 lot of residents. It's going to lose a lot of residents, a huge  
6 amount of residents, if this mine contaminates our water and  
7 depletes our water. I'm a proud American, but I don't  
8 understand how a Canadian company with multiple foreign  
9 investors can come to where I live and contaminate my property  
10 and my groundwater. Thank you very much.

11  
12 COMMENTS

13 MR. BAKER: Good evening. My name is Alan Baker.  
14 I'm the executive director of the Willcox Chamber of Commerce  
15 and Agriculture, and the Willcox Chamber of Commerce and  
16 Agriculture does support this permit and this project, and we've  
17 believe it will bring jobs and good business to the area.

18 As well, prior to this, I had a responsibility  
19 for 12 public water systems in southeastern Arizona, and after  
20 talking with the Gunnison Copper people, I do believe that it's  
21 a good project. So thank you.

22 MS. WONG: Okay. Doug Bartlett and Roger  
23 Featherstone.

24  
25 COMMENTS

1 MR. BARTLETT: Good evening. My name is Doug  
2 Bartlett. I am a geologist, a hydrogeologist, and I have --  
3 I've been working as a consulting hydrogeologist for about 40  
4 years, 30 years roughly in Arizona. So I have quite a bit of  
5 experience here. I co-founded the firm Clear Creek Associates.  
6 Clear Creek has been involved with Excelsior and doing much of  
7 the design work for the system. We're all over the state. We  
8 work for municipalities, industries, utilities, mining  
9 companies, small border purveyors and even regulatory agencies  
10 like the ADEQ.

11 The Gunnison project is robust and well thought  
12 through. The project includes concentric circles of monitoring.  
13 This is an important concept, because I've heard comments  
14 tonight about the monitoring being inadequate. It is quite  
15 adequate. So we have the inner circle of wells that we call the  
16 inner intermediate monitor wells. These are around mining  
17 blocks. Outside of that we have the outer IMWs. Outside of  
18 that we have the hydraulic control wells along the perimeter  
19 well field. Outside of that we have the point of compliance  
20 wells, which are at the edge of the permitted area.

21 So there's a lot of monitoring. This will give  
22 Excelsior plenty of forewarning if an excursion should occur  
23 along a fracture zone. All the fracture zones -- all the key  
24 fracture zones are intersected by this monitoring system.

25 The -- in addition to the modeling -- I mean, to

1 the monitoring, we also have the hydraulic control system, which  
2 will create an inward gradient around the perimeter of the well  
3 field, which will further help to control the migration of  
4 solutions.

5 Excelsior has done an excellent job, in my  
6 opinion, of using good science as part of their design program.  
7 And I've enjoyed working on this project, and I've also enjoyed  
8 working with the regulatory community. You guys have done an  
9 excellent job of putting together some very good permits, and  
10 they include quite a bit of protection for the groundwater  
11 system around the mining property.

12 I -- one last comment is that I am also the  
13 national president of the American Institute of Professional  
14 Geologists. Our organization is -- emphasizes the ethical and  
15 professional practice of geology, and if this project in  
16 Excelsior wasn't ethical and professional, I would not be  
17 involved with it. Thank you.

18  
19 COMMENTS

20 MR. FEATHERSTONE: My name is Roger Featherstone.  
21 I'm director of the Arizona Mining Reform Coalition. We've been  
22 involved in this process for a long time. Back when Nord owned  
23 the Johnson Camp mine, we commented on the aquifer protection  
24 permit, and basically, we told Nord if they did a good job, we  
25 didn't have any problems with it.

1           Now we've got a new company trying a new form of  
2 mining, and let me reiterate that in-situ mining is the  
3 intentional pollution of groundwater. We cannot forget that. I  
4 think Excelsior, if they're -- really want to be good corporate  
5 citizens, they should go ahead and mine out the Johnson Camp  
6 mine and prove to us that they know what they're doing. And if  
7 that -- if that's done, well, then maybe they can revisit this  
8 issue. And mining out that Johnson Camp mine would create a lot  
9 more jobs than an in-situ operation.

10           We need to point out that the pumps need to run  
11 for 25 years non-stop, 24 hours a day, 7 days a week, 365 days a  
12 year, and I don't know anybody that's capable of pulling that  
13 off, 1,400 wells, with absolutely no problems.

14           The company talks about the gradient, pumping  
15 more water out than they pump in. What happens to that water  
16 that gets pumped out? There's nothing in the documentation that  
17 shows what happens to that water. There's nothing in the  
18 documentation that talks about the drawdown that water would  
19 cause. It doesn't talk about this is a -- basically what  
20 they're talking about is pumping out 101 gallons for every 100  
21 gallons they pump in. So it's a very small difference.

22           Now, what happens if the water hits a fault or a  
23 crack that's unforeseen, and the flow is more than one gallon  
24 per minute or whatever from that? What happens to their  
25 monitoring system in that kind of situation? What happens to

1 the solid wastes that are left over in the ponds? No mention of  
2 that. What happens to the toxic chemicals that come out of the  
3 ground that aren't of commercial value? There's no mention of  
4 that.

5 So in closing, this is a proposal that's not very  
6 well thought out. The company is talking a lot about being  
7 green, but like I say, if they really want to be green, let's  
8 see what their track record is on mining out the Johnson Camp  
9 mine.

10 MS. WONG: Okay. We have Lupe Diaz and Randy  
11 Redhawk.

12  
13 COMMENTS

14 MR. DIAZ: Hello. My name is Lupe Diaz, and I am  
15 a resident here in Benson, a lifelong resident of southern  
16 Arizona, and I grew up in Bisbee, literally on top of a mine.  
17 And so, you know, some of the technology that was used back then  
18 when I was a child -- my grandfather was one of the first ones  
19 that ignited the blasts for the Lavender Pit mine, and some of  
20 the techniques that were used back then were really antiquated  
21 compared to the technology that is used now.

22 There's a lot of precaution. There's a lot of,  
23 oh, talk about green. Also conservationalism and that kind of  
24 stuff, and I think that having a responsible industry is  
25 important to the state of Arizona as we are a copper state.

1 Every car, every cell phone that we use uses, you know, copper  
2 and that kind of thing, and I think that there is responsible  
3 industry that we need to look at. I think that Gunnison -- the  
4 Gunnison mine has done a good job of doing that, and I do  
5 support that.

6           Running around the hills of Bisbee, it did  
7 provide my family with a lot of -- with good income. The  
8 schools were booming. There was the Bisbee copper -- Bisbee  
9 Hospital that I was born at, and that was all sponsored by a lot  
10 of the tax and -- or the -- Phelps Dodge at that time.

11           So, you know, I know that there's a lot of  
12 concerns when it comes down to the mine, but I think that this  
13 is also part of our industry. And to be able to -- you know, to  
14 be responsible, be good stewards of what we do is really, really  
15 important, and I do believe that, you know, again, that Gunnison  
16 has done that job. So it will provide -- again, it will provide  
17 the schools. It will provide jobs for, you know, families, our  
18 grand -- our children and grandchildren who are now moving away.

19           I think that it's really important that we, you  
20 know, do our due diligence, and I think we have, and I think  
21 that it's important that we -- and address the concerns. I do  
22 hear the concerns.

23           Bisbee has some of the best water that there is.  
24 Every time I go back to Bisbee, it is clear, good water. And  
25 it's probably because I grew up there. And it's a good place.



1                   So I'm in favor of the Gunnison mine. I know  
2 that everybody's doing their due diligence, and I think the  
3 questions that are being raised today are good questions. Thank  
4 you very much.

5  
6                                   COMMENTS

7                   MR. REDHAWK: My name is Randy Redhawk. Spent  
8 two years of my life trying to protect this aquifer from  
9 overpumping. I was the one who got the ball rolling about three  
10 years ago. Worked with the Arizona Department of Water  
11 Resources for two years trying to save this aquifer, and then I  
12 got involved in the initial opposition to this mine, and then  
13 for health reasons, I had to back out of everything.

14                   I do not believe the science that I've looked at,  
15 and I know this aquifer better than most. You're at the very  
16 upper end of this aquifer. It all goes downhill. There's no  
17 guarantees that if there's any contamination going into this  
18 aquifer that it's going to stop.

19                   And it's been a steady five feet a year overall  
20 on this aquifer drop. That's a lot of water to lose every year.  
21 Now, talking to the head hydrologist last week for the State of  
22 Arizona, he says there's now places in the lower parts of this  
23 aquifer along Kansas Settlement Road that are registering 15  
24 feet loss per year right now. We don't have the water here to  
25 do this. And we -- so -- so I obviously oppose this, and I

1 oppose it with every cell in my body. How can a guy from  
2 Australia have a Canadian mining company come down here to our  
3 neighbors and mess with our water? It ain't right. It ain't  
4 right. Thank you.

5 MS. WONG: Okay. Sharon Rock and Stephen  
6 Twyerould, Twyerould.

7

8

COMMENTS

9 MS. ROCK: My name is Sharon Rock. And I'm not  
10 technically -- I'm not a technical person. I'm not a scientist,  
11 but I do know that as long as we're driven by money that we will  
12 continue to make gross mistakes, and this, from everything that  
13 I can read and gather, would be one of those. We seem to be  
14 unable to tap into our common sense when money is involved, and  
15 that's one point.

16 The other is I am from Bisbee. And yes, our  
17 water is good and clear and drinkable, but we also have a toxic  
18 plume that moves closer and closer to our wells every year. And  
19 that is from the mining industry, and they thought they were  
20 doing the right thing at that time. It all looked good. So  
21 who's to say that that's not going to be the case with this?  
22 Thank you.

23

24

COMMENTS

25 MR. TWYEROULD: Good evening. My name's Stephen

1 Twycrold, and I'm the president of the company. I have a Ph.D.  
2 in geology and a Ph.D. in geochemistry. So I understand the  
3 interaction between water and rock.

4 I've been working on the project for 10 years,  
5 and we pride ourself on our technical excellence. We pride  
6 ourself on the way we conduct our business and our openness and  
7 transparency, and many people in the room have seen evidence of  
8 that with our site tours and our information sessions and our Q  
9 and A sessions.

10 So look, you know, there are a lot of issues that  
11 have been talked about. Frankly, the issue comes down to one of  
12 trust. And so people have, you know, choices to make. So I've  
13 heard some comments from Earthworks, an environmental NGO group,  
14 who've written comments based on some work by their hydrologist  
15 and, you know, frankly, their objective here with this project  
16 is to stop it --

17 AUDIENCE MEMBER: That's not true.

18 MR. TWYEROULD: -- or delay it, and that  
19 continues, and it's not limited to this project. It's limited  
20 -- it's evidenced in many projects in Arizona, and it's  
21 evidenced in many projects in the U.S. That's their right.  
22 They have every right to do that.

23 The flip side is I'm not asking you to trust me,  
24 because you don't know me. Those that do know me do trust me  
25 and our company. But I'm asking you to trust the EPA, because

1 they are truly independent. Nobody else can stand up here and  
2 say they are truly independent. Their job is to protect the  
3 groundwater, and they spent two years reviewing all the  
4 technical data. They have their own technical team that have  
5 hired in specialists to assist them, and the net result is this  
6 permit, and it wouldn't be in front of you today if they didn't  
7 have 100 percent confidence in that.

8           And it's not just their independent review. You  
9 know, it was late last year that the Arizona Department of  
10 Environmental Quality again, independent of us, issued an  
11 aquifer protection permit on this project after extensive review  
12 and extensive comments, and they issued that permit that stands  
13 today.

14           And so you've had two independent agents,  
15 agencies who have spent many, many years and many thousands of  
16 dollars, and their only objective is to issue a permit that is  
17 protective of the environment and the operation.

18           In addition to that, you know, we get bank  
19 finance. I mean, there's people in the room, I'm sure you've  
20 bought a house. What do you do when you buy a house? You go  
21 and get yourself a home inspector, and that home inspector's job  
22 is to look at your property you're about to buy, and as a result  
23 of that give you advice. So we get bank finance. We get  
24 investor finance. People are going to say you complain about  
25 that. The bottom line is they don't want to invest in this

1 project unless their --

2 AUDIENCE MEMBER: Time's up, Stephen. Shut up.

3 MR. TWYEROULD: Thank you very much for your  
4 time. Thank you.

5 MS. WONG: Okay. Jeff Owens and Michael Gregory.

6

7

COMMENTS

8 MR. OWENS: Hello. My name is Jeff Owens, and  
9 amongst other people, there are locals here. I am from Benson,  
10 also from Cochise County. And my concern mostly would be that  
11 there are substantial funds, enough to remediate any kind of  
12 contamination from the mine. So given that things are safe,  
13 even though that people don't intend for contamination to  
14 happen, companies will also leave contamination if they can't  
15 afford it. So what kind of funds are available to remediate if  
16 there are any of these fails?

17 As far as monitoring, I would like monitoring to  
18 be available to the public who lives here. I live in Dagoon.  
19 So I would like to know what specific, I guess, levels of water  
20 safety are around in our backyards. So for me, it would be  
21 important that there is access for the general public to see how  
22 the mine is doing, and not -- not specifically from the EPA,  
23 because you guys are in a national Environmental Protection  
24 Agency. But what local, independent people that are not  
25 employed by the mine are going to be responsible for monitoring

1 our environment, our local environment here.

2 And I am not opposed to people having jobs here  
3 in Cochise County. However, I have always enjoyed Dragoon for  
4 its beauty. But what will happen if this -- if people don't  
5 have water? We'll leave, and we need to have a clean  
6 environment to live in here. That's pretty much all I have to  
7 say. Thank you.

8

9

#### COMMENTS

10 MR. GREGORY: My name is Michael Gregory. I live  
11 in McNeal. I'm a former hazardous materials coordinator for the  
12 city -- or for Cochise County, and I've served on several  
13 bodies, task forces and so forth nationwide, with Department of  
14 Interior, with EPA, on various mining issues, mining waste  
15 issues especially.

16 In looking at this particular project, I note  
17 first that we are dealing here with a basically unproved  
18 technology, an untested company and virgin territory. We are  
19 also dealing with a sole source aquifer, the only place we have  
20 to get our drinking water from. Looking at those things  
21 indicates to me that this permit should not be permitted. We  
22 should not permit this operation. The risks are far too great  
23 for what might happen to our water.

24 There are several problems that we need to look  
25 at if the permit is granted. I would note, for instance, that

1 the toxics -- somebody else mentioned this -- which are going to  
2 be pumped out of the ground need to be dealt with in the permit.  
3 They are not dealt with at all well now. There are going to be  
4 some really toxic problems out there, and we need to decide how  
5 to deal with those, where to put them and so forth.

6 I also note that as far as I could tell from  
7 looking at the permit, after closure of the operation, there was  
8 only five-year surveillance required. That is nowhere near  
9 enough. This technology can weaken the structures in the  
10 formations underground, the passageways, the fractures and so  
11 forth, and problems can occur with contamination far after five  
12 years. Decades after. There has to be surveillance into that  
13 kind of time frame, and that has to be paid for, as somebody  
14 else mentioned. Again, if I read the permit properly, there's  
15 an \$8 million surety bond required. That's nowhere near enough.  
16 That's a drop in the bucket. If there is real contamination,  
17 it's going to take a lot more than that to clean it up.

18 The permit should also spell out exactly how  
19 people will be notified if there is contamination, and what will  
20 be done to take care of that contamination and how the people  
21 will be compensated for damage to private wells, property values  
22 and so forth.

23 There are many other things I could add.  
24 Finally, though, I would just say in the time I have left, I  
25 also have grave concerns about EPA's ability to deal with this

1 permit given the fact that we are currently in a situation where  
2 the agency is being downsized drastically. Where are we going  
3 to have the people in your agency to deal with problems that  
4 might occur here? Thank you.

5 MS. WONG: Okay. We have Fred Duval and Steve  
6 Marlatt.

7  
8 COMMENTS

9 MR. DUVAL: Thank you for hearing us tonight.

10 My name's Fred Duval, and I have spent my  
11 professional life living at the apex of environmental protection  
12 and economic development. I ran the legislation to create to  
13 Kartchner State Park. I helped design Arizona's groundwater  
14 legislation, which was landmark legislation; worked in the White  
15 House on Clean Air, Clean Water Act.

16 Yet at the same time, I've been on the State's  
17 Economic Development Commission, and I'd like to address this  
18 from a global 30,000 foot perspective. I ran for governor three  
19 years ago, and I tried to answer the question: Why can't we put  
20 more money in our classrooms in schools? Why do we have bad  
21 roads? The answer is because Arizona is poor. Arizona is one  
22 of the poorest family incomes in the United States. We are poor  
23 because we lack a diversity of our economic generation, and  
24 because we lack sufficient exports that produce additional net  
25 wealth.



1           Now, as I indicated, I've lived at this apex, and  
2 I believe that not every mine is worth having. This isn't  
3 Rosemont. There is good mines in good places. There are bad  
4 mines in bad places. Southeast Arizona has been blessed with  
5 God-given, export-ready natural resources that would be the envy  
6 of other states.

7           But this is the right mine in the right place.  
8 Skilled work force, minimum land impact, plenty of water, no  
9 risks to downstream groundwater users, minimum transportation  
10 corridors, lack of concentrative population centers. This -- in  
11 the tradeoffs that we must make, as we make policy decisions to  
12 grow our economy and provide opportunity for our citizens, this  
13 is the right operators, the right mine, in the right place.  
14 This is 800 good paying jobs.

15           Look what happened in Safford when the Safford  
16 mine began. The economy began to roll. Good jobs, the workers  
17 bought locally, they -- house -- housing prices went up as the  
18 workers moved to Safford. These workers and the company  
19 produced tax revenue to the county that lowered taxes on the  
20 Arizona families that -- and that enabled them to make  
21 investments in infrastructure, public safety, and most  
22 importantly, schools. That can happen here. This community can  
23 have that kind of economic injection that will produce the best  
24 schools, the best teaching, the best opportunities for the next  
25 generation.



1           They're also talking about using lighting on all  
2 of their pads. We have a large amount of migrating waterfowl  
3 that use this area, as well as other birds. Lighting is a huge  
4 impact to those species when they're migrating through. It  
5 really messes up their migration patterns. It totally changes  
6 their ability to find their way while they're migrating, and so  
7 that's going to be a significant impact as well.

8           This is a desert area, so once the mine is over  
9 in 25, 30 years, and they're done with their work, are they  
10 really going to go out and try to restore it in any meaningful  
11 way? I've never seen desert areas restored in a way that's even  
12 close to what the habitat was like initially. We don't have the  
13 rainfall. It's just not economic. And so this is going to be  
14 permanent. So the grandchildren, great grandchildren, students  
15 that I have taught in this community here will no longer be able  
16 to have that area as a wild habitat. It's going to be  
17 permanently impacted and destroyed.

18           There's also the potential for water  
19 contamination, and while I hear Excelsior say they've done all  
20 these things to try to mitigate for that, if we ever do  
21 contaminate our groundwater, it's permanent as far as our  
22 lifetimes. It would be thousands or tens of thousands of years  
23 before we can ever get groundwater uncontaminated naturally, and  
24 so basically, it's done with if that happens. And that's a huge  
25 risk to take that I think most people in the area who depend on

1 the area for the groundwater are not willing to risk.

2           Lastly, I want to mention the quality of life in  
3 the area. It's a rural community. It's a rural area, and  
4 that's one of the things most people who live here enjoy.  
5 Tourism is on the increase. We're getting more and more people  
6 coming through the area that like that, and that's what they  
7 come to see here. They come to see the Triangle T. They come  
8 to Amerind because they like that rural character. That will no  
9 longer exist if there's a giant copper mine right in the back  
10 yard, and that's going to -- definitely negative on that theory.  
11 Thank you.

12           AUDIENCE MEMBER: Good job.

13           MS. WONG: We've got Courtney Hull and Tricia  
14 Gerrodette. I hope I said your name right.

15

16

#### COMMENTS

17           MR. HULL: Good evening. My name is Courtney  
18 Hull. I own some property out here in Sunsites. I realize that  
19 Sunsites probably won't be affected by you downstream; however,  
20 having said that, I won't stand here and quote a lot of facts  
21 and figures for you because I can't. I don't have that kind of  
22 knowledge. Okay?

23           One gentleman stood here and said that -- he's  
24 talking about independent studies and independent bodies to  
25 monitoring and everything else. We in this community are

1 dependent. Okay? So regardless of all the independent bodies  
2 that can verify whatever, we are dependent, and we have one  
3 water table. One. When it's gone, it's gone. We get one  
4 chance at it. And regardless of all the experiments, I don't  
5 care what you do to Mother Earth, you can never put it back.  
6 That's all I have to say. Thank you.

7

8

## COMMENTS

9 MS. GERRODETTE: Good evening. Tricia  
10 Gerrodette. Congratulations. Very close.

11 I have not read everything in depth, but I have  
12 certainly listened to the people tonight, and I've read some of  
13 the material, and I'm very concerned that there aren't enough  
14 protections in place at this time in the life of the permit.  
15 Indeed, water is life, and if it's contaminated, there is  
16 nothing the people here can do.

17 I'm from the big city of Sierra Vista, and we  
18 have water systems and they can take -- can pump from a number  
19 of places. But the people who depend on their wells here are  
20 going to be out of luck if that aquifer is contaminated. And  
21 yes, I understand that there's an increasing series of  
22 monitoring wells, but I've heard that there's not an adequate  
23 plan for dealing with the waste that's pumped out or what will  
24 happen if those wells are contaminated.

25 And yes, I was glad to hear that the Bisbee issue

1 was mentioned, because there has been a sulphate plume migrating  
2 out from the Bisbee mines towards the drinking wells, and  
3 Freeport McMoRan -- took over from Phelps Dodge -- has been  
4 working for a lot of decades trying to suck the water out ahead  
5 of it to keep the plume from advancing. And they've slowed the  
6 plume, but the plume is still advancing. And what do you do  
7 once it's contaminated? So I think that's absolutely the issue  
8 the people who live in this valley are facing. If the  
9 contamination escapes from the plan to contain it, what will be  
10 the procedures to attempt to contain it, if possible? Phelps  
11 Dodge hasn't succeeded. What will be the procedure, and how  
12 will their wells be protected and their livelihoods and their  
13 property values? Thank you.

14 MS. WONG: Okay. We have Mark McElhaney and Dave  
15 Carr.

16

17

#### COMMENTS

18 MR. MCELHANEY: My name is Mark McElhaney, and  
19 I'm from Benson, Arizona, and I work for M3 Engineering as an  
20 instrumentation and controls design. I've worked in the mining  
21 industry for 14 years and have been associated with Johnson Camp  
22 on and off for the last 10.

23 M3 conducted four published studies for Excelsior  
24 Mining Corporation between 2011 and 2016, and culminated in the  
25 feasibility study that was published at the end of 2016. I

1 designed the control strategy, the field instrumentation design,  
2 communication design from the well to the process controllers  
3 and the interfaces to them.

4           The Gunnison mine -- the Gunnison Copper Project  
5 is designed to circulate solution flow into the substrate and  
6 extract copper. M3 has designed the well field infrastructure,  
7 including surface piping network, solution management piping to  
8 Johnson Camp mine, well field instrumentation, including down  
9 hole and well head instrumentation. M3's designs represent  
10 BACT, or Best Available Demonstrated Control Technology, for  
11 the well field, solution control and pond designs.

12           Injection and recovery copper leaching solutions  
13 under the proposed permit are concerned with three primary  
14 issues: Injection pressure, injection into recovery volumes,  
15 and hydraulic control of the injected solutions. M3 designed  
16 the instrumentation and controls for the project to address  
17 these three concerns and provide monitoring data recording and  
18 alarms to alert operators when the design conditions have not  
19 been met.

20           Injection pressure is limited by permit to  
21 prevent hydrostatic pressures from opening fractures in the  
22 injection zone. Allowed pressure range will be established for  
23 each well based on depth, rock type, specific gravity of the  
24 injected solution.

25           Flow meters on both the injection and recovery

1 wells report to the plant control system, or PCS, and can -- are  
2 continuously monitored, both injection and recovery flow volume,  
3 both from the individual wells and aggregate for the entire well  
4 field. The data is recorded electronically at regular intervals  
5 to ensure balanced flows.

6 Alarms in the PCS alert the operator when  
7 unexpected imbalances in the flow which may indicate a condition  
8 that needs to be addressed to bring the unit back into  
9 compliance [sic].

10 Each injection well includes magnetic flow meter,  
11 pressure gauge, flow control valve, air relief valves to ensure  
12 accurate solution is injected into each well, and recovery wells  
13 include push buttons for the sump pumps, for the submersible  
14 pumps. Pressure gauge, isolation belt and sample port, magnetic  
15 flow meters and check valves.

16 The signals from the well field instrumentation  
17 report to the central header location that is equipped with  
18 redundant processors in the programmable logic control.

19 I thank you for your time. I appreciate it.

20

21 COMMENTS

22 MR. CARR: Good evening. My name is Dave Carr.  
23 I'm a hydrogeologist. I have degrees in geology from the  
24 University of Arizona, Northern Arizona University. I'm an  
25 associate and senior consultant, Golder Associates, based out of



1 Golder's Tempe, Arizona office. I'm a registered geologist in  
2 Arizona, and a professional geologist and certified  
3 hydrogeologist California. I have more than 35 years of  
4 professional experience, 30 years of which are in Arizona.

5 My areas of expertise include groundwater  
6 permitting, groundwater resource investigations, hydrogeologic  
7 field investigations, well design installation and testing. I  
8 have provided professional services to private and public sector  
9 clients for over 25 years. I have managed and supported APP  
10 projects in Arizona since 1994, including mines and power  
11 plants. I'm familiar with various state and federal  
12 environmental groundwater regulations, including the APP  
13 program, the Arizona groundwater code, the UIC program, and the  
14 National Environmental Policy Act.

15 Briefly, a bit about Golder, the company I work  
16 for. We're a global consulting firm that specializes in ground  
17 engineering, environmental services. Employee owned since 1960,  
18 around 6,500 employees and 150 offices. Several offices  
19 throughout the Southwest. We've been here in Arizona since  
20 1994.

21 Golder has provided professional service for  
22 Excelsior at Johnson Camp mine since 2015, including the phase  
23 one and the ground site assessment. We helped them transfer the  
24 aquifer protection permit in the former owner to Excelsior via  
25 an APP amendment. We've helped them comply with several APP

1 compliance schedule items, securing an APP attempt to introduce  
2 Gunnison Project Solutions to the mine, completed ambient  
3 groundwater monitoring and completed the report, submitted the  
4 reclamation plan, prepared contingency emergency response plan,  
5 and best management practices plan.

6 My point in saying all this is that in the two  
7 and a half years that I've been working for Excelsior at Johnson  
8 Camp mine, my observation is that they have successfully brought  
9 the site into compliance with the APP. JCM is currently -- is  
10 current with their APP monitoring reporting requirements. The  
11 staff are following the best management practices plan and are  
12 preparing to upgrade the process solution ponds to meet APP  
13 requirements and accept solutions from the Gunnison project.

14 Excelsior has demonstrated a high degree of  
15 ethics, professionalism and environmental stewardship, and  
16 personally, I'm confident that they will continue to operate the  
17 mine properly and in compliance within environmental permits and  
18 regulations. Thank you.

19 MS. WONG: Okay. Rebecca Sawyer and Tom  
20 Sheridan.

21  
22 COMMENTS

23 MS. SAWYER: Good evening. My name is Rebecca  
24 Sawyer, and I'm a geologist. I work for Excelsior Mining on  
25 permitting and compliance issues.

1           So it's very disappointing this far into the  
2     permitting process to have this much misinformation regarding  
3     our permit. We have made continuous efforts in this community  
4     to reach out, to have informational sessions, to answer people's  
5     questions. So the conclusion is people that are this  
6     misinformed at this point don't want to understand the project.

7           AUDIENCE MEMBER: Time's up.

8           MS. SAWYER: Referring to the company as a  
9     Canadian company with an Australian CEO. Take a look around  
10    you. Take a look around at the gray shirts. That is Excelsior  
11    Mining. Those are your neighbors. They live here, and they  
12    work here.

13           I don't understand how we can be this far into  
14    the process and nobody understand what hydraulic control is or  
15    what rings of concentric monitoring mean, but it's  
16    disappointing, to say the least.

17           There has been double amounts of review of this  
18    project, because it's been permitted both under the State of  
19    Arizona and the federal Environmental Protection Agency. Both  
20    processes have been independent, detailed and excruciating.  
21    There has been no question left unanswered. There is no  
22    invisible secret fracture system that allows solutions to  
23    migrate outside of the well field. There have been 33 miles of  
24    core logged within that well field, cross sections developed  
25    running north/south and east/west. There is not the possibility

1 that anything is going to escape outside of the hydraulic  
2 controls.

3 Thank you very much, EPA, for the hearing.  
4

5 COMMENTS

6 MR. SHERATON: Hello. My name is Tom Sheraton.  
7 I'm an anthropologist and historian at the University of  
8 Arizona, and one of the books that I've written is a history of  
9 Arizona. So I've researched and read a lot about mining in the  
10 state and also about water in the state.

11 The first thing to remember about mining is it is  
12 a boom and bust economy. Now, we've heard that this mine might  
13 be in operation for 20 years. I don't know how many good paying  
14 jobs it will provide. I don't know how many of those jobs will  
15 be hiring local people. But I do know that sooner or later it  
16 will be gone, and the people here will have to live with the  
17 consequences.

18 AUDIENCE MEMBER: That's right.

19 MR. SHERATON: The other thing about water in  
20 this state, and Mr. Duval knows a lot about that, groundwater  
21 pumping is like mining. Once the water's gone, recharge is so  
22 slow that it will never account for the discharge in my  
23 lifetime, in my children's lifetime, in my grandchildren's  
24 lifetime. This area is not in an active management area. So by  
25 that ever closer 2025, there is no mandate that recharge will

1 have to equal discharge in order for other activities to  
2 continue.

3 From what I've read about water in the state of  
4 Arizona, I think in my lifetime, certainly in my daughter's  
5 lifetime, there are going to be many areas of Arizona that are  
6 going to face severe water shortages, because the aquifers that  
7 they depend on are limited, and oftentimes there's already too  
8 much discharge. When you put a major mine on top of that, and  
9 also run the risk of contamination, I believe that you're  
10 sacrificing long-term sustainability for short-term gain.

11 You have some world class resources here. You  
12 have the Amerind Foundation, and as an anthropologist -- I don't  
13 work for Amerind, but I've certainly utilized its resources for  
14 a very long time. You have stunning natural scenery. You have  
15 very little water, and you better protect that water as much as  
16 you can. Thank you.

17 MS. WONG: This hearing is scheduled to go until  
18 9:00. So we have some additional time left over. So I'll  
19 invite anyone who wishes to make any additional comments to come  
20 up and do so. I'll give you an additional three minutes if  
21 you'd like to make comments. If you haven't had a chance to  
22 make comments and wish to and you haven't already commented,  
23 please fill out a speaker form for our record, but you can feel  
24 free to come up and you'll be given three minutes.

25 MR. WILLIAMS: I filled out a form, but obviously

1 I didn't get called.

2 MS. WONG: Okay. The speaker forms are on this  
3 table.

4 MR. WILLIAMS: I already filled one out. I  
5 didn't get called, though.

6 MS. WONG: Oh, you didn't?

7 MR. WILLIAMS: Matt Williams.

8 MR. ALRIGHT: Why don't you just hold on one  
9 second?

10 MS. WONG: Okay. We'll have Matt Williams and  
11 Pete Dronkers.

12

13

COMMENTS

14 MR. WILLIAMS: Good evening. Thanks for having  
15 me. Thanks for being here. My name's Matt Williams. I've  
16 been -- I was born and raised in Benson. Been there for 50  
17 years. I've also had the opportunity to be employed at Johnson  
18 Camp for the last 28 years. Started off there in construction  
19 back in 1990, and then advanced through operations to my current  
20 position as plant manager.

21 I worked for three different companies at Johnson  
22 Camp. What I can tell you is Excelsior has brought the highest  
23 standard of health, safety and environmental that we've ever  
24 seen there. They've spent a significant amount of money on  
25 improving the property, from wildlife barriers around our ponds

1 that we never had before to numerous other cleanup activities.  
2 So I think, you know, in my career there, I see a lot of good in  
3 the future and a lot of opportunities for local people.

4 Johnson Camp has always lived and died by, you  
5 know, the copper price up and down. I think that was mentioned  
6 a little bit ago. One of the things I think that's attractive  
7 about Gunnison, it's a low cost producer. I think it will  
8 provide a steady state employment for Cochise County. I don't  
9 think you'll see the up and downs as we've seen in the past. So  
10 hope everybody can support the project and give everybody a lot  
11 of opportunity here. Thank you.

12  
13 COMMENTS

14 MR. DRONKERS: I'd just like to address something  
15 Mr. Twyerould said about my organization opposing this project  
16 categorically. There's no evidence whatsoever that -- I have no  
17 problem with this project moving ahead, but I look at the  
18 technical details, and I see a situation where they're literally  
19 only monitoring on the exact outside of the perimeter of the  
20 project. That's not how groundwater quality monitoring works.  
21 You drill monitoring wells that are a ways away so that you can  
22 detect them escaping the field if that happens. All these  
23 guarantees that that won't happen, they're just promises.  
24 They're empty promises, because you won't actually know what the  
25 reality is until you're siting monitoring wells farther away

1 from the active mining area. So that's one thing.

2 The other thing we have to consider is that  
3 there's really no precedent for this whatsoever, because  
4 commercial ISL, in-situ recovery for copper has never been done  
5 anywhere. It was attempted in a couple pilot projects at  
6 existing mine sites. It -- some people tried to propose a  
7 project in Florence, and it got shut down pretty fast. That's  
8 not going anywhere.

9 The only comparison is uranium extraction using  
10 in-situ recovery methods, and the track record for uranium is  
11 pretty bad. There's not a single example of a uranium ISL  
12 project that has restored groundwater quality to pre -- to  
13 baseline conditions. It has never happened. In most of those  
14 existing uranium operations, they're using very similar  
15 technology; have massive contamination problems on their hands.  
16 There's a track record for this technology.

17 So -- but since we're applying it to a new  
18 context, it's kind of like a fresh start. So we're trying --  
19 everyone's trying to reassure people that it's going to be fine,  
20 but the track record -- the only comparable track record is not  
21 very good. So let's keep that in mind, too.

22 But most importantly, if Excelsior is actually  
23 serious about gaining people's trust, they will drill a whole  
24 bunch of monitoring wells farther away from the project, monitor  
25 those, make the information publicly available on a website --



1 in fact, I proposed this directly to Stephen once -- make that  
2 data publicly available so people have your trust. You know  
3 what Stephen said? He said, No, we're not going to do that. We  
4 don't have to do that. That shows you how much he can be  
5 trusted.

6 MS. WONG: Okay. We have Rusty Boss and Jay  
7 Fumusa.

8

9

COMMENTS

10 MR. BOSS: Good evening. My name is Rusty Boss.  
11 I was born and raised in Douglas. I've been here in Cochise  
12 County for the last 60 years. Third generation Cochise County  
13 resident. My family's been here for a long time.

14 And I'd just like to say to the people, the good  
15 people of Dragoon and the surrounding areas that, you know, you  
16 have an opportunity to pick your neighbors. Right now you have  
17 the people that are working at Jones Camp mine. They're  
18 hardworking family people, taxpayers, churchgoers. If the  
19 taxpayers, hardworking people leave the area, who do you have  
20 left? The people on welfare. People that just aren't producing  
21 and are not good people. So you have an opportunity to choose  
22 your neighbors. Thank you.

23 MR. FUMUSA: Thank you. Nancy.

24 MS. WONG: Can you state your name for the  
25 record?

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COMMENTS

MR. FUMUSA: Yes. My name is Jay Fumusa, and I work -- I'm the site superintendent for the environmental programs for the mine. And I've got 25 years' experience in the environmental management program across the state of Arizona.

I just wanted to first say that I'm born and raised in Arizona, and I was raised -- fortunate, raised by parents that loved the outdoors, camping, fishing, hiking, hunting, and I was always exposed to everything out in the environment.

I have a bachelor's degree from ASU in geology. After I started working, I got interested in the environmental aspects, environmental geology of geology, and started working for the State of Arizona for DEQ, and I worked on ADEQ APP permits for a lot of the mines. And in my experience, this is one of the most restrictive, most monitored, compliant permit that I've ever seen for ADEQ under the GIC permit.

We talked about a couple of concentric rings. There's rings that are close to where we're injecting. There's another ring outside of that, another ring. There's four to five rings of monitoring outside of it, and all intersecting fractures.

So again, I want to say to everybody that my experience, what I know of this permit, and I know it inside and

1 out, and my experience in Arizona, it is the most restrictive  
2 and detailed permit that I've ever seen written. So thank you.

3 MS. WONG: Okay. We have Jeff Bickel and Steve  
4 Raugust.

5 MR. RAUGUST: Raugust.

6 MS. WONG: Raugust.

7

8

COMMENTS

9 MR. BICKEL: Hello. My name is Jeff Bickel. I'm  
10 a geologist. I work for Excelsior. I got my degree in geology  
11 from Arizona State, and I'm a registered geologist in the State  
12 of Arizona. This is my eighth year working on the project.  
13 Rebecca mentioned a while ago 33 miles of drill core that's been  
14 logged on this project. I've done all that logging. I've  
15 analyzed every crack in this ore deposit. So I don't think it's  
16 a stretch to say that I'm the world's expert on this ore  
17 deposit.

18 Anyhow, I've reviewed the EPA permit and the  
19 proposed rings of monitoring wells, and in my professional  
20 opinion, they are sufficient to recognize any sort of solution  
21 migration outside of the well field. They're all intersecting  
22 major fracture networks that are connected with the well field.  
23 And that's all I got. Thanks.

24

25

COMMENTS

1 MR. RAUGUST: Thanks for allowing me three  
2 minutes to speak. I'm -- can you hear me okay? My name is  
3 Steve Raugust. I'm actually new to Excelsior. I started on  
4 January 29th. And I'm based in Johnson Camp, and my role here  
5 is the technical services manager, and it's my job to ensure  
6 that our technical resources are coordinated and produce the  
7 highest quality results.

8 My role also allows me to participate directly in  
9 the environmental management, environmental stewardship of the  
10 project. I've got more than 30 years of industry experience.  
11 Fifteen of those, my first 15 years, were strictly in  
12 environmental engineering and hydrogeology. The last 15 have  
13 been in the mining industry, including permitting, resource  
14 development, closure and environmental compliance.

15 I'm a registered geologist in Arizona. I'm a  
16 certified engineer and geologist in California. I have a  
17 master's degree in mining engineering. Those credentials took  
18 me all my life to obtain, and they were very difficult. It was  
19 a lot of hard work to get them.

20 My most recent mining experience was on the  
21 Greenfield Copper development project in New Mexico where I  
22 worked for six years as the permitting manager for the resource  
23 development manager, specifically consulting on groundwater  
24 environmental geochemistry modeling projects.

25 In my brief experience with Excelsior Mining, I'm

1 impressed with the level of experience and commitment that  
2 they've brought to this project from Arizona and points beyond.  
3 They've brought real experience and real commitment to the  
4 project.

5 In my reviews of the permitting documents, I  
6 believe they're stringent enough to be protective of the  
7 environment. My colleagues, myself are environmentalists. I  
8 grew up on a farm in California. I went to school in the  
9 Redwoods in California. I grew up in a generation that read  
10 Edward Abbey, Wallace Stegner, Aldo Leopold, John Rathe. I've  
11 read them all. So I'm going to speak for myself and my  
12 colleagues. We're environmentalists. We're from that  
13 generation, and it's very important for us to have a future in  
14 the country as well. Thanks very much.

15 MS. WONG: Okay. Rick Zimmerman and Heather  
16 Borman.

17

18

COMMENTS

19 MR. ZIMMERMAN: My name is Rick Zimmerman. I am  
20 a registered geologist in the State of Arizona, and I have a  
21 master's degree in geology. I work for M3 Engineering, and we,  
22 as has been stated before, we're involved in preparation of  
23 several studies of the project, including the feasibility study  
24 that has been -- that was conducted.

25

1 geologist and hydrogeologist in Arizona for the last 30 years,  
2 and worked with -- in contamination investigation and  
3 remediation for the EPA and the ADEQ, have been involved in the  
4 installation of remediation systems for Superfund sites and  
5 state Superfund sites as well.

6 In my work with Excelsior Mining, I find that  
7 they have developed a well-designed project that will control  
8 the solutions that are injected into the ground and will prevent  
9 the solutions from migrating outside of the project boundaries.

10 I've also worked as the project manager for  
11 Florence Copper, which is an in-situ copper mining deposit that  
12 has been permitted and is currently under construction in  
13 Florence, Arizona. And it will -- it's being built, and it will  
14 demonstrate that the technology is feasible and protective of  
15 the environment and provide confidence to the EPA and to the  
16 people of the local community here that it can be done safely  
17 and effectively. Thank you.

18 AUDIENCE MEMBER: Great. Then we'll wait 10  
19 years after that.

20  
21 COMMENTS

22 MS. BORMAN: Hi. My name is Heather Borman, and  
23 I didn't come here with an intention to speak, but I think I  
24 have a couple things to say. I do have a master's degree in  
25 industrial health. That's not environmental health, but it does

1 require a lot of studies in toxicology.

2 The main thing I wanted to say was Apache Powder  
3 and Deepwater Horizon. And I think that there is no such thing  
4 as guaranteed safety. So there must be a guaranteed backup plan  
5 and a restitution plan. It doesn't sound like there is one.

6 Also, I think that these people do not seem to  
7 feel assured, reassured, and I think that needs to be addressed.  
8 Thank you.

9 AUDIENCE MEMBER: Good job.

10 MS. WONG: Okay. We have Paul Plato and Greg  
11 Duschek.

12

13

#### COMMENTS

14 MR. PLATO: Howdy. My name is Paul Plato. I'm a  
15 senior hydrogeologist with Clear Creek Associates. I've been  
16 working on the project for several years, and I want to thank  
17 the EPA for putting on this forum so that everybody had a chance  
18 to express their concerns.

19 I'm a registered geologist in Arizona, and I have  
20 a geophysics degree from the University of Arizona. I have 30  
21 years of experience in groundwater modeling, which is my  
22 principal talent.

23 I started out my career working for the Arizona  
24 State Land Department assisting ranchers with grazing leases on  
25 securing their water rights. I moved on to work for the Arizona

1 Department of Water Resources in water planning and drought  
2 mitigation and modeling to assess future water supplies. My  
3 career has been based around water supply management, generally.

4 I've worked in private consulting for the last 25  
5 years, and focused on water supply, and I work -- one of my  
6 principal clients is the City of Phoenix, who's attempting to  
7 build a drought resistant system so that they will have backup  
8 water supplies.

9 I also work on recharge in mining, and I've  
10 constructed a lot of models in Arizona.

11 My role on this project was to develop the  
12 groundwater model, and the purpose of the groundwater model was  
13 to distill all the relevant information, find and look at all  
14 the well information I could find from all over the basin,  
15 gather it together and construct a groundwater model which best  
16 assessed what we know about the system.

17 Jeff provided a geologic model of the site. It  
18 was very detailed. It has detailed levels of information about  
19 how the water flows under the system -- in the system here. And  
20 for that reason, this is a very -- been a very unique project.  
21 We've had a lot of information to build this model.

22 I just want to assure that we looked at where the  
23 water's going to flow, and we mainly focused on minimizing  
24 drawdowns. We do not want to draw the aquifer down. We can't  
25 afford to pump the water out and dry up the supply. It will



1 make it impossible to mine. So one of the key concerns of the  
2 model was to not only develop a containment system and assess  
3 where we needed to put walls to capture the water, but we also  
4 had to minimize the drawdown, and we did effectively assess that  
5 with the model, and it's documented in the permit reports.

6 So I want to thank you for the opportunity to  
7 speak, and I appreciate the opportunity. Thank you.

8

9

## COMMENTS

10 MR. DUSCHECK: My name is Greg Duschek. I am the  
11 GM and the mine controller for the Excelsior project. We've  
12 been down this road. Now there's been a 45-day extension,  
13 followed by a second 45-day extension. Information is widely  
14 available, facts, and yet we keep hearing opposition that is  
15 predicated to the actual permit. The information's available,  
16 people, and for those of you that stayed to listen, hopefully  
17 you took some of it in. But we're willing to offer to work with  
18 anybody and help them understand both science and the facts, not  
19 the fear. Thank you.

20 MS. WONG: Okay. Christine Szuter and Roger  
21 Featherstone.

22

23

## COMMENTS

24 MS. SZUTER: Thank you again for this opportunity  
25 to speak. The comments that we've been hearing tonight are very

1 real, very important, and they center around having the  
2 guarantees of good quality water that continues for when the  
3 mine operates and financial adequate -- adequate financial  
4 backing for when their -- when there are problems or when there  
5 is a need for remediation. We also asked for the monitoring  
6 mines.

7 That's against this backdrop of comments that  
8 have been made by everybody, many people here, that somehow the  
9 intelligence of the people in this room is not recognized.  
10 Their knowledge is not respected, and the diversity of their  
11 comments is not appreciated.

12 If the mine does the work that it needs to do in  
13 terms of that guarantee of high quality water and the monitoring  
14 mines, the one comment made that if the people who are working  
15 the mine leave, what do we have left? We have our community  
16 here of people who are really intelligent, thoughtful and very  
17 respectful of what it is that is happening here in our  
18 community, and I just want that to be said to everyone here,  
19 that it's really important that we recognize the intelligence  
20 that's here in this room, whether you're at the mine or not, but  
21 that we don't denigrate one another in this context, and that --  
22 I really feel -- obviously feel very strongly about that. Thank  
23 you.

24  
25 COMMENTS

1 MR. FEATHERSTONE: Hi. Roger Featherstone,  
2 Arizona Mine Reform Coalition again.

3 I want to follow up on a couple things I ran out  
4 of time with. We have provided extensive comments, both as part  
5 of a bunch of group comments and then some individual comments.  
6 So what I've been doing now is just a few additional questions.

7 I guess one of the big things is I've worked --  
8 our coalition is not opposed to mining, but we are opposed to  
9 inappropriate projects. And in my years of doing this work,  
10 some 40-some years, I've seen a lot of inappropriate projects.  
11 I'm not sure if this is one of those or not. But I do know  
12 there is a lot of unanswered questions, and I also know that the  
13 company's not putting their money where their mouth is. We're  
14 hearing about this is the green mine. We're hearing about this  
15 as -- is everything's perfect. But we're not seeing the rubber  
16 hitting the road. We're not seeing people putting up -- or the  
17 company putting up the financial or the protection measures that  
18 people have been asking for.

19 I guess lastly, I would like to just kind of  
20 maybe do a show of hands. Of all of those people that spoke in  
21 favor of this project, how many of them do not have a direct  
22 financial stake in this project happening?

23 AUDIENCE MEMBER: You said it.

24 AUDIENCE MEMBER: That's right.

25 MR. FEATHERSTONE: And the opposite of that is

1 how many people that have concerns about this project are  
2 concerned about the health of their communities, their property  
3 values, the health of the environment, the health of the water  
4 that we all require for our life? Thank you.

5 MS. WONG: This public hearing's open until 9:00.  
6 Is there anyone right now who wants to make a comment? You  
7 should feel free to do so. Can you fill out a speaker form?

8

9

COMMENTS

10 MR. HULL: I have to make an apology, because  
11 I've been standing back there making a few snickers at some  
12 comments, and that's kind of disrespectful, and I understand  
13 that, and I'm sorry for that. But I've got to count on a couple  
14 of instances of that, and I think you can understand that, too.  
15 But I'm sorry. Okay.

16 MS. WONG: Jim Tullis.

17

18

COMMENTS

19 MR. TULLIS: Hello. I'm Jim Tullis. I do not  
20 live here, but I've been spending quite a bit of time down here  
21 in the last year. I am looking very hard at possibly relocating  
22 here. I also have three friends. We're looking together to  
23 move down here. At this point, there's no way we can even think  
24 of it. So much has -- you talk about wanting to grow. You can  
25 bring people here. You can have the mines boom, and then it's

1 gone. I've been in Utah, Nevada, Wyoming, lot of mining camps.  
2 They're gone now. There's nothing left.

3 A lot of green shirts here. I have to ask those  
4 guys: How many of you are working live -- your home is here in  
5 this area, and how many are local? Where are you going to go to  
6 the when the mine's gone? Where's your kids going to go to?  
7 That's what I have to think about it. Where's -- when the water  
8 wells start going down, how long does it take the EPA to say,  
9 hey, shut it off? Thank you.

10 MS. WONG: Marc Boutte.

11

12 COMMENTS

13 MR. BOUTTE: Hi. My name is Marc Boutte, and I  
14 live here in Driagoon.

15 AUDIENCE MEMBER: Amen.

16 MR. BOUTTE: I moved here because this is a very  
17 peaceful place. It is rural. That's why the people who come  
18 here and stay here enjoy it. We don't want our community to, as  
19 this last gentleman said, disappear. All right?

20 I have never been in a room where there were so  
21 many geologists. However, however, no one has brought up the  
22 fact that if there's a major earthquake here, what the hell will  
23 happen to these injection wells? Nobody has brought that up.  
24 And I have seen what happens in the Gulf of Mexico when things  
25 go wrong. I worked on oil and gas platforms, and believe me,

1 things can go horribly wrong.

2 The head of the EPA and who -- who here is an EPA  
3 employee. Are you? Are you? All right. Are you? Okay. The  
4 head of the EPA two to three years ago said that his purpose in  
5 life was to destroy the EPA, and these -- and if this is the guy  
6 that's going to back us up if something goes wrong, that's  
7 bullshit. All right?

8 And so all of you geologists here try getting the  
9 mine to have a -- have an earthquake study done to see what  
10 would happen to these wells if there's a major earthquake, and  
11 they do happen here. That's why we have the San Pedro Valley  
12 here. All right? That's all I have to say. Thanks.

13 MS. WONG: Is there anyone else who'd like to  
14 make comments at this point? Okay. Then I'm just going to go  
15 off record for -- until, like, five before 9:00, and then I'll  
16 close the hearing at 9:00.

17 (Off the record at 8:37 p.m. to 9:00 p.m.)

18 MS. WONG: Before we conclude this public  
19 hearing, is there anyone else who would like to comment?

20 If there are no other comments, I will conclude  
21 this public hearing.

22 This public hearing is now closed. Thank you all  
23 for coming and for participating in this public hearing.

24 (Proceeding concluded at 9:00 p.m.)

25

1 STATE OF ARIZONA )  
 ) ss.  
 2 COUNTY OF MARICOPA )

3

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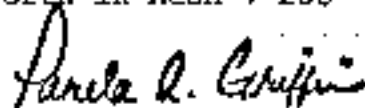
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