

In The Matter of: Notice of Intention to Commence Large Mining Operations, PR Spring Mine, Uintah and Grand Counties, Utah PR Spring Mine M/047/0090

Date Taken: June 30, 2015

Alpine Court Reporting Locations in Provo and Salt Lake City 801-691-1000

PR Spring Mine M/047/0090 June 30, 2015

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BEFORE THE BOARD OF OIL, GAS AND MINING	1 APPEARANCES
DEPARTMENT OF NATURAL RESOURCES IN AND FOR THE STATE OF UTAH	FOR THE DIVISION OF OIL, GAS AND MINING JOHN BAZA, Director of Oil, Gas and Mining Hearing Examiner
In the matter of: Protests of the tentative decision to	5
approve the revised Notice of Intention to Commence Large Mining Operations, PR Spring Mine, Uintah and Grand Counties, Utah	7 ASSISTANT ATTORNEYS GENERAL: 8 STEVEN F. ALDER - Division Attorney DOUGLAS J. CRAPO - Attorney for the Hearing Examiner
Country, Other	10
DD 0	11 FOR US OIL SANDS: 12 A. JOHN DAVIS, III, ESQ.
PR Spring Mine M/047/0090	M. BENJAMIN MACHLIS, ESQ. 13 HOLLAND & HART 222 South Main Street, Suite 2200
	14 Salt Lake City, Utah 84101
TAKEN AT: Department of Natural Resources 1594 West North Temple Salt Lake City, Utah	Telephone: (801) 799-5800 15 Email: AJDavis@hollandhart.com MBMachlis@hollandhart.com
DATE: Tuesday, June 30, 2015	16 17
T1ME: 9:00 a.m. to 11:22 a.m.	18 FOR LIVING RIVERS:
REPORTED BY: Michelle Mallonee, RPR	19 ROB DUBUC, USQ. WESTERN RESOURCE ADVOCATES
ALPINE COURT REPORTING	20 150 South 600 East, Suite 2AB Salt Lake City, Utah 84102
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www.alpinecourtreporting.com	23 24
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decision, and I'm acting as the Hearing Officer.

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I see that there are many people here in the room beyond the parties represented by counsel. And I appreciate the public interest shown in this process. I'm hopeful that the statements presented today will allow the Division's minerals mining program to appropriately implement the requirements of its rules and statutes.

Because this is an informal conference, there are really few procedural rules for this meeting specified in the statutes and rules. And because it's such a warm day, I would offer counsel and the parties, if they want to shed their jackets, please feel free to

For example, most informal conferences usually take place at a conference table. Today we need this bigger room to accommodate all the parties who are interested. I hope that you'll help me make the most effective use of our two hours this morning that we scheduled for this meeting.

To that end, I've arranged for a court recorder to transcribe our meeting. And I would ask, for the sake of properly capturing the statements of this meeting, that we avoid having more than one person speak at a time and that we properly identify ourselves when given the

opportunity to speak.

I'd also mention that we do have a sign-up sheet going around on a clipboard for those who are attending. And I'll also provide some additional instructions on how we can give official comment.

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As the informal conference presiding officer, it's my role to listen to the appeals of the Division's tentative approval decision and either uphold the Division's decision or take other action as needed to modify the Division's decision. Although I essentially represent the Division as its director, I am committed to an objective review of the Division's decision. And I want to hear those constructive comments today that will improve the Division's process.

After some considerable thought about how to conduct this meeting, I've decided as follows -- and this is how I suggest we progress this morning.

First of all, I'm going to give the Division a few minutes, about 15 or so, to present a summary of the tentative decision. That will lay some background for why we're here today.

Secondly, I'll offer time to Mr. Dubue, who is representing Western Resource Advocates. And you'll get as much as 45 minutes to present your objection to the tentative decision, call any witnesses, or present any

Page 7

evidence that you wish to make. After this period, I would welcome questions from the other attorneys. I would hope that you'd be willing to help answer those.

Third, we'll allow Mr. Davis, representing US Oil Sands, to get as much as 45 minutes to present your position and any witnesses you'd like to call.

Lastly, we'll allow the Division, Mr. Dubuc, and Mr. Davis to make some closing comments, about five minutes each.

And you can see the timing of this is going to use up a lot of what we have available, so I would caution you to be wise with your use of time. If you don't need the whole 45 minutes, don't take it. Because the last thing I want to do is have the other people here today, who believe they are parties and have a legal right to be heard -- I welcome them to speak. I have a list of people who have received mailed notice of today's meeting, and I'll be checking against that list for parties whom we have previously identified. Although I'm not officially timing those statements, I would ask that those parties keep their comments brief, maybe between two and three minutes each, to allow as many persons as possible to speak.

Finally, any time remaining, I hope to be able to open the floor up to just general public comment,

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again, with the guideline of keeping our comments brief.
Importantly, I encourage all parties and
commenters to join together to ensure that comments are
not unnecessarily duplicative or repetitive. For
example, I would prefer to hear that a dozen people have
joined to give one comment rather than hear the same
comment from a dozen different people. This advice
applies to the represented parties as well as the general
public.

I'd also encourage the parties and commenters to focus on the process the Division undertook in approving the notice of intent. If there is a perceived error, it is best to explain why it is an error under the existing statutes and rules that guide and govern the Division. So with those introductory remarks, I think we can proceed with the informal conference.

So with that, I'm going to offer time to Mr. Alder and the Division to present some opening background on the tentative decision.

MR. ALDER: Thank you. Just by way of introduction, I'm Steve Alder with the Utah Attorney General's Office, and I generally represent the Division of Oil, Gas and Mining. This morning, Paul Baker, who is the minerals mining program director, will summarize for the Division the history of this permit.

Page 9 Page 10 1 done in a way to minimize undesirable COMMENTS BY PAUL BAKER 2 2 effects on the surroundings. Mined lands MR. BAKER: I'm going to go ahead and stand at 3 3 should be reclaimed so as to prevent the pulpit. 4 HEARING OFFICER BAZA: Okay. 4 conditions detrimental to the general safety 5 MR. BAKER: So, as mentioned, my name is Paul 5 and welfare of the citizens of the state and 6 Baker. I'm manager of the minerals regulatory program. 6 to provide for the subsequent use of the 7 7 And I wanted to just briefly introduce the others who lands affected." 8 8 reviewed this permit. That's what we operate under. That's what our 9 9 Right here is April Abate. She did the geology mission is. I wanted to mention we have received several 1.0 10 and hydrology. Also in the room are Lynn Kunzler, who did biology; Wayne Western, who did the bonding 11 11 comments that have to do with Permit by Rule and asking 12 12 calculations -- whose birthday it happens to be. And that we do a full environmental review of this permit. 13 also, he has one of those birthdays that ends in a zero 1.3 Permit by Rule is not something that is part of the 14 today. We will leave it at that. And Leslie Heppler, 14 Division of Oil, Gas and Mining's review. That's 25 15 associated with the Division of Water Quality and the who did engineering on this. We operate under the Utah Mined Land Reclamation 16 ground water section specifically. So I wanted to make 16 17 Act and its associated administrative rules. I wanted to 17 that clarification. 1.8 just briefly read one portion of that, of the Act, the 18 We actually do a full environmental review for 19 19 everything that we do within the scope of whatever it may introduction. 20 20 be. Depending on what kind of action we have before us, "The Utah legislature finds that a 21 21 mining industry is essential to the economic it may not be quite as extensive. 22 22 and physical well-being of the state of Utah And I'd like to go through just a real brief 23 23 history of -- a chronology of what we have done. We and the nation. It is necessary to alter 21 received the original notice of intention -- and I use 24 the surface of the earth to extract minerals 25 25 required by our society, but this should be the terms interchangeably, "notice of intention," Page 11 Page 12 1 "permit," "mine plan." Even though they're --1 reclamation surety, and they did not originally do that. 2 2 officially, it's a "Notice of Intention to Commence Large But last year, about a year ago, they submitted a surety 3 3 Mining Operations," but I use the different terms. which allowed for disturbance of up to 64 acres. 4 Now, to backtrack just a little bit. I'm sorry. 4 So we received the original notice in September 5 5 of 2007. And in May of 2009, we issued tentative Now, the Company does have approval for a small mine, 6 6 approval. In the meantime, we went through a review and which is up to 10 acres, but this allowed expansion of 7 7 response process. And that's typical of what we do, is that up to the 64 acres. So we approved that June 18th 3 we receive a proposal, and then we review that. And the 8 last year. 9 operator then responds back to us with something a little 9 And on November 21st last year, we received a 10 10 new proposal -- and I'll get into that in just a little bit different. And so in May of 2009, we considered that 11 11 to be complete. bit -- and issued tentative approval, as Mr. Baza stated, 1.2 And then there was a series of protests and 12 on April 7th of this year. And then subsequently, we 13 appeals that went - there were two informal conferences. 13 received several protest and support letters. 14 There were a couple of Board hearings, where it was a --14 Just going into a little bit about the mine and 15 the Board of Oil, Gas and Mining is a quasi-judicial 15 the proposals. This map shows the general location. It's on the Uintah and Grand County line. It straddles 16 organization that oversees the Division. And so a formal 16 17 17 process goes before the Board. And so there were some the border between the two counties, extreme southern 18 18 Uintah and northern Grand counties. Board hearings as well. 19 19 And finally, the last Board hearing associated This map shows the proposal that's actually 20 20 with the initial approval was done on December 5, 2012, approved, the approved mine plan right now. And under 21 21 this, there would be 213 acres of disturbance. Of that, at which time the Board upheld the Division's decision to 22 22 81 acres consists of pits, actual -- or extraction areas. approve the notice of intention. The Company did not 23 23 originally -- or right off the bat bond for the entire And there would be about \$1 acres also of dumps, which is 24 24 area, and so this was a conditional approval. And before waste material, overburden, interburden, and also 25 25

processed sand that would be disposed of outside of the

mining the entire area, they needed to submit a

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pits. And then there are various ancillary facilities as

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Under the current proposal, which is depicted in this map, there would be three pits and the total disturbance area is 317.5 acres. Of that, about 263 acres would be mined, and the rest of the area for the various ancillary facilities: The processing plant, roads, wells, top soil stockpiles, things like that.

Really, the big thing to notice -- the difference between these two plans is that in the current proposal, the one that's not yet approved, the overburden and interburden and the waste sand would be disposed of within the pits. There would not be waste dumps. So instead of having 81 acres of waste dumps where there's no mining, all of the waste material is disposed of within the pits. And so there's not that extra space needed to put that waste material.

So the proportion of area mined compared to the total amount of area disturbed is much greater in the current proposal -- proposal versus the approved mine plan.

I think that's all I wanted to say. So I hope that -- I hope everything I've said is clear. And I'll turn the time back to you.

HEARING OFFICER BAZA: You had offered --

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1 Do you folks have questions for Mr. Baker at 2 this point?

3 MR. DUBUC: No, sir.

HEARING OFFICER BAZA: Okay.

MR. BAKER: Okay. Thank you.

6 HEARING OFFICER BAZA: All right. Thank you. 7

You ready for me to turn it over, Steve?

MR. ALDER: Yes.

9 HEARING OFFICER BAZA: Mr. Dubuc, I think it's 10 your turn.

MR. DUBUC: Thank you.

HEARING OFFICER BAZA: Go ahead and take the time you need.

MR. DUBUC: I don't believe I'll need the full amount of time. Save some time for the folks in the audience to talk as well.

Mr. Baza, good morning. On behalf of Living Rivers, I'd like to thank you for being willing to meet with us this morning and listen to our concerns.

You can tell by the size of the audience that this mine is a lightening rod for those who disagree with the State's position on the development of oil shale and tar sands, who feel that encouraging the development of these resources is the wrong policy choice.

From my perspective as an attorney, however, I

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know that you have to approve or disapprove this permit based on whether the Company has complied with your regulations, not whether this is a good or had policy choice.

As we outlined in our protest, and as I'll talk about today, the Company's application falls short and should be denied.

Because this isn't a full-blown hearing and my allotted time is short, I'm not going to attempt to cover everything we outlined in our protest. Although our protest points out the deficiencies in the Company's application regarding such things as air quality issues, I'd like to focus our time today on groundwater, and specifically whether there is groundwater in the area of the mine that could be impacted by mining operations.

The Company's position has always been that, in spite of any concerns regarding the residual chemicals in its waste stream, that there isn't groundwater near the mine that could be contaminated. As evidence of this, they point first and foremost to a 2008 determination by the Division of Water Quality stating that, "Except for small isolated pockets of groundwater, the nearest actual aquifer is 1500 to 2000 feet below the surface."

Even though seven years has gone by since DWQ made that statement, the Company continues to cling to it Page 16

like a lifeline, regardless of any other evidence, such as Dr. Johnson's study, that comes to light. DWQ said it back in 2008, and it must be so. As near as I can figure out, the Company doesn't feel that there is an expiration date on that statement, regardless of the circumstances. DWQ says there's no water, so there's no water.

The problem is that pretty much everyone in this room knows that there's water that could be impacted by this mine, and it's time for the Company to own up to

Mr. Baza, I hate to put your staff on the spot, but even they recognize that there's groundwater located close to the mine that needs to be accounted for. In their initial review of the Company's newest application, your staff wrote, and I quote,

> "The narrative notes that no" seeps --"springs or seeps were identified within the Phase I project area during the May 2014 reconnaissance with personnel from Utah OGM and DWQ and Utah Geological Survey. While this is true, the field reconnaissance did identify seeps and springs flowing within Long Shot Canyon, which is part of the Main Canyon watershed. US Geological Survey has mapped these springs, along with several

Page 1.7 Page 18 1 others within the Main Canyon watershed. 1 materials that would be left on site. 2 2 Access restrictions prevented the group from With our protest, we also provided a report from 3 3 conducting a more detailed survey of the Dr. Johnson that disagrees with DWQ's conclusions that 4 4 other mapped seeps and springs within the the testing conducted on the waste from US Oil Sands' 5 5 watershed. process contains low levels of total gas and diesel range 6 "Because the Phase J mining area is 8 organics. 7 part of the Main Canyon watershed, it is 7 With your permission, what I'd like to do now is 8 8 necessary to evaluate any impacts from the have a conversation with Dr. Johnson regarding his two 9 9 mining operation, which is why a baseline studies. And then feel free to ask any questions you 10 characterization of the seeps and springs is 10 have along the way. HEARING OFFICER BAZA: That would be great, 11 needed. These include a baseline 11 12 characterization, spring and seep survey to 12 MR. DUBUC: Thank you. 13 begin in the spring in 2014." 13 COMMENTS OF BILL JOHNSON 14 However, not long after that review was issued, 14 MR. DUBUC: Dr. Johnson, good morning. 15 your agency issued a letter clarifying DOGM's position as 15 DR. JOHNSON: Good morning. MR. DUBUC: Best speak into the microphone so 16 making this a recommendation rather than a requirement, I 16 17 suspect under pressure from the Company. 17 our court reporter can get this. 1.8 18 Your regulations require that the Company Dr. Johnson, can you tell us what your 19 19 provides a sufficient description of location of and credentials are to conduct the study that you did out in 20 20 depth of groundwater resources found in the area of the the PR Springs area? 21 21 mine, which is where Dr. Johnson's study regarding the DR. JOHNSON: Sure, yeah. I have a Ph.D. in 22 Main Canyon springs comes in. 22 civil and environmental engineering following from 23 23 The regulations also require that the Company degrees in earth science. I am a professor in the 24 account for impacts to local groundwater resources and 24 Department of Geology and Geophysics at the University of 25 provide a parrative description of any deleterious 25 Utah. Page 19 Page 20 1 MR. DUBUC: Where did you submit your 1 different sources. 2 2 manuscript? MR. DUBUC: So what prompted you to undertake 3 DR. JOHNSON: The manuscript was submitted to 3 this? 4 the journal, Science of the Total Environment. It's a 1 DR. JOHNSON: The visit with John Weisheit was 5 journal that is international, published through -- on 5 an eye opener for me. I had been going based on the 6 subject. And its primary interest is contamination in 6 court record, the descriptions of the site. Which, if 7 7 water. you read the court record, it basically describes the 8 MR. DUBUC: Has your article been peer reviewed 8 site as a dusty, waterless area. And it was clear after 9 and accepted for publication? 9 spending about 15 minutes at this site that, in fact, if 10 DR. JOHNSON: Yes. The article was peer 10 you go into any of the canyons surrounding the mine site, 11 reviewed and was accepted and is now published. 17 there are perennial springs that feed, for instance, a 12 MR. DUBUC: Okay. When did you begin your study 12 reservoir that is relied upon by a ranching family in 13 13 of the groundwater in the PR Spring area? Main Canyon. It's clear that livestock and agriculture 14 DR. JOHNSON: The study of the groundwater, we 14 and recreationists all rely on those perennial springs. 1.5 15 started in summer of 2013. I happened to be passing MR. DUBUC: So there is a family, the 16 through the area from Colorado, and I had not seen the 16 DeLamberts, I believe? 17 site at that time. So I contacted John Weisheit, who was 1.7 DR. JOHNSON: Right. 18 familiar with the site. I asked him to take me on a 1.8 MR. DUBUC: That reside below the mine, somewhat 19 tour. He graciously took us in his own vehicle -- took 19 downstream? 20 me and a graduate student through the site at that time 20 DR. JOHNSON: That's right. 21 in his vehicle. 21 MR, DUBUC: But they ranch -- the ranch includes 22 MR. DUBUC: Were you hired to do this study? 22 the area directly below the mine, does it not? 23 DR. JOHNSON: For this study, I was not hired. 23 DR. JOHNSON: Right. Their ranch house and the

reservoir are approximately two-and-a-half, maybe

three miles downstream from the mine, the original

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We, that is me and my graduate students, basically

cobbled together resources from probably about ten

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Page 21 permitted mine area. But their ranch extends all the way up to directly underneath the permitted mine area. MR. DUBUC: And are there springs in the area of the mine directly below the mine?

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DR. JOHNSON: Yes, there are several perconnial springs directly below.

MR. DUBUC; Okay. So what was the scope of the study? What was the area that you looked at?

DR. JOHNSON: The scope of the study included Main Canyon. There were, if I remember correctly, four or five perennial springs in Main Canyon. And then for a contrast, we also looked at the Book Cliffs side on the other side of the divide; that is, the streams that flow towards the Uintah Basin on the north side of the divide and streams that flow towards the Moab area on the southern side of the divide. And so we had several streams on that side as well to understand the contrasts between the two sides of the divide in terms of groundwater chemistry.

MR. DUBUC: How long did this study go on? DR. JOHNSON: Approximately two years, two-and-a-half years.

MR. DUBUC: Does it continue, or have you wrapped it up?

DR. JOHNSON: Well, we wrapped up the initial

investigation in terms of looking at the water chemistry. We would like to be able to install boreholes at the ridge top to directly determine the amount of recharge that passes through the ridge top to feeding the groundwater system at the site.

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MR, DUBUC: What was the conclusion of your study? And we'll get to some of the aspects of the study, the specific aspects. What was your conclusion?

DR. JOHNSON: The conclusion is that there is a hydrologic connection between the ridge top, where the mining and disposal activities take place, and the perennial springs in the valley bottoms.

MR. DUBUC: Okay, Let's talk about some of the methods that you used to confirm that connection, if you don't mind.

DR. JOFINSON: Sure. What we did was to sample springs at multiple elevations. So there are springs that are in elevation close to the mine site, within several hundred feet of the elevation of the mining and disposal site. And then there are springs that are lower down, extending down to the elevation of the DeLambert ranch house and reservoir. And so we sampled four or five springs in that elevation range to see whether or not the water chemistry showed a change with elevation that suggested a flow path coming from the ridge top to

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the valley bottom.

MR. DUBUC: 11ow often did you sample? DR. JOHNSON: We sampled, I think probably four times during the course of that two-year period.

MR, DUBUC: Okay. What were you trying to show specifically?

DR. JOHNSON: We were trying to show whether or not the water chemistry indicated a flow path from the ridge top to the valley bottom.

MR, DUBUC: What kind of testing do you do to confirm or deny that?

DR. JOHNSON: So we perform a number of analyses on spring samples. We perform field analyses to look at just general characteristics, such as how much salt is dissolved in the water, so it's the total dissolved solids. What is the oxygen content of the water? What is the pH of the water? What is the temperature?

And then there are more sophisticated analyses that we bring back to the labs here at the university, where we look at the environmental tracers to understand the extent of water-rock interaction through things like strontium isotopes, through alkalinity, through age-dating tracers, such as tritium, sulfur and hexafluoride. So we have a whole battery of analyses we run to understand whether or not there is a regular

change in the water with elevation.

MR. DUBUC: What was DWQ's conclusions regarding those springs, the source of water in those springs? Do you recall?

DR. JOHNSON: Well, the court record, it stated that there's no potential impact to groundwater because there is no groundwater at this site. And so implied in that is an absolute tack of connection between the ridge top and the springs.

MR. DUBUC: And you disagree with that? DR. JOHNSON: Certainly.

MR. DUBUC: What level of certainty do you have regarding your conclusions?

DR. JOHNSON: One hundred percent.

MR. DUBUC: No doubt?

DR. JOHNSON: No doubt. Because if I were to take the results and put them in front of 100 hydrologists and ask them, What is the most obvious conclusion that you would draw from these results? They would say that there was a flow path between the ridge top and the valley bottoms.

MR. DUBUC: Did you invited DWQ to attend any of your testing?

DR. JOHNSON: Yeah, Throughout the course of this study, I provided preliminary reports. I asked them

	Page 25		Page 26
1	if they wanted to join us at the site so that we could	1	HEARING OFFICER BAZA: Yeah, I would welcome any
2.	describe what we were finding. And so I made sure that	2	information you want to provide.
3	they were completely aware of what we were doing.	3	MR. DUBUC: Okay. I'll do that after my
4	MR. DUBUC: And would you welcome questions from	4	presentation.
5	Division staff if they have questions about your study?	5	HEARING OFFICER BAZA: Okay.
6	DR. JOHNSON: Oh, certainly. Yeah.	6	MR, DUBUC: Do you have any other questions?
7	MR, DUBUC: Mr. Baza, do you have any questions	7	HEARING OFFICER BAZA: I do not at this point,
8	for Dr. Johnson?	8	but I may have some after the presentations are complete.
9	HEARING OFFICER BAZA: I see that your study was	9	MR, DUBUC: Okay. The second report that
1.0	Exhibit B of the letter that you submitted.	10	Dr. Johnson included in it's included I think it's
11	MR. DUBUC: Yes, sir.	11	Exhibit H of our protest. It has to do with testing that
12	HEARING OFFICER BAZA: As I'm reading that, at	12	the Company did on its waste stream that was generated
13	least there's a cover letter that talks about this	13	up, and I believe it's in the Alberta facility. And they
14	manuscript being submitted,	14	did leach testing, SPLP testing, on that waste stream.
15	Has this undergone a peer review, then?	15	DWQ concluded that there were low levels of
16	DR. JOHNSON: Yeah, absolutely.	1.6	and correct me if I'm wrong, Dr. Johnson total diesel
17	MR. DUBUC: Yes, sir, it has. And I can provide	17	and gas range organics in that waste stream. And I'd
18	copies of the final manuscript, if you'd like. But it	18	like to talk to Dr. Johnson just a few minutes about that
1.9	has been published.	19	testing.
20	HEARING OFFICER BAZA: Okay.	20	Did you review the actual test results from that
21	MR. DUBUC: Would you like to do it later?	21	testing, Dr. Johnson?
22	HEARING OFFICER BAZA: Certainly you can provide	22	DR. JOHNSON: Yes, I did.
23	that.	23	MR, DUBUC: Do you agree with DWQ's analysis of
2.4	MR. DUBUC: Okay. I'll provide and that and	24	that waste stream?
25	I'll give copies to	2.5	DR. JOHNSON: No, I do not.
	Page 27		Page 28
1	MR. DUBUC: Do you mind telling me what aspect	1	of 20 milligrams per liter was in the feachate water that
2	of that you disagree with?	2	had been equilibrated with the residual material.
3	DR. JOHNSON: The result of the leach test	3	MR. DUBUC: And is that a cause for concern?
4	showed that the concentration of organics in the leachate	4	DR. JOHNSON: I believe that's a cause for
5	in the water were in the range of tens of milligrams per	5	concern in the context that the stance that has been
6	liter. And tens of milligrams per liter is a, quote,	6	taken is that there is no potential impact to
7	unquote, low concentration in a put-together context.	7	groundwater. And so there's two aspects to that. First,
8	And I think the context that was being considered is	8	there is a hydrologic connection between the disposal
9	something like an underground storage tank for gasoline.	9	site and the perennial springs. And if that's the case,
1.0	But we are not examining gasoline compounds	10	then one has to consider the potential impact of the
11	here, we're examining polycyclic aromatic hydrocarbons	11	solvent on the bitumen compounds in terms of their
1.2	and other much larger molecules that are much less	12	propensity to dissolve into the water.
13	soluble. And the concentration ranges of concern for	13	MR, DUBUC: Let's talk about that for a second.
14	those compounds are in the micrograms per liter range.	14	What is bitumen is a solvent that the company
15	MR. DUBUC: So parts per million, parts per	15	uses to process the tar sands; is that correct?
1.6	billion, how do those equate to	16	DR. JOHNSON: No bitumen is the tar itself.
1.7	DR. JOHNSON: Factor of 1000.	17	Those are the compounds
18	MR. DUBUC: But I mean in terms of the terms	18	MR. DUBUC: I'm sorry. I'm sorry.
19	you used, the terms that were used by	19	DR. JOHNSON: of the tar itself.
2.0	DR. JOHNSON: Microgram per liter is 1/1000 a	20	D-Limonene, I think, is the solvent being used
2 J.	milligram per liter. Or a milligram per liter is 1000	21	in the process.
22	times a microgram per liter.	22	MR. DUBUC: Yes. Okay. And so how do those
23	MR. DUBUC: Okay. And what were the results	23	interact?
0.	there were many overed? 32/bot did thoughtour about?	24	DR. JOHNSON: So in the interaction between just
2.4 2.5	that you reviewed? What did they show? OR. JOJINSON: They showed something on the order	25	water and tar compounds, those compounds are very

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insoluble. They will dissolve to a range of tens of micrograms per liter at the most for most of those compounds. And so they are not present in significant quantities in just ambient water. However, if you have a residual material that is equilibrated with bitumen compounds and d-Limonone or a similar solvent, now you've changed the dynamics. Because the d-Limonene is much more soluble in the water than the bitumen compounds are. So it acts as an intermediary, so to speak, in that it will enhance the dissolution of tar compounds in the water and greatly increase the concentration you'd expect in the water.

MR. DUBUC: And are there residual chemicals, the bitumen and d-Lintonene in the waste stream?

DR. JOHNSON: Yes. You certainly expect there to be both of those phases present.

MR. DUBUC: So putting those two pieces of the puzzle together, the fact that there is a connection between the ridge top where the mine is and the spring, and the fact that the process they use tends to mobilize petrochemicals, what is the concern in terms of these springs and the danger to these springs?

DR. JOHNSON: Well, I just don't believe the stance of no potential impact is tenable. I think that the situation needs to be examined in terms of the

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possibility of impact of the disposal on the water quality of the springs. And so to -- what needs to be done is to analyze the possibility of transport to those springs, getting our -- that a great deal is known about the transport behavior of these compounds, and to take that possibility more serious and quantify it.

MR. DUBUC: So if you were Mr. Baza and you were putting conditions on this permit, what would you require?

DR. JOHNSON: I would think it would be reasonable -- and of course, this is all contingent on what analysis determines - but I would think it would be reasonable to expect some sort of monitoring system. certainly with the springs themselves, but also some kind of intermediate location through the disposal sites. Possibly some kind of leachate collection system to protect the groundwater, those kinds of measures.

MR. DUBUC: Okay. Do you have any final comments?

DR. JOHNSON: No. MR. DUBUC: Okay.

Mr. Baza, do you have any questions for

HEARING OFFICER BAZA: Those last things you just mentioned, Dr. Johnson, as far as requirements to

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put on the permit,

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I guess, Mr. Dubuc, would you be willing to submit that as your recommendation? I don't know if that was also part of your letter. But if those are specific requirements you want the Division to analyze and include, those should probably be written down somehow.

MR. DUBUC: We would be happy to submit those, Mr. Baza. We did not include those as part of our protest. This is a conversation with Dr. Johnson. Those are his recommendations in terms of --

HEARING OFFICER BAZA: Sure.

MR. DUBUC: -- conservative measures to take. We'll be happy to submit those in writing.

HEARING OFFICER BAZA: Well, it goes along the lines of what I indicated initially: If you have suggestions on how to improve what the Division is trying to do in this case, I would like to see those.

MR. DUBUC: Okay. We will be happy to do that, and we'll give copies to the party.

HEARING OFFICER BAZA: Okay.

MR. DUBUC: So Mr. Baza, as you can see from Dr. Johnson's discussion, not only is there evidence of groundwater in the area of mine, but the waste stream from the mine has dangerous levels of petrochemicals that could well pollute that groundwater.

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1 The Company is continuing to deny that 2 groundwater exists. I imagine they will continue to deny 3 that today. But it's clearly present, and it's 4 clearly -- this mine clearly poses a danger to that 5 groundwater. 6

And I think that when it comes to these types of technologies, that the Division should take a conservative approach in its permitting. It should not assume the best, but perhaps assume the worst.

And so that's what we're asking, is that the Division acknowledge that there is groundwater out there, that there's a connection, that there's a potential to pollute that groundwater, and take appropriate measures to prevent that.

I have to say that I honestly have never understood the Company's position regarding groundwater and why it refuses to monitor. This has been ongoing for some time now. I think the summer of 2009 is the first time that we had a conversation about this mine. And in the interim, the Company continues to say there's no groundwater, there's no need for monitoring,

I think the evidence that's come to light refutes that contention, and I think it's time for the Company to just acknowledge reality. The Company continues to say that their process is environmentally

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henign. And so it's difficult to understand why they take that position and at the same time refuse to agree to any kind of monitoring.

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So in spite of the Company's position, the Division has before it scientific proof that the mine site is a recharge zone for the Main Canyon springs. It should not ignore that proof.

For all the reasons outlined in our protest, especially because of the evidence outlined in Dr. Johnson's testimony, we ask that the Division rescind its tentative decision to approve the mine and require the Company to address these deficiencies in its application. That's all I have.

HEARING OFFICER BAZA: Thank you.

We'll now turn to Mr. Davis,

MR. DAVIS: Did the Division have any questions of Dr. Johnson?

MR. ALDER: I didn't know, Director, if you wanted to open the -- or ask -- have the parties ask questions of the witness. If you would, April has a clarification she'd like to ask Dr. Johnson.

HEARING OFFICER BAZA: Okay. And I would just caution that we're here as parties trying to improve the process, not necessarily adversarial in this. So as long as your questions are aligned along that, I'd he happy

to allow that.

MR. ALDER: So this is April Abate, who is a hydrologist, who is going to do the questioning.

MS. ABATE: Good morning. My question is for Dr. Johnson.

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First off, I applaud the fact that you're doing the studies and you're collecting the data out there. However, I did have a question about, in reading the report, why there was no flow data that was documented in the report.

DR. JOHNSON: Yeah, that's a good question.

Ideally, we would have flow data. But it was me and some graduate students and cobbling together funding as we could. So there were many things I would like to have done that we didn't do.

I can tell you that ancedotally, the springs, some of them emit from the pipes that have been driven into the hillsides. And so, you know, there is some record of flow in those pipes from the precipitates from the water. And so you can actually see that -- because we're in a ground situation potentially, or possibly other influences -- that the flow in these springs has declined somewhat over time.

MR. ALDER: Thank you.

HEARING OFFICER BAZA: Okay, Thank you.

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Mr. Davis, your turn.

MR. DAVIS: Thank you, Mr. Baza. John Davis on behalf of Holland & Hart representing US Oil Sands. I have to my left our VP of operations, Mr. Barelay Cuthbert, who I believe you've met in the past; and to my right, my associate Ben Machlis. Also present today with us are Dr. David Hansen, who is a professional geologist with Hansen, Allen & Luce — I'm sorry, an engineer. Mr. Hansen is not here to testify but to observe.

To begin, we do appreciate the efforts that Dr. Johnson has taken, and we know that he has made those efforts in good faith. It's — at the state that this record is at, I think that the Division and Mr. Baza needs to — you need to recognize that Living Rivers' continued complaints that the revised NOI is deficient in failing to adequately account for possible existence of groundwater and for failing to account for possible impacts on the groundwater, that that standard — that the standard in the regulations is for the NOI to provide a narrative description of the depth to groundwater and a general narrative description identifying the projected impacts to the surface and groundwater systems.

As the record indicates, this issue has been ongoing since 2007. And not only has US Oil Sands met this burden repeatedly in both its notice of intent and

Page 36 vised notice of intent and in the groundwater

in the revised notice of intent and in the groundwater discharge Permit by Rule demonstration that was filed with DWQ and appended to the revised NOI, but there is also an extensive record before the Division of Oil, Gas and Mining, the Board of Oil, Gas and Mining, and the Utah Division of Water Quality in the form of studies, reports, deposition testimony, and five testimony; and importantly, this Board, the Board of Oil, Gas and Mining's findings of fact, conclusions of law, and order that go far, far beyond the requirements of the statute and regulations.

Nonetheless, Living Rivers is raising once again the two central issues that were soundly repudiated by US Oil Sands' evidence and rejected by the Board and DWQ.

The first issue, again: Is there groundwater present for the project to impact? Not potential, not possible, but groundwater. In that circumstance, or in response to that question, the Board found the answer to that question to be no.

In paragraph 40 of its findings of fact and conclusions of law and final order, which was filed on February 27, 2013, the Board found that, "The preponderance of the evidence in the record indicates that shallow water does not exist in the project area."

In support of that, it stated in paragraph 30

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that it recognizes -- recognized that the zone of saturation for groundwater is the Mesaverde aquifer, which is some 15- to 2000 feet below the surface level and that other groundwater is generally absent and has not been located in the project area, despite good faith attempts to find shallower groundwater.

In paragraph 32 of its findings, it states (as read):

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"During the summer of 2011, US Oil Sands drilled 180 holes in and around the mine site, with a density grid of 55 holes within the project area" -- and that, by the way, includes the project -- the new project area that we're talking about, the expansion of the project area -- "up to 300 feet in depth," although most of those were around 150 feet in depth, "which" -- and I quote again -- "which is more than twice the depth to which US Oil Sands will mine. The drilling was conducted, in part, to determine the presence or absence of ground water. The means and methods utilized would have yielded signs of ground water if there were any. The drillers and geologists who manned the drill rigs were instructed to

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watch for, and record, any signs of ground water. No ground water was encountered, and no sign of it was recorded. The 2011 drilling and coring program is strong evidence of the absence of ground water that may be impacted by the project."

Those findings are binding on Living Rivers as a party to that hearing and to all the proceedings before this court — or before this tribunal — before the tribunal and the Board. And nothing material has changed in this process. Living Rivers has cited no new evidence of the presence of groundwater in the project area, although Dr. Johnson's report does say that there must be some recharge. And we wouldn't deny that there would be recharge from precipitation events, but there's nothing above that area, because it's isolated on a ridge, that would allow additional subsurface flow.

And in his additional submission, Mr. Lips doesn't actually claim that there is any groundwater to be impacted.

Now, the second issue and the issue that Dr. Johnson has addressed today is whether there is a hydraulic connection between the mine site and the perennial springs in Main Canyon. Dr. Johnson's study has focused on three primary springs in that area.

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Again, though, I would point out that the Board of Oil, Gas and Mining record speaks clearly to this issue.

In paragraph 38 of the findings of fact, the Board states in part:

"... the springs south of the mine site are hydrologically [sic] disconnected from the mine site and will not be impacted."

That is the finding -- that is the finding of the Board based on competent, uncontroverted evidence presented at the hearing, both the hearing before DWQ and adopted by the Board in its hearing.

Now, Living Rivers points to Dr. Johnson's study in support of its contention that there is a connection between the area of the mine site and three perennial springs in Main Canyon. And we've heard Dr. Johnson's testimony to that effect today.

One of the issues we have with that is that the formal published report that was published in the journal of total environment isn't the same report that is appended to the protest. And as near as we can tell from our careful review of that report, nowhere in that report does Dr. Johnson come out and say that there is a hydrologic connection between the ridge in which the mine site is encompassed and these three springs. Now, he

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said so today; but frankly, that's the first we've heard of that.

And in our review, we believe that the study doesn't show what Dr. Johnson now claims that it shows. First, it ignores the fact that the springs are located on the south, or opposite, side of Main Canyon from the mine site.

Second, Dr. Johnson acknowledges in the report appended to the protest that — and then ignores the fact that the dip of the formations and the resulting gradient flow from the south to the north. And the mine site is located to the east of these three springs.

Now, that would preclude a hydrologic connection unless, as Dr. Johnson states in the appendix to his report, there is -- there exists significant fracturing. But there's no proof of any significant fracturing. There was none found in the 180 exploratory holes that were drilled. And even for this fracturing theory to work, it would require water, one, to migrate downwards from the mine site to the west, rather than in the -- gradient to the north, to below the floor of the canyon, and then move against that gradient towards the springs to the south on the south side of the canyon, and then somehow elevate back uphill to above the bedrock on the south canyon wall, where they emanate. They don't

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cmanate in the bottom of the canyon in the alluvium, they emanate from bedrock on the south side of the canyon wall.

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In the DWQ hearing, one of our expert witnesses, Bob Bayer, testified that there was no hydraulic mechanism present capable of driving water movement of that type in that direction. And that's in the DWQ hearing transcript Bayer at page 358.

Bayer further testified that those springs are sourced from recharge directly above the springs to the south, from the south side of the canyon. See again Bayer's testimony at 356 through 365.

In reading Dr. Johnson's conclusions in his report, the conclusion of that study at page 18 of Exhibit B to Living Rivers' protest is that, "The perennial springs are not derived solely from alluvial water and must therefore receive water from the surrounding ridges."

We don't disagree with that conclusion. But nowhere does the study contend that the mine site itself contributes to those springs. And the Board came to the opposite conclusion, a conclusion that we believe is binding on Living Rivers.

Quickly with regard to the disposal of the deleterious materials and the mobility issue. I'm not a

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scientist, so I'm going to leave some of that to Mr. Cuthbert to discuss. But Dr. Johnson's assessment and his conjectures regarding the SPLP tests that were undertaken by US Oil Sands are again arguments that were rejected by the Board, by the DOGM Board and also by the DWQ Board.

The analysis assumes a saturated system where the bitumen and d-Limonene residuals are equilibrated in the water. And Dr. Johnson has previously conceded that those conditions are not present in the tailings, or won't be present in the tailings. And that's in the DOGM findings, the Board findings, at paragraph 41. Let me just quote quickly from that finding.

"The preponderance of the evidence in the record indicates that residual d-limonene in the tailings will not impact groundwater. In the DWQ matter, Living Rivers presented the testimony of Dr. William Johnson, who opined that residual d-limonene in the tailings from US Oil Sands' operations will make the residual bitumen compounds in the tailings 1,440 times more soluble than they are in the natural state. His testimony fell short, however, as he acknowledged that his

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solubility and mobility calculations were premised on immediate entry of the byproduct into groundwater, which was not proven."

Now, Dr. Johnson is using the same calculations that he used in that testimony in his most recent report. And he provides no explanation of why a comparison of the diesel range organics and the tailings to an MCL for benzo(a) -- I can't pronounce that -- pyrene, that's right, is relevant.

It is also, in our opinion, a quantum leap to assume that diesel range organics can be equated to the presence of benzo(a)pyrene, where, as Dr. Johnson acknowledges, the DRO results from that testing are comprised of thousands of organic compounds, one of which may or may not be BaP. His selection of the MCL for BaP points -- or paints to us an inflated, and we believe, biased picture of the potential risk posed by the tailings.

I think that I would like to turn my time, our remaining time, now over to Mr. Cuthbert. He has some comments regarding both chemistry and also an overview of why we're actually seeking this revision to our original large mine plan. Thank you.

COMMENTS BY BARCLAY CUTHBERT MR. CUTHBERT: Good morning, Mr. Baza.

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IJEARING OFFICER BAZA: Good morning.
MR. CUTHBERT: So I thought first that I would discuss, again, some of the background to our submission of the revision to our Notice of Intention to Conduct Large Mining Operations.

As we talked about, as Paul mentioned this morning, our original approved NOI consisted of a total disturbance area of 213 acres. In that plan, there were 93 total acres of pits planned as well as 70 acres of outside storage areas, where we would place overburden and tailings and whatnot because we weren't able to replace those in the mine areas until a sufficient area had been opened to allow backfilling of those areas.

After we conducted our resource evaluation work in 2011 and 2012, it gave us a much better picture of the resource, allowed to us optimize our mine plan.

So we went back and looked at the data and realized that if we started our mining operations to the south of where we'd originally planned in what's now called "Pit I," what that would allow us to do is to extract the resource, but we would be able to start our reclamation efforts much more quickly and minimize the amount of material that would have to go outside of our pit areas.

So in the revision, if you look at the total

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disturbance, it is now 316 acres, which actually does include some of the areas that were previously permitted under exploration notices and whatnot for our water wells and man camp and so forth.

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Within that 316 acres, the total mine pits are now 235-and-a-half acres. So we've gone from 93 to 235-and-a-half, which is a -- which is a large increase, but it's a much more logical mining plan.

But if you look to the disposal areas, originally we had 70 acres. That's now been reduced to 27-and-a-half. So it's truly an optimization where we've been able to improve the method by which we remove the oil sand, extract the bitumen from the tailings, and replace those back into the disturbed areas. And that's the reason we came forward with this revision.

As Mr. Davis has noted, we've been through several challenges to both our notice of intention and the groundwater discharge Permit by Rule over at DWQ. We've heard this argument about the --

MEMBER OF THE PUBLIC: Can you speak into the microphone so I can hear, please?

MR. CUTHBERT: We've seen this argument several times about the apparent increase in solubility of polycyclic aromatic hydrocarbons. That's -- one example is the benzo alpha pyrene. Again, that's been -- that

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- was disproved during the evidentiary hearing at DWQ.

 And as Mr. Davis says, those results were taken by the
- 2 And, as Mr. Davis says, those results were taken by the administrative law judge, the water quality board, and
- 4 the Board of Oil, Gas and Mining as being unpersuasive.
- We still stand behind all the work we did to show the errors in Dr. Johnson's calculations.

Again, I think it's certainly -- to try to take a diesel range organic test through SPLP and claim that that measures one specific compound certainly, in my mind, mischaracterizes the nature of the diesel range organic test. And I think it artificially tries to show a huge increase in concentration, which isn't warranted. So again, I have issues with some of that work.

But in general, I think, you know, the US Oil Sands has been committed from the outset to developing a good project to show that we can extract the bitumen from the oil sands with a minimum of impact to the environment, and we'll continue to do so.

MR, DAVIS: That's it?

MR. CUTHBERT: That's all I have, yes.

21 HEARING OFFICER BAZA: Are you finished with your part, Mr. Davis?

MR. DAVIS: Well, I think just simply in conclusion, I believe that the record, the entire record and revised NOI demonstrate that there will be no impact

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on groundwater because there is no measurable quantities of groundwater at the site, that the springs are hydrologically disconnected from the area of the mine operations, that although there is some ridge top contribution to flow of subsurface water, that the subsurface water that would be traveling through the area of the mine site would move from the south to the north on the prevailing dip and gradient.

And that Dr. Johnson's report, as appended states -- and I quote on page 18 of his appendix that:

"The contrasting geochemical [sic] parameters observed in the water specifically collected from the altuvium versus water collected from flowing streams indicate that the percunial springs are not derived solely from alluvial water and must, therefore, receive water from the surrounding ridges."

Again, we don't argue that conclusion in the sense that there are surrounding ridges that clearly would contribute to those springs. But they're not the ridge in which the mine is located. Thank you.

HEARING OFFICER BAZA: Thank you all. I should have mentioned to begin with that seated next to me is Douglas Crapo. Douglas is an Page 48

- attorney with the Office of the Attorney General. And because the Division has its attorney present, Douglas is advising me, as the hearing officer, on the proper conduct of these proceedings. So I may lean over and consult with him from time to time.
 - I think I'd like to ask a couple of questions before we get into some closing statements from the three groups. And my questions are probably going to be mostly directed towards the Division and staff.

First of all, I think you may have mentioned this, Mr. Baker, but the requirement to have an additional notice of intent for this large mining project, is that subject to some significant expansion of the mining area? Is there -- how does the rule play into that?

MR. BAKER: The rule says that an amendment is an insignificant change in the plan, and a revision is anything other than that. And we considered that this was more than an insignificant change, and so it would need to go through public notice, the public notice process.

HEARING OFFICER BAZA: Which is exactly what we're doing now, right?

24 MR. BAKER: Right,

HEARING OFFICER BAZA: So the previous actions,

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where the Board has made decisions on this under previous Board orders, would you see those as still applicable in terms of the additional acreage, those findings of the Board order? Maybe that's a question for Mr. Alder instead, but.

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MR. BAKER: I would say that we would certainly consider those, and we would be looking at the testimony that was presented in the hearings and things. But if there if there was additional evidence, additional information that we came across that countered what we had previously found, we would certainly consider that.

HEARING OFFICER BAZA: Okay. A couple of things have been brought up in both of the parties' presentations here. One was connectivity to groundwater that may exist in the form of springs around the mine site. Another was can the mine material, solvents, bitumen, whatever, can they move off of the mine area?

I think there's probably a pretty substantial responsibility by the Division to ensure that there are no offsite impacts to the work that we approve; is that correct?

MR. BAKER: Yes, I would agree with that.

IIEARING OFFICER BAZA: Okay. Was there any information that you may have heard today which changes our perspective on connectivity to groundwater resources,

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and was that part of the analysis that the Division did?

MR. BAKER: Yeah, that was certainly part of the analysis. As far as the technical details of that, I would defer to April Abate. But I'm obviously hearing conflicting information. But yes, that's something that we would be considering, yes.

HEARING OFFICER BAZA: I know one of the questions Mr. Dubuc brought up was the idea of monitoring being part of the Division's review or requirement. And I guess what I would open up to all three of these parties here is: Is that monitoring a requirement? And if it's done, how should it be made part of the analysis that the Division does?

MR. DUBUC: I assume you want me to respond directly to that question?

HEARING OFFICER BAZA: Surc, yeah.

MR. DUBUC: So in the initial review, Ms. Abate basically said, "which is why a baseline characterization of the springs and seeps is needed." She notes that hydrologic connection, potential hydrologic connection because the Phase I mining area is part of the maintaining the watershed.

So if you're going to do a baseline characterization, what's the point of that unless you have some follow-up to that? So, you know, basically, if

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you're going to characterize what exists now, then what's the point of that unless you go back and characterize what happens over time? And so I think that the logical extension of that observation would be that you would have to monitor in some way going forward.

Now the extent of the monitoring -- Dr. Johnson had some recommendations. You know, you might want to have -- drill some horeholes and have some immediate monitoring of points and stuff like that.

So what the Division requires, I think, is, you know, obviously your decision based on your staff's recommendations. But we would say that there's no point in doing a characterization unless you do a follow-up of some sort.

HEARING OFFICER BAZA: Okay.

Mr. Davis, do you have a response from US Oil Sands on that question?

MR. DAVIS: Yeah, we do.

The original statement by Ms. Abate was, in fact, a recommendation. We discussed it as part of the permitting process — I mean, I didn't, but the Company did. And the idea was that the monitoring would be or could be helpful in providing additional evidence demonstrating the lack of a hydrologic connection.

It's our position, and I think that it's been

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validated by expert testimony and a certain amount of just plain common sense, that the springs adjacent to the ranch and the springs upstream from that are on the wrong side of the canyon to be impacted by these operations. If we're going to do monitoring for potential impacts, it would probably make more sense to do that in another area of the mine where the actual flow seems to be most likely. But again, there's such a small amount of potential flow, and none of these -- none of the monitoring -- or excuse me, none of the exploratory holes encountered any water whatsoever. It seems to be a waste of resources at this point to put in monitoring wells where there's nothing to monitor.

HEARING OFFICER BAZA: Okay.

April, Paul, do you have a comment on that?

MR. ALDER: Mr. Baza, if I could -- first of all, whether it's a legal requirement or not, it really depends on the facts of the mine application. The Division, by its rules, is required to determine impacts and to determine methods to mitigate impacts. And so the question of whether monitoring is legally required or not is sort of fact-dependent. And with that, I think April probably should address the question.

COMMENTS BY APRIL ABATE

MS. ABATE: So when I reviewed the pennit, I

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based it on the various inventoried hydrologic resources in the watershed where the mine is as well as the surrounding watersheds and taking all that into account. This site is permitted by rule by DWQ, which does not have any specific — does not require any water-monitoring protocols.

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As a result, and in our rules, we are required to monitor for impacts to the water quality, and that does not specifically state any water-monitoring protocols, either. So that is the reason why we made a recommendation to the Company to do some baseline characterization of the water resources in the area.

Most of the springs that are in the watershed are to the southeast. And the ones that I was able to observe when I was out there last May did emanate from the ridge, and they were coming out of bedrock.

The interesting thing about them is that they all follow a similar elevation and they all kind of crop out on a northwest slope. So there's an interesting pattern you can see with them. Usually when you see that situation, it's that the springs are all following a contact where the water is dripping down, percolating down, and then hits an impervious contact. And that's why they're cropping out. And that's what's probably happening in this situation.

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So the fact that they're all to the southeast indicates to me that I'm seeing a recharge area that would be further to the southeast of where these springs are.

As you go down the canyon into Main Canyon, where I understand these alluvial springs are, or what people are calling "alluvial springs," then you might have a situation where water runoff is coming down and they're actually being recharged by alluvial material.

The one thing I was -- that you don't see is you don't see any springs that are coming off these northwest -- excuse me, northeast trending side canyons off of Main Canyon, which there is a direct adjacent canyon right to the mine disturbance area and there's no springs there. So that tells me that there's no -- there's no water resources that are coming directly off the mine.

So I don't see this as a potential contribution — significant contribution to recharge just simply because there are no springs in that area. It's not to say that, you know, there isn't some runoff and eventual percolation that could hit those alluvial springs.

That's why I really feel that there should be a case for making -- doing some water monitoring there just

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because, to me, the evidence doesn't point to a specific connection. But that's what data is going to do: It's going to tell you whether there is, or it's going to confirm that it's not. So that's why I made that statement in my review of the significant revision.

HEARING OFFICER BAZA: I have one last question for the Division before we move on.

I know that we have some ongoing coordination and correlation with what the Division of Water Quality does

But I guess I'm asking: Who has the primary responsibility of identifying potential impacts to groundwater or surface water? Is that us related to the mine permit, or is that something that we expect Water Ouality to do?

MS. ABATE: The way I understand the rules, we are in charge of monitoring for impacts, so whether a spring dries up or not.

They are more concerned with the actual water quality, so the constituents in the solvents and those type -- and the waste streams. Those are kind of the things are more under the DWQ.

HEARING OFFICER BAZA: Okay.

MR. ALDER: But I think we would -- and in the previous review, we've acknowledged that it's sort of a

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partnership. There's some expertise that DWQ has that the Division relied on. But when that permit was reviewed by DWQ the last time around and then the permit was reviewed again after that by the Division of Oil, Gas and Mining, it was to determine if our expertise kind of concurred with those evaluations and also that if it met the separate requirements of the rules and statutes that govern the Division of Oil, Gas and Mining. There's not a specific line drawn in the law that says, DWQ looks at this and DOGM looks at something else.

I think that answers all of your questions.

You did ask about -- and I think it was correctly answered -- about the effect of the prior rulings. I think, as Paul said, the Division looks at the prior evidence, the facts, the records that were presented at those hearings.

But in reviewing this significant revision, that means you look at it as if it's a new application. And the evidence was looked at without feeling bound by the Board's order. So we were not required to approve the permit just because it had been approved before.

HEARING OFFICER BAZA: Thank you for that clarification.

Well, at this point, I don't have further questions of these three parties. But why don't we go

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ahead and move into some closing statements, and I'll offer the time to Living Rivers and Mr. Dubuc first.

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MR. DUBUC: Thank you, Mr. Baza. Let me first pass out printed copies of Dr. Johnson's published report.

Let me first -- on that report that you have in front of you on page 1 in the abstract, I'd like to point to the last sentence. It says on that page, on the first page:

"Progression of hydrogeochemical parameters with elevation, in combination with the relatively short groundwater residence times, indicate that the recharge zone for these springs includes the surrounding ridges, and thereby suggests a hydrologic connection between the mining, processing, disposal area and these springs."

I just wanted to clarify that Dr. Johnson's report, his article, does actually state that connection. The reason that you did not have that as part of the protest is because it didn't exist at that time. We gave you a manuscript that had been submitted for publication. As oftentimes happens in the peer-review process, changes to the initial manuscript were made. So I just wanted to

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clarify why you were sceing something different now than you did at the time is because it didn't exist at the time. So it is now published and it does state specifically that connection exists.

One of the things I'd like to -- and I think the Division clarified this. You are not bound, we are not bound by findings that occurred -- that are part of ancient history at this point. This is a new application. You have new information in front of you. The fact that the Board at some point in the past found that -- I mean, even prior to Dr. Johnson's study -- found that there was no hydrologic connection is irrelevant. You have new information in front of you presented to you today.

One of the things I'd like to do, if I might, because we used so little of our time to begin with, I just want to ask Dr. Johnson to clarify just a couple things having to do with 180 boreholes, if I might.

HEARING OFFICER BAZA: Surc. Go ahead. FURTHER COMMENTS BY WILLIAM JOHNSON MR. DUBUC: Dr. Johnson, could you explain -- so

the Company drilled 180 holes, and they claim -- and apparently there was no evidence of groundwater.

How does that equate -- how does that jive with your findings?

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DR. JOHNSON: Well, it has no contradiction to our findings because the purpose of those borcholes was not to examine water. Now, they did ask the drillers to report copious amounts of water if they observed them. But that's now not how a hydrologic study is conducted.

The site is at the ridge top, which would be the zone where recharge of precipitation and snowmelt occurs. The residence time of water moving through the ridge top would be short because it's moving downwards towards the zone of saturation, or water tables, that then are evidenced by the springs in the valley bottoms. So if I may -- stop me if I'm going on too long here, Rob, but I want to address this -- because all of those boreholes, as they stated, were drilled to a depth twice the zone of intended mining.

The target was to map the resource, the bitumen. It was not to determine possible impact to groundwater. And as such, it did a very good job of mapping the resource, but it did not do anything towards interpreting whether or not there's a hydrologic impact. And unfortunately, every decision that has been made, every statement in conclusion that has been drawn up until our study, has been based on the absence of water in those borcholes. And to use that as the evidence of a lack of impact to a hydrologic system is the same as looking out

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at the sky today and saying it's impossible for water to come from the sky. And I find that infuriating as a scientist. Because this is -- this process is turned upside down by reliance on data that was never intended to answer the question of hydrologic impact.

And I'm sensing an unfortunate bias on the part of the Division in the sense that statements were made that have absolutely no data behind them. The statement was made that all of the springs are at the same elevation. That is absolutely discounted by the study of the plots that show plots of the springs versus elevation. So I have no idea where that statement was coming from.

Statements were made that they were all on the particular side of the canyon, supposedly on the opposite side from the mining site. That is absolutely not true and reflects a bias that is not supported by data. Statements were made that — and I can name those springs. The Lambert A, the Lambert B are two springs that are clearly on the side of the canyon that is on the permitted mining site side of the canyon.

Statements made by Barelay Cuthbert basically amount to slander. There were no errors in the report, and yet he's referring to errors.

MR. DUBUC: We'll talk to that in just a little

Page 62 Page 61) below the mine. It's not like this is in the middle of 2 2 nowhere. There are people down there that depend on this Apologize, Mr. Baza. He's obviously passionate 3 Э water. And so I think the obligation to protect that about his --4 1 DR. JOHNSON: I am, but there's one more water resource, even if that means going above and 5 5 important point to make. beyond, is imperative, 6 6 And so I do encourage you, Mr. Baza, to MR. DUBUC: Okay. 7 7 reconsider your tentative approval of this mine. And we DR. JOHNSON: The statement in the court record 8 8 will submit to you our recommendations in terms of before our study that the only zone of saturation is 2000 9 measures that could be used to ensure that these water 9 feet below the site in the Mesaverde aquifer is 10 10 resources are protected. absolutely discounted by the study. We, in fact, 11 obtained a sample from that level of groundwater. Its 11 And I thank you for your time today. 12 12 HEARING OFFICER BAZA; Thank you. chemistry is completely different from that of the 13 13 springs. Mr. Davis. 14 14 MR, DAVIS: Yeah, Mr. Baza, thank you, A couple MR. DUBUC: Thanks. 15 15 Obviously, there's a difference of opinion. And of points. 16 MEMBER OF THE PUBLIC: Please speak into the 16 I think that the difference is, is that Dr. Johnson's 17 17 study and his analysis of this is based on best available microphone. 18 18 HEARING OFFICER BAZA: You know, I can hear him sound science. And I really think that the Agencies are 19 19 obligated to make decisions based on that. And if there just fine. 20 20 is a possible difference of opinion, that the (Laughter) 21 21 MR. DAVIS: Is that better? possibility, as Ms. Abate acknowledged, the possibility 22 22 MEMBER OF THE PUBLIC: Thank you. that there is a connection warrants a conservative 23 23 MR. DAVIS: I apologize. approach to protecting these springs. 24 And I would remind the Division that these 24 I think to bring clarity to this issue, I think 25 springs are used to support a ranch in operation directly 25 there are a couple of exhibits and photographs in Page 63 Page 64] Dr. Johnson's report that, to us at least, show that 1 could do some paraphrasing from. 2 2 those springs, which Dr. Johnson calls "Lambert A" and HEARING OFFICER BAZA; Okay. 3 3 "Lambert B" are on the south side of the canyon, and that MR. DAVIS: But I think probably, from our 4 is Figure SI-1. 4 standpoint, we've responded to Dr. Johnson's position by 5 5 pointing out that this exhibit, Figure S1-1, shows where In addition, I'd mentioned to you carlier that 6 6 we have Dr. Hansen here today who was just going to he located those two springs. And to us, they clearly 7 observe. But Dr. Hansen has been at this site and has 7 are shown to be on the north facing, or the south side, 8 inspected these springs. And because this is an informal 8 of Main Canyon. So I would submit that. 9 hearing, if you would like to hear from him, I would like 9 MR, CRAPO: What page are you --10 10 to put him on and ask a couple of questions. But I MR. DAVIS: That is page 7 of -- is it the don't -- if it would be unfair to Living Rivers and Mr. 3.1 11 addendum or actual report? 12 1.2 MR. MACHLIS: The addendum. Dubuc, I won't do that. 13 13 MR. DAVIS: The addendum to Dr. Johnson's MR. DUBUC: The only observation I would make, 14 Mr. Baza, is that, you know, you're opening a door that 14 report, which is Exhibit B to the protest. 3.5 15 is going to have a back-and-forth to it, because we're MR. DUBUC: Is there a figure with that? 16 going to want to, obviously, respond to that. I don't 16 MR. DAVIS: Yeal, it's Figure S, I think that is 17 know if you want to open that door. 17 I-1, or SI-1. 18 HEARING OFFICER BAZA: Well, and there are no 18 MR. CRAPO: This is the image you were looking 19 19 hard rules of evidence or testimony today. I mean, we're at? 20 having a discussion, I hope, that will help the Division. 20 MR. DAVIS: That's the image. 21 So Mr. Davis, I would say: Is there a way to 21 MR, CRAPO: Would you restate what we should be 22 maybe paraphrase what Mr. Hansen might offer so that we 22 seeing on this map? 2.3 23 can take that under consideration somehow? MR, DAVIS: If you look -- he just took it away 24 24 MR. DAVIS: Yeah. I do have a copy of his from me. 25 25 internal report to the company that I would -- that I If I'm understanding Dr. Johnson's statement

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correctly, he referred to Lambert A and Lambert B as the two springs that are shown here as "MC-A" and "MC-B."

MR, DUBUC: D as in "dog."

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MR. DAVIS: "Dog." Oh, I'm sorry.

MR. DUBUC: I don't believe it's on that

MR. DAVIS: Okay, sir. Where is it? It's not depicted?

MR. DUBUC: It's not depicted. I believe it's -- Dr. Johnson, where is that? Is it this?

DR. JOHNSON: Right. It's on the other side of the canyon; that is, on the mine site, permitted side of the canyon across from Main Canyon C.

MR. DAVIS: But it's not depicted anywhere on your exhibits, correct?

DR. JOHNSON: Well, I don't know which version of the manuscript this is, okay. So as Rob Dubuc said, these things go through an editing process in the process of peer reviews. And so these figures have changed, and I'm not sure which version this came from.

The point is, in the final version we have Main Canyon's site D there, and it is on that side of the canyon, and it is a flowing spring, just like the other perennial springs. Same with Main Canyon A. That is on the same side of the canyon as the mine site.

But what I want to say is that finagling over

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which side of the canyon the flow came from is really a waste of time. It cannot be defended as a genuine analysis, right? You can't assume because a site is located on one side of the canyon or the other that it came from one particular side of the canyon necessarily. And so it would be a waste of time to rely on that

evidence to say the flow is only coming from that side of the canyon. And the statement was made that it's coming from

the ridge tops, you agree to that, but not from our ridge top, which is pretty magical.

MR. DUBUC: Thank you, Dr. Johnson.

HEARING OFFICER BAZA: I think I would just say to the Division and April: April are you following this? Do you have an understanding of what we're talking about?

MS. ABATE: I'm still struggling to find this page, the page they're --

HEARING OFFICER BAZA: So I think that there needs to be some clarity that can be shared with the Division on this. And in a sense, that's what I was asking for in terms of anything that you would want us to look at or do. And I'm still willing to accept that as a written brief or statement from your group.

MR, DUBUC: We will do that, Mr. Baza. And that's why I said, even though Dr. Johnson is going out

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of town tomorrow, he will be back throughout the summer. And he would be happy to meet and clarify directly with your staff any questions that they have -- and if the Company wants to, you know, attend that session.

HEARING OFFICER BAZA: I'll take that into account.

MR. DUBUC: Okay.

HEARING OFFICER BAZA: Mr. Davis, did you have anymore you wanted to add at this point?

MR. DAVIS: You know, I think at this point the only comment I would make about all this is that it appears to me that it's unreasonable. As much as it may be unreasonable in Dr. Johnson's view for us to make the statement that the springs that emanate from -- by emanating from the south side must come from the south ridges, I think it's equally unreasonable for the Agency to require us to continue to try to prove a negative, that there isn't something there, when everything that we have done to date demonstrates that there will be no impact or minimal impact,

I mean, we have in our hands a valid Permit by Rule from the Division of Water Quality stating that there will be a de minimis impact on groundwater resources by this mine. That has been reviewed and approved by your agency now twice.

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The addition of the expansion of this mine site, which is primarily an expansion of the actual pits where less overburden and tailings will be placed on native soil, also has been studied and reviewed and initially approved by the Division.

So that would be -- my only other comment would be that Dr. Johnson's report doesn't say there's a connection, it suggests there's a connection. And that's really what we come back to is the suggestion, the potential. How far do we have to go in disproving this suggestion or this negative? Thank you, sir.

HEARING OFFICER BAZA: Thank you. Steve, comments from the Division?

MR. ALDER: Yes. Thank you, Mr. Baza. We have looked at all the data that has been

16 submitted and made an evaluation of the mining permit using the best abilities and scientific training of the Division. And we would welcome any additional data.

1.9 Unfortunately, I think that, legally, the position and 20 the posture this is in is that after a decision is made 21

by the Division on this permit after this hearing, taking 22 into consideration additional information, there's only a

23 ten-day period before the matter is to be appealed to the

24 Board, at which point I guess all this evidence will come 25

forward again if there is an appeal.

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We would encourage Dr. Johnson, if he has a spring that's on the south side that shows some different data, that that not be waiting until later in the summer. I mean, that's information the Division has gone out and made its own investigations on and tried to understand the hydrology the best that it can. The same would go for Dr. Hansen's internal report.

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Let me just say that the Division has taken consideration of all the facts. It is not biased by prior determinations. It's not biased by any particular facts. It's open to determining the impact. And, in fact, I think the suggestion that monitoring might be helpful indicates their open-mindedness on this subject.

So I guess I'm not sure where it leaves you, as the presiding officer, whether this matter can be continued or delayed, or if it should be. But certainly, I know the operator is anxious to get a decision and to move forward.

The Division wants its decision to be correct, and we think it has been fully evaluated at this point. I don't think we want to enter into a debate about the specific bias that may or may not exist.

HEARING OFFICER BAZA: Well, thank you for that, I, too, am wondering what the next step is going to be, so I will be conferring with Mr. Crapo on that very

thing.

We do have time, and I want to offer this up to as many of the parties that had submitted letters of appeal to the Division. Again, I have a list of those folks who were noticed as part of this hearing.

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So those who want to put their name on the list as far as attending, I think Vickie -- back of the room -- still has that list if you want to show yourself as a participant.

If you are going to comment, again, I ask you to try to be brief and allow as many people as possible to come forward. But come to the microphone and identify yourself. If you had a letter that was submitted to the Division, you might mention that. But I think now is the time that we open it up for your comment.

And again, please identify yourselves so that we can have a record of your name.

MS. LONDON: Who has the list to say something? It's kind of gotten lost back here.

HEARING OFFICER BAZA: There's not a list to speak, it's just to show that you were here. So if you want to speak, I'd say now is your time to line up at the podium.

COMMENTS BY VAUGHN LOVEJOY

MR. LOVEJOY: My name is Vaughn Lovejoy. I'm a

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father and a grandfather, but to have some professional credentials here, I was co-founder of TreeUtah, project director for 20 years. And the collective karma that I bring is I helped plant a quarter of a million trees in this state. And I just really want to speak from my heart.

There's a letter which I'm going to pass around -- I'm not going to read this whole thing because there's many wonderful people speaking. I just want to say this: There are different opinions and different world views about what's happening on the planet right now. And let's just grant that no one of us is for sure how this is all going to play out.

So what I would like to suggest is that we look at the scientific evidence. And the scientific evidence has some pretty, pretty dire consequences. And in order to avoid that, we would have to make some challenging changes, economic changes, that kind of thing.

I'd like to refer to "Pascal's Wager." And I'll and with this. Pascal, back in the 1600s, said the big question is, is there a God? And if there's a God, then there's consequences to our actions. And he just noted that if there is a God and there's consequences, those consequences can be dire in the long term.

If there's not a God and you chose to party and,

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you know, use up all your resources all at once, that

would be a cost, but it wouldn't nearly be the cost if it turned out that there was a God.

If we're damaging the planet, the consequences

to that, to our children and grandchildren, are absolutely immense. So I'm just going to read the very last paragraph of this to you.

"I ask you from the very bottom of my heart to not only use your professional capacity to ensure environmentally-acceptable activities" -- that's in your mission, guys, "but to seriously reflect" -- and this is from Pope Francis' encyclical that was just released this month -- but, "reflect on your accountability before those who will have to endure the dire consequences."

Before you make this decision, whoever you are, please go home and look into the eyes of your children and your grandchildren and ask yourself whether the continuing development of projects like this is really worth risking their future, whom we have all been entrusted with.

Thank you for listening.

HEARING OFFICER BAZA: Mr. Lovejoy, could you

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MR. LOVEJOY: Yes, I can. Actually, that's a (unintelligible). V-A-U-G-H-N, Lovejoy is just like it sounds, I.-O-V-E-J-O-Y, one word. Thank you very much.

HEARING OFFICER BAZA: Thank you. For those of you who have not ever worked with a court recorder, it helps if you speak slowly. And if your name is not a common name, please spell it for her.

COMMENTS BY TIM WAGNER

MR. WAGNER: Good morning. My name is Tim-Wagner. I'm the executive director of Utah Physicians for a Healthy Environment. I want to thank the Utah Division of Oil, Gas and Mining for holding this hearing.

UPHE is an organization of roughly 350 medical professionals in Utah and several hundred members of the public as supporters. We're dedicated to protecting the health and well-being of the citizens of Utah by promoting science-based health education and interventions that result in progressive, measurable improvements to the environment.

I'm also here representing the Colorado River Connected Campaign, a coordinating body for organizations in six western states committed to protecting the headwaters of the Colorado River system for the benefit of the 35 million people who use the river and thousands

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of species and natural communities that rely on it. We provide a collective voice for the preservation of the headwaters in the Colorado River watershed.

The organizations represented by the Colorado River Connected Campaign, in addition to mine, include the Los Angeles Waterkeeper, the Glen Canyon Institute, the Center for Biological Diversity, Living Rivers, the San Diego Coastkeeper, Save The Colorado.org, the Sierra Club of Utah Chapter, Utah Rivers Council, Waterkeeper Alliance, and Wild Utah Project.

This particular project lies smack dab in the middle of the watershed of the Green River, which, of course, is the largest single tributary to the Colorado River; and hence, it's an integral part of the Colorado River watershed. This watershed provides water for multiple uses, including drinking water for roughly 35 million people in the America southwest,

This water reaches the cities of Tueson and Phoenix, Las Vegas, Los Angeles, and San Diego, and many communities in between. As we are seeing now playing before our very eyes today, the river's watershed is in scrious trouble -- one of the most severe droughts the region has ever experienced -- to over-appropriation, to more planned diversions, to contamination, and it goes on and on.

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More specifically, as thoroughly demonstrated by the comments submitted to the Division from Western Resource Advocates representing Living Rivers, there is no doubt that the region of the PR Springs mine has a direct relationship to the various hydrogeology, including the area groundwater resources, seeps and springs, all of which are part of the previously-described watershed.

It is apparent to me, at least in my organization, that the Division has not taken the full responsibility it needs to adequately assess the groundwater resources in the area of the proposed mine. It has also ignored the potential disruption and contamination threat to those same groundwater resources. Additionally, it goes without saying that the Division's investigation and permit review only took a very small local snapshot of the proposed mining operation and failed to even consider the relationship between this project and the much larger Colorado River watershed.

While I recognize that there isn't any stipulation or requirement that the Division take a larger and longer analysis, turning a blind eye doesn't mean the problem doesn't exist.

We are also extremely concerned about the issue of air quality, also which is pointed out in WRA's

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prepared comments. It's obviously an issue that we believe is very important. But the lack of adequate oversight is the fact that PR Springs is just one of the numerous oil sands projects proposed or in the construction phase within the Uintah Basin. This is a region already with some of the worst air quality in the nation at times, and with what appears to be some very serious consequences for the people who live and work in the region. I seriously doubt that this is the best the Division can do in terms of addressing this very critical issue.

So in light of these two very significant issues, water and air quality impacts, and the lack of adequate information gathering and analysis, UPHE and the organizations of the Colorado River Connected Campaign agree that this permit must be denied and deferred until the adequate and proper information has been submitted to the Division.

And one final comment. Just based on my observation of this hearing this morning, when I hear the Division of Oil, Gas and Mining ask his staffers from the Division of Water Quality who is supposed to be in charge of -- who has the authority to regulate the water issues and assess this potential impact, here we are eight years into this project. I think that's a question that should

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Tayaputs.

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have been determined before the project started. Just saying.

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That's all I have to say. Thank you.
HEARING OFFICER BAZA: Thank you.
COMMENTS BY TORY HILL.

MS. HILL: My name is Tory Hill, and I'm a town council member at Castle Valley in Grand County. I speak to you today for myself and for Grand County Council Member Mary McGann, who could not be here; also, our voters.

Our last November election for county council were won across the board on the promise to get us out of this seven-county coalition, because the majority of people in Grand County do not want tar sands mining or a road through our county to get the tar sands to refining and market. Tar sands are the dirtiest oil on the planet with the greatest destruction.

This mine sits above the Green River. It is the drinking water for millions of people in Utah, Arizona, Nevada, and California, to say nothing of our prolonged drought. The eco system that is living on the Tavaputs is called the "Screngeti of the West," with beaver, elk, deer, running streams, and incredible wilderness.

Please take a good look at the Canadian tar sands and ask yourself if this is truly something that is good for Utah, our country, or our planet. Do we really want to let a foreign company strip mine our Serengeti, pollute our air and water, and increase our chances of cancer and other diseases? They've ruined forever a huge part of Alberta, and now they want to destroy the

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They say they will use a new way of getting the oil out. But if it is such a good way, why haven't they used it in Canada? Why are you so eager for us to be the test subjects on this? Grand County is still cleaning up the mess from the uranium mines in the 50s. It is a toxic legacy that is going on and on. This will be a toxic legacy also.

They say they will reclaim the land, but this is an impossible promise. You cannot reclaim a strip mine. We should not throw away the Tavaputs Plateau for any price -- any price.

Please, please be good stewards and save this land for our future generations. Let our grandkids have a chance to hunt and fish and play in clean air and water with abundant wildlife.

We ask you now to act responsibly and not only deny this additional permit, but take back the ones that are already issued and say no to tar sands now and forever. Please. And thank you.

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COMMENTS BY KATHRYN ALBURY MS. ALBURY: My name is Kathryn Albury, K-A-T-H-R-Y-N, A-L, B as in boy, U-R-Y.

Director Baza, thank you for giving us an opportunity to speak. I'm speaking today on behalf of Peaceful Uprising and Utah Tar Sands Resistance, two local grassroots environmental justice groups. We stand firmly against the expansion of US Oil Sands' PR Springs open pit mine, and we believe it's unconscionable for the State to allow the mine to begin operations at all, for they're wreaking havoe on the very environment that we depend on.

I think we've talked a lot about the water. I'll skip through that.

I want to say something about the amount of precipitation there. We have maintained a vigil at this site for five months last year, and a vigil is carrying on again this year as soon as the snow is melted enough for us to be there. Our campers have spent days in their tents because of heavy, heavy rains. Anything that's being piled up is being washed below. Water flows downhill, from the sky, it hits these piles — it goes somewhere. It's not staying up there on the top of this high ridge. This precipitation eventually washes the stuff into the Colorado watershed, and so it's affecting

40 million people downstream from this.

Just disturbing the tar sands rock releases toxins into the atmosphere that don't belong there and are not healthy for the people that are either working or living in the area.

Furthermore, the bitumen that US Oil Sands hopes to extract from this mine will be hauled in trucks burning diesel to Salt Lake City to be refined over here, right in this neighborhood, further damaging our air quality and the Wasatch Front, which is already bad. We're already in a red zone yesterday and probably today too.

I just want to close by challenging those of you that are making this decision and those of you with US Oil Sands to go up there and take a look. This is a beautiful area. It is not a dry, sandy desert, it is a beautiful upland area. There are lots of -- there's lots of wildlife there. Tory listed some for you. I've gone to bed in my sleeping bag listening to the turkeys gobbling in the trees and the coyotes howling. This area is used by a lot of different people for camping, for exploring, for hunting. It needs to be maintained as this. And I encourage you to take a look at this before you choose to destroy it. Thank you.

COMMENTS BY JILL MERRITT

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MS. MERRITT: My name is Jill Merritt, M-E-R-R-I-T-T.

I just would like to point out that the hearing notice says that this hearing is being held for the purpose of hearing objections of any person or agency aggrieved by the tentative decision to approve the revised notice of intent. It does not meet that standard, in that the Company was presenting objections to the objections. So the whole two hours has been given over to -- with some portion of it given to the Company to state its case.

This hearing doesn't qualify as a mechanism for problem input, so I think you need to hold another one; or better yet, just withdraw your tentative approval.

COMMENTS BY SUZANNE STENSAAS
MS. STENSAAS: My name is Suzanne Stensaas,
S-T-E-N-S-A-A-S. I speak as a private citizen. I'm a
member of many of the groups that have been represented

by Tim Wagner.

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I'm reminded of my mother's story of the little oid lady in the vinegar bottle. She had all these wishes, and she wished for too much and she ended up back in the vinegar bottle. I don't know if you've ever heard that story. But it reminds me that this Canadian company -- we are here today because maybe they were a

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little bit too greedy. They had a permit and they didn't have enough. They wanted more land. They wanted it bigger and better under the excuse that there would be less overburden, they could start to rehabilitate it sooner.

Well, this opens a can of worms. And let us use this opportunity of their potential greed to pollute our atmosphere and our air and our refineries spilling out here and the transportation down the road and the Uintah Basin and all the wildlife, let us use this as an excuse to say no. They opened the can of worms and they cannot put it back.

Let us deny the permit totally. They came back for more; they should not get it.

COMMENTS BY TANJA LONDON

MS. LONDON: Hello. My name is Tanja London,
T-A-N-J-A, and London just like the city.

I also speak as a private citizen. And I'm curious about, as we are all interested in making right decisions, in how far the scientific data that has come out in Alberta compares to what we have to deal with here and what is applicable offsite. There's a coalition of scientists -- I think they are about 100 throughout North America -- who made a "Ten Reasons for a moratorium against tar sands production" and how far these

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considerations can be taken into account for the decision. I have a printout here, it's also online.

And I feel even if there's a new process and a new solvent, where is the scientific proof that it's not doing the same thing than up at Alberta? That's my question: Who wants this?

HEARING OFFICER BAZA: Thank you. COMMENTS BY HANS EHRBAR

MR. EHRBAR: Okay. My name is Hans Ehrbar, that's E as in Edward, H as in Henry, R as in Robert, B as in boy, A as in apple, R as in Robert. I am a professor of economics at the University of Utah. I'm emeritus as of tomorrow morning.

And if you could prove me wrong, I would be happy about it. But it seems the principles by which DNR seems to be operating is about the following: Mining has a beneficial impact on our lives; therefore, mining operations should be permitted unless there's good reason not to do this. And that is basically a deviation from the "Polluter Pays Principle," because it says that we, as a society, want to bear the pollution of mining because mining is so beneficial.

So this is probably buried in some legislation and stuff like that, but it is a principle which I'd like to question in the -- in the light of more recent

research, which focuses more on the previously-neglected side effects of many things which we are doing, including mining, including what is called here "disturbance of the environment," which is regular destruction of environment

for a long time.

And therefore, we need — we need more strict adherence to the "Polluter Pays Principle" and also to the principle that a mining operation, someone who with wants to conduct a mining operation, has the obligation to do everything they can to make sure that there is no pollution or to measure how much pollution there is.

So I was quite taken aback by the attorney of the Company saying, "How far do we have to go to disprove a connection?" You have to go all the way to disprove a connection. If there is no evidence, then you have to replace at that evidence and take it into account instead of saying, "Oh, we did already. We already have a permit from the water quality department, and we don't have to do this anymore."

That is my comment.

HEARING OFFICER BAZA: Thank you. COMMENTS BY KAITLIN BUTLER

MS. BUTLER: My name is Kaitlin Butler, K-A-I-T-L-I-N, last name Butler with one T.

I'm an environmental sociologist with a focus on

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climate change, but I'm speaking today as a community member and as someone who was born here. My friends and also the people who have been testifying today or have been speaking today have covered so much of what I was going to say, so I'm going to cut it short to allow for more people to speak.

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But I did want to touch back to what I lans had spoken about, about principles and about the scientific method for understanding whether an activity will be harmful or not, for whom, and for how long.

We're talking about a project area and about boundaries that we can see on this map. But we know that the impacts from these projects are not bounded in space and time in the same way. The facts around tar sands projects are incontrovertible. We have other sites that we can look at to see what the impacts are. What we have not yet had the opportunity to do is see how long these impacts will last.

We do know that they destroy ecosystems. We do know that they use insufficient amounts of energy and water; hence, the desire to use a solvent. And to contribute to local and global heat-trapping greenhouse gas emissions, which in turn contribute to climate change. Like the water systems, the mine will impact the atmospheric properties that are not bounded by state

borders.

I'm not going to go into what we know about climate change, but I will say that we do know that most of the fossil fuel reserves need to be left in the ground if we are going to have any chance of limiting a 2 degrees warming, which we also know could have irrevocable damage on the people and the planet.

But fossil fuel companies are understandably heavily invested in pumping this fossil fuel because it is tied to their profits.

They can make the case for growing their profits and the case for short-term local jobs. But the cost-benefit analysis I'm interested in is the future generations who will not receive the economic benefit from this mine, they will not use the energy from this mine, but they will be liable for its cleanup.

We know from other sites that with the messy, costly case of tar sands and oil sands, that future generations are inheriting a land trust that includes a ruined landscaped that cannot be restored, has not been proven to be capable of being remediated. And in this way, the State is incurring a debt and passing it on to future generations.

I ask here today: Who is representing the interests of future generations? I believe we have a

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responsibility to do so in the economic debates we have about our environment and the decisions we make about our economy. And I believe that the government has the responsibility of holding certain things in trust, and that this responsibility includes serving as a trustee for the things that we need to actually live, which is water, air, land, plants, biodiversity, a stable climate, and our health.

We can source this responsibility in our own Utah State Constitution, which I will not read off now because it is long and we can all look it up. But the language is there, and we do have a responsibility to do this, and the government does as well.

I'm going to conclude and skip forward to the comment that was made by Hans about the purpose of research. And in sociology, we use this term called, "Free, prior and informed consent." And we have to do it when we want to involve a human subject in our experiment. And that human subject has to know everything about the experiment before the experiment begins to make an informed decision about whether or not they will be part of that experiment. There are communities around the country and in other areas who are claiming this right is a community right.

Right now, we do not have all of the information

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that we need as citizens and as a government to make an informed decision about the use of this new solvent and the impacts that this will have today and for longer time horizons that are not being included in the remediation claims being made by the mining

I encourage everyone who is gathering more information to include longer time horizons, include boundaries that do not reside within the lines that are bounded by the mine. And I encourage people to also think about how we fulfill our responsibility to a moral question that is, in fact, rooted in how we define equality.

It's easy to view this idea that we are eventually ancestors as abstract. But when we think about it in terms of us passing on, we understand that and it resonates with us. We know what it means to draw up a will, we know what it means to bequeath something to people that we care about. And we know what it means to understand and want to be remembered by the things that we've done in our life.

My question for the people who have been asked to gather more information and make this decision is to ask themselves about what will happen after the short period of time that this land has been ruined, the company has been allowed to sell this product and leave?

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What will we be passing on? What will be left in this trust? And how will we be remembered?

COMMENTS BY TINA SMITH

MS. SMITH: Tina Smith, T-1-N-A, S-M-I-T-II. And I'm a private citizen from Park City. 1 just -- I'll keep it quick.

Ditto on most of the points that have come up regarding the heavy metals and poisons and toxins that are going to be produced from this procedure for doing the tar sands, the air quality, ground scarring, water contamination, short-term, environmental, trucks, wildlife kill, the whole thing.

I vote to deny their permit.

COMMENTS BY BOB BRISTER

MR. BRISTER: My name is Bob Brister, B-R-I-S-T-E-R. I'm a resident of Salt Lake City. I've been an advocate for public lands and wildlife protection for almost 20 years now.

Mostly we heard earlier in the session about water quality, and that's an extremely important issue. And I thank Living Rivers for carrying the ball on that. There are a lot of other issues involved as well. I have three quick questions maybe you could answer.

Has there been any quantification of the greenhouse gas emissions from the mining, processing,

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transportation, and use of a product from this project?

MR. CRAPO: You know, we can take your questions as just rhetorical questions.

MR. BRISTER: Has there been any quantification of the greenhouse gas emissions from the mining, processing, transportation, and use of the product from this project?

HEARING OFFICER BAZA: No. This isn't a time for us to do a Q&A with you.

MR. BRISTER: Just a "yes" or "no" is good.
HEARING OFFICER BAZA: I really don't want to go
into this.

MR. BRISTER: I'm sure you don't.

HEARING OFFICER BAZA: We'll just take your questions. They are part of our recorded material. And, you know, we'll take that into account as part of our random.

MR. BRISTER: Okay, The second question would be: What about wildlife habitat and wildlife corridors? The Tavaputs Plateau is an extremely important wildlife habitat area. If we are to get wolves back into Utah, one logical way for them to come here is to come here from Colorado, follow the Book Clift's going west and there on the Tavaputs Plateau.

Has there been consideration of wildlife

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habitat?

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Third question would be air pollution from the refining of these projects. Has there been any quantification of that? What is the impact on public health? Do the decision makers care about that?

There's something called a "Precautionary Principle." We heard about the "Polluter Pays Principle," which is very important. There's also the "Precautionary Principle," which means you don't move forward on something or a project unless you know that it's safe and it's good.

Don't gamble with our health. Don't gamble with the planet's health. Please take these considerations into account.

Thank you for the public who's shown up here. Thank you for the -- thank you to the non-governmental organizations who have been fighting this. Our public health depends on it. Our planetary health depends on it

COMMENTS BY SARA CALDWELL.

MS. CALDWELL: Hi. My name is Sara Caldwell. I'm a resident up in Coalville, Utah.

I've been really concerned about this project from the get-go. I actually moved to Utah -- I grew up here, moved away when I was grown up. I moved back

Page 92 because of this project. It's very important to me.

The impact of it is phenomenal. And it is so disheartening for me to sit in this room and hear how very callus the Company has projected itself, in that you don't feel as though we need testing and monitoring of wells. Even if there is no water, there should be every aspect of monitoring and testing to assure that this is safe and that the surrounding areas are not being affected. And I'm just disheartened at how very callus you were in this meeting today.

I'm disheartened that we can't ask questions and get answers as citizens. I want answers. I need answers. My family lives in Coalville, and we're affected by a proposed pipeline coming from these tar sands. The expansion of the tar sands will almost definitely guarantee this pipeline going through right across the street from where my mother lives, and I cannot have that.

I brought my son with me today as a witness of the future generations of how this process happened, and so that he knows that there were some of us in this room that stood up and said that we disagree and that we want answers, and that we were not given our answers and that we were not given the care from this company that we deserved.

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COMMENTS BY SARAH STOCK

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MS. STOCK: Hello. My name is Sarah Stock. I'm from Grand County. I've lived there for most of my life. And I also represent the Rising Tide Network, which is a grassroots movement to confront the root causes of climate change.

Dear Department of Oil, Gas and Mining, how difficult it must be for you these days to have your jobs. You sit on a board designed to regulate an inherently toxic and destructive sector of society, which you acknowledge. Your job is to put people's lives, health, hunting grounds, and homes on one side of a balancing scale, and corporate profits on the other.

You must often ask yourselves: How much can we get away with before people stop us, before the human cost is so high?

Well, I'll tell you: The cost of tar sands, any tar sands mining, is too high. As a global society, we are forced to tackle the giant problem of climate change. High carbon fuels will be the first to go, and we're already seeing this.

We are all part of a strong, growing, diverse movement fighting for justice, equality, and a living planet that spans the globe. Our tactics are many. We fight locally using county governments and direct action. Page 94

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We fight on the state level with lawsuits aimed at enforcing already-existing regulations. We fight on a national level by coordinating and communicating so that folks all over the country can take action where it's relevant.

Look at the massive public demonstrations recently and costly direct actions happening across the country: Seaule export terminals, Texas pipelines, the Tavaputs Plateau, this very mine, Michigan, California and beyond, all targeting infrastructure for tar sands development. It's obvious that you should listen to the sound logic and science presented here today. But if that can't break through your blind mission to develop dirty energy at any cost, I'm hoping that my blunt honesty might.

This is an ethical battle, and you are going to lose. You will lose if your agenda is to stubbornly hold onto the promise of oil shale, tar sands, and dirty energy.

Will you be the people who allow this unacceptable damage to people's health and the climate to continue unchecked? Or will you be the people to step up to the challenge and help us transition our society to one that doesn't place corporate profits for a few over the needs of all people on the planet? It starts here

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nues every 1 and assemble scientific data to be used to try to

positively affect public land and wildlife management in
 Utah. And while it is the position of Wild Utah Project

4 that we hope that the permit expansion is not approved

and, ideally, the current permit is revoked, in that the
 case that any tar sands mining occurs up on PR Springs, 1

7 just have one small piece of advice to DOGM and to US Oil

8 Sands. And that is, if you want to appear to not be

9 biased -- an issue that came up this morning -- I would 10 suggest that instead of saying. We don't need to compare

11 any pre-project spring characterization to post-project

implementation and spring characterization -- instead of

saying that, regardless of where you think the recharge
 zone is or the flow pathway to those springs, go ahead

and commit to post-project monitoring of those springs so
 we can see if any of the hydrocarbons or anything else

from the project end up in them. That's how you will appear to not be biased. Thanks.

COMMENTS OF TOM FADDIES

MR. FADDIES: My name is Tom Faddies. I manage the mining group at State of Utah School and Institutional Trust Lands Administration. I represent the landlord.

We appreciate this process, and we have great confidence in the ability of the Division of Oil, Gas and

1. with this mine expansion permit, and it continues every 2 day for the rest of your life. Change with us. 3 MR. CRAPO: Just one second, please. 4 (Mr. Crapo and Mr. Baza conferred.) 5 MR. CRAPO: Go ahead. 6 COMMENTS BY MIRANDA PRATT 7 MS. PRATT: Thank you. My name is Miranda 8 Pratt, that's M-I-R-A-N-D-A, P-R-A-T-T. 9 Will you remind me of your name, the gentleman 10 with the mustache? 11 MR. DAVIS: I'm sorty, what? 12 MS. PRATT: Will you remind me of your name? 13 HEARING OFFICER BAZA: Mr. Davis. 14 MR. DAVIS: John Davis. 15 MS. PRATT: Mr. Davis, Awesome. 16 You spoke to the ideas of common sense and a 17 waste of resources. I just wanted to point out that the 18 resources I'm assuming you're speaking of arc time and 19 money, but it makes no common sense to waste the 20 resources of clean water and destruction of habitat. 21 Thank you. COMMENTS OF ALLISON JONES 22

MS. JONES: Hi. I'm Allison Jones, director of

Our scientists and biologists conduct research

Wild Utah Project. That's A-L-L-I-S-O-N, Jones.

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Mining and DEQ to address the issues that have been raised today. We think US Oil Sands is a high-quality lessee. They have the economic strength to see this project through to a successful completion.

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This stage of the process, in reality, is a very small endcavor. It's a pilot plan stage. It's a very expensive pilot plan stage. Trust Lands Administration traded into a large block of lands in this area, working over decades. And our objective was to acquire high-value mineral properties. It's our job to make money for our beneficiaries, as crass as that sounds.

We trust the Division of Oil, Gas and Mining to do their job. We trust DEQ. And we would ask for all your support and your continued comments in helping them reach a successful conclusion in this endeavor. These are problems to be solved. Thank you.

COMMENTS OF SEAN PORTER

MR. PORTER: My name is Sean Porter, it's S-E-A-N, P-O-R-T-E-R. I am an intern with Peaceful Uprising as well as Civically Engaged Scholar. I'm a student at Salt Lake Community College. My major -- I'm going into ecology. But for now, I just speak as a concerned citizen.

I have no doubt that you have the economic backing to complete the project.

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With all due respect, Tom, I believe that you are the minority. Because for every face here you see of concerned citizens represents hundreds of people that couldn't make it here today. And our voices will get louder, and we will -- our crowds will get bigger until you realize that the majority of the people here -- and not here -- are against this forever.

That's all I have to say.

COMMENTS BY NANCY EVENSON

MS. EVENSON: I'm Nancy Evenson, E-V-E-N-S-O-N,
refired architect.

There are two things. The first is I'm new to this process. Can you tell us when and where the information that we've heard today will be posted --hopefully on the Internet -- so that we can go home and give correct information to people who are not here?

HEARING OFFICER BAZA: I'm going to make a closing comment in just a minute, and I'll try to address that.

MS, EVENSON: Thank you. And the other question is: Has anyone from the Division here been to visit this company's latest other projects somewhere else?

HEARING OFFICER BAZA: You know, we have all been on site at this company's operations.

MS. EVENSON: Well, you've been on sitc here.

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Have you been on site to other --

MS. HILL: Have you been to Alberta?

MS. EVENSON: -- projects for this company?

HEARING OFFICER BAZA: I honestly don't have to answer that, but I will. I have been to Alberta, so --

MS. EVENSON: You have. Thank you.

MR. CUTHBERT: Just to clarify on that last comment, this project at PR Spring is the company's first commercial production project. We do not operate in Alberta. We have a test facility in Alberta, where we spent 13 years developing this process and testing it to understand how it works. But we do not have any commercial operations.

HEARING OFFICER BAZA: I have extended this beyond our initial two hours. I appreciate the time that you have taken to make comments to us. I did not want to close down this process because I thought it was valuable to hear your statements and your comments. I hope you have not felt that it's been a waste of time.

The public process that we have to go through is the fact that we are a public agency. All of the decisions we make are public record. If you go to the Division's website, you'll find all of the documents that have been submitted and that we have reviewed relative to this application. You'll see many comments and

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statements by the Division as part of that process and as part of our tentative approval.

I -- you know, I don't want you to feel like my mind is made up. I think you need to understand that there are things that have been said here today that have touched me, and I'm sensitive to those. And I'll be visiting with my legal counsel here to see how that is to be included in a final decision that I have to put out.

You know, we are bound by the rules to do a decision very quickly, within a reasonable length of time. I think it says approximately 10 days is what we have to do that in. And I'm going to try and be as close as possible to that. It may slip a day or two if we find ourselves needling over a particular issue.

But know that the comments received today, the information presented by Western Resource Advocates for Living Rivers, I think is important. And it's important not only to the Division, but I think the Company has been here to listen to all this as well. And it helps to tailor this process to be better and better. The process of regulating state government changes by degrees takes a lot of time. But I think this may be one of the activities that allows it to move forward with some improvement.

So having said all that, know that I will be

PR Spring Mine M/047/0090 June 30, 2015

	Page 101		Page 102
1	issuing a decision. Some of the questions that you have	3.	setting in front of the Board of Oil, Gas and Mining.
2	asked today, I have written down points that we probably	2	So the process is not over and done at this
3	should include in the decision that I make. So know that	3	point, although we have to close this part to move to the
4	within the next 10 days or so, you'll see that coming	4	next step.
5	out, and it will be part of the public documents that are	5	So I appreciate all of you being here. I thank
6	found online at the Division's website.	6	you for your time. I thank the Company and Mr. Dubuc fo.
7	MS. EVENSON: And this meeting will be on it?	7	your time.
8	HEARING OFFICER BAZA: In terms of the	8	And at this point, we'll put an end to this
9	transcript, probably not. Because the transcript	9	informal conference. And you'll see something come out
TO	itself I hate to say it, but you'll probably have to	10	of my office in a short period of time. Thank you.
11	pay for it to get a copy of it.	11.	(The matter concluded at 11:22 a.m.)
12	The Division has contracted with the court	12	
13	recorder for my purposes to obtain that transcript. But	13	
14	our contract with them is that if any other parties	14	
15	request a copy of that, they would need to pay for it.	15	
16	We have to pay for it.	16	
17	MEMBER OF THE PUBLIC: Will you continue to take	17	
18	written comments for a period of time, or is this the	18	
19	closure of any public comment for people who are working	19	
2.0	and are not here?	2.0	
21	HEARING OFFICER BAZA: No, it's not the closure.	21	
22	But as far as what we need to do to progress to the next	2.2	
23	step in this process, I need to issue a decision because	23	
24	the Company and Western Resource Advocates will have to	24	
25	decide if this is going to appeal to a more formal	25	
	Page 103		
J.	CERTIFICATE		
3	State of (Itali)		
4	SS.		
	County of Sait Lake		
5	County of Salt Lake) I, Michelle Mallonce, a Registered		
5	I, Michelle Mallonce, a Registered Professional Reporter in and for the State of Utah, do		
5	I, Michelle Mallonce, a Registered Professional Reporter in and for the State of Utah, do hereby certify:		
5 6 7	I, Michelie Mallonce, a Registered Professional Reporter in and for the State of Utah, do hereby certify: That the proceedings of said matter was reported by me in stenotype and thereafter transcribed		
5 6 7 8	I, Michelie Mallonce, a Registered Professional Reporter in and for the State of Utah, do hereby certify: That the proceedings of said matter was reported by me in stenotype and thereafter transcribed into typewritten form;		
5 6 7	I, Michelie Mallonce, a Registered Professional Reporter in and for the State of Utah, do hereby certify: That the proceedings of said matter was reported by me in stenotype and thereafter transcribed into typewritten form; That the same constitutes a true and correct		
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Before the Utah Division of Oil, Gas and Mining Department of Natural Resources State of Utah

In the Matter of: Protest of the tentative decision to approve the Revised Notice of Intention to Commence Large Mining Operations, PR Spring Mine, Uintah and Grand Counties, Utah.

Final Decision Approving Revised NOI

M/047/0090

The Division of Oil, Gas and Mining ("Division") held an informal conference to review its tentative decision to approve a revision to a mining permit. The mine operator, U.S. Oil Sands, Inc., ("Operator") had filed a Revised Notice of Intention to Commence Large Mining Operations ("Revision") with the Division last year. After multiple requests to amend and responsive amendments, the Division issued a tentative approval of the Revision to which it received written objections, which resulted in the informal conference.

The conference was held at 9:00 AM on June 30, 2015 in the auditorium at the Department of Natural Resources, 1594 West North Temple, Salt Lake City, Utah. John R. Baza, Director of Oil, Gas and Mining presided over the informal conference with the assistance of Douglas J. Crapo, Assistant Attorney General. The Division presented Paul Baker, Minerals Program Manager, and April Abate, Environmental Scientist III, and was represented by Steven F. Alder, Assistant Attorney General. Protestant Living Rivers, represented by Rob Dubuc, Western Resource Advocates, presented Dr. William Johnson and his work to the Presiding Officer. The Operator U.S. Oil Sands, Inc., represented by A. John Davis, III and M. Benjamin Machlis, Holland & Hart, presented Barclay Cuthbert, Vice President of Operations.

In addition to these parties, the Presiding Officer heard from Vaughn Lovejoy, Tim Wagner, Tory Hill, Kathryn Albury, Jill Merritt, Suzanne Stensaas, Tanja London, Hans Ehrbar, Kaitlin Butler, Tina Smith, Bob Brister, Sara Caldwell, Sarah Stock, Miranda Pratt, Allison Jones, Tom Faddies, Sean Porter, and Nancy Evenson.

The Operator had previously obtained a mining permit in 2009. The Board upheld the Division's approval in late 2012 and issued its Memorandum Decision in early 2013. Last year, the Operator submitted a revision to the existing mining plan, which expanded the disturbed area. On April 7, 2015 the Division issued a tentative approval to the Revision and published its decision on June 14, 2015 in the Salt Lake Tribune and Deseret Morning News; June 16, 2015 in the Uintah Basin Standard and Vernal Express; and June 18, 2015 in the Moab Times-Independent (Emery and Grand Counties). Because the Division received timely written objections of substance, the Division held this informal conference under the Utah Mined Land Reclamation Act, Utah Code Ann. § 40-8-13(d)(3) (West 2014), the Utah Administrative

Procedures Act, § 63G-4-203, and the Division's Administrative Procedures Rule, Utah Admin. Code Rule R647-5 (2015), http://www.rules.utah.gov/publicat/code.htm. In addition to the submitted objections, the Division received comments supporting the approval of the Revision.

When submitting an NOI, operators must describe potential surface and/or subsurface impacts. R647-4-109. The description must include projected effects on surface and groundwater systems, R647-4-106(8), and -109(1); identify any deleterious material that will be left on the mine site, R647-4-106(2); and projected effects on air quality, R647-4-109(4).

After careful review and consideration of the comments and objections presented before and at the conference, the Division gives its final approval of the Revised NOI conditioned on the Operator amending the NOI to (1) establish a monitoring program for potential effects to the possible subsurface water system, and (2) include further evidence of the Operator's compliance with the appropriate air quality regulatory authority or authorities. Those amendments must be submitted to the Division by November 1, 2015, and the Operator must not process ore until the Division approves the amendments.

An aggrieved party that participated in the conference or an applicant that is aggrieved by a conditioned approval may appeal this decision to the Board of Oil, Gas and Mining as a formal adjudicative proceeding under Rule 647-5-106(17) and Rule R641 by filing an appeal with the Board Secretary, Ms. Julic Ann Carter within ten (10) days of receipt of this decision.

Ms. Carter's address is Board of Oil, Gas and Mining, 1594 West North Temple, Suite 1210, Salt Lake City, Utah, 84116 and her phone number is (801) 538-5277.

DATED this 17th day of July, 2015.

DIVISION OF OIL, GAS AND MINING

John R. Baza, Director Oil, Gas & Mining

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Utah Division of Oil, Gas and Mining Upholds Tentative Approval of PR Springs Mine Expansion with Conditions

U.S. Oil Sands, Inc. Cannot Mine Ore Until DOGM Approves Conditions

Salt Lake City (July 17, 2015) – Following an informal conference and review by the Utah Division of Oil, Gas and Mining (DOGM), the division has upheld its tentative approval of the PR Springs mine expansion proposal, but with two new amended conditions.

DOGM's approval requires U.S. Oil Sands, Inc. to establish a monitoring program and plan for potential effects to the area's subsurface water systems. It must also submit evidence that confirms the mine is in compliance with the appropriate air quality regulatory authorities..

Both amendments are to be submitted to DOGM by Nov. 1, 2015 and U.S. Oil Sands, Inc. is not permitted to process ore until the division has approved both conditions.

"The informal conference held last month was extremely helpful. The feedback we received from concerned individuals helped us determine that these two additional amendments were necessary for the expansion to move forward. I believe the direction we've gone helps mitigate their concerns," said DOGM Director John Baza. "We're committed to accessing our state's abundant natural resources in an environmentally responsible manner. To ensure responsible mining at PR Springs, we have asked the mine operator to provide more information."

U.S. Oil Sands, Inc. initially obtained a tar sands mining permit in 2009 to mine ore and extract bitumen, a hydrocarbon used to fuel refineries. The approved mine included 213 acres of land on the border of Uintah and Grand counties near Tavaputs Plateau. Last year, the operator submitted a revision to its existing mining plan that would add another 104 acres to its operation. DOGM held an informal conference late last month under the Utah Mined Land Reclamation Act to hear from those who opposed the expansion.

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