BEFORE THE DIVISION OF OIL, GAS AND MINING
DEPARTMENT OF NATURAL RESOURCES
IN AND FOR THE STATE OF UTAH

IN THE MATTER OF THE
LILA CANYON EXTENSION, Cause No. C/007/013
HORSE CANYON MINE,
CARBON COUNTY, UTAH

TAKEN AT: Department of Natural Resources
1594 West North Temple
Salt Lake City, Utah

DATE: May 21, 2002

REPORTED BY: Scott M. Knight, RPR

APPEARANCES

HEARING EXAMINER:
LOWELL P. BRAXTON,
DIRECTOR, DIVISION OF OIL, GAS & MINING

FOR SOUTHERN UTAH WILDERNESS ALLIANCE:
W. HERBERT McHARG, Esq.,
SOUTHERN UTAH WILDERNESS ALLIANCE
P.O. Box 401
Monticello, Utah 84535

FOR UTAHAMERICAN ENERGY, INC.:
DENISE DRAGOO, ESQ.,
WADE BUDGE, ESQ.,
SNELL & WILMER
15 West South Temple, Suite 1200
Salt Lake City, Utah 84101

In the Matter of the Lila Canyon Extension
May 21, 2002
PROCEEDINGS

MR. BRAXTON: Why don't we go ahead and get started. There are copies of an agenda. I think I made 20 or 25 copies of an agenda. They should be around back here for those interested in that.

This is the time and the place for an informal conference discussing the Lila Canyon extension to the Horse Canyon Coal Mining and Reclamation Permit Application. The informal conference is contemplated under the coal rules. It's essentially an opportunity for public comment from parties that would like to comment on a permit application package. The time and the place were noticed, I believe, appropriately. I've heard no appeals on that. So I think we'll proceed.

I had had on the agenda an opportunity for introductions. We could go off the record for a minute and introduce parties. I'll note for the record that there was a long meeting this morning between most of the people that I see in the room right here. And if there's no need to

do introductions, I'll just look for somebody that says we do need to do introductions. If I don't hear a need for that, we'll just, we'll put the time and effort into the comments that the informal conference is designed to accommodate.

Any need for introductions? Seeing none, the only ground rules that I would like to apply to this meeting are, let's let the time that's allocated for people that want to speak fit the agenda as much as possible. And the other thing I want to say is we're making a record right here. We have a court reporter. He's really in charge of the meeting when I shut up in a minute. So please speak distinctly so that he can understand your comments and create a sound record. If people are talking over the top of him, I'm going to let him decide how he's going to hand that, but give him the deference that's due, that is due because this is your day to create a record here.

So having said that, I'll turn the table over to Southern Utah Wilderness Alliance.

MR. McHARG: Well thank you, Mr. Braxton, I'm Herb McHarg with Southern Utah Wilderness Alliance and I appreciate the

RECEIVED
MAY 31 2002
DIVISION OF
OIL, GAS AND MINING

Page 5

1 opportunity to present our concerns with the
2 permit application package. I'll refer to it as
3 maybe the PAP or the application today.
4 And I guess in addition to being here
5 today, we have submitted to the division an April
6 22, 2002, a letter that expresses our concerns
7 with the permit application. And it goes through
8 and organizes those concerns in terms of topic,
9 whether it be hydrology, biology, significant
10 revision, land use. Those various topics that we
11 had concerns with.
12 And, of course, I would incorporate
13 that letter into the record here today before us
14 as well as all the attachments to that letter.
15 We've attached an expert report by Elliott Lips
16 and also an expert report or declaration by Dr.
17 Ron Kass.
18 MR. BRAXTON: That's your April 22 fax
19 that you sent the Division--
20 MR. McHARG: That's correct.
21 MR. BRAXTON: 94 pages?
22 MR. McHARG: 94-page fax.
23 MR. BRAXTON: Thank you. We'll
24 incorporate that.
25 MR. McHARG: Thank you. I was told I

Page 6

1 could send by fax. I hope it didn't burn out too
2 much ink in your fax but I also sent it by
3 certified letter, return receipt. Anyhow, to
4 incorporate those.
5 And as we stated in those comments,
6 we're proceeding here today under the assumption
7 that although the Division has found that the
8 permit application package is administratively
9 complete, it doesn't mean that the Division has
10 found that all the data that's required by the
11 law has been submitted by UtahAmerican Energy, or
12 UEI. Rather, we expect that the Division
13 contemplates requesting and receiving additional
14 information from UEI that would help to address
15 our concerns and also the concerns that the board
16 raised in its order regarding the earlier permit
17 application.
18 As an initial matter, although we'd
19 just like to object the Division's determination
20 that the permit application is administratively
21 incomplete, it's our understanding that the
22 determination is essentially that UEI has, quote,
23 you know, filled in all the boxes in the check
24 list of an administrative determination and
25 nothing more than that.

Page 7

1 But we also believe that due to the
2 applications omission of required data, that the
3 PAP does not contain all the information necessary
4 for the initial processing and public review. But
5 having said that and regardless of whether the PAP
6 is administratively incomplete, we want to take
7 this opportunity as well as we have already in
8 writing to express our deep concerns with the
9 information thus far provided by UEI. And this
10 is especially true since the current permit
11 application is not substantially different than
12 those that have been submitted over the past three
13 years. Permit applications that this Division so
14 far, or has in the past, found to be inadequate
15 six different times. And then, when the Division
16 inexplicably approved UEI's final and significant
17 permit application that the Board denied that
18 approval. So this is an important process.
19 And we raised these concerns in our
20 April 22 comment letter and we'll take this
21 opportunity to reference those here to outline
22 them. And also to address some of the concerns
23 that were brought to light in this morning's
24 meeting. We'll just touch on those.
25 We don't expect today that these issues

Page 8

1 are going to be resolved. Rather, we raise these
2 issues for the Division to consider during its
3 technical review process. And we anticipate that
4 today's conference, of course, will raise
5 additional issues as did this morning's meeting.
6 And the Division's technical review process will
7 also raise additional issues. Therefore, the
8 Division will have further opportunities to
9 address the concerns that Sue has and we're
10 hopeful that the Division will do so.
11 We also are hopeful that the Division
12 will stand firm and require that UEI submit all
13 the information that's required under the, under
14 the rules.
15 I guess that's enough of an
16 introduction. And with the, in the interest of
17 time, I'll just start going through using, with
18 the help of Elliott Lips, and using our April 22
19 comment letter as an outline, we'll just review
20 some of the concerns that we have.
21 To start with, our first issue in that
22 letter on page .2 is our concerns with hydrology.
23 And I should note in this comment letter and
24 today in our discussion I think, I've touched on
25 it, but there, there may be other concerns that

Thacker + Co LLC
Court Reporters
Utah's Leader in Litigation Support

Corporate Offices: 50 West Broadway, Suite 905, Salt Lake City, Utah 84101
801-983-2180 Toll Free: 877-441-2180 Fax: 801-983-2181

Page 9

1 we had that we won't be able to express until, of
2 course, we see the Division's technical analysis.
3 It would be presumptuous of us to try to assume
4 how the Division at this point is going to handle
5 the data that UEI has thus far submitted. So
6 with that, our first issue under Topic A is
7 incomplete baseline information. And 1A is our
8 concern over acid- and toxic-forming materials.
9 And I'll ask Elliott to summarize our concerns
10 regarding acid- and toxic-forming materials.
11 MR. LIPS: Okay, under Rule 624.300 the
12 applicant is required to collect samples from test
13 borings or drill holes and to analyze these for
14 acid- or toxic-forming materials. And this would
15 be, the analysis would be for the strata
16 immediately above and below the coal seam to be
17 mined. In short, these, the permit application
18 package does not contain indication that these
19 samples were collected or analyzed or any data
20 reporting the results of any such analysis.
21 We were made aware this morning in the
22 discussion that UEI has submitted analysis from
23 some borings that, approximately three miles away,
24 and we have not had a chance to review that
25 information. We assume that that was submitted to

Page 10

1 the Division, that that information, new
2 information will be considered by the Division
3 during its technical analysis. And we will review
4 that as well.
5 MR. McHARG: Okay. And then in terms
6 of subsurface water resource maps, I guess one of
7 our concerns is that we're somewhat perplexed
8 what, after three years and seven different
9 technical analysis, why these particular maps so
10 far I don't think have been produced.
11 MR. LIPS: Right. The rule 722-100
12 requires submission of cross sections and maps
13 showing the location and extent of subsurface
14 water, including aerial and vertical distribution
15 of aquifers and portrayal of seasonal differences
16 ahead. And as Herb stated, these maps have not
17 been provided in the PAP for the regional aquifer
18 and--or the perched aquifers.
19 This is probably a good point to
20 mention that the, some of the discussion this
21 morning pertained to what to call the lower of
22 these two water-bearing zones. For three years in
23 prior PAPs and technical analysis prepared by the
24 Division, CHIAs prepared by the Division, this has
25 been referred to as the regional aquifer. And

Page 11

1 apparently, the Division has, in the letter of--
2 well, in UEI's response to the comment letter, the
3 request of the Division is now referring to this
4 as the lower saturated zone or saturated zone,
5 whatever--they're not using the term "aquifer."
6 We take exception with that. And we, we, we'll
7 continue to refer to this and assume that it is
8 an aquifer.
9 MR. McHARG: And therefore all the
10 rules that relate to aquifers would have to be
11 complied with.
12 MR. BRAXTON: Might I ask in taking
13 expectation to that, have you looked at the
14 definition the Division uses in its coal
15 regulatory program for aquifer?
16 MR. LIPS: Yes, we have.
17 MR. BRAXTON: Okay.
18 MR. McHARG: Under Point A3, in terms
19 of surface water resources, Mr. Jay Marshall today
20 referred to a conversation that he had with a
21 rancher regarding some surface flows in the area.
22 The Division under our understanding, is required
23 to comply with the law and with sound science.
24 It's not, not to take anecdotal evidence and
25 hearsay when it's making its determination of what

Page 12

1 data needs to be submitted and what rules need to
2 be complied with. And we believe that the
3 Division needs to require UEI to collect and
4 submit data that is sufficient to demonstrate
5 seasonal variation and so far that data has not
6 been submitted. And we believe it must be
7 submitted in order to process this application.
8 MR. LIPS: And, specifically, the, the
9 required baseline data would be for Little--Lila
10 Canyon and Little Park Wash, which are two
11 intermittent streams within the permit area. And
12 we understand by their nature being intermittent
13 that there may be periods when there is no flow
14 in the streams and we acknowledge that. But
15 there are techniques for installing measuring
16 devices that will collect data on the stage or
17 crest height from which discharge can be
18 estimated. There are techniques for collecting
19 water quality samples that don't require personnel
20 to be there during a flow. And we believe that
21 it's within the realm of scientifically valid and
22 technology that does exist to collect the data for
23 both Lila Canyon and Little Park Wash. And,
24 again, we expect that the Division would comply
25 with the rules and request that data from UEI.

Thacker + Co LLC
Court Reporters
Utah's Leader in Litigation Support

Corporate Offices: 50 West Broadway, Suite 905, Salt Lake City, Utah 84101
801-983-2180 Toll Free: 877-441-2180 Fax: 801-983-2181

Page 13

1 MR. McHARG: Did you want to discuss 4?
2 MR. LIPS: Yeah. Point No. 4 has to do
3 with the quantity of groundwater in this saturated
4 zone. And, again, this is the zone that has been
5 referred to previously as the regional aquifer.
6 And the rules require applicant to submit data on
7 seasonal quality and quantity, I'll just focus on
8 the quantity for a moment here, including
9 descriptions at a minimum on approximate rates of
10 discharge or usage, depth of water in the coal
11 seam in each water-bearing stratum above and
12 below. So we're referring to the regional
13 aquifer, the deeper aquifer.
14 And as the surface water, the Division
15 has interpreted this rule to require collection of
16 baseline data quarterly for two years, and I just
17 want to go through a few points here to
18 illustrate that UEI has failed to submit the data
19 that's required under this rule. There are no
20 seasonal--there are no data on, that demonstrate
21 the seasonal quantity of groundwater from the
22 IPA-1, -2, and -3 wells which can be referred to
23 as piezometers. That's fine. These were sampled
24 twice in 1994, seven days apart. Only twice in
25 1995 and only once in 1996 and 2000. IPA-2 was

Page 14

1 sampled once in 2000. I'm sorry--once--the three
2 of them were sampled in 2001. And IPA
3 additionally was sampled in 2000, but that is,
4 it's infrequent, sporadic. It doesn't provide
5 seasonal baseline data.
6 In terms of providing an understanding
7 of the regional aquifer, UEI depicts the
8 piezometric surface as a uniform, uniformly
9 dipping planar surface over the entire permit
10 area, which we find unrealistic. Part of the,
11 the problem or our issue with this is that the
12 data from which this is based is IPA-1, -2, and
13 -3 wells which cover approximately one square
14 mile. And yet UEI has extrapolated that data out
15 over a six square mile permit area. In doing so,
16 they've ignored known elevation of the water
17 surface in the Horse Canyon Mine. They've ignored
18 the effect of the faults that run through the
19 permit area. And even its own data for the most
20 recent water levels for the IPA wells as shown in
21 Appendix 7-1.
22 The third kind of subpoint on this is
23 that there really is no information provided in
24 the PAP on the rates of discharge or area from
25 which this aquifer discharges.

Page 15

1 Yeah. In this morning's discussion, we
2 were talking about, on this aquifer and the
3 question was raised is, you know, where is the
4 discharge of this aquifer or this water bearing
5 stratum? And, you know, the truth of the matter
6 is that we can't say. We don't know where it
7 discharges, which I personally think is
8 unfortunate because I think the information should
9 be provided in the PAP that identifies where this
10 aquifer discharges. The fact that it has not
11 been identified is sort of a, in my opinion, a
12 glaring omission of characterization of an
13 important water resource.
14 In addition, UEI has acknowledged that
15 there are faults running through the mine site
16 east-west direction and have commented that they
17 are potentially affecting the movement and
18 occurrence and movement of the water in the
19 regional aquifer. Part of the explanation for
20 some of the differences in the IPA wells is
21 attributed to a fault. But beyond that, the PAP
22 doesn't address in any more detail the effect of
23 these faults and how they, how the faults affect
24 the movement of water that's basically unrelated
25 to the stratigraphy and whether or not there are

Page 16

1 aquifer--water-bearing stratum or aquitards, but
2 there is movement, subsurface movement of the
3 groundwater related to the fault which needs to be
4 addressed.
5 Our Point No. 5 has to do with
6 groundwater quality in the deep saturated zone.
7 Again, this is the regional aquifer. According to
8 the PAP and previous CHIAs prepared by the
9 Division, there are only four potential sources of
10 information on water quality in this aquifer,
11 these being Redden Spring and the three IPA wells.
12 In our discussion this morning, Jim Smith
13 clarified that Redden Spring does not discharge
14 from this aquifer and, therefore, there are only
15 three sources of potential information, the three
16 IPA wells. And UEI has never collected or
17 submitted a single water quality sample from any
18 of those wells. And, therefore, the plan is
19 completely devoid of any water quality data from
20 the regional aquifer.
21 The next point, Point 6, addresses the
22 upper aquifer, the perched aquifers that UEI has
23 previously referred to as the perched aquifers,
24 and I'll discuss water quality and quantity
25 collectively. The source of data for these

Thacker + Co LLC
Court Reporters
Utah's Leader in Litigation Support

Corporate Offices: 50 West Broadway, Suite 905, Salt Lake City, Utah 84101
801-983-2180 Toll Free: 877-441-2180 Fax: 801-983-2181

Page 17

1 aquifers comes from two seep and spring surveys:
2 one conduct by JBR in the fall of 1985, and the
3 second source of data is the seep and spring
4 survey conducted by EarthFax from 1993 to 1995.
5 And although at first glance it appears like there
6 are a lot of data on seeps and springs and if you
7 add it up, you get 79. I'd just like to point
8 out a little bit on closer examination the
9 relevance of some of these.
10 With regard to the JBR report, which
11 includes 19 seeps and springs, 9 are in the area
12 of the Horse Canyon Mine, and, therefore, do not
13 represent premining baseline condition. Nine of
14 the nineteen are outside of the Lila Canyon permit
15 area. Only one spring is within the Lila Canyon
16 permit area, and I note it's only 200 feet from
17 the Horse Canyon Mine, and that spring was not
18 sampled by JBR. It was identified in the
19 inventory but not sampled, therefore, the JBR
20 survey provides no water quality or water quality
21 baseline data for the permit area.
22 With regard to the EarthFax surveys,
23 which are summarized in Appendix 7-1, they list 50
24 seeps and springs; 35 of these are located outside
25 the permit area and 5 are in the area of the

Page 18

1 Horse Canyon Mine and, again, do not represent
2 premining baseline conditions. There are 14 seeps
3 and springs within the proposed permit area.
4 However, water quality data has only been
5 collected from one of these locations.
6 And therefore, again, although there
7 are apparently quite a number of seeps and
8 springs, the UEI is characterizing the water
9 quality of the entire permit area, 4,704 acres,
10 with data from one seep.
11 MR. McHARG: Essentially what we are
12 asking, then, is that the Division require that
13 UEI provide this data and, of all these seeps and
14 springs, and for baseline information and then
15 begin monitoring those seeps and springs today.
16 We can start today and start collecting the data
17 that's required under the rules.
18 MR. LIPS: Okay.
19 MR. McHARG: Yep.
20 MR. LIPS: Okay. The next group of
21 comments are related to the coal mine waste. And
22 I'll start off with, so this is B of our SUWA's
23 April 22 letter. Point 7 has to do with the
24 terminology and the reference to the coal mine
25 waste, and it's often confusing and inconsistent.

Page 19

1 Coal mine waste is a term which is defined under
2 the rules, and it includes waste rock mixtures
3 from underground workings or underground
4 development waste. UEI refers to this material
5 sometimes as rock slope material, which, a term is
6 not defined by the rules. And to be perfectly
7 honest with you, we're just a little confuse on
8 what this rock slope material is and how it will
9 be handled.
10 Several of these next few comments will
11 sort of blend together. Point 8 has to do with
12 the location and extent of this coal mine waste.
13 At different points in the PAP, it says that coal
14 mine waste will be disposed of at a refuse pile.
15 In some places it says it will be used as
16 structural fill material. In some places it says
17 it will be spread out and graded so as to be
18 compatible with natural surroundings. We're just
19 not clear if this is three different categories of
20 waste or three different ways in which the same
21 coal mine waste will be treated, and we're unclear
22 on what the volumes and weights for each of these
23 are. You know, I guess it just needs to be made
24 a little bit more clear how this will be handled
25 once it's brought to the surface.

Page 20

1 It sort of leads into the next point,
2 our Point 9, which is the treatment of this coal
3 mine waste. The application indicates that any
4 acid- or toxic-forming materials will be covered
5 by 4 feet of fill upon reclamation. However,
6 there's no indication of the volume of the
7 material that will be covered in this matter or
8 where the required fill material will come from.
9 The plan states that during reclamation,
10 approximately 44,201 cubic yards of material will
11 be distributed over the 20-acre--28-acre disturbed
12 area prior to placement of topsoil, but the plan
13 is not specific as to where that regrading will
14 occur or if it involved any of the coal mine
15 waste that was found to be potentially acid- or
16 toxic-forming.
17 And whether or not, what areas will be
18 covered with the four feet of clean material.
19 Sort of in the same regard, it's a
20 little unclear to us in terms of placing in all
21 of this material how the material will be tested
22 or actually it's very clear how it's stated to be
23 tested. But--which is something that we discuss
24 in Point 10. It says that the coal mine material
25 will be tested three times: the beginning, middle,

Thacker + Co LLC
Court Reporters
Utah's Leader in Litigation Support

Corporate Offices: 50 West Broadway, Suite 905, Salt Lake City, Utah 84101
801-983-2180 Toll Free: 877-441-2180 Fax: 801-983-2181

Page 21

and near the completion of the project. According to the plan there's approximately 25,000 cubic yards of material, which means that it would be possible for as much as 12,500 cubic yards of this material to be placed as structural fill if that, indeed, is one of the ultimate disposal locations for this material, without it having been tested for acid- or toxic-forming potential.

We think that's just simply too infrequent. If the material's not tested, it would seem that the safe assumption would be that it is acid- or toxic-forming in which case it would need to be treated as such and, again, the plan is unclear as to how that will be treated, whether or not it's going to be used as structural fill and regraded. And, and if testing is the only means of assuring that, then, then we find that that's too infrequent.

The next two comments have to do with-- next three comments have to do with the mine water discharge. UEI, our Point 11 has to do with the channel into which UEI proposes to discharge the water that's intercepted during mining and is it coming from this regional aquifer, which will be intercepted during mining.

Page 22

UEI proposes to discharge this mine water into Lila Canyon channel, which is also referred to as the north fork of Coleman Wash in accordance with UPDES permit, which is yet to be obtained. Our concern is that UEI has failed to write any qualitative or quantitative descriptions of the channel below the proposed discharge, and, therefore, it will be impossible to assess any impacts to this channel based on discharging the water.

We feel strongly that any discharge of water will have an effect on a surface channel that does not have water discharging in it presently. The channel morphology will change, sediment will be moved, beds and banks will be eroded. These issues need to be addressed and baseline data needs to be provided on the existing morphology of the channel from which comparisons can later be made.

MR. BRAXTON: Do you have a regulatory cite for that concern?

MR. LIPS: I don't offhand.

MR. BRAXTON: Okay. Thanks.

MR. McHARG: Got get that for you.

MR. LIPS: The second point is Point

Page 23

12, which has to do with increased salinity. And, again, this is referring to the mine water that's coming from the regional aquifer which would be discharged at the surface. And although the PAP doesn't provide information, we would assume that this would be low in total dissolved solids. This water will, this discharged water will flow for several miles over the Mancos shale before draining into the Price river through the Green River and ultimately the Colorado River. Inasmuch as the Mancos shale is highly saline, salts will be dissolved before the water drains into the Price River, and thus this project will increase the salinity of the Colorado River system by some unquantified amount, and we believe this is in contradiction to efforts to reduce salinity in the Colorado River basin. And the impact of this needs to be assessed.

MR. BRAXTON: Mr. Lips, if you have some data that substantiate flows actually reaching the Colorado River, I think it would be a good time to put that on the table.

MR. McHARG: Just to address that concern, we, if we have that information, we will submit it during this, the TA process.

Page 24

MR. BRAXTON: Okay.

MR. McHARG: However, as with all of our concerns, it is UEI's obligation, and they have, they carry the burden of proof to establish that impacts will not occur.

MR. BRAXTON: I appreciate that. What I'm hearing is some suggestions from a technical witness that infer that water will reach the Colorado and I'd like to know how you got to that point and if you have it, I'd like to put it on the record right now. Otherwise, I understand your concern but be as specific as you can, and I'm hearing a general concern and I'd like to you quantify if you could help us on that.

MR. McHARG: And we will do so if we can. And, however, as I, as I said, I think that it's important for the Division to always recognize that we are raising these concerns, and these concerns should be able to be answered by UEI's data submissions.

In terms of Point 13, the UPDES permit, because this application should be being processed completely as a new mine permit, we believe that UEI, then, would have to obtain a permit from the Utah Division of Water Quality and that this

Thacker + Co LLC
Court Reporters
Utah's Leader in Litigation Support

Corporate Offices: 50 West Broadway, Suite 905, Salt Lake City, Utah 84101
801-983-2180 Toll Free: 877-441-2180 Fax: 801-983-2181

Page 25

1 would, all the, the proper process would have to
2 be followed, including a notice of intent and all
3 relevant, up-to-date information and then there
4 would have to be another public review permit by
5 the Utah Division of Water Quality for that permit
6 issuance.
7 Another reason, we'll talk about it
8 later why it's so important that this is processed
9 as a new permit.
10 MR. LIPS: Okay. The next three
11 comments have to do with the water monitoring
12 plan. And Point 14 addresses the inadequacy of
13 the groundwater monitoring. UEI proposes to
14 monitor ground water from five seeps and springs,
15 which we feel is, on its face, is inadequate.
16 And it's made worse when you look at the fact
17 that L6G, one of them, one of the proposed
18 monitoring springs and above Horse Canyon Mine for
19 which there is no premining baseline data. Three
20 of the remaining four springs are allocated
21 outside the permit area. And, therefore, there's
22 only one proposed monitoring site in the permit
23 area for which baseline data exists. We find
24 that to be insufficient and would request or
25 expect, I guess, that the Division would require

Page 26

1 additional baseline monitoring. And the reason
2 this is important is that without baseline data,
3 there would be no basis for comparison during the
4 monitoring, monitoring data that's collected
5 during mining.
6 Point 15 has to do with the surface
7 water monitoring plan. Inasmuch as there are no
8 baseline data for Lila Canyon or Little Park Wash,
9 which do flow in response to snow melt run off in
10 the spring and also as a result of isolated
11 summer thunder storms, the baseline data does need
12 to be collected to provide a basis for comparison
13 to the monitoring data.
14 The Point 16 has to do with the fact
15 that the plan is completely devoid of any water
16 quality monitoring from the regional aquifer, the
17 deep saturated zone. As I said earlier, the only
18 source of information for these would be IPA-1,
19 -2, and -3, and UEI does, proposes to only
20 collect water depth information, not water quality
21 data from those wells.
22 The next point, Point 17, has to do
23 with the PHC, which is the probable hydrologic
24 consequence. This is a determination that is made
25 by UEI based on baseline data which is collected,

Page 27

1 should be collected for the permit application.
2 It's to include findings on whether or not there
3 are adverse impacts that could occur to the
4 hydrologic balance. We have a couple of concerns
5 here. One is that, as we discussed in previous
6 points, there are no baseline data on several of
7 these topics, and as required under the rule.
8 There really is a lack of understanding or
9 characterization of water in the deep saturated
10 zone or the regional aquifer, a failure to
11 identify the discharge area. And we find that
12 without this information, that the findings--they
13 can't be made in a reasonable fashion as to what
14 the impacts to the hydrologic balance would be
15 when the, the hydrologic resources are so poorly
16 understood.
17 And then further, even though Rule
18 728-320 specifically states that there will be
19 findings on whether acid- or toxic-forming
20 materials are present, those words, "acid- and
21 toxic-forming," never appear once in the PHC.
22 Our Point 18 has to do with the
23 cumulative impact area. We recognize that the
24 Division will prepare a CHIA and so we're not,
25 we're really here just wanting to raise some

Page 28

1 concerns that we hope the Division will consider
2 in terms of preparing their CHIA. One of the
3 first tasks in that would be to define the
4 cumulative impact area. And our concern is
5 essentially that UEI has not provided enough data
6 on the existing surface or groundwater resources
7 that the Division can work with and prepare a,
8 what I would consider, hydrologically reasonable
9 cumulative impact area boundary.
10 Specifically, that area of outflow or
11 the discharge from the regional aquifer, the deep
12 saturated zone, has not been identified; although
13 it's acknowledged in the PAP that this zone will
14 be intercepted during mining, water will be
15 removed from it. It's just crucial that this CIA
16 boundary is large enough to evaluate the impacts
17 that are likely to occur as a result of the
18 mining, specifically in the discharge area.
19 Now we have looked at some published
20 literature and provided an appendix in here,
21 Appendix A, prepared by the U.S. Geological
22 Survey, showing a cross section through an area
23 that is geologically and topographically similar
24 to the Lila Canyon area. And based on this
25 information, it appears that a likely discharge

Thacker + Co LLC
Court Reporters
Utah's Leader in Litigation Support

Corporate Offices: 50 West Broadway, Suite 905, Salt Lake City, Utah 84101
801-983-2180 Toll Free: 877-441-2180 Fax: 801-983-2181

Page 29

1 area for the regional aquifer would be Range
2 Creek. We've also, in the expert report that was
3 included as Appendix B, I've gone into some more
4 discussion of some other literature that's
5 prepared by the U.S. Geological Survey and other
6 sources that would demonstrate that interception
7 of mine water would lower the discharge, the
8 quantity of discharge in the discharge area. That
9 would either be in seeps and springs or it could
10 be providing base flow to, to streams, and those
11 are important for, for not just the looking at
12 the hydrologic balance but also because those are
13 important biological resources. We'll discuss
14 those separately.
15 We're just concerned that without
16 identifying the discharge area and having failed
17 to monitor the premining conditions, there will be
18 no basis for evaluating any impacts that would
19 occur to this discharge area.
20 And, again, I would just point out that
21 some of those arguments have been stated in a
22 declaration and expert report prepared by me,
23 which is included as Exhibit B of SUWA's April
24 22, 2002, letter. In some of those--
25 MR. BRAXTON: Mr. Lips, can you tell us

Page 30

1 when the USGS data were collected and what the
2 date of that report is? I'm sure it's in the
3 appendix that you've got, but for the record I'd
4 like to know that.
5 MR. LIPS: The report I cited in here
6 was published in 1985--
7 MR. BRAXTON: Thanks.
8 MR. LIPS: --by Gregory C. Lines, U.S.
9 Geological Survey, Water Supply Paper, 2259.
10 MR. BRAXTON: You okay?
11 Thank you.
12 MR. McHARG: Under heading two, moving
13 on to the engineering plan, some concerns that we
14 have with that, under Point 19--and I guess--let's
15 see. A few of these, these points mainly relate
16 to if, in fact, the mine is eventually permitted.
17 Obviously we have concerns about the, you know,
18 permitting of this mine at all to begin with.
19 However, we'll move on through these. Point 19,
20 there's an inadequate description of construction,
21 operation, or use and reclamation. And we're
22 concerned that, that of any surface facilities
23 being constructed in lands that have wilderness
24 character. And this will also be touched on when
25 we discuss land use.

Page 31

1 However, if, in fact, these facilities
2 are constructed, there are certain mitigation
3 measures that we believe would have to be part of
4 the permit and part of the application that aren't
5 there yet. At a minimum, these could include
6 camouflaging the facilities, noise control, light
7 control, that no operation should occur during the
8 evening when there would be a disproportionate
9 impact on the area's resource values and wildlife.
10 And further, the PAP needs to identify and analyze
11 any future potential disturbances, surface
12 disturbances that would result from this mining
13 operation. Today in our morning discussion,
14 MaryAnn Write brought up some other mines that, in
15 the future they had to apply for extensions or
16 permits for additional surface facilities,
17 venting, mine fans, sub station, things of that
18 sort. We're concerned that with the great extent
19 of this underground mine, that air quality inside
20 the mine may be bad at some point. They may find
21 that it's dangerous to the workers and that
22 additional venting structures or mine fans will
23 have to be installed. If that were to happen,
24 it's, they would potentially be installed within
25 an area of wilderness character or an existing

Page 32

1 wilderness study area. And, and we don't believe
2 that would be consistent with those designations
3 and those, all those, then, at this point, should
4 be identified and analyzed, not just disregarded.
5 I also have some concerns here, you
6 know, not hitting them all right now orally, but
7 that surveys plans and analysis of the impacts of
8 constructing, blasting, and heavy equipment of
9 such facilities must also be included in the PAP.
10 There's going to be additional impacts from the
11 surface facilities that are proposed so far under
12 the, in the, in the PAP and in the future, that
13 would have impacts on the resource values that
14 need to be addressed.
15 Under Point 20, "Subsidence and Repair
16 of Damage," the PAP states that no attempt will
17 be made to prevent subsidence in any area except
18 where the escarpment near the outcrop is to be
19 protected. And we're concerned that subsidence
20 will impact other areas and resource values, and,
21 including water. And if it impacts water, then,
22 in turn, it's going to have an impact on
23 vegetative resource, resources and area wildlife
24 that exists throughout the entire permit area or
25 the entire what should be the entire affected area

Thacker + Co LLC
Court Reporters
Utah's Leader in Litigation Support

Corporate Offices: 50 West Broadway, Suite 905, Salt Lake City, Utah 84101
801-983-2180 Toll Free: 877-441-2180 Fax: 801-983-2181

Page 33

1 or the CHIA boundary, whatever is finally
2 determined to be that.
3 Also, the PAP--
4 MR. BRAXTON: Do you have a citation
5 for that particular concern?
6 MR. McHARG: I don't, I don't have one
7 here with me. But I basically, these concerns
8 were raised from the discussion the engineering
9 plan that appeared in the permit package
10 application package. And you can do that for
11 ease of your review of today's record any of the
12 concerns that we have raised under our headings,
13 you can also look at those headings in the permit
14 application package and see the discussion there
15 that UEI has submitted thus far.
16 MR. BRAXTON: Okay.
17 MR. McHARG: We did it in terms of
18 headings rather than specific rules for a couple
19 of reasons: one, that the rules jump around, and
20 we felt that it would be easier for your review
21 to look at our concerns in terms of topic rather
22 than rule. And also, obviously, we have concerns
23 generally with this permit application package
24 under, under the Division rules, and would not
25 want to limit ourselves at all in raising any

Page 34

1 specific issues or specific rules.
2 MR. BRAXTON: Very good.
3 MR. McHARG: In addition, our concerns
4 with subsidence, the PAP needs to consider what
5 will occur in terms of reclamation of any
6 subsidence impacts in areas of wilderness
7 character or WSAs. The PAP ignores the fact that
8 UEI proposes to mine beneath the Turtle Canyon WSA
9 and the Desolation Canyon Wilderness Inventory
10 Unit. No mechanized equipment would be permitted
11 in these lands to repair the surface damage and,
12 therefore, the PAP should explain how it's going
13 to prevent such damage from occurring and in the
14 event such damage does occur, how UEI intends to
15 repair this damage. And also, which I'll discuss
16 later, but, you know, bonding and any cost
17 estimates in terms of reclamation would have to
18 reflect any additional costs that would incur
19 because of this damage in these sensitive areas.
20 MR. BRAXTON: I'd like a cite on that
21 particular issue sometime from you, if you could
22 provide it for me.
23 MR. McHARG: Okay. The subsidence and
24 repair of damage?
25 MR. BRAXTON: Yes, a cite that

Page 35

1 demonstrates that somebody needs to bond in order
2 to cover subsidence repair costs.
3 MR. McHARG: Okay. And it also relates
4 to Point 21, which, this will somewhat answer your
5 question: With the outdated reclamation cost
6 estimate, there is, then, the requirement or a
7 cost estimate that relates to reclamation. And I
8 would, what I'm saying is that cost estimate would
9 have to reflect any additional expenditures that
10 will take place because these reclamation
11 activities are occurring in sensitive lands.
12 MR. BRAXTON: And that's the part I'd
13 appreciate the citation on.
14 MR. McHARG: Okay. Got it.
15 Point 21. Elliott, do you want to
16 discuss that?
17 MR. LIPS: Yeah, the reclamation cost
18 estimate presented on the PAP, and that's in
19 Appendix 8-1, uses acceptable practices for
20 estimating costs, but the means heavy construction
21 data is two years old and the caterpillar
22 performance handbook edition is three years old,
23 and we would just ask that UEI provide an updated
24 cost estimate so we have current costs for
25 reclamation.

Page 36

1 Point 22 is, it's really probably a
2 clerical error but we ask that it be cleaned up.
3 The earthmoving portion of the estimate states
4 that approximately 44,201 cubic yards of material
5 be distributed, and that 61,000 cubic yards of
6 topsoil be replaced. That's two different
7 reclamation tasks and we acknowledge that the haul
8 distances are different; however, the final cost
9 to load and haul these materials is estimated to
10 be exactly to the dollar the same amount, even
11 though one is 22,000 more cubic yards. It
12 appears to be identical entry for two different
13 tasks. And, therefore, we ask that a reclamation
14 cost estimate and bond amount be revised to
15 reflect what the actual costs are going to be.
16 The next comment has to do with soils.
17 This is our heading 3, starting with Point No.
18 23. There was some discussion this morning, let
19 me preface this by saying there was some
20 discussion this morning about the quantities of
21 topsoil and subsoil. Maybe we can discuss, I'll
22 combine 23 and 24 together. It is not apparent
23 in the plan and, therefore, we were concerned that
24 the minimum requirement of 18 inches of topsoil
25 was not available on-site. It was clarified this

Thacker + Co LLC
Court Reporters
Utah's Leader in Litigation Support

Corporate Offices: 50 West Broadway, Suite 905, Salt Lake City, Utah 84101
801-983-2180 Toll Free: 877-441-2180 Fax: 801-983-2181

Page 37

1 morning that that's actually 18 inches is the
2 maximum amount of topsoil that would be salvaged
3 and replaced. In some cases it would be as
4 little as 6 inches.
5 There seems to still be some
6 uncertainty about the subsoil material and how
7 that will be handled, whether or not that material
8 is actually picked up and moved or left in place
9 and called subsoil. If it's picked up and moved,
10 where will it be stored? How much volume of
11 material and how will it be replaced? And this
12 ties a little bit back to the discussion of the
13 coal mine waste and the need to have 4 feet of
14 clean material to be placed over the coal mine
15 waste. And we're just a little unclear as to
16 where that material will come from, how it will
17 be salvaged prior to mining, where it will be
18 stored, and where it will be placed. And based
19 on our discussions this morning, it's my
20 understanding, at any rate, that the Division
21 will, will ask for some clarification on some
22 handling of this material.
23 MR. McHARG: Okay. Point 4 is our
24 discussion of concerns on biology, both vegetative
25 resources and wildlife. Under the rules at

Page 38

1 301-310, the applicant is required to describe the
2 vegetative, fish, and wildlife resources within
3 the permit and adjacent areas, and this
4 description becomes the baseline for evaluating
5 potential impacts. And in finding this, this
6 description, UEI is required to use the best
7 technology that's currently available.
8 At that point, mitigation measures can
9 be identified and required for implementation into
10 the operational plan and the design of the
11 reclamation plan to restore or enhance the
12 environmental resources that support species for
13 post mining use. And the post mining use will
14 discuss when we discuss land use, but that post
15 mining use through this permit area would be
16 wilderness.
17 The rules require site-specific
18 information regarding special status species and
19 habitats of unusually high value such as unique
20 water sources and riparian zones. And the PAP,
21 however, fails to submit necessary vegetative and
22 wildlife information on all the lands and habitats
23 that are potentially affected by the operation of
24 the mine.
25 Many of our comments on biology are

Page 39

1 tied directly to our comments and concerns on
2 hydrology that if the hydrological resources are
3 not understood and baseline data is not
4 established, then any impacts that occur from the
5 mining operation on those resources will, then,
6 impact vegetation and wildlife. A couple of
7 points that are worth mentioning from our
8 discussion this morning: First, we have concerns
9 with the CHIA boundary and where the regional
10 aquifer will discharge, and then any impacts that
11 would result from mining into those waters. The
12 Division has stated that it is going to discuss
13 those concerns in the CHIA and we're, we
14 anticipate reviewing those and we're hopeful that
15 all of our concerns are addressed.
16 However, the same concerns also need to
17 be looked at and analyzed in terms of wildlife.
18 If the Division is looking at the impacts to the
19 Range Creek drainage, for instance, in the CHIA,
20 all of the same concerns in this area would have
21 to be looked at for wildlife also. So UEI should
22 submit information to the Division: surveys, all
23 necessary baseline data that would describe the
24 vegetative resources and the wildlife resources in
25 that area as well.

Page 40

1 One other concern I have that was
2 raised in our discussion this morning is that the
3 Division does not anticipate that it will require
4 information and analyze certain discrete springs
5 or seep sources, water sources for their review of
6 the hydrology section of the PAP and the TA
7 analysis. It's worth mentioning, it's extremely
8 important that these discrete water sources are
9 crucial to vegetative resources and to area
10 wildlife. And so, although we also disagree with
11 the fact that these spring sources and seep
12 sources don't need to be looked at for hydrologic,
13 we think they do, they definitely need to be
14 looked at in terms of wildlife and vegetative
15 resources, you know, in an arid landscape, each
16 source, whether it's discrete or tied to a certain
17 system of springs and seeps, is crucial to area
18 wildlife.
19 In our discussion under Section 4, just
20 so we can follow, 4A, 25, inadequate vegetative
21 information, we discuss our concerns with the lack
22 of current data for the entire area. I
23 mentioned, I discussed this just before basically.
24 In addition to the surface facilities, vegetative
25 resource information, baseline information needs

Thacker + Co LLC
Court Reporters
Utah's Leader in Litigation Support

Corporate Offices: 50 West Broadway, Suite 905, Salt Lake City, Utah 84101
801-983-2180 Toll Free: 877-441-2180 Fax: 801-983-2181

Page 41

1 to be established for the entire affected area.
2 We've included a declaration of Dr. Ron Kass as
3 Exhibit C and also in Exhibit D, selected pages
4 from Utah Endangered, Threatened, and Sensitive
5 Plant Field Guide, 1991 and, therefore, data for
6 vegetation information needs to be collected over
7 the entire affected area including seeps and
8 springs, the Range Creek drainage, the Price River
9 drainage, any waters that could potentially be
10 affected by this mine operation.
11 On 26, we have a concern over failure
12 to address subsidence adequately. Here we say
13 that the rules, the rules require description of
14 the anticipated impacts of subsidence on renewable
15 resource lands and how such impact will be
16 mitigated.
17 So far in the application, UEI has
18 stated that, "No negative impacts to vegetation
19 are anticipated," and then further explains that
20 it responds to any loss or diminished vegetation
21 with a corrective mitigation plan. We feel that
22 this fails to comply with regulations and that the
23 Division should require this description now
24 rather than later, and also that UEI has ignored
25 vegetation impacts to the many seeps and springs

Page 42

1 that are present in the permit area in the
2 affected area and has not provided a baseline
3 inventory of the species that are dependent on
4 these critical water sources.
5 We are concerned that subsidence will
6 dewater these seeps and springs and that these
7 seeps and springs support unique vegetative
8 communities and also that once they're dewatered,
9 no mitigation plan could correct this impact. And
10 so far that's all that UEI has proposed is that
11 it will establish a mitigation plan if certain
12 subsidence occurs. And we just don't find that
13 this would be adequate.
14 Under Point 27, "Reclamation," this
15 ties into the other issue that I had raised
16 before with reclamation, that vegetation
17 reclamation must not involve the use, well, this
18 is another concern, that it must not involve the
19 use of chemical agents to control weeds, insects,
20 or animal species and that no lethal means should
21 be employed to control wildlife. What ties back
22 to what I was talking about is that the site must
23 be reclaimed to premining conditions. In this
24 case, it's wilderness. And, therefore, all
25 reclamation activities must meet this performance

Page 43

1 standard.
2 MR. BRAXTON: Help me for the record.
3 Is the entire permit application area wilderness
4 right now?
5 MR. McHARG: I'm trying to recall
6 exactly the acreages. I think that--yeah, the
7 surface facilities are located in, in an area of
8 wilderness character, found by the BLM in 1999 to
9 have wilderness character. And then the
10 underground mining operations would be underneath
11 an existing wilderness study area, and also
12 underneath--is that the map of it?
13 MS. WHITE: Yeah. It's the inventory
14 area. And this is the WSA (Indicating).
15 MR. McHARG: Okay. And you mean that
16 green boundary is the--
17 MS. WHITE: WSA.
18 MR. McHARG: Right. And that green
19 boundary right there is your permit area. And so
20 the crosshatch would be the area that the BLM has
21 found to have wilderness character, so that's
22 wilderness character area. And the green shading,
23 then, would be an existing WSA, wilderness study
24 area.
25 MR. BRAXTON: Do you know what the BLM

Page 44

1 is doing in terms of that, that's a citizens
2 wilderness area or a 1500 wilderness area that
3 we're referring to right there?
4 MR. McHARG: No, what we're referring
5 to right there is an area that the BLM itself in
6 1999 had inventoried and found to have wilderness
7 character. And I think what's important, and
8 we'll discuss this during our land use discussion,
9 but what's important to note is that the Division
10 needs to follow its, its regulations and its
11 regulations require that, that the area be
12 restored to what the land is capable of supporting
13 or a higher use. And if the BLM has so far found
14 that this area has wilderness character, then I
15 would believe that the Division would have to
16 assume that the land is capable of supporting that
17 use, not look at what the legal designation of
18 that particular area is at the time, but what it
19 is capable of supporting. And one, and, and the
20 Bureau of Land Management has stated publicly and
21 in its 1999 inventory that this area has
22 wilderness character. So I would think that,
23 then, the Division would have to look at that,
24 that is what it is capable of supporting.
25 MR. BRAXTON: It's not a designated

Thacker + Co LLC
Court Reporters
Utah's Leader in Litigation Support

Corporate Offices: 50 West Broadway, Suite 905, Salt Lake City, Utah 84101
801-983-2180 Toll Free: 877-441-2180 Fax: 801-983-2181

Page 45

1 wilderness then, it's just a character
2 designation?
3 MR. McHARG: That's correct.
4 MR. BRAXTON: Okay, thank you.
5 MR. McHARG: It's an administrative
6 designation, it's not a wilderness designation by
7 Congress. But in terms of the Division's purposes
8 and under their rules, then they would have to
9 consider that as, well, that is what it's capable
10 of supporting. Whether it is supporting that
11 resource or that management designation at this
12 point, I don't think is the issue. The issue is
13 whether it's capable of supporting that.
14 MR. BRAXTON: But a decision by the
15 land managing agency would have some, we would
16 have to take whatever the land managing agency
17 gives us in terms of how that area should be
18 treated into consideration in the permit
19 application package; that's what you're saying?
20 MR. McHARG: That's true. And we have
21 included an exhibit in our comments that shows
22 that the, you know, using the same terminology of
23 the Division's regulations, that essentially the
24 BLM has found that it is capable of supporting
25 wilderness because they have said that it has

Page 46

1 wilderness character. And I'd refer you to our
2 exhibit that we have attached as, I think it's
3 Exhibit E . . . Exhibit E.
4 MR. BRAXTON: Thanks.
5 MR. McHARG: In terms--okay. 4B. 4B,
6 "Inadequate Wildlife Information," again, I
7 discussed this more broadly when I began talking
8 about biology. There, we have, we have concerns
9 that are tied directly to hydrology. We also
10 have concerns under 28, that there is an absence
11 of site-specific resource information. You know,
12 those are also tied to hydrology in terms of
13 seeps and springs and other water sources that are
14 crucial to wildlife.
15 Twenty-nine: "Failure to Address
16 Potential Flycatcher Impacts." The permit
17 application states that there's no perennial water
18 sources or riparian areas in the permit area or
19 the proposed addition. And, again, we have, we
20 believe that the, the affected area would include
21 perennial water sources and, therefore, there has
22 to be, the impacts to Southwest Willow Flycatcher
23 would need to be addressed.
24 Sensitive, threatened, and endangered
25 species surveys need to be updated. And, of

Page 47

1 course, the surveys would need to be performed at
2 the right time by the right people. And, and
3 that information would have to be provided to the
4 Division.
5 Same is true with special status fish
6 species. There's a concern because the affected
7 area does not include Range Creek or any other
8 streams that could potentially be affected by the
9 mining operation, that these fish species are
10 being ignored. And we believe that the Division
11 should require UEI to submit the required data.
12 Again, this holds true with amphibians
13 in terms of the various springs and seeps that
14 are ignored so far in the data submitted by UEI.
15 They may occur within these unique habitat areas
16 and we would hope that the Division would require
17 UEI to survey for amphibian species and to submit
18 the required baseline data. We've raised that
19 concern also with snake dens, that they need to
20 be surveyed for within the area. I think the PAP
21 contains a statement that dens don't exist in the
22 area. We'd like to see the survey data for that.
23 Let's see. "Failure to Address
24 High-Value Wildlife Habitats" in Point 33. We
25 raise a concern that high-value wildlife habitats

Page 48

1 are given little scrutiny under the current PAP.
2 And the Division of Wildlife Resources, we've
3 recognized in correspondence, files for this
4 permit application package that are available in
5 the public information room, that the, that DWR
6 also shares our concerns that, they say in a
7 letter dated April 24, 2002, from DWR to the
8 Division, that as we have expressed before, we are
9 concerned about the displacement of bighorn sheep
10 and chukars from Lila Canyon. We are also
11 concerned about the increased danger to prong horn
12 antelope along the proposed access road between
13 Lila Canyon and Highway SR-6. Finally, there are
14 three eagle nests in very close proximity to the
15 project site, and then wanted to emphasize this:
16 Mining activities will undoubtedly evict the
17 nesting eagles from this vicinity and escarpment
18 failure and cliff spalling will destroy habitat.
19 Basically what they're saying is that under the
20 current permit application and the mitigation
21 measures that are proposed, they say that
22 mitigation measures discussed previously may
23 alleviate some wildlife concerns, but the bighorn
24 sheep, chukars, and eagles will likely leave the
25 area. And that has basically been the crux of

Thacker + Co LLC
Court Reporters
Utah's Leader in Litigation Support

Corporate Offices: 50 West Broadway, Suite 905, Salt Lake City, Utah 84101
801-983-2180 Toll Free: 877-441-2180 Fax: 801-983-2181

Page 49

1 our concern regarding bighorn sheep and that they
2 will leave the area no matter what mitigation
3 efforts are proposed under this application, that
4 that will be the result of this mine plan. And
5 we think that that needs to be discussed.
6 MR. BRAXTON: Do you think that's a
7 permanent displace or a temporary displacement?
8 MR. McHARG: Well, I can't make an
9 expert opinion on that, but what I can say is
10 that the mine will dewater these seeps and
11 springs. It's been recognized by the Division
12 that the mine will dewater seeps and springs.
13 These seeps and springs are crucial to bighorn
14 sheep; that Lila Canyon is unique, in fact, that
15 it has these seeps and springs as opposed to many
16 of the other canyons in the area that are dry.
17 And so if the seeps and springs are dewatered,
18 and dewatered permanently, then there's no reason
19 for the bighorn sheep to come back. This ties
20 into some of our concerns that we've raised in
21 the April 22 letter in terms of the mitigation
22 measures that are proposed. We believe that some
23 of these mitigation measures are not only
24 inadequate, but undesirable in the fact that they
25 will create additional impacts in other areas that

Page 50

1 have not been sufficiently analyzed.
2 On Point 35, "Impacts of the Coal Haul
3 Road on Wildlife," I've raised DWR's concerns
4 regarding that. They have concerns about the
5 impact of the coal mine road on prong horn
6 antelope. We share the same concerns, you know,
7 for prong horn and also for other wildlife
8 species, including direct deaths to raptor species
9 and, and lizards and any other species that would
10 cross the road.
11 There are potential mitigation measures
12 that could be imposed on the applicant. We
13 discussed those in, I believe, the engineering
14 section. You know, and also here on time
15 restrictions on Point 36, that vehicles and haul
16 trucks should not be permitted to operate during
17 dawn, dusk, or nighttime hours. And essentially
18 this is the only mitigation that would protect
19 wildlife from direct mortality in terms of just
20 the disproportionate impact to wildlife during the
21 nighttime, dawn, and dusk hours.
22 Inadequate monitoring was a point we
23 raised in 37. This relates to that the Division
24 should require monitoring on all wildlife species,
25 not merely raptors. And I believe the PAP at

Page 51

1 this time only contemplates monitoring for raptor
2 species.
3 More information and detail, of course,
4 is in our April 22 letter. And we look forward
5 to reviewing the Division's technical analysis on
6 the information that will be submitted by UEI.
7 Under Point 5--and we're starting to
8 get low on time. We have 20 minutes left. Under
9 Point 5, "Land Use," I discussed a lot of this
10 when we were discussing wildlife concerns, so I'll
11 be brief. Basically, under Point 38, we believe
12 that the PAP currently, there would be a failure
13 to restore to the quality capable of supporting
14 wilderness designation, that the rules require
15 that a PAP contain an analysis of the land
16 capability before coal mining and reclamation
17 operations and require that all disturbed areas be
18 restored, at a minimum, to the land uses that
19 they were capable of supporting before mining, if
20 not higher or better uses. And that's when,
21 where I would refer the Division to their
22 regulations and their regulations then require
23 that any reclamation operations would restore the
24 land to that use that it's capable of supporting
25 and that has been recognized as, as having

Page 52

1 wilderness character.
2 I think it would be disingenuous to
3 proceed at this point with blinders on saying,
4 following a certain legal description of that area
5 when that, that area has been determined to have
6 wilderness character. And that is what the area
7 is capable of supporting.
8 Point 39: "Inadequate Restoration."
9 This ties into what I have just said. I'll just
10 briefly state part of this, that the PAP fails to
11 ensure that water sources and other wildlife
12 habitats which are critical to existing land uses,
13 including wildlife, supplemental wilderness
14 values, and grazing, will be adequately protected
15 and restored to their premining condition. And,
16 therefore, the application fails to demonstrate
17 that the land will be returned to its premining
18 land use capability. And that's under
19 645-301-414.
20 "Cultural Resources." I recognize that
21 the state historic preservation office, in a
22 recent correspondence to the Division, has said
23 that there will be no historic properties
24 affected. And they state that after a review of
25 the material provided to them. I guess the

Thacker + Co LLC
Court Reporters
Utah's Leader in Litigation Support

Corporate Offices: 50 West Broadway, Suite 905, Salt Lake City, Utah 84101
801-983-2180 Toll Free: 877-441-2180 Fax: 801-983-2181

Page 53

1 question I have to the Division and the concern
2 that I have is has UEI provided, you know,
3 certain information to the Division that would,
4 that would, where the Division could make that
5 assessment, and has the Division supplied SHPO
6 with, with all the materials that they would need
7 to make that determination? My concern is that
8 if, so far they've only looked at the surface
9 facilities, the proposed surface facilities, that
10 that's not sufficient, that there are areas where
11 there will be subsidence impacts that could affect
12 cultural resources and historic properties and
13 that those areas would also have to be looked at
14 and also the road, the coal mine road that's
15 being put in for the mine, has that been
16 adequately surveyed for cultural properties? So
17 those are some of the concerns. They also relate
18 to future surface facilities. I mentioned earlier
19 future venting facilities or mine fans or
20 substations, things of that sort, those areas--
21 that's another reason why it's important to
22 determine that now is so the permit application
23 package describes where those places would be and
24 that, so that SHPO would be able to determine
25 whether or not cultural resources or historic

Page 54

1 properties exist in those areas and what
2 mitigation measures would be important to address
3 there.
4 Forty-one.
5 MR. BRAXTON: You're just suggesting
6 that the Division follow the law in terms of
7 historic preservation, I hear?
8 MR. McHARG: That's what I'm
9 suggesting.
10 MR. BRAXTON: Okay.
11 MR. McHARG: Forty-one: "Air Quality."
12 It's laid out in our written comments and
13 basically a point worth noting. It's not limited
14 to dust that's on-site or would be produced by
15 the mine. I think the Division should also be
16 concerned with the connection between coal mining
17 operations and the fact that this coal will create
18 air quality problems in its use and that the
19 Division shouldn't turn its head to that and that
20 needs to be looked at and the Division of Air
21 Quality needs to look at that and the adequate
22 permits need to be acquired.
23 MR. BRAXTON: If you have a cite for
24 the, your recommendation that we look at the use
25 in terms of air quality, I'd certainly appreciate

Page 55

1 that.
2 MR. McHARG: Okay. I will put that on
3 my list of citations to hopefully get to you.
4 If, if--and just raise that as a general concern
5 that we have right now. And I hope that the
6 Division will address that.
7 Under Point 6, "Significant Revision,"
8 we discussed this in our meeting that we had this
9 morning. It's a frustrating issue for us. We
10 believe we've raised this concern numerous times
11 and the board instructed the Division to process
12 this as a new permit. We, we're perplexed why
13 the Division still is not what we believe
14 following the intent of the board's order and its
15 regulations and processing this permit, you know,
16 not only processing the permit as a new permit,
17 but notifying the public that this is a new mine.
18 I think that, that if there is some administrative
19 advantage to processing the permit and calling it
20 an extension to the Horse Canyon Mine, we think
21 that that's not permitted under the rules; if
22 there is an administrative advantage to that. And
23 if there's not an administrative advantage to
24 that, then we ask why is the Division going to
25 all this trouble to simply, you know, to avoid

Page 56

1 calling this a new mine and, you know, noticing
2 it to the public as an extension to the Horse
3 Canyon Mine. We think that this is, this mine
4 is, you know, it's an area three times larger
5 than the existing Horse Canyon Mine, that there's
6 new surface facilities involved, not just venting
7 facilities or a mine fan or a substation, but
8 entirely new coal mine operation facilities, a new
9 road being built for the mine. And you know,
10 it's a new mine and should be noticed to the
11 public as such.
12 And by failing to do so, I think it's
13 prejudicing the public. The notice to the public
14 does not call it a new mine. They call it an
15 extension to the Horse Canyon Mine. I think this
16 is deceiving to the public in the sense that, you
17 know, if there's a series or scores of hundreds
18 of notices about renewals and time extensions and
19 other small administrative changes to existing
20 mines or the Horse Canyon, they've seen these
21 notices in the past, in the past. And besides
22 just the opaque assertion that this particular
23 action would be being processed as a new permit,
24 there's nothing in the ads wording that would
25 actually notify the public that a new mine is

Thacker + Co LLC
Court Reporters
Utah's Leader in Litigation Support

Corporate Offices: 50 West Broadway, Suite 905, Salt Lake City, Utah 84101
801-983-2180 Toll Free: 877-441-2180 Fax: 801-983-2181

Page 57

1 actually contemplated. The metes and bounds
2 description that's provided in the public notice
3 is really not meaningful to the public unless
4 you're an engineer or a surveyor or a geologist
5 and I think it needs to be noticed to the public
6 in laymen's terms that a new mine is proposed
7 with new surface facilities.
8 Point 7, "The Lila Canyon Mine Road,"
9 we believe that the road must be included as part
10 of the permit area. The road should be
11 considered part of the affected area of the mine.
12 This road is not being upgraded but for the mine
13 and but for UtahAmerican Energy's funding. It's
14 being constructed for mining and reclamation
15 activities and it's being improved well beyond any
16 multiple-use mandates or for any other user.
17 This, this mine is being constructed for the Lila
18 Canyon coal mine and we believe that the Division
19 should include it in the affected area of the
20 mine, require the sufficient information from UEI
21 and analyze it as part of the mine.
22 Point 8 is just various issues that
23 came out of the legal section of the permit
24 application package. On Point 44, "Unsuitable for
25 Mining," we believe the proposed permit area is

Page 58

1 unsuitable for mining, and that at a minimum, it
2 would affect productivity of water supply and
3 scientific and esthetic values in natural systems.
4 And we are looking at our options in that aspect.
5 On 45, "Impossible Schedule," the
6 schedule that so far has been established, and
7 maybe it's changed and if it has, please let me
8 know, but UEI's schedule fails to account for the
9 necessary data gathering, technical review and the
10 public process. Right now, UEI anticipates
11 beginning surface disturbing actions this year in
12 June. So this month. At--or, I mean, next
13 month, a couple of weeks from now.
14 At this time, the most aggressive start
15 date, we believe, could be no sooner than sometime
16 in the summer of 2004, and that's assuming that
17 all necessary baseline data is collected.
18 Further, any schedule, if the mine is eventually
19 permitted and all the necessary data is collected,
20 that schedule would also have to be adapted to
21 recognize wildlife and other resource conflicts.
22 On Point 46, "Bonding and Insurance,"
23 now, this is where I make the statement in our
24 comment letter here that it would have to be
25 sufficient to cover the reclamation to the current

Page 59

1 land use capability, which is wilderness. You
2 asked for a citation on that. I raised it as a
3 concern and if there's not a specific regulatory
4 citation to that, then I would just hope that the
5 Division would consider that concern that SUWA has
6 raised, that if the regulations require that
7 reclamation reach a point that, you know, of what
8 the land was capable of sustaining or a higher
9 use that the money would have to be there for it.
10 If the money's not there, then how can the public
11 be assured or the Division that UEI is actually
12 going to restore the land to the use that it was
13 capable of supporting.
14 Forty-seven is just to remind everyone
15 that the right-of-way is still in dispute before
16 the Interior Board of Land Appeals.
17 MR. BRAXTON: What right-of-way
18 specifically?
19 MR. McHARG: The right-of-way for the
20 surface facilities.
21 MR. McHARG: So I guess, in brief
22 summary, many of the concerns that we raised in
23 our April 22 letter and today mirror the concerns
24 that the Division itself had expressed six times
25 during its technical review process in the earlier

Page 60

1 permit applications and also concerns that we
2 raised on that permit application package.
3 Unfortunately, it appears that UEI has simply
4 resubmitted a permit application package that is,
5 for all intents and purposes, substantially the
6 same. It has the same deficiencies as the
7 earlier permit application package.
8 What I can say today is that we're, you
9 know, reviewing that permit application package
10 and that we're, that the Division has yet to
11 issue a technical analysis on that and that we're
12 hopeful that the Division will correct those
13 deficiencies, require UEI to submit the data that
14 it had, that the Division had concerns with
15 throughout most of the majority of the process for
16 the other PAP, and that SUWA is raising today.
17 Thank you.
18 MR. BRAXTON: You made your hurdle with
19 time to spare.
20 MR. McHARG: I made it. I made it.
21 MR. BRAXTON: Congratulations.
22 MR. McHARG: By five minutes.
23 MR. BRAXTON: Do you want to begin, Ms.
24 Dragoo -
25 MS. DRAGOO: Sure.

Thacker + Co LLC
Court Reporters
Utah's Leader in Litigation Support

Corporate Offices: 50 West Broadway, Suite 905, Salt Lake City, Utah 84101
801-983-2180 Toll Free: 877-441-2180 Fax: 801-983-2181

Page 61

1 MR. BRAXTON: --or do you want to
2 stretch for five minutes? What's your counsel?
3 MS. DRAGOO: Well, if you give me five
4 minutes, that would be great.
5 MR. BRAXTON: Let's do that. Resume at
6 2:30.
7 (Recess taken, 2:29-2:35 p.m.)
8 MR. BRAXTON: Let's go back on the
9 record, then. It's 2:30, or very near 2:30, and
10 this is the time set aside for UtahAmerican
11 Energy, Inc., to make their presentation in this
12 public comment period. Please go ahead.
13 MS. DRAGOO: Thank you, Director
14 Braxton. I'm Denise Dragoo, and I'm counsel for
15 UtahAmerican Energy and we've provided a response
16 on behalf of UtahAmerican Energy. You'll find the
17 response in the two volumes in front of you
18 there. If you'll flip to the front of that first
19 volume, you'll see the letter of response. And
20 then we have two volumes of exhibits that are
21 referenced throughout our response. So I guess--
22 MR. BRAXTON: We'll take those into the
23 record for the hearing, then.
24 MS. DRAGOO: Yes, if you would. Thank
25 you.

Page 62

1 Also, for the record, we would just
2 like to preserve our objections to the fact that
3 there hasn't been any foundation laid regarding
4 the experts and hopefully that SUWA's comments
5 will be accepted, the comments of their experts
6 will just be accepted as comments and in the
7 event that they are given any additional weight as
8 experts, we would object to that.
9 MR. BRAXTON: I would note for the
10 record, this entire process is informal. But I
11 appreciate your context.
12 MS. DRAGOO: Terrific. Thank you.
13 Particularly, Dr. Kass is not even here today so
14 we would object to that. Thank you.
15 Okay. Now, turning to the--we're just
16 simply going to respond issue by issue to the
17 questions and comments presented by the Utah
18 Wilderness Alliance. At the outset we want to
19 indicate that UtahAmerican Energy in February of
20 this year submitted a new permit and that new
21 permit is an extension to the Horse Canyon Mine.
22 It's the Lila Canyon Mine extension. And UEI has
23 submitted complete and accurate baseline
24 information, in fact, the Division of Oil, Gas &
25 Mining has made a determination of completeness.

Page 63

1 And we believe that completeness determination is
2 adequate.
3 And we would like now to respond first
4 to hydrology issues that were raised. First,
5 going to the the question of acid- or toxic-
6 forming material that's Question 1 raised in the
7 May 22 letter--or April 22 letter submitted by
8 Southern Utah Wilderness Alliance.
9 And I would like Jay Marshall to
10 respond to this acid- and toxic-forming material
11 question.
12 MR. MARSHALL: Thanks, Denise.
13 Mr. Braxton, the first item is acid-
14 and toxic-forming material as highlighted by
15 SUWA's concerns. In an April 22, 2002, letter
16 that was submitted with some things that need to
17 be fixed on the permit, UEI submitted a request
18 for a waiver of parts 645-301, 624-200 and -300
19 on the basis that the, there's information of
20 equal value and effect included in the permit.
21 On Item A, there's been over a hundred years of
22 mining experience in the Sunnyside area and
23 Sunnyside seam, Kaiser, specifically, Horse
24 Canyon, Columbia, just to name a few. In those
25 hundred years there's been no demonstrate or

Page 64

1 proven problem with acid and toxic discharge from
2 the mine itself.
3 In addition to that, just for general
4 information, in addition to that, there was two
5 drill holes drilled. It's called S-24, S-25.
6 It's located approximately two miles south of the
7 permit area, the current permit area. These were
8 drilled by Kaiser. There was an acid and toxic
9 report written. It's called Analysis of Various
10 Rock Types and that has been included in
11 Appendices 6-2 and is in Exhibit 3 in the binder.
12 Exhibit 4 shows the locations of S-24
13 and -25 in relationship to the permit area and
14 the rest--general area.
15 Plate 6-13 and 6-14 are attached to
16 Exhibits 5 and 6 and what those are are the core
17 analysis of those core holes. Now, those core
18 holes went from the surface through the coal seam
19 and all the way down to the Mancos shale. And
20 when Kaiser had first propose a coal mine here
21 they were going to put two rock slopes in in the
22 general area of those drill holes. And up into
23 the coal seam and then they were going to put two
24 shafts to the surface. So all that material had
25 been analyzed, not only the rock slope material we

Thacker + Co LLC
Court Reporters
Utah's Leader in Litigation Support

Corporate Offices: 50 West Broadway, Suite 905, Salt Lake City, Utah 84101
801-983-2180 Toll Free: 877-441-2180 Fax: 801-983-2181

Page 65

1 proposed but also areas immediately above and
2 below the coal seam. And that is demonstrated on
3 those two plates, as well as the report titled
4 "Analysis of Various Rock Types" that's included.
5 In addition to that, UEI is committed
6 to treating all the underground mine waste as, as
7 if it was acid- and toxic-forming so in reality
8 it doesn't matter if it's acid- and toxic-forming
9 or not. UEI is committed to taking all that rock
10 slope material and burying it and covering it with
11 4 foot of appropriate cover. So additional
12 testing, if it did show, even if we did have
13 something with acid/toxic, it wouldn't change
14 anything. We'd treat it exactly the same way we
15 would propose to treat it in the permit.
16 MR. BRAXTON: And does the permit
17 propose a sampling frequency or sampling--
18 MR. MARSHALL: It does.
19 MR. BRAXTON: --protocol for that?
20 MR. MARSHALL: It does. It proposes a
21 sampling, I think it was a, three times. We
22 increased that with the April submittal to five
23 times. But, again, it doesn't really matter how
24 many times it's sampled. If one of the samples
25 is acid and toxic, it's all being treated as acid

Page 66

1 and toxic anyway, no matter how many, if any of
2 them, come out acid and toxic, doesn't matter what
3 that material is that comes out of the rock
4 slope, we're going to treat it as if it was acid
5 and toxic as if every pound of it was acid and
6 toxic.
7 So additional testing could only result
8 in less stringent handling. If we test it on
9 more frequency, there would be nothing to prevent
10 us from using that material, crushing it up and
11 putting it on a road as gravel. But we've
12 committed in the plan. We're not going to do
13 that. We've committed in the plan to putting it
14 in a refuse area, covering it with 4 foot of
15 material. So it doesn't really matter what those
16 analysis, or it doesn't matter how many analysis
17 we take. We're going to treat it the same.
18 As all coal mine waste, we're going to
19 bury it with a minimum of 4 foot of topsoil and
20 subsoil. I think that about covers the acid and
21 toxic. But in a nutshell, UEI's requested a
22 waiver because we do not have, when I say "we do
23 not have," we don't have testing on the immediate
24 permit area. Immediately adjacent, we do, but not
25 on the immediate. The geology, the structure is

Page 67

1 the same where it was tested as it is in Lila
2 Canyon, two miles south of the permit area.
3 Sorry. I'll speak up little bit.
4 Okay. If we move on to . . .
5 MS. DRAGOO: Second issue.
6 MR. MARSHALL: Yeah, the second issue,
7 the second issue is subsurface water resource
8 maps. If you look at Exhibit 9, Exhibit 9--okay.
9 Exhibit 9 is, should be Plate--
10 MS. DRAGOO: 7-1.
11 MR. MARSHALL: --7-1. You notice that
12 plate 7-1, it shows all the springs and the
13 locations of the springs in relationship to the
14 permit area. And we propose that this map shows,
15 this map actually shows the locations of all the,
16 all the baseline data points, not only baseline
17 data points but also the springs and seeps that
18 were identified in the spring and seep inventory.
19 Maybe it's a good time now to explain the
20 difference between a spring and seep inventory and
21 baseline. Spring and seep inventories are done to
22 identify all sources of water, wet spot, even
23 vegetation that might indicate water.
24 From the spring and seep inventory, the
25 company will get with the Division and determine

Page 68

1 which of those waters are consistent enough or
2 warrants enough importance to do baseline and
3 continued operations on. There's no way that the
4 Division would have intended UEI or anybody else
5 to do baseline studies on 70 seeps and springs.
6 The intent of a seep and spring inventory is to
7 identify all potential water sources.
8 MS. DRAGOO: In terms of saturated
9 zone.
10 MR. MARSHALL: Okay. In terms of the
11 saturated zone, the lower end of the Blackhawk
12 Formation, we contend, is a saturated zone.
13 MS. DRAGOO: This shows, the vertical
14 distribution of springs and seeps and the
15 MR. MARSHALL: As far as the vertical
16 distribution goes, anybody that can read a contour
17 map can determine what the elevation of those
18 springs are. The spatial view you can look at
19 the map and see if you want to get a township,
20 range, you want to get state plane coordinates or
21 whatever you want to get from it.
22 Lack of seasonal variation in a
23 saturated zone. If you look at piezometers IPA-1,
24 -2, and -3, Exhibit 10 kind of presents it in a
25 little graphic manner. This information is found

Thacker + Co LLC
Court Reporters
Utah's Leader in Litigation Support

Corporate Offices: 50 West Broadway, Suite 905, Salt Lake City, Utah 84101
801-983-2180 Toll Free: 877-441-2180 Fax: 801-983-2181

Page 69

in Appendices 7-1. But if you look at this Exhibit 10, it shows the dates that those piezometers were read and it also shows a graphic representation which, if there was single variation, would show up on there. And you see the straight lines. There's IPA-1 has a general incline to it but the others are substantially consistent. I mean, there's no indication of increases or decreases according to time of the year.

MS. DRAGOO: Do you want to turn to surface water information, Issue 3?

MR. MARSHALL: This one here?

MS. DRAGOO: Right.

MR. BRAXTON: Let's back up. What is your conclusion on the slope of IPA-1?

MR. MARSHALL: On IPA-1 there's been a lot of, people have made conjectures or ideas what's going on there.

Dan, maybe you can help us out. IPA-1, IPA-1 is the one that shows the gradual increase in elevation.

MR. GUY: Yes, I believe that's the one.

MR. MARSHALL: Maybe you can help us

Page 70

out a little bit.

MS. DRAGOO: Dan Guy is the, he's our hydrologist for UEI.

MR. MARSHALL: I think what Lowell is alluding to is the gradual increase in IPA-1.

MR. GUY: Yeah, there is in the IPA-1, there is a gradual increase. In the others they're fairly, holding fairly consistent.

MR. BRAXTON: And why would you, would you guess that slope exists? Dan, I, to tell you the truth, I have no particular idea why that's the case. It's not--well, let me take a quick look here because there's about a five-year gap in data, which, there could be any number of reasons. The fact that the other two aren't showing a similar increase makes me wonder if maybe there's some problem in measurement of that hole. It's showing relatively consistent from the time the monitoring is started again. Increasing only slightly, but--

MR. COONROD: Excuse me. One thing that was pointed out, I believe, by--

MS. DRAGOO: You might want to identify yourself for the record.

MR. COONROD: I'm sorry. Mr. Braxton,

Page 71

I'm Mel Coonrod. I've worked in the area a number of years, not in a hydrologic capacity, but at one of the sampling I was present and it was introduced, I believe, by one of DOGM's personnel, that perhaps the increase in water level was due to the erosion of the casing and there could be a gradual sloughing of the well wall into the bottom of the hole or the rat hole portion which would cause the water to rise.

MR. BRAXTON: Just displaces it, then?

MR. COONROD: Yeah. Just point of interest.

MR. GUY: It doesn't seem to be a regional thing based on the other two, is what I guess I'm saying.

MR. BRAXTON: Thank you.

MS. DRAGOO: Great. Turning to, yeah, Issue 3 and the question of date of the two intermittent washes.

MR. MARSHALL: If you look on Exhibit 11, this information, again, was submitted in April. There's a spreadsheet there showing for 2001, actually for each of the years for our groundwater monitoring location: L1S in Lila Canyon, L2S would be in what we call the right

Page 72

fork of Lila above the mine site, and L3S is the right fork of Lila below the mine site. Of course, the Lila pond, the pond has not been constructed yet so we cannot monitor that, as well as L5G which is the mine water discharge. We cannot monitor it yet.

And there's initial of the person who was there. It says "Inspector," but it's actually the visitor, or whatever you want to say. And then where you see handwritten on the right side is where I entered it into the database, the DOGM database. Those dates say 2001, 2002, 2003--or 2002, I'm sorry. The last page is the Little Park area wash. There again, document, I documented dates on when individuals were visiting the site. And had those people initial as the observer. It's typed--the last one was initial of the observer, okay? I typed the initials of the observer but they did initial that.

What--

MR. BRAXTON: So you would, excuse me, you'd have something in your files that substantiate that somebody signed off on taking that sampling?

MR. MARSHALL: We would have--there was

Thacker + Co LLC
Court Reporters
Utah's Leader in Litigation Support

Corporate Offices: 50 West Broadway, Suite 905, Salt Lake City, Utah 84101
801-983-2180 Toll Free: 877-441-2180 Fax: 801-983-2181

Page 73

no sample taken. There was dates--
MR. BRAXTON: Observed, the observation. I'm sorry.
MR. MARSHALL: Yes. We would have things in our file or could come up with things in maybe UEI's files or Dan Guy's file saying that on this date they were on the property, yes. It's just a collection.
And in addition to that, there's other dates that I haven't covered. These are just the dates that I was aware of people were on-site.
MR. BRAXTON: Thank you.
MS. DRAGOO: Turning to Item 4, "Groundwater Quantity in the Saturated Zone," we wanted Dan Guy to address this particularly regarding the, whether the saturated zone is an aquifer.
MR. GUY: Okay. I think we've gone through a bit of a discussion about the fact that the saturated zone, which is located in the Mesa Verde group does not meet the Division or the regulation definition of an aquifer. Therefore, no water quantity data is required for the saturated zone.
The aquifer is defined by R645-100-200.

Page 74

And let's see. It's not developed for any specific use nor does it supply any water sources or serve as a beneficial use for an appropriated source.
UEI has gathered quantity information on the saturated zone through the piezometers as we just discussed. The data does not need to be collected two years prior to mining to identify comparative land. The data shows a water level revealing the hydrostatic head in the coal zone specifically, shows the seasonal variations. And it's on the piezometric surface is projected based on these piezometers is shown on Plate 7-1 which is also part of these exhibits. I believe it's Exhibit 9. I'm sorry.
The whole thing centers on the fact-- and the point's been raised here that we haven't said where the discharge of this saturated zone is. In reality, I can't say that I know where it is because I have seen no evidence of a discharge from this saturated zone anywhere. We have geologic maps that indicate that--let's see, this map here might actually show, it's a little hard to see on here. Trying to figure out where the Blackhawk Formation actually outcrops into any

Page 75

kind of a drainage, and that's in the Price River, Jay, is it?
MR. MARSHALL: Okay. Yeah. There's a--
MR. GUY: I believe we have a map that probably shows it a little better.
MR. MARSHALL: What Dan is referring to, this map right here. It's titled Map I-1764.
MR. LIPS: 1764?
MR. MARSHALL: Yes, I-1764.
MR. BRAXTON: Is that a water supply paper map or is that just a regional geologic map.
MR. GUY: This is a geologic map of the Huntington 30-by-60 quadrangle.
MR. MARSHALL: It includes the Range Creek area. It includes the Horse Canyon area over to the Green River.
MR. BRAXTON: And what's the publication date on that map?
MR. MARSHALL: Where is the publication date?
MS. DRAGOO: It's right here, 1998.
MR. BRAXTON: '98? Thank you.
MS. DRAGOO: And just for the record,

Page 76

we'll identify this as Exhibit 45.
MR. MARSHALL: What we want to show on Exhibit 45 is Range Creek being right here (Indicating). Range Creek does not even reach the upper Price River; well, it touches the upper Price River.
MS. DRAGOO: Do you want to approach the bench.
MR. MARSHALL: What we wanted to show here this is the Range Creek here (Indicating). Range Creek never does penetrate the Blackhawk or the deep saturated zone. It's in the upper Price River a little bit here but it never does get into the Blackhawk. The Blackhawk is KBH.
(Discussion held off the record.)
MR. MARSHALL: And as you see, when you look at Range Creek, the closest outcrop of the KBH is down here on the Green River, which is approximately five, six miles below the confluence of the Range Creek and the Green.
MR. BRAXTON: Okay. Thank you.
MR. GUY: The point being, Lowell, Blackhawk and the Mesa Verde group are the areas where the saturated zone exists, and that if there is, in fact, a discharge from them, it would

Thacker + Co LLC
Court Reporters
Utah's Leader in Litigation Support
Corporate Offices: 50 West Broadway, Suite 905, Salt Lake City, Utah 84101
801-983-2180 Toll Free: 877-441-2180 Fax: 801-983-2181

Page 77

1 probably be in the location of the Green River or
2 the Price River where the drainages actually cut
3 through that formation. There's no evidence
4 anywhere in any of the geologic information that
5 that discharges into the Range Creek area.
6 MR. BRAXTON: Does the permit--and
7 maybe I'm getting you off course here--does the
8 permit describe the regional geological dip and
9 things like that in the geology section?
10 MR. GUY: It, I don't know that it goes
11 into that, there's a general geologic information
12 but it's not that specific at the point
13 particularly relating to the hydrology.
14 MS. DRAGOO: Your PHC determination.
15 MR. GUY: The PHC does.
16 MR. BRAXTON: And that's part of the
17 permit?
18 MR. GUY: Not part of the geologic
19 section of the permit, but the PHC does address
20 the fact that, yes, that it's--
21 MR. BRAXTON: It's a northeasterly or
22 north northeasterly regional--
23 MR. GUY: Yes.
24 MR. BRAXTON: --dip or whatever is
25 displayed on your current Exhibit 45--

Page 78

1 MS. DRAGOO: Right.
2 MR. BRAXTON: --or 44? I've got it
3 mixed up.
4 MS. DRAGOO: Exactly. And that PHC
5 determination is attached as Exhibit 12 in your
6 materials.
7 Also there is the question that was
8 raised by SUWA regarding the effect of faults on
9 groundwater. And I think that's also addressed by
10 the PHC determination, would you address that.
11 MR. GUY: In the PHC it does address
12 the effects of the faults on ground water which
13 are very inconclusive because faults, as you well
14 know, are, in some cases can as a conduit to
15 carry groundwater from one place to another and in
16 other cases they're a complete barrier. And
17 there's no way of predicting that. So all we can
18 do is project the piezometric surface based on the
19 available data that we have. And it is simply
20 that: It's a projection. And that piezometric
21 surface is, it's just our best guess of the top
22 of the saturated zone. Again, we're not
23 considering that to be an aquifer.
24 There is one other--well, I guess we
25 can, we'll discuss this a little bit later here.

Page 79

1 MS. DRAGOO: If you could address Issue
2 5, "Groundwater Quality in the Deep Saturated
3 Zone."
4 MR. GUY: Okay. I think -
5 MR. MARSHALL: I can probably help on
6 that. Groundwater quality, even though that's a
7 deep saturated zone, it's not an aquifer in UEI's
8 opinion or UEI's experts' opinion. It's a deep
9 saturated zone but there has been numerous samples
10 analyzed of the mine water in adjacent Horse
11 Canyon. Those are in the permit area. It would
12 be groundwater--the sample locations are in Plate
13 7-2?
14 MS. DRAGOO: 7-1 and 7-2.
15 MR. MARSHALL: Plate 7-1 and 7-2.
16 MS. DRAGOO: Those are Exhibits 15 and
17 17.
18 MR. MARSHALL: Fifteen and seventeen?
19 MS. DRAGOO: Uh-huh (Affirmative).
20 MR. MARSHALL: That's the data. If
21 you'll notice on 15 and 17 is the data--I'll just
22 pull out a couple. I'd like to find that plate,
23 though.
24 MS. DRAGOO: I think Plate 7-1.
25 MR. MARSHALL: Is it 7-1 or 7-2? Have

Page 80

1 you got it there.
2 MR. GUY: Plate 7-1.
3 MR. MARSHALL: Okay. Here is 7-1 here.
4 And as you see these the locations--okay this is
5 Plate 7-1. As you notice these locations right
6 here with the stars on them, these 2WB, 2N1 East,
7 these are underground locations where samples have
8 been taken and analyzed. And it's in the permit,
9 attached as 15 and 17 in your attachments. So
10 there is about eight underground locations where
11 that water has been monitored for quality.
12 MR. BRAXTON: A question on this plate:
13 These east-west trending structures that show in
14 here are the faults that you're analyzing for
15 hydrologic impact, do they trend on up north into
16 the old Horse Canyon workings too?
17 MR. MARSHALL: Yes. There are faults
18 in the Horse Canyon Mine, yes.
19 MR. BRAXTON: And can you conjecture as
20 to what those faults do in the Horse Canyon Mine
21 and--
22 MR. MARSHALL: East-west ones didn't do
23 much. The Sunnyside fault that runs this
24 direction (Indicating) is when they started
25 hitting the underground water. There's one in

Thacker + Co LLC
Court Reporters
Utah's Leader in Litigation Support

Corporate Offices: 50 West Broadway, Suite 905, Salt Lake City, Utah 84101
801-983-2180 Toll Free: 877-441-2180 Fax: 801-983-2181

Page 81

here, that fault. Now, that Sunnyside fault here is toward the east and away from Lila Canyon.
MR. BRAXTON: So is it anticipated that you'll hit the Sunnyside fault -
MR. MARSHALL: No.
MR. BRAXTON: --in this mine operation or splays related thereto?
MR. MARSHALL: It's not anticipated, no. None of the drilling would indicate Sunnyside fault.
MR. BRAXTON: Are we on the up-thrown or the down-thrown side of the Sunnyside fault?--the mine, the mine workings.
MR. MARSHALL: Up-thrown.
MR. BRAXTON: Up-thrown? Thanks.
MS. DRAGOO: Moving on, we wanted to address the groundwater quality and quantity to the perched aquifers, and this is where SUWA is incorrect in suggesting that there's only data from one seep supporting this. Actually, there are six currently operating groundwater monitoring locations and those are identified on Exhibit 18.
Do you want to explain that exhibit quickly.
MR. MARSHALL: Quickly on 18, what I

Page 82

did was took the locations that we have in the Lila Canyon extension for water monitoring, that does not include the Horse Canyon, it's just the Lila Canyon. And on that, this is 18 we're looking at, Lowell, on that I showed the months, the quarters and the months that that was actually monitored. And you see the piezometers are on there. You can see where the L1, -2, and -3, the surface water was on there, as well as the groundwater monitoring, L6, -7, -8, -9, -10, -11 -12.
MR. BRAXTON: And you submitted this to the Division as part of your current application?
MR. MARSHALL: No, I just put this together for this presentation today. That data is in the permit but it's just not put on a graphic format.
MR. BRAXTON: I see.
MS. DRAGOO: Do you want to discuss how you chose those . . .
MR. MARSHALL: Yeah. Where is that at?
MS. DRAGOO: We have a map now, it's Exhibit 28. Geologic overlay map.
MR. MARSHALL: Okay. On 28, where 28 came from was I took that geologic map that we

Page 83

had, I scanned in a portion that shows Little Park area. Horse Canyon is here (Indicating). Lila Canyon is here (Indicating).
On the top of that, I overlaid all of seeps and springs that were identified in the inventories. And if you look, you can see the green dots in here, it shows where they're at. Where they're at. And also on this if you look, you can see most of the seeps and springs are coming out of the--not a geologist here. They're coming out of the Northhorn Flagstaff right here (Indicating), this brown stuff right at the edge of the coal.
MR. BRAXTON: And that's a geologic horizon that overlies the Blackhawk?
MR. MARSHALL: Yes, way above it.
MR. GUY: It overlies--
MR. MARSHALL: About a thousand feet.
MR. GUY: The Blackhawk, then you have the Castle Gate, the Price River, and then the Northhorn so it's, the Blackhawk's quite a ways down.
MR. BRAXTON: Thank you.
MR. MARSHALL: To give you an idea of cover, here's the Book Cliffs itself (Indicating).

Page 84

Of course zero where you go in. It immediately goes up to about 1,500, and as you get in deeper, it goes up to 2,000, even up to 2,500. SUWA has made the comment about all the seeps and springs. Off the permit area, you can see them right along here adjacent to the permit area (Indicating). They're right as far as, they're not many seeps and springs on the permit area. Most of it is just adjacent to it where you get into these other geologic layers.
Ones that we have chosen to monitor, and we have baseline with continued operations on are, there's two right here (Indicating) and SUWA pointed out that this was in the old work area, which it is, you know, any impacts is already impacted there and there can't be any mope subsidence impacts there, but they were two good sources, very good sources. Once you get the spring and seep inventory and you see these clusters of springs here, it serves no beneficial use to monitor every one of those springs that are in that cluster, every one that's in this cluster, or this cluster (Indicating). So what I did was selected, in conjunction with DOGM, is selected a spring in that this has more consistent

Thacker + Co LLC
Court Reporters
Utah's Leader in Litigation Support

Corporate Offices: 50 West Broadway, Suite 905, Salt Lake City, Utah 84101
801-983-2180 Toll Free: 877-441-2180 Fax: 801-983-2181

Page 85

1 flow, that we felt like we could get better
2 quality information out of.
3 MR. BRAXTON: Is there a regulation
4 that requires that you monitor every one of those
5 points?
6 MR. MARSHALL: Not that I'm aware of,
7 okay?
8 However, if you look at every single
9 one of these, 60 or 70, some of them, there's
10 almost enough data to have baseline on. There
11 was seven, eight, and nine visits to these.
12 But you can see UEI selected two
13 springs out of here (Indicating), they selected a
14 spring out you have this group here (Indicating),
15 a spring out of this group here (Indicating), a
16 spring out of this group here, and this one was a
17 newer addition, this was one in conjunction with
18 Division of Oil, Gas & Mining that DOGM said they
19 recognized we don't have many of the locations on
20 the permit area. Why don't we monitor this one.
21 And this site right here (Indicating), to give you
22 an idea, it is less than half a gallon a minute,
23 I believe, last time I monitored it. You set the
24 bottle under there and you smoke, you go have a
25 smoke, but I don't smoke. I just sit here,

Page 86

1 watching the bottle, hoping it would fill up
2 quicker. But anyway, there's very little flow in
3 there. Very little flow.
4 Now, if you look at the spring and seep
5 inventory, just a basis, it looks like there's a
6 lot of water here, but if you look at the seep
7 and spring inventory, there's one date, 5/85, that
8 sticks out. And I'd like to ask anybody in this
9 room--I think everybody in this room knows what
10 they were doing in May of '85: sandbagging down
11 here on Main Street. I know I was in National
12 Guard and we got called back to Fort Carson for
13 flood duty for the state of Utah. I spent three
14 weeks on flood duty. So it was a very wet, wet
15 month. And a lot of these, that's where you see
16 the slower the size in May, and subsequent, prior,
17 and after you don't see it. You see no flow;
18 you're dry.
19 But anyway, the point I'm making is
20 that where the springs are emitting from is right
21 below, they're in the upper aquifer, you know, we
22 do call the upper one an aquifer. They're not
23 down in the lower saturated zone. There is no
24 springs emitting from the lower saturated zone.
25 There are none.

Page 87

1 SUWA said that there's one point within
2 a hundred feet of the mine, of the mine we're not
3 monitoring. I'd like to get the SUWA to find out
4 which location that is because I'm not aware of
5 one we're not monitoring within a hundred feet.
6 Basically that shows, you know, where
7 the springs and seeps are located. And hopefully
8 it explains why we selected the ones we selected
9 to monitor. We do not have to monitor
10 everything, nothing requiring that we monitor all
11 70 seeps and springs where we're located for
12 baseline, even though a majority of them there is
13 enough for baseline.
14 MS. DRAGOO: For the record, that is
15 Exhibit 28, and we're going to submit a smaller
16 version of that for the record you can keep.
17 We're going to move quickly know to
18 coal mine waste and Questions 7 through 10. And,
19 Jay, would you like to explain how coal mine
20 waste is handled and--
21 MR. MARSHALL: Okay. I'll go through
22 it real quickly. Coal mine waste--
23 MS. DRAGOO: We're on Item 7.
24 MR. MARSHALL: Okay. Item 7. Okay.
25 Rock slope material, that is the material that

Page 88

1 does not fit easily into any of the definitions.
2 You'll see it referred to as rock slope material
3 and see it referred to as mine waste. You'll see
4 it referred to as refuse. Bottom line is, it
5 doesn't matter what we call that, that material is
6 going into the refuse pile as being treated as
7 acid and toxic no matter what analysis show.
8 We're treating it as acid and toxic.
9 The location, SUWA seemed to be
10 confused on the location of it and the amount.
11 If you look at Exhibit 19, it shows a spreadsheet
12 with cross sections showing the amount of the
13 material that we were going to get--or where we're
14 going deposit it at. We're going to get it out
15 of rock slope but this is where we're going
16 deposit it at and this is in conjunction with
17 plate, it's called Figure 1, Figure 1 of
18 Appendices 5-7. And what Figure 1 of Appendices
19 5-7 shows is it shows the exact location of where
20 the rock slope material or the refuse, whatever
21 you want to call it, where it goes. It
22 identifies what we call structural fill. And the
23 reason we call it structural fill is because the
24 shop warehouse will be constructed on top of the
25 rock slope material.

Thacker + Co LLC
Court Reporters
Utah's Leader in Litigation Support

Corporate Offices: 50 West Broadway, Suite 905, Salt Lake City, Utah 84101
801-983-2180 Toll Free: 877-441-2180 Fax: 801-983-2181

Page 89

In addition, there's some, there's some additional area that's been allowed for any other refuse that might come out of the mine. There's cross sections. If you'll notice from this map, it has all these cross sections in it. Those cross sections can be found on Figure 2 of Appendices 5-7. Each cross section shows the amount of topsoil we're going to take, remove, put on the topsoil pile. It shows the amount of cover material that we're going to remove, and it shows the amount of the rock slope material that's going to, that's going to be put into the hole, and then it also shows cover material coming back over the top, how much that's going to be, and the topsoil coming back over the top.

MR. BRAXTON: As a mining engineer, have you had experience in calculating tons and volumes using cross-sectional methods?

MR. MARSHALL: You say, have I?

MR. BRAXTON: Yes.

MR. MARSHALL: Twenty-some years of it. I have.

Now, the, it the may be confusing that cover material, you know, we're not going to put that in a separate stockpile. We're not going to

Page 90

open up this whole refuse pile at the same time. When I say "refuse pile," it's inside, is what it is. We're not going to open it up all at once. We're going to use a backhoe and a Cat to open up, maybe a Cat or two Cats in width, in width. We'll strip the soil, topsoil off the top of it, put it in the topsoil pile. We'll go in, we'll take a Cat, either one or two Cat lengths, push that material, the cover material, to the side, put the refuse in the hole, pull the cover material back over the top. And then on final reclamation we'll put the topsoil on and seed it.

MS. DRAGOO: Okay. Moving along now to mine water discharge, Jay, do you have a UPDES permit?

MR. MARSHALL: Yes, we have a UPDES permit. Do you have a copy?

MS. DRAGOO: Yes.

MR. MARSHALL: We have a UPDES permit that was approved on October 1 of 1999, and the cover sheet is right here.

(Discussion held off the record.)

MR. MARSHALL: It was approved on October the 1, 1999. And it is behind Tab 25 in your . . .

Page 91

MR. BRAXTON: And that UPDES permit is for what structure? Your sedimentation pond? Your proposed sedimentation pond.

MR. MARSHALL: There are two discharge points on it?

MR. GUY: And the mine water.

MR. MARSHALL: Right. One is the sediment pond and one is mine water discharge. Now, the mine water discharge, we don't anticipate discharging in water. I need to emphasize that. We don't anticipate it but just in case, we went ahead and got an NPDES permit just in case we had to do it but we don't anticipate it.

MS. DRAGOO: What about the channel morphology?

MR. MARSHALL: Okay. The morphology, we have committed, again, we do not, we do not anticipate discharging water from the mine. However, if we do, we have committed in the plan that we will do the morphology and, analysis of--how did we word it?

MS. DRAGOO: It's on Exhibit 24.

MR. GUY: "Analyze channel morphology parameters and erosion impacts. "

MR. MARSHALL: Okay. If we do

Page 92

discharge--well, first of all, we'll hold the water in the sumps as long as possible to promote settling. Second, we will sample prior to discharge to ensure compliance with UPDES standard or what our UPDES permit allows us to discharge. We will not discharge unless we meet those standards. And third, if we do discharge, the receding channel morphology parameters and erosion will be evaluated, okay? We've made that commitment in the permit on page .25 and 26 of the chapter 7.

MR. BRAXTON: And I asked SUWA, I think, when they were talking about this, if there's a regulatory cite for you to do that. Maybe you could help all of us by saying what regulations will you submit information to the Division on to analyze that morphology. Or if you don't know that now, I'd appreciate having that in the future.

MR. MARSHALL: Okay. We've put that under 728-333. "Flooding and Stream Flow Alteration" is where we put it.

MR. BRAXTON: 728-333?

MR. MARSHALL: Yes.

MR. BRAXTON: Thanks.

Thacker + Co LLC
Court Reporters
Utah's Leader in Litigation Support

Corporate Offices: 50 West Broadway, Suite 905, Salt Lake City, Utah 84101
801-983-2180 Toll Free: 877-441-2180 Fax: 801-983-2181

Page 93

MS. DRAGOO: And in addition to that, there's also a PHC determination.
Dan, is this issue addressed in that as well, regarding morphology?
MR. GUY: Yes--well, it doesn't--yes, it does, in the PHC we do talk about the fact that it will be looked at, I believe.
MS. DRAGOO: I think that's Exhibit--
MR. BUDGE: --26.
MS. DRAGOO: --26, right.
MR. BUDGE: Twenty-seven, I believe.
MR. BRAXTON: That makes better sense. Thank you.
MR. GUY: It mentions that the applicant is committed to evaluating channel parameters and erosion impacts should water be discharged.
MS. DRAGOO: All right. In terms of salinity impacts, SUWA was not able to confirm that any flows reached the Colorado River.
Dan, can you address this issue of salinity and impacts on the Colorado River?
MR. GUY: Once again, I think it's important to note that they don't anticipate, you know, even in the saturated zone that we're going

Page 94

to encounter sufficient volumes of water that will, will have to be doing a lot of pumping or even any pump out of the mine. But, nonetheless, they've committed to do these studies. Any--to talk about adding salinity to the Colorado River from a mine water discharge this far from, from any perennial streams that are going to carry this water, is pretty speculative. I can't say that it won't reach it, but I'm not going to sit here and say that it is a probability that it will either.
The--UEI has committed to test, analyze, and sample all discharges according with the plan. They have a UPDES permit, which is issued by another state agency, however, it is part of their job to evaluate this very thing, to look at the impacts on receiving waters. And that's obviously been done. Or the permit wouldn't have been issued.
MS. DRAGOO: Terrific. I think we can also have Dave Steed, who's a, Utah American's consultant with EIS, can you also address this issue, Dave?
MR. STEED: Yes. Let me introduce myself as David Steed. I was part of the

Page 95

third-party NEPA analysis for the EA as well as part of the baseline work for the PAP MRP.
Just in reference, also in support of the salinity issue, Item 39 in our submittal, which is a copy of the U.S. Fish & Wildlife letter sent to Division of Oil & Gas, April 28 of 2002. Third paragraph: Analysis of the project proposal used 21.3 acre-feet of water annually. It goes into citing various cooperative agreements, agency agreements with upstream water users, which is also part of the salinity control issue on the Colorado River Basin. Their finding, under Section 7 consultation, was an official consultation that was also initiated during the NEPA BLM permitting process is referenced in here, probably get to that, but a formal Section 7 consultation conferred it that the 21.3 acre-feet is within their--let me find the exact wording here--is within their realm of analysis that a depletion charge is waived, therefore, inferring that there's no real true salinity impacts to the region as well as water depletions. And also you can take that even further as we get into biology and infer that there's no impact to fish within the basin.

Page 96

MS. DRAGOO: Thank you. Moving on now to Item 13, I think we've covered this, once again, UtahAmerican Energy has obtained a UPDES permit and it's attached as Exhibit 25.
With respect to Item 14, UEI's groundwater monitoring plan, once again, this has been addressed by Jay Marshall and Exhibit 18 shows several years' worth of data for six groundwater monitoring locations.
Under Item 15 there's ample baseline data for a surface water monitoring plan. Once again, Jay Marshall testified that, regarding Exhibit 18, that there were three monitoring locations, L1S through L3S, and demonstrates that there's adequate baseline data to comply with the requirements of the Division.
Once again, a lot of these readings show no flow but that's still considered to be data. In response to Item 16, rules don't require water quality monitoring of the deep saturated zone. Once again, because the saturated zone in the Mesa Verde group is not an aquifer as defined by the coal regulations. It's not developed for special beneficial use and so water quality does not need to be monitored. However,

Thacker + Co LLC
Court Reporters
Utah's Leader in Litigation Support
Corporate Offices: 50 West Broadway, Suite 905, Salt Lake City, Utah 84101
801-983-2180 Toll Free: 877-441-2180 Fax: 801-983-2181

Page 97

1 UtahAmerican Energy has taken several in-mine
2 samples from the Horse Canyon Mine and that data
3 can be found, once again, at Exhibit 26.
4 MR. BRAXTON: Excuse me. Do the
5 samples in the Horse Canyon Mine tie directly to
6 the deep saturated zone or are these from, or is
7 this water that's percolating down from above?
8 MS. DRAGOO: Do you want to address
9 that?
10 MR. GUY: It's--excuse me--most likely
11 it's from the deep saturated zone. It's within
12 the zone of contact as shown on the--
13 MR. BRAXTON: So you're within the
14 piezometric surface of the deep saturated zone
15 when you're in the mine, then?
16 MR. GUY: Yes--
17 MR. BRAXTON: Okay.
18 MR. GUY: --in the Horse Canyon.
19 Again, there's some fluctuation probably of the
20 elevations due to the faults, but it's difficult
21 to tell until you're actually have a data point.
22 The piezometric surface that we show for the Lila
23 Canyon portion of the mine is based on the three
24 points that we have data on within that fault
25 block. You can feel reasonably comfortable with

Page 98

1 those. But once it hits the faults, then the
2 piezometric surface starts to change.
3 MR. BRAXTON: I understand.
4 MR. GUY: But to answer your question,
5 yeah, it's within the saturated zone.
6 MR. BRAXTON: Thanks. Excuse me, Ms.
7 Dragoo.
8 MS. DRAGOO: No problem. We'd like to
9 address the PHC determination while Dan Guy's on a
10 roll here. Item 17, there's a suggestion there
11 that acid- and toxic-forming material was not
12 addressed in the PHC -
13 MR. GUY: Uh-huh (Affirmative).
14 MS. DRAGOO: --is that correct?
15 MR. GUY: It wasn't addressed as a line
16 item. It was evaluated, but it's probably an
17 omission that needs to be added to the PHC as a
18 statement or at least a paragraph to, to cover
19 that base. There is no evidence of acid- or
20 toxic-forming material anywhere in the area.
21 We've gone through that discussion. But we will,
22 in fact, address it.
23 MS. DRAGOO: Now, as SUWA indicated,
24 it's too early in the process to really assess
25 the Division's CHIA, the cumulative hydrologic

Page 99

1 impact assessment, because they haven't done it
2 yet. But DOGM is going to prepare the CHIA and
3 UtahAmerican Energy has supplied DOGM more than
4 sufficient data to define the cumulative impact
5 area. So we'd like to have Dan Guy just help the
6 Division understand how that impact area might be
7 defined.
8 MR. GUY: Okay. What, what I did
9 without knowing there'd been additional work done
10 on it, we've taken a portion of the geology map
11 that we looked at before here. We've done a
12 geologic cross section on the area. What I did
13 essentially, Lowell, was I took it directly down,
14 dip from the portal location, down the dip of the
15 coal seam, went out as far as reasonably past
16 Range Creek. We've put in the structure, the dip
17 of the coal seam, based on the drilling, the
18 information that we have in this area. The
19 geologic information is by the contacts along that
20 section line. They indicate that there is some
21 flattening as we go out this way (Indicating).
22 Range Creek is, I believe I figured on
23 this particular section from 13 to 34--about
24 21,000 feet to the northeast of the permit
25 boundary here. And it, we also have projected

Page 100

1 the piezometric surface as we have defined it
2 within the permit area, I've just carried that on
3 out. And I believe that that's pretty
4 conservative. The piezometric surface or the top
5 of this deep saturated zone is approximately 1,000
6 feet below the level of Range Creek at the
7 intersection of this line.
8 I think it's important that--and the
9 Division has done a considerable amount of work
10 along this same vein, so we could actually take a
11 look at what the impacts of this mine over here
12 potentially have on Range Creek. It's my
13 contention that there is no impact. And, again,
14 we have to consider the fact that we're working
15 on a probable hydrologic consequence, not a
16 possible hydrologic consequence.
17 MR. BRAXTON: Where is, you mentioned,
18 I believe it was the Sunnyside fault when you
19 were testifying earlier on water--
20 MR. MARSHALL: I mentioned that,
21 Lowell.
22 MR. BRAXTON: Excuse me. Can you point
23 to where that would be on this map. Is that
24 shown on this geologic map?
25 MR. GUY: Jay is probably more familiar

Thacker + Co LLC
Court Reporters
Utah's Leader in Litigation Support

Corporate Offices: 50 West Broadway, Suite 905, Salt Lake City, Utah 84101
801-983-2180 Toll Free: 877-441-2180 Fax: 801-983-2181

Page 101

1 with that particular fault.
2 MR. MARSHALL: It's on other maps of
3 the permit but it's not on this.
4 MR. BRAXTON: Does that fault ever cut
5 the surface or is it all underground--
6 (Discussion held off the record.)
7 MR. BRAXTON: The question was, Does
8 the fault cut the surface or is it all
9 encountered underground only?
10 MR. MARSHALL: You know, Lowell, I
11 don't know.
12 MR. GUY: To tell you the truth, I
13 don't know for sure. It, it probably is exposed
14 on the surface in, you know, in the canyon here
15 (Indicating), would be my guess, but I, as far as
16 whether it's on the surface out here, it doesn't
17 project to be.
18 MR. BRAXTON: So this cross section
19 wouldn't take into consideration any of the
20 extensions on the Sunnyside fault?
21 MR. GUY: No. No. This cross section
22 doesn't. The cross section that was made from
23 Osterwald's map is a lot more definitive about
24 faults. This one, as you can see, there are no,
25 no projected faults at all. So it's based

Page 102

1 strictly on the information that's available on
2 this map.
3 MR. BRAXTON: Thank you.
4 MS. DRAGOO: And for the record, we'll
5 submit that as Exhibit 44. You need a copy for
6 the record.
7 MR. GUY: We'll leave this one here, I
8 guess.
9 MR. BRAXTON: Yeah, thanks.
10 MS. DRAGOO: Turning, now, to the
11 Section 2 regarding the engineering plan, Question
12 19 actually deals with the question of wilderness.
13 And SUWA had made this allegation on several
14 occasions that this area is wilderness. It
15 clearly is not wilderness. And the operation of
16 the mine will not impact any wilderness uses.
17 There is no wilderness use in the permit area.
18 There's a wilderness study area. There's a
19 wilderness, there are two wilderness inventory
20 areas, but those are not designated wilderness.
21 Of course, only Congress can designate wilderness.
22 Moreover, the Lila Canyon Mine is
23 located on federal coal leases with valid existing
24 rights, and these valid existing rights predate
25 both the Wilderness Act in 1964 and the Federal

Page 103

1 Land Policy and Management Act of 1976.
2 Now, it's important to note regarding
3 land uses that this is really something beyond the
4 jurisdiction of the Division. It's--the Bureau of
5 Land Management owns and manages these lands, and
6 the operation of the Lila Canyon mine is
7 consistent with BLM's land management plans and
8 regulations.
9 And, in fact, BLM has specifically
10 found this in October of 2000, BLM issued a
11 FONSI, a finding of no significant impact, in a
12 decision record when it approved the right-of-way
13 for UtahAmerican Energy to construct, operate, and
14 maintain mine-related facilities on these lands.
15 As you may recall, they needed a right-of-way for
16 BLM to do that. And the BLM specifically
17 concluded in that record of decision that
18 facilities will not impair the wilderness
19 characteristics of the wilderness study area and
20 that no mitigation would be proposed for proposed
21 wilderness areas, and that FONSI and decision
22 record is attached as Exhibit 29 in your
23 materials.
24 Interestingly enough, SUWA cited no
25 applicable federal law, regulation, or land use

Page 104

1 plan that requires the mitigation measures which
2 it identifies, including camouflage and nighttime
3 restrictions on operations. Therefore, we believe
4 that DOGM should dismiss this comment.
5 Similarly, with respect to Item 20,
6 regarding the subsidence impacts on wilderness,
7 subsidence is specifically addressed in the permit
8 application at Volume 2, and it's also addressed
9 in the FONSI and decision record issued by BLM.
10 Once again, BLM made the specific
11 finding here that wilderness values would not be
12 degraded by mining activities taking place beneath
13 the surface and that's, once again, Exhibit 29 at
14 page .8. So BLM--the surface management agency
15 has made that determination.
16 Furthermore, these allegations regarding
17 management as wilderness are simply incorrect.
18 The Turtle Canyon Wilderness Inventory Unit, of
19 course, has not been designated as even a WSA.
20 The wilderness inventory unit was determined
21 without public input and without an environmental
22 impact statement, and right now, those wilderness
23 inventory units are being considered by BLM in the
24 land use planning process. The Turtle Canyon
25 Wilderness Inventory Unit should be managed in

Thacker + Co LLC
Court Reporters
Utah's Leader in Litigation Support

Corporate Offices: 50 West Broadway, Suite 905, Salt Lake City, Utah 84101
801-983-2180 Toll Free: 877-441-2180 Fax: 801-983-2181

Page 105

1 accordance with the existing land management plan
2 and that environment set forth in an opinion dated
3 April 15, 1999, from former Department of Interior
4 Solicitor Leshy. And that's included in the PAP
5 at Appendix 4-2. Once again, the Price River
6 Management Framework Plan does not characterize
7 these lands as wilderness. And there is no
8 wilderness out there until Congress has actually
9 acted.
10 Finally, SUWA has incorrectly asserted
11 that no mechanized equipment can be used in
12 wilderness inventory units or WSAs. In this
13 regard, UtahAmerican Energy has valid existing
14 rights under its coal leases and it has the right
15 to actually go out and develop a coal mine out
16 there in the event that it needs to. That's what
17 valid and existing rights allow.
18 As to the question as to whether
19 bonding should include subsidence repair, that is
20 inaccurate. And, once again, there is no
21 wilderness, and so bonding for the return of the
22 land to wilderness values should not be
23 incorporated into the bond.
24 Item 21 regarding the reclamation cost
25 estimate. Jay, can you address this?

Page 106

1 MR. MARSHALL: Yeah. Real quickly,
2 just very quickly, the final amount of the bond
3 will determine just prior to the issue of the
4 permit. The Caterpillar handbook, performance
5 handbook, a D-90 Cat will perform the same this
6 year as it did five years ago and as it will five
7 years in the future. The performance handbook is
8 a performance handbook on that piece of equipment.
9 If Cat makes a piece of equipment that performs
10 differently, they issue a different designation to
11 it: D-9K or D-11, something different. So it
12 doesn't matter that we use the Cat performance
13 handbook that's a year old or two years old. The
14 performance of that piece of equipment stays the
15 same, it doesn't matter.
16 MR. BRAXTON: The performance is the
17 same but the operating costs vary with inflation
18 or cost of living?
19 MR. MARSHALL: They could, yes. Yes,
20 they do. And that's right before the issue we
21 determine what those inflation factors are to
22 determine the amount of the bond at that time.
23 The Means 2000 construction cost data
24 handbook, there again, yes, it was 2000. There
25 may be a 2001 out or even--well, there won't be a

Page 107

1 -2 out yet but those costs are estimates, they're
2 just estimates and you add inflation factors to
3 it. It's inflated to five years down the line.
4 There's always an engineering factor in there.
5 There's plenty of factors involved there. In
6 fact, in my experience in reclamation work I've
7 been involved with, the actual cost is somewhere
8 around 30 to 40 percent of the bonded cost. So
9 the actual cost of the reclamation is usually
10 lower than the bonding cost. But bottom line is
11 it's premature to be debating this right now
12 because it will be determined just prior to
13 issuing the permit.
14 MR. BRAXTON: Can I make a note of the
15 time right now? The way the original agenda was
16 set, you folks would have until 2:30, we'd take a
17 break, and then we'd break up the remaining time
18 in ten-minute blocks. Is that something that both
19 parties want to agree to now or--
20 MS. DRAGOO: Were we each going to get
21 an hour and a half?
22 MR. BRAXTON: No, you were to get an
23 hour and SUWA was to get an hour and a half the
24 way the agenda was set. And I thought I
25 discussed that with you when we spoke several

Page 108

1 weeks ago.
2 MS. DRAGOO: I thought we had a hour
3 and a half.
4 MR. BRAXTON: No, I thought I made it
5 clear that there was a difference in that amount
6 of time.
7 MS. DRAGOO: What I would do, then, is
8 I would just limit my closing remarks to five
9 minutes, if that's all right and we can continue
10 on.
11 MR. BRAXTON: Or if SUWA is willing to
12 let you finish--I just -
13 MS. DRAGOO: Sure.
14 MR. BRAXTON: --wanted to stick to the
15 schedule.
16 MS. DRAGOO: Great.
17 MR. BRAXTON: Do you have objections to
18 letting them finish?
19 MR. McHARG: That's fine. Let them go
20 through their, their responses to our concerns.
21 MR. BRAXTON: Okay.
22 MS. DRAGOO: Terrific. Thank you.
23 Turning on to Item 3--oh, 22 do you
24 want to address that?
25 MR. MARSHALL: Item 22, as far as our

Thacker + Co LLC
Court Reporters
Utah's Leader in Litigation Support

Corporate Offices: 50 West Broadway, Suite 905, Salt Lake City, Utah 84101
801-983-2180 Toll Free: 877-441-2180 Fax: 801-983-2181

Page 109

1 error in the reclamation cost estimates on the
2 spreadsheet, SUWA's right. There is an error
3 there. It looks like, it appears to me it was a
4 cut-and-paste type error, but I didn't do it but
5 it will be corrected.
6 MS. DRAGOO: Item 3, "Soils." I think
7 we've addressed this in regard to sufficiency of
8 topsoil and subsoil. Do you want to address that
9 quickly?
10 MR. MARSHALL: Yeah. Real quickly in
11 Chapter 2, the soils chapter, it, Plate 2-3 shows
12 exactly where the topsoil is going to be recovered
13 from. It shows exactly where it's going to be
14 replaced. There's volumes in there. The volume
15 calculation is in there. The data should be
16 accurate.
17 MS. DRAGOO: Great. Moving on to
18 biology, we'd like to hear from our expert
19 consultant, Environmental--EIS.
20 Mel, initially, could you address the
21 question of the adequacy of the vegetative and
22 wildlife information? Particularly what areas
23 have to be analyzed, first with respect to
24 vegetation and then with respect to fish and
25 wildlife.

Page 110

1 MR. COONROD: All right. Essentially,
2 I think it's important to note that EIS was a
3 third party consultant doing work in cooperation
4 with the land management agency, BLM. The BLM,
5 in association with OSM, Utah Division of Wildlife
6 Resources, delineate--excuse me--what areas are to
7 be analyzed or surveyed as well as what species
8 need to be inventoried for. Based on that, the
9 conclusion by those agencies responsible for the
10 habitat limited the survey to those areas directly
11 affected through surface operations, meaning the
12 facility and upgrading the county road.
13 Surveys were conducted from 1998
14 through 2000--actually we're still doing one in
15 2002. It was never considered appropriate to
16 survey areas that potentially might be affected
17 through subsidence. The decision record indicated
18 that subsidence was a non-issue. So I can't
19 really respond to SUWA's contention that areas
20 potentially affected by subsidence were not
21 adequately surveyed because it's based on
22 erroneous assumption.
23 Relative to riparian and wetland areas,
24 there's two people on our staff which are
25 certified by the Corps to make that determination,

Page 111

1 and there are none within the permit area.
2 MS. DRAGOO: Regarding the adequacy of
3 the wildlife information, Item 28--
4 MR. BRAXTON: Could we just elaborate
5 on that a little bit? What you talked about, Mr.
6 Coonrod, was the EIS requirements for surveying.
7 What is the--
8 MR. COONROD: The EA requirements.
9 MR. BRAXTON: Excuse me. EA. What is
10 the Division's biological requirement in that
11 respect? Can you summarize that, having done that
12 before?
13 MR. COONROD: In the EA I believe the
14 Division buys off on U.S. Fish & Wildlife
15 requirements, threatened and endangered and
16 sensitive species. In addition to the T&E
17 inventory, a complete vegetation survey was done
18 on the area of potential disturbance for the
19 facilities. That included species diversity,
20 woody plant density, productivity. Initially, we
21 did it on two areas outlining the two predominant
22 vegetative types on the surface area: pinion
23 juniper and grass sage. It was determined through
24 consultation with DOGM that the intent to put back
25 pinion juniper was probably not in the best

Page 112

1 interest for post-mining land use, so we dropped
2 the pinion juniper reference area and we
3 concentrated on creating a grass shrub reference
4 area. Likewise, all of the same parameters were
5 analyzed for both the reference area which was
6 outside the area of disturbance, as well as the
7 area that theoretically would be disturbed.
8 MR. BRAXTON: And can you describe, to
9 the best of your knowledge, the wildlife resources
10 input on that type of planning?
11 MR. COONROD: Okay. There was a
12 comment in here that wildlife was totally ignored.
13 And that's totally erroneous. Virtually all
14 wildlife known to inhabit that portion of Utah,
15 not only the permit area, but the Book Cliffs and
16 Roan Ranges were looked at. There were several
17 species which are of both state and federal
18 interest. Those species were looked at in the
19 NEPA document, specifically Rocky Mountain
20 bighorn. And it was determined that the mine
21 theoretically could potentially displace a small
22 band of Rocky Mountain bighorn that were
23 currently--or frequently utilize the Lila Canyon
24 area.
25 I think there's a misconception that

Thacker + Co LLC
Court Reporters
Utah's Leader in Litigation Support

Corporate Offices: 50 West Broadway, Suite 905, Salt Lake City, Utah 84101
801-983-2180 Toll Free: 877-441-2180 Fax: 801-983-2181

Page 113

1 the NEPA process required mitigation in the form
2 of guzzlers. It was my understanding that the
3 guzzlers were an enhancement feature recommended
4 by Utah Division of Wildlife. And it was not
5 necessarily to mitigate any negative impact but
6 simply to add a more diverse distribution of Rocky
7 Mountain sheep. The one guzzler which has been
8 implemented at the head of Johnson Canyon has
9 proved to be very effective and a very viable
10 constant source of water, whereas the springs and
11 seep in the area for the last three years are
12 just nonexistent.
13 MR. BRAXTON: Thank you.
14 MS. DRAGOO: Great. All right. Just
15 quickly going back to--I think we've actually
16 covered Item 28, up through 28. In terms of
17 impacts on the Southwestern Willow Flycatcher, can
18 you address that?
19 MR. COONROD: Again, it was addressed
20 under Chapter 7 consultation with U.S. Fish &
21 Wildlife cooperative effort with BLM. For any
22 impact to occur to a species, there has to be
23 habitat. And it was the conclusion of all
24 agencies and their wildlife people that there
25 truly is not suitable Southwest Willow Flycatcher

Page 114

1 habitat within the permit area or within the area
2 of potential disturbance.
3 MS. DRAGOO: Great. And I believe
4 there's also a letter, dated April 28, 2000,
5 attached as your Exhibit 39, in which U.S. Fish &
6 Wildlife has concurred with DOGM that there not
7 likely to adversely affect for the Southwestern
8 Willow Flycatcher. So that may be helpful as
9 well.
10 MR. COONROD: I think it's important to
11 note, Denise, that it also includes the bald eagle
12 and other listed plant species that could
13 theoretically occur in the area.
14 MR. BRAXTON: Bald in addition to
15 golden, then?
16 MR. COONROD: It specifically mentions
17 bald. Although golden is not specifically
18 mentioned, I think the implication is that it was
19 adequately addressed, golden eagle concerns.
20 MS. DRAGOO: I think you've addressed
21 sensitive, threatened, and endangered species
22 surveyed, Item 30.
23 How about special status fish species,
24 Item 31?
25 MR. COONROD: I think David Steed more

Page 115

1 or less covered this.
2 MR. STEED: I'd like to add to that
3 again and reference back to that Fish & Wildlife
4 letter of April of 2000 and to the water
5 depletion discussion in the letter. It's
6 inferences that it's less than 100 acre-feet,
7 which is kind of a limit set by the upper
8 Colorado River users as to kind of a limit point
9 on which maybe an assessment or analysis of those,
10 of potential impacts to those species could occur.
11 And the fee was waived, it was shown that water
12 depletions--or excuse me--not water depletion.
13 Use of water would be well under 100 acre-feet a
14 year, therefore, we're not really impacting, we're
15 not adding salinity, we're not depleting the water
16 system, so hence no impact.
17 And also, if I can find it really
18 quick, we have a--
19 MS. DRAGOO: Exhibit 36, the biological
20 assessment.
21 MR. STEED: Yeah, Exhibit 36 is
22 actually a copy of the formal Section 7
23 consultation that we facilitated through the BLM
24 during the environmental assessment process with
25 Fish & Wildlife. And it's an actual formal way

Page 116

1 to address impacts to listed, fairly listed
2 threatened and endangered and candidate species.
3 The fish were basically looked at and determined
4 to be no effect.
5 MR. BRAXTON: And is that exhibit going
6 to be or is it part of the current permit
7 application package?
8 MR. STEED: I believe it isn't.
9 MR. MARSHALL: The BA?
10 MR. STEED: The BA.
11 MR. MARSHALL: Yeah, it was submitted
12 at the April submittal.
13 MS. DRAGOO: How about special status
14 of amphibians and reptiles? I think those were
15 addressed in the EA.
16 MR. STEED: Amphibians and reptiles in
17 the state of Utah, as well; not just the state of
18 Utah but probably almost every state now is listed
19 as kind of a species of concern. And, therefore,
20 we addressed them within the environmental
21 assessment under wildlife impacts. And numerous
22 meetings, too many to count or even remember,
23 between UDWR and BLM, as well as formal and
24 informal discussions with Fish & Wildlife, we
25 determined there was no impact to those species.

Thacker + Co LLC
Court Reporters
Utah's Leader in Litigation Support

Corporate Offices: 50 West Broadway, Suite 905, Salt Lake City, Utah 84101
801-983-2180 Toll Free: 877-441-2180 Fax: 801-983-2181

Page 117

1 Again, Fish & Wildlife doesn't manage those
2 species unless they're federally endangered,
3 threatened or candidate. DWR and BLM biologists
4 or the land management biologists would be the
5 people. So they concur there's no impact.
6 MR. BRAXTON: And is that going to be
7 part of the permit application package also, or is
8 it even required? I'm asking, I'm not -
9 MS. DRAGOO: Actually, Exhibit 30, the
10 environmental assessment, addresses amphibians and
11 reptiles. And I think that's been submitted,
12 hasn't it?
13 MR. MARSHALL: Environmental, yes.
14 MS. DRAGOO: How about the
15 environmental assessment?
16 MR. MARSHALL: Environmental
17 assessment--
18 MS. DRAGOO: For the road.
19 MR. MARSHALL: No, we did not submit
20 that as part of the BA. Not part of--
21 MR. COONROD: If I can interrupt, Jay,
22 I believe that the BA is the fundamental premise
23 for the PAP to proceed, and as such it's
24 referenced in the PAP as having been completed.
25 In my mind, that's adequate reference, and I think

Page 118

1 it would be redundant to duplicate the EA into
2 the PAP where both are public documents.
3 MR. BRAXTON: I'll let the Division
4 ultimately weigh that, but I just wanted to, if
5 there are questions on whether it should be
6 introduced, I wanted to raise them here.
7 MR. STEED: A specific requirement for
8 those species or--
9 MR. BRAXTON: If those data need to be
10 part of the permit, I just wanted to raise the
11 question as to whether they need to be raised at
12 this point. I'm not asking for a conclusion if
13 you don't have one.
14 MR. STEED: Under your regs, it's kind
15 of an umbrella, fish and wildlife and impacts to
16 them, what species would be under the discretion
17 of the Division with agency consultation, so. . .
18 MR. BRAXTON: Thanks.
19 MS. DRAGOO: I think Mel addressed Item
20 33, the high-value wildlife. Item 34, mitigation
21 regarding the guzzlers, Mel also addressed.
22 Do you want to add anything else to
23 mitigation or . . .
24 MR. STEED: I think Mel covered it
25 fairly well. Again, it's, when we talk about

Page 119

1 mitigation and, in the same sentence with
2 guzzlers, it wasn't meant to be inferred as
3 mitigation from BLM standpoint. Even though we
4 felt that if it went to something like this, that
5 it probably would be inferred as mitigation, that
6 we were inferring it that the mine itself was
7 driving away the transplanted population of
8 bighorn sheep and, therefore, we were having to do
9 something to get them back, there were going to
10 be dried-up springs, therefore, we had to create
11 artificial water sources. That wasn't the case.
12 There's quite a bit of DWR data available to show
13 abuse of bighorn sheep in that area. The
14 wildlife enhancement feature of the guzzlers was
15 developed to help better manage that herd within
16 that area and help, if anything, not just the
17 management but the expansion of it. So because
18 of the fickle nature of seeps or springs in that
19 area and not being utilized by or being able to
20 be utilized by wildlife, so it was more of an
21 artificial enhancement of the existing situation
22 rather than replacement of something resulting
23 from mining.
24 MS. DRAGOO: Right. Item 35 regarding
25 impacts of the Emery County road; of course, the

Page 120

1 Emery County road is not part of UtahAmerican
2 Energy's application, permit application plan.
3 But the impacts of that Emery County road on
4 wildlife were analyzed in an environmental
5 assessment. I think you were involved in that.
6 The environmental assessment is attached as
7 Exhibit 36 and the, there was actually a specific
8 finding by the Bureau of Land Management that any
9 impacts would be insignificant. And that's why
10 BLM was able to issue a FONSI approving the
11 right-of-way grant to Emery County. And that
12 FONSI and decision record is attached as Exhibit
13 29.
14 MR. COONROD: If I could just interject
15 one point of interest: To curtail traffic on the
16 road in dusk and dawn might be advantageous, but
17 one of the few large game species that don't
18 really move at night are antelope. So the
19 incidence of antelope/vehicle collisions being
20 curtailed by night travel is not biologically
21 supported. I'm sure you've noticed you see very
22 few dead antelope on the highway.
23 MS. DRAGOO: That segues great, just
24 perfectly to Item 36, "Vehicles and Haul Truck
25 Time Restrictions." Once again, BLM studied the

Thacker + Co LLC
Court Reporters
Utah's Leader in Litigation Support

Corporate Offices: 50 West Broadway, Suite 905, Salt Lake City, Utah 84101
801-983-2180 Toll Free: 877-441-2180 Fax: 801-983-2181

Page 121

1 wildlife impacts of vehicles using the Emery
2 County road, this isn't UEI's road, and did not
3 impose restrictions on time or use of vehicles.
4 And if you'll take a look at the EA, Chapter
5 3.5.2 specifically addresses vehicular traffic,
6 4.6.3 addresses vehicular traffic impacts. And
7 mitigation is 4.6.4. BLM did not impose any
8 restrictions similar to what SUWA is recommending,
9 if you'll look at Exhibits 29 and 30.
10 Regarding raptors, do you want to
11 address that, Dave? There's, raptors were the
12 only wildlife monitoring proposed.
13 MR. STEED: Well--and I guess it goes
14 back to mitigation, the accusation that mitigation
15 was inadequate for other species. Basically,
16 going back to the EA and the line management
17 agency being the BLM, what we did to the road and
18 the surface facility, and, you know, confirm what
19 Mel was saying, that we had actually looked at
20 what could be the impacts of, to surface use by
21 wildlife resources in the permit area, the mining
22 area by underground mining, determined there
23 really wasn't any, so we focused most of our
24 discussion on the surface, use of the road surface
25 facility associated with that project. Wildlife

Page 122

1 use in that area, and I'll even say from a UDWR
2 standpoint, they figured into every discussion we
3 ever had on this, formal meetings with UDWR and
4 state, state managers as well as the regional
5 managers.
6 The area is a low wildlife use area.
7 It's minimal on antelope. It's a yearlong, what
8 is referred to as yearlong mule deer winter range,
9 which basically means they could be there at any
10 time but doesn't provide any specific benefit to
11 wintering the game, which is, you know, what we're
12 really looking at as far as impact. Therefore,
13 we didn't have, we didn't, there was no developed
14 monitoring. When I say "we," it's not EIS or
15 UEI. BLM and UDWR did not have formal monitoring
16 for any other species other than raptors due to
17 the Bald Eagle Act and Migratory Bird Act
18 requirements.
19 MS. DRAGOO: Okay. Moving on to land
20 use, once again, the wilderness issue I addressed
21 before, but I just want to emphasize that the
22 wilderness issue is not something that is within
23 the Division's jurisdiction.
24 The permit application plan accurately
25 describes the premining land uses, and that's all

Page 123

1 that's required under 301-411-130. The PAP has to
2 describe existing land uses and land use
3 classifications. Wilderness would be a future
4 land use. It's not an existing land use right
5 now, and UEI has adequately addressed post-mining
6 land use.
7 As we've indicated before, there is no
8 wilderness within the permit area. There
9 wilderness study areas and wilderness inventory
10 areas. And specifically with respect to existing
11 land uses, the existing land uses are set forth
12 in the Price River Management Framework Plan and
13 include grazing, wildlife habitat, coal mining,
14 and limited reclamation. That's set forth in
15 Appendix 4-2 of the permit application plan. So,
16 clearly, wilderness is not among those uses
17 currently approved in the MFP. BLM is the land
18 use manager, not the Division, and so the Division
19 has to defer to the BLM in that regard.
20 There is an interesting decision that
21 we cite, Southern Utah Wilderness -Alliance, 151
22 IBLA 338 -
23 (Discussion held off the record.)
24 MS. DRAGOO: Sorry. It's SUWA. It's an
25 IBLA decision. 151 IBLA 338. And that has

Page 124

1 determined that lands, that they indicate that we
2 have stated on a number of occasions that final
3 administrative decisions relating to designation
4 of WSAs in Utah were completed in the 1980s, the
5 lands in question are not WSA, and BLM can
6 administer them for other purposes. And that
7 would include multiple-use purposes and that lands
8 in question here were inventory units. So it is
9 appropriate for those wilderness inventory units,
10 units to be managed as for multiple use, including
11 coal mine development. This particular case
12 involved extractive uses, so . . .
13 Also, I indicated that Solicitor Leshy
14 has made clear that under the 1999 wilderness
15 inventory, those lands have to be managed in
16 accordance with the existing land management plan.
17 And, once again, wilderness would be speculative
18 and not in accordance with the existing land
19 management plan.
20 Under Item 39, reclamation is more than
21 adequate to restore the land to its premining land
22 uses and, once again, this does not include
23 wilderness.
24 With respect to cultural issues, the
25 cultural and historic researches information are

Thacker + Co LLC
Court Reporters
Utah's Leader in Litigation Support

Corporate Offices: 50 West Broadway, Suite 905, Salt Lake City, Utah 84101
801-983-2180 Toll Free: 877-441-2180 Fax: 801-983-2181

Page 125

1 attached at Exhibit 41 to your materials and in
2 Appendix 4-1 in the permit application plan.
3 The EA has specifically found that,
4 that any kind of subsidence would not irreparably
5 damage cultural sites. And that is set forth in
6 EA attached to Exhibit 30. Under Item 41, the
7 air quality permit discussed by SUWA has already
8 been issued to UtahAmerican Energy and is attached
9 as Exhibit 42. It's also found in the PAP at
10 Appendix 4-3.
11 Regarding the significant revision
12 issue and the new permit, once again, UtahAmerican
13 Energy has submitted the new permit extension and
14 that is consistent with the Division of Oil, Gas
15 & Mining's policy directive dated January 8, 2002.
16 And that's attached as Exhibit 43. The new
17 permit for any extension of the mine is consistent
18 with the regulations, 645-303-121.100. In
19 addition, public notice is adequate. The notice
20 gave the precise location and boundaries of the
21 permit area, indicated that a new permit would be
22 issued. It's not misleading. It follows the
23 requirements, precisely gives a legal description
24 and, in fact, gave notice to certain public
25 interest groups that are here testifying today.

Page 126

1 With respect to Item 7 regarding the
2 Emery County road, Board of Oil Gas & Mining has
3 already determined that this road, the Emery
4 County road is a public road and they determined
5 that in the order dated December 14, 2001. The
6 board in that matter upheld the Division's
7 determination that the Lila Canyon road is a
8 county road. And that those determinations were
9 made in a July 18, 2001, findings document which
10 is attached as Exhibit 16.
11 Those findings go through all of the
12 criteria regarding roads and determine that the
13 road is indeed a public road maintained, owned and
14 maintained by Emery County. As we've indicated
15 the Emery County was issued a right-of-way by the
16 Bureau of Land Management. BLM apparently thinks
17 it's a county road as well.
18 Regarding legal issues, Item 44,
19 regarding unsuitability. Unsuitability, again, is
20 not within your jurisdiction. It's a
21 determination made by the land manager. In this
22 case the Bureau of Land Management. The Price
23 River Management Framework Plan determines these
24 lands to be suitable for mining and, in fact, BLM
25 has issued several federal coal leases on these

Page 127

1 areas, so they must be suitable for mining.
2 SUWA is simply incorrect that this area
3 is not suitable for mining. That's a land use
4 decision made by the Bureau of Land Management
5 Department of Interior and is not within the
6 Division's jurisdiction.
7 In terms of the schedule, Item 45,
8 SUWA's made a statement the schedule would be
9 impossible to keep and is speculative. Once
10 again, this is a technical issue and I'm sure the
11 schedule will be revised as we go along. One
12 reason that we're so late is we had an appeal by
13 the Southern Utah Wilderness Alliance that we had
14 to deal with. So perhaps the schedule is a
15 little bit out of date.
16 Do you want to address that, Jay?
17 MR. MARSHALL: I mean, that schedule,
18 it's a floating schedule. If the Division was to
19 make a schedule, it would be different than what
20 I would make a schedule. It would be different
21 than what SUWA would make the schedule. If we
22 had the permit in hand, we would be starting this
23 mine the first of June.
24 MS. DRAGOO: Under Item 46, the
25 reclamation bond does not have do address

Page 128

1 wilderness reclamation because there is no
2 wilderness.
3 With respect to Item 47, the
4 right-of-way is actually not in dispute. The BLM
5 has issued the right-of-way grant. SUWA has
6 requested a stay that have right-of-way grant on
7 several occasions and has not been granted a stay.
8 The IBLA has taken up the issue of NEPA adequacy
9 and compliance and they'll make that decision
10 eventually but the right-of-way grant has not been
11 stayed.
12 We appreciate this opportunity. And I
13 certainly appreciate your indulgence, Mr. McHarg.
14 Thank you for the additional time. It's 4:00 and
15 now I'll yield my time to you.
16 MR. McHARG: On the initial schedule
17 there was a five-minute break in between. I
18 think we'd like to take it.
19 MR. BRAXTON: Everybody in accord with
20 that?
21 (Recess taken, 4:03-4:20 p.m.)
22 MR. BRAXTON: Let's go back on the
23 record, then. And Mr. McHarg, it falls back into
24 your court.
25 MR. McHARG: Well, thank you, Mr.

Thacker + Co LLC
Court Reporters
Utah's Leader in Litigation Support

Corporate Offices: 50 West Broadway, Suite 905, Salt Lake City, Utah 84101
801-983-2180 Toll Free: 877-441-2180 Fax: 801-983-2181

Page 129

1 Braxton, for giving us an opportunity to respond
2 to some of the issues that were raised by UEI.
3 Of course, UEI had 30 days to look at our
4 concerns with the, with the permit application and
5 to prepare their response. Obviously we can't
6 address each one in sufficient detail at this
7 time, having only a few minutes, but I will
8 attempt to highlight some of the more glaring
9 concerns that we have with--
10 MR. BRAXTON: Please do.
11 MR. McHARG: --with their response.
12 Okay?
13 MR. BRAXTON: Please do.
14 MR. McHARG: Of course, today we have
15 raised many concerns. And we're hopeful, if not
16 confident, that the Division will address these
17 concerns in the technical analysis process and if
18 we have additional concerns after that process is
19 completed, then we will address them at that time,
20 but for now, I'll try to address some of these.
21 First off, I should note that UEI,
22 counsel for UEI objected to the expert report of
23 Elliott Lips and also the declaration of Ron Kass,
24 things that we put into our comments and for the
25 Division to review during its technical analysis

Page 130

1 process. The objection was based on failure to
2 establish foundation, that, one thing I should
3 note is in that, in those attachments both for
4 Elliott Lips and for Dr. Kass we have included
5 their curriculum vita and, you know, sufficient
6 explanation to establish foundation for these
7 people.
8 But because, as you mentioned this
9 process is informal, it, we're not following those
10 particular rules.
11 The other thing I should note is that
12 UEI also raised--or used certain expert opinions
13 today and brought out some expert opinions today.
14 And I did not object to those for the same
15 reason. It's an informal conference.
16 The other concern right off the bat is
17 that UEI stated that they had submitted this new
18 permit application and that it contained adequate
19 baseline information and I believe the comment was
20 made that it was, that the adequate information is
21 there, that the Division has considered that to be
22 such in their administrative determination. If
23 that was the intent of the comment, I'm just
24 simply saying that the administrative
25 determination, adequate baseline data is not

Page 131

1 necessarily a consideration in that determination
2 and obviously would be, take great issue with that
3 concern.
4 Let's see. On Point, under
5 "Hydrology," Point 2, one thing that I would just
6 like to respond to what UEI brought up was that
7 Exhibit 10 doesn't necessarily shed any light on
8 the regional aquifer. That, it doesn't really
9 contain any additional information on seasonal
10 variations which are required under the rules. So
11 there's really no new data in front of the
12 Division in terms of that, and I think the same
13 concerns that Division had earlier and that we
14 have now exist.
15 Elliott, did you have a stand on that?
16 MR. LIPS: This is stated in our
17 comments that if you look--and I'm not going to
18 walk through all these dates--but if you look
19 closely at the dates of sampling of the IPA
20 piezometers in Exhibit 10, that it does not
21 demonstrate seasonal variation.
22 MR. McHARG: And Point 4, there was a
23 discussion that this is a saturated zone, it's not
24 to be considered as an aquifer. I want to just
25 read into the record a definition of "aquifer."

Page 132

1 It's aquifer means a zone, stratum, or group of
2 strata that can store and transmit water in
3 sufficient quantities for a specific use.
4 And it should be noted that UEI in its
5 response added some words to this definition.
6 They said that it's not an, it's a saturated zone
7 because it's not developed for a specific use nor
8 does it serve as a beneficial use for an
9 appropriated source. Those aren't part of the
10 definition. And it's, so that should be a
11 consideration of the Division. And it also should
12 be noted that it is UEI's obligation, they have
13 the burden of proof to establish where the
14 discharge of this regional aquifer is. And
15 whether or not there is a specific use for that,
16 for that area that, where this regional aquifer
17 discharges. If it happens to be Range Creek, you
18 know, this specific use in Range Creek could be a
19 fishery. Is it going to affect that? Dan Guy
20 discussed that it may not be Range Creek, it may
21 be the Price River or the Green River. But then
22 those are potentially affected sources. Then
23 those should be considered under this permit
24 application. And surveys, analysis, monitoring,
25 baseline data, all that that needs to be

Thacker + Co LLC
Court Reporters
Utah's Leader in Litigation Support

Corporate Offices: 50 West Broadway, Suite 905, Salt Lake City, Utah 84101
801-983-2180 Toll Free: 877-441-2180 Fax: 801-983-2181

Page 133

1 established for those water sources or any other
2 potentially affected water source.
3 Let's see. Point 5. The comment was
4 made that there are numerous samples in Horse
5 Canyon. Just wanted to state that, that this is
6 not premining baseline data for this permit area.
7 Six. It was a discussion of seeps and
8 springs in the perched aquifer. There's ample
9 groundwater quality and quantity data for the
10 perched aquifers. We submit that one sample
11 location is not enough, and that, as we discussed
12 before, that the discrete, if they are discrete
13 not connected to a particular system, as some
14 members stated earlier at our earlier meeting this
15 morning, those are still extremely important
16 sources for wildlife, that any water source,
17 whether it's connected to a system or its discrete
18 is important for water life, and those baseline
19 data for those should be established. And they
20 should be monitored.
21 Let's see. I think in Point 12, in
22 discussing salinity impacts, Mr. Steed, I believe,
23 talked about a Fish & Wildlife Service letter. I
24 just want to raise question with that. I believe
25 that letter discussed the use of the, of the

Page 134

1 water, the 21.3 acre-feet of the water annually
2 and that this would not necessarily create an
3 impact. We were talking about in our salinity
4 discussion of the discharge into that area. So I
5 don't believe the Fish & Wildlife Service letter
6 addresses that concern.
7 Point 16--let's see. One, I just
8 wanted to reiterate at this point that, again,
9 it's, it's not developed water source for a
10 specific beneficial use. We should follow the
11 definition that is established in the rules and
12 that we need to look at all potentially affected
13 water sources.
14 Nineteen, I think, was a discussion on
15 wilderness uses? Is that right? You were
16 talking about--yeah, it was--well, discussion of
17 the engineering plan. And mainly UEI at this
18 point raised issue with the wilderness use and
19 said there's no wilderness use. Again, it's
20 important for the Division to recognize that it is
21 looking at what use the area is capable of
22 supporting or a higher use, not what the legal
23 description of that area is. It's what it's
24 capable of supporting. And the BLM has said that
25 this area has wilderness character. And I think

Page 135

1 it's a fiction then to not say that it's capable
2 of supporting. Whether or not it becomes a
3 wilderness area designated by Congress I don't
4 believe is the issue here. Right now it's
5 whether or not it is capable of supporting
6 wilderness and it has been found to have
7 wilderness character.
8 Also, the right-of-way is in dispute.
9 Let's see. That I will touch on later. There
10 was another point in which that was raised.
11 One moment, please.
12 Four, "Biology." The entire discussion
13 basically was premised on the permit area that is
14 being looked at right now. It was, it did not,
15 it basically ignored the concerns that we have
16 raised with the affected area, the area of
17 potential disturbance. Every, every response that
18 UEI came up with essentially ignored, let's say
19 the statement in regards to riparian areas. The
20 statement by Mr. Coonrod that there are no
21 riparian areas in the permitted area. Well, that
22 goes to the crux of our concern, that the area
23 of, that is potentially affected by the mining
24 operations, that area does contain riparian areas
25 and, therefore, those areas, baseline data needs

Page 136

1 to be gathered for those areas. Monitoring needs
2 to be established, needs to be analyzed.
3 MR. BRAXTON: And you're referring to
4 Range Creek when you're referring to riparian
5 areas?
6 MR. McHARG: I'm referring to Range
7 Creek. I'm referring to seeps and springs that
8 could be affected by the mining operation. Dan
9 Guy today raised the point that the area of
10 discharge could be the Price River, the Green
11 River. Those, those are riparian areas,
12 obviously. Any area that could be potentially
13 affected by this mining operation to us is, should
14 be of concern to the Division, and the Division
15 should require that UEI supply them with the
16 baseline data for, for those areas. So that we
17 know what vegetative and wildlife resources exist
18 in those areas and what effects this mining
19 operation could have on those resources and it
20 will monitor for those so we are not moving into
21 this process with blinders on.
22 Let's see. Thirty-five was a
23 discussion of the Lila Canyon coal mine road.
24 Again, we take serious issue with this. It needs
25 to be analyzed as part of an affected area in the

Thacker + Co LLC
Court Reporters
Utah's Leader in Litigation Support

Corporate Offices: 50 West Broadway, Suite 905, Salt Lake City, Utah 84101
801-983-2180 Toll Free: 877-441-2180 Fax: 801-983-2181

Page 137

1 permit. And so, of course, any impacts to
2 wildlife and all that need to be addressed.
3 Turning back a little bit to the wildlife issue
4 too, you know, the, the discussions in the EA
5 were limited to what the BLM was looking at and
6 we think the Division's responsibilities in terms
7 of looking at the area that's potentially affected
8 by the mining operation go beyond that.
9 And this applies to all these points
10 that were raised, like 36, with raptors, the
11 comment was made that the entire area is low for
12 wildlife use. Again, it's because they, the area
13 of potential disturbance is ignored.
14 "Land Use," Point 38, I already
15 discussed this. Again, capable of supporting. I
16 don't know. I was going to give it an analogy
17 about a house, a residential house in an area
18 that's zoned commercial. You know, it's not, it's
19 not what the legal description of that area is at
20 this time in history. But it is what the, you
21 know, what that area is capable of supporting.
22 And if, you know, if that has been determined to
23 be wilderness character, that's what the Division
24 should be looking at.
25 Let's see. Forty-seven. Oh, 42, I

Page 138

1 think it should be -
2 MR. BRAXTON: How would you comment on
3 the valid existing right as part of your comments
4 on land use and things like that, the valid
5 existing right that accrues from a lease?
6 MR. McHARG: Well, there are laws that
7 cover that. And so that, you know, I think that
8 can be clearly addressed under those laws. I
9 think what happens, what is necessary for the
10 permit application package and what is required
11 for the Division's technical analysis, though, is
12 different than that. And that you have to look
13 at, you know, what that area is capable of
14 supporting, what use it's capable of supporting.
15 So you need to require UEI to supply you with all
16 that information and, and a reclamation plan that
17 is consistent with the use that that area is
18 capable of supporting. All these other arguments,
19 to me, are red herring arguments that the Division
20 right now in terms of where this process is
21 should not be concerned with. They should be
22 looking at what that area is capable of supporting
23 and that is, has been found to have wilderness
24 character, so everything that you require from UEI
25 should be, should fit with that.

Page 139

1 MR. BRAXTON: Okay. Thank you.
2 MR. McHARG: Oh, on 42, the comment was
3 made that, indeed, the public notice description
4 was deficient to give SUWA notice of the proposed
5 mine a fact confirmed by its request for informal
6 conference. I have raised--SUWA has raised
7 concerns of prejudice to the public with how this
8 was noticed in terms of, you know, it not being
9 described in laymen's terms what is really
10 occurring here. And obviously, SUWA has, has been
11 tracking this and has been watching closely. I'm
12 talking about for somebody that picks up the paper
13 and reads this particular public notice, I don't
14 believe that most people, unless you're, well,
15 even if, you either have to be very well versed
16 in the Division's process or a surveyor or
17 engineer to understand how large of an extension
18 this actually is, and how, and the fact that it
19 entails entirely new surface facilities, since
20 that was not even mentioned in the application.
21 What's that?
22 Forty-three--oh, for the Emery County
23 road, is a public road and cannot be made part of
24 the permit area. I have discussed that. It is,
25 it should be considered by the Division as part

Page 140

1 of the affected area, needs to be addressed in
2 this permit. And we raised countless concerns
3 regarding this road, this road. And I would ask-
4 -obviously, they're in the files. It's going to
5 be considered by Division all of the issues that
6 SUWA raised in this regard in the prior permit
7 application and during the hearing on that, that
8 permit approval before the board and that goes for
9 all issues.
10 On 47, statement was made that there
11 is, the heading is, there is no disputed
12 right-of-way. Just because a stay has not been
13 issued at the Interior Board of Land Appeals does
14 not mean that the dispute is not still pending,
15 they are still looking at the merits of the
16 issue. So I just wanted to bring that--
17 MR. BRAXTON: Help us if you're up to
18 speed on that is what a time line from a
19 potential decision for IBLA could be on that.
20 MS. DRAGOO: Three years.
21 MR. McHARG: Yeah, could be a very long
22 time, could be a very long time so that's not
23 something I can speculate as to.
24 MR. BRAXTON: Thank you.
25 MR. McHARG: Those are some of the,

Thacker + Co LLC
Court Reporters
Utah's Leader in Litigation Support

Corporate Offices: 50 West Broadway, Suite 905, Salt Lake City, Utah 84101
801-983-2180 Toll Free: 877-441-2180 Fax: 801-983-2181

Page 141

1 some, just some of the more glaring, I guess,
2 replies that I had to UEI's responses to our
3 concerns. And, again, the Division now has our
4 concerns before them and we anticipate that you'll
5 address them in your technical analysis. Thank
6 you.
7 MR. BRAXTON: Thank you.
8 Ms. Dragoo.
9 MS. DRAGOO: I just wanted to respond
10 quickly to some of the issues raised by Southern
11 Utah Wilderness Alliance. First, with respect to
12 the experts, I wanted to just refer to you
13 Exhibit 23, which has the resume of Mel Coonrod
14 and Dave Steed, who testified today, regarding
15 administrative completeness, which was the issue
16 that--I don't know if I misspoke on that or not
17 but what I meant to convey is that there was an
18 administrative completeness determination issued
19 by the Division on February 25, 2002. And, of
20 course, that has to do, deal with the completeness
21 of the permit, not the technical adequacy.
22 With respect to hydrology, I guess we
23 have a major difference of opinion here as to
24 whether the deep saturated zone is a regional
25 aquifer or not. SUWA continued to refer to it as

Page 142

1 a regional aquifer. The UtahAmerican Energy has
2 provided expert testimony that it is not a
3 regional aquifer and that it did not meet the
4 definition of R645-301-724.100. Just this
5 morning, Jim Smith at the Division, expert
6 regarding the Division's hydrology expert
7 indicated that this deep saturated zone is not a
8 resource requiring protection so the Division
9 apparently concurs in UtahAmerican Energy's
10 conclusion that this is not an aquifer.
11 Regarding whether or not Exhibit 10
12 meets the requirements of the Division 724.100, in
13 addition to Exhibit 10, which we indicate shows
14 the seasonal variations in head, there were also
15 other materials submitted in response to that.
16 Suggest you take a look at our response to Issue
17 4. But we've also identified elevation points at
18 Plate 7-1 in Exhibit 9 and address the faults in
19 the PHC under Exhibit 12, and address the
20 discharge rate in Exhibit 14. So all of those
21 need to be taken together in addressing whether or
22 not there's an adequate response.
23 Just regarding acid- and toxic-forming
24 material, once again, harking back to our meeting
25 this morning, Jim Smith indicated that this issue

Page 143

1 is moot, that UEI has provided all of the
2 information that the Division could ask for,
3 Division couldn't ask for anything else, and so
4 that has been satisfied.
5 Regarding salinity, in addition to the
6 Fish & Wildlife Service letter, of course, our
7 expert hydrologist, Dan Guy, testified that the
8 PHC determination evaluates increased sediment
9 loading and, once again, just consider that mine
10 water discharge in this case is very unlikely and
11 the operator does not anticipate encountering mine
12 water that would be discharged. So SUWA's
13 comments in this regard are speculative unless
14 water is encountered. If water is encountered,
15 then it would be analyzed under the UPDES permit
16 and under state water quality requirements.
17 MR. COONROD: Denise, if I could just
18 interrupt for a moment, the BA between the U.S.
19 Fish & Wildlife and BLM dismissed any negative
20 impacts to the wildlife fish in the Colorado River
21 drainage. And that was specific to discharge or
22 potential discharge, has no effect.
23 MS. DRAGOO: Great. Thank you. With
24 respect to Item 18, which addresses the cumulative
25 impact area, the Southern Utah Wilderness Alliance

Page 144

1 present a USGS report for the Trail Mountain area
2 as Exhibit A. We'd just like to reconfirm that
3 that does not relate to the Lila Canyon mine.
4 The Trail Canyon area is some 40 miles removed
5 from Lila Canyon and just simply doesn't relate.
6 So we would suggest that you discount that Exhibit
7 A, USGS report.
8 Regarding wilderness, once again,
9 wilderness is an issue that's determined not by
10 the Division, but by the land management agency.
11 Southern Utah Wilderness Alliance suggests that
12 BLM has made wilderness determinations or has
13 characterized these wilderness inventory lands as
14 wilderness. Actually, that's not the case. The,
15 that whole inventory process is just preliminary.
16 Under Section, it occurred under Section 201 of
17 the Federal Land Policy and Management Act, not
18 under Section 603 of the Federal Land Policy and
19 Management Act which deals specifically with
20 wilderness issues. So there's even a question as
21 to whether that whole determination is legal. It
22 was done without public input. It was done
23 without NEPA analysis. That NEPA analysis for
24 public input will now occur as part of the land
25 use planning process. But that determination has

Thacker + Co LLC
Court Reporters
Utah's Leader in Litigation Support

Corporate Offices: 50 West Broadway, Suite 905, Salt Lake City, Utah 84101
801-983-2180 Toll Free: 877-441-2180 Fax: 801-983-2181

Page 145

not been finally made. So as to whether or not those lands have wilderness characteristics that will ultimately result in a wilderness study area, that still has yet to be determined and will be determined through this whole updated land use planning process; probably not until 2003 will we know for sure what BLM thinks about that issue.

MR. BRAXTON: And you're referring to the Price Management Plan that's currently--

MS. DRAGOO: That's being revised.

MR. BRAXTON: --that's current being redone?

MS. DRAGOO: Exactly.

In the meantime, the October, 2000 finding has no significant impact and decision record issued by BLM has specifically determined that the Lila Canyon surface facilities will not impair wilderness.

Let's see. Regarding biology, we just want to make sure that we understand that the areas that were studied were those required at least for vegetation studies as defined by 321.100 as, "areas affected by surface operations incident to an underground mine." For fish and wildlife, the definition that DOGM follows is those areas

Page 146

that are determined in consultation between the Division of Oil, Gas & Mining and state and federal fish and wildlife agencies. None of those agencies have required UtahAmerican Energy to study the Range Creek, the Price River drainage, or the seeps and springs located within or adjacent to the permit area.

SUWA referred to the numerous seeps and springs that were located within the permit area. The, as indicated by the data, there are not numerous seeps and springs. In fact, there's a paucity, there's a dearth of seeps and springs located within the permit area, which is probably good because it would mean that any impacts of mining to hydrology would be minimal.

Let's see. Once again, regarding wetlands and riparian issues with respect to Item 26, SUWA has presented no qualified individual who has, is qualified to identify a wetland or a riparian area whereas UtahAmerican Energy has a qualified expert, Environmental--EIS, and they are qualified to make the determinations regarding what a wetland and what a riparian area is. And our expert has determined that there are no wetlands within the permit area.

Page 147

In response to your direct question regarding Item 38, "Wilderness and Land Use Issues," Mr. McHarg did not address the valid and existing rights issue because he cannot. The, under the federal leasing program, SUWA--or sorry--UtahAmerican Energy has valid existing rights. These rights relate to leases which predate the Wilderness Act of 1964 and the Federal Land Policy Act of 1976.

Finally, regarding the new permit issue, SUWA continues to suggest that the public is somehow harmed and we think they're being very speculative regarding this. They have not identified any particular member of the public who's been harmed. SUWA has apparently read the notice and was able to find their way to this hearing. So they were notified adequately. You know, the intent of this notice is not to provide a complete description of everything that would be in a permit. It just simply provides inquiry notice. A person reading this ad is made aware of the fact that the permit has been submitted and it's on file with the Division. It's also on file with the county recorder's office. If they're curious, they can go down and take a look

Page 148

and find out what the extent of that new permit is.

With respect to the road, I just want to remind you that the board upheld the Division's determination in its order, dated December 14, 2001, that the Emery County road is not a, not part of the permit area, but is a public road. And that board order should be given some weight in that regard.

Regarding the right-of-way, once again, unless a stay is issued, the right-of-way grant is in full force and effect. So although it may be disputed, the right-of-way grant itself is effective.

And with that, we appreciate your time and patience and we feel that UtahAmerican Energy has submitted an adequate and complete permit application and we look forward to further comments regarding the technical review.

MR. BRAXTON: Thank you. Might I ask we have a few minutes left. Is there anybody that's not affiliated with the Division or either of these two parties that's in the room that would like to comment?

Having heard that, I'll thank both

Thacker + Co LLC
Court Reporters
Utah's Leader in Litigation Support

Corporate Offices: 50 West Broadway, Suite 905, Salt Lake City, Utah 84101
801-983-2180 Toll Free: 877-441-2180 Fax: 801-983-2181

1 parties for coming in. I think you've made some
2 good presentations. We'll certainly take the
3 comments of both parties into consideration in the
4 permitting process and thank you, again, for
5 dedicating your time in the process. We'll go
6 off the record.
7 (Proceedings adjourned at 4:55 p.m.)
8 .
9 .
10 .
11 .
12 .
13 .
14 .
15 .
16 .
17 .
18 .
19 .
20 .
21 .
22 .
23 .
24 .
25 .

Thacker + Co LLC
Court Reporters
Utah's Leader in Litigation Support

Corporate Offices: 50 West Broadway, Suite 905, Salt Lake City, Utah 84101
801-983-2180 Toll Free: 877-441-2180 Fax: 801-983-2181

A

able 9:1 24:19 53:24 93:19 119:19 120:10 147:16
about 15:2 25:7 30:17 36:20 37:6 42:22 46:8 48:9 48:11 50:4 56:18 66:20 70:13 73:19 80:10 83:18 84:2 84:4 91:14 92:13 93:6 94:5 99:23 101:23 111:5 114:23 116:13 117:14 118:25 133:23 134:3,16 137:17 139:12 145:7
above 9:16 13:11 25:18 65:1 72:1 83:16 97:7
absence 46:10
abuse 119:13
acceptable 35:19
accepted 62:5,6
access 48:12
accommodate 4:5
accord 128:19
accordance 22:4 105:1 124:16,18
according 16:7 21:1 69:9 94:13
account 58:8
accrues 138:5
accurate 62:23 109:16
accurately 122:24
accusation 121:14
acid 9:8,10,14 20:4 20:15 21:8,12 27:19,20 63:5,10 63:13 64:1,8 65:7 65:8,25,25 66:2,4 66:5,20 88:7,8 98:11,19 142:23
acid/toxic 65:13
acknowledge 12:14 36:7
acknowledged 15:14 28:13
acquired 54:22
acreages 43:6
acres 18:9
acre-feet 95:8,17 115:6,13 134:1
Act 102:25 103:1 122:17,17 144:17 144:19 147:8,9
acted 105:9
action 56:23
actions 58:11
activities 35:11 42:25 48:16 57:15 104:12
actual 36:15 107:7 107:9 115:25
actually 20:22 23:20 37:1,8 56:25 57:1 59:11 67:15 71:23 72:8 74:23,25 77:2 81:20 82:6 97:21 100:10 102:12 105:8,15 110:14 113:15 115:22 117:9 120:7 121:19 128:4 139:18 144:14
ad 147:21
adapted 58:20
add 17:7 107:2 113:6 115:2 118:22
added 98:17 132:5
adding 94:5 115:15
addition 5:4 15:14 34:3 40:24 46:19 64:3,4 65:5 73:9 85:17 89:1 93:1 111:16 114:14 125:19 142:13 143:5
additional 6:13 8:5 8:7 26:1 31:16,22 32:10 34:18 35:9 49:25 62:7 65:11 66:7 89:2 99:9 128:14 129:18 131:9
additionally 14:3
address 6:14 7:22 8:9 15:22 23:23 41:12 46:15 47:23 54:2 55:6 73:15 77:19 78:10,11 79:1 81:17 93:21 94:22 97:8 98:9 98:22 105:25 108:24 109:8,20 113:18 116:1 121:11 127:16,25 129:6,16,19,20 141:5 142:18,19 147:3
addressed 16:4 22:16 32:14 39:15 46:23 78:9 93:3 96:7 98:12,15 104:7,8 109:7 113:19 114:19,20 116:15,20 118:19 118:21 122:20 123:5 137:2 138:8 140:1
addresses 16:21 25:12 117:10 121:5,6 134:6 143:24
addressing 142:21
adequacy 109:21 111:2 128:8 141:21
adequate 42:13 54:21 63:2 96:15 117:25 124:21 125:19 130:18,20 130:25 142:22 148:17
adequately 41:12 52:14 53:16 110:21 114:19 123:5 147:17
adjacent 38:3 66:24 79:10 84:6,9 146:7
adjourned 149:7
administer 124:6
administrative 6:24 45:5 55:18,22,23 56:19 124:3 130:22,24 141:15 141:18
administratively 6:8,20 7:6
ads 56:24
advantage 55:19,22 55:23
advantageous 120:16
adverse 27:3
adversely 114:7
aerial 10:14
affect 15:23 53:11 58:2 114:7 132:19
affected 32:25 38:23 41:1,7,10 42:2 46:20 47:6,8 52:24 57:11,19 110:11,16,20 132:22 133:2 134:12 135:16,23 136:8,13,25 137:7 140:1 145:23
affecting 15:17
affiliated 148:22
Affirmative 79:19 98:13
after 10:8 52:24 86:17 129:18
again 12:24 13:4 16:7 18:1,6 21:13 23:2 29:20 46:6 46:19 47:12 65:23 70:19 71:21 72:14 78:22 91:17 93:23 96:3,6,12,17,21 97:3,19 100:13 104:10,13 105:5 105:20 106:24 113:19 115:3 117:1 118:25 120:25 122:20 124:17,22 125:12 126:19 127:10 134:8,19 136:24 137:12,15 141:3 142:24 143:9 144:8 146:16 148:10 149:4
agencies 110:9 113:24 146:3,4
agency 45:15,16 94:15 95:10 104:14 110:4 118:17 121:17 144:10
agenda 3:5,6,20 4:10 107:15,24
agents 42:19
aggressive 58:14
ago 106:6 108:1
agree 107:19
agreements 95:10 95:10
ahead 3:4 10:16 61:12 91:12
air 31:19 54:11,18 54:20,25 125:7
allegation 102:13
allegations 104:16
alleviate 48:23
alliance 2:7,9 4:22 4:25 62:18 63:8 123:21 127:13 141:11 143:25 144:11
allocated 4:9 25:20
allow 105:17
allowed 89:2
allows 92:5
alluding 70:5
almost 85:10 116:18
along 48:12 84:5 90:13 99:19 100:10 127:11
already 7:7 84:15 125:7 126:3 137:14
Alteration 92:22
although 6:7,18 17:5 18:6 23:4 28:12 40:10 114:17 148:12
always 24:17 107:4
American's 94:21
among 123:16
amount 23:15 36:10 36:14 37:2 88:10 88:12 89:8,9,11 100:9 106:2,22 108:5
amphibian 47:17
amphibians 47:12 116:14,16 117:10
ample 96:10 133:8
analogy 137:16
analysis 9:2,15,20 9:22 10:3,9,23

32:7 40:7 51:5,15 60:11 64:9,17 65:4 66:16,16 88:7 91:20 95:1,7 95:19 115:9 129:17,25 132:24 138:11 141:5 144:23,23
analyze 9:13 31:10 40:4 57:21 91:23 92:17 94:13
analyzed 9:19 32:4 39:17 50:1 64:25 79:10 80:8 109:23 110:7 112:5 120:4 136:2,25 143:15
analyzing 80:14
anecdotal 11:24
animal 42:20
annually 95:8 134:1
another 25:4,7 42:18 53:21 78:15 94:15 135:10
answer 35:4 98:4
answered 24:19
antelope 48:12 50:6 120:18,22 122:7
antelope/vehicle 120:19
anticipate 8:3 39:14 40:3 91:9,11,13 91:18 93:24 141:4 143:11
anticipated 41:14 41:19 81:3,8
anticipates 58:10
anybody 68:4,16 86:8 148:21
Anyhow 6:3
anything 65:14 118:22 119:16 143:3
anyway 66:1 86:2 86:19
anywhere 74:21 77:4 98:20
apart 13:24
apparent 36:22
apparently 11:1 18:7 126:16 142:9 147:15
appeal 127:12
appeals 3:18 59:16 140:13
appear 27:21
APPEARANCES 2:1
appeared 33:9
appears 17:5 28:25 36:12 60:3 109:3
Appendices 64:11 69:1 88:18,18 89:7
appendix 14:21 17:23 28:20,21 29:3 30:3 35:19 105:5 123:15 125:2,10
applicable 103:25
applicant 9:12 13:6 38:1 50:12 93:15
application 3:12,16 5:2,3,7 6:8,17,20 7:11,17 9:17 12:7 20:3 24:22 27:1 31:4 33:10,14,23 41:17 43:3 45:19 46:17 48:4,20 49:3 52:16 53:22 57:24 60:2,4,7,9 82:13 104:8 116:7 117:7 120:2,2 122:24 123:15 125:2 129:4 130:18 132:24 138:10 139:20 140:7 148:18
applications 7:2,13 60:1
applies 137:9
apply 4:8 31:15
appreciate 4:25 24:6 35:13 54:25 62:11 92:18 128:12,13 148:15
approach 76:7
appropriate 65:11 110:15 124:9
appropriated 74:3 132:9
appropriately 3:17
approval 7:18 140:8
approved 7:16
90:20,23 103:12 123:17
approving 120:10
approximate 13:9
approximately 9:23 14:13 20:10 21:2 36:4 64:6 76:19 100:5
April 5:5,18 7:20 8:18 18:23 29:23 48:7 49:21 51:4 59:23 63:7,15 65:22 71:22 95:6 105:3 114:4 115:4 116:12
aquifer 10:17,25 11:5,8,15 13:5,13 13:13 14:7,25 15:2,4,10,19 16:1 16:7,10,14,20,22 21:25 23:3 26:16 27:10 28:11 29:1 39:10 73:17,22,25 78:23 79:7 86:21 86:22 96:22 131:8 131:24,25 132:1 132:14,16 133:8 141:25 142:1,3,10
aquifers 10:15,18 11:10 16:22,23 17:1 81:18 133:10
aquitards 16:1
areas 20:17 32:20 34:6,19 38:3 46:18 47:15 49:25 51:17 53:10,13,20 54:1 65:1 76:23 102:20 103:21 109:22 110:6,10 110:16,19,23 111:21 123:9,10 127:1 135:19,21 135:24,25 136:1,5 136:11,16,18 145:21,23,25
area's 31:9
arguments 29:21 138:18,19
arid 40:15
around 3:7 33:19 107:8
artificial 119:11,21
aside 61:10
asked 59:2 92:12
asking 18:12 117:8 118:12
aspect 58:4
asserted 105:10
assertion 56:22
assess 22:8 98:24
assessed 23:18
assessment 53:5 99:1 115:9,20,24 116:21 117:10,15 117:17 120:5,6
associated 121:25
association 110:5
assume 9:3,25 11:7 23:6 44:16
assuming 58:16
assumption 6:6 21:11 110:22
assured 59:11
assuring 21:17
attached 5:15 46:2 64:15 78:5 80:9 96:4 103:22 114:5 120:6,12 125:1,6 125:8,16 126:10
attachments 5:14 80:9 130:3
attempt 32:16 129:8
attributed 15:21
available 36:25 38:7 48:4 78:19 102:1 119:12
avoid 55:25
aware 9:21 73:11 85:6 87:4 147:21
away 9:23 81:2 119:7
A3 11:18

B

B 18:22 29:3,23
BA 116:9,10 117:20 117:22 143:18
back 3:7 37:12 42:21 49:19 61:8 69:15 86:12 89:13 89:15 90:11 111:24 113:15 115:3 119:9
121:14,16 128:22 128:23 137:3 142:24
backhoe 90:4
bad 31:20
balance 27:4,14 29:12
bald 114:11,14,17 122:17
band 112:22
banks 22:15
barrier 78:16
base 29:10 98:19
based 14:12 22:9 26:25 28:24 37:18 71:14 74:12 78:18 97:23 99:17 101:25 110:8,21 130:1
baseline 9:7 12:9 13:16 14:5 17:13 17:21 18:2,14 22:17 25:19,23 26:1,2,8,11,25 27:6 38:4 39:3,23 40:25 42:2 47:18 58:17 62:23 67:16 67:16,21 68:2,5 84:12 85:10 87:12 87:13 95:2 96:10 96:15 130:19,25 132:25 133:6,18 135:25 136:16
basically 15:24 33:7 40:23 48:19,25 51:11 54:13 87:6 116:3 121:15 122:9 135:13,15
basin 23:17 95:12 95:25
basis 26:3,12 29:18 63:19 86:5
bat 130:16
bearing 15:4
becomes 38:4 135:2
beds 22:15
before 1:1 5:13 23:9 23:12 40:23 42:16 48:8 51:16,19 59:15 99:11 106:20 111:12 122:21 123:7

133:12 140:8 141:4
began 46:7
begin 18:15 30:18 60:23
beginning 20:25 58:11
behalf 61:16
behind 90:24
being 5:4 12:12 16:11 24:22 30:23 47:10 53:15 56:9 56:23 57:12,14,15 57:17 65:25 76:3 76:22 88:6 104:23 119:19,19 120:19 121:17 135:14 139:8 145:10,11 147:12
believe 3:17 7:1 12:2,6,20 23:15 24:23 31:3 32:1 44:15 46:20 47:10 49:22 50:13,25 51:11 55:10,13 57:9,18,25 58:15 63:1 69:23 70:22 71:4 74:14 75:5 85:23 93:7,11 99:22 100:3,18 104:3 111:13 114:3 116:8 117:22 130:19 133:22,24 134:5 135:4 139:14
below 9:16 13:12 22:7 65:2 72:2 76:19 86:21 100:6
bench 76:8
beneath 34:8 104:12
beneficial 74:3 84:20 96:24 132:8 134:10
benefit 122:10
besides 56:21
best 38:6 78:21 111:25 112:9
better 51:20 75:6 85:1 93:12 119:15
between 3:24 48:12 54:16 67:20 116:23 128:17 143:18 146:1
beyond 15:21 57:15 103:3 137:8
bighorn 48:9,23 49:1,13,19 112:20 112:22 119:8,13
binder 64:11
biological 29:13 111:10 115:19
biologically 120:20
biologists 117:3,4
biology 5:9 37:24 38:25 46:8 95:23 109:18 135:12 145:19
Bird 122:17
bit 17:8 19:24 37:12 67:3 70:1 73:19 76:13 78:25 111:5 119:12 127:15 137:3
Blackhawk 68:11 74:25 76:11,14,14 76:23 83:15,19
Blackhawk's 83:21
blasting 32:8
blend 19:11
blinders 52:3 136:21
BLM 43:8,20,25 44:5,13 45:24 95:15 103:9,10,16 103:16 104:9,10 104:14,23 110:4,4 113:21 115:23 116:23 117:3 119:3 120:10,25 121:7,17 122:15 123:17,19 124:5 126:16,24 128:4 134:24 137:5 143:19 144:12 145:7,16
BLM's 103:7
block 97:25
blocks 107:18
board 6:15 7:17 55:11 59:16 126:2 126:6 140:8,13 148:4,8
board's 55:14
bond 35:1 36:14 105:23 106:2,22 127:25
bonded 107:8
bonding 34:16 58:22 105:19,21 107:10
Book 83:25 112:15
borings 9:13,23
both 12:23 37:24 102:25 107:18 112:5,17 118:2 130:3 148:25 149:3
bottle 85:24 86:1
bottom 71:7 88:4 107:10
boundaries 125:20
boundary 28:9,16 33:1 39:9 43:16 43:19 99:25
bounds 57:1
Box 2:10
boxes 6:23
break 107:17,17 128:17
brief 51:11 59:21
briefly 52:10
bring 140:16
broadly 46:7
brought 7:23 19:25 31:14 130:13 131:6
brown 83:12
BUDGE 2:15 93:9 93:11
built 56:9
burden 24:4 132:13
Bureau 44:20 103:4 120:8 126:16,22 127:4
burn 6:1
bury 66:19
burying 65:10
buys 111:14

C

C 30:8 41:3
calculating 89:17
calculation 109:15
call 10:21 56:14,14 71:25 86:22 88:5 88:21,22,23
called 37:9 64:5,9 86:12 88:17
calling 55:19 56:1
came 57:23 82:25 135:18
camouflage 104:2
camouflaging 31:6
candidate 116:2 117:3
canyon 1:4,5 3:1,10 3:11 12:10,23 14:17 17:12,14,15 17:17 18:1 22:2 25:18 26:8 28:24 34:8,9 48:10,13 49:14 55:20 56:3 56:5,15,20 57:8 57:18 62:21,22 63:24 67:2 71:25 75:17 79:11 80:16 80:18,20 81:2 82:2,3,4 83:2,3 97:2,5,18,23 101:14 102:22 103:6 104:18,24 112:23 113:8 126:7 133:5 136:23 144:3,4,5 145:17
canyons 49:16
capability 51:16 52:18 59:1
capable 44:12,16,19 44:24 45:9,13,24 51:13,19,24 52:7 59:8,13 134:21,24 135:1,5 137:15,21 138:13,14,18,22
capacity 71:2
CARBON 1:5
carried 100:2
carry 24:4 78:15 94:7
Carson 86:12
case 21:12 42:24 70:12 91:11,12 119:11 124:11 126:22 143:10 144:14
cases 37:3 78:14,16
casing 71:6
Castle 83:20
Cat 90:4,5,8,8 106:5,9,12
categories 19:19
caterpillar 35:21 106:4
Cats 90:5
cause 1:4 71:9
centers 74:16
certain 31:2 40:4,16 42:11 52:4 53:3 125:24 130:12
certainly 54:25 128:13 149:2
certified 6:3 110:25
chance 9:24
change 22:14 65:13 98:2
changed 58:7
changes 56:19
channel 21:22 22:2 22:7,9,12,14,18 91:14,23 92:8 93:15
chapter 92:11 109:11,11 113:20 121:4
character 30:24 31:25 34:7 43:8,9 43:21,22 44:7,14 44:22 45:1 46:1 52:1,6 134:25 135:7 137:23 138:24
characteristics 103:19 145:2
characterization 15:12 27:9
characterize 105:6
characterized 144:13
characterizing 18:8
charge 4:13 95:20
check 6:23
chemical 42:19
CHIA 27:24 28:2 33:1 39:9,13,19 98:25 99:2
CHIAs 10:24 16:8
chose 82:20
chosen 84:11
chukars 48:10,24

CIA 28:15
citation 33:4 35:13 59:2,4
citations 55:3
cite 22:21 34:20,25 54:23 92:14 123:21
cited 30:5 103:24
citing 95:9
citizens 44:1
City 1:9 2:18
clarification 37:21
clarified 16:13 36:25
classifications 123:3
clean 20:18 37:14
cleaned 36:2
clear 19:19,24 20:22 108:5 124:14
clearly 102:15 123:16 138:8
clerical 36:2
cliff 48:18
Cliffs 83:25 112:15
close 48:14
closely 131:19 139:11
closer 17:8
closest 76:17
closing 108:8
cluster 84:22,23,23
clusters 84:20
coal 3:11,13 9:16 11:14 13:10 18:21 18:24 19:1,12,13 19:21 20:2,14,24 37:13,14 50:2,5 51:16 53:14 54:16 54:17 56:8 57:18 64:18,20,23 65:2 66:18 74:10 83:13 87:18,19,22 96:23 99:15,17 102:23 105:14,15 123:13 124:11 126:25 136:23
Coleman 22:3
collect 9:12 12:3,16 12:22 26:20
collected 9:19 16:16 18:5 26:4,12,25 27:1 30:1 41:6 58:17,19 74:8
collecting 12:18 18:16
collection 13:15 73:8
collectively 16:25
collisions 120:19
Colorado 23:10,14 23:17,21 24:9 93:20,22 94:5 95:12 115:8 143:20
Columbia 63:24
combine 36:22
come 20:8 37:16 49:19 66:2 73:5 89:3
comes 17:1 66:3
comfortable 97:25
coming 21:24 23:3 83:10,11 89:13,15 149:1
comment 3:14,15 7:20 8:19,23 11:2 36:16 58:24 61:12 84:4 104:4 112:12 130:19,23 133:3 137:11 138:2 139:2 148:24
commented 15:16
comments 4:4,15 6:5 18:21 19:10 21:19,20 25:11 38:25 39:1 45:21 54:12 62:4,5,6,17 129:24 131:17 138:3 143:13 148:19 149:3
commercial 137:18
commitment 92:10
committed 65:5,9 66:12,13 91:17,19 93:15 94:4,12
communities 42:8
company 67:25
comparative 74:9
comparison 26:3,12
comparisons 22:18
compatible 19:18
complete 6:9 62:23 78:16 111:17 147:19 148:17
completed 117:24 124:4 129:19
completely 16:19 24:23 26:15
completeness 62:25 63:1 141:15,18,20
completion 21:1
compliance 92:4 128:9
complied 11:11 12:2
comply 11:23 12:24 41:22 96:15
concentrated 112:3
concern 9:8 22:5,21 23:24 24:12,13 28:4 33:5 40:1 41:11 42:18 47:6 47:19,25 49:1 53:1,7 55:4,10 59:3,5 116:19 130:16 131:3 134:6 135:22 136:14
concerned 29:15 30:22 31:18 32:19 36:23 42:5 48:9 48:11 54:16 138:21
concerns 5:1,6,8,11 6:15,15 7:8,19,22 8:9,20,22,25 9:9 10:7 24:3,18,19 27:4 28:1 30:13 30:17 32:5 33:7 33:12,21,22 34:3 37:24 39:1,8,13 39:15,16,20 40:21 46:8,10 48:6,23 49:20 50:3,4,6 51:10 53:17 59:22 59:23 60:1,14 63:15 108:20 114:19 129:4,9,15 129:17,18 131:13 135:15 139:7 140:2 141:3,4
concluded 103:17
conclusion 69:16 110:9 113:23 118:12 142:10
concur 117:5
concurred 114:6
concurs 142:9
condition 17:13 52:15
conditions 18:2 29:17 42:23
conduct 17:2
conducted 17:4 110:13
conduit 78:14
conference 3:10,13 4:5 8:4 130:15 139:6
conferred 95:17
confident 129:16
confirm 93:19 121:18
confirmed 139:5
conflicts 58:21
confluence 76:19
confuse 19:7
confused 88:10
confusing 18:25 89:23
Congratulations 60:21
Congress 45:7 102:21 105:8 135:3
conjecture 80:19
conjectures 69:18
conjunction 84:24 85:17 88:16
connected 133:13 133:17
connection 54:16
consequence 26:24 100:15,16
conservative 100:4
consider 8:2 28:1,8 34:4 45:9 59:5 100:14 143:9
considerable 100:9
consideration 45:18 101:19 131:1 132:11 149:3
considered 10:2 57:11 96:18 104:23 110:15 130:21 131:24 132:23 139:25 140:5
considering 78:23
consistent 32:2 68:1 69:8 70:8,18 84:25 103:7 125:14,17 138:17
constant 113:10
construct 103:13
constructed 30:23 31:2 57:14,17 72:4 88:24
constructing 32:8
construction 30:20 35:20 106:23
consultant 94:22 109:19 110:3
consultation 95:13 95:14,17 111:24 113:20 115:23 118:17 146:1
contact 97:12
contacts 99:19
contain 7:3 9:18 51:15 131:9 135:24
contained 130:18
contains 47:21
contemplated 3:13 57:1
contemplates 6:13 51:1
contend 68:12
contention 100:13 110:19
context 62:11
continue 11:7 108:9
continued 68:3 84:12 141:25
continues 147:11
contour 68:16
contradiction 23:16
control 31:6,7 42:19,21 95:11
conversation 11:20
convey 141:17
coonrod 70:21,25 71:1,11 110:1 111:6,8,13 112:11 113:19 114:10,16 114:25 117:21 120:14 135:20

141:13 143:17
cooperation 110:3
cooperative 95:9 113:21
coordinates 68:20
copies 3:5,6
copy 90:17 95:5 102:5 115:22
core 64:16,17,17
Corps 110:25
correct 5:20 42:9 45:3 60:12 98:14
corrected 109:5
corrective 41:21
correspondence 48:3 52:22
cost 34:16 35:5,7,8 35:17,24 36:8,14 105:24 106:18,23 107:7,8,9,10 109:1
costs 34:18 35:2,20 35:24 36:15 106:17 107:1
counsel 61:2,14 129:22
count 116:22
countless 140:2
county 1:5 110:12 119:25 120:1,3,11 121:2 126:2,4,8 126:14,15,17 139:22 147:24 148:6
couple 27:4 33:18 39:6 58:13 79:22
course 5:12 8:4 9:2 47:1 51:3 72:3 77:7 84:1 102:21 104:19 119:25 129:3,14 137:1 141:20 143:6
court 4:12 128:24
cover 14:13 35:2 58:25 65:11 83:25 89:10,13,24 90:9 90:10,21 98:18 138:7
covered 20:4,7,18 73:10 96:2 113:16 115:1 118:24
covering 65:10 66:14
covers 66:20
create 4:15,20 49:25 54:17 119:10 134:2
creating 112:3
Creek 29:2 39:19 41:8 47:7 75:17 76:3,4,10,11,17 76:20 77:5 99:16 99:22 100:6,12 132:17,18,20 136:4,7 146:5
crest 12:17
criteria 126:12
critical 42:4 52:12
cross 10:12 28:22 50:10 88:12 89:4 89:5,6,7 99:12 101:18,21,22
crosshatch 43:20
cross-sectional 89:18
crucial 28:15 40:9 40:17 46:14 49:13
crushing 66:10
crux 48:25 135:22
cubic 20:10 21:2,4 36:4,5,11
cultural 52:20 53:12,16,25 124:24,25 125:5
cumulative 27:23 28:4,9 98:25 99:4 143:24
curious 147:25
current 7:10 35:24 40:22 48:1,20 58:25 64:7 77:25 82:13 116:6 145:11
currently 38:7 51:12 81:21 112:23 123:17 145:9
curriculum 130:5
curtail 120:15
curtailed 120:20
cut 77:2 101:4,8
cut-and-paste 109:4
C/007/013 1:4

D

D 41:3
damage 32:16 34:11,13,14,15,19 34:24 125:5
Dan 69:20 70:2,10 73:6,15 75:7 93:3 93:21 98:9 99:5 132:19 136:8 143:7
danger 48:11
dangerous 31:21
data 6:10 7:2 9:5,19 12:1,4,5,9,16,22 12:25 13:6,16,18 13:20 14:5,12,14 14:19 16:19,25 17:3,6,21 18:4,10 18:13,16 22:17 23:20 24:20 25:19 25:23 26:2,4,8,11 26:13,21,25 27:6 28:5 30:1 35:21 39:3,23 40:22 41:5 47:11,14,18 47:22 58:9,17,19 60:13 67:16,17 70:14 73:23 74:7 74:9 78:19 79:20 79:21 81:19 82:15 85:10 96:8,11,15 96:19 97:2,21,24 99:4 106:23 109:15 118:9 119:12 130:25 131:11 132:25 133:6,9,19 135:25 136:16 146:10
database 72:11,12
date 1:10 30:2 58:15 71:18 73:7 75:20,22 86:7 127:15
dated 48:7 105:2 114:4 125:15 126:5 148:5
dates 69:2 72:12,15 73:1,10,11 131:18 131:19
Dave 94:21,23 121:11 141:14
David 94:25 114:25
dawn 50:17,21 120:16
day 4:19
days 13:24 129:3
dead 120:22
deal 127:14 141:20
deals 102:12 144:19
dearth 146:12
deaths 50:8
debating 107:11
deceiving 56:16
December 126:5 148:5
decide 4:17
decision 45:14 103:12,17,21 104:9 110:17 120:12 123:20,25 127:4 128:9 140:19 145:15
decisions 124:3
declaration 5:16 29:22 41:2 129:23
decreases 69:9
dedicating 149:5
deep 7:8 16:6 26:17 27:9 28:11 76:12 79:2,7,8 96:20 97:6,11,14 100:5 141:24 142:7
deeper 13:13 84:2
deer 122:8
defer 123:19
deference 4:18
deficiencies 60:6,13
deficient 139:4
define 28:3 99:4
defined 19:1,6 73:25 96:23 99:7 100:1 145:22
definitely 40:13
definition 11:14 73:22 131:25 132:5,10 134:11 142:4 145:25
definitions 88:1
definitive 101:23
degraded 104:12
delineate 110:6
demonstrate 12:4 13:20 29:6 52:16 63:25 131:21
demonstrated 65:2
demonstrates 35:1 96:14
denied 7:17
denise 2:14 61:14 63:12 114:11 143:17
dens 47:19,21
density 111:20
department 1:1,8 105:3 127:5
dependent 42:3
depicts 14:7
depleting 115:15
depletion 95:20 115:5,12
depletions 95:22 115:12
deposit 88:14,16
depth 13:10 26:20
describe 38:1 39:23 77:8 112:8 123:2
described 139:9
describes 53:23 122:25
description 30:20 38:4,6 41:13,23 52:4 57:2 125:23 134:23 137:19 139:3 147:19
descriptions 13:9 22:6
design 38:10
designate 102:21
designated 44:25 102:20 104:19 135:3
designation 44:17 45:2,6,6,11 51:14 106:10 124:3
designations 32:2
designed 4:5
Desolation 34:9
destroy 48:18
detail 15:22 51:3 129:6
determination 6:19 6:22,24 11:25 26:24 53:7 62:25 63:1 77:14 78:5 78:10 93:2 98:9 104:15 110:25

126:7,21 130:22 130:25 131:1 141:18 143:8 144:21,25 148:5
determinations 126:8 144:12 146:22
determine 53:22,24 67:25 68:17 106:3 106:21,22 126:12
determined 33:2 52:5 104:20 107:12 111:23 112:20 116:3,25 121:22 124:1 126:3,4 137:22 144:9 145:4,5,16 146:1,24
determines 126:23
develop 105:15
developed 74:1 96:24 119:15 122:13 132:7 134:9
development 19:4 124:11
devices 12:16
devoid 16:19 26:15
dewater 42:6 49:10 49:12
dewatered 42:8 49:17,18
difference 67:20 108:5 141:23
differences 10:15 15:20
different 7:11,15 10:8 19:13,19,20 36:6,8,12 106:10 106:11 127:19,20 138:12
differently 106:10
difficult 97:20
diminished 41:20
dip 77:8,24 99:14 99:14,16
dipping 14:9
direct 50:8,19 147:1
direction 15:16 80:24
directive 125:15
directly 39:1 46:9 97:5 99:13 110:10
director 2:5 61:13
disagree 40:10
discharge 12:17 13:10 14:24 15:4 16:13 21:21,23 22:1,7,11 27:11 28:11,18,25 29:7 29:8,8,16,19 39:10 64:1 72:5 74:18,20 76:25 90:14 91:4,8,9 92:1,4,5,6,7 94:6 132:14 134:4 136:10 142:20 143:10,21,22
discharged 23:4,7 93:17 143:12
discharges 14:25 15:7,10 77:5 94:13 132:17
discharging 22:9,13 91:10,18
discount 144:6
discrete 40:4,8,16 133:12,12,17
discretion 118:16
discuss 13:1 16:24 20:23 29:13 30:25 34:15 35:16 36:21 38:14,14 39:12 40:21 44:8 78:25 82:19
discussed 27:5 40:23 46:7 48:22 49:5 50:13 51:9 55:8 74:7 107:25 125:7 132:20 133:11,25 137:15 139:24
discussing 3:10 51:10 133:22
discussion 8:24 9:22 10:20 15:1 16:12 29:4 31:13 33:8 33:14 36:18,20 37:12,24 39:8 40:2,19 44:8 73:19 76:15 90:22 98:21 101:6 115:5 121:24 122:2 123:23 131:23 133:7 134:4,14,16 135:12 136:23
discussions 37:19 116:24 137:4
disingenuous 52:2
dismiss 104:4
dismissed 143:19
displace 49:7 112:21
displacement 48:9 49:7
displaces 71:10
displayed 77:25
disposal 21:6
disposed 19:14
disproportionate 31:8 50:20
dispute 59:15 128:4 135:8 140:14
disputed 140:11 148:13
disregarded 32:4
dissolved 23:6,12
distances 36:8
distinctly 4:14
distributed 20:11 36:5
distribution 10:14 68:14,16 113:6
disturbance 111:18 112:6 114:2 135:17 137:13
disturbances 31:11 31:12
disturbed 20:11 51:17 112:7
disturbing 58:11
diverse 113:6
diversity 111:19
Division's 6:19 8:6 9:2 45:7,23 51:5 98:25 111:10 122:23 126:6 127:6 137:6 138:11 139:16 142:6 148:4
document 72:14 112:19 126:9
documented 72:15
documents 118:2
DOGM 72:11 84:24 85:18 99:2,3 104:4 111:24 114:6 145:25
DOGM's 71:4
doing 14:15 44:1 86:10 94:2 110:3 110:14
dollar 36:10
done 67:21 94:18 99:1,9,11 100:9 111:11,17 144:22 144:22
dots 83:7
down 64:19 76:18 83:22 86:10,23 97:7 99:13,14 107:3 147:25
down-thrown 81:12
Dr 5:16 41:2 62:13 130:4
dragoo 2:14 60:24 60:25 61:3,13,14 61:24 62:12 67:5 67:10 68:8,13 69:11,14 70:2,23 71:17 73:13 75:23 75:25 76:7 77:14 78:1,4 79:1,14,16 79:19,24 81:16 82:19,22 87:14,23 90:13,18 91:14,22 93:1,8,10,18 94:20 96:1 97:8 98:7,8,14,23 102:4,10 107:20 108:2,7,13,16,22 109:6,17 111:2 113:14 114:3,20 115:19 116:13 117:9,14,18 118:19 119:24 120:23 122:19 123:24 127:24 140:20 141:8,9 143:23 145:10,13
drainage 39:19 41:8 41:9 75:1 143:21 146:5
drainages 77:2
draining 23:9
drains 23:12
dried-up 119:10
drill 9:13 64:5,22
drilled 64:5,8
drilling 81:9 99:17
driving 119:7
dropped 112:1
dry 49:16 86:18
due 4:19,19 7:1 71:5 97:20 122:16
duplicate 118:1
during 8:2 10:3 12:20 20:9 21:23 21:25 23:25 26:3 26:5 28:14 31:7 44:8 50:16,20 59:25 95:14 115:24 129:25 140:7
dusk 50:17,21 120:16
dust 54:14
duty 86:13,14
DWR 48:5,7 117:3 119:12
DWR's 50:3
D-11 106:11
D-9K 106:11
D-90 106:5

E

E 46:3,3
EA 95:1 111:8,9,13 116:15 118:1 121:4,16 125:3,6 137:4
each 13:11 19:22 40:15 71:23 89:7 107:20 129:6
eagle 48:14 114:11 114:19 122:17
eagles 48:17,24
earlier 6:16 26:17 53:18 59:25 60:7 100:19 131:13 133:14,14
early 98:24
EarthFax 17:4,22
earthmoving 36:3
ease 33:11
easier 33:20
easily 88:1
east 80:6 81:2
east-west 15:16 80:13,22

edge 83:12
edition 35:22
effect 14:18 15:22 22:12 63:20 78:8 116:4 143:22 148:12
effective 113:9 148:14
effects 78:12 136:18
effort 4:4 113:21
efforts 23:16 49:3
eight 80:10 85:11
EIS 94:22 109:19 110:2 111:6 122:14 146:21
either 29:9 90:8 94:11 139:15 148:22
elaborate 111:4
elevation 14:16 68:17 69:22 142:17
elevations 97:20
Elliott 5:15 8:18 9:9 35:15 129:23 130:4 131:15
Emery 119:25 120:1,3,11 121:1 126:2,3,14,15 139:22 148:6
emitting 86:20,24
emphasize 48:15 91:10 122:21
employed 42:21
encounter 94:1
encountered 101:9 143:14,14
encountering 143:11
end 68:11
endangered 41:4 46:24 111:15 114:21 116:2 117:2
energy 2:13 6:11 61:11,15,16 62:19 96:3 97:1 99:3 103:13 105:13 125:8,13 142:1 146:4,20 147:6 148:16
Energy's 57:13 120:2 142:9
engineer 57:4 89:16 139:17
engineering 30:13 33:8 50:13 102:11 107:4 134:17
enhance 38:11
enhancement 113:3 119:14,21
enough 8:15 28:5 28:16 68:1,2 85:10 87:13 103:24 133:11
ensure 52:11 92:4
entails 139:19
entered 72:11
entire 14:9 18:9 32:24,25,25 40:22 41:1,7 43:3 62:10 135:12 137:11
entirely 56:8 139:19
entry 36:12
environment 105:2
environmental 38:12 104:21 109:19 115:24 116:20 117:10,13 117:15,16 120:4,6 146:21
equal 63:20
equipment 32:8 34:10 105:11 106:8,9,14
eroded 22:16
erosion 71:6 91:24 92:8 93:16
erroneous 110:22 112:13
error 36:2 109:1,2,4
escarpment 32:18 48:17
especially 7:10
esq 2:8,14,15
essentially 3:14 6:22 18:11 28:5 45:23 50:17 99:13 110:1 135:18
establish 24:4 42:11 130:2,6 132:13
established 39:4 41:1 58:6 133:1 133:19 134:11 136:2
esthetic 58:3
estimate 35:6,7,8,18 35:24 36:3,14 105:25
estimated 12:18 36:9
estimates 34:17 107:1,2 109:1
estimating 35:20
evaluate 28:16 94:16
evaluated 92:9 98:16
evaluates 143:8
evaluating 29:18 38:4 93:15
even 14:19 27:17 36:10 62:13 65:12 67:22 76:4 79:6 84:3 87:12 93:25 94:3 95:23 104:19 106:25 116:22 117:8 119:3 122:1 139:15,20 144:20
evening 31:8
event 34:14 62:7 105:16
eventually 30:16 58:18 128:10
ever 101:4 122:3
every 66:5 84:21,22 85:4,8 116:18 122:2 135:17,17
everybody 86:9 128:19
everyone 59:14
everything 87:10 138:24 147:19
evict 48:16
evidence 11:24 74:20 77:3 98:19
exact 88:19 95:18
exactly 36:10 43:6 65:14 78:4 109:12 109:13 145:13
examination 17:8
EXAMINER 2:3
except 32:17
exception 11:6
excuse 70:21 72:21 97:4,10 98:6 100:22 110:6 111:9 115:12
exhibit 29:23 41:3,3 45:21 46:2,3,3 64:11,12 67:8,8,9 68:24 69:2 71:20 74:15 76:1,3 77:25 78:5 81:22 81:23 82:23 87:15 88:11 91:22 93:8 96:4,7,13 97:3 102:5 103:22 104:13 114:5 115:19,21 116:5 117:9 120:7,12 125:1,6,9,16 126:10 131:7,20 141:13 142:11,13 142:18,19,20 144:2,6
exhibits 61:20 64:16 74:14 79:16 121:9
exist 12:22 47:21 54:1 131:14 136:17
existing 22:17 28:6 31:25 43:11,23 52:12 56:5,19 102:23,24 105:1 105:13,17 119:21 123:2,4,10,11 124:16,18 138:3,5 147:4,6
exists 25:23 32:24 70:10 76:24
expansion 119:17
expect 6:12 7:25 12:24 25:25
expectation 11:13
expenditures 35:9
experience 63:22 89:17 107:6
expert 5:15,16 29:2 29:22 49:9 109:18 129:22 130:12,13 142:2,5,6 143:7 146:21,24
experts 62:4,5,8 79:8 141:12
explain 34:12 67:19 81:23 87:19
explains 41:19 87:8
explanation 15:19 130:6
exposed 101:13
express 7:8 9:1
expressed 48:8 59:24
expresses 5:6
extension 1:4 3:1,11 55:20 56:2,15 62:21,22 82:2 125:13,17 139:17
extensions 31:15 56:18 101:20
extent 10:13 19:12 31:18 148:1
extractive 124:12
extrapolated 14:14
extremely 40:7 133:15

F

face 25:15
facilitated 115:23
facilities 30:22 31:1 31:6,16 32:9,11 40:24 43:7 53:9,9 53:18,19 56:6,7,8 57:7 59:20 103:14 103:18 111:19 139:19 145:17
facility 110:12 121:18,25
fact 15:10 25:16 26:14 30:16 31:1 34:7 40:11 49:14 49:24 54:17 62:2 62:24 70:15 73:19 74:16 76:25 77:20 93:6 98:22 100:14 103:9 107:6 125:24 126:24 139:5,18 146:11 147:22
factor 107:4
factors 106:21 107:2,5
failed 13:18 22:5 29:16
failing 56:12
fails 38:21 41:22 52:10,16 58:8

failure 27:10 41:11 46:15 47:23 48:18 51:12 130:1
fairly 70:8,8 116:1 118:25
fall 17:2
falls 128:23
familiar 100:25
fan 56:7
fans 31:17,22 53:19
far 7:9,14 9:5 10:10 12:5 32:11 33:15 41:17 42:10 44:13 47:14 53:8 58:6 68:15 84:7 94:6 99:15 101:15 108:25 122:12
fashion 27:13
fault 15:21 16:3 80:23 81:1,1,4,10 81:12 97:24 100:18 101:1,4,8 101:20
faults 14:18 15:15 15:23,23 78:8,12 78:13 80:14,17,20 97:20 98:1 101:24 101:25 142:18
fax 5:18,22 6:1,2
feature 113:3 119:14
February 62:19 141:19
federal 102:23,25 103:25 112:17 126:25 144:17,18 146:3 147:5,8
federally 117:2
fee 115:11
feel 22:11 25:15 41:21 97:25 148:16
feet 17:16 20:5,18 37:13 83:18 87:2 87:5 99:24 100:6
felt 33:20 85:1 119:4
few 13:17 19:10 30:15 63:24 120:17,22 129:7 148:21
fickle 119:18
fiction 135:1
Field 41:5
Fifteen 79:18
figure 74:24 88:17 88:17,18 89:6
figured 99:22 122:2
file 73:5,6 147:23 147:24
files 48:3 72:22 73:6 140:4
fill 19:16 20:5,8 21:5,16 86:1 88:22,23
filled 6:23
final 7:16 36:8 90:11 106:2 124:2
finally 33:1 48:13 105:10 145:1 147:10
find 14:10 21:18 25:23 27:11 31:20 42:12 61:16 79:22 87:3 95:18 115:17 147:16 148:1
finding 38:5 95:12 103:11 104:11 120:8 145:15
findings 27:2,12,19 126:9,11
fine 13:23 108:19
finish 108:12,18
firm 8:12
first 8:21 9:6 17:5 28:3 39:8 61:18 63:3,4,13 64:20 92:1 109:23 127:23 129:21 141:11
fish 38:2 47:5,9 95:5,24 109:24 111:14 113:20 114:5,23 115:3,25 116:3,24 117:1 118:15 133:23 134:5 143:6,19,20 145:24 146:3
fishery 132:19
fit 4:9 88:1 138:25
five 25:14 60:22 61:2,3 65:22 76:19 106:6,6 107:3 108:8
five-minute 128:17
five-year 70:13
fixed 63:17
Flagstaff 83:11
flattening 99:21
flip 61:18
floating 127:18
flood 86:13,14
Flooding 92:21
flow 12:13,20 23:8 26:9 29:10 85:1 86:2,3,17 92:21 96:18
flows 11:21 23:20 93:20
fluctuation 97:19
Flycatcher 46:16,22 113:17,25 114:8
focus 13:7
focused 121:23
folks 107:16
follow 40:20 44:10 54:6 134:10
followed 25:2
following 52:4 55:14 130:9
follows 125:22 145:25
FONSI 103:11,21 104:9 120:10,12
foot 65:11 66:14,19
force 148:12
fork 22:3 72:1,2
form 113:1
formal 95:16 115:22,25 116:23 122:3,15
format 82:17
formation 68:12 74:25 77:3
former 105:3
forming 63:6
Fort 86:12
forth 105:2 123:11 123:14 125:5
Forty-one 54:4,11
Forty-seven 59:14 137:25
Forty-three 139:22
forward 51:4 148:18
found 6:7,10 7:14 20:15 43:8,21 44:6,13 45:24 68:25 89:6 97:3 103:10 125:3,9 135:6 138:23
foundation 62:3 130:2,6
four 16:9 20:18 25:20 135:12
Framework 105:6 123:12 126:23
frequency 65:17 66:9
frequently 112:23
from 3:15 6:14 9:12 9:22 12:17,25 13:21 14:12,24 16:14,17,19 17:1 17:4,16 18:5,10 19:3 20:8 21:24 22:18 23:3 24:7 24:24 25:14 26:16 26:21 28:11,15 31:12 32:10 33:8 34:13,21 37:16 39:4,7,11 41:4 48:7,10,17 50:19 57:20 58:13 64:1 64:18 66:10 67:24 68:21 70:18 74:21 76:25 78:15 81:2 81:20 82:25 86:20 86:24 89:4 91:18 94:6,6,6 97:2,6,7 97:11 99:14,23 101:22 105:3 109:13,18 110:13 119:3,23 122:1 138:5,24 140:18 144:5
front 61:17,18 131:11
frustrating 55:9
full 148:12
fundamental 117:22
funding 57:13
further 8:8 27:17 31:10 41:19 58:18 95:23 148:18
Furthermore 104:16
future 31:11,15 32:12 53:18,19 92:19 106:7 123:3

G

gallon 85:22
game 120:17 122:11
gap 70:13
gas 1:1 2:5 62:24 85:18 95:6 125:14 126:2 146:2
Gate 83:20
gathered 74:5 136:1
gathering 58:9
gave 125:20,24
general 24:13 55:4 64:3,14,22 69:6 77:11
generally 33:23
geologic 74:22 75:12,14 77:4,11 77:18 82:23,25 83:14 84:10 99:12 99:19 100:24
geological 28:21 29:5 30:9 77:8
geologically 28:23
geologist 57:4 83:10
geology 66:25 77:9 99:10
getting 77:7
give 4:18 61:3 83:24 85:21 137:16 139:4
given 48:1 62:7 148:8
gives 45:17 125:23
giving 129:1
glance 17:5
glaring 15:12 129:8 141:1
go 3:4,21 13:17 61:8 61:12 84:1 85:24 87:21 90:7 99:21 105:15 108:19 126:11 127:11 128:22 137:8 147:25 149:5
goes 5:7 68:16 77:10 84:2,3 88:21 95:9 121:13 135:22 140:8

going 4:17,17 8:1 8:17 9:4 21:15 32:10,22 34:12 36:15 39:12 55:24 59:12 62:16 63:5 64:21,23 66:4,12 66:17,18 69:19 87:15,17 88:6,13 88:14,14,15 89:8 89:10,12,12,14,24 89:25 90:3,4 93:25 94:7,9 99:2 107:20 109:12,13 113:15 116:5 117:6 119:9 121:16 131:17 132:19 137:16 140:4
golden 114:15,17 114:19
gone 29:3 73:18 98:21
good 10:19 23:22 34:2 67:19 84:17 84:18 146:14 149:2
graded 19:17
gradual 69:21 70:5 70:7 71:7
grant 120:11 128:5 128:6,10 148:11 148:13
granted 128:7
graphic 68:25 69:3 82:17
grass 111:23 112:3
gravel 66:11
grazing 52:14 123:13
great 31:18 61:4 71:17 108:16 109:17 113:14 114:3 120:23 131:2 143:23
green 23:10 43:16 43:18,22 75:18 76:18,20 77:1 83:7 132:21 136:10
Gregory 30:8
ground 4:7 25:14 78:12
groundwater 13:3 13:21 16:3,6 25:13 28:6 71:24 73:14 78:9,15 79:2,6,12 81:17 81:21 82:10 96:6 96:9 133:9
group 18:20 73:21 76:23 85:14,15,16 96:22 132:1
groups 125:25
Guard 86:12
guess 5:4 8:15 10:6 19:23 25:25 30:14 52:25 59:21 61:21 70:10 71:15 78:21 78:24 101:15 102:8 121:13 141:1,22
Guide 41:5
guy 69:23 70:2,6 71:13 73:15,18 75:5,14 76:22 77:10,15,18,23 78:11 79:4 80:2 83:17,19 91:6,23 93:5,14,23 97:10 97:16,18 98:4,13 98:15 99:5,8 100:25 101:12,21 102:7 132:19 136:9 143:7
Guy's 73:6 98:9
guzzler 113:7
guzzlers 113:2,3 118:21 119:2,14

H

habitat 47:15 48:18 110:10 113:23 114:1 123:13
habitats 38:19,22 47:24,25 52:12
half 85:22 107:21 107:23 108:3
hand 4:18 127:22
handbook 35:22 106:4,5,7,8,13,24
handle 9:4
handled 19:9,24 37:7 87:20
handling 37:22 66:8
handwritten 72:10
happen 31:23
happens 132:17 138:9
hard 74:23
harking 142:24
harmed 147:12,15
haul 36:7,9 50:2,15 120:24
having 4:21 7:5 21:7 29:16 51:25 92:18 111:11 117:24 119:8 129:7 148:25
head 54:19 74:10 113:8 142:14
heading 30:12 36:17 140:11
headings 33:12,13 33:18
hear 4:3 54:7 109:18
heard 3:18 148:25
hearing 2:3 24:7,13 61:23 140:7 147:17
hearsay 11:25
heavy 32:8 35:20
height 12:17
held 76:15 90:22 101:6 123:23
help 6:14 8:18 24:14 43:2 69:20 69:25 79:5 92:15 99:5 119:15,16 140:17
helpful 114:8
hence 115:16
Herb 4:24 10:16
HERBERT 2:8
herd 119:15
herring 138:19
high 38:19
higher 44:13 51:20 59:8 134:22
highlight 129:8
highlighted 63:14
highly 23:11
highway 48:13 120:22
high-value 47:24,25 118:20
him 4:17,17,18
historic 52:21,23 53:12,25 54:7 124:25
history 137:20
hit 81:4
hits 98:1
hitting 32:6 80:25
hold 92:1
holding 70:8
holds 47:12
hole 70:17 71:8,8 89:12 90:10
holes 9:13 64:5,17 64:18,22
honest 19:7
hope 6:1 28:1 47:16 55:5 59:4
hopeful 8:10,11 39:14 60:12 129:15
hopefully 55:3 62:4 87:7
hoping 86:1
horizon 83:15
horn 48:11 50:5,7
horse 1:5 3:11 14:17 17:12,17 18:1 25:18 55:20 56:2,5,15,20 62:21 63:23 75:17 79:10 80:16,18,20 82:3 83:2 97:2,5 97:18 133:4
hour 107:21,23,23 108:2
hours 50:17,21
house 137:17,17
hundred 63:21,25 87:2,5
hundreds 56:17
Huntington 75:15
hurdle 60:18
hydrologic 26:23 27:4,14,15 29:12 40:12 71:2 80:15 98:25 100:15,16
hydrological 39:2
hydrologically 28:8
hydrologist 70:3 143:7
hydrology 5:9 8:22 39:2 40:6 46:9,12 63:4 77:13 131:5 141:22 142:6 146:15
hydrostatic 74:10

I

IBLA 123:22,25,25 128:8 140:19
idea 70:11 83:24 85:22
ideas 69:18
identical 36:12
identified 15:11 17:18 28:12 32:4 38:9 67:18 81:22 83:5 142:17 147:14
identifies 15:9 88:22 104:2
identify 27:11 31:10 67:22 68:7 70:23 74:8 76:1 146:19
identifying 29:16
ignored 14:16,17 41:24 47:10,14 112:12 135:15,18 137:13
ignores 34:7
illustrate 13:18
immediate 66:23,25
immediately 9:16 65:1 66:24 84:1
impact 23:17 27:23 28:4,9 31:9 32:20 32:22 39:6 41:15 42:9 50:5,20 80:15 95:24 99:1 99:4,6 100:13 102:16 103:11 104:22 113:5,22 115:16 116:25 117:5 122:12 134:3 143:25 145:15
impacted 84:16
impacting 115:14
impacts 22:9 24:5 27:3,14 28:16 29:18 32:7,10,13 32:21 34:6 38:5 39:4,10,18 41:14

41:18,25 46:16,22 49:25 50:2 53:11 84:15,17 91:24 93:16,19,22 94:17 95:21 100:11 104:6 113:17 115:10 116:1,21 118:15 119:25 120:3,9 121:1,6 121:20 133:22 137:1 143:20 146:14
impair 103:18 145:18
implementation 38:9
implemented 113:8
implication 114:18
importance 68:2
important 7:18 15:13 24:17 25:8 26:2 29:11,13 40:8 44:7,9 53:21 54:2 93:24 100:8 103:2 110:2 114:10 133:15,18 134:20
impose 121:3,7
imposed 50:12
impossible 22:8 58:5 127:9
improved 57:15
inaccurate 105:20
inadequacy 25:12
inadequate 7:14 25:15 30:20 40:20 46:6 49:24 50:22 52:8 121:15
Inasmuch 23:11 26:7
inc 2:13 61:11
inches 36:24 37:1,4
incidence 120:19
incident 145:23
incline 69:7
include 27:2 31:5 46:20 47:7 57:19 82:3 105:19 123:13 124:7,22
included 29:3,23 32:9 41:2 45:21 57:9 63:20 64:10 65:4 105:4 111:19 130:4
includes 17:11 19:2 75:16,17 114:11
including 10:14 13:8 25:2 32:21 41:7 50:8 52:13 104:2 124:10
incomplete 6:21 7:6 9:7
inconclusive 78:13
inconsistent 18:25
incorporate 5:12,24 6:4
incorporated 105:23
incorrect 81:19 104:17 127:2
incorrectly 105:10
increase 23:14 69:21 70:5,7,16 71:5
increased 23:1 48:11 65:22 143:8
increases 69:9
Increasing 70:19
incur 34:18
indeed 21:6 126:13 139:3
indicate 62:19 67:23 74:22 81:9 99:20 124:1 142:13
indicated 98:23 110:17 123:7 124:13 125:21 126:14 142:7,25 146:10
indicates 20:3
Indicating 43:14 76:4,10 80:24 83:2,3,12,25 84:6 84:13,23 85:13,14 85:15,21 99:21 101:15
indication 9:18 20:6 69:8
individual 146:18
individuals 72:15
indulgence 128:13
inexplicably 7:16
infer 24:8 95:24
inferences 115:6
inferred 119:2,5
inferring 95:20 119:6
inflated 107:3
inflation 106:17,21 107:2
informal 3:10,12 4:5 62:10 116:24 130:9,15 139:5
information 6:14 7:3,9 8:13 9:7,25 10:1,2 14:23 15:8 16:10,15 18:14 23:5,24 25:3 26:18,20 27:12 28:25 38:18,22 39:22 40:4,21,25 40:25 41:6 46:6 46:11 47:3 48:5 51:3,6 53:3 57:20 62:24 63:19 64:4 68:25 69:12 71:21 74:5 77:4,11 85:2 92:16 99:18,19 102:1 109:22 111:3 124:25 130:19,20 131:9 138:16 143:2
infrequent 14:4 21:10,18
inhabit 112:14
initial 6:18 7:4 72:7 72:16,17,19 128:16
initially 109:20 111:20
initials 72:18
initiated 95:14
ink 6:2
input 104:21 112:10 144:22,24
inquiry 147:20
insects 42:19
inside 31:19 90:2
insignificant 120:9
Inspector 72:8
installed 31:23,24
installing 12:15
instance 39:19
instructed 55:11
insufficient 25:24
Insurance 58:22
intended 68:4
intends 34:14
intent 25:2 55:14 68:6 111:24 130:23 147:18
intents 60:5
intercepted 21:23 21:25 28:14
interception 29:6
interest 8:16 71:12 112:1,18 120:15 125:25
interested 3:7
interesting 123:20
Interestingly 103:24
Interior 59:16 105:3 127:5 140:13
interject 120:14
intermittent 12:11 12:12 71:19
interpreted 13:15
interrupt 117:21 143:18
intersection 100:7
introduce 3:22 94:24
introduced 71:4 118:6
introduction 8:16
introductions 3:21 4:1,2,6
inventoried 44:6 110:8
inventories 67:21 83:6
inventory 17:19 34:9 42:3 43:13 44:21 67:18,20,24 68:6 84:19 86:5,7 102:19 104:18,20 104:23,25 105:12 111:17 123:9 124:8,9,15 144:13 144:15
involve 42:17,18
involved 20:14 56:6 107:5,7 120:5 124:12
in-mine 97:1
IPA 14:2,20 15:20 16:11,16 131:19
IPA-1 13:22 14:12 26:18 68:23 69:6 69:16,17,20,21 70:5,6
IPA-2 13:25
irreparably 125:4
isolated 26:10
issuance 25:6
issue 8:21 9:6 14:11 34:21 42:15 45:12 45:12 55:9 60:11 62:16,16 67:5,6,7 69:12 71:18 79:1 93:3,21 94:23 95:4,12 106:3,10 106:20 120:10 122:20,22 125:12 127:10 128:8 131:2 134:18 135:4 136:24 137:3 140:16 141:15 142:16,25 144:9 145:7 147:4 147:11
issued 94:15,19 103:10 104:9 125:8,22 126:15 126:25 128:5 140:13 141:18 145:16 148:11
issues 7:25 8:2,5,7 22:16 34:1 57:22 63:4 124:24 126:18 129:2 140:5,9 141:10 144:20 146:17 147:3
issuing 107:13
item 63:13,21 73:13 87:23,24 95:4 96:2,5,10,19 98:10,16 104:5 105:24 108:23,25 109:6 111:3 113:16 114:22,24 118:19,20 119:24 120:24 124:20 125:6 126:1,18 127:7,24 128:3 143:24 146:17

147:2
I-1764 75:8,10

J

January 125:15
Jay 11:19 63:9 75:2 87:19 90:14 96:7 96:12 100:25 105:25 117:21 127:16
JBR 17:2,10,18,19
Jim 16:12 142:5,25
job 94:16
Johnson 113:8
July 126:9
jump 33:19
June 58:12 127:23
juniper 111:23,25 112:2
jurisdiction 103:4 122:23 126:20 127:6
just 4:1,3 6:19 7:24 8:17,19 13:7,16 17:7 19:7,18,23 21:9 23:23 27:25 28:15 29:11,15,20 32:4 35:23 37:15 40:19,23 42:12 45:1 50:19 52:9,9 54:5 55:4 56:6,22 57:22 59:4,14 62:1,6,15 63:24 64:3 71:10,11 73:8,10 74:7 75:12,25 78:21 79:21 82:3,14,16 84:9 85:25 86:5 91:11,12 95:3 99:5 100:2 106:2 106:3 107:2,12 108:8,12 111:4 113:12,14 116:17 118:4,10 119:16 120:14,23 122:21 130:23 131:5,24 133:5,24 134:7 140:12,16 141:1,9 141:12 142:4,23 143:9,17 144:2,5 144:15 145:19 147:20 148:3

K

Kaiser 63:23 64:8 64:20
Kass 5:17 41:2 62:13 129:23 130:4
KBH 76:14,18
keep 87:16 127:9
kind 14:22 68:24 75:1 115:7,8 116:19 118:14 125:4
Knight 1:11
know 6:23 15:3,5,6 19:23 24:9 30:4 30:17 32:6 34:16 40:15 43:25 45:22 46:11 50:6,14 53:2 55:15,25 56:1,4,9,17 58:8 59:7 60:9 74:19 77:10 78:14 84:15 86:11,21 87:6,17 89:24 92:18 93:25 101:10,11,13,14 121:18 122:11 130:5 132:18 136:17 137:4,16 137:18,21,22 138:7,13 139:8 141:16 145:7 147:18
knowing 99:9
knowledge 112:9
known 14:16 112:14
knows 86:9

L

lack 27:8 40:21 68:22
laid 54:12 62:3
Lake 1:9 2:18
land 5:10 30:25 38:14 44:8,12,16 44:20 45:15,16 51:9,15,18,24 52:12,17,18 59:1 59:8,12,16 74:9 103:1,3,5,7,25 104:24 105:1,22 110:4 112:1 117:4 120:8 122:19,25 123:2,2,4,4,6,11 123:11,17 124:16 124:18,21,21 126:16,21,22 127:3,4 137:14 138:4 140:13 144:10,17,18,24 145:5 147:2,9
lands 30:23 34:11 35:11 38:22 41:15 103:5,14 105:7 124:1,5,7,15 126:24 144:13 145:2
landscape 40:15
large 28:16 120:17 139:17
larger 56:4
last 72:13,17 85:23 113:11
late 127:12
later 22:19 25:8 34:16 41:24 78:25 135:9
law 6:11 11:23 54:6 103:25
laws 138:6,8
layers 84:10
laymen's 57:6 139:9
leads 20:1
lease 138:5
leases 102:23 105:14 126:25 147:7
leasing 147:5
least 98:18 145:22
leave 48:24 49:2 102:7
left 37:8 51:8 148:21
legal 44:17 52:4 57:23 125:23 126:18 134:22 137:19 144:21
lengths 90:8
Leshy 105:4 124:13
less 66:8 85:22 115:1,6
let 4:8,17 36:18 58:7 70:12 94:24 95:18 108:12,19 118:3
lethal 42:20
letter 5:6,13,14 6:3 7:20 8:19,22,23 11:1,2 18:23 29:24 48:7 49:21 51:4 58:24 59:23 61:19 63:7,7,15 95:6 114:4 115:4 115:5 133:23,25 134:5 143:6
letting 108:18
let's 4:8 30:14 47:23 61:5,8 69:15 74:1 74:22 128:22 131:4 133:3,21 134:7 135:9,18 136:22 137:25 145:19 146:16
level 71:5 74:9 100:6
levels 14:20
life 133:18
light 7:23 31:6 131:7
like 3:15 4:7 6:19 17:5,7 24:9,10,13 30:4 34:20 47:22 62:2 63:3,9 77:9 79:22 85:1 86:5,8 87:3,19 98:8 99:5 109:3,18 115:2 119:4 128:18 131:6 137:10 138:4 144:2 148:24
likely 28:17,25 48:24 97:10 114:7
Likewise 112:4
lila 1:4 3:1,10 12:9 12:23 17:14,15 22:2 26:8 28:24 48:10,13 49:14 57:8,17 62:22 67:1 71:24 72:1,2 72:3 81:2 82:2,4 83:3 97:22 102:22 103:6 112:23 126:7 136:23 144:3,5 145:17
limit 33:25 108:8 115:7,8
limited 54:13 110:10 123:14 137:5
line 88:4 98:15 99:20 100:7 107:3 107:10 121:16 140:18
lines 30:8 69:6
lips 5:15 8:18 9:11 10:11 11:16 12:8 13:2 18:18,20 22:22,25 23:19 25:10 29:25 30:5 30:8 35:17 75:9 129:23 130:4 131:16
list 6:24 17:23 55:3
listed 114:12 116:1 116:1,18
literature 28:20 29:4
little 12:9,10,23 17:8 19:7,24 20:20 26:8 37:4 37:12,15 48:1 67:3 68:25 70:1 72:13 74:23 75:6 76:13 78:25 83:1 86:2,3 111:5 127:15 137:3
living 106:18
lizards 50:9
load 36:9
loading 143:9
located 17:24 43:7 64:6 73:20 87:7 87:11 102:23 146:6,9,13
location 10:13 19:12 71:24 77:1 87:4 88:9,10,19 99:14 125:20 133:11
locations 18:5 21:7 64:12 67:13,15 79:12 80:4,5,7,10 81:22 82:1 85:19 96:9,14
long 3:23 92:2 140:21,22
look 4:1 25:16 33:13,21 44:17,23

51:4 54:21,24 67:8 68:18,23 69:1 70:13 71:20 76:17 83:6,8 85:8 86:4,6 88:11 94:17 100:11 121:4,9 129:3 131:17,18 134:12 138:12 142:16 147:25 148:18
looked 11:13 28:19 39:17,21 40:12,14 53:8,13 54:20 93:7 99:11 112:16 112:18 116:3 121:19 135:14
looking 29:11 39:18 58:4 82:5 122:12 134:21 137:5,7,24 138:22 140:15
looks 86:5 109:3
loss 41:20
lot 17:6 51:9 69:18 86:6,15 94:2 96:17 101:23
low 23:6 51:8 122:6 137:11
lowell 2:4 70:4 76:22 82:5 99:13 100:21 101:10
lower 10:21 11:4 29:7 68:11 86:23 86:24 107:10
L1 82:8
L1S 71:24 96:14
L2S 71:25
L3S 72:1 96:14
L5G 72:5
L6 82:10
L6G 25:17

M

M 1:11
made 3:6 9:21 19:23 22:19 25:16 26:24 27:13 32:17 60:18,20,20 62:25 69:18 84:4 92:9 101:22 102:13 104:10,15 108:4 124:14 126:9,21 127:4,8 130:20 133:4 137:11 139:3,23 140:10 144:12 145:1 147:21 149:1
Main 86:11
mainly 30:15 134:17
maintain 103:14
maintained 126:13 126:14
major 141:23
majority 60:15 87:12
make 49:8 53:4,7 58:23 61:11 107:14 110:25 127:19,20,21 128:9 145:20 146:22
makes 70:16 93:12 106:9
making 4:11 11:25 86:19
manage 117:1 119:15
managed 104:25 124:10,15
management 44:20 45:11 103:1,5,7 104:14,17 105:1,6 110:4 117:4 119:17 120:8 121:16 123:12 124:16,19 126:16 126:22,23 127:4 144:10,17,19 145:9
manager 123:18 126:21
managers 122:4,5
manages 103:5
managing 45:15,16
Mancos 23:8,11 64:19
mandates 57:16
manner 68:25
many 38:25 41:25 49:15 59:22 65:24 66:1,16 84:7 85:19 116:22 129:15
map 43:12 67:14,15 68:17,19 74:23 75:5,8,8,12,13,14 75:20 82:22,23,25 89:4 99:10 100:23 100:24 101:23 102:2
maps 10:6,9,12,16 67:8 74:22 101:2
marshall 11:19 63:9 63:12 65:18,20 67:6,11 68:10,15 69:13,17,25 70:4 71:20 72:25 73:4 75:3,7,10,16,21 76:2,9,16 79:5,15 79:18,20,25 80:3 80:17,22 81:5,8 81:14,25 82:14,21 82:24 83:16,18,24 85:6 87:21,24 89:19,21 90:16,19 90:23 91:4,7,16 91:25 92:20,24 96:7,12 100:20 101:2,10 106:1,19 108:25 109:10 116:9,11 117:13 117:16,19 127:17
MaryAnn 31:14
material 19:4,5,8 19:16 20:7,8,10 20:18,21,21,24 21:3,5,7 36:4 37:6 37:7,11,14,16,22 52:25 63:6,10,14 64:24,25 65:10 66:3,10,15 87:25 87:25 88:2,5,13 88:20,25 89:10,11 89:13,24 90:9,9 90:11 98:11,20 142:24
materials 9:8,10,14 20:4 27:20 36:9 53:6 78:6 103:23 125:1 142:15
material's 21:10
matter 1:4 3:1 6:18 15:5 20:7 49:2 65:8,23 66:1,2,15 66:16 88:5,7 106:12,15 126:6
maximum 37:2
may 1:10 3:2 8:25 12:13 31:20,20 47:15 48:22 63:7 86:10,16 89:23 103:15 106:25 114:8 132:20,20 148:12
maybe 5:3 36:21 58:7 67:19 69:20 69:25 70:16 73:6 77:7 90:5 92:15 115:9
mcharg 2:8 4:23,24 5:20,22,25 10:5 11:9,18 13:1 18:11,19 22:24 23:23 24:2,15 30:12 33:6,17 34:3,23 35:3,14 37:23 43:5,15,18 44:4 45:3,5,20 46:5 49:8 54:8,11 55:2 59:19,21 60:20,22 108:19 128:13,16,23,25 129:11,14 131:22 136:6 138:6 139:2 140:21,25 147:3
mean 6:9 43:15 58:12 69:8 127:17 140:14 146:14
meaning 110:11
meaningful 57:3
means 21:3,17 35:20 42:20 106:23 122:9 132:1
meant 119:2 141:17
measurement 70:17
measures 31:3 38:8 48:21,22 49:22,23 50:11 54:2 104:1
measuring 12:15
mechanized 34:10 105:11
meet 42:25 73:21 92:6 142:3
meeting 3:23 4:8,13 7:24 8:5 55:8 133:14 142:24
meetings 116:22 122:3
meets 142:12
Mel 71:1 109:20 118:19,21,24 121:19 141:13
melt 26:9
member 147:14
members 133:14
mention 10:20
mentioned 40:23 53:18 100:17,20 114:18 130:8 139:20
mentioning 39:7 40:7
mentions 93:14 114:16
merely 50:25
merits 140:15
Mesa 73:20 76:23 96:22
metes 57:1
methods 89:18
MFP 123:17
middle 20:25
might 11:12 67:23 70:23 74:23 89:3 99:6 110:16 120:16 148:20
Migratory 122:17
mile 14:14,15
miles 9:23 23:8 64:6 67:2 76:19 144:4
mind 117:25
mined 9:17
mines 31:14 56:20
mine-related 103:14
minimal 122:7 146:15
minimum 13:9 31:5 36:24 51:18 58:1 66:19
mining 1:1 2:5 3:11 21:24,25 26:5 28:14,18 31:12 37:17 38:13,13,15 39:5,11 43:10 47:9 48:16 51:16 51:19 54:16 57:14 57:25 58:1 62:25 63:22 74:8 85:18

89:16 104:12 119:23 121:21,22 123:13 126:2,24 127:1,3 135:23 136:8,13,18 137:8 146:2,15
Mining's 125:15
minute 3:22 4:14 85:22
minutes 51:8 60:22 61:2,4 108:9 129:7 148:21
mirror 59:23
misconception 112:25
misleading 125:22
misspoke 141:16
mitigate 113:5
mitigated 41:16
mitigation 31:2 38:8 41:21 42:9 42:11 48:20,22 49:2,21,23 50:11 50:18 54:2 103:20 104:1 113:1 118:20,23 119:1,3 119:5 121:7,14,14
mixed 78:3
mixtures 19:2
moment 13:8 135:11 143:18
money 59:9
money's 59:10
monitor 25:14 29:17 72:4,6 84:11,21 85:4,20 87:9,9,10 136:20
monitored 80:11 82:7 85:23 96:25 133:20
monitoring 18:15 25:11,13,18,22 26:1,4,4,7,13,16 50:22,24 51:1 70:19 71:24 81:21 82:2,10 87:3,5 96:6,9,11,13,20 121:12 122:14,15 132:24 136:1
month 58:12,13 86:15
months 82:5,6
Monticello 2:11
moot 143:1
mope 84:16
more 6:25 15:22 19:24 29:3 36:11 46:7 51:3 66:9 84:25 99:3 100:25 101:23 113:6 114:25 119:20 124:20 129:8 141:1
Moreover 102:22
morning 3:24 9:21 10:21 16:12 31:13 36:18,20 37:1,19 39:8 40:2 55:9 133:15 142:5,25
morning's 7:23 8:5 15:1
morphology 22:14 22:18 91:15,16,20 91:23 92:8,17 93:4
mortality 50:19
most 3:24 14:19 58:14 60:15 83:9 84:8 97:10 121:23 139:14
Mountain 112:19 112:22 113:7 144:1
move 30:19 67:4 87:17 120:18
moved 22:15 37:8,9
movement 15:17,18 15:24 16:2,2
moving 30:12 81:16 90:13 96:1 109:17 122:19 136:20
MRP 95:2
much 4:10 6:2 21:4 37:10 80:23 89:14
mule 122:8
multiple 124:10
multiple-use 57:16 124:7
must 12:6 32:9 42:17,18,22,25 57:9 127:1
myself 94:25

N

name 63:24
National 86:11
natural 1:1,8 19:18 58:3
nature 12:12 119:18
near 21:1 32:18 61:9
necessarily 113:5 131:1,7 134:2
necessary 7:3 38:21 39:23 58:9,17,19 138:9
need 3:25 4:2,3,6 12:1 21:13 22:16 26:11 32:14 37:13 39:16 40:12,13 46:23,25 47:1,19 53:6 54:22 63:16 74:7 91:10 96:25 102:5 110:8 118:9 118:11 134:12 137:2 138:15 142:21
needed 103:15
needs 12:1,3 16:3 19:23 22:17 23:18 31:10 34:4 35:1 40:25 41:6 44:10 49:5 54:20,21 57:5 98:17 105:16 132:25 135:25 136:1,2,24 140:1
negative 41:18 113:5 143:19
NEPA 95:1,15 112:19 113:1 128:8 144:23,23
nesting 48:17
nests 48:14
never 16:16 27:21 76:11,13 110:15
new 10:1 24:23 25:9 55:12,16,17 56:1 56:6,8,8,10,14,23 56:25 57:6,7 62:20,20 125:12 125:13,16,21 130:17 131:11 139:19 147:10 148:1
newer 85:17
next 16:21 18:20 19:10 20:1 21:19 21:20 25:10 26:22 36:16 58:12
night 120:18,20
nighttime 50:17,21 104:2
nine 17:13 85:11
nineteen 17:14 134:14
noise 31:6
none 4:7 81:9 86:25 111:1 146:3
nonetheless 94:3
nonexistent 113:12
non-issue 110:18
north 1:9 22:3 77:22 80:15
northeast 99:24
northeasterly 77:21 77:22
Northhorn 83:11 83:21
note 3:22 8:23 17:16 44:9 62:9 93:24 103:2 107:14 110:2 114:11 129:21 130:3,11
noted 132:4,12
nothing 6:25 56:24 66:9 87:10
notice 25:2 56:13 57:2 67:11 79:21 80:5 89:4 125:19 125:19,24 139:3,4 139:13 147:16,18 147:21
noticed 3:17 56:10 57:5 120:21 139:8
notices 56:18,21
noticing 56:1
notified 147:17
notify 56:25
notifying 55:17
noting 54:13
NPDES 91:12
number 18:7 70:14 71:2 124:2
numerous 55:10 79:9 116:21 133:4 146:8,11
nutshell 66:21

O

object 6:19 62:8,14 130:14
objected 129:22
objection 130:1
objections 62:2 108:17
obligation 24:3 132:12
observation 73:3
Observed 73:2
observer 72:17,18 72:19
obtain 24:24
obtained 22:5 96:3
obviously 30:17 33:22 94:18 129:5 131:2 136:12 139:10 140:4
occasions 102:14 124:2 128:7
occur 20:14 24:5 27:3 28:17 29:19 31:7 34:5,14 39:4 47:15 113:22 114:13 115:10 144:24
occurred 144:16
occurrence 15:18
occurring 34:13 35:11 139:10
occurs 42:12
October 90:20,24 103:10 145:14
off 3:21 18:22 26:9 72:23 76:15 77:7 84:5 90:6,22 101:6 111:14 123:23 129:21 130:16 149:6
offhand 22:22
office 52:21 147:24
official 95:13
often 18:25
oh 108:23 137:25 139:2,22
oil 1:1 2:5 62:24 85:18 95:6 125:14 126:2 146:2
okay 9:11 10:5

11:17 18:18,20 22:23 24:1 25:10 30:10 33:16 34:23 35:3,14 37:23 43:15 45:4 46:5 54:10 55:2 62:15 67:4,8 68:10 72:18 73:18 75:3 76:21 79:4 80:3,4 82:24 85:7 87:21 87:24,24 90:13 91:16,25 92:9,20 97:17 99:8 108:21 112:11 122:19 129:12 139:1
old 35:21,22 80:16 84:14 106:13,13
omission 7:2 15:12 98:17
once 13:25 14:1,1 19:25 27:21 42:8 84:18 90:3 93:23 96:2,6,11,17,21 97:3 98:1 104:10 104:13 105:5,20 120:25 122:20 124:17,22 125:12 127:9 142:24 143:9 144:8 146:16 148:10
one 10:6 14:13 17:2 17:15 18:5,10 21:6 25:17,17,22 27:5 28:2 33:6,19 36:11 40:1 44:19 65:24 69:13,21,24 70:21 71:3,4 72:17 78:15,24 80:25 81:20 84:21 84:22 85:4,9,16 85:17,20 86:7,22 87:1,5 90:8 91:7,8 101:24 102:7 110:14 113:7 118:13 120:15,17 127:11 129:6 130:2 131:5 133:10 134:7 135:11
ones 80:22 84:11 87:8
only 4:7 13:24,25 16:9,14 17:15,16 18:4 21:17 25:22 26:17,19 49:23 50:18 51:1 53:8 55:16 64:25 66:7 67:16 70:19 81:19 101:9 102:21 112:15 121:12 129:7
on-site 36:25 54:14 73:11
opaque 56:22
open 90:1,3,4
operate 50:16 103:13
operating 81:21 106:17
operation 30:21 31:7,13 38:23 39:5 41:10 47:9 56:8 81:6 102:15 103:6 136:8,13,19 137:8
operational 38:10
operations 43:10 51:17,23 54:17 68:3 84:12 104:3 110:11 135:24 145:23
operator 143:11
opinion 15:11 49:9 79:8,8 105:2 141:23
opinions 130:12,13
opportunities 8:8
opportunity 3:14 3:20 5:1 7:7,21 128:12 129:1
opposed 49:15
options 58:4
orally 32:6
order 6:16 12:7 35:1 55:14 126:5 148:5,8
organizes 5:8
original 107:15
OSM 110:5
Osterwald's 101:23
other 4:10 8:25 29:4,5 31:14 32:20 40:1 42:15 46:13 47:7 49:16 49:25 50:7,9 52:11 56:19 57:16 58:21 60:16 70:15 71:14 73:9 78:16 78:24 84:10 89:2 101:2 114:12 121:15 122:16,16 124:6 130:11,16 133:1 138:18 142:15
others 69:7 70:7
Otherwise 24:11
ourselves 33:25
out 6:1 14:14 17:8 19:17 29:20 54:12 57:23 66:2,3 69:20 70:1,22 74:24 79:22 83:10 83:11 84:14 85:2 85:13,14,15,16 86:8 87:3 88:14 89:3 94:3 99:15 99:21 100:3 101:16 105:8,15 105:15 106:25 107:1 127:15 130:13 148:1
outcrop 32:18 76:17
outcrops 74:25
outdated 35:5
outflow 28:10
outline 7:21 8:19
outlining 111:21
outset 62:18
outside 17:14,24 25:21 112:6
over 4:16,22 7:12 9:8 14:9,15 20:11 23:8 37:14 41:6 41:11 63:21 75:18 89:14,15 90:11 100:11
overlaid 83:4
overlay 82:23
overlies 83:15,17
own 14:19
owned 126:13
owns 103:5

P

P 2:4
package 3:16 5:2 6:8 9:18 33:9,10 33:14,23 45:19 48:4 53:23 57:24 60:2,4,7,9 116:7 117:7 138:10
page 8:22 72:13 92:10 104:14
pages 5:21 41:3
PAP 5:3 7:3,5 10:17 14:24 15:9,21 16:8 19:13 23:5 28:13 31:10 32:9 32:12,16 33:3 34:4,7,12 35:18 38:20 40:6 47:20 48:1 50:25 51:12 51:15 52:10 60:16 95:2 105:4 117:23 117:24 118:2 123:1 125:9
paper 30:9 75:12 139:12
PAPs 10:23
paragraph 95:7 98:18
parameters 91:24 92:8 93:16 112:4
Park 12:10,23 26:8 72:14 83:2
part 14:10 15:19 31:3,4 35:12 52:10 57:9,11,21 74:14 77:16,18 82:13 94:16,25 95:2,11 116:6 117:7,20,20 118:10 120:1 132:9 136:25 138:3 139:23,25 144:24 148:7
particular 10:9 33:5 34:21 44:18 56:22 70:11 99:23 101:1 124:11 130:10 133:13 139:13 147:14
particularly 62:13 73:15 77:13 109:22
parties 3:15,22 107:19 148:23 149:1,3
parts 63:18
party 110:3
past 7:12,14 56:21 56:21 99:15
patience 148:16
paucity 146:12
pending 140:14
penetrate 76:11
people 3:24 4:9,16 47:2 69:18 72:16 73:11 110:24 113:24 117:5 130:7 139:14
percent 107:8
perched 10:18 16:22,23 81:18 133:8,10
percolating 97:7
perennial 46:17,21 94:7
perfectly 19:6 120:24
perform 106:5
performance 35:22 42:25 106:4,7,8 106:12,14,16
performed 47:1
performs 106:9
perhaps 71:5 127:14
period 61:12
periods 12:13
permanent 49:7
permanently 49:18
permits 31:16 54:22
permitted 30:16 34:10 50:16 55:21 58:19 135:21
permitting 30:18 95:15 149:4
perplexed 10:7 55:12
person 72:7 147:21
personally 15:7
personnel 12:19 71:4
pertained 10:21
PHC 26:23 27:21 77:14,15,19 78:4 78:10,11 93:2,6 98:9,12,17 142:19

143:8
picked 37:8,9
picks 139:12
piece 106:8,9,14
piezometers 13:23 68:23 69:3 74:6 74:13 82:7 131:20
piezometric 14:8 74:12 78:18,20 97:14,22 98:2 100:1,4
pile 19:14 88:6 89:9 90:1,2,7
pinion 111:22,25 112:2
place 3:9,17 35:10 37:8 78:15 104:12
placed 21:5 37:14 37:18
placement 20:12
places 19:15,16 53:23
placing 20:20
plan 16:18 20:9,12 21:2,14 25:12 26:7,15 30:13 33:9 36:23 38:10 38:11 41:21 42:9 42:11 49:4 66:12 66:13 91:19 94:14 96:6,11 102:11 104:1 105:1,6 120:2 122:24 123:12,15 124:16 124:19 125:2 126:23 134:17 138:16 145:9
planar 14:9
plane 68:20
planning 104:24 112:10 144:25 145:6
plans 32:7 103:7
plant 41:5 111:20 114:12
plate 64:15 67:9,12 74:13 79:12,15,22 79:24 80:2,5,12 88:17 109:11 142:18
plates 65:3
please 4:14 58:7 61:12 129:10,13 135:11
plenty 107:5
point 9:4 10:19 11:18 13:2 16:5 16:21,21 17:7 18:23 19:11 20:1 20:2,24 21:21 22:25,25 24:10,21 25:12 26:6,14,22 26:22 27:22 29:20 30:14,19 31:20 32:3,15 35:4,15 36:1,17 37:23 38:8 42:14 45:12 47:24 50:2,15,22 51:7,9,11 52:3,8 54:13 55:7 57:8 57:22,24 58:22 59:7 71:11 76:22 77:12 86:19 87:1 97:21 100:22 115:8 118:12 120:15 131:4,5,22 133:3,21 134:7,8 134:18 135:10 136:9 137:14
pointed 70:22 84:14
points 13:17 19:13 27:6 30:15 39:7 67:16,17 85:5 91:5 97:24 137:9 142:17
point's 74:17
policy 103:1 125:15 144:17,18 147:9
pond 72:3,3 91:2,3 91:8
poorly 27:15
population 119:7
portal 99:14
portion 36:3 71:8 83:1 97:23 99:10 112:14
portrayal 10:15
possible 4:10 21:4 92:2 100:16
post 38:13,13,14
post-mining 112:1 123:5
potential 16:9,15 21:8 31:11 38:5 46:16 50:11 68:7 111:18 114:2 115:10 135:17 137:13 140:19 143:22
potentially 15:17 20:15 31:24 38:23 41:9 47:8 100:12 110:16,20 112:21 132:22 133:2 134:12 135:23 136:12 137:7
pound 66:5
practices 35:19
precise 125:20
precisely 125:23
predate 102:24 147:8
predicting 78:17
predominant 111:21
preface 36:19
prejudice 139:7
prejudicing 56:13
preliminary 144:15
premature 107:11
premining 17:13 18:2 25:19 29:17 42:23 52:15,17 122:25 124:21 133:6
premise 117:22
premised 135:13
prepare 27:24 28:7 99:2 129:5
prepared 10:23,24 16:8 28:21 29:5 29:22
preparing 28:2
present 5:1 27:20 42:1 71:3 144:1
presentation 61:11 82:15
presentations 149:2
presented 35:18 62:17 146:18
presently 22:14
presents 68:24
preservation 52:21 54:7
preserve 62:2
presumptuous 9:3
pretty 94:8 100:3
prevent 32:17 34:13 66:9
previous 16:8 27:5
previously 13:5 16:23 48:22
Price 23:9,13 41:8 75:1 76:5,6,12 77:2 83:20 105:5 123:12 126:22 132:21 136:10 145:9 146:5
prior 10:23 20:12 37:17 74:8 86:16 92:3 106:3 107:12 140:6
probability 94:10
probable 26:23 100:15
probably 10:19 36:1 75:6 77:1 79:5 95:16 97:19 98:16 100:25 101:13 111:25 116:18 119:5 145:6 146:13
problem 14:11 64:1 70:17 98:8
problems 54:18
proceed 3:19 52:3 117:23
proceeding 6:6
proceedings 3:3 149:7
process 7:18 8:3,6 12:7 23:25 25:1 55:11 58:10 59:25 60:15 62:10 95:15 98:24 104:24 113:1 115:24 129:17,18 130:1,9 136:21 138:20 139:16 144:15,25 145:6 149:4,5
processed 24:22 25:8 56:23
processing 7:4 55:15,16,19
produced 10:10 54:14
productivity 58:2 111:20
program 11:15 147:5
project 21:1 23:13 48:15 78:18 95:7 101:17 121:25
projected 74:12 99:25 101:25
projection 78:20
promote 92:2
prong 48:11 50:5,7
proof 24:4 132:13
proper 25:1
properties 52:23 53:12,16 54:1
property 73:7
proposal 95:8
propose 64:20 65:15,17 67:14
proposed 18:3 22:7 25:17,22 32:11 42:10 46:19 48:12 48:21 49:3,22 53:9 57:6,25 65:1 91:3 103:20,20 121:12 139:4
proposes 21:22 22:1 25:13 26:19 34:8 65:20
protect 50:18
protected 32:19 52:14
protection 142:8
protocol 65:19
proved 113:9
proven 64:1
provide 14:4 18:13 23:5 26:12 34:22 35:23 122:10 147:18
provided 7:9 10:17 14:23 15:9 22:17 28:5,20 42:2 47:3 52:25 53:2 57:2 61:15 142:2 143:1
provides 17:20 147:20
providing 14:6 29:10
proximity 48:14
public 3:14 7:4 25:4 48:5 55:17 56:2 56:11,13,13,16,25

57:2,3,5 58:10 59:10 61:12 104:21 118:2 125:19,24 126:4 126:13 139:3,7,13 139:23 144:22,24 147:11,14 148:7
publication 75:20 75:21
publicly 44:20
published 28:19 30:6
pull 79:22 90:10
pump 94:3
pumping 94:2
purposes 45:7 60:5 124:6,7
push 90:8
put 4:3 23:22 24:10 53:15 55:2 64:21 64:23 82:14,16 89:8,12,24 90:7 90:10,12 92:20,22 99:16 111:24 129:24
putting 66:11,13
p.m 61:7 128:21 149:7
P.O 2:10

Q

quadrangle 75:15
qualified 146:18,19 146:21,22
qualitative 22:6
quality 12:19 13:7 16:6,10,17,19,24 17:20,20 18:4,9 24:25 25:5 26:16 26:20 31:19 51:13 54:11,18,21,25 79:2,6 80:11 81:17 85:2 96:20 96:25 125:7 133:9 143:16
quantify 24:14
quantitative 22:6
quantities 36:20 132:3
quantity 13:3,7,8 13:21 16:24 29:8 73:14,23 74:5 81:17 133:9
quarterly 13:16
quarters 82:6
question 15:3 35:5 53:1 63:5,6,11 71:18 78:7 80:12 98:4 101:7 102:11 102:12 105:18 109:21 118:11 124:5,8 133:24 144:20 147:1
questions 62:17 87:18 118:5
quick 70:12 115:18
quicker 86:2
quickly 81:24,25 87:17,22 106:1,2 109:9,10 113:15 141:10
quite 18:7 83:21 119:12
quote 6:22

R

raise 8:1,4,7 27:25 47:25 55:4 118:6 118:10 133:24
raised 6:16 7:19 15:3 33:8,12 40:2 42:15 47:18 49:20 50:3,23 55:10 59:2,6,22 60:2 63:4,6 74:17 78:8 118:11 129:2,15 130:12 134:18 135:10,16 136:9 137:10 139:6,6 140:2,6 141:10
raising 24:18 33:25 60:16
rancher 11:21
range 29:1 39:19 41:8 47:7 68:20 75:16 76:3,4,10 76:11,17,20 77:5 99:16,22 100:6,12 122:8 132:17,18 132:20 136:4,6 146:5
Ranges 112:16
raptor 50:8 51:1
raptors 50:25 121:10,11 122:16 137:10
rat 71:8
rate 37:20 142:20
rates 13:9 14:24
rather 6:12 8:1 33:18,21 41:24 119:22
reach 24:8 59:7 76:4 94:9
reached 93:20
reaching 23:21
read 68:16 69:3 131:25 147:15
reading 147:21
readings 96:17
reads 139:13
real 87:22 95:21 106:1 109:10
reality 65:7 74:19
really 4:13 14:23 27:8,25 36:1 57:3 65:23 66:15 98:24 103:3 110:19 115:14,17 120:18 121:23 122:12 131:8,11 139:9
realm 12:21 95:19
reason 25:7 26:1 49:18 53:21 88:23 127:12 130:15
reasonable 27:13 28:8
reasonably 97:25 99:15
reasons 33:19 70:14
recall 43:5 103:15
receding 92:8
receipt 6:3
receiving 6:13 94:17
recent 14:20 52:22
Recess 61:7 128:21
reclaimed 42:23
reclamation 3:12 20:5,9 30:21 34:5 34:17 35:5,7,10 35:17,25 36:7,13 38:11 42:14,16,17 42:25 51:16,23 57:14 58:25 59:7 90:12 105:24 107:6,9 109:1 123:14 124:20 127:25 128:1 138:16
recognize 24:18 27:23 52:20 58:21 134:20
recognized 48:3 49:11 51:25 85:19
recommendation 54:24
recommended 113:3
recommending 121:8
reconfirm 144:2
record 3:21,23 4:11 4:16,20 5:13 24:11 30:3 33:11 43:2 61:9,23 62:1 62:10 70:24 75:25 76:15 87:14,16 90:22 101:6 102:4 102:6 103:12,17 103:22 104:9 110:17 120:12 123:23 128:23 131:25 145:16 149:6
recorder's 147:24
recovered 109:12
red 138:19
Redden 16:11,13
redone 145:12
reduce 23:16
redundant 118:1
refer 5:2 11:7 46:1 51:21 141:12,25
reference 7:21 18:24 95:3 112:2 112:3,5 115:3 117:25
referenced 61:21 95:15 117:24
referred 10:25 11:20 13:5,22 16:23 22:3 88:2,3 88:4 122:8 146:8
referring 11:3 13:12 23:2 44:3,4 75:7 136:3,4,6,7 145:8
refers 19:4
reflect 34:18 35:9 36:15
refuse 19:14 66:14 88:4,6,20 89:3 90:1,2,10
regard 17:10,22 20:19 105:13 109:7 123:19 140:6 143:13 148:9
regarding 6:16 9:10 11:21 38:18 49:1 50:4 62:3 73:16 78:8 93:4 96:12 102:11 103:2 104:6,16 105:24 111:2 118:21 119:24 121:10 125:11 126:1,12 126:18,19 140:3 141:14 142:6,11 142:23 143:5 144:8 145:19 146:16,22 147:2 147:10,13 148:10 148:19
regardless 7:5
regards 135:19
region 95:22
regional 10:17,25 13:5,12 14:7 15:19 16:7,20 21:24 23:3 26:16 27:10 28:11 29:1 39:9 71:14 75:12 77:8,22 122:4 131:8 132:14,16 141:24 142:1,3
regraded 21:16
regrading 20:13
regs 118:14
regulation 73:22 85:3 103:25
regulations 41:22 44:10,11 45:23 51:22,22 55:15 59:6 92:16 96:23 103:8 125:18
regulatory 11:15 22:20 59:3 92:14
reiterate 134:8

relate 11:10 30:15 53:17 144:3,5 147:7
related 16:3 18:21 81:7
relates 35:3,7 50:23
relating 77:13 124:3
relationship 64:13 67:13
Relative 110:23
relatively 70:18
relevance 17:9
relevant 25:3
remaining 25:20 107:17
remarks 108:8
remember 116:22
remind 59:14 148:4
remove 89:8,10
removed 28:15 144:4
renewable 41:14
renewals 56:18
repair 32:15 34:11 34:15,24 35:2 105:19
replaced 36:6 37:3 37:11 109:14
replacement 119:22
replies 141:2
report 5:15,16 17:10 29:2,22 30:2,5 64:9 65:3 129:22 144:1,7
REPORTED 1:11
reporter 4:12
reporting 9:20
represent 17:13 18:1
representation 69:4
reptiles 116:14,16 117:11
request 11:3 12:25 25:24 63:17 139:5
requested 66:21 128:6
requesting 6:13
require 8:12 12:3 12:19 13:6,15 18:12 25:25 38:17 40:3 41:13,23 44:11 47:11,16 50:24 51:14,17,22 57:20 59:6 60:13 96:20 136:15 138:15,24
required 6:10 7:2 8:13 9:12 11:22 12:9 13:19 18:17 20:8 27:7 38:1,6,9 47:11,18 73:23 113:1 117:8 123:1 131:10 138:10 145:21 146:4
requirement 35:6 36:24 111:10 118:7
requirements 96:16 111:6,8,15 122:18 125:23 142:12 143:16
requires 10:12 85:4 104:1
requiring 87:10 142:8
researches 124:25
residential 137:17
resolved 8:1
resource 10:6 15:13 31:9 32:13,20,23 40:25 41:15 45:11 46:11 58:21 67:7 142:8
resources 1:1,8 11:19 27:15 28:6 29:13 32:23 37:25 38:2,12 39:2,5,24 39:24 40:9,15 48:2 52:20 53:12 53:25 110:6 112:9 121:21 136:17,19
respect 96:5 104:5 109:23,24 111:11 123:10 124:24 126:1 128:3 141:11,22 143:24 146:17 148:3
respond 62:16 63:3 63:10 110:19 129:1 131:6 141:9
responds 41:20
response 11:2 26:9 61:15,17,19,21 96:19 129:5,11 132:5 135:17 142:15,16,22 147:1
responses 108:20 141:2
responsibilities 137:6
responsible 110:9
rest 64:14
Restoration 52:8
restore 38:11 51:13 51:23 59:12 124:21
restored 44:12 51:18 52:15
restrictions 50:15 104:3 120:25 121:3,8
resubmitted 60:4
result 26:10 28:17 31:12 39:11 49:4 66:7 145:3
resulting 119:22
results 9:20
resume 61:5 141:13
return 6:3 105:21
returned 52:17
revealing 74:10
review 7:4 8:3,6,19 9:24 10:3 25:4 33:11,20 40:5 52:24 58:9 59:25 129:25 148:19
reviewing 39:14 51:5 60:9
revised 36:14 127:11 145:10
revision 5:10 55:7 125:11
right 3:25 4:12 10:11 24:11 32:6 43:4,18,19 44:3,5 47:2,2 55:5 58:10 69:14 71:25 72:2 72:10 75:8,23 76:3 78:1 80:5 83:11,12 84:5,7 84:13 85:21 86:20 90:21 91:7 93:10 93:18 104:22 105:14 106:20 107:11,15 108:9 109:2 110:1 113:14 119:24 123:4 130:16 134:15 135:4,14 138:3,5,20
rights 102:24,24 105:14,17 147:4,7 147:7
right-of-way 59:15 59:17,19 103:12 103:15 120:11 126:15 128:4,5,6 128:10 135:8 140:12 148:10,11 148:13
riparian 38:20 46:18 110:23 135:19,21,24 136:4,11 146:17 146:20,23
rise 71:9
river 23:9,10,10,13 23:14,17,21 41:8 75:2,18 76:5,6,13 76:18 77:1,2 83:20 93:20,22 94:5 95:12 105:5 115:8 123:12 126:23 132:21,21 136:10,11 143:20 146:5
road 48:12 50:3,5 50:10 53:14,14 56:9 57:8,9,10,12 66:11 110:12 117:18 119:25 120:1,3,16 121:2 121:2,17,24 126:2 126:3,4,4,7,8,13 126:13,17 136:23 139:23,23 140:3,3 148:3,6,7
roads 126:12
Roan 112:16
rock 19:2,5,8 64:10 64:21,25 65:4,9 66:3 87:25 88:2 88:15,20,25 89:11
Rocky 112:19,22 113:6
roll 98:10
Ron 5:17 41:2 129:23
room 3:25 48:5 86:9 86:9 148:23
RPR 1:11
rule 9:11 10:11 13:15,19 27:7,17 33:22
rules 3:13 4:7 8:14 11:10 12:1,25 13:6 18:17 19:2,6 33:18,19,24 34:1 37:25 38:17 41:13 41:13 45:8 51:14 55:21 96:19 130:10 131:10 134:11
run 14:18 26:9
running 15:15
runs 80:23
R645-100-200 73:25
R645-301-724.100 142:4

S

safe 21:11
sage 111:23
saline 23:11
salinity 23:1,14,16 93:19,22 94:5 95:4,11,21 115:15 133:22 134:3 143:5
Salt 1:9 2:18
salts 23:12
salvaged 37:2,17
same 19:20 20:19 36:10 39:16,20 45:22 47:5 50:6 60:6,6 65:14 66:17 67:1 90:1 100:10 106:5,15 106:17 112:4 119:1 130:14 131:12
sample 16:17 73:1 79:12 92:3 94:13 133:10
sampled 13:23 14:1 14:2,3 17:18,19 65:24

samples 9:12,19 12:19 65:24 79:9 80:7 97:2,5 133:4
sampling 65:17,17 65:21 71:3 72:24 131:19
sandbagging 86:10
satisfied 143:4
saturated 11:4,4 13:3 16:6 26:17 27:9 28:12 68:8 68:11,12,23 73:14 73:16,20,24 74:6 74:18,21 76:12,24 78:22 79:2,7,9 86:23,24 93:25 96:21,21 97:6,11 97:14 98:5 100:5 131:23 132:6 141:24 142:7
saying 35:8 36:19 45:19 48:19 52:3 71:15 73:6 92:15 121:19 130:24
says 4:2 19:13,15,16 20:24 72:8
scanned 83:1
schedule 58:5,6,8 58:18,20 108:15 127:7,8,11,14,17 127:18,19,20,21 128:16
science 11:23
scientific 58:3
scientifically 12:21
scores 56:17
Scott 1:11
scrutiny 48:1
seam 9:16 13:11 63:23 64:18,23 65:2 99:15,17
seasonal 10:15 12:5 13:7,20,21 14:5 68:22 74:11 131:9 131:21 142:14
second 17:3 22:25 67:5,6,7 92:3
section 28:22 40:6 40:19 50:14 57:23 77:9,19 89:7 95:13,16 99:12,20 99:23 101:18,21 101:22 102:11 115:22 144:16,16 144:18
sections 10:12 88:12 89:4,5,6
sediment 22:15 91:8 143:8
sedimentation 91:2 91:3
see 3:24 9:2 30:15 33:14 47:22,23 61:19 68:19 69:5 72:10 74:1,22,24 76:16 80:4 82:7,8 82:18 83:6,9 84:5 84:19 85:12 86:15 86:17,17 88:2,3,3 101:24 120:21 131:4 133:3,21 134:7 135:9 136:22 137:25 145:19 146:16
seed 90:12
Seeing 4:6
seem 21:11 71:13
seemed 88:9
seems 37:5
seen 56:20 74:20
seep 17:1,3 18:10 40:5,11 67:18,20 67:21,24 68:6 81:20 84:19 86:4 86:6 113:11
seeps 17:6,11,24 18:2,7,13,15 25:14 29:9 40:17 41:7,25 42:6,7 46:13 47:13 49:10 49:12,13,15,17 67:17 68:5,14 83:5,9 84:4,7 87:7 87:11 119:18 133:7 136:7 146:6 146:8,11,12
segues 120:23
selected 41:3 84:24 84:25 85:12,13 87:8,8
send 6:1
sense 56:16 93:12
sensitive 34:19 35:11 41:4 46:24 111:16 114:21
sent 5:19 6:2 95:6
sentence 119:1
separate 89:25
separately 29:14
series 56:17
serious 136:24
serve 74:3 132:8
serves 84:20
Service 133:23 134:5 143:6
set 61:10 85:23 105:2 107:16,24 115:7 123:11,14 125:5
settling 92:3
seven 10:8 13:24 85:11
seventeen 79:18
several 19:10 23:8 27:6 96:8 97:1 102:13 107:25 112:16 126:25 128:7
shading 43:22
shafts 64:24
shale 23:8,11 64:19
share 50:6
shares 48:6
shed 131:7
sheep 48:9,24 49:1 49:14,19 113:7 119:8,13
sheet 90:21
shop 88:24
short 9:17
show 65:12 69:5 74:23 76:2,9 80:13 88:7 96:18 97:22 119:12
showed 82:5
showing 10:13 28:22 70:15,18 71:22 88:12
shown 14:20 74:13 97:12 100:24 115:11
shows 45:21 64:12 67:12,14,15 68:13 69:2,3,21 74:9,11 75:6 83:1,7 87:6 88:11,19,19 89:7 89:9,11,13 96:8 109:11,13 142:13
SHPO 53:5,24
shrub 112:3
shut 4:13
side 72:10 81:12 90:9
signed 72:23
significant 5:9 7:16 55:7 103:11 125:11 145:15
similar 28:23 70:16 121:8
Similarly 104:5
simply 21:9 55:25 60:3 62:16 78:19 104:17 113:6 127:2 130:24 144:5 147:20
since 7:10 139:19
single 16:17 69:4 85:8
sit 85:25 94:9
site 15:15 25:22 42:22 48:15 72:1 72:2,16 85:21
sites 125:5
site-specific 38:17 46:11
situation 119:21
six 7:15 14:15 59:24 76:19 81:21 96:8 133:7
size 86:16
slightly 70:20
slope 19:5,8 64:25 65:10 66:4 69:16 70:10 87:25 88:2 88:15,20,25 89:11
slopes 64:21
sloughing 71:7
slower 86:16
small 56:19 112:21
smaller 87:15
Smith 16:12 142:5 142:25
smoke 85:24,25,25
snake 47:19
SNELL 2:16
snow 26:9
soil 90:6
soils 36:16 109:6,11
Solicitor 105:4 124:13
solids 23:7
some 7:22 8:20 9:23 10:20 11:21 15:20 17:9 19:15,16 23:15,20 24:7 27:25 28:19 29:3 29:4,21,24 30:13 31:14,20 32:5 36:18,19 37:3,5 37:21,21 45:15 48:23 49:20,22 53:17 55:18 63:16 70:17 78:14 85:9 89:1,1 97:19 99:20 129:2,8,20 130:13 132:5 133:13 140:25 141:1,1,10 144:4 148:8 149:1
somebody 4:1 35:1 72:23 139:12
somehow 147:12
something 20:23 65:13 72:22 103:3 106:11 107:18 119:4,9,22 122:22 140:23
sometime 34:21 58:15
sometimes 19:5
somewhat 10:7 35:4
somewhere 107:7
sooner 58:15
sorry 14:1 67:3 70:25 72:13 73:3 74:15 123:24 147:6
sort 15:11 19:11 20:1,19 31:18 53:20
sound 4:15 11:23
source 16:25 17:3 26:18 40:16 74:4 113:10 132:9 133:2,16 134:9
sources 16:9,15 29:6 38:20 40:5,5 40:8,11,12 42:4 46:13,18,21 52:11 67:22 68:7 74:2

84:18,18 119:11 132:22 133:1,16 134:13
south 2:17 64:6 67:2
southern 2:7,9 4:22 4:24 63:8 123:21 127:13 141:10 143:25 144:11
Southwest 46:22 113:25
Southwestern 113:17 114:7
spalling 48:18
spare 60:19
spatial 68:18
speak 4:9,14 67:3
special 38:18 47:5 96:24 114:23 116:13
species 38:12,18 42:3,20 46:25 47:6,9,17 50:8,8,9 50:24 51:2 110:7 111:16,19 112:17 112:18 113:22 114:12,21,23 115:10 116:2,19 116:25 117:2 118:8,16 120:17 121:15 122:16
specific 20:13 24:12 33:18 34:1,1 59:3 74:2 77:12 104:10 118:7 120:7 122:10 132:3,7,15 132:18 134:10 143:21
specifically 12:8 27:18 28:10,18 59:18 63:23 74:11 103:9,16 104:7 112:19 114:16,17 121:5 123:10 125:3 144:19 145:16
speculate 140:23
speculative 94:8 124:17 127:9 143:13 147:13
speed 140:18
spent 86:13
splays 81:7
spoke 107:25
sporadic 14:4
spot 67:22
spread 19:17
spreadsheet 71:22 88:11 109:2
spring 16:11,13 17:1,3,15,17 26:10 40:11 67:18 67:20,21,24 68:6 84:19,25 85:14,15 85:16 86:4,7
springs 17:6,11,24 18:3,8,14,15 25:14,18,20 29:9 40:4,17 41:8,25 42:6,7 46:13 47:13 49:11,12,13 49:15,17 67:12,13 67:17 68:5,14,18 83:5,9 84:4,8,20 84:21 85:13 86:20 86:24 87:7,11 113:10 119:10,18 133:8 136:7 146:6 146:9,11,12
square 14:13,15
SR-6 48:13
staff 110:24
stage 12:16
stand 8:12 131:15
standard 43:1 92:4
standards 92:7
standpoint 119:3 122:2
stars 80:6
start 8:17,21 18:16 18:16,22 58:14
started 3:5 70:19 80:24
starting 36:17 51:7 127:22
starts 98:2
state 1:2 52:10,21 52:24 68:20 86:13 94:15 112:17 116:17,17,18 122:4,4 133:5 143:16 146:2
stated 6:5 10:16 20:22 29:21 39:12 41:18 44:20 124:2 130:17 131:16 133:14
statement 47:21 58:23 98:18 104:22 127:8 135:19,20 140:10
states 20:9 27:18 32:16 36:3 46:17
station 31:17
status 38:18 47:5 114:23 116:13
stay 128:6,7 140:12 148:11
stayed 128:11
stays 106:14
steed 94:21,24,25 114:25 115:2,21 116:8,10,16 118:7 118:14,24 121:13 133:22 141:14
stick 108:14
sticks 86:8
still 37:5 55:13 59:15 96:18 110:14 133:15 140:14,15 145:4
stockpile 89:25
store 132:2
stored 37:10,18
storms 26:11
straight 69:6
strata 9:15 132:2
stratigraphy 15:25
stratum 13:11 15:5 16:1 132:1
Stream 92:21
streams 12:11,14 29:10 47:8 94:7
Street 86:11
stretch 61:2
strictly 102:1
stringent 66:8
strip 90:6
strongly 22:11
structural 19:16 21:5,16 88:22,23
structure 66:25 91:2 99:16
structures 31:22 80:13
studied 120:25 145:21
studies 68:5 94:4 145:22
study 32:1 43:11,23 102:18 103:19 123:9 145:3 146:5
stuff 83:12
sub 31:17
submission 10:12
submissions 24:20
submit 8:12 12:4 13:6,18 23:25 38:21 39:22 47:11 47:17 60:13 87:15 92:16 102:5 117:19 133:10
submittal 65:22 95:4 116:12
submitted 5:5 6:11 7:12 9:5,22,25 12:1,6,7 16:17 33:15 47:14 51:6 62:20,23 63:7,16 63:17 71:21 82:12 116:11 117:11 125:13 130:17 142:15 147:22 148:17
subpoint 14:22
subsequent 86:16
subsidence 32:15,17 32:19 34:4,6,23 35:2 41:12,14 42:5,12 53:11 84:17 104:6,7 105:19 110:17,18 110:20 125:4
subsoil 36:21 37:6,9 66:20 109:8
substantially 7:11 60:5 69:7
substantiate 23:20 72:23
substation 56:7
substations 53:20
subsurface 10:6,13 16:2 67:7
Sue 8:9
sufficiency 109:7
sufficient 12:4 53:10 57:20 58:25 94:1 99:4 129:6 130:5 132:3
sufficiently 50:1
suggest 142:16 144:6 147:11
suggesting 54:5,9 81:19
suggestion 98:10
suggestions 24:7
suggests 144:11
suitable 113:25 126:24 127:1,3
Suite 2:17
summarize 9:9 111:11
summarized 17:23
summary 59:22
summer 26:11 58:16
sumps 92:2
Sunnyside 63:22,23 80:23 81:1,4,9,12 100:18 101:20
supplemental 52:13
supplied 53:5 99:3
supply 30:9 58:2 74:2 75:11 136:15 138:15
support 38:12 42:7 95:3
supported 120:21
supporting 44:12 44:16,19,24 45:10 45:10,13,24 51:13 51:19,24 52:7 59:13 81:20 134:22,24 135:2,5 137:15,21 138:14 138:14,18,22
sure 30:2 60:25 101:13 108:13 120:21 127:10 145:7,20
surface 11:19,21 13:14 14:8,9,17 19:25 22:12 23:4 26:6 28:6 30:22 31:11,16 32:11 34:11 40:24 43:7 53:8,9,18 56:6 57:7 58:11 59:20 64:18,24 69:12 74:12 78:18,21

82:9 96:11 97:14 97:22 98:2 100:1 100:4 101:5,8,14 101:16 104:13,14 110:11 111:22 121:18,20,24,24 139:19 145:17,23
surroundings 19:18
survey 17:4,20 28:22 29:5 30:9 47:17,22 110:10 110:16 111:17
surveyed 47:20 53:16 110:7,21 114:22
surveying 111:6
surveyor 57:4 139:16
surveys 17:1,22 32:7 39:22 46:25 47:1 110:13 132:24
sustaining 59:8
SUWA 59:5 60:16 78:8 81:18 84:3 84:13 87:1,3 88:9 92:12 93:19 98:23 102:13 103:24 105:10 107:23 108:11 121:8 123:24 125:7 127:2,21 128:5 139:4,6,10 140:6 141:25 146:8,18 147:5,11,15
SUWA's 18:22 29:23 62:4 63:15 109:2 110:19 127:8 143:12
system 23:14 40:17 115:16 133:13,17
systems 58:3
S-24 64:5,12
S-25 64:5

T

TA 23:25 40:6
Tab 90:24
table 4:22 23:22
take 7:6,20 11:6,24 35:10 45:16 61:22 66:17 70:12 89:8 90:8 95:23 100:10 101:19 107:16 121:4 128:18 131:2 136:24 142:16 147:25 149:2
taken 1:8 61:7 73:1 80:8 97:1 99:10 128:8,21 142:21
taking 11:12 65:9 72:23 104:12
talk 25:7 93:6 94:5 118:25
talked 111:5 133:23
talking 4:16 15:2 42:22 46:7 92:13 134:3,16 139:12
tasks 28:3 36:7,13
technical 8:3,6 9:2 10:3,9,23 24:7 51:5 58:9 59:25 60:11 127:10 129:17,25 138:11 141:5,21 148:19
techniques 12:15,18
technology 12:22 38:7
tell 29:25 70:10 97:21 101:12
Temple 1:9 2:17
temporary 49:7
ten-minute 107:18
term 11:5 19:1,5
terminology 18:24 45:22
terms 5:8 10:5 11:18 14:6 20:20 24:21 28:2 33:17 33:21 34:5,17 39:17 40:14 44:1 45:7,17 46:5,12 47:13 49:21 50:19 54:6,25 57:6 68:8 68:10 93:18 113:16 127:7 131:12 137:6 138:20 139:8,9
Terrific 62:12 94:20 108:22
test 9:12 66:8 94:12
tested 20:21,23,25 21:8,10 67:1
testified 96:12 141:14 143:7
testifying 100:19 125:25
testimony 142:2
testing 21:16 65:12 66:7,23
thank 4:23 5:23,25 30:11 45:4 60:17 61:13,24 62:12,14 71:16 73:12 75:24 76:21 83:23 93:13 96:1 102:3 108:22 113:13 128:14,25 139:1 140:24 141:5,7 143:23 148:20,25 149:4
thanks 22:23 30:7 46:4 63:12 81:15 92:25 98:6 102:9 118:18
their 12:12 28:2 40:5 45:8 51:21 51:22 52:15 61:11 62:5 94:16 95:12 95:18,19 108:20 108:20 113:24 129:5,11 130:5,22 147:16
theoretically 112:7 112:21 114:13
thereto 81:7
thing 4:11 70:21 71:14 74:16 94:16 130:2,11 131:5
things 31:17 53:20 63:16 73:5,5 77:9 129:24 138:4
think 3:6,18 8:24 10:10 15:7,8 21:9 23:21 24:16 40:13 43:6 44:7,22 45:12 46:2 47:20 49:5,6 52:2 54:15 55:18,20 56:3,12 56:15 57:5 65:21 66:20 70:4 73:18 78:9 79:4,24 86:9 92:13 93:8,23 94:20 96:2 100:8 109:6 110:2 112:25 113:15 114:10,18,20,25 116:14 117:11,25 118:19,24 120:5 128:18 131:12 133:21 134:14,25 137:6 138:1,7,9 147:12 149:1
thinks 126:16 145:7
third 14:22 92:7 95:7 110:3
third-party 95:1
Thirty-five 136:22
though 27:17 36:11 79:6,23 87:12 119:3 138:11
thought 107:24 108:2,4
thousand 83:18
threatened 41:4 46:24 111:15 114:21 116:2 117:3
three 7:12 9:23 10:8 10:22 14:1 16:11 16:15,15 19:19,20 20:25 21:20 25:10 25:19 35:22 48:14 56:4 65:21 86:13 96:13 97:23 113:11 140:20
through 5:7 8:17 13:17 14:18 15:15 23:9 28:22 30:19 38:15 64:18 73:19 74:6 77:3 87:18 87:21 96:14 98:21 108:20 110:11,14 110:17 111:23 113:16 115:23 126:11 131:18 145:5
throughout 32:24 60:15 61:21
thunder 26:11
tie 97:5
tied 39:1 40:16 46:9 46:12
ties 37:12 42:15,21 49:19 52:9
time 3:9,16 4:4,8 8:17 23:22 44:18 47:2 50:14 51:1,8 56:18 58:14 60:19 61:10 67:19 69:9 70:18 85:23 90:1 106:22 107:15,17 108:6 120:25 121:3 122:10 128:14,15 129:7 129:19 137:20 140:18,22,22 148:15 149:5
times 7:15 20:25 55:10 56:4 59:24 65:21,23,24
titled 65:3 75:8
today 5:3,5,13 6:6 7:25 8:24 11:19 18:15,16 31:13 59:23 60:8,16 62:13 82:15 125:25 129:14 130:13,13 136:9 141:14
today's 8:4 33:11
together 19:11 36:22 82:15 142:21
told 5:25
tons 89:17
top 4:16 78:21 83:4 88:24 89:14,15 90:6,11 100:4
topic 5:8 9:6 33:21
topics 5:10 27:7
topographically 28:23
topsoil 20:12 36:6 36:21,24 37:2 66:19 89:8,9,15 90:6,7,12 109:8 109:12
total 23:6
totally 112:12,13
touch 7:24 135:9
touched 8:24 30:24
touches 76:5
toward 81:2
township 68:19
toxic 63:5 64:1,8 65:25 66:1,2,5,6 66:21 88:7,8
toxic-forming 9:8 9:10,14 20:4,16

21:8,12 27:19,21 63:10,14 65:7,8 98:11,20 142:23
tracking 139:11
traffic 120:15 121:5 121:6
Trail 144:1,4
transmit 132:2
transplanted 119:7
travel 120:20
treat 65:14,15 66:4 66:17
treated 19:21 21:13 21:14 45:18 65:25 88:6
treating 65:6 88:8
treatment 20:2
trend 80:15
trending 80:13
trouble 55:25
Truck 120:24
trucks 50:16
true 7:10 45:20 47:5,12 95:21
truly 113:25
truth 15:5 70:11 101:12
try 9:3 129:20
trying 43:5 74:24
turn 4:21 32:22 54:19 69:11
turning 62:15 71:17 73:13 102:10 108:23 137:3
Turtle 34:8 104:18 104:24
Twenty-nine 46:15
Twenty-seven 93:11
Twenty-some 89:21
twice 13:24,24
two 10:22 12:10 13:16 17:1 21:19 30:12 35:21 36:6 36:12 61:17,20 64:4,6,21,23 65:3 67:2 70:15 71:14 71:18 74:8 84:13 84:17 85:12 90:5 90:8 91:4 102:19 106:13 110:24 111:21,21 148:23
type 109:4 112:10
typed 72:17,18
types 64:10 65:4 111:22
T&E 111:16

U

UDWR 116:23 122:1,3,15
UEI 6:12,14,22 7:9 8:12 9:5,22 12:3 12:25 13:18 14:7 14:14 15:14 16:16 16:22 18:8,13 19:4 21:21,22 22:1,5 24:24 25:13 26:19,25 28:5 33:15 34:8 34:14 35:23 38:6 39:21 41:17,24 42:10 47:11,14,17 51:6 53:2 57:20 58:10 59:11 60:3 60:13 62:22 63:17 65:5,9 68:4 70:3 74:5 85:12 94:12 122:15 123:5 129:2,3,21,22 130:12,17 131:6 132:4 134:17 135:18 136:15 138:15,24 143:1
UEI's 7:16 11:2 24:3,20 58:8 66:21 73:6 79:7,8 96:5 121:2 132:12 141:2
Uh-huh 79:19 98:13
ultimate 21:6
ultimately 23:10 118:4 145:3
umbrella 118:15
uncertainty 37:6
unclear 19:21 20:20 21:14 37:15
under 3:13 6:6 8:13 8:13 9:6,11 11:18 11:22 13:19 18:17 19:1 27:7 30:12 30:14 32:11,15 33:12,24,24 37:25 40:19 42:14 45:8 46:10 48:1,19 49:3 51:7,8,11 52:18 55:7,21 85:24 92:21 95:13 96:10 105:14 113:20 115:13 116:21 118:14,16 123:1 124:14,20 125:6 127:24 131:4,10 132:23 138:8 142:19 143:15,16 144:16 144:16,18 147:5
underground 19:3 19:3 31:19 43:10 65:6 80:7,10,25 101:5,9 121:22 145:24
underneath 43:10 43:12
understand 4:15 12:12 24:11 98:3 99:6 139:17 145:20
understanding 6:21 11:22 14:6 27:8 37:20 113:2
understood 27:16 39:3
undesirable 49:24
undoubtedly 48:16
unfortunate 15:8
Unfortunately 60:3
uniform 14:8
uniformly 14:8
unique 38:19 42:7 47:15 49:14
unit 34:10 104:18 104:20,25
units 104:23 105:12 124:8,9,10
unless 57:3 92:6 117:2 139:14 143:13 148:11
unlikely 143:10
unquantified 23:15
unrealistic 14:10
unrelated 15:24
unsuitability 126:19,19
unsuitable 57:24 58:1
until 9:1 97:21 105:8 107:16 145:6
unusually 38:19
updated 35:23 46:25 145:5
UPDES 22:4 24:21 90:14,16,19 91:1 92:4,5 94:14 96:3 143:15
upgraded 57:12
upgrading 110:12
upheld 126:6 148:4
upper 16:22 76:5,5 76:12 86:21,22 115:7
upstream 95:10
up-thrown 81:11,14 81:15
up-to-date 25:3
usage 13:10
use 5:10 30:21,25 38:6,13,13,14,15 42:17,19 44:8,13 44:17 51:9,24 52:18 54:18,24 59:1,9,12 74:2,3 84:21 90:4 96:24 102:17 103:25 104:24 106:12 112:1 115:13 121:3,20,24 122:1 122:6,20 123:2,4 123:4,6,18 124:10 127:3 132:3,7,8 132:15,18 133:25 134:10,18,19,21 134:22 137:12,14 138:4,14,17 144:25 145:5 147:2
used 19:15 21:15 95:8 105:11 130:12
user 57:16
users 95:11 115:8
uses 11:14 35:19 51:18,20 52:12 102:16 103:3 122:25 123:2,11 123:11,16 124:12 124:22 134:15
USGS 30:1 144:1,7
using 8:17,18 11:5 45:22 66:10 89:18 121:1
usually 107:9
utah 1:2,5,9 2:7,9 2:11,18 4:22,24 24:25 25:5 41:4 62:17 63:8 86:13 94:21 110:5 112:14 113:4 116:17,18 123:21 124:4 127:13 141:11 143:25 144:11
utahamerican 2:13 6:11 57:13 61:10 61:15,16 62:19 96:3 97:1 99:3 103:13 105:13 120:1 125:8,12 142:1,9 146:4,20 147:6 148:16
utilize 112:23
utilized 119:19,20
U.S 28:21 29:5 30:8 95:5 111:14 113:20 114:5 143:18

V

valid 12:21 102:23 102:24 105:13,17 138:3,4 147:3,6
value 38:19 63:20
values 31:9 32:13 32:20 52:14 58:3 104:11 105:22
variation 12:5 68:22 69:5 131:21
variations 74:11 131:10 142:14
various 5:10 47:13 57:22 64:9 65:4 95:9
vary 106:17
vegetation 39:6 41:6,18,20,25 42:16 67:23 109:24 111:17 145:22
vegetative 32:23

37:24 38:2,21 39:24 40:9,14,20 40:24 42:7 109:21 111:22 136:17
vehicles 50:15 120:24 121:1,3
vehicular 121:5,6
vein 100:10
venting 31:17,22 53:19 56:6
Verde 73:21 76:23 96:22
versed 139:15
version 87:16
vertical 10:14 68:13 68:15
very 20:22 34:2 48:14 61:9 78:13 84:18 86:2,3,14 94:16 106:2 113:9 113:9 120:21 139:15 140:21,22 143:10 147:12
viable 113:9
vicinity 48:17
view 68:18
Virtually 112:13
visiting 72:15
visitor 72:9
visits 85:11
vita 130:5
volume 20:6 37:10 61:19 104:8 109:14
volumes 19:22 61:17,20 89:18 94:1 109:14

W

W 2:8
WADE 2:15
waived 95:20 115:11
waiver 63:18 66:22
walk 131:18
wall 71:7
want 4:9,11 7:6 13:1,17 33:25 35:15 60:23 61:1 62:18 68:19,20,21 69:11 70:23 72:9 76:2,7 81:23 82:19 88:21 97:8 107:19 108:24 109:8 118:22 121:10 122:21 127:16 131:24 133:24 145:20 148:3
wanted 48:15 73:15 76:9 81:16 108:14 118:4,6,10 133:5 134:8 140:16 141:9,12
wanting 27:25
warehouse 88:24
warrants 68:2
wash 12:10,23 22:3 26:8 72:14
washes 71:19
wasn't 98:15 119:2 119:11 121:23
waste 18:21,25 19:1 19:2,4,12,14,20 19:21 20:3,15 37:13,15 65:6 66:18 87:18,20,22 88:3
watching 86:1 139:11
waters 39:11 41:9 68:1 94:17
water-bearing 10:22 13:11 16:1
way 64:19 65:14 68:3 78:17 83:16 99:21 107:15,24 115:25 147:16
ways 19:20 83:21
weeds 42:19
weeks 58:13 86:14 108:1
weigh 118:4
weight 62:7 148:8
weights 19:22
well 4:23 5:14 7:7 10:4 11:2 39:25 42:17 45:9 49:8 57:15 61:3 65:3 70:12 71:7 72:4 76:5 78:13,24 82:9 92:1 93:4,5 95:1,22 106:25 110:7 112:6 114:9 115:13 116:17,23 118:25 121:13 122:4 126:17 128:25 134:16 135:21 138:6 139:14,15
wells 13:22 14:13 14:20 15:20 16:11 16:16,18 26:21
went 64:18 91:11 99:15 119:4
were 3:17 7:23 9:19 9:21 13:23 14:2 15:2 30:1 31:23 33:8 36:23 51:10 51:19 63:4 64:7 64:21,23 67:18 69:3 72:15 73:7 73:11 83:5 84:17 86:10 88:13 92:13 96:13 100:19 107:20,22 110:13 110:20 112:4,16 112:16,18,22 113:3 116:3,14 119:6,8,9 120:4,5 121:11 124:4,8 126:8 129:2 134:3 134:15 137:5,10 142:14 145:21,21 146:9 147:17
West 1:9 2:17
wet 67:22 86:14,14
wetland 110:23 146:19,23
wetlands 146:17,25
we'll 3:18 4:3,3 5:23 7:20,24 8:19 11:6 25:7 29:13 30:19 44:8 61:22 76:1 78:25 90:6,7,7,12 92:1 102:4,7 149:2,5
we're 4:11 6:6 8:9 10:7 13:12 19:7 19:18,21 27:24,25 29:15 30:21 31:18 32:19 37:15 39:13 39:14 44:3,4 51:7 55:12 60:8,10,11 62:15 66:4,12,17 66:18 78:22 82:4 87:2,5,11,15,17 87:23 88:8,13,14 88:15 89:8,10,24 89:25 90:3,4 93:25 100:14 110:14 115:14,14 115:15 122:11 127:12 129:15 130:9
we've 5:15 29:2 41:2 47:18 48:2 49:20 55:10 61:15 66:11,13 73:18 92:9,20 96:2 98:21 99:10,11,16 109:7 113:15 123:7 126:14 142:17
while 98:9
WHITE 43:13,17
whole 74:16 90:1 144:15,21 145:5
width 90:5,5
wilderness 2:7,9 4:22,25 30:23 31:25 32:1 34:6,9 38:16 42:24 43:3 43:8,9,11,21,22 43:23 44:2,2,6,14 44:22 45:1,6,25 46:1 51:14 52:1,6 52:13 59:1 62:18 63:8 102:12,14,15 102:16,17,18,19 102:19,20,21,25 103:18,19,21 104:6,11,17,18,20 104:22,25 105:7,8 105:12,21,22 122:20,22 123:3,8 123:9,9,16,21 124:9,14,17,23 127:13 128:1,2 134:15,18,19,25 135:3,6,7 137:23 138:23 141:11 143:25 144:8,9,11 144:12,13,14,20 145:2,3,18 147:2 147:8
wildlife 31:9 32:23 37:25 38:2,22 39:6,17,21,24 40:10,14,18 42:21 46:6,14 47:24,25 48:2,23 50:3,7,19 50:20,24 51:10 52:11,13 58:21 95:5 109:22,25 110:5 111:3,14 112:9,12,14 113:4 113:21,24 114:6 115:3,25 116:21 116:24 117:1 118:15,20 119:14 119:20 120:4 121:1,12,21,25 122:6 123:13 133:16,23 134:5 136:17 137:2,3,12 143:6,19,20 145:24 146:3
willing 108:11
Willow 46:22 113:17,25 114:8
WILMER 2:16
winter 122:8
wintering 122:11
witness 24:8
wonder 70:16
woody 111:20
word 91:21
wording 56:24 95:18
words 27:20 132:5
work 28:7 84:14 95:2 99:9 100:9 107:6 110:3
worked 71:1
workers 31:21
working 100:14
workings 19:3 80:16 81:13
worse 25:16
worth 39:7 40:7 54:13 96:8
wouldn't 65:13 94:19 101:19
write 22:6 31:14
writing 7:8
written 54:12 64:9
WSA 34:8 43:14,17 43:23 104:19 124:5

WSAs 34:7 105:12 124:4

Y

yards 20:10 21:3,4 36:4,5,11
yeah 13:2 15:1 35:17 43:6,13 67:6 70:6 71:11 71:17 75:3 82:21 98:5 102:9 106:1 109:10 115:21 116:11 134:16 140:21
year 58:11 62:20 69:10 106:6,13 115:14
yearlong 122:7,8
years 7:13 10:8,22 13:16 35:21,22 63:21,25 71:2,23 74:8 89:21 96:8 106:6,7,13 107:3 113:11 140:20
Yep 18:19
yield 128:15

Z

zero 84:1
zone 11:4,4 13:4,4 16:6 26:17 27:10 28:12,13 68:9,11 68:12,23 73:14,16 73:20,24 74:6,10 74:18,21 76:12,24 78:22 79:3,7,9 86:23,24 93:25 96:21,22 97:6,11 97:12,14 98:5 100:5 131:23 132:1,6 141:24 142:7
zoned 137:18
zones 10:22 38:20

1

1 63:6 88:17,17,18 90:20,24
1A 9:7
1,000 100:5
1,500 84:2
10 20:24 68:24 69:2 82:10 87:18 131:7 131:20 142:11,13
100 115:6,13
11 21:21 71:21 82:10
12 23:1 78:5 82:11 133:21 142:19
12,500 21:4
1200 2:17
13 24:21 96:2 99:23
14 18:2 25:12 96:5 126:5 142:20 148:5
15 2:17 26:6 79:16 79:21 80:9 96:10 105:3
1500 44:2
151 123:21,25
1594 1:9
16 26:14 96:19 126:10 134:7
17 26:22 79:17,21 80:9 98:10
1764 75:9
18 27:22 36:24 37:1 81:22,25 82:4 96:7,13 126:9 143:24
19 17:11 30:14,19 88:11 102:12
1964 102:25 147:8
1976 103:1 147:9
1980s 124:4
1985 17:2 30:6
1991 41:5
1993 17:4
1994 13:24
1995 13:25 17:4
1996 13:25
1998 75:23 110:13
1999 43:8 44:6,21 90:20,24 105:3 124:14

2

2 8:22 13:22 14:12 26:19 68:24 82:8 89:6 102:11 104:8 107:1 109:11 131:5
2N1 80:6
2WB 80:6
2,000 84:3
2,500 84:3
2-3 109:11
2:29-2:35 61:7
2:30 61:6,9,9 107:16
20 3:6 32:15 51:8 104:5
20-acre 20:11
200 17:16
2000 13:25 14:1,3 103:10 106:23,24 110:14 114:4 115:4 145:14
2001 14:2 71:23 72:12 106:25 126:5,9 148:6
2002 1:10 3:2 5:6 29:24 48:7 63:15 72:12,13 95:7 110:15 125:15 141:19
2003 72:12 145:6
2004 58:16
201 144:16
21 1:10 3:2 35:4,15 105:24
21,000 99:24
21.3 95:8,17 134:1
22 5:6,18 7:20 8:18 18:23 29:24 36:1 49:21 51:4 59:23 63:7,7,15 108:23 108:25
22,000 36:11
2259 30:9
23 36:18,22 141:13
24 36:22 48:7 91:22
25 3:6 40:20 64:13 90:24 92:10 96:4 141:19
25,000 21:2
26 41:11 92:10 93:9 93:10 97:3 146:18
27 42:14
28 46:10 82:23,24 82:24 87:15 95:6 111:3 113:16,16 114:4
28-acre 20:11
29 103:22 104:13 120:13 121:9

3

3 13:22 14:13 26:19 36:17 64:11 68:24 69:12 71:18 82:8 108:23 109:6
3.5.2 121:5
30 107:8 114:22 117:9 121:9 125:6 129:3
30-by-60 75:15
300 63:18
301-310 38:1
301-411-130 123:1
31 114:24
321.100 145:22
33 47:24 118:20
338 123:22,25
34 99:23 118:20
35 17:24 50:2 119:24
36 50:15 115:19,21 120:7,24 137:10
37 50:23
38 51:11 137:14 147:2
39 52:8 95:4 114:5 124:20

4

4 13:1,2 20:5 37:13 37:23 40:19 64:12 65:11 66:14,19 73:13 131:22 142:17
4A 40:20
4B 46:5,5
4,704 18:9
4-1 125:2
4-2 105:5 123:15
4-3 125:10
4.6.3 121:6
4.6.4 121:7
4:00 128:14
4:03-4:20 128:21
4:55 149:7
40 107:8 144:4
401 2:10
41 125:1,6
42 125:9 137:25 139:2
43 125:16
44 57:24 78:2 102:5 126:18
44,201 20:10 36:4
45 58:5 76:1,3 77:25 127:7
46 58:22 127:24
47 128:3 140:10

5

5 16:5 17:25 51:7,9 64:16 79:2 133:3
5-7 88:18,19 89:7
5/85 86:7
50 17:23

6

6 16:21 37:4 55:7 64:16
6-13 64:15
6-14 64:15
6-2 64:11
60 85:9
603 144:18
61,000 36:5
624-200 63:18
624.300 9:11
645-301 63:18
645-301-414 52:19
645-303-121.100 125:18

7

7 18:23 57:8 82:10 87:18,23,24 92:11 95:13,16 113:20 115:22 126:1
7-1 14:21 17:23 67:10,11,12 69:1 74:13 79:14,15,24 79:25 80:2,3,5 142:18
7-2 79:13,14,15,25
70 68:5 85:9 87:11
722-100 10:11
724.100 142:12
728-320 27:18
728-333 92:21,23
79 17:7

8

8 19:11 57:22 82:10 104:14 125:15
8-1 35:19
84101

2:18
84535 2:11
85 86:10

9

9 17:11 20:2 67:8,8 67:9 74:15 82:10 142:18
94 5:21
94-page 5:22
98 75:24

ORIGINAL TRANSCRIPT

BEFORE THE DIVISION OF OIL, GAS AND MINING
DEPARTMENT OF NATURAL RESOURCES
IN AND FOR THE STATE OF UTAH

IN THE MATTER OF THE
LILA CANYON EXTENSION,
HORSE CANYON MINE,
CARBON COUNTY, UTAH

Cause No. C/007/013

TAKEN AT: Department of Natural Resources
1594 West North Temple
Salt Lake City, Utah

DATE: May 21, 2002

REPORTED BY: Scott M. Knight, RPR

RECEIVED
MAY 3 1 2002
DIVISION OF
OIL, GAS AND MINING

Thacker + Co LLC
Court Reporters
Utah's Leader in Litigation Support

Salt Lake City Washington, DC New York Los Angeles

Corporate Offices: 50 West Broadway, Suite 905, Salt Lake City, Utah 84101

801-983-2180 Toll Free: 877-441-2180 Fax: 801-983-2181

www.thackerco.com

1 APPEARANCES
2
3 HEARING EXAMINER:
4 LOWELL P. BRAXTON,
5 DIRECTOR, DIVISION OF OIL, GAS & MINING
6
7 FOR SOUTHERN UTAH WILDERNESS ALLIANCE:
8 W. HERBERT McHARG, Esq.,
9 SOUTHERN UTAH WILDERNESS ALLIANCE
10 P.O. Box 401
11 Monticello, Utah 84535
12
13 FOR UTAHAMERICAN ENERGY, INC.:
14 DENISE DRAGOO, ESQ.,
15 WADE BUDGE, ESQ.,
16 SNELL & WILMER
17 15 West South Temple, Suite 1200
18 Salt Lake City, Utah 84101
19
20
21
22
23
24
25

1 In the Matter of the Lila Canyon Extension
2 May 21, 2002
3 PROCEEDINGS
4 MR. BRAXTON: Why don't we go ahead and
5 get started. There are copies of an agenda. I
6 think I made 20 or 25 copies of an agenda. They
7 should be around back here for those interested in
8 that.
9 This is the time and the place for an
10 informal conference discussing the Lila Canyon
11 extension to the Horse Canyon Coal Mining and
12 Reclamation Permit Application. The informal
13 conference is contemplated under the coal rules.
14 It's essentially an opportunity for public comment
15 from parties that would like to comment on a
16 permit application package. The time and the
17 place were noticed, I believe, appropriately.
18 I've heard no appeals on that. So I think we'll
19 proceed.
20 I had had on the agenda an opportunity
21 for introductions. We could go off the record
22 for a minute and introduce parties. I'll note
23 for the record that there was a long meeting this
24 morning between most of the people that I see in
25 the room right here. And if there's no need to

1 do introductions, I'll just look for somebody that
2 says we do need to do introductions. If I don't
3 hear a need for that, we'll just, we'll put the
4 time and effort into the comments that the
5 informal conference is designed to accommodate.
6 Any need for introductions? Seeing
7 none, the only ground rules that I would like to
8 apply to this meeting are, let's let the time
9 that's allocated for people that want to speak fit
10 the agenda as much as possible. And the other
11 thing I want to say is we're making a record
12 right here. We have a court reporter. He's
13 really in charge of the meeting when I shut up in
14 a minute. So please speak distinctly so that he
15 can understand your comments and create a sound
16 record. If people are talking over the top of
17 him, I'm going to let him decide how he's going
18 to hand that, but give him the deference that's
19 due, that is due because this is your day to
20 create a record here.
21 So having said that, I'll turn the
22 table over to Southern Utah Wilderness Alliance.
23 MR. McHARG: Well thank you, Mr.
24 Braxton, I'm Herb McHarg with Southern Utah
25 Wilderness Alliance and I appreciate the

1 opportunity to present our concerns with the
2 permit application package. I'll refer to it as
3 maybe the PAP or the application today.
4 And I guess in addition to being here
5 today, we have submitted to the division an April
6 22, 2002, a letter that expresses our concerns
7 with the permit application. And it goes through
8 and organizes those concerns in terms of topic,
9 whether it be hydrology, biology, significant
10 revision, land use. Those various topics that we
11 had concerns with.
12 And, of course, I would incorporate
13 that letter into the record here today before us
14 as well as all the attachments to that letter.
15 We've attached an expert report by Elliott Lips
16 and also an expert report or declaration by Dr.
17 Ron Kass.
18 MR. BRAXTON: That's your April 22 fax
19 that you sent the Division--
20 MR. McHARG: That's correct.
21 MR. BRAXTON: 94 pages?
22 MR. McHARG: 94-page fax.
23 MR. BRAXTON: Thank you. We'll
24 incorporate that.
25 MR. McHARG: Thank you. I was told I

1 could send by fax. I hope it didn't burn out too
2 much ink in your fax but I also sent it by
3 certified letter, return receipt. Anyhow, to
4 incorporate those.
5 And as we stated in those comments,
6 we're proceeding here today under the assumption
7 that although the Division has found that the
8 permit application package is administratively
9 complete, it doesn't mean that the Division has
10 found that all the data that's required by the
11 law has been submitted by UtahAmerican Energy, or
12 UEI. Rather, we expect that the Division
13 contemplates requesting and receiving additional
14 information from UEI that would help to address
15 our concerns and also the concerns that the board
16 raised in its order regarding the earlier permit
17 application.
18 As an initial matter, although we'd
19 just like to object the Division's determination
20 that the permit application is administratively
21 incomplete, it's our understanding that the
22 determination is essentially that UEI has, quote,
23 you know, filled in all the boxes in the check
24 list of an administrative determination and
25 nothing more than that.

1 But we also believe that due to the
2 applications omission of required data, that the
3 PAP does not contain all the information necessary
4 for the initial processing and public review. But
5 having said that and regardless of whether the PAP
6 is administratively incomplete, we want to take
7 this opportunity as well as we have already in
8 writing to express our deep concerns with the
9 information thus far provided by UEI. And this
10 is especially true since the current permit
11 application is not substantially different than
12 those that have been submitted over the past three
13 years. Permit applications that this Division so
14 far, or has in the past, found to be inadequate
15 six different times. And then, when the Division
16 inexplicably approved UEI's final and significant
17 permit application that the Board denied that
18 approval. So this is an important process.
19 And we raised these concerns in our
20 April 22 comment letter and we'll take this
21 opportunity to reference those here to outline
22 them. And also to address some of the concerns
23 that were brought to light in this morning's
24 meeting. We'll just touch on those.
25 We don't expect today that these issues

1 are going to be resolved. Rather, we raise these
2 issues for the Division to consider during its
3 technical review process. And we anticipate that
4 today's conference, of course, will raise
5 additional issues as did this morning's meeting.
6 And the Division's technical review process will
7 also raise additional issues. Therefore, the
8 Division will have further opportunities to
9 address the concerns that Sue has and we're
10 hopeful that the Division will do so.
11 We also are hopeful that the Division
12 will stand firm and require that UEI submit all
13 the information that's required under the, under
14 the rules.
15 I guess that's enough of an
16 introduction. And with the, in the interest of
17 time, I'll just start going through using, with
18 the help of Elliott Lips, and using our April 22
19 comment letter as an outline, we'll just review
20 some of the concerns that we have.
21 To start with, our first issue in that
22 letter on page 2 is our concerns with hydrology.
23 And I should note in this comment letter and
24 today in our discussion I think, I've touched on
25 it, but there, there may be other concerns that

1 we had that we won't be able to express until, of
2 course, we see the Division's technical analysis.
3 It would be presumptuous of us to try to assume
4 how the Division at this point is going to handle
5 the data that UEI has thus far submitted. So
6 with that, our first issue under Topic A is
7 incomplete baseline information. And 1A is our
8 concern over acid- and toxic-forming materials.
9 And I'll ask Elliott to summarize our concerns
10 regarding acid- and toxic-forming materials.
11 MR. LIPS: Okay, under Rule 624.300 the
12 applicant is required to collect samples from test
13 borings or drill holes and to analyze these for
14 acid- or toxic-forming materials. And this would
15 be, the analysis would be for the strata
16 immediately above and below the coal seam to be
17 mined. In short, these, the permit application
18 package does not contain indication that these
19 samples were collected or analyzed or any data
20 reporting the results of any such analysis.
21 We were made aware this morning in the
22 discussion that UEI has submitted analysis from
23 some borings that, approximately three miles away,
24 and we have not had a chance to review that
25 information. We assume that that was submitted to

1 the Division, that that information, new
2 information will be considered by the Division
3 during its technical analysis. And we will review
4 that as well.
5 MR. McHARG: Okay. And then in terms
6 of subsurface water resource maps, I guess one of
7 our concerns is that we're somewhat perplexed
8 what, after three years and seven different
9 technical analysis, why these particular maps so
10 far I don't think have been produced.
11 MR. LIPS: Right. The rule 722-100
12 requires submission of cross sections and maps
13 showing the location and extent of subsurface
14 water, including aerial and vertical distribution
15 of aquifers and portrayal of seasonal differences
16 ahead. And as Herb stated, these maps have not
17 been provided in the PAP for the regional aquifer
18 and--or the perched aquifers.
19 This is probably a good point to
20 mention that the, some of the discussion this
21 morning pertained to what to call the lower of
22 these two water-bearing zones. For three years in
23 prior PAPs and technical analysis prepared by the
24 Division, CHIAs prepared by the Division, this has
25 been referred to as the regional aquifer. And

1 apparently, the Division has, in the letter of--
2 well, in UEI's response to the comment letter, the
3 request of the Division is now referring to this
4 as the lower saturated zone or saturated zone,
5 whatever--they're not using the term "aquifer."
6 We take exception with that. And we, we, we'll
7 continue to refer to this and assume that it is
8 an aquifer.
9 MR. McHARG: And therefore all the
10 rules that relate to aquifers would have to be
11 complied with.
12 MR. BRAXTON: Might I ask in taking
13 expectation to that, have you looked at the
14 definition the Division uses in its coal
15 regulatory program for aquifer?
16 MR. LIPS: Yes, we have.
17 MR. BRAXTON: Okay.
18 MR. McHARG: Under Point A3, in terms
19 of surface water resources, Mr. Jay Marshall today
20 referred to a conversation that he had with a
21 rancher regarding some surface flows in the area.
22 The Division under our understanding, is required
23 to comply with the law and with sound science.
24 It's not, not to take anecdotal evidence and
25 hearsay when it's making its determination of what

1 data needs to be submitted and what rules need to
2 be complied with. And we believe that the
3 Division needs to require UEI to collect and
4 submit data that is sufficient to demonstrate
5 seasonal variation and so far that data has not
6 been submitted. And we believe it must be
7 submitted in order to process this application.
8 MR. LIPS: And, specifically, the, the
9 required baseline data would be for Little--Lila
10 Canyon and Little Park Wash, which are two
11 intermittent streams within the permit area. And
12 we understand by their nature being intermittent
13 that there may be periods when there is no flow
14 in the streams and we acknowledge that. But
15 there are techniques for installing measuring
16 devices that will collect data on the stage or
17 crest height from which discharge can be
18 estimated. There are techniques for collecting
19 water quality samples that don't require personnel
20 to be there during a flow. And we believe that
21 it's within the realm of scientifically valid and
22 technology that does exist to collect the data for
23 both Lila Canyon and Little Park Wash. And,
24 again, we expect that the Division would comply
25 with the rules and request that data from UEI.

MR. McHARG: Did you want to discuss 4?

MR. LIPS: Yeah. Point No. 4 has to do with the quantity of groundwater in this saturated zone. And, again, this is the zone that has been referred to previously as the regional aquifer. And the rules require applicant to submit data on seasonal quality and quantity, I'll just focus on the quantity for a moment here, including descriptions at a minimum on approximate rates of discharge or usage, depth of water in the coal seam in each water-bearing stratum above and below. So we're referring to the regional aquifer, the deeper aquifer.

And as the surface water, the Division has interpreted this rule to require collection of baseline data quarterly for two years, and I just want to go through a few points here to illustrate that UEI has failed to submit the data that's required under this rule. There are no seasonal--there are no data on, that demonstrate the seasonal quantity of groundwater from the IPA-1, -2, and -3 wells which can be referred to as piezometers. That's fine. These were sampled twice in 1994, seven days apart. Only twice in 1995 and only once in 1996 and 2000. IPA-2 was

1 sampled once in 2000. I'm sorry--once--the three
2 of them were sampled in 2001. And IPA
3 additionally was sampled in 2000, but that is,
4 it's infrequent, sporadic. It doesn't provide
5 seasonal baseline data.
6 In terms of providing an understanding
7 of the regional aquifer, UEI depicts the
8 piezometric surface as a uniform, uniformly
9 dipping planar surface over the entire permit
10 area, which we find unrealistic. Part of the,
11 the problem or our issue with this is that the
12 data from which this is based is IPA-1, -2, and
13 -3 wells which cover approximately one square
14 mile. And yet UEI has extrapolated that data out
15 over a six square mile permit area. In doing so,
16 they've ignored known elevation of the water
17 surface in the Horse Canyon Mine. They've ignored
18 the effect of the faults that run through the
19 permit area. And even its own data for the most
20 recent water levels for the IPA wells as shown in
21 Appendix 7-1.
22 The third kind of subpoint on this is
23 that there really is no information provided in
24 the PAP on the rates of discharge or area from
25 which this aquifer discharges.

1 Yeah. In this morning's discussion, we
2 were talking about, on this aquifer and the
3 question was raised is, you know, where is the
4 discharge of this aquifer or this water bearing
5 stratum? And, you know, the truth of the matter
6 is that we can't say. We don't know where it
7 discharges, which I personally think is
8 unfortunate because I think the information should
9 be provided in the PAP that identifies where this
10 aquifer discharges. The fact that it has not
11 been identified is sort of a, in my opinion, a
12 glaring omission of characterization of an
13 important water resource.
14 In addition, UEI has acknowledged that
15 there are faults running through the mine site
16 east-west direction and have commented that they
17 are potentially affecting the movement and
18 occurrence and movement of the water in the
19 regional aquifer. Part of the explanation for
20 some of the differences in the IPA wells is
21 attributed to a fault. But beyond that, the PAP
22 doesn't address in any more detail the effect of
23 these faults and how they, how the faults affect
24 the movement of water that's basically unrelated
25 to the stratigraphy and whether or not there are

1 aquifer--water-bearing stratum or aquitards, but
2 there is movement, subsurface movement of the
3 groundwater related to the fault which needs to be
4 addressed.
5 Our Point No. 5 has to do with
6 groundwater quality in the deep saturated zone.
7 Again, this is the regional aquifer. According to
8 the PAP and previous CHIAs prepared by the
9 Division, there are only four potential sources of
10 information on water quality in this aquifer,
11 these being Redden Spring and the three IPA wells.
12 In our discussion this morning, Jim Smith
13 clarified that Redden Spring does not discharge
14 from this aquifer and, therefore, there are only
15 three sources of potential information, the three
16 IPA wells. And UEI has never collected or
17 submitted a single water quality sample from any
18 of those wells. And, therefore, the plan is
19 completely devoid of any water quality data from
20 the regional aquifer.
21 The next point, Point 6, addresses the
22 upper aquifer, the perched aquifers that UEI has
23 previously referred to as the perched aquifers,
24 and I'll discuss water quality and quantity
25 collectively. The source of data for these

1 aquifers comes from two seep and spring surveys:
2 one conduct by JBR in the fall of 1985, and the
3 second source of data is the seep and spring
4 survey conducted by EarthFax from 1993 to 1995.
5 And although at first glance it appears like there
6 are a lot of data on seeps and springs and if you
7 add it up, you get 79. I'd just like to point
8 out a little bit on closer examination the
9 relevance of some of these.
10 With regard to the JBR report, which
11 includes 19 seeps and springs, 9 are in the area
12 of the Horse Canyon Mine, and, therefore, do not
13 represent premining baseline condition. Nine of
14 the nineteen are outside of the Lila Canyon permit
15 area. Only one spring is within the Lila Canyon
16 permit area, and I note it's only 200 feet from
17 the Horse Canyon Mine, and that spring was not
18 sampled by JBR. It was identified in the
19 inventory but not sampled, therefore, the JBR
20 survey provides no water quality or water quality
21 baseline data for the permit area.
22 With regard to the EarthFax surveys,
23 which are summarized in Appendix 7-1, they list 50
24 seeps and springs; 35 of these are located outside
25 the permit area and 5 are in the area of the

1 Horse Canyon Mine and, again, do not represent
2 premining baseline conditions. There are 14 seeps
3 and springs within the proposed permit area.
4 However, water quality data has only been
5 collected from one of these locations.
6 And therefore, again, although there
7 are apparently quite a number of seeps and
8 springs, the UEI is characterizing the water
9 quality of the entire permit area, 4,704 acres,
10 with data from one seep.
11 MR. McHARG: Essentially what we are
12 asking, then, is that the Division require that
13 UEI provide this data and, of all these seeps and
14 springs, and for baseline information and then
15 begin monitoring those seeps and springs today.
16 We can start today and start collecting the data
17 that's required under the rules.
18 MR. LIPS: Okay.
19 MR. McHARG: Yep.
20 MR. LIPS: Okay. The next group of
21 comments are related to the coal mine waste. And
22 I'll start off with, so this is B of our SUWA's
23 April 22 letter. Point 7 has to do with the
24 terminology and the reference to the coal mine
25 waste, and it's often confusing and inconsistent.

1 Coal mine waste is a term which is defined under
2 the rules, and it includes waste rock mixtures
3 from underground workings or underground
4 development waste. UEI refers to this material
5 sometimes as rock slope material, which, a term is
6 not defined by the rules. And to be perfectly
7 honest with you, we're just a little confuse on
8 what this rock slope material is and how it will
9 be handled.
10 Several of these next few comments will
11 sort of blend together. Point 8 has to do with
12 the location and extent of this coal mine waste.
13 At different points in the PAP, it says that coal
14 mine waste will be disposed of at a refuse pile.
15 In some places it says it will be used as
16 structural fill material. In some places it says
17 it will be spread out and graded so as to be
18 compatible with natural surroundings. We're just
19 not clear if this is three different categories of
20 waste or three different ways in which the same
21 coal mine waste will be treated, and we're unclear
22 on what the volumes and weights for each of these
23 are. You know, I guess it just needs to be made
24 a little bit more clear how this will be handled
25 once it's brought to the surface.

1 It sort of leads into the next point,
2 our Point 9, which is the treatment of this coal
3 mine waste. The application indicates that any
4 acid- or toxic-forming materials will be covered
5 by 4 feet of fill upon reclamation. However,
6 there's no indication of the volume of the
7 material that will be covered in this matter or
8 where the required fill material will come from.
9 The plan states that during reclamation,
10 approximately 44,201 cubic yards of material will
11 be distributed over the 20-acre--28-acre disturbed
12 area prior to placement of topsoil, but the plan
13 is not specific as to where that regrading will
14 occur or if it involved any of the coal mine
15 waste that was found to be potentially acid- or
16 toxic-forming.
17 And whether or not, what areas will be
18 covered with the four feet of clean material.
19 Sort of in the same regard, it's a
20 little unclear to us in terms of placing in all
21 of this material how the material will be tested
22 or actually it's very clear how it's stated to be
23 tested. But--which is something that we discuss
24 in Point 10. It says that the coal mine material
25 will be tested three times: the beginning, middle,

and near the completion of the project. According to the plan there's approximately 25,000 cubic yards of material, which means that it would be possible for as much as 12,500 cubic yards of this material to be placed as structural fill if that, indeed, is one of the ultimate disposal locations for this material, without it having been tested for acid- or toxic-forming potential.

We think that's just simply too infrequent. If the material's not tested, it would seem that the safe assumption would be that it is acid- or toxic-forming in which case it would need to be treated as such and, again, the plan is unclear as to how that will be treated, whether or not it's going to be used as structural fill and regraded. And, and if testing is the only means of assuring that, then, then we find that that's too infrequent.

The next two comments have to do with-- next three comments have to do with the mine water discharge. UEI, our Point 11 has to do with the channel into which UEI proposes to discharge the water that's intercepted during mining and is it coming from this regional aquifer, which will be intercepted during mining.

UEI proposes to discharge this mine water into Lila Canyon channel, which is also referred to as the north fork of Coleman Wash in accordance with UPDES permit, which is yet to be obtained. Our concern is that UEI has failed to write any qualitative or quantitative descriptions of the channel below the proposed discharge, and, therefore, it will be impossible to assess any impacts to this channel based on discharging the water.

We feel strongly that any discharge of water will have an effect on a surface channel that does not have water discharging in it presently. The channel morphology will change, sediment will be moved, beds and banks will be eroded. These issues need to be addressed and baseline data needs to be provided on the existing morphology of the channel from which comparisons can later be made.

MR. BRAXTON: Do you have a regulatory cite for that concern?

MR. LIPS: I don't offhand.

MR. BRAXTON: Okay. Thanks.

MR. McHARG: Got get that for you.

MR. LIPS: The second point is Point

12, which has to do with increased salinity. And, again, this is referring to the mine water that's coming from the regional aquifer which would be discharged at the surface. And although the PAP doesn't provide information, we would assume that this would be low in total dissolved solids. This water will, this discharged water will flow for several miles over the Mancos shale before draining into the Price river through the Green River and ultimately the Colorado River. Inasmuch as the Mancos shale is highly saline, salts will be dissolved before the water drains into the Price River, and thus this project will increase the salinity of the Colorado River system by some unquantified amount, and we believe this is in contradiction to efforts to reduce salinity in the Colorado River basin. And the impact of this needs to be assessed.

MR. BRAXTON: Mr. Lips, if you have some data that substantiate flows actually reaching the Colorado River, I think it would be a good time to put that on the table.

MR. McHARG: Just to address that concern, we, if we have that information, we will submit it during this, the TA process.

1 MR. BRAXTON: Okay.
2 MR. McHARG: However, as with all of
3 our concerns, it is UEI's obligation, and they
4 have, they carry the burden of proof to establish
5 that impacts will not occur.
6 MR. BRAXTON: I appreciate that. What
7 I'm hearing is some suggestions from a technical
8 witness that infer that water will reach the
9 Colorado and I'd like to know how you got to that
10 point and if you have it, I'd like to put it on
11 the record right now. Otherwise, I understand
12 your concern but be as specific as you can, and
13 I'm hearing a general concern and I'd like to you
14 quantify if you could help us on that.
15 MR. McHARG: And we will do so if we
16 can. And, however, as I, as I said, I think that
17 it's important for the Division to always
18 recognize that we are raising these concerns, and
19 these concerns should be able to be answered by
20 UEI's data submissions.
21 In terms of Point 13, the UPDES permit,
22 because this application should be being processed
23 completely as a new mine permit, we believe that
24 UEI, then, would have to obtain a permit from the
25 Utah Division of Water Quality and that this

1 would, all the, the proper process would have to
2 be followed, including a notice of intent and all
3 relevant, up-to-date information and then there
4 would have to be another public review permit by
5 the Utah Division of Water Quality for that permit
6 issuance.
7 Another reason, we'll talk about it
8 later why it's so important that this is processed
9 as a new permit.
10 MR. LIPS: Okay. The next three
11 comments have to do with the water monitoring
12 plan. And Point 14 addresses the inadequacy of
13 the groundwater monitoring. UEI proposes to
14 monitor ground water from five seeps and springs,
15 which we feel is, on its face, is inadequate.
16 And it's made worse when you look at the fact
17 that L6G, one of them, one of the proposed
18 monitoring springs and above Horse Canyon Mine for
19 which there is no premining baseline data. Three
20 of the remaining four springs are allocated
21 outside the permit area. And, therefore, there's
22 only one proposed monitoring site in the permit
23 area for which baseline data exists. We find
24 that to be insufficient and would request or
25 expect, I guess, that the Division would require

1 additional baseline monitoring. And the reason
2 this is important is that without baseline data,
3 there would be no basis for comparison during the
4 monitoring, monitoring data that's collected
5 during mining.
6 Point 15 has to do with the surface
7 water monitoring plan. Inasmuch as there are no
8 baseline data for Lila Canyon or Little Park Wash,
9 which do flow in response to snow melt run off in
10 the spring and also as a result of isolated
11 summer thunder storms, the baseline data does need
12 to be collected to provide a basis for comparison
13 to the monitoring data.
14 The Point 16 has to do with the fact
15 that the plan is completely devoid of any water
16 quality monitoring from the regional aquifer, the
17 deep saturated zone. As I said earlier, the only
18 source of information for these would be IPA-1,
19 -2, and -3, and UEI does, proposes to only
20 collect water depth information, not water quality
21 data from those wells.
22 The next point, Point 17, has to do
23 with the PHC, which is the probable hydrologic
24 consequence. This is a determination that is made
25 by UEI based on baseline data which is collected,

1 should be collected for the permit application.
2 It's to include findings on whether or not there
3 are adverse impacts that could occur to the
4 hydrologic balance. We have a couple of concerns
5 here. One is that, as we discussed in previous
6 points, there are no baseline data on several of
7 these topics, and as required under the rule.
8 There really is a lack of understanding or
9 characterization of water in the deep saturated
10 zone or the regional aquifer, a failure to
11 identify the discharge area. And we find that
12 without this information, that the findings--they
13 can't be made in a reasonable fashion as to what
14 the impacts to the hydrologic balance would be
15 when the, the hydrologic resources are so poorly
16 understood.
17 And then further, even though Rule
18 728-320 specifically states that there will be
19 findings on whether acid- or toxic-forming
20 materials are present, those words, "acid- and
21 toxic-forming," never appear once in the PHC.
22 Our Point 18 has to do with the
23 cumulative impact area. We recognize that the
24 Division will prepare a CHIA and so we're not,
25 we're really here just wanting to raise some

1 concerns that we hope the Division will consider
2 in terms of preparing their CHIA. One of the
3 first tasks in that would be to define the
4 cumulative impact area. And our concern is
5 essentially that UEI has not provided enough data
6 on the existing surface or groundwater resources
7 that the Division can work with and prepare a,
8 what I would consider, hydrologically reasonable
9 cumulative impact area boundary.
10 Specifically, that area of outflow or
11 the discharge from the regional aquifer, the deep
12 saturated zone, has not been identified; although
13 it's acknowledged in the PAP that this zone will
14 be intercepted during mining, water will be
15 removed from it. It's just crucial that this CIA
16 boundary is large enough to evaluate the impacts
17 that are likely to occur as a result of the
18 mining, specifically in the discharge area.
19 Now we have looked at some published
20 literature and provided an appendix in here,
21 Appendix A, prepared by the U.S. Geological
22 Survey, showing a cross section through an area
23 that is geologically and topographically similar
24 to the Lila Canyon area. And based on this
25 information, it appears that a likely discharge

1 area for the regional aquifer would be Range
2 Creek. We've also, in the expert report that was
3 included as Appendix B, I've gone into some more
4 discussion of some other literature that's
5 prepared by the U.S. Geological Survey and other
6 sources that would demonstrate that interception
7 of mine water would lower the discharge, the
8 quantity of discharge in the discharge area. That
9 would either be in seeps and springs or it could
10 be providing base flow to, to streams, and those
11 are important for, for not just the looking at
12 the hydrologic balance but also because those are
13 important biological resources. We'll discuss
14 those separately.
15 We're just concerned that without
16 identifying the discharge area and having failed
17 to monitor the premining conditions, there will be
18 no basis for evaluating any impacts that would
19 occur to this discharge area.
20 And, again, I would just point out that
21 some of those arguments have been stated in a
22 declaration and expert report prepared by me,
23 which is included as Exhibit B of SUWA's April
24 22, 2002, letter. In some of those--
25 MR. BRAXTON: Mr. Lips, can you tell us

1 when the USGS data were collected and what the
2 date of that report is? I'm sure it's in the
3 appendix that you've got, but for the record I'd
4 like to know that.
5 MR. LIPS: The report I cited in here
6 was published in 1985--
7 MR. BRAXTON: Thanks.
8 MR. LIPS: --by Gregory C. Lines, U.S.
9 Geological Survey, Water Supply Paper, 2259.
10 MR. BRAXTON: You okay?
11 Thank you.
12 MR. McHARG: Under heading two, moving
13 on to the engineering plan, some concerns that we
14 have with that, under Point 19--and I guess--let's
15 see. A few of these, these points mainly relate
16 to if, in fact, the mine is eventually permitted.
17 Obviously we have concerns about the, you know,
18 permitting of this mine at all to begin with.
19 However, we'll move on through these. Point 19,
20 there's an inadequate description of construction,
21 operation, or use and reclamation. And we're
22 concerned that, that of any surface facilities
23 being constructed in lands that have wilderness
24 character. And this will also be touched on when
25 we discuss land use.

However, if, in fact, these facilities are constructed, there are certain mitigation measures that we believe would have to be part of the permit and part of the application that aren't there yet. At a minimum, these could include camouflaging the facilities, noise control, light control, that no operation should occur during the evening when there would be a disproportionate impact on the area's resource values and wildlife. And further, the PAP needs to identify and analyze any future potential disturbances, surface disturbances that would result from this mining operation. Today in our morning discussion, MaryAnn Write brought up some other mines that, in the future they had to apply for extensions or permits for additional surface facilities, venting, mine fans, sub station, things of that sort. We're concerned that with the great extent of this underground mine, that air quality inside the mine may be bad at some point. They may find that it's dangerous to the workers and that additional venting structures or mine fans will have to be installed. If that were to happen, it's, they would potentially be installed within an area of wilderness character or an existing

1 wilderness study area. And, and we don't believe
2 that would be consistent with those designations
3 and those, all those, then, at this point, should
4 be identified and analyzed, not just disregarded.
5 I also have some concerns here, you
6 know, not hitting them all right now orally, but
7 that surveys plans and analysis of the impacts of
8 constructing, blasting, and heavy equipment of
9 such facilities must also be included in the PAP.
10 There's going to be additional impacts from the
11 surface facilities that are proposed so far under
12 the, in the, in the PAP and in the future, that
13 would have impacts on the resource values that
14 need to be addressed.
15 Under Point 20, "Subsidence and Repair
16 of Damage," the PAP states that no attempt will
17 be made to prevent subsidence in any area except
18 where the escarpment near the outcrop is to be
19 protected. And we're concerned that subsidence
20 will impact other areas and resource values, and,
21 including water. And if it impacts water, then,
22 in turn, it's going to have an impact on
23 vegetative resource, resources and area wildlife
24 that exists throughout the entire permit area or
25 the entire what should be the entire affected area

1 or the CHIA boundary, whatever is finally
2 determined to be that.
3 Also, the PAP--
4 MR. BRAXTON: Do you have a citation
5 for that particular concern?
6 MR. McHARG: I don't, I don't have one
7 here with me. But I basically, these concerns
8 were raised from the discussion the engineering
9 plan that appeared in the permit package
10 application package. And you can do that for
11 ease of your review of today's record any of the
12 concerns that we have raised under our headings,
13 you can also look at those headings in the permit
14 application package and see the discussion there
15 that UEI has submitted thus far.
16 MR. BRAXTON: Okay.
17 MR. McHARG: We did it in terms of
18 headings rather than specific rules for a couple
19 of reasons: one, that the rules jump around, and
20 we felt that it would be easier for your review
21 to look at our concerns in terms of topic rather
22 than rule. And also, obviously, we have concerns
23 generally with this permit application package
24 under, under the Division rules, and would not
25 want to limit ourselves at all in raising any

1 specific issues or specific rules.
2 MR. BRAXTON: Very good.
3 MR. McHARG: In addition, our concerns
4 with subsidence, the PAP needs to consider what
5 will occur in terms of reclamation of any
6 subsidence impacts in areas of wilderness
7 character or WSAs. The PAP ignores the fact that
8 UEI proposes to mine beneath the Turtle Canyon WSA
9 and the Desolation Canyon Wilderness Inventory
10 Unit. No mechanized equipment would be permitted
11 in these lands to repair the surface damage and,
12 therefore, the PAP should explain how it's going
13 to prevent such damage from occurring and in the
14 event such damage does occur, how UEI intends to
15 repair this damage. And also, which I'll discuss
16 later, but, you know, bonding and any cost
17 estimates in terms of reclamation would have to
18 reflect any additional costs that would incur
19 because of this damage in these sensitive areas.
20 MR. BRAXTON: I'd like a cite on that
21 particular issue sometime from you, if you could
22 provide it for me.
23 MR. McHARG: Okay. The subsidence and
24 repair of damage?
25 MR. BRAXTON: Yes, a cite that

1 demonstrates that somebody needs to bond in order
2 to cover subsidence repair costs.
3 MR. McHARG: Okay. And it also relates
4 to Point 21, which, this will somewhat answer your
5 question: With the outdated reclamation cost
6 estimate, there is, then, the requirement or a
7 cost estimate that relates to reclamation. And I
8 would, what I'm saying is that cost estimate would
9 have to reflect any additional expenditures that
10 will take place because these reclamation
11 activities are occurring in sensitive lands.
12 MR. BRAXTON: And that's the part I'd
13 appreciate the citation on.
14 MR. McHARG: Okay. Got it.
15 Point 21. Elliott, do you want to
16 discuss that?
17 MR. LIPS: Yeah, the reclamation cost
18 estimate presented on the PAP, and that's in
19 Appendix 8-1, uses acceptable practices for
20 estimating costs, but the means heavy construction
21 data is two years old and the caterpillar
22 performance handbook edition is three years old,
23 and we would just ask that UEI provide an updated
24 cost estimate so we have current costs for
25 reclamation.

1 Point 22 is, it's really probably a
2 clerical error but we ask that it be cleaned up.
3 The earthmoving portion of the estimate states
4 that approximately 44,201 cubic yards of material
5 be distributed, and that 61,000 cubic yards of
6 topsoil be replaced. That's two different
7 reclamation tasks and we acknowledge that the haul
8 distances are different; however, the final cost
9 to load and haul these materials is estimated to
10 be exactly to the dollar the same amount, even
11 though one is 22,000 more cubic yards. It
12 appears to be identical entry for two different
13 tasks. And, therefore, we ask that a reclamation
14 cost estimate and bond amount be revised to
15 reflect what the actual costs are going to be.
16 The next comment has to do with soils.
17 This is our heading 3, starting with Point No.
18 23. There was some discussion this morning, let
19 me preface this by saying there was some
20 discussion this morning about the quantities of
21 topsoil and subsoil. Maybe we can discuss, I'll
22 combine 23 and 24 together. It is not apparent
23 in the plan and, therefore, we were concerned that
24 the minimum requirement of 18 inches of topsoil
25 was not available on-site. It was clarified this

1 morning that that's actually 18 inches is the
2 maximum amount of topsoil that would be salvaged
3 and replaced. In some cases it would be as
4 little as 6 inches.
5 There seems to still be some
6 uncertainty about the subsoil material and how
7 that will be handled, whether or not that material
8 is actually picked up and moved or left in place
9 and called subsoil. If it's picked up and moved,
10 where will it be stored? How much volume of
11 material and how will it be replaced? And this
12 ties a little bit back to the discussion of the
13 coal mine waste and the need to have 4 feet of
14 clean material to be placed over the coal mine
15 waste. And we're just a little unclear as to
16 where that material will come from, how it will
17 be salvaged prior to mining, where it will be
18 stored, and where it will be placed. And based
19 on our discussions this morning, it's my
20 understanding, at any rate, that the Division
21 will, will ask for some clarification on some
22 handling of this material.
23 MR. McHARG: Okay. Point 4 is our
24 discussion of concerns on biology, both vegetative
25 resources and wildlife. Under the rules at

1 301-310, the applicant is required to describe the
2 vegetative, fish, and wildlife resources within
3 the permit and adjacent areas, and this
4 description becomes the baseline for evaluating
5 potential impacts. And in finding this, this
6 description, UEI is required to use the best
7 technology that's currently available.
8 At that point, mitigation measures can
9 be identified and required for implementation into
10 the operational plan and the design of the
11 reclamation plan to restore or enhance the
12 environmental resources that support species for
13 post mining use. And the post mining use will
14 discuss when we discuss land use, but that post
15 mining use through this permit area would be
16 wilderness.
17 The rules require site-specific
18 information regarding special status species and
19 habitats of unusually high value such as unique
20 water sources and riparian zones. And the PAP,
21 however, fails to submit necessary vegetative and
22 wildlife information on all the lands and habitats
23 that are potentially affected by the operation of
24 the mine.
25 Many of our comments on biology are

1 tied directly to our comments and concerns on
2 hydrology that if the hydrological resources are
3 not understood and baseline data is not
4 established, then any impacts that occur from the
5 mining operation on those resources will, then,
6 impact vegetation and wildlife. A couple of
7 points that are worth mentioning from our
8 discussion this morning: First, we have concerns
9 with the CHIA boundary and where the regional
10 aquifer will discharge, and then any impacts that
11 would result from mining into those waters. The
12 Division has stated that it is going to discuss
13 those concerns in the CHIA and we're, we
14 anticipate reviewing those and we're hopeful that
15 all of our concerns are addressed.
16 However, the same concerns also need to
17 be looked at and analyzed in terms of wildlife.
18 If the Division is looking at the impacts to the
19 Range Creek drainage, for instance, in the CHIA,
20 all of the same concerns in this area would have
21 to be looked at for wildlife also. So UEI should
22 submit information to the Division: surveys, all
23 necessary baseline data that would describe the
24 vegetative resources and the wildlife resources in
25 that area as well.

One other concern I have that was raised in our discussion this morning is that the Division does not anticipate that it will require information and analyze certain discrete springs or seep sources, water sources for their review of the hydrology section of the PAP and the TA analysis. It's worth mentioning, it's extremely important that these discrete water sources are crucial to vegetative resources and to area wildlife. And so, although we also disagree with the fact that these spring sources and seep sources don't need to be looked at for hydrologic, we think they do, they definitely need to be looked at in terms of wildlife and vegetative resources, you know, in an arid landscape, each source, whether it's discrete or tied to a certain system of springs and seeps, is crucial to area wildlife.

In our discussion under Section 4, just so we can follow, 4A, 25, inadequate vegetative information, we discuss our concerns with the lack of current data for the entire area. I mentioned, I discussed this just before basically. In addition to the surface facilities, vegetative resource information, baseline information needs

1 to be established for the entire affected area.
2 We've included a declaration of Dr. Ron Kass as
3 Exhibit C and also in Exhibit D, selected pages
4 from Utah Endangered, Threatened, and Sensitive
5 Plant Field Guide, 1991 and, therefore, data for
6 vegetation information needs to be collected over
7 the entire affected area including seeps and
8 springs, the Range Creek drainage, the Price River
9 drainage, any waters that could potentially be
10 affected by this mine operation.
11 On 26, we have a concern over failure
12 to address subsidence adequately. Here we say
13 that the rules, the rules require description of
14 the anticipated impacts of subsidence on renewable
15 resource lands and how such impact will be
16 mitigated.
17 So far in the application, UEI has
18 stated that, "No negative impacts to vegetation
19 are anticipated," and then further explains that
20 it responds to any loss or diminished vegetation
21 with a corrective mitigation plan. We feel that
22 this fails to comply with regulations and that the
23 Division should require this description now
24 rather than later, and also that UEI has ignored
25 vegetation impacts to the many seeps and springs

1 that are present in the permit area in the
2 affected area and has not provided a baseline
3 inventory of the species that are dependent on
4 these critical water sources.
5 We are concerned that subsidence will
6 dewater these seeps and springs and that these
7 seeps and springs support unique vegetative
8 communities and also that once they're dewatered,
9 no mitigation plan could correct this impact. And
10 so far that's all that UEI has proposed is that
11 it will establish a mitigation plan if certain
12 subsidence occurs. And we just don't find that
13 this would be adequate.
14 Under Point 27, "Reclamation," this
15 ties into the other issue that I had raised
16 before with reclamation, that vegetation
17 reclamation must not involve the use, well, this
18 is another concern, that it must not involve the
19 use of chemical agents to control weeds, insects,
20 or animal species and that no lethal means should
21 be employed to control wildlife. What ties back
22 to what I was talking about is that the site must
23 be reclaimed to premining conditions. In this
24 case, it's wilderness. And, therefore, all
25 reclamation activities must meet this performance

1 standard.
2 MR. BRAXTON: Help me for the record.
3 Is the entire permit application area wilderness
4 right now?
5 MR. McHARG: I'm trying to recall
6 exactly the acreages. I think that--yeah, the
7 surface facilities are located in, in an area of
8 wilderness character, found by the BLM in 1999 to
9 have wilderness character. And then the
10 underground mining operations would be underneath
11 an existing wilderness study area, and also
12 underneath--is that the map of it?
13 MS. WHITE: Yeah. It's the inventory
14 area. And this is the WSA (Indicating).
15 MR. McHARG: Okay. And you mean that
16 green boundary is the--
17 MS. WHITE: WSA.
18 MR. McHARG: Right. And that green
19 boundary right there is your permit area. And so
20 the crosshatch would be the area that the BLM has
21 found to have wilderness character, so that's
22 wilderness character area. And the green shading,
23 then, would be an existing WSA, wilderness study
24 area.
25 MR. BRAXTON: Do you know what the BLM

1 is doing in terms of that, that's a citizens
2 wilderness area or a 1500 wilderness area that
3 we're referring to right there?
4 MR. McHARG: No, what we're referring
5 to right there is an area that the BLM itself in
6 1999 had inventoried and found to have wilderness
7 character. And I think what's important, and
8 we'll discuss this during our land use discussion,
9 but what's important to note is that the Division
10 needs to follow its, its regulations and its
11 regulations require that, that the area be
12 restored to what the land is capable of supporting
13 or a higher use. And if the BLM has so far found
14 that this area has wilderness character, then I
15 would believe that the Division would have to
16 assume that the land is capable of supporting that
17 use, not look at what the legal designation of
18 that particular area is at the time, but what it
19 is capable of supporting. And one, and, and the
20 Bureau of Land Management has stated publicly and
21 in its 1999 inventory that this area has
22 wilderness character. So I would think that,
23 then, the Division would have to look at that,
24 that is what it is capable of supporting.
25 MR. BRAXTON: It's not a designated

1 wilderness then, it's just a character
2 designation?
3 MR. McHARG: That's correct.
4 MR. BRAXTON: Okay, thank you.
5 MR. McHARG: It's an administrative
6 designation, it's not a wilderness designation by
7 Congress. But in terms of the Division's purposes
8 and under their rules, then they would have to
9 consider that as, well, that is what it's capable
10 of supporting. Whether it is supporting that
11 resource or that management designation at this
12 point, I don't think is the issue. The issue is
13 whether it's capable of supporting that.
14 MR. BRAXTON: But a decision by the
15 land managing agency would have some, we would
16 have to take whatever the land managing agency
17 gives us in terms of how that area should be
18 treated into consideration in the permit
19 application package; that's what you're saying?
20 MR. McHARG: That's true. And we have
21 included an exhibit in our comments that shows
22 that the, you know, using the same terminology of
23 the Division's regulations, that essentially the
24 BLM has found that it is capable of supporting
25 wilderness because they have said that it has

1 wilderness character. And I'd refer you to our
2 exhibit that we have attached as, I think it's
3 Exhibit E . . . Exhibit E.
4 MR. BRAXTON: Thanks.
5 MR. McHARG: In terms--okay. 4B. 4B,
6 "Inadequate Wildlife Information," again, I
7 discussed this more broadly when I began talking
8 about biology. There, we have, we have concerns
9 that are tied directly to hydrology. We also
10 have concerns under 28, that there is an absence
11 of site-specific resource information. You know,
12 those are also tied to hydrology in terms of
13 seeps and springs and other water sources that are
14 crucial to wildlife.
15 Twenty-nine: "Failure to Address
16 Potential Flycatcher Impacts." The permit
17 application states that there's no perennial water
18 sources or riparian areas in the permit area or
19 the proposed addition. And, again, we have, we
20 believe that the, the affected area would include
21 perennial water sources and, therefore, there has
22 to be, the impacts to Southwest Willow Flycatcher
23 would need to be addressed.
24 Sensitive, threatened, and endangered
25 species surveys need to be updated. And, of

1 course, the surveys would need to be performed at
2 the right time by the right people. And, and
3 that information would have to be provided to the
4 Division.
5 Same is true with special status fish
6 species. There's a concern because the affected
7 area does not include Range Creek or any other
8 streams that could potentially be affected by the
9 mining operation, that these fish species are
10 being ignored. And we believe that the Division
11 should require UEI to submit the required data.
12 Again, this holds true with amphibians
13 in terms of the various springs and seeps that
14 are ignored so far in the data submitted by UEI.
15 They may occur within these unique habitat areas
16 and we would hope that the Division would require
17 UEI to survey for amphibian species and to submit
18 the required baseline data. We've raised that
19 concern also with snake dens, that they need to
20 be surveyed for within the area. I think the PAP
21 contains a statement that dens don't exist in the
22 area. We'd like to see the survey data for that.
23 Let's see. "Failure to Address
24 High-Value Wildlife Habitats" in Point 33. We
25 raise a concern that high-value wildlife habitats

1 are given little scrutiny under the current PAP.
2 And the Division of Wildlife Resources, we've
3 recognized in correspondence, files for this
4 permit application package that are available in
5 the public information room, that the, that DWR
6 also shares our concerns that, they say in a
7 letter dated April 24, 2002, from DWR to the
8 Division, that as we have expressed before, we are
9 concerned about the displacement of bighorn sheep
10 and chukars from Lila Canyon. We are also
11 concerned about the increased danger to prong horn
12 antelope along the proposed access road between
13 Lila Canyon and Highway SR-6. Finally, there are
14 three eagle nests in very close proximity to the
15 project site, and then wanted to emphasize this:
16 Mining activities will undoubtedly evict the
17 nesting eagles from this vicinity and escarpment
18 failure and cliff spalling will destroy habitat.
19 Basically what they're saying is that under the
20 current permit application and the mitigation
21 measures that are proposed, they say that
22 mitigation measures discussed previously may
23 alleviate some wildlife concerns, but the bighorn
24 sheep, chukars, and eagles will likely leave the
25 area. And that has basically been the crux of

1 our concern regarding bighorn sheep and that they
2 will leave the area no matter what mitigation
3 efforts are proposed under this application, that
4 that will be the result of this mine plan. And
5 we think that that needs to be discussed.
6 MR. BRAXTON: Do you think that's a
7 permanent displace or a temporary displacement?
8 MR. McHARG: Well, I can't make an
9 expert opinion on that, but what I can say is
10 that the mine will dewater these seeps and
11 springs. It's been recognized by the Division
12 that the mine will dewater seeps and springs.
13 These seeps and springs are crucial to bighorn
14 sheep; that Lila Canyon is unique, in fact, that
15 it has these seeps and springs as opposed to many
16 of the other canyons in the area that are dry.
17 And so if the seeps and springs are dewatered,
18 and dewatered permanently, then there's no reason
19 for the bighorn sheep to come back. This ties
20 into some of our concerns that we've raised in
21 the April 22 letter in terms of the mitigation
22 measures that are proposed. We believe that some
23 of these mitigation measures are not only
24 inadequate, but undesirable in the fact that they
25 will create additional impacts in other areas that

1 have not been sufficiently analyzed.
2 On Point 35, "Impacts of the Coal Haul
3 Road on Wildlife," I've raised DWR's concerns
4 regarding that. They have concerns about the
5 impact of the coal mine road on prong horn
6 antelope. We share the same concerns, you know,
7 for prong horn and also for other wildlife
8 species, including direct deaths to raptor species
9 and, and lizards and any other species that would
10 cross the road.
11 There are potential mitigation measures
12 that could be imposed on the applicant. We
13 discussed those in, I believe, the engineering
14 section. You know, and also here on time
15 restrictions on Point 36, that vehicles and haul
16 trucks should not be permitted to operate during
17 dawn, dusk, or nighttime hours. And essentially
18 this is the only mitigation that would protect
19 wildlife from direct mortality in terms of just
20 the disproportionate impact to wildlife during the
21 nighttime, dawn, and dusk hours.
22 Inadequate monitoring was a point we
23 raised in 37. This relates to that the Division
24 should require monitoring on all wildlife species,
25 not merely raptors. And I believe the PAP at

1 this time only contemplates monitoring for raptor
2 species.
3 More information and detail, of course,
4 is in our April 22 letter. And we look forward
5 to reviewing the Division's technical analysis on
6 the information that will be submitted by UEI.
7 Under Point 5--and we're starting to
8 get low on time. We have 20 minutes left. Under
9 Point 5, "Land Use," I discussed a lot of this
10 when we were discussing wildlife concerns, so I'll
11 be brief. Basically, under Point 38, we believe
12 that the PAP currently, there would be a failure
13 to restore to the quality capable of supporting
14 wilderness designation, that the rules require
15 that a PAP contain an analysis of the land
16 capability before coal mining and reclamation
17 operations and require that all disturbed areas be
18 restored, at a minimum, to the land uses that
19 they were capable of supporting before mining, if
20 not higher or better uses. And that's when,
21 where I would refer the Division to their
22 regulations and their regulations then require
23 that any reclamation operations would restore the
24 land to that use that it's capable of supporting
25 and that has been recognized as, as having

1 wilderness character.
2 I think it would be disingenuous to
3 proceed at this point with blinders on saying,
4 following a certain legal description of that area
5 when that, that area has been determined to have
6 wilderness character. And that is what the area
7 is capable of supporting.
8 Point 39: "Inadequate Restoration."
9 This ties into what I have just said. I'll just
10 briefly state part of this, that the PAP fails to
11 ensure that water sources and other wildlife
12 habitats which are critical to existing land uses,
13 including wildlife, supplemental wilderness
14 values, and grazing, will be adequately protected
15 and restored to their premining condition. And,
16 therefore, the application fails to demonstrate
17 that the land will be returned to its premining
18 land use capability. And that's under
19 645-301-414.
20 "Cultural Resources." I recognize that
21 the state historic preservation office, in a
22 recent correspondence to the Division, has said
23 that there will be no historic properties
24 affected. And they state that after a review of
25 the material provided to them. I guess the

1 question I have to the Division and the concern
2 that I have is has UEI provided, you know,
3 certain information to the Division that would,
4 that would, where the Division could make that
5 assessment, and has the Division supplied SHPO
6 with, with all the materials that they would need
7 to make that determination? My concern is that
8 if, so far they've only looked at the surface
9 facilities, the proposed surface facilities, that
10 that's not sufficient, that there are areas where
11 there will be subsidence impacts that could affect
12 cultural resources and historic properties and
13 that those areas would also have to be looked at
14 and also the road, the coal mine road that's
15 being put in for the mine, has that been
16 adequately surveyed for cultural properties? So
17 those are some of the concerns. They also relate
18 to future surface facilities. I mentioned earlier
19 future venting facilities or mine fans or
20 substations, things of that sort, those areas--
21 that's another reason why it's important to
22 determine that now is so the permit application
23 package describes where those places would be and
24 that, so that SHPO would be able to determine
25 whether or not cultural resources or historic

1 properties exist in those areas and what
2 mitigation measures would be important to address
3 there.
4 Forty-one.
5 MR. BRAXTON: You're just suggesting
6 that the Division follow the law in terms of
7 historic preservation, I hear?
8 MR. McHARG: That's what I'm
9 suggesting.
10 MR. BRAXTON: Okay.
11 MR. McHARG: Forty-one: "Air Quality."
12 It's laid out in our written comments and
13 basically a point worth noting. It's not limited
14 to dust that's on-site or would be produced by
15 the mine. I think the Division should also be
16 concerned with the connection between coal mining
17 operations and the fact that this coal will create
18 air quality problems in its use and that the
19 Division shouldn't turn its head to that and that
20 needs to be looked at and the Division of Air
21 Quality needs to look at that and the adequate
22 permits need to be acquired.
23 MR. BRAXTON: If you have a cite for
24 the, your recommendation that we look at the use
25 in terms of air quality, I'd certainly appreciate

1 that.
2 MR. McHARG: Okay. I will put that on
3 my list of citations to hopefully get to you.
4 If, if--and just raise that as a general concern
5 that we have right now. And I hope that the
6 Division will address that.
7 Under Point 6, "Significant Revision,"
8 we discussed this in our meeting that we had this
9 morning. It's a frustrating issue for us. We
10 believe we've raised this concern numerous times
11 and the board instructed the Division to process
12 this as a new permit. We, we're perplexed why
13 the Division still is not what we believe
14 following the intent of the board's order and its
15 regulations and processing this permit, you know,
16 not only processing the permit as a new permit,
17 but notifying the public that this is a new mine.
18 I think that, that if there is some administrative
19 advantage to processing the permit and calling it
20 an extension to the Horse Canyon Mine, we think
21 that that's not permitted under the rules; if
22 there is an administrative advantage to that. And
23 if there's not an administrative advantage to
24 that, then we ask why is the Division going to
25 all this trouble to simply, you know, to avoid

1 calling this a new mine and, you know, noticing
2 it to the public as an extension to the Horse
3 Canyon Mine. We think that this is, this mine
4 is, you know, it's an area three times larger
5 than the existing Horse Canyon Mine, that there's
6 new surface facilities involved, not just venting
7 facilities or a mine fan or a substation, but
8 entirely new coal mine operation facilities, a new
9 road being built for the mine. And you know,
10 it's a new mine and should be noticed to the
11 public as such.
12 And by failing to do so, I think it's
13 prejudicing the public. The notice to the public
14 does not call it a new mine. They call it an
15 extension to the Horse Canyon Mine. I think this
16 is deceiving to the public in the sense that, you
17 know, if there's a series or scores of hundreds
18 of notices about renewals and time extensions and
19 other small administrative changes to existing
20 mines or the Horse Canyon, they've seen these
21 notices in the past, in the past. And besides
22 just the opaque assertion that this particular
23 action would be being processed as a new permit,
24 there's nothing in the ads wording that would
25 actually notify the public that a new mine is

1 actually contemplated. The metes and bounds
2 description that's provided in the public notice
3 is really not meaningful to the public unless
4 you're an engineer or a surveyor or a geologist
5 and I think it needs to be noticed to the public
6 in laymen's terms that a new mine is proposed
7 with new surface facilities.
8 Point 7, "The Lila Canyon Mine Road,"
9 we believe that the road must be included as part
10 of the permit area. The road should be
11 considered part of the affected area of the mine.
12 This road is not being upgraded but for the mine
13 and but for UtahAmerican Energy's funding. It's
14 being constructed for mining and reclamation
15 activities and it's being improved well beyond any
16 multiple-use mandates or for any other user.
17 This, this mine is being constructed for the Lila
18 Canyon coal mine and we believe that the Division
19 should include it in the affected area of the
20 mine, require the sufficient information from UEI
21 and analyze it as part of the mine.
22 Point 8 is just various issues that
23 came out of the legal section of the permit
24 application package. On Point 44, "Unsuitable for
25 Mining," we believe the proposed permit area is

1 unsuitable for mining, and that at a minimum, it
2 would affect productivity of water supply and
3 scientific and esthetic values in natural systems.
4 And we are looking at our options in that aspect.
5 On 45, "Impossible Schedule," the
6 schedule that so far has been established, and
7 maybe it's changed and if it has, please let me
8 know, but UEI's schedule fails to account for the
9 necessary data gathering, technical review and the
10 public process. Right now, UEI anticipates
11 beginning surface disturbing actions this year in
12 June. So this month. At--or, I mean, next
13 month, a couple of weeks from now.
14 At this time, the most aggressive start
15 date, we believe, could be no sooner than sometime
16 in the summer of 2004, and that's assuming that
17 all necessary baseline data is collected.
18 Further, any schedule, if the mine is eventually
19 permitted and all the necessary data is collected,
20 that schedule would also have to be adapted to
21 recognize wildlife and other resource conflicts.
22 On Point 46, "Bonding and Insurance,"
23 now, this is where I make the statement in our
24 comment letter here that it would have to be
25 sufficient to cover the reclamation to the current

1 land use capability, which is wilderness. You
2 asked for a citation on that. I raised it as a
3 concern and if there's not a specific regulatory
4 citation to that, then I would just hope that the
5 Division would consider that concern that SUWA has
6 raised, that if the regulations require that
7 reclamation reach a point that, you know, of what
8 the land was capable of sustaining or a higher
9 use that the money would have to be there for it.
10 If the money's not there, then how can the public
11 be assured or the Division that UEI is actually
12 going to restore the land to the use that it was
13 capable of supporting.
14 Forty-seven is just to remind everyone
15 that the right-of-way is still in dispute before
16 the Interior Board of Land Appeals.
17 MR. BRAXTON: What right-of-way
18 specifically?
19 MR. McHARG: The right-of-way for the
20 surface facilities.
21 MR. McHARG: So I guess, in brief
22 summary, many of the concerns that we raised in
23 our April 22 letter and today mirror the concerns
24 that the Division itself had expressed six times
25 during its technical review process in the earlier

1 permit applications and also concerns that we
2 raised on that permit application package.
3 Unfortunately, it appears that UEI has simply
4 resubmitted a permit application package that is,
5 for all intents and purposes, substantially the
6 same. It has the same deficiencies as the
7 earlier permit application package.
8 What I can say today is that we're, you
9 know, reviewing that permit application package
10 and that we're, that the Division has yet to
11 issue a technical analysis on that and that we're
12 hopeful that the Division will correct those
13 deficiencies, require UEI to submit the data that
14 it had, that the Division had concerns with
15 throughout most of the majority of the process for
16 the other PAP, and that SUWA is raising today.
17 Thank you.
18 MR. BRAXTON: You made your hurdle with
19 time to spare.
20 MR. McHARG: I made it. I made it.
21 MR. BRAXTON: Congratulations.
22 MR. McHARG: By five minutes.
23 MR. BRAXTON: Do you want to begin, Ms.
24 Dragoo--
25 MS. DRAGOO: Sure.

1 MR. BRAXTON: --or do you want to
2 stretch for five minutes? What's your counsel?
3 MS. DRAGOO: Well, if you give me five
4 minutes, that would be great.
5 MR. BRAXTON: Let's do that. Resume at
6 2:30.
7 (Recess taken, 2:29-2:35 p.m.)
8 MR. BRAXTON: Let's go back on the
9 record, then. It's 2:30, or very near 2:30, and
10 this is the time set aside for UtahAmerican
11 Energy, Inc., to make their presentation in this
12 public comment period. Please go ahead.
13 MS. DRAGOO: Thank you, Director
14 Braxton. I'm Denise Dragoo, and I'm counsel for
15 UtahAmerican Energy and we've provided a response
16 on behalf of UtahAmerican Energy. You'll find the
17 response in the two volumes in front of you
18 there. If you'll flip to the front of that first
19 volume, you'll see the letter of response. And
20 then we have two volumes of exhibits that are
21 referenced throughout our response. So I guess--
22 MR. BRAXTON: We'll take those into the
23 record for the hearing, then.
24 MS. DRAGOO: Yes, if you would. Thank
25 you.

1 Also, for the record, we would just
2 like to preserve our objections to the fact that
3 there hasn't been any foundation laid regarding
4 the experts and hopefully that SUWA's comments
5 will be accepted, the comments of their experts
6 will just be accepted as comments and in the
7 event that they are given any additional weight as
8 experts, we would object to that.
9 MR. BRAXTON: I would note for the
10 record, this entire process is informal. But I
11 appreciate your context.
12 MS. DRAGOO: Terrific. Thank you.
13 Particularly, Dr. Kass is not even here today so
14 we would object to that. Thank you.
15 Okay. Now, turning to the--we're just
16 simply going to respond issue by issue to the
17 questions and comments presented by the Utah
18 Wilderness Alliance. At the outset we want to
19 indicate that UtahAmerican Energy in February of
20 this year submitted a new permit and that new
21 permit is an extension to the Horse Canyon Mine.
22 It's the Lila Canyon Mine extension. And UEI has
23 submitted complete and accurate baseline
24 information, in fact, the Division of Oil, Gas &
25 Mining has made a determination of completeness.

1 And we believe that completeness determination is
2 adequate.
3 And we would like now to respond first
4 to hydrology issues that were raised. First,
5 going to the the question of acid- or toxic-
6 forming material that's Question 1 raised in the
7 May 22 letter--or April 22 letter submitted by
8 Southern Utah Wilderness Alliance.
9 And I would like Jay Marshall to
10 respond to this acid- and toxic-forming material
11 question.
12 MR. MARSHALL: Thanks, Denise.
13 Mr. Braxton, the first item is acid-
14 and toxic-forming material as highlighted by
15 SUWA's concerns. In an April 22, 2002, letter
16 that was submitted with some things that need to
17 be fixed on the permit, UEI submitted a request
18 for a waiver of parts 645-301, 624-200 and -300
19 on the basis that the, there's information of
20 equal value and effect included in the permit.
21 On Item A, there's been over a hundred years of
22 mining experience in the Sunnyside area and
23 Sunnyside seam, Kaiser, specifically, Horse
24 Canyon, Columbia, just to name a few. In those
25 hundred years there's been no demonstrate or

1 proven problem with acid and toxic discharge from
2 the mine itself.
3 In addition to that, just for general
4 information, in addition to that, there was two
5 drill holes drilled. It's called S-24, S-25.
6 It's located approximately two miles south of the
7 permit area, the current permit area. These were
8 drilled by Kaiser. There was an acid and toxic
9 report written. It's called Analysis of Various
10 Rock Types and that has been included in
11 Appendices 6-2 and is in Exhibit 3 in the binder.
12 Exhibit 4 shows the locations of S-24
13 and -25 in relationship to the permit area and
14 the rest--general area.
15 Plate 6-13 and 6-14 are attached to
16 Exhibits 5 and 6 and what those are are the core
17 analysis of those core holes. Now, those core
18 holes went from the surface through the coal seam
19 and all the way down to the Mancos shale. And
20 when Kaiser had first propose a coal mine here
21 they were going to put two rock slopes in in the
22 general area of those drill holes. And up into
23 the coal seam and then they were going to put two
24 shafts to the surface. So all that material had
25 been analyzed, not only the rock slope material we

1 proposed but also areas immediately above and
2 below the coal seam. And that is demonstrated on
3 those two plates, as well as the report titled
4 "Analysis of Various Rock Types" that's included.
5 In addition to that, UEI is committed
6 to treating all the underground mine waste as, as
7 if it was acid- and toxic-forming so in reality
8 it doesn't matter if it's acid- and toxic-forming
9 or not. UEI is committed to taking all that rock
10 slope material and burying it and covering it with
11 4 foot of appropriate cover. So additional
12 testing, if it did show, even if we did have
13 something with acid/toxic, it wouldn't change
14 anything. We'd treat it exactly the same way we
15 would propose to treat it in the permit.
16 MR. BRAXTON: And does the permit
17 propose a sampling frequency or sampling--
18 MR. MARSHALL: It does.
19 MR. BRAXTON: --protocol for that?
20 MR. MARSHALL: It does. It proposes a
21 sampling, I think it was a, three times. We
22 increased that with the April submittal to five
23 times. But, again, it doesn't really matter how
24 many times it's sampled. If one of the samples
25 is acid and toxic, it's all being treated as acid

1 and toxic anyway, no matter how many, if any of
2 them, come out acid and toxic, doesn't matter what
3 that material is that comes out of the rock
4 slope, we're going to treat it as if it was acid
5 and toxic as if every pound of it was acid and
6 toxic.
7 So additional testing could only result
8 in less stringent handling. If we test it on
9 more frequency, there would be nothing to prevent
10 us from using that material, crushing it up and
11 putting it on a road as gravel. But we've
12 committed in the plan. We're not going to do
13 that. We've committed in the plan to putting it
14 in a refuse area, covering it with 4 foot of
15 material. So it doesn't really matter what those
16 analysis, or it doesn't matter how many analysis
17 we take. We're going to treat it the same.
18 As all coal mine waste, we're going to
19 bury it with a minimum of 4 foot of topsoil and
20 subsoil. I think that about covers the acid and
21 toxic. But in a nutshell, UEI's requested a
22 waiver because we do not have, when I say "we do
23 not have," we don't have testing on the immediate
24 permit area. Immediately adjacent, we do, but not
25 on the immediate. The geology, the structure is

the same where it was tested as it is in Lila Canyon, two miles south of the permit area. Sorry. I'll speak up little bit.

Okay. If we move on to . . .

MS. DRAGOO: Second issue.

MR. MARSHALL: Yeah, the second issue, the second issue is subsurface water resource maps. If you look at Exhibit 9, Exhibit 9--okay. Exhibit 9 is, should be Plate--

MS. DRAGOO: 7-1.

MR. MARSHALL: --7-1. You notice that plate 7-1, it shows all the springs and the locations of the springs in relationship to the permit area. And we propose that this map shows, this map actually shows the locations of all the, all the baseline data points, not only baseline data points but also the springs and seeps that were identified in the spring and seep inventory. Maybe it's a good time now to explain the difference between a spring and seep inventory and baseline. Spring and seep inventories are done to identify all sources of water, wet spot, even vegetation that might indicate water.

From the spring and seep inventory, the company will get with the Division and determine

which of those waters are consistent enough or warrants enough importance to do baseline and continued operations on. There's no way that the Division would have intended UEI or anybody else to do baseline studies on 70 seeps and springs. The intent of a seep and spring inventory is to identify all potential water sources.

MS. DRAGOO: In terms of saturated zone.

MR. MARSHALL: Okay. In terms of the saturated zone, the lower end of the Blackhawk Formation, we contend, is a saturated zone.

MS. DRAGOO: This shows, the vertical distribution of springs and seeps and the-

MR. MARSHALL: As far as the vertical distribution goes, anybody that can read a contour map can determine what the elevation of those springs are. The spatial view you can look at the map and see if you want to get a township, range, you want to get state plane coordinates or whatever you want to get from it.

Lack of seasonal variation in a saturated zone. If you look at piezometers IPA-1, -2, and -3, Exhibit 10 kind of presents it in a little graphic manner. This information is found

in Appendices 7-1. But if you look at this Exhibit 10, it shows the dates that those piezometers were read and it also shows a graphic representation which, if there was single variation, would show up on there. And you see the straight lines. There's IPA-1 has a general incline to it but the others are substantially consistent. I mean, there's no indication of increases or decreases according to time of the year.

MS. DRAGOO: Do you want to turn to surface water information, Issue 3?

MR. MARSHALL: This one here?

MS. DRAGOO: Right.

MR. BRAXTON: Let's back up. What is your conclusion on the slope of IPA-1?

MR. MARSHALL: On IPA-1 there's been a lot of, people have made conjectures or ideas what's going on there.

Dan, maybe you can help us out. IPA-1, IPA-1 is the one that shows the gradual increase in elevation.

MR. GUY: Yes, I believe that's the one.

MR. MARSHALL: Maybe you can help us

1 out a little bit.
2 MS. DRAGOO: Dan Guy is the, he's our
3 hydrologist for UEI.
4 MR. MARSHALL: I think what Lowell is
5 alluding to is the gradual increase in IPA-1.
6 MR. GUY: Yeah, there is in the IPA-1,
7 there is a gradual increase. In the others
8 they're fairly, holding fairly consistent.
9 MR. BRAXTON: And why would you, would
10 you guess that slope exists? Dan, I, to tell you
11 the truth, I have no particular idea why that's
12 the case. It's not--well, let me take a quick
13 look here because there's about a five-year gap in
14 data, which, there could be any number of reasons.
15 The fact that the other two aren't showing a
16 similar increase makes me wonder if maybe there's
17 some problem in measurement of that hole. It's
18 showing relatively consistent from the time the
19 monitoring is started again. Increasing only
20 slightly, but--
21 MR. COONROD: Excuse me. One thing
22 that was pointed out, I believe, by--
23 MS. DRAGOO: You might want to identify
24 yourself for the record.
25 MR. COONROD: I'm sorry. Mr. Braxton,

I'm Mel Coonrod. I've worked in the area a number of years, not in a hydrologic capacity, but at one of the sampling I was present and it was introduced, I believe, by one of DOGM's personnel, that perhaps the increase in water level was due to the erosion of the casing and there could be a gradual sloughing of the well wall into the bottom of the hole or the rat hole portion which would cause the water to rise.

MR. BRAXTON: Just displaces it, then?

MR. COONROD: Yeah. Just point of interest.

MR. GUY: It doesn't seem to be a regional thing based on the other two, is what I guess I'm saying.

MR. BRAXTON: Thank you.

MS. DRAGOO: Great. Turning to, yeah, Issue 3 and the question of date of the two intermittent washes.

MR. MARSHALL: If you look on Exhibit 11, this information, again, was submitted in April. There's a spreadsheet there showing for 2001, actually for each of the years for our groundwater monitoring location: L1S in Lila Canyon, L2S would be in what we call the right

1 fork of Lila above the mine site, and L3S is the
2 right fork of Lila below the mine site. Of
3 course, the Lila pond, the pond has not been
4 constructed yet so we cannot monitor that, as well
5 as L5G which is the mine water discharge. We
6 cannot monitor it yet.
7 And there's initial of the person who
8 was there. It says "Inspector," but it's actually
9 the visitor, or whatever you want to say. And
10 then where you see handwritten on the right side
11 is where I entered it into the database, the DOGM
12 database. Those dates say 2001, 2002, 2003--or
13 2002, I'm sorry. The last page is the Little
14 Park area wash. There again, document, I
15 documented dates on when individuals were visiting
16 the site. And had those people initial as the
17 observer. It's typed--the last one was initial of
18 the observer, okay? I typed the initials of the
19 observer but they did initial that.
20 What--
21 MR. BRAXTON: So you would, excuse me,
22 you'd have something in your files that
23 substantiate that somebody signed off on taking
24 that sampling?
25 MR. MARSHALL: We would have--there was

no sample taken. There was dates--

MR. BRAXTON: Observed, the observation. I'm sorry.

MR. MARSHALL: Yes. We would have things in our file or could come up with things in maybe UEI's files or Dan Guy's file saying that on this date they were on the property, yes. It's just a collection.

And in addition to that, there's other dates that I haven't covered. These are just the dates that I was aware of people were on-site.

MR. BRAXTON: Thank you.

MS. DRAGOO: Turning to Item 4, "Groundwater Quantity in the Saturated Zone," we wanted Dan Guy to address this particularly regarding the, whether the saturated zone is an aquifer.

MR. GUY: Okay. I think we've gone through a bit of a discussion about the fact that the saturated zone, which is located in the Mesa Verde group does not meet the Division or the regulation definition of an aquifer. Therefore, no water quantity data is required for the saturated zone.

The aquifer is defined by R645-100-200.

1 And let's see. It's not developed for any
2 specific use nor does it supply any water sources
3 or serve as a beneficial use for an appropriated
4 source.
5 UEI has gathered quantity information
6 on the saturated zone through the piezometers as
7 we just discussed. The data does not need to be
8 collected two years prior to mining to identify
9 comparative land. The data shows a water level
10 revealing the hydrostatic head in the coal zone
11 specifically, shows the seasonal variations. And
12 it's on the piezometric surface is projected based
13 on these piezometers is shown on Plate 7-1 which
14 is also part of these exhibits. I believe it's
15 Exhibit 9. I'm sorry.
16 The whole thing centers on the fact--
17 and the point's been raised here that we haven't
18 said where the discharge of this saturated zone
19 is. In reality, I can't say that I know where it
20 is because I have seen no evidence of a discharge
21 from this saturated zone anywhere. We have
22 geologic maps that indicate that--let's see, this
23 map here might actually show, it's a little hard
24 to see on here. Trying to figure out where the
25 Blackhawk Formation actually outcrops into any

kind of a drainage, and that's in the Price River, Jay, is it?

MR. MARSHALL: Okay. Yeah. There's a--

MR. GUY: I believe we have a map that probably shows it a little better.

MR. MARSHALL: What Dan is referring to, this map right here. It's titled Map I-1764.

MR. LIPS: 1764?

MR. MARSHALL: Yes, I-1764.

MR. BRAXTON: Is that a water supply paper map or is that just a regional geologic map.

MR. GUY: This is a geologic map of the Huntington 30-by-60 quadrangle.

MR. MARSHALL: It includes the Range Creek area. It includes the Horse Canyon area over to the Green River.

MR. BRAXTON: And what's the publication date on that map?

MR. MARSHALL: Where is the publication date?

MS. DRAGOO: It's right here, 1998.

MR. BRAXTON: '98? Thank you.

MS. DRAGOO: And just for the record,

1 we'll identify this as Exhibit 45.
2 MR. MARSHALL: What we want to show on
3 Exhibit 45 is Range Creek being right here
4 (Indicating). Range Creek does not even reach the
5 upper Price River; well, it touches the upper
6 Price River.
7 MS. DRAGOO: Do you want to approach
8 the bench.
9 MR. MARSHALL: What we wanted to show
10 here this is the Range Creek here (Indicating).
11 Range Creek never does penetrate the Blackhawk or
12 the deep saturated zone. It's in the upper Price
13 River a little bit here but it never does get
14 into the Blackhawk. The Blackhawk is KBH.
15 (Discussion held off the record.)
16 MR. MARSHALL: And as you see, when you
17 look at Range Creek, the closest outcrop of the
18 KBH is down here on the Green River, which is
19 approximately five, six miles below the confluence
20 of the Range Creek and the Green.
21 MR. BRAXTON: Okay. Thank you.
22 MR. GUY: The point being, Lowell,
23 Blackhawk and the Mesa Verde group are the areas
24 where the saturated zone exists, and that if there
25 is, in fact, a discharge from them, it would

1 probably be in the location of the Green River or
2 the Price River where the drainages actually cut
3 through that formation. There's no evidence
4 anywhere in any of the geologic information that
5 that discharges into the Range Creek area.
6 MR. BRAXTON: Does the permit--and
7 maybe I'm getting you off course here--does the
8 permit describe the regional geological dip and
9 things like that in the geology section?
10 MR. GUY: It, I don't know that it goes
11 into that, there's a general geologic information
12 but it's not that specific at the point
13 particularly relating to the hydrology.
14 MS. DRAGOO: Your PHC determination.
15 MR. GUY: The PHC does.
16 MR. BRAXTON: And that's part of the
17 permit?
18 MR. GUY: Not part of the geologic
19 section of the permit, but the PHC does address
20 the fact that, yes, that it's--
21 MR. BRAXTON: It's a northeasterly or
22 north northeasterly regional--
23 MR. GUY: Yes.
24 MR. BRAXTON: --dip or whatever is
25 displayed on your current Exhibit 45--

MS. DRAGOO: Right.

MR. BRAXTON: --or 44? I've got it mixed up.

MS. DRAGOO: Exactly. And that PHC determination is attached as Exhibit 12 in your materials.

Also there is the question that was raised by SUWA regarding the effect of faults on groundwater. And I think that's also addressed by the PHC determination, would you address that.

MR. GUY: In the PHC it does address the effects of the faults on ground water which are very inconclusive because faults, as you well know, are, in some cases can as a conduit to carry groundwater from one place to another and in other cases they're a complete barrier. And there's no way of predicting that. So all we can do is project the piezometric surface based on the available data that we have. And it is simply that: It's a projection. And that piezometric surface is, it's just our best guess of the top of the saturated zone. Again, we're not considering that to be an aquifer.

There is one other--well, I guess we can, we'll discuss this a little bit later here.

MS. DRAGOO: If you could address Issue 5, "Groundwater Quality in the Deep Saturated Zone."

MR. GUY: Okay. I think--

MR. MARSHALL: I can probably help on that. Groundwater quality, even though that's a deep saturated zone, it's not an aquifer in UEI's opinion or UEI's experts' opinion. It's a deep saturated zone but there has been numerous samples analyzed of the mine water in adjacent Horse Canyon. Those are in the permit area. It would be groundwater--the sample locations are in Plate 7-2?

MS. DRAGOO: 7-1 and 7-2.

MR. MARSHALL: Plate 7-1 and 7-2.

MS. DRAGOO: Those are Exhibits 15 and 17.

MR. MARSHALL: Fifteen and seventeen?

MS. DRAGOO: Uh-huh (Affirmative).

MR. MARSHALL: That's the data. If you'll notice on 15 and 17 is the data--I'll just pull out a couple. I'd like to find that plate, though.

MS. DRAGOO: I think Plate 7-1.

MR. MARSHALL: Is it 7-1 or 7-2? Have

1 you got it there.
2 MR. GUY: Plate 7-1.
3 MR. MARSHALL: Okay. Here is 7-1 here.
4 And as you see these the locations--okay this is
5 Plate 7-1. As you notice these locations right
6 here with the stars on them, these 2WB, 2N1 East,
7 these are underground locations where samples have
8 been taken and analyzed. And it's in the permit,
9 attached as 15 and 17 in your attachments. So
10 there is about eight underground locations where
11 that water has been monitored for quality.
12 MR. BRAXTON: A question on this plate:
13 These east-west trending structures that show in
14 here are the faults that you're analyzing for
15 hydrologic impact, do they trend on up north into
16 the old Horse Canyon workings too?
17 MR. MARSHALL: Yes. There are faults
18 in the Horse Canyon Mine, yes.
19 MR. BRAXTON: And can you conjecture as
20 to what those faults do in the Horse Canyon Mine
21 and--
22 MR. MARSHALL: East-west ones didn't do
23 much. The Sunnyside fault that runs this
24 direction (Indicating) is when they started
25 hitting the underground water. There's one in

here, that fault. Now, that Sunnyside fault here is toward the east and away from Lila Canyon.

MR. BRAXTON: So is it anticipated that you'll hit the Sunnyside fault--

MR. MARSHALL: No.

MR. BRAXTON: --in this mine operation or splays related thereto?

MR. MARSHALL: It's not anticipated, no. None of the drilling would indicate Sunnyside fault.

MR. BRAXTON: Are we on the up-thrown or the down-thrown side of the Sunnyside fault?--the mine, the mine workings.

MR. MARSHALL: Up-thrown.

MR. BRAXTON: Up-thrown? Thanks.

MS. DRAGOO: Moving on, we wanted to address the groundwater quality and quantity to the perched aquifers, and this is where SUWA is incorrect in suggesting that there's only data from one seep supporting this. Actually, there are six currently operating groundwater monitoring locations and those are identified on Exhibit 18.

Do you want to explain that exhibit quickly.

MR. MARSHALL: Quickly on 18, what I

1 did was took the locations that we have in the
2 Lila Canyon extension for water monitoring, that
3 does not include the Horse Canyon, it's just the
4 Lila Canyon. And on that, this is 18 we're
5 looking at, Lowell, on that I showed the months,
6 the quarters and the months that that was actually
7 monitored. And you see the piezometers are on
8 there. You can see where the L1, -2, and -3, the
9 surface water was on there, as well as the
10 groundwater monitoring, L6, -7, -8, -9, -10, -11
11 -12.
12 MR. BRAXTON: And you submitted this to
13 the Division as part of your current application?
14 MR. MARSHALL: No, I just put this
15 together for this presentation today. That data
16 is in the permit but it's just not put on a
17 graphic format.
18 MR. BRAXTON: I see.
19 MS. DRAGOO: Do you want to discuss how
20 you chose those . . .
21 MR. MARSHALL: Yeah. Where is that at?
22 MS. DRAGOO: We have a map now, it's
23 Exhibit 28. Geologic overlay map.
24 MR. MARSHALL: Okay. On 28, where 28
25 came from was I took that geologic map that we

had, I scanned in a portion that shows Little Park area. Horse Canyon is here (Indicating). Lila Canyon is here (Indicating).

On the top of that, I overlaid all of seeps and springs that were identified in the inventories. And if you look, you can see the green dots in here, it shows where they're at. Where they're at. And also on this if you look, you can see most of the seeps and springs are coming out of the--not a geologist here. They're coming out of the Northhorn Flagstaff right here (Indicating), this brown stuff right at the edge of the coal.

MR. BRAXTON: And that's a geologic horizon that overlies the Blackhawk?

MR. MARSHALL: Yes, way above it.

MR. GUY: It overlies--

MR. MARSHALL: About a thousand feet.

MR. GUY: The Blackhawk, then you have the Castle Gate, the Price River, and then the Northhorn so it's, the Blackhawk's quite a ways down.

MR. BRAXTON: Thank you.

MR. MARSHALL: To give you an idea of cover, here's the Book Cliffs itself (Indicating).

1 Of course zero where you go in. It immediately
2 goes up to about 1,500, and as you get in deeper,
3 it goes up to 2,000, even up to 2,500. SUWA has
4 made the comment about all the seeps and springs.
5 Off the permit area, you can see them right along
6 here adjacent to the permit area (Indicating).
7 They're right as far as, they're not many seeps
8 and springs on the permit area. Most of it is
9 just adjacent to it where you get into these
10 other geologic layers.
11 Ones that we have chosen to monitor,
12 and we have baseline with continued operations on
13 are, there's two right here (Indicating) and SUWA
14 pointed out that this was in the old work area,
15 which it is, you know, any impacts is already
16 impacted there and there can't be any mope
17 subsidence impacts there, but they were two good
18 sources, very good sources. Once you get the
19 spring and seep inventory and you see these
20 clusters of springs here, it serves no beneficial
21 use to monitor every one of those springs that
22 are in that cluster, every one that's in this
23 cluster, or this cluster (Indicating). So what I
24 did was selected, in conjunction with DOGM, is
25 selected a spring in that this has more consistent

1 flow, that we felt like we could get better
2 quality information out of.
3 MR. BRAXTON: Is there a regulation
4 that requires that you monitor every one of those
5 points?
6 MR. MARSHALL: Not that I'm aware of,
7 okay?
8 However, if you look at every single
9 one of these, 60 or 70, some of them, there's
10 almost enough data to have baseline on. There
11 was seven, eight, and nine visits to these.
12 But you can see UEI selected two
13 springs out of here (Indicating), they selected a
14 spring out you have this group here (Indicating),
15 a spring out of this group here (Indicating), a
16 spring out of this group here, and this one was a
17 newer addition, this was one in conjunction with
18 Division of Oil, Gas & Mining that DOGM said they
19 recognized we don't have many of the locations on
20 the permit area. Why don't we monitor this one.
21 And this site right here (Indicating), to give you
22 an idea, it is less than half a gallon a minute,
23 I believe, last time I monitored it. You set the
24 bottle under there and you smoke, you go have a
25 smoke, but I don't smoke. I just sit here,

1 watching the bottle, hoping it would fill up
2 quicker. But anyway, there's very little flow in
3 there. Very little flow.
4 Now, if you look at the spring and seep
5 inventory, just a basis, it looks like there's a
6 lot of water here, but if you look at the seep
7 and spring inventory, there's one date, 5/85, that
8 sticks out. And I'd like to ask anybody in this
9 room--I think everybody in this room knows what
10 they were doing in May of '85: sandbagging down
11 here on Main Street. I know I was in National
12 Guard and we got called back to Fort Carson for
13 flood duty for the state of Utah. I spent three
14 weeks on flood duty. So it was a very wet, wet
15 month. And a lot of these, that's where you see
16 the slower the size in May, and subsequent, prior,
17 and after you don't see it. You see no flow;
18 you're dry.
19 But anyway, the point I'm making is
20 that where the springs are emitting from is right
21 below, they're in the upper aquifer, you know, we
22 do call the upper one an aquifer. They're not
23 down in the lower saturated zone. There is no
24 springs emitting from the lower saturated zone.
25 There are none.

1 SUWA said that there's one point within
2 a hundred feet of the mine, of the mine we're not
3 monitoring. I'd like to get the SUWA to find out
4 which location that is because I'm not aware of
5 one we're not monitoring within a hundred feet.
6 Basically that shows, you know, where
7 the springs and seeps are located. And hopefully
8 it explains why we selected the ones we selected
9 to monitor. We do not have to monitor
10 everything, nothing requiring that we monitor all
11 70 seeps and springs where we're located for
12 baseline, even though a majority of them there is
13 enough for baseline.
14 MS. DRAGOO: For the record, that is
15 Exhibit 28, and we're going to submit a smaller
16 version of that for the record you can keep.
17 We're going to move quickly know to
18 coal mine waste and Questions 7 through 10. And,
19 Jay, would you like to explain how coal mine
20 waste is handled and--
21 MR. MARSHALL: Okay. I'll go through
22 it real quickly. Coal mine waste--
23 MS. DRAGOO: We're on Item 7.
24 MR. MARSHALL: Okay. Item 7. Okay.
25 Rock slope material, that is the material that

1 does not fit easily into any of the definitions.
2 You'll see it referred to as rock slope material
3 and see it referred to as mine waste. You'll see
4 it referred to as refuse. Bottom line is, it
5 doesn't matter what we call that, that material is
6 going into the refuse pile as being treated as
7 acid and toxic no matter what analysis show.
8 We're treating it as acid and toxic.
9 The location, SUWA seemed to be
10 confused on the location of it and the amount.
11 If you look at Exhibit 19, it shows a spreadsheet
12 with cross sections showing the amount of the
13 material that we were going to get--or where we're
14 going deposit it at. We're going to get it out
15 of rock slope but this is where we're going
16 deposit it at and this is in conjunction with
17 plate, it's called Figure 1, Figure 1 of
18 Appendices 5-7. And what Figure 1 of Appendices
19 5-7 shows is it shows the exact location of where
20 the rock slope material or the refuse, whatever
21 you want to call it, where it goes. It
22 identifies what we call structural fill. And the
23 reason we call it structural fill is because the
24 shop warehouse will be constructed on top of the
25 rock slope material.

In addition, there's some, there's some additional area that's been allowed for any other refuse that might come out of the mine. There's cross sections. If you'll notice from this map, it has all these cross sections in it. Those cross sections can be found on Figure 2 of Appendices 5-7. Each cross section shows the amount of topsoil we're going to take, remove, put on the topsoil pile. It shows the amount of cover material that we're going to remove, and it shows the amount of the rock slope material that's going to, that's going to be put into the hole, and then it also shows cover material coming back over the top, how much that's going to be, and the topsoil coming back over the top.

MR. BRAXTON: As a mining engineer, have you had experience in calculating tons and volumes using cross-sectional methods?

MR. MARSHALL: You say, have I?

MR. BRAXTON: Yes.

MR. MARSHALL: Twenty-some years of it. I have.

Now, the, it the may be confusing that cover material, you know, we're not going to put that in a separate stockpile. We're not going to

1 open up this whole refuse pile at the same time.
2 When I say "refuse pile," it's inside, is what it
3 is. We're not going to open it up all at once.
4 We're going to use a backhoe and a Cat to open
5 up, maybe a Cat or two Cats in width, in width.
6 We'll strip the soil, topsoil off the top of it,
7 put it in the topsoil pile. We'll go in, we'll
8 take a Cat, either one or two Cat lengths, push
9 that material, the cover material, to the side,
10 put the refuse in the hole, pull the cover
11 material back over the top. And then on final
12 reclamation we'll put the topsoil on and seed it.
13 MS. DRAGOO: Okay. Moving along now to
14 mine water discharge, Jay, do you have a UPDES
15 permit?
16 MR. MARSHALL: Yes, we have a UPDES
17 permit. Do you have a copy?
18 MS. DRAGOO: Yes.
19 MR. MARSHALL: We have a UPDES permit
20 that was approved on October 1 of 1999, and the
21 cover sheet is right here.
22 (Discussion held off the record.)
23 MR. MARSHALL: It was approved on
24 October the 1, 1999. And it is behind Tab 25 in
25 your . . .

MR. BRAXTON: And that UPDES permit is for what structure? Your sedimentation pond? Your proposed sedimentation pond.

MR. MARSHALL: There are two discharge points on it?

MR. GUY: And the mine water.

MR. MARSHALL: Right. One is the sediment pond and one is mine water discharge. Now, the mine water discharge, we don't anticipate discharging in water. I need to emphasize that. We don't anticipate it but just in case, we went ahead and got an NPDES permit just in case we had to do it but we don't anticipate it.

MS. DRAGOO: What about the channel morphology?

MR. MARSHALL: Okay. The morphology, we have committed, again, we do not, we do not anticipate discharging water from the mine. However, if we do, we have committed in the plan that we will do the morphology and, analysis of-- how did we word it?

MS. DRAGOO: It's on Exhibit 24.

MR. GUY: "Analyze channel morphology parameters and erosion impacts. "

MR. MARSHALL: Okay. If we do

1 discharge--well, first of all, we'll hold the
2 water in the sumps as long as possible to promote
3 settling. Second, we will sample prior to
4 discharge to ensure compliance with UPDES standard
5 or what our UPDES permit allows us to discharge.
6 We will not discharge unless we meet those
7 standards. And third, if we do discharge, the
8 receding channel morphology parameters and erosion
9 will be evaluated, okay? We've made that
10 commitment in the permit on page 25 and 26 of the
11 chapter 7.
12 MR. BRAXTON: And I asked SUWA, I
13 think, when they were talking about this, if
14 there's a regulatory cite for you to do that.
15 Maybe you could help all of us by saying what
16 regulations will you submit information to the
17 Division on to analyze that morphology. Or if
18 you don't know that now, I'd appreciate having
19 that in the future.
20 MR. MARSHALL: Okay. We've put that
21 under 728-333. "Flooding and Stream Flow
22 Alteration" is where we put it.
23 MR. BRAXTON: 728-333?
24 MR. MARSHALL: Yes.
25 MR. BRAXTON: Thanks.

1 MS. DRAGOO: And in addition to that,
2 there's also a PHC determination.
3 Dan, is this issue addressed in that as
4 well, regarding morphology?
5 MR. GUY: Yes--well, it doesn't--yes,
6 it does, in the PHC we do talk about the fact
7 that it will be looked at, I believe.
8 MS. DRAGOO: I think that's Exhibit--
9 MR. BUDGE: --26.
10 MS. DRAGOO: --26, right.
11 MR. BUDGE: Twenty-seven, I believe.
12 MR. BRAXTON: That makes better sense.
13 Thank you.
14 MR. GUY: It mentions that the
15 applicant is committed to evaluating channel
16 parameters and erosion impacts should water be
17 discharged.
18 MS. DRAGOO: All right. In terms of
19 salinity impacts, SUWA was not able to confirm
20 that any flows reached the Colorado River.
21 Dan, can you address this issue of
22 salinity and impacts on the Colorado River?
23 MR. GUY: Once again, I think it's
24 important to note that they don't anticipate, you
25 know, even in the saturated zone that we're going

1 to encounter sufficient volumes of water that
2 will, will have to be doing a lot of pumping or
3 even any pump out of the mine. But, nonetheless,
4 they've committed to do these studies. Any--to
5 talk about adding salinity to the Colorado River
6 from a mine water discharge this far from, from
7 any perennial streams that are going to carry this
8 water, is pretty speculative. I can't say that
9 it won't reach it, but I'm not going to sit here
10 and say that it is a probability that it will
11 either.
12 The--UEI has committed to test,
13 analyze, and sample all discharges according with
14 the plan. They have a UPDES permit, which is
15 issued by another state agency, however, it is
16 part of their job to evaluate this very thing, to
17 look at the impacts on receiving waters. And
18 that's obviously been done. Or the permit
19 wouldn't have been issued.
20 MS. DRAGOO: Terrific. I think we can
21 also have Dave Steed, who's a, Utah American's
22 consultant with EIS, can you also address this
23 issue, Dave?
24 MR. STEED: Yes. Let me introduce
25 myself as David Steed. I was part of the

1 third-party NEPA analysis for the EA as well as
2 part of the baseline work for the PAP MRP.
3 Just in reference, also in support of
4 the salinity issue, Item 39 in our submittal,
5 which is a copy of the U.S. Fish & Wildlife
6 letter sent to Division of Oil & Gas, April 28 of
7 2002. Third paragraph: Analysis of the project
8 proposal used 21.3 acre-feet of water annually.
9 It goes into citing various cooperative
10 agreements, agency agreements with upstream water
11 users, which is also part of the salinity control
12 issue on the Colorado River Basin. Their finding,
13 under Section 7 consultation, was an official
14 consultation that was also initiated during the
15 NEPA BLM permitting process is referenced in here,
16 probably get to that, but a formal Section 7
17 consultation conferred it that the 21.3 acre-feet
18 is within their--let me find the exact wording
19 here--is within their realm of analysis that a
20 depletion charge is waived, therefore, inferring
21 that there's no real true salinity impacts to the
22 region as well as water depletions. And also you
23 can take that even further as we get into biology
24 and infer that there's no impact to fish within
25 the basin.

1 MS. DRAGOO: Thank you. Moving on now
2 to Item 13, I think we've covered this, once
3 again, UtahAmerican Energy has obtained a UPDES
4 permit and it's attached as Exhibit 25.
5 With respect to Item 14, UEI's
6 groundwater monitoring plan, once again, this has
7 been addressed by Jay Marshall and Exhibit 18
8 shows several years' worth of data for six
9 groundwater monitoring locations.
10 Under Item 15 there's ample baseline
11 data for a surface water monitoring plan. Once
12 again, Jay Marshall testified that, regarding
13 Exhibit 18, that there were three monitoring
14 locations, L1S through L3S, and demonstrates that
15 there's adequate baseline data to comply with the
16 requirements of the Division.
17 Once again, a lot of these readings
18 show no flow but that's still considered to be
19 data. In response to Item 16, rules don't
20 require water quality monitoring of the deep
21 saturated zone. Once again, because the saturated
22 zone in the Mesa Verde group is not an aquifer as
23 defined by the coal regulations. It's not
24 developed for special beneficial use and so water
25 quality does not need to be monitored. However,

1 UtahAmerican Energy has taken several in-mine
2 samples from the Horse Canyon Mine and that data
3 can be found, once again, at Exhibit 26.
4 MR. BRAXTON: Excuse me. Do the
5 samples in the Horse Canyon Mine tie directly to
6 the deep saturated zone or are these from, or is
7 this water that's percolating down from above?
8 MS. DRAGOO: Do you want to address
9 that?
10 MR. GUY: It's--excuse me--most likely
11 it's from the deep saturated zone. It's within
12 the zone of contact as shown on the--
13 MR. BRAXTON: So you're within the
14 piezometric surface of the deep saturated zone
15 when you're in the mine, then?
16 MR. GUY: Yes--
17 MR. BRAXTON: Okay.
18 MR. GUY: --in the Horse Canyon.
19 Again, there's some fluctuation probably of the
20 elevations due to the faults, but it's difficult
21 to tell until you're actually have a data point.
22 The piezometric surface that we show for the Lila
23 Canyon portion of the mine is based on the three
24 points that we have data on within that fault
25 block. You can feel reasonably comfortable with

1 those. But once it hits the faults, then the
2 piezometric surface starts to change.
3 MR. BRAXTON: I understand.
4 MR. GUY: But to answer your question,
5 yeah, it's within the saturated zone.
6 MR. BRAXTON: Thanks. Excuse me, Ms.
7 Dragoo.
8 MS. DRAGOO: No problem. We'd like to
9 address the PHC determination while Dan Guy's on a
10 roll here. Item 17, there's a suggestion there
11 that acid- and toxic-forming material was not
12 addressed in the PHC--
13 MR. GUY: Uh-huh (Affirmative).
14 MS. DRAGOO: --is that correct?
15 MR. GUY: It wasn't addressed as a line
16 item. It was evaluated, but it's probably an
17 omission that needs to be added to the PHC as a
18 statement or at least a paragraph to, to cover
19 that base. There is no evidence of acid- or
20 toxic-forming material anywhere in the area.
21 We've gone through that discussion. But we will,
22 in fact, address it.
23 MS. DRAGOO: Now, as SUWA indicated,
24 it's too early in the process to really assess
25 the Division's CHIA, the cumulative hydrologic

1 impact assessment, because they haven't done it
2 yet. But DOGM is going to prepare the CHIA and
3 UtahAmerican Energy has supplied DOGM more than
4 sufficient data to define the cumulative impact
5 area. So we'd like to have Dan Guy just help the
6 Division understand how that impact area might be
7 defined.
8 MR. GUY: Okay. What, what I did
9 without knowing there'd been additional work done
10 on it, we've taken a portion of the geology map
11 that we looked at before here. We've done a
12 geologic cross section on the area. What I did
13 essentially, Lowell, was I took it directly down,
14 dip from the portal location, down the dip of the
15 coal seam, went out as far as reasonably past
16 Range Creek. We've put in the structure, the dip
17 of the coal seam, based on the drilling, the
18 information that we have in this area. The
19 geologic information is by the contacts along that
20 section line. They indicate that there is some
21 flattening as we go out this way (Indicating).
22 Range Creek is, I believe I figured on
23 this particular section from 13 to 34--about
24 21,000 feet to the northeast of the permit
25 boundary here. And it, we also have projected

the piezometric surface as we have defined it within the permit area, I've just carried that on out. And I believe that that's pretty conservative. The piezometric surface or the top of this deep saturated zone is approximately 1,000 feet below the level of Range Creek at the intersection of this line.

I think it's important that--and the Division has done a considerable amount of work along this same vein, so we could actually take a look at what the impacts of this mine over here potentially have on Range Creek. It's my contention that there is no impact. And, again, we have to consider the fact that we're working on a probable hydrologic consequence, not a possible hydrologic consequence.

MR. BRAXTON: Where is, you mentioned, I believe it was the Sunnyside fault when you were testifying earlier on water--

MR. MARSHALL: I mentioned that, Lowell.

MR. BRAXTON: Excuse me. Can you point to where that would be on this map. Is that shown on this geologic map?

MR. GUY: Jay is probably more familiar

with that particular fault.

MR. MARSHALL: It's on other maps of the permit but it's not on this.

MR. BRAXTON: Does that fault ever cut the surface or is it all underground--

(Discussion held off the record.)

MR. BRAXTON: The question was, Does the fault cut the surface or is it all encountered underground only?

MR. MARSHALL: You know, Lowell, I don't know.

MR. GUY: To tell you the truth, I don't know for sure. It, it probably is exposed on the surface in, you know, in the canyon here (Indicating), would be my guess, but I, as far as whether it's on the surface out here, it doesn't project to be.

MR. BRAXTON: So this cross section wouldn't take into consideration any of the extensions on the Sunnyside fault?

MR. GUY: No. No. This cross section doesn't. The cross section that was made from Osterwald's map is a lot more definitive about faults. This one, as you can see, there are no, no projected faults at all. So it's based

1 strictly on the information that's available on
2 this map.
3 MR. BRAXTON: Thank you.
4 MS. DRAGOO: And for the record, we'll
5 submit that as Exhibit 44. You need a copy for
6 the record.
7 MR. GUY: We'll leave this one here, I
8 guess.
9 MR. BRAXTON: Yeah, thanks.
10 MS. DRAGOO: Turning, now, to the
11 Section 2 regarding the engineering plan, Question
12 19 actually deals with the question of wilderness.
13 And SUWA had made this allegation on several
14 occasions that this area is wilderness. It
15 clearly is not wilderness. And the operation of
16 the mine will not impact any wilderness uses.
17 There is no wilderness use in the permit area.
18 There's a wilderness study area. There's a
19 wilderness, there are two wilderness inventory
20 areas, but those are not designated wilderness.
21 Of course, only Congress can designate wilderness.
22 Moreover, the Lila Canyon Mine is
23 located on federal coal leases with valid existing
24 rights, and these valid existing rights predate
25 both the Wilderness Act in 1964 and the Federal

1 Land Policy and Management Act of 1976.
2 Now, it's important to note regarding
3 land uses that this is really something beyond the
4 jurisdiction of the Division. It's--the Bureau of
5 Land Management owns and manages these lands, and
6 the operation of the Lila Canyon mine is
7 consistent with BLM's land management plans and
8 regulations.
9 And, in fact, BLM has specifically
10 found this in October of 2000, BLM issued a
11 FONSI, a finding of no significant impact, in a
12 decision record when it approved the right-of-way
13 for UtahAmerican Energy to construct, operate, and
14 maintain mine-related facilities on these lands.
15 As you may recall, they needed a right-of-way for
16 BLM to do that. And the BLM specifically
17 concluded in that record of decision that
18 facilities will not impair the wilderness
19 characteristics of the wilderness study area and
20 that no mitigation would be proposed for proposed
21 wilderness areas, and that FONSI and decision
22 record is attached as Exhibit 29 in your
23 materials.
24 Interestingly enough, SUWA cited no
25 applicable federal law, regulation, or land use

1 plan that requires the mitigation measures which
2 it identifies, including camouflage and nighttime
3 restrictions on operations. Therefore, we believe
4 that DOGM should dismiss this comment.
5 Similarly, with respect to Item 20,
6 regarding the subsidence impacts on wilderness,
7 subsidence is specifically addressed in the permit
8 application at Volume 2, and it's also addressed
9 in the FONSI and decision record issued by BLM.
10 Once again, BLM made the specific
11 finding here that wilderness values would not be
12 degraded by mining activities taking place beneath
13 the surface and that's, once again, Exhibit 29 at
14 page 8. So BLM--the surface management agency
15 has made that determination.
16 Furthermore, these allegations regarding
17 management as wilderness are simply incorrect.
18 The Turtle Canyon Wilderness Inventory Unit, of
19 course, has not been designated as even a WSA.
20 The wilderness inventory unit was determined
21 without public input and without an environmental
22 impact statement, and right now, those wilderness
23 inventory units are being considered by BLM in the
24 land use planning process. The Turtle Canyon
25 Wilderness Inventory Unit should be managed in

1 accordance with the existing land management plan
2 and that environment set forth in an opinion dated
3 April 15, 1999, from former Department of Interior
4 Solicitor Leshy. And that's included in the PAP
5 at Appendix 4-2. Once again, the Price River
6 Management Framework Plan does not characterize
7 these lands as wilderness. And there is no
8 wilderness out there until Congress has actually
9 acted.
10 Finally, SUWA has incorrectly asserted
11 that no mechanized equipment can be used in
12 wilderness inventory units or WSAs. In this
13 regard, UtahAmerican Energy has valid existing
14 rights under its coal leases and it has the right
15 to actually go out and develop a coal mine out
16 there in the event that it needs to. That's what
17 valid and existing rights allow.
18 As to the question as to whether
19 bonding should include subsidence repair, that is
20 inaccurate. And, once again, there is no
21 wilderness, and so bonding for the return of the
22 land to wilderness values should not be
23 incorporated into the bond.
24 Item 21 regarding the reclamation cost
25 estimate. Jay, can you address this?

MR. MARSHALL: Yeah. Real quickly, just very quickly, the final amount of the bond will determine just prior to the issue of the permit. The Caterpillar handbook, performance handbook, a D-90 Cat will perform the same this year as it did five years ago and as it will five years in the future. The performance handbook is a performance handbook on that piece of equipment. If Cat makes a piece of equipment that performs differently, they issue a different designation to it: D-9K or D-11, something different. So it doesn't matter that we use the Cat performance handbook that's a year old or two years old. The performance of that piece of equipment stays the same, it doesn't matter.

MR. BRAXTON: The performance is the same but the operating costs vary with inflation or cost of living?

MR. MARSHALL: They could, yes. Yes, they do. And that's right before the issue we determine what those inflation factors are to determine the amount of the bond at that time.

The Means 2000 construction cost data handbook, there again, yes, it was 2000. There may be a 2001 out or even--well, there won't be a

1 -2 out yet but those costs are estimates, they're
2 just estimates and you add inflation factors to
3 it. It's inflated to five years down the line.
4 There's always an engineering factor in there.
5 There's plenty of factors involved there. In
6 fact, in my experience in reclamation work I've
7 been involved with, the actual cost is somewhere
8 around 30 to 40 percent of the bonded cost. So
9 the actual cost of the reclamation is usually
10 lower than the bonding cost. But bottom line is
11 it's premature to be debating this right now
12 because it will be determined just prior to
13 issuing the permit.
14 MR. BRAXTON: Can I make a note of the
15 time right now? The way the original agenda was
16 set, you folks would have until 2:30, we'd take a
17 break, and then we'd break up the remaining time
18 in ten-minute blocks. Is that something that both
19 parties want to agree to now or--
20 MS. DRAGOO: Were we each going to get
21 an hour and a half?
22 MR. BRAXTON: No, you were to get an
23 hour and SUWA was to get an hour and a half the
24 way the agenda was set. And I thought I
25 discussed that with you when we spoke several

1 weeks ago.
2 MS. DRAGOO: I thought we had a hour
3 and a half.
4 MR. BRAXTON: No, I thought I made it
5 clear that there was a difference in that amount
6 of time.
7 MS. DRAGOO: What I would do, then, is
8 I would just limit my closing remarks to five
9 minutes, if that's all right and we can continue
10 on.
11 MR. BRAXTON: Or if SUWA is willing to
12 let you finish--I just--
13 MS. DRAGOO: Sure.
14 MR. BRAXTON: --wanted to stick to the
15 schedule.
16 MS. DRAGOO: Great.
17 MR. BRAXTON: Do you have objections to
18 letting them finish?
19 MR. McHARG: That's fine. Let them go
20 through their, their responses to our concerns.
21 MR. BRAXTON: Okay.
22 MS. DRAGOO: Terrific. Thank you.
23 Turning on to Item 3--oh, 22 do you
24 want to address that?
25 MR. MARSHALL: Item 22, as far as our

1 error in the reclamation cost estimates on the
2 spreadsheet, SUWA's right. There is an error
3 there. It looks like, it appears to me it was a
4 cut-and-paste type error, but I didn't do it but
5 it will be corrected.
6 MS. DRAGOO: Item 3, "Soils." I think
7 we've addressed this in regard to sufficiency of
8 topsoil and subsoil. Do you want to address that
9 quickly?
10 MR. MARSHALL: Yeah. Real quickly in
11 Chapter 2, the soils chapter, it, Plate 2-3 shows
12 exactly where the topsoil is going to be recovered
13 from. It shows exactly where it's going to be
14 replaced. There's volumes in there. The volume
15 calculation is in there. The data should be
16 accurate.
17 MS. DRAGOO: Great. Moving on to
18 biology, we'd like to hear from our expert
19 consultant, Environmental--EIS.
20 Mel, initially, could you address the
21 question of the adequacy of the vegetative and
22 wildlife information? Particularly what areas
23 have to be analyzed, first with respect to
24 vegetation and then with respect to fish and
25 wildlife.

1 MR. COONROD: All right. Essentially,
2 I think it's important to note that EIS was a
3 third party consultant doing work in cooperation
4 with the land management agency, BLM. The BLM,
5 in association with OSM, Utah Division of Wildlife
6 Resources, delineate--excuse me--what areas are to
7 be analyzed or surveyed as well as what species
8 need to be inventoried for. Based on that, the
9 conclusion by those agencies responsible for the
10 habitat limited the survey to those areas directly
11 affected through surface operations, meaning the
12 facility and upgrading the county road.
13 Surveys were conducted from 1998
14 through 2000--actually we're still doing one in
15 2002. It was never considered appropriate to
16 survey areas that potentially might be affected
17 through subsidence. The decision record indicated
18 that subsidence was a non-issue. So I can't
19 really respond to SUWA's contention that areas
20 potentially affected by subsidence were not
21 adequately surveyed because it's based on
22 erroneous assumption.
23 Relative to riparian and wetland areas,
24 there's two people on our staff which are
25 certified by the Corps to make that determination,

and there are none within the permit area.

MS. DRAGOO: Regarding the adequacy of the wildlife information, Item 28--

MR. BRAXTON: Could we just elaborate on that a little bit? What you talked about, Mr. Coonrod, was the EIS requirements for surveying. What is the--

MR. COONROD: The EA requirements.

MR. BRAXTON: Excuse me. EA. What is the Division's biological requirement in that respect? Can you summarize that, having done that before?

MR. COONROD: In the EA I believe the Division buys off on U.S. Fish & Wildlife requirements, threatened and endangered and sensitive species. In addition to the T&E inventory, a complete vegetation survey was done on the area of potential disturbance for the facilities. That included species diversity, woody plant density, productivity. Initially, we did it on two areas outlining the two predominant vegetative types on the surface area: pinion juniper and grass sage. It was determined through consultation with DOGM that the intent to put back pinion juniper was probably not in the best

1 interest for post-mining land use, so we dropped
2 the pinion juniper reference area and we
3 concentrated on creating a grass shrub reference
4 area. Likewise, all of the same parameters were
5 analyzed for both the reference area which was
6 outside the area of disturbance, as well as the
7 area that theoretically would be disturbed.
8 MR. BRAXTON: And can you describe, to
9 the best of your knowledge, the wildlife resources
10 input on that type of planning?
11 MR. COONROD: Okay. There was a
12 comment in here that wildlife was totally ignored.
13 And that's totally erroneous. Virtually all
14 wildlife known to inhabit that portion of Utah,
15 not only the permit area, but the Book Cliffs and
16 Roan Ranges were looked at. There were several
17 species which are of both state and federal
18 interest. Those species were looked at in the
19 NEPA document, specifically Rocky Mountain
20 bighorn. And it was determined that the mine
21 theoretically could potentially displace a small
22 band of Rocky Mountain bighorn that were
23 currently--or frequently utilize the Lila Canyon
24 area.
25 I think there's a misconception that

1 the NEPA process required mitigation in the form
2 of guzzlers. It was my understanding that the
3 guzzlers were an enhancement feature recommended
4 by Utah Division of Wildlife. And it was not
5 necessarily to mitigate any negative impact but
6 simply to add a more diverse distribution of Rocky
7 Mountain sheep. The one guzzler which has been
8 implemented at the head of Johnson Canyon has
9 proved to be very effective and a very viable
10 constant source of water, whereas the springs and
11 seep in the area for the last three years are
12 just nonexistent.
13 MR. BRAXTON: Thank you.
14 MS. DRAGOO: Great. All right. Just
15 quickly going back to--I think we've actually
16 covered Item 28, up through 28. In terms of
17 impacts on the Southwestern Willow Flycatcher, can
18 you address that?
19 MR. COONROD: Again, it was addressed
20 under Chapter 7 consultation with U.S. Fish &
21 Wildlife cooperative effort with BLM. For any
22 impact to occur to a species, there has to be
23 habitat. And it was the conclusion of all
24 agencies and their wildlife people that there
25 truly is not suitable Southwest Willow Flycatcher

1 habitat within the permit area or within the area
2 of potential disturbance.
3 MS. DRAGOO: Great. And I believe
4 there's also a letter, dated April 28, 2000,
5 attached as your Exhibit 39, in which U.S. Fish &
6 Wildlife has concurred with DOGM that there not
7 likely to adversely affect for the Southwestern
8 Willow Flycatcher. So that may be helpful as
9 well.
10 MR. COONROD: I think it's important to
11 note, Denise, that it also includes the bald eagle
12 and other listed plant species that could
13 theoretically occur in the area.
14 MR. BRAXTON: Bald in addition to
15 golden, then?
16 MR. COONROD: It specifically mentions
17 bald. Although golden is not specifically
18 mentioned, I think the implication is that it was
19 adequately addressed, golden eagle concerns.
20 MS. DRAGOO: I think you've addressed
21 sensitive, threatened, and endangered species
22 surveyed, Item 30.
23 How about special status fish species,
24 Item 31?
25 MR. COONROD: I think David Steed more

1 or less covered this.
2 MR. STEED: I'd like to add to that
3 again and reference back to that Fish & Wildlife
4 letter of April of 2000 and to the water
5 depletion discussion in the letter. It's
6 inferences that it's less than 100 acre-feet,
7 which is kind of a limit set by the upper
8 Colorado River users as to kind of a limit point
9 on which maybe an assessment or analysis of those,
10 of potential impacts to those species could occur.
11 And the fee was waived, it was shown that water
12 depletions--or excuse me--not water depletion.
13 Use of water would be well under 100 acre-feet a
14 year, therefore, we're not really impacting, we're
15 not adding salinity, we're not depleting the water
16 system, so hence no impact.
17 And also, if I can find it really
18 quick, we have a--
19 MS. DRAGOO: Exhibit 36, the biological
20 assessment.
21 MR. STEED: Yeah, Exhibit 36 is
22 actually a copy of the formal Section 7
23 consultation that we facilitated through the BLM
24 during the environmental assessment process with
25 Fish & Wildlife. And it's an actual formal way

1 to address impacts to listed, fairly listed
2 threatened and endangered and candidate species.
3 The fish were basically looked at and determined
4 to be no effect.
5 MR. BRAXTON: And is that exhibit going
6 to be or is it part of the current permit
7 application package?
8 MR. STEED: I believe it isn't.
9 MR. MARSHALL: The BA?
10 MR. STEED: The BA.
11 MR. MARSHALL: Yeah, it was submitted
12 at the April submittal.
13 MS. DRAGOO: How about special status
14 of amphibians and reptiles? I think those were
15 addressed in the EA.
16 MR. STEED: Amphibians and reptiles in
17 the state of Utah, as well; not just the state of
18 Utah but probably almost every state now is listed
19 as kind of a species of concern. And, therefore,
20 we addressed them within the environmental
21 assessment under wildlife impacts. And numerous
22 meetings, too many to count or even remember,
23 between UDWR and BLM, as well as formal and
24 informal discussions with Fish & Wildlife, we
25 determined there was no impact to those species.

1 Again, Fish & Wildlife doesn't manage those
2 species unless they're federally endangered,
3 threatened or candidate. DWR and BLM biologists
4 or the land management biologists would be the
5 people. So they concur there's no impact.
6 MR. BRAXTON: And is that going to be
7 part of the permit application package also, or is
8 it even required? I'm asking, I'm not--
9 MS. DRAGOO: Actually, Exhibit 30, the
10 environmental assessment, addresses amphibians and
11 reptiles. And I think that's been submitted,
12 hasn't it?
13 MR. MARSHALL: Environmental, yes.
14 MS. DRAGOO: How about the
15 environmental assessment?
16 MR. MARSHALL: Environmental
17 assessment--
18 MS. DRAGOO: For the road.
19 MR. MARSHALL: No, we did not submit
20 that as part of the BA. Not part of--
21 MR. COONROD: If I can interrupt, Jay,
22 I believe that the BA is the fundamental premise
23 for the PAP to proceed, and as such it's
24 referenced in the PAP as having been completed.
25 In my mind, that's adequate reference, and I think

1 it would be redundant to duplicate the EA into
2 the PAP where both are public documents.
3 MR. BRAXTON: I'll let the Division
4 ultimately weigh that, but I just wanted to, if
5 there are questions on whether it should be
6 introduced, I wanted to raise them here.
7 MR. STEED: A specific requirement for
8 those species or--
9 MR. BRAXTON: If those data need to be
10 part of the permit, I just wanted to raise the
11 question as to whether they need to be raised at
12 this point. I'm not asking for a conclusion if
13 you don't have one.
14 MR. STEED: Under your regs, it's kind
15 of an umbrella, fish and wildlife and impacts to
16 them, what species would be under the discretion
17 of the Division with agency consultation, so. . .
18 MR. BRAXTON: Thanks.
19 MS. DRAGOO: I think Mel addressed Item
20 33, the high-value wildlife. Item 34, mitigation
21 regarding the guzzlers, Mel also addressed.
22 Do you want to add anything else to
23 mitigation or . . .
24 MR. STEED: I think Mel covered it
25 fairly well. Again, it's, when we talk about

1 mitigation and, in the same sentence with
2 guzzlers, it wasn't meant to be inferred as
3 mitigation from BLM standpoint. Even though we
4 felt that if it went to something like this, that
5 it probably would be inferred as mitigation, that
6 we were inferring it that the mine itself was
7 driving away the transplanted population of
8 bighorn sheep and, therefore, we were having to do
9 something to get them back, there were going to
10 be dried-up springs, therefore, we had to create
11 artificial water sources. That wasn't the case.
12 There's quite a bit of DWR data available to show
13 abuse of bighorn sheep in that area. The
14 wildlife enhancement feature of the guzzlers was
15 developed to help better manage that herd within
16 that area and help, if anything, not just the
17 management but the expansion of it. So because
18 of the fickle nature of seeps or springs in that
19 area and not being utilized by or being able to
20 be utilized by wildlife, so it was more of an
21 artificial enhancement of the existing situation
22 rather than replacement of something resulting
23 from mining.
24 MS. DRAGOO: Right. Item 35 regarding
25 impacts of the Emery County road; of course, the

1 Emery County road is not part of UtahAmerican
2 Energy's application, permit application plan.
3 But the impacts of that Emery County road on
4 wildlife were analyzed in an environmental
5 assessment. I think you were involved in that.
6 The environmental assessment is attached as
7 Exhibit 36 and the, there was actually a specific
8 finding by the Bureau of Land Management that any
9 impacts would be insignificant. And that's why
10 BLM was able to issue a FONSI approving the
11 right-of-way grant to Emery County. And that
12 FONSI and decision record is attached as Exhibit
13 29.
14 MR. COONROD: If I could just interject
15 one point of interest: To curtail traffic on the
16 road in dusk and dawn might be advantageous, but
17 one of the few large game species that don't
18 really move at night are antelope. So the
19 incidence of antelope/vehicle collisions being
20 curtailed by night travel is not biologically
21 supported. I'm sure you've noticed you see very
22 few dead antelope on the highway.
23 MS. DRAGOO: That segues great, just
24 perfectly to Item 36, "Vehicles and Haul Truck
25 Time Restrictions." Once again, BLM studied the

1 wildlife impacts of vehicles using the Emery
2 County road, this isn't UEI's road, and did not
3 impose restrictions on time or use of vehicles.
4 And if you'll take a look at the EA, Chapter
5 3.5.2 specifically addresses vehicular traffic,
6 4.6.3 addresses vehicular traffic impacts. And
7 mitigation is 4.6.4. BLM did not impose any
8 restrictions similar to what SUWA is recommending,
9 if you'll look at Exhibits 29 and 30.
10 Regarding raptors, do you want to
11 address that, Dave? There's, raptors were the
12 only wildlife monitoring proposed.
13 MR. STEED: Well--and I guess it goes
14 back to mitigation, the accusation that mitigation
15 was inadequate for other species. Basically,
16 going back to the EA and the line management
17 agency being the BLM, what we did to the road and
18 the surface facility, and, you know, confirm what
19 Mel was saying, that we had actually looked at
20 what could be the impacts of, to surface use by
21 wildlife resources in the permit area, the mining
22 area by underground mining, determined there
23 really wasn't any, so we focused most of our
24 discussion on the surface, use of the road surface
25 facility associated with that project. Wildlife

1 use in that area, and I'll even say from a UDWR
2 standpoint, they figured into every discussion we
3 ever had on this, formal meetings with UDWR and
4 state, state managers as well as the regional
5 managers.
6 The area is a low wildlife use area.
7 It's minimal on antelope. It's a yearlong, what
8 is referred to as yearlong mule deer winter range,
9 which basically means they could be there at any
10 time but doesn't provide any specific benefit to
11 wintering the game, which is, you know, what we're
12 really looking at as far as impact. Therefore,
13 we didn't have, we didn't, there was no developed
14 monitoring. When I say "we," it's not EIS or
15 UEI. BLM and UDWR did not have formal monitoring
16 for any other species other than raptors due to
17 the Bald Eagle Act and Migratory Bird Act
18 requirements.
19 MS. DRAGOO: Okay. Moving on to land
20 use, once again, the wilderness issue I addressed
21 before, but I just want to emphasize that the
22 wilderness issue is not something that is within
23 the Division's jurisdiction.
24 The permit application plan accurately
25 describes the premining land uses, and that's all

1 that's required under 301-411-130. The PAP has to
2 describe existing land uses and land use
3 classifications. Wilderness would be a future
4 land use. It's not an existing land use right
5 now, and UEI has adequately addressed post-mining
6 land use.
7 As we've indicated before, there is no
8 wilderness within the permit area. There
9 wilderness study areas and wilderness inventory
10 areas. And specifically with respect to existing
11 land uses, the existing land uses are set forth
12 in the Price River Management Framework Plan and
13 include grazing, wildlife habitat, coal mining,
14 and limited reclamation. That's set forth in
15 Appendix 4-2 of the permit application plan. So,
16 clearly, wilderness is not among those uses
17 currently approved in the MFP. BLM is the land
18 use manager, not the Division, and so the Division
19 has to defer to the BLM in that regard.
20 There is an interesting decision that
21 we cite, Southern Utah Wilderness--Alliance, 151
22 IBLA 338--
23 (Discussion held off the record.)
24 MS. DRAGOO: Sorry. It's SUWA. It's an
25 IBLA decision. 151 IBLA 338. And that has

1 determined that lands, that they indicate that we
2 have stated on a number of occasions that final
3 administrative decisions relating to designation
4 of WSAs in Utah were completed in the 1980s, the
5 lands in question are not WSA, and BLM can
6 administer them for other purposes. And that
7 would include multiple-use purposes and that lands
8 in question here were inventory units. So it is
9 appropriate for those wilderness inventory units,
10 units to be managed as for multiple use, including
11 coal mine development. This particular case
12 involved extractive uses, so . . .
13 Also, I indicated that Solicitor Leshy
14 has made clear that under the 1999 wilderness
15 inventory, those lands have to be managed in
16 accordance with the existing land management plan.
17 And, once again, wilderness would be speculative
18 and not in accordance with the existing land
19 management plan.
20 Under Item 39, reclamation is more than
21 adequate to restore the land to its premining land
22 uses and, once again, this does not include
23 wilderness.
24 With respect to cultural issues, the
25 cultural and historic researches information are

1 attached at Exhibit 41 to your materials and in
2 Appendix 4-1 in the permit application plan.
3 The EA has specifically found that,
4 that any kind of subsidence would not irreparably
5 damage cultural sites. And that is set forth in
6 EA attached to Exhibit 30. Under Item 41, the
7 air quality permit discussed by SUWA has already
8 been issued to UtahAmerican Energy and is attached
9 as Exhibit 42. It's also found in the PAP at
10 Appendix 4-3.
11 Regarding the significant revision
12 issue and the new permit, once again, UtahAmerican
13 Energy has submitted the new permit extension and
14 that is consistent with the Division of Oil, Gas
15 & Mining's policy directive dated January 8, 2002.
16 And that's attached as Exhibit 43. The new
17 permit for any extension of the mine is consistent
18 with the regulations, 645-303-121.100. In
19 addition, public notice is adequate. The notice
20 gave the precise location and boundaries of the
21 permit area, indicated that a new permit would be
22 issued. It's not misleading. It follows the
23 requirements, precisely gives a legal description
24 and, in fact, gave notice to certain public
25 interest groups that are here testifying today.

1 With respect to Item 7 regarding the
2 Emery County road, Board of Oil Gas & Mining has
3 already determined that this road, the Emery
4 County road is a public road and they determined
5 that in the order dated December 14, 2001. The
6 board in that matter upheld the Division's
7 determination that the Lila Canyon road is a
8 county road. And that those determinations were
9 made in a July 18, 2001, findings document which
10 is attached as Exhibit 16.
11 Those findings go through all of the
12 criteria regarding roads and determine that the
13 road is indeed a public road maintained, owned and
14 maintained by Emery County. As we've indicated
15 the Emery County was issued a right-of-way by the
16 Bureau of Land Management. BLM apparently thinks
17 it's a county road as well.
18 Regarding legal issues, Item 44,
19 regarding unsuitability. Unsuitability, again, is
20 not within your jurisdiction. It's a
21 determination made by the land manager. In this
22 case the Bureau of Land Management. The Price
23 River Management Framework Plan determines these
24 lands to be suitable for mining and, in fact, BLM
25 has issued several federal coal leases on these

areas, so they must be suitable for mining.

SUWA is simply incorrect that this area is not suitable for mining. That's a land use decision made by the Bureau of Land Management Department of Interior and is not within the Division's jurisdiction.

In terms of the schedule, Item 45, SUWA's made a statement the schedule would be impossible to keep and is speculative. Once again, this is a technical issue and I'm sure the schedule will be revised as we go along. One reason that we're so late is we had an appeal by the Southern Utah Wilderness Alliance that we had to deal with. So perhaps the schedule is a little bit out of date.

Do you want to address that, Jay?

MR. MARSHALL: I mean, that schedule, it's a floating schedule. If the Division was to make a schedule, it would be different than what I would make a schedule. It would be different than what SUWA would make the schedule. If we had the permit in hand, we would be starting this mine the first of June.

MS. DRAGOO: Under Item 46, the reclamation bond does not have do address

1 wilderness reclamation because there is no
2 wilderness.
3 With respect to Item 47, the
4 right-of-way is actually not in dispute. The BLM
5 has issued the right-of-way grant. SUWA has
6 requested a stay that have right-of-way grant on
7 several occasions and has not been granted a stay.
8 The IBLA has taken up the issue of NEPA adequacy
9 and compliance and they'll make that decision
10 eventually but the right-of-way grant has not been
11 stayed.
12 We appreciate this opportunity. And I
13 certainly appreciate your indulgence, Mr. McHarg.
14 Thank you for the additional time. It's 4:00 and
15 now I'll yield my time to you.
16 MR. McHARG: On the initial schedule
17 there was a five-minute break in between. I
18 think we'd like to take it.
19 MR. BRAXTON: Everybody in accord with
20 that?
21 (Recess taken, 4:03-4:20 p.m.)
22 MR. BRAXTON: Let's go back on the
23 record, then. And Mr. McHarg, it falls back into
24 your court.
25 MR. McHARG: Well, thank you, Mr.

1 Braxton, for giving us an opportunity to respond
2 to some of the issues that were raised by UEI.
3 Of course, UEI had 30 days to look at our
4 concerns with the, with the permit application and
5 to prepare their response. Obviously we can't
6 address each one in sufficient detail at this
7 time, having only a few minutes, but I will
8 attempt to highlight some of the more glaring
9 concerns that we have with--
10 MR. BRAXTON: Please do.
11 MR. McHARG: --with their response.
12 Okay?
13 MR. BRAXTON: Please do.
14 MR. McHARG: Of course, today we have
15 raised many concerns. And we're hopeful, if not
16 confident, that the Division will address these
17 concerns in the technical analysis process and if
18 we have additional concerns after that process is
19 completed, then we will address them at that time,
20 but for now, I'll try to address some of these.
21 First off, I should note that UEI,
22 counsel for UEI objected to the expert report of
23 Elliott Lips and also the declaration of Ron Kass,
24 things that we put into our comments and for the
25 Division to review during its technical analysis

1 process. The objection was based on failure to
2 establish foundation, that, one thing I should
3 note is in that, in those attachments both for
4 Elliott Lips and for Dr. Kass we have included
5 their curriculum vita and, you know, sufficient
6 explanation to establish foundation for these
7 people.
8 But because, as you mentioned this
9 process is informal, it, we're not following those
10 particular rules.
11 The other thing I should note is that
12 UEI also raised--or used certain expert opinions
13 today and brought out some expert opinions today.
14 And I did not object to those for the same
15 reason. It's an informal conference.
16 The other concern right off the bat is
17 that UEI stated that they had submitted this new
18 permit application and that it contained adequate
19 baseline information and I believe the comment was
20 made that it was, that the adequate information is
21 there, that the Division has considered that to be
22 such in their administrative determination. If
23 that was the intent of the comment, I'm just
24 simply saying that the administrative
25 determination, adequate baseline data is not

1 necessarily a consideration in that determination
2 and obviously would be, take great issue with that
3 concern.
4 Let's see. On Point, under
5 "Hydrology," Point 2, one thing that I would just
6 like to respond to what UEI brought up was that
7 Exhibit 10 doesn't necessarily shed any light on
8 the regional aquifer. That, it doesn't really
9 contain any additional information on seasonal
10 variations which are required under the rules. So
11 there's really no new data in front of the
12 Division in terms of that, and I think the same
13 concerns that Division had earlier and that we
14 have now exist.
15 Elliott, did you have a stand on that?
16 MR. LIPS: This is stated in our
17 comments that if you look--and I'm not going to
18 walk through all these dates--but if you look
19 closely at the dates of sampling of the IPA
20 piezometers in Exhibit 10, that it does not
21 demonstrate seasonal variation.
22 MR. McHARG: And Point 4, there was a
23 discussion that this is a saturated zone, it's not
24 to be considered as an aquifer. I want to just
25 read into the record a definition of "aquifer."

1 It's aquifer means a zone, stratum, or group of
2 strata that can store and transmit water in
3 sufficient quantities for a specific use.
4 And it should be noted that UEI in its
5 response added some words to this definition.
6 They said that it's not an, it's a saturated zone
7 because it's not developed for a specific use nor
8 does it serve as a beneficial use for an
9 appropriated source. Those aren't part of the
10 definition. And it's, so that should be a
11 consideration of the Division. And it also should
12 be noted that it is UEI's obligation, they have
13 the burden of proof to establish where the
14 discharge of this regional aquifer is. And
15 whether or not there is a specific use for that,
16 for that area that, where this regional aquifer
17 discharges. If it happens to be Range Creek, you
18 know, this specific use in Range Creek could be a
19 fishery. Is it going to affect that? Dan Guy
20 discussed that it may not be Range Creek, it may
21 be the Price River or the Green River. But then
22 those are potentially affected sources. Then
23 those should be considered under this permit
24 application. And surveys, analysis, monitoring,
25 baseline data, all that that needs to be

1 established for those water sources or any other
2 potentially affected water source.
3 Let's see. Point 5. The comment was
4 made that there are numerous samples in Horse
5 Canyon. Just wanted to state that, that this is
6 not premining baseline data for this permit area.
7 Six. It was a discussion of seeps and
8 springs in the perched aquifer. There's ample
9 groundwater quality and quantity data for the
10 perched aquifers. We submit that one sample
11 location is not enough, and that, as we discussed
12 before, that the discrete, if they are discrete
13 not connected to a particular system, as some
14 members stated earlier at our earlier meeting this
15 morning, those are still extremely important
16 sources for wildlife, that any water source,
17 whether it's connected to a system or its discrete
18 is important for water life, and those baseline
19 data for those should be established. And they
20 should be monitored.
21 Let's see. I think in Point 12, in
22 discussing salinity impacts, Mr. Steed, I believe,
23 talked about a Fish & Wildlife Service letter. I
24 just want to raise question with that. I believe
25 that letter discussed the use of the, of the

1 water, the 21.3 acre-feet of the water annually
2 and that this would not necessarily create an
3 impact. We were talking about in our salinity
4 discussion of the discharge into that area. So I
5 don't believe the Fish & Wildlife Service letter
6 addresses that concern.
7 Point 16--let's see. One, I just
8 wanted to reiterate at this point that, again,
9 it's, it's not developed water source for a
10 specific beneficial use. We should follow the
11 definition that is established in the rules and
12 that we need to look at all potentially affected
13 water sources.
14 Nineteen, I think, was a discussion on
15 wilderness uses? Is that right? You were
16 talking about--yeah, it was--well, discussion of
17 the engineering plan. And mainly UEI at this
18 point raised issue with the wilderness use and
19 said there's no wilderness use. Again, it's
20 important for the Division to recognize that it is
21 looking at what use the area is capable of
22 supporting or a higher use, not what the legal
23 description of that area is. It's what it's
24 capable of supporting. And the BLM has said that
25 this area has wilderness character. And I think

1 it's a fiction then to not say that it's capable
2 of supporting. Whether or not it becomes a
3 wilderness area designated by Congress I don't
4 believe is the issue here. Right now it's
5 whether or not it is capable of supporting
6 wilderness and it has been found to have
7 wilderness character.
8 Also, the right-of-way is in dispute.
9 Let's see. That I will touch on later. There
10 was another point in which that was raised.
11 One moment, please.
12 Four, "Biology." The entire discussion
13 basically was premised on the permit area that is
14 being looked at right now. It was, it did not,
15 it basically ignored the concerns that we have
16 raised with the affected area, the area of
17 potential disturbance. Every, every response that
18 UEI came up with essentially ignored, let's say
19 the statement in regards to riparian areas. The
20 statement by Mr. Coonrod that there are no
21 riparian areas in the permitted area. Well, that
22 goes to the crux of our concern, that the area
23 of, that is potentially affected by the mining
24 operations, that area does contain riparian areas
25 and, therefore, those areas, baseline data needs

1 to be gathered for those areas. Monitoring needs
2 to be established, needs to be analyzed.
3 MR. BRAXTON: And you're referring to
4 Range Creek when you're referring to riparian
5 areas?
6 MR. McHARG: I'm referring to Range
7 Creek. I'm referring to seeps and springs that
8 could be affected by the mining operation. Dan
9 Guy today raised the point that the area of
10 discharge could be the Price River, the Green
11 River. Those, those are riparian areas,
12 obviously. Any area that could be potentially
13 affected by this mining operation to us is, should
14 be of concern to the Division, and the Division
15 should require that UEI supply them with the
16 baseline data for, for those areas. So that we
17 know what vegetative and wildlife resources exist
18 in those areas and what effects this mining
19 operation could have on those resources and it
20 will monitor for those so we are not moving into
21 this process with blinders on.
22 Let's see. Thirty-five was a
23 discussion of the Lila Canyon coal mine road.
24 Again, we take serious issue with this. It needs
25 to be analyzed as part of an affected area in the

1 permit. And so, of course, any impacts to
2 wildlife and all that need to be addressed.
3 Turning back a little bit to the wildlife issue
4 too, you know, the, the discussions in the EA
5 were limited to what the BLM was looking at and
6 we think the Division's responsibilities in terms
7 of looking at the area that's potentially affected
8 by the mining operation go beyond that.
9 And this applies to all these points
10 that were raised, like 36, with raptors, the
11 comment was made that the entire area is low for
12 wildlife use. Again, it's because they, the area
13 of potential disturbance is ignored.
14 "Land Use," Point 38, I already
15 discussed this. Again, capable of supporting. I
16 don't know. I was going to give it an analogy
17 about a house, a residential house in an area
18 that's zoned commercial. You know, it's not, it's
19 not what the legal description of that area is at
20 this time in history. But it is what the, you
21 know, what that area is capable of supporting.
22 And if, you know, if that has been determined to
23 be wilderness character, that's what the Division
24 should be looking at.
25 Let's see. Forty-seven. Oh, 42, I

1 think it should be--
2 MR. BRAXTON: How would you comment on
3 the valid existing right as part of your comments
4 on land use and things like that, the valid
5 existing right that accrues from a lease?
6 MR. McHARG: Well, there are laws that
7 cover that. And so that, you know, I think that
8 can be clearly addressed under those laws. I
9 think what happens, what is necessary for the
10 permit application package and what is required
11 for the Division's technical analysis, though, is
12 different than that. And that you have to look
13 at, you know, what that area is capable of
14 supporting, what use it's capable of supporting.
15 So you need to require UEI to supply you with all
16 that information and, and a reclamation plan that
17 is consistent with the use that that area is
18 capable of supporting. All these other arguments,
19 to me, are red herring arguments that the Division
20 right now in terms of where this process is
21 should not be concerned with. They should be
22 looking at what that area is capable of supporting
23 and that is, has been found to have wilderness
24 character, so everything that you require from UEI
25 should be, should fit with that.

1 MR. BRAXTON: Okay. Thank you.
2 MR. McHARG: Oh, on 42, the comment was
3 made that, indeed, the public notice description
4 was deficient to give SUWA notice of the proposed
5 mine a fact confirmed by its request for informal
6 conference. I have raised--SUWA has raised
7 concerns of prejudice to the public with how this
8 was noticed in terms of, you know, it not being
9 described in laymen's terms what is really
10 occurring here. And obviously, SUWA has, has been
11 tracking this and has been watching closely. I'm
12 talking about for somebody that picks up the paper
13 and reads this particular public notice, I don't
14 believe that most people, unless you're, well,
15 even if, you either have to be very well versed
16 in the Division's process or a surveyor or
17 engineer to understand how large of an extension
18 this actually is, and how, and the fact that it
19 entails entirely new surface facilities, since
20 that was not even mentioned in the application.
21 What's that?
22 Forty-three--oh, for the Emery County
23 road, is a public road and cannot be made part of
24 the permit area. I have discussed that. It is,
25 it should be considered by the Division as part

1 of the affected area, needs to be addressed in
2 this permit. And we raised countless concerns
3 regarding this road, this road. And I would ask-
4 -obviously, they're in the files. It's going to
5 be considered by Division all of the issues that
6 SUWA raised in this regard in the prior permit
7 application and during the hearing on that, that
8 permit approval before the board and that goes for
9 all issues.
10 On 47, statement was made that there
11 is, the heading is, there is no disputed
12 right-of-way. Just because a stay has not been
13 issued at the Interior Board of Land Appeals does
14 not mean that the dispute is not still pending,
15 they are still looking at the merits of the
16 issue. So I just wanted to bring that--
17 MR. BRAXTON: Help us if you're up to
18 speed on that is what a time line from a
19 potential decision for IBLA could be on that.
20 MS. DRAGOO: Three years.
21 MR. McHARG: Yeah, could be a very long
22 time, could be a very long time so that's not
23 something I can speculate as to.
24 MR. BRAXTON: Thank you.
25 MR. McHARG: Those are some of the,

1 some, just some of the more glaring, I guess,
2 replies that I had to UEI's responses to our
3 concerns. And, again, the Division now has our
4 concerns before them and we anticipate that you'll
5 address them in your technical analysis. Thank
6 you.
7 MR. BRAXTON: Thank you.
8 Ms. Dragoo.
9 MS. DRAGOO: I just wanted to respond
10 quickly to some of the issues raised by Southern
11 Utah Wilderness Alliance. First, with respect to
12 the experts, I wanted to just refer to you
13 Exhibit 23, which has the resume of Mel Coonrod
14 and Dave Steed, who testified today, regarding
15 administrative completeness, which was the issue
16 that--I don't know if I misspoke on that or not
17 but what I meant to convey is that there was an
18 administrative completeness determination issued
19 by the Division on February 25, 2002. And, of
20 course, that has to do, deal with the completeness
21 of the permit, not the technical adequacy.
22 With respect to hydrology, I guess we
23 have a major difference of opinion here as to
24 whether the deep saturated zone is a regional
25 aquifer or not. SUWA continued to refer to it as

1 a regional aquifer. The UtahAmerican Energy has
2 provided expert testimony that it is not a
3 regional aquifer and that it did not meet the
4 definition of R645-301-724.100. Just this
5 morning, Jim Smith at the Division, expert
6 regarding the Division's hydrology expert
7 indicated that this deep saturated zone is not a
8 resource requiring protection so the Division
9 apparently concurs in UtahAmerican Energy's
10 conclusion that this is not an aquifer.
11 Regarding whether or not Exhibit 10
12 meets the requirements of the Division 724.100, in
13 addition to Exhibit 10, which we indicate shows
14 the seasonal variations in head, there were also
15 other materials submitted in response to that.
16 Suggest you take a look at our response to Issue
17 4. But we've also identified elevation points at
18 Plate 7-1 in Exhibit 9 and address the faults in
19 the PHC under Exhibit 12, and address the
20 discharge rate in Exhibit 14. So all of those
21 need to be taken together in addressing whether or
22 not there's an adequate response.
23 Just regarding acid- and toxic-forming
24 material, once again, harking back to our meeting
25 this morning, Jim Smith indicated that this issue

1 is moot, that UEI has provided all of the
2 information that the Division could ask for,
3 Division couldn't ask for anything else, and so
4 that has been satisfied.
5 Regarding salinity, in addition to the
6 Fish & Wildlife Service letter, of course, our
7 expert hydrologist, Dan Guy, testified that the
8 PHC determination evaluates increased sediment
9 loading and, once again, just consider that mine
10 water discharge in this case is very unlikely and
11 the operator does not anticipate encountering mine
12 water that would be discharged. So SUWA's
13 comments in this regard are speculative unless
14 water is encountered. If water is encountered,
15 then it would be analyzed under the UPDES permit
16 and under state water quality requirements.
17 MR. COONROD: Denise, if I could just
18 interrupt for a moment, the BA between the U.S.
19 Fish & Wildlife and BLM dismissed any negative
20 impacts to the wildlife fish in the Colorado River
21 drainage. And that was specific to discharge or
22 potential discharge, has no effect.
23 MS. DRAGOO: Great. Thank you. With
24 respect to Item 18, which addresses the cumulative
25 impact area, the Southern Utah Wilderness Alliance

1 present a USGS report for the Trail Mountain area
2 as Exhibit A. We'd just like to reconfirm that
3 that does not relate to the Lila Canyon mine.
4 The Trail Canyon area is some 40 miles removed
5 from Lila Canyon and just simply doesn't relate.
6 So we would suggest that you discount that Exhibit
7 A, USGS report.
8 Regarding wilderness, once again,
9 wilderness is an issue that's determined not by
10 the Division, but by the land management agency.
11 Southern Utah Wilderness Alliance suggests that
12 BLM has made wilderness determinations or has
13 characterized these wilderness inventory lands as
14 wilderness. Actually, that's not the case. The,
15 that whole inventory process is just preliminary.
16 Under Section, it occurred under Section 201 of
17 the Federal Land Policy and Management Act, not
18 under Section 603 of the Federal Land Policy and
19 Management Act which deals specifically with
20 wilderness issues. So there's even a question as
21 to whether that whole determination is legal. It
22 was done without public input. It was done
23 without NEPA analysis. That NEPA analysis for
24 public input will now occur as part of the land
25 use planning process. But that determination has

1 not been finally made. So as to whether or not
2 those lands have wilderness characteristics that
3 will ultimately result in a wilderness study area,
4 that still has yet to be determined and will be
5 determined through this whole updated land use
6 planning process; probably not until 2003 will we
7 know for sure what BLM thinks about that issue.
8 MR. BRAXTON: And you're referring to
9 the Price Management Plan that's currently--
10 MS. DRAGOO: That's being revised.
11 MR. BRAXTON: --that's current being
12 redone?
13 MS. DRAGOO: Exactly.
14 In the meantime, the October, 2000
15 finding has no significant impact and decision
16 record issued by BLM has specifically determined
17 that the Lila Canyon surface facilities will not
18 impair wilderness.
19 Let's see. Regarding biology, we just
20 want to make sure that we understand that the
21 areas that were studied were those required at
22 least for vegetation studies as defined by 321.100
23 as, "areas affected by surface operations incident
24 to an underground mine." For fish and wildlife,
25 the definition that DOGM follows is those areas

1 that are determined in consultation between the
2 Division of Oil, Gas & Mining and state and
3 federal fish and wildlife agencies. None of those
4 agencies have required UtahAmerican Energy to
5 study the Range Creek, the Price River drainage,
6 or the seeps and springs located within or
7 adjacent to the permit area.
8 SUWA referred to the numerous seeps and
9 springs that were located within the permit area.
10 The, as indicated by the data, there are not
11 numerous seeps and springs. In fact, there's a
12 paucity, there's a dearth of seeps and springs
13 located within the permit area, which is probably
14 good because it would mean that any impacts of
15 mining to hydrology would be minimal.
16 Let's see. Once again, regarding
17 wetlands and riparian issues with respect to Item
18 26, SUWA has presented no qualified individual who
19 has, is qualified to identify a wetland or a
20 riparian area whereas UtahAmerican Energy has a
21 qualified expert, Environmental--EIS, and they are
22 qualified to make the determinations regarding
23 what a wetland and what a riparian area is. And
24 our expert has determined that there are no
25 wetlands within the permit area.

1 In response to your direct question
2 regarding Item 38, "Wilderness and Land Use
3 Issues," Mr. McHarg did not address the valid and
4 existing rights issue because he cannot. The,
5 under the federal leasing program, SUWA--or
6 sorry--UtahAmerican Energy has valid existing
7 rights. These rights relate to leases which
8 predate the Wilderness Act of 1964 and the Federal
9 Land Policy Act of 1976.
10 Finally, regarding the new permit
11 issue, SUWA continues to suggest that the public
12 is somehow harmed and we think they're being very
13 speculative regarding this. They have not
14 identified any particular member of the public
15 who's been harmed. SUWA has apparently read the
16 notice and was able to find their way to this
17 hearing. So they were notified adequately. You
18 know, the intent of this notice is not to provide
19 a complete description of everything that would be
20 in a permit. It just simply provides inquiry
21 notice. A person reading this ad is made aware
22 of the fact that the permit has been submitted
23 and it's on file with the Division. It's also on
24 file with the county recorder's office. If
25 they're curious, they can go down and take a look

1 and find out what the extent of that new permit
2 is.
3 With respect to the road, I just want
4 to remind you that the board upheld the Division's
5 determination in its order, dated December 14,
6 2001, that the Emery County road is not a, not
7 part of the permit area, but is a public road.
8 And that board order should be given some weight
9 in that regard.
10 Regarding the right-of-way, once again,
11 unless a stay is issued, the right-of-way grant is
12 in full force and effect. So although it may be
13 disputed, the right-of-way grant itself is
14 effective.
15 And with that, we appreciate your time
16 and patience and we feel that UtahAmerican Energy
17 has submitted an adequate and complete permit
18 application and we look forward to further
19 comments regarding the technical review.
20 MR. BRAXTON: Thank you. Might I ask
21 we have a few minutes left. Is there anybody
22 that's not affiliated with the Division or either
23 of these two parties that's in the room that
24 would like to comment?
25 Having heard that, I'll thank both

parties for coming in. I think you've made some good presentations. We'll certainly take the comments of both parties into consideration in the permitting process and thank you, again, for dedicating your time in the process. We'll go off the record.

(Proceedings adjourned at 4:55 p.m.)

1 **CERTIFICATE**

2 This is to certify that the foregoing deposition was
3 taken before me, SCOTT M. KNIGHT, a Registered
4 Professional Reporter and Notary Public in and for the
5 State of Utah, residing at West Jordan, Utah;

6 That said witness was by me, before examination,
7 duly sworn to testify the truth, the whole truth, and
8 nothing but the truth in said cause;

9 That the testimony of said witness was reported by
10 me in stenotype and thereafter caused by me to be
11 transcribed into typewriting and that a full, true, and
12 correct transcription of said testimony so taken and
13 transcribed is set forth in the foregoing pages,
14 inclusive, and said witness deposed and said as in the
15 foregoing annexed deposition.

16 I further certify that I am not of kin or otherwise
17 associated with any of the parties to said cause of
18 action, and that I am not interested in the event
19 thereof.

20 Scott M. Knight

21 Scott M. Knight, RPR
22 Utah License No. 110171-7801

23

24

25