

MACKENZIE VALLEY ENVIRONMENTAL IMPACT REVIEW BOARD

THOR LAKE RARE EARTH ELEMENT PROJECT

AVALON RARE METALS INC.

EA1011-001

TECHNICAL SESSION

Facilitator

Paul Mercredi

Facilitator

Shannon Hayden

HELD AT:

Tree of Peace

Yellowknife, NWT

August 15, 2012

Day 4 of 4



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--- Upon commencing
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 3
                   THE FACILITATOR MERCREDI:
                                               Okay.
   Welcome back to the technical session for Avalon --
   Avalon's Thor Lake rare earth element project. Thank
   you, everyone, for participating today.
7
                   Today's -- on the agenda for today will
   be air emissions up front; socioeconomic issues;
   culture, language, way of life; training and
   employment procurement; archaeological and heritage
10
11
   resources; and other issues.
12
                   We will do a quick review of homework,
13
   and I think the only outstanding item was homework
   number 14, which was Avalon to forward the
14
15
   presentation that they gave yesterday to the Review
16
   Board. They did. It is posted and available on the
17
   website, so that homework item is complete. Thank you
18
   to Avalon for -- for expediting that.
19
                   So, again, for anybody that wasn't here
   previous to today, if you're speaking into the mic,
21
    it's name and organization, please. Please speak
   clearly into the mic, but not too loud. We will do a
22
   roundtable of who is in the room and on the
23
24
   teleconference line.
25
                   There is a sign-in sheet at the back.
```

- 1 If you haven't already signed in, it's on the -- the
- 2 table that you passed just as you came in.
- It is -- again, if -- if there are any
- 4 resolutions -- or, sorry, if there are any issues that
- 5 can be resolved through sidebar discussions, please --
- 6 or if they're not resolved, please bring that back on
- 7 the record to indicate to the Review Board that they
- 8 do or do not have to look at the issue any further.
- 9 As I said, today is about air and
- 10 socioeconomic issues, and, time permitting, any other
- 11 questions for the developer, but we will stick to the
- 12 agenda as closely as we can. And, again, should there
- 13 be any disagreements, this is a place to at least
- 14 state positions, and we do ask that when those
- 15 positions are stated for the record, that it is --
- 16 respect is -- is at the -- the front of your mind when
- 17 you're speaking. Just again, we are here to -- to
- 18 collect evidence for the Board.
- To my right is my colleague, Shannon
- 20 Hayden. She will be facilitating for most of today,
- 21 and make her job easy, I guess.
- 22 With that, I'll turn the mic over to --
- 23 to Shannon.
- Actually, we'll do a roundtable
- 25 starting with Shannon. My name is Paul Mercredi with

- 1 the Review Board.
- THE FACILITATOR HAYDEN: And I'm
- 3 Shannon Hayden with the Review Board.
- 4 MR. SIMON TOOGOOD: Simon Toogood with
- 5 the Review Board.
- 6 MS. SARAH-LACEY MCMILLAN: Sarah-Lacey
- 7 McMillan with Environment Canada.
- MS. AILEEN STEVENS: Aileen Stevens
- 9 with ENR.
- 10 MR. ALBERT BOURQUE: Albert Bourque
- 11 with ENR.
- 12 MS. KELLY CUMMING: Kelly Cumming with
- 13 Avalon.
- 14 MR. MARK WISEMAN: Mark Wiseman,
- 15 Avalon.
- MR. DAVID SWISHER: David Swisher with
- 17 Avalon.
- MS. KATHY PRESTON: Kathy Preston,
- 19 RWDI, working for Avalon.
- 20 MS. CAILIN MAKIN: Cailin Makin with
- 21 the Review Board.
- MR. TODD SLACK: Todd Slack, YKDFN.
- MS. SHANNON GAULT: Shannon Gault,
- 24 YKDFN.
- 25 MS. STEPHANIE POOLE: Stephanie Poole,

- 1 NWT Treaty 8 Tribal Corporation, Akaitcho IMA office.
- MS. BRITTANY SHUWERA: Brittany
- 3 Shuwera, ITI GNWT.
- 4 MS. AMY LIZOTTE: Amy Lizotte, GNWT
- 5 ITI.
- 6 MR. RUSSELL TEED: Russell Teed, GNWT,
- 7 Minerals, Oil, and Gas.
- 8 MR. GAVIN MORE: Gavin More, GNWT.
- 9 MR. LIONEL MARCINKOSKI: Lionel
- 10 Marcinkoski, Aboriginal and Northern Affairs, AANDC.
- 11 MS. STACEY MENZIES: Stacey Menzies,
- 12 Review Board.
- THE FACILITATOR MERCREDI: Thanks,
- 14 Stacey. And one (1) -- one (1) thing, just kind of a
- 15 logistical item. Please before you finish speaking or
- 16 please do not turn the mic off prematurely. As it --
- 17 it sounds as though for a couple of exchanges people
- 18 were turning off their mics a little too quickly. So
- 19 just finish speaking, pause, turn off the mic like
- 20 this.
- 21 THE FACILITATOR HAYDEN: Okay. So
- 22 good morning. Happy Friday. I'm going to send --
- 23 we're doing air emissions this morning to start for
- 24 both sites, the mine site, as well as the
- 25 hydrometallurgical site.

MVERIB re AVALON TECHNICAL SESSION 08-17-2012 13 And maybe if -- Avalon, I'm not sure if 1 you wanted to have some introductory comments before 3 we open the floor? 4 THE FACILITATOR MERCREDI: And going to the conference line I believe we have one (1) person. If they could identify themselves for the 7 record. MS. VICTORIA ST. JOHN: Victoria from 9 KFN. 10 THE FACILITATOR MERCREDI: Ηi, 11 Victoria. Thank you. 12 MS. VICTORIA ST. JOHN: Okay. 13 PRESENTATION RE AIR EMISSIONS - BOTH SITES 14 15 MR. DAVID SWISHER: David Swisher with Avalon. We've got just a few primer slides to go 16 through regarding air quality. And I'll let my 17 18 colleague here from RWDI, Kathy, proceed. Thank you. 19 MS. KATHY PRESTON: Kathy Preston with RWDI. So this is a brief summary of what was done for

- 21 the air quality assessment and overall the
- 22 contaminants that were assessed are the ones for which
- 23 there are standards in the Northwest Territories. So
- 24 nitrogen dioxide, sulphur dioxide, carbon monoxide,
- 25 total suspended particulate, plat -- particulate

- 1 matter with diameter less than 2.5 microns, which is
- 2 also known as (PM2.5), and also dust fall. There
- 3 aren't standards for dust fall in the NWT, so we used
- 4 -- we compared to objectives in BC, Alberta and
- 5 Ontario.
- 6 So the assessment for air quality
- 7 consisted of estimating emissions and then predicting
- 8 ground level concentrations using -- we had separate
- 9 study areas for the Thor Lake site and the
- 10 hydrometallurgical site because they're quite distant
- 11 from each other. So we used two (2) 20 kilometre x 20
- 12 kilometre study areas for them. And because there
- 13 aren't any guidelines for doing dispersion modelling
- 14 in the Northwest Territories, we used the BC Air
- 15 Quality Model Guidelines. And we also assessed
- 16 greenhouse gas emissions and we did that by estimating
- 17 the emissions.
- 18 So the sources that were included in
- 19 the modelling for the Thor Lake mine site. So what we
- 20 did is we -- we reviewed all the different types of
- 21 sources that there were and then based on professional
- 22 judgment made a decision as to whether the sources
- 23 would have a major, moderate or minor effect on
- 24 ambient air quality. So it wasn't just dependent on
- 25 the emissions but actually they are based on our

- 1 previous experience what the effect might be, and
- 2 certainly the largest sources were the -- the
- 3 ventilation raises.
- And, essentially, because this is an
- 5 underground mine, any emissions that occur within the
- 6 mine itself will only be released to ambient air
- 7 through either the mine portal and there's a second
- 8 ventilation raise. And so there we applied health
- 9 guidelines and then -- so we -- we assumed the worst
- 10 case; that they'd just be at the occupational health
- 11 guidelines within the mines and that would be the
- 12 concentration that is emitted from the ventilation
- 13 raises.
- 14 The other major sources would be the
- 15 mine air heater. There's six (6) diesel generators
- 16 and they proved to be the largest sources of nitrogen
- 17 oxides, carbon monoxide and PM2.5. And then there's
- 18 very few -- there's just two (2) transfer and handling
- 19 points above ground and the transfer and handling
- 20 points and the ventilation raises, it was sort of
- 21 50/50 as to which was the largest source of TSP.
- 22 And then at the hydrometallurgical
- 23 plant, the largest source of emissions that -- with
- 24 sulphuric acid plant. And then we looked at emissions
- 25 of SO2. And then in response to some requests, we

- 1 also estimated vehicle emissions and road dust.
- 2 For the preliminary modelling that was
- 3 done for the DAR, no exceedances were predicted, but
- 4 we -- as I said, we used the BC model guidelines, for
- 5 which you do not include receptors. So you don't
- 6 predict concentrations inside the fence line.
- 7 And that's standard prac -- practice in
- 8 all of the provinces where I have experience doing
- 9 dispersion modelling, so BC, Alberta, and Ontario. It
- 10 would also be true in Saskatchewan.
- 11 However, it was requested that we
- 12 remodel, including receptors inside the fence line.
- 13 And also we wou -- it was requested that we remodel
- 14 with the generators, assuming they were operating at a
- 15 hundred percent load not at a reduced load.
- 16 When we did that, we did predict some
- 17 exceedances, but only inside the fence line. And so
- 18 we predicted exceedances of one (1) hour SO2 up to 1
- 19 percent of the time, twenty-four (24) hour SO2 up to 3
- 20 percent of the time, and twenty-four (24) hour TSP up
- 21 to 17 percent of the time. And then at the
- 22 hydrometallurgical plant, we did predict exceedances
- 23 of one (1) hour SO2 up to .5 percent of the time.
- 24 But, again, that was just inside the fence line.
- 25 And what we show, we also present in

- 1 both the DAR and our responses to those requests, the
- 2 spatial distribution. And it clearly shows that
- 3 predicted concentrations decreased rapidly with
- 4 distance from the site, so.
- 5 The reason why receptors inside the
- 6 fence line are excluded in other provinces is because
- 7 it's occupational health standards that are -- are
- 8 used inside the fence line. And they are much greater
- 9 concentrations than the ambient air quality
- 10 objectives, which in most jurisdictions have been put
- 11 forward by governments to be protective of human
- 12 health and the environment, but -- but outside a -- an
- 13 industrial facility.

- 15 Question Period
- 16 THE FACILITATOR HAYDEN: Okay, thank
- 17 you, Kathy. And I quess we'll open up the floor to
- 18 questions. Environment Canada...?
- 19 MS. SARAH-LACEY MCMILLAN: Good
- 20 morning. It's Sarah-Lacey with Environment Canada. I
- 21 have a question regarding a discussion that occurred
- 22 yesterday about incinerators.
- 23 And I know that you are not ready to
- 24 decide on what incinerator you want to use. But, you
- 25 did indicate that you're going to commit to meeting

- 1 some standards. And I just want to clarify which
- 2 standards those are.
- MR. DAVID SWISHER: David Swisher with
- 4 Avalon. In our discussion yesterday I'd mentioned
- 5 that most incinerators, at least that we've looked at
- 6 or investigated, meet typical EPA standards. But we
- 7 would be more than happy to entertain what standards
- 8 the EC would recommend for those incinerators.
- 9 MS. SARAH-LACEY MCMILLAN: It's Sarah-
- 10 Lacey with Environment Canada. My line of questioning
- 11 was more related to your incineration management plans
- 12 and incorporating the advice from the EC technical
- 13 document for batch incineration.
- 14 Would you be willing to make a
- 15 commitment to implementing an incineration management
- 16 plan and incorporating that bas -- batch waste
- 17 incinerator document?
- 18 MR. DAVID SWISHER: So I think --
- 19 David Swisher, Avalon. So I think what you're saying
- 20 is, would be incorporated into our conceptual waste
- 21 management plan. I believe the incineration would be
- 22 included in there.
- 23 In terms of examples of incinerators,
- 24 we can certainly put examples that we've investigated
- 25 in that plan, as, you know, if that would help.

- 1 David -- David Swisher with Avalon.
- 2 The only reason I -- I hesitate to say this is the
- 3 type that we'll use is because it won't be implemented
- 4 for another three (3) or four (4) years, and there
- 5 will probably be new technology that comes out. And
- 6 we'll certainly want to comply with the latest and
- 7 greatest. That's why I'm -- I'm having a hard time,
- 8 you know, commenting on that. Thank you.
- 9 MS. AILEEN STEVENS: Aileen Stevens,
- 10 ENR. I think ENR and ECR are on the same page with
- 11 the incineration management plan. And we typically
- 12 request the same standards for each proponent. And
- 13 it's simply that the incinerator that's selected is
- 14 designed to meet the Canada wide standards for dioxin
- 15 and furan and mercury emissions.
- 16 And then, also, as part of operating
- 17 that incinerator, that you incorporate the practices
- 18 and recommendations included in Environment Canada's
- 19 document on batch waste incineration just to make sure
- 20 it's operated appropriately and the batches are put
- 21 together appropriately and that the maintenance is
- 22 carried out and there's appropriate training for the
- 23 operators.
- 24 I mean, incineration is not rocket
- 25 science, but it is actually more complex than people

- 1 realize in order to achieve the manufacturer specs.
- 2 So that's basically what we're getting at.
- 3 MR. DAVID SWISHER: David Swisher,
- 4 Avalon. I -- I appreciate that clarification. And --
- 5 and we can say, you know, absolutely we'll include
- 6 that in the plan and make sure that we have the
- 7 appropriate measures within the plan to make sure that
- 8 we're operating those incin -- incinerators to the
- 9 design specifications.
- 10 So if you're looking for a commitment,
- 11 we are committed to developing -- yes, we would commit
- 12 to developing an incinerator plan as part of our
- 13 conceptual waste management plan to include those
- 14 specifics. Thanks.
- MS. AILEEN STEVENS: Aileen Stevens,
- 16 ENR. And just further on that, that it would be
- 17 conducted in consultation with ENR and EC just to make
- 18 sure that by the time we reach the end goal all
- 19 parties are on the same page.
- 20 MR. DAVID SWISHER: David Swisher,
- 21 with Avalon. Yes.
- 22 THE FACILITATOR HAYDEN: Shannon
- 23 Hayden, with the Review Board. Thanks for that. And
- 24 I'll go to Simon for a reading of that commitment.
- 25 Can -- does Environment Canada or ENR -- well, would

- 1 you like to reiterate what you would like that
- 2 commitment to read so we can have Avalon approve.
- 3 MS. SARAH-LACEY MCMILLAN: It's Sarah-
- 4 Lacey, with Environment Canada. I have something
- 5 written down here. And we'll just verify.
- 6 That Avalon will commit to consulting
- 7 with EC and GNWT to develop and implement an
- 8 incineration management plan incorporating the advice
- 9 provided in the EC technical document for batch waste
- 10 incineration.
- 11 THE FACILITATOR HAYDEN: I see some
- 12 nodding heads from Avalon. So, once Simon is finished
- 13 typing we'll have a reread.
- 14 MR. SIMON TOOGOOD: It's Simon
- 15 Toogood, with the Review Board. I have the commitment
- 16 as:
- "Avalon commits to consulting with
- 18 Environment Canada and the GNWT to
- 19 develop and -- and implement an
- 20 incineration manage -- and
- incineration management plan that
- incorporates the information in the
- 23 Environment Canada batch waste
- incineration..."
- 25 I just missed the last part of the --

what the Environment Canada document is. MS. SARAH-LACEY MCMILLAN: Sarah-2 Lacey, with Environment Canada. It's EC technical 3 document for batch waste incineration. 5 MR. SIMON TOOGOOD: Hi, it's Simon Toogood with the Review Board again. I'll reread that in full. It's: 7 "Avalon commits to consulting with 9 Environment and the GNWT to develop 10 and implement an incineration 11 management plan that incorporates information in the Environment 12 Canada technical document on batch 13 14 waste incineration management." 15 Is that correct? 16 THE FACILITATOR HAYDEN: Great. Thanks. Thanks, Simon. I guess we can move on. And 17 18 if you guys have some more questions for Avalon. Sarah...? 19 20 21 --- COMMITMENT NO. 9: Avalon commits to 22 consulting with 23 Environment and the GNWT 24 to develop and implement 25 an incineration management

		23
1	plan that incorporates	20
2	information in the	
3	Environment Canada	
4	technical document on	
5	batch waste incineration	
6	management.	
7		
8	QUESTION PERIOD CONTINUES:	
9	MS. SARAH-LACEY MCMILLAN: Sarah-	
10	Lacey, with Environment Canada.	
11	Will Avalon be completing stack	
12	emission testing for the incinerator to ensure	
13	compliance with the Canadian wide standards for dioxin	
14	and furans, as well as the Canadian wide standards for	
15	mercury?	
16	THE FACILITATOR HAYDEN: Shannon, with	
17	the Review Board. Just a moment for Avalon to	
18	consult.	
19	MR. DAVID SWISHER: David Swisher,	
20	with Avalon. Thank you. I think our position would	
21	be that through best practice management, that we	
22	and particularly with the best practice management and	
23	conceptual waste management plan that we have and that	
24	we'll be working with EC and GNR or ENR on that	
25	that we should be able to meet the requirements for	

- 1 the incineration, particularly when the incineration
- 2 is -- is modelled to meet design specs.
- 3 So if we meet design specs, then there
- 4 shouldn't be a need for further stack testing.
- 5 MS. SARAH-LACEY MCMILLAN: It's Sarah-
- 6 Lacey. I'm going to ask Aileen to answer. I mean,
- 7 I'm not an air expert. I do have a list of questions
- 8 to ask. So I'll just ask her to elaborate on why
- 9 we've requested it.
- 10 MS. AILEEN STEVENS: Stack testing for
- 11 incinerators when they're being brought on board is
- 12 becoming typical practice up here to ensure that it is
- 13 being operated appropriately and it was designed as --
- 14 as it was meant to be.
- 15 And, also, part of -- I mean, the stack
- 16 testing for the incinerator kind of ties into the air
- 17 quality monitoring that was presented in the air
- 18 quality assessment. I guess I'm just going to jump
- 19 right to it, but basically where the company says that
- 20 they expect to:
- "Trend input parameters used in the
- dispersion model. It is recommended
- 23 that stack testing be conducted on
- the diesel generators, miner heater,
- and sulphuric acid plant after

- 1 commissioning."
- 2 And I think it would be fair that,
- 3 under the same logic, the incinerator be stack tested
- 4 as well.
- 5 MR. MARK WISEMAN: Mark Wiseman,
- 6 Avalon. Again, with regard to incinerators, these are
- 7 going to be very, very small emission points relative
- 8 to some of the others.
- And again, with the comprehensive plans
- 10 that we're talking about in terms of what's going into
- 11 them, if we do -- hello? Yeah -- if we do a good job
- 12 of -- of monitoring things like operating parameters,
- 13 temperatures, flow rates, all those sorts of things,
- 14 for a small emission source like that, we don't think
- 15 that, you know, monitoring of -- of some of these
- 16 other things are required. But we would agree that
- 17 the sulphuric acid plant and that sort of thing, that
- 18 -- that it would be required for those kinds of
- 19 things.
- 20 MS. AILEEN STEVENS: Aileen Stevens,
- 21 ENR. Okay, well, I guess we'll have to think on that
- 22 and then come back to it. It would be preferable that
- 23 stack testing was done upon commissioning.
- I have a few ques -- sorry, are you
- 25 done, Environment Canada? Thanks. Okay, so from

- 1 ENR's perspective, I just had a few questions that I
- 2 was looking for clarification on around the hydromet
- 3 facility, dust activities on site, the air quality
- 4 monitoring plan, and then I just confirmed our
- 5 statements for the incineration management plan, but
- 6 that's already been covered off.
- 7 So to start with the emissions from the
- 8 hydromet facility, I recognize that sulphur dioxide is
- 9 the primary emission source. And that's from the
- 10 sulphuric acid plant.
- But I'm just wondering what other
- 12 emissions were considered and what levels they would
- 13 be at from -- from the kiln or the pug mill -- I'm not
- 14 sure which one (1) you guys were going with -- the
- 15 dryer, and even fugitive emissions from the sulphuric
- 16 acid plant, and I'll just...
- 17 MR. DAVID SWISHER: David Swisher,
- 18 with Avalon. Yeah, so the hydromet plant, outside of
- 19 the sulphuric acid plant, recognizing that that's --
- 20 that will -- will be the -- the largest emitter in the
- 21 area, we didn't look at the hydromet plant, because
- 22 it's a fully enclosed plant. And we're containing
- 23 everything within that plant off of the -- any of the
- 24 off gases that come off of the kiln itself are being
- 25 captured and then reprecipitated and introduced back

- 1 into our waste stream.
- 2 So we were really concerned and
- 3 focussed on the sulphuric acid plant. And Kathy can
- 4 comment on the -- the sulphuric plant in -- in terms
- 5 of -- I think.
- 6 What was your question, if you could,
- 7 on the sulphuric acid plant? Thank you.
- 8 MS. AILEEN STEVENS: Well, my first
- 9 question was: What are the extra emissions and -- and
- 10 if fugitive emissions were considered from the
- 11 sulphuric acid plant?
- 12 MS. KATHY PRESTON: Kathy Preston,
- 13 from RWDI. Fugitive emissions from the plant were --
- 14 were not considered in the -- in the dispersion
- 15 modelling.
- 16 MS. AILEEN STEVENS: Aileen Stevens,
- 17 ENR. No, sorry, I should clarify. I definitely
- 18 recognize it wasn't input into the model, because
- 19 perhaps it wasn't a criteria or a contaminant if
- 20 there's acid mist or sulphur coming from the acid
- 21 plant. But would -- well, I guess I'm just looking
- 22 for clarification that there are, in fact, emissions
- 23 that would come from that source from fugitive
- 24 emissions.
- 25 And also, to sort of go back to what

- 1 you were saying about reprecipitating all emissions
- 2 from the hydromet facility, so you're saying there are
- 3 no stacks coming out of this building?
- I mean, there must be -- there must be
- 5 some emissions coming from the process.
- 6 MR. DAVID SWISHER: David Swisher,
- 7 Avalon. Sorry, I didn't mean to give you that
- 8 impression. You're correct, there is a -- a stack
- 9 that will be coming from the hydromet plant from --
- 10 but everything that -- so far the latest tests that
- 11 we've been able to conduct have indicated that
- 12 everything gets re-precipitated out and sent to the
- 13 waste management facility.
- 14 So when we initially did the air
- 15 quality with RWDI, our main concern was the SO2 and
- 16 the sulphuric acid plant, understanding that that
- 17 would be the largest emitter and that's why we -- we
- 18 had that modelled.
- 19 MS. KATHY PRESTON: Kathy Preston,
- 20 from RWDI. The one (1) thing I can comment on, just
- 21 based on AP-42 emission factors for the type of
- 22 facility it is, the double absorption, that certainly
- 23 the sulphuric acid missed emissions would be very low
- 24 compared to any other type of similar -- similar
- 25 facility.

MVERIB re AVALON TECHNICAL SESSION 08-17-2012 29 1 However, as stated, they -- they weren't modelled, because again, there was -- wasn't anything to com -- compare them to. 3 4 5 (BRIEF PAUSE) 6 MR. DAVID SWISHER: Sorry, I just -- I had a question for my own expert, so we're just pulling up -- I just want to make sure I can provide a 10 -- some additional information I was thinking of there 11 before... 12 THE FACILITATOR MERCREDI: And just 13 for the sake of the transcripts, we'll give Avalon a 14 moment to caucus here. 15 MR. DAVID SWISHER: David Swisher, Avalon. No further caucus, I just wanted to make sure 16 17 that -- I was just double-checking a number that she 18 had put in there with regards to the sulphuric acid 19 plant output, just because I wanted to make sure that what we had modelled captured the latest change with 21 regards to the original assessment that we had done at 22 a sulphuric acid plant output of 700 tonnes per day, 23 which is no longer the case. 24 It's actually -- the output is around

300 tonnes per day. So we have reduced that

- 1 significantly for the hydromet facility. Thank you.
- MS. AILEEN STEVENS: Aileen Stevens,
- 3 ENR. Just to clarify though, the information that I
- 4 have down from the information that the model was
- 5 based on was 225 tonnes a day of sulphuric acid.
- 6 So I guess the model is an
- 7 underestimate just by amount then.
- 8 MR. DAVID SWISHER: David Swisher,
- 9 Avalon. Actually, the model is overestimating that,
- 10 because the model is based on -- she's just looking at
- 11 the -- the data. The model was based on, actually,
- 12 314 tonnes per day, but that's not the -- the use.
- 13 The usage is around the two twenty-five (225) that
- 14 you're talking about.
- MS. AILEEN STEVENS: Aileen Stevens,
- 16 ENR. Well, just to wrap this up, I was curious of the
- 17 extra emissions, they weren't modelled, that's fine.
- 18 But I guess we can recognize -- sorry, the additional
- 19 fugitive emissions, the -- the amount of acid missed
- 20 that may be coming from the sulphuric acid plant,
- 21 you're indicating that the additional emissions from
- 22 the hydromet facility would be reprecipitated.
- 23 But just to -- the -- the angle I was
- 24 going to take with this was monitoring on site. SO2
- 25 would be a good starting point, I would think, at

- 1 least, to be monitoring on site just to verify what's
- 2 happening and where all the sulphur emissions are
- 3 going, if they -- if they are present, if they're at
- 4 the level predicted, if they're higher, et cetera.
- 5 Can Avalon -- sorry -- comment on their
- 6 air quality monitoring plan? Thanks.
- 7 MR. DAVID SWISHER: David Swisher with
- 8 Avalon. Absolutely. We -- we fully intend to -- to
- 9 conduct monitoring of -- in the area, and I'll let
- 10 Kathy speak to that monitoring plan, as she, based on
- 11 the modelling work that they did for us, put together
- 12 recommendations on what that modelling would look like
- 13 -- or, monitoring would look like. Thank you.
- 14 MS. KATHY PRESTON: Kathy Preston,
- 15 with RWDI. We did -- initially in the DAR we didn't
- 16 recommend any ambient air quality monitoring because
- 17 we didn't predict any exceedances. We did, as you
- 18 noted, recommend that some stack testing be -- be done
- 19 for the criteria air contaminants.
- Then when we did the subsequent
- 21 modelling inside the fence line, as I mentioned during
- 22 the introduction, we predicted some exceedances. And
- 23 therefore we did recommend that there be SO2
- 24 monitoring at both sites inside the fence line and
- 25 that TSP monitoring also occur at the mine site,

- 1 because we predicted an exceedance there TSP for --
- 2 for a year.
- Now the SO2 monitoring we did recommend
- 4 is passive SO2 monitoring. So that's what -- that's
- 5 what we've recommended to date. And -- and definitely
- 6 within the facility, because beyond the -- the -- we
- 7 didn't predict any exceedances beyond the facility.
- MS. AILEEN STEVENS: Aileen Stevens,
- 9 ENR. Okay. Thanks for that clarification. I -- I
- 10 didn't realize that there was additional monitoring
- 11 that was going to be implemented. But the -- the
- 12 exceedances that are expected are for one (1) hour SO2
- 13 standards.
- 14 So are there new passive instruments
- 15 that can pick up that kind of -- that kind of time
- 16 frame?
- 17 MS. KATHY PRESTON: Kathy Preston,
- 18 with RWDI. SO2 exceedances were predicted for one (1)
- 19 hour and twenty-four (24) hour at the -- the Thor Lake
- 20 site and for one (1) hour at the hydromet plant. And
- 21 the passive monitoring would be thirty (30) day
- 22 passive monitoring. It wouldn't be -- you're correct,
- 23 it doesn't -- it doesn't catch the one (1) hour --
- 24 well, it will. It's thirty (30) day; it's monthly
- 25 monitoring.

- 1 MS. AILEEN STEVENS: Okay. Aileen
- 2 Stevens, ENR. It will be difficult to see -- to -- to
- 3 verify the predictions for a one (1) hour and twenty-
- 4 four (24) hour standard on a thirty (30) day -- a
- 5 thirty (30) day exposure, just because those peaks
- 6 will get sort of averaged out. Have you considered
- 7 other types of monitoring for this type of
- 8 verification?
- 9 THE FACILITATOR HAYDEN: This is
- 10 Shannon with the Review Board. Just giving Avalon a
- 11 moment.
- 12 MR. DAVID SWISHER: David Swisher,
- 13 with Avalon. So in discussions with our expert and
- 14 the points that you've made, I -- I think, between
- 15 Mark and I, we've -- we would feel comfortable going
- 16 beyond those rec -- recommendations and -- and looking
- 17 at the more instantaneous monitoring for the SO2
- 18 within the fence line. Mind you, it's within the
- 19 fence line that we only saw those exceedances. So
- 20 from a worker exposure standpoint and a safety
- 21 standpoint, we're comfortable with increasing the --
- 22 the recommendations provided to us.
- 23 And we would suggest doing that for a
- 24 year period to get a baseline. And then, of course,
- 25 we would -- we would want to obviously share those

- 1 results with GNWT and -- and discuss any -- any
- 2 further or additional modifications to that plan, if
- 3 necessary. Thanks.
- 4 MS. AILEEN STEVENS: Aileen Stevens,
- 5 ENR. Okay, great. Thanks. I think that will be very
- 6 helpful. I'll just move along. We've kind of crossed
- 7 into the other -- the other section I was going to ask
- 8 about, but I just wanted to go back to the dust
- 9 activities.
- I had -- in my IR, I had asked for some
- 11 clarification on the handling during transport, and
- 12 the response was -- well, I -- I wasn't still -- I
- 13 still wasn't clear after I received the response. So
- 14 I just wanted to verify a few items. And I do
- 15 apologize if you've already talked about this over the
- 16 past few days.
- But in the air quality assessment, you
- 18 do indicate in Section 7, for air quality and dust
- 19 control, that:
- 20 "Additional mitigation measures
- could be considered to reduce the
- 22 emissions, and they include the
- following: employ wet suppression
- 24 systems, cover the conveyor system,
- 25 connect the process building event

1 to a bag-house dust collection 2 system, restrict unnecessary idling 3 of project equipment, and inspect and maintain vehicles and equipment 5 regularly." 6 Now, the way it's written, it -- it 7 implies that that's not currently the plan, that you will employ those measures if there's a dust issue? 9 MR. DAVID SWISHER: David Swisher, 10 with Avalon. What -- what that's meant to imply is that during the natural course of operations from, 11 12 say, the underground mining, the material's going to 13 be wet when it's conveyed. It's going to be in a moist state and that it should not be -- technically, 14 15 it should not be generating any dust. 16 If we observe, through not only the 17 sampling that we're doing on the surface as well as 18 underground, that there is dust, then we would employ 19 dust suppression to -- to take care of that. I think that's the same case for the transportation at the 21 site, when we're taking containers from the -- the 22 plant down to the barge area. The majority of the 23 season, it'll either be snow covered/ice covered, but 24 there will be the summer months that that road will -will dry up. And once that occurs, then we'll -- we'll

- 1 apply the water to -- to mitigate the -- the dust
- 2 issues there.
- 3 We just -- in terms of implementing
- 4 something for a year-round situation that may not
- 5 require it, we're just hesitant to commit to that.
- 6 But we are committing to -- to ensuring dust
- 7 suppression when it's required, to -- to make sure
- 8 that we're not emitting, you know, dust plumes and
- 9 whatnot that you often see during the springtime
- 10 anyway in the communities. Thanks.
- MS. AILEEN STEVENS: Aileen Stevens,
- 12 ENR. Okay, thanks for the clarification. Now just to
- 13 talk about quickly the handling -- the handling and
- 14 transport, how controlled is the product when it's
- 15 being handled and transported?
- 16 Is there a negative pressure system in
- 17 the loading bays? Is there a covered conveyor system?
- 18 And during transport, are the C-cans (phonetic)
- 19 sealed? Are they airtight? Are they watertight?
- 20 And also the concentrate in trailers
- 21 with a tarp over it, is the concentrate first in bags
- 22 and then in a truck with a tarp, or is it just free
- 23 concentrate with a tarp cover to go down the road?
- 24 MR. DAVID SWISHER: David Swisher,
- 25 Avalon. It's a long range, so I'll start at the

- 1 beginning. From the floatation plant, the floatation
- 2 plant itself at Nechalacho is fully enclosed. All the
- 3 loading that's done into the containers, basically the
- 4 material or concentrate is in a moist state. It's
- 5 going to be at least, I believe, 10 to 12 percent
- 6 moisture content. So it's already moist. That
- 7 material then gets loaded into the half-height
- 8 intermodal containers inside the -- the building.
- 9 Once those are loaded, then the containers are moved
- 10 outside.
- 11 What we expect and what we've designed
- 12 for is the fact that most of those containers will be
- 13 outside and will freeze, and everything will freeze in
- 14 the -- the containers during the winter months.
- So when we're shipping or transporting
- 16 across the lake, the material's already moist; it will
- 17 most likely be frozen, which is why on -- when we get
- 18 it to the hydromet plant at Pine Point, we actually
- 19 have a indirect-heating thaw shed that's also inside.
- 20 And the containers go inside of that shed. And then,
- 21 from inside that shed, the containers then will be --
- 22 once they thaw out, then they'll be dumped into a --
- 23 probably another small-circuit wash-down, water
- 24 circuit so that it basically avoids any lumping going
- 25 into the hydrometal -- metallurgical plant.

- 1 So all of that is pretty well
- 2 contained. Now, when we ship product, we have two (2)
- 3 products from the hydromet plant; we have a light rare
- 4 earth precipitant that contains half our heavy rare
- 5 earths. That will be sealed in containers, and that
- 6 will be -- and -- and that will be shipped south. And
- 7 that material will also be moist, because you can't
- 8 fully dry that material. It will still be 10 to 12
- 9 percent moisture content.
- 10 The residue is the second item, and
- 11 that's what -- where we were suggesting hauling in
- 12 bulk with tarped trucks. But the residue itself is
- 13 going to be a minimum of 15 percent moisture con --
- 14 content, up to 20, 25 percent moisture content, as
- 15 indicated by Henrietta Notzl, who was here earlier
- 16 this week.
- 17 So that's going to be actually in cake
- 18 form, very moist. So we don't expect any -- any
- 19 drying to take place, whatsoever. And that will be
- 20 trucked to the railhead. And then at the railhead
- 21 facilities, what we're told by CN -- because that will
- 22 be on their property, they'll be -- they'll be
- 23 building to their standards.
- 24 And the trans-load facility, itself,
- 25 will be enclosed where the rail cars come inside the

- 1 trans-load facility and get loaded with that material.
- 2 And then they have their covers, plastic covers, that
- 3 go over the top of that, as they do with hauling dry
- 4 goods, as well.
- 5 Hopefully that answers your question.
- 6 Thanks.
- 7 MS. AILEEN STEVENS: Yes, thanks for
- 8 the clarification there. Now, the 10 to 12 percent
- 9 moisture would likely indicate that there would not be
- 10 a significant amount of dust.
- But this has been changed then from the
- 12 previous 8 percent assumption?
- 13 MR. DAVID SWISHER: I think the -- the
- 14 8 percent assumption was there's this range between 8
- 15 and 12 percent, and it depends on the filter presses,
- 16 the type of filter presses that are used.
- 17 Manufacturers' designs recommend, you
- 18 know, anywhere between 8 and 12 percent. Our
- 19 metallurgical experts are indicating that you're going
- 20 to be hard pressed to get below 10 percent with those
- 21 filters, because general, regardless of what they
- 22 design down to, and saying you might achieve 8
- 23 percent, you're typically in the 10 to 12 percent
- 24 range.
- MS. AILEEN STEVENS: Aileen Stevens,

- 1 ENR. Okay. Thanks for that. I quess the concern is
- 2 that I know that the -- the product is meant to be
- 3 relatively non-toxic, benign, non-reactive, all that
- 4 stuff; but we don't know the -- the actual effects to
- 5 the environment if -- under the situation of
- 6 contaminant loading. I haven't seen any studies for
- 7 such a thing.
- 8 So the idea of a truck with the product
- 9 in it with a -- just simply a tarp over it driving
- 10 down the highway does lend itself to the notion that
- 11 dust could escape and start loading along -- along the
- 12 highway. This has occurred at other mines.
- But at 20 to 25 percent, obviously --
- 14 20 to 25 percent moisture, I mean, we wouldn't expect
- 15 that to happen. But 20 to 25 percent moisture is
- 16 pretty significant and, obviously, expensive to haul
- 17 that much water.
- 18 So at some point in the future, is --
- 19 is it likely that Avalon will be trying to reduce that
- 20 more significantly, or is it -- is it possible to get
- 21 past a point where the moisture would no longer
- 22 contain the dust in any of your process optimization?
- 23 MR. DAVID SWISHER: At this stage,
- 24 what our -- what Henrietta, our metallurgical expert,
- 25 plus our new VP of metallurgy, David Marsh, has

- 1 indicated is that, at best, we'll get down to 15
- 2 percent moisture content. Right now, everything's
- 3 indicating 15 to 25, and generally around the 20
- 4 percent range.
- 5 In terms of downstream customers,
- 6 delivering the residue, so, you know, we're still
- 7 looking at the facilities in the South and whether
- 8 we're -- we're going to treat that, or if it -- it
- 9 gets sold at a discount to others. They'll require it
- 10 dry. And if they require it dry, then our discussions
- 11 are that we would put a drying facility where it's
- 12 required, where its final destination is, if it's
- 13 required.
- 14 But not -- at this point, we don't
- 15 envision drying that material completely. The -- the
- 16 costs to do that, I think, outweigh at this point,
- 17 based on the expensive cost to -- to try and dry it,
- 18 that much material, versus the shipping costs.
- 19 MS. AILEEN STEVENS: Okay. Thanks for
- 20 that clarification. Well, I quess, if the moisture --
- 21 if the moisture levels are contained, then I guess I
- 22 have no further questions on the item of contaminant
- 23 loading. Sorry, did you have further comments?
- 24 MR. DAVID SWISHER: David Swisher,
- 25 Avalon. Yeah, I just wanted to make a note, too, that

- 1 we actually do have a real-life example of that with
- 2 regards to the project site itself, because the -- the
- 3 deposit itself is still -- and the -- and the -- the
- 4 minerals of interest are -- are contained all the way
- 5 to the surface and outcropping to the surface.
- And so you've got -- you've got the
- 7 fresh water, you've got the -- the vegetation, the
- 8 trees, and everything is -- is not adversely affected
- 9 by those elements that are naturally -- or, in the
- 10 natural state and at surface, because we know, based
- 11 on all of the -- the samples that we've taken and the
- 12 drilling that we've done, that all of that outcrops
- 13 right to surface as well. So just wanted to make that
- 14 -- that point. Thanks.
- MS. AILEEN STEVENS: Aileen Stevens,
- 16 ENR. No, thanks for that clarification. That's a
- 17 valid point. Okay. So my final questions were
- 18 regarding the air quality monitoring plan. Now,
- 19 you've mentioned that you will be doing sulphur
- 20 dioxide monitoring and TSP monitoring. And I guess
- 21 I'd just like to -- well, sorry, and also you've
- 22 mentioned that you would do stack testing on your
- 23 diesel generators and your mine air heaters and the
- 24 sulphuric acid plant stack, I assume, after
- 25 commissioning.

- 1 Could you please just clarify the
- 2 intentions there? Because, ultimately, what ENR would
- 3 like to have is an air quality monitoring and
- 4 management plan developed in consultation with ENR
- 5 prior to implementation. Thanks.
- 6 MR. DAVID SWISHER: David Swisher,
- 7 Avalon. Yeah, we can confirm and -- and agree with
- 8 what you've indicated there on our monitoring plans.
- 9 MS. AILEEN STEVENS: Okay. I guess,
- 10 taking it to the next level then -- sorry, Aileen
- 11 Stevens, ENR -- could we please get a commitment from
- 12 Avalon to develop an air quality monitoring and
- 13 management plan in consultation with ENR and EC
- 14 including the items that have already been indicated,
- 15 such as stack testing and SO2 and TSP monitoring.
- 16 MR. DAVID SWISHER: David Swisher,
- 17 Avalon. Sure.
- 18 THE FACILITATOR HAYDEN: Thanks, this
- 19 is Shannon Hayden with the Review Board. While Simon
- 20 types that down, I also want to revisit a discussion
- 21 from some of your questions just a little while ago.
- 22 And I wasn't sure if we should capture
- 23 a commitment when Avalon said they were -- I wasn't
- 24 sure if they were willing to do the more instantaneous
- 25 monitoring or if they're willing to consider doing

- 1 more instantaneous monitoring for within the fence
- 2 line for that one (1) year to establish a baseline.
- 3 So maybe we could just see if there's a
- 4 commitment in there too.
- 5 MR. SIMON TOOGOOD: It's Simon
- 6 Toogood, with the Review Board. Just to get into the
- 7 record, the commitment:
- 8 "Avalon commits to developing an air
- 9 quality monitoring and management
- 10 plan in consultation with ENR and
- 11 Environment Canada, including stack
- 12 testing, SO2, and TSP monitoring."
- Does that capture the intent of the
- 14 commitment?
- MS. AILEEN STEVENS: Aileen Stevens,
- 16 ENR. Including, but not limited to, if Avalon's okay
- 17 with that.
- 18 MR. DAVID SWISHER: David Swisher,
- 19 with Avalon. Can we have just a moment here, because
- 20 I'm -- I'm getting a whole lot of things and I'm not
- 21 listening to what's happening here. Thanks.
- THE FACILITATOR MERCREDI: What we'll
- 23 do is, as far as -- we'll capture it for the re --
- 24 we'll try and capture the concern allowing -- that
- 25 GNWT as stated, and then we'll get that reading. And

- 1 then while Avalon is caucusing, we'll go back to them
- 2 when they're ready.
- 3 So, with that, Simon, could you read
- 4 it? And this is with the intention of Aileen
- 5 listening, not necessarily Avalon.
- 6 MS. AILEEN STEVENS: Sorry, Aileen
- 7 Stevens, ENR. Maybe we should wait, though, for
- 8 Avalon, since it is their commitment, just to make
- 9 sure they're okay with it.
- 10 MR. SIMON TOOGOOD: Hi, Simon Toogood.
- "Avalon commits to developing an air
- 12 quality monitoring and management
- plan in consultation with ENR and
- 14 Environment Canada, including but
- not limited to stack testing and SO2
- and TSP monitoring."
- 17 THE FACILITATOR MERCREDI: And GNWT,
- 18 does that capture...?
- 19 MS. AILEEN STEVENS: Aileen Stevens,
- 20 ENR. That works for me. Let's just see what Avalon
- 21 thinks.
- MR. DAVID SWISHER: David Swisher,
- 23 with Avalon. A lot of activity over here. Could you
- 24 read that one (1) more time for us, please?
- MR. SIMON TOOGOOD: Simon Toogood with

46 the Review Board. 2 "Avalon commits to developing an air 3 quality monitoring and management plan in consultation with ENR and 5 Environment Canada, including, but 6 not limited to, stack testing and SO2 and TSP monitoring." MR. DAVID SWISHER: David Swisher, 9 with Avalon. Yes, that -- that sounds good. 10 11 --- COMMITMENT NO. 10: Avalon commits to 12 developing an air quality 13 monitoring and management 14 plan in consultation with 15 ENR and Environment 16 Canada, including, but not 17 limited to, stack testing 18 and SO2 and TSP monitoring 19 20 THE FACILITATOR MERCREDI: Okay, and so that was the most recent concern. There was a 21 22 commitment probably about ten (10) minutes ago that 23 might have need capturing as well, and we can go to 24 Simon for that. 25 MR. SIMON TOOGOOD: It's Simon Toogood

47 with the Review Board. I have it as: 2 "Avalon commits to continuous 3 monitoring of SO2 for one (1) year within the fence line at the Thor Lake mine site and 5 6 hydrometallurgical plant site." 7 THE FACILITATOR MERCREDI: And. Aileen, does that capture that concern? Okay, and David, does that -- was that within the realm of something that Avalon can commit to? If Avalon 10 11 needs a moment, that -- that's definitely all right. 12 We'll have Simon read it back. Simon...? 13 MR. SIMON TOOGOOD: Simon Toogood. 14 "Avalon commits to continuous 15 monitoring of sulphur dioxide for 16 one (1) year within the fence line 17 at the Thor Lake mine site and 18 hydrometallur -- hydrometallurgical 19 plant site." 20 MR. DAVID SWISHER: Great, I got 21 nothing from either side, so -- David Swisher with 22 Avalon -- yes, that sounds good. Thank you. 23 24 --- COMMITMENT NO. 11: Avalon commits to 25 continuous monitoring of

	48
1	sulphur dioxide for one
2	(1) year within the fence
3	line at the Thor Lake mine
4	site and
5	hydrometallurgical plant
6	site
7	
8	THE FACILITATOR MERCREDI: Great,
9	thank you. So I think we're up to date on on that.
10	And then moving on for further questions.
11	MS. AILEEN STEVENS: Aileen Stevens,
12	ENR. The last thing on my list was about the
13	incineration management plan, but we have a previous
14	commitment already on the record. Is that correct?
15	MR. SIMON TOOGOOD: Mr. Simon Toogood
16	with the Review Board. I have a previous commitment
17	as number 8 on incinerations standards.
18	"Avalon commits to consulting with
19	Environment Canada and GNWT to
20	develop and implement an
21	incineration management plan that
22	incorporates information in the
23	Environment Canada technical
24	document on batch waste incineration
25	management."
1	

- 1 MS. AILEEN STEVENS: Aileen Stevens,
- 2 ENR. Thanks very much. That's all I have to ask
- 3 about air quality. And thanks for your patience and
- 4 all your answers.
- 5 MR. DAVID SWISHER: David Swisher,
- 6 Avalon. No, thank you for your patience.
- 7 THE FACILITATOR HAYDEN: Okay. Are
- 8 there any more questions from the floor for air
- 9 quality for both the Thor Lake or the
- 10 hydrometallurgical site?
- 11 THE FACILITATOR MERCREDI: We'll go to
- 12 the teleconference line. Is there any questions on
- 13 air quality/air emissions for either sites for the
- 14 Thor Lake project?
- 15 MS. VICTORIA ST. JOHN: Not at this
- 16 time.
- 17 THE FACILITATOR MERCREDI: And,
- 18 Victoria was that you, for the record?
- MS. VICTORIA ST. JOHN: Yes.
- 20 THE FACILITATOR MERCREDI: Victoria,
- 21 was that -- was that your non-comment?
- 22 MS. VICTORIA ST. JOHN: Pardon?
- 23 THE FACILITATOR MERCREDI: Is this
- 24 Victoria St. John?
- MS. VICTORIA ST. JOHN: Yeah.

- 1 THE FACILITATOR MERCREDI: Okay.
- 2 Thank you. We just needed to clarify that for the
- 3 record. Thank you.
- 4 MS. VICTORIA ST. JOHN: Okay.
- 5 THE FACILITATOR MERCREDI: If there
- 6 are no further questions on air quality or air
- 7 emissions, then we'll move to the next topic on the
- 8 agenda. So again, by show of hands, please come
- 9 forward to the mic. If not, then we will move to the
- 10 next topic, which is socioeconomic issues, in the run-
- 11 up to the break. We'll go for about twenty (20)
- 12 minutes on socioeconomic issues, training, employment,
- 13 and procurement.
- 14 For sure. We will take a break. We'll
- 15 take about a ten (10) minute break.

16

- 17 --- Upon recessing
- 18 --- Upon Resuming

- 20 SOCIO-ECONOMIC ISSUES
- 21 THE FACILITATOR MERCREDI: Okay. I'll
- 22 give a one (1) minute warning. Everybody's had a
- 23 pretty good and long break, so we'll give a one (1)
- 24 minute warning, and then we'll start up with
- 25 socioeconomic issues.

- 1 Thank you, and welcome back from break.
- 2 So we will launch into the socio -- topic of
- 3 socioeconomic issues. Training, employment, and
- 4 procurement is first up on the -- on the agenda. And,
- 5 first of all, we will go to Avalon for any opening
- 6 statements, anything on that matter.
- 7 MR. DAVID SWISHER: David Swisher,
- 8 with Avalon. Yeah, I'd like to just comment that you
- 9 should have received the correspondence from the
- 10 meeting minutes between Avalon and the GNWT that
- 11 occurred prior to these technical sessions, and -- and
- 12 the fact that a lot of the -- at least our impression
- 13 from that meeting was that many of the items that were
- 14 discussed were addressed and should be in the letter
- 15 that the Review Board has now. Thanks.
- 16 THE FACILITATOR MERCREDI: Thank you.
- 17 And that -- that document is posted and available on
- 18 the -- the Review Board website. Further to that,
- 19 were there anything? If not, I'll go to the floor for
- 20 questions.
- 21
- 22 QUESTION PERIOD:
- 23 MS. BRITTANY SHUWERA: Brittany
- 24 Shuwera, GNWT. Thanks for posting the minutes on the
- 25 registry. I saw them this morning, so thanks for

- 1 that.
- Just in followup to yesterday's
- 3 discussion on access to the haul road, the GNWT wants
- 4 to confirm that traditional and business users will be
- 5 able to access the road over the life of the mine.
- I know Avalon discussed controlled
- 7 access, so we just want to confirm that users will be
- 8 able to access the road as well.
- 9 MR. DAVID SWISHER: David Swisher,
- 10 with Avalon. As mentioned yesterday, that they would
- 11 be able to access the road. However, during the
- 12 period in which we're transporting, then we also have
- 13 a responsibility, considering it's going to be leased
- 14 ground, to make sure that safety is of the utmost
- 15 importance. And so there may be some restrictions
- 16 during certain periods, depending on the haulage
- 17 routes, strictly for the safety of other persons on
- 18 the road. Thank you.
- 19 MS. BRITTANY SHUWERA: Brittany
- 20 Shuwera, GNWT. Thanks for that confirmation. So I
- 21 just have two (2) questions in follow-up to the
- 22 meeting that we had with Avalon last week. We managed
- 23 to clear up a lot of outstanding issues. There's just
- 24 two (2) things regarding reporting that we want to
- 25 just put out on the record.

- 1 Further to our meeting on August 1st,
- 2 the GNWT appreciates that Avalon has made significant
- 3 commitments in bringing industry benefits to the NWT.
- 4 We are encouraged by Avalon's willingness to work
- 5 together and achieve common goals.
- 6 There are a few outstanding concerns
- 7 with respect to reporting that we would like to
- 8 further discuss. GNWT recognizes that there are
- 9 privacy and competitive concerns with respect to some
- 10 reporting clauses. As well, the GNWT recognizes that
- 11 onerous or duplicative reporting requirements are not
- 12 necessary.
- The following items remain to be
- 14 outstanding and are examples of reporting commitments
- 15 met by other NWT businesses.
- 16 With respect to reporting on NWT
- 17 purchased goods and services, the GNWT is unable to
- 18 quantify benefits from Northern procurement if
- 19 companies are unable to provide a breakdown of the
- 20 gross value of goods and services.
- 21 Could Avalon commit to annually
- 22 reporting on the gross value of goods and services
- 23 purchased during the calendar year by major category
- 24 of purchase in relation to each phase of the project?
- MR. DAVID SWISHER: David Swisher,

- 1 with Avalon. I -- I'm going to step back and just
- 2 mention that as a result of correspondence that was
- 3 sent to the GNWT on August 1st indicating that Avalon
- 4 is willing to sit down with the GNWT and work out an
- 5 SEA, that these details as discussed in our meeting
- 6 would be addressed and determined then.
- 7 So Avalon's not willing to commit until
- 8 the Minister gets back to Avalon with regards to their
- 9 response. Thank you.
- 10 MS. BRITTANY SHUWERA: Brittany
- 11 Shuwera, GNWT. Thank you for that. We're pleased at
- 12 this time with that response and look forward to
- 13 further discussion. I'll just finish with my last
- 14 question, and I assume the response will be much the
- 15 same, but I'd like to put it out there anyway.
- 16 In order for benefits from the Avalon
- 17 project to be extended to NWT businesses, it is
- 18 important for all businesses to understand what
- 19 opportunities are available. The GNWT recognizes and
- 20 is pleased to see the commitments Avalon has made with
- 21 the local study area, but would also like to -- like
- 22 confirmation that NW -- NWT businesses are provided
- 23 full and fair opportunity, by priority, to participate
- 24 in the contract bids.
- 25 Can Avalon commit to providing an

- 1 annual business forecast and assessment?
- 2 MR. DAVID SWISHER: David Swisher,
- 3 with Avalon. You are correct, the answer is going to
- 4 be similar. But what I'll add to that is that as
- 5 mentioned in our discussions, we give priority to our
- 6 Aboriginal partners first and foremost. So I'm sure
- 7 that if we have future discussions with regards to any
- 8 agreements with the GNWT, then those details would be
- 9 discussed.
- 10 And again, just for the record, Avalon
- 11 is still waiting for a response from the Minister with
- 12 regards to that.
- 13 I'd also like to point out that the
- 14 GNWT should download the CSR report that Avalon has
- 15 provided for the public registry, as there are certain
- 16 reporting items that we've already indicated in there
- 17 that are currently acceptable for Avalon and we look
- 18 forward to discussing more in the future with the
- 19 GNWT, as long as it doesn't supercede our Aboriginal
- 20 partner commitments. Thank you.
- 21 MS. BRITTANY SHUWERA: Brittany
- 22 Shuwera, GNWT. Thank you for your response. We
- 23 acknowledge that as well and look forward to further
- 24 discussions. I think that's all we had at this time.
- 25 If -- if anything else comes up, I'm

- 1 sure we'll be in touch. Thanks.
- THE FACILITATOR HAYDEN: Thanks,
- 3 Brittany. This is Shannon with the Review Board. Are
- 4 there any further questions from the floor? And -- I
- 5 -- I guess I could check to see if there is somebody
- 6 on the line still as well.
- 7 MS. VICTORIA ST. JOHN: Yes, this is
- 8 Victoria St. John, KFN.
- 9 THE FACILITATOR HAYDEN: Okay. Did
- 10 you have any questions for the -- the training,
- 11 employment, and procurement at this time?
- 12 MS. VICTORIA ST. JOHN: None at this
- 13 time.
- 14 THE FACILITATOR HAYDEN: Okay.
- MS. VICTORIA ST. JOHN: Thank you.
- 16 THE FACILITATOR HAYDEN: Okay. And
- 17 anybody in the room here?
- 18 MS. SHANNON GAULT: Shannon Gault for
- 19 the YKDFN. Sorry about that. I just wanted clarity
- 20 on a couple of points that were observed in the DAR.
- 21 In addition to recognizing agreements with the First
- 22 Nations, in terms of contract procurement, I'm just
- 23 looking for confirmation that, under the preferential
- 24 Northern hiring policy that Avalon has agreed to, that
- 25 IBA communities will be given priority within that

- 1 group as well.
- 2 MR. DAVID SWISHER: David Swisher with
- 3 Avalon. Yes, with the -- the -- the priority is first
- 4 with our Aboriginal partners.
- 5 MS. BRITTANY SHUWERA: Thank you for
- 6 that. Regarding training, in the DAR it states that
- 7 Avalon receives Aboriginal skills and employment
- 8 partnership funding.
- 9 I just was looking for more details on
- 10 how that funding is being used and plans to be used
- 11 with the Aboriginal partners leading up to project
- 12 startup and throughout the process.
- 13 MR. DAVID SWISHER: David Swisher,
- 14 Avalon. Shannon, I'm sorry, I missed it when that --
- 15 was that referring to the training? Okay. With
- 16 regards to training, that -- any funding that Avalon
- 17 receives, funding support that Avalon receives, is
- 18 going to be used for pre-construction training.
- 19 We have pre-construction activities,
- 20 and so what we want to do -- and the idea is to
- 21 attract from our Aboriginal communities, as well as
- 22 all communities that are available, but giving
- 23 preference to those seats within our Aboriginal
- 24 communities for the pre-construction training.
- So we'll have pre-construction

- 1 training. And then during construction, there's
- 2 opportunities to actually get on-the-job training with
- 3 -- during the construction periods. And then, of
- 4 course, during the operations, we'll have
- 5 apprenticeship programs that will provide training as
- 6 well for both skilled and non-skilled employees.
- 7 Hopefully that answered your questions.
- 8 Thanks.
- 9 MS. BRITTANY SHUWERA: Thank you. It
- 10 does. I think, just for the Review Board, I'll add
- 11 some context to my questions. The issue of training
- 12 and increasing knowledge and education of First
- 13 Nations members is a -- is a really significant point
- 14 of interest for First Nations communities and
- 15 governments.
- 16 Oftentimes, we get statistics from our
- 17 workers at various mines, and they tend to fall into
- 18 the unskilled or semi-skilled categories of
- 19 employment. And we're always eager to work with
- 20 developers to increase the skills of our people to get
- 21 more skilled training and employment. And we're
- 22 obviously very encouraged to know that training
- 23 funding will be used and will be targeted towards our
- 24 First Nations members, so we thank the Proponent for
- 25 that.

- 1 And I guess I would just follow that by
- 2 asking if it would be possible -- I think the DAR
- 3 mentions the percentage of current employees -- or,
- 4 that is, First Nations employees that Avalon has
- 5 hired, and I would ask that those numbers be provided
- 6 for First Nations members who benefit from training.
- 7 Was that clear? I feel like I was
- 8 repeating myself. I apologize.
- 9 MR. DAVID SWISHER: David Swisher,
- 10 with Avalon. No, fully understood. I think we -- you
- 11 could find the answer to your question in the CSR
- 12 document that was just posted to the Review Board
- 13 site. We also have the CSR document that's posted on
- 14 Avalon's website. And on page 15 of that document,
- 15 there's a percentage breakdown of the current
- 16 distribution of employees, both Aboriginal and non-
- 17 Aboriginal, and hopefully that would answer your
- 18 questions. Thanks.
- 19 MS. BRITTANY SHUWERA: Thank you.
- 20 That's all I have right now.
- 21 THE FACILITATOR HAYDEN: Okay. This
- 22 is Shannon with the Review Board. Remaining on the
- 23 topic with training, employment, and con -- and
- 24 procurement for now, I'm wondering if there's any more
- 25 questions.

60 1 (BRIEF PAUSE) 2 3 THE FACILITATOR HAYDEN: Okay. Seeing none, I guess we can move on within the agenda. We're still discussing socioeconomics, but the next item is culture, language, and way of life. I'm not sure if 7 Avalon were interested in saying some opening statements for that, or if we should open the floor 10 for questions. 11 Okay. So if there's any questions in 12 the room for socioeconomic issues -- culture, 13 language, way of life -- now is your time. And I -- I 14 believe Victoria might have come back on the line, on 15 the phone? Does she have any questions for Avalon? MS. VICTORIA ST. JOHN: 16 Not at this 17 time. I don't have any questions 18 THE FACILITATOR HAYDEN: Thank you. 19 MS. VICTORIA ST. JOHN: Thank you. 20 THE FACILITATOR MERCREDI: We -- if 21 there are no further questions on training, 22 employment, procurement, culture, language, and way of 23 life, we are at the last topic of the agenda, so --24 which would be archeological, inherited resources, and 25 other issues.

- So, again, we will move to that last
- 2 topic if there are no -- if there no -- by a show of
- 3 hands, and I'm not seeing any, so.
- 4 MR. SHAFIC KOURI: Paul, can you just
- 5 give us a few minutes?
- THE FACILITATOR MERCREDI: Absolutely,
- 7 you bet.
- MR. SHAFIC KHOURI: (OFF MIC).
- 9 THE FACILITATOR MERCREDI: You bet.
- 10 MR. SHAFIC KHOURI: Thanks.
- 11 THE FACILITATOR MERCREDI: That was
- 12 Shafic Khouri with GNWT just asking for a moment to
- 13 caucus.
- 14 MR. SHAFIC KHOURI: Thanks, Paul.
- 15 THE FACILITATOR MERCREDI: You bet.
- 16 While GNWT caucuses, and it appears they may be good
- 17 to go, we will try and contact the Prince of Wales
- 18 Northern Heritage Centre to see if they -- they --
- 19 they might have been planning to be here at 3:30, so
- 20 if we can contact them, they may or may not have
- 21 concerns to bring on record.
- I know that Avalon does have a few
- 23 slides to present. So, with that, I see Shafic has
- 24 come to the -- the mic. Shafic...?
- MR. SHAFIC KHOURI: Shafic, ENR/GNWT.

- 1 Prince of Wales has nothing. They are not here. They
- 2 don't plan on participating in this. Thank you.
- 3 THE FACILITATOR MERCREDI: Very well.
- 4 Thank you. So with that, we'll move to the next topic
- 5 for anybody that's in the room. Archeological,
- 6 inherited resources, and other issues. By show of
- 7 hands, if I'm not seeing anything, we'll open the
- 8 floor to any questions on any other topics, this being
- 9 the last day. And with -- if I'm not seeing any -- if
- 10 I'm not seeing any -- and hands or anyone come up to
- 11 the mic, then we will call this technical session
- 12 closed for the week.
- So if there -- if anybody would like
- 14 any other opportunity to ask Avalon questions while
- 15 they're here under the umbrella of the technical
- 16 session, speak now. I'll go to Victoria; do you have
- 17 any -- any -- any questions for the Avalon Team?
- 18 MS. VICTORIA ST. JOHN: Hello. Can
- 19 you hear me?
- 20 THE FACILITATOR MERCREDI: Yes, I can
- 21 hear you. Do you have any questions for the Avalon
- 22 team?
- 23 MS. VICTORIA ST. JOHN: Would it -- as
- 24 far as this afternoon, they're -- so they're not going
- 25 to have anything this afternoon for the technical

- 1 session?
- THE FACILITATOR MERCREDI: There are
- 3 no questions as of yet. And I -- we will -- yeah,
- 4 right now there are no questions, so this could very
- 5 well be the end of the technical session.
- 6 MS. VICTORIA ST. JOHN: Okay. I don't
- 7 have any questions right now, but it won't be our last
- 8 opportunity at this?
- 9 THE FACILITATOR MERCREDI: There will
- 10 be more opportunities for participation within the
- 11 environmental assessment, if that's what you mean.
- 12 But as far as the technical session is concerned, it
- 13 is -- it appears that it might be coming to a close
- 14 soon. So I hope that answers your questions.
- 15 MS. VICTORIA ST. JOHN: Yeah. I don't
- 16 have any other questions right now.
- 17 THE FACILITATOR MERCREDI: Thank you,
- 18 Victoria.
- 19 MS. VICTORIA ST. JOHN: Thank you.
- 20 THE FACILITATOR MERCREDI: And
- 21 Stephanie?
- MS. STEPHANIE POOLE: Thank you.
- 23 Stephanie Poole, Akaitcho IMA office. Paul, you
- 24 mentioned that Avalon has a presentation with a few
- 25 slides. Is that in regards to archeology? I would

- 1 like to see the presentation before the technical
- 2 session is closed.
- THE FACILITATOR MERCREDI: Absolutely.
- 4 David...?

- 6 PRESENTATION BY AVALON RE ARCHAELOGICAL AND HERITAGE
- 7 RESOURCES AND OTHER ISSUES:
- 8 MR. DAVID SWISHER: David Swisher with
- 9 Avalon. Can everybody see that okay now? Okay. So I
- 10 just have a few slides on the archeology. I think
- 11 that's a -- it's an important point that we did want
- 12 to develop some slides on, particularly around our
- 13 Aboriginal partners.
- 14 So I think I'll just go through a few
- 15 of the slides here to take us through a little bit of
- 16 the background on -- on the archeology done at the
- 17 Nechalacho site.
- 18 So in the -- in the Thor Lake area,
- 19 Nechalacho, in 1988 there was a study that was
- 20 focussed on in -- within the same similar area,
- 21 particularly for the barge area, and the road
- 22 infrastructure. And so that study took place. We
- 23 have that report.
- 24 And then in 2011 Avalon determined that
- 25 although -- although there wouldn't be archaeological

- 1 items that may or may not change between 1988 and
- 2 2011, because that's a recent period, what we did want
- 3 to do though is we wanted to have more recent
- 4 confirmation, considering that methodologies and the
- 5 way that these studies are done have -- have improved
- 6 since 1988.
- 7 So in 2011 we did another study, and
- 8 that study was an independent study. We also had our
- 9 Aboriginal partners participate in that study to get
- 10 their feedback and -- and help in the field with that
- 11 study.
- And so in 2011 we had pedestrian
- 13 surveys of -- of the proposed site at Nechalacho. So
- 14 that included the plant site, the tailings management
- 15 facility, the air strip, the lay-down areas, the
- 16 roads, and the proposed seasonal docking area.
- 17 And then in 2012 we did another field
- 18 reconnaissance of any of the moderate- to high-
- 19 potential portions of the proposed areas in question
- 20 as a follow-up from the 2011 survey. And then in the
- 21 Pine Point area we did, in 2012, the marshalling yard,
- 22 or the seasonal dock facility.
- 23 And so in 1988, just a quick review of
- 24 that, there were three (3) sites that were documented
- 25 as numbered there, KAPB-4, KAPB-3, and KAPB-2.

- 1 And the -- the first site was deemed to
- 2 be a prehistoric and recent -- prehistoric, and they
- 3 found materials at the dock area and the adjacent
- 4 road. The -- the second site, they found some scatter
- 5 on the crest of a -- of the high ridge that would be
- 6 just to the north of the tailings management facility
- 7 -- proposed tailings management facility. And then
- 8 the last site is really in and around the existing
- 9 exploration camp and is really on the west end of --
- 10 of Thor Lake.
- 11 Four (4) artifacts at that time were
- 12 collected from the second site, and they contained
- 13 three (3) white quartz biface fragments and one (1)
- 14 bone hide flesher.
- And so in 2011 the archeologists and
- 16 the participants were -- were given the background of
- 17 that 1988 survey. And so in 2011 they went back out
- 18 in the field and they revisited all of those prior
- 19 sites, and then they did additional work at one (1) of
- 20 the higher-incident areas, which was the KAPB-4 site,
- 21 to effect the potential effects from mine development.
- They also added six (6) new sites that
- 23 were recorded along the north sides of the -- of the
- 24 tailings management facility, and they saw -- they saw
- 25 two (2) sites, small sites, comprised of one (1) or

- 1 two (2) stone circles and -- and possible hearths.
- 2 And of course one (1) site is a -- was a rock
- 3 structure used as a martin trap.
- They found two (2) sites that may be
- 5 avoidable, but it -- but four (4) appear to be within
- 6 the footprint of the proposed tailings management
- 7 facility. So the recommendations in 2011 is to
- 8 complete a detailed plan mapping, careful surface
- 9 inspection, and some subsurface testing.
- 10 So given that that was the
- 11 recommendation, then we asked them to come back in
- 12 2012 and follow up on those recommendations. And so
- 13 they did a full assessment of both the Nechalacho site
- 14 and the Pine Point barging area. And what they found
- 15 were that all remaining survey gaps that they had in
- 16 their 2000 survey were resolved. And then they went
- 17 back and did a -- a systematic data recovery of the
- 18 six (6) new sites around the tailings management
- 19 facility, and they resulted in no artifacts recovered
- 20 and considered that those sites would be mitigated.
- 21 And they went down to the barging area,
- 22 and they did not discover any new sites at the barging
- 23 area and recommended to have it qualified. And so the
- 24 recommendations from this year's survey was that if
- 25 there were any additional work outside of the proposed

- 1 plan area around the -- the barging area, seasonal
- 2 barge area, that there be a qualified archaeologist on
- 3 site, on -- on site and -- and standby, excuse me, and
- 4 then the crews be educated at the site for the
- 5 identification of potential features and artifacts.
- 6 And so Avalon will be committing to those as -- as
- 7 well.
- 8 And so mitigation measures, Avalon has
- 9 conducted archaeological impact assessments at both
- 10 sites to ensure that archaeological resources are not
- 11 disturbed. Our resources are protected through
- 12 various federal, territorial, and Inuvialuit
- 13 legislation regulations.
- 14 A site protection plan will be prepared
- 15 that will facilitate the continued protection and
- 16 management of archaeological resources during the
- 17 construction phase of the project, and mitigation
- 18 measures will be designed on an individual basis and
- 19 require prior approval by the Prince of Wales Heritage
- 20 Centre. Mitigation measures may include avoidance,
- 21 temporary site protection, or systematic data
- 22 recovery. And that's all I have. Thank you.
- THE FACILITATOR HAYDEN: Thank you.
- 24 This is Shannon with the Review Board. Are there any
- 25 questions on the archaeological programs that Avalon

- 1 has undertaken so far or questions, I guess, on what
- 2 they might do in the future as well?

- 4 QUESTION PERIOD:
- 5 MS. STEPHANIE POOLE: Thank you. It's
- δ Stephanie Poole with the Akaitcho IMA office. I -- I
- 7 do have a few questions stemming from the
- 8 presentation. First question: A bone hide flesher
- 9 was recovered, and -- and where is it now?
- 10 Second question: You mentioned a full
- 11 assessment that was done in 2012. Where's the final
- 12 report for that full assessment? Is it available to
- 13 the public?
- 14 When you mentioned the full assessment
- 15 that happened in 2012, you said you went back to look
- 16 at some sites that were discovered to check them more
- 17 thoroughly and to also check underground. I'm curious
- 18 about what kind of methodology was used to check
- 19 underground for archaeological sites, particularly
- 20 grave sites.
- 21 And then you mentioned in the future
- 22 that there would be a plan regarding archae --
- 23 archaeology and that if any mitigation were to occur,
- 24 it would be with the involvement of the Prince of
- 25 Wales Heritage Centre and -- and by their approval.

- 1 And I just wanted to say that the
- 2 Akaitcho Dene First Nations have to be involved in
- 3 developing that plan and also in approving any
- 4 mitigation measures. It's my understanding that the
- 5 Prince of Wales Heritage Centre, part of the way they
- 6 work is -- is that they will give you a licence to
- 7 document anything that you discover, like with the GPS
- 8 and take photos of it. And once that's done, then
- 9 it's okay to destroy it. And that's not acceptable
- 10 for the Akaitcho Dene First Nations.
- 11 Those are my questions.
- 12 MR. DAVID SWISHER: David Swisher,
- 13 with Avalon. Thanks for that, Stephanie. I think
- 14 I'll just answer your last question first, if that's
- 15 okay. I agree with you. I think the -- the plan
- 16 right now, particularly in the commitments we've made
- 17 with our Aboriginal partners, is that they are
- 18 involved at each step and that they do have a say on
- 19 the -- the plan itself, and that they are one (1) of
- 20 the first that are -- are contacted. And -- and you
- 21 can find that in the confidential information that's
- 22 in -- in either of the Akaitcho communities in those
- 23 agreements. So that -- that is, yeah, in there. So
- 24 we agree on that.
- 25 Going back to the -- the bone flesher

- 1 that was found in 1988, I believe all the artifacts
- 2 that were found in 1988 actually now are in the Prince
- 3 of Wales Heritage Centre. I'd have to go back and
- 4 look at the 1988 report, but I believe they -- I know
- 5 that they took them off site, and I believe they're at
- 6 the Heritage Centre there.
- 7 The 2012, final report, there is no
- 8 final report yet. That -- the -- the survey was just
- 9 recently done, I think about a month ago. We do have
- 10 a summary page that I'd be glad to provide to the
- 11 Review Board for posting on the registry that -- that
- 12 would, I think, help confirm some of the presentation
- 13 there and provide a little bit more background for
- 14 you.
- So I can certainly do that. I'm not an
- 16 archeologist when they talk about the underground, but
- 17 I do know that they -- I believe they are digging in
- 18 areas down to the hard bedrock to actually per -- in
- 19 zones of areas that are identified as -- as higher
- 20 possible zones to make sure that they've covered that
- 21 whole area, because over -- over, you know, hundreds
- 22 or thousands of years, you get sediment buildup that
- 23 could bury certain things. And I think that's what is
- 24 meant by the -- the underground portion. Thank you.
- MS. STEPHANIE POOLE: Stephanie Poole,

- 1 Akaitcho IMA Office. You've offered to submit a final
- 2 archeological assessment report summary to the public
- 3 registry, which is fine. But I wonder, when will the
- 4 final report be ready, and will that be submitted to
- 5 the public registry prior to technical report
- 6 submissions in this EA process?
- 7 MR. DAVID SWISHER: It's David
- 8 Swisher, with Avalon. Those reports take a long time
- 9 to develop. And -- and we did look into that, which
- 10 is why we were able to get a summary. But in terms of
- 11 the full report, we're told that we won't receive that
- 12 until sometime early next year. So I -- we'll
- 13 certainly make that available to our Aboriginal
- 14 partners -- communities as soon as that's available.
- 15 Thank you.
- 16 MS. STEPHANIE POOLE: Stephanie Poole,
- 17 Akaitcho IMA. So just for the record, it sounds like
- 18 you don't know when that report will be ready to be
- 19 shared with other parties. Is that correct?
- 20 MR. DAVID SWISHER: David Swisher,
- 21 with Avalon. I can -- I can pull up the
- 22 correspondence, because I did inquire about that, and
- 23 -- and forward the correspondence to the Review Board.
- 24 But the indication is it's going to be a -- a while
- 25 before they will have the -- the final report

- 1 completed for us.
- MS. STEPHANIE POOLE: Stephanie Poole,
- 3 Akaitcho IMA Office. Just in regards to the -- any
- 4 assessment or surveys that were done in regards to
- 5 looking for things underground, it sounds like the
- 6 focus of the work was just to look for, perhaps, small
- 7 items or artifacts underground.
- 8 But what I'm interested in and
- 9 requesting is information on any work that was done in
- 10 trying to identify historical burial sites. I would
- 11 say that the discoveries that have been made so far on
- 12 site would lead me to believe that is quite possible
- 13 that there could be burial sites there. It looks
- 14 likes the Dene were living there and working there.
- 15 And so it -- it could be possible, and
- 16 the Akaitcho Dene First Nations would like information
- 17 on how you have investigated in that regard.
- 18 MR. DAVID SWISHER: David Swisher,
- 19 with Avalon. Yeah, we can provide the -- the final
- $20\quad 2011$ report that actually is more of the -- the
- 21 initial report that is follow-up to the 1988, and that
- 22 information would be contained in there. So we'd be
- 23 glad to provide that. I thought that was actually
- 24 provided already to the Board, but if not, we can --
- 25 we can provide it to you. Thank you.

- 1 THE FACILITATOR HAYDEN: This is
- 2 Shannon with the Review Board. I think there were a
- 3 couple of homework items that might have come up
- 4 there, and they would probably be completed pretty
- 5 quickly. Yep, go ahead.
- 6 MR. DAVID SWISHER: Yes, homework,
- 7 because I can provide those before we leave. So the
- 8 first one (1) being the -- provide the Board with the
- 9 2011 archeological final report.
- 10 MR. SIMON TOOGOOD: All right. Simon
- 11 Toogood with the Review Board. I have this as an
- 12 undertaking for Avalon to provide the -- sorry,
- 13 homework, my apologies, as homework for Avalon to
- 14 provide the 2011 archeological report. That would be
- 15 the final -- sorry, for Avalon to provide the final
- 16 2011 archeological report. Is that correct?
- 17 MR. DAVID SWISHER: That's correct.
- 18 The second homework item is to provide the Review
- 19 Board with the 2012 archeological summary.
- 20 MR. SIMON TOOGOOD: All right. Simon
- 21 Toogood with the Review Board. I have homework for
- 22 Avalon to provide the Review Board with the 2011 --
- 23 sorry, with the 2012 archeological summary.
- 24 MR. DAVID SWISHER: David Swisher with
- 25 Avalon. The 2012 archaeological survey summary.

- 1 Thank you.
- 2 MR. SIMON TOOGOOD: All right. Simon
- 3 Toogood, with the Review Board. To clarify:
- 4 "Avalon to provide the Review Board
- 5 with the 2012 archaeological survey
- 6 summary."
- 7 MR. DAVID SWISHER: Yes, thank you.
- 8 THE FACILITATOR HAYDEN: Shannon with
- 9 the Review Board. Thanks, David. Stephanie, does
- 10 that address some of your requests?
- MS. STEPHANIE POOLE: Thank you.
- 12 Stephanie Poole, Akaitcho IMA office. I believe there
- 13 was also a commitment to provide the 2012 final
- 14 assessment report once it's available, although we
- 15 don't know when that will be. So I guess that's just
- 16 a commitment.
- 17 And you're saying that the work done to
- 18 investigate any possible burial sites would be found
- 19 in the 2011 report? Is that what you're saying to me?
- 20 MR. DAVID SWISHER: Yes. David
- 21 Swisher. The methodology and -- and how they went
- 22 about all their surveys in investigating all potential
- 23 items, including potential burial grounds, that sort
- 24 of thing, is all contained in the 2000 -- should be
- 25 contained in the 2011 report that I'll be posting.

- 1 Thank you.
- THE FACILITATOR HAYDEN: Okay.
- 3 Shannon with the Review Board again. Thanks for that,
- 4 David. Are there any other questions for
- 5 archaeological and heritage resources at the Avalon
- 6 site?
- 7 Can I check to see if Victoria's on the
- 8 line still and if there's any comments for
- 9 archaeological and heritage resources?
- 10 MS. VICTORIA ST. JOHN: Hi. Yes, I'm
- 11 still on -- on the line. No, not at this time. I
- 12 have no questions. Thank you.
- 13 THE FACILITATOR HAYDEN: Okay.
- 14 Thanks.
- 15 THE FACILITATOR MERCREDI: Okay. If
- 16 there are no further questions, we will review the
- 17 undertakings and commitments and bring the technical
- 18 session to a close. So by a show of hands, unless
- 19 there is anybody objecting to that decision, we'll
- 20 move to close.
- 21 So before we -- before we break, we'll
- 22 have Simon read out the undertakings and commitments,
- 23 as these are -- are some of the outstanding tasks that
- 24 relate to some of the topics that were discussed
- 25 today. So, with that, unless there were anything

77 further, any further comments from -- from Avalon on -- on any topics from the agenda. 3 MR. DAVID SWISHER: No further comments. David Swisher. Thank you. 5 REVIEW OF TASKS FOR DEVELOPER OR PARTIES: 7 THE FACILITATOR MERCREDI: Very well. Simon, if we could have a reading of the commitments and undertakings. Thank you. 10 MR. SIMON TOOGOOD: Hi. Simon Toogood 11 with the Review Board. I'll start with commitments. Day 1, Commitment number 1: 12 13 "Should Avalon propose alternate 14 agents from those proposed in the 15 DAR for the Nechalacho flotation 16 plant, Avalon will notify the Review 17 Board prior to the public registry 18 for Avalon's Thor Lake Rare Earth 19 Elements Project being closed." 20 Number 2, from day 2: 21 "Avalon to provide information at the Pine Point site on modelling of 22 23 the contaminant plume stemming from 24 the discharge of effluent to the 25 aquifer, including a plume diagram."

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1	Commitment number 3, from day 3:
2	"Avalon commits to a contingency of
3	placing a tailings cover during the
4	winter and designing it sufficiently
5	to maintain long-term stability,
6	including summer thaw periods, for
7	the L-37 tailing facility."
8	Commitment number 4:
9	"Avalon commits to monitoring
10	tailings during operations within
11	the L-37 tailings facility to
12	confirm the saturation levels and
13	ensure trafficability for closure
14	and placement of the cover."
15	Number 5:
16	"Avalon commits to a contingency of
17	placing a tailings cover during the
18	winter and designing it sufficiently
19	to maintain long-term stability,
20	including summer thaw periods, for
21	the Nechalacho tailings facility."
22	Number 6:
23	"Avalon commits to monitoring
24	tailings during operations within
25	the Nechalacho tailings facility to

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	1	confirm saturation levels and ensure
	2	trafficability for closure and
	3	placement of the cover."
	4 N	umber 7:
	5	"Avalon commits, during operations,
	6	to implement monitoring to verify
	7	the modelling predictions of the
	8	effluent plume down gradient of the
	9	L-37 tailings facility, assess the
1	0	modelling parameters, and, if there
1	1	are deviations, initiate the
1	2	mitigation, if required."
1	3 C	ommitment number 8:
1	4	"Avalon commits to consulting with
1	5	Environment Canada and GNWT/ENR to
1	6	develop and implement an
1	7	incineration management plan that
1	8	incorporates the information in the
1	9	Environment Canada technical
2	0	document on batch waste incineration
2	1	management."
2	2 N	umber 9:
2	3	"Avalon commits to continuous
2	4	monitoring of sulphur dioxide for
2	5	one (1) year within the fence line

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1	at the Thor Lake mine side and
2	hydrometallurgical plant sites."
3	Number 10:
4	"Avalon commits to developing an air
5	quality monitoring and management
6	plan in consultation with ENR and
7	Environment Canada, including but
8	not limited to stock testing and SO2
9	and TSP monitoring."
10	We move on to undertakings. Number 1:
11	"Requested request for updated
12	water balance for the Thor Lake site
13	showing flows and reflecting changes
14	in the project, as shown in figure
15	4.7-10 of the DAR."
16	Number 2:
17	"Avalon to provide an updated
18	commitment table."
19	Number 3:
20	"Avalon to provide MSDS sheets for
21	reagents listed in Table 4.7.2.4 of
22	the DAR and any other reagents
23	proposed at the Thor Lake or Pine
24	Point sites."
25	Number 4:

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1	"Avalon will provide, in bullet
2	format, the backup data, parameters,
3	and assumptions used for the
4	calculations for homework item
5	number 5, including volume number,
6	source of flow, and concentration."
7	Number 5:
8	"Avalon to provide a single map
9	showing the entire proposed zone of
10	influence for the Avalon project,
11	including Thor Lake, Pine Point, and
12	transportation corridors."
13	Number 6:
14	"Avalon to identify how traditional
15	knowledge was used and incorporated
16	into the DAR and how traditional
17	knowledge was used in the design of
18	the proposed project. And the
19	caveat to that: When being within
20	the limits of existing
21	confidentiality agreements."
22	Number 7:
23	"Avalon to provide the elevation of
24	the operating level of the polishing
25	pond within the Nechalacho site

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2	operations."
3	Number 8:
4	"Avalon to provide the associated
5	capacity and retention time of the
6	polishing pond within the Nechalacho
7	site tailings facility at year 20 of
8	operations."
S	And that is it for commitments and
10	undertakings.
11	THE FACILITATOR MERCREDI: Thank you,
12	2 Simon. And
13	UNIDENTIFIED SPEAKER: And one (1)
14	question. Excuse me. Could you do number 4 again for
15	me, please?
16	MR. SIMON TOOGOOD: Yep. Number 4 for
17	undertakings was:
18	"Avalon will provide, in bullet
19	format, the backup data, parameters,
20	and assumptions used for the
21	calculations from homework item
22	number 5, including volume number,
23	source of flow, and concentration."
24	UNIDENTIFIED SPEAKER: Thank you. No
25	more questions.
1	

- 1 THE FACILITATOR MERCREDI: Thank you.
- 2 With that, a -- just on -- a note on the commitments
- 3 and undertakings, those will be posted, along with the
- 4 transcripts and other information that Avalon has
- 5 produced that might not have been posted as of yet.
- 6 That will be posted to the registry by next week.
- 7 Early next week is my goal.
- 8 So if there -- we'll go to the -- one
- 9 (1) last time to the teleconference line for any
- 10 further questions before we close for the -- for the
- 11 week.
- 12 MS. VICTORIA ST. JOHN: No further
- 13 questions, Victoria St. John, KFN. Thank you.
- 14 THE FACILITATOR MERCREDI: Thank you,
- 15 Victoria.
- 16 Does Avalon have any final comments for
- 17 the technical session before we close?
- 18 MR. DAVID SWISHER: David Swisher,
- 19 with Avalon. I think it's been a long four (4) days,
- 20 and I appreciate everybody's comments. And we'll
- 21 certainly endeavour to -- to complete the undertakings
- 22 as quickly as possible. So, thank you.
- 23 THE FACILITATOR MERCREDI: Thank you.
- 24 And, Shafic...?
- MR. SHAFIC KHOURI: Shafic, ENR.

- 1 Simon, would you be able to repeat the commitment on
- 2 updating -- providing -- Avalon providing an updated
- 3 commitments table, please and thank you?
- 4 MR. SIMON TOOGOOD: All right. Simon,
- 5 with the Review Board. I have Undertaking number 2:
- 6 "Avalon to provide an updated
- 7 commitments table."
- 8 MR. SHAFIC KHOURI: Shafic, ENR.
- 9 Thank you, Simon. Could -- would Avalon please be
- 10 able to confirm whether that commitments table would
- 11 have both biophysical and socioeconomic compiled into
- 12 that one table of commitments? Thank you.
- 13 THE FACILITATOR MERCREDI: As it
- 14 relates to the overall project, that's -- that was my
- 15 understanding of it, but if there was anything
- 16 different on that --
- 17 MR. DAVID SWISHER: David Swisher,
- 18 Avalon. No, you're correct, Paul. It's -- it's the
- 19 overall project.
- THE FACILITATOR MERCREDI: Very well.
- 21 Okay. At this point, I'll open up the floor for any
- 22 further comments or questions before I close.
- 23 If -- I'm not seeing anything, so, with
- 24 that, I'd like to thank everyone for participating,
- 25 all parties. The Review Board appreciates the

- 1 evidence that's been submitted within this technical
- 2 session. I'd like to thank Avalon for making
- 3 available their team members and technical advisors
- 4 for the -- for the benefit of the parties to the
- 5 environmental assessment, and also for the Review
- 6 Board.
- 7 At -- and stay tuned to the public
- 8 registry for information on further steps in -- in the
- 9 process -- or, sorry, next steps in the process.
- 10 And, with that, yes, it has been a long
- 11 but, I feel, a productive week. So I'd like to thank
- 12 all participants and Avalon. And I -- I could not
- 13 have done this without the help of my colleagues, so I
- 14 do have to recognize Shannon, Simon, Stacey, and
- 15 Cailin, as well as our sound tech, Mark, I believe it
- 16 is.
- 17 GEORGE: George.
- THE FACILITATOR MERCREDI: George.
- 19 Okay. Well --
- 20 GEORGE: Don't worry about it.
- 21 THE FACILITATOR MERCREDI: -- my face
- 22 red. Okay. With that, thank you again, everyone, for
- 23 -- for participating, and if you have any questions,
- 24 feel free to contact me at the Review Board. Thank
- 25 you again.

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2 --- Upon adjourning
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 5 Certified Correct,
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11 Wendy Warnock, Ms.
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