

MACKENZIE VALLEY ENVIRONMENTAL

IMPACT AND REVIEW BOARD

TECHNICAL SESSIONS

GAHCHO KUE DIAMOND PROJECT - DE BEERS CANADA

Mackenzie Valley Review Board Staff:

Facilitator

Alan Ehrlich

Facilitator Chuck Hubert

HELD AT:

Yellowknife, NT

May 22, 2012

Day 1 of 4



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	1	APPEARANCES		۷
	2	Alan Ehrlich)MVEIRB	
	3	Chuck Hubert)	
	4	Simon Toogood)	
	5	Shannon Hayden)	
	6	Stacey Menzies)	
	7	Paul Mercredi)	
	8	Dave Tyson) Tetra Tech	
	9			
	10	Kathy Racher) MVLWB	
	11			
	12	Stephen Lines)De Beers Canada	
	13	Terry Kruger)	
	14	Cathie Bolstad)	
	15	Ryan Rodier)	
	16	Veronica Chisholm)	
	17	Leah Russell)	
	18	Craig Blackie)	
	19	Daniel Johnson) JDS	
	20	Wayne Corso) JDS	
	21	Bill Horne)EBA Engineering	
	22	John Faithful)Golder Associates	
	23	Don Chorley)Golder Associates	
	24	Mike Herrell)Golder Associates	
	25	Nathan Schmidt)Golder Associates	
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1	APPEARANCES	(cont'd)	
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3	Kyle Hodgson) Golder Associates	
4	Kristine Mason) Golder Associates	
5	Kelsey Lorozigno (phonetic)) Golder Associates	
6	Gary Ash) Golder Associates	
7			
8	John King)Natural Resources	
9) Canada	
10			
11	Lionel Marcinkoski) AANDC	
12	Velma Sterenburg)	
13	Francis Jackson)	
14	Erin Yaxley)	
15			
16	Michael Tollis)Lutsel K'e	
17	George Marlowe)	
18			
19	Stephanie Poole)Akaitcho IMA and NWT	
20) Treaty 8 Tribal	
21) Corporation	
22			
23	Greg Black)Transport Canada	
24	Laura Jones)	
25			
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	1	APPEARANCES	(cont'd)	1
	2	Glenn Sorenson) GNWT	
	3	Kim Heisler)	
	4	Kris Johnson)	
	5	Greg Brady)	
	6	Loretta Ransom)	
	7			
	8	Randy Freeman)Yellowknives Dene	
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	10	Elmar Plate)Deninu Kue First	
	11) Nation	
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	13	Ben Linaker) ENR	
	14	Sarah True)	
	15	Shafic Khouri)	
	16			
	17	Kate Witherly) NPMO	
	18			
	19	Sarah-Lacey McMillan)Environment Canada	
	20	James Hodson)	
	21	Anne Wilson)	
	22	Lisa Lowman)	
	23			
	24	Bruce Hanna)Department of	
	25	Pete Cott)Fisheries & Oceans	
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--- Upon commencing at 1:05 p.m.
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                   THE FACILITATOR EHRLICH:
                                              Hi, everyone.
   Welcome to the technical meeting for the Gahcho Kue
   environmental impact review. My name is Alan Ehrlich.
   You'll remember me as the previous panel manager, and
   now manager of environmental impact assessment for the
7
   Review Board.
9
                   I've been asked to give a few opening
10
               I've been specifically asked not to start
    comments.
   with a quotation by Winston Churchill, as well.
11
12
   those of you who've been at our previous things will be
13
   pleasantly relieved. Before we go to far with this, I
14
    just want to give everyone a sense of context.
15
   we get to where we are now, and I'll get you to think
16
   back through the environmental impact review. Some of
17
   you have been involved from the whole thing, some of
18
   you have hopped on a little later in the process.
19
                   The panel received its environmental
    impact statement from De Beers in December of 2010.
21
   And in March of 2011 the panel completed it's cor --
22
   conformity check of the environmental impact statement
23
   against the terms of reference requirements, and it
24
   issued a deficiency statement to De Beers. De Beers
25
   addressed the deficiencies and the panel determined
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- 1 that it was in conformity in July of 2011. I did just
- 2 say March of 2011, right. Yeah.
- In September of 2011 participant funding
- 4 was awarded, which lets other groups become involved
- 5 meaningfully in this. We're quite pleased that the
- 6 federal government was able to provide participant
- 7 funding. It's an extremely important part of having
- 8 parties involved meaningfully in our work. And
- 9 environmental impact assessment gives them
- 10 responsibilities. We're happy that they also have the
- 11 capacity to meet those responsibilities in this case.
- 12 From November 28th to December 2nd the
- 13 panel hosted an EIS analysis session over five (5)
- 14 days. That was like a show and tell to bring everyone
- 15 up to speed on what the project was as it was proposed,
- 16 as well as to give the developer a chance to tell the
- 17 parties what kind of ongoing design evolution has
- 18 happened within the project so people are up to speed
- 19 on that. Information Requests were submitted by
- 20 parties in January of 2012. And in April of 2012
- 21 responses were completed by De Beers Canada, which
- 22 brings us to the technical meetings at present.
- 23 One (1) of the big reasons we hold
- 24 technical meetings and face-to-face meetings in general
- 25 is because EIA is often characterized as having a lot

- 1 of paper involved. And what we've realized is
- 2 sometimes a short face-to-face discussion can much more
- 3 quickly and elegantly resolve a disagreement about an
- 4 issue where it turns out the disagreement was based on
- 5 a misunderstanding.
- 6 By having the right people in the room -
- 7 and we believe we will have the right people in the
- 8 room here today, you can get to the heart of an issue
- 9 without having as many layers of bureaucracy approving
- 10 various written materials, and it keeps the record to a
- 11 manageable size to the point where it can be used
- 12 effectively by parties and, ultimately, by the panel as
- 13 the decision maker.
- 14 One (1) of the things that will happen
- 15 here is you -- there's been a round of Information
- 16 Requests. And De Beers and others have responded to
- 17 those Information Requests. If clarifications are
- 18 required, you've got this opportunity before the next
- 19 round of Information Requests to make sure that you
- 20 understand the answers and that your questions were
- 21 understood by De Beers as well.
- It gives the panel an opportunity to
- 23 focus on the remaining issues prior to the parties
- 24 submitting their technical reports. The beginning of
- 25 an environmental assessment, or an environmental impact

- 1 review, there are many different ways a project can
- 2 interact with the world, and so there are a lot of
- 3 potential issues. And part of our process involves
- 4 winnowing down the number of issues to focus on the
- 5 ones that matter the most, that matter the most to
- 6 parties, that matter the most, ultimately, to the
- 7 decision makers in this case, and to have the stuff
- 8 that can be resolved be resolved without the panel
- 9 having to get into the middle.
- 10 One (1) of the ways this happens is
- 11 through developer commitments. The developer has an
- 12 opportunity to, using autonomy, decide that they will
- 13 deal with certain issues by committing to do certain
- 14 things during the review. And those things will become
- 15 part of the project description. They would give other
- 16 parties some assurance that their -- their issues are
- 17 met. So there's a wonderful opportunity for the
- 18 developer to deal with issues often in ways that are
- 19 cost effective and efficient for the developer, but
- 20 particularly valuable to other parties.
- 21 So there's some good opportunities for
- 22 win/wins there. And we've seen some real openness on
- 23 the part of De Beers, on the part of other proponents
- 24 recently, to -- to use that tool which is entirely
- 25 within their control to the maximum potential. Now, in

- 1 some cases not all potentially significant adverse
- 2 likely effects can be dealt with that way, in which
- 3 case the panel can also impose measures. The last time
- 4 the Review Board assessed that -- it was the Snap Lake
- 5 diamond mine, there were a total of thirty-seven (37)
- 6 measures that were put into its report. And they were
- 7 all approved by the minister as well, but commitments
- 8 hadn't been used in as sophisticated a way at that
- 9 point.
- 10 And, you know, it's worth remembering
- 11 that each environmental assessment and each review is
- 12 done on its own merits. Although the Board is quasi-
- 13 judicial, it's not bound by the weight of precedent as
- 14 a court would be. And so the panel in this case is
- 15 going to make its decisions based on the evidence
- 16 that's in front of it.
- 17 The discussions we're having here today
- 18 are a part of that evidence. Every word is being
- 19 transcribed by Lorraine, from Digi-Tran. Lorraine, can
- 20 you wave so people know who you are? Many of you
- 21 remember Wendy Warnock, who's done a lot of our
- 22 transcription before. Wendy had a fearsome reputation
- 23 for enforcing that -- that people will say their names
- 24 when they speak and will speak into the microphones.
- 25 This is very important or else the transcripts have a

11 wonderful opportunity to be wrong in ways you might not imagine. 3 To make it easier for you to remember to say your name the facilitators, that is panel and Review Board staff, got very tired of saying, Name, please, so we've made big, shiny, red signs that say 7 "Say your name, please." You'll probably see that. 8 Also, if we have to call things to order, we found a bear bell in a pile of grizzly scat not too long ago, and -- and Chuck is not afraid to 10 11 wield that -- that bell as necessary. It will call people back from coffee breaks, but it can also be used 13 less politely. 14 15 (BRIEF PAUSE) 16 17 THE FACILITATOR EHRLICH: Back to the 18 commitments. Sorry, I was distracted by the bell, 19 signs, and whistles. Back to the subject of commitments. Any commitments that are made during this session will be tracked. We obviously want everyone to 21 have the same understanding of what has been committed 22 23 to and what hasn't so that people aren't surprised to 24 find out that they've said something. 25 But in the interest of fairness, if the

- 1 developer or other parties commit to doing something
- 2 the Board expects that promises like that are -- are
- 3 going to be kept. And so that's -- that's followed and
- 4 -- and considered by the Board. Review Board staff
- 5 will be writing down those commitments. As well,
- 6 they'll appear in the transcript verbatim.
- 7 The meeting is transcribed, so in
- 8 addition to saying your name and speaking into the
- 9 microphone, try to speak clearly. If you get too close
- 10 to the microphone it will hiss and it will sound like
- 11 there are bees involved. We discourage bees. We want
- 12 you to stay back a little bit from the microphone so
- 13 everyone can hear you.
- 14 This session is also being webcast.
- 15 Part of our efforts to increase efficiency in our
- 16 process, we don't want everyone and -- and their dog to
- 17 have to fly in every time we have a meeting. So this
- 18 session is -- is being webcast at the moment and
- 19 participants are taking part in this from various
- 20 offices and such across the country. And sometimes we
- 21 get people who listen in from other countries as well.
- 22 We were surprised to hear how much of the globe is
- 23 intrigued by this kind of thing.
- 24 But the people who are participating
- 25 from afar in some cases have other representatives of

- 1 their party here and can -- can put questions forward
- 2 through people who have bodies in the room. The -- the
- 3 staff facilitating this are not going to be receiving
- 4 direct questions from anyone who is not in the room,
- 5 but someone who is in the room and who has the
- 6 microphone can certainly ask questions that they've got
- 7 from somewhere else. We would really appreciate it if
- 8 you could make it clear who is asking the question if
- 9 it's from far away and in what capacity they're
- 10 participating.
- 11 Should there be typographical errors in
- 12 the transcript -- despite the best professional and
- 13 dedicated efforts that we've always seen from Digi-Tran
- 14 when they're doing this work sometimes there are
- 15 typographical errors. With the Giant Mine technical
- 16 sessions there's something called aufeis, A-U-F-I-E-S-S
- 17 (sic), or something like that, a kind of ice that
- 18 happens in the creek. And it was transcribed
- 19 innocently enough as elf ice, E-L-F ice. And I know
- 20 there are no elves involved in that project. Other
- 21 people know there are no elves in that project.
- 22 And no one can begrudge a
- 23 transcriptionist for not understanding a presumably
- 24 German word having to do with permafrost and hydrology,
- 25 so these errors do happen.

- 1 Whoever is reading these transcripts
- 2 will recognize that you're reading a written
- 3 transcript. And just to be clear, everyone sounds kind
- 4 of goofy when you're -- when you're reading your
- 5 written words, because there are pauses, there are ums,
- 6 there are inflections. The way that we speak is not
- 7 the same way that we write. And so I -- I warn you to
- 8 bring your humility to your read on the transcripts and
- 9 try to get over all the ums and ahs and that kind of
- 10 thing. They are going to be transcribed.
- 11 I've already said, Um, forty-nine (49)
- 12 times in this presentation and I've only been talking
- 13 for three-and-a-half (3 1/2) minutes. But my point is
- 14 if there is a technical error, something has been
- 15 transcribed wrong and it matters enough to you so that
- 16 you want it transcribed right, as parties you can
- 17 submit stuff to the Review Board and the Review Board
- 18 will put it on the record.
- 19 It's important that this is used only
- 20 for typographical errors. Choose your words carefully
- 21 when you're getting into commitments and questions and
- 22 stuff like that, because that is not an opportunity to
- 23 retroactively change the meaning of something that was
- 24 said here. Not that anyone here would be interested in
- 25 that, but I want to make it clear that if there is

- 1 something that is technically not the word that was
- 2 said, that was written down, you can fix it, because I
- 3 know that this has been a -- a concern not so long ago.
- 4 Now, I'm going to give a brief
- 5 description of the agenda. Today is a half day. There
- 6 is going to be some talk on dike construction and waste
- 7 management. Tomorrow, that's Wednesday -- and I know
- 8 I'll get this wrong a lot, because the long weekend
- 9 fools with my head that way, there'll be talk of
- 10 Kennady Lake, water management, hydrology, and
- 11 geohydrology, waste management including geochemistry,
- 12 water quality at closure, and fish and fish habitat,
- 13 including the recovery of Kennady Lake.
- Now, I understand there is an
- 15 alternative analysis of a water treatment plant that
- 16 proposes a contingency. And I think it's very good
- 17 that De Beers either is or is about to produce
- 18 something like that, because I -- I think many people
- 19 in this room can think of other places and other
- 20 diamond mines in the Northwest Territories where
- 21 aquatic impacts that were not predicted during the
- 22 environmental assessment have been observed.
- 23 And we know that no matter how carefully
- 24 or how hard all the parties work to try to predict
- 25 these impacts, you're dealing with complex ecosystems

- 1 and a complex project. And so I -- I do want to
- 2 commend De Beers for its readiness to -- to produce
- 3 that, if I've understood that correctly.
- 4 On Thursday we're going to be looking at
- 5 im -- issues upstream and downstream from Kennady Lake,
- 6 hydrology, water quality, fish and fish habitat. And
- 7 then in the afternoon it's socio-economic impacts, and
- 8 effects on -- on people will be -- will be the main
- 9 target at that point.
- 10 On Friday it's caribou and cumulative
- 11 impacts, as well as the wildlife effects monitoring
- 12 plan. And then we get to traditional knowledge, which
- 13 can span by physical and socio-cultural stuff. And
- 14 there will also be time for more socio-economic issues
- 15 after that, if all goes according to plan.
- 16 Your facilitators are going to work hard
- 17 to try to make sure all goes according to plan, but
- 18 there's many a slip twixt the cup and the lip as they
- 19 say, and if we run over we're going to try and reel it
- 20 in and stick close to schedule. We didn't see a lot of
- 21 good opportunities for evening sessions, or
- 22 flexibility, and it's only a four (4) day work week.
- 23 However, parties have the opportunity to
- 24 meet with one another on their own time to try to
- 25 resolve things, and that's quite encouraged. The Board

- 1 doesn't -- or -- or panel doesn't have to be in the
- 2 middle of every discussion that's going on. We call
- 3 these sort of "sidebar meetings." But often a sidebar
- 4 one-on-one is enough to -- to resolve various concerns.
- 5 Something that's important that we'd
- 6 like to see is if those meetings are -- are held, that
- 7 something gets onto the transcript -- onto the record,
- 8 and perhaps transcript, as a result. So we have a form
- 9 that is used for reporting the results of those
- 10 meetings. It talks about what was said, what positions
- 11 people took, and how they were resolved. And both
- 12 parties normally sign them off.
- 13 If you've had an important sidebar
- 14 meeting please use the form to let us know. But, also,
- 15 report during the week. If in the middle of the week
- 16 you've had a meeting that's actually solved something
- 17 that was an issue earlier that day, say so, put it onto
- 18 the record by speaking into a microphone as well. That
- 19 -- that helps.
- 20 Every day there will be a break at 11:55
- 21 for lunch. I'm trying to let you out a few minutes
- 22 before everyone else so you can get the jump on the
- 23 restaurant crowd.
- 24 There will be health breaks. There will
- 25 be one (1) in the morning, one (1) in the afternoon,

- 1 and we expect calisthenics from each and every one of
- 2 you. But if, instead, you prefer to have beverages and
- 3 talk or do whatever you need to do to stay alive, the
- 4 big encouragement is get up. You're sitting still for
- 5 a long time, it's not healthy. So, there will be
- 6 breaks at those times.
- 7 Lunch break will end at one o'clock.
- 8 And at 4:15 every day, there will be a review of tasks
- 9 -- and I'll define what we mean by "tasks," we're using
- 10 the word in a very particular way -- for the developer
- 11 and parties. It will be a sort of a wrap-up of where
- 12 we're at now. And we'll try to adjourn by 4:30 every
- 13 day. It's an ambitious goal, but Chuck is an ambitious
- 14 facilitator and he -- he delivers on -- on what he
- 15 says. So, we'll make an honest effort to have that
- 16 happen.
- 17 The media. This is a public session,
- 18 it's open. The media may be present. We -- we will be
- 19 asking any representatives of the media to please hold
- 20 your interviews outside of the room, because it's
- 21 disruptive and this is just not an excellent place to
- 22 actually hold the interview. If you can get the
- 23 attention of the person you want to interview in here,
- 24 please interview them somewhere outside.
- I would strongly encourage the developer

- 1 and all parties to give your best effort to answer
- 2 questions here today. I see that De Beers has come
- 3 prepared to give its best effort. It's got a great
- 4 cadre of experts standing by and -- and I recognize
- 5 many of them from the earlier session. I know there's
- 6 continuity, there's -- there's a considerable bit of
- 7 expertise here.
- 8 The purpose of -- of trying to work
- 9 through some of these issues and get some of the
- 10 smaller issues off the table so that the hearings wind
- 11 up focussing on the big ones, is an important one .
- 12 And, if you are able to do your best to answer
- 13 questions, as opposed to, you know, leaving everything
- 14 for writing, it makes your life easier and all the
- 15 parties lives easier because there's less written
- 16 material to deal with.
- 17 That said, there are a few different
- 18 words and things that relate to written material that I
- 19 want to define explicitly so that everyone knows what
- 20 we're talking about. When we talk about commitments, I
- 21 think we've been pretty clear on that, things that the
- 22 developer promises to do as part of the project.
- 23 That's not the same as a commitment to
- 24 bring something back here tomorrow. When we talk about
- 25 commitments, we're talking about different things that

- 1 the developer has promised to do. And this has to do
- 2 with -- not with the technical session, but with the
- 3 way the project is implemented, the way it's managed,
- 4 the way it's designed, constructed, that kind of good
- 5 stuff.
- 6 There will also be undertakings from
- 7 here, because not every question can be answered during
- 8 the four and a half (4 1/2) -- three and a half (3 1/2)
- 9 -- three and a half (3 1/2) days we've got. Those
- 10 undertakings are -- are things that you undertake, away
- 11 from the session, to give back in writing. We're going
- 12 to ask the developer and parties to provide any written
- 13 undertakings within two (2) weeks of the end of the
- 14 session. We will be providing you with a specific date
- 15 when we sit down with a calendar.
- 16 But then there's something else called
- 17 "tasks." We were calling this "homework" before, but
- 18 it sounded a little too cute and schoolboy-ish. So we
- 19 don't do that anymore. We call them "tasks" -- it's
- 20 work. The tasks for the next day are things that come
- 21 up in discussion that you think you can resolve either
- 22 by working by yourselves overnight, or by discussing
- 23 other things, and that you can bring back to the
- 24 technical session and -- and describe how you've
- 25 completed those things. And we're going to follow what

- 1 the tasks are and try and number them and keep track of
- 2 them.
- Remember that with a verbatim
- 4 transcript, you have the awesome tool of having a
- 5 searchable script of -- of everything that has been
- 6 said here, often available the next morning. So you
- 7 can see specific wordings.
- And I would really encourage people,
- 9 when you're coming up with tasks or even looking at
- 10 undertakings, not to look just at the words next to the
- 11 undertaking, but go back to the discussion that has
- 12 happened in the technical session so that you remember
- 13 the context. Because sometimes, the -- the meaning of
- 14 the question is being derived from the context.
- 15 Everyone is speaking extemporary. You have not
- 16 necessarily written every word you're going to say.
- 17 And so, it's -- it's really important
- 18 that if you're going to put the work into an
- 19 undertaking or a task that you try to remember what
- 20 they were trying to get at in the first place.
- 21 Sometimes the exact wording of the task doesn't capture
- 22 that. So think big, use the transcripts, use the
- 23 search function to -- to catch those ideas.
- June 8th is the date by which the
- 25 undertakings will be due. That's two (2) weeks after

- 1 this.
- 2 And with that, I'm going to give some
- 3 quick introductions of the panel staff and Review Board
- 4 staff. I'm going to ask the technical parties to --
- 5 the Board's technical advisors to introduce themselves,
- 6 and then we'll go around the room to have the parties
- 7 in attendance identify themselves, as well.
- I've said before, I'm Alan, I'm the
- 9 manager of Environmental Impact Assessment, the Review
- 10 Board. And to my left is Chuck Hubert. He's the panel
- 11 manager for the Gahcho Kue Environmental Impact Review
- 12 panel.
- 13 Paul Mercredi is an environmental
- 14 assessment officer with the Review Board. Simon
- 15 Toogood, can you wave Simon? He can wave. Simon
- 16 Toogood is an environmental assessment officer with the
- 17 Review Board, and so is Shannon Hayden, Shannon Hayden
- 18 who's sitting next to Simon. They may be out of the
- 19 line of fire at the moment, but we will all be taking
- 20 some turns at the -- at the -- facilitating the
- 21 session.
- 22 Which technical advisors for the panel
- 23 are here? Okay. Dave, can you come up to a microphone
- 24 and introduce yourself briefly, please?
- 25 MR. DAVE TYSON: Dave Tyson. I'm with

- 1 Tetra Tech, and I'm an advisor to the panel.
- THE FACILITATOR: Thanks, Dave. And
- 3 Stacey Menzies, who I -- I didn't see over by the door
- 4 there, is our acting community liaison for the Review
- 5 Board, and she is helping in more ways that I can count
- 6 here today.
- 7 Okay. Now we're going to ask the other
- 8 parties to identify themselves. We may as -- and
- 9 including the people -- it's nice to know who you're
- 10 talking to. Why don't we start over there. Actually,
- 11 no, we'll start with John King. Please use a
- 12 microphone, and -- and then we'll go around the table,
- 13 then we'll -- we'll get around here and we'll go kind
- 14 of clockwise. Thanks.
- MR. JOHN KING: John King, Natural
- 16 Resources Canada, and I'm from Ottawa. I'm here for
- 17 today and tomorrow.
- 18 MR. LIONEL MARCINKOSKI: Lionel
- 19 Marcinkoski, with AANDC.
- 20 MR. MICHAEL TOLLIS: I'm Mike Tollis.
- 21 I'm a wildlife manager for Lutsel K'e Dene First
- 22 Nation.
- 23 MS. STEPHANIE POOLE: Stephanie Poole.
- 24 I work for the NWT Treaty 8 Tribal Corporation, and the
- 25 Akaitcho IMA implementation office.

- 1 MS. VELMA STERENBURG: Velma
- 2 Sterenburg, mineral development division, AANDC.
- 3 MR. FRANCIS JACKSON: Francis Jackson,
- 4 water resources, AANDC.
- 5 MR. GREG BLACK: Greg Black, Transport
- 6 Canada, navigable waters protection officer.
- 7 MS. LAURA JONES: And I'm Laura Jones,
- 8 also with Transport Canada, but environmental affairs.
- 9 MR. ERIN YAXLEY: Erin Yaxley, Board
- 10 relations secretariat, AANDC.
- MR. GLENN SORENSON: Glenn Sorenson,
- 12 GNWT, minerals, oils, and gas.
- 13 MS. KIM HEISLER: Kim Heisler, I'm a
- 14 summer student for the mineral, oil, and gas division.
- MR. RANDY FREEMAN: Randy Freeman,
- 16 director of lands for Yellowknives Dene.
- 17 MR. ELMAR PLATE: Elmar Plate, working
- 18 for LGL Limited out of Victoria. I'm representing the
- 19 Deninu Kue First Nation.
- 20 MS. KRIS JOHNSON: Kris Johnson,
- 21 Government of the Northwest Territories, industry,
- 22 tourism, and investment.
- 23 MR. GREG BRADY: Greg Brady, industry,
- 24 tourism, investment, GNWT.
- MR. BEN LINAKER: Ben Linaker, ENR,

- 1 summer student.
- MS. SARAH TRUE: Sarah True, regional
- 3 EA coordinator for ENR North Slave Region.
- 4 MS. KATE WITHERLY: Kate Witherly,
- 5 Northern Projects Management office.
- 6 MS. SARAH LACEY-MCMILLAN: Sarah-Lacey
- 7 McMillan, with Environment Canada, environmental
- 8 assessment coordinator.
- 9 MR. JAMES HODSON: James Hodson, with
- 10 Canadian Wildlife Service of Environment Canada.
- 11 MR. SHAFIC KHOURI: Shafic Khouri,
- 12 environmental assessment and regulatory analyst,
- 13 Department of Environment and Natural Resources,
- 14 Government of Northwest Territories.
- THE FACILITATOR EHRLICH: Okay. Ann,
- 16 can we go over to you now, and we'll keep moving.
- 17 Oh, sorry, Loretta. I didn't see you
- 18 behind the -- behind the -- the wall of man that is
- 19 Pete Cott.
- 20 MS. LORETTA RANSOM: I'm Loretta
- 21 Ransom, environmental assessment analyst with GNWT.
- MS. ANNE WILSON: Yeah, Anne Wilson,
- 23 with Environment Canada.
- MS. LISA LOWMAN: Lisa Lowman, with
- 25 Environment Canada.

26 1 MR. BRUCE HANNA: Bruce Hanna, DFO. 2 MR. PETE COTT: Pete Cott, DFO. Thanks for the introduction, Alan. 3 THE FACILITATOR EHRLICH: You're welcome. There's no one else hiding behind you, is 6 there? DR. KATHY RACHER: I tried. I didn't 7 fit. Kathy Racher, technical director on behalf of the Mackenzie Valley Land and Water Board. 10 THE FACILITATOR EHRLICH: And... 11 12 (BRIEF PAUSE) 13 14 MR. DANIEL JOHNSON: Dan Johnson, JDS 15 with the Proponent. 16 MR. TERRY KRUGER: Terry Kruger, from 17 De Beers. 18 19 20 (BRIEF PAUSE) 21 22 MS. CATHIE BOLSTAD: Good afternoon. 23 Cathie Bolstad, De Beers Canada. 24 MR. STEPHEN LINES: Good afternoon, 25 everyone. Stephen Lines, De Beers Canada.

1 MS. VERONICA CHISHOLM: Good afternoon.

- 2 Veronica Chisholm, manager for the Gahcho Kue Project,
- 3 for De Beers Canada.
- 4 MR. JOHN FAITHFUL: Good afternoon.
- 5 John Faithful, Golder Associates.
- 6 MR. WAYNE CORSO: Wayne Corso, JDS.
- 7 MR. BILL HORNE: Bill Horne, EBA
- 8 Engineering.
- 9 MS. LEAH RUSSELL: Leah Russell, De
- 10 Beers Canada.
- 11 MR. CRAIG BLACKIE: Craig Blackie, De
- 12 Beers Canada.
- MR. DON CHORLEY: Don Chorley, Golder
- 14 Associates.
- MR. MICHAEL HERRELL: Mike Herrell,
- 16 Golder Associates.
- 17 MR. NATHAN SCHMIDT: Nathan Schmidt,
- 18 Golder Associates.
- 19 MR. GARY ASH: Gary Ash, Golder
- 20 Associates.
- MS. AMY LANGHORNE: Amy Langhorne,
- 22 Golder Associates.
- MR. KYLE HODGSON: Kyle Hodgson, Golder
- 24 Associates.
- MS. KRISTINE MASON: Kristine Mason,

- 1 Golder Associates.
- MS. KELSEY LOROZIGNO: Kelsey
- 3 Lorozigno, Golder Associates.
- 4 MR. RYAN RODIER: Ryan Rodier, with De
- 5 Beers.
- 6 THE FACILITATOR EHRLICH: Thanks. And
- 7 for the -- the gentleman who just came in, we're going
- 8 through the room just trying to get everyone's name
- 9 there. Stacey, thanks.
- 10 ELDER GEORGE MARLOWE: My name's George
- 11 Marlowe from Lutsel K'e, Elder. And I'm -- I'm very
- 12 happy to be here. And maybe I'll talk a little jokes,
- 13 and then a little story after about that -- about that
- 14 land, Gahcho Kue land. Thank you.
- THE FACILITATOR EHRLICH: One (1) --
- 16 thank you, all, for -- for introducing yourselves.
- 17 Thank you all for coming. It is very important that
- 18 you all sign the sign-in sheet at the door because
- 19 that's how Lorraine and Digi-Tran are going to get the
- 20 proper spellings of your names. Otherwise, you'll see
- 21 your names misspelled many times, and it's important
- 22 that you sign it. So if you didn't sign on the way in
- 23 please make a point of doing that.
- 24 Because this is a face-to-face
- 25 opportunity to resolve some issues, I think I just want

- 1 to reinforce the -- the nature of the discussion here.
- 2 We're working hard to promote a constructive dialogue
- 3 in a setting that's as non-adversarial as possible.
- 4 It does not have the formality of a
- 5 review board hearing. This is not a hearing. Panel
- 6 members are not here. It is open to the public. But
- 7 it is a chance to discuss and work through different
- 8 issues in a very efficient manner.
- 9 This is quite important to the panel.
- 10 The panel remains deeply committed to a timely, as well
- 11 as effective review. It's -- bearing this in mind --
- 12 nd one (1) of the reasons we go to the effort of
- 13 organizing these kinds of sessions is because not only
- 14 does it solve the issues, but it does so in a timely
- 15 manner that is part of how the panel is required to
- 16 operate.
- 17 With that I am going to wish you the
- 18 best of luck at working through as many issues as
- 19 possible, figuring out which are the few that you'll
- 20 really need the panel to weigh in on, seeing what can
- 21 be taken off the table now, providing information where
- 22 you can and doing so forward in a good faith. Thank
- 23 you very much.
- I now relinquish the chair to panel
- 25 manager Chuck Hubert.

30 1 THE FACILITATOR HUBERT: Thanks very much, Alan. Chuck Hubert, panel manager. Excuse me. 3 We'll perhaps call on Ann -- Alan in the future for cameos, you know, periodically. 5 With that I'd like to move on to -- to the topics for today, and, in particular, presentations 7 from De Beers, so, please. 8 9 PRESENTATION BY DE BEERS CANADA: 10 MS. VERONICA CHISHOLM: Veronica 11 Chisholm, from De Beers. The first presentation we 12 have today is on the 2012 EIS Supplement that was 13 submitted in -- on April 23rd. But before we do that 14 we thought we would just do a brief project description 15 just to sort of help with terminology and just a -it's meant to be a refresher. I'll try not to go into too much detail, but it's meant as sort of an 17 18 orientation for us all. 19 (BRIEF PAUSE) 20 21 22 MS. VERONICA CHISHOLM: So I'm going to 23 give a -- a brief overview of the project description 24 for Gahcho Kue. And John Faithful will provide just a bit of a summary on the Environmental Impact Review

- 1 submissions that we provided to date, just following up
- 2 on Alan's introduction. As well, he's going to talk
- 3 about the key elements of the supplemental mitigations
- 4 and the structure of the 2012 EIS document that we
- 5 submitted in April, and then finally the key findings
- 6 from that supplement.
- 7 So on the project description itself,
- 8 I'm -- I'm just going to touch on a few areas. I'm
- 9 going to -- I'm going to review again where the project
- 10 is located. I'm going to speak to the ore bodies
- 11 within Kennady Lake. I'm going to talk a little bit
- 12 about the mining method, just as a review, a little bit
- 13 on the project duration, as well as the employment, and
- 14 just touch on waste management and water management, as
- 15 well as the closure activities. Again, it's just
- 16 intended to be a refresher.
- 17 So the Gahcho Kue project is located
- 18 approximately 280 kilometres northeast of Yellowknife,
- 19 here. Winter access is going to be along the Tibbitt-
- 20 to-Contwoyto winter road. At kilometre 271 there's a
- 21 120 kilometre spur road.
- 22 It's -- already has an existing permit
- 23 for the exploration camp, so we are proposing as part
- 24 of this project to increase the annual volumes along
- 25 that road in the wintertime. The closest community to

- 1 the Gahcho Kue project is Lutsel K'e, which is situated
- 2 about a 140 kilometres south/southeast of the Gahcho
- 3 Kue Project. Our Snap Lake project is located
- 4 applicant 80 kilometres away.
- 5 And for those of you on web cast, I'm
- 6 not sure entirely how that works, but I am on Slide 5.
- 7 This is just a photograph of Kennady Lake. Kennady
- 8 Lake itself is approximately 870 hectors in size, or
- 9 8.7 square kilometres. It represents about 1 percent
- 10 of what Lac de Gras is. And that's just given to you
- 11 as a reference point.
- 12 Our kimberlite deposits are situated
- 13 within Kennady Lake. The deposits are 5034, here,
- 14 Herne and Tuzo. This peninsula here I'll try and point
- 15 out on a few maps, that's where existing camp is, just
- 16 for a reference.
- 17 Whoops, a little bit too fast. The
- 18 kimberlites are situated under Kennady Lake,
- 19 immediately under Kennady Lake, and this requires us to
- 20 either fully or partially de-water Kennady Lake to
- 21 safely access those kimberlite deposits.
- 22 Hi, Alan.
- 23 THE FACILITATOR EHRLICH: Veronica, I -
- 24 I'm very sorry to interrupt, but I just talked with
- 25 Chuck and I neglected to put in the opening comments

- 1 that the presentation that you are now speaking
- 2 towards, the graphics that you're displaying are posted
- 3 on our website. They've only been posted there about a
- 4 half-an-hour ago.
- 5 So anyone who is listening on the web
- 6 cast may not have seen them there earlier, but we
- 7 encourage you to go to our website, open up -- you'll
- 8 see our -- our -- on our homepage As a recent posting.
- 9 You'll see the presentation, please go
- 10 to it. I notice that Veronica has conscientiously
- 11 included slide numbers and is naming those slide
- 12 numbers. These are very useful visuals that De Beers
- 13 is presenting and so I -- I do want to make sure that
- 14 people who aren't in the room are able to follow it.
- And, sorry, that was my omission from
- 16 the opening comments. Thanks for letting me interrupt.
- 17 MS. VERONICA CHISHOLM: No problem.
- 18 And, a number of these slides we presented actually
- 19 during the EIS analysis session. And on various other
- 20 sessions, I'm sure, people have heard me give this talk
- 21 before, but bear with me.
- So, as I mentioned, the kimberlites are
- 23 situated immediately under Kennady Lake. And that's
- 24 what's requiring us to either fully or partially
- 25 dewater Kennady Lake to safely access those ore

- 1 deposits. I mentioned that I'll reference -- keep
- 2 trying to reference this peninsula, just for your own -
- 3 this is where our exploration camp is.
- The project duration, I'm on slide 7 --
- 5 8 -- 8, I can't read that number, small.
- So, essentially, there's a construction
- 7 period that will take two (2) years. During that time
- 8 is when we're going to be undertaking the dewatering
- 9 activities, as well as construction of the
- 10 infrastructure to prepare for mining.
- 11 The operational period will be
- 12 approximately eleven (11) years, at which time we'll be
- 13 mining 5034, Hearne and Tuzo. We'll be opening them up
- 14 sequentially. And, where possible -- and there's
- 15 certain key times during the operation that we can
- 16 commence recreation -- recreation -- reclamation
- 17 activities. And we'll be doing that throughout our
- 18 operations of the project.
- 19 The closure period is estimated to start
- 20 in year 12 until the end of year 13, but that doesn't
- 21 mean our monitoring activity would cease. It would
- 22 continue.
- So, just to give you a sense of where
- 24 our operating mine sits, relative to Ekati and Diavik
- 25 and Snap Lake, we -- depending on the permitting, the

- 1 environmental review process and the permitting
- 2 process, should we be successful, we're estimating
- 3 could be anywhere between 2014 and 2015 for a
- 4 construction period. And then following that, we'll
- 5 have an operation period. You'll notice that Ekati and
- 6 Diavik are scheduled to shut down their operation
- 7 periods within that 2020 -- 2021, 2022 period.
- 3 Just to highlight some of the employment
- 9 that we're offering through the proposed Gahcho Kue
- 10 project. At peak construction, we're looking at about
- 11 seven hundred (700) employees, with operation being
- 12 about three hundred and seventy-two (372). And then a
- 13 hundred or less full time employees at closure.
- 14 Although it's -- as I mentioned before, although it's
- 15 smaller than both the Ekati and the Diavik mines, it's
- 16 an important economic time in terms of diamond --
- 17 diamond productions and when things are opening and
- 18 closing.
- 19 Kimberlite processing. Three million
- 20 tons of kimberlite will be mechanically processed on
- 21 site annually. Ore will be crushed and screened
- 22 through a staged process for separating out the
- 23 diamonds. There will be a fine and coarse processed
- 24 kimberlite, as a waste stream.
- The fine processed kimberlite will be

- 1 associated with a slurry. Process water will be
- 2 sourced from within Kennady Lake and recycled from the
- 3 water management pond. And I'll get into the water
- 4 management plan details in a few slides.
- 5 I'm not going to go through all the
- 6 details, because it seems really small on the slide,
- 7 but the -- the waste management plan, I think what --
- 8 the important message I want to deliver is, we're going
- 9 to be salvaging soil from the lake bed and from
- 10 overburden, both in the construction of the dikes as
- 11 well as in for reclamation. We'll also have a mine
- 12 rock stream, a processed kimberlite stream that will
- 13 consist of fine PK and coarse PK, and we'll also have
- 14 some general waste on site that we'll either be
- 15 disposing on site or off site, depending on how it's
- 16 classified.
- 17 And just to remind you of our plan, I'll
- 18 just give you a general sense of where things are --
- 19 we're proposing to be. The fine PK facility is located
- 20 here, up at this portion of Kennady Lake. The coarse
- 21 PK is sched -- is -- will be placed here. And then we
- 22 have the west and south mine rock piles here. The pits
- 23 are located within here.
- 24 And I should be reminding people what
- 25 slide I'm on, so now I'm on 14. Thanks, John. Thank

- 1 you.
- The water management. A big part of
- 3 this project is water management, and we've had a
- 4 number of discussions on our water management plan.
- 5 The key objectives, of course, is that we're dewatering
- 6 Kennady Lake to the maximum extent possible to safely
- 7 access those ore bodies. We're going to be utilizing a
- 8 passive treatment in the control area, and the control
- 9 area is what we're going to establish around Kennady
- 10 Lake. And discharge water, when the water quality --
- 11 we'll only discharge water when the water meets water
- 12 quality discharge requirements.
- 13 We'll utilize available containment
- 14 volumes within the control area for water management as
- 15 required, such as the mined-out pits. We'll minimize
- 16 the environmental impacts to adjacent and downstream
- 17 waters during construction, operation, and closure
- 18 phases of the project. We'll reestablish the flow
- 19 regime -- a flow regime at closure, as well as create
- 20 self-sustaining ecosystems.
- 21 And just to step you through it, I know
- 22 people have seen our animations before, but I just
- 23 thought I'd walk through it again because we're going
- 24 to have a discussion on -- on the dikes and the waste
- 25 management this afternoon, so I will endeavour to get

- 1 this right.
- 2 So as some of you know, and -- and also
- 3 from a number of the information responses I think
- 4 people have gathered that we are partitioning Ken --
- 5 Kennady Lake as a way to explain our water management
- 6 plan.
- 7 So we have eight (8) areas identified
- 8 within the lake, one (1) through eight (8). The first
- 9 part of the water management plan will be to establish
- 10 these parameter dikes located around Kennady Lake.
- 11 This will essentially set up our control area, and will
- 12 limit water from flowing into Kennady Lake. That's the
- 13 water management stage 1.
- 14 In construction period 2, we'll start to
- 15 pump the water to the north to Lake N11, as well as
- 16 through area 8. This will also allow us the
- 17 opportunity to build some internal dikes that will help
- 18 us access those ore bodies.
- 19 During operation -- now, this is sort of
- 20 a maximum picture of during operations where we
- 21 actually have the open pits placed within here.
- 22 They'll be some additional internal dikes. This will
- 23 be around Tuzo dike that will be constructed through.
- 24 This is the location of our fine PKC
- 25 facility. I think it's important to note that after

- 1 year 5 the fine PK will be placed within the pits. So
- 2 we'll be doing that backfilling. So at year 5 we'll
- 3 begin reclamation of the fine PK facility.
- I think I'm not aiming it right. So at
- 5 closure, just to complete the animation for you, this
- 6 is where -- what will be situated on the landscape when
- 7 we're completed mining, and we've refilled Kennady
- 8 Lake.
- 9 I think what's important to note
- 10 throughout that whole process will be monitoring the
- 11 water quality, the sediment quality within Kennady
- 12 Lake, and so if there needs to be any mitigations
- 13 applied we'll have ample time to respond to that.
- 14 At the closure, in the closure
- 15 landscape, we'll have the fine PKC facility located in
- 16 the northern part here. We'll have the coarse PK
- 17 facility. We'll have the south mine rock pile, and the
- 18 west nor -- mine rock pile. And before we connect the
- 19 water, once we've refilled Kennady Lake through area 8,
- 20 this will be carefully monitored to determine that
- 21 we've met all of our water quality objectives at
- 22 closure.
- So just to highlight some of the closure
- 24 activities, we'll be -- sorry, for those of you -- I
- 25 have to keep remembering, I'm on the webcast slide

- 1 number 19.
- We'll remove all the potentially
- 3 hazardous material from site. We'll construct
- 4 additional fish compensation on habitat enhancement
- 5 structures near Kennady Lake. That will be before we
- 6 dewater. We'll have an opportunity to do that. We may
- 7 even start that within operations.
- 8 We'll refill Kennady Lake using natural
- 9 runoff supplemented by water withdrawal from Lake N11.
- 10 Upon refilling the lake and achieving appropriate water
- 11 quality, we'll breach or partially remove Dike A.
- 12 Dike A is the dike that's between area 7
- 13 -- I'll just flip back because I think that's an
- 14 important one to point out.
- 15 Dike A will be here. So before we -- we
- 16 breach that dike we will be testing the water quality
- 17 to ensure that we meet the objectives that we lay out
- 18 for the project.
- 19 And then, as I mentioned before, the
- 20 monitoring will continue at the beginning of
- 21 construction, throughout the whole life of this
- 22 project, and well into closure so that we can determine
- 23 any site-specific mitigations that are required.
- 24 And I think that's it for just the 101.
- 25 It wasn't that bad, refresher course. So I'm going to

41 have John Faithful move on to the EIS supplement and some of the highlights in that supplement. 3 (BRIEF PAUSE) 5 6 MR. JOHN FAITHFUL: John Faithful, Golder Associates. Thank you, Veronica. For the next little while I've got a brief presentation. I'm going to talk about the -- the 2012 EIS supplement that was 10 submitted to -- to the Board in -- in April. 11 There's about four (4) -- four (4) 12 sections to this presentation. The first one is to 13 just describe how the document fits into the num -- the submissions that Alan discussed a little bit earlier 14 with respect to -- to those that are supporting the 15 16 project through the environmental impact review process. I'm going to provide a bi -- a brief revisit 17 18 to the supplemental mitigation that Veronica alluded to 19 in her overview of the project description. I'll talk about the structure of the EIS supplement document the 21 -- and then provide a brief summary of the key findings 22 pre -- that have been presented in -- in the EIS 23 supplement. 24 Alan had a fairly thorough review of the 25 documentation that has been submitted to the -- the

- 1 Board in support of the environmental impact review
- 2 process. He talked about the EIS that was submitted in
- 3 December, 2010, and the deficiency statements that
- 4 resulted from the review of the EIS that was -- that
- 5 was made available in March.
- 6 There were five (5) conformity issues
- 7 for De Beers to -- to address. Three (3) were related
- 8 to socio-ec issues, one (1) related to permafrost, and
- 9 the fifth one related to the nutrient assessment that
- 10 was conducted as part of the EIS. The socio-ec
- 11 conformity issues were addressed and submitted to the
- 12 Board on May the 3rd, 2011. And the permafrost and the
- 13 nutrient conformity issues were addressed and submitted
- 14 on July the 15th.
- The nutrient assessment issue resulted
- 16 in the revisions of three (3) key sections of the EIS.
- 17 They were sections 8, 9, and 10. They were the aquatic
- 18 key lines of inquiry, being water quality in fish in
- 19 Kennady Lake, downstream water effects and long-term
- 20 biophysical effects, closure and reclamation. The
- 21 update or the conclusions of that EIS update projected
- 22 that in the long-term Kennady Lake would be moderately
- 23 productive, and concluded that no significant adverse
- 24 effects to aquatic life in Kennady Lake and downstream
- 25 water bodies would be expected.

- 1 It was -- it would be -- it was
- 2 predicted that Kennady Lake would be more productive as
- 3 a result of increased phosphorous after the lake was
- 4 refilled and reconnected to downstream waters,
- 5 primarily being sourced from seepage flows and drainage
- 6 from the fine PKC facility. This increase in
- 7 productivity would mean that there would be potential
- 8 for increased algal growth, increased aquatic plants,
- 9 increased aquatic benthic organisms and -- and fish
- 10 that would attenuate downstream.
- 11 The EIS update, as a result of the
- 12 conclusions, identified that supplemental mitigation
- 13 would be required to reduce the projected long-term
- 14 phosphorous concentrations thereby reducing the
- 15 potential effects of the project on the environment.
- 16 Because of this, following the submission of the 2011
- 17 update, De Beers' has continued geochemistry testing of
- 18 the mine rock and kimberlite material that was sourced
- 19 from site, and evaluated mitigation strategies to
- 20 reduce the extent of the phosphorous that was predicted
- 21 in Kennady Lake as a result of the sourcing from the
- 22 fine PKC facility.
- The supplemental mitigation that is
- 24 presented in the EIS-20 -- EIS supplement shows a
- 25 reduced size of the fine PKC facility. This, in

- 1 association with updated geochemistry testing, has
- 2 resulted in phosphorus concentrations in Kennady Lake
- 3 in the long term to be considerably lower than
- 4 presented in the 2011 EIS update.
- 5 All of this information is presented in
- 6 the 2012 EIS supplement, a detailed project description
- 7 describing the supplemental mitigation and also
- 8 revisions to the assessment based on the findings of
- 9 the -- well, based on the revised assessment given the
- 10 supplemental mitigation. The EI supplement was
- 11 submitted to the Board on March the 23rd.
- 12 There are a number of other submissions
- 13 that have been associated with the EI process to-date.
- 14 As Alan mentioned, there were responses to all of your
- 15 Information Requests that were presented to the Board
- 16 between March 30th and April 6th. In addition to those
- 17 -- that documentation, as part of the environmental
- 18 impact review process, has been the submission of
- 19 various monitoring documents resulting from work that
- 20 was conducted in 2011.
- 21 This work is focussed on aquatic and
- 22 terrestrial work, such as climate and hydrology
- 23 updates, a channel and stream bank erosion assessment,
- 24 low trophic organisms, fish, and aquatic resources,
- 25 water quality and sediment quality work within the

- 1 local study area of the project, a fish tissue
- 2 assessment, and also an update to the wildlife
- 3 monitoring.

4

5 (BRIEF PAUSE)

- 7 MR. JOHN FAITHFUL: I'm now on slide
- 8 22. I'm sorry, I forgot that previously. The next --
- 9 the next few slides focus on the supplemental
- 10 mitigation.
- 11 Veronica in her presentation outlined
- 12 the -- the footprint of -- that shows the -- the
- 13 reclaimed structures of the project. Well, this --
- 14 this figure shows the reclaimed structures of the
- 15 project. But Veronica pointed out the location of --
- 16 of some of the key facilities within the project, those
- 17 being the -- the west mine rock pile and the south mine
- 18 -- south mine rock pile, the coarse PK pile, and the
- 19 locations of the pits.
- 20 What I'd like you to focus on over the
- 21 next couple of slides is really the fine PKC facility,
- 22 or the fine processed kimberlite containment facility.
- 23 In the project description of the 2011 EIS, the fine
- 24 PKC facility extended from area 1 to area 2. It
- 25 effectively split the A watershed, which is this

- 1 watershed that extends from the eastern side of the
- 2 fine PKC facility up through Lake A3. It meant that
- 3 Lake A3, which originally -- well, which currently
- 4 flows into Kennady Lake, would be raised to a point
- 5 where its flows were diverted into the adjacent N
- 6 watershed.
- 7 Under the supplemental mitigation, the
- 8 fine PKC facility is reduced in size by approximately
- 9 83 hectares. What the supplemental mitigation shows is
- 10 that the A watershed is now avoided, and that the A --
- 11 that Lake A3 remains part of the A watershed that
- 12 drains through Lake A2 and A1 back into Kennady Lake at
- 13 closure.
- During the period of operations when the
- 15 controlled area is established, and Kennady Lake
- 16 isolated from its upper watersheds and downstream
- 17 watershed, the A watershed will be diverted through to
- 18 area 8 via pipeline to Lake J1B, which is just to the
- 19 northwest of area 8.
- 20 As a result of the smaller fine PKC
- 21 facility, there's additional fine PK material and waste
- 22 rock to be -- to be coped with, looking for a better
- 23 word there.
- 24 MS. VERONICA CHISHOLM: Mitigated.
- 25 MR. JOHN FAITHFUL: Mitigated -- well,

- 1 no, "dealt with" is more appropriate. As a result of
- 2 the -- the supplemental mit -- mitigation is -- is
- 3 therefore a modification to the waste management plan.
- 4 And as a result, additional fine PK material and -- and
- 5 mine rock will be deposited elsewhere.
- The fine PK will be deposited in 5034
- 7 and Hearn pits. And the additional mine rock will be
- 8 stored within the west mine rock pile.
- 9 Now, importantly to note, that if you
- 10 look back to the 2010 project description, and back
- 11 forward to the 2012 project description, you'll see
- 12 that the -- the base or the surface area of the -- or
- 13 the footprint of the west mine rock pile remains the
- 14 same. However, the height slightly changes in the
- 15 supplemental mitigation. The west mine rock pile will
- 16 be higher than the original 2010 EIS project
- 17 description.
- 18 I'm on slide 24. This slide provides a
- 19 summary of some of the key changes associated to the --
- 20 to the mine plan or the project description, compared
- 21 to the 2010 EIS project description.
- There's a small or fine PKC facility
- 23 reduced by approximately 83 hectares. The fine PKC
- 24 facility now no longer covers Lakes A1 and A2 in the A
- 25 watershed. During operations the A watershed is

- 1 diverted away from Kennady Lake. It's directed to area
- 2 8 via pipeline through Lake J1B. And Lake A3 is no
- 3 longer permanently diverted to the N watershed. At
- 4 closure, this watershed is reconnected to flow back
- 5 into Kennady Lake.
- As a result of the requirements to
- 7 update the waste management plan, the fine PK -- the
- 8 excess fine PK that would have been deposited in the
- 9 original fine PKC facility is dir -- directed and
- 10 deposited in the 5034 and Hearn pits. And the
- 11 additional mine rock is deposited in the west mine rock
- 12 pile.
- 13 I'm on slide 25. So the purpose of the
- 14 2012 EIS Supplement was to provide a written record to
- 15 describe the supplemental mitigation associated with
- 16 the fine PKC facility to address the high phosphorous
- 17 concentrations that were being predicted in Kennady
- 18 Lake at closure.
- 19 The supplement also provides a -- an
- 20 avenue to assess the effects of this mitigation to the
- 21 terrestrial and the aquatic environments, and any other
- 22 components of the 2010/2011 EIS that is affected by
- 23 those changes brought about through the reduction in
- 24 the size of the fine PKC facility.
- What we've endeavoured to do with

- 1 respect to the EIS supplement document, is to try and
- 2 keep the structure as similar as possible to the
- 3 previous versions that have been presented, try and
- 4 maintain the same section numbering which -- which
- 5 pertains to the, you know, the general introductory
- 6 sections that you saw in the -- in the earlier versions
- 7 of the EIS, and, specifically, address the key lines of
- 8 inquiry and subjects of note as had been outlined
- 9 previously.
- 10 You will find that within that document,
- 11 each -- each of the sections that require some revision
- 12 will start off with a summary of the findings of the
- 13 previous version of the EIS. It will then provide a
- 14 table that outlines each of the key changes that will
- 15 be presented in that particular section. And -- and
- 16 those changes are presented in -- in an easy table
- 17 format to readily identify what the key issues that
- 18 have been -- identify the key issues that have been
- 19 addressed. And then the final section, the final
- 20 subsection of each section, provides an updated
- 21 assessment.
- 22 I'm on page -- slide 26. There's a lot
- 23 of information that I'm not going to speak to directly
- 24 on this slide. What it really -- what it does is -- is
- 25 provides a road map to -- to a person who is

- 1 potentially going to access the 2012 EIS supplement.
- 2 And look to -- look specifically to which sections have
- 3 been revised.
- 4 In some cases sections will not have
- 5 been revised. In other cases there will be minor
- 6 revisions. They are outlined in the -- in this table
- 7 on -- on the right-hand side. And, more importantly,
- 8 it provides you with the relevant EIS sections that
- 9 have been -- have -- that have had some -- some sort of
- 10 more intensive or comprehensive update as a regard --
- 11 as -- as related to the supplement -- supplemental
- 12 mitigation. Excuse me.
- One (1) of the key differences with the
- 14 project description over what I've described with
- 15 respect to how updates have been provided to the
- 16 section is that the project description has been
- 17 provided on a word-by-word bas -- a word-for-word
- 18 basis. So they've -- we've taken the 2010 EIS version
- 19 of the project description, provided the changes to
- 20 that document as they pertain to the supplemental
- 21 mitigation, and identified those changes in yellow
- 22 highlighted text or the text that's been highlighted in
- 23 yellow.
- 24 It's pretty important and it allows the
- 25 -- the reader to identify specifically how the

- 1 supplemental mitigation has -- has changed the project
- 2 description as it currently stands. In our view, the
- 3 project description has to be a stand-alone document,
- 4 and this is the document that now pertains to the
- 5 project description for the proposed project.
- 6 The next slide on page 28 is more of a
- 7 focus on some of the key appendices that have been
- 8 updated, or -- or new -- new appendices provided with
- 9 respect to the aquatics assessment that's listed in the
- 10 2012 EIS supplement. You'll note that there's a number
- 11 of additional appendices in section 8 in -- compared to
- 12 the previous EIS. This is -- this is to allow us to
- 13 update the hydrology assessment and also to provide
- 14 some -- from new modelling work that was undertaken to
- 15 predict and project dissolved oxygen and nutrients in
- 16 Kennady Lake.
- 17 Like the project description that I
- 18 mentioned in the previous slide, two (2) appendices,
- 19 the water quality modelling appendix and the
- 20 geochemistry testing appendix, have been kept word-for-
- 21 word with alterations based on the supplemental
- 22 mitigation provided and highlighted -- highlighted in
- 23 yellow.
- I'm on slide 28. What I'm going to
- 25 provide over the next couple of slides is really the

- 1 summary of the key findings of the aquatics and the
- 2 terrestrial assessment as it pertains to the -- to the
- 3 supplemental mitigation.
- 4 So if we remember back to the slide
- 5 where we showed the change in the footprint of the fine
- 6 PKC facility, ultimately that reduces the amount of
- 7 disturbed habitat within the LSA, also within the --
- 8 the actual project footprint, by approximately 83
- 9 hectares.
- 10 As a result of the change in the
- 11 disturbed habitat, which is -- which is lower than --
- 12 than what was presented in the 2010 EIS, there's no
- 13 change to the conclusions with respect to the impacts
- 14 on the abundance and habitat -- abundance and
- 15 distribution of caribou as a result of the project. So
- 16 no significant effects is the conclusion to the
- 17 abundance and distribution of caribou, that particular
- 18 assessment endpoint within the terrestrial -- within
- 19 the caribou key line of inquiry.
- 20 I'm on slide 29. Similar to caribou,
- 21 the other subjects of note with respect to the
- 22 terrestrial environment. As subjects of note, vege --
- 23 vegetation, carnivore mortality, ungulates, species and
- 24 risk of birds. Again, the conclusions of the
- 25 assessment that were presented in the 2010 EIS remain

- 1 the same. The amount of disturbed area is reduced so
- 2 that the conclusions around significant adverse effects
- 3 -- around the no-significant-adverse-effects findings
- 4 remain the same.
- 5 I'm on slide 30. The key findings of
- 6 the aquatics environ -- environment focussed on
- 7 sections 8, 9, and 10, as water quality and fish in
- 8 Kennady Lake, the downstream water effects, and the
- 9 long term biophysical effects, closure and reclamation.
- 10 The size of the fine PKC facility is
- 11 reduced, and in -- and in -- in support -- and in
- 12 addition to the updated geochemistry testing, the
- 13 sources of phosphorous that -- that force -- sources of
- 14 the higher phosphorous in Kennady Lake are now lower
- 15 than predicted in the 2011 EIS update.
- 16 With those findings and -- and -- oh,
- 17 sorry, not with those findings. Taking into account
- 18 that there's a smaller fine PKC facility, there was a -
- 19 there was a need to update the water balance. And
- 20 so, from a hydrological perspective, an update to the
- 21 assessment of hydrology was required, but as a
- 22 consequence of the smaller facility and the minor
- 23 change with respect to the water balance there were no
- 24 changes in the conclusions around the assessment of
- 25 flows and water levels in Kennady Lake and immediately

- 1 downstream to that presented in the 2010 EIS -- or 2011
- 2 EIS update.
- With respect to water quality,
- 4 phosphorous concentrations were -- were reduced in
- 5 Kennady Lake in the long-term by approximately a half,
- 6 changing from .018 milligrams per litre down to a
- 7 projected long-term concentration of 0.009 milligrams
- 8 per litre. That maintains Kennady Lake in the long-
- 9 term to return to oligotrophic conditions or a low
- 10 productivity state, which is generally consistent with
- 11 the baseline conditions. Although it -- although the -
- 12 the projected concentrations are higher than the
- 13 baseline conditions, there will be some -- there is
- 14 some predicted increases in productivity in Kennedy
- 15 Lake.
- 16 As a result of the updated geochemistry
- 17 testing, smaller fine PKC facility fewer metals, fewer
- 18 maximum concentrations of metals which occur
- 19 immediately after refilling of Kennady Lake are
- 20 projected to be higher than CCME water quality
- 21 guidelines. In the 2010/2011 EIS update four (4)
- 22 metals were predicted to be higher than CCME
- 23 guidelines: iron, chromium, cadmium, and copper. Under
- 24 the new assessment only cadmium and copper are now
- 25 predicted to be higher than CCME water quality

- 1 quidelines.
- 2 But it's my understanding currently that
- 3 the -- the guideline -- the CCME water quality
- 4 quideline for cadmium is being revised and there is a
- 5 pending update to that water quality guideline which
- 6 will be higher than the current CCME water quality
- 7 guideline for cadmium. And once that is actually
- 8 officiated it's my understanding that cadmium will be
- 9 taken off the table with respect to being higher than
- 10 CCME water quality guidelines. And this -- that
- 11 represents an initial screening stage of the aquatics
- 12 assessment.
- 13 The predicted copper concentration. The
- 14 maximum copper co -- concentration that's been modelled
- 15 is just above the CCME water quality guideline, taking
- 16 into account some of the dependencies like hardness.
- 17 It -- the guideline is currently two (2) and the
- 18 maximum concentration in Kennady Lake following closure
- 19 is about 2.3 micrograms per litre.
- The next slide is slide 31. The next
- 21 stage of the cre -- screening process to determine
- 22 effects to aqua -- aqua -- the aquatic ecosystem is an
- 23 aquatic health assessment. That was reassessed based
- 24 on the updated water quality modelling conducted for
- 25 the EIS supplement.

- 1 The conclusions of the assessment remain
- 2 unchanged from the 2011 EIS update with copper being
- 3 now the only substance of potential concern in Kennady
- 4 Lake being above chronic effects benchmark. However,
- 5 for the reasons that I provided before, given the
- 6 maximum concentration being so close to both the CCME
- 7 water quality guideline and also the chronic effects
- 8 benchmark, the potential for adverse effects to aquatic
- 9 biota in Kennady Lake was projected to be low.
- In addition to the aquatic health
- 11 assessment, and also the water quality assessment, the
- 12 fish and fish habitat component was reassessed. The
- 13 lower trophic communities were found to be more
- 14 productive -- well, were predicted to be more
- 15 productive than baseline conditions but to now remain
- 16 consistent with oligotrophic conditions or low
- 17 productivity -- or low productive environment.
- There would still be an increase in
- 19 productivity based on -- over -- over baseline
- 20 conditions, but much less than predicted in the 2011
- 21 EIS update. As a result of this change in -- in
- 22 productivity, there'd be an increased food base and
- 23 there'd be likely an increase growth and -- and
- 24 productive capacity for forage and large-bodied fish.
- 25 Over-wintering habitat for fish would

- 1 still be suitable in the refilled Kennady Lake over
- 2 that that was pre -- predicted in the 2011 EIS update.
- 3 And the fish species assemblage within Kennady Lake
- 4 will be similar to -- to baseline conditions.

5

6 (BRIEF PAUSE)

- 8 MR. JOHN FAITHFUL: With respect to the
- 9 recovery of Kennady Lake, the EIS is -- is maintaining
- 10 the timeline for re -- recovery that was presented in -
- 11 in that EIS version. We know that -- expecting a
- 12 functional aquatic ecosystem within five (5) years of
- 13 reconnection to the downstream environment, which
- 14 includes the preshents -- presence of fish spe -- fish
- 15 species.
- 16 However, the steady-state condit --
- 17 conditions around the recovery of Kennady Lake would
- 18 remain unchanged. And we'd maintain that to take
- 19 around sixty-five (65) years. The refilled Kennady
- 20 Lake, as we mentioned before, would return to
- 21 oligotrophic conditions but, as a result of the
- 22 increased nutrients, would be more productive than
- 23 baseline but much less than that presented in the 2011
- 24 EIS Update.
- 25 And so the conclusions were drawn in --

- 1 on -- to the aquatic assessment in the 2011 EIS update
- 2 that impacts to both the suitability of -- of water
- 3 within Kennady Lake watershed and downstream water
- 4 bodies to support a viable and self-sustaining aquatic
- 5 ecosystem, and on the abundance of Arctic grayling,
- 6 lake trout, and northern pike would remain unchanged to
- 7 that presented in the 2011 EIS, and that no significant
- 8 adverse affects were predicted within those
- 9 environments.
- 10 So in -- in summary, the 2012 EIS
- 11 supplement provides a -- a comprehensive description of
- 12 the supplemental mitigation that's been assessed. It
- 13 discusses the smaller fine PKC facility, the
- 14 modifications to the mine rock, and processed
- 15 kimberlite management. It assesses the disturbed
- 16 habitat area that's -- that -- that is now smaller than
- 17 presented in the previous EIS. It outlines the
- 18 assessment to the aquatic environment based on a
- 19 reduced phosphorus concentration in Kennady Lake at
- 20 closure. And ultimately arrives at the same conc --
- 21 conclusions that were presented in the 2011 EIS, that
- 22 being that no significant adverse effects are predicted
- 23 for the terrestrial and aquatic environments.

24

25 (BRIEF PAUSE)

- 1 MR. JOHN FAITHFUL: So, Chuck, that --
- 2 that sort of ends the 2012 EIS supplement part of our
- 3 presentation.

4

- 5 QUESTION PERIOD:
- THE FACILITATOR HUBERT: Chuck Hubert,
- 7 with the panel. Thanks very much for that
- 8 presentation. That was clear, concise, and -- and
- 9 valuable information, a good update. And the panel
- 10 does appreciate the efforts that De Beers put into
- 11 making a -- a simplified way of understanding what in
- 12 the EIS update was new information and what was -- what
- 13 was past information so that parties don't need to go
- 14 back to -- to previous documents. So that's -- the
- 15 panel is than -- thankful for that.
- 16 I understand that De Beers is -- is okay
- 17 with questions at this point or would you like to
- 18 proceed with your other presentation?
- 19 MS. VERONICA CHISHOLM: Veronica
- 20 Chisholm from De Beers. We're open, you know, these
- 21 are free technical sessions and so whatever they -- you
- 22 would like to do, Chair.
- 23 THE FACILITATOR HUBERT: Questions then
- 24 from parties of -- of De Beers' presentation.

60 1 (BRIEF PAUSE) 2 3 MR. PETER COTT: It's Pete Cott from the Department of Fisheries. I've just got a question about the assessment of water quality parameters from the -- from what was just presented. 7 In the 2011 water quality and sediment quality supplemental monitoring report, there was indication within that report that a few other metals were also elevated above CCME quidelines, including 10 11 aluminium and iron. Now is that what you were -- were talking about in terms of changes since the -- the 13 original submission? Because we just got this report and -- and there -- it did indicate a few metal 14 parameters that were -- that were elevated. Thank you. 15 16 MR. JOHN FAITHFUL: John Faithful, 17 Golder Associates. Pete, the -- the report you're 18 referring to is the supplemental monitoring report for 19 water quality and sediment quality. And so, that's providing an outline of the baseline monitoring for --21 for water quality and sediment quality that was 22 conducted in 2011. 23 I was speaking more specifically to the 24 -- to the -- the EA assessment. And the predicted 25 concentrations with respect to those -- the predicted

- 1 exceedances to CCME concentrations factor into account
- 2 that there -- there are occasions where baseline
- 3 concentrations of certain parameters, like the ones
- 4 that you just mentioned, do occur or are measured at
- 5 times above CCME quidelines.
- 6 MR. PETER COTT: Okay. Pete Cott, from
- 7 the Department of Fisheries. Thank you.
- 8 THE FACILITATOR HUBERT: Thank you. I
- 9 believe I saw a hand at the back? Yeah, if you could
- 10 just please go to the microphone or -- and -- thanks.

11

12 (BRIEF PAUSE)

- 14 MR. RANDY FREEMAN: Okay. I'm Randy
- 15 Freeman, F-R-E-E-M-A-N, with the Yellowknives Dene.
- 16 Last year in the sessions that were held at the Prince
- 17 of Wales Northern Heritage Centre, we heard very
- 18 briefly about a drilling program that was going to look
- 19 at the limits of Tuzo pit. Because as of last fall you
- 20 didn't know how far down that kimberlite pipe went. My
- 21 first question, I guess, is was that drilling -- was
- 22 that drilling program undertaken? Do you know now how
- 23 far down that kimberlite goes?
- 24 And if you do know that it's
- 25 significantly further down than you had originally

- 1 anticipated, does any of this change? Does the -- the
- 2 length at which the mine will operate change? Does
- 3 the, you know, cumulative effects change on caribou, or
- 4 -- you know, I mean, all of these sorts of questions
- 5 could have some, you know, changes to them if you know
- 6 about Tuzo pit.
- 7 MR. ANDREW WILLIAMS: Andrew Williams,
- 8 De Beers Canada. Randy, yeah, we completed some
- 9 exploration drill holes just earlier this year, though
- 10 very exploratory in nature, we were just looking to see
- 11 just what might be down there, at depth. We did get
- 12 some intersections as just above 600 metres in depth,
- 13 but we only drilled five (5) holes. So, those holes
- 14 would not be useful for any future mine planning. But
- 15 there would be some opportunity for the mine, once it's
- 16 in operation, to look at whether or not it could extend
- 17 the life of the mine.
- 18 MR. RANDY FREEMAN: Are you optimistic
- 19 that it will?
- 20 MR. ANDREW WILLIAMS: Sorry, Randy, I'm
- 21 a geologist. I'm always optimistic. It's very early
- 22 days yet. We'll -- there will have to be a lot more
- 23 drilling to be done before we can assure ourselves if
- 24 we would have a deeper pit. But at the moment, it's
- 25 not expected to make any change to our current

MVEIRB - DE BEERS TECHNICAL SESSION 63 presentation or the impacts that we've assessed. 2 MR. RANDY FREEMAN: But in future years it may? 3 MS. VERONICA CHISHOLM: Veronica Chisholm, from De Beers. Andrew has a habit of turning off the microphone when he speaks, so he just sort of said that, you know, just to summarize, the -- the 7 current drilling program does not indicate that there's going to be any fundamental change to our project plan. 10 But, of course, as we progress and we gather more 11 information, if there is an update, that would be 12 provided. Thanks. 13 THE FACILITATOR HUBERT: Thank you. 14 Anything else on the presentation from De Beers from 15 people in the audience? 16 17 (BRIEF PAUSE) 18 19 THE FACILITATOR HUBERT: Okay, thanks a 20 lot. 21 22 (BRIEF PAUSE) 23 24 MS. STEPHANIE POOLE: Good afternoon.

My name is Stephanie Poole, that's P-O-O-L-E. I have a

- 1 few questions regarding the De Beers presentation.
- 2 My first question. In the very
- 3 beginning of the presentation you had said that Kennady
- 4 Lake will be fully or partially dewatered. And for the
- 5 purposes of this environmental impact review, I would
- 6 like to know which of those two (2) that it is, fully
- 7 or partially. My next question is just kind of random,
- 8 but when you talk about dewatering, where -- where does
- 9 that water go?
- 10 And then when you were speaking about
- 11 closure and reclamation, there was a slide that said
- 12 that Dike A will be breached and/or removed at closure.
- 13 And so is it only Dike A, or all of the dikes, and
- 14 which is it, breached or removed?
- 15 Regarding the water quality, it says
- 16 that Kennady Lake returns to an oligotrophic
- 17 conditions. It's my understanding that there is life
- 18 in Kennady Lake, and it is a eutrophic lake. And so
- 19 I'm just wondering, maybe with all of the government
- 20 agencies in one (1) room they can tell me why this lake
- 21 has been defined in this way.
- 22 And then when you were speaking about
- 23 reclamation, you made the statement that reclamation
- 24 will begin on the 5034 pit in year 5 with backfilled
- 25 mine rock and fine PK. And then later on in your

- 1 presentation you made some comments about the
- 2 supplement -- the supplemental EIS and how the fine PK
- 3 facility footprint had been reduced. And I'm guessing
- 4 that these two (2) are related, that it's been reduced
- 5 because you're planning on putting some of it into this
- 6 pit.
- 7 But I'm wondering -- like you're just
- 8 saying that, and this is your plan, and -- and in these
- 9 modern times of adaptive management it just makes me
- 10 wonder, you know, like what kind of guarantee can you
- 11 give us that this will happen because I think similar
- 12 plans were -- were made for your mine at Snap Lake
- 13 where the underground pit would be backfilled with a
- 14 paste. And -- and that to-date has still not happened.
- 15 So when this is not happening, that means that more
- 16 tailings are being stored on the land than what was
- 17 planned for, and that this will effect your tailings
- 18 management plans, and this could mean an increase in
- 19 phosphorus to Kennady Lake.
- 20 So I want to know what kind of
- 21 guarantees you -- De Beers can give us that this plan
- 22 of filling up that pit 5034 in year 5 will actually
- 23 occur because a lot of your mitigations rely on that
- 24 fact.
- 25 And then from Steve Ellis, he says that

66 on slide 14 it says: 2 "Re-establish a flow regime and self-3 sustaining ecosystem in the refilled Kennady Lake after closure." 5 Does this mean it will re-establish something similar to the state of the environment pre-7 mine, or that it will be some different flow regime and ecosystem? 9 So I think that's one (1), two (2), three (3), four (4), five (5), six (6) questions. 10 THE FACILITATOR HUBERT: Excellent 11 12 questions. Thanks very much. Hopefully De Beers 13 managed to scribble those down. 14 15 (BRIEF PAUSE) 16 17 THE FACILITATOR HUBERT: Chuck Hubert, 18 with the panel. As we're waiting for De Beers to 19 organize their responses I'd just like to mention that there is coffee in the back of the room, and water as well. We'll have an official break in a half hour or a 21 little more than that, but we do have things available 22 23 to keep people keen and alert in -- in the back of the 24 room. 25

		67
1	(BRIEF PAUSE)	
2		
3	MS. VERONICA CHISHOLM: Veronica	
4	Chisholm, from De Beers. I think I'm ready to respond	
5	to your question, Stephanie, but I might ask you to	
6	repeat one (1) if I mess that up and I don't get it	
7	right. So I appreciate that because you really paid	
8	attention to my presentation and maybe I wasn't I	
9	sometimes use the words "or" instead of "and."	
10	So with respect to your first question	
11	on Kennady Lake, will it be partially or fully	
12	dewatered, is actually it will be partially and fully	
13	dewatered in certain areas. In the slide that I	
14	presented in the and maybe I'll just bring up that	
15	presentation. A picture says a thousand words they	
16	say.	
17		
18	(BRIEF PAUSE)	
19		
20	MS. VERONICA CHISHOLM: Sorry.	
21		
22	(BRIEF PAUSE)	
23		
24	MS. VERONICA CHISHOLM: We're just	
25	bringing up the slide for the people on webcast. So	

- 1 just -- I kind of did go through this kind of quickly,
- 2 so I appreciate those questions, Stephanie.
- 3 So when I talked about it being
- 4 partially and fully dewatered it really isn't an
- 5 either/or. We will be sectioning off Kennady Lake.
- 6 And as I mentioned, there's areas 1 through 8 within
- 7 here. So in certain portions of Kennady Lake they will
- 8 be fully dewatered. And then in some portions of the
- 9 lake they'll only be partially dewatered during
- 10 operations.
- 11 And part of the reason for that is that
- 12 if we can keep some of the water within Kennady Lake
- 13 and not do a fully dewatering, then that will reduce
- 14 the amount of time to refill Kennady Lake at closure.
- 15 So I -- I'm hoping that response is clearer, Stephanie,
- 16 on that.
- MS. STEPHANIE POOLE: Sure. Yeah. I
- 18 have more questions now, but just keep going.
- 19 MS. VERONICA CHISHOLM: Well, this is -
- 20 this is precisely what these technical sessions are
- 21 about. So if we're not clear, I want to be clear. The
- 22 second question I think -- and I'll turn to you for a
- 23 nod to make sure I get it correct, you asked, during
- 24 the dewatering phase where will the water go.
- 25 And that was discussed within the 2010

- 1 EIS submission as well as in the 2011. We will be
- 2 pumping water. And as -- I can illustrate on this
- 3 figure, which is slide number -- my eyes aren't
- 4 working. Is that fif --
- 5 THE FACILITATOR HUBERT: Sixteen.
- 6 MS. VERONICA CHISHOLM: Sixteen.
- 7 Thanks, Chuck. Slide number 16. So when we're
- 8 dewatering we'll be pumping water up through N11, which
- 9 will head -- go to the north, as well as through area
- 10 8, through here. And so the water will be put into the
- 11 N watershed. And I don't whether, John, if you want to
- 12 add any clarification to the watersheds in terms of
- 13 where the dewatering will go.

14

15 (BRIEF PAUSE)

- MR. JOHN FAITHFUL: When the -- John
- 18 Faithful, Golder Associates. When Kennady Lake is --
- 19 is isolated and the controlled area established around
- 20 the -- the main basin of Kennady Lake, the upper
- 21 watersheds -- the upper watersheds -- and I talked a
- 22 little bit earlier about the -- the A watershed here,
- 23 so that's one (1) of the upper watersheds of Kennady
- 24 Lake that -- that has a series of small lakes that
- 25 flows into Kennady Lake. You also have a number of

70 other small lake watersheds, the -- the B watershed, the C water -- the C watershed, which is down here. I think this is -- comprises the D watershed, and then 3 the E watershed down here. Those -- those particular watersheds, to 5 isolate Kennady Lake, have to be diverted so that we can -- a series of constructed dikes to actually turn 7 the water away and make that flow into the N watershed, which is adjacent to it. And so in addition to the -the actual pump dewatering that Veronica discussed for 10 11 the Kennady Lake basin, there will also be the 12 temporary diversion of those upper watersheds to the 13 adjacent N watershed. 14 15 (BRIEF PAUSE) 16 17 MR. JOHN FAITHFUL: John Faithful, 18 Golder Associates. The A watershed as I mentioned in -19 - in the presentation that I gave, during the period of operations it will temporarily be diverted to area 8 21 via a pipeline through Lake J1B, which is the A -that's the A watershed. It will be diverted through 22 23 to, I think this lake here, Lake J1B, into area 8, and 24 allowed to drain naturally into area 8. 25 MS. VERONICA CHISHOLM: Veronica

71 Chisholm, from De Beers. One (1) other thing that I wa -- one (1) other point I wanted to make on this, Stephanie, is that the water all collectively flows towards Lake 410. And unfortunately, I don't have a -a map that I included here, but there is a map at the back that talks about the flow, the natural flow in and 7 around Kennady Lake and where the dewatering would go. 8 So I certainly will take some time at a break to go through that. I think, correct me if I'm wrong, I think the next question you had was whether 10 11 Dike A will be breached or will it -- whether it would 12 be removed. It will be removed. And just to illustrate where dike A is, it's between area 7 and 13 14 area 8, here. And that would be reconnecting Kennady 15 Lake once the lake is filled and once the water quality 16 within Kennady Lake reaches the water quality criteria and discharge criteria. 17 18 I think the next question you had was on 19 oligotrophic and eutrophic? 20 MS. STEPHANIE POOLE: Sorry, the last 21 question was in regards to Dike A and also the rest of 22 the dikes. 23 24 (BRIEF PAUSE) 25

```
MR. BILL HORNE: At -- at closure --
1
   oh, Bill Horne, EBA Engineering. At -- at closure, as
   -- as Veronica said, Dike A will be removed. We also
3
   have -- I'll go from the north around the side of the
   lake. We also have Dike D, it will remain. Dike E
   will just be breached. Dike F will be breached. And
   Dike G will be breached.
7
                   The other internal dikes within --
8
   within Kennady Lake, we have Dike K, we have a few more
   that aren't show on this particular figure. Dike K,
10
   Dike N, Dike B, they will be cut down to below lake
11
12
   level and then provide fish habitat at closure. Dikes
13
   H will remain, it will be incorporated. Dikes H and I
14
   will be incorporated with the waste rock dump at
15
   closure. Does that answer your question?
16
17
                          (BRIEF PAUSE)
18
19
                  MS. STEPHANIE POOLE: Let -- let's just
   go through it again, because it's a lot of dikes. So
21
   Dike A will be removed; Dike D will remain; Dike E, F,
   and G will be breached; other internal dikes not shown
22
23
   on this presentation will be cut down to below lake
24
   level and provide fish habitat. And that's all I got.
25
   Were there more?
```

- 1 THE FACILITATOR HUBERT: You can --
- MR. BILL HORNE: Bill Horne, EBA.
- 3 You've just about got it. The -- the other internal
- 4 dikes, say Dike K, which is shown on there, it will be
- 5 cut down to below lake level. Dike N, which is on the
- 6 other side of area 6, will also be cut down below lake
- 7 level. Dike B, which is at the top of area 4, will be
- 8 cut down below lake level. Dike L will remain, but
- 9 there will be no water behind it. It'll just be our
- 10 closed off fine PK area. And Dike D, the same thing.
- 11 There will be no water behind it, it will just be a
- 12 very thin layer of tailings, about 2 metres of
- 13 tailings, and then our cover. Dike A1, which I forgot
- 14 to mention, it will be the same as Dike D. It will
- 15 remain, but there won't be any water there. It will
- 16 just be about 2 metres of tailings, about 2 metres of
- 17 cover.
- 18 THE FACILITATOR HUBERT: Thanks. Just
- 19 a reminder that once you're finished talking if you can
- 20 turn your mic off. Because there's only one (1)
- 21 allowed at one (1) time.
- 22 MS. VERONICA CHISHOLM: Veronica
- 23 Chisholm, from De Beers. Stephanie, I also want to
- 24 point you to the April, 2012, EIS supplement, Table
- 25 3.9-1. It's within Section 3. It provides a table

- 1 listing all of the dikes, the construction year, the
- 2 dike type and consequences, the characteristics of the
- 3 dikes, and the fate of the dikes. So we've provided a
- 4 description here, but there's far more detail in this
- 5 table. So just as a reference point for you as well.
- 6 Thanks.
- 7 Should we carry on, on the next
- 8 question? So just to confirm, I think your next
- 9 question was on ogi -- oligotrophic versus eutrophic
- 10 and what the status of the lake is. Is that correct?
- MS. STEPHANIE POOLE: Yes.
- MS. VERONICA CHISHOLM: You're nodding
- 13 yes. I'll have John Faithful respond to that.
- 14 MR. JOHN FAITHFUL: John Faithful,
- 15 Golder Associates. Stephanie, the -- a trophic
- 16 condition is -- is typically used to characterize the
- 17 potential productivity of the lake. Kennady Lake, both
- 18 in -- in baseline conditions and also the long-term
- 19 projected condition of -- of Kennady Lake is -- is for
- 20 it to be -- remain oligotrophic.
- Oligotrophic is -- is commonly used to
- 22 distinguish low-productivity lakes. And that's
- 23 characterized by generally low nutrient concentrations,
- 24 to characterize them from, say, a eutrophic lake, which
- 25 has ample nutrient supply and is generally a lot more

- 1 productive.
- 2 In -- in general, the trophic status is
- 3 -- is linked quite strongly to phosphorous
- 4 concentrations. And I think there is a -- a range of
- 5 phosphorous concentrations assigned to various trophic
- 6 status in the Canadian Council for the Minis --
- 7 Ministry of Environment reference to -- in 2004, which
- 8 talks about a phosphorous framework. And we can
- 9 provide a reference to -- to that document if you like.
- 10 And it presents a -- a series of phosphorous
- 11 concentrations and what the -- and what -- what the
- 12 various trigger levels are for that trophic condition.
- 13 And they extend from being ultra-oligotrophic, which is
- 14 really low phosphorous concentrations, through to
- 15 hyper-eutrophic conditions, which are very high
- 16 phosphorous concentrations.
- Now, although it's -- Kennady Lake has
- 18 been characterized as an oligotrophic lake, i.e., being
- 19 a -- a low productivity lake, it doesn't necessarily
- 20 mean that -- that the lakes don't have the capacity to
- 21 support aquatic biota. There are generally limited
- 22 nutrients, but that doesn't mean to say that there will
- 23 not be phytoplankton, which are a sort of fine algal
- 24 species, and aquatic plants that exist in the lake.
- Nor will there -- nor will it limit the

- 1 amount of fish that are in the lake. In fact, I think
- 2 lake trout prefer cold, low nutrient conditions, and
- 3 thrive in those conditions as has been determined from
- 4 a lot of the -- the monitoring that's been undertaken
- 5 in that region.
- 6 So just to sort of correct your
- 7 statement that the oligotrophic -- that Kennady Lake is
- 8 an olig -- oligotrophic lake, it's projected to remain
- 9 oligotrophic in -- in the post-closure period. And
- 10 it's not a eutrophic lake, which would imply much
- 11 higher nutrient conditions.
- 12 MS. STEPHANIE POOLE: So is that a task
- 13 to provide me with that document?
- 14 MR. JOHN FAITHFUL: John Faithful,
- 15 Golder Associates. I will provide you with a reference
- 16 to that document.
- MS. VERONICA CHISHOLM: One (1) other
- 18 point of reference just -- there's a glossary within
- 19 the -- within our submission for the 2012 EIS, as well
- 20 as the 2010. And in that glossary we have the
- 21 definitions for all the terms we use, and that is in
- 22 Section 16. Where we specifically define "eutrophic"
- 23 and "oligotrophic," that would be in page 16-8 and 16-
- 24 9, just for your reference.
- THE FACILITATOR HUBERT: Thank you for

- 1 that response. Does that, Stephanie, satisfy your
- 2 information and that question?
- 3 MS. STEPHANIE POOLE: I guess so. I
- 4 understand the difference, so I don't need to be
- 5 pointed out to that. But I would like the link to the
- 6 document that was referred to in your response.
- 7 MR. JOHN FAITHFUL: John Faithful,
- 8 Golder Associates. Yes, we'll provide that.
- 9 THE FACILITATOR HUBERT: Thank you.
- 10 And you'll provide that tomorrow?
- 11 MS. VERONICA CHISHOLM: Veronica
- 12 Chisholm, De Beers. I think we can -- yeah, we'll
- 13 provide that at the latest tomorrow. If we can try and
- 14 provide that this afternoon we will, as well.
- 15 And Stephanie, I only wanted to point
- 16 out this glossary section. It wasn't intended to sort
- 17 of -- I understand that you know the difference but
- 18 just so that you were consistent with the definition
- 19 that we tended to use in the document. That's the only
- 20 reason why I pointed that out.
- 21 I'm -- I'm wondering so we can -- yeah,
- 22 so I'm just wondering if maybe you can help me on
- 23 question number 5. Would you mind repeating that one
- 24 (1) so I'm clear on that, Stephanie?
- MS. STEPHANIE POOLE: I have two (2)

- 1 questions remaining. One (1) is my own and one (1) is
- 2 Steve Ellis. Which one (1) do you mean?
- 3 MS. VERONICA CHISHOLM: Veronica
- 4 Chisholm, De Beers. I think it was the reclamation
- 5 year 5, so I -- just so I'm clear would you mind
- 6 repeating that? Thank you.
- 7 MS. STEPHANIE POOLE: So in your
- 8 presentation it says that:
- 9 "Reclamation will begin on 5034 pit
- in year 5 with backfilled mine rock
- 11 and fine PK."
- 12 And then later on in your presentation
- 13 you make reference to the fine PKC facility having a
- 14 smaller footprint, and then a bunch of assumptions and
- 15 assess -- assessments about how this will mitigate, and
- 16 -- and everything is fine, and so forth, because of it.
- 17 But what I'm asking De Beers for is --
- 18 is a guarantee. What kind of guarantee can you give us
- 19 that --that this will happen, that reclamation and that
- 20 the fine P -- PK will go into the pit in year 5 because
- 21 similar commitments were made, you know, at your Snap
- 22 Lake mine for filling up the underground with paste.
- 23 And that has not happened. It wasn't happened -- it
- 24 didn't happen as you described it. And it's still not
- 25 happening.

- 1 So what I'm saying is that your --
- 2 you're giving us your plan of what's going to happen,
- 3 but no guarantees that it will occur. And -- and if it
- 4 doesn't, then there are serious impacts to the
- 5 environment that could happen. There will be tailings
- 6 management issues, there could be increased phosphorus
- 7 during -- you know, due to long-term storage of the PK.
- 8 And then all of these other predictions that you --
- 9 you've -- you've made that are related to the smaller
- 10 footprint would also be affected as well.
- So I'm just -- I'm just wondering, you
- 12 know, like -- because nowadays companies are allowed --
- 13 you know, proponents are allowed to -- to use adaptive
- 14 management at their leisure. So, you know, like what
- 15 kind of guarantees can you give us that the -- the fine
- 16 PK will go into the 5034 pit in year 5?
- 17 MS. VERONICA CHISHOLM: Veronica
- 18 Chisholm from De Beers. Thank you for the
- 19 clarification around that question, Stephanie. Our
- 20 intention is to follow the mine plan as we laid out.
- 21 Our intention -- our commitment is to design the
- 22 project as laid out in the EIS. There will be some
- 23 additional detailed engineering, but the commitment now
- 24 is to reduce the size of the fine PKC facility. And in
- 25 order to do that our commitment is to move the fine PK

- 1 into 5034 pit starting at year 5.
- With respect to Snap Lake, I'll ask
- 3 Cathie to speak more about Snap Lake. She has more
- 4 information on that. But it's -- it's my understanding
- 5 that the paste technology is on track for the
- 6 operational life of Snap Lake. However, I'll just ask
- 7 Carrie if she -- Cathie if she'd like to provide some
- 8 additional words on that.
- 9 MS. CATHIE BOLSTAD: Thanks, Veronica.
- 10 It's Cathie Bolstad, De Beers Canada. Stephanie, I --
- 11 I think you may recall during the Snap Lake water
- 12 license hearings we talked about the paste deposition
- 13 at the Snap Lake mine. And -- and certainly De Beers'
- 14 commitment remains today for paste deposition in the
- 15 underground.
- 16 In December, when we provided an update
- 17 on -- on the paste deposition for the Snap Lake mine,
- 18 we spoke about 2008 and 2009, the economic downturn
- 19 which had resulted in a change in the production rate
- 20 at the Snap Lake mine, and, therefore, a change in the
- 21 underground development ahead of us in -- in terms of
- 22 giving us places in which to deposit the paste at that
- 23 time. And -- and at this time, De Beers remains on
- 24 track for the life of mine for the presentage (sic) of
- 25 paste that is to be deposited in the underground.

- 2 can per -- you know, obtain a little bit obfermation --
- 3 information and provide an update on that if required.
- 4 But that is -- De Beers' commitment remains on the Snap
- 5 Lake mine, to mine to the plan that was presented.
- 6 THE FACILITATOR HUBERT: Thank you very
- 7 much. And Chuck Hubert with the panel. I'd just like
- 8 to -- to mention that, from the panel's perspective,
- 9 commitments made by the developer, in this case, De
- 10 Beers, become part of the project. And -- and the --
- 11 the panel uses commitments and takes them extremely
- 12 seriously.
- 13 A commitment made by a developer -- the
- 14 assumption by the panel is that that is -- is part of
- 15 the project design and is certainly used in the Board's
- 16 -- or in the panel's determination of significant
- 17 adverse impacts. And the -- I know the -- the -- the
- 18 commitments which become part of project design are
- 19 followed up on by our sister boards, the land and water
- 20 boards, during the licensing phase.
- 21 Any last, I guess, answer to one (1) of
- 22 the questions before we break?
- 23 MS. VERONICA CHISHOLM: Veronica
- 24 Chisholm, from De Beers. I think Steve Ellis'
- 25 question, maybe, Stephanie, could you help me out with

- 1 that one (1) again? Thank you.
- MS. STEPHANIE POOLE: I'll -- I'll
- 3 repeat Steve Ellis' questions. And -- and just for
- 4 you, Chuck, later on we're going to discuss commitments
- 5 further and in detail. Steve Ellis says that on slide
- 6 14 it says:
- 7 "Re-establish a flow regime and self-
- sustaining ecosystem in the refilled
- 9 Kennady Lake after closure. Does
- 10 this mean it will reestablish
- 11 something similar to the state of the
- 12 environment pre-mine or that it will
- be something diff -- or that it will
- 14 be some different flow regime and
- ecosystem?"
- 16 MS. VERONICA CHISHOLM: Veronica
- 17 Chisholm, from De Beers. Thanks, Stephanie, for the
- 18 clarification. Yes, it will be something similar to
- 19 pre-disturbance conditions.

20

21 (BRIEF PAUSE)

- 23 THE FACILITATOR HUBERT: Thanks very
- 24 much. We have time maybe for one (1) more quick
- 25 question. And then we'll take a break and move on to

- 1 the second half of De Beers' presentation. So anybody
- 2 care to -- yes, in the back, please. And state your
- 3 name, please.
- 4 MR. ELMAR PLATE: It's Elmar Plate,
- 5 from LGL Limited. I have two (2) questions. One (1)
- 6 is -- actually nowhere I've found mentioning of what's
- 7 actually happening to the fish when you're pumping out
- 8 the lake. And there's also no mentioning of when you
- 9 lower a lake and dewater it -- so there will probably
- 10 be -- very oligotrophic lakes, there's probably a
- 11 thousand fish per hectare or something, is quite often
- 12 the number that's -- you'll see when -- from my
- 13 experience from looking at a lot of lakes.
- 14 So there's probably about eight hundred
- 15 and seventy thousand (870,000) fish or something --
- 16 somewhere around eight hundred thousand (800,000) fish
- 17 in that lake if you count all the juveniles with it.
- 18 So that's quite a high number of fish. So I was just
- 19 wondering what happens to them when you dewater and
- 20 pump the lake out. Is there anything in front of the
- 21 pumps that collects the fish, that brings them
- 22 somewhere else to different lakes, that gathers the big
- 23 ones for food, things like that.
- So that was one (1) thing I was
- 25 interested in. And another one -- and we can -- the

- 1 second question is I ha -- still have a problem with
- 2 your modelling of the winter volume for fish. We can
- 3 discuss it more in the next -- probably tomorrow, but
- 4 just to put into your mind already, there's a lower
- 5 bound for the oxygen concentrations of 6.5 milligrams
- 6 per litre and 5.5 milligrams per litre, but there's no
- 7 upper bound on that model.
- 8 And as you -- all the Fisheries' people
- 9 know, fish cannot live very well and -- and very
- 10 healthy -- healthy way below 5.5/6.5 milligrams per
- 11 litre. But the same is also true for very high oxygen
- 12 saturations. So if you go to oxygen saturations that
- 13 are far beyo -- beyond 100 percent -- in the wintertime
- 14 they will probably be around 13/14 milligrams per
- 15 litre, you also have problems for fish. And there's no
- 16 upper bound on your model. So I think the volume that
- 17 -- that you've calculated for a potential of a winter
- 18 habitat for fish is probably not quite correct. I
- 19 think it's going -- going to be quite a bit lower than
- 20 what you are suggesting.
- 21 So I would like you to include, please,
- 22 into the model, the upper bound too, not only the lower
- 23 bound, because when you look at the graphs you can see
- 24 actually the oxygen saturations go up to -- in your
- 25 model only go up to 13 milligrams per litre. When you

- 1 measure them actually, in the lake under the ice, they
- 2 go up to 19 milligrams per litre. So there's something
- 3 wrong with the model, not quite describing what's
- 4 reality in the lake. And I would like you to please
- 5 take one (1) more look at that, probably clarify that.
- 6 Probably there can be a calibration process based on
- 7 your real data that you collected. And then there can
- 8 be a recalculation of the volumes for over-wintering
- 9 survival for the fish.
- 10 So there's the two (2) questions, number
- 11 1, it's just a very general question, what happens to
- 12 the fish in the lake, and also whether you have an idea
- 13 of how many there are approximately. And then the
- 14 second question is whether you could probably
- 15 recalibrate that model or put an upper bound on it.
- 16 Thank you.
- 17 THE FACILITATOR HUBERT: Thanks very
- 18 much. And for the transcriber can you say your name
- 19 once more. Thanks.
- 20 MR. ELMAR PLATE: So my name is Elmar,
- 21 it's spelled E-L-M-A-R. And it's Plate, or Plate, the
- 22 -- like the plate you eat from, is the easiest. And I
- 23 work for LGL Limited.

24

25 (BRIEF PAUSE)

- 1 MS. VERONICA CHISHOLM: Veronica
- 2 Chisholm, from De Beers. I'll answer the first
- 3 question. So with respect to the fish salvage, we did
- 4 put in a fish-out plan in -- submitted as part of the
- 5 EIS. It was in Section 8.10.3.2. Sorry, that's
- 6 8.10.3.2. And so generally with the fish-out we're yet
- 7 to provide a lot of -- develop the full details on
- 8 that, but there are some protocols that are provided by
- 9 DFO on doing fish-outs. We will develop -- our
- 10 commitment is to develop a detailed plan for a fish-out
- 11 in advance, well in advance of that fish-out.
- 12 And in February and March we also had a
- 13 -- went around to a series of community visits. And at
- 14 that time we were very fortunate, because a number of
- 15 the community members provided really good suggestions
- 16 on the fish-out. And so our intention is to do more
- 17 community site visits this summer at the Gahcho Kue
- 18 project as well as follow-up in the fall. And some of
- 19 those same questions that I had regarding fish-outs and
- 20 fish compensation plans, et cetera, posed within the
- 21 communities would be asked again for some additional
- 22 information.
- So I hope that answers question number 1
- 24 somewhat. And I'll have John speak to question number
- 25 2.

87 1 (BRIEF PAUSE) 2 3 MR. JOHN FAITHFUL: John Faithful, Golder Associates. Elmar, was that correct? Thank for your que -- thanks for your questions. With -- with respect to your second question regarding the -- the 7 consideration of an upper bound in our volume estimates for suitable habitat for fish, I'd like to ask you and also, I quess, ask the Chair for -- to -- for that 10 question to be deferred to tomorrow's discussion on 11 water quality in Kennady Lake? 12 MR. ELMAR PLATE: I think that makes 13 sense. 14 THE FACILITATOR HUBERT: I think what I 15 heard was that there's some consensus to talk about 16 this further tomorrow, in the more detailed talk about fish. So, let's -- and aquatic environment, so let's 17 18 do it -- it that way then. 19 So, with that, I'd like to take about a ten (10) minute break. Thanks, everybody, for questions and answers. And we'll see you in about ten 21 22 (10) minutes to continue. Thanks. 23 24 --- Upon recessing at 3:03 p.m. 25 --- Upon resuming at 3:20 p.m.

- 1 THE FACILITATOR HUBERT: Okay. Good
- 2 afternoon once again, everybody. It's about 3:20. At
- 3 this time John King with NRCan has asked if a colleague
- 4 of his from Ottawa can ask De Beers a question or two
- 5 (2). If we can keep it to about ten (10) minutes for
- 6 questions. I believe there's somebody on
- 7 teleconference, and if we can hook up with that now
- 8 that would be excellent, please.
- 9 MS. SHARON SMITH: Yeah, it's Sharon
- 10 Smith here from NRCan. Can you hear me okay?

11

12 (BRIEF PAUSE)

- 14 THE FACILITATOR HUBERT: Good
- 15 afternoon. Is this Sharon Smith in Ottawa?
- 16 MS. SHARON SMITH: Yeah. Yeah, it is.
- 17 Can you hear me okay?
- 18 THE FACILITATOR HUBERT: We can hear
- 19 you loud and clear. If you can address your question
- 20 right now, De Beers would be pleased to answer it. Go
- 21 ahead.
- MS. SHARON SMITH: Okay. Thanks very
- 23 much. I just had a couple questions about the design
- 24 of the numerous dikes and the geotechnical
- 25 investigations that have been conducted.

89 1 And one (1) of the things -- we had quite a bit of information sent to us in response to our Information Requests, and I was just curious as to 3 whether there's been any detailed investigations done of the overburden material because there didn't seem to be much testing or -- or anything like that so far in the information that I received. 7 8 9 (BRIEF PAUSE) 10 11 THE FACILITATOR HUBERT: Thank you for 12 that questions. De Beers is just preparing a response, 13 and will respond momentarily. Thanks. 14 15 (BRIEF PAUSE) 16 17 MR. BILL HORNE: It's Bill Horne from 18 We -- we did send the information that we have on 19 the overburden material in the Information Request to NRCAN. And there's some particle size analysis in 21 there, and we've got numerous drill holes to give us an 22 idea of the quantities of the -- the overburden. 23 And -- and really I -- I think that's 24 the information that we have. And -- and for the overburden material, we -- we will have some additional

- 1 mater -- some additional information from boreholes
- 2 drilled for the dike design. But I -- I think
- 3 basically what we have so far is -- is enough for the
- 4 designs that we have in place.
- 5 We do -- right now the amount of till
- 6 that we've got planned is about -- for the dike
- 7 construction we're -- we're using about 50 percent of
- 8 the matil -- till that we -- we've estimated is on
- 9 site. Most of the till is coming from the stripping of
- 10 the pits, so lake bed sediments.
- Does that answer your question?
- 12 MS. SHARON SMITH: Yeah. I'll have to
- 13 have a closer look at some of the material that you
- 14 sent, but thanks for that.
- Related to that, for a number of the
- 16 dikes there didn't seem to be any boreholes, or any
- 17 ground temperature measurements there. And the ones
- 18 that I'm specifically wondering about are dikes A1, D,
- 19 E, F, G, and H, because the -- because these seem to be
- 20 the ones where you're going to key the liners into, as
- 21 you say, competent permafrost.
- 22 And I was just wondering do you know for
- 23 sure that there -- it's frozen conditions at these
- 24 alignments? Because I noticed that some of them will
- 25 cross streams, so they may be fairly warm. And you may

- 1 also have some water impounded behind them, which would
- 2 warm things up. And I'm just wondering what -- what
- 3 information you do have available on the thermal
- 4 conditions and what more work that you might do to get
- 5 a better idea of that.
- 6 MR. BILL HORNE: You -- you're
- 7 absolutely right. Those -- oh, Bill Horne, EBA. We
- 8 have limited information from -- from dikes A1, D, E,
- 9 F, and G. We -- we do have geophysics for those dikes
- 10 which basically show the depth of rock, but there has
- 11 been no drilling at those locations and no ground
- 12 temperature cables installed. And that is in the plan
- 13 before the final design is done. There will be a full-
- 14 blown geotechnical investigation for those dikes and --
- 15 and the design will be modified accordingly depending
- 16 on what we find.
- 17 MS. SHARON SMITH: Just -- just related
- 18 to that, I notice that you do have some temperature
- 19 measurements at other locations but there only seem to
- 20 be measurements for, I think, April and May of 2004, if
- 21 I'm not mistaken. And I'm just wondering if you have
- 22 better information from those places as well?
- MR. BILL HORNE: Bill Horne, EBA.
- 24 There's -- there's two (2) locations where that
- 25 information was provided to you. One (1) was in the

- 1 IR, which -- which was taken directly out of the
- 2 geotechnical investigation. That information also
- 3 shows up in the -- in the EIS. And in the EIS we've
- 4 got -- from those same holes we've got temperature
- 5 readings from the early spring, March, April, May. And
- 6 then we've got another reading from August.
- 7 So we've got the ground temperatures in
- 8 thirty-four (34) boreholes. In addition to that, we
- 9 have some ground temperature measurements that were
- 10 done back in '97. And those readings we've got -- they
- 11 were taking weekly readings over a seven (7) month
- 12 period.
- MS. SHARON SMITH: But you -- so you
- 14 have an idea -- the -- the temperature profiles that I
- 15 saw you couldn't really get an idea of the summer thaw
- 16 depth from them, so that's why I'm asking whether you
- 17 have a better idea of the summer thaw depths at those
- 18 sites now.
- 19 MR. BILL HORNE: Bill Horne, EBA. Like
- 20 -- like I said, the -- we have ground temperatures from
- 21 August which give a pretty good indication of the
- 22 summer thaw depths.
- 23 MS. SHARON SMITH: Okay. So in -- one
- 24 (1) of the -- the questions in -- I had, and -- and I
- 25 was a bit confused, is I know that all your water

- 1 quality analysis has been done assuming that you don't
- 2 have -- there are no permafrost conditions in the waste
- 3 rock piles or -- or the process PK.
- 4 But what I'd like some clarification on
- 5 is the dike performance, especially these ones: A1, D,
- 6 E, F, G and H. I think that's all of them. Are they
- 7 dependent on a frozen foundation or not? Because it
- 8 wasn't very clear to me. And -- and you are going to -
- 9 you do mention that you're going to key the liner
- 10 into this competent permafrost. So we're ju -- we're
- 11 just a little confused about what the primary
- 12 containment mechanism is versus the secondary.
- MR. BILL HORNE: Bill Horne, EBA. The
- 14 dikes -- the dikes have a geomembrane liner in them, so
- 15 the -- the liner is the primary containment for those
- 16 structures. The liner has to be tied into something,
- 17 so. And -- and as I mentioned, for those particular
- 18 dikes we've only got geophysics, we don't have
- 19 geotechnical information.
- 20 So the -- the liner will either be tied
- 21 into bedrock or it will be tied into permafrost. Now,
- 22 there is -- it sounds like there's a conflict here
- 23 because we're saying we're not designing the project
- 24 assuming there's permafrost, but that is really for the
- 25 long-term conditions, and -- and that's for -- to

- 1 generate conservative water quality model results.
- 2 As far as the dam design goes, the --
- 3 the majority of the dams, E, F, and G, are -- will only
- 4 be used for the life of mine and for the temporary
- 5 closure phase. And assuming there's permafrost there
- 6 today, which we will confirm or -- or not, we will use
- 7 permafrost for those dikes. And over the short --
- 8 relatively short period of time for the mine life and
- 9 the -- and the tech -- and the interim closure period
- 10 the -- the permafrost will remain.
- 11 For dikes A1 and D, again, for the --
- 12 those dikes will only see water when -- when the fine
- 13 PK area is in -- is in use, so basic -- or area 2 fine
- 14 PK area is in use, which is about four (4) years. And
- 15 then we'll move into closure period and -- for that
- 16 facility, which will happen much -- at an earlier time
- 17 than the mine closure, the pro -- the progressive
- 18 reclamation.
- 19 So tho -- those dams will -- are only
- 20 going to see water for about four (4) years, five (5)
- 21 years, and then they will basically have mine rock and
- 22 of course PK to fill the -- the dams up. So it's
- 23 basically going to be a dry cover. So they're --
- 24 they're not going to be water-retaining structures.
- 25 And even the fine PK against those dikes is only a

- 1 couple of metres thick. So they're -- they're very low
- 2 structures.
- 3 So the period of time when -- when they
- 4 will see water, permafrost will exist. In detailed
- 5 design we will also carry out some thermal analysis to
- 6 -- to look at the thermal behaviour over the operating
- 7 period. So I hope that -- does that clarify it?
- 8 MS. SHARON SMITH: Yeah, that's
- 9 helpful, Bill, thanks.
- MR. BILL HORNE: Okay.
- 11 MS. SHARON SMITH: And if I can just
- 12 ask one (1) more question about the materials that
- 13 you're going to build the dikes out of. You mentioned,
- 14 I think, using the mine rock and also the overburden
- 15 that you strip from the pits and other excavations as
- 16 your construction material.
- So -- I mean, we had asked if there was
- 18 going to be any other borrow sites, and I just wanted
- 19 to clarify that that you don't have to get aggregate
- 20 from anywhere else, like the eskers that you did some
- 21 testing on.
- MR. BILL HORNE: Bill Horne, EBA. No,
- 23 that is the plan. The plan is to not use the eskers.
- MS. SHARON SMITH: Okay.
- MR. BILL HORNE: We'll basically just

- 1 use mine rock, till, and -- and crushed rock.
- MS. SHARON SMITH: And do you know from
- 3 the work that you've done so far on the overburden and
- 4 the geotechnical investigations, that you'll have
- 5 enough suitable material available in the overburden?
- 6 MR. BILL HORNE: All -- all the
- 7 information indicates that basically we're -- we're
- 8 using half of the overburden for dike construction, so
- 9 we have enough material available.
- MS. SHARON SMITH: M-hm.
- 11 MR. BILL HORNE: If the estimates -- if
- 12 we find the estimates are -- are low we do have some
- 13 options to use -- some other materials rather than
- 14 overburden for some of the -- some of the dikes.
- MS. SHARON SMITH: Would that be using
- 16 the -- the crushed rock or something like that instead
- 17 of actually excavating somewhere else?
- 18 MR. BILL HORNE: That's correct.
- 19 MS. SHARON SMITH: I think that's all I
- 20 had for now, at least all that I've got in my notes
- 21 here. And I'll just maybe listen to the rest of the
- 22 conversation this afternoon and -- and that. But
- 23 thanks very much for -- for accommodating me, it's
- 24 greatly appreciated. And thanks to the Board folks and
- 25 -- and to De Beers.

- THE FACILITATOR HUBERT: Chuck Hubert 1 with the Gahcho Kue panel. Thanks very much, Sharon, for joining us. We appreciate your questions and I 3 hope the answers proved helpful to you. 5 If we can move on maybe to -- since we're on the topic of dike and dam construction, if 7 there's anything from the audience that people would like to ask, this is a good time. 9 10 (BRIEF PAUSE) 11 12 MS. STEPHANIE POOLE: Stephanie Poole, 13 Akaitcho IMA office. I have a couple of questions 14 regarding some things that were -- some questions that 15 were asked. I have a follow-up question from Steven 16 Ellis, and I'll start with that one and then just one (1) other question after that. 17
 - 18 When he asked his question about the
 - 19 environment around Gahcho Kue and then you had stated
 - 20 that the environment around Gahcho Kue will be similar
 - 21 post-closure to pre-mine conditions. In -- in what
 - 22 ways is the post-closure environment different from the
 - 23 pre-mine environment, because you had said it would be
 - 24 similar, not the same.
 - 25 And then if you could just provide us

- 1 with a list of these things, because there are so many,
- 2 it's such a big proposal. Yeah, it's just -- it's
- 3 going to be a useful tool, you know, for -- for
- 4 explaining to the community the changes the mine will
- 5 bring in the long-term and also for us to judge the
- 6 complete -- the completeness of the list.
- 7 Like it should actually be a list. And
- 8 I'm hoping that this could be taken as an undertaking
- 9 for De Beers to -- to provide the differences: in what
- 10 ways is the post-closure environment different from the
- 11 pre-mine environment, like an actual list, how
- 12 everything will be different as an undertaking, please.
- 13 THE FACILITATOR HUBERT: Thanks for
- 14 that request. We'll give De Beers a second or two (2)
- 15 to provide a response. Thanks.

16

17 (BRIEF PAUSE)

- 19 MS. VERONICA CHISHOLM: Veronica
- 20 Chisholm, from De Beers. Thanks, Stephanie, for that
- 21 question. For the impact assessment, all the potential
- 22 effects and the changes at closure are provided in
- 23 Section 8 on aquatic systems. That includes -- there's
- 24 lists: changes in fish, changes in water quality,
- 25 changes in sediment. All of that is information of

- 1 changes within Kennady Lake and to the downstream
- 2 environment that's in Section 9 of the EIS.
- I mean, we can go back and -- and maybe
- 4 what we need to do is I can give you the specific
- 5 sections on how it's laid out. But, essentially, that
- 6 was a requirement of the impact assessment, is to list
- 7 out all the differences in predicted changes as part of
- 8 that documentation.
- 9 So, I'm not sure what additional
- 10 information, and we'll be -- I mean, I'm happy to go
- 11 through that in detail but, you know, I think maybe --
- 12 maybe there's a -- we can go through that section. And
- 13 we'll be talking specifically to Kennady Lake and the
- 14 downstream environments and the changes at closure
- 15 tomorrow and on Thursday. So I -- I'm just wondering
- 16 what the value would be of -- of that list?
- MS. STEPHANIE POOLE: So, what you're
- 18 telling me is that the information is described in
- 19 different areas of the EIS and I should just compile my
- 20 own list? Or would it be appropriate for De Beers just
- 21 to compile their own information and provide me with
- 22 the list as I'm requesting it? That would be most
- 23 helpful to me. And I think I've already stated the
- 24 reasons why we're requesting this list.
- So, I just needed, you know, like a

- 1 straightforward answer from De Beers whether or not
- 2 they will be able to provide us with a list. You know,
- 3 whether it means going through your own EIS and putting
- 4 all the little lists together into a master list and
- 5 submitting it to us. You know, that's fine. But just
- 6 some kind of -- an easily accessible list of
- 7 everything, instead of having to go through the whole
- 8 entire document and find all of the little teeny lists
- 9 and put them together ourselves. That would be really
- 10 helpful.
- 11 THE FACILITATOR HUBERT: Thanks very
- 12 much. If I can just jump in. I think it -- it might
- 13 be valuable for -- for parties and -- and the panel,
- 14 too. Since the -- the documentation provided by De
- 15 Beers was, you know, is a generous amount of material
- 16 there, as far as the pa -- the number of pages. And if
- 17 -- if that could perhaps be collated in a way that is
- 18 most useful to -- to parties, and perhaps discuss that
- 19 between you. I think that could be valuable. Thanks.
- 20 MS. VERONICA CHISHOLM: Veronica
- 21 Chisholm, from De Beers. We're happy to pull that
- 22 together, Stephanie, into a list. We'll reference the
- 23 section which might provide a little more detail and
- 24 context. We're just trying to understand the level of
- 25 detail that you would re -- that you want to see in

101 that list. So, we can list them all out for you and then reference back to the key discussion points in the section. 3 Is -- is -- would that be what you were looking for? 6 MS. STEPHANIE POOLE: I'm definitely 7 not looking for an index to where I can find the information in the EIS. I'm looking for a whole new list of all of the things -- pull them out of the EIS, make me a master list of all of the changes between how 10 11 it is now and how it will be after the mine closes. 12 that clear? MS. VERONICA CHISHOLM: Veronica 13 Chisholm, from De Beers. Yeah, I think that's clear. 14 15 We'll provide -- we'll pull that information together 16 into a list and -- and hopefully it'll provide the amount of detail that Stephanie is looking for. And if 17 18 it isn't, I'm sure she'll tell us. Thanks. 19 THE FACILITATOR HUBERT: Thanks very much. And we'll call that Undertaking number 1, if we 21 can, please. 22 23 (BRIEF PAUSE) 24 25 MS. STEPHANIE POOLE: Okay. But just

- 1 to be clear, I would like a lot of detail. Should I
- 2 just go on with my next question? Okay.
- 3 This is in regards to Elmar's question
- 4 about the fish-out. De Beers answered that De Beers
- 5 would develop a fish-out plan prior to doing the fish-
- 6 out. In other words, this would likely be after this
- 7 environmental impact review is completed.
- 8 However, the fish-out plan must be
- 9 subject to scrutiny through this environmental impact
- 10 review, as what De Beers does with eight hundred
- 11 thousand (800,000) fish will certainly be a cause of
- 12 concern at the First Nation level. And it will be a
- 13 potential source of significant adverse environmental
- 14 effects.
- To just say, We'll worry about the
- 16 details of the fish-out some other time is -- is not
- 17 right, and it must be part of this assessment process.
- 18 So if you don't have a fish-out plan now for us to
- 19 review, De Beers should commit to do so during this
- 20 technical session. So I'm not sure if that's a task or
- 21 an undertaking, but I'll let the Review Board staff
- 22 decide on that one.
- 23 THE FACILITATOR HUBERT: Thanks very
- 24 much. What is the timeline for the more detailed fish-
- 25 out plan from De Beers?

- 1 MS. VERONICA CHISHOLM: Veronica
- 2 Chisholm from -- from De Beers. Well, we're currently
- 3 trying to get input on the preliminary fish-out plan
- 4 that we presented in the EIS. And so we were wanting
- 5 to compile that input through the summer site visits,
- 6 as well as the fall community sessions. So a more
- 7 detailed fish-out plan could be compiled following
- 8 that, which could be closer till September/October.
- 9 I -- I just don't want to pre-empt those
- 10 discussions because I think they're really important to
- 11 get the community and traditional knowledge input onto
- 12 that fish-out. And we already had some really good
- 13 input at some of the preliminary community meetings.
- 14 And then the comment was made in those community
- 15 meetings, Well it would be good to go out and visit the
- 16 site, and then once we're at the site we can provide
- 17 you with more specific information.
- So I -- I'm not purposely trying to
- 19 avoid the question of providing more detail on the
- 20 fish-out. It was more or less we wanted to provide
- 21 that opportunity for communities to provide that input
- 22 to us on the fish-out.
- 23 On -- one (1) other point, and I meant
- 24 to make this with Elmar's statement earlier. I guess
- 25 we wanted to have the opportunity to talk about the

104 estimate of eight hundred thousand (800,000) fish. have a different opinion on how many fish there would be. We thought that the best time to talk about that 3 would be tomorrow when we talk about Kennady Lake because our full aquatics team would be present. 6 Again, I'm not trying to avoid the 7 question, I just thought that -- that we could provide more detail around that and more detail around our estimates for the fish population within Kennady Lake 10 tomorrow. 11 THE FACILITATOR HUBERT: Okay, thanks. Would it be possible for De Beers to commit to providing a more detailed fish-out plan, say by 14 October, prior to preparation of parties' technical 15 reports? 16 17 (BRIEF PAUSE) 18 19 MS. STEPHANIE POOLE: Did you say 20 October? 21 THE FACILITATOR HUBERT: I did. 22 23 (BRIEF PAUSE) 24 25 MS. VERONICA CHISHOLM: Veronica

- 1 Chisholm, from De Beers. Yes, Chuck, I think -- I
- 2 think we can make that commitment for October in
- 3 advance of the technical sessions. We're hoping that
- 4 DFO, which we did provide the preliminary fish-out
- 5 protocol in the EIS, will also provide some input on
- 6 that document as well. So it would be input from the
- 7 communities as well as from DFO, end of October.
- 8 THE FACILITATOR HUBERT: Thanks very
- 9 much. Towards the end of October then, please, would
- 10 be excellent. Is -- is that satisfactory to -- to
- 11 Stephanie?
- 12 MS. STEPHANIE POOLE: You said that the
- 13 information would be received in October prior to --
- 14 did you say technical submissions or sessions? Will
- 15 there be another technical session -- prior to what
- 16 Review Board step in this process?
- 17 THE FACILITATOR HUBERT: I hope I said
- 18 technical report preparation is -- and if not -- if I
- 19 didn't say that, that's what I meant, sorry.
- 20 MS. STEPHANIE POOLE: So does that mean
- 21 that reviewers will have time to comment on -- on what
- 22 is delivered in near late October, 2012?
- 23 THE FACILITATOR HUBERT: Certainly
- 24 parties have the opportunity to comment at any time to
- 25 the panel on submissions from De -- De Beers, the

- 1 developer. And those comments will be placed on the
- 2 public registry. So the answer is, yes.
- 3 MS. STEPHANIE POOLE: Okay. I'm good.
- THE FACILITATOR HUBERT: Chuck Hubert,
- 5 with the panel. Thanks very much. We have another
- 6 presentation from De Beers environmental monitoring
- 7 framework that we'd like to get to. So if -- unless
- 8 there's a further question on dike construction right
- 9 now, which there is, go ahead.
- MS. LAURA JONES: Can you hear me?
- 11 Yeah, it's Laura Jones with Transport Canada. And I
- 12 just wanted a clarification for Stephanie because you
- 13 had brought up a question about -- you wanted to know
- 14 all the details about the dike removal plans and
- 15 whether they'd be breached or removed and details on
- 16 them.
- 17 And just so that you're aware, like De
- 18 Beers is aware that any dikes placed in navigable
- 19 waters require approval through Transport Canada
- 20 because they're subject to the Navigable Waters
- 21 Protection Act. And so they're plans that they have
- 22 for dikes and they're dike closure won't actually be
- 23 finalized until they work through approvals with us.
- 24 So the plans definitely could change in that process.
- So I just wanted to let you know that.

107 I don't think that Transport Canada would request that they would have to remove all the dikes, but the details definitely would have to get approved through 3 us. 5 6 (BRIEF PAUSE) MS. STEPHANIE POOLE: And so is that Transport Canada process -- is that a review process? It's Stephanie Poole. 10 11 MS. LAURA JONES: It's an approval process that does have place for input from community and First Nations. 13 14 MS. STEPHANIE POOLE: Thank you. 15 MS. LAURA JONES: You're welcome. 16 THE FACILITATOR HUBERT: Thanks very much. Chuck Hubert, with the panel. If -- please go 17 18 ahead. 19 ELDER GEORGE MARLOWE: My name is George Marlowe from Lustel K'e. Just listening to you 21 quys, the panel over there. And for me, I -- I'm from Lutsel K'e. You know that. And I'm a hunter. You're 22 23 talking about that land, Gahcho Kue land, just like

You know, when you want to do something

next door, just like my -- my yard, that one there.

24

- 1 like that you should really respect our Lutsel K'e
- 2 people, really respect. That's our yard right there
- 3 you're talking about. I'm happy that you're going to
- 4 put mine. I'm very happy. But that, first of all,
- 5 maybe we should talk about that, how big a land -- land
- 6 per -- land use permit we need so that piece of land,
- 7 40 x 40 square miles or less, whatever, we got to work
- 8 inside that land. You cannot work in -- whole way like
- 9 that. Because when I look at that -- I flew there a
- 10 couple times there, in that river -- storage that
- 11 water, it's got to go back to Aylmer Lake and back to a
- 12 Turley Lake (phonetic), McLeod Bay, Great Slave Lake.
- In the future, maybe forty (40) years,
- 14 fifty (50) years, you got to think about that. I'll be
- 15 gone by that time, but I'm putting something for my
- 16 kids, and then some people -- young people's children,
- 17 and also your children too need a job. So thing --
- 18 things like that.
- 19 Don't be like what happened to McMurray,
- 20 that oil sand. After forty (40) years those Dene
- 21 people talk about -- it's too late I told them. You
- 22 should have talked at beginning, from the start, so it
- 23 could have been good water. It could have been flowing
- 24 -- that water still goes down Mackenzie River. It
- 25 doesn't go to us, but that mine, Gahcho Kue -- in the

- 1 future it'll go down to a Turley Lake and McLeod Bay.
- 2 So we need that land use permit right
- 3 now. How many square miles you need? So really -- I
- 4 said to Lutsel K'e again, you got to work with Lutsel
- 5 K'e really close because that -- that land -- I could
- 6 tell you exactly, it's true. Only me, I'm still alive
- 7 since 1956. But my uncle Peter trapped before me. And
- 8 him and his friend Eddie was supposed to come but he
- 9 cannot walk good, so -- but pure. But that trapping's
- 10 got -- still -- still got the trap line there.
- But in '56 I used dog team. And I --
- 12 when -- that project, 2010, that map you could show
- 13 there, it's -- you know, I used to go there with dog
- 14 team too. Me and Rick Noise (phonetic), and my uncle
- 15 Drybone, Andrew Cadillac (phonetic), Letcho (phonetic)
- 16 Chief Lockhart. I don't know how many people. We used
- 17 to go hunting there and trap there. That's the same
- 18 lake where we went that -- out there, Joe Lockhart and
- 19 Rick Noise shot caribou right -- south end of that --
- 20 that -- or that Kennady Lake. And I -- I knew right
- 21 where as soon as I land about four (4) years ago.
- So for me, when you talk about that
- 23 mine, I'm happy you talk about it. We've got to talk
- 24 about environment. We talk about caribou. Talk about
- 25 fish. We don't want to spoil nothing. We'll all work

- 1 equal, the same, good. Everybody will be happy. The
- 2 company will be happy. You guys will be -- everybody
- 3 in here will be happy if you work right.
- But I said again, you got to respect
- 5 Lutsel K'e people because that's just like our -- our
- 6 ni -- just like our yard right there. And we still --
- 7 people -- those young people, they still go. Like
- 8 Samuel there, he still goes there. But I'm old, but I
- 9 still go out -- out to me too. I'm old. Like I said,
- 10 I'm only 73 right now. Right, Bruce? Thank you. I
- 11 just wanted to share that with you a little bit. And
- 12 then later maybe I could say something again. Thank
- 13 you very much.
- 14 THE FACILITATOR HUBERT: Thank you very
- 15 much. And we look forward to your comments over the
- 16 next few days. With that, can we please have De Beers
- 17 continue with their presentation.
- 18
- 19 CONTINUED PRESENTATION BY DE BEERS CANADA:
- 20 MR. STEPHEN LINES: Thank you, Chuck.
- 21 It's Stephen Lines with De Beers. I don't know if
- 22 maybe you want to grab the lights for the -- okay.
- 23 Thank you.
- 24 So I think George's comments there were
- 25 quite timely with the next presentation that we're

- 1 going to get into on environmental monitoring and
- 2 management. It's -- it's an ongoing area of work for
- 3 De Beers. And we're quite pleased today to be able to
- 4 present an update on where we are with the development
- 5 of monitoring programs for the mine.
- Just before I start I'm going to assume
- 7 that people have both a copy of the environmental
- 8 monitoring and management framework document that I
- 9 believe Leah has already circulated, or is in the
- 10 process of circulating.
- 11 As well as, there is a concept diagram
- 12 that is being circulated as well. And I'm going to be
- 13 going through that as part of the presentation. And it
- 14 just describes some of the man -- the monitoring plans
- 15 that we're looking to develop, as well as how we would
- 16 go about incorporating adaptive management into the
- 17 project.
- So, with that, the document -- the
- 19 framework document that you're receiving, it's also a
- 20 response to some of the information requests that we've
- 21 received recently. And it follows through on some of
- 22 the statements that were made in the EIS regarding
- 23 monitoring, where we would endeavour to advance some of
- 24 those plans as we moved through the EIR process as well
- 25 as the regulatory process.

- Okay, so just to go through the agenda
- 2 for my presentation. Really, what it's going to
- 3 provide is an overview of the document that I think is
- 4 pub -- posted on the public registry as of today, that
- 5 you're getting in hard copy.
- 6 So first I just wanted to talk about the
- 7 scope of the document, so what it covers, and then the
- 8 objective of it, so why we -- why De Beers chose to put
- 9 it together at this time in the process. And then I'm
- 10 going to go over the approach to monitoring and
- 11 adaptive management for the project, and then talk a
- 12 little bit about how De Beers would like to incorporate
- 13 consideration of both local and traditional knowledge
- 14 into its environmental management and monitoring
- 15 programs.
- And then, based on some of the
- 17 discussions that we've had with both communities and
- 18 regulators to date, I'm going to provide just a little
- 19 bit more detail on where we are with monitoring plans
- 20 when it comes to wildlife, as well as some of the
- 21 monitoring that would be proposed for the aquatic
- 22 ecosystem. And there's a couple of other key
- 23 monitoring programs as well that I'll just touch on.
- So, for the scope of the framework
- 25 document, my -- I want to be quite clear in where we

- 1 are with that -- with the document and with monitoring.
- 2 So, the intent of it is to outline an approach and
- 3 where we see monitoring headed for the project.
- We acknowledge that the EIR process is -
- 5 still has a way to go and that there is a regulatory
- 6 process to come following a positive EA approval. Sc
- 7 there is a lot of work that remains to be done and a
- 8 lot of discussion that remains to take place between
- 9 regulators, communities, and De Beers. There is a
- 10 panel decision that would have to be considered as well
- 11 as a decision from the Mackenzie Valley Land and Water
- 12 Board.
- So this document that you have been
- 14 given to review, and we're hoping to get feedback on,
- 15 is really intended as a place to start the conversation
- 16 about mon -- environmental management and monitoring.
- 17 And the intent is to remain flexible as we learn more
- 18 information from regulators and communities. And, of
- 19 course, the feedback that we get from everybody would
- 20 be then considered for the development of draft
- 21 management plans and monitoring plans that we would
- 22 look to provide as part of a water licence and land use
- 23 permit application.
- So essentially what that means is that
- 25 the environmental monitoring and management framework

- 1 document outlines what we're proposing to monitor at
- 2 this point in time, based on what we've learned to
- 3 date. And it doesn't include how we would necessarily
- 4 go about monitoring it. There is -- there are some
- 5 details in the document that cover some proposed
- 6 methods, but they are at a high level. So it's --
- 7 again, it's a starting point.
- 8 The objective of the document is to
- 9 demonstrate, from De Beer's perspective, that we're
- 10 taking early steps towards the development of
- 11 environmental management and monitoring plans. So, we
- 12 want to demonstrate that we're being proactive and
- 13 responsive to what we're hearing from communities and
- 14 regulators.
- 15 It's also a good document as it
- 16 consolidates a lot of the monitoring that was proposed
- 17 in various sections of the EIS. And we heard from
- 18 Stephanie just earlier how some of the things are
- 19 spread out and difficult to find, so this consolidates
- 20 a lot of the monitoring that has been proposed.
- 21 Another objective of the document was to
- 22 identify linkages between the various environmental
- 23 monitoring plans, and where communication needs to take
- 24 place between disciplines.
- 25 And it also identifies where

- 1 coordination between some of the different monitoring
- 2 plans can occur. For example, it's better to start
- 3 thinking about coordinating SNP monitoring that would
- 4 take place under a water licence, and how we go about
- 5 developing the aquatic effects monitoring program so
- 6 that when it comes time to monitor we're not
- 7 duplicating efforts on both a field level and a
- 8 reporting level.
- 9 Another objective of the document is to
- 10 provide a mechanism whereby parties to the EIR and to
- 11 the regulatory process, so both regulators and
- 12 communities, how they can be involved in adaptive
- 13 management decisions for the project.
- 14 So out of the monitoring that's
- 15 proposed, there are quite a few annual reports that get
- 16 produced. So it describes how parties come together to
- 17 review those reports, and then how adaptive management,
- 18 if needed, takes place.
- 19 And then finally, the document does
- 20 provide additional information on specific monitoring
- 21 programs, and we'll get into those in a little bit.
- 22
- 23 (BRIEF PAUSE)
- 24
- MR. STEPHEN LINES: Okay, so just to

- 1 get into the overall monitoring and management approach
- 2 that's described, or illustrated in the diagram that
- 3 was handed out, and I believe it was available on the
- 4 web site, as well.
- 5 So let's say when you look at it, it
- 6 appears as a rather complex flow diagram of how the
- 7 different plans work together, but in reality it's just
- 8 made up of two (2) frameworks: one (1) for monitoring
- 9 and one (1) for adaptive management.
- 10 And ultimately this is a -- a usual
- 11 process, I would say, for going through monitoring and
- 12 adaptive management, where you start with your
- 13 management actions for -- for key effects that have
- 14 been identified.
- You move through a monitoring program to
- 16 monitor how effective those management actions are.
- 17 And then we report on them, review the reports, and
- 18 decide if any supplemental actions are necessary, and
- 19 then we continue doing -- doing that loop.
- 20 So in -- in more detail, this is what
- 21 the concept diagram illustrates, and I'll go through it
- 22 in a little bit more detail.

23

24 (BRIEF PAUSE)

- 1 MR. STEPHEN LINES: So on the bottom
- 2 part of the concept diagram, there is what we're
- 3 referring to as the monitoring program framework. So
- 4 that starts at the bottom with the two (2) boxes, and
- 5 those outline the major environmental management plans
- 6 that would be developed for the mine.
- 7 So these generally refer to waste
- 8 management and surface water management. So under
- 9 waste management, for example, plans would include
- 10 waste management for the -- for the landfill. It would
- 11 include incineration management, hazardous waste
- 12 management, and so on.
- Under the surface water management plan,
- 14 and an example of a plan that's already been developed,
- 15 is the downstream flow mitigation, and this -- so
- 16 there's other surface management plans that would be
- 17 developed under that.
- 18 Effluent discharge management, the plan
- 19 for addressing water in the containment ponds and
- 20 transfer to the water management pond, those would all
- 21 be covered under the surface water management plan.
- 22 Out of that flows the various monitoring
- 23 plans, so that's the second row of boxes. So those
- 24 just outline the different monitoring plans that would
- 25 be developed for the mine. And those are quite typical

- 1 of what we find at other mine sites. So that ranges
- 2 from air quality through the aquatic environment,
- 3 wildlife, groundwater and so on.
- 4 The next row of boxes is the larger sort
- 5 of environmental monitoring programs under which the
- 6 various monitoring plans fall under. So when we look
- 7 at the box on the -- on the right side, referred to as
- 8 the TEMP, that's the Terrestrial Ecosystem Monitoring
- 9 Program. And under that there are two (2) plans: the
- 10 Wildlife monitoring plan, as well as the soil and
- 11 vegetation monitoring plan. So those are the two (2)
- 12 components that make up the overall Terrestrial
- 13 Ecosystem Monitoring Program.
- 14 So, of course, the purpose of developing
- 15 the management monitoring system is to assess the
- 16 effectiveness of the management actions that are put in
- 17 place to mitigate effects, and, as well, to verify
- 18 impact predictions as best possible.
- 19 So on an annual basis the outcome of the
- 20 various monitoring plans is -- are annual reports. So
- 21 whatever monitoring takes place in a given year, De
- 22 Beers would produce annual reports to report on those
- 23 programs.
- 24 Those reports would then be reviewed by
- 25 both De Beers and a committee of advisors that would

119 provide recommendations on how effective the mitigation has been and areas for potential additional study. That mechanism and that committee we're referring to 3 was an Adaptive Management Advisory Committee which would be made up of regulators, as well as interested communities who could appoint a representative. 7 (BRIEF PAUSE) 9 10 MR. STEPHEN LINES: So the committee 11 would carry out the adaptive management response 12 framework which is illustrated in the top half of the 13 concept diagram that was distributed. And at the end 14 of each year, once the committee has done its job, they 15 would provide a summary report of what they reviewed 16 and the outcomes of that review. And that report would 17 be publically available. 18 19 (BRIEF PAUSE) 20 21 MR. STEPHEN LINES: So just to explain 22 the adaptive management response framework at a high 23 level, the committee would undertake the -- the 24 response framework, and essentially they have three (3) 25 options to consider following the review of the

- 1 reports.
- 2 The first option would be to continue --
- 3 a recommendation to continue monitoring. So if effects
- 4 are being managed and they're within the predictions
- 5 that were made, monitoring could continue.
- A second option: if effects are greater
- 7 than predicted or if there's an emerging issue that's
- 8 identified, the committee would recommend the
- 9 preparation of a monitoring response plan. So that can
- 10 entail either immediate changes to the operations at
- 11 site to mitigate that emerging issue or it could
- 12 involve the more targeted monitoring study to identify
- 13 the cause of the change.
- 14 And the third option would be to adjust
- 15 the monitoring effort where as appropriate. So, for
- 16 example, if it is felt that an effect needs a more
- 17 rigorous monitoring approach, then the effort could be
- 18 increased. Or if people feel that the effects are
- 19 managed and negligible, then the monitoring effort
- 20 could be decreased and the -- the effort focussed in
- 21 another area.
- So, as you know, De Beers -- we did some
- 23 community visits earlier this year. We went to all of
- 24 the communities and we heard a lot of feedback, both on
- 25 the project and on monitoring. And I think there was a

- 1 -- a strong interest in community participation in
- 2 monitoring.
- 3 So, De Beers has made the commitment
- 4 that we will try and un -- and include TK, traditional
- 5 knowledge, into the monitoring and management plans
- 6 that we developed. And where that's not always
- 7 possible, we would look to undertake TK specific
- 8 monitoring studies.
- 9 It's De Beers' expectation that some of
- 10 the TK studies that are currently being undertaken by
- 11 the different communities, that that would provide
- 12 input on what we could monitor during construction,
- 13 operations, and closure. And that, of course, is an
- 14 ongoing conversation, not just through this process,
- 15 but through the various development phases of the
- 16 project.
- Just to -- to add to that, if -- and if
- 18 we do have TK specific monitoring programs, it would be
- 19 also the expectation at the end of the day when those
- 20 results are available that they are share -- also
- 21 shared with the adaptive management committee so that
- 22 there's a collaboration amongst the parties involved
- 23 and it's not just De Beers presenting results. If
- 24 there are results from a TK study, those could be
- 25 shared with the committee as well; or, if there's

- 1 results from a regional program, those as well could be
- 2 shared.
- 3 Just to move on to some of the more
- 4 detailed information with respect to the actual
- 5 monitoring plans for some of the environmental
- 6 components. Our approach, when it comes to wildlife,
- 7 is to build on what has been learnt at the other mine
- 8 sites. This was something that we were asked to do as
- 9 part of the terms of reference, and we feel that it's
- 10 good practice to continue that when moving into the
- 11 monitoring.
- 12 So, essentially, what that means is that
- 13 we don't want to repeat the same studies that have been
- 14 undertaken. We would rather build on them and look at
- 15 new areas.
- 16 A core part of the monitoring that's
- 17 proposed for wildlife is a site surveillance monitoring
- 18 program. So, that involves recording observations of
- 19 wildlife, undertaking systematic and frequent checks of
- 20 the different facilities that may attract wildlife, or
- 21 where wildlife may be -- where wildlife could encounter
- 22 hazards around site. The air strip is an example of
- 23 that.
- 24 That site surveillance monitoring would
- 25 provide direct feedback into the operations at site.

- 1 So, if an issue was identified, it could be adjusted
- 2 and fixed very quickly.
- 3 In addition to the site surveillance
- 4 monitoring, De Beers is also proposing to participate
- 5 in regional wildlife monitoring programs. We've had
- 6 some good discussions in both the communities and with
- 7 ENR on undertaking a collaborative regional monitoring
- 8 program for grizzly bears, as well as participating in
- 9 the caribou management strategy.
- I think that approach responds to some
- 11 of the comments we received in the communities where
- 12 people are very interested and want to know what's
- 13 happening with populations of animals. So, they want
- 14 to know what's happening with caribou overall.
- 15 When it comes to participating in those
- 16 regional programs, understanding each party's role and
- 17 responsibility is quite important. So, additional
- 18 discussion is required in order to really implement
- 19 those programs.
- 20 And, ultimately, at the end of the day
- 21 when we design some of the wildlife monitoring
- 22 programs, we want to remain flexible and adaptive.
- 23 There are often new study methods that come out and new
- 24 issues that are identified. So, we don't want to be
- 25 locked into one (1) approach to monitoring. We want to

- 1 remain flexible so that we can make the just --
- 2 adjustments as necessary.
- 3 We've heard comments over concern for
- 4 potential hunting along the spur road, the winter
- 5 access road. The information that we presented
- 6 indicated that when we've used that spur road in the
- 7 past we haven't seen much activity, if any, in the
- 8 past. But we've heard from the communities that if it
- 9 is open, they may want to use it and it is a public
- 10 road, as you know.
- So we've come up with three (3) options
- 12 to monitor non-mine use of that road. And the options
- 13 are on the table and they include similar protocols to
- 14 what we have at Snap Lake.
- So, one (1) of them is we have
- 16 protective services that drives the road frequently and
- 17 on regular -- at regular times. And they would be
- 18 doing that same drive up and down the road for the
- 19 Gahcho Kue project. It would be quite feasible to
- 20 develop a reporting form so that if protective --
- 21 protective services saw anybody using the road for non-
- 22 mine reasons, then it would just be recorded and
- 23 included in an annual report.
- 24 Another option being considered to
- 25 monitor the road would be stationing a community

- 1 monitor at a monitoring station along the road. Snap
- 2 Lake currently has a coffee shop along its stretch of
- 3 its winter road. And it's quite possible that we could
- 4 establish a similar location along our road and have
- 5 somebody monitoring road use. Reporting and stopping
- 6 by to check in is not mandatory, it's voluntary. But
- 7 observations would be made and they could be included
- 8 in an annual report.
- 9 The third option for monitoring road
- 10 access is, again, through ENR currently mon -- has a
- 11 monitoring station along the Tibbitt-to-Contwoyto
- 12 winter road. And that's funded through the winter road
- 13 -- road joint venture. So, through that joint venture
- 14 it is possible that ENR could establish an additional
- 15 monitoring location further up towards kilometre 271.
- 16 For caribou, we would have a focus site
- 17 surveillance monitoring program to record observations
- 18 of caribou in the vicinity of the mine site. Again,
- 19 there is possibility for TK specific studies that we'd
- 20 be looking to hear input from the communities on, and
- 21 De Beers would contribute to regional and population
- 22 level monitoring.
- 23 The carnivores as well, so bears and
- 24 wolverine, the monitoring would be focussed, again, at
- 25 activity around site through systematic checks and

- 1 reporting that would be included in the annual report.
- 2 And we are looking at participating in regional
- 3 monitoring programs. So the grizzly bear program
- 4 between ENR, De Beers, Ekati and Diavik has come a long
- 5 way over the last six (6) months. So, that's something
- 6 to -- to build on.
- 7 For raptors, the closest nest from the
- 8 mine site is about 18 kilometres away. So, there isn't
- 9 a real site monitoring program in place for raptors, as
- 10 it's unlikely the mine would have any effect on raptor
- 11 species. We would do site monitoring to see if any
- 12 nests were built on mine -- mine site infrastructure
- 13 and we would have to avoid those if that were the case.
- 14 Regardless of the low potential for
- 15 impact, De Beers has included in the monitoring
- 16 framework document participating in the five (5) year
- 17 peregrine falcon regional program, so that's something
- 18 that we will continue to participate in.
- 19 And then when it comes to the birds, as
- 20 well for water birds, it would be a site-based
- 21 monitoring program for use of some of the mine facility
- 22 and infrastructure, such as containment ponds and the
- 23 water management pond.
- 24 And for the shore birds and song birds,
- 25 we'd be looking to participate in more of a regional

127 program, and that is outlined in the document, what those programs are. 3 (BRIEF PAUSE) 5 6 MR. STEPHEN LINES: So moving on to the aquatics. The intent of the aquatic ecosystem 7 monitoring is to verify the short- and long-term effects from the project, so that is both in the receiving environment, and in the downstream lakes. 10 11 We would look to evaluate the effectiveness of our mitigation and, again, to verify 13 some of the impact predictions that are made. 14 And I mentioned before, we're looking to 15 start this discussion now so that we can avoid 16 duplicating effort when it comes to monitoring; that's particularly important when we look at the aquatic 17 18 environment. 19 20 (BRIEF PAUSE) 21 22 MR. STEPHEN LINES: So when it -- the 23 AEMP refers to the aquatic effects monitoring program. 24 The document does outline what components of the inqui -- of the aquatic environment we would monitor as part

- 1 of the AEMP.
- 2 At a high level they include the
- 3 hydrology. So when we talk about dewatering portions
- 4 of Kennady Lake, and monitoring the water levels in the
- 5 downstream environment, and the flow at the stream
- 6 outlets, is an important part of the hydrological
- 7 monitoring. That would be coupled with monitoring
- 8 weather, so meteorological monitoring, and undertaking
- 9 snow surveys. That would give us a good idea of the
- 10 quantity of runoff that we would have in any given
- 11 year.
- The water quality monitoring would
- 13 consist of a set of core sampling locations, so that
- 14 would include the water management pond, and areas in
- 15 the immediate receiving environment. And then we would
- 16 also establish downstream monitoring locations, fixed
- 17 locations that would occur through Kirk Lake.
- 18 We do have monitoring baseline locations
- 19 in these project lakes right now, so it's something
- 20 that we could build on in developing an AEMP.
- 21 And just to, I guess, expand on this a
- 22 little bit further, De Beers does intend to undertake a
- 23 meeting with regulators this summer to talk about the
- 24 aquatic baseline programs that we have undertaken, and
- 25 that we are undertaking this year, with the hopes of

- 1 having a little bit more direction towards the
- 2 development of the AEMP.
- 3 Also for sediment quality, this would be
- 4 undertaken at similar locations to the water -- water
- 5 monitoring, if possible. So it includes areas within
- 6 the water management pond, and the receiving
- 7 environment.
- 8 The data collected here would be
- 9 compared to data collected at reference lakes, and De
- 10 Beers was out earlier this summer, and I believe again
- 11 in the middle -- sorry, earlier this summer, it's not
- 12 summer yet.
- 13 MS. CATHIE BOLSTAD: It feels like
- 14 summer.
- 15 MR. STEPHEN LINES: It does. It is
- 16 warm. Earlier this year, and again this summer, to
- 17 look at possible reference lakes for an AEMP program.
- 18 So that is ongoing work.
- 19 The lower trophics: So plankton,
- 20 zooplankton, and phytoplankton, those would be part of
- 21 the AEMP as well. We have received feedback from the
- 22 Yellowknives Dene, as well as Environment Canada and
- 23 DFO on the approach to including the lower trophics in
- 24 the AEMP. So right now we're -- don't have a set
- 25 approach for that, but it's the subject of ongoing

- 1 discussion, and we've had some really good input on
- 2 that.
- And finally for the AEMP, there's of
- 4 course a fish component. So that would include health
- 5 and tissue analysis for fish in the down -- in the
- 6 receiving environment, and downstream.
- 7 We did undertake fish tissue analysis
- 8 last year, so we do have a good baseline to build upon.
- 9 Population surveys for larger fish would also occur, as
- 10 well as fish migration surveys. So that would, again,
- 11 speak to monitoring fish passage downstream of area --
- 12 area 8, in particular.
- 13 So other monitoring plans just to
- 14 mention that are described in the document, we have
- 15 outlined the soil and vegetation monitoring plan that
- 16 would be part of the Terrestrial Ecosystem Program. So
- 17 we would establish permanent plots before construction
- 18 that would be monitored through construction, operation
- 19 and closure.
- There is mention or some description
- 21 about groundwater monitoring plan. So there are a
- 22 total of four (4) groundwater monitoring wells. Two
- 23 (2) of them would likely get destroyed as we mined the
- 24 pits given their current location is in the way, but
- 25 there is groundwater monitoring. There's two (2) other

- 1 wells that exist that can provide good information.
- The groundwater monitoring would also
- 3 include monitoring the quantity and quality of wa -- of
- 4 groundwater that comes into the -- into the pits so
- 5 that we have an -- a good idea of what the water
- 6 quality in the water management pond is likely to be.
- 7 We've received a lot of feedback on air
- 8 quality monitoring. So that would largely consist of
- 9 three (3) components. There would be stations set up
- 10 around the perimeter of the mine site in key locations
- 11 to monitor air quality and dust dep -- deposition in
- 12 particular.
- 13 Upon commissioning of the generators, so
- 14 what we use to generate electricity at site, they burn
- 15 diesel and they have emissions associated with them.
- 16 We would undertake an emissions test to verify that
- 17 they're meeting the requirements of what -- what we
- 18 purchased them and what we say they can meet. We would
- 19 undertake testing for that to show that they do meet
- 20 it.
- And, as well, once we commission the
- 22 incinerator, the company that we purchased the
- 23 incinerator from would, hopefully, come to site and
- 24 undertake a stack test, and if not, De Beers would
- 25 undertake an initial stack test to show that our

- 1 incinerator is capable of meeting the standards.
- 2 And then finally there is a Progressive
- 3 Reclamation Program described in the document that
- 4 outlines once we clean up an area, how it will -- how
- 5 it would be monitored to ensure that it recovers.
- 6 So there is quite a bit of information
- 7 on monitoring, and an adaptive management approach in
- 8 the document that was circulated. We did really try
- 9 and take a proactive approach to presenting, monitoring
- 10 and opening up the discussion during the EIR phase.
- 11 We did mention that again we're looking
- 12 for some input on TK and where we can include
- 13 traditional knowledge in those -- in those plans and
- 14 where other opportunities might exist.
- The proposed Adaptive Management
- 16 Advisory Committee, we think that's a very good
- 17 opportunity to include regulators and communities in
- 18 the monitoring and how we evolve with management at
- 19 site. The intent there is to share information amongst
- 20 parties.
- 21 And again, at the end of the day,
- 22 particularly when it comes to the regional monitoring
- 23 programs that are mentioned in the document, the
- 24 collaboration amongst the parties involved is -- is
- 25 very important. So it's a starting point for the

133 discussion and we hope to obtain feedback not only this week, but we understand this is a session that prepares parties as well for formulating their second round of 3 Information Requests. 5 And our engagement with the regulators and communities is ongoing. So this opens up an 7 ongoing discussion on monitoring and management for the project. And that's it. 9 10 (BRIEF PAUSE) 11 12 THE FACILITATOR HUBERT: Chuck Hubert, 13 with the panel. Thanks very much for that excellent presentation. It's about 4:30 at the moment. If we 14 15 had maybe fifteen (15) minutes of questions. And then 16 we'll -- we'll wrap it up. But I would like to give 17 parties the opportunity to -- to ask a question or two 18 (2). And if we can have the lights at the back please. 19 Thanks. 20 21 (BRIEF PAUSE) 22 23 QUESTION PERIOD: 24 MR. BRUCE HANNA: Bruce Hanna, DFO. 25 Just a couple of points, and one (1) small question, I

- 1 guess. In the Environmental Monitoring and Management
- 2 Framework, one (1) of the things that's proposed is
- 3 looking at small bodied fish that are going into the
- 4 lake as it's refilling.
- 5 And as we've discussed, we would think
- 6 that no fish should be allowed into the lake until the
- 7 water quality is actually met. And it's not just the
- 8 small forage species that would be affected that way,
- 9 it's juvenile life stages of the larger bodied fish,
- 10 but just to put that point out there.
- 11 The other one (1) as everyone knows
- 12 sufficient baseline is very important to have an
- 13 effective aquatic effects monitoring program because
- 14 that's what you're using to compare to during
- 15 construction and -- in mining operations to see if
- 16 there is an effect. And I know De Beers is aware of
- 17 that, but I'm not sure exactly how many years of
- 18 baseline are -- are proposed in total.
- 19 And the other small question was: If
- 20 there is a monitoring agency set up like all the other
- 21 diamond mines, if that happens for Gahcho Kue, do you
- 22 envision the adaptive management advisory committee,
- 23 that role being taken by them, or -- or being a
- 24 separate entity.
- That's it for now. Thanks.

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1	(BRIEF PAUSE)
2	
3	MR. STEPHEN LINES: Stephen Lines for
4	De Beers. Thank you, Bruce, for those comments.
5	Just on the last point that you
6	mentioned, the advisory committee is not intended to
7	duplicate an agency, nor is it the intent that the role
8	of the committee would be taken up by an agency.
9	The intent is that the advisory
10	committee would replace the model of having an agency.
11	
12	(BRIEF PAUSE)
13	
14	THE FACILITATOR HUBERT: Thanks very
15	much for that response. Anything further from DFO?
16	
17	(BRIEF PAUSE)
18	
19	MR. JOHN FAITHFUL: John Faithful with
20	Golder Associates. Just to provide a brief response to
21	to Bruce's comment around small fish, or small
22	forage fish and juveniles juvenile fish species that
23	that may make their way back into Kennady Lake
24	during the the refilling period.
25	I think part of the part of the

136 monitoring as -- as is envisioned, and I think it's laid out in -- in IR response DFO and EC-50 is that water quality will be tracked, and there is -- there is 3 management capabilities to -- to hold back those diversions until water quality is deemed sufficient in Kennady Lake for -- for those dikes to be breached. 7 MR. BRUCE HANNA: Yeah, Bruce Hanna, DFO. As I understood it, fish were going to -- small fish were going to be let in, and then water quality 10 monitoring would determine if there was a problem, and if at that stage there was a problem, adaptive 11 12 management would be in place, and mitigation would be 13 there. 14 Where in BHP, for instance, when the pit 15 lakes are full, they've got fish barriers -- complete 16 fish barriers in place until water quality is met. Then they could reconnect, or with Diavik they would 17 18 pump flood behind the pit walls, or behind the dikes, 19 and when water quality is met then they would breach it -- reconnect it with Lac de Gras at that time. 20 21 22 (BRIEF PAUSE) 23 24 MR. JOHN FAITHFUL: John Faithful, 25 Golder Associates. Bruce, I was hopefully suggesting

137 when I previously spoke, it was that if monitoring indicates in Kennady Lake that water quality is -- is not suitable for fish to be allowed back into -- in -well, to allow fish back into it through the reconnection of the upper watersheds, then those -those -- the dikes -- the -- the breaching of those dikes will be held off. 8 9 (BRIEF PAUSE) 10 11 MR. PETE COTT: So it's -- it's Pete Cott from Department of Fisheries. So -- so it seems 13 like from what you said that fish will not be allowed 14 back into Kennady Lake until water quality objectives 15 are met. 16 Is that right? 17 MR. JOHN FAITHFUL: John Faithful, 18 Golder Associates. That's correct, Pete. 19 MR. PETE COTT: Okay. Pete Cott, here. That -- thanks, that -- that addresses our questions. 21 22 (BRIEF PAUSE) 23 24 MS. LORETTA RANSOM: Hi. I'm Loretta 25 Ransom with the Government of the Northwest

- 1 Territories. And with -- I just wanted to make, I
- 2 guess, one (1) question, one (1) point. With respect
- 3 to the plans that you did talk about, our -- our
- 4 quality expert will be here at some point throughout
- 5 this week to ask a couple of questions.
- And we will also have our biologist
- 7 available on Friday to ask questions about the
- 8 information you've provided, and to be available to
- 9 talk about the programs that we do have and how this
- 10 might fit together.
- I do have another question, I guess,
- 12 related to what Bruce brought up with respect to the
- 13 adaptive management advisory committee. I'm sure
- 14 there'll be more discussion about this committee, but I
- 15 just wanted a bit more information on how you see this
- 16 committee functioning.
- 17 You know, there's always a lot of talk
- 18 about monitoring agencies and other technical advisory
- 19 committees and what not. And I get the general idea
- 20 behind the committee, but I just wanted to get your
- 21 picture of how long you see it functioning for.
- 22 Who do you see -- I know you mentioned
- 23 regulators and communities, but who do you see
- 24 participating on it? Do you see it having some sort of
- 25 teeth, I guess? I just wanted to get a better picture

139 so that we are able to provide input on that type of committee. Thanks. 3 (BRIEF PAUSE) 5 6 THE FACILITATOR HUBERT: Thanks. Is --7 is this -- Chuck Hubert, with the Panel. 8 Is this something De Beers can answer 9 now, or would like to think about and answer tomorrow? 10 MR. STEPHEN LINES: Thanks, Chuck. 11 It's Stephen Lines for De Beers. I -- I'd be glad to 12 provide an answer. 13 So there are just three (3) parts to 14 that. I think the -- the first part was concerning the 15 duration and how long the advisory committee would be 16 in place for. And the intent of that was that it would 17 be in place for the duration of the project, from 18 construction through operations and closure. I think 19 throughout those time periods there's good opportunity to receive input on monitoring and management. 21 Regarding who would participate in the advisory committee, we're certainly hoping that the 22 23 communities would provide a representative that would 24 sit on the advisory committee, regardless of what's being discussed. I think from a regulatory level, I'm

- 1 not sure that DFO would want to participate in wildlife
- 2 discussions, so there -- it's possible, but...
- 3 So there's -- there's an opportunity to
- 4 have maybe some smaller focus committees, whether that
- 5 -- one (1) for aquatics and one (1) for wildlife, those
- 6 are possibilities but, again, the communities would be
- 7 invited to sit on both.
- 8 And as far as the third question, with -
- 9 regarding the, I guess, the teeth for such a
- 10 committee. The committee would be responsible for
- 11 providing input and -- and advice directly to De Beers.
- 12 At the end of the day, it's De Beers' responsibility to
- 13 manage the mine site appropriately and for us to
- 14 monitor our mitigations and our effects appropriately.
- So it is an advisory role, but having
- 16 said that, regardless of a committee or an agency, the
- 17 backstop at the end of the day is always the permits
- 18 and licences that are issued to De Beers in order to
- 19 build the mine.
- 20 And that's the same for all of the
- 21 projects, and we do have to comply with those. The
- 22 Board system is a public system. It's transparent.
- 23 Our monitoring reports would not only be
- 24 filed through an advisory committee, but also through a
- 25 water licence and land use permit, they'd be available

141 to the public, and posted on the public registry. And those -- conditions of those 2 licences are enforceable, so that's -- that's where the 3 teeth comes from. 5 6 (BRIEF PAUSE) MR. MIKE TOLLIS: Mike Tollis, Lutzel K'e Dene First Nation. Just regarding that -- that committee, Stephen, you said that -- I don't know if I 10 -- if I misinterpreted, but you -- you said it could be 11 12 in place of -- of an agency, a monitoring agency. 13 I don't know if that's the right way to 14 go to replace an independent watchdog that the -- with 15 an advisory committee to De Beers made up from people 16 that De Beers selects. So I think it's more important 17 to have a monitoring agency, and maybe have community 18 members and regular -- regulators on that -- on that 19 agency instead of in an advisory role. 20 21 Just a couple other questions. In terms 22 of the regional programs, recently the diamond mines 23 have been kind of consolidating their efforts on -- on wildlife monitoring among -- among other programs. But 24 25 is the Gahcho Kue project going to be part of this

- 1 regional study, and contribute to it? I think we
- 2 recommend that they are a part of it. It's better to
- 3 have a bigger understanding of the com -- of the
- 4 cumulative impacts.
- 5 In terms of the winter road monitoring,
- 6 it was mentioned in the EIS about fragmentation of --
- 7 of habitat and travel routes of the wildlife.
- 8 Does the monitoring for the winter road
- 9 include some way of determining how the road is
- 10 impacting travel routes though the area, and if so,
- 11 could you elaborate on them?
- 12 And just another issue with -- with the
- 13 winter road. I read earlier on in -- in some of the
- 14 EIS that it was suggested that there be a winter road
- 15 from Thompson's Landing up the Gahcho Kue, and I was
- 16 just wondering if that was -- if that was a possibility
- 17 now, or in the future. Thank you.

18

19

20 (BRIEF PAUSE)

21

- 22 THE FACILITATOR HUBERT: Thanks for
- 23 that series of questions. We'll give De Beers the
- 24 opportunity to answer.

143 1 (BRIEF PAUSE) 2 3 MR. STEPHEN LINES: Thank you, Mike. It's Stephen Lines for De Beers. I'll answer the first question that was asked, and then Veronica is going to cover the other three (3). 7 To address the -- the agency, I just want to clarify that it's not De Beers that would appoint people to the advisory committee. De Beers 10 would simply extend an invitation to regulators that 11 have expertise in the area and, at the same time, they 12 would extend an invitation to communities, and the 13 communities could appoint whoever they chose to 14 participate, and that would be an open process. 15 As far as an independent -- the 16 independent nature of the committee, again, the --17 people bring their own expertise to the table. 18 forum where people can share perspectives, whether it's 19 on project specific data that De Beers collects, or whether it's on TK programs that De Beers supports, 21 communities and undertaking, or whether it's regional 22 data on wildlife that ENR may bring to the table. 23 These are just -- these are different perspectives that 24 are -- that are shared in that forum. And I think the -- the boards right now that issue the land use permits

- 1 and the licenses, they are independent. They're at
- 2 arm's length of all the people sitting in this room.
- 3 So again, those conditions are
- 4 approvals. They do come from an independent panel of
- 5 decision makers and they're conditions and they're
- 6 requests for what we monitor and how we manage the
- 7 sites. They -- those are enforced. So that's I think
- 8 where the key independent nature of the process comes
- 9 from.
- 10 So I'll ju -- I'll pass to Veronica to
- 11 respond to the other three (3).
- 12 MS. VERONICA CHISHOLM: Veronica
- 13 Chisholm, from De Beers. So your question, Mike, I
- 14 think, and correct me if I'm wrong, was on
- 15 participations in regional studies and partnership with
- 16 regional studies and what De Beers' commitment is
- 17 around that.
- De Beers, if you look in this study
- 19 report, and I know we just put this on to people today,
- 20 it actually provides a list, but we are looking at
- 21 partnerships. And one (1) that's in discussion right
- 22 now is the Grizzly Bear Monitoring Program. And our
- 23 commitment on that is we agree, in principle, to doing
- 24 collaborative monitoring with the other diamond mines.
- 25 It only makes sense.

- 1 De Beers -- Gahcho Kue is not an
- 2 approved project, as we all know, which is why we're
- 3 sitting here. We wanted to spend the year doing some
- 4 consultation on that plan and on that program before we
- 5 did any implementation on that program, but the intent
- 6 is to participate at that level on some of those
- 7 regional partnerships.
- And also, as Stephen mentioned, we're
- 9 already -- Gahcho Kue, although not approved, is
- 10 supporting a number of regional monitoring programs in
- 11 the region, specifically the wolf study that's being
- 12 undertaken by Dean Cleff in ENR. We're providing
- 13 contributions for that. We're providing contributions
- 14 to a Regional Sediment Study Program that's going on.
- 15 So we -- we think that that partnership and that
- 16 looking at cumulative effects from all the companies'
- 17 perspective is the way to go.
- I think your next question was on the
- 19 winter road and winter road monitoring and whether we
- 20 would be looking at caribou. I'm wondering if we can
- 21 defer that conversation to when all of our wildlife
- 22 experts are at the table, and that's scheduled for
- 23 Friday, if that would be acceptable.
- I'm just -- I'd like to have a bigger
- 25 context, and the wildlife team and that -- and have all

- 1 the folks, including ENR, at the table when we talk
- 2 about monitoring along the winter road, if that would
- 3 be acceptable.
- I'll let you respond to that. I'll deal
- 5 with the last question. The last question was on
- 6 Thompson Landing. That's currently not in our mine
- 7 plan or as part of our project plan for the Gahcho Kue
- 8 project. So you can counter respond, I guess, to those
- 9 questions. Thank you.
- 10 THE FACILITATOR HUBERT: Thanks very
- 11 much. Chuck Hubert, with the panel. I'd agree that it
- 12 is valuable to discuss more general wildlife and access
- 13 issues when there's more of those -- more of that
- 14 expertise is in the room. So I'd like to defer that
- 15 until that time, but...
- 16 And I believe we're at about ten to
- 17 5:00, so if you have a quick followup question, now
- 18 would be the time. And then I think we'll call it a
- 19 day. But go ahead if you have anything.

20

21 (BRIEF PAUSE)

- 23 MS. STEPHANIE POOLE: Can I say
- 24 something? I have a few questions. And I just wanted
- 25 to say something. My name is Stephenie Poole. I work

- 1 for Akaitcho IMA office.
- In regards to the discussion surrounding
- 3 the Adaptive Management Advisory Committee, there's not
- 4 enough information being provided by De Beers in that
- 5 regard. Who will sit on that committee and how does De
- 6 Beers anticipate constituting this committee? You
- 7 know, you're just kind of being wishy washy, saying,
- 8 Oh, any regulatory people or is -- someone from all the
- 9 co -- communities can sit on there, but you're not
- 10 saying exactly how many members will be on there, how
- 11 many members from De Beers, how many members from
- 12 government agencies. Will there be non-government
- 13 organizations involved?
- 14 Which communities are you speaking of
- 15 that will have representatives on this committee?
- 16 There's clearly not enough information being given on
- 17 this committee, especially when they're attempting to
- 18 replace an independent environmental watchdog with this
- 19 fully funded De Beers committee which is totally
- 20 unheard of.
- In your response, you said that the
- 22 backstop for all other diamond mines is the licensing
- 23 and permitting phase. But that is not the truth. It
- 24 is the environmental agreement which creates the
- 25 independent watch dog. And De Beers is trying to get

- 1 out from one (1) of the contractual tools used to
- 2 regulate all of the other diamond mines. And that's
- 3 not right.
- So, I mean, you're trying to cut off the
- 5 conversation on what was just presented to us. I hope
- 6 we'll have time tomorrow morning to continue further.
- 7 THE FACILITATOR HUBERT: Thanks very
- 8 much. My intent in stopping at 5:00 was just for the
- 9 sake of time, not to cut anybody off. But, we have a
- 10 minute or two (2) for De Beers to respond to that, I
- 11 hope.

12

13 (BRIEF PAUSE)

- 15 MS. VERONICA CHISHOLM: Veronica
- 16 Chisholm, from De Beers. Thank you for your comments.
- 17 I know we just put this out today. We -- it is just
- 18 coming out. It is a proposed plan. We're here, in
- 19 part -- and there's more than one (1) opportunity
- 20 throughout the week to talk about this plan.
- 21 But we're -- we're here to get
- 22 information on where -- what more detail is required,
- 23 if this could be a viable plan. You know, I hear -- we
- 24 have an opinion, and -- and we're willing to work with
- 25 that. And we're willing to provide some more detail.

- 1 Of course, there would need to be
- 2 governance around this group. A governance structure,
- 3 a decision-making structure would need to be provided
- 4 for this group. We would need to have a terms of
- 5 reference issued for this group so that the scope of
- 6 the particular advisory group could be well defined.
- 7 This is what we call our init -- initial
- 8 stages of discussion and input. And so, we're looking
- 9 for the type of input that you just provided,
- 10 Stephanie. You know, that you need more detail around
- 11 these key areas.
- 12 And so we're -- we're willing to flesh
- 13 out those -- those levels of details in the discussion.
- 14 So, I think it's -- it's something that will come up
- 15 through the -- as we talk about Kennady Lake tomorrow,
- 16 as we talk about downstream environments on Thursday,
- 17 as we talk about caribou and wildlife monitoring on
- 18 Friday.
- 19 So there's plenty of opportunity to
- 20 provide input because this is -- this is intended to be
- 21 a framework for a monitoring approach. So, thank you.
- MS. STEPHANIE POOLE: Just a couple
- 23 more things before we go, in regards to, you know, the
- 24 statements that were made and questions that were
- 25 asked. You -- you were trying to say that -- that the

- 1 boards, Mackenzie Valley Land and Water Board, the --
- 2 the water board, the review board, are independent
- 3 boards. But they aren't.
- 4 They are federal institutions. They are
- 5 not independent, and you can just -- I mean, it's
- 6 clear, plain as day, you just look at what the federal
- 7 government is doing right now through regulatory
- 8 improvement and you will see that these boards are not
- 9 independent at all.
- 10 And I want to know, because all the
- 11 other diamond mines have an independent monitoring
- 12 watch dog watching over it, will De Beers commit to a
- 13 similar watch dog agency for Gahcho Kue?
- 14 THE FACILITATOR HUBERT: Thanks very
- 15 much for those comments. Does De Beers have anything
- 16 further at this time, or -- or should we continue these
- 17 discussions once everybody has had the opportunity to
- 18 read the document and think about it a bit more and
- 19 prepare comments throughout the rest of the week? I'd
- 20 be interested in what De Beers thinks. Or...
- 21 MR. BRUCE HANNA: Yeah. Bruce Hanna
- 22 from DFO. One (1) thing I realized was lost in the
- 23 last few questions that we had was just the minimum
- 24 amount of baseline or minimum number of years of
- 25 baseline De Beers proposes prior to construction and

- 1 operations? That was it, just for a clarification.
- 2 MS. VERONICA CHISHOLM: Veronica
- 3 Chisholm, from De Beers. Bruce, I thought you were
- 4 going to provide a comment on whether the federal
- 5 government was independent or not. And -- or too
- 6 dependent, yeah, to Stephanie's comment. So, thank you
- 7 for your additional question and we'll be pleased to
- 8 answer that.
- 9 De Beers would like to take back the
- 10 feedback that we receive on this document, and -- and
- 11 we'll come up with a series of commitments around the
- 12 monitoring agency and the various things that Stephanie
- 13 has raised today.
- 14 So I think I've recorded the question
- 15 here, it's recorded on the transcript, and then we'll
- 16 follow up with that.
- 17 THE FACILITATOR HUBERT: With what kind
- 18 of a time line would follow up would that be?
- 19 MS. VERONICA CHISHOLM: I think we
- 20 would be looking toward the end of the technical
- 21 sessions to provide some comment on that.
- 22 THE FACILITATOR HUBERT: Thanks very
- 23 much. We'll consider that a task, I guess, in our
- 24 terminology. A task at the end of the -- the week.
- With that, thanks everybody for

152 participating today, for showing up. I'd like to thank 2 every -- really everybody. People are what make these events happen. 3 Tomorrow morning we will begin at 9:00. I know today we went for the half day thing, which was a nice sort of novel approach, but tomorrow it's a full 7 day. So 9:00 a.m. tomorrow; see you guys 9 then. 10 MR. JOHN FAITHFUL: Chuck, John 11 Faithful, Golder Associates. I have that -- that 12 reference for Stephanie that we committed to provide. 13 14 --- Upon adjourning at 4:58 p.m. 15 16 Certified correct, 17 18 19 20 Lorraine Douglas, Ms. 21 22 23 24 25

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