



MACKENZIE VALLEY ENVIRONMENTAL

IMPACT AND REVIEW BOARD

TECHNICAL SESSIONS

GAHCHO KUE DIAMOND PROJECT - DE BEERS CANADA

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HELD AT:

Yellowknife, NT

May 23, 2012

Day 2 of 4

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22	Stephanie Poole	)Akaitcho IMA and NWT
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7 Kim Heisler )

8 Kris Johnson )

9 Greg Brady )

10 Loretta Ransom )

11

12 Randy Freeman )Yellowknives Dene

13

14 Elmar Plate )Deninu Kue First

15 )Nation

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17 Ben Linaker )ENR

18 Sarah True )

19 Shafic Khouri )

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21 Kate Witherly )NPMO

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5 Anne Wilson )  
6 Lisa Lowman )  
7  
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1 --- Upon commencing at 9:01 a.m.

2

3 THE FACILITATOR HUBERT: Good morning,  
4 everybody. Welcome to day 2 of our technical meeting  
5 for the Gahcho Kue project. We'll get started in about  
6 two (2) minutes, just let everybody get settled down.  
7 Thanks. Talk to you then.

8

9 (BRIEF PAUSE)

10

11 THE FACILITATOR HUBERT: Welcome back  
12 to our -- our technical meeting. At the request of --  
13 if it's okay, the Dene First Nation, I thought we would  
14 start today's meeting off with a prayer. And Gar --  
15 George Marlowe, I believe, has -- has offered to do  
16 that. George, if you could step up in front of a mic,  
17 please.

18

19 (BRIEF PAUSE)

20

21 ELDER GEORGE MARLOWE: Good morning, my  
22 beautiful friends, good morning. And I will say  
23 prayers for you -- all -- all of us in here. When we  
24 do things like this, it's very important, technical  
25 things, so I'm here because I'm very close to my



1 community, and I got to protect that. So I want to say  
2 prayers and ask -- I guess you all hear that the  
3 Prairie Falls, we go there every summer, and help us a  
4 lot that people don't know, and real help us, even you,  
5 the companies, or anybody in here. Some day -- we go  
6 there every August, and you should come. I'll show you  
7 what I mean.

8                   If your kids or family is sick they'll  
9 probably help you too. It's not a do -- it's not a  
10 hospital. But I had cancer too about six (6) years  
11 ago, me. I was ready to go. But that Prairie Falls  
12 (phonetic) helped me. And I'm not going to explain  
13 everything, but I'll just let you know that, okay.

14                   And I'll say Our Father in my language,  
15 too.

16

17                   (OPENING PRAYER)

18

19                   THE FACILITATOR HUBERT: Thank you,  
20 George. Once again, my name is Chuck Hubert. I'm with  
21 the panel. With me today I have Simon Toogood. He  
22 will be assisting me in doing some facilitating this  
23 morning. So welcome everybody.

24                   I would like to start by just reminding  
25 parties and people in attendance of the value that the

1 panel places on commitments. Commitments made by the  
2 developer, De Beers, are key in the panel's findings  
3 when consideration of determination of significant  
4 adverse effects to the environment or people are made.  
5 So I just want to -- to I guess reassure parties that -  
6 - of the -- the value of commitments made and the  
7 seriousness with which they are taken and moved forward  
8 in the panel's deliberations.

9 Just to know, once again, washrooms are  
10 in the back. There's coffee. And there will be food  
11 later on this morning. I'd like to start with a bit of  
12 follow-up activities that -- from yesterday. I know  
13 very late in the day there I -- I believe I cut -- cut  
14 John Faithful off there with -- with one (1) comment.  
15 I apologize for that.

16 So if we can follow up with a couple of  
17 those tasks from yesterday I'll give the mic to -- to  
18 De Beers for that. And just to review them, De Beers  
19 was to provide a reference to a document that was  
20 brought up by Lutsel K'e Dene First Nation. Perhaps a  
21 bit of feedback on the monitoring agency proposal by --  
22 by De Beers. There was some discussion on the number  
23 of fish in Kennady Lake, and maybe a brief chat about  
24 that would be useful as well.

25 So I'll turn the mic over for -- to De

1 Beers for those, please.

2 MS. VERONICA CHISHOLM: Good morning.  
3 Veronica Chisholm, from De Beers. Thanks, everyone,  
4 for being here today. We're looking forward to the  
5 session.

6 A couple things from yesterday that I  
7 just want to make sure from a housekeeping point of  
8 view that we followed up on. Stephanie Poole had  
9 requested that we provide a copy of the Canadian water  
10 guideline for protection of aquatic life for  
11 phosphorous, Canadian guidance framework for the  
12 management of freshwater systems.

13 We provided a hard copy to her  
14 yesterday. And this morning I emailed an electronic  
15 copy to her as well as Mike Tollis and Steve Ellis, and  
16 a copy to you, Chuck, so that we can put that onto the  
17 registry so everyone can have access to it.

18 Regarding the monitoring agency, I just  
19 want to provide a clarification around what De Beers  
20 will provide by the end of the week. And that's  
21 essentially -- we'll provide a little -- a bit more  
22 clarification around the monitoring agency, as well as  
23 our engagement plan.

24 We recognize that we delivered that  
25 proposal, an alternative, only yesterday and that

1 people don't have a time -- haven't had sufficient time  
2 to read the documentations about that. So we want to  
3 give that time. And that we will outline an engagement  
4 strategy on that moving forward. So that's just a  
5 clarification around the commitment for the end of the  
6 week.

7                   Also, we'd like the opportunity to  
8 address a couple questions that came up yesterday that  
9 we didn't have time to speak to. One (1) was from DFO  
10 regarding the baseline monitoring of fish, and I'll  
11 have Gary Ash speak to that -- there you are -- Gary  
12 Ash speak to that point.

13                   MR. GARY ASH: Thank you. It's Gary  
14 Ash from Golder Associates.

15                   To address Bruce Hanna's question  
16 yesterday regarding the number of years of baseline  
17 sampling for monitoring programs, De Beers provides the  
18 following response. Extensive aquatic baseline studies  
19 were conducted for the assessment of effects in the EIS  
20 during the period of 1996 to 2011. These studies are  
21 summarized in Annex J addendum JJ, and in the 2011  
22 monitoring reports.

23                   De Beers is being proactive in  
24 continuing to collect additional baseline information  
25 last year, that was 2011, and plan to again this year

1 in 2012, in the transition to the Aquatic Effects  
2 Monitoring Program described yesterday by Stephen.

3 In 2011 De Beers conducted baseline  
4 surveys of a number of lakes that will become part of  
5 the AEMP including a reference lake. Water and  
6 sediment quality, benthic invertebrates and plankton  
7 were sampled in these lakes, and the data are used in -  
8 - will be used in the design of the AEMP. Additional  
9 reference lakes are currently being evaluated and some  
10 field sampling will be conducted this year to allow a  
11 selection of a reference lake -- lakes that are most  
12 similar to the lakes that will be effected by the  
13 project.

14 The detailed study design for the  
15 Aquatic Effects Monitoring Program will continue as  
16 part of the water licensing process, taking account  
17 input from regulators, communities, and incorporation  
18 of TK. As part of this a detailed study design will be  
19 developed.

20 It is anticipated that specific baseline  
21 data which include water sediment quality, lower  
22 trophic levels, fish and fish habitat will continue to  
23 be collected at selected sites in -- in support of the  
24 Aquatic Effects Monitoring Program. It's expected that  
25 one (1) or potentially two (2) years of focussed,

1 targeted AEMP baseline data collection to augment the  
2 existing data set will be conducted prior to the  
3 operational monitoring. Thanks.

4 MS. VERONICA CHISHOLM: Veronica  
5 Chisholm, from De Beers. And just as a follow-up we  
6 have scheduled in the agenda at 3:15 more discussion on  
7 fish and fish habitat and recovering Kennady Lake. So  
8 if there's follow-ups then presumably, Chuck, we could  
9 do that then.

10 THE FACILITATOR HUBERT: Thanks very  
11 much. I believe that's a good time.

12 Does DFO have any comment on that?

13 MR. BRUCE HANNA: Yeah, Bruce Hanna,  
14 DFO. I think that's fine.

15 MS. VERONICA CHISHOLM: Veronica  
16 Chisholm, from De Beers. The other thing that we  
17 wanted to speak to, or have the opportunity to speak to  
18 this morning, is Elmar Platen (sic) -- I apologize if I  
19 mispronounce your name -- from LGL, on behalf of the  
20 Deninu Kue First Nation.

21 He made a couple of comments regarding  
22 the fish numbers in Kennady Lake, as well as the  
23 dissolved oxygen. And I'm just hoping we could spend a  
24 couple of minutes to address those. So I'll have Gary  
25 start with the -- the fish numbers in Kennedy Lake.

1 MR. GARY ASH: Thank you. It's Gary  
2 Ash, Golder Associates. Yesterday Mr. Platen (sic) of  
3 LGL suggested that Kennady Lake contained eight hundred  
4 thousand (800,000) fish that would need to be managed  
5 as part of the fish salvage plans. We'd like to  
6 clarify that there would not be eight hundred thousand  
7 (800,000) large bodied fish that would need to be  
8 managed through the fish salvage program.

9 There have been two (2) baseline field  
10 studies conducted to estimate the fish populations in  
11 Kennady Lake. The fish population estimates are  
12 summarized in Section 8.3.8.2.3 of the EIS.

13 In 2004, a mark/recapture study was  
14 conducted, and it determined that there was a 95  
15 percent probability that the lake trout population in  
16 Kennady Lake exceeded twenty-three hundred (2,300)  
17 fish. In a follow-up study, a hydro-acoustics study  
18 was performed in 2010, to provide additional  
19 information on fish population estimates in Kennady  
20 Lake. Based on this study, the fish population in  
21 Kennady Lake was estimated to be approximately nineteen  
22 thousand (19,000) fish, for fish greater than 18  
23 centimetres, or about 7 inches in size. With this  
24 method, the lake trout population of similar size was  
25 estimated to be approximately eleven thousand (11,000)

1 fish.

2                   Although there is uncertainty with  
3 respect to the numbers of fry, juveniles, and small  
4 bodied fish in the lake, the impo -- important point to  
5 remember that, with respect to the fish salvage, is  
6 that the larger fish that would be salvaged and they'd  
7 be distributed to the communities. The exact details  
8 about how this will be done will be finalized depending  
9 on the site specific protocol developed with DFO and  
10 the communities. It is expected that the local  
11 community members will be an integral part of the field  
12 program -- field crews conducting the fish salvage.

13                   It's also important to remember that our  
14 EIS concludes that once the lake is refilled, fish will  
15 re-colonize the lake and over time will develop into  
16 self-sustaining populations that would again be  
17 available for use by the communities. Thank you.

18                   MS. VERONICA CHISHOLM: Veronica  
19 Chisholm, De Beers. I'll just have John Faithful speak  
20 to the dissolved oxygen included in the modelling.  
21 That was another request from the Deninu Kue, from  
22 Elmar Platen -- Plate.

23                   MR. JOHN FAITHFUL: Good morning. John  
24 Faithful, from Golder Associates. Thanks, Veronica.

25                   Mr. Platen (sic) discussed the dissolved



1 oxygen model that was utilized in the environmental  
2 assessment, particularly for the 2012 EIS Supplement.

3               Mr. Platen (sic) discussed the -- the  
4 fact that there was a lower bound of dissolved oxygen  
5 relative to acute and chronic guidelines, that being  
6 5.5 and 6.5 milligrams per litre of dissolved oxygen.  
7 However, he also indicated that higher concentrations,  
8 or concentrations in a supersaturated condition  
9 generally above 14 milligrams per litre can also create  
10 adverse effects to -- to fish.

11               The -- the projected volume of water  
12 containing acceptable DO concentrations that was  
13 provided in the -- in the DO model was requested by Mr.  
14 Platen (sic), too, also include an upper DO bound of --  
15 of 14 milligrams per litre.

16               He indicated that calibration of the  
17 model hadn't taken into account this supersaturated  
18 zone at the ice water interface, and asked that De  
19 Beers recalculate the volume of the lake that will  
20 provide suitable habitat -- over-wintering habitat,  
21 taking into account that supersaturated volume.

22               De Beers' response is that, at this  
23 point, we -- there is no need to recalculate the  
24 volumes of Kennady Lake in -- in closure conditions at  
25 -- in late winter, with an upper and a lower bound

1 dissolved oxygen -- oxygen to -- to gen -- to estimate  
2 over wintering habitat.

3                   As presented in Section 85.2.5.2, of  
4 Appendix 85, which is the dissolved oxygen model in the  
5 EIS supplement, the DO model was, in fact, calibrated  
6 to account for the higher DO -- dissolved oxygen levels  
7 at the ice water interface that were -- that were  
8 determined from baseline monitoring.

9                   From an -- an environmental assessment  
10 context, there is no need to remove that volume of --  
11 of water supersaturated and dissolved oxygen from the  
12 projected volumes of over-wintering habitat, because it  
13 represents a small overall proportion of the total  
14 volume. The removal of this volume does not result in  
15 a material difference to the conclusion that a  
16 sufficient volume of water will be available in Kennady  
17 Lake to sustain aquatic habitat under ice during the  
18 post-closure period in late winter. And I -- I can --  
19 I'm following with a couple of reasons for -- for that  
20 -- for that statement.

21                   The supersaturated zone has been  
22 measured in Kennady Lake and also in other local lakes  
23 in baseline conditions in late winter. There's a  
24 number of -- there's a number of reasons for that, one  
25 (1) being, which in my point, was -- was one (1) of the

1 early -- early thoughts about why we were seeing  
2 supersaturated conditions in the surface water, and  
3 that being a -- a legacy of just the -- the ice  
4 auguring through the -- through the ice to actually  
5 take the measurements and being an artifact of -- of  
6 disturbance in that water layer.

7                   In re -- recent times there's been more  
8 literature and -- and more observations of these  
9 supersaturated conditions and -- and with the -- with  
10 the rationale being down to ice exclusion of oxygen  
11 under ice, or even algal photosynthetic activity which  
12 generate ice -- oxygen lay -- supersaturated oxygen  
13 conditions at the ice water interface. Nevertheless,  
14 this condition is limited to -- to a small volume of  
15 water that sits underneath the -- the ice water  
16 interface.

17                   At closure, following the refilling of  
18 Kennady Lake, the water capacity of Kennady Lake will  
19 increase more than double.

20                   As we state in the -- in the DO  
21 modelling work, the projected volumes with waters -- of  
22 waters with concentrations greater than 5.5 or 6.5  
23 milligrams per litre of DO are approximately 47 and 45  
24 million cubic metres, respectively. Prior to  
25 development, Kennady Lake has a volume of approximately

1 35 million cubic metres.

2                   So the available habitat in terms of  
3 volume in the post-closure condition with suitable  
4 over-wintering habitat with respect to dissolved oxygen  
5 far outweighs the -- the volume of Kennady Lake under  
6 baseline conditions.

7                   Additionally, the model only projected  
8 the available volumes to a depth of 40 metres in the  
9 open pits. It's possible that additional volumes of  
10 water containing DO concentrations that are above those  
11 lower bounds may be available below this depth, further  
12 reducing the proportion of the volume of sup --  
13 supersaturated ice water surface layer in Kennady Lake.  
14 Thank you.

15                   THE FACILITATOR HUBERT: Thank you very  
16 much for that response -- comprehensive response. I'd  
17 like to ask the party who brought -- Elmar, if you  
18 would like to comment back on that, please. And state  
19 your name, because I apologize for getting it wrong.

20                   MR. ELMAR PLATE: So it's Elmar Plate,  
21 LGL Limited. Thank you for the response, number 1.  
22 And number 2, with the oxygen saturation, I did my  
23 homework last night and I agree with you that the  
24 supersaturation may probably not have the detrimental  
25 effect that I thought it would have.

1                   So I did some more reading, went to the  
2 literature, and I agree with that, so that comment is  
3 taken back from yesterday.

4                   The eight hundred thousand (800,000)  
5 fish number was based just on a simple estimate of size  
6 of the lake and an often observed thousand fish per  
7 hectare number in oligotrophic lakes, so 800 hectares  
8 by a thousand is about eight hundred thousand (800,000)  
9 fish.

10                  I've never been to that lake. Obviously  
11 it was just an estimate based on size, but what worries  
12 me a lot is that you actually don't know -- have no  
13 clue at this point, I think, if I understand your data  
14 right, how many fish there are under 18 centimetres.

15                  And so I may be just as right as you  
16 are, because we don't know how many fish there are  
17 under centimetres. And in reference to the DFO comment  
18 yesterday that baseline data is so important to collect  
19 at this point, just to have a reference to where you  
20 want to go back to after you've closed the mine, that I  
21 think it would be really helpful and necessary for  
22 future planning that we would know how many fish there  
23 are under 18 centimetres.

24                  So at this point my eight hundred  
25 thousand (800,000) fish estimate is just as good as

1 your twenty thousand (20,000) fish estimate, because we  
2 have no clue how many fish there are under 18  
3 centimetres, I think, but I may be wrong at that. But  
4 if you can clarify that that would be really good. And  
5 I would recommend probably that there may be some more  
6 studies speci -- specifically with regards to smaller  
7 fish. Because, I think, quite typically in lakes if --  
8 to char -- characterize a lake you need to know the  
9 fish over 18 centimetres, bigger age classes, and then  
10 you need to know on how many small fish those bigger  
11 age classes are based, because that's probably what you  
12 are expecting to happen in the future, a certain  
13 percent of small fish are getting eaten or die for any  
14 other kind of reason every year through -- through the  
15 age classes.

16                   So if you don't have the base in the  
17 future, probably there is only a hundred thousand fish  
18 which would be very low, but could be. Probably  
19 there's four (4) or five hundred thousand (500,000)  
20 small fish that are needed to produce those twenty  
21 thousand (20,000) big fish.

22                   So that's why I think it's still  
23 important to look into that.

24                   MR. GARY ASH: Gary Ash from Golder  
25 Associates. It's very difficult to get a population

1 estimate of the very small juvenile fish that live in  
2 the lake. We have done surveys of shoreline areas  
3 using various techniques, minnow traps, backpack  
4 electrofishing, and snorkel surveys, to look at -- so  
5 we do have information on the relative abundance of  
6 fish, I guess, in those shallow areas.

7                   It's -- like I said, it's very difficult  
8 to get estimates of very small fish. And really what I  
9 think is more important is how many big fish develop in  
10 the lake, the fish that would be available for harvest,  
11 and that those are much easier to estimate populations.  
12 So I think that's really the important thing, is to  
13 address the -- the large size fish because, like we  
14 mentioned, we expect post-development/post-closure that  
15 the fish would re-establish in the lake and develop  
16 self-sustaining populations.

17                   And the population size at that time  
18 would be something that would be -- that could be  
19 compared to the estimates ahead of time, or the fish  
20 actually collected during the -- the fish salvage  
21 program, to determine whether or not -- the extent that  
22 the fish has -- has repopulated. Thank you.

23                   MR. ELMAR PLATE: Okay. Elmar Plate,  
24 LGL Ltd. I just have one (1) more comment. I don't  
25 know whether you're even -- would be open to that, but

1 I would be very willing to working together with you to  
2 actually do that analysis on the original -- original  
3 hydroacoustic data because I do that a lot.

4 And I think -- I have no problems  
5 usually. I'm -- probably the conditions there were  
6 different, the ping (phonetic) rate may be something  
7 that wasn't like I usually set it. But if you have the  
8 regular conditions that are recommended by BioSonics, I  
9 think I could work together with you to do the analysis  
10 to actually down to 2 centimetre fish.

11 And I think it would be quite precise.  
12 It would give us a pretty good idea. The -- the data  
13 is there already. You've done the hydroacoustic study.  
14 And I think the standard also is usually you do  
15 hydroacoustic standards and studies not over one (1)  
16 year, you do them at least two (2) or three (3) years.  
17 So that would be great.

18 And then the other thing, the analysis  
19 for the small fish, I could recommend somebody or help  
20 you myself. I think it would be quite possible to know  
21 how many small fish are in the lake based on your  
22 hydroacoustic survey.

23 THE FACILITATOR HUBERT: Thanks very  
24 much. I'd -- I'd encourage both parties to talk  
25 together and discuss this -- this further between



1 yourselves and, yeah, clearly there's a need for  
2 further work on smaller fish in Kennady Lake.

3 I'd like to move onto the agenda now, if  
4 -- if De Beers is finished with tasks. Okay. So  
5 moving on. For today's agenda we'll talk a bit about  
6 water management, hydrology, and geo -- geohydrology.  
7 So I'd like to turn the mic over to Simon for that.

8

9 DISCUSSION RE. KENNADY LAKE:

10 THE FACILITATOR TOOGOOD: Good morning.  
11 As Chuck just mentioned, we're going onto water  
12 matters. I'm not sure who is here at the moment, but I  
13 was thinking of starting off with INAC, if they had any  
14 questions.

15

16 (BRIEF PAUSE)

17

18 MR. LIONEL MARCINKOSKI: Lionel, from  
19 INAC. No questions at this time.

20 THE FACILITATOR TOOGOOD: Thank you  
21 very much. Move onto Environment Canada.

22 MS. ANNE WILSON: It's Anne Wilson with  
23 Environment Canada. I think some of our IRs did cover  
24 various questions in association with water management.  
25 And I think it would be valuable to have discussions.

1 But just put on the spot, what are my questions, I'm  
2 going to have to think about that and bring some  
3 forward, so. There was no presentation associated with  
4 this section, I'm taking it? No. Okay. So I'm going  
5 to just maybe come back to further questions which we  
6 can raise later on.

7 THE FACILITATOR TOOGOOD: Thank you for  
8 that. So I'll move onto Environment Canada. Do you  
9 have -- I'm just wondering if you have a specific time  
10 frame, later on being today or...?

11 MS. ANNE WILSON: Anne Wilson,  
12 Environment Canada. Just during the ensuing  
13 discussions this morning. Okay.

14 THE FACILITATOR TOOGOOD: Thank you  
15 very much. Is there any other questions from DFO?

16 MR. BRUCE HANNA: Bruce Hanna, DFO.  
17 Nothing right now. I think we'll just -- we'll have to  
18 wait as well.

19 THE FACILITATOR TOOGOOD: Thank you  
20 very much. Are there any other questions? George...?

21 ELDER GEORGE MARLOWE: Good morning.  
22 My name is George Marlowe, Elder. I heard these guys  
23 talk about fish in Kennady Lake. I never fished in  
24 Kennady Lake, but in '56 or '57, I can't remember, when  
25 I -- I used to travel with my uncle, Noel Drybone, we

1 set -- we -- I look at the map of there. We call it --  
2 one (1) -- one (1) lake we called Cook Lake and  
3 Walmsley Lake, and another one again, we got no name,  
4 but I'll have to look at the map, N16.

5                   You don't set net drain (phonetic) in  
6 the wintertime. The ice too thick. But you got to go  
7 early in the wi -- November. That's where you go  
8 fishing. And those three (3) place my Uncle Noel set  
9 net and I caught a good whitefish, big, big whitefish.

10                   I never seen that kind of whitefish  
11 around Great Slave Lake or anywhere. And it was a good  
12 whitefish, nice and fat, good for -- you know, good for  
13 eating. It's good, very good. You filet the, it's  
14 white, I'll tell you the truth. And when you talk  
15 about the fish -- you said real small fish in Kennady  
16 Lake. I know that it's -- Kennady Lake is very shallow  
17 and that the fish don't live in shallow water during  
18 the wintertime.

19                   But I was thinking about when I look at  
20 the map there's about what, five (5) or six (6) dike,  
21 and drain the summertime. The fish got to run through  
22 the creeks, through the Kennady Lake to another creeks  
23 or something for spawning, but I -- I don't know really  
24 exactly. In fact, fish or -- they're supposed to move.  
25 The fish supposed -- supposed to move back and forth in

1 that creek to that -- that other big lake, also to  
2 Kennady Lake and the creeks maybe, something.

3                   So that's something I was thinking about  
4 because when you talk about small fish it's around the  
5 areas, really big whitefish there. I know fish travel  
6 a long ways because about less than fifteen (15) or  
7 around there, when I used to guide for a frontier  
8 fishing lodge in Wool Bay, seven (7) something, 7 1/2  
9 or less than 7 1/2 pound of trout been tagged on the  
10 fin.

11                   Nine (9) days later that the tourist  
12 caught in Lutsel K'e, nine (9) days. That's a long  
13 ways. So that means that fish travel a long ways, you  
14 know. In the nine (9) days they caught it over there -  
15 - one of the tourists caught it there. So that means  
16 when you look at that Kennady Lakes, there's how many  
17 dikes there? There's six (6) or five (5) dikes and the  
18 creeks all running to the place and run out -- in --  
19 out at that.

20                   So the fish will be travelling someplace  
21 there for spawning or whatever. But when you put a  
22 dike you block the fish, now what's going to happen?  
23 Maybe DFO or some -- maybe they know those answers or  
24 Environment Canada, maybe they know the answers. I  
25 don't know. I just want to say that. Thank you.

1 THE FACILITATOR TOOGOOD: Thank you  
2 very much, George. Are there any other questions from  
3 anyone else? Oh, sorry. Wish to respond to that?

4 MS. VERONICA CHISHOLM: Veronica  
5 Chisholm, from De Beers. Yes, I'm going to have --  
6 Gary Ash, if you can move up to the front. I think we  
7 can provide a bit of a response to you, George. Thank  
8 you very much for the question.

9  
10 (BRIEF PAUSE)

11  
12 MR. GARY ASH: It's Gary Ash, from  
13 Golder Associates. Thank you -- thank you for your  
14 comments and observations. It sounds like the lake  
15 whitefish you caught in one (1) of the other lakes  
16 there, that great big one, was a jumbo whitefish. For  
17 Kennady Lake, we don't have that species of lake  
18 whitefish in the lake. We have round whitefish, which  
19 are -- are much smaller and more cylindrical in -- in  
20 body form than those jumbo whitefish.

21 With response -- or with respect to your  
22 question or comment about dikes. During the  
23 construction of the project the dikes will be  
24 constructed to divert the water that would come into  
25 Kennady Lake naturally into other watersheds, so that

1 it would allow for the lake to be drained in order to  
2 produce the mine. That way it's a controlled area  
3 where -- where -- only limited amounts of water.

4               So, during that period, the fish will be  
5 removed from Kennady Lake as part of the salvage. And  
6 so there won't be any spawning in those creeks. The --  
7 when the dikes are put in those systems will be  
8 diverted to another watershed so the fish can move up  
9 from that watershed to spawn in -- in those creeks.  
10 But during the operations, and construction and  
11 operation of the mine, and in the early part of  
12 closure, there -- the fish won't be able to use those  
13 systems. The fish will be removed from the lake for  
14 that.

15               Kennady Lake is a -- a headwater lake.  
16 So, there aren't a lot of movements long distances  
17 within that system. Fish may move downstream from  
18 Kennady Lake long distances down there, but because  
19 it's a headwater lake it's not like it's part of a  
20 system where there's large sections of streams upstream  
21 of the lake. It's a very small watershed, headwater  
22 watershed.

23               For further information on the effects  
24 of those diversions, the dikes and the diversions in  
25 the EIS, I refer you to Section 8.10.1.3, and in the

1 EIS supplement Section 8.2.7.1.3. So in there we -- we  
2 address the effects of those diversions. I hope that  
3 clarifies. Thank you.

4 THE FACILITATOR TOOGOOD: Thank you  
5 very much for that response. Were there any other  
6 questions from anyone else in the room?

7 MS. LAURA JONES: Hi, it's Laura Jones  
8 here, from Transport Canada. And I'm not sure if  
9 you'll get into this all today with the hydrology or  
10 more with your socio-economic effects discussion  
11 tomorrow. But Transport Canada is concerned about the  
12 cumulative effects of the water management to  
13 navigation and the impacts to navigation. So we're  
14 hoping that you will consider the impacts to  
15 navigation, taking into account influences such as  
16 overall water withdrawals, water diversion, placement  
17 of dikes, and the placement of intakes.

18 And something, I guess, that's less  
19 related to the water management, but to consider in  
20 that cumulative effects assessment, would be on any  
21 increased access to the area that would increase  
22 navigation in the area.

23 THE FACILITATOR TOOGOOD: Thank you  
24 very much. De Beers, do you wish to comment on that?

25

1 (BRIEF PAUSE)

2

3 MR. NATHAN SCHMIDT: Nathan Schmidt,  
4 Golder Associates. I'm going to respond to part of  
5 your question, which is to do with the -- the dikes.  
6 And we've had some lead-up discussions about evaluating  
7 those water bodies under the Minor Works and Waters  
8 Order to see, you know, whether they qualify as minor  
9 work -- minor waters, sorry, and to -- to submit  
10 approvals as required if they don't, that sort of  
11 thing. So that is something that -- that De Beers has  
12 planned and those -- that work will be done.

13 With regards to the remainder of the  
14 question I'm going to pass that along to Veronica.

15 MS. VERONICA CHISHOLM: Veronica  
16 Chisholm from De Beers. Thanks, Laura. I'm just --  
17 I'm wondering if you can help me understand your  
18 specific questions. I know there was a few comments  
19 there, so I'm just wondering if you can help, you know,  
20 put those into a question so that we're able to respond  
21 to that. Thanks.

22 MS. LAURA JONES: Sure. It's Laura  
23 from Transport Canada. So I can read you verbatim the  
24 question and hopefully that will make it more clear.

25 So Transport Canada requests that De



1 Beers consider impacts to navigation and provide a  
2 cumulative environmental effects assessment of the  
3 impacts to navigation which takes into account  
4 influences such as overall water withdrawals, water  
5 diversion, placement of dikes, and placement of  
6 intakes.

7                   And that's not necessarily a question  
8 that you can just answer off the cuff at all. It's  
9 just something that we will be considering and that we  
10 hope that you will evaluate as well and communicate  
11 your responses to us as they come.

12

13                   (BRIEF PAUSE)

14

15                   MS. VERONICA CHISHOLM: Veronica  
16 Chisholm from De Beers. Thank you for that. I  
17 appreciate the clarity around the question.

18                   I think a couple of points, we've done a  
19 lot of the hydrology assessment and the cumulative  
20 effects assessment for hydrology. I think it's a  
21 matter of placing it within the context of navigable  
22 waterways, and so De Beers is committed to do that. It  
23 would take us longer than an undertaking to complete  
24 that work, but De Beers is committed to providing that  
25 by the second round of IRs, as part of the second --

1 submissions' responses for the second round of IRs.

2 THE FACILITATOR TOOGOOD: Thank you  
3 very much. Do you wish to comment, Laura, on that?

4 MS. LAURA JONES: Just -- it's Laura  
5 from Transport. Just that we really appreciate that.  
6 And also thank you, Nathan, for clarifying that you  
7 will evaluate those additional dikes against the minor  
8 waters criteria.

9 THE FACILITATOR TOOGOOD: Thank you  
10 very much. Are there any --

11

12 (BRIEF PAUSE)

13

14 THE FACILITATOR TOOGOOD: Thank you  
15 very much. Just to let everyone know, as to  
16 housekeeping, when you're speaking to the mic you can  
17 stay about a foot back. It makes it easier for the  
18 sound system.

19 MS. LAURA JONES: Okay.

20 THE FACILITATOR TOOGOOD: Just to --  
21 we're going to have a question here from Alan Ehrlich  
22 for Transport Canada.

23 THE FACILITATOR EHRLICH: Hi. It's  
24 Laura, right? Laura, a question just trying to  
25 understand the -- the context of the -- of the comment

1 you just offered us. Does Transport Canada know of  
2 anyone using Kennedy Lake for navigational purposes? I  
3 mean, I -- I'm trying to understand what you mean. Do  
4 you mean -- are we talking about float planes taking  
5 off? Or are there other uses of Kennedy Lake for  
6 navigational purpos -- purposes that Transport Canada  
7 is aware of?

8 MS. LAURA JONES: Hi. Oh, is this good  
9 -- a good distance? It's Laura from Transport. I'm  
10 not totally sure on that. I'm not a navigable waters  
11 protection officer myself. But based on the  
12 discussions around fishing I'd assume that people use  
13 the area and the lake for navigating.

14 And since there is a quite complex water  
15 diversion process and flow -- flow alteration process  
16 going on associated with the -- with the project, I  
17 assume that there could be significant impacts to  
18 waterways, Kennedy Lake itself and waterways in the  
19 area, both upstream and downstream of the site. So  
20 that's why we'd ask.

21 And something definitely that we want to  
22 know is what the current navigational working on  
23 finding out.

24 THE FACILITATOR EHRLICH: Thanks. It's  
25 Alan again. I -- I appreciate that. So you clarified

1 that this is coming more from the basis of -- of  
2 exercising due diligence then out of a particular  
3 concern of -- of a specific thing that Transport Canada  
4 is worried about. I mean, it's a useful comment that  
5 you've made, and -- and thank you for the  
6 clarification.

7 MS. VERONICA CHISHOLM: Veronica  
8 Chisholm from De Beers. We just want to provide one  
9 (1) clarification around your last statement, Laura.  
10 So I'm going to have Nathan Schmidt speak to that.

11 MR. NATHAN SCHMIDT: We -- we just want  
12 to clarify that from an environmental perspective we've  
13 concluded no significant effects on -- on the  
14 downstream environment. The details of -- of a  
15 Transport Canada evaluation, you know, would need to be  
16 worked out. And we're certainly committing to that.

17 MS. LAURA JONES: Thank you.

18 THE FACILITATOR TOOGOOD: Thank you  
19 very much. If there's no other questions from anyone  
20 else?

21 MR. BRUCE HANNA: Yep, Bruce Hanna,  
22 DFO. I'm just wondering in the alternatives assessment  
23 whether it's being assessed if a treatment plant allows  
24 you to use treated water to maintain downstream flow  
25 reducing impacts on source lakes like N11.

1 THE FACILITATOR TOOGOOD: Thank you  
2 Bruce at DFO. De Beers?

3

4 (BRIEF PAUSE)

5

6 MR. WAYNE CORSO: Yeah, Wayne Corso,  
7 JDS. I -- you know, just to clarify what -- what we  
8 have done with the assessment of a treatment plant is,  
9 in our alternatives analysis, we've looked at -- at the  
10 use of a treatment plant and, you know, honestly it --  
11 the real value of a treatment plant would be if it  
12 could -- if it could effectively take the place of an  
13 in-lake storage.

14 So throughout the -- throughout the  
15 process of -- of the alternatives analysis we found  
16 that really it couldn't -- the value of the -- of the  
17 treatment plant is -- is as a contingency, that no  
18 matter what we did with different scenarios for -- for  
19 water treatment the requirement for --for storage to  
20 deal with upset conditions or feed -- consistent feed  
21 to a TDS plant we still required the -- the storage.

22 So throughout the process of -- of  
23 assessing the water treatment, we ended up saying that  
24 the -- it -- it's a fabulous contingency measure but as  
25 far as a primary source or a primary method of -- of

1 water management it wasn't -- wasn't the one.

2 THE FACILITATOR TOOGOOD: Thank you, De  
3 Beers. DFO, you wish to respond?

4 MR. BRUCE HANNA: Yeah, Bruce Hanna,  
5 DFO. I think one (1) of the questions to -- to address  
6 is whether the size of the water management pond could  
7 be reduced with a treatment plant. And I know with --  
8 with Diavik, for instance, they've diked off North  
9 Inlet, they have a water management pond there  
10 basically, but it goes to the treatment plant and then  
11 it's -- the treated effluent is discharged to Lac de  
12 Gras.

13 MR. WAYNE CORSO: Yeah, Wayne Corso,  
14 JDS. The way -- the way we did the assessment -- I  
15 mean, I know that the alternatives analysis is not out  
16 yet but I just wanted to go over the -- sort of the  
17 logic of it.

18 And -- and basically what we did was we  
19 -- we looked at starting with the least amount of -- of  
20 lake disturbance that we could and then we -- we grew  
21 it -- or I -- I guess the least amount of -- of lake  
22 disturbance that we could -- that we could use in order  
23 to -- to minimize the footprint. And then we basically  
24 grew the amount of -- of lake that was required until  
25 we could get a -- you know, a technically viable

1 project. And we -- we did have to build a storage  
2 facility to not only handle fine PK but also pit water  
3 that was high TDS.

4                   So -- so the storage facility ended up  
5 having to be built no matter what. The storage  
6 facility was large, too.

7                   Without -- if -- if we looked at the  
8 project without treatment, TDS treatment, and it ended  
9 up -- ended up being almost 5 kilometres of dike, 35  
10 metres high. So, when we added the -- the treatment  
11 system to that, it helped us reduce what we needed for  
12 -- for a storage facility. It was fantastic, but it  
13 still ended up being, was it 23 metres high and -- and  
14 3 kilometres of -- of dike.

15                   So, the storage facility was -- was very  
16 large. So, were -- were we able to -- to run the  
17 project with the storage facility? Possibly, yeah.  
18 But -- but there -- there were huge risks to have that  
19 water retaining structure last in perpetuity and -- and  
20 the risk -- the risk just couldn't be handled with the  
21 TDS plant.

22                   And -- and I -- I also got a -- a note  
23 here that I -- we don't -- I don't think Diavik does  
24 treat the TDS, but TSS (phonetic) only. And TDS is the  
25 key. TDS treatment is the key.

1 THE FACILITATOR TOOGOOD: Thank you  
2 very much. De Beers, do you have any -- DFO, do you  
3 have any...

4 MR. BRUCE HANNA: Thank you, nothing --  
5 nothing more at this time. I think we'll -- we'll wait  
6 until the alternatives assessment is out and then  
7 review it at that time.

8 THE FACILITATOR TOOGOOD: Thank you  
9 very much. A quick question for De Beers. Do you have  
10 any time frame for the alternatives analysis?

11 MS. VERONICA CHISHOLM: Veronica  
12 Chisholm, from De Beers. Yes, we're finalizing that.  
13 We'd be looking for, I think, a delivery by mid-June,  
14 or earlier. Thanks.

15 THE FACILITATOR TOOGOOD: Thank you  
16 very much. I believe there was a question from  
17 Stephanie?

18

19 (BRIEF PAUSE)

20

21 MS. STEPHANIE POOLE: Good morning.  
22 Stephanie Poole from the Akaitcho IMA Implementation  
23 Office. I'm kind of confused about where we are in the  
24 agenda for today. I -- was the -- De Beers was talking  
25 earlier this morning, was that just housekeeping items



1 from yesterday, or -- or was that their presentation on  
2 Kennady Lake water management, hydrology, and geo-  
3 hydrology? Was that just a verbal presentation?

4 THE FACILITATOR TOOGOOD: Thank you for  
5 that question. No, there was a couple of housekeeping  
6 matters from yest -- about -- pending questions from  
7 yesterday that De Beers answered this morning. And I  
8 don't believe there was a presentation associated with  
9 the Kennady Lake water management hydrology and geo-  
10 hydrology, so.

11 MS. STEPHANIE POOLE: So, when you  
12 were, Simon, asked -- going around the table asking  
13 people for questions, that was just questions to  
14 housekeeping items from yesterday?

15 THE FACILITATOR TOOGOOD: That was with  
16 respect to questions on the topic of the Kennady Lake  
17 water management.

18 MS. STEPHANIE POOLE: So, we moved on  
19 from housekeeping item it's -- to water management, but  
20 there's no presentation from De Beers? So we're just  
21 supposed to remember everything in the EIS and come up  
22 with our own questions regarding these topics? Is that  
23 what's going on? Is this how the rest of the technical  
24 session will go?

25 THE FACILITATOR TOOGOOD: Potentially,

1 I mean, if there are questions that you have from -- if  
2 you read -- if you've reviewed the material and you  
3 have any questions, you know, it's a good time to ask  
4 De Beers. I'm -- I'm not sure if, De Beers, if you had  
5 any other presentations, or any other...?

6 MS. VERONICA CHISHOLM: Veronica  
7 Chisholm, from De Beers. Thanks very much. We asked  
8 MVEIRB when we were preparing for these sessions what -  
9 - what presentations would be required and only two (2)  
10 were specified, and those were the ones we provided  
11 this morning.

12 I'd like to remind -- yesterday morning.  
13 I also would like to remind people that we did present  
14 each of the disciplines, was part of the EIS analysis  
15 sessions back in the end of November, beginning of  
16 December. However, for these sessions we weren't  
17 specifically requested to provide presentations, so we  
18 didn't prepare any.

19 THE FACILITATOR TOOGOOD: Thank you, De  
20 Beers.

21 MS. STEPHANIE POOLE: Stephanie Poole,  
22 Akaitcho IMA. Thank you for that clarification. So I  
23 just have a couple -- well, I have one (1) -- one (1)  
24 comment about that and one (1) question that -- that I  
25 didn't get to ask yesterday. So I'll just go through

1 those.

2 I just want to know from the Board staff  
3 if it's fair for De Beers to introduce a new and  
4 substantive proposal in the technical sessions. The  
5 adaptive mana -- management advisory committee idea was  
6 first proposed yesterday. And De Beers says they will  
7 provide some more details around this later during this  
8 session. But isn't this a bit of highjacking of the  
9 technical sessions? It's my understanding that the  
10 technical sessions are to question the details of the  
11 environmental impact statement and to follow up on the  
12 Information Requests.

13 Also, the adaptive management advisory  
14 committee proposal is not something to really be dealt  
15 with by the Review Board. It is something that needs  
16 to be dealt with by the aboriginal parties and the  
17 regulators, the federal government and the GNWT,  
18 directly with De Beers.

19 What they are proposing, getting rid of  
20 an environmental agreement, which is an extra  
21 regulatory instrument used in the other mines to re --  
22 to create the independent monitoring agencies. The  
23 boards have nothing to do with the other environmental  
24 agreements and De Beers should not be allowed to use  
25 the review board process to introduce the adaptive

1 management advisory committee idea when it is something  
2 that should be proposed to the parties separately.

3                   You know, when we're speaking about  
4 process we would suggest that De Beers provide a  
5 written proposal detailing the adaptive management  
6 advisory committee structure, the function, and the  
7 process for establishment to the aboriginal parties and  
8 governments. De Beers should then convene a meeting of  
9 these groups to outline their proposed replacement for  
10 an independent monitoring agency. And then further  
11 process can be discussed at that time. And that's my  
12 comment on the adaptive management advisory committee  
13 being introduced at this technical session.

14                   In regards to your statement about not  
15 having any more presentations for the rest of this  
16 technical session and, you know, would -- would the --  
17 I wonder if the other Intervenors would -- would like  
18 De Beers to have presentations for these topics  
19 provided. I wonder if we could talk about that.

20                   And then, from yesterday -- yesterday in  
21 my notes. Yesterday, during your final presentation,  
22 you made some comments regarding traditional knowledge  
23 and the incorporation of traditional knowledge into  
24 monitoring programs. And I just wanted to make the  
25 comment that all the existing diamond mines have used

1 similar language regarding traditional knowledge  
2 incorporation into monitoring programs, but none of  
3 them is doing it well or at all.

4                   The language De Beers is using is not  
5 good enough and cannot be accepted by the Akaitcho  
6 First Nations. De Beers must provide guarantees and  
7 commitments for exactly in what monitoring programs  
8 they will use traditional knowledge, how they will  
9 contemplate to specifically use traditional knowledge  
10 within those programs, how they will work with the  
11 First Nations, and how they will secure traditional  
12 knowledge in a respectful manner. This information  
13 must be upfront and a part of this environmental impact  
14 review and perhaps should be an undertaking.

15                   And those are all my initial comments  
16 and questions for this morning. Thank you.

17                   THE FACILITATOR TOOGOOD: Thank you,  
18 Stephanie. I believe we're just going to have one (1)  
19 response from Chuck for your first question.

20                   THE FACILITATOR HUBERT: Yeah, thanks  
21 very much, Stephanie. Re -- regarding the  
22 environmental monitoring proposal that De Beers  
23 presented to us, you're quite correct that it -- it was  
24 placed on us late yesterday morning and -- and it's --  
25 it -- while those types of things do occur, we

1 understand from De Beers that they will be giving us a  
2 little bit more detail later in the week on -- on the  
3 structure of -- of how this environmental monitoring  
4 pro -- model will work.

5                   And per -- we have additional time over  
6 the next few months perhaps through the -- the use of  
7 Information Requests for parties such as yourself to  
8 request exactly how this -- the details of this agency  
9 will work. And that could provide valuable information  
10 as well.

11                   Regarding presentations, the -- the  
12 panel prepared the agenda and actually asked parties on  
13 how they felt the format of this event could -- should  
14 work. One (1) of the tasks that we requested of  
15 parties was whether they wanted it transcribed or not.  
16 And the answer was pretty much universally that, yes,  
17 the parties wanted it transcribed.

18                   We also had a response on -- on how the  
19 -- the event should work. And on behalf of the federal  
20 departments, NPMO actually suggested that because  
21 presentations had been prepared back in the EIS  
22 analysis session late November, early December, that it  
23 was -- would be more useful to not have presentations  
24 at this particular event.

25                   So with that in mind, the panel prepared

1 its agenda accordingly. Now, you -- I'd be interested  
2 if you request specific presentations if perhaps De  
3 Beers could be amenable to preparing something of that  
4 nature. However, at the moment we did not direct De  
5 Beers to do that. Sure, you want to respond?

6 MS. STEPHANIE POOLE: Well, it sounds  
7 like De Beers already has these presentations. They're  
8 saying that they were provided in some sessions that  
9 they had offered last year, so why not just bring them  
10 forward here? They're already created. It doesn't  
11 sound like it would be that difficult.

12 THE FACILITATOR HUBERT: I guess I'll  
13 ask De Beers that. Would De Beers be amenable to a  
14 brief presentation on -- on some of these topics to  
15 start the conversation to assist some parties in -- in  
16 formulating questions?

17

18 (BRIEF PAUSE)

19

20 MS. VERONICA CHISHOLM: Veronica  
21 Chisholm from De Beers. In preparing for these  
22 technical sessions, we -- we provided information -- we  
23 -- we provided the ES, EIS, we provided the supplement,  
24 we -- we responded to Irs. And I guess it's my  
25 understanding that these technical sessions are then to

1 focus on the key issues that came out of all of that  
2 documentation we've provided.

3                   We have presented in all of the  
4 communities information from the EIS. We have  
5 presented -- De Beers had an overview session in  
6 October where we pre -- presented information on the  
7 project. We went through at the gap analysis sessions  
8 and we presented on the project.

9                   It was my understanding in talking with  
10 MVEIRB that the purpose now for the technical sessions  
11 was then to have the opportunity so that everyone had a  
12 chance to ask questions and that the majority of the  
13 time was not spent on presenting information that we  
14 had presented previously, but rather to allow the  
15 regulators, communities, all the folks, the chance to  
16 ask their questions given all of the information that  
17 we had placed on the record to date. Thank you.

18                   THE FACILITATOR HUBERT: Thanks very  
19 much for that response. Chuck Hubert, with the panel.  
20 Indeed, that was the panel's understanding, as well, of  
21 the purpose of the meeting and -- however, I thought  
22 I'd give a chance for Lutsel K'e to comment on what  
23 they would prefer, perhaps, for the -- for this  
24 meeting.

25                   Stephanie, do you -- are -- are you



1 willing to proceed with this understanding that we're -  
2 - we're trying to focus on key issues and seek  
3 clarification on IR responses that have already been  
4 provided and -- and prepare questions accordingly?

5 MS. STEPHANIE POOLE: You just asked  
6 for Lutsel K'e's comment and -- and so do you want to  
7 hear from Lutsel K'e Dene First Nation on what they  
8 would prefer?

9 THE FACILITATOR HUBERT: Chuck Hubert,  
10 with the panel. Certainly, we'd like to hear what  
11 Lutsel K'e would prefer.

12

13 (BRIEF PAUSE)

14

15 THE FACILITATOR HUBERT: Chuck Hubert,  
16 with the panel. In the meantime, it's about five (5)  
17 after 10:00. This is not a bad time to take a coffee  
18 break. So we'll reconvene in about ten (10) minutes.  
19 Thanks.

20

21 --- Upon recessing at 10:05 a.m.

22 --- Upon resuming at 10:26 a.m.

23

24 THE FACILITATOR HUBERT: Welcome back,  
25 everybody. Chuck Hubert with the panel. We've had

1 some discussions during break -- the break, and I hope  
2 everybody has as well. What we plan on doing is  
3 following up with a few questions that we know are, or  
4 we think are, online, and a few questions from the  
5 floor.

6                   And then, after discussions between De  
7 Beers and Lutsel K'e Dene First Nation, there's been a  
8 suggestion to have some break-out groups towards the  
9 end of this morning in order to -- to focus parties and  
10 to perhaps generate some questions and -- and to think  
11 about -- a bit about how we can best utilize the  
12 expertise that is sitting in this room, all over this  
13 room.

14                   In lieu of presentations, which we will  
15 not have, we thought that that might -- might be a  
16 useful way to prompt parties to think about key  
17 questions and -- and to seek clarification as follow-up  
18 to the IR responses that were prepared earlier.

19                   So that is how we plan to proceed. And,  
20 I hope everybody is -- is happy with that. The -- the  
21 one (1) challenge, of course, is that the break-out  
22 groups will not be transcribed. However, once parties  
23 come back after lunch, we will be able to maybe make  
24 better use of questions and answers for the  
25 transcription record once we come back after lunch.

1                   So, we -- the break-out groups will  
2 include one (1) on monitoring for the Gahcho Kue  
3 project. A second group will include fish, water  
4 quality, and hydrology. A third group will include  
5 engineering, geochemistry, and hydrogeology. That is  
6 our -- our plan currently. And with that I'll turn it  
7 over to Simon.

8                   THE FACILITATOR TOOGOOD: Thank you.  
9 Okay, while we -- maybe we'll just start things off  
10 with a question from Stephanie.

11                  MS. STEPHANIE POOLE: I just have an  
12 outstanding question regarding the traditional  
13 knowledge and how it will be incorporated into the  
14 monitoring programs. I don't think anyone addressed it  
15 or answered it, while I had requested that it perhaps  
16 should be an undertaking to provide that information to  
17 us.

18                  THE FACILITATOR TOOGOOD: Thank you,  
19 Stephanie. We're going to have those break-out  
20 sessions and that could be an excellent opportunity to  
21 discuss that with De Beers, and then depending on how,  
22 you know, on -- kind of about what -- what discussion  
23 you have, we could bring that back onto the record  
24 after lunch.

25                         Does that work for you?

1 MS. STEPHANIE POOLE: Well, the -- the  
2 que -- what I'm requesting is pretty straightforward.  
3 I just need to know if De Beers will be providing us  
4 with that information, and when.

5 THE FACILITATOR TOOGOOD: De Beers, do  
6 you wish to respond?

7 MS. VERONICA CHISHOLM: Veronica  
8 Chisholm, from De Beers. Yes, thanks for that com --  
9 question, Stephanie. I think Cathie Bolstad is  
10 prepared to speak to that right now.

11 MS. CATHIE BOLSTAD: Good morning,  
12 Stephanie, it's Cathie Bolstad, from De Beers. With  
13 respect to traditional knowledge for the proposed  
14 Gahcho Kue Project, what I heard, Stephanie, from you  
15 this morning was a concern that it's not being used in  
16 diamond mines and that De Beers needs to articulate.  
17 And in particular you were referencing the -- the  
18 monitoring framework of how we are going to incorporate  
19 traditional knowledge into that.

20 And to address that concern I want to  
21 say first of all that De Beers does take traditional  
22 knowledge seriously. We've incorporated it into the  
23 Environmental Impact Statement throughout it, and  
24 responded in the IRs with respect to traditional  
25 knowledge, how De Beers wants to incorporate additional

1 knowledge.

2                   We initiated a study with the Lutsel K'e  
3 Dene First Nation in 2006 to provide an opportunity for  
4 the Lutsel K'e Dene First Nation to provide to De Beers  
5 recommendations for us for the project, how traditional  
6 knowledge can be incorporated, what recommendations  
7 Lutsel K'e has for us. That study continues to be  
8 under way. And I know that discussions with the Land  
9 and Environment Department have been ongoing, and De  
10 Beers still anticipates and looks forward to receiving  
11 those recommendations.

12                   De Beers has other traditional knowledge  
13 studies under way. One (1) from the Tlicho Government  
14 has been completed and provided to De Beers, and we're  
15 looking forward to it being tabled on the public record  
16 in the -- in the near term. We have another  
17 traditional knowledge study that has been undertaken  
18 with the Deninu Kue First Nation.

19                   We encourage all First Nations to  
20 continue to engage in discussions with De Beers, both  
21 through those studies, but also when we come to the  
22 communities, when we take elders to our sites to work  
23 with us and it -- and really, in terms of the  
24 presentation of the -- the monitoring framework, we've  
25 presented as a starting point for a discussion about

1 monitoring. I know when we were in the communities in  
2 February, we certainly asked communities to think about  
3 and to provide information to us of how they would like  
4 us to see it.

5                   The bottom line is is that De Beers is  
6 not the holder of traditional knowledge, that is in the  
7 communities, and for use to incorporate that we can't  
8 assume that we know. We need the communities to tell  
9 us how. We would like communities to tell us how and  
10 we are encouraging communities to tell us how, and we  
11 will continue to do that, it's important to De Beers.

12                   And so we look forward to hearing that  
13 from you.

14                   THE FACILITATOR TOOGOOD: Thank you.  
15 Stephanie, do you wish to comment on that?

16                   MS. STEPHANIE POOLE: Well, I think  
17 part of our concern is that in the EIS, the language  
18 that De Beers is using to describe how they would  
19 incorporate traditional knowledge into monitoring  
20 programs is -- is not good enough and is not acceptable  
21 to the Akaitcho First Nations, which includes the  
22 Yellowknives Dene, Lutsel K'e Dene, and Deninu Kue  
23 First Nation. And what we want to know -- and I'll  
24 just read it over again:

25                   "De Beers must provide guarantees and

1 commitments for exactly in what  
2 monitoring programs they will use  
3 traditional knowledge, how they  
4 contemplate to specifically use  
5 traditional knowledge within those  
6 programs, how they will work with the  
7 First Nations, and how they will  
8 secure traditional knowledge in a  
9 respectful manner. This information  
10 must be upfront and part of this  
11 Environmental Impact Review. "

12 And again, I think it should be an  
13 undertaking, to provide this information to us. This  
14 could be a starting point for -- you know, like if  
15 you're saying you want to hear from the communities on  
16 -- on what -- how they would like their traditional  
17 knowledge to be incorporated, right -- right here is a  
18 framework from Akaitcho First Nations on how.

19 THE FACILITATOR TOOGOOD: Thank you,  
20 Stephanie. I was wondering if De Beers would -- wanted  
21 to respond.

22 MS. CATHIE BOLSTAD: Cathie Bolstad,  
23 from De Beers. De Beers has already committed through  
24 the initiation of traditional knowledge studies to  
25 invite members of the Akaitcho First Nation to work

1 with us so that you can provide recommendations for our  
2 incorporation. Sorry, I'm speaking too closely.

3 So what I will commit to is next week  
4 filing on the public record an update of De Beers'  
5 engagement activities from December 2010 post-  
6 submission of the environmental impact statement to May  
7 15th of all of De Beers work and engagement with  
8 Aboriginal committees to involve them in the  
9 development of this project.

10 THE FACILITATOR TOOGOOD: Thank you.  
11 I'm not sure that's going to perhaps answer Stephanie's  
12 question completely. I was wondering if during the  
13 breakout session if you were able to talk with  
14 Stephanie in more detail. And then I was thinking  
15 maybe after lunch if we could touch back on this topic,  
16 and if there's any outstanding concerns or issues we  
17 could follow up then, if that's all right with  
18 everyone.

19 MS. CATHIE BOLSTAD: De Beers Canada,  
20 Cathie Bolstad. I -- I would like to suggest perhaps  
21 that the appropriate undertaking might be that those  
22 groups that have traditional knowledge studies underway  
23 with De Beers complete those studies, and submit those  
24 to the public record.

25 THE FACILITATOR TOOGOOD: Thank you



1 very much. Just -- Stephanie, are -- are you fine with  
2 discussing this in one of the breakout groups, and then  
3 coming back after lunch on this topic?

4 MS. STEPHANIE POOLE: If we must,  
5 that's fine.

6 THE FACILITATOR TOOGOOD: Thank you  
7 very much. I know there's quite a few questions out  
8 there, but there's been some people on the phone we've  
9 neglected, so I'd like to just check the phones  
10 briefly, if there's anyone out there that has any  
11 questions.

12

13 (BRIEF PAUSE)

14

15 THE FACILITATOR TOOGOOD: Thank you.  
16 It doesn't appear there's anyone on the phones. We got  
17 a question from, I believe it was Bruce who had your  
18 hand up just now.

19 MR. BRUCE HANNA: Yeah, Bruce Hanna,  
20 DFO. Just a bit of a concern with the breakout group  
21 format we seem to be moving in. We feel it's important  
22 to have the general discussion where everyone can hear  
23 what's being said. And there are different breakout  
24 groups that we'd be interested in, more than just the  
25 one (1), but it was just a -- just a comment.

1 THE FACILITATOR TOOGOOD: Thank you.

2 It's noted. Just got a question from Elmar.

3 MR. ELMAR PLATE: Yeah, It's Elmar

4 Plate, from LGL. I have a problem with that, too,

5 because it's very hard. We have only -- I -- I'm

6 trying to represent as a group that I'm working for but

7 I'm only one (1) person, so a breakout group doesn't

8 really work for me because I would, I think, have to

9 have some comments to different -- several of the

10 workout (sic) groups.

11 So if it's possible, I understand it's

12 more practical going the other way, but if it's

13 possible I would like to not have breakout groups so I

14 have a chance to comment on everything. That's my

15 comment.

16 THE FACILITATOR HUBERT: Chuck Hubert,

17 with the panel. Thanks very much. We appreciate

18 divergent views on -- on any subject really, so -- so

19 that's great.

20 Perhaps we'll take the next, oh I don't

21 know, twenty (20) minutes til 11:00 with comments from

22 the floor, and -- but -- but I -- I believe the -- the

23 -- because there seemed to be reluctance earlier on in

24 the -- in our day here to -- to formulate questions,

25 and -- and perhaps parties weren't quite as -- as

1 prepared as they could have been in the anticipation of  
2 presentations that never were, so for that reason we  
3 thought that it might be useful to have breakout groups  
4 to -- to try to formulate questions in a -- in a way  
5 that -- that could be focussed to answer questions that  
6 the parties might have. And that's the intent.

7 But for the next twenty (20) minutes or  
8 so let's go with questions from the floor then, and --  
9 but -- but we still believe that there is value in --  
10 in breakout groups, and we can have a mixture of the  
11 two (2) perhaps. Thanks, though.

12 MS. VERONICA CHISHOLM: Chuck, I'm  
13 sorry, Veronica Chisholm from De Beers. Could you just  
14 clarify, if I'm going back to the agenda, where -- and  
15 what topic areas you might expect those -- those  
16 questions from.

17 THE FACILITATOR HUBERT: Chuck Hubert  
18 with the panel. Yes, thanks, I believe the morning's  
19 topics would be the most appropriate for our breakout  
20 groups and -- or -- or for the questions, sorry, right  
21 now.

22 So waste management -- and we're talking  
23 within Kennady Lake here, so the -- the intent is -- is  
24 Kennady Lake and -- and issues, hydrology, geo-  
25 hydrology, waste management including geo-chemistry, if

1 we can proceed with those please.

2 MS. VERONICA CHISHOLM: Veronica  
3 Chisholm, from -- thank you for that clarification.

4 THE FACILITATOR TOOGOOD: So back to  
5 questions. I believe, Kathy, you had a question.

6 DR. KATHY RACHER: Thanks. It's Kathy  
7 Racher here, on behalf of the Mackenzie Valley Land and  
8 Water Board.

9 So I had a couple of questions about  
10 uncertainties, key uncertainties in some of your models  
11 and predictions, to do with this morning's topics, I  
12 guess. I was thinking about groundwater quantities  
13 that will flow into the -- into the open pits. I've  
14 yet to see a mine do a good -- you know, to actually  
15 have a prediction that matched the reality when it came  
16 to groundwater inputs to the pits.

17 And so I just wanted to know what your  
18 level of competence was with your -- with your  
19 estimations, because the quantity will affect,  
20 eventually, the quality of water both within Kennady  
21 Lake and downstream. And so the -- the confidence you  
22 have, and if you've -- you know, if there's any key  
23 uncertainties in the model that we would need to pay  
24 attention to as the mine is developing, so that we can  
25 make sure that nothing goes too far out of bounds, I'd

1 like to hear about that.

2 MR. DON CHORLEY: Don Chorley, with  
3 Golders. Okay, I'll answer that question.

4 When we did the model we were very --  
5 applying the precautionary principle. We -- we were  
6 very conservative on the parameters we put -- the  
7 model, and I'll -- I'll explain what those are.

8 So first of all I want to say we have a  
9 high level of confidence that we have not under-  
10 predicted the -- the quantities or qualities. Now how  
11 we've done that, we've increased the hydraulic  
12 conductivities in all the layers above what they were  
13 measured in the -- in the field. We've included  
14 enhanced permeability zones, fault zones -- fault  
15 zones. We've included fault zones that we were able to  
16 -- where the data was contradictory sometimes, we were  
17 able to see that there was a higher permeabilities in a  
18 zone but other holes found there was the same  
19 permeability as the other rock. But we've included  
20 them in the -- in the model, 30 metres wide and at an  
21 enhanced permeability of  $3 \times 10^{-6}$  metres per  
22 second.

23 And most critically I think is that  
24 we've assumed that the same hydraulic conductivity that  
25 we measured at 500 metres is the same to great depth.

1 Now, why -- why that affects a lot is that that affects  
2 the ability the saline water to up -- up-well into the  
3 mines. So that's -- so when -- when you put all those  
4 things together, all those conservative estimates of  
5 the parameters that, as I said before, we have a high  
6 level of confidence that we are not under-predicting  
7 the -- the volumes and quantity to the pit, the TDS  
8 quantities to the pits -- open pits.

9                   Okay. And also I just want to direct  
10 your attention to -- those were covered within the AN -  
11 - AANDC IR Request 19 and 20. So there's some more  
12 detail in there if you want to look at that.

13                   MR. KEN DE VOS: Ken De Vos, with  
14 Golder Associates. I understand where your question is  
15 coming from, all right, and I like to think that we  
16 also learn through time, and that we -- we start to  
17 design things a little bit better and we take more  
18 robustness with respect to the overall design of the  
19 mine.

20                   And one (1) of the things that I do want  
21 to point out is -- is the -- the design of this entire  
22 system allows for time to look at the refilling of  
23 pits, the filling of pits, you know. So we're not  
24 relying on -- on one (1) mitigation to deal with higher  
25 in-flows than -- than necessary. We have time to look

1 at those -- those concentrations, those numbers, and  
2 time to implement mitigation, with this sys -- design  
3 that we have in place now.

4 DR. KATHY RACHER: Kathy Racher, from  
5 the Mackenzie Valley Land and Water Board. Yes, you do  
6 know -- understand where my question comes from. And,  
7 yeah, I guess that's what I was going to follow up  
8 with. It's just the contingency if -- if predictions  
9 don't -- I mean, I don't really expect predictions to  
10 come out exactly right, but it's -- it's about having a  
11 clue of what one could do if they don't come out right.

12

13 So I take it to assume I -- I'm -- I'm  
14 sorry, I didn't read all of the Information Requests,  
15 but I will check that out. I take it to assume that  
16 you've looked at worst -- what you consider worst case  
17 and you're comfortable that -- that it can be dealt  
18 with and that you have mitigations in place in case  
19 things go sideways.

20 THE FACILITATOR TOOGOOD: Thank you,  
21 Kathy, for that response. Does De Beers have a  
22 response to Kathy?

23 MS. VERONICA CHISHOLM: Veronica  
24 Chisholm, from De Beers. There's just one (1) other  
25 comment I'm going to have the engineering -- Wayne

1 Corso, from JDS Engineering, explain about our water  
2 management plan and where we have confidence around our  
3 water capacity for handling additional quantities, as  
4 well as the water quality, just from an engineering  
5 perspective.

6 MR. WAYNE CORSO: Thanks, Veronica.  
7 Yeah, you know, we were talking about this a little bit  
8 on -- on the break too, was that the -- the water  
9 management plan is -- is designed to have up to two (2)  
10 years of storage in upset conditions, so that, you  
11 know, any water that's -- that's generated, whether it  
12 be from pit, whether it be from, you know,  
13 precipitation, from, you know, dirty water from -- you  
14 know, water from sediment that might get resuspended  
15 and that sort of a thing, none of that needs to be  
16 discharged for up to two (2) year -- two (2) years in an  
17 upset condition. So that -- so that we have, you know,  
18 a chance to, you know, monitor the -- say the -- the  
19 pits when we start mining them is if the -- calibrate  
20 the model and find -- make sure that what we estimated  
21 was going to be -- was going to come in, both quantity  
22 and quality, is -- is, you know, what -- what was  
23 predicted, so.

24 THE FACILITATOR TOOGOOD: Thank you, De  
25 Beers. Kathy, you have a follow-up?



1 DR. KATHY RACHER: Kathy Racher, for  
2 the Mackenzie Valley Land and Water Board. I just have  
3 a different question. Thank you for that answer. It  
4 was what I was looking for.

5 The question is about the deposition of  
6 fine PK into the open pits, and just a question about  
7 the -- how -- how much you know about the qualities of  
8 the fine PK that will come out of all the different  
9 pits.

10 And my knowledge of other mine sites is  
11 that the -- the processed kimberlite can be quite  
12 different even in pits that are very close together.  
13 And sometimes the settle -- settleability has been an  
14 issue. Certainly at Ekati this is a huge problem.  
15 They don't even know how they're going to get at this  
16 stage all the PK to settle in the tailings facility.  
17 At other places it's not a problem at all.

18 So I just wanted to know, again, this is  
19 about uncertainty and the ability of the fine PK to  
20 settle in the mined out pits, because, of course, that  
21 would be a problem for setting up an ecosystem, and,  
22 again, in Kennady Lake.

23

24 (BRIEF PAUSE)

25

1 MS. VERONICA CHISHOLM: Veronica  
2 Chisholm, from De Beers. I'm going to have Ken De Vos,  
3 our geochemical expert, talk about the numbers of  
4 samples that we've collected of that fine PK to  
5 characterize that, which is the first part of your  
6 question. And then we're just working on the second  
7 part of your question, in terms of settlement time.

8 MR. KEN DE VOS: Ken De Vos, with  
9 Golder Associates. I don't have the specific numbers  
10 sitting right in front of me here. They were presented  
11 in the -- in the last session. I can tell you that we  
12 did a supplemental program on the different types of  
13 PK. There were over thirty (30) samples done with  
14 about thirteen (13) humidity cell tests done with  
15 respect to understanding the -- in more detail, the --  
16 the processed kimberlite.

17 There were -- I don't have the exact  
18 numbers with me, but I believe there was over ninety  
19 (90) samples of processed kimber -- or -- or kimberlite  
20 itself that were tested as well. And I can get those  
21 specific numbers for you.

22 But we -- we feel that we have a --  
23 quite a good understanding of the chemistry of this  
24 particular processed kimberlite from the various pipes.  
25 Samples were collected from various pipes as well. We

1 also then compared those to the kimberlites at the  
2 various other mine sites. And that comparison is also  
3 provided as -- as well as all -- all of the different  
4 sample numbers in Appendix 8.3 of the supplement and  
5 Appendix 8.2 of the main EA document.

6 MS. VERONICA CHISHOLM: Veronica  
7 Chisholm, from De Beers. I'm going to have Andrew  
8 Williams from De Beers speak a little bit to the  
9 settlement and -- of the materials within the pits and  
10 his knowledge from other mining projects.

11 MR. ANDREW WILLIAMS: Hi. If I could  
12 just -- just for clarity, because they've pulled me in  
13 from the back row. It's Andrew Williams from De Beers.  
14 I wonder if you wouldn't mind just repeating your  
15 question, or your comment, there, about the settling?

16 DR. KATHY RACHER: Sure. It's Kathy  
17 Racher, from the Mackenzie Valley Land and Water Board.  
18 My question is just about -- there -- there's sort of  
19 an assumption through the -- this EIS supplement part  
20 that I read, anyway, that -- that the fine PK will  
21 settle nicely in the -- when it's deposited into the  
22 mined-out pits. I believe you plan on putting waste  
23 rock on top of the fine PK.

24 And I -- I guess, I'm a chemist, I'm not  
25 a physicist or a geologist. I just wanted to get a

1 sense of how -- of -- of the level of certainty you  
2 have that that fine PK is -- is going to settle like a  
3 proper sediment kind of thing. As opposed to what  
4 we've seen, for example, at Ekati where it's like  
5 fluff. And it -- it's very -- you know, the settling  
6 time is, we don't even know exactly how we're going to  
7 get it to settle, because it's -- it's a very fluffy --  
8 it has a fluffy component to it that doesn't sink.

9                   And so, I just -- I wonder what tests  
10 you've done, or -- or what your confidence is in the  
11 settle-ability of the fine PK?

12                   MR. ANDREW WILLIAMS: Could you -- in  
13 terms of Ekati, how -- where -- where are they  
14 attempting to settle the fine PK?

15                   DR. KATHY RACHER: Kathy Racher, from  
16 the Mackenzie Valley Board. Their tailings facility,  
17 Long Lake containment facility, is where they deposit  
18 all of the processed kimberlite. And so, this -- this  
19 is the facility in which they are -- eventually they  
20 want to cover that whole facility, make a hard cover.  
21 And there are areas where they are getting what they  
22 call extra-fine processed kimberlite. And it's really  
23 only coming, I think, from one (1) of the pits, not all  
24 of the pits.

25                   But it's -- they're just -- they're

1 still -- they're doing -- they're intensively  
2 researching how they're going to get it to -- to settle  
3 down so that they can put a cover on top of the  
4 tailings pond after, or the tailings facility, after  
5 closure.

6 MR. ANDREW WILLIAMS: Okay. I -- I  
7 think perhaps -- oh, sorry. Andrew Williams, from De  
8 Beers Canada. I think perhaps one (1) of the -- you're  
9 quite right, kimberlite types do vary considerably.  
10 And so issues such as settling of the kimberlites and  
11 how kimber -- fine kimberlite material, how it would  
12 settle, and so on, we've done a number of tests, which  
13 we call "or dressing studies", as part of that design  
14 of the overall plant and the fine PKC facility.

15 In this particular case, though, I think  
16 it's probably more important that when we deposit the  
17 fine PK into the 5034 pit, it's going to be  
18 approximately 300 metres deep at that point. And then  
19 on top of that PK, we'll then start -- be placing  
20 freshly-blasted mine rock. So we're not requiring the  
21 PK to be settled at the bottom. It'll simply be buried  
22 under --

23 MR. WAYNE CORSO: 80 million tonnes.

24 MR. ANDREW WILLIAMS: -- 80 million  
25 tonnes of -- of waste rock. Something -- yeah, 38

1 million cubes of -- of waste rock material overlying  
2 1.5 million cubes of -- of the fine PKC material.

3 DR. KATHY RACHER: Okay. Kathy Racher,  
4 for the Mackenzie Valley Board. So, in the fine PK --  
5 I can't remember what you call it, a storage area or  
6 containment area. You -- you are expecting -- I -- I  
7 guess, there again, it doesn't really matter if it  
8 settles, because the water is just going to drain out  
9 through the filter dike and -- and you're going to move  
10 it later, that's -- or most of it, later. That's the  
11 plan. Although, I guess, you're going to cover it,  
12 that area as well? There's going to be some fine PK  
13 left in that containment area that you will eventually  
14 cover?

15 MR. ANDREW WILLIAMS: Andrew Williams  
16 with De Beers. Yes, when it goes to the fine PK  
17 facility, the water will drain out through that PK,  
18 gravity basically, because it will be draining downward  
19 and out through Dike L. And then when that facility is  
20 complete, which will be about the fifth year of the  
21 operations, we'll then start covering it with cover  
22 material, starting with the coarse PK, which will  
23 provide a bed for traffickability for the trucks. And  
24 then on top of that we'll be putting the coarse crushed  
25 mine rock.

1 DR. KATHY RACHER: Kathy Racher for the  
2 Mackenzie Valley Land and Water Board. Do you -- Ken  
3 directed me to Appendix 8.3 of the supplement to talk  
4 about the PK characteristics, which I assume are  
5 predominately chemistry -- geochemistry.

6 And I just wondered, you know, if you've  
7 done -- if you've crushed up the PK -- you know, you've  
8 -- you've made the fine PK, I would assume, to do some  
9 testing on it, and it -- where I would find more  
10 information about specific gravity, and et cetera,  
11 those kind of characteristic -- physical  
12 characteristics of the proc -- fine processed  
13 kimberlite.

14 MR. ANDREW WILLIAMS: Andrew Williams,  
15 De Beers Canada. Kathy, I'll have to get back to you  
16 on that. I don't believe any of the -- the physical  
17 testing of the -- the fine processed kimberlite  
18 material is in the EIS or related documents. Those  
19 document focus primarily on the chemistry. So I will  
20 have a look and see what information I can provide to  
21 you, and get back to you before the end of the  
22 sessions.

23 MS. VERONICA CHISHOLM: Veronica  
24 Chisholm from De Beers. I think Ken De Vos, you had  
25 one (1) other comment to make.

1 MR. KEN DE VOS: Ken De Vos with  
2 Golder. Just to follow up on the number of samples,  
3 just to clarify for the record. There are ninety-three  
4 (93) short-term leach tests on the various PK materials  
5 and/or kimberlite materials. We have forty-six (46)  
6 humidity cell tests, either conducted or underway, on  
7 the processed kimberlite materials. And we have six  
8 hundred and fifty-eight (658), I believe is the number,  
9 solid phase tests of the kimberlite material.

10 So we have a pretty good range of -- of  
11 understanding of the different chemistries and  
12 properties, at least chemical properties, of -- of  
13 those materials.

14 THE FACILITATOR TOOGOOD: Thank you  
15 very much. Kathy, do you have any further questions?  
16 I believe Anne Wilson has been waiting very patiently.  
17 Do you have any questions?

18 MS. ANNE WILSON: Thanks. It's Anne  
19 Wilson from Environment Canada. I thought I would jump  
20 in while we're talking about the pits.

21 The question I have is that in a few  
22 places within the IR responses for us it was mentioned  
23 that the pycnocline would end up getting lower over  
24 time, and that doesn't make sense to me. I'm just  
25 wondering if we could have some clarification on what



1 would drive it to be deeper.

2

3 (BRIEF PAUSE)

4

5 MR. JERRY VANDENBERG: It's Jerry  
6 Vandenberg from Golder. Hi, Anne. In the medium term  
7 as in the first hundred (100) years or so, convective  
8 mixing and diffusion will spread the -- the gradient  
9 around the pycnocline somewhat. And it will cause the  
10 pycnocline to, I guess, drop slightly.

11 In the long term, in the very long term,  
12 thousands of years, the influx of saline groundwater  
13 will cause the -- cause the density in the bottom layer  
14 of water to increase, which will strengthen the  
15 pycnocline and probably move -- cause it to move up  
16 slightly. So the moving down of the pycnocline is a  
17 medium term.

18 And just -- just for the record, for  
19 those who aren't aware, the pycnocline is the -- the  
20 zone of gradient between the -- the low density water  
21 in the top layer and the -- the higher density water  
22 underneath it in the pits.

23 MS. ANNE WILSON: It's Anne Wilson.  
24 Thanks, that's very helpful. I had thought about the  
25 upwelling of further groundwater would be more likely

1 to raise it up. Just to confirm, the modelling that  
2 was done did assume complete mixing though of the pits,  
3 right?

4 MR. JERRY VANDENBERG: No, the  
5 modelling did not assume complete modelling (sic) of  
6 the pits. It -- sorry, it's Jerry Vandenberg from  
7 Golder. The water quality modelling used the hydro --  
8 I -- I'll back up and explain a bit. So there's  
9 hydrodynamic modelling, which is the movement of water  
10 inside the pits. And then there's water quality  
11 modelling, which is the -- the chemical makeup of the  
12 water.

13 So the hydrodynamic model was run to  
14 determine how much water would be in the lower portion  
15 of the pit versus how much would be in the upper  
16 portion of the pit. And the hydrodynamic model  
17 indicated that there would be a -- a fairly strong  
18 separation between the two (2). And, therefore, the  
19 upper layer was included only in the surface-water  
20 water quality model.

21 MS. ANNE WILSON: Anne Wilson,  
22 Environment Canada. Thank you for that. I did think I  
23 had seen somewhere the assumption, so I'll have to  
24 check on that and get back with a further question if -  
25 - if -- when and if I can find it. Thanks.

1 THE FACILITATOR TOOGOOD: Thank you  
2 very much, Anne. I believe, Bruce, you had some  
3 questions?

4 MR. BRUCE HANNA: Thanks. And Bruce  
5 Hanna, from DFO. Just a quick reminder, I know that  
6 this has been gone over in the EIS, but if I under --  
7 if I remember correctly, the water from the water  
8 management pond is going to be transferred all into  
9 Tuzo pit. I'm just wondering how that is going to  
10 affect mixing, and then how would that affect water  
11 quality above it in Kennady Lake or if there's any  
12 concerns.

13 THE FACILITATOR TOOGOOD: Thank you,  
14 Bruce.

15

16 (BRIEF PAUSE)

17

18 THE FACILITATOR TOOGOOD: Is there any  
19 other questions from the --

20 MS. VERONICA CHISHOLM: Veronica  
21 Chisholm, from De Beers. I think we can provide some  
22 clarification on that, Bruce. So I'm going to ask  
23 Wayne Corso that you -- Wayne -- or Bill.

24

25 (BRIEF PAUSE)

1 MS. VERONICA CHISHOLM: Bruce, would  
2 you just -- just clarify that question one (1) more  
3 time, just repeat it one (1) more time.

4 MR. BRUCE HANNA: Yeah. Bruce Hanna,  
5 DFO. It's just, if I remember it correctly, all the  
6 water management pond at closure would be transferred  
7 into Tuzo pit. I'm just wondering how -- how close to  
8 the top that would be, what effects on mixing that  
9 would have, and then on water quality in Kennady Lake  
10 in general.

11

12 (BRIEF PAUSE)

13

14 MR. WAYNE CORSO: As far as the --  
15 Wayne Corso, JDS. As far as the -- the actual  
16 procedure for how the water gets placed into the --  
17 into Tuzo pit, the -- the water quality in -- in the  
18 water management pond will be -- is predicted to be a,  
19 you know, much lower -- higher TDS water, so we want to  
20 put it at the bottom of Tuzo. So -- so that water will  
21 -- will be -- first it will be pumped down into the  
22 bottom of Tuzo pit.

23 As -- as far as how high, we can -- we  
24 can get you the exact number. I'm sure our -- our crew  
25 here will -- will feed it to me here soon, but -- but

1 to give you a little bit of, you know, of -- of  
2 context, I -- I think it still takes another four (4) -  
3 - four (4) to six (6) years for the water to actually  
4 even get close to the top of Tuzo pit after it's --  
5 after it's filled initially. You know, the -- the  
6 initial fill from the water treatment pan -- plan fills  
7 up Tuzo pit not very much. Yeah, because of the total  
8 volume of -- of the -- of the excavated basin is almost  
9 double what it -- what it was to start with.

10

11 (BRIEF PAUSE)

12

13 MS. VERONICA CHISHOLM: Veronica  
14 Chisholm, from De Beers. I'm going to have -- Jerry  
15 has some -- some additional details around that, so.

16 MR. JERRY VANDENBERG: Jerry  
17 Vandenberg, Golder. Just to -- just to put some  
18 numbers to that. So the TDS in the water management  
19 pond at closure is going to be about 900 milligrams per  
20 litre. That's predicted. That's the water that's  
21 moved into the bottom of the pit. And that will be  
22 filled to an elevation of about 350 metres, leaving  
23 about 70 metres above that with fresher water with a  
24 TDS concentration of about a hundred (100) initially.  
25 And that TDS in the overlying water will -- will flush

1 with time, reaching a steady-state concentration of  
2 about 40 milligrams per litre.

3 And to address the second part of your  
4 earlier question, what that does is it sets up a strong  
5 density gradient between the lower and upper layers,  
6 which will strengthen the -- the MEROMIXIS in the pit  
7 lake.

8

9 (BRIEF PAUSE)

10

11 MR. JERRY VANDENBERG: Jerry  
12 Vandenberg, with Golder. And I would refer you to the  
13 response to AANDC IR number 4.

14

15 (BRIEF PAUSE)

16

17 THE FACILITATOR TOOGOOD: Thank you  
18 very much, De Beers. DFO, do you have any further  
19 questions?

20 MR. PETER COTT: It's Pete Cott, with  
21 DFO. I've got a question about the use of silt  
22 curtains and other contingencies for the dike  
23 construction. Currently in the EBA dike construction  
24 design plan there isn't any proposal for the use of  
25 silt curtains. I was just wanting some commentary on

1 that.

2 THE FACILITATOR TOOGOOD: Thank you  
3 very much. De Beers...?

4 MS. VERONICA CHISHOLM: Veronica  
5 Chisholm, from De Beers. We're just looking up that  
6 memo specifically and then I'll have Bill -- oh, Bill's  
7 ready.

8 MR. BILL HORNE: We answered question -  
9 - oh, Bill Horne, EBA. We answered one (1) of the IRs  
10 on silt curtains about the dike construction that was  
11 given in IR DFO 26. But basically the silt curtains  
12 will be required for Dike A construction. And that  
13 will be done in the late winter construction. The  
14 other dikes are -- are basically internal. It -- Dike  
15 A is -- is the one in water, constructed dike.

16 THE FACILITATOR TOOGOOD: Thank you  
17 very much. DFO, do you have any further comments?

18 MR. WAYNE CORSO: Wayne Corso, JDS. I  
19 just wanted to add quickly that, you know, of all the  
20 dikes that are built there's only one (1) that protects  
21 water from coming from the water management pond -- or  
22 the -- I guess the controlled area to the outside  
23 environment. And that's Dike A. Every -- every other  
24 dike is either internal or it protects clean water from  
25 entering the site.

1 MR. PETER COTT: Pete Cott, from  
2 Department of Fisheries. So what I'm understanding is  
3 the only one (1) dike that would -- where -- where silt  
4 curtains or other sediment contingencies would be in  
5 place is one that would be in place to protect water  
6 quality fish -- fish habitat. The other -- the other  
7 dikes are internal, therefore they would be in areas  
8 that would be water settling ponds to begin with. So  
9 by -- by virtue of their placement that's the  
10 contingencies planned?

11 MR. WAYNE CORSO: That's genary --  
12 generally correct. But, you know, we're -- we're just  
13 committed to, you know, use -- for the appropriate use  
14 of silt curtains wherever they're required.

15 THE FACILITATOR TOOGOOD: Thank you, De  
16 Beers. DFO, anything further?

17 MR. PETER COTT: Pete Cott, from DFO.  
18 Thanks for that comment. Yeah, that -- that's what DFO  
19 encourages wherever appropriate. That was -- we felt  
20 that it was odd that it -- there was an -- a perceived  
21 omission there.

22 Another question relates to the  
23 shoreline stability in -- in downstream areas. It --  
24 it was referenced that -- that discharge areas would be  
25 -- the -- the shorelines would be prepared to -- to



1 account for any disturbance from -- from flow release.  
2 But it wasn't described what that meant. So we're just  
3 looking for clarification on how shorelines in  
4 discharge areas would be prepared. Thanks.

5

6 (BRIEF PAUSE)

7

8 MR. WAYNE CORSO: Wayne Corso, JDS. We  
9 can have Nathan talk to the -- to the out -- outlet  
10 channels and, you know, what -- what we want to  
11 accomplish there. But basically any -- in any -- any  
12 areas of expected erosion from higher flows than  
13 expected or reverse flows or flows where there weren't  
14 flows before, what we want to do is -- is armour those  
15 areas. So we want to armour -- armour those areas.  
16 But mainly -- the main thing we don't want to do is to  
17 -- is to do any digging, any excavation.

18 But I -- I'm just getting some notes  
19 here that ask me to clarify your question because I  
20 might not -- I might be answering a different one,  
21 please.

22 MR. PETER COTT: It's Pete Cott, from  
23 DFO. Specifically the outlets for N16 and -- and N17,  
24 as far as what -- what preparation you're planning, if  
25 it's riprap or if bioengineering techniques have been

1 proposed to protect those shorelines from -- from  
2 degradation from -- from -- from flows. Thank you.

3 MR. NATHAN SCHMIDT: Okay, so this --  
4 Nathan Schmidt, from Golder Associates. So just to  
5 clarify, this is to do with the -- the D, E -- or B, D,  
6 and E lake diversions into the N watershed and the --  
7 and the -- the flow increases there. The initial part  
8 of your question seemed to address the dewatering  
9 discharges when we're dewatering Kennady Lake. And I  
10 just want to be clear on which one (1) you're talking  
11 about.

12 MR. PETER COTT: It's Pete Cott, from  
13 DFO. I think it was just general in nature about how  
14 you're -- you're planning to protect stability and  
15 dewatering in -- in general. It was related to IR  
16 number 28.

17 MS. VERONICA CHISHOLM: I assume that's  
18 DFO IR number 28?

19 MR. PETER COTT: Pete Cott, from DFO.  
20 You would assume correctly.

21

22 (BRIEF PAUSE)

23

24 MR. PETER COTT: It's Pete Cott, from  
25 DFO. The -- the IR response indicated that areas --

1 shoreline areas would be prepared for discharge. And  
2 the -- the question that I'm asking is what do you mean  
3 by "prepared"? That's all. Thanks.

4

5 (BRIEF PAUSE)

6

7 MR. NATHAN SCHMIDT: Okay, Nathan  
8 Schmidt, from Golder Associates. There -- there seem  
9 to be two (2) different issues we're dealing with here,  
10 the first one (1) being the dewatering discharges, the  
11 -- the major flows as we're taking water out of Kennady  
12 Lake and conveying it to Area 8 and also to Lake N11  
13 for discharge.

14 We are being protective in terms of the  
15 increases in flow rates in those areas and, in  
16 particular, by ensuring that though the -- the duration  
17 of these flows is longer, the magnitude of the flows is  
18 below the two (2) year flood level in those channels.  
19 And so in those ar -- in that particular case, the  
20 biggest effect or potential effect would be the  
21 localized potential for erosion at the outlet of the  
22 pipes that are diverting these flows.

23 I'm going to leave that -- or can you  
24 address that right now, Wayne? Okay, but we'll --  
25 okay.

1                   The second potential issue is the  
2 diversion of the western tributaries of Kennady Lake,  
3 the D, E, and B lakes. And for those lakes we have  
4 submitted in -- in April the shoreline erosion baseline  
5 update, which identifies the sensitivities of the --  
6 the shorelines of those lakes that are being raised and  
7 also talks about the outlet channels.

8                   The intent, as -- as Wayne said, is to  
9 minimize or eliminate excavation to the extent possible  
10 to preserve the -- the existing surfaces there, be they  
11 organics and underlying substrates -- we are -- I want  
12 to stress a couple of things here. These are very  
13 small watersheds, okay. The -- the B watershed, 1.3  
14 square kilometres; the D2, D3 watershed that's being  
15 diverted, 4 1/2 square kilometres; and the E watershed,  
16 1.4 square kilometres. So that's -- that's the entire  
17 tributary and lake area. So we're not dealing with  
18 large lakes in these diversions.

19                  The flows that are coming out of these  
20 diversions are also correspondingly small. For the B  
21 watershed, B1, we're looking at mean diversion of about  
22 250,000 cubic metres per year, okay. For the D2, D3  
23 watershed, 645,000 cubic metres per year. And for the  
24 E watershed, a little over 200,000 cubic metres per  
25 year.

1                   The peak flows that are associated with  
2 those on a mean annual basis are well under a cubic  
3 metre per second for the hundred-year flows. Actually,  
4 the largest one is -- is under .5 cubic metres per  
5 second. So we're not dealing with large flows or  
6 highly erodible flows. We're not dealing with large  
7 slopes.

8                   There were a number of IRs, or a couple  
9 of IRs, that were submitted on this in addition to the  
10 shorelines report. Yellowknives Dene First Nation 234,  
11 and I believe also the DFO, Environment Canada 38,  
12 addressed these -- these diversion channels. And the  
13 intent is to guard against erosion and, in particular  
14 for the DFO 38 response, there was a question about  
15 providing fish passage, in particular, and to a lesser  
16 extent, habitat.

17                  We think that by placement of larger  
18 cobbles on these flow paths from the raised lakes that  
19 we can achieve that, and that we are in a pretty low  
20 risk situation based on the soils information that we  
21 have, showing that we've got layers of organic  
22 material, peat in particular, overtop of morainal  
23 material, which tends to be fairly -- have -- have  
24 larger constituents of -- of cobble boulder material.

25                  If you look at the existing channels

1 coming out of these lakes, what you can see is they've  
2 cut down and they've got those larger boulder and  
3 cobble constituents in there that provide them with  
4 that stability. They are not alluvial channels, though  
5 that material was in the soil mass and was deposited in  
6 there as -- as the finer material was -- was removed.  
7 So we're not in a situation where we anticipate dealing  
8 with things like progressive or catastrophic-type  
9 erosion.

10 MR. PETER COTT: It's Pete Cott, from  
11 DFO. So, it's my understanding that "prepared" means  
12 "placement of cobble"? Thank you.

13 MR. WAYNE CORSO: Wayne Corso, JDS.  
14 Yes.

15 MR. PETER COTT: Thank you. That  
16 answers that question.

17 THE FACILITATOR TOOGOOD: Thank you  
18 very much. Is that all the questions from DFO for now?

19 MR. PETER COTT: No. Thank you. We're  
20 satisfied with the response. Thanks for the -- for the  
21 thoroughness of it.

22 THE FACILITATOR TOOGOOD: Thank you  
23 very much for those questions. We're just going to  
24 check the phone lines and if there's anyone online who  
25 has any questions.

1 (BRIEF PAUSE)

2

3 THE FACILITATOR TOOGOOD: Okay. Just -  
4 - I believe there were some questions on the phone.  
5 Can we just try that once again? If you're on the  
6 phone, could you please just ask your questions?

7

8 (BRIEF PAUSE)

9

10 THE FACILITATOR TOOGOOD: Well, there's  
11 no questions on the phone. Are there any other  
12 questions from the floor? I believe we have Laura from  
13 Transport Canada.

14 MS. LAURA JONES: Hi. It's Laura from  
15 Transport Canada. I realize that we'll receive more  
16 details as your finalized engineering plans are made,  
17 and they're not available yet, but Transport is  
18 wondering for the dikes that you plan to leave in  
19 place, will you implement long-term care and  
20 maintenance plans for these dikes?

21 MR. BILL HORNE: It -- it -- sorry.

22

23 (BRIEF PAUSE)

24

25 MR. BILL HORNE: I -- I think it's

1 probably -- oh, Bill Horne, EBA Engineering. The dikes  
2 that will remain in place at closure are -- are Dikes  
3 A1 and D. As we discussed yesterday, neither of those  
4 dikes will hold water. The -- the dikes that will re -  
5 - remain in place at closure are Dike D and A1 at the  
6 north end of the -- the facility, and those are very  
7 low dikes. They will -- at -- at closure, the current  
8 plan is that they will retain approximately 2 metres of  
9 fine PK, and then the -- the cover over the facility is  
10 another 2 metres of waste rock and coarse PK.

11 So the dikes are -- are more of a berm  
12 than a dike. They won't be water-retaining. And at  
13 closure they will be monitored during the closure  
14 periods. And long-term maintenance will be -- yeah,  
15 they'll be maintained.

16 MS. LAURA JONES: Laura from Transport.  
17 Okay, so as it is now you don't plan on -- like as your  
18 plans are now, you don't plan on leaving any dikes in  
19 the water. And I guess if you were then you would do  
20 long-term maintenance plans, as you plan to maintain  
21 the dikes that are acting as berms out of water upon  
22 closure?

23 MR. BILL HORNE: Any -- any dikes at  
24 closure that would retain water would have to have  
25 long-term maintenance according to the Canadian Dam



1 Safety Guidelines. These particular dams, we -- we call  
2 them dikes, remain at closure, but they won't be water-  
3 retaining dikes so they -- they won't fall underneath  
4 the -- those guidelines.

5 MS. LAURA JONES: It's Laura. Thank  
6 you very much.

7 THE FACILITATOR TOOGOOD: Thank you,  
8 Laura, for those questions. I believe Anne Wilson, you  
9 had some questions.

10 MS. ANNE WILSON: Anne Wilson,  
11 Environment Canada. Thanks, Simon. I've got three (3)  
12 questions and Lisa Lowman has one (1). So I'll just --  
13 going to jump around a little bit here with them.

14 For our IR number 34, we had requested  
15 that the TSS concentrations be modelled for Kennady  
16 Lake, Lake N11, and Area 8. And the response was that  
17 that model should be available in April 2012. I just  
18 wondered if that was completed yet and when it might be  
19 available.

20 MS. VERONICA CHISHOLM: Hi, Anne.  
21 Thanks for the question. I actually have that report.  
22 And so I can -- I'll be sure to submit that by the end  
23 of the day, and I'll copy Environment Canada, DFO -- I  
24 think it was a joint -- as well as I'll submit it to  
25 the MVEIRB site so it has that information.

1 MS. ANNE WILSON: Thank you. It's Anne  
2 Wilson, Environment Canada. So that was an easy  
3 answer. I'll look forward to reading that.

4 MS. VERONICA CHISHOLM: Yeah.

5 MS. ANNE WILSON: Now, my next question  
6 deals with the setting of site-specific water quality  
7 guidelines and the evaluation of the mixing zone. In  
8 DFO and EC's IR number 66, the response was made that  
9 the parameters and the mixing zone would move forward  
10 to the regulatory process. We would hope that we could  
11 have that information during the environmental  
12 assessment so that we could have a really complete  
13 picture what the targets are. So we would hope for the  
14 water quality objectives up front. Has there been  
15 further discussion on De Beers' part of providing  
16 objectives?

17

18 (BRIEF PAUSE)

19

20 MR. JOHN FAITHFUL: John Faithful,  
21 Golder Associates. Thanks, Anne. We've had some  
22 discussion with respect to the -- the derivation of  
23 some initial water quality objectives and -- and  
24 potential discharge limits. At this point in time,  
25 that -- that information is part of an ongoing process.

1 And I think as part of the -- part of the planning in  
2 developing monitoring programs that would be utilized  
3 and -- and be based on -- on those -- on meeting those  
4 water quality objectives or actually responding to  
5 monitoring -- monitoring results with respect to those  
6 objectives, we have a plan in -- in place to -- to der  
7 -- derive the initial set as we've indicated in some of  
8 our IR responses prior to the -- with -- within the  
9 time frame of the IR round 2. So September. And part  
10 of the process in moving forward would to -- to be to  
11 establish these -- these objectives and these limits  
12 and have discussions with de -- regulators in the  
13 communities.

14 MS. ANNE WILSON: Thank you for that.  
15 It's Anne Wilson, Environment Canada. And on the  
16 subject of objectives my other question was to deal  
17 with our IR number 51. And that had talked about the  
18 quality of sediment. Are you thinking to set sediment  
19 quality objectives as well for closure?

20 MR. JOHN FAITHFUL: That's correct,  
21 Anne. John Faithful, Golder Associates. Sorry, Chair.

22 MS. ANNE WILSON: Anne Wilson,  
23 Environment Canada. Will those be part of IR round 2  
24 as well? Or what time frame were you thinking?

25 MR. JOHN FAITHFUL: John Faithful,

1 Golder Associates. Yes, Anne, that -- that would be  
2 con -- they -- that would be considered in the same  
3 time frame. It would be part of the same process.  
4 Thank you.

5 MS. ANNE WILSON: Okay, thank you for  
6 that. It's Anne Wilson. I'm just going to get Lisa  
7 Lowman to ask the next question which deals with waste  
8 management.

9 MS. LISA LOWMAN: Hi, it's Lisa Low --  
10 Lisa Lowman, with Environment Canada. This IR is IR  
11 number 9 that Environment Canada submitted. And it had  
12 to do with in -- the incineration management plan. And  
13 De Beers has committed to the preparation of an  
14 incineration management plan. And we're just asking if  
15 De Beers can consult with Environment Canada and GNWT  
16 when developing that plan?

17 MS. VERONICA CHISHOLM: Veronica  
18 Chisholm, De Beers. Absolutely. De Beers will consult  
19 with Environment Canada and GNWT as we're developing  
20 that incinerator management plan.

21 MS. LISA LOWMAN: Great. Thank you.

22 THE FACILITATOR TOOGOOD: Thank you for  
23 those questions. Was that all the questions from  
24 Environment Canada for now?

25 MS. ANNE WILSON: It's Anne Wilson. I

1 just thought it might be useful to summarize the little  
2 sidebar we had at coffee time with Wayne about the  
3 issue of water treatment. And when Wayne had responded  
4 earlier to DFO's question there was a bit of a jump  
5 there or disconnect between the idea of TSS and TDS.  
6 So some of our question had to do with the treatment  
7 for TSS. And Wayne had clarified that the limitations  
8 and some of the driving forces were the high levels of  
9 total dissolved solids.

10 I would still like some thought given to  
11 the idea of using a treatment package that would remove  
12 TD -- or sorry, TSS. Now I'm doing it. I'm going to  
13 confuse myself. Total suspended solids, that does not  
14 leave flocculents in the lake bed or the mud, something  
15 that would discharge clean water and perhaps result in  
16 a slightly lower volume being managed in the water  
17 management pond.

18 Has that been considered at all, of --  
19 of using something such as what the Meadowbank mine  
20 has. It's got an active flow system that will take in  
21 quite high TDS water, which they've had in the course  
22 of their dewatering, and then discharge something like  
23 4 milligrams per litre maximum TSS, so it can be quite  
24 effectively done.

25

1 (BRIEF PAUSE)

2

3 MR. WAYNE CORSO: Thanks, Anne. Wayne  
4 Corso, JDS. Basically the -- the way we've dealt with  
5 that situation is that our clarification basin is going  
6 to -- is within the footprint of the west mine rock  
7 pile. So -- so any flocculated water that -- that goes  
8 into that basin from the -- the southern -- actually,  
9 we've got a picture, this is great.

10 Where's my -- yeah. Thanks. Any -- any  
11 water that comes from this southern -- southern area  
12 will go into this corner of the Area 5 mine rock pile.  
13 So there'll be an area left there open, sort -- sort of  
14 like a -- a stilling pond. And that'll eventually  
15 become part of the -- the west mine rock pile. So  
16 that's -- that's how we've dealt with -- with sort of  
17 like building our own TSS plant within the -- within  
18 the project and -- and isolating the -- the flocs so  
19 that they become part of -- part of our waste  
20 management system rather than into -- go into the  
21 water.

22 And I understand there's a -- a DFO in  
23 EC IR number 20 -- or number 51, that has some details  
24 on the flocs -- the type of flocculent, excuse me.

25 MS. ANNE WILSON: Thanks for that.

1 It's Anne Wilson. Just to confirm my understanding  
2 then that there won't be any flocculents added which  
3 are going to end up in the part of the lake which will  
4 subseq -- subsequently be re-watered and become part of  
5 a productive ecosystem later on, correct?

6 MR. WAYNE CORSO: That's correct. Oh,  
7 Wayne Corso, JDS. That's correct.

8 MS. ANNE WILSON: Okay. Thanks. That  
9 covers that question.

10 THE FACILITATOR TOOGOOD: Thank you very  
11 much. Are there any further questions or responses by  
12 De Beers? Is there any other questions from the floor,  
13 from anyone? Thank you. Pete, do you have a question?

14 MR. PETER COTT: Yeah -- yeah, but I  
15 think it's -- it's Pete Cott, from DFO, but I think  
16 it's a little bit misplaced now. I just noticed in my  
17 notes I had an outstanding question about baseline, or  
18 a clarification. Can I ask that? All right.

19 With the -- the baseline data collection  
20 -- it was at the end of the day and it got cut off, or  
21 well, the day ended. And it was indicated that there  
22 was baseline collected from 1996 to 2011 and that  
23 there's approximately one (1) or two (2) years more of  
24 baseline collection proposed. And that -- that's good.  
25 Is there any ability or is De Beers open to adding more

1 reference lakes and changing the baseline plan? Or --  
2 or is the baseline -- is the baseline plan for the  
3 coming years in development now? Or is it something  
4 that can be adjusted? Thanks.

5

6 (BRIEF PAUSE)

7

8 MR. JOHN FAITHFUL: John Faithful,  
9 Golder Assoc -- Associates. Thanks, Pete. I think  
10 Stephen alluded to the fact yesterday that we have  
11 currently in place a reference lakes monitoring program  
12 to identify one (1) or several potential reference  
13 lakes that could be added to the current data set that  
14 we have for baseline conditions within the local study  
15 area.

16 That includes water quality, sediment  
17 quality, and lower trophics currently. And I think --  
18 I'll get confirmation from -- and -- and a fish  
19 program. So that's been confirmed from the back. And  
20 we'll evaluate that this year and -- and determine  
21 whether or not any of the reference lakes that we're  
22 currently examining will be sufficient to actually  
23 include within the AMP-type monitoring program.

24 Veronica yesterday also committed to  
25 meeting with -- with the regul -- the regulatory



1 stakeholders and communities to discuss the transition  
2 from the current baseline programs that we've -- that  
3 De Beers have been undertaking over the last few years,  
4 and to -- to determine the best approach to  
5 transitioning to an AEMP type baseline program design  
6 that will set the -- set the -- the basis for which the  
7 AEMP program will provide comparison. Thank you.

8 MR. PETE COTT: It's Pete Cott, from  
9 DFO. Thanks for that. As evident in a lot of IRs,  
10 baseline data collection is -- is a -- is a key concern  
11 of -- of -- from a DFO standpoint, as well as -- as  
12 other -- other people that have reviewed this. And --  
13 and, there are -- obviously, we want and I'm sure De  
14 Beers wants, to have a appropriate baseline to enable  
15 project related effects to be -- to be -- to enable the  
16 detection of changes, should there be changes over  
17 time.

18 And, from -- from some of the -- some of  
19 the information, for instance, the -- the water quality  
20 report that you guys just submitted in March, the --  
21 the reference lakes outlined in those are -- are a  
22 little bit different in -- in characteristics, I  
23 suppose, than -- than some of the other mine effect  
24 lakes. And it might be appropriate in -- in certain  
25 situations like those to -- to include, or to add, some

1 -- some reference lakes that are more indicative of  
2 lakes on the actual mine area. I forget what the --  
3 the different spacial scales are called, but the -- the  
4 lakes that would be in effect of the mine development.

5 But it's encouraging that -- that that's  
6 still open and -- and DFO and, likely, Environment  
7 Canada would be willing and encourage further  
8 discussion on that. Thanks.

9 MS. VERONICA CHISHOLM: Veronica  
10 Chisholm, from De Beers. I just want to confirm that  
11 we -- we are open to meeting and -- and receiving  
12 suggestions and recommendations on our monitoring  
13 programs and having those discussions with DFO and  
14 Environment Canada. So, I'm confirming that  
15 commitment.

16 THE FACILITATOR TOOGOOD: Thank you  
17 very much. I'd just like to do one (1) more check if  
18 there's any questions from the floor. No.

19 Let's do a little recap. We're twenty  
20 (20) minutes before lunch, and we've gone through the  
21 water management, hydrology, and geo-hydrology and  
22 waste management, including geochemistry.

23 The breakout groups -- we're not going  
24 to have those. There's been some talking, or  
25 discussions, implications, so I'm proposing that we

1 have a early lunch. It's still-- you know, come back  
2 at one o'clock. We have twenty (20) minutes till --  
3 till twelve o'clock, however.

4 And I would encourage people, if you  
5 have any questions or you want to engage De Beers, to  
6 take this time before lunch to do that, and then, you  
7 know, we'll come back at one o'clock. And if you don't  
8 have questions, well you get a longer lunch and you get  
9 to beat the lunch hour rush in town.

10 So, just before we leave, one (1) more  
11 question from Lisa?

12 MS. LISA LOWMAN: Hi. It's Lisa Lowman  
13 with Environment Canada. This relates to IR number 8,  
14 from Environment Canada, and it has to do with acid  
15 rock drainage and metal leaching. So, it's just a -- a  
16 point of clarification, or -- or a question.

17 De Beers indicated that -- that any PAG  
18 mine rock, as well as any barren kimberlite, will  
19 either be sequestered within the interior of the mine  
20 rock piles in areas that will allow permafrost to  
21 develop, or they will be placed under water when  
22 Kennady Lake is refilled. And they estimate that  
23 there's approximately 6 percent of the mine rock, which  
24 is equivalent to 13.6 million tonnes of mine rock that  
25 would be PAG.

1                   So, I'm just wondering, in terms of  
2 managing this, if the decision is to place it under  
3 water within Kennady Lake, would it be all 13.6 million  
4 tonnes, or would it be a percentage of that? I just  
5 wanted to get some clarification around the management  
6 of the ARD mine rock.

7                   MR. WAYNE CORSO:     Wayne Corso, JDS.  
8 You know, yes, we did estimate conservatively 6  
9 percent, which came out to about 13.6 million tonnes.

10                  The -- right now in the -- in the base  
11 case plan, 7.1 million tonnes of that is -- is planned  
12 to be deposited in 5034 pit. 1.7 million tonnes below  
13 2 metres of water, in the west waste dump. And .3  
14 million tonnes below 2 metres of water, in the south  
15 waste dump -- or, the water level, excuse me, not 2  
16 metres of water, it will be within the -- within the  
17 mine rock pile. And so that leaves a balance, if you  
18 want to -- if you want to say that, of -- of 4.5  
19 million tonnes, which would be sequestered in the mine  
20 rock piles. Thank you.

21                  MR. KEN DE VOS:     Ken De Vos, with --  
22 with Golder. Just -- just to add to that, you know, I  
23 heard you say that it was ARD and -- and it's actually  
24 potentially ARD, it's not actually ARD. So I think  
25 that deserves some clarification.

1                   And the other thing is that, you know,  
2 the -- the 6 percent is a very conservative number.  
3 When we look at the total sulphur content of that  
4 material it's -- it's very low. And even though  
5 samples that are -- are predicted as potentially acid  
6 generating, a large proportion of those, probably 4  
7 percent of that 6 percent actually has so little  
8 sulphide minerals in there that it can't actually  
9 produce appreciable acidity through reaction.

10                  So the other thing to -- to keep in mind  
11 is that -- that -- the kimberlite and even the other  
12 rock materials do have some excess buffering capacity,  
13 and that the mitigation of potentially acid generating  
14 mat -- material is not dependant on -- in fact, our  
15 assessment was not completed on the assumption that  
16 that material needed mitigation. It was -- the  
17 assessment was completed on the assumption that we --  
18 we didn't have freezing conditions, that the material  
19 wasn't placed underground. It was just placed where --  
20 wherever it happened to come out from the pit.

21                  So we tried to be as conservative as we  
22 could in our assumptions when it -- when it came to the  
23 modelling and -- and to the assessment for the site.

24                  MS. LISA LOWMAN:    Okay, great. Thank  
25 you. I guess, just to recap on those numbers, I got

1 the 1.7 million tonnes, the seven point one (7.1); and  
2 what was the third figure, and where was that placed --  
3 being placed?

4 MR. WAYNE CORSO: Wayne Corso, JDS.  
5 The -- it was 0.3 million tonnes was in -- below 2  
6 metres -- the 2 metre water level in the south mine  
7 rock pile. I -- I guess these numbers are in the  
8 project description in the Waste Management Plan as  
9 well -- oh, Section 3, sorry, yeah.

10 MS. LISA LOWMAN: Great. Thank you.

11 THE FACILITATOR TOOGOOD: Thanks for  
12 those questions. I bel -- is that everything from  
13 Lisa?

14 All right. Thank you. I'll -- we'll  
15 take that as the lunch break then. It's quarter to,  
16 back for one o'clock. And to reiterate, I'd encourage  
17 everyone, if you have any questions, to talk to De  
18 Beers. Thanks.

19

20 --- Upon recessing at 11:43 a.m.

21 --- Upon resuming at 1:05 p.m.

22

23 THE FACILITATOR HUBERT: Welcome back,  
24 everyone, and good afternoon. I thought we'd get  
25 started again. I believe we have some people on the

1 teleconference, or at least one (1), so we'll pre --  
2 even though people may trickle in over the next few  
3 minutes we'll get started with -- with somebody off  
4 site.

5                   One (1) thing I'd like to mention is  
6 that the transcriptions from yesterday's session is on  
7 the website at the -- at tscript.com. So it will be on  
8 our website shortly as well, but for those who would  
9 like to view it immediately it's [www.tscript.com](http://www.tscript.com), and  
10 you go to the transcript repository, and under --  
11 there's an MVEIRB -- or you look at the date, I guess,  
12 on a -- on a calendar screen shot.

13                   So this afternoon we'd like to continue  
14 with water issues at Kennady Lake, in particular water  
15 quality at closure, recognizing that a lot of these  
16 issues are, of course, interrelated, they're  
17 interconnected, and that it's difficult to really  
18 separate things out and pick out a topic in four (4)  
19 words. So any -- anything related to the subject is  
20 fine. Questions on -- on a wide ranging idea of the --  
21 the topic are -- are acceptable.

22                   So with that, I'd like to ask any  
23 participants on our teleconference to speak now, and  
24 with the provision that if they have -- they should  
25 turn the speaker phone off and just use the -- the

1 handheld, please. So anybody on the -- on the  
2 teleconference, please go ahead.

3

4 (BRIEF PAUSE)

5

6 THE FACILITATOR HUBERT: All right.

7 Well, we gave it a try for people away from the  
8 building on the teleconference, and we'll try again  
9 periodically throughout the afternoon. So, in -- we'll  
10 -- in the meantime, we'll go to questions from the  
11 floor, from anybody who would like to start first.

12

13 (BRIEF PAUSE)

14

15 MS. ANNE WILSON: I'll go first. It's  
16 Anne Wilson with Environment Canada. And one (1) of my  
17 concerns upon closure is -- lies with the rewatering of  
18 Kennady Lake.

19 I was trying to get a sense of the  
20 substrate, and how much of a muddy soup we might worry  
21 about that the time of closure. It looks like there's  
22 about 16 to 17 percent fines and clays. There will be  
23 some construction of roads, some movement of overburden  
24 around the -- the lake bottom. And the rewatering of  
25 the lake is likely to be affected by the time of year,



1 by the action of wind and waves. And my concern is  
2 that there are enough fines that they may not want to  
3 settle out very readily.

4 What has been planned for in that  
5 contingency?

6

7 (BRIEF PAUSE)

8

9 MR. JOHN FAITHFUL: John Faithful,  
10 Golder Associates. Thanks, Anne. It's anticipated  
11 that in the closure environment once Kennady Lake is  
12 refilled that the sediment chemistry or the sediment --  
13 the sediment itself will not change to the extent that  
14 it will present an adverse risk to -- to aquatic life  
15 in the refilled Kennady Lake. The sources of potential  
16 change to the sediment chemistry, I think you -- you  
17 alluded to -- to a number of those in -- in your -- in  
18 your comment, being that there a proportion of fines  
19 associated with the -- the lake bed sediment that's  
20 likely to be -- to be exposed.

21 The -- the removal of any overburden  
22 within the -- with the Kennady Lake itself is going to  
23 be restricted to the area immediately above the -- the  
24 kimberlite pipes, or the areas to actually be actively  
25 mined. The remainder of the lake bed sediment that's

1 exposed, particularly in areas 6 and 7 and areas 4 and  
2 5, will be exposed, like forming some sort of pan  
3 material which would be amenable to -- to grass growth.  
4 I think that is -- that's evident in some of the  
5 dewatering areas of -- of the Diavik Mines.

6                   Areas 3 and 5 remains watered as the  
7 water management pond. So in -- in arriving at our  
8 conclusion we -- we considered all the potential  
9 sources of potential change to the sediment chemistry,  
10 and those being water transfers from other regions of -  
11 - of Kennady Lake. The actual act of dewatering itself  
12 in terms of mobilizing some of the sediment around the  
13 lake, the shore margins. The -- the change in water  
14 quality within the water management pond, it receives  
15 groundwater inflows, and also receives the recycled  
16 processed water flows from the -- the process plant  
17 which is drawn from the water management pond depo --  
18 deposited as a slurry in the fine PKC facility, and  
19 then the water that seeps back into the water  
20 management pond through Dike L, and also from air  
21 deposition with the drawdown of the wa -- areas 2 to fi  
22 -- areas 2 to 5 -- with the drawdown of the -- the lake  
23 with respect to areas 2 to 5.

24                   When the lake gets to -- to -- when the  
25 water level gets to a point where it's actually going

1 to result in exposure of the fine lake bed sediment,  
2 and brought about by winds or waves there'll be  
3 sediment entrainment resuspension. And a lot of that  
4 material will move from that shoreline through to the  
5 deeper parts of -- of Kennady Lake, or deeper parts of  
6 the water management pond.

7                   So in that regard, it's -- the change in  
8 sediment chemistry is really minimal because we're --  
9 we're talking about similar -- similar sediment being  
10 moved -- being transferred from one (1) location to  
11 another.

12                   With respect to the water that's  
13 transferred from area 6 to 7, it's -- in the second  
14 stage of dewatering into the water management pond, as  
15 Wayne pointed out in -- in one (1) of his responses  
16 this morning, there'll be an inline floc treatment  
17 system in place, not only from -- I guess not only from  
18 the areas 6 and 7, but also from any other area that --  
19 that -- where water needs to be transferred to the  
20 water management pond that is laden with any su --  
21 total suspended sediment. You know, that could be from  
22 the pit inflows, or the -- the pit water that's  
23 collected and needs to be transferred to the water  
24 management pond; in collection ponds that have been  
25 located within the basin that is -- that re -- receives

1 natural runoff and -- and is -- has elevated total  
2 suspended solids.

3                   And that water's relocated to an area in  
4 the southern region of area 5. And that's where the  
5 water -- the -- the floc'd water will be pumped to,  
6 it'll be settled out. If necessary, a ring dike might  
7 be constructed around that area just to limit the  
8 amount of potential disturbance from wave and wind  
9 action, so it reduces the amount of fetch. And so,  
10 that material will settle out in that area.

11                   And as Wayne pointed out that region of  
12 area 5 will be reclaimed by the -- the west mine rock  
13 pile. So, it isolates any of that floc material that  
14 may or may -- may have -- for that -- that may have any  
15 potential to -- to exert and affect the sediment  
16 quality. I think in -- in many of the cases, the floc  
17 that would be used would be a biodegradable floc as  
18 well. But to limit any potential effect that area is  
19 isolated and then becomes the west mine rock pile.

20                   The other -- the other consideration  
21 that came to -- to our evaluation around sediment  
22 chemistry at closure is the changes in the water  
23 management pond with respect to -- to water chemistry.  
24 And, as I indicated, that is the -- what the main  
25 driver there is -- is the elevated TDS.

1                   And the pathway to effects -- to the  
2 sediment chemistry from -- from both the elevated TDS  
3 and the groundwater chemistry, and also in the -- in  
4 the water that's flowing through Dike L, was determined  
5 not to contribute a substantial issue with respect to  
6 sediment quality. So, at closure when the lake is  
7 refilled, you know, our con -- our basis for our  
8 conclusion stands that we -- we don't expect a  
9 significant adverse effect to aquatic life from the  
10 sediment chemistry that -- that exists within the  
11 Kennady Lake.

12                   Now, one (1) of the other -- one (1) of  
13 the other potential sources that I failed to mention,  
14 also, was the general mine activity that will occur  
15 within the basin of Kennady Lake. There will be some  
16 roads where there will be haulage trucks transporting  
17 coarse PK, or even mine rock to the various piles. And  
18 so those areas are -- are definitely very localized and  
19 provide a bit of a focus point for -- for monitoring,  
20 which I'll come to in a minute.

21                   There's also the -- the -- also the  
22 other sources is aerial deposition, you know, from  
23 general mine activity and -- and that potential for  
24 particulates to deposit throughout the Kennady Lake  
25 basin. And I think on the basis of the -- the air

1 quality assessment, albeit conservative, that the --  
2 the total mass in terms of particulate matter that  
3 would make its way to the sediment bed, when you take  
4 into the account the -- the material that's already  
5 lying in the sediment bed, it's a small fraction or  
6 represents a small proportion of inputs.

7                   During the -- during the period of  
8 operations and certainly during the refilling stage,  
9 there's ample opportunity for monitoring of sediment  
10 quality, both within the areas -- both within the water  
11 management pond, also within the collection ponds. And  
12 when the refilling starts at various other areas within  
13 Kennady Lake, there will be specific objectives that  
14 will provide targets for -- for sediment chemistry.  
15 You know, there'll be comparisons to baseline  
16 conditions and there will also be comparisons to -- to  
17 federal guidelines with respect to sediment chemistry.

18                   And where any exceedances to the  
19 objectives or to guidelines are -- are determined, it  
20 would set in place a series of -- of actions that would  
21 both verify the level of -- I guess, change in  
22 trajectory of the sediment chemistry and allow the  
23 adaptive management process to -- to be set in place.  
24 And that would be to really focus on identifying areas,  
25 the extent of any problem, and then to develop

1 mitigation, which could be, I guess, to -- to -- at an  
2 extreme level to -- to consider extracting the -- the  
3 problematic area in terms of the surface sediment and -  
4 - and relocating it, perhaps in the pit, as an example.

5                   So, you know, with -- with that in mind,  
6 I think we've given -- we've given some thought to the  
7 -- to the potential pathways to -- to sediment quality  
8 change and its potential to affect aquatic life, and --  
9 and result in -- sorry, I've just -- I've just been  
10 caught off track with -- while I'm reading something.

11 But with -- with respect to our conclusions around the  
12 -- the potential for effects based on, you know, the  
13 sediment quality and -- and the -- and the -- and  
14 resuspension of material in -- in the lake refilling as  
15 -- as the lake is -- is, sort of, in its closure phase.

16                   I think one (1) of the -- one (1) of the  
17 certain -- one (1) of the benefits that -- that the  
18 project has is, is time, both -- both in terms of  
19 monitoring and -- and being able to apply adaptive  
20 management. I think with respect to the refilling, as  
21 the lake starts to move back towards its original lake  
22 level it will get to a point where -- well, there will  
23 be a cert -- certain period of time where the water  
24 level is always going to -- to ex -- interact with the  
25 fine lake bed sediment before it gets to that -- that

1 littoral zone, which is a little bit more cobbly and  
2 bouldery material.

3                   And with each ensuing winter season with  
4 ice cover there will be a -- that is a -- a -- very  
5 prominent times in terms of sediment deposition back to  
6 the sediment. So almost with each -- with each winter  
7 you get a reset with respect to the sediment  
8 deposition. By the time you get to the cob -- cobble  
9 and boulder zone then you still have a number of years  
10 left with respect to the lake reaching its final water  
11 level.

12                   And so the -- with each -- with each  
13 centimetre as you get closer to the -- to the final  
14 water level then the -- the potential for sediment re -  
15 - resuspension sort of diminishes. And they will be a  
16 point in time where with that -- the sediment  
17 resuspension should be back to -- to similar to -- to  
18 baseline conditions.

19                   MS. ANNE WILSON:   It's Anne Wilson.  
20 Thanks for that. I expect that the imminent TSS  
21 modelling will also address some expectations around  
22 the quality of water that will be coming out at  
23 closure. Is that a safe assumption?

24                   MR. JOHN FAITHFUL:   It's -- sorry,  
25 Anne, I didn't hear your question. If you wouldn't



1 mind repeating it, please?

2 MS. ANNE WILSON: Yeah. It's Anne  
3 Wilson. I was just wondering if the TSS modelling that  
4 had been requested includes the closure scenario as far  
5 as what the releases will be from the rewatered Kennady  
6 Lake at the end of the day?

7 MR. JOHN FAITHFUL: The -- the TSS memo  
8 that -- that you alluded to, Anne -- sorry, John  
9 Faithful, Golder Associates. I apologize for that chat  
10 before. Only refers to total suspended solids  
11 concentrations.

12 MS. ANNE WILSON: It's Anne Wilson. I  
13 -- I understand that. What time period does that  
14 cover? Will it include TSS in the water column at  
15 closure is what I was looking for.

16 MR. JERRY VANDENBERG: Jerry  
17 Vandenberg, at Golder. So we looked at TSS from a  
18 modelling perspective in two (2) different ways. The  
19 first was at closure, we looked at deposition of dust  
20 and other mine-related materials that could be  
21 deposited on the lake at closure. We looked at the  
22 types of particles that could be deposited and we  
23 modelled those in the hydrodynamic model. We concluded  
24 that after one (1) year of settling under ice there  
25 would be less than 1 milligram per litre of TSS.

1 That's strictly related to the mine-related inputs.

2                   The second type of TSS modelling we did,  
3 which is in the forthcoming memo, is looking at  
4 resuspended bottom sediment. It does not specifically  
5 address the closure scenario. It -- it does just look  
6 at operational period. However, the -- what we found  
7 in that modelling would be applicable to the closure  
8 scenario, which was -- under -- under the operational  
9 period in areas 35, the water management pond, any  
10 sediment that is suspended due to wind or other events  
11 is likely to resettle under the ice.

12                   So in other words, during the refilling  
13 period -- there's an eight (8) year period of refilling  
14 the lake, each winter whatever is stirred up in the  
15 summer will settle to background conditions over the  
16 winter. And so that was -- that was looked at  
17 specifically during the operational period, but those  
18 conclusions would apply to the closure refilling period  
19 as well.

20                   MS. ANNE WILSON: Thank you. It's Anne  
21 Wilson. That's very helpful. I'm just thinking back  
22 to the question on the site-specific water quality  
23 objectives.

24                   Will De Beers be able to provide their  
25 objectives for release of water at closure? And

1 thinking primarily of the total suspended solids and,  
2 of course, all the other parameters of concern, such as  
3 the major ions and the metals, will those be included  
4 in your -- will you include post-operational objectives  
5 in that?

6 MR. JOHN FAITHFUL: John Faithful,  
7 Golder Associates. Yes, Anne, we will.

8 MS. ANNE WILSON: Anne Wilson. Thank  
9 you.

10 THE FACILITATOR HUBERT: Chuck Hubert  
11 with the panel. Thanks very much. And I guess the  
12 target date for -- for the water quality objectives is  
13 September of this year.

14 MS. VERONICA CHISHOLM: Veronica  
15 Chisholm, De Beers. I'm sorry, Chuck, I was  
16 momentarily distracted. Could you just repeat that?

17 THE FACILITATOR HUBERT: Certainly.  
18 It's Chuck Hubert, with the panel. The -- we discussed  
19 it once earlier before lunch and now, again, the water  
20 quality objectives. And while they could be the  
21 results of an Information Request by -- by a party, our  
22 target for responses to IRs is -- is September --  
23 September/October timeframe. So if -- if -- even if it  
24 may -- even if there may be some time between now and  
25 when IRs are actually formally submitted, that may

1 include that as a question, if you can think about that  
2 sort of timeframe for -- for completing those water  
3 quality objectives.

4

5 (BRIEF PAUSE)

6

7 MS. VERONICA CHISHOLM: Veronica  
8 Chisholm, De Beers. We will do our best; however, the  
9 commitment is for around the end of the second round of  
10 Irs. But we'd be willing to talk to whatever parties  
11 would have specific questions, including Environment  
12 Canada about that.

13 MS. ANNE WILSON: It's Anne Wilson,  
14 with Environment Canada. We would certainly be pleased  
15 to discuss them as you were developing them, and I  
16 think INAC is -- has similar interests in this respect  
17 as well. So potentially there could be some  
18 discussions among several parties.

19 MR. JOHN FAITHFUL: John Faithful,  
20 Golder Associates. Thanks, Anne, and we also recognize  
21 that, I guess the -- the finalization of any water  
22 quality objectives and -- and discharge limits is -- is  
23 part and parcel of the sort of the approval of the  
24 water licence process. So we -- we see this as a -- as  
25 a great opportunity to advance a lot of this work and -

1 - and welcome those -- that engagement procedure.

2 Thank you.

3 THE FACILITATOR HUBERT: Thanks very  
4 much. I'd like to go once again to anybody who may be  
5 on the teleconference for a question.

6

7 (BRIEF PAUSE)

8

9 THE FACILITATOR HUBERT: Okay. I'll  
10 continue to do so anyway for -- every half hour or so.  
11 So further questions, please, for -- for De Beers.

12

13 (BRIEF PAUSE)

14

15 DR. KATHY RACHER: Kathy Racher, on  
16 behalf of the Mackenzie Valley Land and Water Board.  
17 The same sort of question as I had earlier, but now on  
18 the water quality closure for Kennady Lake. And -- I  
19 mean, there are a number of -- there's a lot of  
20 modelling you've done. You've done a lot of work to  
21 model and test, and -- and do everything you can to  
22 assimilate a great deal of information to make your  
23 predictions.

24 And I'm -- I'm -- I just wanted a  
25 feeling from you a -- again as to what the key

1 uncertainty is in your water quality predictions for  
2 Kennady Lake and its ability to be reconnected to the  
3 watershed at closure. What would you consider the --  
4 the key uncertainty in your -- in -- in your models?

5

6 (BRIEF PAUSE)

7

8 MR. JERRY VANDENBERG: Jerry  
9 Vandenberg, with -- with Golder. So first I would  
10 direct you to Appendix 8-288-ii -- sorry, 8.ii.5, where  
11 we have a section on uncertainty and model limitations,  
12 and we give a little bit of detail about uncertainty.

13 So I would acknowledge that, you know,  
14 these are models. There's definitely uncertainty in  
15 the predictions. And the way we would generally  
16 address this is by using conservative assumptions, so  
17 that we have a fairly high level of confidence that  
18 we're not underestimating concentrations.

19 You asked for the key uncertainty, I  
20 would -- I would say that probably the geochemical  
21 loadings from some of the mining materials would give  
22 us the highest uncertainty as to how much effect  
23 that'll have on water quality. Fortunately, that's  
24 something that can be monitored and that the  
25 uncertainty can be lowered with monitoring throughout

1 the life of the mine, so that the effects on water  
2 quality can be better quantified and the inputs to the  
3 models can be validated as mining progresses.

4 So as these materials are put out in  
5 large scales as opposed to in lab tests, it provides  
6 opportunities to monitor and see how good the  
7 predictions were and whether or not any models or  
8 monitoring needs to be adapted as -- as mining  
9 progresses.

10 DR. KATHY RACHER: Kathy Racher here,  
11 for the Board. Thank you -- for the Mackenzie Valley  
12 Land and Water Board. I don't want us to get us  
13 confused, heaven forbid.

14 You said "geochemical loadings of mining  
15 material." Do you -- is there a specific material --  
16 and like is it PK or is it granite or is it waste rock  
17 or what -- or is it -- is it just generally all of  
18 those -- all of those con -- components? Ken's  
19 laughing at me.

20 MR. KEN DE VOS: No. Ken De Vos, with  
21 Golder Associates. I mean, I think it's important to  
22 realize that -- that these are -- you know, we make  
23 predictions and -- and we're -- we scale very small  
24 samples up to very large samples. And we do the best  
25 we can with the information that we have. And

1 different parameters behave quite differently depending  
2 on the -- the resulting environment that -- that  
3 they're in. So when we look at the geochemical inputs  
4 it's difficult to say whether it's going to be one (1)  
5 parameter or another in that specific environment. So  
6 we try and look at all the -- all the possible  
7 conditions that -- that are going to result.

8                   You know, in this particular instance,  
9 phosphorous is -- was probably one (1) of the -- the  
10 larger uncertainties going into it. And we -- we put  
11 in place a program to address a li -- with a little bit  
12 more certainty, what kind of phosphorous concentrations  
13 we might expect.

14                   And that's the approach that we would be  
15 taking for -- for any par -- parameter that -- that we  
16 notice has more uncertainty than we're comfortable  
17 with. You know, we -- we can't say that -- that  
18 there's never going to be a parameter that's a little  
19 bit higher than -- than we're predicting because --  
20 because they're just that. They're predictions. What  
21 we do want to have in place is -- is a - and what we  
22 have in place is -- is a monitoring program to capture  
23 these things and, you know, we need to be able to -- to  
24 adaptively monitor and manage them as they occur or if  
25 they occur.



1 DR. KATHY RACHER: Kathy Racher, for  
2 the Mackenzie Valley Board. As -- as you said,  
3 obviously you -- you do the best you can with what  
4 you've got right now. And then as you build the mine  
5 you monitor. And typically monitoring data is used to  
6 update various models.

7 And I'm just -- I just want an  
8 indication of what you think is a reasonable time frame  
9 to be updating your water quality models both for  
10 within Kennady Lake and -- and eventually to -- for the  
11 receiving environment, like, you know, every three (3)  
12 years, every year, every five (5) years. What -- what  
13 do you think is a reasonable time frame?

14

15 (BRIEF PAUSE)

16

17 MS. VERONICA CHISHOLM: Veronica  
18 Chisholm, from De Beers. Thank you for your question.  
19 In considering the modelling work we recognize that  
20 there would be inputs to those models during  
21 construction period, and then leading into operation  
22 period, in order to provide any kind of meaningful  
23 update to the water quality modelling. So we'd be  
24 probably looking at in the range of --

25 MR. JOHN FAITHFUL: Five (5) to eight

1 (8) --

2 MS. VERONICA CHISHOLM: -- five (5) to  
3 eight (8) years before we could provide some type of  
4 meaningful output on that model. And -- but, of  
5 course, if the monitoring data were to indicate  
6 anything is deviating from what our predictions were  
7 then that would trigger us to rerun the water quality  
8 model.

9 DR. KATHY RACHER: Kathy Racher, for  
10 the Mackenzie Valley Land and Water Board. Okay, and  
11 that leads me nicely to the next question. I was  
12 reading over the information responses to AANDC, the --  
13 the responses that you gave. They asked about a  
14 response framework and setting action levels, not --  
15 also for the response framework, but also as part of  
16 the AMP process. And I -- I believe in your response  
17 you talked about working on those kind of trigger  
18 levels. So I consider action levels to be those things  
19 that tell you when it's time to take action in advance  
20 of a regular scheduled five (5) to eight (8) year  
21 period.

22 And I just wondered if you were planning  
23 on doing that in the same sort of time scale this year,  
24 as you were with the water quality objectives, sort of,  
25 by September? And if you were planning on looking at

1 that this summer?

2 MS. VERONICA CHISHOLM: Veronica  
3 Chisholm, from De Beers. Just getting some input from  
4 my team on what seems reasonable. I think that -- that  
5 our first -- for our first iteration that would be a  
6 reasonable thing that we could include for that  
7 September timeline for deliverable -- with the water  
8 quality objectives.

9 DR. KATHY RACHER: Kathy Racher for the  
10 Mackenzie Valley Board. Okay. And one (1) other  
11 thing. In your responses to INAC, they asked -- they  
12 asked, kind of, actually, several times in different  
13 ways, they asked about what are you going to do if you  
14 can't get the water to be suitable for discharge at  
15 closure. Like -- and I take that to mean that you  
16 can't, you know, re-establish the hydraulic connection  
17 that was there pre-mining.

18 And -- and your answers are generally  
19 about, if required, having an adaptive management  
20 strategy at that time. All of your answers are about,  
21 you know, you're -- you're pretty sure of your  
22 predictions. And -- but when you have talked about  
23 potential mitigations -- and, again, John said  
24 something about that with the sediment as well, that it  
25 sounded like you were willing to do what it took to

1 make sure that -- that you re-established the  
2 connection with Kennady Lake to the -- the watershed.

3 And I just wanted to clarify if that's -  
4 - if that was, indeed, your intention to commit to --  
5 to being able to do that at -- at closure, to reconnect  
6 Kennady Lake and have it at -- at a appropriate water  
7 quality.

8 MS. VERONICA CHISHOLM: Veronica  
9 Chisholm, from De Beers. Yes, we do intend to  
10 reconnect Kennady Lake at closure to -- to the  
11 surrounding watersheds. That's been our intention and  
12 that's what our mine plan indicates. And that's what  
13 all of our impact assessment has been about to date, in  
14 order to support the fact that we will be able to  
15 connect the Kennady Lake to the watershed at closure.

16 MR. BRUCE HANNA: Bruce Hanna, DFO.  
17 Just had a clarification request on DFO and EC's IR  
18 number 38. While new stream channels connecting Lake  
19 B1 and raised lakes D2 and D3 and E1 look like habitat  
20 enhancement features for fish will be built at the  
21 design stage and -- and at the outset -- which is great  
22 to see. For the diversion channels that are diverting  
23 surface run off from B, D, and E watersheds to the N  
24 watershed, it's a little confusing, because it said:

25 "Depending on the natural site

1 conditions at the diversion channels,  
2 engineered erosion protection  
3 measures and fish habitat enhancement  
4 features may be required at some  
5 locations."

6 But then it says:

7 "In the unlikely event where the  
8 original and natural drainage to  
9 Kennady Lake cannot be restored,  
10 design and installation of habitat  
11 enhancement features in the temporary  
12 channels will be conducted."

13 So I'm just wondering, are the habitat  
14 enhancement features going in on the diversion channels  
15 at the outset? Because I think that would be important  
16 just to address the temporal loss of habitat in the  
17 first place. It was just a clarification on that  
18 point.

19

20 (BRIEF PAUSE)

21

22 THE FACILITATOR HUBERT: Thanks for  
23 that question. While we're waiting for De Beers to  
24 prepare a response, I'd like to once again ask if  
25 there's anybody on the telecom?

1 (BRIEF PAUSE)

2

3 THE FACILITATOR HUBERT: Good  
4 afternoon. Whoever is on the teleconference we're glad  
5 you're participating. We'll allow De Beers to respond  
6 to a question from DFO first and then we'll go to you.  
7 Thanks.

8

9 (BRIEF PAUSE)

10

11 MS. VERONICA CHISHOLM: Veronica  
12 Chisholm, from De Beers. Thanks for your question,  
13 Bruce. The diversions -- they were primarily designed  
14 for erosion control, but De Beers will look for  
15 opportunities to incorporate those fish-enhancement  
16 structures within those areas as early as possible. So  
17 we'll look for that opportunity to do that, but  
18 primarily the original design is for erosion control.

19

20 (BRIEF PAUSE)

21

22 MS. VERONICA CHISHOLM: And those --  
23 just to -- just to add -- Veronica Chisholm, from De  
24 Beers.

25 And any discussions that we have on

1 those enhancement structures would be undertaken  
2 following the detailed design of the compensation plan  
3 as we work through the compensation plan, as well as in  
4 consultation with communities and DFO.

5 MR. BRUCE HANNA: Bruce Hanna, DFO.  
6 Thank you.

7 THE FACILITATOR HUBERT: Chuck Hubert  
8 with the panel. At this point I'd like to give the  
9 opportunity to a participant on the teleconference to  
10 ask a question of De Beers. And if you could please  
11 state your name and who you're associated with, please,  
12 before answering (sic) the question. Thanks.

13

14 (BRIEF PAUSE)

15

16 THE FACILITATOR HUBERT: Chuck Hubert  
17 with the panel again. Sorry if I lost whoever is on  
18 the -- the line. I'll try it once again. Please, go  
19 ahead.

20

21 (BRIEF PAUSE)

22

23 THE FACILITATOR HUBERT: Okay, well --  
24 Chuck Hubert with the panel. I'm sure whoever it was  
25 will come back, no doubt, for another try. So we'll

1 continue with questions from people in the room in that  
2 case. Thanks.

3

4 (BRIEF PAUSE)

5

6 MR. BRUCE HANNA: Bruce Hanna, DFO.  
7 I'm just looking at DFO and EC IR number 45. One (1)  
8 of the questions we had was:

9 "How would the incorporation of a  
10 water treatment plant reduce the  
11 extent of downstream effects,  
12 recovery time of Kennady Lake, and  
13 the length of time before the waters  
14 within Area 3 to 7 of Kennady Lake  
15 meets specific water quality  
16 objectives prior to breaching Dike  
17 A?"

18 I know it's talking about the -- the  
19 phosphorus is going to be reduced so it -- it will stay  
20 oligotrophic. But there was not really a comparison  
21 between having a treatment plant and not having a  
22 treatment plant. So I was just wondering if there's  
23 any clarification that can be provided there?

24 MS. VERONICA CHISHOLM: Veronica  
25 Chisholm, from De Beers. I'm -- I'm sorry, Bruce, can



1 you clarify? Like, you're looking for a comparison  
2 with or without water treatment?

3 MR. BRUCE HANNA: Bruce Hanna, DFO.

4 Yeah, that's pretty much what we're looking at, just to  
5 -- to see the two (2). Like I say, how would  
6 incorporation of a water treatment plant -- and then it  
7 listed: reduce the extent of downstream effects,  
8 recovery time of Kennady Lake, length of time before  
9 Areas 3 -- 3 to 7 of Kennady Lake meet water quality  
10 objectives. So I know you were looking at a -- a fast  
11 turnover or water quality, et cetera, et cetera, but it  
12 wasn't really what you're proposing now, or what you're  
13 predicting now. Would that be improved with the  
14 treatment plant or would it be about the same, I guess?

15

16 (BRIEF PAUSE)

17

18 MS. VERONICA CHISHOLM: Veronica  
19 Chisholm, from De Beers. We're just going to take a  
20 few seconds, moments, to review the IR and the  
21 response. So we'll try and get back to you as quickly  
22 as possible.

23

24 (BRIEF PAUSE)

25

1 MR. WAYNE CORSO: This is Wayne Corso,  
2 JDS. I -- I just wanted to, you know, look thing -- I  
3 -- I was the one that was looking at the -- at the use  
4 of a water treatment plant and its -- its effect on --  
5 on the project. And -- and it's still -- you know,  
6 like I -- I was talking about before, that it is  
7 probably the perfect contingency, and it still is.

8 Basically, as -- as the -- as the  
9 project goes from operation through closure into  
10 ultimate level of recovery of the level of Kennady Lake  
11 to where it's -- it's ready to -- to discharge, we have  
12 -- we have complete control over that -- over that  
13 refilling. So -- so if it turns out that throughout  
14 the eight (8) years of -- of filling where we're  
15 actually augmenting flows from Lake N11 or the sixteen  
16 (16) to twenty (20) years that it returns to its level  
17 when -- with no augmented flows, the -- the use of a  
18 water treatment or TDS plant, if required, can  
19 certainly -- can certainly be -- be implemented. But  
20 right now, we don't think it needs to be.

21 So -- so, basically, you know, the --  
22 the way the plan works is it's -- is the -- all of the  
23 -- all of the waters and all of the products from  
24 mining are contained naturally in that basin. And we  
25 basically have the -- have the control as how fast that

1 basin comes up, and to monitor the water quality in  
2 that basin as it's coming up to prepare for its  
3 discharge. If we need to slow it down, we -- we stop  
4 pumping water into it to augment the -- the filling.  
5 So -- and if we need to implement water treatment, it  
6 can be done.

7                   So like I say, it's -- it's the ultimate  
8 -- the ultimate contingency. But there would be no  
9 reason to say put in an expensive and a high energy  
10 requirement water treatment plan prior to the -- the  
11 eight (8) year refilling period, because -- because we  
12 might get a constituent down lower than a predicted  
13 range when we have the opportunity to monitor what  
14 actually is being produced and what the -- what the  
15 actual water quality is to determine whether we really  
16 need water treatment or not.

17                   MR. PETE COTT: It's Pete Cott, from  
18 DFO. With that, for the contingency will -- will a  
19 water treatment plant be in place in the event that a  
20 contingen -- contingency is needed then, or is it just  
21 in the event that you need one (1), then one (1) will  
22 be built? I'm -- I'm assuming that you're going with  
23 the -- the latter.

24                   MR. WAYNE CORSO: Yes, your  
25 assumption's correct, the latter. Yeah, they're --

1 they're not -- it's not a unique process. It's, I  
2 wouldn't say off-the-shelf, but pretty darn close, so  
3 that we can -- we can put something in place if we  
4 needed to. And we -- like I say, at the very -- at the  
5 very fastest, while we're augmenting flows we have  
6 eight (8) years, so, yeah, because time isn't an issue  
7 at that point.

8 MR. PETE COTT: It's Pete Cott, from  
9 DFO. Thanks for that. With -- with respect to -- to  
10 Bruce's question earlier, he was asking about I -- I  
11 guess a table or some sort of -- something to -- to  
12 show the -- with a water treatment plant and without  
13 water treatment plan ex -- scenarios post-closure, and  
14 it...

15

16 (BRIEF PAUSE)

17

18 MR. PETE COTT: And that related to DFO  
19 IR number 38, but also DFO IRs number 43, 51, 52, and  
20 66, 66 being the contingency plan that -- that we just  
21 discussed. But just for efficiency, all of those IRs  
22 the -- the DFO-EC IRs, all of those IRs that I just  
23 outlined can be answered with that pre and post -- or  
24 with and without water treatment plant scenario table,  
25 or summary, or what -- whatever. Thanks.

1 MR. BRUCE HANNA: Yeah, Bruce Hanna,  
2 DFO. It was actually my fault. It was number 45 for  
3 that with the treatment plant. But that's the sort of  
4 thing that might -- you might have in the alternatives  
5 assessment, I guess, with the kind of information you  
6 were discussing there, so, I'm not sure.

7

8 (BRIEF PAUSE)

9

10 MR. JOHN FAITHFUL: John Faithful,  
11 Golder Associates. Thanks Bruce, thanks Pete. We've  
12 undertaken a fairly comprehensive assessment with  
13 respect to the projections of water quality in Kennady  
14 Lake, all the way through operations and -- and at  
15 closure, and I think the EA concludes that the -- the  
16 water quality in Kennady Lake at closure, when in  
17 refill conditions, is going to be suitable for  
18 discharge. I meant that's our -- that's our -- that's  
19 our conclusion. We've based our environmental effects  
20 analysis on that.

21 I think ultimately providing the  
22 response that we did in the E -- in the IR that sort of  
23 supported that, and -- and Wayne's assertions is that  
24 the -- the water treatment plant consideration is a  
25 contingency is that -- I think I -- I -- sort -- I'm

1 sort of struggling with -- with being able to -- to  
2 move down the -- the path to -- to provide a table  
3 whereby we present values that -- for -- for water  
4 treatment as opposed to what we've projected in the --  
5 in the EA based on the -- on the current mine plan.

6 I have a number of questions, I guess,  
7 with respect to what your expectations would be in the  
8 -- in the first place, as to, you know, what kind of  
9 water treatment plant, or what point in time you would  
10 consider it being required to be applied to the  
11 project. So -- but I -- I think, you know, we've --  
12 we've done a lot of -- a lot of work with respect to --  
13 to where we've got to in their environmental  
14 assessment, and, you know, we -- we're very happy with  
15 the conclusions that -- that we've been able to draw on  
16 based on the work that we've done, and to stand by the  
17 conclusions that, you know, the -- the water quality in  
18 Kennady Lake at closure will be acceptable for  
19 discharge.

20 THE FACILITATOR HUBERT: Thanks. Is  
21 DFO able to provide the -- those kinds of more  
22 specifics as to what sort of -- kind of table and what  
23 kind of information, inputs and outputs? Or maybe  
24 that's something De Beers and DFO could discuss, and  
25 come to some agreement.

1 MR. PETE COTT: It's Pete, from DFO.  
2 Yeah, that -- that kind of information's fine. It's  
3 just -- as indicated in our IR responses there's a  
4 bunch of different ones relating to things that -- that  
5 could be addressed by a summary. So it's just bringing  
6 that information together for clarity.

7 And if it is evident that there's not an  
8 effect between im -- implementing a water treatment  
9 plant and not, then that's your information, too. It's  
10 just more a compendium of all of that in one (1) area,  
11 just for ease of -- of digesting that information, I  
12 suppose, because right now it's -- it's throughout the  
13 -- the EIS.

14 So that's what we're looking for, and if  
15 whatever the outcome is, that's -- that's the outcome.  
16 Thank you.

17 THE FACILITATOR HUBERT: Thank you. So  
18 -- so more of a compendium, was the term used, of  
19 responses to the IRs.

20 MS. VERONICA CHISHOLM: Veronica  
21 Chisholm, from De Beers. I think we can confirm that  
22 that information will be included in the alternative  
23 analysis report. It's a little bit more than what I  
24 had originally had in the plan, but we're still going  
25 to target that mid-June timeline to deliver that

1 report. So, I will also insure that that information  
2 is included in there. Thank you.

3 THE FACILITATOR HUBERT: Thanks. The  
4 panel and all parties look forward to that alternatives  
5 analysis report that includes the information as  
6 discussed. Thanks. That's great.

7

8 (BRIEF PAUSE)

9

10 THE FACILITATOR HUBERT: I'll ask once  
11 again for any party that's on the teleconference to  
12 speak now, if you have a question.

13

14 (BRIEF PAUSE)

15

16 THE FACILITATOR HUBERT: How about  
17 anybody in the room, then? Further discussion on water  
18 quality at closure, or -- or topics closure related,  
19 generally?

20

21 (BRIEF PAUSE)

22

23 MS. VERONICA CHISHOLM: Veronica  
24 Chisholm, from De Beers. I just wanted to let you know  
25 that that TSS memo is now in your inbox. So, just as



1 an update to that particular task. And we also sent  
2 that to MVEIRB, so you -- you can post that to the  
3 registry, so.

4 THE FACILITATOR HUBERT: Thanks very  
5 much. What is the title of that memo? Just TSS memo?

6 MS. VERONICA CHISHOLM: I'll have to  
7 bring that up, Chuck. I can't recall. But that's how  
8 -- that's the short version of it. It's pretty obvious  
9 in the email.

10 THE FACILITATOR HUBERT: Chuck Hubert.  
11 My apologies for pressing you on the exact title.  
12 It'll be on the -- the website tomorrow.

13 MS. VERONICA CHISHOLM: Veronica  
14 Chisholm, from De Beers. I have the exact title. May  
15 2012 Gahcho Kue Project Environmental Impact Statement,  
16 2012 EIS Supplement Information Session, entitled  
17 "Modelling of Sediment Resuspension in Area 2, and 3,  
18 and 5 of Kennady Lake Following Dewatering." Submitted  
19 to De Beers Canada, May 2012. Thanks.

20 THE FACILITATOR HUBERT: Thanks very  
21 much. We all look forward to going through that.  
22 Further questions from -- from parties in the room,  
23 please?

24

25 (BRIEF PAUSE)

1 THE FACILITATOR HUBERT: Yeah, you can  
2 talk about fish, if you'd like. Please.

3

4 (BRIEF PAUSE)

5

6 MR. ELMAR PLATE: It's Elmar Plate,  
7 from LGL Limited. I have several questions. This will  
8 -- I think may take a little while to answer all of  
9 those.

10 There is one (1) discussion that we  
11 started, is the increase of nutrients will probably  
12 have some benefits to the lake, this increased  
13 phosphorous load. It may also have some disadvantages  
14 with less oxygen in the winter. And that's apparently  
15 balancing each other out. I just wanted to make the  
16 comment that would enC -- encourage De Beers probably  
17 to look into a little bit more detail there. Often  
18 when you increase the nutrient availability, you're  
19 enhancing non-grazeable phytoplankton organisms. And I  
20 had an information request to -- answer and that said  
21 that's only happening in eutrophic lakes.

22 Actually, I have lots of examples where  
23 non-grazeable phytoplankton has increased following  
24 nutrient addition. So what that means is if you have  
25 non-grazeable phytoplankton, you all know -- but just

1 for everyone, is that you have more phytoplankton, but  
2 the energy from that phytoplankton doesn't move up the  
3 trophic chain. It stays there.

4 And the zooplankton doesn't graze that  
5 phytoplankton. And there's one (1) species that's  
6 specifically known for that. It's called merismopedia,  
7 and you probably have heard of it. But that's one (1)  
8 good example to look into.

9 So, what could happen quite as -- that's  
10 an alternative scenario to what you're described as --  
11 that you increase the phytoplankton densities, which is  
12 probably what's going to happen. And it could be of a  
13 non-grazeable phytoplankton organism, and then you have  
14 only the advantages. There is no balancing out. There  
15 is no -- do -- I have only disadvantages, sorry. No  
16 advantages, no nutrient transfer into the fish, but  
17 more oxygen consumption under the ice.

18 So that's just one (1) alternative  
19 scenario to what you've described and for that I don't  
20 really know what you can say to that at this point.  
21 It's just basically a preamble, it's a comment that  
22 make. If you wish you can comment on that, but  
23 otherwise, I just wanted to bring it to your attention.

24

25 (BRIEF PAUSE)

1 MR. JERRY VANDENBERG: Jerry  
2 Vandenberg, with Golder. I can make some comments to  
3 that. So we did model DO in the -- in the closure of  
4 Kennady Lake. The model calibration was based to a  
5 large extent on the Snap Lake calibration, and -- so  
6 the Snap Lake is a similar system. It's nearby. We  
7 expect probably a similar -- similar types of processes  
8 and species there.

9 And we also looked at a fairly extreme  
10 range of sediment oxygen demand in the closure lake.  
11 We look -- we did a sensitivity analysis, which is  
12 highlighted in dissolved oxygen and nutrient model  
13 report which is Appendix 8.v.5.

14 And even under the fairly extreme  
15 sediment oxygen demand conditions we modelled, there'll  
16 still be quite an increase in fish habitat at -- at  
17 closure, because you have the creation of habitat due  
18 to the pits. So you have quite a large additional  
19 volume.

20 The modelling did include processes  
21 under ice based on observed conditions. Those are  
22 observed conditions at Kennady Lake, Snap Lake, as well  
23 as some other lakes in the region. So we have a pretty  
24 -- pretty moderately high level of confidence around  
25 the under-ice conditions that we modelled. But I

1 think, in summary, there will be an -- an increase in  
2 habitat as opposed to a -- a decrease in habitat.

3                   Additionally, throughout the mining --  
4 or the operational and the closure period there will be  
5 quite -- quite a number of years to monitor the exact  
6 species that are making up the phytoplankton community.  
7 And if they are identified as non-grazeable -- I mean  
8 there's -- there's quite a number of years to adapt to  
9 that.

10                   MR. ELMAR PLATE:    Yeah, it's Elmar  
11 Plate, from LGL. That's kind of what I was hoping for,  
12 is that you would probably do a more -- or monitoring  
13 program of the phytoplankton organism, how it behaves  
14 in response to the changes to the water, because that's  
15 probably what you would see then after closure, too,  
16 what you would also see during the operational phase.  
17 So that's good. Thank you.

18                   There is -- I have one (1) big issue is  
19 you are dewatering Kena -- Kennady Lake and lots of the  
20 behaviours in fish are inherited. I'm sure -- I'm  
21 quite sure that some of you are aware of those  
22 experiments that show if you take fish out of their  
23 natural environment, raise them in a hatchery, release  
24 them into a different lake, all of a sudden they're  
25 migrating to the south, because the lake that they came

1 from had the outflow in the south, the new lake has the  
2 outflow in the north.

3                   So what I'm -- why I'm bringing this up  
4 is when you re-colonize the lake it may never be the  
5 same as it was before, because there's quite a few  
6 inheritant (sic) aspects to fish behaviour and fish  
7 growth. So what I'm meaning to say is just to take  
8 into consideration as -- you know, I see all the  
9 economic benefits. I just want to have all the  
10 information out there as best as possible.

11                   When you restock -- or sto -- as the  
12 lake is genetically -- or naturally being restocked, it  
13 may never be the same as it was before. That wasn't  
14 clear in any Golder reports.

15                   The lake trout may not -- the -- the new  
16 lake trout that come in may -- may be genetically  
17 different from the ones that used to be in there, and  
18 the process of finding spawning grounds and  
19 establishing population again make take hundreds of  
20 years and no only fifty (50) or sixty (60). So there's  
21 a lot of uncertainly.

22                   And from what I see is I think you have  
23 done the best you can do with the available data. I  
24 would just like you to acknowledge that there's a lot  
25 of un -- uncertainty if you recolonize the lake from

1 bottom up again. So it's basically empty, and you  
2 start fresh again.

3                   And, for example, also stickleback, it's  
4 -- it's not a very important species to many people,  
5 but spickle -- stickleback are known to be genetically  
6 different between -- sometimes the lakes that are 20  
7 metres apart from each other. So -- so stickleback in  
8 Kennady Lake may be the Kennady Lake stickleback. They  
9 may be gone forever.

10                   And so that's -- all those things I  
11 would like you to take into consideration. You could  
12 help this by, for example, doing genetic testing on the  
13 lake trout and the pike, see how genetically different  
14 they are from the trout in the lakes downstream. I --  
15 as far as I understand, there was relatively little  
16 chance of free colonization from upstream because it's  
17 such a headwater lake already. Is that correct?

18                   And so you could probably do some  
19 genetic testing, see whether there's a unique stock of  
20 lake trout in Kennady Lake. If that's not the case and  
21 if they're the same as all the lakes further downstream  
22 I don't see really any issues. You know, col --  
23 recolonization will not wipe anything out. I think it  
24 will be a very natural process. If it's a very unique  
25 stock then it may be more of an issue.

1 Another alternative would be -- I don't  
2 know whether that's going to far, but could also  
3 consider a captive brook stock program because lake  
4 trout don't reproduce that often, so I'm not sure. In  
5 those northern waters, probably every, I don't know,  
6 six (6), seven (7) years probably until they spawn or  
7 so, probably even older.

8 So over the period of the -- the mine  
9 life -- actually until you put fish back into it it's a  
10 bit longer, but it's only a few generations of fish  
11 that you could hold if it is a unique stock, and  
12 preserves that stock so that it's not going to be lost  
13 forever. So those are just some concerns I have. If  
14 you could answer to that, please.

15

16 (BRIEF PAUSE)

17

18 THE FACILITATOR HUBERT: Thanks for  
19 those questions. Chuck Hubert, with the panel. We'll  
20 give De Beers a minute or two (2) to prepare a  
21 response.

22

23 (BRIEF PAUSE)

24

25 MR. GARY ASH: It's Gary Ash, from



1 Golder Associates. I have a couple of comments  
2 regarding the comment you made. One (1) is that there  
3 is a source of lake trout in some of the upstream  
4 lakes. For instance, Lake A3 above Kennady Lake has  
5 lake trout in it at the present time. And that system  
6 will be reconnected up to Kennady Lake afterwards.

7                   Also that the dewatering of Kennady Lake  
8 will just be Areas 2 through 7. So Area 8 will still  
9 be available for fish during the -- for fish to reside  
10 in during the operation period of the mine, and then  
11 would later be connected back up again. So any of the  
12 fish that remain in that area would be the same genetic  
13 stock that would be in the -- in Area 8 as well.

14                   In terms of downstream, there's sources  
15 of lake trout as well that would likely move back up  
16 into the lake, Lake I-1, M4, and Lake 410, which is  
17 only short distances downstream. So those fish would  
18 be able to move up.

19                   In terms of genetics, lake trout are  
20 quite adaptive in terms of -- of finding areas to  
21 spawn. Some of the work that's been done on artificial  
22 reefs for spawning has shown that the lake trout  
23 readily, if it's good habitat, good substrate, that  
24 they readily take to spawning on some of those areas.  
25 So I don't believe that -- that genetics would be an

1 issue in -- in terms of the recolonization. They'd be  
2 stocks from very close that have been connected to the  
3 lake in the past, and would then be -- continue to be  
4 connected to the -- to the lake.

5 I agree that -- that ponds that are  
6 isolated from each other could have different genetic  
7 stocks, like stickleback, but these systems have got  
8 fish in them. And like I say, Area 8, which part of  
9 the lake now, would continue to be -- have fish in it  
10 over the duration of the project.

11

12 (BRIEF PAUSE)

13

14 MR. GARY ASH: I guess the other point  
15 was that when you drain a lake -- portion of the lake  
16 like that that -- and different colonization that -- we  
17 aren't saying that the lake would necessarily come back  
18 to exactly the same as it is, but it would be similar  
19 to baseline conditions in the lake, the populations  
20 that would develop. So the habitat would -- would  
21 still be there for those fish that are there currently.  
22 And with recolonization we expect that they would  
23 develop populations similar to what's in baseline.

24 MR. ELMAR PLATE: Okay, yeah. Thank  
25 you very much. That makes me feel better already. I

1 just have one (1) question: How deep is Area 8? It's  
2 Elmar from LGL.

3 MR. GARY ASH: The maximum depth of  
4 Area 8 is around 9 metres -- feet? That's a fairly  
5 small area of the lake, but the average is 3 or --

6 MS. VERONICA CHISHOLM: 3 to 4.

7 MR. GARY ASH: -- 3 to 4 metres on  
8 average.

9 MR. ELMAR PLATE: Good, yeah. Elmar  
10 Plate from LGL. So that would mean that you would  
11 think most -- all of the species that are currently in  
12 the lake could survive in that small part of the lake.  
13 Is that your assumption?

14

15 (BRIEF PAUSE)

16

17 MR. GARY ASH: Gary Ash, with Golder  
18 Associates. Thank you for the question. We discussed  
19 the -- what we would expect to -- to exist in Area 8  
20 during operations. That was discussed in Section  
21 8.10.3.4 of the 2011 EIS update.

22 With respect to the fish species, with  
23 the habitat conditions in Area 8 we expect that all of  
24 the species, with the possible exception of lake trout,  
25 would likely be able to survive in that area during the

1 -- during operations and be available for  
2 recolonization at closure. Because of the reasonably  
3 shallow depth of the -- of the area lake trout may not  
4 persist in that area and so they would have to colonize  
5 from upstream or downstream sources.

6 Just with regard to Area 8, there are a  
7 couple of different depths that have been quoted for --  
8 for Area 8. I guess some of the later information  
9 found an area 10.2 metres depth. So it's between 9 and  
10 10.2 metres deep.

11 THE FACILITATOR HUBERT: Chuck Hubert  
12 with the panel. If I can just hold off on the  
13 questioning from the room for the moment because I  
14 believe we have somebody online. So whoever is on the  
15 teleconference, please go ahead with a question. You  
16 have the floor.

17 MR. DAVE HUBERT: Hi. This is Dave  
18 Hubert from Stantec. I've been trying to get through  
19 all day. I -- I have some questions on behalf of the  
20 Yellowknives, if that's okay.

21 THE FACILITATOR HUBERT: Yes, that's  
22 okay. Please go ahead.

23 MR. DAVE HUBERT: One (1) of the  
24 questions that I had listening in was -- was we  
25 discussed with De Beers last week in a teleconference

1 that they had done the TSS modelling. And -- and I --  
2 I didn't see it in the update document. I was just  
3 wondering if that was -- if that had been completed?

4 MS. VERONICA CHISHOLM: Veronica  
5 Chisholm from De Beers. I hope you can hear me, Dave.

6 MR. DAVE HUBERT: Yeah.

7 MS. VERONICA CHISHOLM: We actually had  
8 a discussion about this only a few moments ago. And I  
9 just sent that TSS update to Chuck Hubert this  
10 afternoon, so it should be on the website. Chuck, I'll  
11 -- I'll allow you to give an update, but I can email it  
12 as well to you, Dave, and to -- the Yellowknives Dene  
13 First Nations.

14 MR. DAVE HUBERT: Okay. I also have a  
15 question about the drawdown. And keeping on the TSS  
16 theme, you're estimating that you're going to achieve a  
17 2 to 3-metre drawdown before resuspension of lake  
18 sediments would occur. But one (1) of the problems is  
19 -- is that there's a lack of baseline chemistry for the  
20 floc and the sediments. And -- and again we discussed  
21 this last week, have you managed to make any headway on  
22 -- on characterizing the sediment chemistry that will  
23 be entrained once the drawdown begins?

24

25 (BRIEF PAUSE)

1 MR. JOHN FAITHFUL: It's John Faithful,  
2 Golder Associates. Hi, Dave. At our discussion we  
3 talked about the -- the baseline sediment chemistry  
4 that we have for -- for Kennady Lake in -- in --  
5 particularly in Areas 3 and 4. And that information is  
6 provided in annex -- I'll -- annex -- excuse me, I'll -  
7 - we have some preliminary sediment qual -- not  
8 preliminary. We have sediment quality data for Areas 3  
9 and 5, collected in 2011 as part of the 2011  
10 supplemental water quality and sediment quality report  
11 that was submitted to the Board in -- in April.

12 We have the baseline report, which is  
13 part of the 2010 EIS, which is -- I'm going to say  
14 Annex H until I'm corrected, and Addendum HH, and --  
15 but that information pertains to grab sediment samples  
16 that were composited from the -- the deeper portions of  
17 the lake bed sediment. So the -- it -- it represents a  
18 particle size of sand-defined material, approximately  
19 70 percent sand to about 20 percent silt and clays.

20 Now, my understanding from your  
21 question, Dave, is that you're looking for the  
22 chemistry of the floc material. And by that I mean --  
23 I think you mean the -- the fine material that's been  
24 separated from the -- the grab samples to exclude the  
25 sediment -- to exclude the sand. So if I could ask for

1 clarification there, please.

2 MR. DAVE HUBERT: That's -- yeah,  
3 that's right.

4 MR. JOHN FAITHFUL: So the seg --  
5 segregate -- John Faithful, Golder Associates again.  
6 The -- the segregation of the fine material to -- to  
7 determine that particular sediment chemistry hasn't  
8 been undertaken. However, there -- there are  
9 mechanisms by which we can take the -- the chemistry  
10 that we have for the -- the whole grab sediment and --  
11 and make assumptions about how that -- how that works -  
12 - how that transposes to the fine material. That can  
13 be considered.

14 I also just want to correct myself for -  
15 - for my mistake earlier. It's actually an -- Annex I  
16 and Addendum II.

17 MR. DAVE HUBERT: Hey, thank you, John.  
18 Dave Hubert from Stantec. We also discussed your  
19 comment that changes in flow regime in downstream  
20 waters is not expected to cause adverse effects. And I  
21 was -- my point that I was trying to make was that the  
22 increased flow is not the issue, but rather the  
23 increased duration. And I just want to re -- re-  
24 emphasize that.

25 MR. JOHN FAITHFUL: Thanks, Dave. I

1 have Nathan Schmidt here to address that question.

2 MR. NATHAN SCHMIDT: Yeah, Nathan  
3 Schmidt, from Golder Associates. Yeah, we -- we  
4 understand that there will be increased durations of  
5 flow. The magnitudes of those flows are well within  
6 the -- the two (2) year flood discharge.

7 And one (1) of the things we -- we have  
8 available to us is the hydraulic relationships for  
9 those downstream channels. And when we look at the  
10 nature of those downstream channels, like from K5  
11 through the 'L' and 'M' chains, and also N11 and N1 on  
12 the other side, what we see is the flow increases. The  
13 depth increases are quite modest. They are on the  
14 order of, you know, 10, 20 centimetres, sort of thing.  
15 We -- we won't be getting flow spilling over the banks.  
16 So, we won't have, you know, saturated over banks and  
17 affecting the -- the thermal regimes there.

18 The other aspect of those channels is  
19 they are -- they are very, very rocky. Like I  
20 mentioned this morning, it's -- it's material that's  
21 not alluvial. It was deposited there during the  
22 original post-glacial erosion episodes. And so, in  
23 terms of worry about loss of those materials or even  
24 thermal effects, we -- we don't see a risk there. So,  
25 thank you.



1 MR. DAVE HUBERT: Dave Hubert. Thank  
2 you for that response. Can I keep asking questions?  
3 Is that okay?

4 THE FACILITATOR HUBERT: Yes, you can.  
5 Please continue.

6 MR. DAVE HUBERT: Okay. One (1) of the  
7 -- one (1) of the very important pieces of information  
8 in -- in the document is the length and weight data for  
9 the fish. And  
10 in one (1) of the Information Requests that we had was  
11 that they calculate length-weight relationships and  
12 calculate standard weights for the fish. And I'd just  
13 like to commend Golder for doing an excellent job on  
14 that.

15 And one (1) of the shortcomings of that  
16 work that they pointed out is that there's not really,  
17 at this point, enough data to have really good  
18 confidence in the standard weight equations. And so,  
19 again, before the Board I'd like to challenge Golder  
20 and -- and perhaps the regulatory bodies to perhaps  
21 expand this database. I think this data should be  
22 available from other projects.

23 Does -- do De Beers and Golder, have  
24 they looked at all just to find more length-weight  
25 data, particularly for lake trout, in the past couple

1 of weeks?

2

3 (BRIEF PAUSE)

4

5 MS. VERONICA CHISHOLM: Veronica

6 Chisholm, from De Beers. Thanks for the question,

7 Dave. No, we haven't added any additional data from

8 other projects or other lakes to that data set. We --

9 we kept it focussed on Kennady Lake. However, we will

10 continue to monitor for fish and undertake some ongoing

11 baseline information in which we can augment that data

12 set that we provided to you. Thanks.

13 MR. DAVE HUBERT: Thank you. This is

14 Dave Hubert from Stantec. I -- I would urge that the

15 interested parties move forward on this if -- if

16 there's interest and resources. I think this is an

17 important way to -- moving forward, to determine the --

18 the condition of lake trout, particularly lake trout,

19 in -- in some of these large lakes. The other question

20 I have is -- is regarding groundwater chemistry. Will

21 you provide a detailed summary of the baseline

22 chemistry before the -- the project starts?

23

24 (BRIEF PAUSE)

25

1 MS. VERONICA CHISHOLM: Hi. Veronica  
2 Chisholm, from De Beers. Thanks, Dave. I do have the  
3 response, the detailed information for the groundwater,  
4 that's the piper plots --

5 MR. JOHN FAITHFUL: Just general  
6 groundwater chemistry.

7 MS. VERONICA CHISHOLM: -- general  
8 groundwater chemistry. So I think -- I think that's  
9 complete and that I can submit that to the Board and  
10 also copy the relevant parties that asked that  
11 question. I think there was someone else in addition  
12 to the Yellowknives Dene First Nation --

13 MR. JOHN FAITHFUL: DFO.

14 MS. VERONICA CHISHOLM: -- and DFO  
15 Environment Canada 6, I think. Thank you. We can  
16 provide that by the end of the day. Thanks.

17 THE FACILITATOR HUBERT: Chuck Hubert,  
18 with the panel. Thanks very much. And we will post  
19 that on our public registry probably late -- later this  
20 afternoon. And we will post that TSS document on our  
21 registry later this afternoon as well. If there's  
22 follow-up questions from -- on the teleconference  
23 please go ahead.

24 MR. DAVE HUBERT: Yes. Thank you. One  
25 (1) of the requests that we made was -- was that the

1 Proponent calculate EPT index data and Bray-Curtis data  
2 for the benthic invertebrates samples. And they did  
3 that.

4                   And what -- what we found was that the -  
5 - the baseline data is quite variable, which will make  
6 it difficult to use that data to determine if there's  
7 changes in the future. And so I would just like to ask  
8 if -- if Golder and De Beers have -- have considered  
9 increasing the number of subsamples that they -- that  
10 they take when they do the benthic invert sampling, or  
11 will that be coming out in the monitoring program when  
12 that document is -- is complete?

13

14                   (BRIEF PAUSE)

15

16                   MR. JOHN FAITHFUL: John Faithful,  
17 Golder Associates. Thanks again, Dave. Yeah, this was  
18 a point that you raised in -- in a -- in our  
19 discussions several weeks ago. I think you -- you  
20 raised some valid points, and they will certainly be  
21 considered as we move forward in developing the -- the  
22 monitoring programs related to -- to plankton. John  
23 Faithful, Golder Associates. And benthic  
24 invertebrates. I apologize. Thank you.

25                   MR. DAVE HUBERT: I -- I have one (1)

1 more question. It's Dave Hubert, from Stantec. Again,  
2 I have been having trouble getting on and off the  
3 teleconference. I'm not sure if this has been  
4 mentioned, but there's very little baseline data for  
5 N11 and N1. And is -- is there a commitment from De  
6 Beers to address this lack, in sort, of pre-project  
7 monitoring once the AEMP is -- is in place?

8

9 (BRIEF PAUSE)

10

11 MR. JOHN FAITHFUL: John Faithful,  
12 Golder Associates. So, Dave, there -- both of those  
13 lakes were surveyed for water quality, sediment  
14 quality, lower trophic organisms, and fish, I should  
15 say in Lake N11, were only surveyed in -- in -- let me  
16 start again. I get a little confused when notes get  
17 passed to me.

18 Dave, in -- in the 2011 supplemental  
19 monitoring reports for fish, water quality, sediment  
20 quality, and lower trophic organisms, there was  
21 additional baseline information provided for lake N11.

22 My recollection is -- and we'll confirm  
23 that, is that within the sed -- the water quality and  
24 sediment quality rep -- report there was also  
25 additional sediment -- additional information provided

1 for lake N1.

2                   These -- as you quite rightly pointed  
3 out, the -- the baseline information relevant to these  
4 two (2) particular lakes has started only -- only  
5 relatively recent -- relatively recently. And ongoing  
6 monitoring programs that are -- that are designed  
7 within the local lakes within the local study area will  
8 focus those three (3) components, and include focus on  
9 those aquatic components and include lakes N1 and N11  
10 as part of the -- the lake suite. And these lakes are  
11 likely to be included or considered for part of the  
12 transition in moving towards the -- the AEMP program  
13 to generate sufficient baseline information to support  
14 that program.

15                   The -- the actual response to the  
16 question around baseline information, it's -- it's  
17 sufficient baseline information with relation to lakes  
18 N1 and N11. I think we provided in our Information  
19 Request response to -- to YKDFN 2.32.

20                   MR. DAVE HUBERT: Thank you for that.  
21 I have one (1) more -- one (1) more question, or did I  
22 say that already?

23                   I just want to state that the  
24 presentation of box and whisker plots (phonetic) that  
25 you provided in the Information Request responses was -

1 - was really good. I think it's an important tool  
2 moving forward. And I'm -- I'm hoping that you have  
3 plans to increase the number of water chemistry sample  
4 dates to at least five (5) for -- for the important  
5 sample sites before the mine begins operations. That's  
6 generally considered the minimum number you need to  
7 develop a box and whisker plot.

8 Are those -- do you -- do you have those  
9 plans in place? Or are you going to do that when the -  
10 - I guess, as part of the aquatic effects monitoring  
11 program?

12 MR. JOHN FAITHFUL: John Faithful,  
13 Golder Associate -- Associates. Yes, that's certainly  
14 our plan, Dave.

15 MR. DAVE HUBERT: That -- that's the  
16 questions I have at this time.

17 THE FACILITATOR HUBERT: Chuck Hubert  
18 with the panel. Thanks very much for your patience in  
19 trying to get online. We very much appreciate your  
20 contribution this afternoon. Go ahead, DFO.

21 MR. PETER COTT: It's Pete Cott, from  
22 DFO. I've just got a -- a question for Dave Hubert,  
23 actually, just for clarification on the -- on the  
24 standard sizes for a lake trout. And the -- was a  
25 question -- or the -- for -- for getting a larger data

1 base on length-weight relationships for lake trout for  
2 different populations of lake trout to add to a  
3 database so you have a -- a better understanding about  
4 lake trout in general or with -- with Kennady Lake as  
5 one (1) population within that data set. Or was it to  
6 pool the -- the lakes and get a -- get a better  
7 understanding of lake trout in general?

8                   Hopefully it's the former. And -- and  
9 we do have -- we do -- DFO has -- has information that  
10 would be useful in that. Anyway, that's the question.  
11 Just -- just asking what you -- what you meant exactly  
12 with that. Thanks.

13                   MR. DAVE HUBERT: This is Dave Hubert,  
14 from Stantec. Generally you want different  
15 populations, so I think it -- I think the former is the  
16 answer. So you -- the -- the scientists who developed  
17 the standard weight equations, the whole process, they  
18 suggest up to fifty (50) different pop -- separate  
19 populations. And so Kennady Lake would be considered,  
20 you know, one (1) population.

21                   Though, of course, when you take the  
22 fish out and measure length and weight on the fish then  
23 you'll have a very large number for that population.  
24 And so, you know, I'm expecting that -- that various  
25 levels of government would have these sorts of data in



1 their databases. I know in Manitoba when we get a fish  
2 licence we are required to send the information to the  
3 government. Does that answer your question?

4 MR. PETER COTT: It's Pete Cott, from  
5 DFO. Yeah, thanks. That -- that does answer my  
6 question.

7 We -- we have some -- an order of  
8 magnitude less than -- than your proposed fifty (50)  
9 populations. But -- but at any rate, we do have --  
10 have some information that -- that might be helpful in  
11 that regard. Thanks.

12 THE FACILITATOR HUBERT: Chuck Hubert,  
13 with the panel. Thanks very much for that question and  
14 answer, and discussion.

15 Is there anybody else on the line --  
16 teleconference that would like to ask a question, since  
17 we're on the subject?

18

19 (BRIEF PAUSE)

20

21 THE FACILITATOR HUBERT: Okay. We're  
22 coming up to about, oh, 2:40 or so, almost, in the  
23 afternoon, so maybe another ten (10) minutes more of --  
24 if the parties have a question that could fit into that  
25 time slot, and then we'll take a break. So questions

1 from the floor, please.

2 MR. ELMAR PLATE: I just have one (1)  
3 more question. Do you have an example of basically  
4 what you're proposing to do, what happened afterwards?

5 So you have an example where a lake was  
6 -- was dewatered completely, and then decolonized, and  
7 how it developed, and whether it came back to the same  
8 status anywhere in sub-Arctic, or in similar conditions  
9 to what you find here? Just -- that could give us a  
10 hint of what we're expecting in the future for Kennady  
11 Lake. It's Elmar Plate, from LGL.

12

13 (BRIEF PAUSE)

14

15 MR. GARY ASH: Gary Ash, from Golder  
16 Associates. In Section 8.11 of the EIS we had a  
17 section on lake recovery, a literature review, looking  
18 at right from the lower trophic levels up through -- up  
19 through fish populations, and these were primarily from  
20 reservoirs where -- where lakes were created out of  
21 streams. But there were some examples in there of  
22 lakes that were dewatered and then refilled again;  
23 again, primarily reservoirs but they were existing  
24 ones, and they were dewatered or lowered sub --  
25 substantially, and then refilled.

1                   So we did do a review of that, and used  
2   that information for the assessment of the effects of  
3   this project.

4                   MR. ELMAR PLATE:    Yeah, thank you.   But  
5   it seems as if there's no real precedence here for what  
6   you're doing.   So just to emphasize -- there's quite a  
7   bit of uncertainty, I think.   That's my last comment  
8   with regards to that.

9

10                                   (BRIEF PAUSE)

11

12

13                   MR. PETE COTT:    Pete Cott, from  
14   Department of Fisheries.   This -- this question, or  
15   comment, I suppose, relates to DFO IR-17, and it -- it  
16   relates to the -- the I guess classification of -- of  
17   small water bodies as non-fish-bearing.   And I'll  
18   acknowledge that -- that some of -- some of the -- the  
19   items that I'm going to propose have -- De Beers has  
20   said that they are going to bring this information  
21   forward already, and in -- in previous meetings, and  
22   that sort of thing.

23                   But just to reiterate, small water  
24   bodies that -- that are relatively shallow may be non-  
25   fish-bearing.   In -- in those -- those water bodies,

1 it's -- it's difficult to -- to prove fish absence  
2 through fishing, because it's hard to catch little fish  
3 that don't want to be caught sometimes.

4                   So what we would like as far as a level  
5 of certainty for -- "we" as in DFO -- a level of  
6 certainty as far as accepting a designation of a small  
7 water body as -- as non-fish-bearing would be  
8 supporting information, and again a table or a summary,  
9 or something like this, with -- with the maximum ice  
10 thickness, maximum water depth under the ice, late  
11 winter dissolve oxygen, so April, something like that.  
12 Any supporting fish data available and the -- the  
13 inlets or outlets.

14                   Some -- some of this information is --  
15 is compiled, but -- but not -- not for that end, as far  
16 as supporting a, I guess, an assessment of non-fish  
17 bearing. And -- and that -- that's one (1) area that -  
18 - that we would -- that we're concerned about and would  
19 help us with our IR-17 and make that not a -- not a  
20 concern for us anymore. Thank you.

21                   THE FACILITATOR HUBERT: Chuck Hubert,  
22 with the panel. Is -- we'll let De Beers prepare an  
23 answer, but whether or not a table of the description  
24 from DFO could be provided that would be great.  
25 Thanks.

1 (BRIEF PAUSE)

2

3 MR. GARY ASH: Okay, first of all I'll  
4 address Pete's question there. We'll certainly work  
5 with DFO to compile that information for relevant  
6 lakes, I guess, systems we have the information for and  
7 that would be directly affected by the project. So we  
8 will work with you on that.

9 I'd also like to just respond to Elmar's  
10 comment in terms of the uncertainty in terms of fish  
11 developing in the -- in the lake. And we've done an  
12 extensive amount of baseline surveys in the area  
13 characterizing the fish that are present, fish that are  
14 present in the surrounding water bodies in the upper  
15 watersheds, in the lower watersheds. And as I  
16 mentioned previously, Area 8 would still maintain fish  
17 from the -- that exist in the lake now, that that  
18 population would continue for most of the species  
19 anyway.

20 And so because the habitat will be  
21 available after post-closure and fish will move back  
22 into the lake, we have high confidence that -- that the  
23 lake will recolonise with fish and will provide fish  
24 that will be available for the communities to harvest  
25 in the future. So, thank you.

1 (BRIEF PAUSE)

2

3 THE FACILITATOR HUBERT: Does that  
4 satisfy the requirements of DFO?

5 MR. PETE COTT: Pete Cott, from DFO.  
6 Yeah, that would be great. Thank you.

7 THE FACILITATOR HUBERT: One (1)  
8 further question perhaps before we take a break, or is  
9 everybody ready for a break? I think we'll take a  
10 break. So see you in fifteen (15) minutes. It's been  
11 -- it's been great this afternoon, and we look forward  
12 to seeing you all again in fifteen (15) minutes.

13

14 --- Upon recessing at 2:44 p.m.

15 --- Upon resuming at 3:03 p.m.

16

17 THE FACILITATOR HUBERT: Welcome back,  
18 everybody. It's a couple minutes after 3:00 and we'd  
19 like to get started again maybe in two (2) minutes, if  
20 we can take our seats. And we'll start out with an  
21 Elder from Lutsel K'e, Peter (sic) Marlowe giving --  
22 Pierre Marlowe speaking with us. And so in about one  
23 (1) minute we'll commence. Thanks.

24

25 (INTERPRETED FROM CHIPEWYAN INTO ENGLISH)

1 MR. PIERRE MARLOWE: Thank you. I'd  
2 like to say thank you to you for being here with you.  
3 I arrived here from Lutsel K'e. And now you're talking  
4 about mining. That's our -- our background, our land.  
5 It's very beneficial to us, that land that's there. I  
6 was raised on it.

7 For thirty (30) years I trapped on it  
8 all over, ever since I was a child. And since 194 --  
9 to 1940 to 1970 I've worked the land on that land.  
10 That land is very important to me. And now you --  
11 you're talking -- are you --you found money, you said,  
12 on it. You want to work it. You're going to start  
13 working on it now.

14 That land there too is for your benefic  
15 -- beneficial, too. That's land -- that land, if  
16 you're going to work on it, if you're going to put --  
17 develop a diamond. And if I could benefit from it I  
18 would be happy. And my children too in the back,  
19 they'll be happy too if they benefit from it. We have  
20 to help -- we -- if we help each other and work  
21 together work would be done well.

22 Now, that land, there is one (1) think  
23 I've been thinking about. When you take -- you take  
24 the -- when you build the mine, you take the rocks, how  
25 ma -- how deep is it you're going to dig? How many

1 feet are you going to dig across, all over in all  
2 diameters? How -- how big of an opening are you going  
3 to make?

4 Now, that -- when you put the rocks back  
5 it's going to be about the same amount as the water.  
6 Before you build -- before you build the dike make sure  
7 you measure the water to see how deep the water is, how  
8 many feet it is on the lake. Once you do that, when  
9 you put the rocks back there's not going to be too much  
10 room for water left. When you take the water out --  
11 the rock out, you put only the water back in there,  
12 we're going to lose a lot of water.

13 Out in the barrens the ice is very  
14 thick. I know that myself. I -- I'm a person that  
15 used to live out in the barren lands. I was also  
16 raised there. When the water goes down and the -- the  
17 ice starts to freeze, all the fish will die. If the  
18 land freezes -- on the land, too, all the fish will die  
19 and that's not going to be nice. Just before that  
20 happens, make sure you're prepared so that doesn't  
21 happen.

22 And I have been thinking about this one  
23 (1) thing. When you finish this work, what you gonna  
24 do with the road, the road that you've -- you've made?  
25 How are you going to rectify that? How you going to



1 work it? I've been thinking about -- I'm worried about  
2 it too, that's why I wanted to put forth these words.

3 And another thing -- and one (1) more  
4 thing. You say you're not going to ruin the land. You  
5 said you're not going to ruin the water. Even when you  
6 say that, you -- it's still going to be damaged,  
7 ruined.

8 I kind of understand why that's going to  
9 happen, myself. It's -- it's aeration (sic), that's  
10 how the land's going to get  
11 said.]

12 How many trucks are going to be  
13 travelling around that area? How many planes are going  
14 to land in one (1) day? The plane takes a while before  
15 the -- lands the ground.

16 Even though you say you're going to  
17 monitor everything, but you're not talking about the  
18 air. That's why I wanted to talk about that, the  
19 pollution of the air. The land there -- the land  
20 there, we'll both going to benefit from it, it comes to  
21 that, if we work it well. I can say no to you, too.

22 The Creator had put this land forth so -  
23 - for everyone to benefit from it. You -- you gotta  
24 benefit your land and because you -- if you're taking  
25 the money from the land, we also have to benefit from

1 it. That's the way we were meant to live on this  
2 earth.

3 We have to ask the Creator together so  
4 nothing happens when we work. We -- we do pray for  
5 you. We're all relatives here. Our blood is just like  
6 one (1). Only our skin is different, looks different.  
7 That's the way the Creator had made to put us here.

8 I don't want anything to happen to my  
9 children by -- by travelling on plane, on  
10 transportation, vehicle accidents, there's all kinds of  
11 issues out there, problems. That's why I wanted to say  
12 that, so I have come here and I thank you.

13 Now, that's all I'm going to say for  
14 now. Thank you.

15

16 (INTERPRETATION CONCLUDED)

17

18 THE FACILITATOR HUBERT: Chuck Hubert,  
19 with the panel. Thanks very much for those comments,  
20 Peter Marlowe, they're -- Pierre Marlowe, sorry. They  
21 are much appreciated. The panel takes those into  
22 consideration when it makes its deliberations and I  
23 think of it -- it made -- made an important  
24 contribution to our talk this afternoon. Thanks very  
25 much.

1                   Would -- would De Beers like to respond  
2 in any way to those comments?

3                   MS. VERONICA CHISHOLM:     Veronica  
4 Chisholm, from De Beers. I'm just waiting for the  
5 translator.

6                   So, just to repeat, it's Veronica  
7 Chisholm from De Beers. Thank you very much for those  
8 comments and questions. There was a lot of good  
9 questions in those -- in your comments. I'll start to  
10 answer some, and then I might have to pause to get a  
11 bit more technical information, but I do want to answer  
12 all of your questions.

13                   I'll take on the air monitoring. De  
14 Beers has a commitment to monitor the air. And that  
15 would include the gases coming from the trucks as well  
16 as dust. And we are -- we have a commitment to monitor  
17 that around the mine site, as well as soil and  
18 vegetation monitoring for air, particularly dust.

19                   I'm just going to take a few minutes to  
20 consult with my technical team to get a little bit more  
21 detail on the depths of those pits and some of the  
22 other information that you had on the rocks. So if you  
23 can be patient, it'll be two (2) minutes.

24

25                   (BRIEF PAUSE)

1 THE FACILITATOR HUBERT: Chuck Hubert  
2 with the panel. While we're waiting for De Beers to  
3 prepare their responses, I'd just to introduce Shannon  
4 Hayden from the Mackenzie Valley Review Board office.  
5 She'll be assisting us with facilitation for the  
6 remainder of the afternoon. So, Shannon, here up front  
7 will -- will continue this. Thanks.

8

9 (BRIEF PAUSE)

10

11 MS. VERONICA CHISHOLM: Veronica  
12 Chisholm for De Beers. Thank you for your patience. I  
13 just wanted to make sure I had the -- all of the  
14 correct numbers.

15 So you asked how deep the pits would be.  
16 I'd like to remind you that there's three (3) pits, and  
17 they'll range in size from 600 feet to 1,000 feet in  
18 depth, with a width across the top for Tuzo pit being  
19 2,700 feet wide.

20 You asked about where the mine rock will  
21 go. One (1) of the pits will be completely filled with  
22 mine rock; one (1) of the pits will be partially filled  
23 with mine rock up to 300 feet from the top of the pit;  
24 and one (1) of the pits will be empty, there'll be no  
25 mine rock in it. Some of the mine rock will go into

1 two (2) storage areas located around Kennady Lake, the  
2 west mine rock pile and the south mine rock pile. And  
3 I have a figure that I can show you exactly where those  
4 mine rock piles are.

5

6 (BRIEF PAUSE)

7

8 MS. VERONICA CHISHOLM: Following  
9 mining and placement of the rocks, the mine rocks, we  
10 will be refilling Kennady Lake with water so that we  
11 can restore the fish habitat within Kennady Lake to  
12 conditions that are similar to the baseline, so similar  
13 conditions.

14 You asked about the roads and what's  
15 happening with the roads. There's a winter access road  
16 that we'll reclaim after mining. You asked how many  
17 trucks will be on during operations. There'll be ten  
18 (10) trucks. You asked how many planes will be flying  
19 into Gahcho Kue during operations, there will be two  
20 (2) per week. I think I captured the majority of the  
21 questions, but if I missed anything please let me know.

22

23 (BRIEF PAUSE)

24

25 MS. VERONICA CHISHOLM: Veronica

1 Chisholm, from De Beers, sorry. There were a couple  
2 other questions that you had that people reminded me  
3 of. You asked whether we measured the water depth in  
4 Kennady Lake, how deep it is. And we have done that.  
5 And we measured the dikes so we know where the dikes  
6 will be placed relative to the water.

7                   And I just wanted to mention as well,  
8 that all of the pits will have enough water depth over  
9 the top of them to support fish. And they'll be deep  
10 enough so ice will not affect the fish when Kennady  
11 Lake is at closure. Thank you.

12                   THE FACILITATOR HAYDEN: Thanks,  
13 Veronica. I'll give Lutsel K'e Dene First Nation a  
14 chance to respond and if we have any other follow-up  
15 questions from De Beers.

16

17                   (BRIEF PAUSE)

18

19                   MS. STEPHANIE POOLE: It's Stephanie  
20 Poole, on behalf of Akaitcho IMA implementation office.  
21 In your response to our Elder Peer Marlowe regarding  
22 air quality and the monitoring of air, De Beers says  
23 that they will monitor for dust, mostly for dust.

24                   But what about the amount of fuel to be  
25 burnt on site for heating, and also for use in your

1 trucks in the operations and during construction and  
2 also during exploration, ongoing exploration. What  
3 about the -- and also what about the burning of garbage  
4 on site. These are all emissions into the air.

5 In our territory we have high levels of  
6 mercury in our fish and we understand that the cause of  
7 this is through air pollution and we want to know how  
8 your proposed project, including exploration, has  
9 contributed to pollution being ad -- emitted into the  
10 atmosphere.

11 When you replied to Pierre about how  
12 many trucks will be on site, did you say ten (10)  
13 trucks? And are you speaking about heavy equipment or  
14 just regular trucks or -- and then you said there were  
15 two (2) flights per week. Is -- is that what you're  
16 proposing once the mine is built? And I'm wondering,  
17 during ongoing exploration how many flights do you have  
18 to site?

19 You said that the winter access road  
20 will be reclaimed. I wonder how that affects your plan  
21 for monitoring after closure. It's my understanding  
22 that it's going to take a long time to reclaim the area  
23 after closure, hundreds of years. And I'm assuming  
24 there will be some kind of monitoring regime associated  
25 with that. And if you close that road how -- how do

1 you -- will it be flights in and out all the time to -  
2 - to check on that?

3 Those are my follow-up questions to your  
4 response to Pierre Marlowe.

5 THE FACILITATOR HAYDEN: Thanks,  
6 Stephanie. This is Shannon Hayden with the Review  
7 Board. And I'll give De Beers a few minutes to answer  
8 -- come up with answers for your questions. Thanks.

9

10 (BRIEF PAUSE)

11

12 MS. VERONICA CHISHOLM: Veronica  
13 Chisholm, from De Beers. I appreciate your patience as  
14 I'm compiling information.

15 So with respect to the air quality, in  
16 addition to the dust or the particulate matter, we'll  
17 be monitoring SO2 and NO2 through passive filtering  
18 system on site and there will be an air monitoring  
19 network set up.

20 With respect to the incinerator and  
21 what's being burned, we're developing that waste  
22 management plan. They will be a stack test done on  
23 that incinerator when we're -- when we bring it in  
24 during construction and -- so that we can ensure that  
25 the incinerator is operating according to



1 specifications be -- before startup.

2                   With respect to mercury, mercury is a  
3 long-range transport pollutant. So our contribution to  
4 mercury in terms of source apportionment is pretty  
5 small. But we will be monitoring mercury as part of  
6 our monitoring programs for fish, in the fish tissue as  
7 well as water quality and sediment.

8                   Just to clarify, the trucks. Yes,  
9 they're -- the trucks are heavy haulers. So there's  
10 ten (10) of those. But there's also going to be pickup  
11 trucks and other equipment operating on site in  
12 addition to those heavy haulers. So the ten (10) I was  
13 speaking of spec -- was specific to the heavy haulers.

14                   With respect to the road, the road is a  
15 -- is a winter access road. And, in fact, now all the  
16 people and materials that get to site are by plane.  
17 This would be the same, post-closure and monitoring  
18 programs will not depend specifically on the road.

19                   And I'm sorry, Stephanie, I haven't  
20 looked this up, but apparently in -- in Table 3.10.2 --  
21 and I can show you that at the break. I can -- I have  
22 to look at it too. But we actually have the air -- the  
23 specific number of aircrafts so that I can validate how  
24 many planes will be in during construction, operation,  
25 and closure. So we have those predictions in that --

1 in that table, so thank you.

2 I -- I hope I've answered all of your  
3 questions. Thanks.

4 THE FACILITATOR HAYDEN: Thanks, De  
5 Beers. This is Shannon Hayden, with the Review Board  
6 again. Stephanie, did you want to respond?

7 MS. STEPHANIE POOLE: I don't -- I  
8 don't have any followup questions, but I do want to say  
9 that to -- just to -- for De Beers to say that the  
10 amount of pollution being emitted into the atmosphere  
11 is very small, you know, compared to the rest of the  
12 world, is not exactly the information that I'm looking  
13 for.

14 What I want to know is exactly how much  
15 pollution you will be uploading into the atmosphere.  
16 And to say that you have ten (10) heavy haul trucks,  
17 and then a bunch of other trucks, like maybe you have a  
18 table in the EIS that says exactly every piece of  
19 equipment that will be on there.

20 But if you could do some kind of, like a  
21 tally, some kind of a total of all possible emissions  
22 and -- and just give us -- I'm sure there's some kind  
23 of highly technical term that describes exactly, you  
24 know, for all of those things you'll be monitoring. I  
25 -- I want to know how much pollution that this proposal

1 will be emitting into the atmosphere.

2 I understand that the levels of mercury  
3 are -- in our fish are a global problem. But having  
4 said that, it doesn't mean that it's okay for De Beers  
5 just to continue to add to that problem because high  
6 levels of mercury in our fish is very serious for us  
7 living on the east arm.

8 And I don't know, maybe you could commit  
9 to some kind of undertaking to provide us with that  
10 actual data and information just so we can have an idea  
11 of -- of what will be coming out into the air from --  
12 from your proposal, the whole entire thing, including  
13 any use of any winter roads and -- and all of the  
14 flights as well.

15 And I guess you should also compensate  
16 for any un -- unexpected flights. Sometimes, you know,  
17 people need to be medivacced or maybe an inspector  
18 needs to make a surprise visit. And, yeah, if you  
19 could just kind of maybe add on a little bit for -- for  
20 those kind of unexpected things as well, that'll be  
21 great.

22 MS. VERONICA CHISHOLM: Veronica  
23 Chisholm, from De Beers. Just to clarify, we have  
24 completed a complete -- complete air quality impact  
25 assessment as part of the EIS. And it is located in

1 Section 11.4. And within that, Stephanie, one (1) of  
2 the appendices -- and -- and I -- I think it's 11.4.1  
3 and 11.4.2, and I'll look that up with you to confirm,  
4 has all of the emissions inventory. So what are the  
5 emissions coming out of the specific pieces of  
6 equipment, what are the assumptions that went into our  
7 air quality assessment with respect to the emissions  
8 inventory.

9                   So I'm happy to review that with you.  
10 And I -- I mean, it should be in my head, but I don't  
11 have it at my fingertips. But I think those are the  
12 appendices.

13                   MR. JOHN FAITHFUL: That's correct.

14                   MS. VERONICA CHISHOLM: I just need to  
15 confirm. And so in addition to the emissions inventory  
16 that's in Appendix 11.4.1 and 11.4.2 we also have  
17 details of all the mining equipment that would be used  
18 at site. And again, that's in Section 3.5.3. And I'm  
19 -- I'm happy to review that with you as well. Thank  
20 you.

21                   THE FACILITATOR HAYDEN: Thank you.  
22 Shannon Hayden, with the Review Board again. I don't  
23 know if this is kind of a follow-up to Stephanie's  
24 question, but we're wondering if you maybe have  
25 information on the percent of carbon emissions from the

1 Gahcho Kue mine in comparison to the total NWT  
2 contributions, if you have that information. Thanks.

3

4 (BRIEF PAUSE)

5

6 MS. VERONICA CHISHOLM: Veronica  
7 Chisholm, from De Beers. We're just looking that up.  
8 I'm pretty sure it's in 11.4, but our air quality guy  
9 isn't with us today, so we'll just look up that  
10 information and -- and we'd be happy to provide it.  
11 But if you want to proceed with the next questions,  
12 then go ahead, as we're looking that up.

13 THE FACILITATOR HAYDEN: Okay. So  
14 while De Beers is looking for that information, we can  
15 come back to it later, I guess we could open up the  
16 floor again to other questions.

17 MR. DAVE TYSON: Dave Tyson from Tetra  
18 Tech. I have a question about the conceptual  
19 compensation plan. I guess I should provide a  
20 preamble, and I'll keep that -- hopefully not a pre-  
21 ramble, but the compensation plans, as I understand,  
22 are for -- or to ensure that there's no net loss of  
23 productive capacity of fish habitat in waters to be  
24 affected.

25 These lakes at site are ol --

1 oligotrophic, and are predicted to remain so at  
2 closure. A characteristic of oligotrophic lakes are  
3 that they -- is the productivity is limited by  
4 nutrients, nutrient inputs as opposed to say physical  
5 fish habitat.

6                   The compensation model that's being  
7 proposed is based on habitat suitability indices. And  
8 these are designed -- excuse me -- to ensure that the -  
9 - all the physical habitat components are in place for  
10 fish, but what -- what they don't account for is  
11 differences in productivity amongst water bodies, and  
12 especially the differences between, say, lakes and  
13 streams.

14                   So my question is: Why was an HSI-based  
15 model chosen as opposed to say a productivity based  
16 model? Thank you.

17

18                   (BRIEF PAUSE)

19

20                   THE FACILITATOR HAYDEN: Thanks. And  
21 that was Dave Tyson. He's a technical expert with the  
22 panel. Thank you. De Beers...?

23

24                   (BRIEF PAUSE)

25

1 MR. KASEY CLIPPERTON: Kasey  
2 Clipperton, Golder Associates. The selection of HSI  
3 models versus productivity models, there's a number of  
4 factors that got us to this point.

5 First is that they have been used in the  
6 north for a number of projects, so -- and -- and have  
7 been accepted by regulators. So this process has been  
8 building on -- on past experiences at other  
9 developments, such as Diavik.

10 And, secondly, as opposed to just a  
11 change in -- in habitat there are some -- some direct  
12 physical losses that need to be quantified and balanced  
13 off with -- with habitat gains as part of the  
14 compensation plan. So we do need to be able to  
15 tabulate the -- the quality and quantity of habit loss  
16 compared to the quality and quantity of habitat gained  
17 in a compensation plan.

18 THE FACILITATOR HAYDEN: Thanks. Did  
19 you want to follow-up? Okay, thanks.

20 MR. DAVE TYSON: Dave Tyson, Tetra  
21 Tech. You say that these models have been used in the  
22 past. Have they provided information to validate the  
23 assumptions in the original, or in the -- the original  
24 assumptions for these -- for the applications of these  
25 models? If they've been used a number of times, they

1 should have provided some feedback to fine tune the  
2 models. Thanks.

3

4 (BRIEF PAUSE)

5

6 MR. KASEY CLIPPERTON: Kasey  
7 Clipperton, Golder Associates. Part of the -- the  
8 monitoring program for the compensation plan will look  
9 at collecting information to -- to help validate the  
10 HSI (phonetic) models that are being developed.

11 Each project has -- has started with a  
12 base set of models and -- and has revised them and --  
13 and they continue to be revised over time, but largely  
14 amount -- largely based on -- on professional judgment  
15 and site conditions with each specific project. But  
16 the current monitoring plan for the compensation  
17 program would include a validation step as part of it.

18 MR. DAVE TYSON: Dave Tyson, Tetra  
19 Tech. Okay, so what I understand is that none of the  
20 other applications have provided feedback, that this is  
21 going to be a self-monitoring project.

22 As to -- I understand you need to -- to  
23 account for losses and gains in habitat, excuse me, but  
24 it -- it seems to me that maximizing the productivity  
25 in the water bodies, making use of the nutrients so to



1 speak, would be sort of the focus of the project.  
2 Water sitting over top of a very deep pit doesn't  
3 really have a lot of value and productivity, whereas  
4 littoral zone, where you get light penetration,  
5 periphyton, you know, secondary producers would be more  
6 important. Building, excuse me, spawning habitat you  
7 can build as much as you want, but if there's not  
8 enough fish there then you're just dispersing the  
9 spawning population.

10 So, I guess there's a lot of fine tuning  
11 that can be done on a -- on a project like this. And  
12 it would -- it would seem to me that, excuse me, given  
13 the complexities, especially in the final water body,  
14 that -- that productivity should be the goal. And I  
15 think that's what -- at least that's what I remember it  
16 at DFO, was the goal as opposed to just physical  
17 habitat. So, did I have a question in there?

18

19 (BRIEF PAUSE)

20

21 MR. KASEY CLIPPERTON: Kasey  
22 Clipperton, Golder Associates. A couple of points.  
23 First, you're correct, the compensation plan is still  
24 currently under development. We're -- we're working  
25 with -- with DFO and -- and putting ideas with the

1 communities as well, in terms of different options.  
2 And -- and we've certainly looked at advancing options  
3 beyond what was presented in the conceptual  
4 compensation plan.

5                   With some of your points, there are  
6 littoral zone enhancements as part of the plan. And --  
7 and we also are expecting an increase in productivity  
8 within Kennady Lake that would work to help make some  
9 of the habitat enhancement structures more beneficial  
10 to the overall fish product -- or fish population.  
11 Part of the plan is also creating new habitat area. So  
12 it -- it's not just adding enhancements within an  
13 existing area. It's creating new habitat area that --  
14 that will support a larger fish population through  
15 increased habitat area.

16                   But at the end of the day, at -- at this  
17 point we still do need some level of, for lack of a  
18 better word, an accounting system to -- to track gains  
19 and losses. And with -- with the information that --  
20 that we've got available, an HSI approach is still, we  
21 believe, the best -- best approach to do that  
22 accounting.

23                   MR. DAVE TYSON:   Dave Tyson, Tetra  
24 Tech. Thank you for that. It's still -- there are  
25 still difficulties with HSI when you're mixing streams

1 and -- and lakes, basically flowing water is considered  
2 at least one and a half (1 1/2) to two (2) times as  
3 productive as lakes. So, you know, accounting direct  
4 physical habitat doesn't -- you know, it has to be --  
5 you have to modify it accordingly. I guess -- I guess  
6 that's -- that's just a final comment. Thank you.

7 THE FACILITATOR HAYDEN: Okay. I think  
8 there's a question from Pete at DFO. Thanks.

9 MR. PETER COTT: Pete Cott, DFO. It's  
10 a comment more than a question, for -- for the comfort  
11 of the -- the Board and my former colleague Dave Tyson.

12

13 We -- "we," DFO, have been in -- in  
14 discussions with De Beers. And a lot of these points  
15 that Dave is raising we've -- we've been discussing.  
16 And a revised compensation plan is -- is forthcoming  
17 where we'll be dealing with a lot of some of these  
18 issues, for instance, breaking out stream and lake  
19 habitats, how we're going about to doing the  
20 accounting, the physical structures versus natural  
21 structures or enhancements like flooding and -- and  
22 those sorts of things.

23 So -- so the details aren't solidified  
24 as of yet, exactly what's going to happen, but we're  
25 comfortable with the general approach that De Beers is,

1 or has provided, in the -- in the sense of -- of the  
2 HSI approach, some of the nuances within how that's  
3 being conducted, are -- are a point of ongoing  
4 discussion. But -- but anyway, those -- those points  
5 are taken.

6                   In respect to the -- to the productivity  
7 issue, I don't think from DFO's standpoint we would  
8 want to enter into a productivity or nutrient  
9 enhancement as -- as a means to increase productive  
10 capacity, because it could have a lot of adverse  
11 effects on a -- on an oligotrophic system as well as  
12 the long-term maintenance of -- of such -- of such a  
13 thing. But to account for lost productive capacity  
14 we're looking at avenues that aren't simply structure.

15                   Like you said, it's -- it's a nutrient  
16 limiting system, and adding spawning structure, for  
17 example, isn't necessarily going to get you more fish.  
18 So agree with that point. Thanks.

19                   THE FACILITATOR HAYDEN: Thanks, Pete.  
20 It's Shannon with the Review Board. Is there an  
21 anticipated date for the compensation plan to be  
22 available for review? De Beers...?

23

24                   (BRIEF PAUSE)

25

1 MS. VERONICA CHISHOLM: Veronica  
2 Chisholm, from De Beers. I just want to clarify that  
3 we -- we've developed a conceptual plan and we continue  
4 to be developing that plan with discussions with DFO as  
5 well as in the communities. And we're -- we have  
6 meetings set up with DFO. But then we also plan on  
7 doing some site visits at Gahcho Kue with community  
8 members where we can start to review what some of those  
9 proposed enhancement features would be. We also have  
10 planned meetings in -- later in the fall within the  
11 communities.

12 And so we want to be able to incorporate  
13 that information into the final plan so our revisions  
14 to the compensation would be prior to the hearings for  
15 sure. And we want to be able to go back to the  
16 communities and -- and ensure that the information we  
17 collected is accurate. So we want to be able to share  
18 that information with everyone that we consult with.

19 THE FACILITATOR HAYDEN: Okay. Thank  
20 you. Okay, Dave has another question.

21 MR. DAVE TYSON: Dave Tyson, Tetra  
22 Tech. I'd just like to clarify that I in no way  
23 suggested nutrient enhancements, as my colleague, Pete,  
24 suggested or implied. Essentially what I was referring  
25 to was maximizing littoral zone, natural productivity,

1 areas of the final water bodies that are within the  
2 euphotic zone, and not adding nutrients. Thank you.

3 THE FACILITATOR HAYDEN: Thank you for  
4 the clarification. Pete...?

5 MR. PETER COTT: Pete Cott, DFO.  
6 Thanks, Dave. Point taken. And enhancements to the  
7 littoral zone, particularly around the end pit walls,  
8 are -- are proposed. And I'm glad to -- thanks for the  
9 clarification that you're not thinking about just  
10 flushing the toilets into the lake or anything. Okay.

11 THE FACILITATOR HAYDEN: Okay. So just  
12 so everyone knows, it's eight (8) minutes to 4:00. And  
13 I'll open it back up to the floor for questions for  
14 fish and fish habitat, or I guess any other closure-  
15 related questions right now. Go ahead, Pete, DFO.

16 MR. PETER COTT: Pete Cott, DFO. I've  
17 got a couple of, I guess, more -- more statements  
18 relating to some of our IRs. Hopefully we'll -- we'll  
19 clarify some of those. These are -- this first  
20 statement is relating to IR number -- DFO IR number 3  
21 and 17. And it also relates to just the base --  
22 baseline data collection in general, and, in  
23 particular, in -- with this point to fish population  
24 estimates.

25 And however the fish population

1 estimates are conducted we strongly encourage a  
2 standardized scientifically-defensible approach that  
3 has been proven, such as nordic or BSM netting approach  
4 for establishing fish population estimates. This is  
5 something that's been used extensively throughout North  
6 America and Europe and can be repeated over time and  
7 compared temporally and spatially.

8                   So just like any aspect of baseline  
9 collection, it's very important to have standardized  
10 approaches that can be compared, replicated, and  
11 contrasted to other systems to be able to effectively  
12 detect any environmental or anthropogenic changes.

13                   THE FACILITATOR HAYDEN: Okay. Thank  
14 you. Are there any other questions? You can continue.

15                   MR. PETER COTT: Pete Cott, from DFO.  
16 The second point relating to DFO IR number 50 and DFO  
17 IR -- DFO EC IR 45A. And Bruce had talked about this  
18 earlier, or mentioned it. And it's -- and it's as --  
19 as far as letting fish back into Kennady Lake, while  
20 it's being refilled, potentially prior to water quality  
21 objectives being made. Now, De Beers has said that  
22 they'll have structures in place to prevent fish from -  
23 - from getting in.

24                   And then it's been mentioned in the IR  
25 responses as well as in this meeting about large-body

1 versus small-body fish. And I think that it's  
2 important to keep fish out because a lot of these small  
3 fish will become big fish. And -- and in these systems  
4 -- we've been talking about sticklebacks and -- and  
5 trout and all sorts of different things. But in the  
6 water, especially low productivity systems such as a  
7 lot of lakes up north, a large amount of the forage  
8 base in these lakes are small large-bodied fish. So,  
9 it's a largely cannibalistic system. They eat a lot of  
10 large bod -- young, large-bodied fish. That's what a  
11 lot of the prey base is.

12                   So -- so, it's -- it's important to keep  
13 these fish out until water quality objectives are met  
14 in Kennady Lake. Just a point to that. I -- I know  
15 there's technical considerations around that and -- but  
16 efforts should be made to do so. That's just a point.

17                   And next point relates to IR -- DFO IR  
18 number 48. And it's with pike habitat, post-closure  
19 pike habitat compensation. And there -- there's  
20 mentioned something to the effect that pike habitat  
21 will be monitored post-closure and -- and this sort of  
22 thing.

23                   There will be an increase in -- in  
24 productivity to some degree because of -- of increased  
25 levels of phosphorous. So there will likely be a



1 little bit more aquatic weed growth and that sort of  
2 thing. But there's also a possibility to enhance some  
3 of these areas, the back bays and those sorts of  
4 things, to allow for better pike spawning habitat, or  
5 better pike habitat post-closure, or at least equal to  
6 what's in the surrounding area.

7                   Earlier, I heard that the -- the lake  
8 sediments were going to be removed and stockpiled,  
9 probably for -- for different ends. But these organic  
10 materials would be really helpful to do things like  
11 increase productivity in littoral areas and allow for  
12 the colonization of aquatic vegetation. Or similar to  
13 what Bruce had mentioned before about the potential for  
14 enhancing the diversion channel. That's one (1) of the  
15 limitations when you've got a rock ditch, is that  
16 there's nothing growing in there. So keeping some of  
17 these materials for that end would be -- would be  
18 useful.

19                   And some of these -- some of these  
20 things that I'm bringing up here we have -- DFO has --  
21 has had some preliminary discussions with De Beers  
22 already. And so we're -- we're moving forward with a  
23 lot of these things, just for the -- for the interest  
24 of the other people here. Thanks.

25                   THE FACILITATOR HAYDEN:    Thanks, Pete.

1 That information is noted. I don't know if De Beers  
2 wanted to respond at all? Sure.

3

4 (BRIEF PAUSE)

5

6 MS. VERONICA CHISHOLM: Veronica  
7 Chisholm, from De Beers. Thanks, Pete, for those  
8 comments. We've -- we've taken note.

9 First of all, on the comment regarding  
10 the fish entering Kennady Lake. Yes, De Beers will  
11 make every effort to keep the fish out of Kennady Lake  
12 during operations and closure.

13 De Beers will take into account, and I'm  
14 sure there will be further discussions about,  
15 enhancement of pike habitat and the use of some of the  
16 sediment that we'll be salvaging for -- for fish  
17 enhancement. So appreciate those comments and we'll  
18 take them into consideration as we move forward on the  
19 compensation plan. So thank you very much.

20 THE FACILITATOR HAYDEN: Thank you for  
21 those comments and the -- the follow-up comments from  
22 De Beers. If -- do you have anything else to add?

23 MR. PETER COTT: Pete Cott, from DFO.  
24 Just for -- for the information of the -- the Board,  
25 DFO IRs 56, 57, 58, and 65 relate to the compensation

1 plan in general. And tho -- those IRs are what I  
2 indicated are in -- in discussion and development with  
3 -- with De Beers. Thanks.

4 THE FACILITATOR HAYDEN: Okay. I think  
5 maybe a Board staff member has a question.

6 THE FACILITATOR TOOGOOD: Can I just  
7 clarify one (1) point just with respect to Pete's line  
8 of inquiry with respect to fish stocks in Kennady Lake  
9 and the idea that they won't be re-introduced.

10 What -- a previous line of inquiry was  
11 mentioned that fish stocks in Kennady Lake may  
12 contribute to its restock or its regeneration post-  
13 closure. It's just not clear to me whether or not  
14 there will be any fish left in Kennady Lake during this  
15 project or portions of Kennady Lake will remain with  
16 local fish stock in there from pre-disturbance. I'm  
17 not sure if that's clear, but I just -- it seems to be  
18 a bit of a contradiction in my mind there.

19

20 (BRIEF PAUSE)

21

22 MS. VERONICA CHISHOLM: Veronica  
23 Chisholm, for De Beers. Thanks for that question. So  
24 just to provide clarification -- and I can kind of  
25 point to this map that's -- you can kind of see this

1 image. We will -- we will be conducting a fish-out of  
2 Kennady Lake. The portion of Kennady Lake that will  
3 remain during operations that will have fish is in Area  
4 8, which is just to the far right, mid-point in that  
5 image.

6 And -- oh -- I don't know whether this  
7 will work. Oh, thanks. This is in -- in Area 8 we'll  
8 have fish remaining in that area. And then this area -  
9 - this part of -- what we're proposing is this portion  
10 of Kennady Lake will be fished out for salvage, fish  
11 salvage, prior to -- prior to development.

12 Sorry, and John Faithful just wanted me  
13 to clarify that also the upper watersheds will also  
14 have fish -- fish habitat and fish species in those  
15 during operations.

16 THE FACILITATOR TOOGOOD: Just for my  
17 own clarity, I suppose, Area 7 and Area 3, those will  
18 have water remaining in there but they're going to be  
19 fished-out and utilized for water storage and  
20 treatment? And at some point the fish will be  
21 introduced when you start refilling those areas? They  
22 won't be in -- they won't be in -- be introduced till  
23 the water quality objectives are met. And those water  
24 quality objectives are -- which ones are those? It  
25 just wasn't clear to me.

1 MS. VERONICA CHISHOLM: So, I think --  
2 I think you were just confirming what our plan was in  
3 terms of --

4 THE FACILITATOR TOOGOOD: Yeah.

5 MS. VERONICA CHISHOLM: -- yeah, so  
6 Area 8 will be the -- will be the portion of Kennady  
7 Lake that will retain fish during operations. We are  
8 going to be developing prior, as we mentioned, in  
9 September -- we're looking at September/October for  
10 delivery of those preliminary water quality objectives.  
11 We mentioned that that might be an iterative process as  
12 we consult with various folks about those water quality  
13 objectives.

14 And so at -- so the plan is, what we're  
15 proposing is, once those water quality objectives are  
16 achieved, and following the refilling of Kennady Lake,  
17 that's when we will connect Kennady Lake to the upper  
18 watersheds -- lower watersheds, sorry.

19 THE FACILITATOR TOOGOOD: Thank you  
20 very much.

21 THE FACILITATOR HAYDEN: Okay. Thanks  
22 for that clarification. I'll just open it up again to  
23 the floor if anybody else has some questions. It's  
24 about five (5) after 4:00, just so everyone knows.

25

1 (BRIEF PAUSE)

2

3 THE FACILITATOR HAYDEN: Bruce, DFO?

4 Thanks.

5 MR. BRUCE HANNA: Yeah. Bruce Hanna,

6 DFO. Sorry, I'm just having a bit of a memory blank.

7 What -- Area 7 is being used for -- for what again?

8

9 (BRIEF PAUSE)

10

11 MR. JOHN FAITHFUL: John Faithful,

12 Golder Associates. So Area 7 is part of that southern

13 region of -- of Kennady Lake that will be dewatered to

14 allow access to the -- the 5034 pit. During the mine

15 operations it be -- becomes an area that provides a

16 supporting basin for water storage.

17 MR. BRUCE HANNA: Okay. Thank you.

18 THE FACILITATOR HAYDEN: Thank you. I

19 guess one (1) more call for questions for fish, fish

20 habitat, closure. Yeah, go ahead, Simon.

21 THE FACILITATOR TOOGOOD: I'll take

22 this great opportunity to ask more questions. With

23 respect to the environmental impact statement 2012 EIS

24 supplemental information submission, on page 2-11 it

25 states:

1 "Under-ice dissolved oxygen  
2 concentrate -- concentrations are  
3 expected to maintain sufficient  
4 levels in the surface water levels to  
5 support cold water aquatic life."

6 I was just wondering, with respect to  
7 the deeper levels, what the expected changes are from  
8 pre-disturbance under-ice to post. And just -- yeah,  
9 that was it.

10 MR. JERRY VANDENBERG: Jerry  
11 Vandenberg, Golder. Could you just clarify what you  
12 mean by "deeper levels." Which depths are you asking  
13 about?

14 THE FACILITATOR TOOGOOD: I suppose  
15 it'd be any level that's below the surface water  
16 levels. I mean, I wasn't exactly -- I didn't find what  
17 was defined as surface water. I -- I know it is  
18 defined in -- somewhere in the EIS, in the supplements.  
19 But I was just wondering what the changes would be or  
20 expected changes are.

21 It states here that it's:

22 "Are expected to maintain sufficient  
23 levels."

24 I was wondering if there was any  
25 expectations about what would happen to the deeper

1 levels, be they mid-level or -- you know, I'm -- I'm  
2 not sure how you've classified the ranges of water in -  
3 - in the lake.

4 MR. JERRY VANDENBERG: Jerry  
5 Vandenberg, Golder. So in Appendix 8.v we've provided  
6 quite a number of profiles that show the anticipated  
7 dissolved oxygen at various depths in the lake. Those  
8 cover all depths down to 40 metres deep. So between 40  
9 metres and 70 metres we would expect relatively high  
10 concentrations of DO. Below 70 metres, that would be  
11 below the pycnocline I was talking about earlier this  
12 morning, we would expect little or no DO.

13 THE FACILITATOR TOOGOOD: Just a quick  
14 follow-up. With respect to the deeper waters, do you  
15 expect there to be a change or is it going to maintain  
16 -- be a -- not the -- the -- I think it was 40 to 70  
17 metres. Do you expect there to be a change in -- in  
18 the oxygen level pre- and post-change in the oxygen  
19 levels?

20 MR. JERRY VANDENBERG: So in -- in the  
21 pre -- pre-development condition there are no -- there  
22 is no water. There's no water below about 15 metres.  
23 So that would all be new. That would all be new water  
24 body that doesn't exist right now. So that would  
25 definitely be a change. And I just need to clarify



1 that when I referred to 8.v or 8.5, that's of the  
2 supplement.

3 THE FACILITATOR TOOGOOD: Thank you  
4 very much.

5 THE FACILITATOR HAYDEN: And I guess  
6 I'll just go back to a few minutes ago and see if De  
7 Beers was able to come up with the air emissions  
8 percentage.

9 MR. JOHN FAITHFUL: John Faithful,  
10 Golder Associates. So within Section 1113, which is a  
11 subject of note, of the 2011 EIS update. And there is  
12 a summary of the average annual estimates of greenhouse  
13 gasses for the project which refer to CO2 levels,  
14 annual CO2 levels.

15 Now that's provided both from a -- an  
16 equipment basis, which is Table 11-13-6 in Section  
17 11.13.3. The following table also presents a -- a  
18 comparison of estimated CO2 emissions for this project  
19 and other diamond mines in -- in the -- in the great --  
20 in the Northwest Territories.

21 We have made a request to our air  
22 quality person back in Calgary to provide a direct  
23 response to your question with regards to how this  
24 project will proportionally emit CO2 with respect to  
25 emissions within the Northwest Territories. And we're

1 hoping to provide that response to you tomorrow. We  
2 will provide a response one (1) way the other around  
3 time frame tomorrow morning.

4 Thank you. John Faithful, Golder  
5 Associates.

6 THE FACILITATOR HAYDEN: Okay. We'll  
7 write that down as a task for De Beers. Thank you.

8

9 (BRIEF PAUSE)

10

11 THE FACILITATOR HAYDEN: Okay. I'll  
12 give another opportunity for some questions before we  
13 go over some of the tasks that came up today. Lisa...?

14 MS. LISA LOWMAN: Hi, Lisa Lowman, with  
15 Environment Canada. I just wanted to get a bit of  
16 clarification on the purpose and the management of Area  
17 7. De Beers stated that -- that it's part of the  
18 southern area, that they're going to manage, and that  
19 it will be dewatered to access 5054, and also to  
20 support additional water storage. So I'm just  
21 wondering where the linkage is between accessing 5054  
22 by having to dewater that area, just getting  
23 clarification on that.

24

25 (BRIEF PAUSE)

1 MR. WAYNE CORSO: Wayne Corso, JDS. I  
2 guess the -- the biggest linkage is the -- does  
3 somebody have a pointer, is this Dike K right here,  
4 which is probably the -- is -- is what keeps the water  
5 from Area 7, which is -- excuse me?

6 MS. VERONICA CHISHOLM: Dike K.

7 MR. WAYNE CORSO: K, yeah. Yeah, Dike  
8 K. Sorry if I said "A." Dike K is a -- which is a  
9 pretty -- I'll get the exact height in a -- in a second  
10 for you, but it's a, you know, fairly -- fairly tall  
11 structure that basically protects the -- the mining of  
12 5034 pipe, which is here, Tuzo. Hearne is off by  
13 itself a bit, but 5034 is the one that is -- is right  
14 underneath of the -- of this fairly high head dike. So  
15 we want to make sure that we can build this in the dry.

16

17 And at the same time this Dike A is a --  
18 is a fairly small structure that separates Area 8 from  
19 Area 7. And this also, including Area 7, which is part  
20 of that -- everything is sort of linked in with that  
21 alternatives assessment as well, that -- where we  
22 basically calculated the -- the smallest area where we  
23 can keep everything in one (1) basin that allows us to  
24 -- to mine the project, access the pipes, you know, in  
25 a technical -- technically feasible and economic and

1 environmentally responsible way. So -- Bill do you  
2 have the height?

3 MR. BILL HORNE: Nine metres high.

4 MR. WAYNE CORSO: Okay. This -- this  
5 dike is 9 metres high. So the -- the -- I guess the  
6 most urgent reason for having Area 7 included in our --  
7 in our dewatering -- the de -- the dewatering area of  
8 Kennady Lake is that protection for 5034.

9 MS. LISA LOWMAN: Lisa Lowman with  
10 Environment Canada. Do you know offhand what the range  
11 and depth of Area 7 is, like what the general depth.  
12 And also if it's a fish producing lak -- or area? I  
13 can't recall -- oh, it's part of -- okay.

14 MS. VERONICA CHISHOLM: Veronica  
15 Chisholm, from De Beers. Area 7 is on average 12 metre  
16 -- maximum depth of 12 metres. And, yes, it currently  
17 does support fish.

18

19 (BRIEF PAUSE)

20

21 MR. BRUCE HANNA: Bruce Hanna, from  
22 DFO. Just to follow up on that, if Area 7 is getting  
23 dewatered primarily for the dike construction, has  
24 there been any consideration of once the dike is  
25 constructed, refilling it then and connecting it to

1 Area 8 so you don't lose that habitat over wintering,  
2 and et cetera?

3

4 (BRIEF PAUSE)

5

6 MR. WAYNE CORSO: Wayne Corso, JDS.

7 Basically it's -- besides the -- the dike construction  
8 and the -- keeping the water -- waterhead out from  
9 above 5034, this area here is our -- our plant area and  
10 all the mine activities within here are within this --  
11 the area -- within Area 7. So we've got details --  
12 more on -- on why we've included that -- these -- those  
13 are a couple of the -- couple of the main points in the  
14 alternatives analysis. So it's -- it's been -- it's  
15 been included in there and you'll get -- you'll get the  
16 details when we submit that. But that's -- that's the  
17 main reasons. Yeah.

18

19 (BRIEF PAUSE)

20

21 THE FACILITATOR HAYDEN: Okay. Thanks  
22 for that response. I guess this is the last call for  
23 questions before we go through some of the tasks for De  
24 Beers.

25

1 (BRIEF PAUSE)

2

3 THE FACILITATOR HAYDEN: Seeing nobody  
4 run to a mic, do you want to do it?

5 THE FACILITATOR HUBERT: Sure, I'll do  
6 it.

7 THE FACILITATOR HAYDEN: Okay.

8 THE FACILITATOR HUBERT: Thanks very  
9 much, Shannon, and you're right on time, which is, you  
10 know, far better facilitation than I managed yesterday  
11 going way overboard but -- so, good job.

12 Yeah, it's valuable to go over tasks and  
13 -- and some of the commitments, so I thought I'd take a  
14 stab at that. And with some corroboration from -- from  
15 De Beers, it would be valuable to see if we're on the  
16 same page.

17 So the -- the -- one (1) commitment was  
18 for De Beers to work with Transport Canada to discuss  
19 some of the navigable waters issues or items related to  
20 Kennady Lake. And that -- that will occur.

21

22 --- COMMITMENT NO. 1: De Beers to work with  
23 Transport Canada to discuss  
24 some of the navigable  
25 waters issues or items

1 related to Kennady Lake

2

3 THE FACILITATOR HUBERT: The second  
4 commitment was to provide the alternatives analysis by  
5 mid-June. And just to confirm that one.

6

7 --- COMMITMENT NO. 2: De Beers to provide the  
8 alternatives analysis by  
9 mid-June

10

11 THE FACILITATOR HUBERT: There were a  
12 couple of tasks next for documents to be provided by De  
13 Beers. One (1) of them was the total suspended solids,  
14 which should be on our public registry now. So that's  
15 complete.

16 The other was the geochemistry document,  
17 which was also submitted to the panel. And that, I  
18 believe is on the -- should be on the registry by now,  
19 as well. Did I misspeak?

20 MR. JOHN FAITHFUL: John Faithful,  
21 Golder Associates. It -- it's not the geochemistry  
22 report, it's a -- it's a groundwater chemistry report.

23 THE FACILITATOR HUBERT: Thanks very  
24 much for the correction. Groundwater geochemistry re -  
25 -

1 MR. JOHN FAITHFUL: Groundwater  
2 chemistry report.

3 THE FACILITATOR HUBERT: Thank you once  
4 again. Ground -- groundwater chemistry report.

5 MS. VERONICA CHISHOLM: Veronica  
6 Chisholm, from De Beers. I just want to confirm that  
7 that's been sent to MVEIRB. So I expect that it would  
8 be posted today.

9 THE FACILITATOR HUBERT: Thanks. Yes,  
10 it should be on the -- the -- we have received it, I  
11 know that, and it should be on our public registry  
12 today. So that one is complete, as well.

13 A third task was for De Beers to -- it  
14 was a question from the last -- Kathy Racher of the  
15 Mackenzie Valley Land and Water Board regard -- or  
16 actually the Wek'eezhii Land and Water Board regarding  
17 some of the physical properties of the fine processed  
18 kimberlite. And -- and I'm not sure when De Beers was  
19 planning on providing a response to that question?

20

21 (BRIEF PAUSE)

22

23 MS. VERONICA CHISHOLM: Veronica  
24 Chisholm, from De Beers. I'm just confirming, and  
25 we've sent off some emails. So if we can give you a



1 date tomorrow. We're just trying to get some  
2 information back. So that's our plan. I'll give you  
3 an update tomorrow on that deliverable.

4 THE FACILITATOR HUBERT: Thanks very  
5 much. We'll -- we'll -- we typically do a follow-up  
6 from the previous day first thing in the morning. So  
7 we'll take care of that tomorrow.

8 De Beers also committed to consulting  
9 with Environment Canada and the Government of the  
10 Northwest Territories on an incineration plan.

11

12 --- COMMITMENT NO. 3: De Beers to consult with  
13 Environment Canada and the  
14 Government of the Northwest  
15 territories on an  
16 incineration plan

17

18 THE FACILITATOR HUBERT: A further  
19 commitment, this -- this was a -- a commitment on  
20 reference lakes for monitoring purposes, I believe.  
21 So, a commitment to -- to examine reference lakes to  
22 see if any of them apply to Kennady Lake. And -- and  
23 possibly include more lakes that are similar to  
24 Kennady? Is -- is that roughly it or am I missing  
25 that?

1 MR. PETER COTT: Pete Cott, from DFO.

2 I would include Kennady Lake or lakes in the project  
3 area. Thank you.

4 THE FACILITATOR HUBERT: Okay, thanks.  
5 Is -- is that De Beers' understanding as well?

6 MS. VERONICA CHISHOLM: Veronica  
7 Chisholm, from De Beers. Could you just summarize that  
8 again?

9 MR. JOHN FAITHFUL: Restate it.

10 MS. VERONICA CHISHOLM: Or just restate  
11 it so I'm -- I'm clear. I have -- I'll -- have a list  
12 here and I'm just comparing.

13 THE FACILITATOR HUBERT: My wording on  
14 that is as follows: De Beers will examine reference  
15 lakes to see if any apply to Kennady Lake, and include  
16 more -- possibly include other lakes in the study area  
17 that are similar to Kennedy Lake.

18

19 (BRIEF PAUSE)

20

21 THE FACILITATOR HUBERT: I don't seem  
22 to be getting a positive nod from DFO. So, if maybe  
23 DFO can clarify that commitment for me, please?

24 MR. PETER COTT: Pete Cott, from DFO.  
25 The reference lakes should emulate the types of lakes

1 that are in the project area. So those being Kennady  
2 lakes, but plus some of the smaller lakes on the area -  
3 - on -- on the project area. Right now, the reference  
4 lakes are large, deep lakes, deeper and more  
5 oligotrophic than Kennady Lake is, in fact. So, what's  
6 -- what's, I guess, absent from that reference lake  
7 list as far as some of the -- the water chemistry  
8 monitoring are the smaller, intermediate size lakes and  
9 -- and things of that nature. Thanks.

10 MR. JOHN FAITHFUL: John Faithful,  
11 Golder Associates. Thanks, Chuck. Thanks, Pete. I --  
12 I just want to reiterate that -- that De Beers is --  
13 has already undertaken or commenced a reference lake  
14 program. I think I want to make it very clear that we  
15 are already undertaking that, and that I'm not  
16 necessarily sure that this should be seen as a  
17 commitment, because we've actually -- we're already  
18 underway. We're already dealing with this process as  
19 part of the -- the monitoring programs moving forward.

20 We take your comments on board, and will  
21 ensure that, as part of the process moving forward,  
22 that we -- we address those particular concerns.

23 THE FACILITATOR HUBERT: Thank you. Is  
24 -- is DFO okay with that?

25 MR. PETER COTT: Pete Cott, from DFO.

1 Yeah, that's fine. As long as we're -- and we welcome  
2 discussions with De Beers on this -- this matter moving  
3 forward, as well. Thanks.

4 THE FACILITATOR HUBERT: Okay. Thanks  
5 very much. It sounds to me like it's a commitment  
6 that's happening in -- in any case, regardless. So, I  
7 don't think anybody is too worried about proceeding  
8 with it as it stands. Thanks.

9 MS. VERONICA CHISHOLM: Veronica  
10 Chisholm, De Beers. That is a commitment. I guess the  
11 -- the only thing we were quibbling about was whether  
12 it was a new commitment or not. It's just something  
13 that we're doing. And -- and I'm okay, De Beers is  
14 okay with calling that a commitment. We see it as a  
15 commitment. It's just we don't consider it a new  
16 commitment. That's all.

17 THE FACILITATOR HUBERT: Thanks for  
18 that clarification. Water quality objectives were also  
19 listed as commitments, and I believe there was a  
20 timeline of September of this year to have those  
21 complete. Is that -- is that your understanding, as  
22 well?

23 MS. VERONICA CHISHOLM: Veronica  
24 Chisholm, from De Beers. Yes, that's correct. We're  
25 targeting towards the end of September. If we can get

1 it done early, we will.

2 THE FACILITATOR HUBERT: Thank you. I  
3 appreciate it. There was also the -- oh, right, the  
4 task on CO2 emissions. That's for tomor -- tomorrow.  
5 I'd be interested in seeing what De Beers' list  
6 includes, if there's anything that I've missed.

7 MS. VERONICA CHISHOLM: Veronica  
8 Chisholm, from De Beers. The only other commitment  
9 that we recorded that was outside your list was that we  
10 stated that we would use silt curtains where required  
11 in the dike construction. So it's sort of a  
12 confirmation of a commitment, I would say, on that.

13

14 (BRIEF PAUSE)

15

16 MS. ANNE WILSON: Anne Wilson,  
17 Environment Canada. Just one (1) further commitment of  
18 my understanding was that sediment quality objectives  
19 would be developed as well.

20 MS. VERONICA CHISHOLM: Veronica  
21 Chisholm, from De Beers. Yes, that's correct, sediment  
22 quality will be discussed -- will be developed -- get a  
23 lot of messages -- will be developed as part of that  
24 September submission as well. Thank you.

25 THE FACILITATOR HUBERT: Thank you,

1 Anne, for clarifying that and -- and including that.  
2 So that's our understanding currently of what we've  
3 achieved today, which I think is quite -- quite a lot.  
4 And anything further from anybody in the room before we  
5 close?

6

7 (BRIEF PAUSE)

8

9 THE FACILITATOR HUBERT: Okay, thank  
10 you very much for your participation, everybody. I  
11 think we -- it was productive and successful and we'll  
12 see you all tomorrow at five (5) to 9:00.

13

14 --- Upon recessing at 4:25 p.m.

15

16 Certified correct,

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21 \_\_\_\_\_

22 Lorraine Douglas, Ms.

23

24

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