



MACKENZIE VALLEY ENVIRONMENTAL

IMPACT AND REVIEW BOARD

ENVIRONMENTAL IMPACT STATEMENT (EIS)

ANALYSIS SESSIONS

GAHCHO KUE DIAMOND PROJECT

Mackenzie Valley Review Board Staff:

Facilitator Alan Ehrlich

Facilitatory Chuck Hubert

HELD AT:

Yellowknife, NT

November 28th, 2011

Day 1 of 5

1	APPEARANCES	
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3	Chuck Hubert)
4	Nicole Spencer)
5	Jessica Simpson)
6	Stacy Menzies)
7		
8	Veronica Chisholm) De Beers Canada
9	Stephen Lines)
10	Andrew Williams)
11	John Faithful)
12	Wayne Corso)
13	Cathie Bolstad)
14	John Virgl)
15	Amy Langhorne)
16	Lisa Hurley)
17	Ryan Rodier)
18	Gordon Zhang)
19	Ron Barsi)
20		
21	Paul Green) AANDC
22	Amy Lizotte)
23	Julian Kanigan)
24	Glenn Sorensen)
25	Francis Jackson)

1	APPEARANCES	(Cont'd)
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3	Loretta Ransom) ENR
4	Andrea Patenaude)
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6	Steve Ellis) Treaty 8
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8	Juanti Robinson) ITI Industrial
9) Initiatives
10		
11	Kate Witherly) NPMO
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13	Anne Wilson) Environment Canada
14	Lisa Lowman)
15	James Hudson)
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17	Sarah Olivier) DFO
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19	Kerri Garner) Tlicho Government
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21	Madelaine Pasquayak) Ttitso Gameti
22) Government
23		
24	Ron Desjarlais) Lutsel K'e
25		

1 APPEARANCES (cont'd)

2

3 Remote Participants:

4

5 Paul Wilkinson) MVEIRB Consultants

6 Terry Antoniuk)

7 Petr Comers)

8 Anne Gunn)

9 Dave Tyson)

10 Doug Ramsey)

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1 --- Upon commencing at 10:01 a.m.

2

3 THE FACILITATOR EHRLICH: Good
4 morning, everyone. We're going to start in one (1)
5 minute, so if I can ask everyone to please take your
6 seats, and -- and you should have a piece of paper in
7 front of you with your name on it. If not, please let
8 me know and we'll arrange it. Thanks. We'll start in
9 one (1) minute.

10

11 (BRIEF PAUSE)

12

13 THE FACILITATOR EHRLICH: Good
14 morning, everybody. Apologies for the late start. We
15 had a -- a technical problem with the webcast. I
16 understand that it's -- it's now been solved.

17 My name is Alan Ehrlich. I'm the
18 manager of environmental impact assessment for the
19 Mackenzie Valley Environmental Review Board. Next to
20 me is Chuck Hubert, who is the new panel manager for
21 the Environmental Impact Review of the Gahcho Kue
22 project.

23 I'm going to give some opening
24 comments. No inspirational quotes as my predecessor
25 might have done, but I do welcome you all here and

1 thank you for coming. It's a chilly morning. I
2 understand they're -- they're going to get chillier
3 during the week. We have a -- a warm setting and
4 snacks and stuff to help take the edge off when you
5 get here. So we hope that when you come in tomorrow
6 at nine o'clock sharp, when we're going to be
7 starting, you -- you grab a drink before you -- you
8 sit down.

9 We wanted to get a bigger venue and
10 this town is booked tight. I don't know if it's
11 because of Christmas parties or what, but we tried
12 months in advance and -- and we couldn't find anything
13 that was able to offer what we need in terms of remote
14 participation, the logistical stuff, as well as -- as
15 well as easy accessability, so we're here.

16 Right now we have enough seats and
17 that's a good thing. If more people come in I'm going
18 to shuffle around who's at the table so that we get at
19 least one (1) representative of each party at the
20 table.

21 I'm going to do a -- a quick round-
22 robin -- I -- I think we may as well start now. I'll
23 start by introducing the Review Board staff who are in
24 the room. I've introduced Chuck Hubert who's the new
25 panel manager for the -- the Gahcho Kue Environmental

1 Impact Review Panel.

2 And next to him is environmental
3 assessment officer Nicole Spencer. And our community
4 liaison is -- is Jessica Simpson who's over at the --
5 the door there. And you'll see someone named Stacey
6 Menzies who's an environmental assistant who's going
7 to be running around a fair bit in the next couple
8 days making everything that needs to work, work.

9 I'd like to start over at the De Beers'
10 side, and I'm going to ask Veronica to introduce
11 herself, but also the people who are not sitting at
12 the main table. We appreciate that De Beers has been
13 willing to sit people closer to the bar. Just going
14 to confirm for everyone who's listening by remote --
15 by our -- our webcast that the bar is dry, the glasses
16 are empty, people are looking alert, and are facing
17 this way. Veronica, please go ahead.

18 MS. VERONICA CHISHOLM: Thank you. My
19 name is Veronica Chisholm, I'm the permitting manager
20 for De Beers. So I'm the replacement for Paul Cobban
21 who some of you might be familiar with.

22 Behind me, since we will be going
23 around the table, we have Lisa Hurley, who's sitting
24 at the upper portion of the bar. She -- we have Amy
25 Langhorne, who's from Golder. Cathie Bolstad, who

1 should be sitting at this table. Ryan Rodier, who's
2 from EBA Engineering, and Ron Barsi from Golder
3 Associates. Did I forget anybody? Okay. That's
4 good.

5 THE FACILITATOR EHRLICH: Okay. Now
6 let's go around the table and continue -- does that
7 make it counterclockwise? Counterclockwise.

8 MR. STEPHEN LINES: Good morning, I'm
9 Stephen Lines. I'm with De Beers. I'm the
10 environmental assessment and permitting coordinator
11 for the Gahcho Kue project.

12 MR. ANDREW WILLIAMS: Good morning, my
13 name is Andrew Williams. I'm the Gahcho Kue project
14 manager for De Beers Canada.

15 MR. JOHN FAITHFUL: Good morning, my
16 name is John Faithful. I'm with Golder Associates and
17 -- and I'm the technical director for the
18 environmental assessment.

19 MR. WAYNE CORSO: Hello, Wayne Corso
20 with JDS Energy and Mining, a mining engineer and
21 worked on the water management plan and feasibility
22 study for the project.

23 MS. MADELAINE PASQUAYAK: Hi, my
24 name's Madelaine Pasquayak, and I represent Gameti
25 Ttitso government.

1 MS. CARRIE GARNER: Morning, my name's
2 Kerri Garner with the Tlicho Government Lands
3 Protection Department and I am currently the acting
4 director of the department.

5 MS. SARAH OLIVIER: Hello. I'm Sarah
6 Olivier, EA analyst with Fisheries and Oceans.

7 MS. ANNE WILSON: Good morning. I'm
8 Anne Wilson with Environment Canada.

9 MS. LISA LOWMAN: Lisa Lowman, with
10 Environment Canada, senior environmental assessment
11 coordinator.

12 MS. KATE WITHERLY: I'm Kate Witherly,
13 with the Northern Projects Management Office.

14 MS. ANDREA PATENAUDE: Hi. I'm Andrea
15 Patenaude with the Wildlife Department at ENR.

16 MS. LORETTA RANSOM: Hi. I'm Loretta
17 Ransom. I'm the environmental assessment analyst with
18 the GNWT, with ENR.

19 MR. GLEN SORENSEN: Glen Sorensen with
20 minerals, oils, and gas, GNWT.

21 MR. JULIAN KANIGAN: Good morning.
22 Julian Kanigan with Aboriginal Affairs.

23 MS. AMY LIZOTTE: Amy Lizotte with the
24 Department of ITI, GNWT.

25 MR. PAUL GREEN: It's Paul Green with

1 Aboriginal Affairs.

2 THE FACILITATOR EHRLICH: Thanks. I'm
3 not going to ask anyone who's not at the tables to
4 introduce themselves unless they especially want to.
5 Like I said, the people who are at the tables are
6 going to be changing around a bit over the time as
7 people come in. We're expecting quite a bit of
8 participation from different parties on different
9 days.

10 Before we go further I'm going to ask
11 everyone to make sure your cellphones are turned way
12 down. That includes Dave in sound. Dave is doing our
13 sound over there. Dave is doing our sound over there
14 and Wendy is doing our transcription. I'm going to
15 ask -- make sure that all cellphones are turned to
16 vibrate, and that includes anyone else who's here,
17 please.

18 As well, I'm going to talk about remote
19 participation. Part of the remote participation may
20 involve computers. Anyone who is going to be
21 receiving messages from people elsewhere please make
22 sure there is no sound associated with those messages.
23 In other words, turn your speaker volumes off on your
24 machines if you're going to pull out machines and
25 start doing stuff.

1 I'll talk a little bit more about the
2 remote participation in a second. I want to talk
3 about how we got to this point in the process. And
4 then I'm going to describe a little bit about what the
5 process is -- what this part of the process is
6 intended to do.

7 Now, we recall that this environmental
8 impact review started in June, 2007. The panel issued
9 its final terms of reference in November, 2007. And
10 then, with the global economic downturn and other
11 things, we got the environmental impact assessment on
12 December 23rd, 2010.

13 The panel takes very seriously its
14 commitment to deliver a timely process with respect to
15 every part that is within our control. Stuff that's
16 within the parties controls we can't be held
17 responsible for. But when the ball is in the panel's
18 court we commit to doing what we're supposed to do
19 when we say we're going to do it.

20 And with that, we move through to
21 conformity of the environmental impact statement in
22 March of this year. The deficiency statement that was
23 issued was addressed by the developer in July of this
24 year, and finally received a conformity check that
25 confirmed that everything we asked for in the terms of

1 reference was in there in July -- July 22nd of this
2 year, which I should point out was only seven (7) days
3 after receiving the deficiency statement from De
4 Beers.

5 And I know that, you know, there was
6 some challenging questions in what went to De Beers,
7 and De Beers took the time to give us thorough answers
8 and further develop its plan. So the panel issued EIS
9 conformity on the 26th of July. And the work plan has
10 this session starting on November 28th.

11

12 (BRIEF PAUSE)

13

14 THE FACILITATOR EHRLICH: Today is
15 November 28th, so that's great. However, if you read
16 the small print on the work plan you'll realize that
17 this step is supposed to be completed by November
18 28th, because these are completion dates. We couldn't
19 do it because there was no venue that would actually
20 do the job and we'd rather, you know, be in the
21 ballpark time and have a session that works and is
22 productive than do a bad job faster.

23 The purpose of this session, it's a
24 little different from our -- some of you are more
25 familiar with technical sessions that the Review Board

1 has held. Now, the panel is independent of the Review
2 Board but we share the same staff, processes are very
3 similar, panel members have, until recently, been all
4 Board members. And so there are some similarities.

5 And you'll notice a similar approach to
6 facilitating the sessions. We're trying to keep it
7 informal, but we want the relevant information to be
8 captured by the public registry, which is why we have
9 transcription. So every word you utter will be
10 transcribed. That means that it can be part of what
11 exists in the universe that can be considered by
12 decision makers. In other words, it's useful.

13 Everything we're doing in this is
14 intended to help promote a wise decision by the panel
15 and -- so just bear that in the back of -- of your
16 mind. The entire process here, is trying to give the
17 panel what they need to reach a good decision about
18 this project.

19 With respect to the transcription, that
20 means you have to use the microphones. And if it's
21 not red, it's not on. As well, when you turn on the
22 microphone or reach for it, please start with your
23 name. Because Wendy does an amazing speed of
24 turnaround with the transcripts, you will probably see
25 the transcript for today's session tomorrow or the day

1 after.

2 But, if -- Wendy says tomorrow -- if
3 Wendy doesn't know who is saying what, it's -- it's
4 harder for that to work well. As well, you want to
5 make sure that you're credited with what you've said
6 and not necessarily responsible for what other people
7 have said. You want to get the names right. So, I --
8 I'll start with that.

9 People who are not at the table, if you
10 want to come up and comment, that -- it's fine.
11 Please use the microphone. We held a session for the
12 environmental assessment of Giant Mine here not long
13 ago, and we just had people switch seats when someone
14 who -- who wasn't able to sit at the front table
15 wanted to make a comment or ask a question. Someone
16 else shoved off and they used the microphone and it
17 worked very well. And I want to keep using the same
18 thing. There's also a wireless microphone that's
19 available. If the seats fill up, we will wind up
20 using that too.

21 This is not like a technical session
22 that happens in between rounds of information
23 requests. Those of you who are familiar with
24 technical sessions will recall that usually you've had
25 a round of information requests before you come in.

1 And then there's a chance for -- for a little bit of
2 verbal, direct dialogue, and sometimes issues can be
3 settled without having a second information request on
4 the same subject.

5 So, in -- in this case, there have been
6 no information requests yet. This is the front-end
7 session. It's similar to what we call a gap analysis
8 session in our environmental assessments. In this
9 case, the panel's calling it an environmental impact
10 statement analysis session.

11 But the purpose is largely threefold.
12 Part of it is it gives the developer an opportunity to
13 familiarize the parties with the project and with
14 what's in the environmental impact statement document.
15 This is, you know, a large-scale project and there's a
16 lot of information to absorb. And it's generally
17 useful to everybody to have a little bit of a -- a
18 show and tell. And that's why you'll notice the
19 agenda has an emphasis on developer's presentations.

20 However, we wanted to make sure that
21 parties had an opportunity, when they've heard these,
22 to point out if they felt that the breadth of what was
23 being covered was not adequate. This is not the same
24 in-depth probing that you get in a technical session.
25 This is more about, are the subjects that was covered

1 -- that were covered, adequately done so. Or are
2 there entire other fields that you're interested in
3 that -- that you don't have enough information on to
4 move on to the next round of information requests.

5 What will come out of this, possibly,
6 are a series of undertakings, which are little bits of
7 homework that the developer or other parties may have
8 to produce for a certain time. We'll -- we'll discuss
9 a potential deadline for those as they come up.

10 Something that worked well in the last
11 set of sessions we had here is that we had a developer
12 in that case who was quite committed to try to answer
13 questions during the session. Even questions that
14 were hard to answer, they would come back the next day
15 or the day after with answers to those. And the
16 reason why we're trying to promote this is because it
17 is easier for the parties, the developer, and everyone
18 if you can solve your issues, where you can, with face
19 to face discussion instead of a huge amount of paper.

20 So, I -- I -- I really encourage the
21 developer to listen carefully to any questions that
22 you hear, and as much as you are able to, to try to
23 resolve questions this week. Now, it's early on in
24 the process and, of course, not everything is going to
25 get resolved. But an honest effort here pays back

1 everyone quite a bit.

2 The face to face is -- face to face
3 approach is considerably more convenient than having
4 reams of -- of written material. With the
5 transcription, it is being captured for the record.
6 I'm going to just take a second till some technical
7 situations are fixed.

8

9 (BRIEF PAUSE)

10

11 THE FACILITATOR EHRLICH: I want to
12 point out that this is not a hearing. We are so
13 evidently not the panel, we are humble staff. And so
14 the panel will consider everything that's on the
15 record, but you are not in a hearing situation.

16 We would very much like this to be non-
17 adversarial. When it's constructive, you can cover a
18 whole lot more ground, so just remind all parties that
19 one (1) of the Review Board's core values is respect.
20 We expect discussions to be respectful and, you know,
21 a non-adversarial, informal approach is a very
22 productive way to cover a lot of material in one (1)
23 of these processes. And I just want people to bear
24 that in mind as we start off. I'll be repeating parts
25 of this on each day so that the parties who are not

1 here now get the same message.

2 This is -- this is Trevor Bourque and
3 Dave -- what's your last name, Dave? -- Dave
4 Sveinsson. They're both working for Pido to make sure
5 that you can hear each other and that the webcast goes
6 and that the translation works.

7 Our translators are Anne Biscayne and
8 Berna Martin. I am going to ask them to not translate
9 any more until we have anyone in attendance who
10 requires translation. So they're standing by to
11 translate if necessary. We didn't want to exclude by
12 being ill-prepared, but the session certainly can --
13 can go at -- at full speed without any -- any catch-up
14 time, because we're not going to be having any
15 translation unless we actually need it. But we are,
16 as you can see, ready to offer it should that come up.

17 We have remote participation in this
18 session. We've never tried it before. We don't know
19 how many of you are using it now. Does -- do any of
20 you have remote participants who you think will be
21 participating today? Please raise your hands. I'm
22 not seeing any yet, but I do know that at least one
23 (1) group is planning on participating remotely. As
24 well, all of the Board's -- sorry, the panel's -- I'm
25 used to doing this for the Review Board. My apologies

1 if I say Review Board instead of panel. Habits of --
2 of over a decade die hard.

3 The panel's experts are not in
4 attendance in this session. They will be here for the
5 technical sessions, but they are participating
6 remotely. And they are Paul Wilkinson, who is our
7 consultant on socio-ec and cultural matters; Terry
8 Antoniuk, who's our -- our consultant focussing on
9 cumulative effects; Petr Comers, who is wildlife with
10 the exception of the caribou; Anne Gunn, who's our
11 caribou specialist; and Dave Tyson of Tetrathec is fish
12 and aquatic habitat; Doug Ramsey is doing hydrology
13 and limnology.

14 And there are others who will be
15 involved, but I -- I do not have them confirmed as
16 remote participants right now. It doesn't mean
17 they're not participating. Many people can listen to
18 our webcast. We have no way of following that, but
19 when we get communications from them, we'll tell you
20 who they came from.

21 I ask every party that is receiving
22 communications from their remote participants to
23 please identify who it was who asked the question, if
24 it's not your own question, so that the developer has
25 an understanding of -- of the context, because that

1 will make it easier for them to provide a good answer
2 and it -- it generally helps.

3 The way the remote participation is
4 working is, this whole session is being webcast, so
5 anyone in the world can listen to it. We have found
6 with our other sessions that we do get people
7 listening far away. We had someone listening in
8 Sweden and someone in Asia two (2) times ago. We only
9 find this out after the fact, but the point is that
10 it's webcast, so it's accessible.

11 The way we encourage remote
12 participation is each group who has people who can't
13 be here that wants to participate that way have a
14 contact point somewhere in this room, and that person
15 gets emailed or messaged, or, if absolutely necessary,
16 cellphoned with their ringer off, set on vibrate. And
17 then their questions get asked in the room.

18 The responses are in the microphone, so
19 the responses are webcast. If this works we'll be
20 doing it again. If it works so so we'll try to fix
21 the so-so part. And if turns out to be a bad idea
22 this may be the only session we treat this way.

23 But the panel wanted to do this because
24 it wanted to encourage efficient participation. We
25 know there's some participant funding out there. If

1 we can have the same session and the same content
2 without people spending as much money on plane tickets
3 and it's logistically simpler, great.

4 And I think we will see during the week
5 that one (1) of the reasons we -- we likely have
6 enough space in this room is because there are going
7 to be bodies participating who are not here physically
8 but who are here only in spirit.

9 There was some media interest in this.
10 Do we have any members of the media here today? Okay.
11 They may come in. It's a public session. The public
12 in general is certainly able to attend, but the focus
13 is on the parties information needs and letting the
14 developer update everyone on -- on the plan for the
15 development right now as it's proposed. So there's
16 not going to be a lot of public questioning. When the
17 media show up I will instruct them to please not ask
18 for interviews in the room. If they want to approach
19 individual parties during lunchtime, or breaks, or
20 after, that's okay.

21 Review Board staff, just logistically,
22 we've got our hands filled right now, so we're not
23 going to be doing any interviews this -- for -- for
24 this week on this subject either.

25 But if any party is approached by the

1 media please don't give the interview in this room.

2 There are many other spaces that it can be done, and -
3 - and we're going to ask them not to do it during the
4 session.

5 The agenda, it's a five (5) day agenda.
6 I'll -- I'll talk briefly about what's on each day and
7 then I'll give a little bit more detail about how
8 today will work. Today is mostly about what is
9 proposed, what is the project description.

10 That includes everything that you've
11 got in your written material, and I trust the parties
12 have had a chance to review the written material. The
13 panel's been encouraging them to do so for some time
14 now. It also includes any further developments with
15 project design. Every project is a -- is a living
16 thing and if the developer is trying to work around
17 problems that have been identified, the project
18 evolves a bit over time.

19 Parties have an opportunity now to see
20 how the project's evolved to this point, even since
21 the EIS has been submitted. That does not make this a
22 different project. What we encourage every developer
23 to do is to anticipate and avoid problems rather than
24 try to react and cure them.

25 And project design and commitments are

1 two (2) of the tools that the developers have
2 available to -- to do that during the process. And so
3 it's a sign of the process being done responsibly.

4 But I fully expect to hear from De
5 Beers some details on how the project design has
6 evolved over time including since the EIS has been
7 submitted. And I see De Beers nodding, so I think
8 everyone else can expect that too.

9 So day 1 is the project description.
10 Day 2, on Tuesday, we're going to talk about effects
11 on people, archaeology, socioeconomic, cultural stuff.
12 That'll also include community engagement.

13 So Wednesday, day 3, is about
14 terrestrial stuff and air. We always have a hard time
15 figuring out where to put air, so we're saying the
16 ground and up. We're including stuff like noise, air
17 quality, soils, vegetation, caribou, carnivores,
18 species at risk, all matter of critters and -- and
19 that kind of thing. That's all going to be happening
20 on Wednesday.

21 Thursday and Friday are wet. Water is
22 going to be on Thursday. Hydrology, groundwater,
23 permafrost, that kind of thing. Hydrogeology is also
24 going to be thrown into the mix, anything else having
25 to do with the flow/freezing of water and the project.

1 Friday, water and fish. We're talking
2 about water quality, fish, aquatic habitat, that kind
3 of thing. There's a pile of agendas by the door.
4 Remote participants can find them on our website.

5 I'm going to ask remote participants
6 right now if you have not downloaded the presentations
7 from De Beers that we've put on our website, they're
8 under -- we had to put them somewhere on our website,
9 under developer's assessment and report section, which
10 is what an EIS is called in an environmental
11 assessment. If you go to our website go to the Gahcho
12 Kue page on the developer's assessment report. You
13 will find all of the developer's presentations. We --
14 in earlier correspondence we've asked parties to
15 download the -- these so they're sitting on your
16 computer. Why? So that if our website goes down you
17 can still participate in the session. If you haven't
18 done so yet, please do it.

19 And then in each of the presentations
20 that you're going to hear you're going to be able to
21 follow along with the PDF that you've got in front of
22 you. I'm speaking mostly to remote participants.
23 People in the room are going to see the live
24 presentation by De Beers.

25 De Beers has been kind enough to put

1 page -- slide numbers on each slide, and every few
2 slides I'm going to hold up this sign, which is an
3 orange and black sign saying, "Slide number?" That's
4 so that people who are participating at a distance
5 will be able to catch up and figure out where we're
6 at. And again, it's -- we're just trying to help
7 people understand what's proposed, including people
8 who aren't able to be here today.

9 We're committed to doing this session
10 and we've told all parties in advance that although
11 we're giving everyone the alternative of having remote
12 participants, if something goes wrong technically
13 we're going to keep going. Even if we have a power
14 failure I think we're going to keep going. We've got
15 an agenda to get through. We've got a certain amount
16 of time. A lot of people have worked hard to come
17 together here and we -- we'll certainly try hard to
18 fix any technical problems that happen, but the panel
19 is committed to doing this week what we've said we are
20 going to do this week. And that's why we've tried to
21 have backup systems.

22 We've also advised parties with remote
23 participates to make sure you've got the phone number
24 of your contact in the room so that if for some reason
25 we lose Internet access and you have questions, you

1 can phone them in through whoever is your receiver, we
2 need a word for this, for whoever's fielding your
3 questions and comments here. "Shortstop" is what
4 we're going to call that.

5 I will try hard to wrap up on time.

6 The agenda erroneously suggests that we're going to be
7 going late on Thursday. The people who own this room
8 tell us we're not because there's going to be a
9 Christmas party here and we're not invited, which
10 means we're going to make every effort to get through
11 the day in the time that we have.

12 We may not keep strictly to the way
13 it's divided on the agenda, but Chuck and I are going
14 to be your lead facilitators here, and we commit to
15 working very hard to make sure that when we say we
16 wrap up by 5:00 we wrap up by 5:00 and that lunchtime
17 happens when lunchtime should happen. Generally,
18 lunchtime will happen at five (5) minutes to 12:00
19 because I want you to get out there and order whatever
20 you need to order in restaurants before everyone else
21 does so that you can get back here for 1:15. 1:15 is
22 when we're going to start up again after lunch on each
23 day.

24 There'll be a break in the morning, a
25 break in the afternoon. And at the end of the day,

1 usually about twenty (20) minutes before the end of
2 the day, there'll be a quick wrap-up touching on some
3 of the themes that we've discussed, but also trying to
4 articulate again any undertakings, any homework that
5 may have happened.

6 In our last set of sessions we called
7 undertakings the stuff that the developer had to go
8 away with and come back with a couple of weeks later.
9 We'll be more specific about deadlines when the time
10 comes, don't worry. And homework was stuff that they
11 were taking away but wanted to try to solve or respond
12 to during the week. And so we'll keep doing that. We
13 are not going to use the word "commitments" for either
14 of those. Confusion over -- between that and actual
15 commitments has taught us a valuable lesson in past
16 environmental assessments, which you will benefit
17 from.

18 We're starting late. And what we're
19 going to lose is the health break this morning. There
20 are two (2) other short points I'll mention. There
21 will be snacks provided in the morning and afternoons,
22 coffee. As well, the toilets in this place have locks
23 on them. There are keys for the locks. I've put the
24 keys around the doorknobs of each of the toilets. If
25 they're not there, there's a little dish at the end of

1 the bar by where Jessica Simpson is sitting that has
2 keys for the toilets in there, and you can use those
3 too. So please do not put the keys in your pocket
4 after going to the washroom and leave them there.
5 It's amazing how easy that is to do. It's been a real
6 problem with previous sessions. Folks who are
7 listening remotely will have to make their own
8 arrangements for toilets.

9 That was a bold attempt at humour and
10 an ill-advised attempt at humour. I'm going to stop
11 right now and go over to the developer for their first
12 presentations.

13 Before I do that, are there any general
14 questions?

15

16 (BRIEF PAUSE)

17

18 THE FACILITATOR EHRLICH: We have a
19 question from Andrew Williams of De Beers.

20 MR. ANDREW WILLIAMS: Just a -- a
21 request please, Alan. If some of the participants
22 have written their name tags, with a -- with a regular
23 barrow (phonetic), if we could get them to use a felt
24 pen. It would just be -- my eyes aren't as good as
25 they used to be, unfor...

1 THE FACILITATOR EHRLICH: Yeah, I
2 thought they were propping up blank pieces of paper.
3 But now I understand that, no, there are letters on
4 them and you'll see them in no time.

5 There is a sign-in sheet. It's very
6 important for us to understand who's there. Is that
7 our only sign-in sheet of the day? The sign in sheet
8 is with Stephen Lines, and it's going to go around the
9 room.

10

11 (BRIEF PAUSE)

12

13 THE FACILITATOR EHRLICH: We're going
14 to leave the sign-in sheet at the table over there.
15 If anyone comes from your parties, and joins, please
16 ask them if they'd sign the sign-in sheet. It really
17 helps with the transcript and will make things easier
18 later on.

19 Any other questions?

20

21 (BRIEF PAUSE)

22

23 THE FACILITATOR EHRLICH: Thanks very
24 much. Now we hand it over to Veronica of De Beers.

25

1 PRESENTATION BY DE BEERS CANADA RE GAHCHO KUE PROJECT
2 PART 1:

3 MS. VERONICA CHISHOLM: Thank you,
4 Alan. That was a very thorough and comprehensive
5 explanation. I -- I'm having a bit of a sound --
6 okay. That's better.

7 I'm actually going to request that I
8 get a roving mic, because I like to stand and present,
9 if that's okay.

10

11 (BRIEF PAUSE)

12

13 MS. VERONICA CHISHOLM: Thank you.
14 Can everybody hear me? Perfect.

15 I'm just going to -- I know you can't
16 see this very well, but I -- for folks, we are
17 changing up some things slightly on the agenda.

18 The -- the first item was supposed to
19 be the structure of the EIS. We're actually going to
20 go with the project description first. The EIS will
21 flow afterwards, as it tends to.

22 And the discussion of alternatives
23 we're going to actually include as part of our project
24 description. So those are just a couple of things on
25 the agenda for today. Good? Is that clear?

1 THE FACILITATOR EHRLICH: So for our
2 remote participants, just to make it clear now, the --
3 the name of the presentation that you should be
4 opening up is The Gahcho Kue Project, and we're on
5 slide 1.

6 MS. VERONICA CHISHOLM: Slide number
7 1, yes. Thank you.

8 So I've introduced myself already. I'm
9 Veronica Chisholm. I'm the new permitting manager for
10 De Beers. I see some familiar faces that I met in
11 October when we presented the project description and
12 various sections of the EIS. So that -- that's good
13 to meet you. And for those that I haven't met or
14 spoke with, I hope I will get an opportunity to do
15 that.

16 I've already introduced the -- thanks,
17 Lisa. I've already introduced the De Beers team. I'm
18 just going to go through it quickly again because
19 they're going to be the support in terms if there's
20 questions. I may field some of the questions to some
21 of those individuals.

22 So I have Andrew Williams, who is our
23 project manager on the Gahcho Kue project. Cathie
24 Bolstad, who's in the back there, she's corporate and
25 external affairs director. And then we have, well,

1 myself as permitting manager, and Stephen Lines who's
2 the environment assessment and permitting coordinator.
3 I think a bunch of you know Stephen.

4 Also, we have Amy Langhorne, Lisa
5 Hurley -- you guys can give a wave -- and Ron Barsi.
6 They have the entire EIS project and binder
7 information on a CD over there. And so if anybody
8 needs to look up information, they are our little
9 station over there for that.

10 We also have John Faithful, so if
11 there's a technical question that comes up from the
12 EIS, John will help with that. And we also have Wayne
13 Corso from JDV Engineering, and -- JVD -- JDS. I can'
14 get that right. And Gordon Zhang from EBA. They have
15 worked on engineering projects in the north, so
16 they're a part of our technical project description
17 team.

18 So -- so I wanted to do that quickly.

19 I'm on slide -- thank you, Andrew --
20 I'm on slide number 3. So the project description is
21 in Volume I. It's this big guy here. The first part
22 of Volume I is a plain-language summary, so
23 essentially we condensed the EIS down into a very
24 condensed summary of the main points of the EIS.
25 Section 1 is the introduction of the project

1 description; section 2 is the project alternatives, so
2 those are all the alternatives we considered when we
3 developed the project description; and section 3 is
4 the actual project description, and that's what we're
5 focussing in on today.

6 This is my only animation. You can
7 tell I'm not particularly gifted. So today, just the
8 outline of our discussion, we actually have four (4)
9 presentations included as part of this project
10 description. I'm going to be giving an overview of
11 the project, as well as discussing some of the
12 alternatives that were considered. Stephen Lines, my
13 colleague, will be discussing the surface footprint
14 and infrastructure of the project, as well as the
15 water management plan, and then I'll come back and
16 talk about reclamation and closure. So that's the
17 four (4) presentations we're going to have today.
18 That's good.

19 So project overview. I'm on project
20 overview, it's slide number 6. I'm going to talk
21 generally about the project description and then give
22 a brief history of activity on the site, followed by a
23 map showing the location of the project area;
24 something on the kimberlite deposits, going to provide
25 you with some description of those; a little bit on

1 the mining method and some of the alternatives we
2 considered in the mining method; as well as mine
3 sequencing and the rate of mining that we considered;
4 some anticipated employment; and, finally, a project
5 timeline.

6 I'm on slide number 7, the project
7 overview. So the Gahcho Kue project is proposing to
8 develop an open-pit mine to access three (3)
9 kimberlites, referred to as 5034, Hearne, and Tuzo.
10 It's located at Kennady Lake, which is approximately
11 280 kilometres northeast of Yellowknife, and I have a
12 slide that'll show a map for that. They're vertical
13 pipes located under Kennady Lake, and I'll show you
14 what that means, and -- but because they're vertical
15 pipe situated under the lake, this requires us to
16 dewater Kennady Lake. And Stephen will get into the
17 detailed water management plan that will show you how
18 we plan to dewater Kennady Lake.

19 I'm going to slide number 8, which is
20 the site history. So there's been a fair bit of
21 activity at the Gahcho Kue project site since 1992.
22 That's when initial exploration began. In 1995,
23 that's when they actually found the 5034 kimberlite,
24 the first one. In '97 is when De Beers and Mountain
25 Province did a joint venture for this project. In

1 '97, 5034 was further defined with some drilling.

2 1997, also the Hearne and Tuzo pits were located, and
3 there was actually a fourth kimberlite, Tesla, that
4 was deemed uneconomical. Tesla? Sorry. Andrew.

5 MR. ANDREW WILLIAMS: Tesla.

6 MS. VERONICA CHISHOLM: Tesla.

7 Between 1999 and 2008 is when we've done some core
8 drilling and bulk sampling to further define the
9 resource. And then finally, in 2009/2010 is when we
10 undertook a feasibility study of the area, and
11 currently, in 2011, we have a permit to undertake some
12 drilling of the Tuzo kimberlite, and I'll show you
13 what that looks like.

14 So where are we located? The Gahcho
15 Kue project is located approximately, as I said, 280
16 kilometres northeast of Yellowknife. It's
17 approximately 80 kilometres east of Snap Lake, the
18 other De Beers property, about 120 kilometres plus
19 from Diavik and Ekati. We're about 140 kilometres
20 from the nearest community, which is the Lutsel K'e
21 community, and we have -- we're located along the
22 Tibbett-Contwoyto Road. At approximately two hundred
23 and seventy (270), it -- it heads south about 120
24 kilometres down to the Gahcho Kue. We have a permit
25 to use that road, although we haven't used it

1 extensively to date.

2 The green line on here is just tree
3 lines, so we're located just above tree line.

4

5 (BRIEF PAUSE)

6

7 MS. VERONICA CHISHOLM: Apparently I
8 have to stop chewing the mic so I think everybody can
9 hear me.

10 So this is just an aerial overview of
11 the site and where the deposits are located. We've
12 got 5034, which is located in the middle. That's the
13 first kimberlite that was discovered at the site. We
14 have Hearne located just about here, and Tuzo located
15 here.

16 This is where our current camp is. And
17 I'll remind you to look at that peninsula because we
18 referenced that peninsula in some other aerial view
19 slides. So we'll try and take you back to that one.

20 I'm just -- I'm just going -- oops.
21 I'm just going to show you these kimberlites and where
22 they're situated. Oh, I'm on slide number 11. Thank
23 you, Alan.

24 I'm just going to show you where these
25 kimberlites are situated under Kennady Lake. As I

1 said, there are vertical pipes under the lake. And
2 5034 is the one we're going to be mining initially,
3 followed by Hearne and Tusla (sic) -- Tuzo.

4 And they are very different shapes and
5 because of where they're situated under the lake, and
6 the amount of cap rock that situates above the lake,
7 it requires us to dewater Kennady Lake.

8 So the mining method, and the
9 alternatives that we're considering, there are three
10 (3) ore bodies at Kennady Lake that will be mined
11 using open pit mining method. The alternatives that
12 we considered very early on was the underground mining
13 potential to get at those sites.

14 Can you hear me? Thanks.

15 Some of the challenges with underground
16 mining was just simple safety concerns, to keep --
17 because we have to manage the inflow of water into the
18 mine.

19 It's technically challenging to
20 maintain the sufficient layer of competent watertight
21 rock. And it's economically deemed -- it was
22 economically deemed less favourable, just because of
23 the capital and operating costs and the potential for
24 ore sterilization.

25 The mining sequence and extraction

1 rates and some of the alternatives. So we're going to
2 mine them, the kimberlites, se -- sequentially,
3 starting with 5034, as I mentioned, followed by
4 Hearne, and then Tuzo.

5 We looked at doing a parallel mining
6 method. Again, that's in section 2 of the project
7 description, Volume I. And parallel mining simply
8 means opening up all the pits at the same time.

9 Again, that's a far more complex
10 operation and when we -- we're undertaking a project
11 description, we're always looking for an opportunity
12 to minimize impacts and protect the environment. And
13 so we wanted to have a smaller footprint and parallel
14 mining would result in a fairly large footprint for
15 this mine. So it was deemed less favourable
16 alternative. And economically, it was just determined
17 to be less favourable.

18 The maximum sustainable extraction or
19 processing rate is 3 million tons per year. Again, in
20 the alternative analysis in section 2, we looked at
21 different rates. And this was determined to be the
22 most ideal rate from environmental and technical
23 perspective because it reduces the amount of
24 groundwater to be managed.

25 A faster rate would result in no pits

1 available for backfilling, because as we mine one (1)
2 pit, we can backfill as we open up another pit into
3 that original pit. So that's the overall plan. And a
4 slower rate would be uneconomical, as well.

5 Anticipated employment. So at peak
6 construction, we're looking at approximately seven
7 hundred (700) full-time employees. It includes both
8 on-site and off-site employees. It has camp capacity
9 of four hundred and thirty-two (432). At operations,
10 we're anticipating three hundred and seventy-two (372)
11 full-time employees. A hundred or less will be at
12 closure.

13 And although smaller than both the
14 Ekati and Diavik mines, the timing of this project and
15 when it's -- if permitting is successful, then we
16 would expect there to be some economic sustainability
17 for the NWT.

18 Thank you. Slide number 15: So this
19 will -- this shows the operating lives of the various
20 diamond mines in the area any information we have on
21 it to date. So Diavik, at the top, is scheduled
22 operation to end around 2020. Ekati is scheduled
23 around 2021. Snap Lake is expected at 2029. And the
24 operating life for this project, should the permitting
25 be successful, would be a start of operation around

1 2015 and an end of operation around 2025, so.

2 Project timeline. So we intend --
3 should permitting be successful, we intend to start
4 construction in 2013, and that'll extend for two (2)
5 years, to 2015. During that time is when we'll
6 undertake the dewatering of Kennady Lake, as well as
7 infrastructure construction. And Stephen will get
8 into the detail on the infrastructure and the mine
9 footprint.

10 During the operating pe -- period will
11 be from year 1 to year 11, or 2015 to 2025. The first
12 activity will be mining 5034, followed by Hearne in
13 year 4, and Tuzo in year 5. 5034 will be backfilled
14 with mine rocks starting in year 5; Hearne backfilled
15 with fine PK starting in year 8.

16 Where possible, progressive
17 decommissioning and reclamation will occur because we
18 want to start the reclamation process. And perhaps
19 I'm preempting my talk that I'm going to give at the
20 end, but we want to start the reclamation process as
21 early as possible so by the time we reach reclamation
22 we actually could have up to ten (10) years, eight (8)
23 years of data that will tell us how best to approach
24 final closure reclamation and to have that -- some
25 more detailed information on proven practices and

1 proven technology.

2 At closure we'll be within two (2)
3 years after mining, at the end of year 13. So that's
4 when we actually complete the removal of the in --
5 infrastructure, disposal of all the materials onsite
6 and off-site as appropriate in refilling Kennady Lake
7 and restoration monitoring. Post closure there'll be
8 monitoring to ensure that we're meeting our
9 reclamation and closure objectives. And again, I'm
10 going to be presenting those in the last project
11 description of the day.

12 So questions on the first part?

13

14 QUESTION PERIOD:

15 THE FACILITATOR EHRLICH: I don't see
16 any hands going up. Oh, there is one (1), and it's
17 from Madelaine. Do you want to go ahead? And please
18 state your -- your name into the microphone so they --
19 they catch it.

20 MS. MADELAINE PASQUAYAK: This is --
21 my name is Madelaine Pasquayak and I'm a Tlicho
22 citizen. Just -- just for the record, I'd like to
23 clarify the name, Gahcho -- Gahcho -- Gahcho Kue. I
24 think that's wha -- that's how it's written. The name
25 of the lake is really called Gahcho T'i (phonetic) in

1 -- in Dogrib. And for the -- for the Elders that I
2 work with and for -- for the sake of the people that
3 live in that area I -- I think it -- we should refer
4 to Gahcho T'i if we're talking about Kennady Lake
5 because Gahcho T'i -- Gahcho Kue translates into the
6 area around Gahcho T'i, so we're either talking about
7 Gahcho T'i or we're talking about the area surrounding
8 Gahcho T'i. Thank you.

9 THE FACILITATOR EHRLICH: Thank you
10 for that, Madelaine.

11 MS. VERONICA CHISHOLM: Yes, I apprec
12 --

13 THE FACILITATOR EHRLICH: And I see
14 that De Beers is -- sorry, that you care to respond?

15 MS. VERONICA CHISHOLM: I appreciate
16 those comments, Madelaine, and I appreciate that
17 information.

18 THE FACILITATOR EHRLICH: And,
19 Veronica, I'm just going to remind you that even
20 though you're one (1) of the main speakers, it does
21 help if you can say your name each time you take up
22 the microphone. The Chair's got the prerogative of
23 not doing that but, otherwise, you're going to face
24 the wrath of Wendy, and you don't want that to happen.

25 Any other questions or comments at this

1 time?

2 In that case, I'm going to ask De Beers
3 to continue on with its next presentation. We are
4 trying to make up for the lost time because of the
5 technical trouble we had. Are you ready or do you
6 need a minute? Veronica's indicating that she's ready
7 and she's grabbing the remote microphone, so.

8 MS. VERONICA CHISHOLM: I'm grabbing
9 the remote again. I just to need to line up the
10 presentation for Stephen Lines.

11 THE FACILITATOR EHRLICH: Yeah.

12

13 (BRIEF PAUSE)

14

15 THE FACILITATOR EHRLICH: Okay. For
16 folks who are listening on the webcast, we're just
17 getting organized in the room here today. It's just
18 going to be a minute. Please bear with us. The dead
19 air doesn't mean that the session has stopped.

20

21 (BRIEF PAUSE)

22

23 PRESENTATION BY DE BEERS RE THE GAHCHO KUE PROJECT
24 PART II:

25 MR. STEPHEN LINES: Good morning,

1 everyone. Is that -- is that a good distance there?

2 Okay. Thank you.

3 I'm Stephen Lines, and I'm the
4 environmental assessment and permitting coordinator
5 for Gahcho Kue. So as Veronica mentioned, I'm just to
6 walk us through some of the infrastructure that is
7 necessary in order to build the mine, so that will
8 involve the project footprint. And then, after that,
9 I'm going to get into a -- a conceptual level
10 presentation on the water management plan.

11 THE FACILITATOR EHRLICH: Stephen, I'm
12 going to ask you to hold the microphone just a little
13 closer so the webcast picks you up?

14

15 (BRIEF PAUSE)

16

17 MR. STEPHEN LINES: Okay. So what
18 we've presented up until now is that Gahcho Kue is an
19 open-pit mine. There are three (3) open pits to be
20 developed. The ore bodies are all located underneath
21 Kennady Lake and, therefore, we need to dewater the
22 lake eventually to access the ore.

23 So for the infrastructure, overall,
24 just -- this is on slide 20 now. There's a diagram
25 there that shows the key components or the major

1 components involved with the mine. So when we add all
2 those up, the physical footprint of all these
3 facilities, we're looking at a total project footprint
4 of just over 1,200 hectares. So comparatively to
5 other projects that we have in the north, Ekati is in
6 the order of about 3,000 hectares, Diavik is also just
7 over twelve (12), and Snap Lake is in the order of
8 about 400 hectares. So that gives us an idea of the
9 size of the project. And for three (3) open pits in
10 1,200 hectares, you know, we've really managed to
11 condense the physical footprint of the facilities and
12 the operation.

13 So the main features are the mine pits.
14 So up in the north, we have Tuzo; in the middle, we
15 have the 5034 pit; and down sort of in the southwest
16 is Hearne. Of course, we also require the camp and
17 the processing plant, so those would be located just
18 up on the peninsula here of Kennady Lake. During
19 operations, we would have the use of a water
20 management pond in this western portion of the lake,
21 and we'd need to construct various dikes and diversion
22 -- so internal water management dikes and some di --
23 diversion dikes on the outer perimeter of the lake.

24 The other major facilities include the
25 coarse PK pile, so that's just located to the north of

1 the processing plant, as well as the fine PK facility.
2 And Alan asked at the beginning that we provide an
3 update on the evolution of the project, and we'll get
4 into an update shortly, and that surrounds the reduced
5 footprint of this fine PK facility.

6 And of course, we have two (2) mine
7 rock piles, so one (1) to the west, the west mine rock
8 pile, and another to the south, the south mine rock
9 pile.

10 All of these facilities are contained
11 within a controlled area of the Kennady Lake
12 watershed, so any water that comes into contact with
13 these facilities is contained within the mine
14 footprint. The only piece of infrastructure located
15 outside of that is the airstrip, so that's just
16 located to the south of Area 8, and that was sort of
17 limited -- its location was limited by the
18 availability of land, so that's pretty much the only
19 place that we can reasonably site an airstrip.

20 Okay. So this is just a -- slide 21.
21 This is a layout of looking at the mine site itself.
22 So down in number 14 -- I'll try and point out a
23 couple of these facilities. Number 14 would be the
24 camp accommodation complex. Here we have a road, I
25 think that's number 20. So that's the road that would

1 go out to the airstrip over Dike A. There'd also be a
2 freshwater line put in here.

3 Eighteen (18), just sort of to the
4 southwest of the accommodation complex, is potable
5 water storage. Just up in the north, this is the fuel
6 storage area. And then we have a gen -- electricity
7 generation over in here and just other facilities
8 associated with the site. So this is in the project
9 description. I think it's located on page 374.

10 So now I'm onto slide -- slide 22. So
11 this is just a visualization of what the campsite and
12 the facilities are projected to look like, so pretty
13 much just the same as what we saw before. The -- just
14 for the fuel tank storage, there are eight (8) half-
15 million-litre tanks, and then two (2) larger tanks
16 that would make up the fuel tank farm.

17 Okay. So in addition to the
18 infrastructure that we need to build the mine, we also
19 need to access the site. So in order to do that,
20 there are two (2) ways to get there. So one (1),
21 during the winter, being the all-weather road that
22 Veronica mentioned, so that cuts off the main road at
23 kilometre 271 and makes its way down to the proposed
24 mine site via a series of lakes. So that has been
25 used in the past. It is, as Veronica mentioned,

1 within the scope of our existing permits.

2 The second way to access the site, and
3 this would be on an all-season basis, is through the
4 airstrip. So the airstrip would be designed to land
5 jet aircraft on it. And then here's the -- the road
6 that would come off the airstrip, go over Dike A, and
7 then right into the campsite here.

8 Okay. So other important components of
9 the mine development, and these are very typical of
10 what we see at other northern mine sites, so we'd
11 require a landfill, slide number 24 -- thanks, Alan.
12 So we'd require a landfill for disposing of inert
13 solid wastes, and the landfill would be located within
14 different areas of the mine rock piles, and then
15 they'd -- it would be covered over on an annual basis.

16 As well, we may require a land farm in
17 order to treat soils that may come into contact with
18 hydrocarbons. This is a photo of an existing land
19 farm at a site where we're doing some reclamation work
20 and it's going very well.

21 We'd have an incinerator for
22 combustible waste, a sewage treatment plant, and then,
23 of course, we'd have a hazardous waste stream, and
24 that would be shipped off site progressively as space
25 was available to take stuff off.

1 Okay. So when we look at diamond
2 mining, again, it's very similar to what we see at the
3 other mine sites. So I've moved on to slide number 25
4 here. So we have three (3) waste streams. One (1) is
5 the mine rock piles. That's sort of the area around
6 the ore bodies that gets mined out. As well, we have
7 coarse process kimberlite and fine process kimberlite.
8 So these are the two (2) streams that come out of the
9 processing plant.

10 So for the mine rock piles there are
11 two (2). The first one (1) that gets used is the
12 south mine rock pile, and that receives mine rock from
13 5034 pit. And then the second mine rock pile is the
14 west mine rock pile. And then in addition to these
15 two (2) piles, mine rock is also used in reclamation
16 to cover the coarse PK pile and the fine process
17 kimberlite containment facility, as well.

18 So for the coarse PK, I pointed that
19 out just earlier, that's located just to the north of
20 the camp. And that's -- that would be just on the
21 east side of Kennady Lake, so just adjacent to area 4.

22 Okay. So for the material that comes
23 out of processing the kimberlite ore we have the two
24 (2) streams, as I mentioned, the fine PK and the
25 coarse PK. So the fine PK comes out from the plant in

1 a slurry and it gets piped to the fine process
2 kimberlite containment facility.

3 So here is just a photo. This is slide
4 26. This is the first photo that you'll see today.
5 This is the -- a reduced footprint of the fine PK. So
6 this is an update of the project based on what was
7 submitted in December of 2010. And I think the next
8 slides that follow provides a background on why that
9 was updated.

10 So for the fine PK, disposal initially,
11 it would be disposed of in the fine PK facility. And
12 then later on, because we're mining the pits in a se -
13 - sequential fashion, we're able to use the pits to
14 back -- as backfill. So once 5034 is mined out we're
15 able to backfill it with some fine PK. And later on,
16 once Hearne is -- is mined out, we're able to backfill
17 PK to Hearne, as well.

18 Okay. So that brings us to a -- just a
19 brief update here on the project. So this is slide
20 28. Okay. So as Alan mentioned earlier this morning,
21 De Beers submitted its final response to the
22 conformity determination on July 15th. So that
23 included an update to Chapters 8, 9 and 10. And then
24 we received a positive conformity determination a few
25 days later, on July 26th.

1 The reason for updating those chapters
2 was, as the panel noted, there was some information on
3 nutrients that was left out of the EIS. And the
4 reason for that was we have been doing ongoing
5 geochemistry work of -- related to the fine PK. And
6 this is not uncommon and still going on today.

7 So one (1) of the samples had shown an
8 elevation in phosphorous. So we looked at that quite
9 closely and then decided to proceed in quite a
10 cautionary approach. So we looked at what it -- what
11 it would mean for the project if we did have slightly
12 higher phosphorous concentrations than originally
13 anticipated.

14 So this led to a closer look at
15 alternatives for the disposal of fine process
16 kimberlite. And the alternatives assessment resulted
17 in an option for disposing of fine PK in a manner that
18 would reduce the footprint of the facility.

19 So when we reduce the footprint -- this
20 is the original footprint. So you can imagine if --
21 this is the size of the facility here, and then you
22 have precipitation and rain that falls on the
23 facility, there's more water that would flow through
24 it. So the smaller we make the facility, the less
25 water that comes in contact with it and, therefore,

1 there's less nutrients that result in Kennady Lake
2 during the post closure period.

3 So we were able to reduce the
4 footprint, largely by using one (1) of the options
5 that was already detailed in the EIS, and that was the
6 availability to backfill 5034 and Hearne with slightly
7 more fine PK.

8 So that option brings us to this
9 revised footprint of the fine PK facility.
10 Consequently, as a result of that, the fine PK is no
11 longer located in Lakes A-1 and A-2. So it's confined
12 entirely within the general footprint here of Kennady
13 Lake, area 2. So this is on slide 30 now, for the
14 people participating remotely.

15 So it's just a reduced footprint.
16 There's nothing else about the project that has come
17 about as a result of this. And again, it's just
18 building on a contingency that was written into the
19 EIS previously.

20 So here is slide 31, just a side view
21 of the fine process kimberlite containment facility at
22 closure. So you'd see that it rises up in the middle.
23 It's about 8 metres above the water level of Kennady
24 Lake. And then at the end, it's capped with coarse PK
25 and mine rock, as well.

1 Alan, would you like me to continue for
2 -- or do you want to hold off?

3 THE FACILITATOR EHRLICH: Are you
4 comfortable taking a couple of questions, now?

5

6 (BRIEF PAUSE)

7

8 THE FACILITATOR EHRLICH: To the
9 parties in the room, and to any parties that are
10 listening remotely, so you've got a high level
11 overview of the project. You've heard some of the
12 things that have changed with respect to fine
13 kimberlite, tailing storage, and a change in the lakes
14 that will be affected because now it's focussed on
15 Kennady Lake. Does anyone have any questions about
16 what they've -- what they've recently heard?

17 Remember, there will be two (2) days
18 that deal with water and fish and aquatic habitat,
19 Thursday/Friday. So there will be a chance to get
20 into it in detail. But in terms of broad strokes,
21 does anyone have anything they'd like to ask De Beers
22 now?

23

24 (BRIEF PAUSE)

25

1 THE FACILITATOR EHRLICH: Okay.

2 Steve, can you say your name first? So -- because
3 we're -- we're being transcribed. Thanks, Steve.

4

5 QUESTION PERIOD:

6 MR. STEVE ELLIS: Yeah, Steve Ellis
7 with the Treaty 8 Tribal Corporation. I'm not quite
8 sure if you're going to get to this later, so I just
9 want to ask it now, if -- if not.

10 Will there be a point in the agenda
11 where we talk about project alternatives, or is that
12 something I should bring up now?

13 THE FACILITATOR EHRLICH: With respect
14 to the agenda, I'll -- I'll say that that is on for
15 later today. It was going to be the first
16 presentation. De Beers has -- or, do -- do I -- do I
17 have that right? My understanding is that De Beers
18 wants to get into a little bit more detail about that
19 in today's session. I see Steve nodding. Steve?

20 Sorry, Steve Lines. This is a question
21 from a Steve to a Steve. I should be very clear.

22 MR. STEPHEN LINES: Steve Lines. I --
23 I'm going to defer to Veronica and she had a plan for
24 how we were going to address that.

25 MS. VERONICA CHISHOLM: Thank you.

1 Hi, Steve. What we were trying to do, we were -- we
2 didn't go into a detailed alternatives, But we tried
3 to include some of the alternatives embedded into the
4 project description.

5 So -- but if you have specific
6 questions on alternatives that we might consider,
7 we're certainly open to hearing that. But what we
8 tried to do was include it as part of the project
9 description.

10 So for example, when I gave my talk in
11 the beginning, we talk -- I talked about the
12 alternatives for underground mining, the alternatives
13 for sequencing, the alternatives for the rate in which
14 we would mine, but I didn't get into any more
15 specifics than that.

16 MR. STEPHEN LINES: I can maybe just
17 add to that, as well. The alternatives, section 2 of
18 the EIS has a description of the alternatives that
19 were considered for the project. As far as the mine
20 rock piles, for example, go, alternatives of placing
21 them entirely on land for -- were considered, but the
22 land that's around Kennady Lake is quite limited, and
23 the way they're -- the places where they're located
24 now reduces the footprint of the mine site and allows
25 us to keep most of the mining facilities within that

1 controlled area of Kennady Lake that I'm going to get
2 to.

3 And the alternatives assessment that I
4 spoke of earlier about the project update, that's
5 something that De Beers is still working on compiling
6 a final report on. So that's anticipated early next
7 year.

8 MS. VERONICA CHISHOLM: Veronica
9 Chisholm. I just have one (1) more comment. So,
10 Steve, if -- if you have specific questions that you
11 want to raise on the project alternatives, we're
12 prepared to answer those today. So I don't -- I'm not
13 sure if we covered them off or not.

14 MR. STEVE ELLIS: Yeah. Maybe the
15 best -- oh, Steve Ellis here. Maybe the best approach
16 going forward is that, as we go through the body of
17 the week, as we get into discussion, for example, on
18 the mine pits and if there's some thoughts that come
19 up about alternatives and so on, we can just address
20 them there instead of addressing them now up front.
21 It seems like a better way to go for me.

22 MS. VERONICA CHISHOLM: Veronica
23 Chisholm from De Beers. I agree, Steve. So as that
24 comes up and you have a question, then De Beers is
25 certainly -- we're going to be here as part of the

1 project team the whole week, and we'd be certainly
2 prepared to answer those questions. Thank you.

3 MR. STEVE ELLIS: Steve Ellis here. I
4 actually just mentioned that the Yellowknives Dene and
5 the Lutsel K'e Dene are both on the phone. So they
6 couldn't be here, but they're with us with their ears.

7 THE FACILITATOR EHRLICH: So just to -
8 - to clarify, then, what I've just heard is that the -
9 - the Lutsel K'e and the Yellowknives are -- are both
10 using the remote participation setup that we've got.
11 And so, Steve Ellis, I -- I take it that means that
12 you're the -- the point man, the so called shortstop,
13 for anything they want to send in?

14 MR. STEVE ELLIS: Well --

15 THE FACILITATOR EHRLICH: I mean, they
16 -- can -- can they -- can they get in touch with you
17 somehow?

18 MR. STEVE ELLIS: Well, I hope so.

19 THE FACILITATOR EHRLICH: Okay, yeah.
20 So Steve is holding a -- yeah, Steve is able to ask
21 questions on their behalf, and he's -- he's connected
22 to them, so we're happy that that's turning out to be
23 of -- of use to someone.

24 Are there any other questions on what
25 you've heard so far? Madelaine, please go ahead.

1 MS. MADELAINE PASQUAYAK: Thank you.
2 My name's Madelaine. I understand, just from looking
3 at the map, that you want to minimize the footprint to
4 -- and keep it, you know, contained to 1,235 hectare.
5 I was wondering, does that also include the -- the
6 airstrip, as well, in case, you know, questions are
7 asked?

8 MR. STEPHEN LINES: Thank you,
9 Madelaine. It's Stephen with De Beers. That's a good
10 question and, yeah, the footprint, the 1,235 hectares,
11 includes the airstrip.

12 THE FACILITATOR EHRLICH: Steve, it's
13 -- it's Alan Ehrlich. I have a question that's not a
14 facilitator question, it's a panel-type question, but
15 you mentioned that almost everything is -- is within
16 that -- that footprint, with the exception of the
17 airstrip. Is explosive storage on -- which side of
18 Dike A is explosive storage on? Is it out past the
19 airstrip? I mean, I couldn't imagine it's quite close
20 to the camp, for the obvious reasons. Could you --
21 could you describe where explosives are stored?

22 MR. STEPHEN LINES: Sure. Thanks,
23 Alan. It's Stephen with De Beers. So just to clarify
24 the -- the footprint, the footprint includes the
25 airstrip over here, but the -- the airstrip is outside

1 of the controlled area that's going to be established
2 through the diking of Kennady Lake. So that's just
3 that one (1) clarification there.

4 The explosive storage, Andrew can
5 correct me if I'm wrong, but that's just to the north
6 of the camp.

7 MR. ANDREW WILLIAMS: It's Andrew
8 Williams here. The storage is actually just to the
9 north of the fine PK facility, and what Steve pointed
10 to just then is the emulsion plant where the
11 explosives are prepared prior to blasting.

12 THE FACILITATOR ALAN EHRLICH: Great.
13 That's helpful. Thank you. Does anyone else have any
14 other questions on what they've heard so far to date?

15 Anne Wilson from Environment Canada has
16 a question.

17 MS. ANNE WILSON: Thanks. It's Anne
18 Wilson again. On a bigger picture level, I haven't
19 seen any extended descriptions of the new tailings
20 configuration. Is that something that's coming out?
21 And one (1) of the first questions was: How well
22 encapsulated will the final closure configuration be?
23 And that might be coming up later. Thanks.

24 MR. STEPHEN LINES: Thanks, Anne. So
25 the -- one (1) of the ongoing work streams is the de -

1 - de -- more detailed engineering of that facility.

2 So I think Andrew can maybe speak a little bit more to
3 that. But as -- as far as, you know, for the
4 footprint, you know, again, it's just this reduced
5 area in -- into Area 2 here. And perhaps Andrew wants
6 to address the more detailed engineering of it.

7 MR. ANDREW WILLIAMS: Pardon me.

8 Andrew Williams, De Beers. Stephen, I think you're
9 going to be presenting more of that in the water
10 management plan in terms of the footprint of it. And,
11 yes, we will be doing -- we are doing ongoing work on
12 the option that Steve's presented, and we expect that
13 to be available early in the new year and will be
14 providing that information to the panel.

15 THE FACILITATOR ALAN EHRLICH: Anyone
16 else have any other questions on what we've just
17 heard? Paul Green...?

18 MR. PAUL GREEN: It's Paul Green, with
19 Water Resources. Just a general question. One (1) of
20 the -- the primary design goals seems to have been
21 minimizing the overall footprint and keeping it within
22 the same -- with -- within one (1) watershed.

23 What drove that? Was that sort of an
24 operational enclosure type concerns that drove that
25 way of thinking or was it consultation with other

1 groups or just what -- what drove that decision?

2 MR. STEPHEN LINES: Thanks, Paul.

3 Stephen, with De Beers again. I think it's a
4 combination of factors really. When -- you know, it's
5 trying to first maximize the natural basin of Kennady
6 Lake. So whatever water comes into contact with any
7 of the actual mine-related facilities during
8 construction and operation, then we have a really good
9 handle on that water. We can control it, collect it,
10 and then discharge it when -- whenever it meets water
11 quality cri -- criteria that's acceptable.

12 So it's -- it was an environmental
13 protection driver behind that. But, also, I mean, the
14 closer these facilities are to the camp, as well, the
15 more economical it becomes also. So there's some
16 economic considerations in that, as well.

17 And I think in the -- some of the
18 feedback we've gotten from the community is that they
19 don't want to see a very large development on the
20 landscape. So if we can keep things as tight as
21 possible around the site, then I think that's looked
22 upon favourably.

23 THE FACILITATOR EHRLICH: If I may ask
24 a similar question. And we've noticed that the
25 backfilling -- it's Alan Ehrlich again. The

1 backfilling of -- progressive backfilling as -- of
2 pits to minimize your amount of kimberlite storage
3 obviously has certain environmental advantages.

4 We haven't seen a whole lot of that in
5 the north. Could you also describe some of the
6 thinking that went into that planning?

7 MR. STEPHEN LINES: Yes. Alan, it's
8 Stephen. I think originally, you know, we did look at
9 mining out all the -- all three (3) pits at once. So
10 that was one (1) of the alternatives that was
11 considered, and, again, that results in mine -- some
12 of the mine rock piles being a lot larger than they
13 would be under this proposal here.

14 So, for example, the 5034 pit is
15 backfilled pretty much entirely back to surface. You
16 know, has it been done? I guess it is -- you know, I
17 would -- I wouldn't say it's -- it's new, but it's --
18 I think it's a -- it's a good viable option. And, you
19 know, we have heard from DFO in some of our meetings
20 that backfilling the pits there isn't, you know, three
21 (3) holes left when Kennady Lake is filled back up. I
22 think, again, that's something that's looked at quite
23 favourably, or that's the feedback that we've been
24 getting.

25 THE FACILITATOR EHRLICH: I know that,

1 from my perspective, I think it's, you know, an
2 admirable innovation to take a liability like an open
3 pit and look at it as a potential resource and a way
4 to reduce certain other undesirable environmental
5 things. And I see a fair bit of evidence throughout
6 the way this project is planned, some real effort on
7 efficiency.

8 I think back to, was it Nicholas
9 Negroponte of MIT was saying back in the '80s that,
10 what is it, pollution is a measure of waste and waste
11 is profit loss. Sometimes it can be economically
12 desirable to have an efficient system that also has
13 serious environmental benefits. And I just -- the
14 project plan that you've proposed is quite interesting
15 from that perspective.

16 I -- I see De Beers trying hard to
17 innovate in a way to avoid problems, which as I've
18 said is one (1) of the things that we're trying to do
19 with our process, anticipate and avoid problems rather
20 than react and cure.

21 So I -- I was just wondering if there
22 was anything else about the way you've planned this
23 that -- that you wanted to share, but it's -- if you
24 have it, great, if not we can continue with the
25 presentation.

1 MR. ANDREW WILLIAMS: Yes. Hi, it's
2 Andrew Williams from De Beers. We -- we also reacted
3 to some early comments that we had during our
4 community engagement sessions that asked us if in fact
5 we could backfill all of the pits. That -- that
6 wouldn't have been feasible. Obviously the last pit
7 would always be a problem to backfill and -- and very
8 expensive.

9 So we did listen to that and -- but
10 that -- that change was made quite early on in -- in
11 our decision making. And we realized as -- as you've
12 just said, Alan, that reducing the infrastructure and
13 the travel distances of haul trucks and so on that was
14 afforded by being able to backfill the pits, it was,
15 in fact, also an economic driver. So on those two (2)
16 fronts is basically what we decided to proceed on.

17 THE FACILITATOR EHRLICH: Thanks.
18 Does anyone else in the room have any other questions
19 or comments on what you've just heard?

20

21 (BRIEF PAUSE)

22

23 THE FACILITATOR EHRLICH: In that
24 case, I am going to ask De Beers to carry on. For
25 people who have just joined the webcast, I'll remind

1 you that there's a presentation entitled, The Gaucho
2 Kue Project.

3 I believe you're on slide, is it thirty
4 (30)? On slide 33 -- thirty-three (33) is coming up?
5 Thirty-two (32)? So those who are listening from
6 elsewhere, please open the PDF and get to slide 32,
7 and I'll hand it back to Stephen Lines of De Beers.

8

9 PRESENTATION BY DE BEERS RE THE GAHCHO KUE PROJECT
10 PART III:

11 MR. STEPHEN LINES: Thank you, Alan.
12 So we'll continue on with the -- the conceptual level
13 water management plan, and I'm going to try and
14 present it in a little bit of a different way than
15 what we've done in the past.

16 So though in a -- in a few slides,
17 maybe there's about five (5) slides that I'm going to
18 go through with some figures on it, and then there's
19 another one (1) with some animations that we've done
20 to sort of illustrate the water management plan at a
21 conceptual level.

22 So for everybody participating
23 remotely, I have now moved onto slide 33. Okay. So
24 for the timeline Veronica touched on, the project
25 timeline in her presentation, but from a water

1 management plan perspective. So we're using the same
2 time frame. So construction is two (2) years. Year
3 minus one (1) to year -- sorry, year minus two (2) to
4 year minus one (1). And the key activities during
5 that time frame is, of course, the dewatering of
6 Kennady Lake -- Kennady Lake in order to access the
7 ore body so we can start mining.

8 And I just want to highlight that in
9 each of these project phases, so construction,
10 operation, closure, post closure, monitoring is a key
11 activity. So monitoring of water quality and water
12 quantity, in -- in particular.

13 So during construction we're also
14 looking to establish that controlled area around
15 Kennady Lake. And that's achieved through the
16 construction of the various diversion dikes and
17 internal water management dikes. And then, as well,
18 during construction we need to put in place the
19 infrastructure for pumping and dewatering.

20 And then moving onto operations, we
21 were looking at an eleven (11) year operation period.
22 And then during this time we've established the water
23 management pond in Areas 3 and 5, and we'll get to
24 those areas on a map. And again we're monitoring the
25 quality and quantity of water that we're dealing with

1 during operations, and whatever we're discharging to
2 the receiving environment.

3 During closure, this is a time when
4 we're looking to refill Kennady Lake back up as
5 quickly as possible. And again we're monitoring
6 during that phase.

7 And then post closure, so twenty (20)
8 plus years beyond when we've started. This is when
9 Kennady Lake begins to recover from an aquatic systems
10 point of view, and breach the dike, reconnect to the
11 downstream, and so on.

12 So that's just the general timeline,
13 and I'll move onto slide number 34. So before I get
14 into the details of what is proposed for water
15 management specifically around Kennady Lake. I just
16 wanted to give everybody, and hopefully make sure that
17 we all have a clear understanding, a good starting
18 point, of the hydrology in the va -- in the vicinity.

19 So when we dewater Kennady Lake,
20 there's two (2) discharge points initially during the
21 dewatering. So one (1) is via the natural outlet of
22 Kennady Lake, from Area 8. That flows up through the
23 'L' watershed, up through the 'M' watershed, and
24 eventually into Lake 410. This is approximately 9 to
25 10 kilometres from Kennady Lake, here.

1 But what's important is that the second
2 discharge point during dewatering is from Kennady Lake
3 up to Lake N11, right in here. So the key point there
4 is that whatever water is pumped from the dewatering
5 to N11, is that it also makes it way up to Lake 410.
6 And it's at Lake 410, when the quantity of water --
7 the flow is projected to be back at background during
8 dewatering. So this is an important lake for the
9 project. So whatever water gets diverted out to N11,
10 it ends up in the same place. That's the key there.

11 So slide 35 is just an aerial photo of
12 what Kennady Lake looks like. I know some of you have
13 been out to -- to site and have seen it firsthand. So
14 here in the photo we have the existing exploration
15 camp. So I'll use that as a bit of a reference point
16 throughout some of the other photos. As -- you can
17 also see in the background there that there is, you
18 know, quite a bit of water in the project area. So
19 it's not that surprising, I guess, that the ore body
20 is located underneath the lake.

21 So comparative -- comparatively, size-
22 wise, the lake, you know, although it's not small.
23 It's, at the same time, nowhere near the size of some
24 of the other, larger lakes that we see in the project
25 area.

1 Okay, so we're in again to the water
2 management strategy. But just from a high level, some
3 of the keys to it, and the reason why we're doing it
4 is (1) to -- so that we can dewater Kennady Lake so
5 that we can safely access the ore. Without that, we
6 obviously can't build the mine. As we've seen from
7 Veronica's presentation, that going underground is
8 just not a viable option for the project.

9 So, for the dewatering, that requires
10 the construction of various dikes. There are fourteen
11 (14) of them, in total. So, the dikes help us
12 establish a controlled area for water. We have the
13 water management pond during the operation phase. So
14 whatever water runoff, precipitation comes into
15 contact with any of the mine facilities, it's
16 contained and managed.

17 And the final key to the strategy here
18 is that we've heard that it is important for Kennady
19 Lake to be refilled as quickly as possible during post
20 closure to re-establish the aquatic system. So that's
21 one (1) of the key drivers for the way the plan has
22 been developed.

23 Okay, so this is just -- this is slide
24 37. So this is just a figure of the various pieces of
25 infrastructure that we need to build in order to

1 manage the water. On this map, it looks, you know,
2 fairly complex and I realize when you go through the
3 project description, based on the number of dikes that
4 need to be put in to manage water and access ore --
5 you know, you have to read it a couple of times in
6 order to get a handle on it.

7 But from a higher level, the plan and
8 the strategy is fairly straightforward. It's just
9 simply about managing the water and stopping the water
10 that's currently coming into Kennady Lake. So just
11 blocking it off at the perimeter. Blocking off the
12 outlet so we have some control over what comes in and
13 what goes out.

14 So that's what we're going to get into
15 with some of the animations that I'll go through now.
16 And I apol -- apologize to the people that are
17 participating remotely. All you're able to look at is
18 a one (1) slide PDF and it doesn't really mean that
19 much. But, what I have here, in the meeting room, is
20 pretty much just a blank slide of Kennady Lake.

21 And I'm going to go through some of the
22 important structures and bring them in -- in
23 sequentially, in order as, I guess, reasonably
24 possible, of what I can do with the presentation. So,
25 again, I apologize to those people participating

1 remotely. I hope you can see it sometime in the near
2 future.

3 Okay. This starts off just by
4 identifying the key management areas of Kennady Lake,
5 and initially we had Area 1 included. Area 1 does not
6 make up part of Kennady Lake. However, it was
7 originally included because that's where the footprint
8 of the fine PK covered. So that's -- where Area 1 is
9 written on the slide, that's actually Lake A1, and it
10 includes Lake A2. So that's Area 1 in here. It
11 includes A3 as well up here.

12 So we have Area 2. This is currently
13 where the fine processed kimberlite containment
14 facility is proposed to be located. We have Area 3,
15 so that's just the northwestern portion of the lake.
16 So we have Area 4. This is the location of the Tuzo
17 pit. So Area 5, that's the western portion of Kennady
18 Lake, and later on during operations we'll see this
19 will make up part of the water management pond.

20 And then, getting into the southern
21 area of Kennady Lake, we have Area 6. So this is
22 generally the location of the 5034 pit and the Hearne
23 pit. And then, heading out to the west, we have Area
24 7, so this is just to the south of the mine camp, or
25 where it's proposed to be located. And then, finally,

1 Area 8. So Area 7 -- Kennady Lake flows out through
2 this small channel between Area 7 and Area 8 and on
3 through the small watersheds up to Lake 410. So these
4 are just the subdivisions, how we've done it in order
5 to reference different management areas and for
6 engineering purposes.

7 Okay. So in order to proceed with the
8 water management plan, we have to have a clear
9 understanding of what flows are coming into Kennady
10 Lake. So there are four (4) inflows, or four (4)
11 significant inflows. So the first one is from the 'A'
12 watershed into Area 2. So that's the first one up in
13 the northern part of the lake. The second is from the
14 'B' watershed into Area 2 up here. The third is from
15 the 'D' watershed into Area 5 up through here. And,
16 for the people that have had the chance to come on a
17 site visit, we would have toured this area in here.
18 And then, to the southwest, we have the 'E' watershed
19 flowing into Area 6. So this is the four (4) major
20 inflows into Kennady Lake. And then only outflow that
21 we have, as I said just earlier, is the outflow from
22 Area 7 to Area 8.

23 So these are the inflows and outflows
24 that we need to control in order to achieve the
25 dewatering of Kennady Lake. So that's achieved first

1 by inserting a dike here between Area 7 and Area 8, so
2 that closes off the outflow. And then we proceed with
3 perimeter dikes to divert water from those upper small
4 watersheds. So we insert the four (4) dikes and then
5 Kennady Lake is now isolated.

6 There are some minor flows that come in
7 from some of these small lakes and ponds just to the
8 south of Area 7, but they're not significant from a
9 water management perspective.

10 Okay. So once we've isolated it off,
11 we've got two (2) areas for dewatering. So we have
12 two (2) sources that we're going to be pumping from.
13 So the first is Area 7 to Area 8, so we'll put some
14 infrastructure there to allow us to pump over the dike
15 and then, as well, we have pumping from Area 3 to Lake
16 11, so that would be via a pipeline to the north.

17 So the objective of the initial
18 dewatering is to lower Kennady Lake by at least 50
19 percent. So here we turn on the pumps. The arrows
20 turn blue. And then we proceed to dewater Kennady
21 Lake by at least 50 percent here.

22 So now, at this point, we have less
23 water in Areas 6 and 7 and less water in Areas 2, 3, 4
24 and 5. In here it's a little bit shallower, so we're
25 -- it's possible that we'll run into some TSS issues

1 earlier on. So in order to proceed with the
2 dewatering that -- the pumping from Area 7 to Area 8
3 gets shut off.

4 During this initial dewatering phase
5 it's also important to note that as the water level
6 decreases some of the lake bottom in the middle of
7 Kennady Lake becomes exposed, and that allows us to
8 put in the internal water management dikes, so that's
9 Dikes H, I and J.

10 So with those in place, again, as I
11 said, we stop dewatering from Area 7 to Area 8. And
12 in order to completely drain Area 6 and Area 7 we then
13 transfer the pumping from Area 6 over into Area 5.

14 So with that pumping there's a inline
15 flocculant system that's proposed to help settle out
16 the TSS that we might encounter. So with the pumping
17 from Area 6 to Area 5 we've now dewatered the southern
18 portion of the lake.

19 This is Dike K. This is put in early
20 on, and initially it's just a haul road. It'd be
21 built with some of the pre-stripping material off of
22 the land base portion of 5034 in here, and it would
23 allow us to access the southern portion of the lake.

24 Okay. As well, during the construction
25 phase we move in to put -- to start building the fine

1 PK facilities. That's Dike L and Dike D. Dike D
2 actually goes in more during year 1. For illustration
3 purposes, this is what's required for the fine PK
4 facility up here.

5 Okay, so this is pretty much the end of
6 dewatering and construction. So, again, the goal here
7 is to -- now we have access to the 5034 ore body.
8 That's what's just overlaid here. Okay, so the
9 dewatering from Area 6 and 7 stops. And now we move
10 into year 1 of operations.

11 So here we can see that mining has
12 begun in the 5034 pit, so that's the first pit to
13 start out. And as a result of that our three (3) mine
14 waste streams begin. So we have the south mine rock
15 pile as the first mine rock pile to be used. As well,
16 we have the coarse PK that started up here and fine
17 process kimberlite. Disposal has begun up in Area 2.

18 So as we proceed with the mining of
19 5034 we get further along. This is closer to about
20 year 3. Again, we're managing water at this point in
21 Areas 3 and 5, which would make up the water
22 management pond. So this water is increasing in this
23 area, so we've put in Dike M. So this prevents the
24 water management pond from overflowing into the areas
25 that we're mining. That's -- that's very important,

1 this part of the project, from a safety perspective.

2 So again, year 3 we've got more mine
3 rock being disposed of in the south mine rock pile.
4 The coarse PK has gotten a little larger. And then
5 Area 2 is filling up a little bit more with fine PK.

6

7 (BRIEF PAUSE)

8

9 MR. STEPHEN LINES: Okay. So as well
10 around year 3, 4, this is Dike N. It goes in and that
11 sort of isolates out the -- the area for a Hearne pit.
12 And later on this allows Area 6 down in here to fill
13 up with water progressively during operations, once
14 Hearne is mined out.

15 Okay. So we've moved into sort of the
16 end of year 4 here. This is what I'm trying to get at
17 with this animation. So, 5034 is pretty much near
18 completion, so we're right at the bottom. Hearne has
19 begun some mining down in the south part of Area 6.
20 The south mine rock pile is complete at its maximum
21 elevation.

22 We're into waste rock disposal in the
23 west mine rock pile. As well, you can see that the
24 fine PK facility is nearing its maximum elevation. So
25 with 5034 available we can start using 5034 for fine

1 PK disposal.

2 So as we move on through years 4 and 5,
3 one (1) of the larger project dikes, Dike B, is put
4 in, in the sort of northeastern section of Kennady
5 Lake. So that isolates Area 4, and allows us to
6 completely drain the remaining water in Area 4. And
7 that's in order to access Tuzo. So you can see the
8 Tuzo pit shows itself here. Area 4 is dewatered, and
9 again we're mining up here in Hearne.

10 So here you can also see that 5034 is
11 being backfilled. There's just a little bit of
12 material being disposed of in the pit. Also later on
13 through operations, Area 7 is already beginning to
14 refill, so that's one (1) of the strategies for
15 facilitating the refilling of Kennady Lake. I believe
16 that's it for this part.

17 Okay, so this gets a little bit closer
18 there to year 8. So we have Hearne that's complete,
19 5034 is still being backfilled. And now we've --
20 certainly into mining of -- of Tuzo. At this point,
21 the fine PK facility would be in the process of being
22 capped. We're still dewatered in Area 4. There's
23 more coarse PK going to the PK pile. Some of the
24 coarse PK is also being used in the reclamation and
25 capping for the fine PK facility in here.

1 And then I -- was this the last one?

2 Okay. Okay, there you go. Okay, so this is the last
3 animation, I believe. But I thought Tuzo was a little
4 bit deeper there.

5 Okay. This might be -- just a little bit of an older
6 version, but anyway.

7 So in year 11, Tuzo is mined out to the
8 bottom. It should be a little bit deeper than what's
9 represented here in the animation. And of course,
10 also 5034 is also backfilled completely, so there's no
11 more pit left in the lake bottom. As well, Hearne is
12 also partially backfilled. And water is allowed to
13 refill back in this area, and that's also helpful for
14 the refilling of Kennady Lake.

15 So this takes it through construction
16 and operation, and is a high level sort of concept
17 visualization of what the plan is.

18 And as far as closure goes, Veronica is
19 going to cover the conceptual closure and reclamation
20 plan. Anyway, so if there's any questions. Just, I
21 guess, to finish off the water management plan
22 summary, it's really been designed by the engineers
23 with environmental protection in mind, especially of
24 the receiving environment. And one (1) of the key
25 components of that is containing all of the contact

1 water during the operations in the water management
2 ponds. So we've got control over what touches the
3 mine site and what gets released and how that gets
4 released. So we're controlling the water quality and
5 the flow in the downstream environment.

6 And again, just to close this off, it
7 was very important to minimize the refilling time of
8 Kennady Lake and to recover the aquatic ecosystem.
9 And that's again been worked into the water management
10 plan.

11 THE FACILITATOR EHRLICH: Thanks very
12 much, Steve. And my compliments on taking something
13 that is necessarily complicated and -- and breaking it
14 down in as clear a way as it can be.

15 I know there have been animated videos
16 released by De Beers in the past to show how this
17 would work out. Are you looking at updating those
18 animated ones, too?

19 I -- I -- Veronica is nodding yes. I
20 would suggest, in that case, that any remote
21 participants who had a hard time following what was
22 going on, please contact De Beers directly -- Stephen,
23 would you be the person to contact -- to -- to
24 indicate if you would like a DVD with the revised
25 animation on it. Because there is a DVD out there, or

1 there will be a DVD out there that shows this stuff
2 quite -- quite clearly. And I think it's one (1) of
3 the only things that's happened today that -- that
4 remote participants are at a bit of a disadvantage of.

5 But I -- I really found the previous
6 animations to be quite clear, quite useful, as I found
7 your presentation today. So, thanks for that.

8 Does anyone have any questions on what
9 you've just heard?

10

11 QUESTION PERIOD:

12 THE FACILITATOR EHRLICH: Please go
13 ahead, Madelaine. And then -- can you say your first
14 and last name. If I say your last name, I'll -- I'll
15 -- I'll probably muck it up and I want to make sure
16 that we get it.

17 MS. MADELAINE PASQUAYAK: Madelaine
18 Pasquayak. You talk about dewatering the Kennady Lake
19 -- Gahcho Kue. My question is, how -- is there any
20 fish in the lake? And if there is, how do you propose
21 to do remove the fish before you dewater?

22 MR. STEPHEN LINES: Thank you,
23 Madelaine. Yes, thank you for correcting me and I'll
24 try and pronounce it correctly, the Gahcho Kue.

25 Yeah, there are fish in Kennady Lake,

1 certainly are. We'll hear a little bit more during
2 the aquatic session on the type of fish that are in
3 Kennady Lake. But as part of the proposed dewatering,
4 there would be a fish out program, very similar to,
5 say, what was done at the Meadow Bank mine site, for
6 example. It was -- DFO has a fish out protocol but,
7 in addition to that, De Beers is certainly -- places a
8 lot of importance on consulting with the communities
9 on how to go about doing that and the most effective
10 way.

11 THE FACILITATOR EHRLICH: Rather than
12 take any other questions now, the timing is such that,
13 it's ten (10) to noon. I -- I know De Beers has other
14 presentations for later. I'd like to be able to
15 cogitate on their questions, think about what you've -
16 - you've heard this morning. If you have other
17 questions, we'll take them after lunch, starting at
18 1:15.

19 I -- I certainly don't want to start
20 the next presentation right now, because it will be --
21 we won't have time to really get into it. Is everyone
22 okay with coming back at 1:15? We're going to try and
23 start promptly.

24 When we do, Chuck Hubert, panel
25 manager, will be chairing it. I'll have to join a

1 little bit late. But, we'll continue on the agenda
2 from the point we're at now. Except for we will start
3 with a question opportunity.

4 So we're going to break now until --
5 Steve, you look like you have one (1) more thing to
6 say. Please go ahead.

7 MR. STEPHEN LINES: Just after lunch,
8 I'm going to provide Alan with some contact
9 information for anybody either here or listening
10 remotely that may want a copy of the DVD. Cathie
11 mentioned that's something that we will be updating.
12 But, Alan, we'll give that to you over the lunch break
13 and then you can convey it to people afterwards, or
14 Chuck can.

15 THE FACILITATOR EHRLICH: Steve,
16 rather than conveying, the whole thing's on
17 transcript. And the transcripts will be posted
18 tomorrow. So, once you've read it into the
19 microphone, everyone will have it in writing. And
20 just remember that, you know, that there's many
21 advantages to the -- the transcription that -- that
22 we've got. But we can certainly do that after lunch.

23 We'll see you at 1:15. Thanks.

24

25 --- Upon recessing at 11:50 a.m.

1 --- Upon resuming at 1:15 p.m.

2

3 THE FACILITATOR HUBERT: Okay. Good
4 afternoon, ladies and gentlemen. Once again, we'll
5 make an effort to get started on time, at 1:15.

6 My name is Chuck Hubert. I'm going to
7 be taking over manager of the panel responsibilities
8 from Alan. One (1) thing, Alan is -- is more verbose
9 than I am, so I'll -- I'll probably be cutting it
10 short right there.

11 So what I'd like -- like to do is allow
12 De Beers a bit of time right now to provide some
13 follow-up information from -- from this morning. And
14 we'll go from there directly into questions from
15 anybody in the -- in the audience that would like to
16 talk a bit about what occurred this morning.

17 So, Veronica, please.

18 MS. VERONICA CHISHOLM: Thank you,
19 Chuck. So just a few things we wanted to follow up,
20 based on some of the feedback we received this
21 morning.

22 So one (1) is on the DVD. We are going
23 to update the DVD and anyone who's interested can
24 contact Brenda Anderson at De Beers. And her
25 telephone number is 766-7303.

1 And also I was going to have And --
2 Andrew Williams provide a followup on some of the
3 environmental design features that we included in the
4 project plan. And it sort of flows from the mine
5 infrastructure, surface footprint that we presented
6 this morning, as well as the water management plan.
7 So, Andrew.

8 MR. ANDREW WILLIAMS: Yeah, Andrew
9 Williams, from De Beers. Yeah, thanks Veronica.

10 I -- I think we saw, in this morning's
11 presentation, a number of things and I thought I'd
12 just summarize them quickly. In incorporating
13 environmental design features into the project, we did
14 rely heavily on our information sessions with the
15 communities.

16 And I guess there were three (3) key
17 things that came out of it, that we had built into it.
18 And we're -- we're -- as Chuck mentioned, earlier, he
19 referred to them as innovations. But we're quite
20 proud of the fact that, we managed to build in -- in
21 these -- these features.

22 The first one was isolating the Kennady
23 Lake basin in order to protect the environment
24 downstream of the project through that isolation. It
25 allows us to -- to limit the disturbed area of the

1 project, and also meant that we can control the
2 releases outside of the -- the project.

3 The other one -- another one was the
4 sequencing of the pits, and that allowed us -- allowed
5 us to use the available pits for the backfilling,
6 which I think is a pretty unique opportunity. Most
7 mines don't have pits that are as close as the ones
8 that we have here, which -- allowing you to do that
9 backfilling, and -- and many mines don't have multiple
10 pits; they only have single pits.

11 So by using those pits, that obviously
12 allowed us to reduce the footprint significantly of
13 the project. Some of the very earlier versions of it
14 were much larger. And, again, it -- it also provides
15 us with a lot of additional flexibility in terms of
16 waste and water management.

17 And finally, the other thing we heard
18 from the communities, what they -- they particularly
19 wanted to make sure that the project could recover as
20 quickly as possible, so we've built into the design
21 progressive reclamation, and you'll hear some of that
22 with Veronica's talk a little later this afternoon, as
23 well as the refilling of Kennady Lake, and, as you
24 could see there, it's not 100 percent dewatered, and
25 that allows us to speed up the refilling of the lake a

1 lot quicker than if we'd completely dewatered it.

2 So thanks, Veronica.

3 MS. VERONICA CHISHOLM: Thank you,
4 Andrew. And we just have one (1) other update, and we
5 wanted -- I'm going to have Cathie Bolstad speak to
6 sort of the context for the selection of the name,
7 Gahcho Kue project, and so I'll ask her to speak to
8 that.

9 MS. CATHIE BOLSTAD: Thanks, Veronica.
10 It's Cathie Bolstad for De Beers. I just wanted to
11 respond to, earlier this morning, Madelaine from the
12 Tlicho government when she commented on our calling of
13 our project the Gahcho Kue project. And I want to say
14 that De Beers has travelled to a number of the
15 communities that are close to the Gahcho Kue project,
16 and when we refer to the project name, the Gahcho Kue
17 project, we have no intention as a company to be
18 describing any particular lake or land feature,
19 because we actually acknowledge and -- and you see it,
20 I think it's in section 5 of our EIS, there are many
21 names for places, features, lakes that differ,
22 depending on the communities that we're in, and those
23 are -- those are special names to those communities,
24 and we acknowledge those.

25 The name for the Gahcho Kue project

1 actually came, and we decided upon it, based on
2 conversations with Elders from the Lutsel K'e Dene
3 First Nation, and Gahcho is -- is -- refers to big
4 rabbits. And so the Gahcho Kue project is intended to
5 reflect our naming of a project that is in a place
6 where big rabbits are in abundance. And so whether we
7 pronounce is Gahcho Kue or Gahcho Ku, it will depend
8 on who we're speaking with, because each Elder,
9 depending on their experience, may pronounce it
10 differently.

11 So, Madelaine, there is no intended
12 disrespect. It's the name of our project, and we
13 value and respect the names of the features of the
14 lands and the lakes nearby that come from the Tlicho
15 and the Akaitcho communities.

16 THE FACILITATOR HUBERT: Thanks very
17 much. Any other followup before we get into questions
18 from this morning?

19 MS. VERONICA CHISHOLM: That's --
20 that's it from De Beers. Thank you very much.

21 THE FACILITATOR HUBERT: Thank you.
22 And it's Chuck Hubert with the Review Board, and I
23 need to start actually saying my name as I'm supposed
24 to before speaking. So thanks very much for the
25 presentation this morning. That was excellent. Some

1 great visuals and some -- some very useful
2 information.

3 I'd like to open it up to the floor now
4 to any participants who'd like to ask -- ask questions
5 of De Beers.

6 MS. MADELAINE PASQUAYAK: My name is
7 Madelaine Pasquayak. Thank you, Cathie, for
8 correcting me on that, but with my work with the
9 Elders, they always correct me, so I just thought I'd
10 -- I'd use the names, the -- the proper names for our
11 area anyway. But I do respect the -- the Lutsel K'e
12 and -- and the proper name for that area for them.

13 The question that I have is -- is in
14 regards to the 3.0 million tonnes of processed rock.
15 We were just kind of curious. What does 3.0 million
16 tonnes of processed rock look like? And can the De
17 Beers staff provide a description that would be
18 understandable to -- to the community people in the
19 Tlicho region? Mahsi.

20 MS. VERONICA CHISHOLM: It's Veronica
21 Chisholm from De Beers. Thank you, Madelaine. I'm
22 going to have Andrew Williams respond to that
23 question.

24 MR. ANDREW WILLIAMS: Thanks,
25 Madelaine. The 3 million tonnes of rock is the yearly

1 throughput of the kimberlite material through our
2 plant. As part of the process each -- the rock goes
3 into the -- to a crushing plant where it gets ground
4 down into finer and finer particles.

5 So what it looks like, I think, is the
6 -- the two (2) areas where that material ends up after
7 it's been crushed and treated are the coarse
8 kimberlite, process kimberlite pile, and the fine
9 process kimberlite pile.

10 Stephen, in his presentation, showed
11 you a couple of graphics of that, both the area of it,
12 and it covers that northern portion of the lake
13 referred to as area 2 and it would rise probably about
14 8 to 9 metres above the height of the water that it
15 lies adjacent to.

16 The coarse PK pile will be a little bit
17 higher. I can't recall off the top of my head how high it
18 will be. Wayne, do you recall?

19 So we'll -- we'll have a look for that
20 then and we'll get back to you with that number,
21 Madelaine. But again, you saw the -- the size of it,
22 relative maybe to the size of the camp area, to give
23 you a bit of an idea.

24 So again, over the -- over the life of
25 the mine -- of the operations of the mine, which is

1 about eleven (11) years, we're going to mine pretty
2 close to 30, 33 million tonnes of ore. Thirty (30),
3 sorry, 30 million tonnes because it's not -- the last
4 year and the beginning year aren't full years, so.

5 So the -- the coarse PK pile is about
6 25 to 30 metres high above the surrounding terrain, 25
7 to 30 metres high.

8 THE FACILITATOR HUBERT: Thank you.
9 Just a -- Chuck- Hubert here, with the Review Board.
10 Just to follow up to that, one (1) typical way of
11 measuring a size of a mine is throughput of tonnes per
12 day.

13 Can you give us an indication of tonnes
14 per day and perhaps compare it to the other diamond
15 mines if you can?

16 MR. ANDREW WILLIAMS: It's Andrew
17 Williams, from De Beers. It's about 8,400 tonnes per
18 day. I'm not sure what the other mines are doing at
19 the moment, to be honest, so I can't really comment.

20 THE FACILITATOR HUBERT: Thanks.
21 That's fine. Any further questions?

22

23 (BRIEF PAUSE)

24

25 THE FACILITATOR HUBERT: Just a note.

1 It's Chuck Hubert. I've been advised that CBC's
2 interested in perhaps using portions of this
3 discussion as a recording, and if there are any
4 objections to that we'd like to hear them at this
5 point. So raise your hand or wave or something if you
6 would object.

7

8 (BRIEF PAUSE)

9

10 THE FACILITATOR HUBERT: I take that
11 as a nay, so thanks very much. Once again, questions
12 on this morning's discussion and visual presentation,
13 thanks.

14

15 (BRIEF PAUSE)

16

17 THE FACILITATOR HUBERT: Okay. It's
18 Chuck Hubert. It seems that people are content and
19 satisfied with the information provided. So, De
20 Beers, Veronica, please proceed with this afternoon's
21 presentation.

22

23 PRESENTATION BY DE BEERS RE RECLAMATION AND CLOSURE:

24 MS. VERONICA CHISHOLM: Good afternoon,
25 everyone. I hope everyone had a nice lunch. And now

1 we're into the exciting world of reclamation and
2 closure, so I'm sure everybody will have lots of
3 questions and information on this presentation.

4 The close -- slo -- oh, sorry, Alan,
5 thank you. We're on slide 44. What I'm going to
6 discuss in the closure and reclamation plan are some
7 of the goals and of -- and objectives. And I want to
8 remind people that -- that what was submitted is a
9 conceptual plan, some of the key concepts in the plan,
10 some of the commitments made by De Beers, an overview
11 of the key activity and schedules, and just a summary
12 of the plan itself.

13 MR. ALAN EHRLICH: Sorry, Veronica.
14 I'm just going to jump in for the benefit of the
15 remote listeners. I got a few emails over lunchtime
16 from people who are listening from elsewhere, and it
17 sounds like you can hear clearly what's going on and
18 everything like that, but people are -- we can't
19 always tell when people are joining. We can tell when
20 people are walking into the room here.

21 So just to remind people who -- who
22 haven't been on in the morning, we're on the
23 presentation called the Gahcho Kue Project by De
24 Beers. It's on the website and we're starting on --
25 on slide 44.

1 But it's the -- the -- the Gahcho Kue
2 Project presentation. You should open the PDF and get
3 down to page 44 and then you'll have no problem
4 following. Thanks.

5 MS. VERONICA CHISHOLM: Thank you,
6 Alan. So that's pretty much what we're going to talk
7 about in the -- in this presentation today.

8 In terms of the goals and objectives of
9 the plan these are sort of what I like to think of as
10 our report card. So these are what we're setting out
11 to ensure at the end of the day whether we've reached
12 success in our plan. So the overall goals of the plan
13 are to minimize the environmental impacts of the
14 operation to the extent practical; to reestablish fish
15 and wildlife habitat as quickly as possible following
16 operations; to create self-sustaining ecosystems; and
17 achieve a post-closure environment that doesn't
18 require long-term maintenance. As I mentioned, it's a
19 conceptual plan and it's not a detailed plan.

20 So the long-term objectives, I know the
21 goals and objectives kind of fit together in here, but
22 we want to reestablish the natural fish habitat that
23 may be lost, altered, or disturbed as part of the
24 project. We want to return the site conditions to
25 self-sustaining ecosystems that are typical in the

1 region. And we want to create to the extent possible,
2 or practical, final land forms that integrate into the
3 natural landscape.

4 The short-term obje -- objectives, so
5 these are things that we're going to try and do
6 immediately, reclaim areas as soon as possible once
7 they are no longer required. So if there's
8 opportunities in construction, operation phase where
9 we can reclaim an area, we're going to do that as soon
10 as possible.

11 We want to minimize the risk of erosion
12 and sediment loss from onsite runoff; stabilize the
13 slopes to maintain safe working conditions and to aid
14 in reclamation activities; restore the natural
15 drainage wherever we can; establish a groundcover,
16 which is tricky in the north, but we want to do that
17 to limit soil erosion and dust production; and
18 obviously, to maintain an environmentally safe site.

19 Some of the key concepts and community
20 input we've received on the project that helped in the
21 design, as well as the concer -- the Closure and
22 Reclamation Plan. So beginning at the very earliest
23 stages of the project we had undertaken engagement in
24 the communities.

25 And some of the feedback that we did

1 receive, and we mentioned this this morning or earlier
2 this morning, was to reduce that project footprint.
3 And the other thing that we had heard was to restore
4 Kennady Lake as quickly as possible.

5 So to address that the plan is to start
6 the pumping from N11 during refilling, which will
7 reduce the time required to fill Kennady Lake from
8 twenty (20) years to about eight (8) or nine (9)
9 years.

10 So that's some of the TK we've included
11 in the Plan and we intend to undertake engagement
12 throughout the life of the project in order to find
13 opportunities to include TK into our project,
14 reclamation for sure.

15 Key concept designs. I'm sorry, I'm on
16 slide 49. Reclamation and closure was considered in
17 all the project phases including the alternative
18 analysis. And when we were undertaking the
19 alternative analysis, one (1) of the questions we had
20 to ask ourselves is: How difficult will that
21 particular design feature be at reclamation and
22 closure? So as we're working through the actual
23 project design, that was in the forefront of our
24 minds.

25 Everybody knows the concept, I think,

1 of progressive, or what I'd like to call ongoing
2 reclamation. So I mentioned this earlier, where we
3 have the opportunity to start some field trials and do
4 some reclamation right away so that we can gather
5 information, we want to do that, to create proven
6 practices and proven technology by the time we get to
7 closure.

8 And we'll also follow whatever
9 guidelines there are, including the mine site
10 reclamation guidelines for the NWT. Oh, someone's
11 trying to get in. I think there's snow along the
12 building and I've seen slumps onto the street.

13

14 (BRIEF PAUSE)

15

16 MS. VERONICA CHISHOLM: The conceptual
17 C and R. So some of the commitments that we made in
18 the plan included the use of progressive reclamation
19 or ongoing reclamation to minimize the total amount of
20 area disturbed at one (1) time; recover as much soil
21 as practical, for use in the reclamation activities;
22 develop a fish habitat compensation plan that meets
23 the no net loss -- no net loss guiding -- guiding
24 principles established by DFO; undertake reclamation
25 trials, I've mentioned those a few times; and liaise

1 with other mine operators in the Canadian Arctic to
2 share information on reclamation. So we know that
3 Ekati and Diavik are doing some work and we want to be
4 able to learn from them.

5 I'm on slide number 51. Key activities
6 and constru -- key activities during construction and
7 operation. I'm kind of going through a bit of a
8 sequence here. So during construction and operation,
9 that's when we start to separate the salvage and
10 stockpile the soil, overburden and lake bed sediments
11 to the extent practical from the disturbance area, so
12 keep the soil away; establish new, or expand the fish
13 habitat; progressively reclaim parts of the fine PK,
14 so fine processed kimberlite containment facility;
15 progressively reclaim portions of the south and west
16 mine rock and coarse PK, that's processed kimberlite
17 piles; and progressively backfill the 5034 and Hearne
18 pits.

19 During the closure phase, so after we
20 finished operations, we want to remove all the
21 potential hazardous material from the site. We want
22 to dismantle and demolish all the buildings and
23 dispose of the material either on site or off site,
24 remove all above-grade concrete footings and
25 foundation and dispose of that material; construct the

1 additional fish compensation, as laid out in the
2 compensation plan; and refill -- construct the
3 additional fish habitat enhancement structure, so any
4 additional enhancement that we might do at closure;
5 and refill Kennady Lake.

6 Some of the other key closure
7 activities. Cut channels in Dike B, K and N, to begin
8 filling the areas around Tuzo pit, and allow for the
9 lowering of all dikes below planned lake elevation;
10 upon refilling the lake, achieve appropriate water
11 quality; breach or partially remove dike A to connect
12 the reclaimed portions of Kennady Lake in Area 8;
13 monitor conditions over time; adjust the plan where we
14 need to; and -- and that's the -- apply the adaptive
15 management principles.

16 So if there's something that comes out
17 in the monitoring activity where we need to revisit
18 some of our plans, we'll do that. And comply with the
19 legal requirements for closure and reclamation in
20 effect at the time.

21 So this is just similar to the map that
22 Stephen had shown earlier. It has the configuration
23 of the fine proc -- processed kimberlite facility.
24 I'm on slide number 54. You know, I purposely made
25 the slide number big at the bottom of the right hand

1 side for those people viewing it, so they can have a
2 look.

3 And then -- and the -- and the mine
4 rock piles, here's a better view, I think. So this is
5 very similar to the images that Stephen had shown for
6 his water management plan. So at the end of the day,
7 we'll have the two (2) mine rock piles, the west and
8 the south. We'll have the coarse processed kimberlite
9 in a pile, and then the fine processed kimberlite in a
10 pile. And we'll restore the drainage around the lake
11 to the natural drainage pattern, as -- to the extent
12 practical.

13 So a little bit on key activities. The
14 planned schedule, closure and reclamation activities
15 will occur throughout the eleven (11) years.
16 Reclamation will begin as soon as possible. Beginning
17 in year three (3) with the fine PK facility, extending
18 after mine closure, and final demolition of sites in
19 year nineteen (19).

20 Again, I've mentioned these proven
21 technologies and proven practices. De Beers will
22 incorporate those, as they become available.

23 And I'm -- I'm not going to go through
24 this in detail because I've already covered this off,
25 but within Volume I, in section 3, we have these

1 tables of key activities and milestones. So, year 3,
2 begin progressive reclamation of the fine PK facility.

3 By the time we get down to year 6,
4 we're into progressively reclaiming the course PK
5 pile. We'll be breaching Dikes B, K, and N in year
6 11, and year 11 is when most of the closure and
7 reclamation activities will occur. We'll be
8 decommissioning the explosive storage and
9 manufacturing facilities as well as in year 11, and
10 complete the construction of the fish habitat
11 compensation works.

12 Year 12, start to decommission the
13 process plants and service shop, and -- as well as
14 decommissioning the main power plant.

15 Year 13, we'll remove the permanent
16 accommodation complex, achieve interim closure status
17 in year 13, reclaim the site roads not required for
18 reclamation monitoring.

19 Nineteen (19) plus years, that's when
20 we'll start to breach Dike A, complete the refilling
21 of Kennady Lake, and the final demolition of the site.

22 Post-closure, that's twenty (20) plus
23 years, we'll be monitoring Kennady Lake to see whether
24 that lake -- how that lake's doing in terms of its
25 restoration to aquatic ecosystem.

1 So I guess, as a bit of a summary, the
2 closure and reclamation planning have been considered
3 in all phases of the project. Progressive or ongoing
4 reclamation is expected to begin and continue during
5 construction and operations, and will be completed
6 during closure. The conceptualcy (phonetic) in our
7 plan includes both the long and short-term objectives
8 by ways of measuring our success at the site, and De
9 Beers will use the proven technology and proven
10 practices in reclamation.

11 I think that's it. I'm hoping there's
12 questions.

13 THE FACILITATOR HUBERT: Chuck Hubert
14 with the Review Board. Thanks very much. So, yeah,
15 questions, please.

16

17 QUESTION PERIOD:

18 MR. STEVE ELLIS: Sorry for -- oh,
19 Steve Ellis here. Sorry for lurking in the back. I
20 don't want to disturb people when I run out to take
21 calls, but Steve Ellis with the Treaty 8 Tribal Corp.
22 A couple of questions, one (1) with -- just with
23 regards to the no net loss program that might be
24 developed.

25 I'm not sure if -- do you guys have

1 some plans now on how that might look, or is that
2 something to be developed over the next few years of
3 what exactly you guys will do to achieve no net loss?

4 MS. VERONICA CHISHOLM: It's Veronica
5 Chisholm from De Beers. We are developing that plan
6 now, and we're in consultation with DFO on -- very
7 early discussions on that. I don't know whether you
8 have anything else to add on that, John.

9 MR. JOHN FAITHFUL: John Faithful.
10 No, Veronica, you've -- you've captured the -- the
11 position that we're currently in and the progress as
12 we move forwards.

13 MR. STEVE ELLIS: Steve Ellis. Just
14 to follow up, do you guys expect to consult at all
15 with the Aboriginal parties?

16 MS. VERONICA CHISHOLM: You know, I
17 meant to say that, so I'm glad you brought that up,
18 Steve. Yes, we do plan to discuss that with the
19 Aboriginal communities as we move forward with the
20 plan, because obviously PK is very important in coming
21 up with that final fish habitat compensation plan.

22 MR. STEVE ELLIS: Steve Ellis again.
23 Just as a bit of a flag here, certainly for the First
24 Nations that I work for, Deninu Kue, Yellowknives, and
25 Lutsel K'e, a no net loss approach similar to Diavik,

1 where essentially what we consider to be undisturbed
2 lakes were mucked around with, is not something that
3 we'd be looking at doing. So we'd be much more
4 favourable to something that, in fact, provides a net
5 benefit to the communities, and maybe some sort of
6 creativity there would be encouraged. We're not sure
7 what DFO has to say about that, but I look forward to
8 the consultations.

9 MS. VERONICA CHISHOLM: Veronica
10 Chisholm from De Beers. Thank you very much. We
11 appreciate that advice and guidance, and -- and look
12 forward to meeting with the Aboriginal communities.

13 MR. STEVE ELLIS: Again, a total --
14 Steve Ellis again. On a -- on a different front, so
15 there's three (3) identified pits that would be mined
16 for sure. Is there any potential opportunity for any
17 other pits that might become economic over the next
18 fifteen (15) years, say, that may expand either the
19 life of the mine or the scope of the mine?

20 MR. ANDREW WILLIAMS: Hi. Andrew
21 Williams from De Beers. Yeah, Steve, at the moment,
22 the three (3) main pits are -- constitute the mine
23 plan. There is possibilities that additional material
24 might be added to the mine plan in the longer term.
25 At the moment, we don't have those resources

1 identified. Some of the kimberlites continue to
2 extend with depth, so there's a possibility the pits
3 might be deepened. So there is a possibility.

4 We will, of course, during the
5 operations continue to look for other sources of ore
6 and will obviously adapt the -- the plan as required
7 should we find something or -- or an extension. It's
8 quite often when you start mining you realize that
9 things have actually changed somewhat from your
10 geological models before you start, so.

11 MR. STEVE ELLIS: Yeah, Steve Ellis
12 again. I -- I guess if there's anything we've learned
13 from the existing mines is that things change, right.
14 And so I -- I guess what I'm hearing is that there may
15 be other pits that might be economic as well as the
16 existing three (3) pits might have more than currently
17 projected?

18 MR. ANDREW WILLIAMS: Hi, Steve. Just
19 to clarify, at the moment, we don't know of any other
20 pits. There is -- there are -- there are other
21 kimberlites on the property. Pardon me.

22

23 (BRIEF PAUSE)

24

25 MR. ANDREW WILLIAMS: Andrew Williams

1 again. There are other kimberlites, but we -- the
2 economics of them at the moment don't indicate that
3 they'll -- they'll become economic in any foreseeable
4 time.

5 THE FACILITATOR HUBERT: Thanks very
6 much. Any further questions on the closure and
7 reclamation discussion?

8

9 (BRIEF PAUSE)

10

11 MR. PAUL GREEN: It's Paul Green with
12 Water Resources. I'm just looking at -- I guess you
13 had that figure slide -- I've lost my sheet, but it
14 was the one (1) that showed the photo with the waste
15 rock piles and the coarse kimberlite. Yeah.

16 Is there a figure within your documents
17 showing sort of the high -- where -- like, I guess to
18 get an idea of what the water level will be within the
19 waste rock piles and the kimberlite piles, is there a
20 figure sort of showing the high -- the high watermark
21 and low watermark of -- of Kennady Lake in relation to
22 the -- where those piles will exist?

23 MR. WAYNE CORSO: It's Wayne Corso.
24 The high level or the -- the reclamation water level
25 at -- at closure will be some -- the same as it was at

1 the -- at the be -- pre-development. Yeah, four
2 twenty point seven (420.7) is the number. But does --
3 does that answer your question, or you're -- you're
4 looking for during operations?

5 MR. PAUL GREEN: No, I guess that
6 answers my question. And -- and a second part to that
7 is: Is what -- what sort of fluctuation is there in
8 the lake level like at present, low water compared to
9 high water?

10 And I guess where I'm going with this
11 is that there'll be contact, I guess, with lake water,
12 you know, within the -- within the piles and just
13 looking at, you know, the question of any sort of
14 flushing and perha -- potential meteral -- metal
15 release as you get water levels moving up and down
16 within the fi -- within the piles.

17 I'm just wondering if it's -- you know,
18 what -- what the magnitude of that may be or -- or
19 what -- or what the thoughts are on that front.

20 MR. JOHN FAITHFUL: John Faithful,
21 from Golder Associates. Thanks for that, Paul. I
22 can't spe -- speak specifically to what the actual
23 variability in the water level is on a given year. I
24 can speak to what -- to what the variability is for --
25 for Area 8 and -- and Lake N11, for example, but I

1 will provide a response to -- to the water level in
2 Kennady Lake.

3 With respect to the -- the potential
4 for mobilization of metals, that's -- and -- and any
5 other constituents as a result of -- of water
6 progressing up and down through those piles, that's --
7 that's addressed in -- in the water quality
8 assessment, and -- and we can provide that
9 information. You'll hear that information on
10 Thursday.

11 But our -- our assessment of -- of
12 water quality in Kennady Lake through closure is one
13 that -- that con -- that conforms to -- to guideline
14 expectations.

15 MR. JULIAN KANIGAN: It's Julian
16 Kanigan with Aboriginal Affairs. I just had more of a
17 general question about closure. And in thinking about
18 the -- the mine site eleven (11) year projected life,
19 and then in thinking about some of the reviews of
20 closure plans that we've seen in the north in the
21 recent past, we're getting close, I mean, three (3) to
22 five (5) years to -- to get something that's more
23 substantive than a conceptual closure plan.

24 And I'm just wondering, the first
25 question I guess is: What are De Beers' thoughts on a

1 timeline for heading towards something more interim
2 and then final? It seems to me that it would need to
3 happen a little more quickly than in some other mines
4 cases.

5 The second question is -- is related to
6 a bullet on one (1) of the slides, I can't remember
7 the number, but mentioning that De Beers is going to
8 try and liaise where they can with other mines in
9 order to build on some of the research that's already
10 been done. And I think that's going to be fairly
11 important for a mine that has sort of a short
12 operating life.

13 I don't know if -- you -- you'd really
14 need to set out your research priorities and ideas
15 right now in order to get something substantive that
16 you'd be able to use in your own reclamation.

17 So I'm looking maybe for -- for an
18 answer on specific ways or things that you've already
19 done or will do to liaise with -- with other
20 companies, because I know that may be difficult, so
21 sort of a two (2) part question there.

22 MS. VERONICA CHISHOLM: Veronica
23 Chisholm from De Beers. So to answer your first
24 question on how quickly you might expect a more
25 detailed C and R plan, I think you have some

1 guidelines at Aboriginal Affairs on the guidelines and
2 I think they may be two (2) years and five (5) years,
3 a revision to the plan. You can correct me if I'm
4 wrong. So we would follow those government guidelines
5 in terms of submission.

6 In answer to your second question,
7 liaising with the other companies, De Beers is -- has
8 already started to do some consultation, not
9 specifically with reclamation with the other
10 companies.

11 And also we do have some reclamation
12 activities being undertaken at Snap Lake. So ha -- we
13 don't have a formal process per se, but we would look
14 for opportunities and look at the information that
15 they would choose to generate, and certainly we would
16 be open to any government documents that may be
17 produced resulting from those two (2) mines from here
18 on, for example.

19 And I don't know whether anybody has
20 anything else to add from the De Beers' team. Is that
21 good?

22 MR. JULIAN KANIGAN: Thanks a lot.
23 It's Julian Kanigan again from Aboriginal Affairs.
24 This isn't a followup, it's another question. In
25 thinking about priorities from -- from my point of

1 view for closure, one (1) of them would be the -- the
2 post-closure monitoring of water quality.

3 And one (1) of the things that we've
4 seen at other diamond mines in the North is elevated
5 levels of metals, nutrients coming off of mine seepage
6 or being recorded in mine seepage.

7 And I'm thinking about your reclamation
8 plan in terms of refilling the -- the lake over time.
9 You'll be monitoring the water quality and there's a
10 commitment to look at adaptive management. So if --
11 if things aren't going the way that you'd predicted,
12 what do you do?

13 I'm just trying to get a sense maybe of
14 -- it -- it seems to me in the closure plan there's
15 sort of a two (2) year period right after operations
16 are done when you'll be on site, there'll be lots of
17 capacity to do things if -- if things aren't working
18 out as planned.

19 And then there's a time when you're off
20 site and maybe the monitoring is a little more inter -
21 - intermittent and there's less capacity, less
22 availability of equipment.

23 Maybe just run me through a -- a couple
24 different scenarios of how -- how adaptive management
25 would work in those two (2) settings.

1 MS. VERONICA CHISHOLM: Veronica
2 Chisholm, from De Beers. I'm going to ask John
3 Faithful to perhaps speak to that one, or...

4 MS. VERONICA CHISHOLM: Oh, sorry,
5 Wayne, Wayne Corso.

6 MR. WAYNE CORSO: Okay. Wayne Corso
7 here. As far as the -- the actual process, you know,
8 first of all, the -- the -- the adapt -- adaptive
9 management and response to monitoring, like one (1) of
10 the strengths of the -- of the entire program is that
11 it starts during operations.

12 So most of the -- say the fine PK gets
13 deposited and covered within the operating lifetime of
14 the mine. So you're not waiting until that -- those
15 two (2) years after closure before you actually start
16 to, you know, maybe see something that -- that might
17 be different than what you'd predic -- predicted in
18 something like that. So that's one (1) of the real
19 strengths of the program.

20 The other thing is that the --
21 throughout the eleven (11) years is -- is the
22 operating -- operating life of the mine. Those --
23 those two (2) years after, it's -- it's basically the
24 mine stops processing ore and all the equipment is --
25 depending on what month it stops, of course, all the

1 equipment that was used in the operation is still
2 there. So you have all that opportunity to do
3 whatever you need to that's -- that's earth moving
4 related or demolition related before that gets moved
5 off.

6 The period after that -- that
7 demolition and -- and large demo is not any -- any
8 less -- there's not any less monitoring. All it is,
9 is we don't need as much of a presence on site. So
10 there's still a small camp on site to -- to carry out
11 the monitoring. There's still some equipment on site
12 that's required to just keep things moving, you know,
13 keep the camp, keep power being generated, keep snow
14 removed, and that sort of a thing.

15 So that period of refilling the lake is
16 really -- I -- I don't see any slowdown in the
17 monitoring, you know. Correct me if I'm wrong, but --
18 but the strength of the plan is that the -- most of
19 the reaction to what the actuals are, from the
20 monitoring program, can occur during the operating
21 life of the mine.

22 THE FACILITATOR HUBERT: Thanks very
23 much for that question and response. Any further
24 questions on that topic, or -- or related to closure
25 and reclamation?

1 (BRIEF PAUSE)

2

3 MS. MADELAINE PASQUAYAK: Yeah, I just
4 have a little question here. There was a question
5 asked. I understand that there is three (3)
6 identified pits.

7 In the likelihood that there are other potential pits
8 opening in the area, would that mean that the
9 scheduled key activities would change if -- if -- if
10 they did decide that they would mine these other
11 potential pits?

12 MR. ANDREW WILLIAMS: Thanks,
13 Madelaine. Andrew Williams, from De Beers.

14 At the moment, Madelaine, I think you
15 used the word potential and that's very important.
16 The -- we do not know, at this point, of any other
17 pits that we could mine. So -- at least that would be
18 economic in the foreseeable future.

19 If we did find something then, yes, it
20 would obviously make some changes, or there would be
21 some changes required in order to accommodate that.
22 And that wouldn't take place, though, until we'd
23 identified what they might be. And at this point in
24 time, I don't know what -- what they could be, so,
25 yeah. Thanks.

1 MR. ALAN EHRLICH: Alan Ehrlich, here.
2 I've got two (2) -- one (1) is a comment, one (1) is a
3 question, and the other one (1) I'm not sure of. But,
4 my understanding is, when it comes to possible future
5 resources in the area, there are, in fact, some legal
6 limits that bind what developers are allowed to
7 describe, as well, in a post Bre-X world.

8 You know, there are laws that -- that
9 say that you can't really talk about speculative stuff
10 and you can't put it out there. And I know that some
11 companies have a -- you know, a challenge when they're
12 trying to be forthright about what's reasonably
13 foreseeable, but also act within the -- the limits of
14 -- of the loss. So I -- I -- you know, I certainly
15 understand that there is a limit to the amount of
16 detail you can go into as to what else may be in the
17 area.

18 At the -- the same time, the questions
19 that we've heard from the Tlicho Government and from
20 the Akaitcho Treaty 8 Tribal Corp, really are -- are
21 based on their experiences with -- with past
22 development expanding. And they -- they do want to
23 understand how the big picture is, you know, and --
24 and what's coming down the pipe.

25 So I imagine that as soon as De Beers

1 is able to share any information on that, certainly
2 it's been forthright and open to date and I expect
3 that it will continue to be. And I see nodding along
4 the -- the De Beers side of the table here, so that's
5 -- that's encouraging.

6 With respect to the question about no
7 net loss planning and working out details, De Beers
8 has indicated that it will work with DFO at a later
9 time to figure that out. It's worth remembering that
10 the Panel respects that regulators have an important
11 role and duty and it relies on them to -- to do it at
12 that part of the process.

13 The way the environmental impact review
14 process goes, the Panel has to decide whether or not
15 this project is likely to have a significant adverse
16 effect, and whether or not -- if there is, whether or
17 not it's been adequately mitigated before it can go to
18 regulators.

19 In considering whether or not it's been
20 adequately mitigated, it needs to understand what the
21 mitigations are and a lot of this project has to do
22 with the lake.

23 So don't wait too late in the game
24 before you figure out how you plan to mitigate your
25 main impacts on fish and aquatic habitat. The Panel

1 will need to consider this. And it's important that
2 you have this information out and I would suggest you
3 have the information out before the second round of
4 information requests so that parties have a chance to
5 clarify.

6 It's very helpful if you can get some
7 of these issues out before the hearing so that the
8 hearing doesn't become a morass of technical argument.
9 I would strongly encourage De Beers to make every
10 effort it can to -- to clarify how it -- it plans its
11 no net loss type mitigation soon enough in the process
12 so that we avoid problems later on. This is not
13 discouraging you from working with DFO to flesh it
14 out, I'm just saying that the timing is important from
15 the perspective of our process.

16 Does De Beers wish to comment on that?

17 MR. ANDREW WILLIAMS: Pardon me.

18 Andrew Williams from De Beers. Yeah, Chuck, we --
19 sorry, Alan. I'm getting confused with the
20 moderators. No, we take those comments, and they're
21 valid comments, and we're working at what we think is
22 a reasonable pace in order to establish the concepts
23 for compensation. Once those concepts are -- are
24 accepted, we would then move on to the next phase, and
25 we would continue to work continuously throughout the

1 coming year. And, as you say, IR-2 would be a good
2 time to have those concepts well bedded down, and that
3 would be similar to our internal timeline.

4 MR. ALAN EHRLICH: Thanks, Andrew
5 Williams. I was actually saying prior to IR Round 2,
6 so that if parties need to clarify they -- they can do
7 it. But, I mean, that it sounds -- what you say
8 sounds positive, and like it will -- it will fit in
9 well.

10 I have another question. It's just a
11 little bit detailed. I probably read this in the EIS,
12 but it slipped my mind, and this is to -- I guess it's
13 to Veronica. You mentioned the twenty (20) plus years
14 you'll be -- you'll be monitoring. For how long does
15 De Beers expect it will have to monitor the site after
16 the mine is closed?

17 MS. VERONICA CHISHOLM: Veronica
18 Chisholm from De Beers. I guess the simple answer on
19 there -- on that is we will monitor until the
20 ecosystems are along a trajectory that we believe will
21 be self-sustaining and no longer require long-term
22 maintenance, as per the two (2) objectives that we --
23 or the two (2) goals that I specified on the first
24 slide. So pinning down the exact timeframe, I can't
25 do that for you, and I think it would be irresponsible

1 to do so. So that's what I will say. Until we meet
2 those primary goals, we will continue to do monitoring
3 post closure.

4 THE FACILITATOR HUBERT: Thanks very
5 much. Any further questions?

6 MS. SARAH OLIVIER: Yeah. This is
7 Sarah Olivier with DFO. Maybe to just go on Alan's
8 point about closure and how long after post closure
9 you guys are planning on doing some monitoring. And I
10 noticed on the -- the one (1) slide, it mentioned that
11 it'd be twenty (20) plus years, but if you calculate
12 it back it's actually six (6) years from actual
13 closure that you guys would be doing post-closure
14 monitoring.

15 And I guess my question was: In the
16 EIS, there's mention that it would take close to
17 seventy (70) years for fish populations to re-
18 establish within Kennady Lake and that, again, there
19 would be thoughts of looking at doing some benching
20 and habitat enhancements within Kennady Lake. So I
21 guess my question was: How long do you think post-
22 closure monitoring would be needed to, again, show the
23 success of whether or not those populations are re-
24 establishing within Kennady Lake?

25 MR. JOHN FAITHFUL: John Faithful from

1 Golder Associates. Thanks for the question, Sarah.
2 The -- the EIS also provides an indication of the --
3 of the -- of the succession in terms of the lake
4 recovery with respect to functionality. And it -- it
5 sort of initiates with the -- the lower trophic
6 organisms to -- to -- to -- to -- to the larger-bodied
7 fish over that time frame that you mentioned.

8 The -- the -- the monitoring, as -- as
9 Veronica pointed out, would -- would be compared
10 against some trajectories that were placed in -- in
11 the EIS in terms of -- of that succession, and I guess
12 the -- the monitoring would -- the -- the -- the
13 extent of the monitoring would be based on the -- on
14 the findings of the -- of the program as it moved
15 along.

16 MS. VERONICA CHISHOLM: Veronica
17 Chisholm from De Beers. I also just wanted to add
18 that on Thursday and Friday we'll be discussing the
19 aquatic session in detail, and there will be some more
20 detailed information on the fish compensation plan and
21 some of the EI -- some of the information that we
22 included in the EIS. So we also will be reviewing
23 that in detail, but I don't know, John, if you had a
24 follow-up.

25 MR. JOHN FAITHFUL: John Faithful from

1 Golder Associates. I -- I just wanted to follow up on
2 my previous comment, that the -- the expectation is
3 that, once the -- once Kennady Lake is reconnected to
4 the downstream waters that it would be expected that
5 the fish populations would start to become re-
6 established. I think it's the question in terms of
7 our -- our overall lake recoveries on -- on the -- on
8 the steady state of the -- the stable fish community
9 with respect to the -- to the larger fish pop -- fish
10 -- larger fish.

11 THE FACILITATOR HUBERT: Thanks very
12 much for that response. Chuck -- Chuck Hubert, with
13 the Review Board. A follow-up question from DFO?
14 Anything further from parties on the closure and
15 reclamation subject or anything reasonably related?

16

17 (BRIEF PAUSE)

18

19 THE FACILITATOR HUBERT: Okay, great.
20 So I think we can proceed to your next stage in your
21 presentation, please.

22 MS. VERONICA CHISHOLM: Thank you,
23 Chuck. Veronica Chisholm, from De Beers. We're going
24 to have John Faithful talk about the structure of the
25 EIS that was originally scheduled for first thing, but

1 we decided to put it towards the end of the project
2 description.

3

4 (BRIEF PAUSE)

5

6 THE FACILITATOR EHRLICH: I'm just
7 going to ask our remote participants, to give them a
8 heads-up that we're starting up with the presentation
9 again. What slide number are you planning to start
10 with?

11

12 PRESENTATION BY DE BEERS RE STRUCTURE OF EIS:

13 MR. JOHN FAITHFUL: Alan, I'll start
14 with slide 1.

15 THE FACILITATOR EHRLICH: Slide 1
16 sounds like an excellent beginning place. And --

17 MR. JOHN FAITHFUL: Oh, it's actually
18 slide 2 it says.

19 THE FACILITATOR EHRLICH: Sorry, slide
20 2. Can you go back to slide -- to the cover. So, in
21 this case, remote participants should open the
22 presentation which is titled, "The Gahcho Kue project
23 environmental impact review process." And it'll start
24 on slide 2.

25 You should have the PDF in front of

1 you. And you can be ready to follow at your leisure.
2 We're getting a correction from the De Beers team.
3 The presentation is titled "EIS structure" or
4 "Structure of the EIS." We're not sure which. But if
5 you open up -- it's the latter. If you opened up
6 that, then you should be looking at the right
7 presentation, and we're just starting it now. Thank
8 you.

9 MR. JOHN FAITHFUL: Thanks very much,
10 Alan. So we've -- we've heard today -- John Faithful,
11 from Golder Associates. I'm going to talk initially
12 around the structure of the EIS. It's go -- we're
13 going to start off with the timeline that -- that
14 shows us where we are right now and -- and gives us --
15 give a bit of an overview of -- of how we got here.

16 I'll talk a little bit about the
17 structure of the EIS and some of the rationale for why
18 the EIS has -- is presented in the manner that it has
19 been presented. And then that will be the lead in for
20 the discussions that you're going to hear this
21 afternoon and through the les -- rest of the week on
22 the -- the actual assessment within the EIS.

23 I'm now on slide 2, and a lot of the
24 information that's presented in the table that you can
25 see on this slide Alan mentioned a little earlier

1 today. We're here, November, 2011, at the EIS
2 analysis session. What proceeded that was -- was a
3 number of milestone events that -- that have actually
4 led us to -- to the point that we're here today.

5 In November, 2005, De Beers had an
6 application for a Type A water licence and land use
7 permit. In January of 2006, Mackenzie Valley
8 Environmental Impact Review -- Review Board, MVEIRB,
9 initiated an environmental assessment. In June of
10 2006, there was a decision that was -- that -- to
11 proceed with an environmental impact review. And in
12 2007, October, the draft terms of reference for the
13 environmental impact statement were issued.

14 As Alan pointed out, on December the
15 23rd in 2010, the EIS was submitted. In March of
16 2011, the panel's conformity determination was -- was
17 issued with a no -- with a deficiency statement to --
18 to provide some responses to several issues. In April
19 of 2011, the panel's draft work plan for the
20 environmental impact review process was issued. And
21 in May and July De Beers provided the conformity
22 responses to -- to -- to the deficiency statement.

23 And in July the panel then determined
24 that conformity had been reached with the EIS, which
25 allowed for the final work plan to be issued.

1 Participant funding was awarded by Aboriginal
2 Affairs and Northern Development in August 2011. And
3 in October De Beers hosted a -- an EIS overview and
4 project description workshop.

5 I'm now moving onto slide 4. And this
6 slide shows a photograph of Paul Cobban, the previous
7 permitting manager for De Beers handing over the EIS
8 to Alan on December the 23rd, 2010.

9 This -- the -- the binders that you see
10 and the -- the associated materials represent a copy
11 of the EIS. It is quite a -- a substantial document,
12 quite a substantial undertaking by De Beers to -- to -
13 - to -- to produce the EIS. It's a document that --
14 that comprises of approximately twelve thousand
15 (12,000) pages. I think there's -- there's eighteen
16 (18) volumes and associated materials that -- that
17 cover off the baseline information as well.

18 The size of the EIS really reflects
19 that there were a number -- quite a large number of
20 issues that were identified within the terms of
21 reference that had to be addressed. It -- it reflects
22 the -- the complexity of the assessment and the
23 analysis that was required to -- to address the -- the
24 -- the requirements within the terms of reference.

25 Now, the structure of the EIS, well,

1 it's built upon, as I mentioned before, the -- the
2 terms of reference that were provided by the panel.
3 It -- the terms of reference arose from the
4 environmental assessment conducted by the panel that -
5 - that identified issues through a series of scoping
6 sessions which were technical workshops and hearings
7 that were undertaken here in Yellowknife and in the
8 Northwest communities in an -- in an endeavour to --
9 to not only identify all of the issues that could be
10 associated with the project that would require
11 assessment but also to try and prioritize those into -
12 - into levels of importance.

13 And these were -- these topics that
14 were indicated as being -- as requiring some -- some
15 degree of an analysis in detail and -- and detail
16 within the EIS, were actually clearly outlined and
17 classified as either being key lines of inquiry or
18 subjects of note.

19 Now the key lines of inquiry, of which
20 there were seven (7) key lines of inquiry, four (4) by
21 physical and three (3) socio-economic, required a grea
22 -- a high level of analysis and detail within the --
23 the EIS. And within the -- the -- the document that -
24 - that has been prepared is where you will find the
25 most detailed level of assessment within the -- within

1 the -- with -- within the overall assessment for the
2 EIS.

3 There were subjects of note. Now these
4 were still substantive issues that needed to be
5 addressed as part of the terms of reference, but they
6 didn't require the same level of detail of analysis.
7 However, they were still -- still carried forward with
8 a -- with a -- with a fair degree of attention and
9 detail.

10 This approach to -- to developing other
11 environmental impact statements or development --
12 developer's assessment reports is -- is -- is becoming
13 a -- a more common feature in the way that EISs are --
14 are being developed within the -- the Northwest
15 Territories. They move to a more holistic assessment
16 approach where -- integrate a number of key
17 disciplines in order to address both the land and the
18 water, and the people that depend on those -- those
19 important issues. It moves away from the subject-
20 specific types of EISs that have -- that have occurred
21 in the past, particularly in relation to -- to mining
22 developments in the Northwest Territories.

23 In addition to the assessment pieces
24 that were set within the EIS, there are also baseline
25 reports that -- that I listed as -- or, that I

1 presented as either annexes or addenda to the EIS.

2 I'm now on slide 6. Now this provides
3 an overview of the -- of effectively the tur -- the
4 table of contents within the EIS. There are seven (7)
5 volumes that comprise fourteen (14) sections, which
6 also includes -- includes the plain language summary.
7 And then a series of annexes and addenda which provide
8 the baseline information.

9 The -- the addenda that -- that -- that
10 are supplemental to the annexes are found within the
11 wildlife and some of the aquatics disciplines and they
12 provide de -- more up to date information for
13 additional baseline surveys that were conducted in
14 2010. The other baseline information really carries
15 in more historic baseline information as well as
16 baseline data that was collected between 2006 -- 2004
17 and 2007.

18 For the -- for the various volumes
19 within the -- the EIS sections, Volume I really
20 reflects a lot of the introductory -- introductory
21 information. A lot of the project description. The
22 traditional knowledge. It carries the assessment
23 approach. And it also provides information around the
24 community, regulatory, and the public engagement parts
25 of -- of the environmental impact assessment.

1 Volumes II to V, represent the
2 biophysical key lines of inquiry. Section -- Volume
3 II has Section 7, which is the key line of inquiry for
4 caribou. Volumes III to V are the aquatic key lines
5 of inquiry. They've been split between water quality
6 and fish within Kennady Lake, the -- the downstream
7 water effects, and the long term biophysical effects
8 in closure and reclamation.

9 It's important to point out that
10 sections -- Section 10, which is the long-term
11 biophysical effects, really provides a lot of the
12 detailed information around the closure aspects of
13 Sections 8 and Section 9, which is the Kennady Lake
14 and the downstream water effects. With the -- the one
15 (1) unique element to it, which is the closure and rec
16 plan, or the clo -- the conceptual closure and rec
17 plan, which is outlined in -- in Volume V. A summary
18 of that closure and reclamation plan is found in the
19 project description.

20 Section 6 represents the subject of
21 note, the biophysical subjects of note, and also the
22 project description related subjects of note. And so,
23 you would find the subjects of note on alternative
24 energy. And climate change would have been included
25 within -- within the biophysical subjects of note.

1 Section 7, or Volume VII, I should say,
2 contains the socio-economic impact assessment, which
3 includes both the key lines of inquiry that are
4 specific to the socio-ec side of things, but also the
5 subjects of note related to the socio-ec assessment.
6 It also includes the cumulative effects section and
7 the conclusions.

8 I'm on slide 7. The next three (3)
9 slides specifically talk to sections that are relevant
10 to either the terrestrial, the aquatics, and the
11 socio-ec assessment. And so, for parties that are
12 interested in the -- the terrestrial assessment and
13 where to find very focussed assessments, either
14 through the key lines of inquiry or subjects of note,
15 this table provides almost an overview of -- of where
16 best to -- to initiate your -- your -- your -- your
17 review.

18 If there is any other information
19 that's -- that's -- that's pertinent to either the --
20 to either the terrestrial, aquatics, or the socio-
21 economic assessment, that you don't find in this --
22 this high level overview, please don't hesitate to --
23 to drop by the -- the De Beers table or to Lisa to ask
24 for any specific assistance.

25 And we've outlined the -- the section

1 numbers that are relevant to the aquatics assessment
2 and for the socio-economic assessment on -- on -- on
3 slide 9. The important point to note out, that I
4 alluded to a little earlier, within Section 12, which
5 is the socio-economic impact assessment, you find both
6 the key lines of inquiry and the subjects of note
7 covered off in that particular section.

8 That provides a -- a bit of an overview
9 as to the -- the -- the structure of the EIS. And
10 that's a -- a segue, really, into the next
11 presentation, which is the assessment approach, which
12 John Virgl will provide.

13 THE FACILITATOR HUBERT: Excellent.
14 Thanks very much. I guess we can ask -- any questions
15 on the -- the structure there? It's fairly -- fairly
16 general. If not, we'll continue right into the
17 assessment approach.

18

19 QUESTION PERIOD:

20 MS. MADELAINE PASQUAYAK: Madelaine --
21 Madelaine Pasquayak. I notice on slide 2, timeline, I
22 didn't notice any community visits.

23 MR. JOHN FAITHFUL: Thank you very
24 much for that, Madelaine. That's -- the point is
25 noted.

1 MR. ANDREW WILLIAMS: Andrew -- Andrew
2 Williams from De Beers. I should point out,
3 Madelaine, that we do intend to -- to have a number of
4 community visits. That was just an oversight on the
5 slide. Thank you.

6 MS. VERONICA CHISHOLM: Veronica
7 Chisholm from De Beers. I also want to note that
8 tomorrow, Cathie Bolstad will be presenting the
9 community engagement that's been completed to date,
10 and that will have all of that information as well.

11 THE FACILITATOR HUBERT: Thanks very
12 much. We'll look forward to that. In the meantime,
13 let's continue with the next presentation from De
14 Beers, please.

15 Chuck Hubert here with the Review
16 Board. Just for clarification for those on the
17 webcast, the next presentation is entitled "Assessment
18 approach." It's a separate PDF on the public registry
19 for the -- for the Board, so if you'd like to check
20 that one out that's where we will be proceeding to
21 now. Thanks.

22

23 PRESENTATION BY DE BEERS RE ASSESSMENT:

24 MS. VERONICA CHISHOLM: Veronica
25 Chisholm from De Beers. I just -- we haven't

1 introduced John Virgl. He's actually been working on
2 the wildlife section, impact section, and he's going
3 to be presenting the -- the general approach to the
4 assessment right now, so I'd like -- I thought I'd
5 like to introduce him.

6 MR. JOHN VIRGL: Good afternoon. My
7 name is John Virgl, and what I'll be talking about
8 today is the assessment approach that was used in the
9 Gahcho Kue -- for -- for -- for the Gahcho Kue
10 project. So I will start on slide 2.

11 Okay. The approach was developed to
12 provide a transparent, consistent, and systematic
13 process for analyzing and assessing the significance
14 of effects from the project throughout all the key
15 lines of inquiry and subjects of note. The assessment
16 -- the EIS assesses effects through air, land, water,
17 and people. Air includes air quality and noise
18 levels; the land includes terrain and soils, also
19 vegetation and wildlife; water includes ground surface
20 and surface water quality and quantity, and fish and
21 other aquatic life; and the people includes the
22 archaeological -- archaeological, cultural, social,
23 and economic components.

24 It's important to note that a process
25 is iterative, and that means there's feedback between

1 the project design engineers and the environmental
2 scientists, and, where opportunities existed, tried to
3 implement new designs or refine designs to limit the
4 effects on the environment from the project.

5 Slide 3. The key issues and
6 environmental effects were identified from a number of
7 sources and involved the project description and
8 preliminary knowledge of the existing environment.
9 This is really what we call a scoping of project
10 effects pathways, where we look at all the potential
11 interactions between the project and the environment.

12 Issues were identified during
13 engagement with the public, First Nations, and Metis,
14 and the government. Also, the terms of reference for
15 the Gahcho Kue project environmental impact assess --
16 or statement, and the report from the environmental
17 assessment by the Mackenzie Valley Environmental
18 Impact Review Board, also identified key issues and
19 effects. And, finally, the scientific knowledge and
20 experience with other mines in the NWT and Nunavut was
21 also used to identify potential interactions.

22 Slide 4. A basic element of all
23 environmental assessment -- assessments is to identify
24 value components. Value components are those
25 physical, biological, cultural, social, and economic

1 properties of the environment that are considered
2 important to society. Value components were mostly
3 identified in the terms of reference and through the
4 issue of scoping sessions in the communities by the
5 MVEIRB. In the EIS, value components really represent
6 the key lines of inquiry and subjects of note.

7 Assessment endpoints are the key
8 properties of value components that should be
9 protected for use by future human generations. This
10 incorporates sustainability to the concept of the
11 assessment endpoint. Assessment endpoints are used as
12 the final endpoint to determine or assess the
13 significance on -- of the impacts on value components.

14 Measurement endpoints are quantifiable
15 expressions of assessment endpoints, such as changes
16 in chemical concentrations, rates, area, abundance,
17 full-time equivalents, or family income. Measurement
18 endpoints can also be qualitative, such as changes in
19 wildlife movement and behaviour, or changes in social
20 measures such as community wellness. Measurement
21 endpoints really represent the attributes of the
22 environment, population, and communities that when
23 changed can result in effects on the assessment
24 endpoint for value components.

25 Slide si -- 5. There were many value

1 components, assessment and -- and assessment and
2 measurement endpoints used in the EIS. For example,
3 surface water is a value component. The assessment
4 endpoint for surface water was the suitability of
5 water quality to support a viable qua -- aquatic
6 system, ecosystem. And measurement endpoints included
7 such things as changes to physical characteristics of
8 water, water chemistry, and water levels and flow.

9 Fish and fish habitat, also a value
10 component, and the assessment for -- for that VC is
11 the persistence of fish habitat in populations.
12 Measurement endpoints included things like changes in
13 chem -- water chemistry, stream flow and lake levels,
14 benthic invertebrates, and the plankton community.

15 Now, soils is a valued component in --
16 in the EIS, but it has no assessment endpoint.
17 Instead, it has measurement endpoints such as changes
18 in soil chemistry, quality, and distribution, and
19 erosion potential that are used by vegeta -- or by
20 vegetation discipline to assess effects to that -- to
21 the assessment endpoints in that discipline such as
22 effects to traditional use plants and listed plant
23 populations.

24 Slide 6. Defining the spatial and
25 temporal boundaries is fundamental for analyzing,

1 assessing effects to value components at the
2 appropriate scales. The EIS follows the recommended
3 study areas in the terms of reference that should be
4 considered for the different key lines of inquiry and
5 subjects of note.

6 The study areas were designed to
7 capture the factors influencing the geographic
8 distribution and movement of value com -- that are
9 specific to those value components. And sometimes a
10 number of different spatial scales were used to
11 describe baseline conditions and analyze and predict
12 effects.

13 The local study area was intended to
14 capture the direct effects from the project, such as
15 changes in geology, soil, habitat loss, water quantity
16 and quality, and individual animal mortality. It also
17 captures the small-scale indirect effects on the
18 environment such as changes to soil and vegetation
19 from dust deposition.

20 The regional study area captures those
21 effects that go beyond, or changes that go on -- go
22 beyond the -- the local study area. These are effects
23 -- larger-scale indirect effects such as noise, dust
24 and air emissions, and changes in animal movement and
25 behaviour.

1 It's really designed to capture the
2 maximum predicted spatial extent of effects from the
3 project. So, in other words, it's the maximum
4 geographic extent of effects from the Gahcho Kue
5 project. In some cases, beyond regional study areas
6 were used for quantifying the baseline conditions and
7 measuring and predicting cumulative effects on value
8 components that have very large geographic
9 distributions and movement, such as caribou and
10 traditional land use.

11 Slide 7. The temporal boundaries
12 really consisted of two (2) components, or two (2)
13 elements. The development phases of the project, such
14 as construction, operation, and closure, these contain
15 the activities, or the stressors, related to each one
16 (1) of those different phases.

17 The duration of the effects or the
18 changes from those different activities and stressors
19 is not only related betw -- to the time that the
20 activity or the stressor is there on the landscape,
21 but also includes the time for the effect to be
22 reversed on the value component. So it's including
23 reversibility, which is basically the -- the predicted
24 amount of time when the project has no lon -- is no
25 longer influencing the value component.

1 It incorporates sustainability and it
2 really links the duration of the project effects on
3 the VC, to the amount of time that human use of
4 ecological resources will be affected. In other
5 words, it provides context for the number of human
6 generations that may be influenced by the project.

7 Slide 8. Pathway analysis is a very
8 important component of the assessment approach. It
9 was used to focus the assessment on those key issues
10 and effects on the value components. It's a
11 screening-level assessment that uses environmental
12 design features in mitigation, experience, logic, and
13 science to distinguish no linkage, secondary, and
14 primary pathways. It considers all of the potential
15 link -- linkages identified, and then applies the
16 environmental design features and mitigation to remove
17 the pathway or limit the effects to the value
18 component.

19 Environmental design features and
20 mitigation are things such as project designs,
21 environmental best practices, management policies and
22 procedures, and social programs on the socio-economic
23 side of things. And again, it's an iterative process
24 between the project design engineers and the
25 environmental scientists in an attempt to limit or

1 remove those changes from the project on the
2 environment and the subsequent effects on value
3 components.

4 For an effect to occur, there has to be
5 a source, such as project activity or a component,
6 that results in a change to the environment or
7 population and a subsequent change, or an effect, to
8 the value component.

9 Slide 9. No-linkage pathways are
10 pathways that are removed by environmental design
11 features and mitigation, so the project results in no
12 detectable environmental change and no residual
13 effects to a value component relative to baseline
14 values or a guideline value.

15 Secondary pathways result in a
16 measurable and minor environmental change, but have a
17 negligible residual effect on value components.
18 Secondary pathways require, in some cases, detailed
19 analysis, and will use the analysis from primary
20 pathways and other disciplines in order to support the
21 assessment of a secondary pathway. So, for example,
22 air modelling -- air dispersion modelling, groundwater
23 and surface water quality modelling results, are taken
24 from disciplines to determine whether or not it is a
25 secondary -- whether or not the changes in those

1 particular components result in only minor changes to
2 the environment that result in negative residual
3 effects to the value component.

4 Primary pathways is a pathway that's
5 likely to result in a measurable change to the
6 environment and a residual effect to the value
7 component. Primary pathways require further effects
8 analysis and classification to determine the
9 significance or the potential significance of the
10 effects on the value component.

11 No-linkage and secondary pathways are
12 not predicted to have significant residual effects on
13 these -- on value components, and are not considered
14 further in the effects in the EIS. In this way, we
15 focus the assessment on the primary, key issues,
16 concerns, and effects from the project on value
17 components.

18 Slide 10. The EIS conducted a
19 screening level assessment, or a pathway analysis, on
20 a multitude of project interactions or issues and
21 potential effects from the project on the environment.
22 This slide here shows an example of no-linkage,
23 secondary, and primary pathways for wildlife.

24 One (1) potential pathway for wildlife
25 is -- is a leaching of potential acid-generating mine

1 rock may change the amount of different quality
2 habitats, which affects wildlife movement and
3 behaviour.

4 Environmental design features used to
5 remove this pathway include things like mine rock used
6 to construct dikes will be non-acid generating. Any
7 mine rock containing kimberlite will be separated from
8 the tundra by at least 2 metres of inert and
9 kimberlite-free rock.

10 Now, important thing here, is that this
11 pathway had already been analyzed or assessed in the
12 soi -- for -- for soils and for vegetation. And was
13 determined to have no linkage. So there is,
14 therefore, no linkage to changes in wildlife habitat.

15 Another potential pathway is the
16 effects from changes -- or mortality that may be
17 caused by aircraft and vehicle collisions with
18 wildlife. Environmental design and mitigation for
19 this pathway is establishing and enforcing speed
20 limits on a project site, giving wildlife the right of
21 way, and many other mitigation and deterrent or
22 avoidance measures in the wildlife effects mitigation
23 and monitoring plan.

24 The -- the long-term monitoring at Snap
25 Lake and other operating diamond mines in the

1 Northwest Territories, has shown that these mitigation
2 and environmental design features are effective,
3 successful at limiting re -- or removing the -- the
4 mortality to wildlife from vehicles and aircraft.
5 And, therefore, mortality from vehicles and aircraft
6 from the project is predicted to have a negligible
7 effect on the persistence of wildlife populations and
8 the pathway was determined to be secondary.

9 Another pathway is the -- is the direct
10 loss and fragmentation of wildlife habitat from the
11 physical footprint of the project. And even though
12 there's mitigation and environmental design features
13 here to reduce those changes to the environment and
14 the effects on populations, the pathway was considered
15 to be primary and went through a more fuller, detailed
16 analysis to determine the effects and classify the
17 effects and determine the significance of those
18 effects on wildlife populations.

19 Just bear with me. I know it's warm in
20 here.

21 MR. ALAN EHRLICH: I'll -- I'll just
22 pipe up that we've asked -- that -- that sound you
23 just heard is the air conditioning going on. So
24 there's something perverse about using air
25 conditioning when it's minus twenty-seven (27) out or

1 whatever, but I -- I look around and I see a lot of
2 hot people. It will cool off soon.

3 MR. JOHN VIRGL: I don't want anybody
4 going to sleep on me just yet. So after the pathway
5 analysis, the next step in the assessment is to do the
6 effects analysis. And this examines all the primary
7 pathways that result in expected changes to the
8 environment, the populations. Oh, slide 11, sorry.

9 Okay. So anyways, this is a conceptual
10 model that's using wildlife as an example. You
11 remember I said before there's assessment endpoints
12 and there's measurement endpoints, and what it's --
13 what it's conveying here is that we take the project
14 and we place it on top of the environment, and we want
15 to measure those changes in the state of environment
16 from the current conditions through into the future
17 with the project and any other developments that --
18 that may be reasonable, foreseeable, and result in
19 cumulative changes.

20 So for wildlife, the way we do this is
21 we use measurement endpoints such as habitat loss and
22 fragmentation, changes in habitat quality, and changes
23 in reproduction and survival. And these changes are
24 then used to determine the effects on the population
25 persistence.

1 The -- the changes are -- are presented
2 in absolute and relative terms. And they're discussed
3 in terms of the direction of those changes, the
4 magnitude of the change, the spatial extent of the
5 change, the duration of the change, and, if
6 applicable, the frequency of those changes.

7 Slide 12.

8 THE FACILITATOR HUBERT: How much
9 longer do you think that presentation will go, John?

10 MR. JOHN VIRGL: Five (5) minutes.

11 THE FACILITATOR HUBERT: Five (5)
12 minutes. Please continue.

13 MR. JOHN VIRGL: Am I running
14 overtime?

15 THE FACILITATOR HUBERT: No, you're
16 doing a fine job. I was just going to want to
17 possibly have a break in-between, but if not --

18 MR. JOHN VIRGL: No, I'm --

19 THE FACILITATOR HUBERT: -- let's not
20 do that.

21 MR. JOHN VIRGL: Yeah.

22 THE FACILITATOR HUBERT: Plough
23 forward, please.

24 MR. JOHN VIRGL: I know this seems
25 long-winded, and it's boring because it doesn't have

1 any pictures, but --

2 THE FACILITATOR HUBERT: Not at all.

3 Fascinating, fascinating. Keep going.

4 MR. JOHN VIRGL: I'm trying to do it

5 as excitingly as I can. The effects analysis

6 considers a number of approaches to determine or

7 predict the changes in those measurement endpoints.

8 It looks at baseline values and guideline values; does

9 -- uses modelling and statistical analyses; uses the

10 scientific literature, government data and

11 publications, traditional knowledge reports and

12 publications. It includes both project-specific and

13 cumulative changes where applicable.

14 The analyses are completed at the

15 appropriate scale for the value component. If you

16 remember a few slides ago, when I talked about

17 identifying spatial boundaries, so for -- for fish and

18 for the -- the aquatic components, looked at the

19 Kennady Lake and Kirk Lake watersheds. For caribou,

20 it looked at the annual and seasonal ranges. For

21 socio-economics it considered communities in the North

22 and South Slave regions of the Northwest Territories.

23 It is -- it also incorporates ecological conservatism

24 to reduce uncertainty so that the effects are not

25 worse than predicted. This is a very important point.

1 It looked -- then takes those changes
2 in measurement endpoints and links them to the effects
3 on the value component assessment endpoints in the
4 next steps I will talk about in the residual impact
5 classification and determination of significance.

6 Slide 13. The purpose of the residual
7 impact classification is to describe the residual
8 effects of the project using a scale of common words,
9 and this is just using best EA practices. It's
10 completed for each primary pathway and associated
11 measurement endpoints. It's also completed on -- for
12 the incremental effects from the project and
13 cumulatively for those valued components that required
14 a cumulative effects analysis.

15 To meet the terms of reference the
16 following criteria were used, such things as
17 direction, magnitude, geographic extent, duration,
18 reversibility, frequency, likelihood and ecological
19 context.

20 The classification of those residual
21 impacts really provides the foundation for determining
22 significance of effects on -- on the assessment
23 endpoints for value components. The principle
24 criteria used here are magnitude, geographic extent
25 and duration. And duration, remember, includes

1 reversibility, so how long before the effect is no
2 longer influencing the value component.

3 It uses other criteria, such as
4 frequency, probability of occurrence and context as
5 modifiers. It considers the relative contribution of
6 all primary pathways, okay. So it looks at all the
7 different pathways that can -- can result in
8 significant effects on a valued component but it
9 considers those pathways with things like high
10 magnitude beyond regional geographic extent and
11 irreversibly -- irreversible -- and long-term -- sorry,
12 long-term duration. Those ones is more important than
13 pathways with lower scale effects.

14 It includes uncertainty and methods
15 used to en -- to reduce the uncertainty and it applies
16 ecological principles, such as resilience, and also
17 experienced opin -- opinion.

18 Now it's difficult to apply a general
19 statement of significance or determination of
20 significance to all value components. It's po --
21 impossible, actually. Just the same as it's
22 impossible to apply a generalized or ubiquitous study
23 area to all the value components or the same
24 definitions of magnitude to different value
25 components.

1 So each value component discipline has
2 their own definition of significance. But the
3 question they're all asking is -- is really this: Is
4 there a significant risk to the va -- to the
5 assessment endpoint from the incremental and
6 cumulative effects of the project and other previous
7 existing and reasonably foreseeable developments?

8 Slide 15, the second to last slide.
9 The EIS also includes a section in every key -- key
10 line of inquiry and subject of note on uncertainty and
11 provides key sources of uncertainty in the effects
12 analysis and impact classification. This is such
13 things as the adequacy of baseline data for
14 understanding the current conditions and the future
15 changes not related to the project, understanding
16 project related effects in complex systems, knowledge
17 of the effectiveness of mitigation and limiting those
18 effects.

19 But it not only identifies those key
20 sources of uncertainty, but it explains how they're
21 addressed to increase the level of confidence that the
22 effects are not worse than predicted, things like
23 using the results from several models to increase
24 confidence in the outcomes; using results from long-
25 term monitoring programs at Ekati, Diavik and Snap

1 Lake diamond mines, these are lessons learned from
2 these projects; and implementing a conservative
3 approach so that impacts are typically overestimated.

4 Last slide, 16. Finally, the -- to
5 meet the terms of reference each key -- key line of
6 inquiry and subject of note was -- distinguishes
7 between the types of following mo -- following --
8 types of monitoring programs that may be applied
9 during the development of the project.

10 So they fall into one (1) of three (3)
11 categories, the compliance inspection, where
12 monitoring to make sure the company is meeting
13 conditions of approval and commitments; environmental
14 monitoring, monitoring to track conditions or issues
15 during the life of the project and implementation of
16 adaptive management, so things like water --
17 monitoring freshwater intake and discharge, and,
18 finally, followup. These kinds of programs are
19 designed to test the accuracy of effect predictions,
20 reduce the uncertainty, evaluate the effectiveness of
21 mitigation, and provide appropriate feedback for
22 operation -- to the operation for adaptive management.

23 And a key point of these programs is
24 that the results from these programs can be used to
25 increase the certainty of impact predictions and

1 future environmental assessments in the North.

2 Thank you.

3 THE FACILITATOR HUBERT: Chuck here,
4 Review Board. Thanks very much. With that we will
5 take a fifteen (15) minute break. I hope you've
6 reserved some questions and after fifteen (15) minutes
7 we can get to those. See you in fifteen (15).

8

9 --- Upon recessing at 2:49 p.m.

10 --- Upon resuming at 3:10 p.m.

11

12 THE FACILITATOR HUBERT: Chuck Hubert
13 here with the Review Board. Thanks very much for the
14 great presentation so far this early afternoon. I was
15 wondering, if anybody has questions for De Beers at
16 this point, please raise them now.

17

18 QUESTION PERIOD:

19 MR. JULIAN KANIGAN: It's Julian
20 Kanigan with Aboriginal Affairs. John, I just had a
21 question for you on the pathway analysis and -- so the
22 secondary pathways, the -- they would -- could result
23 in measurable or minor environmental change that would
24 have a negi -- negligible residual effect on a -- on a
25 VC, and I'm just reading that off your slide.

1 I'm wondering about -- and -- and so
2 the next step is that those are -- those are
3 discounted because they're negligible effects, so we
4 only -- when you -- when you're looking at effects
5 you're only looking at the primary pathways.

6 It made me wonder if an accumulation of
7 secondary pathways are sort of what -- what you can
8 consider a negligible effect on a one (1) by one (1),
9 case by case basis.

10 Are these secondary pathways considered
11 in your cumulative effects analysis, or are they right
12 off the board as soon as you -- as soon as you
13 analyse?

14 MR. JOHN VIRGL: John Virgl, Golder.
15 In -- they're -- they're basically looking at the
16 project specific effects, but in some cases they're
17 also considering cumulative effects. So if you look
18 at mortality from -- from roads, it's not just the
19 winter access road. It would -- excuse me, it also
20 included the Tibbitt-to-Contwoyto winter access road.
21 So that -- if that answers your question.

22 Okay. So the incremental effect from
23 the project is the winter access road and whether or
24 not that would have an effect on the change in the
25 abundance of -- of wildlife from getting struck by

1 vehicles, okay, or if there is a change in access from
2 hunting and how that could affect wildlife. I'm using
3 wildlife, because I'm familiar with it. But it didn't
4 just look at the -- the increased access or vehicle
5 traffic along the winter access road of the project,
6 it also looked at it in terms of the cumulative
7 effects, along -- or cumulative changes along the
8 Tibbitt-to-Contwoyto road up and to that point.

9 MR. JULIAN KANIGAN: Julian Kanigan
10 from Aboriginal Affairs. So you're describing to me
11 the -- the way you assessed cumulative effects. And I
12 -- I'm just wondering about if -- if those secondary
13 pathways, so in -- maybe in this example if you could
14 come up with what one (1) of those was, and whether it
15 was assessed as part of cumulative impacts, or whether
16 it was as a negligible impact, so.

17

18 (BRIEF PAUSE)

19

20 MR. JOHN VIRGL: Okay. So I'm not
21 doing a very good job. John Virgl. The answer to the
22 question is yes. If you look at the pathway for
23 changes from vehicle traffic and mortality on
24 wildlife, it includes not only the winter access road.
25 This is a secondary pathway analysis, includes a

1 secondary pathway, includes the project winter access
2 road, and the Tibbitt-to-Contwoyto winter road. So
3 the cumulative effects of those things together are
4 looked at in that secondary pathway.

5 MR. JULIAN KANIGAN: Thanks, John.
6 It's Julian Kanigan again, with Aboriginal Affairs. I
7 just wanted to ask you one (1) more question on sort
8 of the -- the pathways analysis. When you were
9 speaking about how you kind of come up with the
10 potential linkages between the project and -- and the
11 valued components and there's sort of an iterative
12 process between environmental scientists and project
13 engineers, it seemed to me like a really good step in
14 -- in which you might be able to insert traditional
15 ecological knowledge, so in thinking about what the
16 potential effects could be, but also how you might be
17 able to mitigate them through project design.

18 And so I guess just a broad question as
19 to how, in this assessment, you were able to
20 incorporate TK?

21

22 (BRIEF PAUSE)

23

24 MS. VERONICA CHISHOLM: Thank you.
25 That's a good question. Oh, Veronica Chisholm from De

1 Beers. I think the TK components, there were
2 consultations within the communities and that's one
3 (1) of the ways we received feedback on how to address
4 things in the project description. And some of those
5 things I spoke to in -- as part of the closure plan,
6 and as part of the project description plan.

7 And then, I think as we move forward,
8 there will always be an opportunity and we will look
9 for opportunities to include TK in the monitoring
10 activities and various other activities that we do.

11 MR. JOHN VIRGL: John Virgl. Another
12 example would be the contouring of roads so that they
13 aren't too high so that animals could move through the
14 area easily. That's one (1) of the things that came
15 out of the community issues, one (1) of the
16 suggestions that the communities made.

17 MR. ALAN EHRLICH: Hi, it's Alan
18 Ehrlich. I just want to clarify something that I
19 think I heard in Julian's initial question that I
20 don't know got answered.

21 And it's interesting because it has a -
22 - a -- partly relates to something I was thinking, and
23 partly relates to something that our cumulative
24 effects expert who's participating remotely -- that's
25 Terry Antoniuk from Salmo Consulting -- has written in

1 with a question about.

2 The part that I heard answered, I
3 think, was when you have a secondary effect that
4 you're saying your not carrying forward, how can you
5 tell if these things could be significant with respect
6 to cumulative effects assessment?

7 In other words, just because it's --
8 it's secondary with respect to this project, doesn't
9 mean it's not adding to an impact that -- that is
10 significant. And I think I heard an answer from --
11 from John Virgl that covered that off okay.

12 Julian, am I right about that part?
13 Okay, he's nodding affirmative.

14 The other part of what I heard from
15 Julian had to do with this -- and I'm going to
16 paraphrase here just to try to make it more clear --
17 had to do with the synergistic effects of multiple
18 secondary effects, in other words, smaller things
19 within the project that could work together to cause
20 something bigger.

21 Not really a cumulative effect. It's
22 not about this project in combination with other
23 projects. It's about a number of little things from
24 this project working together to cause a bigger impact
25 from this project.

1 Does your model look at that kind of
2 stuff? Thanks.

3

4 (BRIEF PAUSE)

5

6 MR. JOHN VIRGL: John Virgl with
7 Golder. The -- part of the -- part of the -- the
8 assessment looks at the ecological risks and -- and
9 then associated human health risks from additive or
10 synergistic effects through the project as far as dust
11 emissions, changes in water quality, and what that
12 means to changes in -- in soils and -- and vegetation
13 and all the way up through the food chain. So that
14 aspect of -- of the pathway analysis is -- is -- is
15 covered, if -- if that's what you're after.

16 MR. ALAN EHRLICH: Julian was agreeing
17 before that I'd -- I'd summarized the first part of
18 his question adequately. Julian, in terms of a
19 response, is that good enough for you for now?

20 While Julian's pondering that, John,
21 could you restate that in a different way? Thanks.
22 Could you restate your response, please? I see
23 Julian's kind of chewing on it, and I am, too.

24 MR. JOHN VIRGL: One (1) of the -- the
25 aspects of the environmental assessment looked at the

1 -- well, basically, there was an ecological risk
2 assessment done, and in that ecological risk
3 assessment, it looked at those -- those changes right
4 on through the different trophic sys -- trophic
5 levels, okay, so changes in wa -- in surface water
6 quality, right, or changes in groundwater quality, how
7 that affects changes in surface water quality, changes
8 in -- in -- from dust deposition on -- on water and
9 soils, and how that can move up through the food
10 chain, through the dis -- different trophic systems,
11 and -- and looked at all of those additive changes
12 through the system to then come up with an overall
13 assessment on what the effect would be to -- to
14 wildlife or, at the end, the end user being -- being
15 people.

16 MR. ALAN EHRLICH: Thank you, John.

17 MR. JOHN VIRGL: Those are all project
18 specific related additive effects.

19 MR. ALAN EHRLICH: So, John, if I
20 understand you correctly then -- it's Alan Ehrlich
21 again -- you're saying that the -- the secondary
22 effects within the project, the -- the -- what you
23 just described, is the way that you've captured and
24 assessed the combining impacts of the secondary
25 effects, so that you have a position on -- on their

1 potential significance. Is that right?

2 MR. JOHN VIRGL: John Virgl of Golder.

3 Yes, that's correct.

4 MR. ALAN EHRLICH: Well, I think that

5 -- I -- I understand your answer to my question.

6 And the one (1) thing I'd like to do
7 before getting off of the -- the cumulative part of
8 the question that was asked earlier is, just for the
9 benefit of our -- of Terri Antoniuk, the -- the
10 gentleman I mentioned before with Salmo Consulting, I
11 just want to read out his question so that you can
12 tell where he's coming from. It is mostly covered by
13 what Julian asked and what you answered. There are
14 some -- some nuances in here that I think are -- are
15 worth having out there anyway, so if you want to add
16 anything you have an opportunity to.

17 He says, and I quote -- and he's
18 participating from Calgary:

19 "A fundamental principle of
20 cumulative effects assessment, and a
21 source of some confusion, is that
22 adverse cumulative effects can occur
23 even when they are project specific
24 effects that are not significant, as
25 noted in the CEA Practitioners Guide

1 by Heg (phonetic) -- Hedgeman
2 (phonetic) et al. -- Hegmann
3 (phonetic) et al., 1999. However,
4 the Gahcho Kue EIS did not appear to
5 evaluate pathways and associated
6 effects categorized as secondary,
7 that is, considered negligible or
8 minor, because they were considered
9 unlikely to have significant project
10 specific effects."

11 In other words, he's saying they
12 weren't carried forward enough to -- to do that.

13 "However, this does not necessarily
14 mean they did not contribute to
15 adverse cumulative effects that
16 could themselves be significant.
17 Has the EIS provided evidence to
18 demonstrate that all secondary
19 pathways excluded from the EIS will
20 not contribute to cumulative effects
21 on each key line of inquiry and
22 subject of note?"

23 So if there's anything else you --
24 you'd care to say in -- in response to that, that you
25 didn't say in response to Julian's question, please

1 take the opportunity. Thanks.

2 MR. JOHN VIRGL: John Virgl of Golder.
3 Appreciate you reading the question for us. Thank
4 you.

5 MR. ALAN EHRLICH: The --

6 MR. JOHN VIRGL: Sorry, we have no
7 other updates at this time.

8 MR. ALAN EHRLICH: The -- one (1) of
9 the things that -- that -- that you didn't quite
10 address in your response there was both -- I -- I
11 think that what Julian was saying and what -- what
12 Terri Antoniuk is saying is, in both cases, when
13 something was addressed as negligible it wasn't
14 carried forward enough to see how it combines with
15 other things that you've addressed as negligible when
16 -- when synergistically, even though it's project
17 specific, synergistically they might not be
18 negligible.

19 So are they missing something or could
20 you -- could you clarify? Thanks.

21 MR. STEPHEN LINES: Hi, Alan. It's
22 Stephen Lines, for De Beers. I think that -- in
23 response to the cumulative effects, I think anything
24 that was discounted that was either shown to have no
25 linkage or a secondary pathway was largely based on

1 sort of experience that we've learned from looking at
2 other mine sites, including sort of Snap Lake and the
3 other diamond mines.

4 So it wasn't that it wasn't assessed.
5 It wasn't that it wasn't carried forward. It was
6 looked at and it was looked at quite closely, both on
7 our project specific and cumulative effects assessment
8 level. And if it wasn't carried forward through a
9 full assessment it was based on reasons that --
10 experience learned at other sites and professional
11 judgment.

12 And if -- I guess it's a little bit of
13 a difficult conversation to have because we're
14 speaking in sort of general terms when the assessment
15 is done on sort of very specific VES pathways. So I
16 think maybe moving forward in the next couple of days,
17 if there is a specific instance whether there was a
18 secondary pathway that -- whether there's a question
19 of whether or not it should have been carried forward
20 further, I think that's probably a helpful time to
21 have that discussion.

22 MR. ALAN EHRLICH: I understand,
23 Stephen, and thanks for that. Another part that I
24 have questions with, and I'm not going to get into too
25 much depth on it here because it's not necessarily the

1 right point in the process, but I did want to raise a
2 general issue.

3 You pointed out three (3) primary
4 criterion you used for evaluating significance, and
5 then applied a number of other criteria as secondary
6 criteria which modified what you found on the first
7 one. Your primaries, as I recall, were magnitude,
8 extent and duration.

9 But you also said you were looking at
10 the -- I think it was environmental risk of -- of
11 impacts and using that to come up with it. One (1) of
12 the fundamentals in my experience with risk assessment
13 is you're looking at not just hazard, but likelihood.
14 And likelihood didn't come up as one (1) of your --
15 one (1) of your three (3) primaries. I -- I -- and
16 it's not entirely clear to me how you can characterize
17 risk to the environment without considering
18 likelihood.

19 So how is it that likelihood is a
20 secondary characteristic when you're trying to predict
21 the impacts? Thank you.

22 MR. JOHN VIRGL: Thanks for the
23 question, Alan. It's John Virgl. What I was trying
24 to do there was say that you couldn't define generally
25 what significance is, eval -- the determination of

1 significance.

2 So I put it in -- in a terminology
3 maybe misconstrued, okay. So it's not a risk
4 assessment. I was trying to put in context of what
5 the determination of significance was doing, okay.
6 It's not about doing likelihood and magnitude, as you
7 say.

8 We use the -- the duration, the spacial
9 extent and magnitude as the primary characteristics of
10 mag -- duration, including reversibility, okay. The -
11 - the likelihood of those effects occurring is -- is
12 usually pretty high, okay, unless there are cases like
13 where it's -- it only happens -- would be an example
14 where -- where it would be lower was if you didn't
15 actually detect a traditional or a listed plant
16 species or something like that and you don't really
17 know for certain it's there.

18 Likelihood could be -- could be high,
19 could moderate, could be low, right. So that's where
20 likelihood can change.

21 MR. ALAN EHRLICH: Thanks, John.
22 That's -- that's helpful. In terms of the panel's
23 approach to significance, assuming that they follow
24 the same general model as the Review Board, what they
25 will wind up doing is taking the best predictions

1 available based on what the company has put forward as
2 a developer and what the parties have put forward and
3 the arguments that support them, and then applying
4 their own subjective informed judgment using their
5 values as a lens to determine what is acceptable to
6 society based on that; in other words, whether or not
7 the predicted impact needs to be avoided or reduced
8 through mitigation, whether or not it can go ahead as
9 predicted, whether or not it should be rejected or
10 that kind of thing.

11 And so that's -- that's the approach
12 that the Board has taken to significance, but we do
13 find it quite helpful to have developers articulate
14 their perspectives on which impacts are -- are going
15 to be significant and why. And I -- I particularly
16 like that you've made a lot of your model explicit,
17 you've defined a lot of your terms in a way that will
18 certainly help other people to understand your -- your
19 thinking.

20 So I -- I thank you for that.

21 MR. JOHN VIRGL: John Virgl. Thank
22 you.

23

24 (BRIEF PAUSE)

25

1 THE FACILITATOR HUBERT: Further
2 questions from anybody, please?

3

4 (BRIEF PAUSE)

5

6 MS. MADELAINE PASQUAYAK: Madelaine
7 Pasquayak. I'm just wond -- I was just thinking about
8 the model that you're talking about. I -- I don't
9 have a copy of the slides, so I'm just going to have
10 to go from memory of what I saw there.

11 And I was just kind of wondering if
12 your model included anything on the socio-economic
13 impacts that, you know, any project might have in the
14 communities? That -- that is so key, you know, to --
15 to helping monitor the effects that these projects
16 have on a community and how to mitigate some of these
17 problems in the communities. Mahsi.

18 MS. VERONICA CHISHOLM: Veronica
19 Chisholm, from De Beers. Thank you, Madelaine. Yes,
20 there was a socio impact assessment done and we'll
21 actually be presenting that tomorrow as part of the
22 people impact day. And as John mentioned in his
23 presentation, people define those impact criteria
24 differently depending on what section or discipline
25 you're working on. So that will be presented

1 tomorrow. Thank you.

2 THE FACILITATOR HUBERT: Thanks very
3 much. That's great. We look forward to that
4 tomorrow. Anything on structure of the EA, things
5 we've been talking about here this afternoon, please
6 go ahead.

7

8 (BRIEF PAUSE)

9

10 THE FACILITATOR HUBERT: Excellent.
11 Every single question has been satisfactorily
12 answered. If there's nothing further we'll break for
13 the day. A couple things I'll -- I'll mention,
14 tomorrow we will start at nine o'clock. We expect it
15 to be a -- a full day, and possibly additional people
16 as well that were not here today. So we look forward
17 to that. Anything else?

18 THE FACILITATOR EHRLICH: A couple of
19 minor things, it helps the people who run the room
20 here if you can take your books and papers off the
21 table and put them on your chairs. They're going to
22 lock the place up so you can leave your stuff here,
23 but please bring your stuff down. As well, any remote
24 participants -- any remote participants who want to
25 share any advice or thoughts on how the remote

1 participation is working, I'm going to encourage you
2 to email, not me, but my intrepid co-chair, Chuck
3 Hubert.

4 And Chuck's email address is...?

5 THE FACILITATOR HUBERT:

6 chubert@reviewboard.ca.

7 THE FACILITATOR EHRLICH: Thanks,
8 Chuck. If there are -- are small fixes we can do to
9 make this work better for the rest of the week, great.
10 If you have ideas that we might not be able to do so
11 soon, at least we'll be able to learn from them for --
12 for future undertakings.

13 So I'd like to really thank De Beers
14 for the obvious preparation that is put into making
15 these presentations. I'm hearing a lot of complicated
16 subjects, and a complicated project being described in
17 a -- a clear and thoughtful manner here. And I think
18 this helps all of the parties.

19 I'd like to thank the parties that have
20 -- have come in today, and also recognize that we may
21 get more remote involvement in future days, so you --
22 you don't want to judge your audience by the ones who
23 are -- who are here physically.

24 I -- I of course want to thank Dave for
25 the sound, Wendy for the transcription, and our

1 translators for standing by. They may need to do more
2 tomorrow. If that happens, the presentations might
3 need to go a little bit slower as well, because that
4 is the nature of translation.

5 De Beers has -- has a point I'd like to
6 make so -- they'd like to make, so I'll hand it over
7 to you.

8 MR. JOHN FAITHFUL: Thanks, Alan. If
9 I may, I'd like to provide -- oh, John Faithful from
10 Golder Associates. If I may, I'd like to provide a
11 response to Paul Green's question regarding the -- the
12 range of water level that would be expected within
13 Kennady Lake.

14 THE FACILITATOR EHRLICH: Please go
15 ahead.

16 MR. JOHN FAITHFUL: We've got --
17 sorry, Alan? Okay. Thanks. The -- the approximate
18 main level range between the freshet in September is
19 25 centimetres. That information can found in Annex
20 H, which is the hydrology baseline, page 5-23.

21 Thank you, Alan.

22 THE FACILITATOR EHRLICH: Thank you,
23 John. On -- on that very subject, I -- we appreciate
24 you finding the information here and now. One (1) of
25 the things I did not hear happen at any time today was

1 any specific undertakings or homework for De Beers to
2 carry away with them. If I've missed any or any party
3 thinks that there was one (1), could you just indicate
4 now?

5 Okay. So, again, the sign of a good
6 thorough day but also we were dealing with fairly
7 general stuff. It's entirely possible that people
8 will need more when it comes to specific subjects.

9 So again, our thanks very much. Bundle
10 up. We'll see you tomorrow morning at 9:00 a.m.
11 sharp.

12

13 --- Upon adjourning at 3:35 p.m.

14

15

16 Certified correct,

17

18

19

20

21 _____
Wendy Warnock, Ms.

22

23

24

25

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