

DDMI Traditional Knowledge Panel Session #7

FOCUS ON RE-VEGETATION

Diavik Diamond Mine
August 14-18, 2014



**DDMI Traditional Knowledge Panel Report
Interim Report**

Session #7: *Focus on Re-vegetation*

Diavik Diamond Mine
August 14-18, 2014

Facilitation

Joanne Barnaby, Joanne Barnaby Consulting
Natasha Thorpe, Thorpe Consulting Services (TCS)

Participants

Kitikmeot Inuit Association	Mark Taletok, John Ivarluk, Martha Ivarluk, Mona Tiktalek (interpreter), Henry Ohokannoak (interpreter)
Lutsel K'e Dene First Nation	Celine Marlowe, George Marlowe
North Slave Métis Alliance	Ed Jones, Wayne Langenhan, Joy Dragon
Tłchq Nation	Joe Champlain, Louie Zoe (Gamèti), Peter Huskey (interpreter)
Yellowknives Dene First Nation	Morris Marten, Mike Francis, Mary Rose Sundberg, Berna Martin (interpreter)

Observers/Presenters

Diavik Diamond Mines Inc.	Dianne Dul, Gord Macdonald
C&E Consulting	Colleen English
Thorpe Consulting Services	Janet Murray (transcriber)

Interpreting equipment provided by Pido Productions.

Background

The TK Panel is mandated to assist Diavik Diamond Mines Inc. (Diavik) and work with local communities in facilitating appropriate and meaningful accommodation of Traditional Knowledge (TK). The TK Panel provides guidance in environmental management and monitoring as well as in closure planning at the Diavik Diamond Mine. From 2011 through 2013, TK Panels were assembled by the Environmental Monitoring Advisory Board (EMAB) to

discuss select concerns related to the Diavik Diamond Mine. This session, held at the Diavik mine site from August 14-18, 2014 was the second in a series of TK Panel sessions now administered under Diavik rather than EMAB, but the seventh in the series of TK Panel sessions.

Session Purpose

This seventh session included a discussion of re-vegetation at both a small scale and landscape level for consideration into Diavik closure planning, particularly related to the roads, airstrip, North Country Rock Pile (NCRP), Processed Kimberlite Containment (PKC) area, as well as the regional Lac de Gras area.

The TK Panel drew upon their knowledge, as well as results from a preliminary literature review of documented TK of vegetation relevant to the Lac de Gras area. The TK Panel elaborated further on concepts, values, understandings, and complexities offered in earlier TK Panel sessions. They developed both recommendations and suggestions for future sessions that were presented to Diavik for their review and consideration.

This session included field work opportunities for both men and women to visit areas with natural vegetation, re-vegetation research plots, test rock piles, areas of natural re-vegetation and other structures (e.g. airstrip, roads, rock pile) around the mine site in addition to workshop-like sessions held on-site. The TK Panel has articulated that women traditionally held greater knowledge and experience with plants given their relationship with the land.

A preliminary review of publically available literature related to TK of vegetation was carried out in advance of the session and in response to a request from the TK Panel that previous works be considered. While the session integrated and expanded on high level concepts from this review, it was decided that many of the findings would not be presented as it was felt they would be more accessible by members of the TK Panel in smaller groups or field settings.

Session Goals

The first goal of the session was to provide an opportunity for TK Panel members to discuss re-vegetation options related to closure. The second goal was for the TK Panel to learn more about ongoing re-vegetation research carried out for Diavik by the University of Alberta, and for graduate students to learn from the TK Panel on how to improve their research. The third goal was to respect and build upon work already carried out and to learn more about how recommendations provided to Diavik in the past are being considered presently. The fourth goal was to develop recommendations relating to re-vegetation to provide to Diavik at the end of the session, which allows for TK to be considered in Diavik's closure plans.

Agenda

This four day TK Panel Session was structured into topics, as follows:

1. Identify the format, scheduling and plan related to the current session
2. Closure Plan overview and review recommendations and DDMI responses from Session 6.
3. Visit two re-vegetation test plot area (University of Alberta research), areas of natural vegetation and re-vegetation, test rock piles, etc.
4. Provide recommendations on re-vegetation based on four guiding questions:
 - a. How do we re-vegetate to keep wildlife safe?
 - b. Which habitats or plants create safety for wildlife?
 - c. Where should different types of habitats or plants be placed?
 - d. What should DDMI do with site roads?
5. Evaluate the session

Report Overview

This report first outlines six key themes discussed during the proceedings of the session, presents outcomes from the field work and closes with a recommendations made by the TK Panel.

Appendix A includes photos from the work carried out onsite and in the field. Appendix B includes both the original and actual (i.e., revised) agenda preferred by the TK Panel. Appendix C contains a blank copy of the informed consent form that was signed by participants new to the TK Panel. Session transcripts that were reviewed and corrected by participants are assembled in Appendix D. A list of key points made in bullet form and posted around the room on flipcharts is contained in Appendix E. Maps created during sessions where the men and women broke into two groups to discuss re-vegetation are included in Appendix F.

A high-level review of the TK literature relevant to re-vegetation was presented by TCS (Appendix G). Diavik provided an update of the closure plan as well as a presentation to compare photos of caribou over time and locations of mining operations in the NWT and Nunavut in response to a request by the TK Panel (Appendix H). Recommendations made by the TK Panel during the session are shown in Appendix I.

Evaluation forms for the session were distributed and filled out; however, they were misplaced onsite and never recovered. Therefore, the evaluation results are not presented in this report.

Proceedings: Key Themes

Key themes discussed throughout the session included:

1. Respect nature by recognizing that nature is a powerful force, has the ability to heal, and can be assisted in healing – where appropriate and respectful;
2. Re-vegetation efforts should be guided by TK and results from current research by the University of Alberta. Specific focus should be placed on: areas people don't want wildlife to go; areas people want to encourage re-vegetation or re-growth; and areas to encourage wildlife through landscape modifications;
3. The relationship between vegetation and caribou should be the main driver for re-vegetation plans given the importance of caribou to people and the Arctic environment, their current state of decline, and the shift in their migration routes caused by human disturbances such as mining in the Lac de Gras area;
4. Landscape modifications such as adjustment to slopes, size of boulders, and re-vegetation should be considered together to encourage wildlife to move through a particular area such as the north slope of the rock pile or across the airstrip;
5. Re-vegetation should be considered at a regional and landscape level, and take any possible cumulative effects into account; and,
6. Mining companies in the Lac de Gras area should communicate and work together.

1. Respecting Nature

Much discussion during the first two days of the session focused on the ability of nature to heal itself and that interfering with a natural process can be disrespectful. The TK Panel explored whether re-vegetation efforts were appropriate, necessary or advisable. However, as the session progressed and more of a female perspective was integrated, the limits of this self-healing clear, especially in light of the extensive footprints left by the mining process. Many comments about “nature healing itself” were made by men in the plenary group, however, when the women were working together in a breakout session, a large number of recommendations were made regarding the value of re-vegetation. Specific ideas about where and why certain areas should be re-vegetated were shared. Nature will take its course, but there are ways that people can assist with healing.

People have seen how the environment naturally reclaims itself after fire and human disturbance, but the cumulative effects of each type of disturbance was also recognized. Despite increased fires, environmental change impacts such as longer growing seasons may assist with nature healing itself during the re-vegetation and reclamation.

2. TK and Research to Guide Re-vegetation Efforts

After the TK Panel asserted that the healing forces of nature are powerful and discussed whether re-vegetation efforts were necessary, the discussion moved towards reviewing past re-vegetation efforts and planning for future re-vegetation.

Participants observed the re-vegetation plots in the field, including those started ten years ago plus those currently managed by the University of Alberta. Students provided the TK Panel with a walk-through of the different kinds of substrates, soils, fertilizers, plants, and methods being used. The TK Panel discussed re-vegetation while in the field and when they returned back to the meeting room.

A broader issue as to whether re-vegetation should attract or deter wildlife was not resolved during this session. In areas where people wanted to attract wildlife, caribou were the species of issue and so enhancing growth of lichen and tundra mats were seen to be critical to ensuring forage. In addition, enhancing soils through natural fertilizer were seen as effective ways to re-vegetate. For places where wildlife species were not encouraged to return, no re-vegetation efforts were recommended.

Fecal pellets deposited during large migrations were seen to enhance re-vegetation and identified as a key factor in fertilizing the tundra.

The TK Panel divided by gender into two different rooms to have separate discussions around re-vegetation. Each group was asked to discuss areas as follows:

- areas you don't want wildlife to go
- areas you want to encourage re-vegetation or re-growth
- areas to encourage wildlife through modifications (e.g. landscaping)

The TK Panel produced two maps showing the results of their discussions (Appendix D). Both groups want to see the areas around the PKC, pits, tank farms and waste disposal areas as places where they do not want wildlife to go.

The women's group suggested replanting in areas that do not have toxins, such as along the airstrip and the area where the camp is currently located. In addition, this group suggested modifications such as sloping and minimizing boulders and replanting to encourage wildlife to move through versus linger in an area.

3. Re-vegetation and Caribou

The TK Panel focused on how caribou depend on the tundra for forage and how the caribou must be respected as part of re-vegetation efforts, in part because people depend upon caribou. The TK Panel also emphasized that caribou are very smart. Indeed, planning for re-vegetation is seen as planning for caribou.

Respect for caribou can be demonstrated through planning for and supporting traditional migration routes given that *caribou will find their old migration routes, caribou make their own trails, and the East Island is a main part of the caribou migration route that goes near Misery pit as well*. Lichen is known to be a critical food for caribou and suggestions were made to encourage lichen regrowth, specifically through the transplanting of tundra ‘mats’ abundant with lichen.

Implementing small-scale efforts such as re-vegetation, combined with large scale efforts such as diversion techniques (i.e., flagging, barriers, rocks) are ways to respect caribou. TK Panelists were less interested in providing guidance regarding re-vegetation at a species-level and more keen to share their understanding of complex and interconnected systems such as the vegetation-caribou dynamic. Accordingly, the TK Panel spoke at length of the need for a landscape and regional approach to closure planning requiring the co-operation and collaboration between mining companies operating in the region (e.g., Ekati and Snap Lake).

4. Landscape Modifications (Slope, Rock Piles and Roads)

One aspect of caribou “intelligence” is that they are known to follow a leader. Thus, the TK Panelists explained that if the leader could be diverted north of both the Diavik and Ekati diamond mines, then caribou could go around the mines to avoid potential harm. However, TK Panelists advised that it was impossible to keep caribou and other wildlife away from the reclaimed site altogether, so small-scale accommodations must also be implemented.

Suggestions for landscape modifications to keep caribou safe include:

- removing berms and rounding off the edges of large rock piles and roads
- removing large boulders that may cause caribou to break or injure their legs
- preparing areas of the North Country Rock pile at the north and south-east sides with a slope and surface material similar to that of the current test pile
- not re-vegetating certain areas (e.g. PKC containment, fuel storage area) as outlined in the maps (App D)
- extend slope of roads outward to reduce the angle and allow for easier wildlife access
- the current slope and aggregate material on the side of the airstrip was also said to be good (i.e. acceptable) to encourage caribou movement

Participants explained that seasonality must also be considered when thinking about the slope and composition of the rock pile as snow cover, mud and other environmental features change throughout the year. Through traditional knowledge, people know that caribou seek high points on the landscape regardless of challenging terrain.

5. Regional Perspectives and Cumulative Effects

The TK Panel highlighted that re-vegetation must be considered on several scales ranging from replanting tundra mats to collaborating with neighbouring mining operations to modify the landscape to encourage wildlife movements either towards or away from certain areas. Participants struggled with discussing re-vegetation on a micro-scale without the necessary consideration of caribou migration in the ‘big picture.’ Understanding caribou migration routes - through TK maps shared in the past through to today - is critical to reclamation planning.

Along with emphasizing the importance of a regional perspective on re-vegetation and caribou migration, the TK Panel expressed concern about multiple mines operating in the Lac de Gras area. For the TK Panel, neighbouring mining companies working together will help everybody better consider cumulative effects in the ‘big picture.’

Once the TK Panel went into the field, they saw evidence of caribou and abundant vegetation even though caribou migration routes have shifted.

6. Mines Should Work Together

In the same way that the TK Panel brings together people from five very different cultural groups, the TK Panel recommended that mining companies of the Lac de Gras region similarly collaborate particularly with respect to caribou. The fact that Dominion Diamond Corporation jointly owns the Diavik Diamond Mine and Ekati was assumed to be a driver in facilitating such co-operation.

Field Work

The agenda for this TK Panel session allowed opportunities for the Panel to spend time in the field to assist in understanding of vegetation and re-vegetation at the mine site. Various areas were discussed while reviewing a site map. The Panelists decided on visiting the following areas:

- Re-vegetation research plots (Phase I – 10 year plots and Phase II – current study)
 - observe and discuss results of the first 10 years of planting
 - learn about the different substrate (soil) types and species
 - discuss current research projects – purpose and methods
- Airstrip and the northwest approach, including shoreline and water vegetation
 - observe historic caribou trails & look for new ones
 - inspect the health of shoreline and water vegetation
 - check for dust on vegetation

- Natural vegetation in the north inlet and on the south side of the island (future A21)
 - check for dust on vegetation
 - examine berry growth and health
 - look for caribou trails or signs of feeding
 - see what types of plants are growing in these areas
- Test piles
 - walk the slope of a ‘finished’ pile
 - examine the capping materials on a flat, smooth surface
 - determine if caribou could safely walk on such a structure
 - see the natural re-vegetation occurring on the pile
- North Country Rock Pile and till pile
 - examine the slope and rocks on the sides and top of pile
 - inspect the edge and top of the pile in relation to caribou access
 - observe the north and southeast sides to identify areas where sloping could be done to assist caribou movement across the pile
 - feel and see the till material
 - observe natural re-vegetation occurring on the till pile
- A154 and A418 dikes and open pits
 - observe the areas inside the dikes for future shoal development to assist in fish spawning/use
 - see how deep and wide the pit areas are

Outcomes: Recommendations

The TK Panel collectively developed the following 22 unanimous recommendations related to re-vegetation at closure. These recommendations flowed from a common vision to have the mine site returned to the most natural state humanly possible. However, the recommendations also reflect a combined central view that nature can heal itself but would benefit from some help, especially since growth in the Arctic is very slow. The recommendations presented to DDMI at the TK Panel session (Appendix B) were assembled quickly and thus needed to be modified slightly for clarity or to avoid repetition. Below are the modified versions.

Note that the recommendations are divided by theme (e.g. landscape), numbered to reflect the TK Panel session identification (Session 7 for re-vegetation) and to subsequently identify each specific recommendation (e.g. 7.1).

Landscape and Re-Vegetation

- 7.1 Do not disturb new areas and protect natural vegetation areas that exist on the Island (with the exception of planned development areas for A21, the rock pile for A21 and any future closure work that involves covering natural vegetation in order to flatten slopes for safe wildlife passage).
- 7.2 Study vegetation east and north of the Island to understand good caribou habitat.
- 7.4 Test both natural vegetation and seeded plants (re-vegetation plots) for toxicity.
- 7.6 Use fine crushed rock on passage-ways to protect the feet of the caribou (similar to what is on the sides of the airstrip right now – August 2014).
- 7.9 Create slopes on the sides of roads similar to that on the test pile to support safe travel for animals, and use crushed rock (like at the airstrip) on the surface.
- 7.10 Transplant a variety of natural ‘tundra mats’ and compare them to seeded test plots; this will help natural recovery by maintaining the biodiversity of the area.
- 7.11 Use the natural tundra mat to guide plant selection to ensure natural balance.
- 7.12 When using fertilizers, use natural local fertilizers like droppings from local animals. The question of treated human sewage needs to be revisited.
- 7.15 The re-vegetation maps developed in this session are not yet complete and more time needs to be spent discussing and finalizing these.
- 7.16 The TK Panel would like to use maps that show the TK of traditional caribou migration routes as the basis for evaluating the “big picture” and identifying areas for sloping (modification) on East Island at closure.

Wildlife

- 7.3 Use traditional techniques (e.g. flags, trees) to keep caribou away from areas that are unsafe (both near and far from site).
- 7.5 Create safe passage for caribou over the rock pile and through the site following their old migration routes on the north and south east sides (refer to map developed during session).
- 7.8 Allow more time for the TK Panel to discuss options for keeping animals away from certain areas (e.g., fencing).

Rock Pile

- 7.9 Create slopes on the rock pile similar to that on the test pile to support safe travel for animals.

Process Kimberlite Containment

- 7.7 Create barriers and other means between the rock pile and PKC to discourage animals from going into the PKC area.

North Inlet

- 7.14 Relating to re-vegetation, the North Inlet requires further discussion in terms of it being a no go zone, replanting zone or encouraging zone for wildlife.

General

- 7.13 Complete the TK literature review report so that it can be used as a guide in the vegetation program and closure plan, and be available to communities.
- 7.17 Have a women's only session in the field next summer to address vegetation and other issues of interest to them.
- 7.18 Diavik must meet its commitments to support a minimum of two TK Panel sessions a year.
- 7.19 TK panel members need to verify TK recommendations with elders back home.
- 7.20 Require one male and one female member from each community organization on the TK Panel (or formal alternates); where possible, members must know the LDG area (directed to Aboriginal governments).
- 7.21 Formalize our recommendations to Aboriginal governments to have youth participate.
- 7.22 Celebrate our TK Panel as a model for other mining companies.

Other Considerations

The TK Panel repeated their concern that the waste rock pile (blast rock from the pits) will not be put back into the open pits upon closure. Members of the TK Panel would like to see the rock returned into the pits or, alternatively, at least partially fill the pit with rock. This discussion took place mainly during the Friday session (Appendix D) as the TK Panel met directly with senior Diavik personnel, Gord Macdonald.

The TK Panel understands that DDMI has committed to hosting sessions twice per year (as detailed in the Session #6 report). Panel members reinforced their desire to ensure that this schedule is met. The Panel noted that there are numerous topics to be discussed in relation to closure, so having only one session per year (as in 2014) made it difficult to maintain momentum.

There was limited time to discuss future sessions and so previous session discussions should guide the selection of future session topics.

There were some challenges with headsets during this session. The headsets during Session 6 were said to work much better.

Appendix A

Session Photos



1: Celine Marlowe



2: The TK Panel evaluates slope



3: The TK Panel looks closer at processed kimberlite substrate



4: Celine gets a closer look



5: Heading out into the field



6: The University of Alberta students explain their vegetation research to the TK Panel



7: Wayne Langenhan and Mark Taletok share their observations with Colleen English



8: The TK Panel considers areas for re-vegetation and landscape modifications



9: John Ivarluk



10: Wayne Langenhan and Ed Jones share a joke



11: Mary Rose Sundberg and Dianne Dul evaluate the rock pile

Appendix B

Proposed and Actual Agenda



Agenda (Draft v2)

Diavik Diamond Mines Inc. Traditional Knowledge Panel Session #7: Vegetation August 14-18, 2014

Thursday, August 14

- | | |
|-----------|--|
| 3-4 pm | Arrive at Site, Check-In, Orientation & Training, Snack, Sound Equipment Set-Up |
| 4:30-6 pm | Welcome, Opening Prayer, Round Table Introductions, Review Draft Agenda, Workshop Purpose Overview |
| 6:00 pm | Dinner |

Friday, August 15

- | | |
|----------|---|
| 8:30 am | Recommendations Table Review (DDMI/Colleen)
Results from TK of Vegetation Literature Review (NT)
Group Discussion |
| 10:30 am | Break |
| 10:45 am | Group Discussion |
| 11:30 am | Lunch |
| 12:30 pm | Site Overview Tour with visit to U of A Site (and Presentation) |
| 3:30 pm | Return to Camp and Round Circle (Panel) |
| 4:00 pm | Close |

Evening review of transcripts/notes with interpreters.

Saturday, August 16

- | | |
|----------|---|
| 8:30 am | Group Discussion: How do we re-vegetate to keep wildlife safe?
Break |
| 10:45 am | Group Discussion: Which habitats or plants create safety for wildlife? |
| 11:30 am | Lunch |
| 12:30 pm | Field Work |



3:30 pm Review of Days Key Messages / Recommendations / Notes

4:00 pm Close

Evening review of transcripts/notes with interpreters

Sunday, August 17

8:30 am Group Discussion: Where should habitats or plants be placed?

Break

Group Discussion: What should DDMI do with site roads?

11:30 am Lunch

12:30 pm Field Work

3:30 pm Review of Days Key Messages / Recommendations / Notes

4:00 pm Close

Evening review of transcripts/notes with interpreters

Monday, August 18

8:30 am Review of Workshop Notes, Compile and Review Panel Recommendations for DDMI (NT/JB)

Break

10:30 am Present recommendations to DDMI

11:15 pm DDMI Preliminary Response to Panel Recommendations

12:30 pm Closing Prayer

1:00-3:00 pm Lunch, Complete Evaluation Forms, Review Transcripts

5:00 pm Return flight to Yk

6:00 pm Arrive Yk (G&G Expediting)



Agenda

Diavik Diamond Mines Inc. Traditional Knowledge Panel Session #7: Vegetation August 14-18, 2014

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|-----------|--|
| 3-4 pm | Arrive at Site, Check-In, Orientation & Training, Snack, Sound Equipment Set-Up |
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| 11:30 am | Lunch |
| 12:30 pm | Site Overview Tour with visit to U of A Site (and Presentation) |
| 3:30 pm | Return to Camp and Round Circle (Panel) |
| 4:00 pm | Close |

Evening review of transcripts/notes with interpreters.

Saturday, August 16

- | | |
|---------|---|
| 8:30 am | Debrief of Site Overview / "Garden" Tour |
| | DDMI Presentation: Vegetation Monitoring & Re-vegetation Research |
| | Group Discussion: How do we re-vegetate to keep wildlife safe? |
| | Break |



- 10:45 am Group Discussion: Which habitats or plants create safety for wildlife?
- 11:30 am Lunch
- 12:30 pm Field Work
- 3:30 pm Review of Days Key Messages / Recommendations / Notes
- 4:00 pm Close

Evening review of transcripts/notes with interpreters

Sunday, August 17

- 8:30 am Group Discussion: Where should habitats or plants be placed?
- Break
- Group Discussion: What should DDMI do with site roads?
- 11:30 am Lunch
- 12:30 pm Field Work
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- 4:00 pm Close

Evening review of transcripts/notes with interpreters

Monday, August 18

- 8:30 am Review of Workshop Notes, Compile and Review Panel Recommendations for DDMI (NT/JB)
- Break
- 10:30 am Present recommendations to DDMI
- 11:15 pm DDMI Preliminary Response to Panel Recommendations
- 12:30 pm Closing Prayer
- 1:00-3:00 pm Lunch, Complete Evaluation Forms, Review Transcripts
- 5:00 pm Return flight to Yk
- 6:00 pm Arrive Yk (G&G Expediting)

Appendix C

Informed Consent Form

Diavik Diamond Mines Inc. Traditional Knowledge Panel

Informed Consent Form

I (name) _____ on _____, 2014 give permission for Diavik Diamond Mines Inc. and its contractors to take notes, photographs and / or audio and video recordings related to my participation in meetings, workshops and events related to the Traditional Knowledge Panel established for the Diavik Diamond Mine. I understand that my participation includes meetings and workshops held throughout each year either in communities in the NWT or NU or at the Diavik Diamond Mine.

Through my signature below, I understand that:

1. I consent to have my words, activities and responses regarding and related to my knowledge recorded on maps, in notes and photographs, and using audio- and video-recording equipment (collectively referred to as Traditional Knowledge Data);
2. I am free to choose not to respond to any questions asked or participate in any discussions without prejudice or penalty;
3. I can choose to be anonymous in my participation without penalty;
4. My representative Aboriginal Organization, DDMI and / or its contractors may use the information collected to contribute to operations and closure planning at the Diavik Diamond Mine;
5. DDMI and its contractors may share my information which I have verified and given permission to share in either reports and/or photographs and provide such information to my Aboriginal organization and other regulators;
6. I agree that my contributions may also be used for future educational, cultural, heritage, and environmental purposes that are outside the scope of the TK Panel and that my representative Aboriginal organization, DDMI and/or its contractors will make all reasonable efforts to consult me, or my descendants, before using my information for purposes not indicated above;

7. I will receive financial compensation for my participation in accordance with DDMI policy;
8. I am free to request that any information I share is removed, erased or deleted and that I will have the opportunity to verify draft video-documentaries, reports and maps to make edits before I sign them off and that final copies will be provided to me;
9. I also understand that DDMI cannot ensure the protection of the Traditional Knowledge from public release once the reports are released (e.g., via youtube.com, Facebook, other social media, or Aboriginal group websites);
10. The Traditional Knowledge Data will be summarized and integrated with scientific data into a report, which will be publicly available.

Signed this _____ day of _____ 2014, in _____
Northwest Territories,

Signatures:

Participant

Aboriginal Organization

Diavik Diamond Mines Inc.

DDMI Contractor

Appendix D

Session Notes

Appendix D
Diavik Diamond Mines TK Panel – Vegetation

1 **Day 1: Thursday August 14th, 2014**

2 Start 5:00pm

3 **Joanne Barnaby:** Welcome everyone to the 7th session of the TK panel. As we told you earlier,
4 the Inuit delegation is delayed but we're still hopeful they will make it this
5 evening. However we are not going to start our session as planned until they
6 arrive; we are just going to go over the agenda after we hear some welcoming
7 remarks from Colleen and Gord.

8 **Gord Macdonald:** Hi, I am Gord Macdonald. I think I've met many of you, but not all of you.
9 My title is Principal Advisor of Sustainable Development at Diavik, I have been
10 with Diavik since 1998 so I have been involved in all of the aspects with respect
11 to developing the mine and my responsibility now is actually working on the
12 closure plan, so working on how to close it (the mine). I've been involved with
13 most of the TK Panel sessions so far and the last one we had last year at site with
14 some of you. I am looking forward to spending some time with you this weekend,
15 with a focus on vegetation, certainly not an area of my expertise at all, so I am
16 looking to learn a lot this weekend from you and some of the University Students.
17 Please let us know if you have any questions not only about Diavik but
18 logistically as well.

19 **Colleen English:** Hi, I am Colleen English again I think I have met most of you before as well I
20 think. So I work with Gord and help out with coordinating the TK Panel and I
21 used to work on site for about 10 years doing a mixture of mostly environment
22 work and then some communities work as well. So I've done a lot of work with
23 the University Students that are here at our re-vegetation plots and we're going to
24 have those guys to help you out too; they are going to be our resource people for
25 this session so you are going to meet a couple of the girls from the University of
26 Alberta who are doing a lot of re-vegetation research for us at the mine site. We
27 also have Dianne Dul who is at the back of the room here and she's our onsite
28 environment gal who is here to help us out for the weekend.

29 **Joanne Barnaby:** Walk through the agenda and talk about the purpose. The purpose is to
30 ensure the steps that Diavik takes to plant and to seed new plants is done in a way
31 that makes the most sense to you and so you'll need to think about things like: do
32 you want to attract certain animals to certain areas? If you don't want animals in
33 certain areas, what can be done for that as well?

34 **Natasha Thorpe:** The reason we are having a session on vegetation is because this was one of
35 the recommendations from the session in October (2013) - to have some time to
36 really spend on vegetation for Diavik now that they are doing the closure plan.

Appendix D
Diavik Diamond Mines TK Panel – Vegetation

1 The other thing that really came forward was to make sure there was really strong
2 representation from women, particularly for this session, as many women have a
3 lot of that special expertise or traditional knowledge about various plants and the
4 landscape.

5 **Ed Jones:** Are all the workshops going to be held in this room?

6 **Joanne Barnaby:** Yes when we are inside we will be in this room. We will actually be
7 spending quite a bit of time outside as well.

8 **Ed Jones:** I was just wondering I think when we start we should focus primarily on
9 vegetation that caribou feed on because the other wildlife can look after
10 themselves.

11 **Joanne Barnaby:** Yes the elders have made it very clear, elders from all over this region, that
12 they are very concerned with the caribou.

13 *Continuation of agenda.*

14 **George Marlowe:** That's good that we are looking at vegetation but we also need to take or
15 collect a little bit of vegetation from the island and also on the mainland too.
16 Maybe we could use a chopper or something to get to the east side or north side
17 on the mainland. But what about the fish: how is the vegetation under the water
18 for the fish? We never mentioned that. I used to come here way in the beginning. I
19 used to fish by the dock here at the time, there was not a pit here. I don't know
20 how many of us were here, good fish, and we would bring it back to the trailer,
21 the kitchen and fry them. But I don't know if I could do it now. So we have to
22 know the vegetation under the water, too, for the fish. Vegetation on the island is
23 different than the mainland. Even one ounce of oil spill or anything that spills on
24 the ground you'll see something grow right there.

25 **Colleen English:** Good questions. We can definitely visit the shorelines if you wanted to go see
26 some of the areas and look at the plants in the water. There are some areas where
27 we can access the shoreline very safely and easily so we could include those in
28 parts of the field visits. We don't have a chopper on site so we are kind of land
29 locked. We are going to be contained to the east island for this session and so we
30 will just do our best to hopefully hit up a couple of different areas on the island
31 that we can reach and have people looked at the native vegetation there. We
32 haven't seen, any that I know of, species be introduced up here. We have had a
33 couple of bugs come up in fruit; so we had a black widow spider arrive here once
34 in the fruit at the kitchen, and we got a big beetle in the truck shop once that came
35 in on a tire. Those are the only two things that I've seen. The other interesting
36 thing, that we'll take you guys around to show you as well, is that there is a lot of

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1 natural re-vegetation happening on its own on the side of the roads, on hill sides,
2 on the side of buildings, as well as other plants and mushrooms underground.

3 **Joanne Barnaby:** Your question on grasses and lichen that caribou eat there was a study that
4 Diavik did with a few elders including Albert Boucher and Joseph Judus. They
5 visited areas that are close to the mine site that have dust from mining and they
6 visited areas further away where there was no dust that they could see on the
7 grasses and on the lichen. That work has been documented and there is a report
8 here that you can take and Colleen will explain more about that project and what
9 they learned and the recommendations that came from that work as well.

10 **Wayne Langenhan:** This is getting a little bit off track but the last time we were here and Gord
11 was up here and we were talking about filling in that pond there (PKC), I never
12 got any feedback as to what was coming off on that deal at all, which way it was
13 going to go.

14 **Joanne Barnaby:** Thank you Wayne that is actually part of what we are going to cover
15 tomorrow when we review the recommendations table and Diavik's responses to
16 our recommendations so you'll hear that response then.

17 **Louie Zoe:** Things can grow and there are things that I don't think will grow.

18 **Joe Champlain:** It's not like before. They drink water from Whati and the forest fire came
19 really close to the community. It wasn't like before.

20 **Joanne Barnaby:** We have had discussions in the past as some panel members felt it was
21 inappropriate to work on Sunday morning so we need to decide that and whether
22 you feel that's a problem and whether you want to make any changes to the
23 schedule for that. Any thoughts on that right now? Are people okay with meeting
24 on Sunday morning?

25 **George Marlowe:** Maybe we could do 10 rosaries prior to starting?

26 **Ed Jones:** I think we could maybe allot a half hour or something like that. We don't want to
27 take up most of the morning. Also another suggestion is I hope we will be able to
28 discuss the mine closure plans. I think it is very important for vegetation.

29 **Joanne Barnaby:** Yes maybe we could ask Gord or Colleen to bring us up to date on closure
30 plans. The other thing we would like to ask you is there any interest in having a
31 woman only session? Yes. If they do have a separate session we would ask that
32 they present back to the whole group.

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1 **George Marlowe:** Wondering about the rock pile, it's still frozen underneath, what is going to
2 happen if it thaws? I would like a presentation from Diavik regarding the rock
3 pile.

4 **Colleen English:** Brenda McDonald from EMAB is planning on coming up on Monday, very
5 interested in coming and hearing where everything is going.

6 **Ed Jones:** I have spoken to quite a few people and they were under the impression that
7 EMAB was disbanded because they didn't seem to be involved for the past couple
8 of years and I was wondering the same thing.

9 **Colleen English:** EMAB does still exist but they had a very big turnover in staff which slowed
10 down their visibility and their involvement with people in the community. So they
11 had a few months there where they were bringing a new person up to speed and
12 getting the Board sorted again so it definitely did slow them down, but they do
13 still exist, and the new Board is meeting over the next couple of days to set their
14 goals as a board. Brenda can also share that with you so if you have questions for
15 Brenda she comes on Monday.

16 **Mary Rose Sundberg:** I haven't been really involved in this kind of meeting but I have
17 been to a lot of sessions where I interpreted so I am kind of aware of the
18 reclamation plan and the vegetation but what I want to know is do you have a
19 summary of the recommendations from the last few years, because I don't know if
20 it is a good idea or not but I know some people do change, who is coming (to
21 these meetings), so it would help if we had a summary of what has happened over
22 the last couple of years.

23 **Colleen English:** Thanks for that, it's a good point. I think one of the positives of this panel is
24 that we have had very consistent membership and it's been great to be able to
25 build the relationship and the trust as well as that continuity of knowledge that
26 people gain from that, but we will have the summary of all of the
27 recommendations available for you tomorrow and specifically we will be walking
28 through the rock pile ones and the PKC because those are the most current ones
29 that haven't yet had a formal discussion and open communication between Diavik
30 and the panel.

31 **Natasha Thorpe:** There is also on the side table here all of the previous reports of the TK Panel.

32 **Celine Marlowe:** What is under all those piles of rocks that I saw when I was coming in from
33 the airport?

34 **Colleen English:** The original ground that was there was an esker and bedrock. That got mined
35 out, to build roads on site so it actually got deeper. It's all rock in there and it's

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1 mostly the rock that has come out of these pits. There is also a landfill that is
2 within this pile as well. So Diavik has an onsite landfill where all of the benign,
3 approved materials that are able to go into a landfill are in that landfill. Any
4 hazardous materials are not put in that landfill, we have a waste transfer area for
5 those. In the landfill you will see things like metal or steel, scrape wires. Wood
6 gets burned.

7 **Joanne Barnaby:** Break until 8:30 tomorrow morning and hope we have our Inuit friends with
8 us.

9 *Close 6:15pm*

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1 **Day 2: Friday August 15th, 2014**

2 **Natasha Thorpe:** It feels much better now that we have our Inuit friends with us. Welcome
3 everyone.

4 **Louie Zoe:** Opening prayer.

5 **Natasha Thorpe:** Start with our round table of introductions. Most of us know each other due
6 to this being our 7th TK Panel meeting.

7 Then we will have a presentation from Diavik and we have been tracking all
8 recommendations that you have made in a table and this is the chance for Diavik
9 to more formally respond to all of those.

10 **Round Table:** Mark Taletok, Louie Zoe, Joe Champlain, Celine Marlowe, George Marlowe,
11 John Ivarluk, Martha Ivarluk, Joy Dragon, Ed Jones, Wayne Langenhan, Morris
12 Marten, Joanne Barnaby, Natasha Thorpe, Gord Macdonald, Mary Rose
13 Sundberg, Valerie Miller –University of Alberta Graduate Student, Sarah Ficko-
14 University of Alberta Graduate Student, Martin Robinson- University of Alberta
15 Research Assistant, Dianne Dul, Tiana Shea- Environment, Andrew ***-
16 University of British Columbia, Shaun Sinclair - University of Waterloo, Colleen
17 English, Vanessa White - University of Alberta Research Assistant, Jasmine
18 Lamar- University of Alberta Graduate Student, Ryan Dempster, Mona Tiktalik,
19 Henry Ohokannoak , Berna Martin, Peter Huskey, Janet Murray

20 **Natasha Thorpe:** I wanted to remind people that everything is being recorded so that Janet can
21 make sure she documents your words and stories that you share.

22 **Gord Macdonald:** *Provides overview of the closure plan for the whole site. As we get to the*
23 *rock pile and PKC we will go back and look at the recommendations and go over*
24 *them a bit more. Water Board is the one that has to approve our plans. Plans have*
25 *changed since 1998.*

26 Overview of the island.

27 Pits – Refill with water to the level of the lake, make fish habitat on the outside of
28 the pit which needs to be done first. Fill it up quickly to the lake level and then let
29 it sit there, then test the water and once we all agree that the water is okay we will
30 cut holes in the dyke so that water can move in and out and fish can move in and
31 out.

32 Rock pile – Make sure that it is safe chemically first. When you take the rocks out
33 of the pit they behave differently, so we need to make sure that the water around
34 the pile (e.g. runoff when it rains) is safe. We need to make sure that the rock pile

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1 stays frozen. We asked how you want animals to behave in regards to the pile.
2 We have built some dams around where there will be some seepage.

3 **Colleen English:** Early on in the days of the TK Panel it was decided that everything that you
4 did really needed to be documented and there was a keen interest from all of you
5 to have a response from Diavik to each of those recommendations. So we talked
6 about developing a table that captures each of those recommendations and
7 Diavik's response to those recommendations. Last time in October when we met
8 we had the PKC session, so down here you will see a PKC tab and you click on
9 that and up come all of the recommendations that you guys made, and then over
10 here is the Diavik response which we will talk about, which Wayne was asking
11 about, and then any action items that also need to come out of that for Diavik. So
12 we have these for each of the topics that you have discussed already and probably
13 some of the future ones that are sitting empty at the moment.

14 *DDMI TK Panel Recommendation Tracking – Showing the panel*
15 *recommendations and where Diavik has gone with them.*

16 **Gord Macdonald:** So that is generally what we are trying to do. I mean one of the
17 recommendations was to try and find a long path, a long drainage path, to direct
18 water to. It doesn't really show on here but there is not really a lot of opportunity
19 to find a long drainage path where the rock pile is located, because the lake is
20 right there and then there is the North Inlet, but we do have the ponds on this end
21 (southeast) that we will use, a pond on this end (northwest) that we will use, and
22 the whole North Inlet so a lot of drainage goes to the North Inlet. So we have
23 those ponds to use as Bobby's moat. As Colleen said we are intending on going
24 with a particularly sloped access here (northwest) and an area all the way along
25 here (southeast) that would be a place where caribou could get on and off the pile
26 again. We were going to continue to keep this side (south) steeper because this
27 will be going into the PKC so we wanted to discourage caribou from going down
28 to the PKC and we were going to keep this wall (west) steeper as well. But in
29 terms of the softer material we would like you to look at one of the test piles the
30 students have been working on, it's re-sloped to the way we would see this being
31 and it is a smooth material; it's not soft, I don't know how to interpret "soft
32 material", but to us it looks like it would be safe for caribou to walk on. What we
33 don't want is big loose boulders like you see there right now, but if you look at
34 the pile, this one pile that we will show you, that's what we would see being here,
35 along the crest and at the far end. So it would be good if you could have a look at
36 that and see whether that's what you think would be safe for caribou or not.

37 In theory we could put down coarse PK, like somebody asked about, which is this
38 really black material around the edge of the PKC and its sort of like a coarse sand

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1 - it would always be loose, it wouldn't compact down to something firm. You
2 know we could put some of that on here (rock pile), but we'd have to do a bunch
3 of testing on whether we want to do that or not. So that's one material that could
4 be used; but again I think in one of the recommendations there was also the
5 concern, and it's a real one, of putting a black material on here in terms of
6 temperature. Remember we are trying to keep this thing frozen and the black
7 material would not be helpful for that. And the other material that is an option is
8 till. We are going to be spending a lot of time talking about it this week because, I
9 guess you guys will tell me if I am right or wrong, but I think it's a good material
10 as a substrate for re-vegetation. We don't have a lot of it, so we probably want to
11 use it for that versus for making a caribou route, unless it's necessary, so it would
12 be a good one to look at and think about whether that's the best thing or the worst
13 thing for that.

14 But in concept I think we are all heading down the same path, now we are getting
15 down into the details about it.

16 Questions?

17 **Mark Taletok:** This rock pile, I've been hunting all my life and caribou always climb up to the
18 highest spot when there is no wind and if they go to the higher part they stay there
19 for a long time. I have been hunting all my life. The caribou always stand on the
20 high part; the caribou wants to go on top. I know it's not easy; I've known the
21 caribou go to the high part. While I was growing up I've known that even when a
22 caribou is far when we look by binoculars, the caribou are far but if we start
23 walking to the caribou, we will get there before the caribou move. I don't think
24 there is caribou around and lots of caribou are coming to our town and they never
25 did that before. And our land is really close the place where we used to live I've
26 known I never go there in a long time because I've got no more dog team because
27 I went to Edmonton and I couldn't go home because I've got no more dog team.
28 And there used to be lots of caribou where we used to live and animals are smart
29 and it can't be helped that they want to go to higher ground and towards the
30 evening they always want to start feeding.

31 **Gord Macdonald:** One comment that I forgot to mention - I think it was from EMAB but I am
32 not sure if it was from this panel through EMAB or if it was directly from EMAB
33 - but they wanted us to do a study on the effect of having vegetation on the rock
34 pile and whether that would increase snow and increase the amount of water that
35 would get into the pile and you know you will see in the table when you see it, we
36 are not going to take that one on as a research topic. We know that will happen if
37 we put more vegetation on the pile, we will get more snow and we will get more
38 water going in the pile and that's something we don't want to have. So from a

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1 water point of view, we want this to be as smooth as it can be so that the wind will
2 blow as much of the snow off as it can to try and keep as little snow as we can get
3 from melting on the pile and percolating into the pile. So vegetation would work
4 against us for that.

5 **John Ivarluk:** Earlier you were talking about the open pit and the rock pile so at closing time
6 why don't you put that rock pile - as much as you can - instead of filling it up
7 with water, it's going to fill itself up sooner or later, but if you want to knock that
8 rock pile off, why not fill that open pit with that rock pile?

9 **Gord Macdonald:** That question has gone around for years talking about whether we could do
10 that or not. There are two reasons: one it's really expensive to move it back into
11 there. It would be more money than all of the closure plan for the whole island to
12 move that rock back into here, the other thing is that after the rock has been put
13 out on the land we were talking about the chemistry so we don't want water
14 contacting it and running off. If we put that rock back in here, once the water
15 comes back in we will have the same problem with that water. So right now it is
16 best left where it is. If we had been able to fill these up with rock it would have
17 been something we had to do while mining. So that if you could imagine you
18 mine one pit first and then when you are mining the next pit you move the rock
19 over to the other one. We couldn't do that because we've got underground mining
20 happening in each of these pits at the same time. We couldn't fill them as we
21 went which would be the only economical way to do it.

22 And you asked about if these pits will fill up by themselves anyway; they will, but
23 they will fill with ground water. That is water deep in the earth and the chemistry
24 of that water isn't as good as the chemistry of the lake water. So we do want to fill
25 them (open pits) up with lake water in order to keep the ground water down in the
26 bottom so we have the good water at the top.

27 **George Marlowe:** I don't know if I'm going to make a right decision and since about 16 years
28 now we've been talking about this and still we never got to a right decision yet.
29 But I agree with John. We talked about the reason why with EMAB because
30 where the pit is right now that's where the fish used to be and that's shallow. It's
31 only about 10-20 feet at that time so if we put some rocks back again and then
32 some of the current from the lake (from the bottom of the lake) some of it will
33 cover the rocks now but right now if we put water in it its going to be about 70-80
34 feet maybe more and how about the fish I don't think it's good. We've been
35 talking about that already. And now it seems like Diavik they want to put water in
36 there but us and the Inuit, I support the Inuit because this lake and the river water
37 goes to Coppermine River, right to their home town not us, not Yellowknife, Fort
38 Rae or Lutsel K'e and that's why I support these people all the time. I said that

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1 time about 4 years ago I want to see what kind of vegetation from here to half
2 way to Coppermine some place. What kind of plants are growing in the water
3 now because it's running down. They said they would find it and I never heard
4 nothing yet. So that's something we talked about already. We want to put rocks
5 back in so that it's not going to be that deep. That's something we talked about
6 already. That's why I said 16 years ago we never make the right decision yet. And
7 that big pile there we said we were trying to knock it down but you guys buried a
8 lot of old dirty stuff there. Now it seems like we don't want to touch it now.
9 That's something we talk about too. We said to Diavik no more burying anything
10 again on this island. If you bury anything again in the future we're going to have
11 something in the office in Lutsel K'e. I'm going to have the papers saying there if
12 there's anything wrong with that island there, drainage to the lake or river will
13 pay fine, that paper will stay there, so we got the paper too so that's something we
14 talked about already. So I don't want anything to be buried. Last time maybe four
15 years ago we said all those trailers are going bus it and then bury everything I said
16 no don't do that in the future it's not going to be good because the water that's
17 still going to run out. 50 years maybe the water will run and rust from the metal.
18 So I said no, no more burying anything after that.

19 The rock pile I know the caribou will go on and they said they would smooth it a
20 little bit all the way around with moss on top but if you put it on top it will come
21 down on both sides, so it would be good for caribou. Caribou at this time of year
22 caribou like to stay on higher ground so not much flies.

23 **Ed Jones:** Gord I am wondering if you have checked or studied the work the mining
24 companies have done in Saskatchewan on mined out pits? They refilled these pits
25 with water, lake water and I am wondering if they have had any problems. Have
26 you checked on any of this work they've done?

27 **Gord Macdonald:** Let me just get back to George's comment first. We are going to have to
28 face these things as a group as we move forward on decisions, and we understand
29 that not everybody is going to be in agreement with all of the decisions so on the
30 question of putting rock back into the pit, we have had those discussions and I
31 agree people have said why don't we put it all back in there. We've said we don't
32 want to put it all back in there and the plan has been approved by the Wek'èezhì
33 Land and Water Board. It is the same plan we had from the beginning saying we
34 were going to do it this way and that's the way it's headed. About fish, you are
35 right what we are targeting in this area (shoals inside the dikes) to make it useable
36 for fish, but this area (pits) will be too deep to be really usable by fish. We are
37 not expecting that fish will use water of that depth, they will swim through it but

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1 they won't use it for rearing or anything else; it would not be useful fish habitat
2 where the big pit is.

3 On not land filling that was a good discussion that happened amongst all the
4 communities and we did get very different opinions. The reason I am showing
5 you this slide is that this is the landfill with the material you are talking about -
6 old trailers and steel and things - going in there. I mean the other option is you
7 take it all the way to Yellowknife and you put it in the Yellowknife Landfill and it
8 becomes a problem that they don't have enough capacity for it. So there's a lot of
9 good discussion about it, that it has to go somewhere, where is it going to go and
10 the conclusion was this (the mine site) was the better place to put it. And again,
11 that's the plan that was approved in 2012 by the water board; to put it here, cover
12 it and it will become frozen in place just like the other rock.

13 We have been looking at putting water back into pits, it's a fairly common closure
14 option for most mines or many mines, depending where they are. The challenges
15 are usually about chemistry about the kind of water that is there depending on the
16 ore body, whether it was a gold mine or in Saskatchewan uranium mines, and
17 what materials are left in there and what the ground water is like around there.
18 There aren't that many applications that are exactly like Diavik where we've got a
19 pit with a lot of very good water right beside it so that it can be filled up without
20 impacting on the lake. So if we take water out of the lake to fill the pit, you
21 couldn't even measure the change in the lake level because it's such a big lake.
22 Where other properties have the challenge of where they get the water from and
23 how can they bring it in fast enough so that it's, so you get good water at the top
24 or most of it instead of the ground water.

25 **Wayne Langenhan:** When water seeps in from the groundwater and goes to a certain level and
26 then water you are going to pump water from the lake itself over top of the dyke
27 into the pit, eventually sometime you'd open it up so that it was all part of the lake
28 again but the residue from the blasting is on the walls of the pit so wouldn't that
29 contaminate the rest of the lake if you were to open it up so that it would be all
30 one?

31 **Gord Macdonald:** Yes and so we have done those studies, what we did is take sections of the
32 pit wall and we built a collection tray along the bottom and washed the wall with
33 water and collected the water that came off and measured the chemistry of that
34 water to see how much blasting and other residues from the rock itself that were
35 on the wall would get into the water. So we have a good idea what that would be.
36 When you put that small amount with the huge volume of water that's going in
37 here, there is almost no difference between the water in the pit and the water in
38 the lake; again that's a calculation, it's done based on an experiment, so the real

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1 answer will be when we put all this water in here and we let it sit there and we
2 measure it to demonstrate that it is safe before we connect it to the lake.

3 The North Inlet, as I mentioned before, it used to be an inlet into Lac de Gras and
4 we put a dam at both ends so that we can raise or lower the water level to store
5 water if we need to. So we can always pump the water out of the mine but if
6 something happened - let's say the treatment plant broke down and the water's
7 still coming in - then we can fill this up. We've got about 100 days of storage so
8 we can continue to put water in here until the treatment plant was fixed and it
9 went out. That's why we have this facility here really. You can sort of see it's a
10 little bit dirtier color than the water on the other side, so some of that water that
11 comes out of the mine has dirt in it and it will settle out in the North Inlet ahead of
12 the treatment plant.

13 Water that comes out of the treatment plant has dirt in it so it settles sometimes
14 before it goes to the treatment plant. We don't know if the north inlet will be safe
15 for fish due to the sediments but that's something we can't deal with now because
16 we don't know, in about two years we will be coming back to you to deal with
17 this facility.

18 PKC-The kimberlite without the diamonds comes out of the plant, it comes out as
19 a soft material and this is what we call fines and it's like sand, if you saw it on a
20 beach you'd think it was sand. It comes out and forms a slope and then water
21 drains off into here (PKC pond), so it separates first into the heavier bits and then
22 into water. Then we also have something that's called course kimberlite that
23 comes out in a truck and it's much bigger, doesn't have water with it and we use it
24 within the facility for construction. It was the material that some people were
25 talking about maybe we could build caribou roads with that material. But what
26 we talked about last time was what's underneath the center of the pond - the
27 slimes under the water. You can't stand on it, animals can't walk on it. It may be
28 possible to put a layer of rock on top of it, just to separate it from everything else
29 so it doesn't blow in the wind.

30 **Wayne Langenhan:** When you say that the water could overflow in that pond there and go
31 down through a series of small lakes, I suppose that it is supposed to be a filtering
32 system of some sort so you don't have to put it through a treatment plant. Would
33 that water (after going through those) would that be of sufficient state of water
34 quality to enter into the lake by the time it reaches there?

35 **Gord Macdonald:** Yes that is our current predictions and I expect that will be our closure
36 criteria, that we won't be allowed to do it unless that actually happens. I know

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1 how we are going to test the water (scientifically) so it's safe, but we need to
2 know how to get you comfortable that it is safe.

3 Two of the recommendations were to leave it as a beach; if we did this, I am
4 certain a caribou would get stuck just like a person. So we want to make sure the
5 pond water is deep enough so that the animals/people would swim instead of
6 getting stuck. We are going to get an independent analysis for the material. We
7 are struggling with putting vegetation back into the PKC. I don't feel we want to
8 attract animals to there so I don't feel adding vegetation there is a good idea.

9 **Wayne Langenhan:** Has there been any thought to turning that slime into a solid by adding
10 chemicals or something to it?

11 **Gord Macdonald:** We could add chemicals however the chemicals are not inert (stable) so we
12 don't feel that is safe for the environment. Ekati has tried and it created other
13 problems due to the chemicals.

14 **Louie Zoe:** What we discussed in here, we talked about wildlife and the open pit. I have a
15 concern about no recommendation that's been put forward and what can be put
16 back inside that open pit. In the barren land there's a big snow bank and the
17 animal can fall off and we don't like to see the big rock pile. Maybe some of the
18 rock pile can be put back into the pit and then see what happens, we see what is
19 growing and maybe we can get it to where it can be clear. Once the water goes
20 back in there we know that water is going to be deep. And we'll have to watch
21 for things that live in the water like fish and all the things that being blasted and
22 all the fish plant that is not inside the dyke so that's all the things that we need to
23 think about. So we don't like to see that big rock pile it would be hard for animals
24 and caribou to get on top of those big rock piles that might be dangerous for the
25 caribou.

26 **George Marlowe:** Ever done testing on the north inlet and also the other lake PKC, both did
27 you ever test the bottom separately? I'm talking about the mud. It's got to be
28 different, and also the water too. I did a little bit of study on that water on the
29 natural lake too. I helped out. I was there for a long time. There trapping with a
30 dog team, but it's different then when I was there when I was young. When they
31 raised that water it's different, so this one here is the most important part because
32 it's an island, it's not like on the main land, and we all know that there are
33 millions and millions of fish in there. Diavik is different, the water runs to
34 Kugluktuk maybe 100 years down the road it might make them sick.

35 **Gord Macdonald:** Infrastructure- What do we do with all the buildings and the roads? Our
36 commitment to the Land and Water Board is to remove all of this material, take

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1 whatever is salvageable, sell what we can, trucks, gensets, probably not the steel,
2 buildings would go. So in the end there would be no buildings or anything left
3 that you could see, there would be cement foundations that would get covered
4 with rock. Also the wind towers, what to do with them? Roads- how do we
5 smooth out the sides, or do we smooth out the sides?

6 I think about them all in different areas but we also need to look at the island as a
7 whole.

8 *10:00am 15 minute break*

9 *10:25am*

10 **Natasha Thorpe:** *Why are we here as a panel? (Slide show)* We need to be able to look at the
11 big picture and also the smaller picture. You are able to do that by seeing the
12 small berries or shrubs, but also seeing how they fit in the big picture with all the
13 other plants, berries and animals.

14 **Joe Champlain:** At this meeting everything that has been discussed before I can't read or write
15 English and all these slides, I can't capture any reading. But what we are talking
16 about is the mine, where its situated, and we don't want anything to be
17 contaminated, the water not to be contaminated and also the wildlife. The water
18 flows into the Coppermine River so we have to be in support of the Inuit so we
19 want the water to be maintained and be as pure as possible and there is depletion
20 in water in all areas. It would be good if the water was protected because the
21 water flows into Nunavut and also to the people of Kugluktuk and we have to be
22 in support of them and one another. How can we improve the closure plans so we
23 have to be sensitive about the water? There is a depletion of water in all areas and
24 also using the water in underground mining and also if they are going to fill up the
25 open pit with water. And also the caribou - people live off of the caribou, we
26 don't want to ruin the habitat or the life of the animal, and there is the forest fire
27 and the smoke travelling long distances and maybe it ruins the growth in
28 vegetation and maybe it's not good for the growth of the vegetation and the water.
29 it might be a foreign topic so if we watch about these things and I am thankful
30 that we are having these discussions about these topics. In this tundra and also in
31 the boreal forest there's lots of forest fire, there is re-growth but what happens to
32 the wildlife and their young ones? Thank you very much.

33 **Natasha Thorpe:** I think what you shared is a very strong understanding of the connection
34 between vegetation and water. I know that sometimes you feel that you are
35 repeating yourselves and when we look back at the literature you know it's been
36 20 years that people have been talking about forest fires. John Akana - who is not

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1 with us anymore - about 15 years ago he said as we see today, the tundra is
2 becoming too dry from the lack of rain and because of that we seem to get more
3 forest fires. In Lutsel K'e 15 years ago they were saying the reason why there is
4 less caribou is because of the forest fires in that area, caribou vegetation is all
5 burned around Nonacho Lake on the north side of McLeod Bay it is also burnt.
6 The south side is not so burned and caribou come to the south side because of
7 that. So it's something for us to think about: that connection between the land,
8 how wet or dry the land is and how it will support vegetation or different plants
9 now and into the future. One of the things you've talked about at every session is
10 climate change and we're planning for closure into the future when climate
11 change will still continue.

12 **Mark Taletok:** I would like to say a few things from our childhood days. From many days ago
13 the vegetation on the land grows very nicely because there was lots of rain. Also
14 as I was growing up I learned to know which plants are good to eat and which
15 would upset your stomach and wild berries are very healthy but I am concerned
16 about the ones growing close to the mine site. Because many years ago anything
17 growing around the tundra and on the land like vegetation was very healthy, but
18 today everything has been affected by development, because it seems like we are
19 giving up our traditional land because it's going to be changing every year to
20 year. It's not always the same year to year how the grass and the vegetation
21 grows, some summers they grow very nice and healthy, some summers they don't
22 grow at all. You know now a days with the climate changing everything is
23 changing even the water habitats in Kugluktuk. It seems like the water is drying
24 up; some of the ponds and lakes are drying up as well. We see it on TV too
25 because there are more storms in the south, and we are hardly getting that up
26 north now. So I guess that's a reality and we have to face that because of climate
27 change because summer to summer is never the same. When vegetation doesn't
28 grow healthy that's why wildlife move looking for better vegetation. Even the
29 water habitats are drying up.

30 **George Marlowe:** Seems I like to hear from the Inuit but I don't understand. This summer, how
31 much rain around the Ekati mine? Around Kugluktuk? Because Lutsel K'e we
32 aren't having lots of rain, very dry. Me and my wife we go out on the land, she
33 knows where there are lots of berries but this summer there wasn't much. It dried
34 up. So it might be happening here too because there is no rain. You've got to
35 have rain to grow so I don't know, this summer we don't have much rain.

36 **Joanne Barnaby:** Perhaps when we hear from the research team they might want to comment
37 on how much rain they've had this summer.

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1 I just wanted to explain that when we use the word literature in this case we are
2 talking about the traditional knowledge that has been shared in the past that has
3 been written down. We learned quite a bit about how individual plants are
4 important to people and animals, and how plants have been used and also what
5 kind of plants and berries grow and work together.

6 **Mary Rose Sundberg:** These issues have been talked about for many years and it's also good
7 to see U of A helping with the project. In order to capture all info we should listen
8 to recording and document info correctly. This should be done. Talking about
9 this traditional knowledge since how many years back that we've been talking
10 about this kind of issues. There is some information here that we can look at.
11 Some of it is good. The university some of the information that they put together
12 and Aboriginal knowledge they collect information on the traditional knowledge
13 some of the books that have been put out, some of the Christian things, some of
14 the information that has been collected it's not all correct, they don't ask the right
15 questions. I just want to say a few things but first of all I just want to comment on
16 the book that Natasha referred to. I understand the author did research on
17 traditional knowledge in Behchokq area and all that information I am sure is
18 pretty accurate info from Tłı̄chq Elders traditional knowledge but as
19 Yellowknives Dene First Nation we've gone through that book we found
20 approximately 30 items that are not accurate. We were very disappointed with
21 this book because the author did not consult our people to make sure that the
22 information put in there regarding our people, our legends, and our stories were
23 accurate. So they are aware of that, my First Nation does have concerns about the
24 quoting. I know the quote from the elders are correct but sometimes I was told
25 that legends, even legends are different. They are told differently in each region or
26 each community, the way they understand it and the way the oral history was
27 passed down so it will obviously be a little bit different.

28 How long will this mine be in operation? Also will the rock pile get higher or are
29 they going to create another one? Have they done similar research in other
30 regions that are similar to the landscape in this area where maybe they can fill the
31 pit halfway with rocks and then on top with water?

32 **Natasha Thorpe:** I wanted to respond to your first concern about making sure the words are
33 right. From day one it's really, really been a priority to make sure we get the
34 words right. To give you a little history, for the first four sessions every report
35 that was written (on the table over there) we went through every word on the
36 screen to make sure that the words were right and we made lots of changes. I am
37 hoping that the panel remembers some of those days of going through word by
38 word. The other way that we are trying to do things right here today is during the

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1 sessions. We've brought in Janet who has lightening fingers and she is typing out
2 everything that is said. Ryan is making sure everything is recorded and then
3 during the evenings Janet's listens to the recordings, makes sure that all the words
4 are there, and then you have the homework the next day or later that evening to sit
5 down with your interpreters to make sure that our records are right on the paper. I
6 hope you understand that Joanne and I take our jobs very seriously and its more
7 than a job, it's a responsibility from the heart to make sure that we get the words
8 right and that they are your words, we're helping to get them out on paper.

9 The other questions about the life of the mine, Colleen will answer those.

10 **Colleen English:** To answer your question about the mine, it will operate until 2023 with or
11 without A21, so 2023 would be the end of operations when closure would start.
12 Rock pile is at its maximum height for operational needs but there will be some
13 added for the finishing (capping), as in rocks. There is no mine in our exact
14 situation that I know of at this time.

15 **Gord Macdonald:** The only one that I know of is a mine in the eastern United States that put
16 rock in the bottom of the pit, like a very small depth of rock in the bottom of the
17 pit before they flooded it. The reason for it was the rock was really reactive and
18 the best place to put reactive rock - it's only reactive because it's exposed to the
19 air - so a good place to put reactive rock is at the bottom of a water body where it
20 won't get air. So that's what they've done, as their closure plan was to put that
21 material in the best place to get rid of it, which is at the bottom of the pit and they
22 flooded it. At the same time it hasn't been very successful because when they
23 filled it up, they left a ramp down to the bottom, you don't just dump it off the
24 top, they drove it to the bottom and left a ramp and so that ramp has always been
25 exposed. So the water in that pit is nowhere near closable and so they've actually
26 ended up creating a problem that they hadn't expected.

27 **Mary Rose Sundberg:** Where in the United States? Also there was another concern that I heard
28 over the years, if they fill the pit with water from the lake how long will it take to
29 fill and also will the lake level go down?

30 **Gord Macdonald:** We would fill it over a period of months and, in theory, the lake would go
31 down but you couldn't measure the change because it would be so tiny. It was the
32 Ridgeway Mine in South Carolina.

33 **Mary Rose Sundberg:** You can't put the rocks back into the pit because of the chemicals? Is
34 that the reason why you can't put the rocks back into the pit?

35 **Gord Macdonald:** Its one of the reason's, I think it's less the blasting material and it's more the
36 chemicals on the rock from being exposed to the air. The biggest reason is

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1 because of the cost of doing it. It's completely re-mining that pile, drilling and
2 blasting.

3 **Mary Rose Sundberg:** Can you tell us how much because I can tell you that this mine has
4 probably taken billions and billions of dollars so what's the cost that they are
5 afraid of spending because the land that belongs to the people they just get less
6 than pennies in IBA's. The mine has extracted I would say billions of dollars and
7 if you are talking about cost it shouldn't cost too much. I don't think it would be
8 too much to do. It is something I think we should consider because of the
9 concerns that I heard over the years about this. How much would it cost to re-
10 mine the rock to put it back into the pit?

11 **Gord Macdonald:** Sure I can try and come up with some rough costs. The biggest challenge
12 with this one is we had this conversation before we built the mine, and with
13 everyone back in 1998, because if this was a requirement - that we put the rock
14 back in the lake - we would have developed the mine site differently. So it's one
15 of those decisions that were made a long time ago and, whether you agree or
16 disagree, whether we should have done it differently, its really unfair to try to get
17 us to go backwards on that kind of a thing. But I hear where you are coming from
18 and I will try to get you the numbers at least so you get a sense of how much
19 money.

20 **Mary Rose Sundberg:** And also that community where that place in the United States.

21 **Gord Macdonald:** Yes I will.

22 **Joanne Barnaby:** About that rock pile, if that third pit is mined where would that rock go?

23 **Gord Macdonald:** Some of the rock would go to the covering of the North Rock Pile, but what
24 isn't used up there will go down here on something called the South Country
25 Rock Pile.

26 **Joanne Barnaby:** So there would be a new rock pile?

27 **Gord Macdonald:** Correct. And again, all of that was part of the original project approval plan
28 to have a pile down there.

29 **Joanne Barnaby:** Any other questions regarding documenting the past work of the panel, and
30 dealing with the four questions.

31 **Wayne Langenhan:** A big concern for me is what's going to happen to the airstrip? Is that
32 going to be purchased by the territories, feds or torn up?

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- 1 **Gord Macdonald:** It would but torn up and allowed to re-vegetate so it wouldn't be an airstrip
2 anymore unless someone wants to take it on as an airfield. Can't leave it there as a
3 registered airstrip due to liabilities.
- 4 **Ed Jones:** On the airstrip and the roads, you would do more damage to tear it up, why not
5 leave it intact? What's the problem with leaving it intact?
- 6 **Gord Macdonald:** The only problem is it would need maintenance to maintain it as an airstrip.
7 If it is left as a designated landing strip it would have to be maintained and
8 someone would have to take on the liability. If you wanted to leave it for some
9 kind of emergency landing that's also possible but somebody would have to say
10 it's a designated landing strip. We could leave it and let it go to its own devices,
11 that's fine to do, but in terms of somebody taking it on as a registered airstrip that
12 is a challenge.
- 13 **Natasha Thorpe:** It sounds like the government needs to make that decision?
- 14 **Gord Macdonald:** Yes. That is possible, but we are planning for the most work and if that
15 changes that's fine too.
- 16 **Ed Jones:** As you were saying, that's already been settled before the development of the
17 mine so we can't back track now and we have to live with the agreement that we
18 signed.
- 19 **Joanne Barnaby:** Ed are you thinking that you would like to see the landing strip useable as a
20 landing strip in the future or are you just saying that it can be left and vegetation
21 can grow back naturally?
- 22 **Ed Jones:** Well I believe that all the conditions have been agreed upon. We can't back track,
23 we can't change the agreement now. We should have made an agreement or a
24 condition that Diavik would maintain the airstrip and roads after the mine closure
25 but we can't do that now. It's all said and done.
- 26 **Natasha Thorpe:** What we can do now, Ed, is provide guidance on re-vegetating those areas if
27 indeed that's what people want to do. That's a key focus of our session.
- 28 **Wayne Langenhan:** When I was mentioning the airstrip I wasn't talking about maintaining it
29 but it is just a flat place that could be used on emergency landing if need be and I
30 don't see any reason to maintain it. It will stay there for years and years in
31 sufficient condition to handle aircraft even if it's in a winter landing they would
32 be able to find their way to that flat place.
- 33 **Gord Macdonald:** Better than nothing.

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1 **Louie Zoe:** As we are talking about the airport, at the previous meeting we've talked about
2 this that if it's dismantled, because we should leave the airstrip and also the trailer
3 along with the airstrip for emergency landings.

4 **George Marlowe:** Myself when I'm thinking about this island here I remember a little bit about
5 this island. I want to go back to the same place so that means that you have to tear
6 up all that road, flatten the road, flatten the airstrip, torn up and then vegetation
7 put back on it. Same with the rock pile. Somehow smooth it a little bit, put some
8 dirt on it and grow some stuff again on it. If we don't do that, it's not like it used
9 to be before. My grandson wants to buy a plane and I don't want my grandson to
10 land on a landing strip that isn't maintained. So it's better to have nothing, for me
11 it's like that. I want everything torn down that is possible to tear down. I don't
12 want anybody to land on it; it could be an accident, alone here in the far north. It's
13 not going to be like it was before but I want it as close as it can. Sometimes
14 Diavik should take the middle aged people and see what they feel. The buildings,
15 we are old, maybe the middle aged people have something that buildings could be
16 used for.

17 **Natasha Thorpe:** Questions?

18 **Celine Marlowe:** The question I still have is about the rock pile. I remember I was translating
19 for an elder and I remember when Diavik came to the community and that elder
20 asked why the rocks couldn't be put in where it was taken from (back in the pit). I
21 can't remember that person's name, and he said you can't put the rocks back.
22 And my question is still why not? You took it out, why can't you put it back in
23 and my question is still the same thing. I am hearing well it's going to cost too
24 much to put it back, well you took it out so why can't you put it back? You want
25 to get information from all of us here and we're telling you stuff and then it's like
26 'that's not the agreement that we made the first time', well why are we here then
27 if you are not going to take our words for what we are saying? It's not only for me
28 it's for all of us here. We are giving you what we want, what we're saying, you're
29 putting it down and now it looks like well that wasn't the agreement that we had
30 at the beginning. Well why are we here then? So whatever recommendations that
31 these elders are saying and putting it down does that mean that it's nothing. How
32 do you think these elders feel? That's how it sounds to me like for me that's how
33 it sounds exactly. So whatever you take from the ground, put it back to where it
34 was.

35 **Gord Macdonald:** Thank you for phrasing it that way, it is a challenge. What aspects are we
36 able to or willing to change and which ones are we not willing to change. It's
37 good that you are bringing it up and it's good that we are having that discussion.
38 We are trying to ask specifically for input in areas where we do have the ability to

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1 make changes, where we do have options, but there are areas where we don't have
2 that option anymore, or in our view that option doesn't exist anymore, which
3 includes moving that rock back into the pit. I fully understand if you want to
4 disagree with us on that but that is it we are trying to be clear in areas where we
5 do have options and areas where we do not have the options to change. And if we
6 are not clear, please ask us again. Going back to your specific question that
7 somebody said that all of that rock can't go back into the pit, they are right it
8 can't. All of that rock, once it's been blasted it takes up more space than it used
9 to, so it's like a jigsaw puzzle that you pulled all apart but you can't put it all back
10 together and expect it to fit in the same whole; it won't work. Now that doesn't
11 mean you couldn't put part of it back in, so if someone was answering you saying
12 it all couldn't go back in, they are correct; but some of it could go back in, other
13 than it being a very expensive cost.

14 **George Marlowe:** After 2023 the pit, the three pits will be there and are going to fill up with
15 water without putting the rocks back in. You should look at Misery Lake; after the
16 narrows there are two places, very shallow, it's not like as deep as around here,
17 and if you want to put this water here in the three pits, you're going to lower that
18 lake over there, probably lower the water over there I'm pretty sure, because it's
19 shallow right now. You will probably see some dead fish floating around because
20 it's too shallow. And the other mines are going to put water back in those pits as
21 well and that will make the lake go down, maybe not right away, but in 10 years it
22 will when 5 pits have to be filled. If we put some of the boulders in, not all the
23 way but some of the boulders back in, that's what we were saying before.

24 **Natasha Thorpe:** What Colleen and Gord presented back to you this morning is from quite a
25 massive list of recommendations that we passed along to Diavik and they have a
26 responsibility to respond to. For example, there were 19 recommendations that
27 came out of our last session. My guess is there will be at least that many that we
28 pull together as a group and present to them on Monday. So if anybody is
29 interested, we have all of the recommendations and the responses from Diavik in
30 a table. I just said to Colleen that it would be interesting to count up how many
31 recommendations the TK Panel has put forward to date through 6 sessions and
32 how many of those Diavik has been able to accommodate or has said yes or no.
33 My hope is that these numbers might give you a greater level of comfort in
34 moving forward. To echo what Gord has said, there are some things that can be
35 accommodated and some things that can't. And my understanding - correct me if I
36 am wrong here - is certainly this vegetation piece is somewhere that I think the
37 TK Panel can really make a difference. It's something that we've seen Diavik be
38 very support of. For example, I know in 2013 there was quite a large lichen study

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1 that they supported that the Tłı̄chǫ carried out, and that’s in our review of all the
2 documents we looked at.

3 I’m impressed to see these university students as well as this larger circle of elders
4 try to move forward and make a difference, to put together some strong
5 recommendations and to be involved from the very start in what things are going
6 to look like in 2023 and beyond.

7 *Lunch 11:30*

8 *Afternoon 12:30 – 3:30 Field work*

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1 **Day 3: Saturday August 16th, 2014**

2 **Natasha Thorpe:** Welcome back to our second day of our 7th session. We thought we would
3 start out with a debrief of the tour yesterday.

4 **Mark Taletok:** Good morning to you all. I was thinking of the rock pile, if they have a
5 roadway for the animals because the animals were using a trail even if it's only
6 one part on the south side. Even if they made a lower part for the caribou, it will
7 be good for them. It's too bulky and too sloped.

8 **Joanne Barnaby:** So we just wanted to check and see if you had any thoughts about our time
9 outside yesterday. Any ideas or questions you might have regarding the
10 vegetation plots that we saw?

11 **Mike Francis:** The tour of the site was okay.

12 **Louie Zoe:** The visit that we took to the rock pile is a good slope for the caribou to be
13 climbing up and climbing down. It would be good to get rid of the big bulky
14 boulders; if there are big boulders the caribou might break their legs or ankle or
15 damage their hooves. Also at the re-vegetation sites it would be good to identify
16 which plants grow, and those areas seem to be looking good.

17 **Joe Champlain:** At the site seeing yesterday it seems to be good, rock pile the boulders within
18 the rock pile and if we see these areas it's good to see these things and talk about
19 them. At the rock piles that they created there might be fox dens in that area, so
20 are they keeping an eye on fox dens within the island?

21 **Celine Marlowe:** About the vegetation, it seems like they are growing. Maybe just put more of
22 it on the side. I think that area on the smooth side looks better than the rough
23 side. The rock pile I don't know if everybody will agree but for me it's like
24 nobody's going to be going out here after the mines close, so what if you just
25 cover it all with rock in a slope like so that, you know, it's smoother and easier for
26 the caribou to pass by if this is just an island. I have not been all around here yet
27 so I am not familiar with this place around here but it is only for the caribou and
28 wildlife around here. Because nobody is going to be around here after it's closed.
29 I don't know but I was just thinking it's just an idea, put a slope so it would be
30 smoother.

31 **George Marlowe:** For me it's a little bit different. When I look at the plan to replant for the
32 wildlife it's different for me from the new one (re-vegetation plots) this summer
33 and the one from 10 years ago. I have seen that some things are growing on the
34 summer one but for the 10 years area- that's a long time - but there is still not
35 much growing for the caribou and the people. When you want to re-plant for the

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1 wildlife on the island which what I think I see is the one outside I don't want no
2 gravel on and you can see that's there from a long time. That one there you
3 should just keep it the way it is right now don't put more gravel anywhere.
4 Because when I look at it, there are bearberries, crowberries, blueberries I took
5 some and ate some, so if I get sick you will know it! I'm not sick yet anyway. I
6 don't think any more problems; it's a problem alright but the way it is right now
7 we have to keep it that way but the elders are saying to put a road for caribou over
8 the stock pile from the north end to the east. Where we looked at it, at the east
9 end, and we should go look at the north end as well, maybe make a valley for the
10 caribou to walk or to climb up but we don't want any more rough boulders there.
11 Up there yesterday there was good wind, no flies see that's what the caribou like
12 too. Let's keep it that way and just put a slope down and put some more for
13 vegetation. I see that stuff they put 10 years ago, it didn't grow good, I don't see
14 nothing. So that means that new one, I don't know if it is going to grow but
15 anyway just try it as long as you get that lichen growing that is the main thing. I
16 see geese there and I think the geese eat that and I see that ground squirrel there
17 and I think he eats that too, the berries.

18 **John Ivarluk:** That rock pile, the way I see yesterday and the big rocks under it there and I don't
19 think the caribou are going to go up that hill; there are too big rocks on the side of
20 it. They would be going around that rock pile instead of going up. Unless they
21 make a pretty good slope on it like the one at the last one (test pile) we have seen,
22 that's a good decline there. And the vegetation and stuff just keep it the way it is.
23 It will grow in the future about another 10 years or so, it takes a long time for the
24 land to heal itself and re-grow. I've been going to Lupin for a long time to look at
25 the tailings pond. It takes years and years to re-grow and it's finally starting to
26 look back to the way it was.

27 **Martha Ivarluk:** The way they want to do the valley, its okay, the plants will grow in the
28 future.

29 **Ed Jones:** I don't think that we should bother with re-vegetation. John just said that nature
30 will heal itself and I believe in going along with that. As for the rock pile, I
31 haven't given it much thought.

32 **Wayne Langenhan:** On that trip there yesterday to the plots I mentioned to Peter Huskey, I
33 pointed out to him that there was already vegetation coming out of the side of the
34 those big rock piles, the fireweed was growing so the re-vegetation has already
35 started. The big rocks - as Ed mentioned before - I think the big rocks need to be
36 moved. Also I had time to do a little bit of talking with our Inuit interpreter,
37 Henry, and we spoke about re-vegetation. If you wouldn't mind I would like

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1 Henry to be able to speak a little bit about the re-vegetation that he has seen in the
2 north in the DEW lines and stuff.

3 **Joanne Barnaby:** I was going to invite the interpreters once we finished the circle.

4 **Morris Marten:** That slope we are talking about, the big boulders on the side, they should be
5 pushed away or buried. We talked about the slope, it should go into a small lake
6 then they could have the muskeg around it and that should help.

7 **Mary Rose Sundberg:** Good morning. Some of my observations was I think whatever the
8 university students are doing and they are doing a good job and I think it's a good
9 experience for them as well to hear what the elders have to say, combining the
10 traditional knowledge and the scientific knowledge together it makes a difference
11 in how you look at things and you have a deeper understanding of our way of life
12 so I am glad you guys are doing that part. The slope that we looked at, I think it
13 might work for the caribou from what I am hearing, if this is what we are going to
14 do for the slope and for the caribou to come down on one end I don't know. I like
15 what I see but it's going to take a long time. At what point are they going to stop
16 testing and say it's okay and when are they going to re-plant? Are they going to
17 use a certain way of re-plants, and when things start growing, whether its moss or
18 lichen or grass or even flowers, are they going to test those plants to see if they
19 have any chemicals in them? That's the plan, right? So I would like to know
20 when they might start testing the plants to see if they have any chemicals in it.
21 And I was kind of amazed to see some growth in the kimberlite plot. That is
22 crazy. I don't know how that's happening but I think the vegetation in the tundra
23 is very powerful, it can even go through rocks as you guys know. I think there
24 must be something underneath it that is making it grow.

25 The slope that we looked at, I think it might work for the caribou from what I am
26 hearing. If this is what we are going to do for the caribou to go up and come
27 down, I worry from what I hear. How caribou travel on the land all over the place
28 and I am afraid they might start traveling up all over. Trying to make a path for
29 the caribou on the slopes but we are almost like trying to predict how they are
30 going to travel. I would like to see the traditional knowledge from before the mine
31 to see where the migration path was. Myself, I have never hunted in this area at
32 all. I heard only stories, but I did work on the barren land before but never knew
33 the information. I think is important because the caribou will go back to their
34 same migration route usually they do so once this mine is not here; they are going
35 to start on their own trail again but it would be nice to know where that route was
36 so the slope can be developed on their trail.

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1 **Mona Tiktalik:** For those the landscape in years to come the grass grow again the vegetation
2 will grow again even in our communities the grass still grows because we are not
3 too concerned about it right now. The willows are getting longer and longer each
4 year and the nature will look after itself. The only concern I really have is the
5 water flowing down to Kugluktuk.

6 **Henry Ohokannoak:** When I was talking to Wayne yesterday, I started growing up in the DEW
7 lines back when the DEW lines first started in the 1950's when construction was
8 going on there and all those DEW lines, they closed. They didn't do any
9 reclamation in those sites so they just left the airstrips and the roads as they were
10 and after so many years I still go back to the one DEW line where I grew up. The
11 runway there the grass is all grown again, it's even more beautiful, prettier than
12 the natural landscape. You know the weather is not as hot as down south but any
13 kind of vegetation grows on the airstrip and roads. I won't be too concerned
14 about removing the airstrip. Maybe some parts could be taken down, but the
15 runway I wouldn't be too concerned about it.

16 **Peter Huskey:** The visit, the site-seeing we visited yesterday the re-vegetation I think it's a
17 starting point, there's a little bit of growth and the rock (test) pile I think it's a
18 good slope and I think it will be good and I think also the university students are
19 doing a good job and maybe they could make themselves available to speak one-
20 on-one.

21 **Berna Martin:** If it comes to the mining I am kind of afraid because of the example of Giant
22 Mine. It looks kind of scary for me but that's how I feel but I know that
23 everything will grow back naturally, but someday there will be berries. Can we
24 pick the berries and eat berries again? I don't think I can ever go down to Giant
25 Mine and that used to be a good place for berry picking. And the slope looks
26 pretty dangerous for me, for the animals to go up. Even the caribou maybe can
27 fall and break their legs but otherwise I am sure it will grow back way in the
28 future. I think the university students are here to learn as much as possible and
29 they should go one-on-one with the elders like Peter said and get to know each
30 other and spend some time with elders and they could learn our traditional
31 knowledge and we could learn from them.

32 **Ed Jones:** I just want to add something: it may surprise you to know that one of the main
33 caribou migration route passes over the Misery Pit right now [at EKATI]. I think
34 once it is mined out it should be backfilled with what was in it. And I think that is
35 very important to note that.

36 **Joanne Barnaby:** We would like to focus on what to do to make it safe for animals, in
37 particular for caribou. There was some discussion about whether the slope we saw

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1 yesterday was good and so we thought it might be a good idea to start addressing
2 that issue and where to put those slopes, where traditional migration routes are on
3 this island and see if we can identify a path for Diavik. We thought if we
4 addressed that early in the day then we could move on to other issues for other
5 animals. And look at the vegetation needs as well as questions of slopes.

6 **George Marlowe:** I would like to put something on -3 things maybe, - people talk about slope
7 it's okay to walk on it in the summer time but it's different in the winter because
8 every year I go to the barren land I used to go with dog team when I was young,
9 now I go with skidoo. A slope like that and people know even though the slope is
10 good it depends on if there is a north wind or a different wind as it creates a drop
11 off on the side and caribou could fall off the edge because you can't see.

12 The vegetation growing I saw fireweed growing on the side of the rock pile. That
13 means there is moisture under there and we need to talk about moisture. And
14 when they plant lichen on the new one and on the old one I don't see any moisture
15 and so it don't grow so we need to talk about the moisture. And caribou come
16 from the north and they are supposed to be here already and they aren't so there is
17 some reason why they are not here so there is something wrong.

18 **Joanne Barnaby:** Any other comments regarding the idea of trying to support the rebuilding of
19 caribou trails?

20 **Ed Jones:** I forgot to mention that the Misery Pit is located on the EKATI site but perhaps
21 we could remind EKATI to backfill that pit with material that came out and we
22 support such a project and I think it's very important that you consider this.

23 **Wayne Langenhan:** If the migration does come back this way, I don't see much point in
24 making trails because caribou will make their own trails so I don't think that's
25 really necessary.

26 **Joanne Barnaby:** So you are not concerned about the big boulders being in their way?

27 **Wayne Langenhan:** I still think that some of those boulders should be covered over or if they
28 have a crushing plant here, why don't they put them through the crushing plant
29 and make them smaller and then put them back on?

30 **Joanne Barnaby:** I think we are talking about the same thing. We are not talking about trying
31 to make a natural caribou trail, we are trying to figure out how we can follow
32 fairly closely where they would go traditionally, normally before the mine came
33 along, and just make it fairly safe to travel through using things like crushed
34 rock. Any other comments? We've heard that caribou come in from the north, we

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1 should talk about where they would leave, which direction they would be going
2 in?

3 **John Ivarluk:** I saw ground squirrels out in the field. Have you seen rabid foxes around here? If
4 so, they eat those squirrels and the ground squirrels go all around and eat what is
5 not good. That's how the foxes get rabies - from the ground squirrels.

6 **Colleen English:** We had a rabies outbreak around here 5 or 6 years ago. And there was, in the
7 end, there was 4 foxes that were identified with rabies. And then previous to that,
8 back in 2003 or 2004, we had 1 rabid fox. 2009 was probably the last rabies
9 outbreak.

10 **Joanne Barnaby:** Is there anyone that would like to try and point out on the map where the
11 caribou migration routes were before the mine was built here? We all have those
12 little maps in our papers we could mark them, we could use them to mark where
13 you believe the traditional caribou migration trails were, or if somebody wants to
14 use this big map and get up and show us where those trails were.

15 **George Marlowe:** *Marking on the map*

16 **Joanne Barnaby:** Anyone else want to share their knowledge and experience with the
17 traditional trails, caribou trails?

18 **Joe Champlain:** I'm a hunter myself. When we talk about caribou we talk about their migration
19 routes and also the Inuit, they hunt the caribou so they know the migration routes.
20 The caribou has its own routes where its migrating; it has its own route, it creates
21 its own trail but also it sees the hills and the valleys. Where the trail goes I think
22 about it the north country rock pile it probably goes through the lower areas so
23 they are not on the big rock pile. With the boulders along the side it can be really
24 sloppy but less slope, a gradual slope, would be better because the caribou makes
25 its own trail and once its moving the momentum of the caribou follows the leader.
26 I like to see the open pit myself. To see how we can improve it, what would be
27 the chemical difference if we were to put the rock back in the lake? And what
28 kind of chemistry difference will it create. I am not saying it should be done my
29 way, just to talk about it...

30 **Joanne Barnaby:** Rain information from Diavik

31 2013 2014

32 April 14.9 4.42

33 May 16.0 37.2

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1	June	50.6	12.0
2	July	55.6	33.8
3	Total	137.1	87.42mm
4	5.4”	3.4”	

5 **George Marlowe:** (Looking at the map talking about Ekati). Diavik could be blamed for
6 something that Ekati did, due to the fish being able to travel far. Why do we have
7 separate meetings here and separate meetings there when we are on the same
8 lake? Tagged nine 7 or 8 pound trout in ?? Bay and 9 days later it was caught in
9 Łutsel K’e. So we should all be working together on this.

10 **Natasha Thorpe:** I want to ask a question to clarify: are you saying with trying to direct caribou
11 migration that there needs to be landmarks farther away instead of right here?

12 **Joanne Barnaby:** I know the Tłı̄ch̄q elders have talked about building what they called caribou
13 flutters or flags. Traditionally they would cut strips of hide and put them on poles
14 as a way to direct the way they want the caribou to go. Around Colville Lake they
15 use what they call caribou fences to channel the caribou so they could either spear
16 them or snare them back in the old days. So those are old technologies that could
17 be considered now and maybe we substitute the old caribou strips for Christmas
18 trees from Wal-Mart. What is coming through here is the recognition that when
19 we talk about meeting the needs of caribou, we’ve got to look at a bigger area
20 than just the mine site. We need to also work in cooperation with other mines that
21 are in the region and probably with the territorial government too and their
22 caribou biologists and other people with responsibility for caribou to really feel
23 confident that we can find the best way to support caribou returning to the area
24 after the mines are closed. So we can talk about things that can be done here on
25 the island but I think people are also saying that you can only do so much here;
26 you also have to participate in a bigger discussion.

27 **George Marlowe:** If we put land marks for the caribou, artificial Christmas trees. That’s what I
28 told them (Ekati), too - same thing. They all laugh but if it’s going to work, I am
29 pretty sure it’s going to work, because me I got those ideas from my elders.

30 **Natasha Thorpe:** Behind the scenes there is a lot of discussion and research in looking at what
31 is going on at Ekati. For example, yesterday I talked about how we looked at all
32 those reports; many of those were from Ekati so that we could learn what the
33 elders had already said about caribou, what they have already said about
34 vegetation and tried to put that together and to prepare for the discussion later this
35 morning about caribou and about other animals such as grizzly or fox. We looked

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1 at some of those reports to learn from the traditional knowledge about what has
2 already been said.

3 **Wayne Langenhan:** This has been brought up before but I am going to bring it up again. At
4 Lac de Gras is a very big migration, and they are being interrupted by mines.
5 There are three operating mines and there is soon to be a fourth on Kennedy Lake.
6 What was brought up before is that there is too many mines in a small area and
7 what was said is that one should go down before another goes up. And this will
8 probably save a lot of problems with trying to re-route the caribou migration. I
9 think what is happening with the government letting this many mines go ahead is
10 just causing more problems than its doing well. There are plenty of jobs here with
11 the mines that we have and there are enough training jobs we don't have to open
12 up anymore mines at the present. So one has to go down and be reclaimed before
13 another can open up. I think if everyone in this whole panel, I think, leans in that
14 direction it will probably help us, the land and probably the caribou out
15 considerably. I think that there have been too many exploration camps and mines;
16 there are too many around, it's getting so the caribou don't want to move there.
17 They want to go south where the mines aren't, they see more caribou in
18 Saskatchewan than they ever have before. They are trying to shy away from the
19 mines and picking different migration routes and I think this could be solved, a
20 great part of it could be solved, with the closure of one mine before the opening of
21 a new one.

22 **Colleen English:** *Fox dens and where they are on the map.*

23 When do you stop testing? The research plots are run for 4 years, so we hope that
24 we will have enough answers for that at the end. We are also going back to the 10
25 year plots to have another look at the growth and see if we have enough answers
26 to complete that work. Plants grow slow in the north, so we may not have all the
27 answers before we have to start doing the work If A21 goes through we will be
28 using the till from there so we will be starting (reclamation) sooner than mine
29 closure. We are also going to be testing the PK in 2015 from a toxicological
30 perspective to see what chemicals are in that PK that may get into the plants, or if
31 you think about if wildlife ingested any of it as a soil itself.

32 **Joanne Barnaby:** Should we move on to other issues around vegetation and whether there is
33 anything that you are clear about in terms of where to put certain plants or
34 whether there are other animal needs that we should look at and what direction
35 should be given to meet those needs? I know there was talk about meeting the
36 needs of foxes, bears and whether we should be encouraging the growth of plants
37 and whether we should be using plants to help heal the water.

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1 **John Ivarluk:** When we were out there yesterday I was telling you migration routes are never
2 the same year to year, they change. The caribou know where to go so there is
3 more grass. Just about the same thing with the animals, you could see the caribou
4 trails over the years. It is not the only trail that caribou are going to take, its going
5 to be different from year to year.

6 **Joanne Barnaby:** It has been said many times that if caribou see a big hill like that they will go
7 on the rock pile because it's high and they would go there to get rid of the bugs so
8 that's one of the reasons we were concentrating on the rock pile and what should
9 be done to make it safe for caribou to go up there if they choose. We don't have to
10 think in terms of that's the only place they are going to go, but they may go up
11 there some years but not other years and that's fine.

12 *Break 9:55-10:25*

13 **Natasha Thorpe:** Starting at least 20 years ago the elders started marking on maps and shown
14 the traditional caribou migration routes. While we don't have all that put together
15 in a nice parcel for you today, we could try to pull that together for you so that we
16 could present your information back to you in terms of where the traditional
17 routes used to be. That might be helpful in terms of understanding how to keep
18 caribou safe. Our challenge is that we have this session to really focus on
19 vegetation and we can zoom in to an area as small as the plots that U of A are
20 working on or we can zoom back out and look at the landscape as more of a quilt,
21 more of a really varied landscape that has different pockets, different types of
22 vegetation, lakes, rivers, streams and all the different types of plants that like to
23 live in those areas, and all the different kinds of wildlife that prefer some of those
24 plants and those areas.

25 We have a large group of students here with us this morning, and yesterday there
26 were some very specific recommendations from you that might be helpful to them
27 in terms of trying to integrate traditional knowledge into their otherwise scientific
28 testing. For example, at that second stop George took me off the test plot to where
29 there was undisturbed tundra - what the scientists would call the heath tundra so a
30 mix of the crowberries and the blueberries and the cranberries and the moss and
31 the lichen. Please correct me if I am wrong here but I understood him to say that
32 to encourage lichen to grow - which is so important for caribou - what we need to
33 do is take a square or a piece of mat from the tundra and put that in those test
34 plots and see how the lichen grows using that natural environment. So as a panel
35 of experts that's something that you need to let me know if I got it right. That's an
36 example of a recommendation that could be made to replant or to re-vegetate this
37 area.

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1 **Ed Jones:** Natasha, you talk about encouraging lichen to grow, but you don't have to
2 encourage it, it will grow, let nature take its course. Why spend all this money
3 and time on re-vegetation? I think that is a waste of time.

4 **Natasha Thorpe:** You beat me to the punch, I am always 5 steps behind you. I was going to
5 say that we have this rainbow of ideas: we have one end of the rainbow where
6 someone has 700 different plots to monitor (that's a lot of sites!). So there is that
7 extreme. There's using traditional knowledge to try to mix with the scientific
8 knowledge and find good ways of replanting. Then the whole other end of the
9 rainbow - the Ed Jones side - and perhaps what we have heard from the DEW line
10 experience that our Inuit experts have shared - let nature run it's course. So this is
11 your time to explore all of the colours of the rainbow. Everybody's ideas are
12 equally important and if we have - as a group - some very clear ideas that we want
13 to share with Diavik or with U of A as well each other, this is the time.

14 **George Marlowe:** Ed was mentioning and I want to add a little bit to it that caribou, wherever
15 they travel on the land, anywhere sometimes 10,000 or 15,000 caribou they travel.
16 You've got to think about fertilizer, nobody mentioned about a fertilizer, caribou
17 poop used to be all over the land and it fertilized the land so if the caribou don't
18 come here maybe it won't grow. Maybe that is something the University students
19 could look into that too.

20 **Natasha Thorpe:** Do you want that as a recommendation?

21 **Mark Taletok:** I just want to make a few comments because my hunting grounds were not too
22 far from here. We are talking about the vegetation, we don't have plants like
23 white people do. Even our archaeological sites and camping areas and all kinds of
24 plants grow. Even today I still see the same, even though I don't go there
25 anymore. My old tenting areas and also where we tied up our dogs and their
26 droppings, the vegetation grows different there. We usually moved from camp to
27 camp following the caribou herds because they don't always use the same
28 migration routes. In the middle of August the caribou usually start migrating
29 there, for it is really nice for clothing. When the herds migrates, it starts like a big
30 herd and goes for days but it's not always the same year after year so we have to
31 move from camp to camp trying to follow the caribou herds. We either go by
32 boat and we look for the crossing areas in the lakes as well and we make *inuksuit*
33 to remind the next time where they are going to be crossing in the lakes. We don't
34 use the modern boats, we use kayaks and in the crossing areas we use harpoons to
35 harvest caribou. Back in the days it was easier we didn't have anything to worry
36 about; right now in the communities it's getting very hard when you don't have
37 any means of going out on the land. You want to go out to your traditional

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1 camping areas, but we don't have any means, we don't have a dog team anymore
2 and we don't have a machine.

3 The dump- like our garbage dump - was a bit too close to town but they moved it;
4 it was an eye sore but its better now. My grandmother used to tell me (even
5 though she is gone now) that there would be different kinds of species coming up
6 to our area in the future and last spring I saw a different kind of bird; it was a
7 yellow bird that I never saw before. As soon as I saw that bird it reminded me
8 what my grandmother used to tell me about different species coming up in the
9 future, up to our area and I truly believe what she would tell me growing up. I am
10 not really concerned about the grass and growing as Mother Nature will take care
11 of itself. Mother Nature is very powerful and grass will re-grow. I remember way
12 back when there was no caribou migration. Our way, we lived off of ground
13 squirrels even though we went to different lakes for fishing. We didn't see any
14 caribou. So later on in the fall time when the lakes start freezing and the caribou
15 start coming up, that's when we finally started getting caribou. The only thing
16 that we lacked was trying to get nice clothing, winter clothing, because that
17 summer there was no caribou herd that came our way.

18 **Mike Francis:** About caribou, old-timers used to say don't hit a caribou with a stick: if you hit
19 it with a stick it would never be back again for 4 years. Same for the rabbit; if
20 you hit it with a stick, it wouldn't be around for 4 years.

21 The caribou we live off so we have to respect and we have to care for it in a
22 respectful way. When we harvest the caribou, when we skin the caribou, we don't
23 just throw it; we lay it down gently. That's how our ancestors used to pass on
24 tradition.

25 **Natasha Thorpe:** Thank you for sharing those old time stories.

26 **Joanne Barnaby:** We are hearing a lot from everyone that it's a waste of time to re-vegetate so
27 I would like to hear from the women before we make that decision. Women do
28 most of the berry picking, women pick most of the medicine and women have a
29 lot more to do with the plants directly then men and so we could do a little break
30 off session to hear from women and then get back together and present that. If we
31 do that the men could stay together and talk about whatever you want to talk
32 about. You could talk about caribou trails or you could talk about vegetation or
33 you could talk about what to do with those areas for helping to clean the run off.
34 The water and using plants to help that along. But I guess I am not comfortable in
35 moving into the discussion much further about what to do with re-vegetation
36 without hearing from women. Is everybody okay with that?

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1 **Natasha Thorpe:** The other thing we could talk about is whether or not it really makes sense to
2 go out this afternoon to do some field work. Both groups can talk about this and
3 where we should go. In the agenda we have time this afternoon to do field work
4 and time tomorrow afternoon to do field work. However, one thing that I have
5 learned from you over the years is that we need to be prepared and that we need to
6 be ready before we go out so I want to encourage you to discuss whether or not
7 you're ready to go out and where to go and what items you want to talk about.
8 Because we could very easily prepare ourselves today, spend a little bit more time
9 in break out groups and then be very specific about where we go tomorrow.

10 **SMALL GROUP WORK**

11 **MEN'S GROUP**

12 **Natasha Thorpe:** Boulders→warmth→ground squirrel tunnels→shade for caribous

13 Shade for grizzlies→river valleys

14 Eskers→escape from insect's→dens for fox, bears, wolves→easy walking for
15 caribou

16 **Wayne Langenhan:** Were there any pictures of this island taken prior to the mine of the
17 vegetation?

18 **Natasha Thorpe:** Yes there are and we can show these. There is also a report from 1995-1996
19 by Page Burt and it's all about the plants and talks about the tundra being a quilt
20 of different vegetation types and environments. There are some photos in here as
21 well. This report was the "before picture" from the scientific point of view.

22 **John Ivarluk:** Are there pictures of caribou from then to now? Do you see a difference in their
23 fur coat from then to now?

24 **Natasha Thorpe:** I am not the right person to ask because I haven't seen the pictures myself
25 and compared them but Dianne - she is the onsite wildlife person - she might be
26 able to answer that question. What I do know is that there has been many caribou
27 monitoring programs both here and at Ekati and there's been a lot of research
28 done to monitor the health of the caribou.

29 **John Ivarluk:** A long time ago, before, when we traveled by dog team before the skidoos before
30 the miners got on the land, we used to go fur trading with caribou hide. That were
31 really nice and beautiful and the meat was really nice and healthy looking and we
32 got good prices. Now if we get a caribou from today, some of it is not even edible
33 today from the mining companies, the materials that they left but promised to take
34 out - they just leave it there and took off. The barrels, they rot and get in the

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1 water; I saw some fish floating in the lake in places from those barrels that
2 contaminated the water. Today when I get a caribou, when I skin it, I could see
3 some yellow spots on their joints, legs and elbows. It's inedible, might be good
4 for dog food I don't know. There is very few caribou surviving these days. I
5 really don't know if my great-great grandchildren will ever see any caribou.

6 **Natasha Thorpe:** I wonder whether there was something about the vegetation 20-30 years ago
7 or what caribou ate that made them different then they are today. Does anybody
8 remember the vegetation being different then than it is today?

9 **George Marlowe:** I go to the barren land- Artillery Lake - where I come from every summer
10 with the family and we go on the land and I look at it every time I go with my
11 grandkids and we sit down on the rocks or we look at the land and we see lichens
12 what the caribou eat. I don't see anything change, nothing, I never see anything
13 change yet. Where I come from, east side, all that area burned before and then
14 this summer where we go for our spiritual gathering that one burned right to the
15 lake. So I don't know what's left there, I haven't been there yet. I am going to go
16 there and see if there's lots of lichens there. It's good land and I am going to look
17 at it, what's left there, and if caribou comes back next year I don't know what
18 they are going to eat but that's what we are thinking already. People say that
19 lichen takes a long time to grow so maybe that's the reason why we don't get
20 caribou too much in Łutsel K'e now. Since that area burned, since about 8-10
21 years now, we don't have caribou like before the fire in Łutsel K'e. That bay
22 there, just full of caribou. Nobody cares to shoot them, that's too much,
23 everybody's got meat. But now, we don't have anything like that now, nothing
24 since that fire. You know those animals, those caribou, they are very smart.

25 They are not human, but they are smart. They know that in the bush there
26 on the east side of Łutsel K'e, it's all burned. They know they got nothing to eat
27 there so they know not to go there now. Since about 6-7 years now mostly caribou
28 on the barren land now all winter now once they get there they are there until
29 March, now all the boys have to go to the barren land to get caribou meet not only
30 from Łutsel K'e but from Yellowknife too. Never used to be like that before
31 when I was young. Now nothing so that means there is no vegetation for caribou.
32 Maybe people say they grow slow; so we are going to find out anyway. When I
33 get back we are going to go to Fort Reliance and see all that burned, I want to see
34 what is left there.

35 Not too long ago, 3 weeks ago, I went with my friend to Nonacho Lake lodge and
36 me and Celine we stayed there, he's got a plane so we fly half way to Stoney
37 Rapids on the tree line. We stopped there. All burned and I look at it when we

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1 stopped, I look at the ground, there I walk up a ways. Nothing left, I don't even
2 see one little piece of lichen there. Nothing.

3 We're talking about this island. I don't know why we are talking about the
4 vegetation on this island; there is lots of vegetation on the other side, north side,
5 east side, south side we've got lots all the way to Artillery Lake on the barren
6 land. No fire, there's lots of stuff to eat there for the caribou. The way it looks
7 after 2024, 2025 probably anybody comes back again. You probably see lots of
8 grass grow, I think so, after everybody leaves you'll see some maybe different
9 grass, but I don't know about that lichen; they say it grows slow. The bears and
10 foxes they will be there all the time because they live there all year. If you go
11 white fox trapping in the barren land, if you find a white fox den, boy you're
12 lucky! You know that you are going to make money right there. It's true, that's
13 how it goes so keep that den there, don't bother it, and it will grow again. I think
14 the way I see fireweed there, on the boulders, on the side, something is going to
15 grow after closure. That rock pile, somehow, just smooth it a bit for them
16 whatever they want just to make a little trail.

17 **Morris Marten:** When I worked at MacKay Lake and I guided there for 14 seasons, the caribou
18 usually come from the east side. And we used to have a pool to see what day the
19 caribou come. It was usually 3rd week of July and our boss said to shoot 1 or 2.
20 By the time we shoot them, there was no fat in them there because they were
21 migrating and there was lots of hair on the lake and shore. They go to the south
22 side of MacKay Lake to get their winter coat out and then they go back north and
23 they come around this area. In the fall in mid-August, I noticed their fat was
24 about 2 or 2 ½ inches thick. When I was out there I noticed, the kids want to
25 shoot the bull and I said no you can't, but they said its limping maybe it is already
26 shot. I said give me you spidy scope (binoculars) and his leg had swollen up. So
27 I let them shoot it but I told them they had to tag it. I had no choice; I shot it and I
28 cut the leg off and I shipped it back to the game warden for testing and the rest
29 should be okay, nobody got sick yet.

30 **Natasha Thorpe:** I am wondering how people feel about the efforts to re-vegetate. Maybe we
31 should talk about that a little bit, I hear some people saying that we shouldn't
32 worry about it, that mother nature will look after itself, but others say that there
33 are certain plants like lichen that caribou really prefer. Maybe we should be
34 encouraging lichen. But if you were to give some recommendations to Diavik,
35 what would you say about re-vegetating as they plan for closure? Would it be
36 okay if we did a circle to answer that question?

37 **Louie Zoe:** Yes in a while we can give recommendations to Diavik. I would like to touch on
38 the forest fire. There's an area near Whati, Gameti, there was a forest fire this

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1 summer and back in the 1970s there was a forest fire near our community. As we
2 live on an island in Gameti the caribou used to migrate near our community.
3 Since there was the forest fire they stopped coming. So as for lichen and the
4 caribou food, it is very scarce; the caribou, the lichen it's all been burned. And
5 with the burn there was lots of wildlife that burned. Also the woodland caribou,
6 moose, the population increase with the wildlife and the food burned, while nature
7 re-vegetates the food source I am worried about all the burn from the forest fire,
8 the food for the animals was all burned and while it will re-grow, I don't think it
9 will re-grow fast.

10 Diavik on this east island when the caribou migrates on to the island, this is their
11 main passing point but since the mine situation is there, at the time where the
12 caribou migrates across the way to BHP site at the Misery[Pit] when the caribou
13 migrate into this area, and also within the same property, also near the Misery
14 [Pit] the eskers exist and we visited that site and on that esker the caribou migrate
15 so if they have an open pit mine and build a dyke and we've been to that meeting
16 before I would just like to share that much with you for now.

17 So they are doing research on vegetation and all the North Country rock pile it
18 would be good to see the open pit and also the water plant to see how it takes
19 place.

20 **Wayne Langenhan:** I don't think from what I've heard from people I talked to here that
21 vegetation is a real big concern. I think more of a concern are the hazards that
22 might kill or maim a caribou, instead - the slopes, or some of the holes on the side
23 of the big rock pile. That might be worth spending more time on I think.
24 Vegetation, I myself believe - as well as others - that the vegetation will come
25 back in with the birds, the animals, move it around. Eventually it will come back
26 even if it takes 30-40 years, so maybe concentrate on the hazards to caribou
27 instead.

28 **Natasha Thorpe:** I think one of the questions that the vegetation crew and Diavik is interested
29 in is whether vegetation can be used to keep caribou safe. Can we plant certain
30 things in certain places to direct the caribou away from an area or to attract them
31 towards an area? Is that worthwhile?

32 **Wayne Langenhan:** What we are talking about here is actually a small island out in the barren
33 land. There are hundreds of them, thousands of them, and I am pretty sure that
34 eventually everything will fill in and take care of itself without too much
35 vegetation being put in and the caribou won't come around where they don't like,
36 and if there is no food around they will probably change their migration pattern by
37 maybe a mile or two. It depends on what vegetation that they are following,

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1 which migration route and that when there is enough vegetation for them to get
2 back to that migration route, they will again follow it if there is enough food for
3 them. So I don't think it's that big of a deal. I don't see why we have to plant
4 willows and such. It is a small island and thousands and thousands of square
5 miles and eventually it will return to better than anything [people] can make.

6 **George Marlowe:** We are talking about vegetation and the caribou too. If they don't have any
7 vegetation, they won't come around. They are really smart. We will see this year
8 because every fall Bathurst herds they cross by Fort Reliance they cross from
9 McLeod Bay towards the east and later we've got a bunch coming from Artillery
10 Lake and then they all go to the same place, they move in together. And most of
11 them they hang around Fort Reliance because it's about 30-50 miles square that's
12 not burned. Now that area is all burned this summer from McLeod Bay to all the
13 green we had it's all burned so we will see what happens this year. No fire from
14 the tree line up so the caribou will probably stay there now. We are going to have
15 ideas where they are. But I said again people say lichen burned it don't grow
16 back again I will find out, there is a big trail people go on, if that area is burned
17 and that lichen is burned that means there will be no caribou. We might see
18 tracks but I don't think they will stay there.

19 It's a working area here, things don't grow in working areas. Maybe it's not
20 going to grow. It seems like it's not changed but maybe no rain, it's really dry.
21 It's pretty hard but we have to put something together.

22 **Wayne Langenhan:** You know we've discussed this a number of times the re-vegetation of this
23 island and I mean we can kick this ball around any number of times but
24 eventually we need to make a decision. I think this is why everybody should look
25 into themselves.

26 **Natasha Thorpe:** We have the suggestion here to essentially take a vote on whether there should
27 be active planting of the site in closure. Before we take that vote, there are two
28 things I want to point out. One, there are some opportunities for community
29 members to have seed development programs. For example, in Inuvik some of
30 the aboriginal communities have a business where they're collecting native seed
31 for grass and they are selling it back to Diavik and other companies. That's where
32 the grass seed came from that you saw out there. Diavik very much wants to
33 support aboriginal business development. This is an area where I think they were
34 hoping there might be some interest. However if what we are hearing is that it
35 doesn't make sense to plant anything that's one issue. But does it make sense to
36 help Mother Nature along?

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1 **Ed Jones:** I think it would be better spent on what Wayne suggested: the sharp angular
2 boulders. This is not about supporting a business selling seeds, this is about
3 letting nature do what it needs to do.

4 **Natasha Thorpe:** I hear you loudly and you don't want to kick the ball around and I want to be
5 respectful of your time, but I also want to be respectful to all. Do you want to
6 take a vote?

7 **George Marlowe:** I like let Mother Nature heal itself. It don't matter who wants to put some
8 seeds in it, it will not grow the same as Mother Nature does so for me healing
9 itself is good.

10 **Natasha Thorpe:** One thing that can be done is to make the land rough instead of perfectly
11 smooth and when I was looking through all of these traditional knowledge reports
12 there was several times where elders said if there is a little pocket in the ground,
13 that's where a little seed will start. So can we help Mother Nature make rough
14 land, can we build areas so that there's more moisture like you were saying
15 watching fireweed grow. Is that where we should be focusing our
16 recommendations to Diavik?

17 **George Marlowe:** We could help the students to do those things. Rough land? Smooth land?
18 We cannot tell you right now, we want to wait and see what the studies say as
19 well.

20 **Natasha Thorpe:** Question "Should we tell Diavik not to plant lichen, grass, shrubs?" Yes for
21 everyone? [Nods]

22 **John Ivarluk:** There's no way we could help Mother Nature because I have seen it down at the
23 ocean, the caribou don't know if it's safe when the ice is freezing. Caribou go
24 over that's how the caribou get stuck on the ice. They don't know the ice is very
25 dangerous to cross over and you see lots of dead caribou on the ocean. So what
26 can we do with nature? We can't help nature.

27 **Mark Taletok:** In some summers, the grass grows, the vegetation grow, and some places there
28 are plenty of blueberries, cloudberry, crowberry. Every summer is not the
29 same. Some summers are really good. Where I used to do my hunting, one
30 summer nothing grow but it is healthy so in one summer when there was lots of
31 forest fire and not much mosquitoes so it was so hot one summer there was hardly
32 any mosquitoes but it was not very healthy for the caribou, and we could hardly
33 see because the smoke was so thick that one summer we could hardly see. I hate
34 to see the animals suffering from that; I watched a caribou one summer fall over
35 and die it was so hot because I have seen that happen once. I thought it was going
36 to happen again but right now it is okay because of the rain so I think we should

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1 let Mother Nature take care of itself. Same for the foxes; some winters there are
2 lots some there are not. My uncle was telling me that if there are too many
3 lemmings they become rabid. If they want to come our way they come our way,
4 we can't stop that.

5 **Natasha Thorpe:** I want to remind you that in past sessions you have recommended to Diavik
6 to return the land to what it was before as much as possible. So that is one reason
7 that Diavik is exploring different ways to replant. So when you tell them don't
8 bother to replant I am not sure if that's saying something different than leaving
9 the land as you found it.

10 The women will be back in about 5 minutes. Is there a volunteer to be the one to
11 share what we discussed?

12 **Ed Jones:** I think that you should give them the bad news: that the men outnumber the
13 women.

14 **Natasha Thorpe:** You can volunteer or I can "voluntold" someone.

15 **Mike Francis:** Renewable people 40 years ago put contaminants on the water and on the land
16 and today because these contaminants two years ago I harvested a caribou on
17 Gordon Lake and the heart was sticking to the ribs so I have taken a small piece
18 of the meat and gave it to the renewable resource people and today there was no
19 reports to the meat so some of the caribou are sick.

20 **Natasha Thorpe:** We took a vote on that first question but based on your expertise - you know
21 about how water affects plants, you know about how the slope affects plants, you
22 know about whether a hill is facing the south or the north whether there will be
23 different vegetation - are there ways that we could help Mother Nature heal itself
24 a little faster or a little better?

25 **Ed Jones:** I believe that nature knows more than we do, let nature take its course.

26 **George Marlowe:** I agree with Ed.

27 **Wayne Langenhan:** I think the way we could help nature to heal itself is to somehow when
28 these mines come into production somehow make a smaller foot print on the land
29 and maybe have a lot better planning on how the mines are going to be operated
30 and the rock being moved around.

31 **Morris Marten:** I believe in nature because when we were out on Mackay Lake there was rain
32 and lightning and there were about 30 caribous and in the morning there were 30
33 caribou cooked. I think the reason lightening struck them was because the hooves
34 touch each other, that's what makes the noise.

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- 1 **Natasha Thorpe:** There is a request for the interpreters to provide some of their input.
- 2 **Henry Ohokannoak:** Let Mother Nature take its course.
- 3 **Peter Huskey:** I think it would be a good opportunity for the University students to do their
4 studies at the same time. Let them speak with the elders and have the two ideas -
5 the traditional way and the scientific way so they have a better idea in the future
6 what they are doing today is going to help for the future generations.
- 7 **Natasha Thorpe:** Are there any volunteers to present to the women when we come back
8 please?
- 9 **John Ivarluk:** I would like to see a trip to the open pit, I would like to see the decline in the pit
10 and how deep and how wide.
- 11 **Natasha Thorpe:** You would like to go into the pits.
- 12 **John Ivarluk:** Yes thank you.
- 13 **Natasha Thorpe:** Somebody said earlier that we could let the University students do their work
14 and see what's growing and how there are ways to help Mother Nature heal itself
15 and that's coming from the scientific way of knowing. Like Peter said, there is
16 also the traditional knowledge way of knowing. Are there examples that you've
17 seen - maybe out at a campsite or where the dogs were tied up for a couple of
18 years - are there examples where you've see plants growing really well and why?
19 Are there some of those lessons that we might apply from traditional knowledge?
20 We need to decide as a group if we are going out or staying in this afternoon.
- 21 **George Marlowe:** For the visitation we should look along the airstrip and walk along towards
22 the lake.
- 23 **John Ivarluk:** The shoreline on the mine site is no different than the main camp, it's all rocky
24 this place. I believe it the shoreline depends on how much snow we have in the
25 winter and how much rain we have in the summer.
- 26 **Ed Jones:** I am trying to think of practical ways to do things and I believe we have already
27 taken a vote on whether to re-vegetate or let nature take its course, we have
28 decided that so where do we go from here. You're the facilitator, maybe you
29 could make a suggestion.
- 30 **Wayne Langenhan:** As Ed said, we're not going to re-vegetate supposedly but I think that we
31 should take a trip to the pits because there are people here who have not been to
32 the pits to see them; pictures don't mean much, you have to see them. I think we

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1 need to look at that rock pile and see how to improve that for caribou and what
2 hazards are there for when they close it up.

3 **Natasha Thorpe:** Test pile or the other one?

4 **Wayne Langenhan:** Other one.

5 **Morris Marten:** We should go check if there is any bear tracks, poop, and any other tracks, at
6 the airstrip.

7 **Mark Taletok:** I want to go to the airstrip. Maybe there will be animals or tracks. It's very
8 obvious that the caribou will come around, I am sure we will see some tracks.
9 Because the island is surrounded by water it is cooler so they will come here.
10 Even seeing the caribou tracks, it's always exciting.

11 **Mike Francis:** I think it's a good idea to check the airstrip for animals and tracks.

12 **Louie Zoe:** The re-vegetation it grows on itself and also it grows by nature and also visitation
13 of the airstrip and once we take a look we can talk about these things. And also
14 the rock pile, we've never discussed this and also take a trip to the open pits as
15 some of us want to fill these with the rockpile. Maybe we should come to a
16 conclusion and talk about these open pits also.

17 **Joe Champlain:** When we take a look at these areas, it's good to see them; although we see the
18 photos we don't how big it is, and I've never seen these areas so I think it is good.

19

20 **WOMEN'S GROUP**

21 **Celine Marlowe:** *Asks about why we weren't using vegetables to create compost on site.*

22 **Colleen English:** If it were to get set up it would have to be in a contained building and then the
23 other thing I talked about with Joanne was we would also have to think about
24 temperature so it couldn't be outside because we actually wouldn't get enough
25 good temperatures to actually start to turn that into any kind of viable soil in the
26 timelines that we were looking at. So it would have to be something that was
27 indoors, in an actively set up engineered compost. It is not set up on site now, it
28 would have to be something that we could look at doing in the future if there was
29 a need, or if we thought that we would be able to create it in the right time lines
30 that we would need.

31 **Dianne Dul:** So that idea was about setting up compost on site I am just going to go around and
32 record people's ideas here and that was by Celine.

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1 **Joanne Barnaby:** That's a really obvious question to ask.

2 **Celine Marlowe:** All that food is going to waste and then everybody is complaining about how
3 to do the vegetation, why can't they just have that? You're here to mine the rocks
4 not the animals, so just let the animals be. You know they're not bothering.

5 **Joanne Barnaby:** I guess the worry was if there was compost outside that it would attract bears,
6 foxes and other animals.

7 **Celine Marlowe:** This is an island maybe there is another island there that it could be put on.

8 **Joanne Barnaby:** It might be something that could be considered by Diavik in a modified way.

9 **Celine Marlowe:** I'm not going to say where what I was is this person kept putting in a
10 container, like every day in the evening someone goes and puts it in there. We are
11 an island with seagulls and animals get at it and whatever is there is there.

12 **Joy Dragon:** I have a question for the university students: How long does it take lichen to
13 grow?

14 **Student:** 1-2mm or up to maybe 6mm a year depending on species but some of the rock
15 lichen will take way longer than that, they won't even grow 1mm in a year.

16 **Joy Dragon:** That was my understanding. It takes a really long time to grow.

17 **Mary Rose Sundberg:** And then when you look at the forest when it's burned a couple of years
18 ago the one side of McLeod Bay the whole land was burned and two years ago I
19 went by there, because the second year I didn't go back, the next following year I
20 went back and it was nice and green, it was all burnt and then it was nice and
21 green again. So it just grew by itself again.

22 **Student:** What were the species in that burnt area, were they the same species or is it more
23 things like fireweed?

24 **Joanne Barnaby:** Did you notice?

25 **Celine Marlowe:** I never went up there to check but I went there with my mom, I said I never
26 knew there were raspberries up here and now they are growing here. There was
27 some there - I know there was - but I didn't know there was some growing there.
28 All up in the bushes in the burnt area. I kept saying there is more here, there is
29 more here. So it's interesting going to see where it was burnt and the next time it
30 was green. This time I am going to go and see what all is there. Is it only grass I
31 never really looked before. So it is interesting.

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- 1 **Student:** Do you ladies know what caribou mainly eat other than just lichen, are there other
2 species that they eat and are they attracted by certain species?
- 3 **Unknown:** You know those small little purple plants, they grow faster than other flowers at
4 home. One lady was saying they eat the small little flowers first those smallest
5 tiny pieces first. The squirrel eats the green leaves. Just tiny little plants, maybe
6 the size of your hand the purple flowers.
- 7 **Unknown:** Moss campion.
- 8 **Unknown:** The squirrels eat the leaves; you could even eat the purple flower a tiny little
9 flower. I know they eat willows.
- 10 **Dianne Dul:** So what is the ladies' take on the re-vegetation? I know the men seem to think
11 that if you leave it to nature and let it re-vegetate on its own, it is fine. Are there
12 areas at the mine site that you feel that the effort should go into re-vegetating and
13 in those areas what would you want to see re-vegetated? That's maybe what we
14 should try and focus our discussion on.
- 15 **Mary Rose Sundberg:** Have they thought about not doing anything at all? Have they thought
16 about trying to discourage animals going on the land to eat? I was just thinking
17 because of our experience with Giant Mine they really contaminated that place
18 and at one time I think they did a berry study in a 10 mile radius of Giant Mine
19 and they found that there were some contamination in the berries but that was
20 back in the 1980's when they did that test. Whether things have gotten better
21 today because I don't think another test was done. But I wouldn't want any of my
22 grandchildren or future grandchildren to ever pick berries on Giant Mine Site.
23 Whether they clean it up to industrial or residential standards I would really
24 discourage any of our people to pick anything in that area because it's already
25 dead. They killed that land in that area, even though they are trying to clean it up,
26 reclaim like what is happening here, we could never use it again. Maybe they can
27 convince other people to try to put something there that the city is thinking of
28 stuff to do. They are crazy to think like that, to encourage anyone to go there
29 unless they want to die in a few years. That's what might happen. But with this
30 place I don't know if you guys have thought about not doing nothing at all? The
31 testing that you are doing is very important; it's good to get that information but
32 at the end what if we just say we don't want no animals to come around here?
33 Let's try not to re-vegetate and if it's going to happen naturally, let it happen
34 naturally. I was just thinking about that this morning in the discussion that if we
35 are trying to keep the animals safe as well we shouldn't vegetate, because if we
36 put vegetation places where they may get hurt getting up there or going in that
37 area or even we don't know how toxic these plants will be as well then we might

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1 end up saying it's too toxic we can't allow any animals to eat it even if they are
2 eating it what's happening with those animals.

3 I'm also worried about these slopes that are being created. It looks so easy that an
4 animal go denning in there. If they put dens in those pile or that waste pile, what
5 would happen to that animal? From our experience even a dog team came close
6 to and fell into a tailings pond. By the time they were up on the hill, by the time
7 they got down to the lake to go across to N'dilo those dogs were already losing
8 their hair. The hair was coming out to a point where eventually all those dogs
9 died, all their hair came out and they died because they fell into that tailings pond.
10 It's a good thing that guy didn't fall in, it was just his dogs. He just let the dog
11 team go and they got out themselves and he walked on the land. That's what
12 happened and I am thinking the grouse and the foxes and mice maybe you know
13 that's out here and they make their home in there what's that going to do to the
14 animal? So I am just thinking in those terms whether we should try to discourage
15 animals from going in there. I wouldn't pick berries from around there even
16 though they may taste good.

17 **Joanne Barnaby:** So if the plants are taking up toxins; that's really important.

18 **Mary Rose Sundberg:** So if they do find anything in those plants or flowers or grass or moss
19 they aren't going to plant them right? They are not going to try to put them
20 around?

21 **Colleen English:** A couple of things that I think you touched on that I'd like to respond to
22 because you've raised some really good points and questions. One is that in
23 relation to would we not re-vegetate if you guys suggested that, like if you came
24 back and said look we'd rather just wait and see what happens naturally and we
25 don't want you to encourage any growth of anything. Just like everything else that
26 we've talked about, like every other piece of the mine that we've talked about, we
27 have an approved closure plan and that involves re-vegetating so if we heard that
28 very clearly from communities we would have to take it back to the Board. We
29 have to take everything back to the Board, so the land and water board that
30 oversees that piece of the closure plan we would always have to take those
31 comments back and say this is what we've heard from the communities so we
32 would like to change the plan. If it was bought into by all the communities then
33 we would like to change the plan and that would have to get approved through
34 land and water board. So we don't necessarily have complete control over that so
35 we can propose to them based on what we heard - they are always very keen to
36 hear that feedback piece from the communities and use that in their decisions - but
37 it would ultimately be a decision that came down from the board as to whether or

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1 not we could change that aspect of our closure plan. So that's always something
2 to keep in the back of our minds for the mine site.

3 So looking at the plants themselves, I think there is a couple of things we've done
4 lichen studies as well where we have tested the metals in the lichen and the soils
5 right on site as well as up to 40 km/25miles away and we've done about 50
6 different testing sites; 20 close to the mine, 20 farther away and 4 or 5 other ones
7 that were identified by elders in between there, and those were all based on being
8 key areas that caribou use. One of the things that we found from that study, from
9 an elders perspective, they did find that the dust levels were higher and visible
10 close to the mine site but that as soon as they got away from the mine site that the
11 lichen looked good, the vegetation looked good, they didn't see that concern that
12 they did close to the mine site.

13 They noticed a lot of the forage (the berries caribou eat and such) was still
14 occurring in those far field sites, with less use closer to the mine site.

15 At the same time we did the scientific portion of that study looking at what are the
16 metals levels in the lichen and in the soil because animals can ingest the soil when
17 they are eating the plants so all of those levels were then put through what we call
18 a risk assessment, which is when you say how long are caribou spending in the
19 area, how much are they eating. And we went super conservative on the risk
20 assessment so we said caribou stay here 100% of the time they eat all of their food
21 here because we didn't know; there is no hard and fast answer about how much
22 time they spend or how long they might be here or how much they eat. Having
23 done all of that, there was 1 metal –aluminum, which is found naturally at quite
24 high levels all throughout here - that came back as a higher level, but generally
25 everything else was below risk so there was no risk in terms of caribou eating that
26 metal like the metals in the lichen and the soil. Aluminum is something you'd find
27 that all throughout the north, it's not about mining and we don't have any
28 aluminum in our processes, it's commonly part of the environment at high levels.

29 **Mary Rose Sundberg:** Have you tested the natural growth around the site and how did that
30 come out?

31 **Colleen English:** I think it was something like 14 out of 20 elements that were analyzed were
32 below even detection limit. Don't quote me on this yet I have to check the report
33 for exact numbers.

34 **Joanne Barnaby:** On the basic question of whether there should be a lot of effort put into re-
35 vegetation is everybody in agreement that, that is not the priority that the natural
36 process will take care of that. Are people comfortable with that?

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1 **Colleen English:** One of the things that I saw yesterday that I was curious about from your
2 perspective is that you know when we went to the test pile that you guys walked
3 up (the smooth one), it's got till and it's got rock on top and it's been about 8
4 years that pile has been sitting there covered. And you know when we went there
5 was some sporadic fireweed, there's a couple of other little plants and then you go
6 to the veg plots and you've got 10 years of growth on those veg plots that looks
7 very different from that. That's where in my mind I am kind of asking so how
8 much do you want to help, you know, is it enough when you look at that (test
9 pile) and say that's 8 year of natural compared to (veg plots) that's 10 years of
10 assisted. Is there a place in your mind that's either a happy medium, or is it that
11 certain areas might need that help because maybe you want to see it be a bit more
12 lush?

13 **U of A:** Our research isn't necessarily to develop the communities that are traditionally
14 here but to kick-start that re-vegetation and provide some of the nutrients that the
15 material needs and then those native species - those shrubs, lichens and the
16 mosses - can come in naturally more easily on their own.

17 *Lunch 12:10-1:10*

18 **Natasha Thorpe:** I hear the session went well with the women as did the session with the men.

19 *Men's two key questions*

20 →Does it make sense to re-plant?

21 →Are there ways to help Mother Nature heal itself? The group is really looking to
22 the University Students to help with this.

23 *Recommendations*

24 →Do not re-vegetate

25 →Walk around the airstrip (especially north by the shore of the lake – look for
26 tracks, look at veg.

27 →Visit pits

28 →Visit rock pile to see how it can be improved for caribou (to look at hazards for
29 caribou and how to make it better)

30 **George Marlowe:** The reason why we had the rock pile, the highest rock pile, is we're going to
31 find out exactly where the caribou come from. If they swim across you see the
32 airstrip somewhere around there, they probably walk maybe a little bit to the
33 highest part. They might go once we make a trail then they will use that trail for

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1 sure, the other part for vegetation so something we said too. And for the pits,
2 some of us have never been down there.

3 **Natasha Thorpe:** I am going to let Diavik respond but one thing I failed to mention was in
4 previous sessions the TK Panel has recommended that the land be returned to the
5 original state as much as possible so when I suggested that if they are not going to
6 replant anything then that seems to be a little bit of a mixed message that we are
7 giving to Diavik.

8 **Gord Macdonald:** On going by the airstrip to the north there do you want to go right to the
9 edge of the water or do you want to stay on the land? On our site if you get
10 within 3 meters of the water you have to have a lifejacket on. So we can go get
11 some lifejackets that's no problem if that's where people want to go. You want to
12 walk along the water's edge and look at the rocks and things.

13 **Colleen English:** So if it's okay with everyone going out on the airstrip if we could do that
14 tomorrow that would be better because we also need to do an orientation and get
15 lifejackets and all that stuff so if that's cool we can do that tomorrow; that would
16 be great.

17 **Gord Macdonald:** We can go to a place where we can all look into the pit but we can't go and
18 drive down into the pit. So we can go somewhere we can stand on the dyke and
19 you can see all the shoreline and see all the way to the bottom of the pit but we
20 can't actually take the bus into the pit. The bus doesn't go into the pit and it's still
21 a working pit because they are bringing ore up from the bottom so it's an active
22 work area, you can only go in there with operations clearance, which we don't
23 have.

24 **Joanne Barnaby:** Women's → Main concern being the healthiness of the plants, don't want to
25 rush growth because the plants may take up the chemicals if there are any in the
26 soil.

27 **Mary Rose Sundberg:** One of the concerns I had was to maybe discourage animals from
28 coming to this place because if we do re-growth, eventually the animals will eat
29 that, the little animals and the big animals will eat it, and the caribou will come to
30 us. We need to make sure that the caribou is healthy to eat and if we start helping
31 to re-grow earlier then when it's closed and the caribou start eating all the food
32 around this area then what I have a concern about is that we eat the caribou, we
33 don't know how sick that caribou might be if we eat it. So the longer it takes to
34 re-grow, like naturally re-grow, it might be a good idea, and also a way to try to
35 discourage animals from going there is not to plant anything. Even though it may
36 be a caribou migration path, maybe we can try to help the caribou to come over

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1 whichever way their path goes and just keep going hopefully. If there is nothing
2 to eat there, they won't stop there. And the other was the slope, to leave it the
3 way it is and make it as natural as possible but the boulders I fear the caribou will
4 step on them and break their legs.

5 **Joanne Barnaby:** One idea was to make slopes around the rock pile except where we don't
6 want the animals to go. For example, at the slimes/PKC area, find ways to
7 discourage caribou and other animals from going into that area. The other issue
8 that was brought up by Celine was the idea of composting. Even though it hasn't
9 happened yet, there might be opportunities to start composting in a contained
10 area, recognizing we don't want to draw wildlife here but it would help produce
11 soil for the future.

12 People want to see the areas that are undisturbed, the more natural areas so where
13 we go on our field trips they'd like to see an area like that. And they are thinking
14 of this area down here (southwest) partly because Diavik is looking at using the
15 natural water ways that are there to encourage future run off from the PKC to help
16 clean the water before it gets to Lac de Gras so we were interested in visiting
17 there. There is also interest in seeing the North Inlet area and looking at the till
18 pile and what's happening with the vegetation there; we hear that it's really
19 growing strong there, that's because they used the material from under the lake
20 and it's got lots of nutrients in it so they wanted to see that. And the dyke, there
21 was interest in seeing the dyke and recognizing that there might be another built if
22 a third pipe is mined, so they want to learn more about the dyke system and how
23 that works.

24 **John Ivarluk:** First thing I would like to add to is about trying to keep the caribou out of this
25 area. Does she mean that there will have to be somebody here all the time
26 providing the caribou stay out of this mine site for 5 years or so before they start
27 eating from here?

28 **Mary Rose Sundberg:** No that's not what I am saying. I am saying the more we don't re-
29 vegetate the area, the caribou will come anyway. Even though we make a path for
30 them they will go anywhere, but I am really concerned if they eat anything in this
31 area it might be contaminated and not safe to eat. If it's their food, and if they get
32 sick, then we might get sick; if we don't replant then we don't encourage them to
33 come.

34 **Joanne Barnaby:** There was lots of interest in the research that the students are doing and their
35 testing and they want to keep hearing reports back on what's happening there,
36 what they are finding out from those test plots.

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1 **Natasha Thorpe:** I am hoping that we can make sure that we document our recommendations
2 to U of A about what they should or could be doing. I use that example that
3 George mentioned taking some mats from the tundra to see how they perform.

4 **Mary Rose Sundberg:** You guys have been having these session for many years and I think it's
5 a good idea to try and get everyone's perspective, especially the women. I think
6 this trip we're supposed to take a lot more women than we have here, but things
7 happen. I would like to recommend that maybe we can have just a women's
8 group up here and really concentrate on the plants and the berries and get that
9 traditional knowledge from the older ladies, the elderly ladies, that are able to
10 walk and able to travel. We need to bring these people up here, no disrespect to
11 the elderly men, the men here. I believe in Dene law, everything is supposed to be
12 equal. We are all equal people on this earth. Everybody has got their own role.
13 The men have their role, they are the providers and then women have their role,
14 they are the caretakers. I think I am an elder in training and I want to learn more
15 from the elders.

16 **Joanne Barnaby:** Checking if we haven't missed anything from our separate sessions.

17 **Colleen English:** One of the things we missed from the women's group was they requested to
18 see the PKC area because a lot of the men were in the PKC discussions last time
19 but the women haven't seen it themselves. So we could tie in that southern area
20 that the women requested and then go do an observation point to look at the PKC
21 or we could actually see the PKC from on top of the rock pile. So if you wanted
22 to, we could do the rock pile and the south side.

23 **Joanne Barnaby:** So does that make sense? We will do the rock pile and the PKC and then that
24 southern area where the water drainage is and potentially where a new rock pile
25 would be formed if there is a new pit.

26 **Colleen English:** View into the pits would be tomorrow as well with the dyke.

27 **George Marlowe:** What Mary Rose said, I like the idea of having only women coming here.
28 The reason why I am saying, it is not all women work with caribou hide.
29 Something that I am finding out from my wife that I never told her when we used
30 to go hunting, when we were first married, when we collect the hide it was good.
31 Lately every time I skin caribou I give it to her because she does a good job, takes
32 the hair out right away. Now she looks at the hide when I am cutting caribou and
33 this hide is not very good. I don't know why and she puts it away.

34

35 ***FIELD TRIP → South area, rock pile, PKC***

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1 **Joanne Barnaby:** A round table to check with everyone to see if you have any thoughts on
2 what you saw today and then spend some time talking about what we should
3 focus on tomorrow so that you have time to think about that tonight.

4 **Mark Taletok:** Good afternoon. What I saw today is good. The rock pile was taken from the
5 open pit, all the flowers are growing, it will be growing lots again in the future.
6 We could see lots of flowers growing: there will be more in the future.

7 **Mike Francis:** The look around was good. I see no rabbits.

8 **Joe Champlain:** The things that we see, if there is improvement in the future when they work
9 on this rock pile - the slope - can be much more favorable for wildlife would be
10 good. If the slope could be like what we saw yesterday (test pile), that would be
11 good.

12 **Celine Marlowe:** I was happy when I saw some foot prints of old caribou trails. Where we
13 went on the high ground, I saw some old tracks there and I saw caribou droppings
14 and I could see where it ate some of the leaf branches; there are some plants there
15 they can eat.

16 **George Marlowe:** What I see there is really good but at the north end of the pile you have to
17 make a slope, not really all the way, but make a caribou trail to pass up to higher
18 and then another one at the south east end to come down, some kind of a slope for
19 caribou. Then a second one is when I look at the waste material (PKC) there.
20 Right at this time I don't want no animal to come down, don't make any pass for
21 caribou to come down there. Leave it the way it is until maybe 2021. The third is
22 maybe, where we went, the last one, you see where it's going to be a third pit in
23 the ground. Some women pick berries, it looks really good. Something like that,
24 they are going to have a stock pile there, though, right where we were, but I was
25 looking at the other side at the small lake, try to keep it the way it is as much as
26 possible for the animals to pass again.

27 **John Ivarluk:** From what I have seen up there, it looks pretty good for replanting itself, except if
28 they could decline a little bit on the main high part, make a gradual slope on the
29 rock pile. Otherwise everything looks pretty good the way it's been before the
30 mine started.

31 **Mary Rose Sundberg:** What I saw up on the rock piles and the natural surroundings that we
32 went over, especially on top of the hill, there we are talking about and thinking
33 about the safety of animals. I am pretty worried about the animals because you
34 see all these boulders and sharp rocks and that's not safe. Definitely something
35 has to be done. The other things that I heard earlier when this whole process
36 started the people wanted the landscape to go back to the way it used to be as

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1 much as possible. I think that is impossible to do, looking at what has been done
2 but if that is one of the recommendations that is going to be done, I think we have
3 to make it accessible for any animal to go on it. So that means we have to kind of
4 round it off you know what I mean. Kind of make it like the landscapes that you
5 see all around here, most of the lands around here are not just sharp it's like a
6 slope so something similar to that has to be done. And when we were up there I
7 don't know what the plan is but I see a lot of berms all around on the top, those
8 berms right now as it is it's not high enough if they are trying to prevent animals
9 to go over they can go over that berm easily. I don't know what the plan is for
10 those berms on top it either has to be sloped off or else it has to get higher to
11 prevent animals from going over.

12 The other natural areas that we went we saw a lot of berries and vegetation. Once
13 the A21 goes ahead that means that whole area is going to look like the area up on
14 the hill we went up on. Every time I come to the barren lands it makes me think
15 about my grandfathers and all our past elders they used to travel on this land, they
16 used to live up here, they used to have to come here to go hunting for their people,
17 for the family, and working up in the tundra and the barren lands is very difficult -
18 you have to be skilled, you've got to know what you are doing to work up here
19 and I am thinking about all those things. They were powerful people, they were
20 strong people to be able to work on this land and it saddens me at the same to see
21 all that ugliness that's what it looks like the blasted rock and I am telling you like
22 it is. I also hear all the good things that are happening to reclaim the land but I
23 think just kind of happy that you guys have the elders involved in the TK. The
24 land renews itself, each year it just replenishes itself naturally.

25 **Ed Jones:** I believe that once the remediation is complete there won't be any berms at the
26 top of the piles and as for the caribou they won't be climbing any high walls they
27 will be looking for the easy way to the top.

28 **Wayne Langenhan:** From what I heard around the table here, I don't think I have any more to
29 add it has been covered.

30 **Morris Marten:** I see that those big rocks I was wondering about in fall time when it rains and
31 caribou migrate and it's icy and they would just go tumbling down to the
32 boulders, I guess they are smart enough to follow the shore line I was looking for
33 a rabbit dropping but I haven't seen nothing and I had binoculars looking for
34 ptarmigan and wildlife I guess they are not coming by yet.

35 **Joanne Barnaby:** Thank you, we need to begin formulating the recommendations for Diavik,
36 they have asked us several questions that we should try and address, we've got
37 some consensus on some of the basic issues but we need to get more detailed. We

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1 were thinking that tomorrow we might be able to spend some time talking about
2 what to do with the roads, we understand that you don't want a lot of time and
3 money spent on re-planting but we still need some direction on what to do with
4 things like the roads and the airstrip and if there is any more detail on what to do
5 with slopes on the rock piles both the existing rock piles and a possible new rock
6 pile in the future so that wildlife are safe and the ability of nature to re-vegetate in
7 a natural way over time perhaps is taken into account as we give that advice.

8 So in terms of how we work tomorrow we can look at breaking into groups again
9 if you want and spend part of the morning doing that, how do people feel about
10 doing that again? Did that work okay today? So we can do that again tomorrow
11 and we've still got plans for another field trip tomorrow by the sounds of it. If we
12 end our field earlier tomorrow, I think we need to otherwise we only have one
13 morning for recommendations, so we can start working on those
14 recommendations after our field trip tomorrow because we haven't got a very
15 clear set of recommendations out of the session yet. We have a good start but we
16 need to make sure everyone is clear on what our recommendations are.

17 **Natasha Thorpe:** While you are going over your transcripts tonight I will try to make sense of
18 the many sheets we have here [on the wall] and try to group them a little and see
19 if they can help us with tomorrow thinking about recommendations. As you've
20 been talking throughout the day I have been trying to write down some key
21 points.

22 *Done 4:10pm*

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1 **Day 4: Sunday August 17th, 2014**

2 **Joanne Barnaby:** Good morning. Going over the recommendations handout.

3 **Natasha Thorpe:** Panel Recommendations to Diavik

4 74 71 from panel, 3 from EMAB

5 46 Supportive response

6 5 Out of scope

7 23 Not supported (5 relating to slimes)

8 **Joanne Barnaby:** We wanted to bring this out because some of the recommendations that have
9 come out now contradict previous recommendations. So we want you to be aware
10 of that.

11 **Natasha Thorpe:** Around the room are the key points that have come out over that last couple
12 of days.

13 **Ed Jones:** Before we go further I want to mention one of the recommendations that we made
14 asking Diavik to perhaps add betonite to what you call slime and that would
15 solidify the slime. Diavik states it would be too costly, but Wayne and I have
16 discussed this and we were thinking they don't have to solidify the whole thing,
17 they could solidify enough on the surface to support say the wildlife to walk on.
18 Betonite if you don't know what that is, its' a clay material that when you wet it,
19 it expands and seals and it would be the ideal I guess you would call it chemical
20 but it is inert and you could solidify the surface of this and you wouldn't have to
21 do the whole thing. As I said Diavik is complaining that it is too costly but they
22 could cut the cost by doing the surface only.

23 **Natasha Thorpe:** Power point for Recommendations-Re-vegetation, Rock Pile, Roads and
24 Airstrip.

25 **George Marlowe:** The Diavik island when I first came here way back in the 80's it was not that
26 rough, it was a little bit smooth to walk around, like where we walked yesterday it
27 was like that. So if you want to put a lay down to make it rough but it wasn't
28 rough back then so maybe we don't want to do that. It wasn't rough it was nice to
29 walk on before and maybe we just keep it that way. When I look at it yesterday
30 we went to the highest part and we seen some caribou tracks up high so that
31 means animals have been there already I don't know how many but they have
32 been there. The slope there on the north is too big but the east end where the A21
33 there is going to be a pit again and yet where we were yesterday there is suppose

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1 to be a rock pile there but I think in 5 years when you are taking the rock pile out I
2 think you shouldn't put it too high, flatten it as much as possible. When I look at
3 the land there I think that's what they should do there, that means when it's closed
4 you won't have to do too much on it. Smoothing the rock pile I can't make
5 suggestions myself; we've got a lot of people in our home town, chief in council,
6 the public so that's what's my idea and when I go home we will talk about it
7 again.

8 **Joanne Barnaby:** If they make the new rock pile shorter, the rock pile would take up more
9 space on the ground.

10 **Mark Taletok:** My comment is when I used to live inland we used to walk to the mine it got
11 named Lupin when they started to build the airstrip I wasn't too happy because
12 the caribou used to rest and feed there waiting for the weather to get cool out
13 before they started walking and it's a really high area. My wife and I we used to
14 walk to the mine site to visit, we walked around because it was closed and there
15 used to be caribou that was hurt, I never used to kill them even though they were
16 hurt because it was too close to the mine. I really pity the caribou because they
17 get broken legs; it's been a long time now. They built the airstrip too high, the
18 caribou used to rest and eat around that area and when Lupin started building the
19 airstrip I used to think and I didn't like it. We used to have meetings before. We
20 used to catch fish and we used to go fish in that area and we hardly go fish again
21 because there were lots of white people and we were scared by them. The fish is
22 migrating in the water they go by the shore in the fall. We used to use bow and
23 arrow to hunt caribou there. And when they started making a road there we were
24 not happy because that was where the caribou used to swim across there and a
25 trail there for caribou to migrate. I learned there with bow and arrow to hunt. And
26 sometime we used to see caribou in the evening when we had meetings we would
27 go by that lake and they were deciding which places they were going to build the
28 road.

29 **Natasha Thorpe:** Thank you Mark.

30 **Joanne Barnaby:** The concern yesterday was if we re-vegetate we encourage animals to come
31 here and they might get poisoned by the plants then the people who eat them may
32 as well. If we let the re-vegetation happen naturally it would take longer and
33 hopefully by then it would be healthy.

34 **Ed Jones:** I don't care for the term 'encourage'; we don't have to encourage anything, it will
35 happen naturally. And as for re-vegetation or anything like that, the animals are
36 not going to eat anything that is poisonous or hazardous to their health so I don't

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1 think you need to worry about wildlife; they know what is safe to eat and what
2 isn't.

3 **Mary Rose Sundberg:** I still have concerns regarding that but what I want to hear is the opinion
4 of Diavik and the students here whether they think that either way, either to re-
5 vegetate will be healthy or are they thinking about our opinions about letting it
6 grow naturally or help it to grow or if we do help it to grow how healthy are these
7 vegetation going to be so I would like to hear what Diavik would say and also the
8 students that are helping.

9 **Colleen English:** Good question Mary Rose. Diavik does not have final say, we report to a
10 Board and our water license is tied to our closure plan. Anything we do related to
11 closure has to go through approvals under the land and water board that oversees
12 Diavik's water license. So if we heard back very strongly from you, and if that
13 was supported at the community level - like through your bands and organizations
14 - that you didn't want Diavik to re-vegetate, then we would have to put that
15 through the land and water board for approval under the current closure plan. I
16 would say that it's unlikely that they would approve 100% no effort on re-
17 vegetating around the mine site. I would think they would want to see some
18 efforts made by the company and I would think that Diavik would probably want
19 to do some initial assistance in terms of trying to re-vegetate a little bit. But you
20 know it's easier for them to try to find a happy middle ground if we have that
21 feedback from you and the communities, and what the current plans are.

22 The other thing we talked a little about in the break out session was the biggest
23 concern about toxicity or chemicals in the plants relates back to what we use as
24 the soil. We have committed to testing the processed Kimberlite, and the plants
25 that are growing from the processed Kimberlite, and we want to know if there is
26 chemicals that are obviously going to come into the plants through that. We need
27 to know that because if it's not a good material to be using to grow plants or to
28 have even just available for wildlife that are maybe just walking through, then we
29 want to make sure that type of material is contained. So the plants aren't the
30 problem, it's what they are growing in and what might cause the problem in the
31 plant. So we want to make sure we are using the right materials to grow those
32 plants.

33 **Valerie (U of A):** So for the research project, the focus is on understanding if the substrate
34 materials we are using are safe for the plants, so one of our plots is being used to
35 test if metals are being brought up into the plants and this research project is to
36 provide some insight into how to help assist re-vegetation and then allow natural
37 recovery to play a role as well.

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1 **Joanne Barnaby:** Colleen could you comment on the question right now within Diavik on
2 whether you want re-vegetation around the PKC and what your reasoning is for
3 your position on that?

4 **Colleen English:** Some of that information on the side where we say we've got 74
5 recommendations and about 23 are not supported, a lot of those not supported
6 ones came from the last session during the PKC, and a lot of it was related to the
7 slime removal and the re-vegetation efforts within the PKC. Now there seemed to
8 be differing opinions after the last session, but Diavik's view is certainly that we
9 do not want to re-vegetate within the PKC; our preference is to contain that PK
10 material under rock layers and have a small pond in the middle for the water to be
11 able to get out. And the bulk of the reasoning for that is you saw the area
12 yesterday and you saw how big that area is and the materials in there are very
13 light - you felt them out at the re-vegetation plots - they can easily move by wind.
14 So our preference is to contain that material so that it's not blown by the wind and
15 disbursed around the mine site or elsewhere and to not focus on re-vegetation
16 within that area.

17 **Louie Zoe:** As we are talking about the re-vegetation even out of the North Country rock just
18 for instances our tour yesterday you saw the wildlife, there is growth on the land
19 the food is easily accessible even the North Country rock pile. When the wind
20 blows and the dust blows in all these crevasses and that's what goes into those
21 crevasses maybe there will be growth. On our tour there is lots of food for the
22 wildlife but if we improve our re-vegetation but if there is going to be A21 then
23 there we will have to spread out evenly so that it's not too high.

24 **Mary Rose Sundberg:** Thank you what Louie said is correct it would be good to talk about
25 these things in that manner but as for us living in Yellowknife, those who was
26 involved in these meetings are not here with us so some of the things that we are
27 talking about we're not very aware of so we're questioning these
28 recommendations. It is very difficult as leaders to make a decision; there are still
29 chief and councilors, we have to question them, and also from our communities
30 we have an elder senate that represent these issue and topics we are talking about
31 so we have to approach and question our elders senate. They are the keepers of
32 our knowledge and they are our elders; we still have a lot of elders, it would be
33 good to question our elders in our community. It would be good if we don't make
34 a decision at this time but I thinking if we ask our elders that's what I think about,
35 that I am just gathering information at this session. And I just want to share that
36 with you. We have our elders at home and we should bring this question home to
37 them within our communities and maybe Diavik can arrange that for us. At times
38 they would have a community meeting and they talk with the elders and these

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1 things are taking place; the recommendations are put in place so they should be
2 shared with the elders and I'd like to put it as a recommendation.

3 **Joanne Barnaby:** Its interesting because there are mixed feelings about re-vegetation and
4 maybe we need more information from the elders back at home so maybe we can
5 resolve the mixed messages the mixed feeling about going one way or the other
6 with re-vegetation. There may be opportunities to have that discussion at the local
7 level with some support from Diavik for encouraging that particular discussion on
8 a broader basis.

9 **Colleen English:** We do meet with the communities but how we meet with them depends on
10 what the community wants.

11 **Natasha Thorpe:** The photo I put up is where the testing is going on for what can grow in it and
12 also if chemicals end up in the plants.

13 **Morris Marten:** What Louie had mention he is correct in saying wildlife food is out on the land
14 in nature and when they blast and then move the rock then the dust goes in the
15 wind, and when it rains it will seep into the ground and probably go into the
16 water.

17 **Joanne Barnaby:** Discussion on Roads – picture of different options.

18 **Colleen English:** Mine site roads have big berms and they are like that because of the big
19 trucks; regulations say that the roads have to be that big and the berms have to be
20 that high.

21 At closure that can change. Slide shows three options: 1) high berms stay and the
22 road is dug out in the middle, 2) create a dome shape by rounding the roads
23 upwards, or 3) push out the road and berms to create a nice slope with a flat top.
24 More of the tundra would get covered with the last option because of pushing out
25 the material so that it's not so high.

26 The other thing that we can think about and discuss that Natasha highlighted as
27 one piece of the recommendations that you've had in the past is whether or not to
28 scarify, or rough up the surface of the roads, so that it makes it easier for plants or
29 seeds to try to get in there and establish themselves.

30 **Natasha Thorpe:** In the past you have said not to rough up the roads, not to put vegetation on
31 top of the roads, but to put vegetation on the side to help with filtrating water and
32 stability.

33 **Mark Taletok:** If this is going to be the case my recommendation would be the last one (3). I
34 don't like the idea of the first one (1) but that last two (2 and 3) I don't have any

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1 problems with as long as it's not a steep slope. It's too steep the first option (1). I
2 know the vegetation will grow in time in the last two options (2 and 3). I still
3 remember the old roads the grass is growing on the roads.

4 **Joanne Barnaby:** Any other questions or comments or other ideas.

5 **George Marlowe:** For the road now today the mine site at the highest part up the gravel pit you
6 have to have the berm for safety. Without safety, workers could get hurt. On a
7 mine site you have to have a berm for safety. I seen one accident and that was
8 enough for me, I was close to the airport and they didn't put a berm on it and a
9 driver didn't want to hit a caribou and went off the road and tipped over but
10 landed on a soft fox den, it was lucky for him.

11 **Natasha Thorpe:** George what about closure when this place is no longer a worksite?

12 **George Marlowe:** For closure for me the bottom idea (3), the last idea a little bit flat and not
13 steep, that's the one we chose for the same meeting with Ekati. That roughing up
14 is too rough even for caribou and for people to even walk.

15 **Joanne Barnaby:** Is there any place after closure you would want to see berms.

16 **Wayne Langenhan:** I can't remember if there was a big culvert we saw whether it was at this
17 mine or at another mine but there should be something for that if there are big
18 culverts going underneath, I guess it was the other mine. I don't see the point of
19 having berms once closed; I also don't see the point in scarifying because the
20 wind and rain will take care of that.

21 **Joanne Barnaby:** Okay any other questions or comments?

22 **Colleen English:** If we head out this afternoon, a lot of you have said 'gradual, gradual,
23 gradual' if you can look around when we are driving around and show me an
24 example of what you think is 'gradual' and what would be a good slope for the
25 sides of the roads? That would be really great if you could point that out as we are
26 driving around.

27 **Wayne Langenhan:** On that small pile that we walked up, the test pile I think the angle on that
28 would be sufficient.

29 **Ed Jones:** Joanne I think we're discussing a lot of things that nature will look after, just
30 leave it and everything will be fine.

31 **Joanne Barnaby:** But Ed a lot of people are saying that they don't want to leave the roads high,
32 they want them brought down and they want them sloped.

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1 **Ed Jones:** Well I believe the weather will bring that down, flatten it or whatever, like I said
2 nature will solve a lot of these problems, we are getting involved in something
3 that nature will naturally look after, that's what I am trying to get across, over
4 time look at the end of the remediation that's after closure and remediation is
5 completed and years down the road you come back, you'll see a totally different
6 picture and you'll say to yourself gee we worried about all these things and look
7 at it now nature fixed it all remember in life everything will balance itself you
8 should know that if you had some religious training.

9 **Joanne Barnaby:** Clearly there are different views on how much should be done. And in my
10 own experience I lived around the Pine Point area where very little was done and
11 they walked away and that's 30-40 years now and there is very little vegetation
12 and very little wildlife returned to the area and it's still a waste land so my
13 personal experience is you'd better do certain things to clean up the mess you
14 made and the changes you've made to the land, you better do certain things to
15 help nature recover. So that's my own personal experience.

16 **Mary Rose Sundberg:** A couple things I want to say the three choices we see on the board and
17 I agree with the third choice (3) I think it makes more sense and is easier for
18 animals and it won't be too high. And what we are trying to do here I understand
19 what is being said here and I agree and I disagree all at the same time, for two
20 reason, we need to help nature I guess to re-grow and I understand things do
21 happen naturally time will take care of itself yes but what happened on this land is
22 not a natural, man has made this big mess I'm sure they are happy with all the
23 money but it's not a natural thing that happened here so we can't leave it to nature
24 this company has to make sure like some people said to try to go back as natural
25 as possible but that would never happen. I too live next door to 2, 3 mines in
26 Yellowknife and they are doing reclamation right now. The government is
27 saying, the city is saying oh eventually people can live here once we reclaim the
28 land. I say I do not want my grandchildren; future generation to live on that
29 arsenic there is no way they are going to get my people to live on that arsenic.
30 Maybe some other people unknown to the land and once they start seeing grass
31 and trees growing they are going to say wow cheap land maybe I'll buy this and
32 build a house here. Let them do it I am going to keep this information to my
33 grandchildren to my next generation to tell them to never to use that land again
34 because that land is dead it's going to be a similar thing here that is why I have a
35 concern about re-vegetating but I don't want to disrespect previous decisions that
36 were made and I have respect for those elders and people that came here for this
37 meeting they must have a good reason why they recommended those things.
38 That's why I am saying the elder's senate. Yes I see the recommendation here
39 where that information had to go back to the community and this is relayed to the

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1 people but if you don't take something like this and guide it right through, take
2 this and go to the community and go to the elders senate, it won't happen. I live
3 there, I sit on council. So we've got to make sure that this is guided right to the
4 grassroots of the people and get their own opinion when you come to our
5 community on a yearly basis. You've got to make sure this happens because
6 sometimes it's easy to come to these meetings and then go home and we don't go
7 back and present to the chief and council. Or we don't say these are all the
8 important things that were said here. I want your opinion that's part of our job I
9 will do that as well.

10 **Joanne Barnaby:** Thanks Mary Rose, Wayne.

11 **Wayne Langenhan:** I don't know how familiar the people are in here with the different mines
12 but I know that when you are mining for a base metal such as copper, gold, iron,
13 or silver whatever you are dealing with a lot of chemicals that are never ever used
14 in a diamond mine. There are not big tailings ponds like around on these other
15 mines you know such as Lupin or Giant Mine, Con Mine that were gold mines.
16 Diamond mines you don't see that. The biggest diamond mine in the world is not
17 as filthy as the smallest base metal mine in the world because of the toxins and
18 chemicals that are used to process these ores to get the metals out of the rocks and
19 such. Here is just a matter of crushing and picking. We have a by-product of
20 kimberlite which is I don't think very toxic and so we are looking at a totally
21 different picture here as to any of the mines like lead, zinc mines or silver like I
22 said copper, gold whatever. So diamond mining is very, very clean mine
23 operation, you don't have to worry about all these toxic chemicals flowing into
24 the water system. There are a few that they use, mostly likely but they are in such
25 a small quantity compared with the other mines that I don't think there is a big
26 worry here about it. Mark he's been over to Lupin Mine with big tailings pond,
27 Giant Mine, Ptarmigan Mine and Con mine all have big tailings pond's that are
28 like Mary Rose said I would never build a house on those things I wouldn't care if
29 they gave me the land it's just too much stuff in there but here this area is a whole
30 different ball game.

31 **Ed Jones:** I don't think I should say anymore listening to the different opinions. I should
32 keep my mouth shut, let me finish, I think it's well put by Mary Rose. I agree to
33 disagree.

34 **Sarah:** What is an acceptable time scale by the elders if you want to do natural re-
35 vegetation? How long is acceptable for natural re-growth to get to a point where
36 you are comfortable?

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1 **Joe Champlain:** During our discussions we are listening to and thinking about the wildlife
2 when the wildlife eats its food, the wildlife will smell its food before it consumes
3 it. Maybe three or four years just because they use haul trucks and there are
4 fumes from the haul trucks.

5 **Joanne Barnaby:** Any other comments on how long people think for natural vegetation to
6 come back or what we can expect there? I think people have a hard time with
7 what's acceptable because whatever is natural is acceptable. The students are
8 saying it's not natural anymore because of the mining activities so what can we
9 hope for, what can we try and encourage so that it comes back in a good time.

10 **Natasha Thorpe:** Two comments from past reports were 100 years another was 30-40 years.
11 Nature will take its course but so will the regulators. They will not let Diavik
12 walk away. So you have the opportunity to help guide them in an area that is
13 unnatural now.

14 **Mark Taletok:** My comment I wanted to say I know where we live its really nature going fast
15 even roads and the tree's are growing around and the willows are really growing
16 long. It's really full of willows even around our houses right in our town and just
17 like it's really growing fast even nice flowers are growing. Sometimes we see
18 different flowers in Kugluktuk going to Bloody Falls where we used to go fishing
19 now it's really different because willows are growing in the trail and in the future
20 I think it will be like Yellowknife willows. I always tell my wife that nature is
21 growing faster than it used to be. Sometime I always think that people always
22 lived long time ago because they always know if it was going to be windy,
23 stormy, rainy and the people who used to live there camping and they left the
24 camping places and now the willows are really long and I guess the nature is
25 growing really fast even when we go by Honda, I never used to go by Honda
26 because I just have dog team. Our water is getting low also in our river and we
27 always see lots of rocks and we don't get much snow. And sometimes there are
28 fountains coming out of places that there used to be no water but it used to be
29 really cold and there was ice in between some surfaces but now it's too warm.
30 And now you don't drink cold water anymore it's warm. The ice is melting away.

31 **Joanne Barnaby:** Clearly it is getting harder to predict with the climate change that is going on.
32 I think everybody agrees that it's going to keep getting warm; there is probably
33 going to be less water, lower rivers.

34

35 Break 10:10-10:30

36 MENS GROUP

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1 **Natasha Thorpe:** Using the map to show areas where **RED- You don't want wildlife to go**

2 **GREEN-Encourage re-vegetation or re-growth**

3 **BLUE-Encourage wildlife through modifications**

4 **Unknown:** That would be very hard because you can't tell the wildlife don't go here but you
5 can go here. He's still going to go there.

6 **Natasha Thorpe:** It is true wildlife have a mind of their own and they are very smart - you've
7 said that.. If we don't say something into a microphone it won't get recorded.
8 Whatever you say will not inform your process.

9 We have one big map to mark but you also have your own maps if you would like
10 to use those.

11 **Natasha Thorpe:** So George you are marking with a red pen. I will let you describe.

12 **George Marlowe:** Because they have waste kimberlite there, they have that cloth and the waste
13 kimberlite on it so the water doesn't go down; they try to have the water not to go
14 this way. That's why they have that cloth underneath. So 2021 you got 2 more
15 years to work on it 2023 it will be shut down so me, yeah that for my waste they
16 dump it there right now.

17 RED GM1

18 **Wayne Langenhan:** Okay we are going to do this in three different stages right, the red, blue
19 and green. Okay so we are starting out here with what George said he doesn't
20 want the wildlife to go through. This is the red zone. But that isn't really
21 necessary, but we are starting out there with the legislators or whatever we call
22 them here, they are bound and determined to put some grass or berries or
23 something down here right, they want something grown here right. We were all
24 in agreement yesterday that we'd let nature take its course so if we are going to
25 put something down why don't we just put here and there and not all over.

26 **Natasha Thorpe:** That's fine this is your time do as you wish. So Wayne your suggestion is to
27 mark all the red areas first. Is everybody okay with doing that?

28 RED W2

29 **Wayne Langenhan:** I think the pits are a little too deep for animals to crawl out so I marked
30 around both pits and I will mark around the third pit, I think George got that third
31 pit.

32 RED M3

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1 **Morris Marten:** I don't want wildlife to go down there and start drinking that slosh water or
2 whatever it is. And the bear will go there to cool off so it's better off to just
3 barricade that place, that area.

4 **Mark Taletok:** For me the part that they marked red after myself the water is too close to there
5 so I don't want any wildlife going into that area but it's going to be very difficult
6 to try and protect the wildlife from going there. So maybe we put like Morris said
7 earlier put a barricade around that area and so if I have been seeing this area
8 whenever I come here and there is never any change in that area at all so I don't
9 want caribou or any wolves or any other source of wildlife that goes to that area.
10 I think it's going to be very difficult to try and prevent them from going there.

11 RED JI4

12 **John Ivarluk:** I believe this is one of the dangerous parts including the tank farm, the fuel is not
13 too healthy for any wildlife. I believe there will be no planting in this part as well
14 as in here.

15 **Natasha Thorpe:** No planting in the South East corner by the fuel tanks and also by the North
16 West corner.

17 **Louie Zoe:** The mark that I made the PKC it probably seeps into the water and the wildlife if
18 it's going to consume water, drink water to prevent the wildlife from getting sick
19 so when the caribou migrate in this area it would be good if it's identified and
20 make sure the wildlife don't come into contact with this area.

21 RED L5

22 **John Ivarluk:** Sewer line?

23 **Thorpe:** We can ask Diavik where the sewer out fall is but everything is treated first before
24 it's released according to the water regulations, according to their licenses.

25 **George Marlowe:** How about a sewer line going to Lac de Gras?

26 RED MF6

27 **Natasha Thorpe:** Does anyone else want to mark no go areas to deflect or deter wildlife?
28 Before we talk about some areas that we are okay with wildlife going to, such as
29 the slope, mark areas that we would like to allow wildlife passage, or wildlife
30 eating or wildlife moving through in a blue felt.

31 **George Marlowe:** I don't know too much about how steep the slope is here; I don't know how
32 many feet so I can't say where the wildlife could go, what do you think? The deep
33 slope here the wildlife cannot go on top unless they go on the road.

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1 **Natasha Thorpe:** Right. So that is the way it is right now but you can give advice for closure
2 about where they should make the slope more gradual. So if you mark on blue
3 areas where you think it should modified, the slope, that would be helpful.

4 BLUE GM7

5 **George Marlowe:** You want to put another one here?

6 **Natasha Thorpe:** We don't need to put anyone's name on anything we can just highlight the
7 areas.

8 BLUE GM8

9 **Natasha Thorpe:** Would you rather we not record names?.

10 **Mark Taletok:** No names.

11 **Participant:** I think we have to bear in mind at the end of mining the picture is going to look
12 totally different and I don't know why we are drawing lines or making plans right
13 now for the end of mining. We should be doing this in the later stage of
14 remediation that's at the end of mining and into remediation. I think it's too early
15 to be doing this stuff.

16 **Natasha Thorpe:** So just to remind everybody, it's not too early because they are starting next
17 year or the year after with changes in the slope. They don't want to wait another
18 10 years before they do anything. They want to start as soon as possible, trying to
19 heal the land.

20 **Participant:** The picture you are looking at is going to be totally different years down the road
21 you're going to have a totally different picture.

22 **Natasha Thorpe:** Are there any other areas we want to make some modifications on slope?

23 **Participant:** I would like to say something before anyone puts anything else on here. At the
24 beginning of the mine, the big shots come and visit the town letting us know that
25 they were starting this mine and they put away so much money for the closing to
26 clean up as much as possible after they are done. So why are we doing this for
27 them?

28 **Natasha Thorpe:** The reason that we meet as a TK Panel, the reason that Diavik meets with
29 communities, is to get you to document your wisdom, your expertise, your wants,
30 your needs . . . it doesn't mean that they are going to do everything you say but if
31 you say nothing then they will only use science, they won't use any traditional
32 knowledge. So it's not perfect, I hear that sometimes this is frustrating, sometimes
33 it's hard to see where all your hard work is going but I want to remind you that of

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1 74 recommendations, 43 of those have been accepted by Diavik. So if you never
2 said anything, you would have zero.

3 **Participant:** Yes it's never perfect, once you move a rock, it is never the same, not like the
4 way it was before when you walked on the land. You've got no track there but
5 when you move a rock it's not perfect anymore. Not like the nature. Yes that's
6 what I am talking about at the beginning of the mine life, before they start, they
7 make a statement that they will put it back as close as possible to nature the way it
8 was when it first started. That I have been in the mine site before this it's never
9 the same they just leave the garbage there and they take off.

10 **Participant:** In Ekati mining areas, they put metal fencing around, it's just like fish nets, it
11 surrounding so that any caribou and any wildlife don't go into the camp so that
12 way the caribou detour towards the east part of the mine. So that way the wildlife
13 doesn't wander into the camp. That is working very good so when you see
14 caribou coming around they go around the fence. So that would probably be the
15 fastest solution for what we are talking about.

16 **Natasha Thorpe:** Thank you Mark for the good suggestions. That we wrote up last night was
17 about the mines working together to coordinate ways of deterring caribou away.

18

19 Lunch and prayers 11-1pm

20

21 **Dianne Dul:** *Presentation:* Map for where all the exploration mines are, map for current mines.

22 Picture of the mine in 2000, pictures of the mine from 2000, 2001, 2002

23 Older caribou pictures 2000, 2003

24 New caribou pictures

25 Mentioned caribou behavioural monitoring that is done by Environment
26 department with help from community members. Joy Dragon participated in this
27 monitoring program in 2013 and Dianne asked her to explain what they did.

28 **Joy Dragon:** We came up here, it was a 4 day trip, and we toured around in the chopper around
29 the site looking for caribou and monitoring the effects of the helicopter as well as
30 the mine site area. We flew about 30 km out to the Northwest and came upon a
31 herd of 3000-5000 caribou healthy herds. When we flew down we landed then we
32 waited until the chopper blades stopped then we each took note of about 10
33 caribou and we watch them for 10-12 minutes and just observed if they resumed

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1 eating, if they laid down nothing seemed to bother them they all resumed normal
2 activity. We reported back that the herds were healthy that the wildlife that we
3 noticed around them there were plenty of wolves and one notable factor that I
4 noted was that there were a lot of white wolves. And we saw some pups and
5 some dens and then on the other day we flew to the Northeast about 60km out and
6 again we came upon a large herd of about 3000-5000 caribou. All I reported back
7 was that they were healthy herds with many wolf packs following them for me
8 that's a good sign of a healthy herd with many wolves and pups and dens.

9 **Dianne Dul:** Caribou pictures

10 **Natasha Thorpe:** Thank you for the presentation Dianne.

11 **Joanne Barnaby:** Present to each other the work on the maps.

12 **Mary Rose Sundberg:** (Presentation of the women's work - the work is not transcribed but this
13 is what came out of the work.)



14

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1 Where we can do reclamation so that's the kind of things that we touched on this
2 morning. First of all on the airstrip the green markers that we put to reclaim that
3 area, there are no toxic's in that area the road is airstrip so we would like to re-
4 grow the vegetation around that area. All the green markers are to encourage the
5 re-vegetation and replant. So we would like to have things grow in that area,
6 plants.

7 The blue markers maybe the animals would go through so we would like to do
8 some modification and all the pile of rocks maybe they can kind of smooth that
9 for to encourage animals on it. If there is a really steep pile of crushed rocks
10 maybe they can put it down so we can encourage that animal to go through there.

11 And in this area the shop it seems like it's only buildings maybe they can have
12 replants of vegetation and all the red markers and two open pits and PKC in that
13 area we would not like the animals to go through that and there is storage of oil
14 tanks and a waste field there, not good to go for animals and there is waste rock,
15 maybe there is oil tank, gas tank that's been used, barrels once ice road gets here
16 maybe they can haul that back. Where all the red markers hope the animals don't
17 go in that area.

18 The North Country rock pile maybe the animals can go on top maybe where
19 there's a den and where is the path that caribou migrate I think the elder know
20 better and maybe we need elders help on that area. A21 once they have the open
21 pit, we have to think about the waste rock pile they are going to have in that area
22 we have to think about. The elders would know more where the animals come
23 across this island. I would like to consult with the elders first.

24 **Joanne Barnaby:** Thank you very much Mary Rose.

25 **Natasha Thorpe:** Volunteers to speak. I think it is quite interesting that there are a lot of
26 similarities in the red and blue.

27 **George Marlowe:** (Presentation of map)

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1

We never did too much we just started talking, talking, we talked about the red line. I drew this red line and other people too so nobody will touch no animals will go there we wanted that and also I did the blue here at the North pile I want to put a slope down and we said that really having to flatten everything is not necessary. Don't touch till 2021 between PKC and rock pile. And also from A21 pit there going to stock pile here that we said don't put it to high, leave it as low as possible so the ramp from here will go up and down again not all over. It's high so you could push it down towards the road. Red line here for that sewer they don't want any caribou to go there. They don't want any caribou to go to the north inlet.

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11

Just about the same we could put it together. What shall we do?

12

Celine Marlowe: What you guys are saying is similar to what the ladies did. Are you going to agree to our map and your map because they are just about similar?

13

14

Wayne Langenhan: I did mention one thing about the new pit that's going in why can't they take some of the rock and truck it over to the other pits and build it up a bit and make it a little more shallow instead of building another rock pile?

15

16

17

Gord McDonald: Because we are still mining in those two pits. The underground continues till the very end. It's not like the underground stops and A21 keeps going, they'll

18

19

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1 both be mined at the same time so we can't go putting rock on the top of guys that
2 are working underground.

3 **George Marlowe:** I think it's better to not touch those two pits because people are working in
4 there. Keep it light as possible, don't put rocks or water in there right now. Only
5 later on when closure but right now just keep it the way it is.

6 **Natasha Thorpe:** I want to clarify what George said we ran out of time.

7 **Joanne Barnaby:** The women did indicate which areas they wanted to encourage re-vegetation
8 or natural re-vegetation. Do the men feel that is a problem or could you support
9 that idea?

10 **Wayne Langenhan:** We didn't get far enough into that the re-growth putting the vegetation in
11 but from what I can see on the women's map I could go along with that. Should
12 we take a vote on that?

13 **Joanne Barnaby:** Wayne is suggesting we have a show of hands. I am just going to point out
14 the areas that the women suggested for re-vegetation or encouraging natural
15 growth.

16 Patches of red in the green and blue we would avoid for re-vegetation due to oils
17 and such being stored there.

18 Vote on who supports the women's map? Against-1 For-12

19 **Natasha Thorpe:** No names on anything.

20 **Ed Jones:** Remind you that just because the majority says yes doesn't mean that should be
21 the right choice.

22 **Wayne Langenhan:** I think I am going to differ with my colleague here, the majority takes it
23 and that's that. The map here we all agreed to it so I don't know why we should
24 have to draw anything on our maps but if Ed has a beef with it I think Ed should
25 make his own map.

26 **Ed Jones:** I don't believe in re-vegetation and I don't believe we should deter any animals as
27 they will go where they please.

28 **Joanne Barnaby:** I think we understand your perspective and that's fine and that can be noted.

29

30 FIELD TRIP 1:30-4:00

31

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1 **Natasha Thorpe:** I know everybody is pretty tired. Quick round table.

2 **Celine Marlowe:** It was really good to be out on the land again today I had a great time but it
3 was kind of scary for me because when I was looking at that dyke because I didn't
4 know how it was made but now that I have been on it and I am still interested in
5 looking at the movie or if you have the copy of it I wouldn't mind to have one so I
6 can look at it or even keep if you could so I could show it to my other
7 grandchildren back home and tell them how interesting it is you know where his
8 cousin is working.

9 **George Marlowe:** When I went on the field trip towards the south side of the airstrip I still see
10 the caribou trails there and when you look at the trails and you look at the rock
11 piles I really I mentioned that how far it is going to come down and it looks good
12 and also I look at the land and Diavik started 10 or more years ago when I look at
13 the berries cranberries and crow berries I was looking for how much dust was on
14 them but I don't see any looks pretty clean and also I look at the willows and they
15 were pretty clean. So that means and on the way there while we were walking I
16 seen vegetation growing willows, fireweed and one part I saw blueberries leaves
17 too came out so that means something is growing and it will grow now for sure so
18 I am kind of happy with it the only thing we are not finished with the map, men.

19 **John Ivarluk:** Thank you for a pleasant morning and trip it reminded me of back in Lupin and
20 safety comes first yes. It was nice pleasant out there I see they are doing really
21 good at their job and I enjoyed it. We had a good experience and sometime I wish
22 we had students up here see what we are doing so in the future they know what
23 we are doing, what the miners are doing. I enjoyed the trip I will be glad when I
24 get back home to tell the people what we did the last few days.

25 **Martha Ivarluk:** Thanks so much we went on the field trip. It really good to see the vegetation
26 growing it will not grow if it is not good. I am so thankful I am here with the
27 panel.

28 **Ed Jones:** I didn't go out this afternoon but I have been out to the airport and around the
29 rock piles many times before. I am sure Diavik is going to live up the agreement
30 of cleaning up and I can envision these rock piles being smooth at the end of
31 mining and remediation. And I am sure they don't want to leave a mess, they've
32 already put up a bond and I am sure they don't want to put up any more money
33 than they already have put up as a bond so I believe they will clean it up as they
34 should and I have no worries about that. I believe they will live up to their
35 agreement.

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1 **Morris Marten:** Since I got here I learned quite a bit, I didn't expect to see this it was very last
2 minute when I got to come. I forgot my reading glasses so I brought my wife's. I
3 learned quite a bit and to go out into the field now I know what you guys are
4 talking about when you talk about the slope and when it rains you just need to
5 watch out for a creek going down to the main lake. I hope in the future I can come
6 back again.

7 **Mary Rose Sundberg:** You really have a different perspective once you see what we talk about
8 a lot at meetings sometime when they have these annual meetings they have all
9 these maps and all this stuff on the wall sometimes you can't really envision it
10 unless you come and see it yourself. And I have been here a few times and I have
11 been to the other place a few times and Snap Lake and I always love coming back
12 because it really reminds me of my grandfather both of my grandfathers actually
13 they were born in this area. My grandfather Itò Sangris was born on the north end
14 of MacKay lake and my father was born on the south side of the MacKay lake so
15 every time I come back here I feel like I've come home again and my husband
16 and I also work in Gary Jaeb's camp over here for at least a couple of years so I
17 always love coming back. Seeing everything that has to be removed or dismantled
18 it seems like it's a huge job that still has to be done and right now I can't envision
19 it all disappearing and they'll be nothing here. I kind of have some worries I
20 know when you work on a big huge job like this obviously they have all the plans
21 in place and regulations they have to follow but also we have to think about a lot
22 of other stuff we seen whether some things can be donated to the communities
23 those that can get to their communities somehow those things should be
24 considered like the sleeping quarters some of them can be dismantled. When you
25 see things first hand you get a better understanding and that's what I am thinking
26 and what still has to be done and which area they need to work on. Some areas
27 that they shouldn't touch at all because it doesn't look like we should do anything
28 to it for a while. It will take awhile. Another important thing for me to do and
29 everyone is we really need to consult back to people especially our elders I have
30 so much more questions to ask them, maybe not in a formal meeting but if I see
31 them I will ask them when I see them.

32 **Mark Taletok:** I myself I enjoyed the field work because it was very extraordinary to be
33 outside because you can smell the grass. So I have been coming here a few times
34 and this is the first time, first time seeing the end of the airstrip and going to check
35 for fresh caribou tracks but there was nothing there. The caribou trails from
36 previous years I saw. It is very obvious that the willows and vegetation really has
37 grown. I guess the caribou don't come this way as much anymore. It was good to
38 be out today it feels like being at home. You know when you go out and see the
39 country side, the landscape it makes your soul feel better like it's always nice to

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1 see the land is healthy. I was trying to see if there was any kind of spill out there
2 and there wasn't any gas or diesel. It is very clean out there. So I commend
3 Diavik in keeping the site clean and it is nice that they invite us up here to do our
4 traditional work here. One of my concerns is that those big heavy equipment
5 that's going into the pits, I can see that they have good breaks and I would like to
6 thank the organizers and the facilitators for taking us out on the land today thank
7 you.

8 **Mike Francis:** We were seeing ground squirrel, we seen a fox carrying a ground squirrel we
9 have been here for the last few days and we feel good, I feel good I haven't seen
10 any diamonds.

11 **Louie Zoe:** It is true what people are saying we went to that airstrip and it is a good area for
12 the animals to go up on top of the airstrip so it's not too high up for the animal's
13 safety. So I hope the pile is not too high so it's good kind of safe place around that
14 area a safe place for animals so it's not too high up. We see fox and we look at all
15 the lakes and we seen the open pit which is really far down and we still have to
16 think about what is going to go in there at closure, we are still going to have to
17 discuss that.

18 **Joe Champlain:** We've seen a lot of things when we went on the sightseeing today I feel good
19 looking at the landscape and the barren land. I seen two things I seen the fox and I
20 look in the binoculars, I seen a wolf with the binocular but I don't think you guys
21 seen it, it went so fast. I felt good having a tour of the airstrip, and the open pit. It
22 looks good but we still have to talk about how it's going to be refilled, the open
23 pit, we still have to talk about a lot of things about the closure. I hope I come back
24 again for the next session.

25 **Natasha Thorpe:** I am sorry I wasn't out with you today. I look forward to hearing more about
26 it.

27 **George Marlowe:** For the next session I remember that some people said they didn't remember
28 what Kimberlite is. I know how it looks as I have been working at Ekati so I was
29 thinking about A21 before you take it out before you blast maybe ask Diavik if
30 maybe people could look at it - how it looks before the blast, after it is clear and
31 ready to be blasted. It is a different color dark and that one there.

32 **Natasha Thorpe:** Reminder about copies.

33 **Morris Marten:** I need all the notes so I can talk with Alfred Baillargeon when I get back.

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1 **Ed Jones:** Is it possible if you would consider replacing this type of headset and go back to
2 the old type that we were using before at previous meetings? We have had trouble
3 with this model. It seems to be a cheaper model.

4 **Natasha Thorpe:** That's on the record.

5 **George Marlowe:** This afternoon we were driving on the dyke, way back I don't know how
6 many years ago we talked about the dyke for closure when it's time for closure
7 they are going to take everything down light poles, and everything and they are
8 going to make a door or something for water to come in. If anybody has any
9 better ideas today or for the next one.

10 **Joanne Barnaby:** George thank you for that for remembering that because we should be
11 talking about what other issues we need to address in the future sessions.

12 **Ed Jones:** I have heard you use that term we will revisit this topic and so on and are you
13 trying to say well we will revisit this until we get it to your satisfaction? Is that
14 what you are trying to say?

15 **Joanne Barnaby:** No we want to make sure it is to your satisfaction. In this session you know
16 we picked up on the possibility of a change in direction right? So there's going to
17 be times like that because over time you see things, you learn new things. Your
18 understanding becomes deeper. You may want to reconsider ideas and
19 recommendations that you have made in the past or you might want to simply say
20 we are good with those.

21 **Wayne Langenhan:** I can't get this pit business out of my mind. The pits are very close to each
22 other. I worked at Con Mine. We went down in a cage to the 2300 feet level
23 where we would get off and load onto cars. The cars pulled by a loki would then
24 haul us about a mile and a half down a drift to a place called the winds. There we
25 would go down another shaft. The mine was about 5100 feet deep then. The two
26 shafts were off set. What is the distance between the two shafts? Like are we
27 going to put that waste pile up top there why couldn't the mine work off one shaft
28 to link both the ore bodies? They used to have a network of ladders underground
29 where you could climb for 3000 feet going up. I can't see if the distance isn't too
30 far between the two pits why one shaft wouldn't serve both ore bodies? That way
31 the waste rock that is coming out of the third pit could go in one of those pits so
32 we wouldn't be burying a miner.

33 **Natasha Thorpe:** Dianne just ran out to get a copy of that map so I see people getting quite
34 tired and they have homework tonight too so we can take a look at it when she
35 comes back and I am suggesting that maybe we wrap up for the day. We will see

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1 you back around 7 to hand over the transcripts. And we will return to Wayne's
2 question tomorrow morning.

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1 **Day 5: Monday August 18th, 2014**

2 **Natasha Thorpe:** Welcome back to our final day of our 7th session. I hope everybody is well
3 rested and ready to do some hard work today. We have the challenge today of
4 pulling together the key points that we have talked about the last few days. This
5 morning we are going to go through some of the recommendations that we think
6 we heard over the last few days. But this is where your hard work and patience
7 and guidance will really make sure that we get the words right in these
8 recommendations. I am going to hand it over to Joanne but two things I am
9 hoping you can keep in mind: Please make sure that we get the words right and
10 please make sure that we haven't forgotten anything.

11 We have Brenda McDonald from EMAB who will come into the room within the
12 next hour or so and otherwise Diavik will not be here, the U of A students will not
13 be here this morning. This is your private time to work freely and work hard.

14 Once we are done we will invite Diavik back in the room and present the
15 recommendations to them. They will then give a short response and from there
16 those recommendations will add to the 74 that are already in this table and they
17 will provide a formal response, a written response, for your next session, session
18 #8. Any questions or thoughts before we move into today's work?

19 **Joanne Barnaby:** If something is not as clear as it should be please make suggestions for
20 making it clearer or stronger. If I forget something please let me know. The way
21 I organized the draft comments and responses are following the four questions
22 that were in our agenda that Diavik asked us to address, so to remind you here are
23 the four questions.

24 Presentation of Recommendations to discuss

25 The four questions

26 General Responses and Comments

27 *In Camera Session*

28 **Joy Dragon:** Presentation to Diavik on Recommendations including General Responses and
29 Comments

30 **Gord Macdonald:** Thank you very much that was very well said and actually quite clear.
31 Natasha do you want to go back to the beginning and we will just walk through
32 and Colleen jump in if you've got any comments as well. In general I thought all
33 the recommendations were quite clear. Toxicity in here I am presuming you mean
34 the effect of eating vegetation on caribou or on people? When you say toxicity it's

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1 not toxicity to the plant, I am guessing that its toxicity to something that might be
2 eating the plant.

3 **Joy Dragon:** Yes and no.

4 **Gord Macdonald:** So the way it's written it's a bigger ask than you think; to actually try and
5 expose caribou or people to something that's toxic is kind of a difficult study to
6 do.

7 **Joy Dragon:** I think if they find something dead or in the case of the rabies outbreak that
8 happened that would be reported back and tested.

9 **Gord Macdonald:** So what we would normally do, it is built into the re-vegetation work, is to
10 do chemistry analysis on the re-vegetation to see if it's different in those areas
11 versus somewhere else and use that information to infer, I guess to suggest,
12 whether it is good or bad.

13 **Natasha Thorpe:** I think just to clarify Gord and Joy I think the idea with that one was to test
14 both out on the tundra and in the seed plots on site to make sure or to monitor
15 what's in the plants, what's toxic in the plants, and I understand you are already.
16 We looked at a slide where you are already doing that but there is a want to do
17 that both out on the field as well as on those test sites. Is that right panel? Okay
18 good.

19 **Colleen English:** Another question I had for number 1, we talked yesterday about the roads and
20 what the ultimate shape of the roads at closure would look like, so everybody had
21 sort of pointed to the bottom one (3) where the road kind of expands out and the
22 slopes are made more gentle, but that would disturb new areas by pushing those
23 roads out. We talked about as soon as you push the road out to reduce the slope
24 you are going to cover more tundra. So I just want to clarify if number 1 is still, I
25 guess, if the road option we talked about yesterday is still okay in relation to your
26 recommendation number 1?

27 **Natasha Thorpe:** Please jump in here but I think there is an understanding like say with the
28 rock pile for A21 and the other roads that to keep the rock pile height down we
29 would have to go out further at the base but other than that and for the roads, the
30 request was to decrease as much disturbance as possible.

31 **Gord Macdonald:** So maybe add that in, 'except for flattening out roads'. That would be
32 helpful.

33 **Natasha Thorpe:** Is that okay with the panel if we add that about the roads?

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1 Changing Recommendation #1 to add except for areas such as roads, A21 and the
2 rock pile for A21. → All in favour

3 **Celine Marlowe:** So that first one are you saying that you will accept the road for the mine
4 gravel on the side of the roads and not do nothing about the rock pile, is that what
5 you are saying?

6 **Gord Macdonald:** No what we are saying is we understand you don't want us to disturb new
7 areas I mean other than in areas we're already planning to disturb areas, like with
8 the A21 rock pile, but also in places where you want us at closure to flatten out
9 the roads. Those will, when we flatten them out, those will cover more vegetation
10 but we understand that that's okay.

11 **Celine Marlowe:** Okay thank you.

12 **Gord Macdonald:** Also just to be clear with everyone, I'm not trying to go through this and say
13 whether we are accepting or not accepting each recommendation, I am really just
14 trying to ask questions to make sure I understand them. The next time we meet is
15 when you can expect us to come back to you and tell you whether we agree or
16 disagree or what we are going to do. I am not quite good enough to answer these
17 questions on the fly.

18 **Natasha Thorpe:** This is a good opportunity meeting face to face with Diavik so that you can
19 make sure that they really understand what you are trying to say. So it's a great
20 exchange between everybody.

21 **Gord Macdonald:** So there were a couple of places where I have seen reference to caribou
22 maps and I am wondering how much. So we did a lot of that back in baseline, like
23 before the mine was here. We have a whole bunch of maps from a whole bunch of
24 different sources; elders included, communities included, scientists included that
25 we've used as the basis for how the animals used to interact with the island before
26 development but I am getting that this group probably hasn't seen those things, so
27 I think that would be a good starting place is to take those and say how does it
28 build from there? Try not to start with nothing, start with something that was
29 already there and let us know if you think that's still true and more importantly
30 how you think, we've also experienced how it's changed with the mine site and
31 then the next question would be what will happen once the mine is not active
32 anymore, will they come back to those routes or not?

33 The fencing question is always a good one; we've always received mixed
34 information about whether to fence or not to fence, and the challenges with it. I
35 think that is a good one for the panel.

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- 1 **Natasha Thorpe:** I just realized we didn't write down about the material on the side of the
2 airstrip exactly like it is now, the slope and the sides but there was discussion
3 about that being a recommendation for the sides of roads but we didn't as a panel
4 close the loop on that one. We might need to revisit that one.
- 5 **Gord Macdonald:** You will have to educate me on a mat.
- 6 **Natasha Thorpe:** A tundra mat.
- 7 **Gord Macdonald:** So you cut out a piece of, a chunk of tundra and then put it on to the...
- 8 **Natasha Thorpe:** So maybe where you are widening roads or putting on a rock pile that's
9 where those mats would be harvested.
- 10 **Gord Macdonald:** Okay.
- 11 **Gord Macdonald:** Do we count as local animals? Its treated sewage, disinfected sewage. So
12 that's no. So is that actually a recommendation to not use sewage or are you
13 being silent on it? Because I could easily read "naturally local fertilizer" as
14 including people.
- 15 **Mary Rose Sundberg:** I can't remember why we said we didn't want to use that, it maybe
16 because they put a lot of; you have to clean it right it goes through a cleaning
17 process. It doesn't seem like its right to do that. I think it was because there was
18 going to be other things in it that we didn't want to use.
- 19 **Joy Dragon:** There's a student here that knows a little bit about this stuff we are going to get
20 her perspective. How do you feel about that being used as a fertilizer for this
21 process?
- 22 **Valerie (U of A Student):** I use sewage in the green house and in the field and we've done
23 some tests on it and we haven't found anything harmful in the sewage and it's
24 quite good for vegetation. We find plants grow very well, it's almost comparable
25 to the natural materials. We're still studying if it's a good fertilizer but based on
26 initial results it seems quite good and not very harmful at all.
- 27 **Joy Dragon:** Would the panel like to revisit that recommendation of using the treated sewage as
28 a fertilizer at a future session?
- 29 **Gord Macdonald:** Its not uncommon for people to not want to use sewage for vegetation, it's
30 not an uncommon thing, I just want to be clear that that's what you mean.
- 31 **Natasha Thorpe:** My question is does what Valerie said change your mind or is this
32 recommendation still the same?

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1 **Valerie (U of A Student):** I would just like to add to that, that we would like to use materials
2 like soil as amendments but there is very little onsite, even if we mined A21 so we
3 are trying to find other materials that we can use and most are very, very limited.
4 Sewage is a material on site so we don't have to ship things in, so it reduces some
5 of the effects so that's why we've used sewage.

6 **Joanne Barnaby:** I think there isn't a level of comfort with it yet but its perhaps something the
7 panel can discuss in the future sessions.

8 Change recommendation #12 to add no human sewage – this issue will be
9 revisited

10 **Gord Macdonald:** So I will read that as being not from people.

11 So I though the TK Literature review was complete?

12 **Joanne Barnaby:** Just very preliminary findings, there's quite a bit more that has to be done to
13 complete it and make it useful and accessible to others and we haven't had a
14 chance to review it with the TK Panel yet as well.

15 **Gord Macdonald:** Okay. So I do understand where you are going with cumulative effects but
16 before you go writing letters to Ekati and ENR I think we're going to have to
17 think through this thing, because this panel's mandate is specific to Diavik so it's
18 quite a challenge to open that up to others and it's probably inappropriate that you
19 do it, it's probably more appropriate that we do it. This panel certainly can't be in
20 the position of making recommendations to Ekati and that's well beyond the
21 scope of this panel. I understand what you are saying that it's all blended and I
22 understand the idea of trying to get, I don't even know if Ekati has a TK Panel,
23 but to try and have this panel together with another panel or this panel together
24 with their operations. I understand that but it would have to be done through us
25 versus this panel approaching anybody specifically.

26 Same thing with regulators - you're going beyond your mandate here, to be saying
27 what you think regulators should do.

28 And the map one I think we touched on earlier and I think we have some early
29 information for you on that one.

30 As long as you are reporting back to your own organizations if that's what you
31 mean by direct to Aboriginal governments. I have no problem with you advising
32 that to your organizations, who you think should sit on this panel and what you
33 think makes sense, that's perfectly reasonable and that's who we approached to
34 do these things.

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1 Yeah so on 21, I think we are just a little bit early on that one. We still need to get
2 back to you with more information about the North Inlet, I think, before we can
3 go much further in terms of deciding whether it's a go or a no go zone. So I think
4 it might be a bit early for that one.

5 Again both those other two on the maps I think they're sort of similar to the other
6 ones.

7 One 23, I think it links also back to future sessions. I do definitely get the sense,
8 particularly from this session much more than the last session, that you guys are
9 getting ahead of us. You're providing us with more information than we've been
10 able to process into the closure plan. What it really needs, and I think you're
11 ready for it now and I think we're ready for it now, is to take all of this
12 information and come back to you with how we think the island will look. Like
13 some actual images that you can look and review and see if it fits with these ideas.
14 And I presume it will give you a lot more ideas as well but it's getting kind of
15 difficult to be talking in pieces of the map. We need to put it all together and
16 show you where we're at in terms of all of these recommendations as a new
17 starting place to move forward from, instead of always looking at these maps of
18 the developed site. I think we need to start looking at maps of a closed site with
19 the kinds of information that we are all heading towards taken into account on the
20 map.

21 You are way ahead of us, yes. You are giving us more information then we can
22 possibly process.

23 So on the first one with the pits and the underground, I understand. I would want
24 to go underground, too if I were you guys. It's not that we can't do it, we just
25 need to plan for it that is all. If that's what's important, we can make that happen
26 and its certainly easier to get into the pit, it's much more difficult to get into the
27 underground. Only its more difficult for you guys; there's a level of training
28 everybody has to go through before you can go underground, but again if we plan
29 for it we can do it.

30 Here's the women only again. Here's my suggestion on this... I guess I'm
31 answering this one, I guess I'll leave it because otherwise I'm answering it.

32 Big picture I agree, that's back to where I was talking before that's on us to come
33 back to you with the big picture and get your review of that big picture.

34 Monitoring is definitely next to the big picture, monitoring would be next on my
35 list. How to get good monitoring programs, information from you guys on
36 monitoring programs that, formed, that the communities could implement. So that

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1 when we say everything is going well (scientifically), we say the water is good to
2 release to the lake that we could then, you know, have a group of community
3 members - whether they are elders or the panel - could come up and give us their
4 opinion on whether it's good to release or not to release.

5 On the PKC, this idea of you guys making a recommendation, us considering it
6 and in this case not accepting it, I fully expect that this has a loop back that you
7 then come back and say, 'well okay that was our idea, you didn't accept it, now
8 where are we going' and can we look at that again and for sure that's exactly what
9 it should be as we refine the program going forward, and I think that ties into the
10 big picture one.

11 Yeah we've always found, expected there's two opportunities for Aboriginal
12 people at closure, one is actually doing the work and the other is monitoring its
13 success. I will be interested to hear more about what the healing ceremonies are or
14 would be and how we can build that in.

15 I am surprised you want to meet more frequently. I get the feeling we are
16 exhausting you, and you are telling me you want to do this more often. Do we
17 really think, I mean the last one was October, it's now August, do we really think
18 we would have done another session between these two? It's a lot of time.

19 **Wayne Langenhan:** We have endurance.

20 **Gord Macdonald:** Clearly more endurance than I have.

21 Okay, I mean okay we will think about that. Knowing what's happening next
22 year, we definitely want this full panel up and I definitely would like it to be
23 about the big picture but we do also have a traditional knowledge camp planned
24 for next summer, what some of you might know as the fish tasting or the aquatic
25 effect monitoring program. So there are already two programs planned next year
26 so I think it would be a struggle to fit in a third next year but let's go one session
27 at a time anyway.

28 Linking back to the communities we'd really appreciate your advice and support
29 on how to do that. I think we've got, you guys have a much better understanding
30 of what's going on the site and what we are doing with closure than almost
31 anyone I think in your communities, and we struggle to get that information back
32 to your communities. How we can link you guys into that and help you relay that
33 message and validate that feedback coming back to us would be very helpful.

34 I am not sure how much we want to share all of the good things you've done with
35 other mining companies, we are kind of protective of you guys.

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1 See diamonds - that's an interesting question. That would be in Yellowknife
2 versus here, at the sorting facility in Yellowknife - and that would be an even
3 bigger challenge then getting underground - but it's a fair ask. You may not like
4 the terms and conditions that come with the ask but, yeah I mean that's a good
5 point. Are you just looking for a tray of diamonds to see what they look like?

6 **Celine Marlowe:** The ones that just come out.

7 **Gord Macdonald:** Yeah, yeah before they are polished, it's a shiny rock, yeah. You've seen
8 the pictures on the wall I'll show you the pictures on the wall but yeah we could.
9 You won't see them in the rock (ore).

10 **Celine Marlowe:** This is how it looks before it's polished.

11 **Gord Macdonald:** Yeah we can for sure do that but if you want to just look at the kimberlite,
12 the black stuff and expect to see a diamond in there, you will be looking for a long
13 time before you are going to find one. I mean I'll show you right now there is a
14 picture out on the wall what they look like but we could get some to physically
15 put on the table for you, along with all the security guards and everything that
16 comes with it.

17 **George Marlowe:** Just that elders like John said, I don't know why we are talking here for I
18 never seen a diamond, where it come from what kind of rocks or what. They
19 don't know about kimberlite and the rocks, they don't know because like me I
20 was working at Ekati I seen it myself me because I was there but those people
21 they have never seen it.

22 **Gord Macdonald:** When we had an open pit it was much easier to see it because we could
23 actually go and walk on top of it but in the underground it's very difficult to
24 actually see the kimberlite so maybe when A21, if A21 happens, that would give
25 us something that we could do, because it used to be that we went down in the pit
26 and walked on the kimberlite. Believe me we are mining diamonds, only
27 diamonds, no other minerals.

28 Just in closing thank you very much for your efforts I know it is a lot of work, you
29 do put a lot of energy into these days and these facilitators really do run you into
30 the ground with getting all the information out of you, so we really appreciate
31 your time and especially taking up a weekend of your time for coming up, so
32 thanks very much.

33 **Colleen English:** Can I ask one more question too? You mentioned that the recommendations
34 about the balance of men, women and the youth as more of an internal
35 recommendation, but we do communicate with your organizations when we are

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1 leading up to a session. So if you are communicating that back, do you still want
2 Diavik to also be saying, as a reminder, the panel recommended that this should
3 be the content of the panel? (Panel confirmed that this would be preferred) I just
4 wanted to double check that thanks.

5 **Natasha Thorpe:** One last question the panel wanted to ask Diavik was what material are they
6 going to use to build the dyke for A21?

7 **Gord Macdonald:** The rock from the North Country Rock Pile that we were standing on top of.
8 They take that and some of it is just like it is there - big boulders like that - but
9 most of it goes through that big building at the bottom, the crusher, and it gets
10 crushed into very specific types of material, but it all comes from that big rock
11 pile. So I guess we really are putting the rock pile back into the lake then.

12 Where we are going to take the rock from the pile for A21, we want to try and
13 line it up with where we want to flatten the slopes out for caribou so that it makes
14 it easier for doing that.

15 **Joanne Barnaby:** Are there panel members who wanted to say anything further, regarding our
16 recommendations, George?

17 **George Marlowe:** Diavik said that they are going to use the highest rock pile but after you build
18 the dyke you are going to have to take some more rocks out again. What are you
19 going to do when you take the next rocks out we don't want it too high?

20 **Gord Macdonald:** How about we come back to you with that? I mean right, it's that square box
21 really where it's shown on the map there; that rock is going to go on the south
22 part of the island. But I would be happy to come back to this panel, it's still quite
23 a ways away before we'd be mining that rock, to how we can lay out that rock
24 pile so that it's as close to what you want at closure. So then we don't have to
25 move it around and if you want it lower and flatter versus taller and skinnier,
26 that's actually easier for us than tall.

27 **George Marlowe:** I think it's a good idea I think the panel do a lot of work, I know it's hard all
28 the time I think they should get a little bit more money. Me I said me you, you've
29 got good wages already. So in the mean time I am asking for a little bit more
30 higher again for the elders. The elders are tired, we are sitting here and you know
31 how much I get, only few hundred dollars a day not much you, you get that in an
32 hour.

33 **Joanne Barnaby:** Some of the elders just before we invited you in were talking about all of the
34 work that they still feel they need to do and the importance of scheduling the
35 work out over the next few years and so we appreciate your feedback on the

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1 topics that would be timely for you but they do feel, even when they were
2 working under EMAB meeting 4 times a year, that there was still much more
3 work to be done. So there's a lot of concern that the number of sessions have been
4 cut back so much and you know part of it is we have to re-orient; you're in this
5 job full time, they come in you know with long periods in between and sometimes
6 we find we are going back over old ground because that momentum gets lost and
7 there's a feeling that we're always short of time. We would like to have
8 addressed other topics as well this time and there wasn't enough time to do that.
9 We would like to have, for example, finalized the Working Together document
10 and the Checking Nets and we, the panel, is feeling quite proud of the work that
11 it's done and we feel that it has been helpful and useful to Diavik and that you
12 should be equally proud of that and share that with other people who are working
13 in northern and with aboriginal communities. So we'd like to see that out there
14 and so you're feedback on those documents as well as our own chance to finalize
15 them would be very good.

16 **Gord Macdonald:** So just one I guess opposite to that view. I understand the question of
17 momentum and I am also trying to think forward -it's a long journey still and I
18 kind of want some energy at the end as well as at the beginning, so I am trying to
19 pace you guys that it is a longer journey and we want you involved all the way
20 through rather than just now. So I also don't want you to try and tackle every
21 question out there when we still have a long time to go and things might change
22 along the way. So it's a longer journey than you might be thinking.

23 **George Marlowe:** About the Ekati we talked about Ekati about having a meeting together but I
24 know it's hard for you to say yes but the reason why we said that was because of
25 Misery. It's blocking you for the caribou migration that's the reason why we said
26 that but it's not over yet when I get home I am going to talk to my chief and
27 councilors and I think Akaitcho is still having a meeting in Yellowknife. That's
28 something that I am going to bring up too.

29 **Gord Macdonald:** Just don't say it was our idea.

30 **Colleen English:** Also just to let you know, you again probably don't see it, but we are linking
31 in with Ekati all the time. We are sharing the information between Diavik and
32 Ekati. As an example, I met with Ekati before I came up here to meet with you
33 guys and let them know what we were doing and they've done some veg work
34 last year that you guys saw some of the results from in the literature review, and
35 we talked about some of the learning's from that and the people that were
36 involved in that. Similarly, I have committed to following up with them to let
37 them know some of the outcomes from this session. So that does go on behind the
38 scenes, between the companies, just so you are aware of that as well.

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1 **Gord Macdonald:** And I don't know if you guys know but Ekati now owns 40% of this mine
2 so Ekati pays for 40% of what you earn here. It's not like we don't know each
3 other.

4 **Joanne Barnaby:** As you can appreciate people from the communities have a different
5 perspective and so when they see things going on over there, recognizing that you
6 are a separate mines, you have separate management, you may have some
7 ownership cross-over, there's bridges at other levels that people would like to
8 form. Communications around issues of common concern, some of these overlap
9 areas, some of the common concerns around retracing old caribou routes and how
10 that can be supported in the future with closure planning. If the confidence was
11 there that, that discussion can happen at a bigger level and that it was a more
12 cohesive discussion recognizing that the caribou move around and other animals
13 move around and migrate, water flows and fish swim that would help I think. So
14 if there are opportunities for joint initiatives that would be great.

15 **Mary Rose Sundberg:** I just want to emphasize 4 points that you don't seem to agree with the
16 way you are talking: 1 I know it's really important to include the women like I
17 said the women are the care takers and they are closer to the land then we really
18 think. They know a lot about plants and healing plants so they have a different
19 perspective so what we want is to make sure that they are involved - just one
20 women from each region or another idea was when you come to our community
21 on an annual basis you take the time to have an extra day just to meet with the
22 women and there you can pose some of those questions that we've been working
23 on last few days. That's another way of trying to get their feedback and what they
24 think. It's very important because some of these women that you are going to be
25 talking to they used to live on the land day and night and these ladies are still with
26 us today. We're lucky they are still with us and they have a lot of knowledge
27 about this area.

28 So I wanted to mention that and we know that we have no control over the
29 regulators and the boards but we want to make sure that they understand that
30 before they start approving all these mines left right and accepting their water
31 permits and everything, you guys already know this but we are telling you again
32 because we know how important it is and these social issues that are happening in
33 our communities. I was telling them that in the 80's and early 90's we had
34 presentations from Africa and Australia and they were telling our people this is
35 going to happen to you guys when the mining industry starts in your land. They
36 told us that crack cocaine is coming, the cash stores are coming a lot of social
37 problems are going to come.

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1 We didn't believe them at all at the time, I never believed them but I remember
2 what they said, how they emphasized the importance of preparing yourself for this
3 kind of industry to come to your community and one of the things that they also
4 said that I never mentioned is when a person gets a lot of money sometimes they
5 are not able to manage that, or they don't know how to budget themselves. So
6 much money comes and it's going every time they come back to the community.
7 One guy said he worked at the mine for 10 years, he made approximately 1
8 million dollars and he has nothing to show for it except for his vehicle and then
9 the other thing they said to us was your people or someone who works here
10 because they are getting so desperate being in debt, they are so indebt they are
11 working here but they are so in debt that they are going to find ways to steal
12 diamonds. They are going to try to smuggle it out for other people. That hasn't
13 happened yet, maybe it has I don't know but they said those things will happen
14 they are going to find ways to steal diamonds to take out because maybe someone
15 will just say here I'll give you \$10,000, you're in debt I will loan you this money
16 don't worry about it. A few years later oh you owe me money you want to do me
17 a favour here. That's what they said to us that's what's going to happen here.

18 So when we talk about we don't what no more mines we know we have no
19 control over those regulators but we want to start telling them that this is
20 happening to us in our communities and we do have IBA's that comes with just
21 little pennies they gave us, that doesn't cover what is happening to our people
22 especially the people in Yellowknife we are just next door to all this that is
23 happening so that's what we mean by that.

24 Healing the land even though we are not the ones that are working on the land,
25 ripping at the land, digging into the land we are not the ones doing that but we are
26 somehow involved because this is our land and we allowed it. A healing
27 ceremony is so important we did that once with Giant Mine and we decided that
28 we are going to do it every year so it's paying respect to the land it is a ceremony
29 that you should learn about from our elders, they know what that is all about that
30 is just giving respect to the land and saying we are sorry for what we have done to
31 you. It's going to take a long time to heal but we're helping it and giving respect
32 back to the land.

33 You're telling us to slow down because this is a long process he said it's a long
34 journey, we realize that but a lot of things have come up because sometimes
35 research takes a long time as well. This is probably not going to take a few years
36 it's going to take longer than that so there's a lot of things that questions what's
37 coming up. It's not for next year, it might be for next 5 or 10 years so when we
38 request more meetings it's because the more we educate people the more we talk
39 about it maybe some other things might come up that we as a group has not

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1 thought about. So I just wanted to touch on these things I think it's very important
2 that you know where we are coming from and I am sure you are going to see the
3 minutes and the rest of the recommendations regarding what I just said.

4 **Gord:** Thanks that was very helpful.

5 **Ed Jones:** I would like to add to what Mary Rose said I wonder if Diavik would consider as
6 Wayne suggested some time ago that they would have a happier crew if they gave
7 short courses in money management skills that would help the employee plus the
8 communities.

9 **Gord:** I am the wrong person to ask that question to but I will pass it on. It's not a new
10 idea and it was certainly done earlier on in the mine life, I don't know if it's been
11 done more recently.

12 **Joanne Barnaby:** Alright so if there are no more comments from the panel I thank you very
13 much for coming in and taking the time to hear the recommendations and you'll
14 receive a more complete report soon. We do have a bit more to do before we
15 finish off today so I would suggest that we move into that. One of the things that
16 we wanted to do of course is do a round table, give everyone a chance to make
17 some closing statements, Joe Champlain had approached me on the first day and
18 said he wanted to share a little bit about his life when he lived out here and he's
19 been very respectful in not jumping in when we are dealing with agenda items and
20 so I would like to offer him that opportunity to do that before we leave and then
21 invite the members to make their closing remarks. And you are welcome to stay.

22 **Joe Champlain:** Thank you for as I listen Mary Rose I am thankful that she shared her wisdom
23 with us and also she had a good sharing and also I have never traveled to these
24 meetings before. The thing I saw and the way the mine operates I've seen it with
25 my own eyes and I am thankful for that. Yesterday even Sunday they gave us
26 time to pray the rosaries even for that I am thankful. As of today I remember in
27 the past is totally different so I just wanted to speak to that piece today everything
28 is simplified and in the past we had to struggle for as I remember it, today we use
29 airplanes to transport, in the past it wasn't really like that. In the past if people
30 wanted to go to certain place people would use dog teams, as I remember our
31 elders used to talk to us, they used to walk on the land and that's how they
32 survived. They lived off the caribou, the fish that's all they did was hunt and for at
33 that time there was hardly any employment, so people would go long distances to
34 go trapping, and with the trapping they would earn money. We were in poor
35 condition in the past and sometimes in the morning we would have nothing to eat
36 and if other people had something to eat they would share their food with each
37 other, with other families and at that time we had no child care, or old age

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1 pension, that's how our elders survived and our ancestors they traveled in this
2 area this is where we used to hunt and trap and as I remember it when I was just a
3 young child the men would go trapping for the white fox I remember that and
4 they would communicate with the Inuit and they would trade their dogs because
5 some dogs were healthier than other that's how they would help one another also
6 with caribou clothing.

7 And also the people from the Yellowknives and Łutsel K'e they would travel
8 amongst each other and all the elders that live on the land and people would travel
9 to Whati and beyond Mackenzie to Wrigley and visit one another and that's how
10 sometimes people would meet one another. Although Great Bear Lake is quite a
11 distance people would meet and also from Fort Simpson that's how people used
12 to travel on the land and with the dog team and those things that I remember I just
13 want to share with you. That people used to really struggle in the past. When I
14 see the barren land when I was a young boy and the white fox and our elders and
15 our forefathers went to barren lands so they could harvest the white fox and when
16 they tell their stories even with the firewood they cut fire wood within the tree
17 line and then they would load it up on their sleds and they would go into the
18 barren land with a load of wood. The only time they would make a fire is to cook
19 their food and because they want to preserve their firewood they have to work in
20 the harsh climate like that.

21 That's how the stories were being told but as of today we still rely on each other
22 the white people and the aboriginal peoples all though it is a long distance
23 between communities, the long distance is shortened by the travel of the airplane
24 you know people can go a long distance and meet one another shaking hands and
25 hearing one another stories, I am thankful of that because of one another sharing
26 our stories and we share our stories and it's very important that we do this and
27 while I am telling my stories you know the women were very pitiful, they were
28 always trying every day even and the women would go on the tundra and on
29 barren land to try and gather wood and also the women would care for the small
30 babies. I used to see this with my eyes and we grew up in a tent and even with
31 our caribou blankets sometimes it's not very warm but as I remember as a child
32 because a women once told me that I am going to go gather wood watch my
33 children and when I seen these small children they were in a tent, these they had
34 to be tied up so they don't go near the stove that's how they were raised and there
35 is no store bought food there's only caribou meat and blood soup and they used to
36 eat marrows and that's what I witnessed and that's how some of our elders told us
37 stories and they walked on this land with their two feet and that's how, you
38 probably know the stories but I just want to share that story with you.

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1 **Natasha Thorpe:** Thank you Joe for taking us to the land. So we are coming to the end of our
2 four days of work, we've got about half an hour before we need to clear the room
3 so I wanted to have the chance for us to have our own closing ceremony and
4 invite anybody to start that would like to.

5 **Wayne Langenhan:** I would just like to say thank you for all of those who attended I know
6 some of you come from a long way like Mark there and I think it was a pretty
7 good session I think we got some pretty important work done here this time.
8 Thank you to the facilitators for all their hard work and sleepless nights and I
9 would also like to thank the people at Diavik for the free room and board because
10 you know you would pay good money for that in Yellowknife. I wish you all a
11 safe flight home or drive whichever way you are going and hope to see you back
12 here in the next meeting. Thank you.

13 **Morris Marten:** I am sorry I was suppose to take you out for lunch but I haven't got my credit
14 card on me besides that I'm short on change so I couldn't take you out.

15 **Joanne Barnaby:** And your wife is at home waiting for you.

16 **Mark Taletok:** Although I am becoming an elder it is very grateful to see my fellow elders here
17 we have a similar culture and I was listening to this person who was talking about
18 living on the land, even though when I was growing up I used to lived in a tent,
19 when I was growing up there was no sleeping bags all we had was traditional
20 blankets that were made with the fur. The first time I saw a man made blanket boy
21 it was pretty and beautiful, and then my grandmother used to look after me very
22 well and she used to tell me to try and help the fellow Inuit, our traditional
23 clothing's were warm. The clothing we have today is good for nothing because
24 the caribou skins clothing we used to have kept us warm. I would like to thank
25 each and every one of you in this room today and I'm going to remembering our
26 meeting here so have a safe trip home don't go hungry go hunting and help one
27 another and give a little gift to each like even a tea pot, it's the thought that
28 counts. Whenever someone gives me something even if it's really small I am
29 always very, very thankful to that person. If my hunting is successful I will pay
30 them back with a little bit of meat. Now a days it seems our children have to stay
31 in the house all the time, they are afraid of going outside, they don't go to outpost
32 camps anymore. We hardly use our traditional ways anymore and I still talk to my
33 grandkids in my traditional language. I would like to thank Diavik for giving us a
34 roof, giving us a lot of good food and I would like to thank all the organizers that
35 put the meeting together.

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1 **Mike Francis:** Thank you during this session although it's not long we had a good meeting some
2 of the things that we had no knowledge about now I gained some knowledge so
3 that's good.

4 **Louie Zoe:** As they said we had a good meeting and they are correct in saying for future
5 generations they are walking in our footsteps and we are making a trail for them
6 and setting a journey for them and the youth. I am thankful for the facilitators and
7 transcriptionists and also for the women with supporting one another and working
8 on the maps I am thankful for that, even though we put in these recommendations
9 the things might be touched upon and we don't know how long into the future we
10 are going to be able to be working together but in the end we should all come
11 together and you know work with the recommendations, that's what we are here
12 for. I am thankful for everyone here and I hope everyone has a safe trip home.

13 **Joe Champlain:** Thank you we had a good stay a good night's sleep and good food and we
14 were well taken care of and there's a lot of good knowledge and wise words being
15 shared here today and also they're saying people would have a safe trip home and
16 they are correct in saying that but although you come home, go home safely you
17 have to take care of himself that's what the elders often say if someone becomes
18 ill or sick we can't do nothing but if we travel amongst one another.

19 **Celine Marlowe:** Thank you for being here and I want everybody to have a safe trip home I
20 know everybody is anxious to get back to their grand children because I am for
21 sure and I have respect for everyone that was in this board meeting here and I
22 would like to thank everybody from the bottom of my heart.

23 **George Marlowe:** First of all I have to say thank you to the translators and the facilitators. I've
24 been to this kind of meeting lots and I think the way I see it we got something's
25 done on the board there, a lot of things. I think Diavik will think about it I know
26 they will support everyone of them I guarantee don't throw our words away. But I
27 thank you very much for staying here, beautiful students over there too; I wish I
28 was young again. So I thank you to everybody.

29 **John Ivarluk:** Thank you and I would like thank this man here for making this gathering here
30 available to all of us. It's been very nice to see all of you again familiar faces
31 ever since I started meeting with people like these people here. It's not my first
32 time to see a mine site still working they are doing a great job but I really hope to
33 keep Nunavut clean thank you.

34 **Martha Ivarluk:** I would like to thank you for bring us here to participate in this meeting. I
35 would like to wish each and every one of you a safe trip home and I would like to
36 thank you Diavik for giving us good accommodations while we are here.

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1 **Ed Jones:** I don't have much to say I want to thank you for exchanging ideas I was quite
2 surprise that Diavik was still in operation because we don't have many meetings
3 to keep in touch.

4 **Joy Dragon:** Thank you to everyone who I met and the facilitators and especially to the
5 interpreters and the translators and the students for being open to questions and
6 open to learning it shows a good spirit.

7 **Mary Rose Sundberg:** Mahsi cho for giving me an opportunity to be involved me in this
8 process. I have definitely gained a lot of knowledge from every one of you. With
9 this knowledge I will definitely talk to my people and most importantly to my
10 grandchildren so that they can pass this information on to their own children and
11 grandchildren. I think it's important that they know the process and what has to
12 be done to replenish the land again. We want to make sure that reclamation is
13 done properly so I am glad I was involved in whatever I had to offer. So I am
14 happy about that and the other thing I want to say every time I come to the barren
15 lands I feel so comfortable. The other day when I said I saw ugliness out there I
16 don't mean the healthy land. The healthy land makes me feel like I am at home
17 but when I see rock piles and all that grey ugly things that's what I mean by
18 ugliness. So don't get me wrong I love this land and I always love coming here
19 because my family was born in this area so it's really close to here. And I didn't
20 really that I also do have relatives through Henry and Mona I have aunty and
21 uncle that live in Cambridge Bay so they know them and they are related through
22 in-laws. I found that out and I am so happy to meet them, my aunty has been
23 living in Cambridge Bay for over 40 years.

24 All the work that we are doing here and everybody's contribution is very
25 important even though sometimes we don't agree with each other somehow at the
26 end we always manage to say okay we will think about that. The other thing I
27 think it's important too I didn't realize that Ekati owns 40% of this mine so I
28 don't see any problems trying to work together if the two companies are working
29 together in that capacity. I am sure Ekati is not going to say no I do not want to
30 work with you guys I am sure they are going to be open so you have to keep an
31 open mind and tell them the importance of we're trying to save you guys money
32 actually if we work together so you have to think about it that way as well. I felt
33 like I was on a holiday for some reason I think it's because I don't have a cell
34 phone, phones ringing.

35 **Joanne Barnaby:** I just want to once again welcome Brenda McDonald and we look forward to
36 re-establishing close communications with EMAB and helping you to stay in
37 touch with the traditional knowledge part of your mandate and in terms of

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1 bringing that forward in the system that you are working within and so I wanted
2 to give you a little opportunity to say a few words to the panel before we break.

3 **Brenda McDonald:** Thank you Joanne, I represent EMAB the executive director. First of all I
4 would like to say thank you to Diavik for the invitation to attend this session. Just
5 looking around the room at all the notes and all the discussion I would have
6 thoroughly enjoyed being here the whole weekend but at least I made the last day
7 and I caught the over view and some of you I know, I have worked with you in
8 the past so it's always good to see old friends. And I am very passionate about the
9 work I am doing and I would like to see this relationship with the TK Panel
10 renewed and strengthened and how we can assist and build a strong relationship
11 with the TK Panel in meeting our mandate protecting the environment and
12 working with Diavik and with the communities and with our elders to take all the
13 knowledge combined so that we protect the environment in the end. So I just
14 want to thank you all and I look forward to meeting you very soon, we can get
15 together and I would really like for my board to meet the panel and listen to some
16 of the good discussions that have taken place over the last few sessions since it's
17 been out of EMAB's hands thank you.

18 **Peter Huskey:** I want to say thank you to Joe for sharing his story it's a very powerful story for
19 me because I bet each one of us has a story like that. Our ancestors used to roam
20 on the land just like this I will share a little story with you about my great
21 grandfather his name is Bear Lake Chief he was born in Fort Norman but he was a
22 fur trader for Hudson's Bay in the old Fort Rae area. He used to have 7 cabins
23 along the way and he is buried just north side of Gameti it's called Lac Saint
24 Croix in English its Lake of the Cross. He guided a priest Emile Petitot in the
25 1800's there's a book on that and also he guided an archeologist from Iowa State
26 University the archeologist name was Frank Russell and he guided him from the
27 current Fort Rae area all the way to somewhere in the tundra but that guy reported
28 it took him four months to harvest 5 musk ox. Just a small story like that takes you
29 a long way back and each one of us has our stories like that. So I am thankful for
30 Diavik and also for the facilitators and elders participating from each region to
31 have input into this tradition knowledge panel I have been involved in the past
32 and I am very grateful to be here and I am thankful for each and every one of you
33 and to the University Students keep up the great work.

34 **Henry Ohokannoak:** I just want to thank Diavik, facilitators for giving me a chance to come
35 here it's my first time up here at Diavik Mines. It was a pleasure staying here
36 giving us a room and I just wanted to thank everyone for having us here.

37 **Berna Martin:** Thank you again for being for here for this session and thank everyone; Joanne,
38 Natasha and Diavik and those people here Pido Productions, the transcriber that

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1 works here and the interpreters. I know it's hard sometimes it's very challenging.
2 This was a good group of people that were together and share together, we
3 laughed together and we shared stories I really enjoyed that. I wish you all the
4 best and safe trip home. We try to accomplish too much, it's never an easy subject
5 to talk about the mine that we experienced though our community of Yellowknife
6 what we went through but the landscape that our ancestors, my parents parent's
7 that raised us around this area that looking into the landscape thinking back about
8 them like my uncle Joe Champlain said I am glad for the students being here until
9 the next session that we see each other again.

10 **Natasha Thorpe:** Thank each and every one of you for taking time away from your families
11 and coming here to meet with this very diverse family it's a very big honor for me
12 and I am sure for all of us to work across cultures across genders across scientists
13 and non scientists and when I really walk away from this session having heard so
14 much of your stories about mother nature not wanting to interfere too much but
15 also respecting nature enough to want to help move things along I think that
16 somehow nature is involved in all of us working together and helping the land
17 heal and move us along. It's not new that we've been working together like Peter
18 tells a story from the 1800's and Joe and Mark and others have talked about other
19 ancestors meeting in the same area many, many years ago so even though we
20 come from very different places I see a very together, moving forward with a very
21 strong voice. I just want to express a very big thank you to the interpreters, to our
22 scribe Janet it's really hard work and these guys don't get much of a break at all.
23 They work long hours every day we are here so that they can get the words right
24 and back to you so I am just really grateful I feel like they go the extra mile and
25 lastly I just want to say that while they are going the extra mile last night was
26 walking out and seeing a table with one person from each of the 5 groups just
27 laughing and sharing stories and that just really warms my heart I think not only
28 the work that we do in this room but the relationships that are built outside of this
29 room are very special relationships and I really respect you for moving those
30 forward. Thanks again it's an honor to have facilitated this session for you again.

31 **Joanne Barnaby:** I just wanted to add my thanks to everyone, every time I get a chance to work
32 with elders it's really hard for me to say no. It's been my life's passion and I feel
33 really privileged to learn from you and to try and relay the very deep knowledge
34 and very deep love you have for the land and to take care of your traditional
35 responsibilities with taking care of the land. I really honor that and cherish that
36 and thank you for working so hard to carry out those responsibilities.

37 **Colleen English:** Thank you for all of your time and your efforts this weekend and it sounds
38 like you enjoyed it and I think we had some good opportunities out on the land as
39 well as in this meeting room.

Appendix E

Session Poster Points

DDMI TK Panel Session #7

August 14-18, 2014

Quick Summary of “Poster Points” (i.e. highlight notes / key points taken on sticky notes and put up on poster sheets around the room)

Caribou

Must respect the caribou

There is a ball in the caribou intestine; you sew this into your ammunition bag when you are hunting and it brings

Caribou follow a leader

Caribou know where the vegetation is good

Animals won't eat anything poisonous; they know what is safe and what isn't

Caribou are smart

Mid-August is a good time to hunt caribou for clothing

We don't hunt caribou that are close to the mines

Don't hit caribou with a stick or you will scare them away for four years

Caribou might have trouble if there is ice on the rock pile

Caribou Migration

Caribou will find their old migration routes

Migration routes change so our hunting routes change too

Caribou routes are always changing; they know where to go

Caribou make their own trails; we don't need to plan too much

Inuksuit are used to mark caribou crossings (*nalluit*)

Caribou route goes right over Misery pit; the pit should be put back as it was

The East Island is a main part of the caribou migration route that goes near Misery, near EK'ATI

Caribou are going away; they migrate into Saskatchewan or over to Rankin Inlet; they are changing their migration routes

Caribou should be here right now – something is wrong

Caribou and Wildlife On-Site

Caribou will find the ramp, road or easy way so don't worry

I was happy to see caribou tracks and droppings on the mine site

We cannot prevent animals from coming here

I feel peaceful and good after going out on site; I saw a fox and wolf

I saw fox and ground squirrels here (but no diamonds!!!)

There were caribou trails at the south side of the airstrip; it looks good

Caribou and Vegetation

If caribou don't have food, they won't come around; they are smart animals

We need to focus on caribou and vegetation

It is unhealthy for the caribou in summers when nothing grows

When there is nothing to eat, the migration routes change; it has been 6-7 years now that the caribou have stayed in the barrens

I don't see changes in what caribou eat (around Artillery Lake)

There is not much for caribou to eat at the test plots, 10 years later

Vegetation

Don't disturb new areas

Return the East Island to the way it was, as much as possible

Replanting and regrowth will take time

Even though it will regrow, it won't be as much as before

We need to improve conditions for regrowth

As the wind blows dust will go into crevices and then things will grow

Moisture is very important for growth; you need moisture underneath (e.g. for lichen)

Some summers there are good berries; others there are not

Can we pick the berries here again? I don't think so

The berries and leaves in the undisturbed areas look the same as before

Vegetation on the East Island is different from the mainland (it could be human activity or introduced species)

Grass will grow after the mine closes but I'm not sure about the lichen

Vegetation is not a concern; the worry is about hazards and concerns for caribou

Wildlife smell food before they eat it; they may roam around but not eat

I was looking for dust on berries and willows, but I saw that they were pretty clean; seeing it first hand helps

Fire

There is an impact of ash and smoke on vegetation from fires

There is no more caribou in Gameti because of the fires

It has been 8-10 years since there have been many fires and not as many caribou coming around

Wildlife and their food burn in fires; I worry about the burns

Smoke keeps mosquitoes away

Fire destroys the land and vegetation

At McCleod Bay, Nanacho Lake is all burned; if the caribou don't go to Fort Reliance, we will know this I why; even from Fort Resolution to Artillery Lake

It is painful to see animals suffer but what can I do? (smoke hurts caribou)

Climate Change

Weather is getting warmer; this is nature

In the future, it will be like Yellowknife in Kugluktuk; nature is growing plants faster than it used to

Where we live, nature is going fast, changing, willows are growing fast, we see nice flowers now

It is harder to find cold drinking water; the ice melts away faster and the water is warmer

Water levels are decreasing and we can see more rocks along the shore

The water went down, there is no rain, there is more forest fire; things are different today and I worry

Willows are taller now at places we used to camp

EK'ATI road now has lots of trees because of climate change

More caribou are drowning now

There are different species coming to our area (e.g. a yellow bird); this was predicted by my Grandma

We cannot help nature because of climate change

Nature Knows Best / Nature will Heal

Want to discourage regrowth; time is needed to heal the land so good to keep animals away
Don't bother with re-vegetating as nature will heal
The environment is powerful; nature will heal; it will grow again
Tundra vegetation is very powerful; it is like there is something underneath that is helping
We saw nature kill 30 caribou from lightening near Mackay Lake
What happened at DDMI is not natural so we cannot leave it to Nature to heal; we need to help Nature

Regrowth Happens

Roads from the 1960s now have growth
They never replanted at the DEW lines and today they are beautiful
We learned from the DEW lines that vegetation grows again
The plants will grow
Natural revegetation is happening
I saw flowers on the rock pile; there will be more in the future
I saw that [natural] vegetation is growing again and I am happy with it
Vegetation grows very slowly (recovers very slowly)
The key to regrowth is to keep the footprint very slow
University students will help us know how to help regrow

Rock Pile

Keep the slope as it is at the test pile
The slope is good at the rock pile, it will be good
Slope at the test rock pile would be good for the side of roads too
Slope looks good at the test pile; keep it as natural as possible
There are some big rocks at the bottom that need to be covered (like on the test pile)
Big boulders should be pushed aside
Till on the rock piles means less moisture
The berms on the pile need to be made higher or sloped off
Think about the slope in the winter too; not just when it is snow free like now; it depends on the wind
Think about denning (e.g. fox) on the rock pile
Slope needs to be made for caribou at the North end as well as the South-East end
I'm worried about boulders and sharp rocks for animals
Don't make any easy passes for caribou to go to waste
Put muskeg at the bottom of the rock piles to invite wildlife
Once remediation is done, the berms will be gone
Rounding off the rock piles has to be done
The A21 pile should not be too high (okay if it is wider for now)
The East end will have a rock pile; don't make it too high; must be flat at top

Roads and Airstrip

(Consider Options 1, 2, 3 in slide)
Options 2 and 3 are okay, with a gradual slope, vegetation will grow
Prefer Option 3 for closure
Option 3 is easier for animals
The airstrip is good for animal safety; I hope other piles look like that (slope, shape, etc.)
There were caribou trails at the south side of the airstrip; it looks good

Lac de Gras / Fish / Water

Water levels at the shores change with snow levels
Fish move great distances
Fish travel by the shore during the fall when they are migrating
DDMI is on an island; it is different so I worry about water and fish
Dust moves through water and could go into the ground
Underwater vegetation is important for the fish
Watch out for streams going down to the lake

Questions and Comments to DDMI

What do the students and DDMI think about re-planting?
How long will they keep testing the plants (for contaminants)?
What is under the big rock pile?
How long will the mine operate?
Can a chemical be added to the slime to make it safe (harmless)?
How would you evaluate that water is safe before release into Lac de Gras?
Have they researched water in pits elsewhere (same ecosystem) or putting materials back in pit?
Will the water level of Lac de Gras go down when the pits are filled?
Is the rock pile going to get any bigger?
Where in the US is the pit that was filled?
What will happen to the airstrip?
What is the cost to fill the pits back again?
What is the dyke going to be made of (for A21)?
If EKATI and DDMI are jointly owned by Dominion Diamonds, isn't it easier to work together on things like the TK Panel?
How come we never see real diamonds (seeing is believing)?

Thanks for looking after our land
Everything looks pretty good
I am sure DDMI will clean-up as they should; they don't want to leave a mess; they posted a bond
I believe DDMI will live up to their agreements
I commend DDMI for doing such a good job at keeping it clean
Good to see the land looks healthy
There is a huge job left to closure; it is difficult to envision; communities should be offered as much as possible
Good to see with my own eyes as photos don't tell the whole story

Questions to TK Panel

What is an 'acceptable' level of natural regrowth and how long does this take?

Cumulative Impacts of Mine

Used to be lots of caribou and fish around Lupin, but we don't go there anymore
Jericho mine was really
Diamond mines are different from metals mines (i.e. no chemicals, toxins in the process)
Mines look scary to me; I have experience and I have to be honest
EKATI wants to open Jay pits
Airstrip at Lupin was built too high
Remind BHP to fill in the pit at Misery

EK'ATI and DDMI are on the same Lake; same system; work together
We must remember that mines close; they operate in cycles

TK Panel Process

We need to verify all quotes / legends
We need to ask the right questions
We need to consult our Elders; I have so many questions for them now; both formally and informally
Elders are the keepers of our knowledge; we need to ask our Elders about these things
The TK Panel has a responsibility and job to present this work back to the communities
Elders 'senate' needs to review these recommendations; to guide the grassroots
University students doing a good job
Seeing it first-hand helps

PKC Area

Use Bentonite to solidify the surface of the PKC

Old Days, Spiritual and Miscellaneous

The barrens remind me of my ancestors; they were powerful people; it is sad to see this ugliness
Coming here reminds me of my ancestors who were born here; I really love coming here; it is my home
When you go outside, it makes your soul feel better
We struggled in the past; when our forefathers would come to the barrens, they would bring wood and hunt fox
Women worked hard back then with caring for children, collecting wood, preparing food
In the old days we would travel, visit, take care of one another
The traditional life was easier as we had no worries; there was no mines, no hardships in communities
Today we need the means to go out hunting
Kids are afraid of the cold nowadays; maintaining our traditional ways is difficult
We survived on ground squirrels when no caribou came our way
If there are too many lemmings, they will get rabies
Fox can eat squirrels and get rabies; there was an outbreak 5-6 years ago
It was a little scary at the edge of the pit
My grandma told me to help my fellow Inuit
Today we still rely on one another; Aboriginal and non-Aboriginal
We couldn't believe the when they told us, or anticipate the social problems that have come

Recommendations

We need to decide what to talk about next time (e.g. what about the dyke, pits, etc.)
We should use landmarks (e.g. trees from Walmart 😊) to direct caribou away from mines, well north of Lac de Gras
Steer caribou away from Lac de Gras area to avoid Ekati and DDMI
Return the East Island to the way it was, as much as possible
Cover the East Island with a dome, smooth sides
We need a schedule about how often and when to meet.
The main thing is to get the lichen growing
Study vegetation east and north of the East Island (for caribou)
Study how caribou pellets (poop) fertilizes their migration routes

Study / find-out caribou routes from long ago (review previous reports and talk w Elders)
Keep it nice on the other side of the lake for caribou to pass
We need a women only session on vegetation
Recommend a women only session in the field
Students should have been here
TK Panel wants to see the open pit and water treatment facilities
Concern about leaving airstrip: some want it left for emergencies and others want it removed

Closing comments

I learned a lot
I am grateful to DDMI for bringing us all together
Thank you for having us
Wise words shared here
Being together is part of our healing
I've been afraid to hunt since they confiscated the meat
The youth are walking in our footsteps
Thanks for being open to learning and sharing

Appendix F

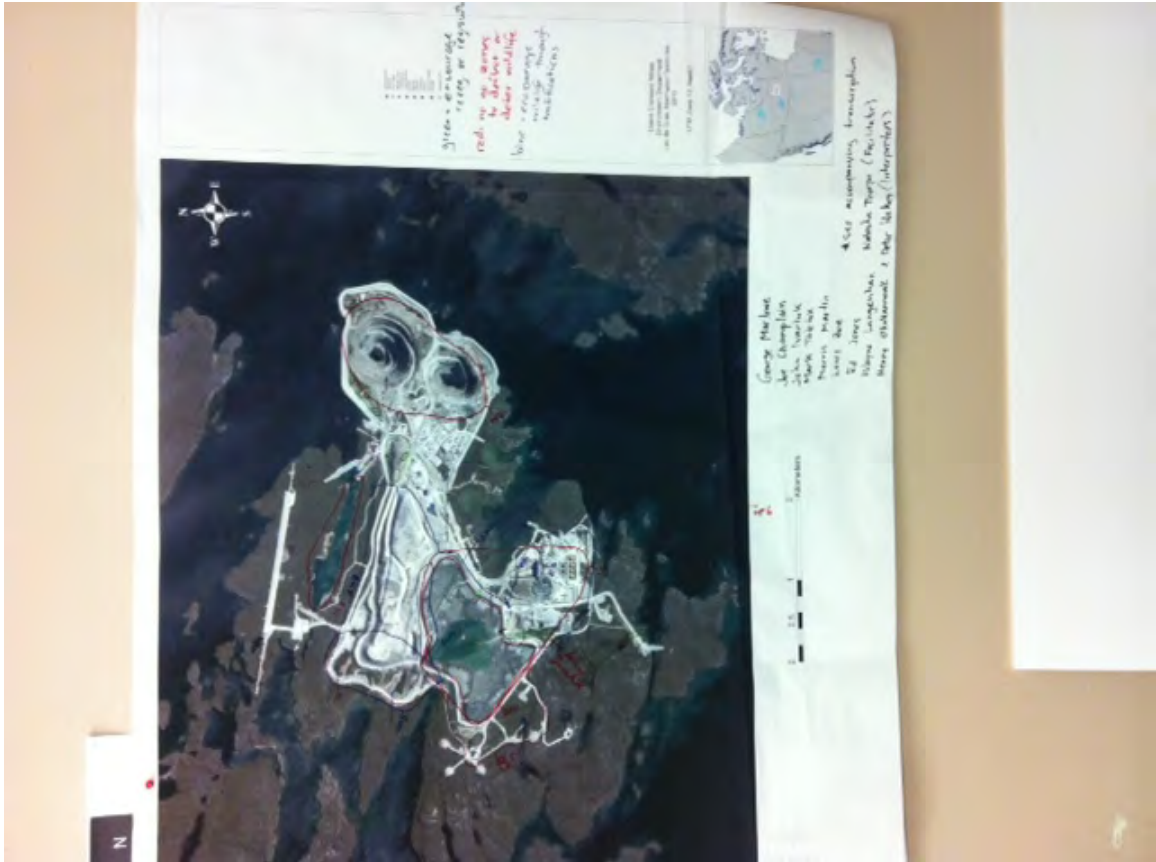
Proposed Re-Vegetation Maps

Key to Maps:

Red - You don't want wildlife to go

Green - Encourage re-vegetation or re-growth

Blue - Encourage wildlife through modifications





Appendix G

Presentation on Literature Review of TK of Plants

TK Panel Session #7

TK of Vegetation



Diavik Diamond Mine
August 14-18, 2014

Prepared by Natasha Thorpe,
Joanne Barnaby and Mistrelle
Lockhart

TK Panel Session #7

Resources: TK of Vegetation



Diavik Diamond Mine
August 14-18, 2014

Prepared by Natasha Thorpe, Joanne Barnaby and
Mistrelle Lockhart

Why?

- The TK Panel
 - recommended a session on vegetation
 - expressed the need to review TK material that has already been shared
 - doesn't want to repeat themselves
 - respects the contributions of Elders from the past



What did we find?

- TK is an oral tradition: more is known than is written
- Over 100 reports reviewed: 25 reports most relevant
- People know a lot about both individual plants and their importance to the environment



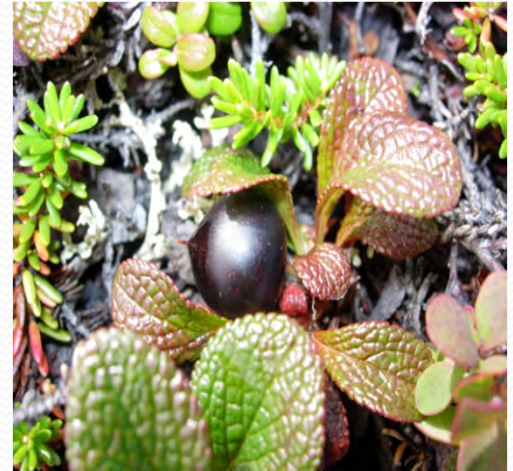
What did we find?

- TK helps us understand connections between:
 - vegetation and animals
 - vegetation and people
 - vegetation and weather and climate (water, temperature)
 - vegetation and land (slope, freeze-thaw cycles)



What did we find?

- Traditional use of vegetation includes:
 - Subsistence (eating, nutrition)
 - Medicine (healing, prevention, treatment)
 - Technology (fire starter, sleeping pads)
 - Animal Food and Habitat (caribou - lichen, bears -willow)
 - Cultural Importance (cottongrass to light the *qullik*)



Questions for our Session

- How do we re-vegetate to keep wildlife safe?
- Which habitats or plants create safety for wildlife?
- Where should habitats or plants be placed?
- What should DDMI do with site roads?



Appendix H

Presentation on Closure Plan

Diavik Diamond Mines

**Closure Planning for Vegetation (Plants)
TK/IQ Panel Discussion #7 – August 2014**

Document #:
Template #: DCON-029-1010 R2



Closure Planning for Vegetation

Content

Re-vegetation – focus for TK Panel Session 7

- How does Diavik monitor plants right now?
- Closure plan research & development for re-vegetation
- Mine site facilities overview
- Information requests for the TK/IQ Panel

1998 Pre-feasibility



400 0 4

Current Site-wide Closure Objectives

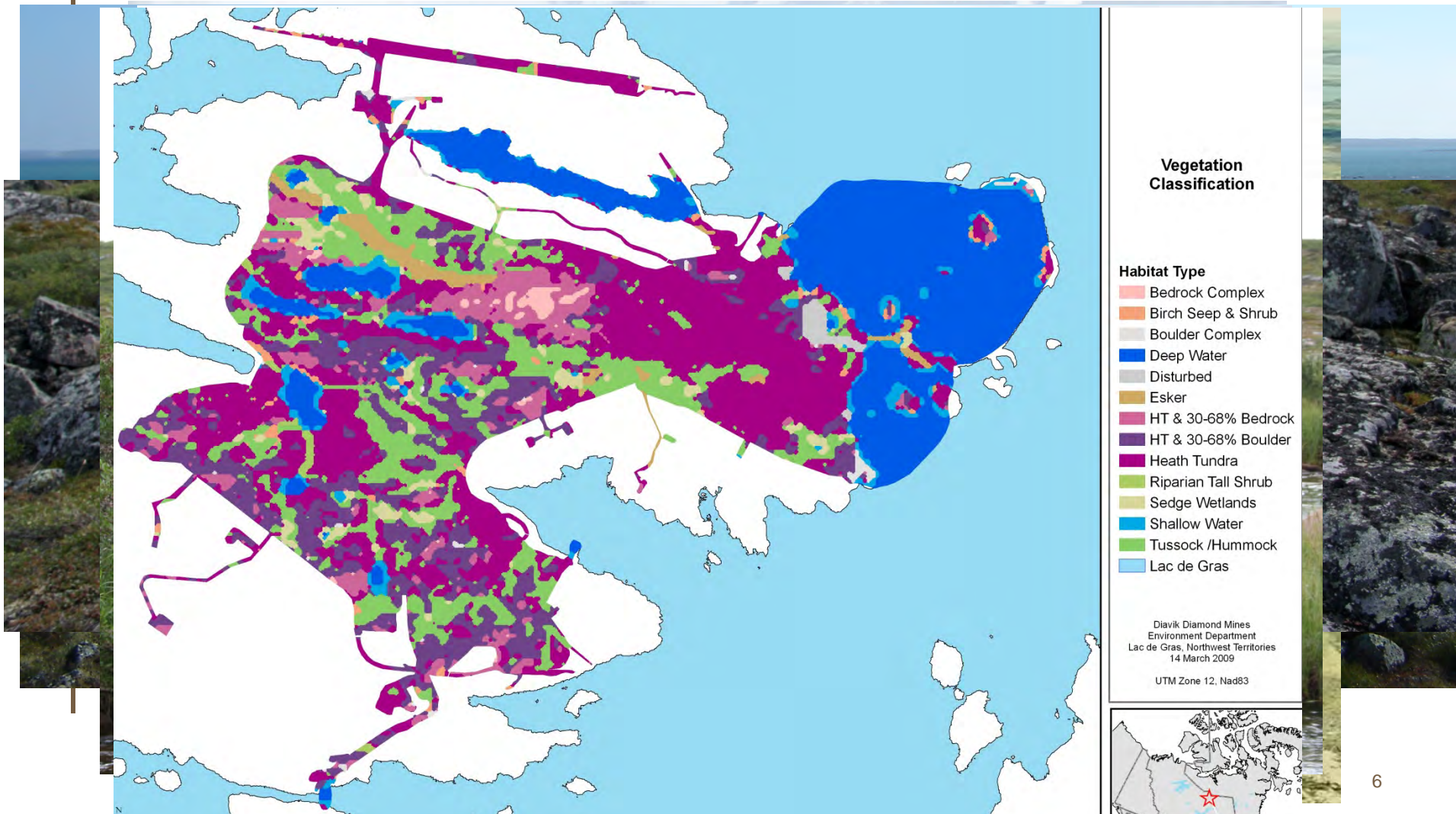
- Safe dust levels that do not affect the taste of plants for wildlife.
- Re-planting targeted to priority areas.
- Features on the land (plants) that match what is naturally found in the surrounding area.
- Safe passage and use for caribou and other wildlife.

Diavik Closure Goals

- Land and water that is physically and chemically stable and safe for people, wildlife and aquatic life
- Land and water that allows for traditional use
- Final landscape guided by Traditional Knowledge
- Final landscape guided by pre-development conditions
- Final landscape that is neutral to wildlife – being neither a significant attractant nor deterrent relative to pre-development conditions
- Maximize northern business opportunities during operations and closure
- Develop northern capacities during operations and closure for the benefit of the north, post-closure
- Final site conditions that do not require a continuous presence of mine staff

How does Diavik monitor plants?

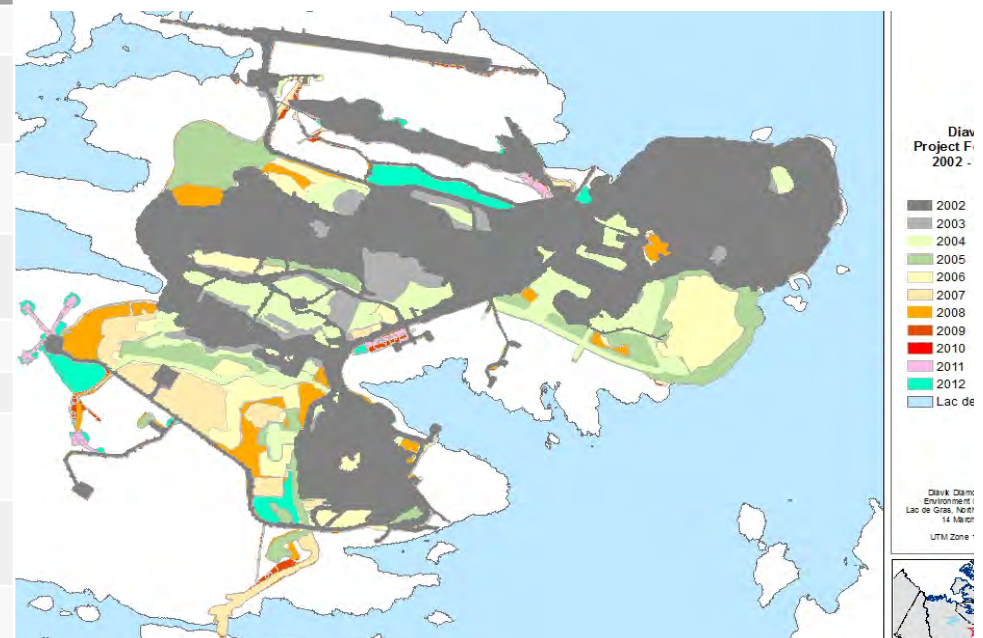
- Baseline



How does Diavik monitor plants?

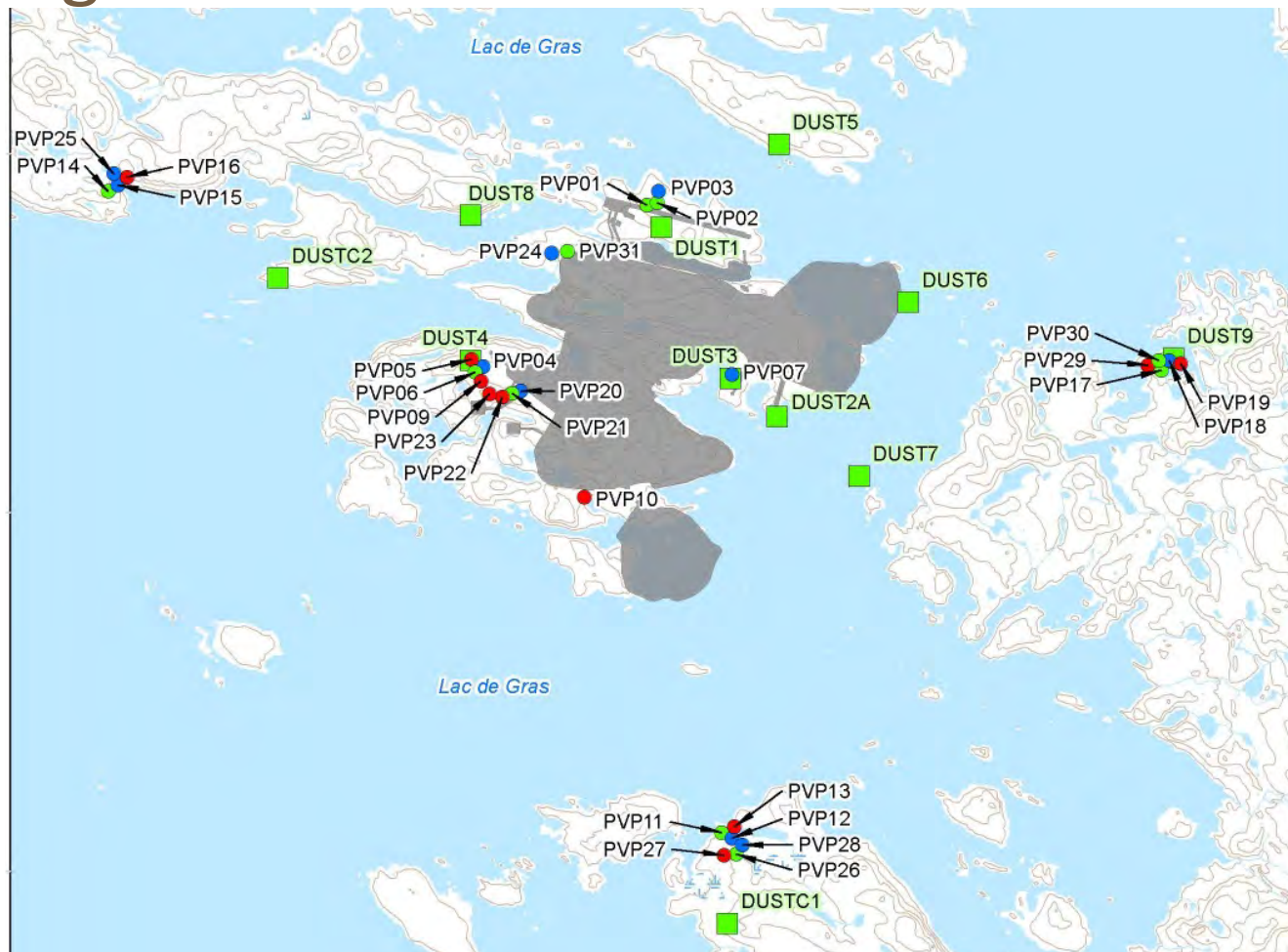
- Habitat loss to date

Habitat Classification	Total Area (/km ²) to date	
	2013	Predicted
Heath Tundra	3.2	3.68
Heath Bedrock (30-68%)	0.64	0.78
Health Boulder (30-68%)	1.62	1.89
Tussock/Hummock	1.46	1.64
Sedge Wetland	0.22	0.26
Riparian Shrub	0.03	0.03
Birch Seep & Shrub	0.1	0.11
Boulder Complex	0.04	0.05
Bedrock Complex	0.07	0.07
Shallow Water	0.36	0.48
Deep Water	2.13	3.46
Disturbed***	0.06	0.06
Esker	0.17	0.16
Total (km²)	10.12	12.67
Total (mi²)	3.91	4.89



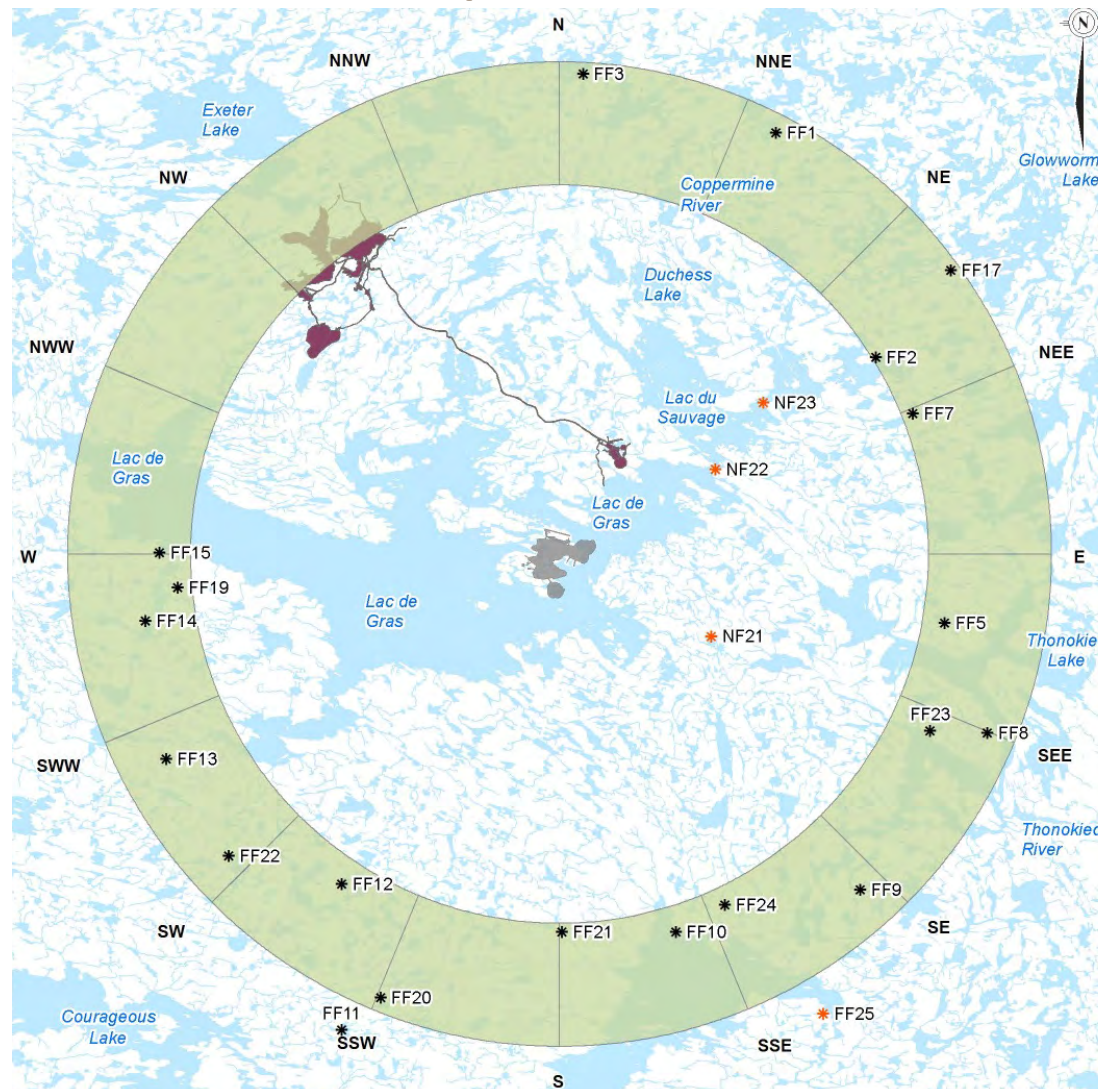
How does Diavik monitor plants?

- Permanent Vegetation Plots (PVP's) & Dust Gauges: on and off site



How does Diavik monitor plants?

- Metals in lichen & possible risks to caribou



Re-vegetation Research

- Testing plants, methods and different materials that can act as soils for use in closure



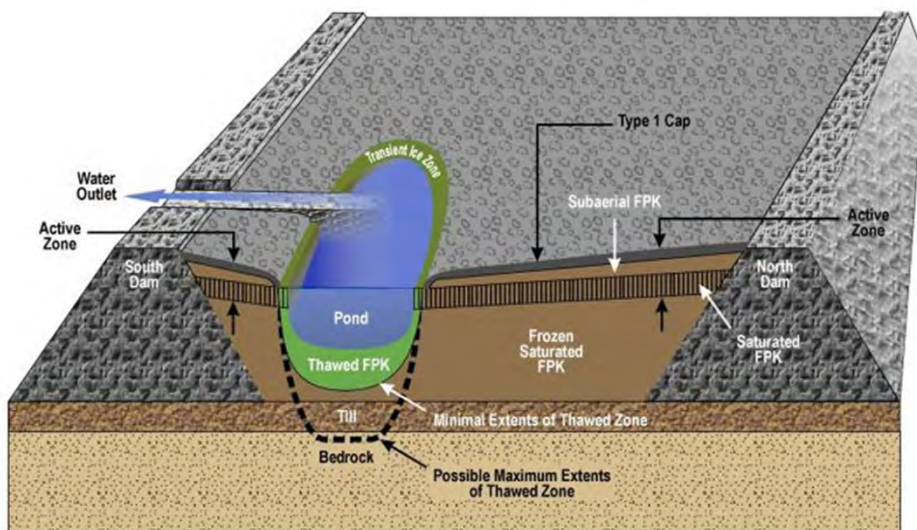
DDMI Closure Plans – the mine site

- The footprint of the mine will remain identifiable on the land
- Most of the areas you see around site that are still in their natural state will stay that way



DDMI Closure Plans – rock pile & PKC

- The approved closure design does not include re-vegetation of the rock pile or the PKC



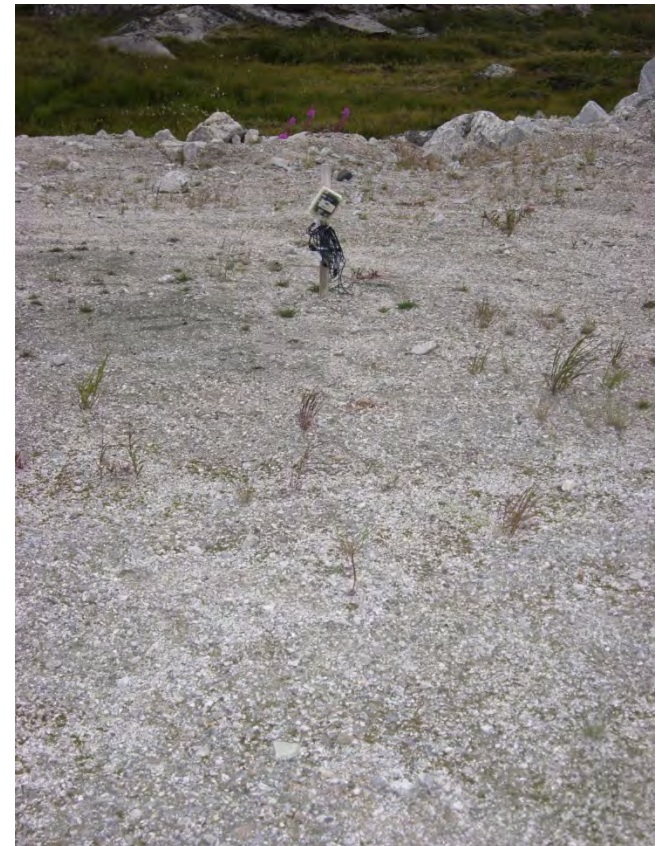
DDMI Closure Plans – roads

- Approach to restructuring site roads is yet to be determined



Research on Plants & Soils – What have we learned so far?

- ‘Soils’



Research on Plants & Soils – What have we learned so far?

- Amendments (similar to fertilizer)



Research on Plants & Soils – What have we learned so far?

- Plant growth



What have we heard from you so far?

Experiment with possible deflection zones

Re-vegetate the bottom of the rock pile with shrubs

Create marshy areas with moss, lichen & berries

Leave the airstrip intact – do not re-vegetate it

Re-vegetate according to baseline TK

Create wildlife habitat

Smooth slopes on sides of roads & scarify surfaces

Use willow to stabilize ground

Try to re-create natural conditions if possible

Leave some steep areas for denning

Re-vegetate to support biodiversity

Provide travelways for caribou made of soft materials

Re-vegetation at Closure – Requested Input

1. At a side-wide level, what is the best approach to re-vegetation to help wildlife stay safe?
 - a) Passageways
 - b) Stay and play
 - c) Keep away
2. What kinds of habitats or plants would be useful in creating that approach?
3. Where should these types of habitats or plants be placed; equal effort across the site or area-specific focus?
4. What should DDMI do with the site roads?

Overview of Closure Plan by Area



Open pits



Rock Pile



North inlet



PKC



Infrastructure



Re-vegetation at Closure – Requested Input

1. How do we re-vegetate (grow plants) to keep wildlife safe?
2. Which habitats or plants create safety for wildlife?
3. Where should habitats or plants be placed?
 - a) Focus on certain areas or use the same amount of effort all over the site?
4. What should DDMI do with the site roads?

Appendix I

TK Panel Recommendations

TK Panel Session #7

Recommendations

Diavik Diamond Mine
August 14-18, 2014

Introduction

- This TK Panel Session on Vegetation was requested by the Panel
- Diavik asked for direction on four key questions related to vegetation
- The TK Panel has provided general comments, responses and recommendations

Questions posed by Diavik

- How do we re-vegetate to keep wildlife safe?
- Which habitats or plants create safety for wildlife?
- What should Diavik do with site roads?
- Where should habitats or plants be placed?

General Comments

- Nature is powerful, natural re-vegetation should be encouraged overall
- At the same time, some re-growth should be encouraged
- There are specific areas where re-vegetation should not be encouraged out of concern that any possibility of contamination going up the food chain should be avoided: there are areas where we do not want wildlife to forage

General Comments

- There is a lot of TK that has been shared in the past about specific plants and their uses by people and animals, the completion of the literature review report together with results from our session will give specific direction on some of the questions raised by Diavik
- Climate change is affecting vegetation now – this will only increase in the future – warming is introducing new species and everything is growing faster
- Wild fires south and west of the mine may force wildlife to come closer to the mine as their food source gets burned: smoke and ash from the forest fires will impact the air and vegetation

General Comments

- It is important to always get the women's perspective – they have specialized knowledge that is needed to make good recommendations
- The Panel supports the research being carried out by the University of Alberta students and wants to work together to watch that develop over time
- The work of the TK Panel should be shared with the students

General Comments

- The TK Panel needs to meet more often in order to keep the momentum going
- Diavik has said they will not remove the slime from the mine site, we must re-visit our recommendations to re-vegetate the PKC
- Since the diamond mines started, caribou are migrating further south and east

Recommendations: How do we revegetate to keep wildlife safe?

1. Do not disturb new areas, protect natural vegetation areas on the Island (except for A21 and the rock pile for A21)
2. Study vegetation east and north of the Island to understand good caribou habitat
3. Use traditional techniques (e.g. flags, trees) to keep caribou away from areas that are unsafe (both near and far from site)
4. Test both natural and seeded plot plants for toxicity

Recommendations: Which habitats or plants create safety for wildlife?

5. Create safe passage for caribou over the rock pile and through the site following their old migration routes on the north and south east sides (see map)
6. Use fine crushed rock on passage-ways to protect the feet of the caribou (like what is on the sides of the airstrip right now – August 2014)
7. Create barriers and other means between rock pile and PKC to discourage animals from to the PKC
8. Allow more time for TK Panel to talk about options for keeping animals away from certain areas (e.g. fencing)

Recommendations: What should Diavik do with site roads?

9. Create slopes on roads and on the rock pile similar to that on the test pile to support safe travel for animals using crushed rock on the surface (like airstrip)

Recommendations: Which habitats or plants create safety for wildlife?

9. Transplant a variety of natural 'tundra mats' and compare them to seeded test plots; this will help natural recovery by maintaining the biodiversity of the area
10. Use the natural tundra mat to guide plant selection to ensure natural balance (learn from the quilt)

Recommendations: Which habitats or plants create safety for wildlife?

12. When using fertilizers, use natural local fertilizers like droppings from local animals (the question of treated human sewage will be revisited)
13. Complete the TK literature review report so that it can be used as a guide in the vegetation program and closure plan and be available to communities

Recommendations: Where should plants and habitats be placed?

14. We need to revisit the North Inlet in terms of it being a no go zone, replanting zone or encouraging wildlife zone.
15. The maps are not yet complete and we need to spend more time discussing and finalizing them.
16. The TK Panel would like to mark maps that show TK of traditional caribou migration routes and use this “big picture” to identify areas for sloping (modification) on the East Island
17. Have a women’s only session in the field next summer to address vegetation and other issues of interest to them

Recommendations: TK Panel membership and operations

18. Diavik must meet its commitments to support a minimum of two TK Panel sessions a year
19. TK panel members need to verify TK recommendations with elders back home
20. Require one male and one female member on the TK Panel (or formal alternates); where possible, members must know the LDG area (directed to Aboriginal governments)
21. Formalize our recommendations to Aboriginal governments to have youth participate
22. Celebrate our TK Panel as a model for other mining companies

Recommendations: Topics for Future Sessions

- Panel (vs. DDMI) to develop a list of questions to answer related to closure, and establish priorities to guide future sessions
- Review ‘big picture’ closure and reclamation plan and share literature / report review jointly with EMAB
- Develop a plan for including both traditional knowledge and western science in regional monitoring for post closure
- TK Panel to draft letter to other mining and exploration companies and governments regarding opportunities for Aboriginal peoples in closure

Recommendations: Topics for Future Sessions

- Water, fish, shoreline, muskeg, plants/filtration at closure
- Air quality
- Knowing the slime is not going to be removed, pull together what has been said about the PKC and tie this into another session
- Climate change impacts on closure
- Cultural landscapes and closure healing ceremonies to ask the spirits to return

Recommendations: Topics for Future Sessions

- Update ‘Working Together’ Document
- Compare non-Native and Native plants re-vegetation occurring naturally: how Nature is healing
- Seeing with Our Own Eyes
 - Want to see what is being mined (e.g. diamonds) so we can believe what is being mined
 - Pits: Panel wants to go into the pits and to the water treatment plant, some want to go underground

Recommendations: General

- DDMI should request regular meetings in each community with women during annual updates
- Provide participants with a copy of this presentation to take back to the communities

Cumulative Effects

- Support from Diavik requested by TK Panel to:
 - Acknowledge the problems created by multiple industrial activities (exploration and development) occurring at the same time along the caribou and fish migration routes
 - Encourage Regulators to limit the number of mines operating at one time to recognize that the land and animals can only handle so much especially when climate change is also happening fast. No further industrial activity on migration route should be approved until the caribou population grows.

Cumulative Effects

- Create a joint TK Panel session with other mines to address issues of concern around closure in the area (e.g. caribou migration, water and fish in Lac de Gras): work together
- Develop a map that brings together known caribou migration routes and calving grounds of the past (TK from all five groups) – Bathurst and Beverley
- Encourage the filling of the Misery Pit as it is in the middle of the caribou migration route (TK Panel to draft letter to EKATI)