

DDMI Traditional Knowledge Panel Session #10

WATCHING / MONITORING AND THE WASTE ROCK STORAGE AREA

-SOUTH COUNTRY ROCK PILE

Diavik Diamond Mine, NT
September 14-18, 2017



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**Diavik Diamond Mines (2012) Inc.
Traditional Knowledge Panel Report**

Session #10: Focus on Watching/Monitoring and the Waste Rock Storage Area - South Country Rock Pile

Diavik Diamond Mine, NT
September 14-18, 2017

Facilitation

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

Participants

Kitikmeot Inuit Association	Bobby Algona, Nancy Kadlun, Tyler Akeeagok (youth)
Lutsel K'e Dene First Nation	August Enzoe, Celine Marlowe, Roger Catholique (youth)
North Slave Métis Alliance	Kathy Arden, Wayne Langenhan
Tłı̨chǫ Government	Dora Migwi, Louie Zoe, Janelle Nitsiza (youth), Peter Huskey (interpreter)
Yellowknives Dene First Nation	Rose Betsina, Modeste Sangris, Theresa Lynn (youth), Berna Martin (interpreter)

Observers/Presenters/Visitors

Environmental Monitoring Advisory Board	Allison Rodvang (observer, 18 Sept)
Tłı̨chǫ Government Lands Department	Joline Huskey (observer)
Diavik Diamond Mines Inc.	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 (2012) 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 early 2013, TK Panels were assembled by the Environmental Monitoring Advisory Board (EMAB) to discuss select concerns related to the Diavik Diamond Mine. The most recent session was held at the Diavik Diamond Mine (Figure 1) from September 14-18, 2017 and was the sixth in a series of TK Panel sessions now administered under Diavik rather than EMAB. With this session, the TK Panel celebrated their tenth gathering held to date.

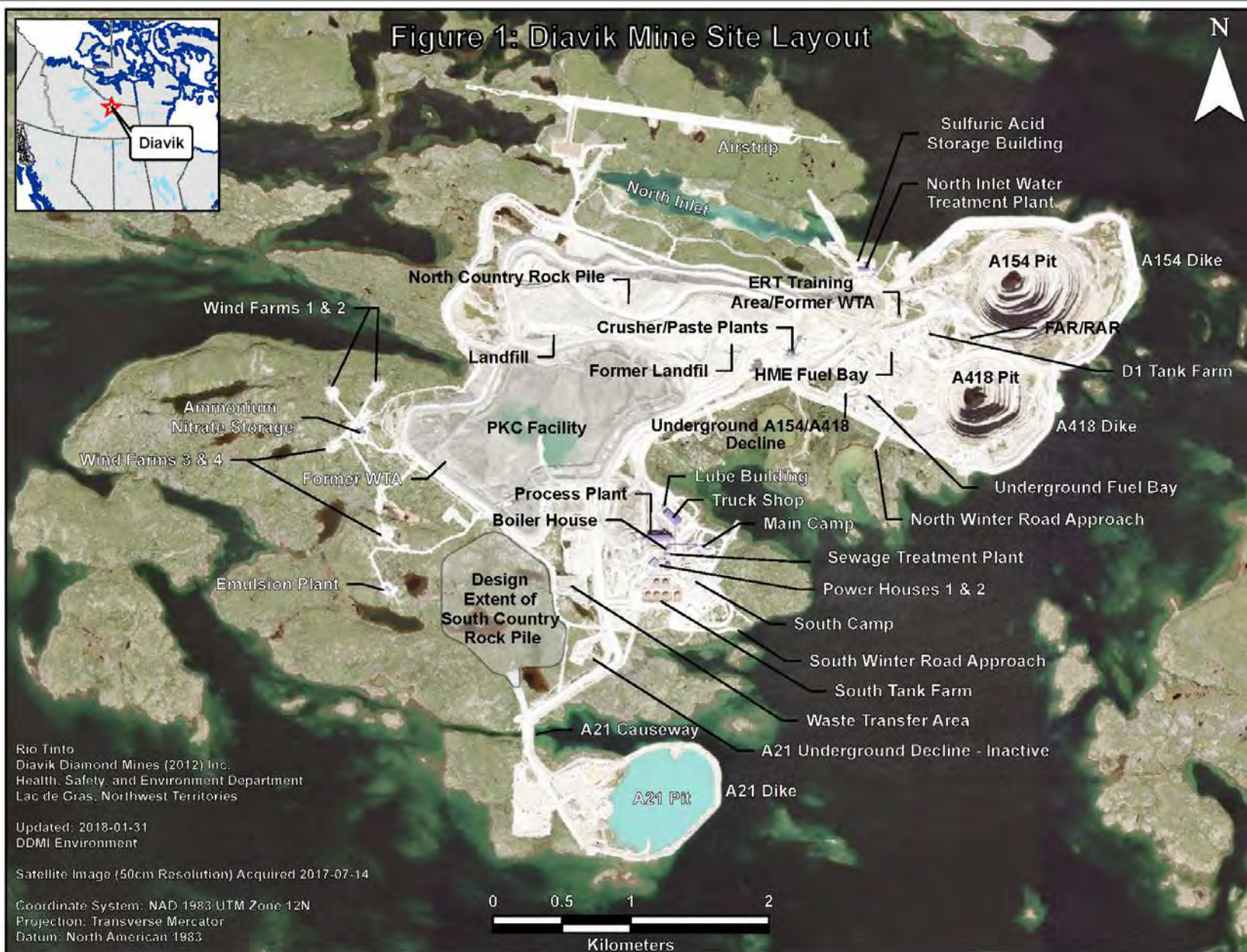
Session Purpose

Aboriginal peoples have long practiced “watching” as guardians of their lands, water, wildlife and more, routinely noting changes or significant events as signals of overall environmental health and wellness. These skills continue to be practiced today: informally within communities and out on the land, as well as formally through community-based monitoring programs.

The TK Panel Session #10 was intended to vision watching programs at Diavik for closure and post-closure, to satisfy closure plan requirements and to respond to recommendations made by TK Panel members to further explore and develop these programs. However, while some time was dedicated to this topic, participants wanted more opportunity to discuss details and make recommendations related to the Waste Rock Storage Area - South Country Rock Pile (WRSA-SCRIP). Thus, the facilitators proposed that the purpose of the session was revised with this focus. Diavik staff as well as participants agreed with this change, with the understanding that a future session would focus on watching.

A presentation highlighting northern community-based monitoring programs as well as some examples from elsewhere in Canada (e.g. including *Eyes and Ears on the Land and Sea*, a documentary of the Haida Watchman Program in Haida Gwaii) provided background for discussion. Examples of programs led by other northerners were particularly relevant. However, with the shift in focus of the session, this presentation served to stimulate preliminary discussions and to inspire thinking for future planning.

The TK Panel drew upon previous sessions related to the Waste Rock Storage Area - North Country Rock Pile (WRSA-NCRP), observations made during previous site visits, and presentations on revisions to the site-wide Closure and Reclamation Plan (CRP V4) and plans for development of the WRSA-SCRIP to enable discussion about the proposed structure (e.g. location, shape, content, slope) and plans for the WRSA-SCRIP.



Finally, the TK Panel reviewed responses from Diavik to the recommendations presented at the TK Panel Session #9 Focus on Caribou and developed new recommendations for review and consideration by Diavik, including suggestions for future TK Panel sessions. The format that is followed is similar to that of previous sessions and provides strong consistency, feedback, and communications between the TK Panel members and staff from Diavik.

This tenth anniversary session was marked by an in-person visit from Patrick Boitumelo, newly appointed President and Chief Operating Officer for Diavik. He welcomed the TK Panel and took the opportunity to hear their thoughts related to both the TK Panel and mine.

Session Goals and Activities

The TK Panel reviews closure plans for various areas of the mine, shares their knowledge in relation to each topic and presents recommendations to Diavik. In this way, they are continually increasing their understanding of the mine site and its closure challenges, while also directly influencing Diavik's closure plans. The goals for Session #10 were to:

- Provide an opportunity for input on progressive reclamation opportunities and progress for the WRSA-NCRP
- Provide input to the design and plan for the proposed WRSA-SCRIP
- Review examples of other monitoring/watching programs in order to put forth ideas around future watching programs at Diavik
- Provide guidance on ways to encourage safe movement of caribou and other wildlife on/around site and how best to monitor animals throughout closure
- Review and suggest future session topics for the TK Panel

The session format followed an established routine, modified according to participant feedback and developed over the previous nine sessions. At the session outset, the group reviews and approves the proposed format and agenda. An evaluation process held at the end of the session helps to improve future sessions.

Participants typically take a brief surface tour of the mine upon arrival to re-familiarize with the site and to have changes to the site highlighted by Diavik. A more focused field trip then takes place in the next few days around features discussed in the session or sites requested by the TK Panel. For this session, the tour took place on September 16 and included key stops to the following locations: top of the WRSA-NCRP and till pile, view of re-slope areas on WRSA-NCRP, test pile, proposed location of WRSA-SCRIP, and viewings of A21.

Report Overview

This report first outlines key themes related to closure planning, WRSA-SCRP construction and monitoring / watching as discussed during the session and closes with recommendations made by the TK Panel.

Appendix A includes photos from the session and field trip. Appendix B contains the session agenda while Appendix C provides a blank copy of the informed consent form that was signed by participants or observers new to the TK Panel. Session notes were reviewed and verified by the speakers and included in Appendix D. Appendix E includes a backgrounder on community-based monitoring / watching programs and highlights recommendations related to monitoring / watching made by the TK Panel to-date while. Appendix F contains presentations given to the TK Panel by Diavik related to the CRP V4 and WRSA-SCRP.

The TK Panel gave their guidance and recommendations related to the WRSA-SCRP and monitoring / watching as shown in Appendix G. Diavik provided a presentation on their response to TK Panel Session #9 recommendations on caribou monitoring (Appendix H). A short presentation used for discussion on the next steps and session topics is included (Appendix I), followed by a summary of participant evaluations (Appendix J).

Starting in early 2018, A21 mining will commence and decisions need to be made as to what to do with the waste rock. Thus, input from members of the TK Panel was important.

Proceedings: Key Questions and Themes

The TK Panel was tasked with exploring guiding questions during this session. The original questions proposed by the facilitators as well as the general direction of the session were modified with input from the TK Panel over the course of the session. Key guiding questions included:

- Should there be a wildlife pathway on the WRSA-SCRP? If yes, where should a wildlife pathway be located at closure? Is it ok for the remaining surfaces of the WRSA-SCRP to be rough? Are there any water quality or flow concerns or questions? If WRSA-NCRP Closure is approved and the WRSA-SCRP pile becomes smaller, how should the shape of the pile change?
- At and after closure, what types of checking and watching should be done on/around site?
- What should a watching program look like? How? What? When? Where? Why? Who?

Throughout discussions to consider these questions, the following key themes emerged throughout the session:

1. Re-sloping and progressive reclamation of the WRSA-NCRP is supported
2. The WRSA-SCRP should generally follow those recommendations put forth by the TK Panel for the WRSA-NCRP, with efforts to make it as small and smooth as possible
3. A future session is required to further develop ideas around monitoring / watching

1. Closure Planning

After Diavik gave an overview of the updated site-wide Closure and Reclamation Plan (V4), the TK Panel revisited some of their recommendations from previous sessions.

Participants discussed proposed closure options for the existing infrastructure (e.g. building materials, windmills, etc. will be put into the landfill, pits/underground or hauled off-site) as well as equipment (e.g. equipment with hydrocarbons or other hazardous materials will be hauled off-site or cleaned for disposal). Concerns about hydrocarbons led the panelists to discuss the importance of covering lay-downs and other areas that would have been exposed.

There was a strong interest in having salvageable and useful materials donated to the communities. In particular, a trailer or some sort of structure would be helpful as a monitoring station for ongoing watching programs at closure and post-closure. Diavik confirmed that they will follow all regulations about what is allowed versus not allowed to enter the landfill so that hazardous materials do not escape into the environment. In summary, the TK Panel put forth the following guidance points:

- After viewing on September 16, 2017, the TK Panel is pleased with and supports the current 3:1 slope on all sides and areas for caribou ramps on the WRSA-NCRP
- Lessons learned from planning, constructing, closing and monitoring the WRSA-NCRP should be applied to the WRSA-SCRIP

2. Slimes

The TK Panel re-visited the question of how to deal with the “slimes”¹ presently being stored in the PKC after DDMI asked: *What if we put the slimes in the bottom of the pit and into the underground tunnels so we could make the PKC a dry area at closure?* Diavik elaborated that if the slimes were to be pumped to A418, there would be large blocks called bulkheads built to minimize seepage of water or slimes between A418 and A154.

Some TK Panel members expressed concern about slimes being disposed in pits due to potential for their contact with fish and water. However, others thought this would be less of a concern given that the depth that the slimes would be placed would not necessarily be where fish were found. The slimes are not known to be toxic but it’s toothpaste-like consistency can pose a problem for people or wildlife that might get stuck if they were to wander into the slimes. In general, panelists expressed an interest in covering the slimes if possible. Even if the decision is made to take the slimes from the present PKC and put them into the pit, the PKC area should be covered.

¹ There are approximately 5 million m³ of slimes at present.

After much discussion, the TK Panel put forth the following guidance points:

- There is a concern if slimes were to be put into a pit that they may be released into the environment.
- As long as there are no chemical contamination or physical suspension issues (i.e. the slimes don't mix with the lake water), the TK Panel generally supports Diavik researching this alternative for disposal of the PK into the pits. The rationale for this guidance is that the TK Panel wants the WRSA-SCRIP and disturbance footprint on the tundra to be as small as possible – move slimes out of the PKC and use WRSA-SCRIP rock to cover the PKC area. It was hoped that this might help prevent wildlife access.

3. Waste Rock Storage Area - South Country Rock Pile

DDMI presented the proposed plans for the WRSA-SCRIP for consideration by the TK Panel. The TK Panel suggested generally following the same recommendations put forth for the WRSA-NCRP. However, it was pointed out that since the WRSA-NCRP was already built by the time the TK Panel began their session, the TK Panel has the opportunity to provide input into planning and closure of the WRSA-SCRIP before it is being constructed. This led the group to wanting to spend more time than originally envisioned to consider this important aspect of closure planning.

After a tour to view the WRSA-NCRP and proposed site for the WRSA-SCRIP, the TK Panel continued a lengthy discussion about the shape, size and characteristics of both piles. Diavik presented schematics showing the size (i.e. volume) of waste rock (Appendix F). Diavik generally inquired whether the WRSA-SCRIP should be 1) rocky with a wildlife pathway, 2) all rocky, or 3) all smooth for wildlife.

After returning from the site tour, the group divided into two groups to address questions with respect to the WRSA-SCRIP:

- Should there be a wildlife path over the pile?
- If so, where should the wildlife pathway be located?
- Is it okay for the surface to be rough?
- Are there any water quality or flow concerns?
- Should the South Country Rock Pile be smaller than proposed? How?

Participants considered alternatives for the WRSA-SCRIP such as adding more waste rock to the WRSA-NCRP, covering the PKC, adding rock to the airstrip or sides of the roads. They discussed at length the trade-offs between making the WRSA-SCRIP higher or wider than proposed and how that might affect the undisturbed tundra, wildlife movements (e.g. caribou migrations) and visual effects. The group then deliberated on how waste rock from one pile

could be moved to another area, put in the pit or otherwise disposed. In concluding their discussions of alternative use for the waste rock from A21, the TK Panel put forth the formal recommendation to:

- Consider alternative uses for A21 material:
 - Cover the PKC area after removing slimes
 - Assuming the slimes are gone, slope the south face/wall between the WRSA-NCRP and the north end of the PKC to allow for caribou movement
 - Extend the west end of the WRSA-NCRP and slope it for caribou
 - Cover areas that may have been contaminated after clean-up like the hydro-carbon containment area
 - Smooth edges of roads, airport and building areas

As with the WRSA-NCRP, the TK Panel concluded that there shouldn't be any harmful materials on the surface of the WRSA-SCRCP. The WRSA-SCRCP should have caribou-friendly trails and large boulders strategically placed to facilitate caribou movement.

In general, there was agreement to make the WRSA-SCRCP as low as possible, so the sides are not steep for wildlife, while at the same time trying not to disturb too much tundra. As with the WRSA-NCRP, the idea would be to make the pile as much like an esker as possible. In particular, there should be specific caribou trails that are oriented to be in keeping with well-known historic caribou migration corridors through East Island. According to TK, caribou have used the proposed location of the WRSA-SCRCP before crossing Lac de Gras. Thus, the suggestion was also made to re-locate the WRSA-SCRCP somewhere else.

Discussions during plenary continued throughout break-out sessions, and resulted in the following recommendations:

- Avoid disturbing new areas (e.g. tundra) with A21 material at the WRSA-SCRCP as much as possible. The proposed WRSA-SCRCP area is part of a major caribou migration and feeding corridor and should not be disturbed.
- If this area must be used, minimize the size (i.e. volume/amount) and height of the WRSA-SCRCP as much as possible and slope all sides like an esker so that animals can easily walk over it. We recommend the slope should be at 3:1, as seen on the WRSA-NCRP.
- If the WRSA-SCRCP is large, designated pathways become more important and must follow caribou routes known through TK.
- We recommend that rock from A21 that could go to WRSA-SCRCP be used to cover the WRSA-NCRP.

- Drain the pond that would be covered by the WRSA-SCRP before using the proposed area.
- Have all WRSA-SCRP water tested (both science and TK) before releasing into Lac De Gras
- Use natural filtration methods in areas where water will run off the WRSA-SCRP after closure.
- Diavik must plan for the same values, principles and goals held by the TK Panel for the WRSA-NCRP, to the WRSA-SCRP (e.g. maintain low height, 3:1 slope for caribou).

Rock Terminology

The TK Panel and Diavik discussed some terms and processes related to mining diamonds in the Lac de Gras area in an effort to help everybody understand more about geology. The Elders reminded everybody of the importance of not speaking about rocks (or anything in the environment) as “good” or “bad” as this can be disrespectful. In an attempt to use plain language, there were discussions about “good” rock being Type 1 rock which does not contain the biotite schist that can leach “metals/rust” into the waterways. Type 2 and Type 3 rock from the A418 and A154 pits contains biotite schist and had been called “bad” rock. There was a lengthy discussion about how A21 does not appear to contain any of the biotite schist and was said to be the best rock for reclamation. Moving forward, it was agreed that the rocks would be referred to as Type 1, Type 2 and Type 3 and that details about their origin and whether they contained biotite schist would be discussed.

Glacial till collected from the bottom of lakes is set aside separately to be used for cover material or re-vegetation. Some of the TK Panel members affirmed the importance of till for growing vegetation, especially after viewing flowers growing on the test pile. Type 1 and A21 rock is good for construction of roads, dikes and laydowns, and is “simple” from a geochemical perspective.

The following specific guidance was presented to Diavik:

- Respectful language should be used such that the rock should not be called “good” or “bad” as everything is understood to be gifts from the Creator

4. Drainage at the WRSA-SCRP

The mens’ break-out group discussed drainage, noting that a pond which presently drains into Lac de Gras is located underneath where the WRSA-SCRP would be constructed, and it was recommended that it would need to be drained. At closure, any water that will make its way into Lac de Gras would have to be tested, monitored and treated (if required).

The TK Panel made a request to see the lake water within the A21 dike before it is pumped back out to Lac de Gras. Diavik explained that they were close to starting the pumps (i.e. in October) and while it was not possible to go out on a boat at this time, Diavik accommodated the request by taking those interested to view the A21 dike and pool water, with an opportunity to pay the water on the shoreline inside the dike. There was also discussion about fish in A21 and whether they were all removed in preparation for the water being pumped out of A21. Diavik confirmed that the fish had already been fished out, in accordance with direction from DFO and assistance from community members.

After a competitive process, the Tłıchǫ were contracted to fish out the dike created for A21. There were monitors catching and releasing the fish, and any fish that didn't survive were given to communities.

The TK Panel put forth the following recommendation related to water:

- Water should be tested by both science and traditional knowledge before releasing into Lac de Gras – where needed, use moss and other natural filtration as treatment.

5. Caribou Crossings

As in every TK Panel session to date, caribou were another component of the discussions. Concerns about whether caribou will return to East Island after closure were expressed, with several TK Panel members predicting that they will not return, regardless of what accommodations are made. Other TK Panel members explained that people simply “do not know” if caribou will return. At the same time, caribou are known to be smart animals and will be able to sense the changes.

The development is thought to have “chased” the caribou away. For example, caribou are known not to go towards lights such as those from the mine. Maps showing TK of caribou movements and migrations documented in the 1990s during the EA were shown to the TK Panel. These maps affirmed the observations made by TK Panel members that the caribou migrations have changed such that they are deflected from East Island. There used to be three major routes during the southern migration (i.e. one eastwards through Łutsel K'e, one westwards through Tłıchǫ communities and one through the central area at Lac de Gras).

The importance of caribou crossings was emphasized again in this session. Specifically, members talked about how there are many unmarked graves at caribou crossings given they were important campsites. Concerns about disturbing deceased ancestors were raised, with parallels made between disturbing burial sites and disturbing tombstones at a cemetery. The area proposed for the WRSA-SCRIP is also known as a “staging” area for caribou preparing to cross Lac de Gras.

6. A Robust Community-based Monitoring Program

While the TK Panel spent much time considering a long-term monitoring program, the last key theme that emerged was that the existing TK Camp should be transferred to the GNWT or another organization at closure and serve as the basecamp for community monitors after closure (i.e., 2025) and that a robust watching program must be developed at Diavik and transferred upon closure. Details around funding, liability, responsibility and more need to be fleshed out well in advance and while community members would like to develop and design the program, they would seek administration assistance from the GNWT. Other agencies could also use the station for cumulative effects monitoring and other initiatives. More details of the program should be discussed at a future TK Panel session.

A documentary produced by the Haida Watchmen was shown to the group to showcase a community-based monitoring program, stimulate discussion and provide examples of possibilities. A lengthy discussion followed, with specifics about what should be watched. The idea of building upon a traditional system of watching that includes reporting on and sharing what is heard, touched, watched, tasted, and smelled was strongly supported: “modernizing the traditional system to meet today’s needs.” The suggestion was made to build upon the monitoring programs already in place at Diavik, particularly the Aquatic Effects Monitoring Program. The youth spoke about the aquatic monitoring in the Deh Cho as well as Ni hat’ni Dene as good models from which a watching program should be built.

On the afternoon of the third day, the panelists broke into two groups to focus on watching programs. Any type of watching program developed at Diavik would have to be grounded in both science and TK. The TK Panel discussed possible ways in which TK could be the foundation of a watching program, building on much of the current scientific monitoring. For example, Louie provided a suggestion for TK-based monitoring that could be used for rabbit scat, which can be an indicator of a healthy environment. It has to have a particular smell, shape, consistency, etc. and when this is changed, the environment has similarly changed. Shorebirds were also mentioned as being important because their health can be indicative of healthy water (e.g. shorebirds eat bugs in the water and the presence of bugs usually suggests that the water is healthy). The TK Panel strongly asserted that watching water is critical, particularly as animals and people depend on healthy water. Water was said to be one’s “livelihood” and the importance of water needs to be better taught to youth today in order for them to care for water long into the future. Everything is important in terms of watching: animals, fish, birds, plants and more.

The suggestion to get out and walk on the land more often during the TK Panel sessions was made, particularly given the accessibility of boats and motors. It was suggested that panelists would then be able to see whether ground squirrels and other animals still live on East Island.

Future discussions need to explore who should be doing the monitoring, how monitors will be trained, where watching will occur and what should be watched and how the program could be

coordinated between many Aboriginal groups. Sorting out who will pay for monitoring will also be important to resolve. Some panelists thought that monitoring should be year-round and ongoing while others suggested that it could be done seasonally. However, once it was pointed out that there are different animals and environmental conditions throughout the months, the idea of watching throughout the year was preferred. The challenge of high costs was considered and an option of monitoring in two-week periods several times throughout the year was suggested.

The airstrip as well as emergency fuel would be helpful in terms of infrastructure left behind.

6. General Process

One of the key strengths of the TK Panel is that participants are constantly offering suggestions to improve the sessions. Some suggestions are shared through the evaluation form, while others are communicated formally during the session or informally during the breaks. The facilitators work to ensure that these are documented and, in most cases, Diavik and the facilitators are able to accommodate these suggestions. The participants made the following suggestions related to the TK Panel sessions, process and logistics:

- Elders honoraria rates need to be reviewed and raised
- Copies of presentations need to be provided to interpreters in advance
- TK Panel members would like to have more time out on East Island to watch with their own eyes the state of the land, water, wildlife, etc. This includes quiet time on the tundra.
- Respectful language should be used such that the rock should not be called “good” or “bad” as everything is understood to be as gifts from the Creator
- TK Panel would like to have the results of the 10-year overview of the re-vegetation research
- TK Panel should be presented with the results of all the monitoring programs in order to understand what impacts are being documented now and until closure

Outcomes: Recommendations

The TK Panel collectively developed 10 unanimous points of guidance and 23 recommendations (Appendix G).

The resulting recommendations centred around the following themes as detailed above and summarized below:

- SCRP—Eight recommendations to avoid disturbing new area, minimize the pile size, ensure caribou routes, make sides smooth and drain the underlying pond

- A21 Pit—One recommendation detailing five alternative uses for waste rock in an effort to reduce the size of the WRSA-SCRP
- Help caribou—A recommendation specific to returning East Island to a caribou-friendly state and designed with migration corridors, regardless of whether caribou will return
- Watching Programs (Framework)—Eight recommendations citing the importance of youth engagement, training, year-round monitoring, long-term planning, funding, need for collaboration and foundations in both traditional knowledge and western science
- Watching Programs (General)—Four recommendations detailing how planning and implementing a collaborative monitoring program should occur including details on the importance of carrying out background research, drawing from other examples, celebrating ‘best practices’ of the TK Panel and ensuring infrastructure (i.e. trailers / buildings) remains on-site
- Cultural—One recommendation reminded the group of the importance of designing watching programs that are culturally appropriate, respectful and relevant as determined from the elders

Recommendations are numbered to reflect the TK Panel session identification (i.e., Session 10) and to subsequently identify each specific recommendation (i.e., 10.1–10.23). Diavik will consider these and add them to their Recommendations Tracking Table. Diavik’s response will be presented back to the TK Panel at the next session in 2018.

TK Panel Next Steps

During each TK Panel session, participants typically re-visit the list of session topics carried out to date and those suggested for the future (Appendix I). The TK Panel reviews the list of potential future TK Panel topics and put forth the following possible list:

- Underground and PK deposition in mine workings (possibility of taking video coverage for those who are not comfortable going underground)
- Waste management at Closure

It was suggested that both a male and female youth from each group could attend future sessions and to hold the TK Panel meetings during times when the youth are off school.

One participant suggested that the next Aquatic Effects Monitoring Program (AEMP) contain a focus on rivers so that people can look at the rivers draining into Lac de Gras.

Appendix A

TK Panel Session #10 Photos



Wayne Langenhan, Natasha Thorpe, Janelle Nitsiza, Berna Martin, Tyler Akeeagok, Dora Martin, Rose Betsina, Modeste Sangris, August Enzo, Gord Macdonald, Louis Zoe, Nancy Kadlun, Celine Marlowe, Kathy Arden, Roger Catholique, Jolene Huskey, Joanne Barnaby, Louis Zoe, Bobby Algona (L to R). Peter Huskey (front).



Upon arrival onsite, Kathy Arden takes a moment to look out on Lac de Gras while others pay the water nearby.



Tyler Akeeagok, Bobby Algona, Louis Zoe, and Modeste Sangris (L to R) pay their respect to the water before dewatering at A21.



Members of the TK Panel walk up the test pile, evaluating the slope and cover with respect to possible caribou movement at closure.



Celine Marlowe and Roger Catholique explore onsite modifications made to encourage caribou movement at closure on the test pile.



Louis Zoe stands at the top of the Waste Rock Storage Area -North Country Rock Pile (WRSA-NCRP) that has been re-sloped (at 3:1) according to suggestions made by the TK Panel, with caribou pathway in the background.



An access road for WRSA-NCRP re-sloping work has been situated in an area that will become part of the caribou walking path at closure, in accordance with design recommendations from the TK Panel.



TK Panel members inspect the WRSA-NCRP and future caribou pathways.



Close up view of the west side of the WRSA-NCRP, which has been re-sloped to enable cover placement and safe movement of caribou in the future.



View from a distance, looking up the WRSA-NCRP that has been re-sloped.



Southern flank of the NCRP, still in the process of being re-sloped.



Members of the TK Panel walk down to the tundra where the Waste Rock Storage Area-South Country Rock Pile (WRSA-SCRP) will be constructed.



TK Panel members connect with the tundra near the proposed WRSA-SCRP location.



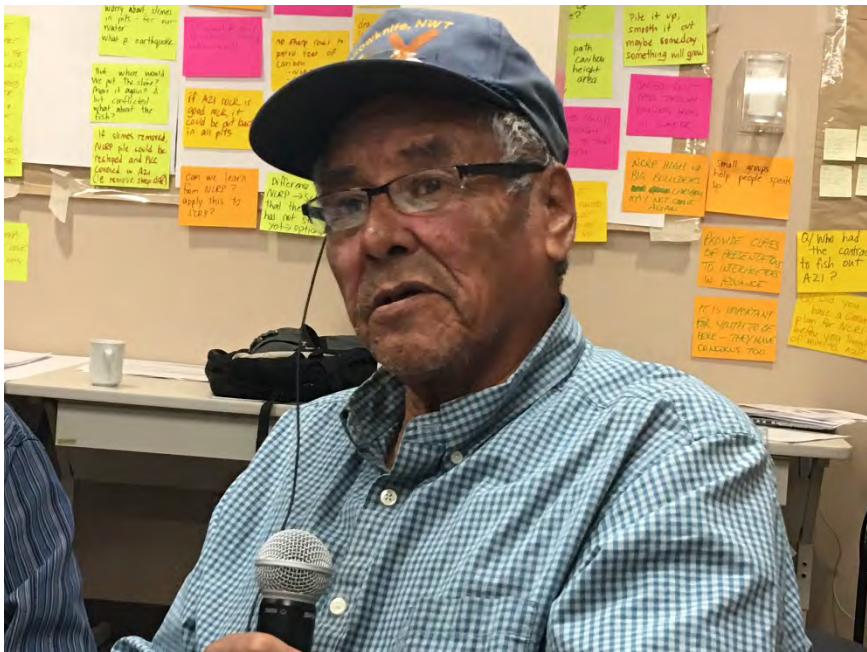
Natasha Thorpe and Joline Huskey take a moment on the tundra.



All in favour?!



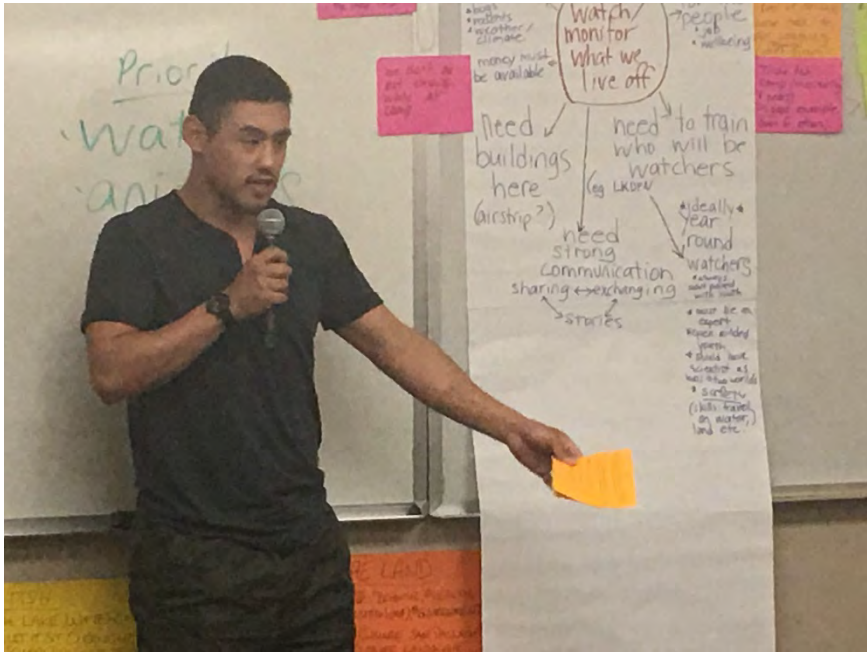
Bobby Algona speaks to watching programs in the future.



Modeste Sangris shares his recommendations with the TK Panel.



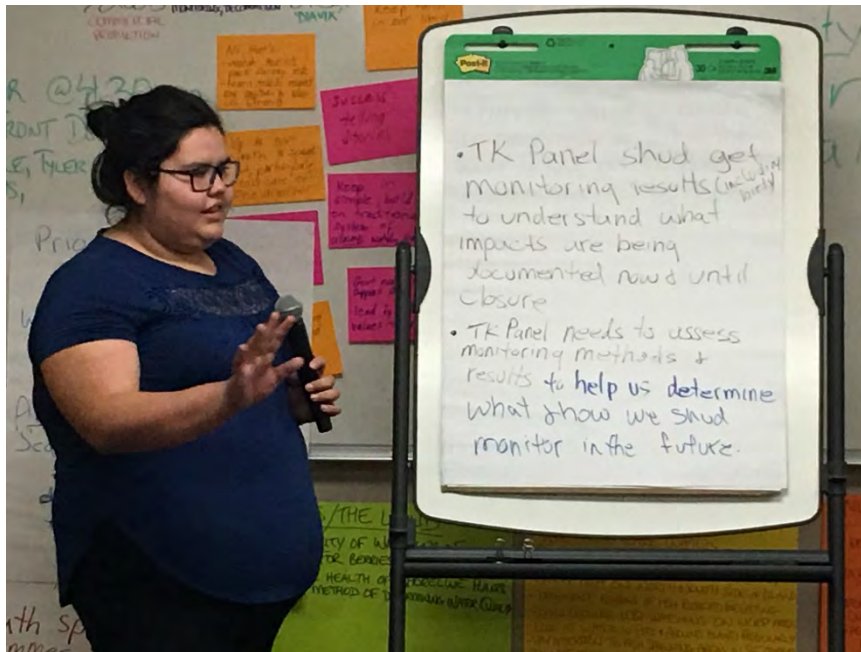
Rose Betsina explains the importance of “watching” now and into the future.



Tyler Akeeagok summarizes recommendations put forth by a break-out group.



Roger Catholique and Theresa Lynn present break-out group results to plenary.



Janelle Nitsiza summarizes findings from a break-out group.



Patrick Boitumelo, newly appointed President of Diavik Diamond Mines (2012) Inc., introduces himself and shares in a discussion with the TK Panel.



Celine Marlowe cuts the cake to honour the tenth session of the TK Panel.



The kitchen staff take good care of the TK Panel, preparing special meals as well as a cake to honour the TK Panel.



Wayne Langenhan enjoys the first bite!



Peter Huskey and Janelle Nitsiza help with the celebrations.

Appendix B

TK Panel Session #10 Agenda



Agenda

**Diavik Diamond Mines Inc.
Traditional Knowledge Panel
Session #10: Watching, Monitoring, Learning and Planning
September 14-18, 2017**

Thursday, Sept. 14

3:00 pm Arrive onsite - quick surface tour en route to camp (~1 hr)
Security, Orientation & camp tour (~1 hr)
Rooms & Luggage assistance

Friday, Sept. 15

8:30 am Opening Prayer, Welcome, Round Table Introductions, Review Draft
Agenda, Workshop Purpose Overview

9:00 am Diavik Presentation – Site overview, Closure Plan and community
engagement update, Responses to previous session recommendations

Group Discussion

10:30 am BREAK

10:40 am Diavik Update: South Country Rock Pile

Question 1: Where should the wildlife pathway be located at closure? Is it ok
for the surfaces of the SCRPs to be a rough surface? Are there any water quality
or flow concerns or questions? If NCRP Closure is approved and the SCRPs pile
becomes smaller, how should the shape of the pile change?

11:30 am Lunch

12:30 pm Group Discussion

3:00 pm Opportunity to Set a Precedent & Group Discussion

4:30 pm Close

Saturday, Sept. 16

8:30 am Opening

8:45 am Understanding Watching Programs: A review of current 'best' practices'
community-based monitoring programs - Overview of current status,
issues according to Traditional Knowledge (Facilitators)



Summary of TK Panel Recommendations Made to date on Monitoring

Understanding Current Monitoring at Diavik: Big Picture

- 9:45 am Break
- 10:00 am Break-Out Group Discussion: Men / Women
- Question 2:** At and after closure, what types of 'checking' and 'watching' should be done on/around site?
- Report to Plenary
- 11:30 am Lunch
- 12:30 pm Group Discussion
- 2:00 pm Break
- 3:00 pm Site Field Trip: south country rock and till pile (SCRP), A21 area, processed kimberlite containment (PKC) area, north country rock pile, A154/418 open pits

Sunday, Sept 17

- 9:30 am Opening
- 9:35 am Debrief from site field trip
- 10:00 am Plenary or Break Out Group Discussion
- Question 3:** What should a watching program look like? How? What? When? Where? Why?
- 11:30 am Lunch
- 12:30 Plenary or Break-Out Group Discussion
- 2:30 Group Discussion
- 4:15 pm Next Steps / Next Sessions
- 4:30 pm Close



Monday, Sept. 18

- 7:30 am Bags & belongings out of rooms, store under stairs in lobby
- 8:30 am Opening
- 8:35 am Facilitators present draft of TK Panel recommendations for discussion
Group Discussion: Finalize recommendations
- 11:00 am Break
- 11:20 am Next Steps/Next Session Group Discussion
- 11:40 pm Presentation to Diavik: TK Panel recommendations
Diavik Response and Group Discussion
- 12:40 pm Closing Circle and Prayer
- 1:00 pm Lunch
- 3:00 pm Check out for return flight

Appendix C

TK Panel Session #10 Informed Consent Form

Diavik Diamond Mines Inc. Traditional Knowledge Panel

Informed Consent Form

I (name) _____ on _____, 2017 give permission for Diavik Diamond Mines (2012) 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 into a report which will be publicly available.

Signed this _____ day of _____ 2017, in _____
Northwest Territories,

Signatures:

Participant

Aboriginal Organization

Diavik Diamond Mines Inc.

DDMI Contractor

Appendix D

TK Panel Session #10 Daily Notes

1 Louis Zoe: Opening Prayer

2 Joanne Barnaby: 10th session of this panel. A few of you have been to all
3 of the sessions. A major milestone for us. Thank you
4 all for your hard work.

5 Roger Catholique: From Lutsel K'e as a youth.

6 Nancy Kadlun: I work with heritage center.

7 Tyler Akeeagok: Kugluktuk

8 Bobby Algona: Kugluktuk

9 Kathy Arden: Represent North Slave Metis Alliance

10 Wayne Langenhan: Highway 3

11 Rose Betsina: N'dilo

12 Celine Marlowe: Lutsel K'e

13 Janelle Nitsiza: Tli Cho Government

14 Dora Migwi: Behchoko

15 Berna Martin: Interpreter from Dettah

16 Peter Huskey: Tli Cho

17 Joline Huskey: Tli Cho Government

18 August Enzoë: Lutsel K'e

19 Louis Zoe: Gameti

20 Modeste Sangris: Dettah

21 Theresa Lynn: Dettah

22 Joanne Barnaby: Hay River

23 Natasha Thorpe: North Vancouver (Hwy 1)

24 Colleen English: Salt Lake City

25 Janet Murray: Yellowknife

26 Ryan Dempster: Yellowknife

1 Gord Macdonald: I am being ordered around by the youth already. She told
2 me I had to come out here. I am with Diavik and thank you for being
3 here.

4 Natasha Thorpe: DDMI house-keeping issues, phone numbers for family to
5 call.

6 Gord Macdonald: Diavik Presentation. You may feel like things are going
7 very slowly however, for us it feels very quick. We are really
8 starting to see the benefits of the information that you are giving
9 us and the advice that you are giving us is actually starting to
10 translate to real decisions and progress on the ground. This group
11 is being held out as being a leading example both in the NWT and
12 within the world of Rio Tinto.

13 Update on closure plans. North Country Rock Pile closure plan has been
14 submitted, waiting for approval.

15 Site wide closure and reclamation plan (version 4) was submitted.

16 CRP V4

17 Open Pits and Underground

18 Flood piping, fill options

19 Inert Waste to pit option

20 PK to underground/pit option

21 A21 is almost ready

22 North Country Rock Pile- re-sloping has started so we can cover it and
23 it will have the less steep slopes.

24 3 universities want to research the pile and how the cover will work.

25 Bobby Algona: There are 3 types of rocks you are putting on that rock
26 pile. Is the rock on the SCRP going to be the same?

27 Gord Macdonald: I think you mean the different geochemical rocks.

28 Types of rock, type 1 is good rock coming out of A21. Out of the two
29 other pits it was type 2 and 3, bad rocks. We won't need a cover
30 for the South Country Rock Pile because it is all good rock. The
31 rock out of A21 is the best rock for reclamation that you can get.

32 Wayne Langenhan: The bad rock types 2 and 3 out of the other pits, whats
33 the distance between the pits? What makes the rock in A21 good rock
34 and the other 2 pits bad rock?

1 Gord Macdonald: It is amazing. I will bring a map up but there is a
2 whole change in geology in the middle of the island. The two sides
3 of the island are geologically very different. I can show you a
4 bit later.

5 Bobby Algona: So what you are saying is that the rock in this pit (A21)
6 is different than in the other two pits. You don't have that in
7 this pit as well?

8 Gord Macdonald: That is right. Bad rock is an easier term but it is
9 called Biotite schist and this is the bad rock that is in the first
10 2 pits. We have found none in A21 in all testing and drilling we
11 have done. Yes there may be some (a small amount but we have yet
12 to see it) and we will be monitoring it very closely. Geologically,
13 it is very different.

14 Modeste Sangris: I want to touch on a few things I have concerns about.
15 This island was a good place for migration of caribou. Everything
16 was smooth around this island, it was good for crossing the lake
17 before when there is no more minerals to be used the mine will
18 eventually shut down. We know this is a big camp and I am sure
19 there is a lot of money coming out of this mine every day. There
20 used to be a lot of caribou around here now there isn't because of
21 the mine. It is getting tougher for our people to get out hunting
22 because we have to go too far. Now we are talking about closure of
23 the mine and that we will be happy if the closure is done in the
24 proper way and safe way. I know water travels a long ways, how will
25 the water be? Once the closure of the mine, people can go out
26 hunting, maybe they should have a couple of trailers for people to
27 use when they come this far and the air strip, it should be left,
28 it would be good for the hunters to land, and it would be good for
29 emergency landings and have it for use when monitoring after Diavik
30 is gone.

31 They make millions of dollars working here. As elders we don't get
32 paid much to be here, we get \$250 per day to be here, I am sure
33 you get paid more to be here. Things can happen as we travel and
34 then we sit in the meetings all day.

35 Gord Macdonald: Thank you for that comment, and it leads me nicely into
36 this. Leaving a trailer or infrastructure for hunting is harder
37 for us but if you want it for monitoring that would be easier for
38 us to do that. So if you want to put that in a monitoring
39 recommendation. We would need to figure out how that would happen.

40 Joanne Barnaby: Has there been any thought in to keeping one of the
41 windmills to provide power to the remaining infrastructure?

1 Gord Macdonald: Ekati has indicated interest in building a power line
2 from the windmills to them. We looked at taking them down but that
3 doesn't seem to be a good idea.

4 Windmills saved 3.5 million liters in diesel last year.

5

6 *Presentation continued*

7

8 Bobby Algona: For infrastructure, all the infrastructure needs to be
9 tested before it goes in to a pit, it may have contaminants on it.
10 Will that all be tested before it is sent to a pit? I am really
11 curious to see what types of material might be hazardous and some
12 of our panel would like to hear what is in the building material.
13 All buildings have some hazardous materials.

14 Gord Macdonald: Example of things that cannot go into a landfill, the
15 florescent light bulbs above us is something that cannot go in the
16 landfill; old thermostats are also not allowed to go in a landfill.
17 There are regulations of what is allowed and what is not allowed.

18 Equipment with hydrocarbons also can't go in a landfill. We
19 probably won't clean equipment with hydrocarbons, we will probably
20 just remove the equipment from the site.

21 Louis Zoe: We are situated on an island and this island is very limited
22 in size. How long would it take for the closure plans and also once
23 they are done mining how long are they going to do the monitoring?
24 I am just saying I am thinking that it might not be long doing the
25 monitoring. Our ancestors always said that this Island is the
26 caribou migration route, but the caribou walk along the roads but
27 they can't cross the road because of the boulders, we should make
28 sure they can cross. Make it a gradual slope. If the open pit is
29 filled with water it might make the lake water go down. Those
30 things are going to take place and it would be good to monitor
31 them.

32 Gord Macdonald: We wanted to take the conversation today into monitoring
33 and how would you do that, so this is good, how do you monitor the
34 lake levels, we know how from a science perspective but what do
35 you look for? Monitor filling of the pits and the level of the
36 lake. Just because we close and do the reclamation doesn't mean
37 that the caribou will come back, they may stay away for other
38 reasons.

1 2025 end commercial production

2 2032 end active monitoring, I don't want you to think that we will stop
3 altogether, but our hope is that this is when we would be handing
4 it off to someone else, around this year.

5 Roger Catholique: I am just wondering about buildings that go in the
6 pit? Whatever is contaminated is shipped off the site, right? But
7 whatever is not contaminated in the buildings, are they going to
8 put it in the pit and cap it? To me it wouldn't really seem like a
9 good idea to me because fish like to go deep and if you have stuff
10 way in the bottom and lay eggs there. What if fish go way under
11 and then no one would even know.

12 Gord Macdonald: Your question is exactly what we are talking about, we
13 are either going to put this material either in the rock pile and
14 then cover it with rock, the other option is in the bottom of the
15 pit 150 metres (450 feet) I don't think fish would go there to that
16 level but that is my view, but your view is exactly why not to.

17 Roger Catholique: Buildings perish and may resurface.

18 Nancy Kadlun: The paint and stuff, we would prefer to have them in a dry
19 place because what if it starts to lift up and then it will do more
20 damage to the lake. No matter how deep it is, it is going to come
21 up some time.

22 Kathy Arden: When you say the bottom of the pit do you mean the bottom
23 where we have been or do you mean into the tunnels?

24 Gord Macdonald: Bottom of the open pit for the buildings because we
25 couldn't get them in the holes to the underground. But the PK
26 material would be into the tunnels.

27 Tyler Akeagok: Just wondering about the two pits on the north side, if
28 you knew they were the type 2 and 3 was there a plan to help
29 mitigate the harmful effects on the environment?

30 Gord Macdonald: When we designed it we knew that issue was there. And
31 the plan was to separate the bad rock from the good rock and put
32 the bad rock all in one place where we could manage it and only
33 use the good rock to do all the rest of the construction. What
34 makes it bad or good? When you take a piece of metal with no paint
35 it will rust, that rust is iron, that metal rusts, that is the same
36 process that happens to the rocks that are brought out of the
37 ground, if it is a bad rock and is exposed to air it will rust.
38 Good rock is like aluminum (doesn't rust) bad rock is like steel.

1 Colleen English: I think part of Tyler's questions is not having the
2 history of why the decision was made to separate rocks and put them
3 where they are.

4 Gord Macdonald: If you put a bad rock at the bottom of the lake it won't
5 rust as fast because it needs oxygen to rust. Diavik looked at
6 doing that with the bad rock during the Environmental Assessment
7 but it wasn't the preferred option for regulators and communities
8 at the time.

9 Celine Marlowe: When Roger was talking about crushing the metals and
10 putting it in the bottom in the lake. I don't agree with putting
11 it in the bottom of the lake because of all the stuff you see when
12 we are walking out around the lake and you see cans and such rusting
13 in the lake, in the long run if you put the buildings in the lake
14 eventually the paint and rust will start coming up to the surface
15 with fish eating it.

16 When we landed and I was looking at everything there I just about
17 cried that's how I felt, just try the best you can for the younger
18 generation.

19 Gord Macdonald: I want to come back to this, I really don't know what
20 is the best answer, but I would like to be able to explain why I
21 think it might be a good idea, it is not a cost saving, it will be
22 more expensive to put the material at the bottom of the pit.

23 Wayne Langenhan: I have been paging through the minutes of the last
24 meeting, it would cost too much to truck the slime to Alberta and
25 burn it. This sludge is heavy enough that if it was put deep enough,
26 the fish would not go to that depth, and it wouldn't rise because
27 it is too heavy and will not float.

28 August Enzoe: I have been sitting with this board for quite a while. A
29 new thing just came out about crushing the metal and putting it at
30 the bottom of the lake and I am against it. I know us elders won't
31 see it so its good the youth are coming here with us. Even though
32 the metals would be at the bottom it will rust and the rust will
33 come back up to the top of the lake.

34 Gord Macdonald: The option of putting the building material at the bottom
35 of the lake is a new option; we have not discussed it before.

36 Rose Betsina: Last year when we came here, everything that we are saying
37 is like repeating ourselves, what my uncle Philip said later in
38 life there is going to be big trucks coming in this area, hotels
39 and big buildings. And once this is closed they are going to be

1 moving down and they are going to haul a lot of things up here and
2 then out of here. I don't think we will benefit from any of it.
3 Things that would be usable, maybe it can be given to the
4 communities, I am sure the company is making lots of money, maybe
5 the trucks can be given to the communities. A lot of things to
6 think about before the closure, they will probably all just leave
7 and go back down south. A lot of people have passed away in the
8 communities, like George Marlowe, they aren't with us anymore. Our
9 elders from Fort Rae had passed on, we are losing a lot of elders.
10 There is a lot of sickness in the community. I wish the company
11 would help the community somehow.

12 Gord Macdonald: Thank you for that, I am reiterating that we want to
13 find opportunities to match community needs with what we can give.
14 What is going to be at the bottom of this bay (North Inlet) is
15 Hydrocarbons- they are at the bottom of the North Inlet and they
16 are not good for fish or bugs, it is not good enough to connect
17 with Lac de Gras.

18 We want to connect the North Inlet back to Lac de Gras so water
19 can go back and forth but fish cannot. We expect the water to be
20 fine but not the sediment.

21 We want to make sure that the North Inlet is okay for other
22 wildlife.

23 Bobby Algona: When I look at the mining I don't blame mining for all the
24 problems on our planet. We talked about washing the walls before
25 filling it, I hear you say that nature will take a long time to
26 heal, when we look at things out on the land, maybe we need to look
27 at the long terms effects of oxidization.

28 If you breach it, it is going to come down to Kugluktuk. My son
29 was guiding DFO in the streams and rivers in our area and they were
30 saying there was no char, where usually there would be lots of
31 char. People are not making dry fish because of the lack of char.

32 I accepted some fish from friends, the fish was still alive, but
33 it looked pale and you could smell it right away, it was sour and
34 my wife cut it open, the fish didn't feel like fish, it was very
35 mushy and breaking up.

36 We don't blame the mines for everything because the fish come from
37 all over the arctic. Another thing is I've emphasised a lot is that
38 our part of the world is lower land then the more southern parts,
39 its coming from not only the mines but it's coming from all over
40 the provinces as well. Especially Fort Mac Murray and I am really

1 leery of it, mining has a lot of contaminates. I am really wondering
2 what might be in that dust that goes up in the air.

3 Gord Macdonald: Going back to your pit walls and what that will do. It
4 won't be a problem once it is covered in water.

5 The last area is the PKC which for us is the really good rock,
6 kimberlite, that is where the diamonds are taken from. Right now
7 it is contained by dams with a pond in the middle. Coarser material
8 is taken out in trucks and placed around the PKC.

9 What if we put the slimes in the bottom of the pit into the tunnels
10 so we could make the PKC a dry area?

11

12 Break

13

14 Natasha Thorpe: The reports are done and then sent back to the
15 communities. So any suggestions on how to get these directly to
16 the youth by email would be good.

17 Kathy Arden: I think the other thing is we need to make an effort to see
18 our organizations to make sure they have received the reports. I
19 think we need to make an effort because they are busy too.

20 Natasha Thorpe: I am super excited that everyone is here and that it is
21 our 10th session. The real focus for the next couple of days is the
22 importance of monitoring. Lutsel K'e has a great "watching"
23 program. The Tli Cho has a great monitoring program. What might a
24 program look like after Diavik is gone?

25 The goal over the next few days is to explore what monitoring might
26 look like at 2032 and what it might look like between 2025 - 2032.

27 Agenda/housekeeping/logistics 8:30-4:30pm Lunch at 11:30am

28 Wayne Langenhan: What I would like to see is instead of an agenda made
29 for us, I would like to have a discussion about what we would like
30 to see in the next meeting.

31 Natasha Thorpe: We do have that scheduled in for Sunday and Monday.

32 Joline Huskey: I just want to mention for better interpretation they
33 need presentations ahead of time.

1 Dora Migwi: May we have a safe trip home to each of our communities.
2 They are correct in saying it is very important to have a morning
3 prayer Sunday morning and for the youth it is very important. I am
4 thankful for all of you to be here and that is what I am thinking
5 about. The things we are talking about are very important.

6 Natasha Thorpe: Thank you. I think one of the real strengths of this
7 panel is that we have youth here and how amazing it would be in 20
8 years for you to be here then to see how what we talk about has
9 been implemented.

10 Louis Zoe: Thank you, we are having a good meeting and in the future we
11 will share a lot of thoughts and I just want to say a few words.
12 When this mine site is completed they will probably leave and it
13 would be good to have the reclamation and monitoring in place so
14 it can take place many years after the closure of the mine.

15 Modeste Sangris: We as the Yellowknives Dene, when we talk about mining
16 closure there is an elders committee and also we have the leaders,
17 the council, they are the ones that make the decisions and we as
18 the elders don't know how to read or write and those are the people
19 that keep the documents flowing. When we have closure plan like
20 this and the reclamation and the water monitoring and we have about
21 3 people monitoring these things, Angus they monitor the wildlife
22 and the fish and the surrounding area. And those are the people
23 and now because of the North Country Rock Pile being so high, the
24 caribou may not come back at all. In the past I know of migration
25 of caribou used to be across this island.

26 Colleen English: I think what Gord mentioned is that one of the things
27 that has been helpful is that when Diavik goes back to the
28 communities, there was a lot of support for the ideas that the
29 Panel generated and the recommendations that came out of the Panel.

30 Joanne Barnaby: Modeste also emphasized the importance of creating links
31 with the other community people and the elders involved in
32 monitoring other sites.

33 August Enzoe: I like the idea of a later start on Sunday so we can take
34 time to pray.

35 Natasha Thorpe: Ok on a Sunday later start.

36 Joanne Barnaby: For the young people we have a process where Janet is
37 typing out the notes and then you check them over if anything needs
38 to be corrected.

39 Lunch Break

1 Gord Macdonald: **South Country Rock Pile Design presentation**

2 Wayne Langenhan: Just supposing you don't get approval to put the rock
3 on the North Country Rock Pile, how would you cover the North
4 Country Rock Pile?

5 Gord Macdonald: We would have to re-mine it from the pile then move it
6 over to the North Country Rock Pile.

7 Kathy Arden: Did you say there was enough good rock to cover the North
8 Country Rock Pile?

9 Gord Macdonald: Yes, the pit produces 16 we only need 4 of the rock to
10 make the cover.

11 If we do it right away, the till is thawed because it is just
12 coming out of the lake. So it is easier to handle.

13 Joanne Barnaby: I heard two different things about run off and seepage
14 water.

15 Gord Macdonald: During production it will be treated the same as all
16 water now. Once closure happens then yes it will flow into Lac de
17 Gras.

18 Kathy Arden: I am just trying to get my bearings, is that the PKC behind
19 it? I was thinking on the North Country Rock Pile on this side we
20 had wanted the caribou to run off the south end but we also had to
21 make them not get into the PKC. Where is slope going off that end.

22 Gord Macdonald: All the way around the PKC will have the steep sides,
23 if everything works the way we think the caribou would come down
24 the nicer slopes.

25 Pathways on the SCRP - do we want them, if so, where should they go?

26 Bobby Algona: If you made it more dispersed then the pile would be
27 shorter. If you make the pile smaller then it would be really tall.
28 Then it would be harder for the animals to go up and down. If you
29 build it rough on one side then the wolf chasing caribou through
30 there the caribou will stumble and then the wolf will have their
31 meal.

32 Joanne Barnaby: Would it make sense to keep the South Country Rock Pile
33 smaller then make the North Country Rock Pile longer?

34 Gord Macdonald: Our permit only allows us to go as high as it is.

1 Wayne Langenhan: Do you have room to extend it? So there would only be
2 one rock pile?

3 Gord Macdonald: There is some room but not enough for all the rock.

4 Wayne Langenhan: I think that might be the way to go.

5 Roger Catholique: I know you wanted feedback for the South Country Rock
6 Pile. It is hard to really think about it when it is just a top
7 view. I think we need a broader side view and diagrams to really
8 discuss how the animals will go over.

9 Gord Macdonald: I agree. We were hoping to do the same. I will print
10 some of these on paper. This is normally when I leave and you work
11 with these guys and try to come up with ideas.

12 Dora Migwi: The stockpile we are talking about, although you are going
13 to put the stockpile there, it might not be as high and once the
14 reclamation takes place and the sediment on top, and then the
15 gravel will go on top it will probably sink into itself so it
16 probably won't be as high as the other stockpile.

17 Modeste Sangris: We don't know anything about rocks; you know about the
18 minerals, we know the kind of damage that was done to us with Giant
19 Mine everything is stored underground. You guys store rocks
20 underground in the tunnels, and in the pile maybe the water can
21 leak out and cause damage. I don't really catch what you are saying.
22 We never got any benefit from the damage that was done to us, but
23 we didn't know about mining at the time the leaders they use to
24 get together once in a while once a year we have a meeting in the
25 community. We live on a rich land today, so things are happening
26 and it is good we are involved.

27 Louis Zoe: The pile that we are talking about, it is very high up and
28 the way we are discussing it, maybe there are things that will be
29 there to cover it, I hope there won't be big boulders that are
30 sharp in there. They need to make it safe for wildlife. We need to
31 see for ourselves too.

32 Wayne Langenhan: The pits could maybe drawn on the board so we can see
33 the height of the rock pile and how deep the lake is in relation
34 to the bottom of the pits.

35 Gord Macdonald: Good idea Wayne I will work on it.

36 Louis Zoe: It would be good to have the gradual slope. All of these
37 holes should be level with the ground.

1 Joanne Barnaby: If we need Gord to come back he is here all weekend.

2 Colleen English: We did print off some small posters for you to work
3 with.

4 Joanne Barnaby: We want to begin to talk about what it is that we can
5 advise Diavik to do with the South Country Rock Pile and you all
6 have spent quite a bit of time on the North Country Rock Pile and
7 now we have a second one with the material from the new pit. Some
8 of the concerns from the North Country Rock Pile may also be for
9 the South Country Rock Pile.

10 Wayne Langenhan: I thought that we broke into two group's men and women
11 then used different colors on the maps and came up with different
12 plans.

13 Kathy Arden: Maybe we stay together as a group and throw out our ideas.

14 August Enzoë: Your side will be strong but not a lot of women go hunting
15 in the bush. Us men have more power. So then you learn something
16 from us and we probably learn something from you.

17 Kathy Arden: I agree, so maybe we throw out our ideas on the South
18 Country Rock Pile. The positive is that it is good rock and used
19 to cover the North Country Rock Pile and we have an option here
20 with the South Country Rock Pile to make a smaller foot print, it
21 could be lower and wider or higher and smaller.

22 Natasha Thorpe: It sounds like the group wants to stay together. So we
23 can work on the first question. Should there be a wildlife pathway
24 over this pile?

25 Kathy Arden: On the North Country Rock Pile Gord had said that they had
26 a permit and can only go so long and wide and high. So possibly
27 the same for this one.

28 Colleen English: There are land leases that Diavik works under. It is
29 related to the airstrip as well. Plus the explosives are near the
30 South Country Rock Pile and there are rules as to how close other
31 infrastructure can be.

32 Kathy Arden: So where the till is, once the till is gone can the rock
33 pile be spread there as well? That would also give it a better
34 slope, more gradual.

1 Colleen English: Yes the amount for the till going down is fairly
2 significant so that is a lot of foot print, so if they pull back
3 the till footprint you may be able to put some rock there. Yes that
4 is a good point.

5 Natasha Thorpe: The other thing is that if we take it higher then it
6 means we take away some of the land, whether or not the land is
7 undisturbed. If you went out wider then you would disturb more
8 land.

9 August Enzoë: For the rock pile you guys are talking about how was it
10 done the first time? Type of rock?

11 Colleen English: In the North Country Rock Pile you have the type 3 rock
12 in one area then type 1 (good rock) in a different area. The South
13 Country Rock Pile is only one type of rock.

14 August Enzoë: When they talk about the bad rock what do they mean?

15 Colleen English: The bad rock means rock that can cause poor quality
16 seepage water. There is no bad rock in A21.

17 Wayne Langenhan: How much further out can it come any place? Can it be
18 widened? Or lengthened a bit? So there is only one rock pile. Or a
19 large rock pile and a much smaller rock pile.

20 Colleen English: How much could we add to the North Country Rock Pile
21 to make the South Country Rock Pile smaller? It would be a good
22 calculation to do and see if we can get an estimate.

23 Kathy Arden: We had talked about putting rock around PKC? Do they already
24 have rock selected for that? If not maybe some of that good rock
25 can be used for that to keep the animals away, maybe we can put it
26 back into the pits?

27 Joanne Barnaby: In terms of timing, is that idea of using the rock from
28 A21 to fill the other pits, does that work?

29 Colleen English: In terms of the PKC the A21 rock would likely be the
30 rock that they would use to cap it if that's what they do.

31 Colleen English: It would be challenging only from the perspective of,
32 right now A418 wouldn't be completed until 2021 and A154 would be
33 mined right to the end. So rock would not be put back into the pit
34 while people are still working underground.

1 Kathy Arden: Could we propose that? And ask them is there a reason why
2 you are stock piling it anyways? So it is sort of a twofold
3 question. The South Country Rock Pile needs to be reclaimed to be
4 used for wildlife before 2025? Can they not keep it until the two
5 pits are ready for flooding and then dump the good rock on top of
6 the PKC? Or is it a question that there will be no equipment here
7 to move the rock?

8 Bobby Algona: In the beginning we talked about the PKC a lot too and the
9 effects the PKC has and how we can fix it. It is not going to
10 harden for the life of it. PKC area is just like a bowl once you
11 fill it up with more rock it will spill over the edge. But we don't
12 want the PKC to spill over.

13 Joanne Barnaby: Do we want wildlife to come back to South Country Rock
14 Pile area?

15 Tyler Akeeagok: Gord was talking about the South Country Rock Pile that
16 are was the median point for how long and how high the pile could
17 go. He talked about how the pile could be sloped so that the caribou
18 can come and over time that hill would be re-vegetated. It's not
19 too far and its not to high and you could put some of it on the
20 PKC.

21 Rose Betsina: For the wildlife to go on this island and all the vegetation
22 that will be growing back later on, and the berries will be growing
23 back and would this be safe for the animal? If the south country
24 rock pile is too high the caribou would break their legs. We have
25 minerals all over our country.

26 Economy is going up, getting groceries is getting expensive. We
27 used to go get caribou in those days people use to store caribou
28 in the ground. Not today our freezers are empty. Our people are
29 struggling; maybe there are minerals on the land that is stopping
30 them from coming. Maybe we will see caribou again before Christmas.

31 Tyler Akeeagok: The questions are from Gord right? From what I think for
32 the South Country Rock Pile, it's just that there's always those
33 steps in the pile and animals know its human-made, I just want to
34 give you an idea and a head start on the south rock pile and make
35 it a little more creative and little more familiar for the animals,
36 because they know if it's not natural and humanmade. We could try
37 to replicate an esker.

1 Celine Marlowe: I just want to ask where the slimes area is. Is it
2 possible if you could put that back in the two open pits then the
3 rock and then the water? And not reconnect to Lac de Gras? Or is
4 it too much work and too much money?

5 Colleen English: Number 1 would be yes it would cost a fortune to put
6 all of that rock back in there. But bigger than that is that it
7 won't all fit, plus there are liability issues. When companies have
8 dams or dikes, those are engineered structures that need to be
9 inspected and maintained. For the company to leave it, it can no
10 longer be a containment dike. If we were to fill it with rock it
11 would still be considered containment because it is still keeping
12 the water out.

13 Joanne Barnaby: So Celine when you are asking about that is that because
14 you are concerned about having water mixing with other stuff that
15 is in the pit?

16 Celine Marlowe: I am getting myself so confused here, the land here is
17 already destroyed, and what I am hearing is that it is okay for
18 these people to come and destroy our land. All we are asking is
19 try and make it similar to what it was before. Is it possible to
20 do it that way? I don't even know about Ekati that one too is all
21 gone. Now we don't even get our caribou anymore because of all
22 these mining companies are coming to our land. Who is going to fill
23 up our freezer for us? Is the mine going to say here there is this
24 many pounds of meat. I am going to fill up your freezer for you.
25 That would nice. Nothing I doubt it, it's going to cost too much.

26 Joanne Barnaby: So obviously it is not going to be put back to the way
27 it was before. Most of the damage is already done. Can we create a
28 site that maybe the caribou will come back to? Or should we create
29 a site that the caribou will never come back to? There were areas
30 on the island where we said yes we would like to try to accommodate
31 the caribou and other animals coming back.

32 Celine Marlowe: The PKC where all the softness is, what if you could
33 just put a big cement dome over it? After you put the rocks in,
34 make a cement dome then put more rock on top again.

35 Modeste Sangris: There's two open pits. Are we going to leave it as is
36 or are all the boulders going to be put back in the open pit?
37 Gravel should cover it after.

1 Alfred and I had come to the mine site a long time ago, there were no
2 meetings we just came and looked. Just recently we had a meeting
3 and Alfred asked them about the hill that existed and he was
4 laughing at them making jokes and they blasted the little hill that
5 existed and made the airstrip. On Ace Island the North Country Rock
6 Pile is very high. The North Country Rock Pile is so high, they
7 should slope it like an esker.

8 I used to be a trapper and I knew where my trap lines were and that is
9 how the caribou are, they know where to go, we don't feed the
10 caribou but God takes care of them and they roam where they want
11 to roam. In this area, the caribou might not migrate in this area.
12 How can we help them with the recommendations? I said yesterday
13 payment is not enough.

14 Joanne Barnaby: I would like to suggest we take a short break.

15

16 Break

17

18 Natasha Thorpe: I asked Colleen to print out the recommendations for the
19 North Country Rock Pile and we can see what works for the South
20 Country Rock Pile.

21 Nancy Kadlun: Speaking about the slime, if you filled it up with rock
22 then all the slimes are going to start flowing out all over.

23 Joanne Barnaby: My understanding from what Gord said was putting the
24 slime in the pits then water.

25 Colleen English: The slimes are heavy and sit at the bottom and the
26 water would sit on top and keep the slimes down, no rocks are
27 planned to be added as they would sink. And the slimes would be
28 deep enough that the fish wouldn't go down that deep, according to
29 science.

30 Nancy Kadlun: The big boulders I can see on the sides of the roads too,
31 are they going to fix those too?

32 Colleen English: South Country Rock Pile or somewhere else? Right now
33 the way that Gord was talking is rough edges on the SCRP except
34 for the wildlife path. If it is a yes for the South Country Rock
35 Pile, then we ask is 1) it rocky with a wildlife pathway, 2) is it
36 all rocky, or 3) is it all smooth for wildlife?

1 Kathy Arden: I was looking at the caribou maps and you can see the
2 caribou came across this whole entire island, following different
3 pathways the way caribou do. So I think we should make everything
4 on this island caribou friendly as we can. Eskers, we spoke about
5 that before, I think we should be doing it for the South Country
6 Rock Pile and sloped as low as it can go. Use as much of that rock
7 in other areas on the property to do the same thing. I think that
8 rock pile coming out of A21 is a godsend and we use it as much as
9 possible. We need to make it as friendly as possible for when the
10 caribou come back.

11 Bobby Algona: We made a lot of recommendations on the North Country Rock
12 Pile I see no difference in trying to make the South Country Rock
13 Pile as close to the same as we can. I think we should look at the
14 recommendations we made for the North Country Rock Pile and use
15 those for the South Country Rock Pile.

16 Joanne Barnaby: There is a big difference, the North Country Rock Pile
17 was already there when we (the Panel) started, and in the North
18 Country Rock Pile there was some bad stuff in there, the rock was
19 bad rock. The South Country Rock Pile would be good rock and the
20 rock is not already there. We may still have to have some sort of
21 pile but we don't have the same limitations as we had with the
22 North Country Rock Pile.

23 Bobby Algona: Two differences the pathways for caribou, everything I
24 think should be the same as the North Country Rock Pile. We should
25 be making it as caribou friendly as we can. No rough edges. Do
26 everything we can for caribou management.

27 Joanne Barnaby: Apply the same principles and goals that we had for North
28 Country Rock Pile to the South Country Rock Pile and we have further
29 opportunities beyond that in terms of making other uses of that
30 material to actually improve perhaps the North Country Rock Pile
31 or improve other sites on the mine.

32 Rose Betsina: We can't say the rock is no good. We heard that god stood
33 on the rock. God created the earth, he created everything, maybe
34 because of the chemicals that was added to extract the rock. Rock
35 is not bad. I found a really round rock, like soap, if a person
36 was sick with illness, all that was put on was fat and then the
37 heated rock. The person woke up healthy and was fine. We can't say
38 the rock is not good. There are a lot of people from out of province
39 that work in this area, the rock must be good, they work here for
40 many years and tomorrow when we go out on the land and then we can
41 talk to this.

1 Tyler Akeeagok: I guess we have to factor in cost as well, because more
2 cost is also more diesel and is also more emissions we are creating.
3 I am suggesting that we cover the North Country Rock Pile then we
4 start the south pile which is very close to the new pit that they
5 are going to develop.

6 Natasha Thorpe: Very interesting way to think about it.

7 Roger Catholique: Since the mine opened there has been a lot of talk
8 about the North Country Rock Pile and they made many
9 recommendations. Where are all the words from the elders?

10 To make it as smooth as possible, no rough rocks, it's really high
11 up and it's not natural for an animal.

12 Nancy Kadlun: When we look at mines like this and the mines come and
13 tell all the people around the area, and telling them they will
14 benefit from the mines. What do our people get? Nothing. Our land
15 is so destroyed. We would like to make it as nice as possible. They
16 made it sound so great but unless you are working you don't get
17 anything.

18 Tyler Akeeagok: Great point but what I see from back home in Kugluktuk,
19 they have the complex that was funded by the Dominion Diamond
20 Group. The helped with it now it is a great place for kids to go
21 play soccer or hockey it keeps them off the streets. Another thing
22 is that I am still in school, I am still in high school and I see
23 scholarships to get an education, that is what I see so I do believe
24 they are helping us, it's just education, recreation and what have
25 you. We are benefiting from it and education is power.

26 Natasha Thorpe: Thank you for those perspectives.

27 Joanne Barnaby: Or some of both, using some of the material for other
28 places that needs it but also to make the pile smaller.

29 Celine Marlowe: All that is going to be good rock, and after the mine
30 is closing all those areas where the housing is, why not use the
31 rock to cover those areas and the buildings. Where else are you
32 going to put it? As long as it is out of the way.

33 Kathy Arden: If you take a look around here on this whole entire site
34 and probably before it was built you will notice that there is a
35 lot of jumbled rock. It looks like someone came in and just threw
36 the rock around. And they are all full of lichen and moss growing
37 in between. With the good rock we can probably create close to the
38 same thing. Look out your window there are boulders. Earlier when
39 I said to try and create it as caribou friendly as possible, we

1 can use the boulders to do the same thing. We can give it the best
2 shot we can. Our recommendations have been looked at by people
3 around the world that's pretty powerful. There is a jumble of rock,
4 let's use that jumble of rock.

5 Berna Martin: Make the North Country Rock Pile like an esker so the
6 animals can go up and down; make it like a long esker.

7 Joline Huskey: Just from taking part in traditional knowledge with Tli
8 Cho government not only here but at Ekati and Gahcho Kue with the
9 elders, when I first started with Georgina in the research area
10 she always reminded me because I was just learning then, that
11 caribou is important not only for the Tli Cho but also for all
12 Aborigines. The caribou are in critical condition. We are very
13 limited in how much and when we can harvest. But at the same time
14 when we look at industry, we have to think like caribou and other
15 animals that roam across the tundra.

16 I remember when we went to Mesa Lake, Robert Mackenzie and Harry
17 Apples, and all the elders that worked on the Tli Cho land use
18 plan. They would talk about where caribou roam and why eskers are
19 important. How they are going to slope some areas and create a
20 berm?

21 What I am suggesting is that if we can shape the stockpiles as
22 smooth as possible into natural forms of eskers instead of being
23 steep and then looking at the engineered design and they are already
24 at their max going up but if we shape it as natural as possible. I
25 know it's going to be hard because you are looking at engineering,
26 but I think that would be a recommendation made to DDMI.

27 This is where caribou use to roam, 1998 when industry started up
28 in this area, their migration route has massively changed and there
29 is a decrease in the herd, industry may have played a little part
30 of the impact in the herd but also climate and all the other things
31 that are happening. We are trying to restore and protect our
32 wildlife. Make this site as natural as possible.

33 Colleen English: The pink on the drawing is the till from the bottom of
34 the lake. No tailings go into either rock pile - it goes to the
35 PKC.

36 The rock and till are separated because the till can be used for
37 re-vegetation. They can be used for different purposes so that is
38 why they are separated.

1 Joline Huskey: I find that a lot of us are not really speaking up when
2 you ask the question about whether or not to have a wildlife
3 pathway. I found that when we broke into two groups we talked more,
4 it doesn't have to be man and women just smaller groups.

5 Wayne Langenhan: How high is the proposed stockpile if none is taken
6 out?

7 Colleen English: 460 metres

8 Wayne Langenhan: How high would the pile be if we do take the rock to
9 use elsewhere?

10 Colleen English: I don't know but we can ask.

11 Wayne Langenhan: If you filled in all those other spots it would up maybe
12 half of what it says there. So the pile could be the same footprint
13 but only half as high.

14 Colleen English: In theory, yes.

15 Kathy Arden: There was another recommendation that we had talked about
16 for the North Country Rock Pile with regards to re-vegetation
17 around. I don't know that we will have the same problems. That
18 would have to be monitored like the previous one. We asked for a
19 study the wind and snow accumulation before finishing.

20 Modeste Sangris: Up at Mackay Lake there was a big hill there and the
21 caribou can get up there. But we are talking about the North Country
22 Rock Pile they take a lot of minerals out of our land; some other
23 companies have walked away. We never got any benefit. The caribou
24 they have nowhere to go. Caribou are quite smart; they won't go up
25 where they think they can't go. The north pile, smooth it down like
26 an esker, like we talked about. I went out testing the water,
27 tasting the fish, we used to live around this place, we used to
28 travel around here with my dad. I don't think the caribou will come
29 back here. We are talking about the country rocks, if we can smooth
30 it out maybe someday they can come back.

31 Joanne Barnaby: If the slimes are removed from here [PKC] what is the
32 intention of reclamation of that area? I am just wondering for
33 amounts needed.

34 Colleen English: On the PKC, if they did get rid of the slimes and the
35 surface became stable; it would likely be covered like the rock
36 pile. However, it is envisioned as a thinner layer of rock because
37 it is for a totally different purpose. They don't have any

1 calculations for rock volumes, other than the amount planned for
2 use in the North Country Rock Pile cover.

3 Joanne Barnaby: Right now if you remember we created a barrier to prevent
4 caribou from traveling that way and if that whole situation changes
5 and there are no slimes there, we could add rock to that area and
6 make it slope

7 Nancy Kadlun: If you take the slime out isn't there going to be a pond
8 from water and snow?

9 Colleen English: I don't think so, they would pump the water out then
10 put rock on top and create drainage for runoff.

11 Louis Zoe: We are talking about the big North Country Rock Pile and the
12 till, maybe they can smooth it down to the till and make it easier
13 for animals to get on top. There are big boulders around that area.
14 Maybe later there could be vegetation growing there again. Make it
15 even. Make it smaller. Not to pile them up so high. Even animals
16 can climb very high hills. Even caribou can get on top of the high
17 snowdrifts. So this is a high steep pile.

18 Bobby Algona: We were thinking about the slimes and putting it somewhere
19 else, underground in my mind it is conflicting with moving the
20 slimes again, creating another pit underground for the slimes. Fish
21 are going to find these cool spots in the deep water and we have
22 to think about the fish, they tend to want to go down deeper. What
23 we need to stick to is the slimes are there, but let's find
24 something to cover it, I don't think I really want it under those
25 two pits. I don't want it to get in contact with the water anywhere
26 else.

27 I would not recommend putting the slimes in the pits because fish
28 are going to be finding these and the metals are going to
29 contaminate the water.

30 Wayne Langenhan: Colleen could you maybe tell us the depth of the pit?

31 Gord Macdonald: How much area is still available to fill at the North
32 Country Rock Pile? We have 2 million cubic metres left that we
33 could possibly fill.

34 Wayne Langenhan: Do you have a shaft at the bottom of the pits? Or is
35 it a decline or a drift that goes out?

36 Gord Macdonald: Its a decline down to the underground.

1 Wayne Langenhan: If you were to pump that slime down there, it would
2 not come to the surface because it would be in a hole.

3 Gord Macdonald: Yes. Straight in the hole where the kimberlite came from.
4 Like pulling a carrot out.

5 Wayne Langenhan: Ok so a fish wouldn't go that low.

6 Kathy Arden: How much cubic metres of slime do you have to pump?

7 Gord Macdonald: I have to check that number.

8 Kathy Arden: Bobby talks about metals in the slime. Is there metal in
9 the slimes?

10 Gord Macdonald: There is metal in everything. All we are talking about
11 is putting the slimes back where we took it from, its just crushed
12 now.

13 Kathy Arden: Could you put the buildings and the rocks down there?

14 Gord Macdonald: No because it would push the slimes out. Picture of the
15 heights of the South Country Rock Pile, the till pile, the lake
16 and the dike and the pit.

17 Lake Surface 415

18 Tyler Akeeagok: Slime characteristics please.

19 Gord Macdonald: Toothpaste is the best description of it. We will get
20 the samples.

21 Tyler Akeeagok: Is there a chemical that can help separate the slimes
22 from the water.

23 Gord Macdonald: Yes there are but the chemicals are not good for the
24 environment and fish.

25 Nancy Kadlun: I don't want the slimes in the water. I am scared for our
26 water in Kugluktuk.

27 Gord Macdonald: Do you feel safer if the slimes are on the island and
28 there is an earthquake and the slimes leak out. Or if the slimes
29 are in the bottom of the pit and there is an earthquake but then
30 the slimes have nowhere to go.

31 Tyler Akeeagok: I think the best is to put them in the pit.

32 Gord Macdonald: The slime isn't toxic. It won't kill a fish or anything
33 but it can kill people or animals by getting stuck in it.

1 Joanne Barnaby: We were looking at alternative uses of the rock coming
2 out of A21. One of things was if you remove the slimes from the
3 PKC then the PKC is somewhere that can benefit from the good rock.

4 Gord Macdonald: The only thing is the timing.

5 Kathy Arden: Is that because you have to have the North Country Rock
6 Pile completed before? Why can't you wait until it's done?

7 Gord Macdonald: We would have to wait until the mining was done.

8 Celine Marlowe: Can we just close now some of the elders are not well
9 and would like a rest before supper.

10 Joanne Barnaby: I think we had a really good discussion, not a lot of
11 really concrete points yet but I think we need to listen to the
12 request.

13 Natasha Thorpe: One quick thing, please have a look tonight at the North
14 Country Rock Pile recommendations.

15 Colleen English: If you want to go outside you can go on the deck or out
16 the front door.

17 END

1 Joanne Barnaby: Last night after we broke up, Colleen, Natasha and I
2 were talking about today's schedule and whether we should stay
3 focused on the South Country Rock Pile before moving on into the
4 discussion around watching and monitoring and we decided that was
5 probably a good idea since there is a lot of interest and concern
6 being expressed so we want to make sure we get clear on that and
7 perhaps come up with some recommendations around that. So then we
8 talked about how to use today in the best way and we realized that
9 having the tour in the afternoon can really tire out the elders
10 and that it is hard to come back and work so we decided it might
11 be good to have the tour in the morning. So we will head out around
12 9:30am. In terms of getting ready for the bus tour we have suggested
13 that we go to the South Country Rock Pile and we have enough time
14 so you can get out and walk around the area. And then whether we
15 do it right after or later on in the tour we can also go to the
16 North Country Rock Pile and pay attention to the height, we are
17 going to try and go up to, and pay attention to the size and pay
18 attention to the slopes and the rough edges and we will point out
19 where the proposed trails will be for animals and we will point
20 out where the slopes will be for animals and people.

21 Colleen English: Just to help people with the North Country Rock Pile,
22 when we had discussions about the North Country Rock Pile what
23 Diavik heard was: We talked about the different angles. When the
24 truck dumps rock it is the 1:3 angle, very steep. The slope that
25 is easy to walk up and is finished is 3:1 angle. What Diavik heard
26 was that 3:1 was preferred for the whole rock pile except for the
27 side that connects with the PKC that would stay 1:3. So the whole
28 North Country Rock Pile is going to be pushed out to the 3:1 angles.
29 The North Country Rock Pile will look like the test pile. The South
30 Country Rock Pile would currently have just a wildlife path over
31 it, the rest would be the 1:3 angle.

32 Wayne Langenhan: Some of these people haven't seen the test pile.

33 Colleen English: We will go there today. After last night when we were
34 talking about A21, I feel there were two key questions for you to
35 think about. Say in an imperfect world the North Country Rock Pile
36 closure plan isn't approved, then Diavik will say well then we will
37 have the maximum size for the South Country Rock Pile. If that were
38 to happen, what would you want this pile - the South Country Rock
39 Pile - to look like? If it was the biggest it could possibly be
40 and none of that material was used elsewhere would you want the
41 rough sides with the caribou path or would you want no caribou path
42 or would you want it all sloped out like the North Country Rock
43 Pile where it is just easy access to go over anywhere?

1 The second question/recommendation would be let's try to make that
2 pile as small as possible however you can do it. The Panel doesn't
3 necessarily have to solve the problem of where to put the rock to
4 make the pile smaller - that would be Diavik's job.

5 Joanne Barnaby: The first option is something that Diavik doesn't have
6 any control over. So Diavik wouldn't have a lot of choice then
7 about the size of the rock pile but if they do get that approval
8 to use it on the North Country Rock Pile and elsewhere then there
9 is more control over the size and shape of South Country Rock Pile.

10 Wayne Langenhan: My question is how long does it take approval to get
11 the go ahead to move that material around that island?

12 Colleen English: Good question. The North Country Rock Pile closure plan
13 originally went in, in March 2016, the most recent version they
14 are just submitting with some updated engineering plans went in
15 this month, and they hope to have an answer before the end of the
16 year. January 2018 is when A21 is going to start to be mined and
17 that is when Diavik wants to be moving that material directly on
18 to the rock pile.

19 Wayne Langenhan: After the decision is made does the panel have to get
20 back together?

21 Colleen English: Depends on what you say as a recommendation. If you say
22 to make this pile as small as you can then its Diavik's
23 responsibility to figure it out, or you can give more direction as
24 to where that rock might elsewhere go.

25 Nancy Kadlun: This rock pile there if they start using it to make the
26 North Country Rock Pile smooth before piling it up that would be
27 easier. That way they don't have to have a big pile already then
28 haul it again.

29 Colleen English: I think that is what Diavik is hoping.

30

31 Geology map.

32

33 Kathy Arden: Can you point out where A21 is.

34 Joanne Barnaby: Maybe when we get to that area, we can have elders that
35 know that area point out where caribou use to cross.

1 Natasha Thorpe: These maps are from the mid 1990's from a few different
2 groups.

3 Joanne Barnaby: That would be a crossing that the caribou would use in
4 the fall time.

5 Natasha Thorpe: Spring map - again traditional knowledge is showing the
6 South Country Rock Pile is proposed through the caribou crossings.

7 July 12-30 map - collared caribou results. Red areas caribou food, black
8 arrows caribou trails

9 August Enzoë: When we mentioned how they used to pass when they were
10 coming back from the calving grounds.

11 Natasha Thorpe: We just wanted to put this out to you in terms of where
12 we are going to go and where we want to spend most of our time.
13 Sounds like most want to go see the North Country Rock Pile and
14 the South Country Rock Pile. To climb up to the top of the North
15 Country Rock Pile takes quite a bit of time, even in the bus. So
16 we had talk also about going to the A21 pit but there was a
17 suggestion this morning that may not be a priority compared to
18 going to see the other two.

19 August Enzoë: First up to the North Country Rock Pile.

20 Bobby Algona: When we are talking about caribou crossings and migration
21 routes, we have had a lot of discussions over the years, all along
22 coming to these meetings because it is right on the migration
23 route, I have been to the Bathurst Caribou Range Plan in Yellowknife
24 this year and there are something's in my opinion, you white folks
25 build cemeteries, how would you feel if your loved ones tombstone
26 was disturbed, knowing or unknowing. It's the same thing with our
27 people. We have heard of other families living on the migration
28 routes, and they all have burial grounds, like in my area Pellet
29 Lake we have burial grounds there, they passed away from polio I
30 think it was, when all the disease was going through. When you look
31 at people being buried and their tombstones are disrupted, that's
32 against the law when that happens and in our minds the caribou
33 crossings that we don't really know about we have a lot of burial
34 grounds that we don't even know about yet in those areas. Some
35 people have worked on these caribou crossings a lot and get together
36 and lived in migration routes and there are burial grounds and I
37 don't think that industry should be allowed there, that is always
38 conflicting to me sometimes we don't know who might be buried
39 there, just like a tomb stone when you leave sometimes we do find
40 those things out on the land by chance.

1 Joanne Barnaby: That is really important insight to share. I know there
2 was archeological research done and I am not aware of any either
3 traditional knowledge pointing out any burial sites in that area
4 or archeological findings. Caribou crossings and trails and
5 corridors are obvious places to look for burial sites because it
6 would have been a logical place for people to camp.

7 Modeste Sangris: I just ask about what Bobby was talking about and the
8 burial sites maybe 15 years passed and there was a camp at the end
9 of MacKay Lake and we were paddling a canoe and doing research with
10 the archeologists and how they use to work. There was James Sangris,
11 Curtis Sangris, there were six of us. We looked along the way and
12 they talked about polio and we found one site along the way and it
13 would be good to identify these areas where our ancestors and
14 forefathers were. I said yesterday, my late father was born in this
15 area and they would harvest caribou in this area so they could use
16 the hide for clothing and the meat for food. It would be good to
17 identify these areas, the caribou is a smart animal, the area
18 around here is beautiful but the way the island looks now the
19 caribou would probably migrate a different way.

20 Joanne Barnaby: Any other thing to watch out for? Everybody has his or
21 her warm clothes and boots?

22 Colleen English: I would have to check.

23

24 Tour/Lunch

25

26 Gord Macdonald: Wayne asked a question about how much slimes are there?
27 We talked about the whole South Country Rock Pile being 16 (million
28 cubic metres) and that if it was smaller because we used a lot of
29 it on the North Country Rock Pile then it would be 12, the amount
30 that is in the middle (PKC) here is 5.

31 We want to take the slimes out of the PKC and put them in the pit.
32 That amount is 5.

33 Kathy Arden: I had asked what the cubic meters were for the slimes to
34 know how much was going to go in to A418. Also what is the depth
35 of the A418 carrot?

36 Gord Macdonald: We will get back to the depth but the amount of slimes
37 is 5 million cubic metres.

1 Wayne Langenhan: So you take 5 out then put 5 in from the South Country
2 Rock Pile.

3 Gord Macdonald: Start with 16 - 4(cover) = 12 left then -2 around the
4 island then -5 to put in to replace the PKC taken out. So left with
5 5. So yes, volume wise that works.

6 Wayne Langenhan: So that would be a very low pile.

7 Gord Macdonald: Probably one 15m lift.

8 Wayne Langenhan: So that wouldn't cause a problem for anything then.

9 Gord Macdonald: This whole thing (PKC) is holding about 45 of processed
10 kimberlite.

11 Wayne Langenhan: Just trying to think of a way that if we add on to the
12 north pile and made it just a little bit bigger, like wider, that
13 we wouldn't have the same network down below, we wouldn't have two
14 we would mostly have the one.

15 Gord Macdonald: You have the right volume concepts so that is good.

16 Kathy Arden: You had told us that when you started this mine you know
17 that there was bad and good rock, bad out of the two pits and good
18 rock out of A21, did you have a plan for if A21 didn't get approved
19 to cover the North Country Rock Pile.

20 Gord Macdonald: We did. We don't have to do it anymore because it's not
21 that plan anymore but remember when we were standing and watching
22 those dozers pushing that slope and there was that big hole there
23 that we dug all the rock out of to build this dike. That was all
24 good rock, so we would have done the same thing and re-mined this
25 rock and used it to cover the pile. We would have re-mined this
26 NCRP till pile to cover the rock too.

27 Kathy Arden: Okay so the fault line between the good and the bad rock
28 is where. But there is a good zone in there as well.

29 Gord Macdonald: There was about 15% bad rock but you can't easily pick
30 out the bad rock from the good rock. We were able to pull out quite
31 a bit.

32 I don't know if anyone talked to the driver of the bus because he
33 was part of doing the re-mining and he said it was exactly like
34 mining out of the pit, it was frozen and it was not easy. We are
35 glad we don't have to do this, that we can take it straight out of
36 the A21 pit.

1 Natasha Thorpe: Any other questions for Gord?

2 Modeste Sangris: We are not geologists we don't know anything about the
3 different rocks. They are the ones that extract the mineral. The
4 land is being ruined, the land belongs to us and we live off the
5 land and the caribou and our forefathers they went trapping,
6 hunting but today the minerals all over the land is the one running
7 the economy. In the past we didn't know anything about the minerals,
8 so you use numbers at times and you say the good rock and the not
9 good rock. What are you talking about, the rock not good and the
10 other part is good. Maybe you are talking about the chemicals used
11 to blast the rocks. Yesterday Rose told us that God created
12 everything in the earth including the rock so it can't be bad. I
13 can't really take in the information saying that the rock is not
14 good and the rock is good.

15 Gord Macdonald: We are using the words good and bad hoping only for a
16 way to describe the chemical composition of the rocks.

17 A21 rock - for closure (better then type 1 rock)

18 Type 1 rock - roads, dikes (geochemically simple)

19 Type 3 rock - NCRP (can create a bad seepage)

20 It's not because of blasting that it becomes that way. It is its
21 natural composition of the rocks.

22 Celine Marlowe: For A21 was there anyone from the communities there when
23 the fish were taken out of A21 to monitor?

24 Gord Macdonald: I think it was a Tli Cho contract. Can I get back to you
25 with an answer for that?

26 We went to all of the communities to say this is work that we need
27 to do and different groups bid on the work and I can't remember
28 which community did the work. It was one community not multiple
29 communities.

30 Celine Marlowe: So you mean we have monitors back home that can't be
31 here to watch taking the fish out?

32 Gord Macdonald: Its not that they can't come to watch, I suppose they
33 could have come to watch but we didn't have people from every
34 community up watching the work as it was done.

35 Celine Marlowe: So how do we know all the fish are out of there.

1 Gord Macdonald: We will know in two ways. The decision about when to
2 stop trying to take the fish out is up the regulators (Department
3 of Fisheries and Oceans) they are the ones who told us when to
4 stop. And two, when the water is pumped out we will be able to see
5 the bottom. When we did the other two pits it worked very well.

6 Bobby Algona: The geology map.

7 What you are telling us is the rock up there is different from the
8 rock at the bottom. Why would there be diamonds in the rock if it
9 isn't the same type of rock?

10 Gord Macdonald: The kimberlite is like volcano's that came out of the
11 earth. So where they came to the surface doesn't have anything to
12 do with the rock type, it has to do with where there are cracks in
13 the earth, weakness in the earth trying to get out of the earth's
14 crust. If you look at the pipes they are all aligned with the
15 weakness in the earth.

16 Bobby Algona: When we go out on the land, you walk a hundred yards and
17 the rock and soil is different, it would be the same thing as there
18 then.

19 Gord Macdonald: Yes, that's why it took so long to find these because
20 there is not a surface signature to say if I am standing on this
21 type of rock there is gold here, which is how you find most
22 elements.

23 Joanne Barnaby: Any other questions for Gord?

24 We want to come back to the questions that we had posted here, and
25 start working through those questions with you. I think there is a
26 feeling that we are ready to move into small groups to look at the
27 maps. It doesn't have to be men/women but smaller groups.

28

29 Break to set up for two groups

30

31 Natasha Thorpe: 5 questions to work through all about the South Country
32 Rock Pile and now that you have been out there to have a look I
33 think this will be a rally productive conversation.

34 Wayne Langenhan: What pattern are we going to get in to answer the
35 questions?

36 Natasha Thorpe: One question at a time.

1 Question 1 - should there be a wildlife path over the pile?

2 Question 2 - if so, where should the wildlife pathway be located?

3 Question 3 - Is it okay for the surface to be rough

4 Question 4 - Are there any water quality or flow concerns

5 Question 5 - Should the South Country Rock Pile be smaller. How.

6 Wayne Langenhan: Question 1 - We have to determine if they are going to
7 get the permit to move the material around the island. Obtaining
8 this permit would allow them to move the rock all around the island
9 which would make the pile much smaller. If they do get the permit
10 and are allowed. This pile will only be a fraction of the size,
11 half the height of the North Country Rock Pile. We may not have to
12 worry about a path but just be sloped the sides it would allow
13 caribou to just go over it like another hill.

14 Should have two scenarios - 1. The pile as half the height. 2. The
15 pile at its biggest.

16 I haven't hunted this region and I know there are people here who
17 have. I know there are trails across the island for caribou. It
18 would be better if we have to plan on a high esker like the other
19 one to let those that have hunted here say where they think it
20 should go.

21 August Enzoe: I have been on this board for many years, and we are
22 talking about the future of the mine closing. The North Country
23 Rock Pile we asked them to smooth around the whole pile same as
24 the roads leave it as is but make it smooth. Around the airport as
25 well.

26 In 1996 or 97 I was here and there were caribou all over this
27 island. And then they head to the south side and they swim right
28 across. Right now we should stick to the island how it should be
29 done. Never mind outside I don't think we will see caribou around
30 here again like there use to be way back when.

31 The South Country Rock Pile we need to think about how big it
32 is going to be and how high, make it nice and smooth, so that is
33 what we have been working on for a number of years now. We have to
34 try and put it back to the way it was a long time ago. It won't be
35 the same but we can make it nice for travel and easy for them to
36 get up and down.

37 Make it clean and smooth.

1 Modeste Sangris: In the fall time we have the migration of the caribou,
2 they usually come down this way, they have three routes. Some years
3 there is nothing. It goes to Tli Cho region and it goes to the east
4 to Lutsul kè. Three migration routes and right in the middle it
5 goes on this route only. This is a big development that has happened
6 on this island. I don't think the wildlife will come back.

7 They have to try to make it smooth, there use to be a hill where
8 the North Country Rock Pile is. I don't think the caribou will come
9 to this area anymore. The caribou are smart and sense that something
10 is happening over here. We hear from elders they have three ways
11 to migrate, east, north, south. There use to be a lot of caribou
12 at that time, now you don't see caribou now that a lot of
13 development is happening so it kind of chased the caribou away. I
14 don't think that you will see caribou migrate here. Smooth the pile
15 so the animals can get up and down.

16 Louis Zoe: We are talking about the North Country Rock Pile and it is
17 really high; it would be nice if they can lower it down, so it's
18 not so steep so the animals can get up and down. It would be easier
19 for the animals to get on top. Right now with development happening
20 we don't know if we will see caribou again in this area. I know
21 they are making a lot of roads too. There are all kinds of roads
22 being built and the roads are steep. That area where we went use
23 to have a lot of caribou but we don't know if the caribou will come
24 back. We go travel to Wekweeti to get caribou. Every region has
25 their hunting area. We usually travel to the Sahtu region but
26 because of the fires we haven't see much caribou there either. It
27 is critical for us to go out and get wildlife.

28 Nancy Kadlun: Talking about this pile here to keep it low as possible
29 without a big mountain, we can put some of it over here so we can
30 have a low mountain and if they pull out the slimes the bottom
31 might not be so clean for animals but they can cover that part with
32 rocks and then it would be good for animals. To try to keep the
33 South Country Rock Pile as low as possible so use it where they
34 can.

35 Natasha Thorpe: 1st recommendation: Keep the South Country Rock Pile as
36 low as possible.

37 Would we want to encourage wildlife to travel over the pile?

38 Would we want to slope the South Country Rock Pile or would we want
39 to allow for pathways.

1 Wayne Langenhan: We came to the conclusion to shape the North Country
2 Rock Pile as an esker. If they get the permit to use the rock then
3 the South Country Rock Pile will be much lower and it will be much
4 easier just to slope the sides down and make it caribou friendly
5 the whole island. If they come back. So if they come back it is
6 there for them. If they don't come back then they don't but at
7 least if they do come back it would be in a shape that would attract
8 them. So they can get up high to get away from the flies, but I
9 think we should prepare it for the event that they (caribou) will
10 come back and hope they come back, but if they don't come back we
11 haven't lost anything it's still there for them.

12 Natasha Thorpe: Plan the South Country Rock Pile to be caribou friendly.

13 Nancy Kadlun: Yes caribou friendly.

14 Tyler Akeeagok: Just listening to my elders here and gaining knowledge
15 of what they saw and they know that this island was a very popular
16 feeding ground, migration ground and that if they can make it
17 caribou friendly as possible then we would be prepared whether they
18 do or don't come back, at least we know that it is caribou friendly.

19 Janelle Nitsiza: When you think about Diavik closing, who's to say how
20 many other mines might open, so the caribou are running out of
21 lands to run across, they are running out of playground space, so
22 we do need to prepare for if they do want to come back. It is their
23 choice we can't herd them or tell them where they can and can't
24 go. Overall goal should be to make the entire island caribou
25 friendly, not just the rock piles. Hopefully lichen will grow, I
26 know it takes a long time to grow, so if we are preparing now maybe
27 lichen will grow for future generations of caribou, if our caribou
28 live that long, god willing.

29 Modeste Sangris: The caribou, we can't control the caribou and we've
30 been saying this since yesterday but in the past maybe 2 summers
31 ago and doing fish samples, during August it's very dark and we see
32 the mine site from the fish camp, you could see that the caribou
33 were swimming in the narrows but they won't swim across where the
34 light is shining. If the caribou is traveling at night it won't go
35 towards the light. In the past we used to travel in this area with
36 my dad, we used to travel in this area with dog team, and there was
37 so much caribou that they couldn't move forward. There were so many
38 caribou on the lake we couldn't move forward and we harvested
39 caribou in the afternoon, my dad said that we should go to shore
40 and we set up a tent and then clean up the caribou and store the
41 meat in the ground. I don't know how many thousands of caribou

1 there were. Since then I have never seen that many caribou again,
2 I think it is because of the mines, if the mines do the reclamation
3 hopefully the caribou will come back. We are identified by our
4 palms but the caribou are identified but the mark on their forehead.
5 When I was young there were caribou around Yellowknife.

6 Dora Migwi: Yesterday I have been listening all day and today and the
7 rock pile that we walked on and we see it with our eyes, the rock
8 pile should be reduced in height and slope should be gradual and
9 those are the things that has been said. We should all be in
10 agreement, that is the only way we will improve the wildlife path
11 and also the migration of the caribou we aren't in control of the
12 migration. The caribou knows where its food is. It doesn't live in
13 only one place. It moves as Louie was talking about the migrating
14 of the caribou it goes in the Wekweeti area and looks for the food
15 where it is available, because of the forest fire we don't know
16 when the caribou are going to go back in that area. It is up to
17 our Creator. In certain years there was plenty of caribou and in
18 other years there was none.

19 The slope should be gradual and all the rocks smoothed out and
20 there is going to be lots of work to be done, using the permit, we
21 should follow the permit, we can't sit here and say nothing. The
22 North Country Rock Pile is high enough and I think we should have
23 a gradual slope all around it.

24 August Enzoë: I see a lot of adults from the 1980's and the way they
25 used to tell me stories, they told me it was from way back, 1870s.
26 They told me that the caribou are lost right now. I am not blaming
27 the mine right now, they told me there were lots of caribou but
28 one day you will go up the hill and look for caribou and you will
29 see none and you will have tears in your eyes.

30 Rose Betsina: We can't talk about these things very often and it's just
31 like talking on radio. They say caribou hear us in the long distance
32 and it seems like we are talking in the same manner of last year.
33 The destruction of the land was by the mining company. The way
34 caribou used to migrate, it's not going to take place. You can
35 reduce the height of the North Country Rock Pile but once we check
36 the ground and it seems there is less of a height then last year,
37 because the equipment goes on the North Country Rock Pile it seems
38 the height is reduced. The wildlife may not walk along the rock
39 pile. Where will it feed itself on the rock pile? I don't think it
40 is going to happen. The caribou use to go on the land because it
41 was feeding. The lichen, the food of the caribou usually grows on
42 the land and because of the forest fires so maybe we will have re-

1 growth, once the mining is done they will be leaving, because the
2 company is not from the north, they don't live here and they come
3 from the south. They are foreigners and they destruct the land and
4 take the minerals and although they may be using lots of money, we
5 can't blame them all the time.

6 Louis Zoe: The South Country Rock Pile I think while we were standing
7 on the ground there was a little lake there maybe they would drain
8 the water and then put the pile there so the height of the pile
9 wouldn't be so high and the A21 we don't know the exact amount of
10 rock that will be removed. I have worked with ENR officers using
11 helicopters, I have worked with them for three days and if there
12 are about 10 caribou along the shore the ENR officers would tell
13 the pilot to go in the bush and the caribou would come out of the
14 bush. They were using a helicopter and they were hovering above
15 the caribou. The caribou were in distress. They found two caribou
16 collars in two different places. They retrieved the two collars
17 and if the caribou has a collar on its neck when it is running it
18 may be a distraction to the caribou, injuring it from the neck to
19 the jaw. When the caribou have the collar on and they are feeding
20 when they bend over the collar would be a distraction for the
21 caribou.

22 Natasha Thorpe: What I am hearing is the recommendations for the North
23 Country Rock Pile would be the same for the South Country Rock
24 Pile. You had made a recommendation about the North Country Rock
25 Pile to keep it as low as possible. Would it be okay for some of
26 the sides of the pile to be rough or am I hearing that you would
27 like it all smooth?

28 Colleen English: Like you see in some areas on the North Country Rock
29 Pile that haven't been smoothed.

30 August Enzo: Caribou all know if you see boulders the caribou won't
31 pass through there in the summer. Sometimes when it is really hot
32 they do sleep in the shade, the caribou won't go over the big
33 boulders.

34 Janelle Nitsiza: Wolves are predators to caribou, what if the wolves use
35 the rough areas as traps for the caribou?

36 Louie might remember but when we went to Daring Lake we went berry
37 picking and there was a slope and it looked like a caribou had
38 slide down and walked on the shores and we found him sleeping so
39 the slope does work I think.

1 Natasha Thorpe: Smooth everywhere (North Country Rock Pile) except the
2 side of the PKC. We don't want the caribou to come into the PKC.
3 Over here if this is where the South Country Rock Pile is going to
4 be what I am hearing is that all the sides should be sloped like
5 an esker to be caribou friendly.

6 The South Country Rock Pile all the sides should be sloped to be
7 caribou friendly. Are there any sides you would want left rough?

8 If you could mark it with a pen. Is there an area on the South
9 Country Rock Pile that you would want a walking path or just smooth
10 everywhere?

11 Tyler Akeeagok: A healthy slope all the way around for mobilization and
12 so that the vegetation can grow all around the hill too.

13 Janelle Nitsiza: I second it on the record.

14 Wayne Langenhan: I third it.

15 Consensus

16 Natasha Thorpe: Next topic is water and drainage. Are there any water
17 quality concerns or questions about the South Country Rock Pile?

18 Wayne Langenhan: It is a different type of rock that poses no threat and
19 is not going to cause a problem so I don't see any reason why there
20 should be any concern about water run off, holding ponds or testing
21 ponds. Maybe have testing ponds for the first little while along
22 the edge just to make double, double sure, then if it's still fine
23 then leave it. Test for a little while.

24 August Enzoë: The North Country Rock Pile before they were testing are
25 they still testing? Then they should do the same for the other one.

26 Natasha Thorpe: Louie's recommendation was to drain the pond before
27 putting the pile on top.

28 Louis Zoe: All the rocks from A21, don't make it really steep and to
29 have rabbits in the area.

30 And the water is being re-used again and the water quality if it's
31 not that good do they put the water back into the lake.

32 Natasha Thorpe: Are there any streams that drain out of the pond that
33 would drain into the lake? Louie suggests draining the pond before
34 putting the pile on top of it. They are wondering if there is any
35 flow that would come from underneath this proposed pile.

1 Colleen English: Right now for natural drainage, the pond drains to this
2 pond, which then drains to Lac de Gras. (Natural flow) When Diavik
3 is operating any water that comes off any buildings or drainage,
4 they are not allowed to release it. (when they are operating)

5 When they are closed the water would be kept there then tested and
6 then connected back to LDG if it is good.

7 Modeste Sangris: Two years ago we did water sampling at the camp across
8 the lake. I don't know if they keep on monitoring, we did fish
9 sampling and where ever the water is being treated maybe they are
10 doing that but the people who are working here are using the water
11 from this lake and its being treated and they have to monitor the
12 water and also the fish. It would be good if you monitored these
13 things while it's in operation and then also at closing time.

14 Colleen English: Just to let you know there is a lot of monitoring that
15 still does take place. That camp (TK Aquatic Effects Monitoring)
16 is planned again for next year [2018]. Their boat was out today
17 sampling where the treated water is released back in to Lac de
18 Gras. Every summer they also do a huge lake-wide sampling program
19 and that includes the water, includes the bugs, and the sediments
20 on the bottom of the lake, it includes the bugs that live in the
21 water and the fish. They have a really rigorous monitoring program
22 and it is called the Aquatic Effects Monitoring Program, or AEMP.

23 Natasha Thorpe: Are there any volunteers to present to plenary from our
24 group?

25 In general we want to make the island caribou friendly except

26 Pile to be as low as possible

27 Smooth on all sides

28 Similar to the North Country Rock Pile

29 Use A21 rock where possible around the site.

30 Not up to us if the caribou come back we need to make it friendly
31 for them if they do.

32 Drain water in pond before putting the South Country Rock Pile.

33 Wayne Langenhan: We have only done one scenario here what if the permit
34 is not granted.

35 Natasha Thorpe: What I have been hearing is that they want Diavik to
36 explore other options for the rock regardless.

1 Wayne Langenhan: If they don't allow the permit to move the rock then
2 the pile is going to be higher and it is going to be something
3 along the line of the north slope and therefore maybe we should
4 think about patterning the whole concept of the south slope in
5 accordance with the north slope. Like the on ramps, off ramps
6 because it will be considerable higher.

7 Natasha Thorpe: That is what I was trying to see, does anyone want on
8 ramps, off ramps.

9 Tyler Akeagok: Gord was talking about this being the maximum area,
10 regardless how big it is they can do the healthy slopes.

11 Colleen English: They have planned for it to be able to be done but it
12 is not planned to be done.

13

14 17 September - Breakout Session led by Joanne

15

16 Celine, Kathy, Joline, Theresa, Roger, Bobby, Tyler, Janelle, Joanne,
17 Colleen

18 Joanne: Any ideas or further discussion on priorities for
19 monitoring/watching? Louis suggested water and animals.

20 Roger: Water is like gold and becoming limited.

21 Joline: I remember back when we were out on the old airport road, going
22 to check mushrooms. My son ran into some scat from woodland caribou
23 and my dad was smelling it and taught it smelt like willow because
24 that's what they were eating in the woodland area. Even scat can
25 help to determine their health. Not only for caribou. On the tundra
26 by the SCRP, we asked louis to come and asked what kind of poop it
27 was. He said it was rabbit and that it stunk and it didn't smell
28 right due to disturbance around here. During winter, its easy to
29 cross onto island when ice is here.

30 Kathy: Do rabbits migrate?

31 Joline: I haven't seen rabbits yet.

32 Kathy: If they had a rabbit hole on the island, its under the NCRP now.

33 Joline: I was asking about wildlife monitoring program. its on EMAB
34 website. I asked if they have fish tasting. Do they have caribou
35 tasting?

1 Janelle: Hottah Lake caribou tasting. Left jaw, measured fat on back,
2 took kidney and its fat and took the poop. Also took home caribou
3 meat. Male Youth got to learn how to butcher the caribou at beaver
4 lodge. It was interesting.

5 Joline: Harvest caribou as part of training. Take samples of caribou cow
6 to see how doing. ENR officers go with ENR students. How come don't
7 do that for mining industry?

8 Janelle: Dianne told us they watch caribou and observe it and document
9 it. But no butchering. Used to harvest at Daring Lake to teach but
10 even that program can't hunt to teach anymore.

11 Joline: Couldn't do it last year as no caribou in the area though.

12 Joanne: There are ideas out there, that we can transfer to the mine site.
13 Around water, scat, animals, etc. On-site monitoring from a TK
14 Perspective. This scat discussion is obvious to me. Hearing Louis
15 yesterday about different smells and what can cause them is
16 important. There is something that we could do.

17 Kathy: Do we use this as a basis for the water and the animals? Less
18 scientific, use it for other stuff.

19 Janelle: Monitor insects at Daring lake. Maybe we could do that here.

20 Joanne: Science or elders? Have elders collect bugs? Is there something
21 with it that elders could look at?

22 Joline: If you go from plants to bugs and up the food chain. From water,
23 bugs, insects in water, then plants, plants on land, animals and
24 bigger animals. I know there are studies Georgina from plants. Dust
25 is really probably a big impact on plants right now. When we were
26 out there you could see the dust from the vehicles on the big road.
27 You could see the wind taking it.

28 Janelle: Would you use this plant for traditional medicine? Can they
29 find plants used for traditional medicine and bring them back to
30 the area?

31 Joline: Dust sampling. Does Diavik do this already?

32 Colleen: Diavik does dust sampling for particulates and quality, and
33 they also monitor dust on vegetation plots to see if species or
34 growth changes as a result of dust on snow (resulting in a darker
35 colour snow that melts earlier and promotes plant growth). Diavik
36 also does a lichen and soil sampling program to determine metals

1 levels on lichen and soils near and far from the mine, up to 40 km
2 away.

3 Bobby: Id' like to see results and documents on samples collected by
4 Diavik over the years. Sometimes we don't get to see these results
5 that Diavik gets. Dust, air, all of it. I'd like to see that. That
6 data that Diavik has collected will help us by giving an example
7 of two different ways of doing things a science and TK way.
8 Scientists are highly paid individuals working for companies and
9 more lean to data collecting from a science point of view. TK
10 assessments are sometimes set aside b/c of science way. We should
11 at least be looking at both more often. Work with mining companies
12 and put things in annual reports. I would really like to see that
13 on the data collection from Diavik. There can be conflicting ways
14 of doing things. From a TK point of view, I've known all along,
15 just like Louis, who says we need to look for more ways of doing
16 things. I know they've been doing it all along but I don't see
17 these reports very often. TK is looking, smelling, feeling and it
18 can be hard for science to understand.

19 Joanne: Assess monitoring methods and results if have Diavik reports?
20 Yes.

21 Joline: So the Panel only meets once a year and there is plans to continue
22 to meet until closure and maybe after closure?

23 Colleen: Yes.

24 Joline: Going back to morning session of what was covered, the stuff
25 that was completed and reviewed, we haven't taken a look at the
26 updates on it. What DDMI completed is PKC, revegetation, etc in
27 each session. They said they completed all these. If we look at
28 those, we want to see if its working. U of A revegetation research
29 - what are the results? Going to the test pile and comparing that
30 against the other side. The test pile said it's been there for more
31 than 6 years and it doesn't have a lot of vegetation. When I look
32 around, I see disturbance. There aren't a lot of seeds to blow onto
33 it. The NCRP is closer to the tundra so maybe more vegetation. How
34 will that look at the end? We don't want to leave this place rocky
35 and grey.

36 Janelle: We said natural vs man-made vegetation on the NCRP, but it takes
37 longer. Hopefully plants will grow faster with global warming.
38 Gord's presentation could have been more elaborate.

39 Roger: It would be nice to see all the analyzed information from the
40 lake bottoms and monitoring results from fish sampling programs.

1 Kathy: That's an on-going monitoring program. So from Day 1 they've been
2 testing and they see how things change over time. What are the
3 differences we've seen from Day 1 to today? We want to know to
4 determine how we want to watch. We need to understand this in order
5 to build a good watching program.

6 Roger: Would give elders a better view on how to provide knowledge.

7 Joanne: TK Panel to assess monitoring results to know what kind of
8 monitoring to do in the future.

9 Roger: Sometimes the words are a little technical for the elders, too.
10 Try to use ones that elders can understand. Use visual cues,
11 pictures.

12 Janelle: Place names, terms, etc can be provided to translators in
13 advance to help with information. As well as giving them
14 presentations in advance. Interpreter translator program. One on
15 health terms, legal terms, etc. Maybe provide this if it already
16 exists (general mining terms interpreter workshop from years ago).

17 Kathy: So you want them [Diavik] to respond to the recommendations?
18 They've done that on the sheet.

19 Celine: Who is doing the monitoring?

20 Joanne: Right now, Diavik does a lot. Some independent people come in.
21 Also involve elders in some programs. TK holders in some programs.
22 On a smaller scale, single event. I remember hearing about Fred
23 Sangris with lichen sampling and dust.

24 Joline: Were archaeological surveys done?

25 Celine: Re-vegetation plots - what is happening?

26 Colleen: Yes, archaeological surveys were done during the Environmental
27 Assessment for the whole mine footprint and other areas around the
28 mine. Another one was done before the wind turbines were put up as
29 well. The re-vegetation plots had another full round of sampling
30 this summer, which was year 10 for the first round of plots. The
31 full set of results will be written up around the end of 2018 and
32 that will allow Diavik to determine what worked best - types of
33 plants, soil, amendments, etc.

34 Bobby: I have conflicting feelings about collars on animals and taking
35 animals apart without permission from elders. Scientists don't
36 believe in what elders say about condition of animals. They put on
37 collars, tags, harass animals. There has to be a TK way. It's

1 always been set aside. We need to come up with a better way. When
2 we try to work with scientists, we have been trying to say that
3 science is not always best. TK has to become more of a priority -
4 look at elders way of doing things first. They have not lived with
5 these animals.

6 Joanne: More positive ways of dealing with that could be to say that
7 Diavik should consider methods used and alternatives to finding
8 answers with TK Panel members.

9 Janelle: Science is as bad as mining. Following and chasing animals.
10 Helicopters stressing and scaring animals. Louie noticed collars
11 with hair and dry blood on them. And they're heavy. Research is
12 digging into the decline and making caribou go away even more. Very
13 little respect to their natural way of life.

14 Bobby: Animals don't act naturally after being collared. It's doing
15 something else. We have to teach these things to youth. We need to
16 look more closely at the scientist's ways. They should not be doing
17 all these things without talking to elders first. They just want
18 to study it themselves without knowing what to look for.

19 Kathy: Right now they tag dogs so you can find and locate them. Its just
20 a little injection of a chip. Why not do that with caribou instead
21 of these big collars?

22 Colleen: Going back to Joline's comment regarding the work of the Panel,
23 one of the challenges with wanting an overview of how TK Panel
24 recommendations have been implemented is that it's mostly all
25 forward looking plans on paper vs actual implementation. The NCRP
26 re-slope is a great example. Understand frustration and wanting to
27 see tangible results but this is a lot of forward-looking planning.

28 Bobby: Plants on the ground might look ok but roots on the bottom could
29 be different and may be changing over time. Roots act the same way
30 as blood in a human. Once they start to clog, it dies. Same with
31 trees. Impacts may take time to show up so we may not see impacts
32 now.

33 Celine: There must be plant life around here. I saw them on and under
34 boulders. Its beautiful. I thought someone planted them. But the
35 flowers are growing and they're growing on rocks. I saw some green
36 moss growing. I never saw them before, but they are growing and
37 coming back. Seeing those flowers makes me feel hopeful. If these
38 can grow here with just rocks, that's good. When I saw them way
39 over there, it was good. We can't give up, we have to have hope. I
40 know its hard but life has to keep going. We all have each other

1 for that hope. We all have to hang onto each other, no matter who
2 we are or where we come from. I know its hard, but don't give up
3 hope. My husband told me that on his deathbed. And it was hard but
4 I do have to keep going because of my grandkids and my daughter.
5 Its so hard to say I would. He'd say 'I never heard your answer
6 yet'. The last week, I said OK. 2 days after that, he was gone. He
7 wanted to hear me first. So no matter where or who we are, we need
8 to continue going on. He taught me that. We have to be strong for
9 each other.

10 Joline: Priorities in monitoring. Right now we have AEMP with fish every
11 3 yrs. We should start off with a mixture of youth, elders,
12 scientists. Youth gather info from elders. I find in our
13 communities and regions, when they come like industry and report
14 on what's happening, when they report to our people its hard for
15 us to trust what they're saying. So we throw mean stuff at them,
16 very negative, if they are non-Aboriginal or science focussed. When
17 we have our people trained, I see a difference. When I started
18 working with Tlicho Government, I tried to read materials and have
19 people help me understand. Who do they trust? Outsiders, or our
20 own people. I would take information from outsiders and present it
21 to the community. If you did this, it would build trust. They pick
22 up both ways. Our own people would understand. Guides youth in a
23 way that is supportive. Showing them opportunities.

24 Kathy: Make sure youth are trained on how to take good notes.

25 Janelle: Diavik's is very similar to the Tlicho model for the AEMP.

26 Joline: Ekati has a similar program for Jay but they don't have interest
27 in using Diavik's model for the fish TK program.

28 Theresa: The basic ideas I have are down. I'd say it if I had anything
29 different to add. What is being monitored and who does it, is that
30 what we're talking about? We're planning for after the mine is
31 closed, right.

32 Joanne: Yes. In order to slowly build the scope and capacity. So that
33 when Diavik leaves, we have something ongoing.

34 Roger: I don't hear much about birds. When there is something wrong,
35 they are the first to fly away. Don't see many reports on which
36 ones come.

37 Joanne: There is some bird monitoring now. Do you want to learn what is
38 happening?

1 Joline: One of our ENR grads had to do a thesis for their diploma. He
2 was doing falcon research. He compared data from the mine sites
3 and Daring Lake. Quite separate areas and he was looking at
4 differences from disturbance and Daring. No difference in results,
5 egg size, etc.

6 Bobby: Plant life is our medicine. We need to keep them healthy for our
7 children and we need to teach people about the medicine. Not only
8 plants, but other things in our culture such as bugs and worms and
9 maggots. What would people think of maggots? Its medicine to me.
10 They are things we need to live. Cotton balls, moss, flowers,
11 berries, moss, bark, everything. They will be disrupted for now
12 and I don't know if they'll come back in the future. My nephew
13 works at Lupin and has seen coloured snow on his way back to
14 Yellowknife.

15

16 Break

17

18 Joanne Barnaby: Our group was really on the ball.

19 Theresa and Roger to present for Group 1

20 Roger Catholique: We started off from the questions

21 1. South Country Rock Pile is in the middle of a major caribou
22 corridor- avoid using it area all together, use PKC Area

23

24 2. Yes to pathways for wildlife, slope the whole thing - natural like
25 an esker

26 Yes South Country Rock Pile should be smaller

27 5. Cover building foundations and areas that held hydrocarbons

28 3. Cover PKC after removing slimes

29 4. Use material to extend the north end of the North Country Rock Pile
30 and slope it

31 7. Keep it smooth (like test pile)

32 8. Add boulders to test pile and monitor natural re-vegetation and snow
33 accumulation

1 6. Use South Country Rock Pile smooth road edges and other built up areas
2 like the airport

3 9. Pathway should follow caribou migration corridor

4 10. Water should be tested by both science and traditional knowledge
5 before releasing into Lac de Gras - where needed use moss and other
6 natural filtration.

7

8 Tyler Akeeagok to present for group 2

9 1. Build pile to be caribou and wildlife friendly, we don't know if
10 they will come back, but we want it ready if they do.

11 2. Have water collection for the first while to make sure its good
12 before reconnecting to Lac de Gras.

13 3. Drain the pond under where the South Country Rock Pile will go
14 before putting it there

15 4. Keep the pile low as possible

16 5. Make it less rugged on the side

17 6. Slope the sides down so its gradual all around for on/off access

18 Natasha Thorpe: Thank you to the youth for presenting. Anything anyone
19 wants to add.

20 Joanne Barnaby: I think between the two groups we came up with very
21 strong recommendations.

22 Natasha Thorpe: The other subject we want to talk about is what we want
23 to see for watching / monitoring. Today I was really impressed with
24 the similarity in findings between the two break-out groups.

25 Colleen English: After hours and the front desk is closed, if you have
26 issues with your room key, see the commissary or baker.

27 Nancy Kadlun: If there is an emergency what number do we dial.

28 Joanne Barnaby: Tomorrow morning start at 9:30am

29

30 END

1 Joanne Barnaby: Good morning everyone. We have assembled the priorities
2 for the next sessions.

3 Next steps Slide

4 Colleen English: Next steps slides - Where do we go from here. Future
5 topics, sessions - DDMI Interests

- 6 1. PK to underground - include an underground tour along with the open
7 pits
- 8 2. Updates on PKC closure update (if the #1 happens)
- 9 3. North Inlet
- 10 4. Closure details - building demolition, metal disposal, waste
11 disposal, contaminants, lay down areas, airports, roads, etc.
- 12 5. Closure inspection criteria

13 2018 Aquatic Effect Monitoring Program (AEMP) traditional knowledge camp

14 Joanne Barnaby: Is the list fairly complete? Is there anything missing
15 that the panel needs to focus on in the future?

16 Roger Catholique: These are for future. At a few meetings I had before
17 the concern was about dust. Dust travels far in the air and I
18 always wanted to have lichen and rocks sampled in case there is
19 anything wrong because since you are here but the animals are way
20 out there, they might stumble upon something we don't know about.
21 There are barely any trees in the barren land.

22 Joanne Barnaby: Maybe we can get a response on that?

23 Gord Macdonald: I think that is a really good topic to put in. I know
24 you are probably thinking more in operations than in closure but I
25 think we could link the two under monitoring: how we monitor lichen
26 during operations, are we doing the right monitoring on the science
27 side but is there anything the traditional knowledge holders can
28 do on their side and see what are we seeing now.

29 Dust and closure monitoring.

30 Kathy Arden: I was wondering if we could - and this is on the pretense
31 that we are going to put the slime into one of the pits - can we
32 get a drawing or sketch what it would look like at closure, the South
33 Country Rock Pile, North Country Rock Pile, the sloping and how
34 the PKC could look if that is what happens? So we can have a look
35 at what it would look like with it all gone. I don't know if you
36 can have it for this session but maybe for next session.

1 Gord Macdonald: I know we didn't give you good visuals for this time
2 but I think once we have what you give us we can do that for next
3 time.

4 Joanne Barnaby: Questions?

5 August Enzoe: The underground for the future after everything is finished
6 underground what is going to be done there? I want the people to
7 think about that for the future.

8 Gord Macdonald: I actually think that is best to leave to talk about
9 with the underground session, then when we will do a tour of the
10 underground and we will try and identify for you all of the things
11 that will be left, not only PK.

12 Kathy Arden: Maybe for us scaredy cats like me maybe you could have
13 someone videotape so we can still see the underground.

14 Gord Macdonald: Let's take that as a good idea.

15 Bobby Algona: Closure details - I think it would be really nice to see
16 everything in a list, of all the things that are in those
17 categories, types of metals and all the details of metals that are
18 put in the landfill. Building demolition materials and what might
19 be considered to go underground.

20 Gord Macdonald: That's good, the more you tell me the better prepared I
21 can be.

22 Wayne Langenhan: On the demolition of this camp, myself personally I
23 would like to see as much that can be salvaged as possible and for
24 that material to go to the communities to be used for construction
25 within those communities.

26 Gord Macdonald: So before we even get to the demolishing what is the
27 process we are going to go through to identify items that might be
28 reused in the communities and what is our plan to engage with the
29 communities?

30 Modeste Sangris: As we are talking about the reclamation I think it would
31 be good to do a good reclamation, reduce the height of the North
32 Country Rock Pile. On our tour yesterday we saw where little flowers
33 grow on top of the hills. I was thinking about why the flowers were
34 growing there and he was talking about how the dust particles can
35 be blown in to the distance and once they reduce the slope maybe
36 put some till on the rock pile and if there is only rock then
37 nothing is going to grow but if there is till as well then it might
38 grow.

1 Joanne Barnaby: Anything that you can share with us about the dike
2 design?

3 Gord Macdonald: I can but it is a pretty big topic.

4 Joanne Barnaby: Is that a presentation that could happen at another
5 session?

6 Gord Macdonald: Yes and then we could get one of the engineers to come
7 and talk about it.

8 Joanne Barnaby: Design, construction, operation, and then closure.

9 Bobby Algona: Concerning the dike, again maybe before they start pumping
10 the water out I would really like to see the water. In my mind
11 something might be left behind, plants, or fish, or seeds. I would
12 really like to see the water before it is pumped out to the lake.

13 Gord Macdonald: At closure?

14 Bobby Algona: No before the water is pumped out of A21.

15 Gord Macdonald: That would have to be right now because pumping will
16 start in a month. Will everyone want to go or just a few? We might
17 be able to get down there with a truck but we won't be able to get
18 down with the bus.

19 Bobby Algona: The reason I want to see is it was one of the bays in the
20 past that was one of the areas that my dad and I stopped to fish.
21 It's one of the areas where we have caught really big fish. In my
22 mind I believe that there might be more fish in there. What I am
23 hearing is that there were very little fish in that area.

24 Gord Macdonald: One of the reasons there may not have been as many fish
25 is because it has gone through two years of construction so its
26 been actively being constructed in there for two years and the dike
27 has slowly been closing so fish have had a chance to get out of
28 there and I think most fish would probably want to get out of there
29 and may have already left and it was only those that were trapped
30 behind when we finally closed the dike that we are removing out of
31 there. I don't think it represents what fish might have lived there
32 in the past.

33 Kathy Arden: Did DFO use an underwater camera?

34 Gord Macdonald: No, it's based on catch per unit effort, tracked over
35 time. It was fished out.

1 Wayne Langenhan: I just wanted to say that people that aren't familiar
2 with the fish out, what you said is exactly how it happens, but
3 the final say of when they quit is up to Fisheries and Oceans. It
4 is not up to the mine.

5 Gord Macdonald: I didn't know that was going to be a question but we can
6 certainly put what was done and what was found for a future
7 discussion.

8 Bobby Algona: I may never have a chance to look at the pump out, there
9 are a lot of other little things that we see in the water and those
10 things should be saved as well. The little microbes should be saved
11 as well, before I lose this chance to see it. When you look at
12 things from a distance it's really hard to put in perspective what
13 exactly is going on to the construction.

14 Joanne Barnaby: Maybe we can check around the room to see who is
15 interested in going to see down to the water so maybe we can if we
16 can get trucks.

17 In terms of what we address next, there was a suggestion that we
18 do the underground tour and the option of moving the slime
19 underground next.

20 PKC - Spring

21 Gord Macdonald: The updates on PKC at a later date.

22 Joanne Barnaby: adding topics to the slide

23 Natasha Thorpe: I was just going to see while Colleen is updating the
24 slide is there anything that is season specific?

25 Gord Macdonald: I think the demolition one can be done at anytime and
26 also does not need to be done at site.

27 Wayne Langenhan: I think that some of these things like the meetings
28 could be shifted into spaces when the youth are on their breaks
29 from school. I think the meetings should be arranged somehow to
30 coincide with their time off.

31 Kathy Arden: I think one of the other things we have talk about is run
32 off in the spring, testing of the run off.

33 Gord Macdonald: More to the future to understand runoff to the lake?

34 Kathy Arden: I think you are right that we spoke about that to look at
35 it at closure.

1 Dora Migwi: What the youth had said about the dust that it goes way far
2 away. When we are in Gameti and my late husband said that he was
3 traveling on the land and on the lake there was dust flying and
4 the dust came from over here. The youth had said that the dust can
5 travel far, we see the big trucks on this island, maybe all the
6 dust is going to all the vegetation, and lakes and ponds. The youth
7 is right in saying the dust travels far.

8 Joanne Barnaby: Comments, suggestions, topics?

9 Roger Catholique: On the dust monitoring in the springtime, because that
10 is when there is a lot of snowmelt and run off, that is when the
11 plants come back to life, that is when you see everything that has
12 built up over winter it all builds up and then you see it in the
13 spring time.

14 Bobby Algona: This one is for the 2018 AEMP maybe we should focus on
15 the rivers, and go look at the rivers as well, the one on the north
16 side and on the south side and the one that goes to Kugluktuk,
17 maybe make it a priority to look at before the J-pipe goes in.

18 Gord Macdonald: Yes I understand your concern and we will take it on as
19 a challenge to get everyone to those locations.

20 Natasha Thorpe: Any other technical questions?

21 Gord Macdonald: Slide - Possible mineral waste schedule for A21

22 If you think about mineral waste these are the big things going on
23 site, we will always be producing more PK that has to go somewhere
24 either the PKC or underground. The other waste is the A21 rock,
25 and is going to start in 2018 until 2021.

26 A418 mining is going to go at the same time frame to 2021. We can't
27 put anything back in A418 until after 2021, at which time PK could
28 go straight from the plant to the underground. If that happens we
29 may not have to raise the dams around the PKC higher. When is A418
30 available, when are we producing rock out of A21, how long will we
31 be producing rock out of A21.

32 Slide of the carrot

33 Pipeline from the PKC to the pit and it would settle PK on the
34 bottom and water on the top.

35 Natasha Thorpe: 2 questions, how long does it take to drive to the bottom
36 of the pit?

1 For the quantity of PK Slimes how high would they go in the carrot?

2 Gord Macdonald: 20 mins approx. to get to the bottom. We are still trying
3 to figure out how much the slimes will compact. We think they would
4 stay in the black zone, but we really don't know yet. Once we get
5 to the point where the water is high enough we will put in a pump
6 in order to pump out the water.

7 Kathy Arden: The PK sediments will also seep in to the tunnels because
8 they are all connected.

9 Gord Macdonald: Yes, which is why we would build blocks called bulkheads
10 to stop the water and slime from going to the other (A154)
11 underground.

12 Kathy Arden: After all the PK is in there and the seepage comes in there
13 is it going to be constantly seeping water or is the pressure from
14 the PK in the tunnels and the carrot enough to keep the water from
15 seeping in.

16 Gord Macdonald: That is one of the technical things that we are trying
17 to sort out, as long as we have the water level below the lake
18 level, water from the ground wants to get in.

19 Tyler Akeeagok: What is the freezing point of slimes?

20 Gord Macdonald: I think 0 but it won't freeze because of the temperature
21 of the earth down there.

22 Tyler Akeeagok: What about the pipeline?

23 Gord Macdonald: We use heat trace on land but we would probably have two
24 pipelines running so that if one freezes we still have the other
25 one.

26 Ekati has been doing this for the last four years there and those
27 are the kinds of things we are trying to figure out.

28 They put all of the PK straight from the process plant to their
29 pit/pond.

30

31 Natasha Thorpe: Any other questions for Gord?

32

33 Break

34

1 Colleen English: This is the best we can do for samples at this moment
2 (pictures). The old jars were lost and we are working on getting
3 new ones for you.

4 Natasha Thorpe: We are going to spend the rest of the day talking about
5 watching, so we are going to watch a video on this program that
6 has been happening for a number of years.

7

8 Video on Watching: [https://coastalguardianwatchmen.ca/network-](https://coastalguardianwatchmen.ca/network-communications)
9 [communications](https://coastalguardianwatchmen.ca/network-communications) (Eyes and Ears on the Land and Sea)

10

11 Joanne Barnaby: I hope this puts us in the mood about what we can do
12 here. Focus first on this mine site and how things evolve.

13 Bobby Algona: I have a cd that is almost similar to what they are doing
14 there. My family and I do a lot like that out on the land. I have
15 always wanted to show you this. It would be something for our
16 groups to do to. If we could someday see this video as a group.

17 Joanne Barnaby: Yes we can certainly look at fitting it in.

18

19 Lunch

20

21 Presentation - Developing a watching program

22 Natasha Thorpe: This presentation will give you a background and also
23 ideas related to monitoring or "watching."

24 When we were out looking at the proposed site for the South Country Rock
25 Pile Louie was saying that the rabbit poop didn't smell right. This
26 is an example of the kinds of ongoing watching that people carry
27 on which is grounded in traditional knowledge.

28 Louis Zoe: The rabbit poop turns into sticks like when they eat sticks.
29 When we are out in the tundra, we see a little bit of cranberries
30 now that the cranberries are falling off and after that it gets
31 dry. When we went out yesterday we saw some rabbit poop and I said
32 we eat that kind and I gave her a couple of the poop, I don't know
33 what she did with it. When we used to work with our parents, we
34 use to go out with the snowshoes and there were watchmen so they
35 know the landscape and they know all the area, they watch what they

1 kill and they try not to waste any meat. Now that we are trying to
2 keep our knowledge, but we are still pushing to keep our traditions
3 alive, we have lots of ancestor's trails that don't get disturbed
4 by the industry. We had survived on berries even in wintertime. It
5 gets so dark and our parents would go out and get candles then we
6 would have a little bit of light, and they would go out and trap
7 and now today we have everything, there is a lot of money, it
8 wasn't like that before it was a struggle, but us elders on the
9 land we see the development is destroying the land so as elders
10 sitting on the panel it is good to get help.

11 Nancy Kadlun: I really like the watching, because we all wouldn't be
12 here for our mines there will be more mines in the future. I am
13 always so happy that Diavik brings youth to the meetings and the
14 will be here after we are gone. This will be the first mine closing
15 so we are learning a lot. I was happy that Nunavut Impact Review
16 Board and KIA works hard to keep our land clean. It's just the
17 beginning to try and save our land I am so happy that Diavik brings
18 youth because it makes them strongest for the future.

19 Bobby Algona: I still don't have the fish stories CD. Which talks about
20 how fish and their bones tell a story about their life and how
21 humanity got started. I still don't have that CD. Everything comes
22 from the rock grows from the rock. So those are the stories that
23 we need to push what we are and who we are. Earth was just a rock
24 coming from somewhere in the sun, and the sun carried all our jeans
25 and everything, it might be a ball of fire. The sun before it blew
26 up it contained everything we have as humans. Everything comes from
27 the rock. We would really like to express our feeling in this way,
28 telling stories, the meaning of stories that we tell as elders.
29 These are good things to watch and I hope that we can keep up the
30 good work that we have been doing trying to tell our stories and
31 we need to keep it up as long as we can for our children. I have
32 said it before it is not only from industry but also from natural
33 environments as well, our natural weather and industry is also
34 causing the natural phenomena. Industry has to make more because
35 of everything that the natural phenomena is destroying industry
36 has to make more.

37 Natasha Thorpe: Thank you for that. One thing that I did hear was telling
38 stories and how that is important. That is one thing that was
39 missing off of the list for the future when we were talking about
40 watching.

- 41 . Fish and water in Lac de Gras
- 42 . Dust

- 1 . Collection ponds
- 2 . Flowers growing on the pile

3 Joanne Barnaby: Info previous discussions on watching

4 You have already identified a lot of things that should be watched
5 and we want to identify more clearly and could grow in the future.
6 I want to talk about the approach the Dehcho did, building on the
7 traditional system of always watching when you are out on the land,
8 always watching and always sharing what you see, hear, touch,
9 taste, smell when you come back. Continue to share that so we can
10 take action when necessary. What they did in that region, we are
11 going to decide in each of our communities with who we are going
12 to share this information with, then everyone will know who to
13 share their information with when they come back. Its modernizing
14 the traditional system meeting today's needs. Each one is building
15 on their cultural ways you have a lot of direction provided already
16 and bringing it together and put in to practice some of these
17 ideas.

18 Natasha Thorpe: This is not the only time we will have to talk about
19 monitoring, we were planning more time but spent more time on South
20 Country Rock Pile, so we will most likely have a session just on
21 watching in the future.

22 Kathy Arden: Diavik has already done a lot of watching, bug, fish,
23 animals, water, vegetation and dust. One of my questions on those
24 watching would be what was one of the first plants that came back
25 after the destruction of the island, lichen takes a long time but
26 some plants don't. Maybe if they have information on their studies,
27 we could use that in ours to see if that is the kind of plant that
28 is coming back more quickly.

29 Colleen English: I know naturally fireweed.

30 Joanne Barnaby: Can we think in terms of the fish camp. That involves
31 the health of the fish and the health of the water. Using our
32 traditional knowledge are there other activities you would like to
33 see in place that you are involved in to expand that monitoring?

34 Janelle Nitsiza: I just would like to share what we have been doing in
35 the Tli Cho region, we have an aquatic effects monitoring program,
36 I believe it is in its sixth or seventh year and it rotates to each
37 community and you spend about a week or so sampling fish and water
38 with scientists and elders. I think it is next week and Louie is
39 going to be hosting the next one in his community at his camp. But
40 there are reports and videos on it, that would be good examples. I

1 was never part of it but just seeing the videos and talking to my
2 peers and elders about their experience and the knowledge gained
3 from young people it is pretty amazing. And then the elders shared
4 the differences in the fish that they are seeing. You never use to
5 see tumors on the fish but now you see them lots. Some said their
6 scales are different. After they do this program the scientist will
7 come back to the community and will report to youth and elders the
8 findings and their research. I think it was two weeks ago I was
9 co-facilitating a strategic planning session with the higher ups
10 in the Tli Cho government, and one of the things that came out from
11 it was a quote from Ted Blondin; there is a need for our people to
12 build an army of environmental monitors and they need to be utilised
13 with the mines and around the region because who else knows this
14 land better than us right? That really stood out for me. We need
15 to build an army of environmental monitors. What I got from that
16 and what our government got from that is overall our leadership
17 needs to work on building these environmental monitors but also
18 building stewardship in our people. Taking it upon ourselves to be
19 the monitors if you are being paid or not we need to be there to
20 protect our land we need to lead by example and we can't be the
21 ones to destroy our land...

22 Joanne Barnaby: You are starting to hear that more from the communities,
23 we've always said that it is our values. We have started to get
24 weak: we need to take back that responsibility.

25 Modeste Sangris: I want to share with you about traditional knowledge,
26 our traditional knowledge has come far behind, today it has mostly
27 fallen behind. In the 1950s we never talked about the mines and
28 there were no regulations. I was trapping with my dad until I got
29 married, and I never went trapping again. I experienced an accident
30 during a community hunt where I shot my foot so I have never went
31 hunting again, I had surgery and couldn't work for a long time.
32 Just in the past two years I started hunting on the land for
33 caribou.

34 In Lutsul k'e we used to work together, but recently it seems we
35 have all gone our separate ways. That is how I see it. I still want
36 to maintain my traditional knowledge. I still want to keep my
37 treaty, that is the only thing that keeps us strong is our treaty.
38 My dad was a chief for 31 years and he worked for \$25 per year but
39 that was how strong their knowledge was for the land and the treaty.
40 Today with regards to the treaty, this treaty money that we receive
41 and we will not be prohibited from hunting but today everything is
42 changing. He was correct in saying in the past no one mentioned
43 about the water being ruined or the wildlife being ruined or the

1 fish being ruined, just recently ever since the existence of the
2 mining companies that come into play it destroys the land and water
3 and the fish and they make lots of money and they should be helping
4 with money. I mentioned this earlier that we don't get paid enough.
5 If they are going to open up another mine they should tell us that,
6 today when they make a mine and extract the minerals then they was
7 us to help them with the reclamation. When I think about it we as
8 elders as aboriginal people it seems like you are speaking, we have
9 minutes for the meetings but we don't know how to read and write.
10 I went to school only one year but I understand a little bit of
11 English but I don't know how to read and write. When I went to
12 school, my father came and picked me and took me out on the land.
13 Today there are a lot of changes that are taking place I don't
14 think that we will regain our traditional knowledge but we still
15 have to practice it wherever we go.

16 Joanne Barnaby: I think it is very clear that one of the recommendations
17 needs to be that the honorarium needs to be increased. Other
18 comments on what we should be monitoring and how we can do that.

19 Roger Catholique: I just want to share with you that I worked with Ni
20 Hat'ni Dene Program for a summer student for the past few years
21 and from what we did is that we went out on the land and sometimes
22 we approach tourists around the lake and make them aware that we
23 are there and give them a survey about how many fish they catch,
24 and see why they are out there and how long, it is up to them to
25 fill it out but most are willing to fill them out. It is important
26 for us our people in various communities to have programs like
27 these. Technology is growing fast especially in the Dene world. We
28 did a lot from fish sampling and water sampling. The fish sampling
29 is more like observations, the temperature around the lakes and
30 from what I understand our program which is the same as other
31 communities what they had on the lake is that Lutsul k'e covers a
32 large area, water body area and usually you have two crews that
33 monitor Crusty Bay and McLeod Bay. We just observe the land and
34 wherever we camp we pick up garbage and observe birds and anything
35 we haven't seen before we report. We do weather observations. That
36 is most of what we do in the program.

37 I also worked as a youth caribou monitor a few years back and
38 during the winter for three months, a week in week out rotation
39 and our people welcome other cultures to come to our side as long
40 as they respect the land to let them know not to waste any caribou,
41 what they leave behind, we report anything that is suspicious which
42 it's not very much because we let the people know a head of time
43 to respect the land and bring their garbage with them. Nature is

1 powerful and we need to respect nature and nature knows when you
2 respect it or not. As you can see from all the reports around the
3 world we keep that as a strong value for us in passing down the
4 traditional knowledge and stories from what we hear from our
5 elders. We learn from the other cultures and teach one another,
6 that is how we keep everyone strong: by respecting each other.
7 Nowadays we have to keep our youth going. I also work with fish
8 biologists and I like to learn what they want to teach me about
9 the fish and water.

10 Keep a sense of a strong culture because the land can't speak for
11 themselves. To make sure to take care of one another. Keep strong
12 faith in our land as we have for many years.

13 Joanne Barnaby: You give me a lot of hope. Thank you.

14 Dora Migwi: Thank you Roger, I am very thankful from the bottom of my
15 heart. Working out on the land and keeping the land and making sure
16 there is no damage on the land and also for the habitat of the
17 wildlife and everything that has been said. Maybe they do those
18 things in Behchoko but I have never heard about it. I am very
19 thankful with the videos and the information that is being shared
20 here. If that keeps up within our communities just ask Louie and
21 myself, we lived off the land and our parents taught us how to do
22 our daily chores and since 14 years old we tend to work harder, we
23 make snow shoes and dry fish and sewing and today the youth that
24 are growing up today are not able to sew. I am very impressed with
25 the videos that are being developed but none of that is happening
26 in our community, maybe if our leaders changed but I thankful that
27 you share all this information. With the youth talking I am
28 thankful, and if you keep talking that is how you will become a
29 leader, today it seems like people don't listen to one another in
30 Behchoko. We have to teach our children and our grandchildren. It
31 seems like they just don't want to be employed, I have a lot of
32 grandchildren and I want to teach my grandchildren I have all the
33 sewing kits and everything but I never see them. And all the of
34 the teenagers go to college and that is important. I am thankful
35 that the things that you mentioned and it seems like we can be
36 united as one. Because I am experiencing pain in both my legs I am
37 80 years old next time I might not be here. This is the first step
38 is sharing here, I am thankful. Where I come from the land I live
39 on I have to pay tax, and also pay for the wood, if we want to cut
40 wood we have to get a permit. But there is plenty of wood but there
41 are lots of white people they come to our land and take all the
42 wood they need but sometimes when we drive around my community less

1 and less people are burning wood, maybe things will change pretty
2 soon and have a discussion with each other.

3 That is how I live in my community.

4 Louis Zoe: A lot of things have been the priority for protection of the
5 land and water, our priority would be the water and the animals.
6 We survive by water so water is very important to the animals.
7 Water is very important for the animals and the people so that
8 should be monitored closely.

9 Joanne Barnaby: Some really good feedback and input. Break into groups
10 after the break.

11

12 Break

13 Small groups

14

15 Nancy Kadlun: The program we had in the summer time [AEMP], that really
16 works. We mentioned the birds that eat off of the water, shore
17 birds, we should really watch them because they eat right by the
18 water.

19 Wayne Langenhan: The shore birds because they eat the bugs that might
20 contain something and drink the water around the island.

21 Tyler Akeeagok: I think the first question we need to ask is what on the
22 island do we want to watch.

23 Natasha Thorpe: Monitoring shore birds, fish in Las de Gras, water
24 quality. We also hear from Louie that priority is water and animals.

25 Modeste Sangris: Water is very important all over the world. The wildlife
26 live off the water, I know it, all over the world even the water,
27 the fish, the caribou they all use the water. Water is priority
28 even during closure and reclamation. How long is the monitoring
29 going to take place? We have talked about this in the past at the
30 AEMP camp, checking the fish, cooking the fish, boiling the fish
31 and also cooking it in the pan and we used to drink water. All the
32 wildlife live with water, we don't know what will take place with
33 the water in the future as we sit here as the elders, the youth
34 will be working out on the land in the future. It's not too bad
35 now but we don't know what is going to happen in the future so the
36 water, its best to monitor. We have never done the testing

1 ourselves. We use water as our livelihood, even us people, we
2 consume water every day and it is important.

3 During the winter months we would travel out on the ice and even
4 out on the lake we would use the boat to get to cabin (I made) out
5 on Wool Bay, this summer along the shore was the boat that I made
6 and I saw a squirrel on top of the boat drinking water. I have
7 never seen squirrel drink water before, as I witnessed the squirrel
8 drink water I think all the wildlife drink that so it would be good
9 to monitor the water for a long time after.

10 Natasha Thorpe: The scientists have collected water and they send it to
11 the laboratory. But in 2032 when these youth are the ones doing
12 all the watching of the water what do they need to watch and look
13 for?

14 Modeste Sangris: We live off the water and some of the youth don't know
15 about these things, and they never heard about how the water is
16 important, the youth are here amongst us and some of them know how
17 to read and write and are aware about these things. They probably
18 understand from their reading materials but we know that water is
19 important for people. God created the water and everything we live
20 off God created. If we didn't drink water for the day then we would
21 become thirsty. The young people don't know about the importance
22 of water. We only have one youth here from our community. Maybe we
23 need to teach them more about the importance of water.

24 Louis Zoe: As my friend talked about, I have attended a meeting in the
25 north and we had a meeting with teachers and principals all the
26 students, about 1400 students and during the school year. They are
27 taught different subjects and they were taught about how the mine
28 is developed, in operation and closure and the reclamation and
29 those are the things that are being taught and that is how the
30 teachers were explaining the curriculum to us. If the youth
31 understand these things and know how to read and write then they
32 youth would be very successful in their chosen career in the mining
33 industry. They can gain employment and earn and income.

34 Rose Betsina: You are correct in talking about the water; all over the
35 world it is important. In this area the water is pristine. What
36 will happen to the fuel tanks if they leave it behind? Sometimes
37 there is a fire. There could be a spark and start a fire. We can't
38 leave any infrastructure on this land. Are they going to take some
39 of the infrastructure out of the mine site or it seems like they
40 are going to bury it in the ground? They should do a good
41 reclamation, they should slope the North Country Rock Pile and have

1 crushed gravel on the top. It doesn't look like there is going to
2 be any flowers growing on it.

3 Natasha Thorpe: They have to take everything away or bury it to make it
4 look as much like it was before. It was suggested that maybe they
5 leave a building here to be used by the watchers. Is that a good
6 idea?

7 August Enzoe: I was looking at the notes, what on this island do we want
8 to watch. Years ago I was on the fish camp and we were talking
9 about the water and the fish. When you used to come here we would
10 see ground squirrels all around, now we don't see anything. We are
11 just like we are in jail here we don't go out. When we are here we
12 don't go outside at all. We should get out and walk around the
13 island and go see what is there and see if there is any sign of
14 ground squirrels. They have boats and motors here we should be out
15 on the water and see and walk all around the island.

16 Natasha Thorpe: Here or at the AEMP?

17 August Enzoe: No not at the AEMP, when we come here next time as a group.

18 Berna Martin: This is 4 and half days what is the most important, what
19 is priority? This is an opportune time, if we don't say anything
20 Diavik is going to think that we aren't thinking about it. What is
21 important, the water, the wildlife, what's important on the land,
22 just ask Modeste 3 years ago we did the AEMP, the boiling of fish,
23 cooking the fish, made tea with water from the shore, how was the
24 taste of the tea. Those are the things that we have to talk about.
25 Today is the opportune time to say that. Next year monitoring of
26 fish and water is taking place. Climate change is taking place, so
27 every three years it would be good to have this monitoring in
28 place. What is important you should talk to this.

29 Dora Migwi: A lot of things that are important to us, the land, a lot
30 of development is happening on this land, human lives by water and
31 so does animal, plants, birds, they eat flowers, grass, and
32 everything grows with water. We are here to discuss what is our
33 priority. Does the fish still taste right? We want the fish healthy
34 so we can eat the fish. Some of traditional knowledge panel here
35 would like to see some of the buildings left here for the
36 communities to use for hunting. We would like to have healthy
37 animals; and the trails not to be disturbed. Some of the animals
38 break their hooves because of the boulders. We have a good cup of
39 tea so I guess the water is still good.

1 Natasha Thorpe: Gord said that it will be much easier to recommend that
2 a couple buildings stay behind for a watching program instead of a
3 hunting program.

4 August Enzoë: We did mention that way back a few times, like the airport
5 as well. We would go on the bus and then go up to the North Country
6 Rock Pile and wanted to look out on the land, but I wasn't allowed
7 because they won't let you go up on the rocks.

8 Tyler Akeeagok: What should we prioritize? I think the best one is that
9 we should prioritize to monitor what we live off, the resources
10 that we could use so that everything is healthy, from the water we
11 use to boil to cook and the animals that we eat and also use as
12 clothing.

13 Natasha Thorpe: I think that is really powerful. Monitoring what we live
14 off.

15 Wayne Langenhan: I think you got us off in the right track here about
16 the buildings. We need a camp for monitoring, that should be number
17 1. You can't do monitoring sitting in a little tent I don't think.
18 We need buildings and we need communication. I think that should
19 be the number 1 things we start at. As far as the monitoring, is
20 this going to be yearly, seasonal, how many months a year is this
21 island going to be monitored. We need to find out who we need as
22 monitors, it can't be youth by themselves, they have to have someone
23 else with them to show them how to monitor. As far as what we are
24 going to monitor on the island, the little birds, check for the
25 bugs, if there is none then maybe something is poisoning them. I
26 think that this should be a year round project.

27 Tyler Akeeagok: Why a year round project?

28 Wayne Langenhan: Because there are different animals around at different
29 times of year. The standing water from around the berms could be
30 leeching out into ponds in spring. And you could have more access
31 to animals and see if animals are dying on top of the snow in the
32 winter. What types of explosives they used to make these pits and
33 drifts might leech up from down below.

34 Tyler Akeeagok: I think year round is great because there is a seasonal
35 effect.

36 Louis Zoe: Yes what they are talking about I am in agreement with what
37 they are saying. The airstrip would be important if an airplane
38 was in distress and needed to land. It would also be good to have
39 emergency fuel there and with the water issue, if they pump water

1 back into the open pits with the winter season and the water melts
2 and the snow melts into water, it would be good to have year round
3 monitoring of the water. It would be good for the wildlife and also
4 the people. In our country in Ray Rock, there use to be a lot of
5 people that were alive but since the Ray Rock Mine, there is less
6 and less people living amongst us because they were affected by
7 the mine. And so I am very pleased that you are talking about the
8 water and I am hearing good things from this meeting. Monitoring
9 and watching things will prevent things from happening to our
10 water.

11 Tyler Akeeagok: Who should be the monitors? Should there be students
12 involved, should there be people from down south, that's my
13 question.

14 August Enzoe: Adults always take the youth with us and it should be the
15 same, adults paired with youth. If we are gone they will be working
16 for the future.

17 Tyler Akeeagok: Have a professional with the youth and the elders so
18 they all know what is going on. What I mean by professional is
19 someone who has the scientific side as well.

20 Modeste Sangris: Once the closure of the mine maybe there will be
21 reclamation and after talking about the airstrip, it would be good
22 to leave the airstrip behind, but once they mine all the diamonds
23 and leave this area, if there is no money available, it would be
24 good to know if there is any money available for maintaining the
25 airstrip. It would be good to have money available for the
26 reclamation.

27 Wayne Langenhan: If we had this monitoring in place year round, there
28 would have to be machinery left behind to maintain the airstrip,
29 it would need a bit of maintenance. I am sure they wouldn't fly a
30 chopper up that distance but they might. You would have to bring
31 up food, I don't think they would build a road because it cost them
32 way too much, it would be cheaper to fly in. I don't know if they
33 would want to maintain the airstrip or whether they would just
34 leave a little machine to clear a helipad. I don't know what the
35 company would go for.

36 Natasha Thorpe: When you say it would be interesting what the company
37 would do. We are talking about when the company is gone. They have
38 closed, they have done 7 years of monitoring and now they have
39 moved on, so it is back to your rights and responsibilities and
40 your land and then the question is who would pay for the monitoring
41 or what would it look like.

1 August Enzoë: That is what I was going to say, where is the money going
2 to come from?

3 Wayne Langenhan: We have no idea where this money is coming from do we.
4 How many years is this planed to go on for after the mine is
5 completely pulled out of here and they are no longer responsible
6 for that land.

7 Natasha Thorpe: That is up to you guys. The mine is suppose to be done
8 in 2032, so how many years after that does everything need to be
9 monitored. 5, 10, 15, 100.

10 Tyler Akeeagok: Could it be every 2 to 3 years so every year we are not
11 wasting money?

12 August Enzoë: Year round watching, no one can stay that long. Two weeks
13 in the winter. It depends on the money, money talks.

14 Tyler Akeeagok: Could it be seasonal. Winter then spring then summer
15 then fall. Could be for two weeks each time.

16 Natasha Thorpe: The other thing to think about is you have the Metis,
17 Inuit, and Dene . . . and you have all these other groups to work
18 together. I just heard August say that it is a lot for one. It
19 might not be a lot when you think of all the different groups
20 involved.

21 Nancy Kadlun: The airstrip in our community it wasn't use for a few years
22 and the grass grew up right away on it. When it's not being used
23 the grass grows very quickly and it might need to be cleared out.

24 Dora Migwi: We are talking about funding for the monitoring program.
25 Sometime they go out with a chopper, ENR goes out to the migration
26 routes, we should have fuel in place here, we can always have ENR
27 to check everything but we need to be the watchmen but maybe ENR
28 can help with the fuel.

29 Wayne Langenhan: I was under the impression that we were just going to
30 do the last part when the mine was shut down and the mine was going
31 to be monitoring and we would be doing our own watching as well. I
32 didn't realize that when they pull out in 2032 that the monitoring
33 was going to be taken over by the entities around the table. So it
34 is from 2032 on when they are completely gone. So it couldn't be
35 year round that would be too expensive, maybe 2 weeks in winter, 2
36 weeks in spring, 2 weeks in summer, 2 weeks in fall. Seasonally.

1 Natasha Thorpe: We could say ideally year round but cost dependent. There
2 is an example with Daring Lake it is an ENR run camp, they run the
3 tundra science camp each summer.

4 Wayne Langenhan: If you said year round it would leave the door open,
5 it doesn't have to be but it could be. Depends on funding.

6 Natasha Thorpe: In Cambridge Bay the government just spent millions of
7 dollars building a research station: the Canadian High Arctic
8 Research station. So that is another idea that you could think of
9 this as more than just for your monitoring you could build it out.
10 It would be a way to make money.

11 Wayne Langenhan: This is fine when we have a liberal government because
12 Trudeau loves to spend money but the thing is when he gets out of
13 power, who are we going to get in there and what are they going to
14 allow?

15 Natasha Thorpe: Diavik is gone at end of 2032 and then it is up to you
16 guys. But we want to start thinking now so that you are trained
17 and experienced as monitors based in traditional knowledge and
18 science. We want to start building that up now so that in 2032 you
19 are trained and ready to take it over. You could suggest that there
20 are some small projects that you have already suggested that you
21 could start with before the mine closes. Start small so we are
22 building up to 2032.

23 Wayne Langenhan: I would like to make a recommendation for someone to
24 go around and see what plants are now growing back on the disturbed
25 land and see what plants are growing and not growing and why.

26 Louis Zoe: After closure if there are people that come out to check the
27 water, the water is most important. But before the closure if there
28 things we think needs to be monitored when the winter season comes
29 the things would be hauled out. At this one mine now there is
30 nothing at the mine now they had to hauled everything back south.
31 Even big steel, barrels. Some of the mine clean up I went over
32 there and I stayed there and watched a lot of things being torn
33 down so it could be hauled down south. It would be good if they
34 could do similar things here.

35 Modeste Sangris: It is not only us that will benefit from it. If we want
36 maybe the pilots can use it for emergency landings but later on I
37 don't know what the youth will think. If it is not maintained it
38 will deteriorate.

1 Natasha Thorpe: I really like this we should monitor-watch what we live
2 off. How would it work between the different groups, would you have
3 a group like the TK Panel with everybody mixed.

4 August Enzoë: The question you just asked we can't answer right now.
5 Probably one group all mixed together.

6 Louis Zoe: Last year during the summer there was an accident on the water
7 in Behchoko and one young man drowned in the water. There were 3
8 people in a boat at another time and a big wave came. So if you
9 are going to go out on the lake and the land, it would be good if
10 they are taught how to travel on the water and land.

11 Natasha Thorpe: Thank you if I add safety for traveling on the water.

12 August Enzoë: We have a program running in Lutsulk'e right now for June,
13 July, August and the people watching the land.

14 Natasha Thorpe: Could we recommend that Ni Ha Dene and the Tli Cho train
15 those that don't already have the training. Its only 3 months even
16 in the winter even if there are no caribou they still go and watch.

17

18 Break

19

20 Roger Catholique and Janelle Nitsiza: Presentation

21 Priorities

22 Water - dust impact on water and plants and food chain

23 Animals - Scat - smells - comes from diet and you can tell if the animal
24 is healthy

25 Traditional knowledge Panel should get monitoring results to understand
26 what impacts are being documented now and until closure (birds)

27 Traditional knowledge panel needs to assess monitoring methods and
28 results to help us determine what and how we should monitor in the
29 future

30 Diavik should provide an overview of what they have acted on traditional
31 knowledge panel recommendations by topic

32 Vegetation - Diavik should share the results of the 10 year overview and
33 results of the re-vegetation research

1 TK needs to look at traditional medicine

2 Research or monitoring methods that are offensive should lead to getting
3 alternative native method advice from elders

4 Impacts may take a long time to show up ie. Plants may look healthy now
5 but not later on

6 We all have to work together and support each other to be strong

7 Youth together with elders and scientists should work together in future
8 monitoring - this helps to develop - two ways of knowing - two eyes
9 - strong like 2 people - the traditional knowledge camp is a good
10 model of this

11 Joanne Barnaby: Does anyone need to add anything.

12 Tyler Akeeagok: Presentation

13 Watch-Monitor what we live off

14 -watch everything - water, wildlife, birds(shore), bugs, rodents,
15 weather, climate

16 -Check everything

17 -good for the people-job, well being

18 -need buildings here (airstrip)

19 -need strong communication sharing - exchanging - stories

20 -need to train who will be watchers (eg, LKDFN) - ideally year round
21 watchers - always adult paired with youth, must be an expert, open
22 minded youth, should have scientist as well - two worlds, safety -
23 skills: travel on water and land etc.

24 - money must be available

25 Natasha Thorpe: I know we are going to have a lot of work to do pulling
26 all this together.

27 Joanne Barnaby: As I am leaving in the morning I just wanted to say
28 thank you for your work. I want to thank the youth for coming out
29 and participating fully.

30 Kathy Arden: Maybe on behalf of the group we would like to say thank you
31 for guiding us, she is always positive

32 Colleen English: Last day tomorrow. Check out process and times.

1 Natasha Thorpe: Joanne and I worked together to put together the
2 recommendations and we will go through those first thing and make
3 sure that we get the words right.

4 Colleen English: Introductions, Alison Rodvang from EMAB, Diavik's new
5 President, Patrick Boitumelo.

6 Patrick Boitumelo: I came here to meet you face to face. Before I actually
7 met most of you I met Peter, and we had a chat and as we were
8 talking I realized that he didn't know who I was. Which means we
9 need to do a little more work in terms of introducing myself and
10 getting to know most of you. My name is Patrick Boitumelo. I joined
11 Diavik 2 months ago, before that I was with Kennecott in Salt Lake
12 City, I was the general manager for engineering and projects.
13 Originally I am from Africa, Botswana. DeBeers that owns Gahcho
14 Kue and Snap Lake, they have most of their diamonds come from
15 Botswana, probably 70% of the diamonds that DeBeers sells comes
16 from Botswana. Botswana has two of the largest diamond mines in
17 the world. In fact I worked for DeBeers before as a strategy
18 executive for DeBeers and I worked for them up until 2011 and then
19 I joined Rio Tinto in South Africa and I worked there for 4 years.
20 The first two years I was part of Rio as General Manager for one
21 of the Rio Tinto operations, Rio sold that mine in 2013 to a Chinese
22 consortium, and I was there for 2 years until I then moved to Salt
23 Lake City in 2016. From a Diavik perspective I am very new, trying
24 to understand how they work and their stakeholders. This is one of
25 the main reasons why when I heard you are here, I decided to come
26 and meet you face to face right away. Having said that I just want
27 to welcome you here and let you know that I am looking forward to
28 the outcome of what you are discussing today. From Botswana, the
29 set up is fairly similar and their mines are also set up around
30 communities. It is very important that the mines relationship is
31 very sound with the communities they are in and work around. That
32 we have the same objective in mine and we come to a conclusion that
33 has the best interest at heart. Please do not take what you are
34 doing today lightly, because whatever decision you make has an
35 impact on the communities and it is important that when you live
36 here that you believe you have done the best for your community
37 and the mine. Thank you very much and I wish you a productive week.

38 Kathy Arden: This is my second time on the traditional knowledge panel,
39 I have learned a lot through our elders and also remembering things
40 that I learned from my parents on the land. Thank you for coming
41 and welcome.

1 Nancy Kadlun: Thank you, nice to meet you face to face, you come from
2 so far. I am from Nunavut a small community. It is nice to have
3 people who work so hard.

4 Patrick Boitumelo: Thank you

5 Modest Sangris: My name is Modest Sangris, we arrived here on Thursday
6 and all the things that we talked about, it is all written and the
7 recommendations are put forward. You probably know about these
8 things if you read the stickers on the walls. We put forward some
9 important issues with the mine that is situated here. We want the
10 reclamation work to be done. It is good for the future generations,
11 we the elders may not live long but for the future generations,
12 the youth of tomorrow it is good for them to work amongst the
13 people and in the mine and we want our people to be employed at
14 this mine site. With regards to the migration of the caribou, I
15 want you to make sure it is protected and taken care of. We use to
16 live off the caribou and also this is an island with the North
17 Country Rock Pile and the South Country Rock Pile that is proposed
18 it would be good to have that similar to that of an esker, so that
19 maybe in the future the caribou might roam in this area so we need
20 to do good monitoring of the water. And also working on the closure
21 and do the reclamation after closure and you probably know of the
22 recommendations and take a look at the recommendations. Thank you.

23 Berna Martin: I know you take your work seriously, coming from Africa
24 there are different indigenous people over there, like us and you
25 know where we are coming from. From your experience in the mine
26 and the destruction they do to the people and the company they just
27 go and leave and maybe you experienced those things in your country,
28 and maybe they didn't do the reclamation in your country that we
29 are talking about here and how our Dene people here love the land
30 so much, we grew up here, we were born and raised here, our
31 ancestors or elders had been raised among this place and there are
32 burial sites all around this place and everywhere you can imagine.
33 So we are pleading with Diavik to take care of the land while they
34 are working and leave it as it is.

35 Patrick Boitumelo: Thank you very much for that comment. I think I just
36 want to mention a couple of things. One is that being raised in a
37 tradition environment myself it resonates with me pretty well. In
38 an African context you also have the same kind of set up, where
39 the mines operate within numerous communities, but however one
40 thing I can be open with you about is having learned what happens
41 at Diavik so far, I haven't seen a company that does it better.
42 Because what has happened here today is a partnership, it is not

1 an audit. A lot of mines are different in that way, they have
2 environmental plans, reclamation plans, closure plans and the
3 community only gets told, and they receive whatever the mine is
4 saying. But with Diavik it is something different completely. With
5 Diavik the mine doesn't move forward until the community is in
6 line, and I really like that partnership, and it has been a great
7 learning experience for me. Not only with you but with other things
8 as well. I have met most of your Chiefs, I have been to Kugluktuk,
9 I have been to the Tlicho. Last Friday I met the CEO of Denesoline,
10 I know what the issues are and I think regardless of the differences
11 between here and Africa, there is one fundamental principal that
12 should always prevail and the principal is that there is a
13 partnership between the communities and the mines and that the
14 mines are actually working with the communities around them and
15 addressing that interest on a continuous basis from the inception
16 of the mine until closure. That is the fundamental principal, not
17 just in environmental, it is also in business, also in how we
18 contribute to the communities. As long as you continue like that
19 you can't go wrong.

20 Louis Zoe: Thank you I don't want to speak to long but our land, our
21 forefathers they use to work in this area with dog teams and they
22 never had decent food to eat at that time and they worked on this
23 land. How the mining has displaced all the ground and we are trying
24 to do the reclamation well. We love our land and this island is
25 called Ekati, the east island. This is the migrating route for the
26 caribou and that has been said on many occasions. Today the mine
27 is situated and the NCRP has been piled and how in the future the
28 caribou will migrate and those are the things we discuss. We are
29 elders, but for the future generations we don't want anything to
30 be damaged, the environment, fish, animals, our food source, if
31 the water is contaminated it is not going to be good for our health.
32 That is what we are discussing as we gather.

33 Patrick Boitumelo: Thank you.

34 Bobby Algona: My outpost camp is just up here 70 miles north of here, I
35 have been living there my entire life, I have been coming down to
36 these parts for many years. When the migration comes slow sometimes
37 over the years we come down to Lac de Gras we would come down and
38 meet the migration when we needed food. It's not all years that
39 they do that, sometimes they come fast and right to camp. Because
40 my camp is on the migration route, I live on the caribou route,
41 they have taught me very well how to live off the land, my parent
42 have tried to keep us out on the land as much as possible because
43 the communities can be very disruptive to some youth and

1 disheartening to live in. Because you don't deal with nature as
2 much anymore. I made my own family and come back up to Pellet Lake
3 and I kept them out there as much as I could, until I had my back
4 problem and now I can't go out on the land any more. My children
5 have been raised out on the land, and they are very lonely to be
6 out on the land, and I tell them that I showed you how to be out
7 there so its your turn to be out there. We have lived there and
8 you enjoyed that, you need to develop ways to get up there on your
9 own. I showed you the trails. You know where it is so you need to
10 go.

11 Also I am part of the traditional EMAB panel, I am one of the
12 traditional knowledge panels with EMAB as well. I help as much as
13 I can in my words and hope for industry to listen. I am really
14 thankful for the new mining act that just came in recently and that
15 is why we are doing all of this where in the past mining companies,
16 none of this ever happened, all the garbage was just left. And we
17 don't want any bad contaminates out on the land.

18 Patrick Boitumelo: You mentioned a very important part about how you
19 taught your children how to live in that environment and I just
20 want to appreciate everyone in this room because to see the elders
21 taking responsibility and accountability for the future of their
22 people and their communities and their children is something truly
23 to be proud of because I can see very few young people in the room.
24 It is more elders that are picking up and leading the pack going
25 forward. I just wanted to say thank you very much for that.

26 When it comes to closure, reclamation yes the reputation of the
27 company is important but what is critically important for me, the
28 reputation is not number one, what is important for me is the
29 livelihood of the communities that we operate in because once the
30 damage has been done you can't reverse that. Yes the repercussions
31 of it may probably be the reputation of the business but ultimately
32 it's about the people. So we put the value on the people, the same
33 as we put the value of people with safety and health in the
34 operation as well. Diavik started the journey of closure right from
35 inception. I don't know anyone else that has ever done that, so
36 right when they started the mine they said we know when we are
37 going to close and we are going to design the mine and spend money
38 as we continue to mine to make sure there is less liability at the
39 end of the mine and also that the closure is managed well with
40 minimum impact to the communities. So that is something that I hold
41 very dear. I think they have done something there. They have been
42 quoted as one of the best practices in closure out there so other
43 companies come here to see how we have done it.

1 With that, thank you, I wish you the very best for this week. I
2 appreciate you coming here.

3 Natasha Thorpe: One eye in traditional knowledge and one eye in science.
4 Thank you for the ongoing support.

5

6 Break

7

8 Natasha Thorpe: Is everyone clear where we all need to be.

9 What we didn't get done was the presentation from Diavik on the
10 responses on the recommendations from session 9. Which is why we
11 printed it out for you to look over it.

12 Presentation Session 10 Recommendations

13 Wayne Langenhan: Diavik mentioned that the North Country Rock Pile might
14 take a different shape so these ramps may have to be changed, but
15 the slope 3:1 would stay but the shape might change.

16 Colleen English: Do you mean if they add more to it, or if they change
17 the PKC. If that happened then we would have to revisit as a group.
18 You would have to look and say if that still okay.

19 Natasha Thorpe: You raise a good point; maybe we should change the word
20 to say current.

21 Tyler Akeeagok: Instead of going to specific, we could say we are
22 concerned with the slimes being released into the environment.

23 Second last bullet (reword)- The Traditional knowledge panel would
24 like to have the results...

25 We recommend the slope should be 3:1...

26 Wayne Langenhan: When we saw that map of A21 they pulled out the top of
27 the lake, they pump the water out then they get the ground out.
28 Where is that going to be put?

29 Colleen English: The till will be used (if they get approval) on the
30 North Country Rock Pile. It is also a good soil for re-vegetation.

31 Wayne Langenhan; The two other pits had the same thing. Where is that
32 now?

33 Colleen English: The till pile is beside the North Country Rock Pile.

1 Wayne Langenhan: It was used all up.

2 Colleen English: No it is still in the pile.

3 Wayne Langenhan: Is there enough there to put a cover over here (on the
4 SCRP) for vegetation.

5 Colleen English: There probably would be, the downside is it is a lighter
6 material. Till is subject to loss by erosion, wind without a cover.

7 Wayne Langenhan: I meant for this to be a cover on top of the cover. Not
8 just that material alone.

9 Colleen English: It is challenging to leave as a cover because it will
10 blow away, wash away; it is a lot lighter then the rock so that is
11 why with the NCRP they put till first, then rock.

12 Bobby Algona: We are always looking to reseed the top of the piles.
13 Putting the rock on the top is one thing and put it in a bowl and
14 let it sit there. Keep it from seeping under it, make a hard cover
15 before we put the till on top. Where we could at least have some
16 seeding be able to grow in there. If it is in a bowl it will
17 probably not blow away.

18 Kathy Arden: I think that is kind of going backwards on what we had
19 already agreed to and asked for. What we had discussed was there
20 are all the big boulders underneath, then a finer, then the till,
21 then the finer stuff for the caribou to walk on. We have all been
22 up there, we have seen the growth that till underneath helps with
23 the growth, and also keeps the pile frozen. If we start creating
24 bowls then we get water which is what we did not want.

25 Natasha Thorpe: Kathy you are reiterating what the group spent a lot of
26 time talking about last session and I think the expertise behind
27 the bowl is a good one but we have talked at length about it and
28 Kathy has articulated it very well. My suggestion is that if the
29 panel wants to apply the same recommendations from the NCRP to the
30 SCRP we wouldn't go with that approach.

31 Presentation continued...

32 Kathy Arden: Its sort of conflicting with bullet two, first we are saying
33 minimize, then we say make it larger and shorter. Diavik had said
34 as soon as rock comes out of A21 it will be hauled to the North
35 Country Rock Pile, then what is left in the end once the NCRP is
36 sloped and what not then the pile that is left behind (SCRP) can
37 be 2 layers which would be a larger base and low or go three layer
38 which is higher but smaller base.

1 It is a timing thing but I think that is one of the things that we
2 said for keeping it lower because it would be better for sloping.

3 Tyler Akeeagok: The fourth bullet restates the second bullet and then
4 after the comma there that is what makes it confusing. So why not
5 just take out the fourth bullet?

6 Natasha Thorpe: Is everyone in favor of Tyler's edit.

7

8 Presentation

9 Tyler Akeeagok: Change

10 Colleen English: You would prefer the rock that would typically go to
11 SCRP to go to NCRP for cover.

12 Bobby Algona: Going back to the 4th bullet. You could add if all permits
13 are approved.

14 Tyler Akeeagok: I don't like the word should.

15 Wayne Langenhan: What about will.

16 Natasha Thorpe: Ultimately recommend is stronger, that is my opinion.

17 Kathy Arden: I don't think will works because they don't have permits
18 yet.

19 Natasha Thorpe: You have the ability to make recommendations, they don't
20 have to agree.

21 Natasha Thorpe: How the tundra heals itself and I wasn't in this. I think
22 keeping moss in highlights the traditional.

23 Kathy Arden: That bullet came out of a session when we were talking about
24 when there is nothing left there. Some of those little run offs or
25 creaks. The elders said that why don't we use moss to help. A21
26 when that water is ready to be released into Lac de Gras, there is
27 a creak in there.

28 Tyler Akeeagok: Okay

29 Bobby Algona: I was thinking a little bit about what Diavik said about
30 using other material from the land and there was a challenge about
31 putting seeds and sand and gravel from the natural places and that
32 is going to disturb another area taking some from other areas to
33 move to another area. I think it would be a challenge for Diavik

1 to do that. Because you are going to disturb another part of the
2 land.

3 Natasha Thorpe: Keep moss in there or just say use natural filtration
4 methods.

5 Bobby Algona: Maybe this came up in another meeting.

6 Tyler Akeeagok: The second point states to just slope it can we add to
7 allow caribou movement.

8 Colleen English: I have a question, is that assuming the slimes are gone?
9 [Yes.] We should clarify that.

10 Natasha Thorpe: Watching program slides.

11 Tyler Akeeagok: The first point instead of saying it, can we say water.

12 Janelle Nitsiza: I don't think it should just be plants for medicine it
13 should be all plants and plants for medicine.

14 Natasha Thorpe: Did we miss any start up projects?

15 Joline Huskey: I was just thinking about what we were working on
16 yesterday in the group about watching and monitoring and in our
17 group we brought up the importance of fish camp with the elders
18 and when we develop a monitoring program and make it a priority
19 for our youth or our young participants to be involved in the
20 environmental programs, instead of them coming out every few years
21 maybe they could come work with the environmental department then
22 they could learn what they are collecting and how they analyze it.
23 So that way when they come back to our community and also work
24 within our own departments and give that information back. I stated
25 that it's better to hear information from our own people when they
26 are involved instead of when industry comes to present they don't
27 really listen to them and they don't have any trust in them. So
28 having the participants, one of our own, even once a month.

29 Natasha Thorpe: You are thinking starting now. Recommend starting now
30 to job shadow.

31 Joline Huskey: Like a train the trainer program.

32 Wayne Langenhan: I don't think that bringing people up for one weekend
33 a month, I think one turn around a month.

34 Natasha Thorpe: How about we put starting with this. I think what Jolene
35 was thinking is the rooms are free on the weekends.

1 Joline Huskey: I think starting small and working up is good.

2 Bobby Algona: They might send that to the communities training programs.
3 Some of their responses I was reading last night, we would have a
4 whole lot more time training in the communities.

5 Dora Migwi: In the past all these mines existed and these kinds of words
6 we have talked about this before. For the future all the existing
7 mines may use this frame work and that is good for future
8 generations. Not only today, I have never heard of any mine working
9 with communities

10 Natasha Thorpe: Can that be turned into a recommendation? I know when
11 Joanne at the EMAB meeting a couple of months ago there was a lot
12 of discussion celebrating the work of the Traditional knowledge
13 Panel, as a best practice. We could put that in as a recommendation
14 which might help us promote this for other mines in the future.

15 Wayne Langenhan: I don't know if this should fit in that perhaps Ekati
16 the partnership to keep the airstrip open so that both mines have
17 to be monitored, that way so that the cost would be cut in half.

18 Natasha Thorpe: ...through the region and other mines.

19 Wayne Langenhan: I think that would give them a better option to use the
20 airstrip.

21 Kathy Arden: You had mentioned region but maybe surrounding area.

22 Celine Marlowe: I have a question about the people doing the fish
23 testing, is that a different project.

24 Kathy Arden: At the camp over here.

25 Celine Marlowe: Why can't they put that with the TK

26 Natasha Thorpe: The AEMP has been in effect for numerous years and the
27 communities choose which elders and youth go. It is not up to
28 Diavik or Joanne or myself.

29 Colleen English: The other thing is that when Diavik only uses the Panel
30 for everything, Diavik gets a lot of pressure to use many community
31 members not just the same few all the time.

32 Natasha Thorpe: Making a video is one way you can bring the experience
33 back to your community. They also have to be comfortable climbing
34 over rocks, and in and out of boats.

35 Kathy Arden: Was that in reference to the good and bad rock.

1 Natasha Thorpe: Yes and no, it was also about the collaring of caribou.

2 The other thing to think about is sometimes Diavik doesn't have a
3 choice - they have to follow what the regulators tell them what
4 they have to do.

5 Future topic sessions

6 Colleen English: The first one is the most time sensitive. (PK to
7 Underground)

8 Wayne Langenhan: This slime that we are thinking about pumping in to the
9 pits maybe we should just think about asking on our next meeting
10 if there has been any new technology that will allow them to make
11 the slime more solid.

12 Colleen English: I think it is good to keep asking that question.

13 Natasha Thorpe: Next topic PK to underground

14 August Enzo: Next year will it be the same time or later.

15 The next one should be later.

16 Kathy Arden: When do you think we would have answers back on the closure
17 of the North Country Rock Pile and whether they are going to put
18 the A21 on the North Country Rock Pile.

19

20 Break

21

22 Recommendations Presentation to Gord

23 Tyler Akeeagok: This was my first traditional knowledge panel. It went
24 fairly good exchanging all the knowledge and stuff that we
25 discussed among ourselves. I think we did a very good job of putting
26 all of our recommendations down and putting it together.

27 Roger Catholique: This week was a great week. I learned a lot from my
28 elders. I hope you all have a great trip back home.

29 Gord Macdonald: This is my real opportunity to make sure I understand
30 your recommendations properly. Because that will help me explain
31 it within Diavik and help me because by the next panel session we
32 owe you back a response to these things. I want to make sure I
33 understand what you are recommending so I can make sure I get the
34 right interpretation and response back to you. First I want to say

1 I really like the way you have presented this in particular the
2 monitoring side. Which to me looks like a very logical framework,
3 concepts then how to specifically start moving it forward. That is
4 a big step in thinking versus just a specific program. I think
5 there is some really good advice in there.

6 Thank you for saying that it is working. Getting positive feedback
7 is always good.

8 I think I understand what you are saying here except the very end.
9 I'm not clear what the link is between the slimes and the NCRP and
10 SCRCP.

11 Natasha Thorpe: The thinking is that notwithstanding timing challenges
12 that if one way to reduce the overall size of the SCRCP would be
13 move those slimes into the pit.

14 Gord Macdonald: Oh I see putting the slimes in would make room in the
15 PKC to put SCRCP rock.

16 Natasha Thorpe: There for they like the idea of you looking at it.
17 Ultimately the goal is to keep those pills small.

18 Gord Macdonald: Then there isn't a link with the NCRP then. That is
19 probably what confused me.

20 Natasha Thorpe: I think you were here the other day, ideally everything
21 from the SCRCP could be used elsewhere and there would be no new
22 disturbance that would be the ideal.

23 So you really want to make the SCRCP all accessible versus only
24 specific routes.

25 Natasha Thorpe: To clarify it's that without knowing exactly what the
26 SCRCP will look like people weren't ready to indicate caribou
27 pathways. So once that plan moves farther ahead the Traditional
28 Knowledge Panel can revisit and provide guidance on the caribou
29 pathways. In the in term what is known from traditional knowledge
30 can inform your planning for the SCRCP until they verify.

31 Gord Macdonald: Fair enough. I think that can work quite well.

32 For my benefit what is the thinking behind draining the pond. What
33 is the reason for draining the pond?

34 Natasha Thorpe: I might let Louie expand, we asked the same question and
35 Louie was ahead of us thinking about volume. If you removed the
36 volume of water it would allow for more waste.

1 Gord Macdonald: Ok.

2 Louis Zoe: With the North Country Rock Pile that is high the caribou may
3 not roam on that area but the caribou may go in this area again
4 but because this is a caribou migrating route and once the South
5 Country Rock Pile if the height of the pile is too high, just to
6 reduce the footprint of the height of the South Country Rock Pile
7 they could drain the water and displace it with the SCRP.

8 Wayne Langenhan: This rock pile I think all of us realise that it is a
9 different type of rock and is more friendly towards the
10 remanufacturing of this island and it is not anyway harmful so it
11 doesn't really need a cap on it but also I think what Louie was
12 saying about draining the pond that is only if the need arises. If
13 it can be left and everything is low enough it is just an
14 alternative.

15 Natasha Thorpe: I think the value is protect the water protect the land.

16 Wayne Langenhan: I was wondering sort of a scale of 1-10 what would be
17 the number of the chance of the airport staying. Teaming up with
18 the other mines?

19 Gord Macdonald: We had the same idea that we wouldn't be scarifying it,
20 we should be taking it down. The problem is that someone has to
21 own it. So the biggest challenge with all of this is that even if
22 we leave a camp here or something who owns it. So what we have to
23 try and do is, we are hearing what you are saying we have to find
24 a legal way to have someone to own it, maybe it is the GNWT. Maybe
25 it is a community, but someone has to own it in order for it to
26 stay as an airstrip. Because you can't leave an airstrip that is
27 not maintained because then it becomes a safety hazard.

28 Even if we provided the money for a camp and the airport but someone
29 has to own it.

30 Wayne Langenhan: Could the owner be the Traditional knowledge panel?

31 Gord Macdonald: Could be but who owns the traditional knowledge panel?

32 Gord Macdonald: I honestly don't think you should worry about the, you
33 have made it clear what you want now it is up to us to find a
34 solution.

35 Natasha Thorpe: The panel has some good ideas of governance.

36 Gord Macdonald: I want to make sure I know what Patrick knows what was
37 the question you asked him that he gave an answer to.

1 Tyler Akeeagok: It was a statement that he puts the community first to
2 come along with what is going on with Diavik.

3 Gord Macdonald: Perfect, I thought it was something completely different.

4 Louis Zoe: And with regards to the airstrip it seems like the ownership
5 of Diavik leaving the airstrip behind. There is going to be
6 monitoring continuing to take place well beyond once Diavik is gone
7 from this place. When the monitors come back they may be able to
8 access the boat and motor, and also the infrastructure, the
9 buildings and the airstrip to do the monitoring and for those
10 reasons the airstrip should be maintained and left behind and even
11 if there is an airplane that is in distress and needs an emergency
12 landing that is how we talked about it. Also just like Colomac the
13 airstrip is still there and I was involved in the reclamation there
14 and how we did the reclamation work. The monitors that is going to
15 be taking place with the wildlife and the caribou and the water
16 and do the monitoring the airstrip should be left behind and people
17 can access these programs and it will be monitored well into the
18 future.

19 Gord Macdonald: That is all I had, other than, thank you again for your
20 time and efforts and your work on the weekend.

21 Colleen English: Just before we move into the closing circle I was
22 wondering if Alison would be okay with talking to the group for a
23 minute about what EMAB is working on right now.

24 Alison Rodvang: I am an environmental specialist with EMAB which is the
25 environmental monitoring board for the Diavik project. Just
26 recently we had some members of the traditional knowledge panel
27 come to our board meeting in June and we heard a bit about the work
28 that the panel is doing and the sessions they have done in the past
29 and the sessions they are working on. So for us that is good
30 information to know and I noticed that a session coming up you want
31 to work on putting the PK underground, and figuring all that out
32 so that will be something that EMAB is also interested in so it
33 will be good to hear the opinions from the Traditional knowledge
34 panel on what you feel about that.

35 I guess just in terms of what EMAB does in general, so what we are
36 trying to focus on more is reviewing Diavik's environmental
37 monitoring and management plans so that involves the Closure plans,
38 the air quality monitoring, wildlife monitoring and also the
39 Aquatic effects monitoring program. And something that has been
40 big on our plate lately is the closure of the North Country Rock
41 Pile as well as the most recent closure plan from Diavik that

1 covers all of the mine components. With those we usually contract
2 out consultants to help us with the reviews because they are quite
3 technical and then we prepare comments for Diavik that are
4 submitted to the regulators on all of those plans. We have been
5 reviewing the most recent closure plans and we have had three
6 consultants helping us do the work on that as well. We will be
7 submitting the comments and recommendations to the land and water
8 board and then those will go to Diavik and Diavik will respond to
9 those comments and recommendations.

10 Some of the issues we are concerned about in Diavik's closure plan,
11 the bigger parts that we are looking at is the stability of the
12 PKC area at closure. With the possibility of the slimes being left
13 on surface or putting them underground, we are interested in that
14 and it research. Also the North Country Rock Pile we are concerned
15 about the quality of the see-page coming off that pile and looking
16 again at the re-vegetation of the site. Those are the bigger issues
17 we are looking at.

18 Gord Macdonald: We were talking earlier this week about a workshop coming
19 up, I think EMAB is going to be attending the workshop and I think
20 you can use EMAB as a way of getting information about what is
21 going on at that workshop or providing information to EMAB about
22 how you might want to be represented.

23 Alison Rodvang: We would also put those forward to the WLWB just to
24 support the work of the TK Panel so that is something we could do
25 for the workshop as well.

26 Natasha Thorpe: Thank you so much for making the trek up today. You will
27 be around until we fly out so if anyone has any questions you can
28 find Alison.

29
30 Closing Circle

31
32 Nancy Kadlun: Thank you to Diavik for bringing us here again. I would
33 like to say thank you to the cooks because we can't move around
34 without food in our stomach. We have a comfortable place to be in
35 for a weekend. Big thanks to the ladies that have been with us all
36 week.

37 Bobby Algona: It is always nice to get in to a family. We are always a
38 family here as a group we are a family no matter where we come from
39 that is what I like about sessions like this. We are making a goal

1 that we all need to work on and we will all be happy at the end of
2 the day just like every other session. We come out happy and we
3 always look forward to the next session. Just we pray to our
4 creator, we want a goal to be set right and we need to be looking
5 at the every day and we have been doing that. I thank Diavik for
6 doing all of this for all of us and our facilitators and
7 interpreters and all the people that are working for us here. Camp
8 cooks, camp maintenance they keep us clean while we are here. Thank
9 you.

10 Kathy Arden: When I first got word that we were going to be meeting
11 again I got really excited because I was hoping to see all the
12 faces again that I have become so familiar with in this group and
13 after the days are done and we look back at all the recommendations
14 that we give to Gord to take away to Diavik I am always in awe at
15 the amount of work that we have all done together to keep a good
16 watch on what is going on and what we want to see in the future.
17 And our youth here I am so proud of you guys. You have done a
18 wonderful job of presenting and putting in your pieces too. So I
19 am very thankful for that and the accommodations, the food, the
20 people here have been absolutely wonderful, I am so grateful to be
21 a part of this. Thank you

22 Wayne Langenhan: I would like to thank the facilitators they did a real
23 good job here, we lost one today but she will be back I guess. I
24 would also like to thank the youth for showing up they did a real
25 great job I think. I would like to thank the mine for letting us
26 go out and take a look at this lay down area for the new proposed
27 A21. It was a good tour actually one of the best I have been on
28 since the start. I would like to thank everyone that attended, I
29 would even like to thank Gord and perhaps that 5 can go to a 10.
30 God speed to you and hope you have a safe journey home.

31 Rose Betsina: Thank you until we see each other next time. We don't know
32 what the future holds for everyone it is up to our creator, we are
33 under our creators hand.

34 Celine Marlowe: I just want to thank everyone for being here and having
35 me here. I wish that we all have a safe home trip, it has been just
36 about a month since I took off from Lutsulk'e so I am really anxious
37 to go home to do my hide smoking and all that.

38 Dora Migwi: We had a tour on the bus and we saw all the mine site, I am
39 happy with that. We have been taken care of very well in this
40 building. We sleep well, we eat well and I want to thank the
41 interpreters and the youth I would like to thank you. We had good

1 communication among each other. I pray that we have a safe travel
2 home. We ask the creator for all of us that we have good health
3 and I would like to say thanks to the Diavik staff and all the
4 people that help here.

5 Alison Rodvang: Thank you to the panel and Natasha and Colleen and John
6 as well for inviting me to the last to hear the panel's
7 recommendations. It is useful for EMAB to be able to take this
8 information back and just make sure that our board members are
9 hearing it as well.

10 Janelle Nitsiza: First off I would like to thank Gord, a big thank you
11 to the elders for their willingness to teach the young people, and
12 I thank the youth for being brave enough to talk and share their
13 opinions. It is our duty as youth to learn from our elders,
14 traditionally that is how we grew up. The young people would stay
15 with the elders and learn. That is how I grew up and I have the
16 utmost respect for our elders and their opinions and how they feel
17 and I hold them on a really high pedestal because they are so
18 amazing. I would like to say that us young people we are in our
19 first few chapters of our volumes of knowledge but our elders are
20 volumes and volumes of text books, they know so much and they don't
21 have to write it down, they have it in their heart and in their
22 brain and that just amazes me. Big thank you to all the facilitators
23 and to Diavik for inviting us here. Just like everyone else said
24 the accommodations, the food and everything was great. I am really
25 excited for the gifts later.

26 Joline Huskey: I would like to say thank you that this is my second year
27 and I hope to continue again. I am really grateful that our youth
28 and our elders are participating and also me too I am learning
29 along with them. I have been working with the Tli Cho Government
30 for about 16 years now. And also working with the elders and
31 learning our traditional knowledge through them starting off with
32 the Tli Cho land use plans so I am really grateful and thankful
33 that you invited me here and also for the elders who participate a
34 lot of information and knowledge is passed down just like Janelle
35 said even for the youth to be involved and seeing them. I feel like
36 I am the middle person between elder and youth but I am still
37 learning so I am really happy and grateful that the hospitality
38 that Diavik has given us. Thank you

39 Gord Macdonald: Thank you and apologies to the interpreters for all the
40 challenges that I give them in particular with speaking too quickly
41 with all kinds of acronyms. I think you do an amazing job of
42 translating everything for everyone.

1 August Enzoë: Thank you, I have been on this board I don't know how many
2 years now. I quit counting. I know Wayne and I have been here a
3 long time. We use to have meeting in Yellowknife and then we asked
4 Diavik if we could move down here it would be better for the board
5 to see all around the mine. And they said yes that's why we come
6 here now. I am happy the youth are here. I hope everyone gets home
7 safely tonight and tomorrow.

8 Louis Zoe: Thank you for the interpreters. Through the interpreters we
9 communicate and understand one another through the meetings. We
10 have talked about many things sometimes we go through difficulties
11 but with the help of our creator we may go through difficult moments
12 but until the next time we meet again. I am thankful for the
13 recommendations we have put forth.

14 Modest Sangris: Thank you we had a good meeting about some of the things
15 out there. Once the closure of the mine it would be to have the
16 recommendations that have been put forth. This is the migrating
17 route of the caribou it would be good to have the NCRP and SCRP to
18 be wildlife friendly but not only for me but for the future
19 generations. Before the mine was sitting here this was a major
20 migrating route for caribou but once they work on the
21 recommendations they may come back. I am thankful for being invited
22 here.

23 Theresa Lynn: Thank you to everyone here I learned a lot this weekend.

24 Roger Catholique: Thank you to the facilitators and workers in the back,
25 interpreters especially for the elders pulling them from their
26 families and homes, friends just to be here to exchange knowledge
27 and putting good input into the traditional knowledge panel. The
28 youth also to learn from the elders. Wish everyone have a safe trip
29 home, take care of one another.

30 Berna Martin: Thank you to Colleen and Natasha and Joanne for talking
31 to the people about closure and Gord as well, and to Pido Production
32 and Janet.

33 Perter Huskey: I would like to thank the facilitators for inviting me
34 back to interpret and I am very thankful for Pido Production for
35 providing the services for interpreting. Thank you to the youth,
36 it is very important for the future generations to gain knowledge
37 from the elders and also to Diavik, thank you for inviting the
38 traditional knowledge panel to your annual meetings here. It is
39 good to see how the mine is progressing. One of the elders that
40 passed on once said that if we see it with our own eyes then we
41 understand what is taking place so that is how we can provide our

1 knowledge and work with the science part of it so that is a good
2 thing. Thank you everyone for putting in their input. I am supposed
3 to stay neutral as an interpreter so that is all I have to say.

4 Ryan Dempster: I want to thank the interpreters Peter and Berna and Janet
5 and Natasha and Colleen for making my job really easy. I really
6 enjoy being up here with you guys so thank you for bringing me
7 back.

8 Natasha Thorpe: I was just going to say that I am so inspired by your
9 commitment and by your courage. It is amazing to work with a group
10 for so long and for you to keep coming back and I am really grateful
11 to Diavik also to have the courage and commitment to really tackle
12 this challenge of how to meaningfully integrate traditional
13 knowledge. So I was really inspired by Patrick, in that chief to
14 chief came to meet you and speak to you. I was also really inspired
15 to see the way the elders bring all the youth into their care it
16 doesn't matter if it is Inuit, Tlicho it is all one family. When I
17 think about your watching programs into the future I am inspired
18 to think that, that spirit, friendship, kindness will continue and
19 who knows who will be around in 2032 but the future looks really
20 bright. Thank you again for trusting me to help you with your
21 process and I am really missing Joanne today it feels strange to
22 not have her strength and wisdom and skill and courage and
23 commitment to support us.

24 Colleen English: How do I go last, how do I top all that. Thank you to
25 everyone, I appreciate you giving up your weekends to come up here
26 and work with Diavik to impart your knowledge and make things
27 better in terms of the plans that are being put in place for
28 closure. I love seeing the youth who are already leaders to their
29 peers and will be future leaders in their communities I don't
30 doubt. I would also like to take a moment and acknowledge past
31 Panel members who are no longer with us for all their past
32 contributions to bring us to where we are today.

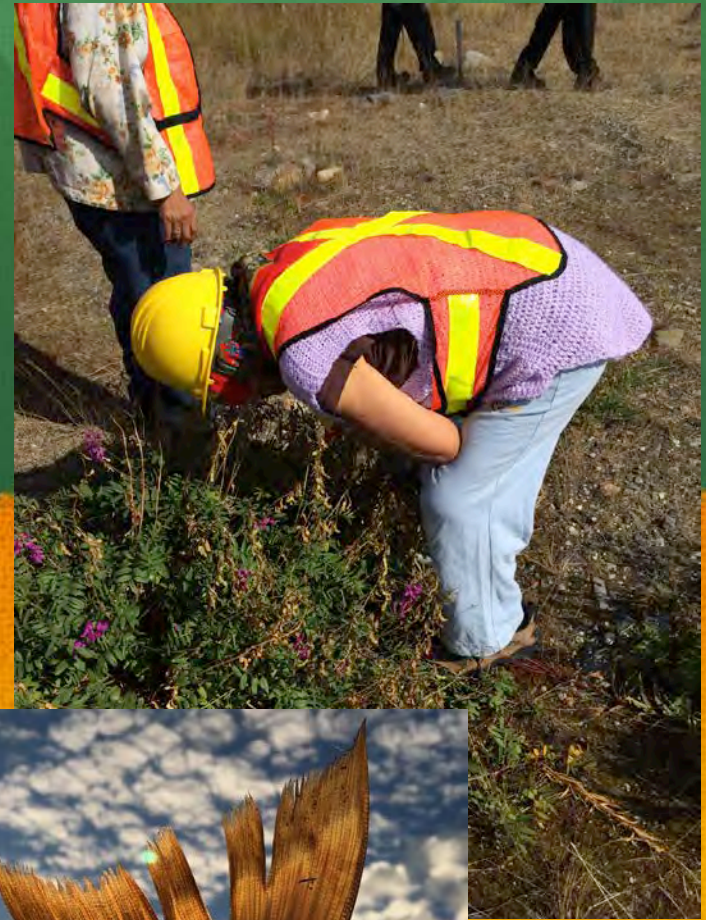
33 Celine Marlowe: Closing prayer

34

Appendix E

TK Panel Recommendations on Monitoring / Watching from Previous Sessions

Presented to the TK Panel
TK Panel Session #10
September 16, 2017



Developing a Watching Program at Diavik



Why are we talking about watching?

- TK Panel requested more time to talk about a possible monitoring program
- Timing is good in terms of planning for closure planning at DDMI



Responsibility for Watching ...

- We can't have rights without responsibility. If we assert rights to caring for land and monitoring the water and the fish, we have to do it too. (Stephanie Poole in SVA Consulting 2016: 18)



Watching Is Not New ...

- Indigenous peoples have been stewarding and managing their lands and water since time immemorial. Guardian work is not something new, though the present day organization and expression of this role is. (TNC 2016: 11)



Monitoring? Watching?

Monitoring is scientific word. I like the word watching, our ancestors are watching with us. I am so happy to be here and listen to everything. We are all teaching each other so let's keep this going. When we use traditional knowledge it's about our ancestors. When we go home we should sit with our elders and our leaders and talk to them.

(Georgina Chocolate, June 6, 2017 in BCRP 2017: i)

Local Watching

- Local watching at Diavik can be expanded across the region
- Diavik will be first mine to go through closure: important to 'get it right'
- Others will follow the Diavik example (regulators too! Just like the TK Panel)
- Lets do it ... and do it right!



Current Scientific Monitoring

- What does DDMI monitor today?



TK Panel

Recommendations to Date

- 1.3 The TK-Science camp at the mine site is an important place for developing skills and capacity in cross-cultural caribou monitoring
- 1.13 Utilize Aboriginal terms/concepts as identifiers
- 9.14 Focus monitoring on wildlife health and safety and possible impacts of other mines in the Lac de Gras area.

TK Panel

Recommendations to Date

9.18 Focus monitoring to determine if steps taken/closure and reclamation actions are working the way they were intended, through the following measures:

- Slopes for safe passage of wildlife, boulders for keeping wildlife out of areas, the use of natural water filtering systems, the use of video cameras to detect wildlife presence, the testing of water from the North Inlet and PKC area, understanding ecosystem dynamics and the linkages between components, cumulative effects
- Include plant growth, plants dying, fur & antler condition, and presence/absence of injuries or spots on the side of caribou as some of the indicators of caribou well-being
- Caribou presence identified on cameras, collars, and sightings would trigger monitoring
- Other animals can be indicators that the land is not healthy (e.g. smaller rodents, birds, fish can tell of change happening in larger animals like caribou, bears, etc.)

TK Panel

Recommendations to Date

2.5 Seasonality of monitoring must be taken into consideration when planning for post-closure monitoring.

7.2 Study vegetation east and north of the Island to understand good caribou habitat.

TK Panel

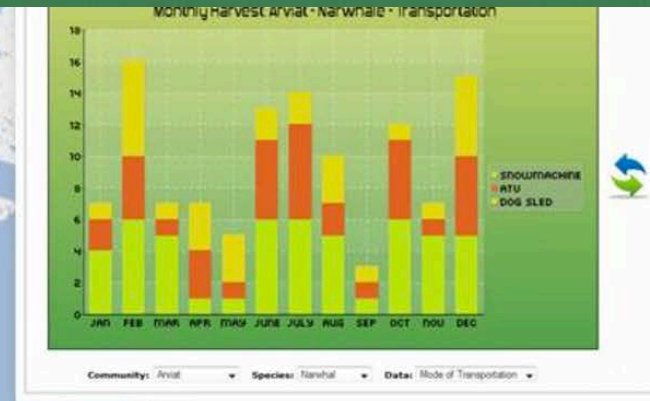
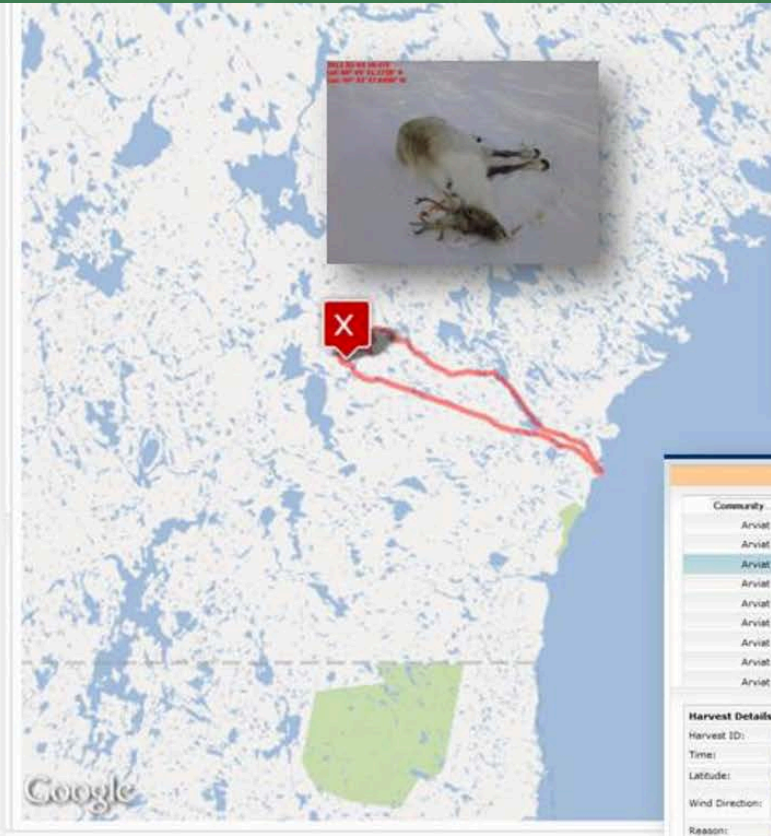
Recommendations to Date

8.18 Monitor water in late May and early June as these are critical times (i.e. melt). Regularly measure water quality in all bays, drainage and run-off. Annually check for algae growth around shorelines as too much can be an indicator that there is less oxygen for the fish.

Examples of Watching Programs

- LKDFN - Ni Hat'ni Dene Watchers of the Land (Thaidene Nene)
- Tlicho - - Boots on the Ground Caribou Monitoring
- Dehcho K'ehodi - Taking Care of the Land
- Haida Watchmen - Coastal Guardian Watchmen Network
- Nunavut Wildlife Management Board - Community Based Monitoring Network
- DDMI - Aquatic Effects Monitoring Program

NWMB - CBMN

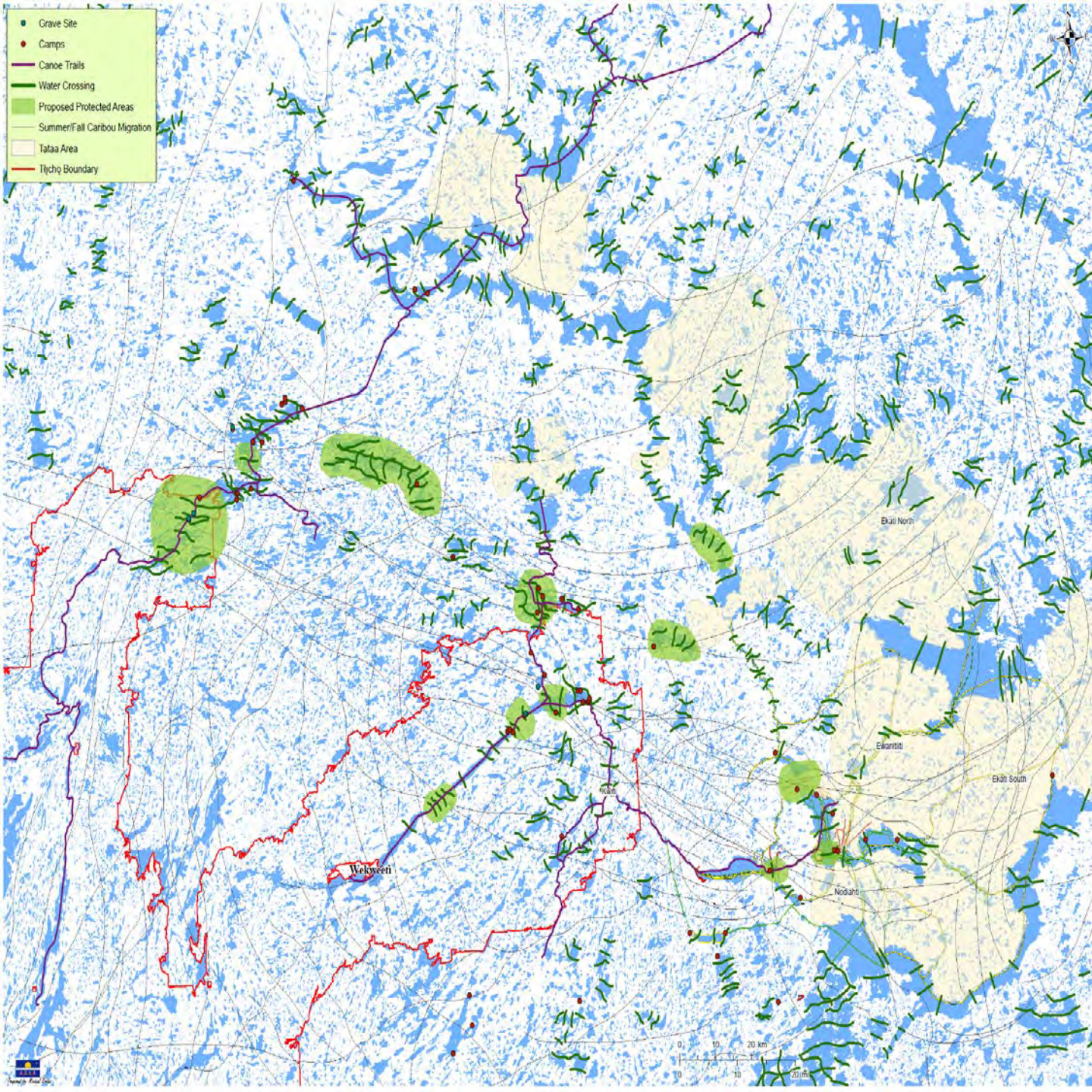


You are here: Harvest Record

Community	Harvester	Month	Species
Arviat	Johnathanameolik	Jan	Caribou
Arviat	Joakley	Februar	Caribou
Arviat	dbaker	Februar	Caribou
Arviat	raggark	Februar	Arctic Fox
Arviat	lonerk	Jan	Arctic Fox
Arviat	Imuckpah	Februar	Other
Arviat	kkalluak	Februar	Caribou
Arviat	kkalluak	Februar	Caribou
Arviat	kkalluak	Februar	Caribou

Harvest Details

Harvest ID: 3	Community: Arviat	Image: 20120203072756.jpg
Time: 2012-02-03 07:27:56	Route ID: 14	Username: dbaker
Latitude: 60.7807	Longitude: -94.7199	Wind Speed: 15 km/h
Wind Direction: WNW	Temperature: -12C	Visibility: excellent (>1000m/3000ft)
Reason: Personal use	Multi-party: N	Species: Caribou
Method: Rifle	Condition: Unknown	Sex: Unknown
Age: Unknown	Numbers: 2	Number Escaped/Lost: 0



Ekwo Trails and Tłı̄chǫ Trails



What makes watching programs work well?

- A good plan
- Learning from others
- Start small and scale up
- Steady funding
- Good governance – “bones”
- Buy – in from governments, industry, funders, supporters, etc.
- Youth engagement
- Participation, accountability, transparency, commitment, organized, secure data management system



Value

- Indigenous guardianship work in Lutsel K'e and the Dehcho region: for every \$1 invested, around \$2.5 of social, economic, cultural, and environmental value has been created. (SVA Consultants 2016: 5)



What does Watching Look Like?



1
Build a vision



2
Set strategic priorities



3
Create an operational plan



4
Evaluate the program

What do Watchers Do?



Starting small ...

- “A guardianship program may seem overwhelming but remember it might be linked to other initiatives that you’re already involved in. You may not have to start from scratch. You likely have relationships established with key players or partners on other topics and now you could be broadening that to include monitoring and Indigenous Guardians work. Build on these existing initiatives and relationships.” (Kate Cave, Centre for Indigenous Environmental Resources in TNC 2016: 20)
- We need to just do it! (Dehcho K’ehodi 2015)

Starting small ...

- Haida Guardian Watchmen collected data on wildlife, trap and boat sightings, impacts to cultural sites and suspicious activities. (TNC 2016:115)
- Now they are part of the Coastal Guardian Network, Gwaii Haanas National Park Reserve, National Marine Conservation Area Reserve, Haida Heritage Site
- Began in 1981 informally

More than just a 'job' ...

- We rarely do just a monitoring program but are also always asking: how am impacting the quality of life today? Can we create employment? Can we support mental health? We think about how we collect the sample as much as collecting the sample itself. (TNC 2016: 109)



What to Watch ?

- Cultural Knowledge and Skills Development on the land
- Impact monitoring and Mitigation
- Ecological Monitoring
- Protected Areas Management and Operations (Dehcho K'ehodi 2015)
- Ecological, cultural, compliance, effectiveness (TCN 2016)

Visioning the Future ...



Let's talk about watching at DDMI ...

- Who?
- What?
- Where?
- When?
- Why?



Appendix F

Presentation on Community-Based Monitoring / Watching Programs

RioTinto

Closure and Reclamation Plan (CRP Version 4) Overview

TK Panel

15 September 2017



Status of Diavik's Closure Plans



- The NCRP Final Closure Plan was submitted to the WLWB for review; it has yet to be approved
- The site-wide Closure and Reclamation Plan (Version 4) was also submitted to the WLWB and is under review, with a workshop planned by the WLWB for this fall

Review of the NCRP Final Closure Plan



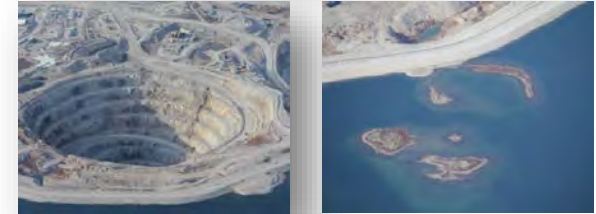
- Your hard work paid off!
- Community organizations that reviewed the Plan felt the Panel's recommendations and DDMI's responses were valuable and meaningful
- DDMI met with leadership from each of your organizations to review the Plan and your contributions; your recommendations were echoed and supported by leadership

Closure Plan by Area – CRP V4



1. Open Pits & Underground
2. North Country Rock Pile
3. Infrastructure
4. North Inlet
5. Processed Kimberlite Containment

1. Open Pits & Underground



CRP V4

- Flood piping/fill options
- Inert waste to pit option
- PK to underground/pit option

TK Panel Recommendations on Open Pits & Underground

- Do not breach the dikes until communities are satisfied that the water quality is okay
- Leave the lake bottom between the dikes and open pit as-is; plants that have grown will help re-growth after flooding; do not build reefs in these areas
- Leave the dikes as they are; do not modify the slope
- Vary the depths of reefs built within the dike areas
- Ensure good habitat for rearing, feeding and resting inside dikes
- Stock water with bugs to improve quality
- Break up 1 km cliff on A418 pit wall
- Leave current road into pits

2. North Country Rock Pile



CRP V4

- NCRP cover construction
- SCRPs not included
- Re-sloping work has started

TK Panel NCRP Recommendations

- Do not allow water to pool on top of the pile; include a domed top to promote water drainage
- Have a 'moat' around the pile to collect and monitor water coming off/out of the pile
- Focus re-vegetation on the base of the pile, around the ponds; allow the rest to naturally re-vegetate
- Simulate an esker for the final shape of the pile
- Ensure safe wildlife access for all seasons and soft material for caribou feet
- Keep the height as low as possible while ensuring contaminants are contained
- Cap materials with the best material for biodiversity

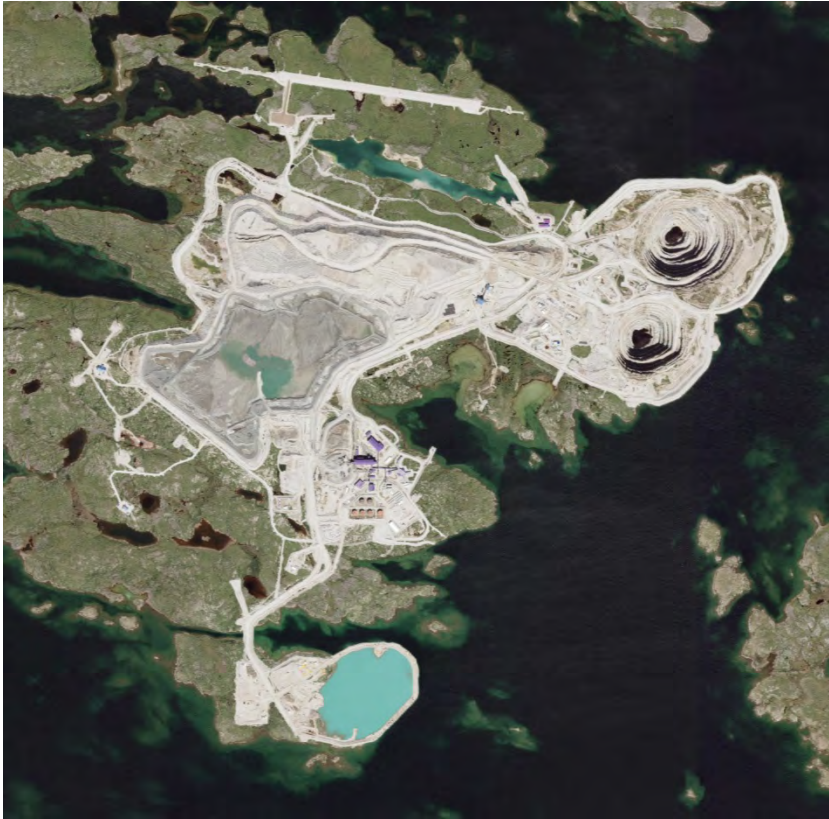
TK Panel NCRP Recommendations Cont'd

- Consider using wetlands for filtering runoff/seepage water around the base of the pile
- Slopes similar to that of the test pile so it is safe for wildlife
- Long-term scientific monitoring to ensure the core remains frozen
- Place a limited number of large boulders on top of the pile for wildlife shelter, and place boulders along the edge between the PKC and NCRP to deter wildlife
- Study wind and snow accumulation on wildlife pathways prior to finalizing slopes and cover

NCRP Re-sloping Underway



3. Infrastructure



CRP V4

- Updated building inventory
- Updated re-vegetation information
- Updated timing for building demolition

TK Panel Infrastructure Recommendations

- Ensure meaningful employment for communities to be involved with closure work
- Create safe passage for wildlife at the site after closure; evaluate ways to keep animals away from certain areas
- Add rock cover and do not re-vegetate areas that were used for waste or hazardous materials storage (e.g. fuel bays, waste transfer areas, etc.)
- The TK Camp and airstrip should remain after closure
- Create safe slopes on the sides of roads and the airstrip, similar to test pile surface
- Do not disturb new areas, except where re-sloping would assist with safe wildlife movement
- Remove equipment, unused buildings, pipes, toxic materials and non-biodegradable items from site
- Scarify (roughen) the surface of old plant sites to support re-vegetation
- Re-vegetate certain areas of the site

4. North Inlet



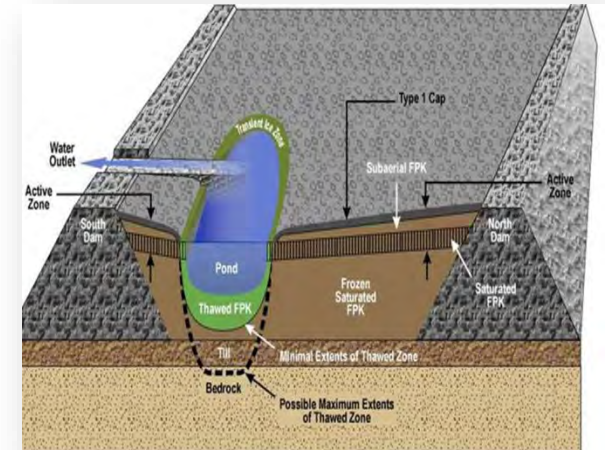
CRP V4

- Evaluated hydrocarbon option
- Change default plan to limited breach

TK Panel North Inlet Recommendations

- Further consideration is required to determine if this area would be a no-go zone for wildlife, or if wildlife use would be encouraged in this zone
- Do not reconnect the North Inlet to Lac de Gras unless the sediments and water are of the same quality as the lake

5. Processed Kimberlite Containment



CRP V4

- Updated to approved closure concept
- Option to go to underground

TK Panel PKC Recommendations

- Cover the area with sand and soil and promote re-vegetation, restore eskers, create wildlife habitat and marshy areas and plant willows
- Return the PKC lake and shoreline to their natural condition, line the lake with rock, re-vegetate with water plants and re-stock with bugs and fish
- Provide safe access for wildlife over the dam by re-sloping and open some sections of the dam to re-create water flow to Lac de Gras
- Leave some areas steep to encourage denning for wolverine, bear, foxes, etc.
- Remove the PK slimes from the mine site at closure
- Conduct toxicological testing on the PK slimes to determine if it is harmful

TK Panel PKC Recommendations Cont'd

- Create barriers to prevent wildlife from moving between the NCRP and the PKC, e.g. steep slopes, boulders
- Filter streams flowing from the PKC by using mosses; monitor this water
- Place a circle of boulders around the PKC pond to deter wildlife from accessing the pond and unstable shore

Additional Questions?



The RioTinto logo is a red rectangle with the word "RioTinto" in white, serif font.

South Country Rock Pile (SCRCP) & A21 Mine Overview

TK Panel

15 September 2017



South Country Rock Pile Design Plans & the A21 mine

- The A21 mine and its associated South Country Rock Pile were approved as part of Diavik's Environmental Assessment
- The Water License requires that design drawings and a Waste Rock Management Plan be submitted prior to construction
- Regulatory review of the WRMP document is happening now



SCRP Design



- Approval of the NCRP Closure Plan may result in a smaller pile

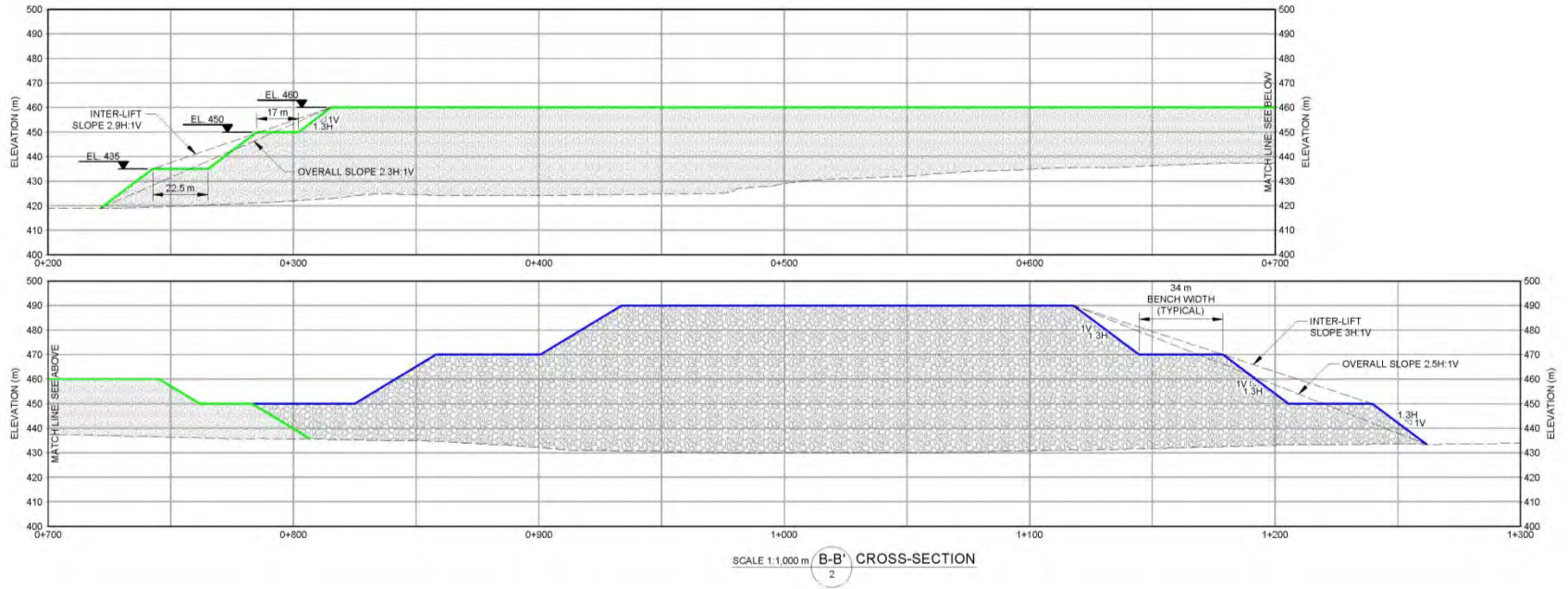
- Current SCR design assumes all waste rock from A21 will be placed here



SCRP by Numbers

			SCRP - Design Capacity	SCRP - NCRP Cover Subtracted	NCRP
Rock Pile	Capacity	cu.m	16,411,000	12,779,000	65,362,000
		tonnes	33,453,000	26,049,000	133,238,000
	Footprint	sq.m	501,000	-	1,422,000
	Height	elevation m (from footprint centroid)	490	490	497
			57	-	50
Till Pile	Capacity	cu.m	3,942,000	1,610,000	2,353,000
		tonnes	5,367,000	2,191,000	3,204,000
	Footprint	sq.m	149,000	-	83,000
	Height	elevation m (from footprint centroid)	460	460	470
			31	-	37

SCRP Design



SCRP Rock Management



- Unlike the NCRP, the waste rock from A21 is all 'clean' rock and lake bottom sediments
- These materials can be used for closure, e.g. NCRP cover, re-vegetation, PKC



SCRP Area



SCRP Closure Plans



- Creation of a wildlife pathway with smooth surface, similar to test pile & NCRP plan
- No cover required as all clean rock
- With the exception of the wildlife pathway, currently no plans to smooth or re-slope the pile
- Runoff and seepage water would flow to Lac de Gras
- Re-vegetation is not planned for the pile, similar to NCRP

Key Questions for the Panel

- Should there be a wildlife pathway over this pile?
- If so, where should the wildlife pathway be located at closure?
- Is it ok for the surfaces of the SCRP to be a rough surface?
- Are there any water quality or flow concerns or questions?
- If NCRP Closure is approved and the SCRP pile becomes smaller, how should the shape of the pile change?



Appendix G

DDMI Presentations on Closure and Reclamation Plan Overview and South Country Rock Pile

Traditional Knowledge Panel Guidance and Recommendations

Session #10: SCRP and Monitoring
September 14 - 18, 2017

Guidance

North Country Rock Pile

- After viewing on September 16, 2017, the TK Panel is pleased with and supports the current 3:1 slope on all edges and caribou ramps of the NCRP.
- Lessons learned from planning, constructing, closing and monitoring the NCRP should be applied to the SCRCP.

Slimes

- There is a concern if slimes were to be put into a pit that they may be released into the environment.
- As long as there are no chemical contamination or physical suspension issues (i.e. the slimes don't mix with the lake water), the TK Panel generally supports Diavik researching this alternative for disposal of the PK into the pits. The rationale for this guidance is that the TK Panel wants the SCRP and disturbance of the tundra footprint to be as small as possible – move slimes out of PKC and use SCRP rock in PKC area.

Process and Logistics

- Elders honoraria rates need to be reviewed and raised.
- Copies of presentations need to be provided to interpreters in advance.
- TK Panel members would like to have more time out on East Island to watch with their own eyes the state of the land, water, wildlife, etc. This includes quiet time on the tundra.
- Respectful language should be used such that the rock should not be called “good” or “bad” as everything is understood to be as gifts from the Creator.
- The TK Panel would like to have the results of the 10 year overview of the re-vegetation research.
- TK Panel should get all monitoring result presentations to understand what impacts are being documented now and until closure.

Recommendations

South Country Rock Pile

- Avoid disturbing new areas (e.g. tundra) with A21 material at the SCRP as much as possible. The proposed SCRP area is part of a major caribou migration and feeding corridor and should not be disturbed.
- If this area must to be used, minimize the size (i.e. volume/amount) and height of the SCRP and slope all sides like an esker so that animals can easily walk over it. We recommend the slope should be at 3:1.
- If the SCRP is large, designated pathways become more important and must follow caribou routes known through TK.
- We recommend that rock from A21 that could go to SCRP be used to cover the NCRP.

South Country Rock Pile

- Drain the pond that would be covered by the SCRP before using the proposed area.
- Have all SCRP water tested (both science and TK) before releasing into Lac De Gras
- Use natural filtration methods in areas where water will run off the SCRP on site.
- Diavik must plan for the same values, principles and goals held by the TK Panel for the NCRP, to the SCRP (e.g. maintain low height, 3:1 slope for caribou).

Helping Caribou and Other Wildlife

- Diavik must return East Island to a caribou-friendly state (as defined by the TK Panel and Elders), other than those areas identified as 'no-go' zones. Caribou pathways should follow caribou corridors identified through traditional knowledge.

A21 Pit

- Consider alternative uses for A21 material:
 - Cover the Processed Kimberlite Containment (PKC) area after removing slimes.
 - Assuming the slimes are gone, slope the south face/wall between the North Country Rock Pile (NCRP) and the north end of the PKC to allow for caribou movement.
 - Extend the west end of the NCRP and slope it for caribou.
 - Cover areas that may have been contaminated after clean-up like the hydro-carbon containment area.
 - Smooth edges of roads, airport and building areas

Watching Programs (Possible / Priority Watching)

- Some start-up watching projects might look at:
 - what plants are growing on disturbed ground and why/why not;
 - presence of ground squirrels on the East Island;
 - health of the shorebirds on the water (as an indicator for health of water);
 - snow accumulation and natural revegetation around boulders atop the test pile;
 - watch and monitor dust impacts on water and plants as an important part of the food chain;
 - animal scat, this should be part of a TK Watching program;
 - look at possible impacts on plants, with special consideration for those used for medicine

Watching Programs (Framework)

- Pair every adult with a youth monitor. Scientists should also be involved. Consider the TK camp as a good model, bringing elders and youth together with scientists.
- Ideally, watching would occur all year round. At a minimum, watching must occur in all seasons.
- Watchers should be trained by trained monitors from existing guardianship programs (e.g. Ni Hat'ni Dene, Tlicho, Dehcho). From there, trained watchers will train new watchers through a pay-it-forward model.
- Be designed for long term watching/monitoring as impacts may take a long time to show up (i.e. a plant may look healthy now but in the future it may not be strong if dust or contaminated water affect it).

Watching Programs (Framework)

- Watch and check everything (water, wildlife, birds, bugs, small mammals, plants, weather, etc.)
- Ensure long-term, ongoing and significant funding.
- Be grounded in strong communication and traditional laws around sharing, exchanging and stories
- Start training for watching programs during mine operations by inviting community members to site, i.e. train-the-trainer program. For example, bring up people to work with Environment dept, starting with one weekend a month and scaling up over time

Watching Programs (General)

- Diavik should support and encourage the TK Panel to assess and review existing monitoring methods and results to help us determine what and how we should monitor in the future
- Encouraging all of the communities working together and supporting each other long into the future will give us strength. Diavik has helped us do this and we must continue into the future.
- Diavik should plan to leave some buildings (and possibly the airstrip) to support Watching Programs for this and other mines in the surrounding area
- Diavik should support the development of a 'best practices' document that explains the Panel's approach to integrating TK into mine closure planning

Cultural

- Research or monitoring methods that are offensive to elders (e.g. caribou collars) should lead to getting alternative method advice from elders. Diavik should check with the TK Panel as to whether any aspects of the current monitoring program is offensive and revise them accordingly.

Next Steps

- PK to Underground session
- Timing of next session should be after Diavik has an answer on NCRP closure and all the information needed to on the PK to underground option
- Male and female youth for future sessions

Appendix H

TK Panel Session#10 Recommendations Presented to DDMI

RioTinto

Diavik Response to TK Panel Session 9 Recommendations

TK Panel

14-18 September 2017



Response to Session 9 – Focus on Caribou

Supported

- Focus monitoring on wildlife health and safety, and other possible impacts from other mines (9.14)
- Focus monitoring to determine if reclamation activities are completed and working the way they were planned and intended (9.18)
- Confirm that Ekati has a wildlife camera at the Narrows (9.20) – confirmed
- Study wind/snow effects on NCRP wildlife trail to determine if conditions are safe for wildlife in all seasons; should be done before cover is finished (9.3)
- Ensure a gradual slope down the center of the NCRP for drainage (9.4)
- Arrange for a tour of the underground and open pits for TK Panel members that are interested in seeing this receiving environment (9.25)
- Healing ceremonies to be incorporated into the closure process for the mine (9.22)
- Allow time and place for TK Panel members or other community members visiting site to feed the land and/or water (9.23)
- Employ community members in meaningful roles that include closure construction (e.g. building caribou ramps, covering the PKC/NCRP, etc) and environmental monitoring (9.16, 9.17)

Response to Session 9 – Focus on Caribou

Modify

- Sponsor or co-sponsor contest for youth to develop ideas to make caribou strong (9.5)
 - Diavik feels this is something better suited for communities to organize themselves – DDMI can possibly support through PA Implementation Committees
- Contribute to healing events being planned by communities for caribou (9.6)
 - Diavik can possibly support these through PA Implementation Committees
- Support capacity building and training programs for community monitors that teach science and TK monitoring (9.9, 9.13, 9.15)
 - Diavik supports the Mine Training Society and the Aurora College BEAHR monitoring training and Environmental Monitor Certification programs; the company does not conduct independent training programs, other than on-the-job training

Response to Session 9 – Focus on Caribou

Pending

- Use wildlife cameras for closure monitoring and determine locations for use with communities (9.19)
 - Diavik is interested in using this technology for closure monitoring; cameras are not real time and are labour intensive so the purpose would need to be clearly defined and linked to location selection
- Work with other stakeholders (industry, government, communities) to develop a long-term, post-closure monitoring program for caribou and cumulative effects monitoring (9.10, 9.11, 9.12, 9.21)
 - Diavik expects that the development of regional monitoring programs will be an important topic for all parties in the future; DDMI is currently interested in defining site-specific closure monitoring programs
- Re-vegetate around the ponds at the base of the NCRP (9.1)
 - DDMI has yet to develop detailed closure plans for the collection ponds
- Place a limited number of large boulders on top of the NCRP for wildlife shelter (9.2) and between the edge of the NCRP and PKC to deter wildlife (9.7)
 - Diavik has not included this in the initial NCRP closure plan, but it has been identified as a possible follow up action, based on community feedback

Response to Session 9 – Focus on Caribou

Pending Cont'd

- Place a circle of boulders around the PKC pond to deter wildlife (9.8)
 - Diavik is researching other PKC closure options that could change the current design
- Keep areas that may contaminate Lac de Gras separate; do not reconnect them with the lake, i.e. North Inlet and PKC dams (9.24)
 - Diavik is exploring closure options for these two areas; regulated 'containment structures' would not be favorable to maintain after closure

Appendix I

Presentation of DDMI Responses to TK Panel Session #9 Recommendations and Next Steps

Next Steps

Session	Original Plan (2013)	Completed & Revised Plan
6	PKC	PKC
7	Re-vegetation	Re-vegetation
8	Review of Closure Landscape	Fish Habitat Design & Water Quality
9	Post-closure monitoring: Wildlife & Water	Post-closure Wildlife Monitoring
10	Fish Habitat Design Reviews	Closure Plan Update, SCRP, TK Monitoring Plan

Reached the end of the topics you'd originally suggested

Need to plan for future sessions – 1/year is realistic

Future Topics/Sessions – DDMI Interests

PK to underground – including a tour underground

Updates on PKC closure options

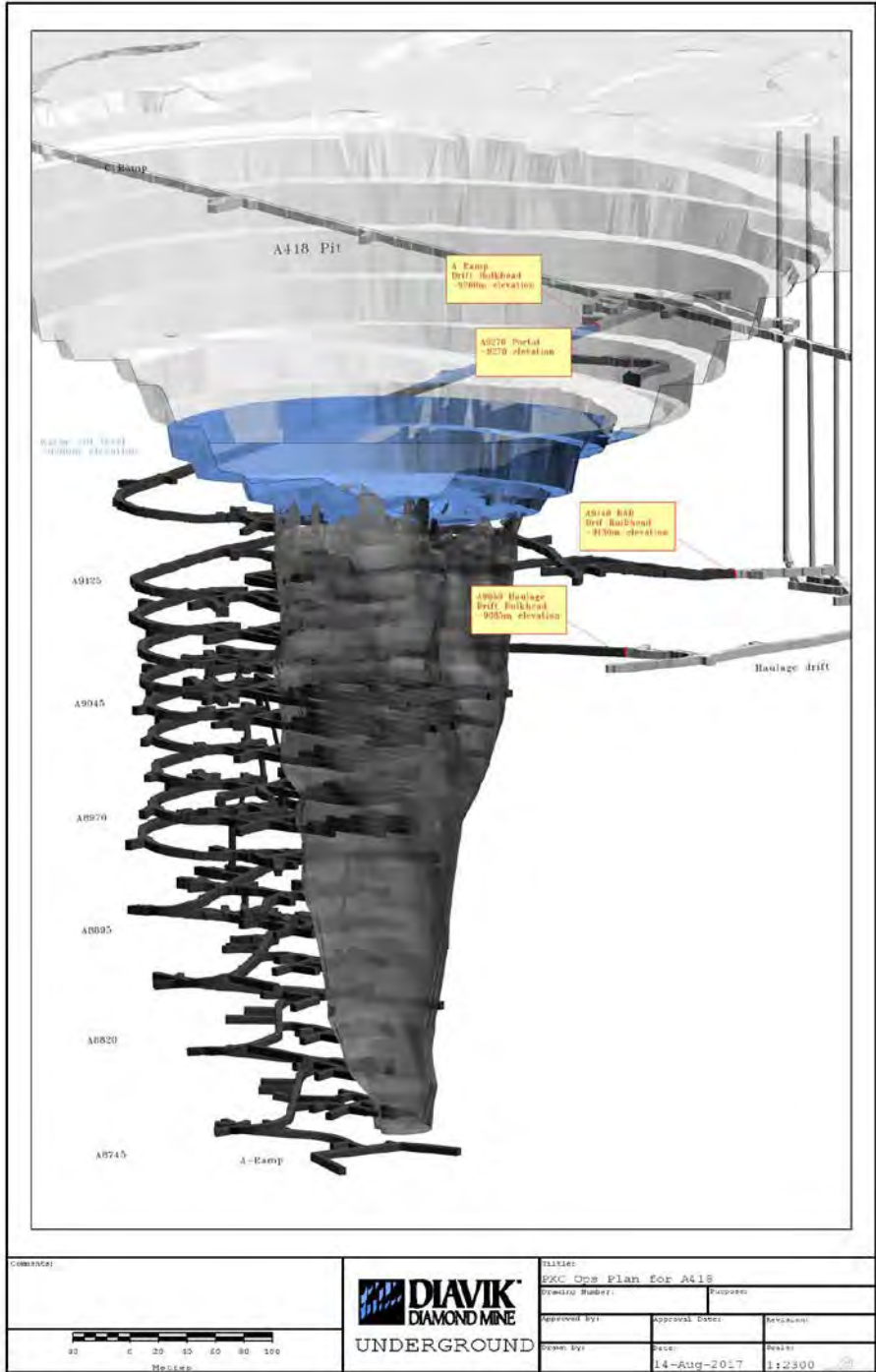
North Inlet

Closure Details: building demolition, metal disposal, waste disposal, contaminants, laydown areas, airports, roads, etc.

Closure inspection criteria

2018 Aquatic Effects Monitoring Program (AEMP) TK Camp

PK to Underground



<p>Scale: 0 5 10 20 30 40 50 60 70 80 90 100 Meters</p>		<p>DIAMOND MINE UNDERGROUND</p>		<p>Title: PKC Ops Plan for A418</p>	
<p>Drawn By:</p>		<p>Checked By:</p>		<p>Prepared:</p>	
<p>Approved By:</p>		<p>Approval Date:</p>		<p>Revision:</p>	
<p>Drawn By:</p>		<p>Date:</p>		<p>Issue:</p>	
		<p>14-Aug-2017</p>		<p>112300</p>	

Appendix J

TK Panel Session #10 Evaluation Summary

2017 Diavik TK Panel, Session 10: Evaluation Form Summary

Question	Very Good	Good	Neither Good nor Poor	Poor	Very Poor	Total Responses	Comments
How would you rate the session for working and communicating together?	9	1	0	0	0	10	
How would you rate the session for mutual respect among participants?	7	3	0	0	0	10	
How would you rate the recording and documenting of TK during the session?	7	3	0	0	0	10	
How would you rate the facilitation of the session?	6	4	0	0	0	10	Very, very good Better than very good
How would you rate the outcomes and findings of the session?	9	1	0	0	0	10	
How would you rate the venue and food for the session?	7	2	0	1	0	10	Excellent Too much Don't like the lunches
How would you rate the logistics for the session (e.g. hotel, travel, honoraria)	2	1	6	1	0	10	More money for honoraria Very good for travel but poor for honoraria
Overall, how would you rate the session?	9	1	0	0	0	10	

Question	Too long/ many	Enough	Too short/few	Total Responses	Comments
How would you rate the opportunities for you to share your knowledge and experiences?	1	9	0	10	
How would you rate the amount of time to discuss the topics during the session?	1	8	0	9	1 blank response

What were the strengths of the session? What did you enjoy most about the session?

- *Sharing of stories, exchange of knowledge, learning about scientific stuff that elders and youth didn't know about, good explanations*
- *Keeping us on track, prioritizing discussions*
- *Always enjoy the laughter & sharing of TK*
- *Elders want more honorarium - they say the current rate is not enough & want an increase to match their government*
- *More people are involved, which is good*
- *Help with communities support to be strong*
- *Enjoy session*
- *Went very good; mutual respect*
- *Love all our facilitators, love the interaction between elders and youth*
- *Elder's knowledge of the land and animals, water was passed on to the youth*
- *I just love the elders speaking in our language*
- *Our voices taken wisely; I enjoy the meeting*

How could the session be improved?

- *Maybe more days and less time; more breaks; elders get tired*
- *Recognize the past Elders who participated in this session and give them a plaque*
- *More fresh air*
- *You all do a super job and so fortunate to have you all as our facilitators, and Janet is the best transcriber going*
- *Would find it better sitting around tables - easier for cups and snacks to set on and to write on a pad*
- *Worry about elders - seem they get tired in the afternoon; other then that, its good*
- *Interpreter rate goes up as Elders do, travel day paid, too*
- *Too much seated, more breaks, we're tired*
- *This one couldn't be improved*
- *Index sheet/information sheet for proper translation*
- *Allow space in talking for effective translation, lots lost in translation*