

**REVIEW COMMENT TABLE**[Click here to print this page](#)[Click here to download a PDF Writer](#)**Developer's Draft Terms of Reference - MVEIRB Review (WLWB)**

**File(s):** [EA1314-01](#)  
**Proponent:** Dominion Diamond Ekati Corporation  
**Reviewer Comments Due By:** Dec 23, 2013  
**Proponent Responses Due By:** Jan 3, 2014  
**Documents:** [Developer's Draft Terms of Reference](#) 1MB

**Item For Review Distributed On****Item Description**

The Mackenzie Valley Environmental Impact Review Board is borrowing the WLWB's Online Review System to assist the MVEIRB with their review of the Developer's Proposed Terms of Reference. This is not an WLWB Review! To access the public registry documents associated with EA1314-01 please follow the following link:

[http://www.reviewboard.ca/registry/project\\_detail.php?project\\_id=674&doc\\_stage=3](http://www.reviewboard.ca/registry/project_detail.php?project_id=674&doc_stage=3)

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**General Reviewer Information**

A technical issues scoping session for the Jay-Cardinal Project is planned for January 8, 2014 in Yellowknife. The primary purpose of the technical scoping session will be to identify the issues that this environmental assessment should focus on and to prioritize those issues. This will assist the Review Board in preparing its draft Terms of Reference.

Specifics regarding the technical scoping session along with an agenda will follow. Community scoping sessions are also planned in Yellowknife, Behchoko and Lutsel K'e and details will be announced shortly.

Dominion Diamond Ekati Corporation (DDEC) has prepared its own proposed Terms of Reference for the Jay-Cardinal Project as an appendix to its Project Description. The developer's proposed Terms of Reference is on the Review Board public registry for EA1314-01 and is located here: [Document](#)

In preparation for the technical issues scoping session on January 8, 2014, participants are asked to review the developer's proposed Terms of Reference in order to focus discussions at the technical session. Please review the document and provide comments and recommendations regarding the issues and prioritization of those issues that are outlined in the developer's proposed Terms of Reference.

To simplify the review of the developer's proposed Terms of Reference, we ask that you use the attached template to record your comments and recommendations. The developer will have the opportunity to respond to reviewer's comments and recommendations prior to the technical scoping session. Board staff will distribute a comment table with all reviewer's comments and developer responses prior to the Technical Scoping Session so that the discussion can be further focused and outstanding issues can be identified.

**Contact Information**

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**Comment Summary**

CanNor NWT Region: Marie Adams				
ID	Topic	Reviewer Comment/Recommendation	Proponent Response	Board Staff Response
1	AANDC -1 General Comment	<b>Comment</b> DDEC has proposed this Draft Terms of Reference to the MVEIRB for consideration. At this time, AANDC will not provide detailed comments on DDEC's proposed Draft Terms of Reference. AANDC will monitor the MVEIRB's public issue scoping sessions and will provide feedback on the MVEIRB's official Draft	<b>Jan 5:</b> No response required.	

		Terms of Reference that includes consideration of the issues identified at those sessions. <b>Recommendation</b> NA		
2	DFO-1 Page 5, Section 2.3 - Geographic Scope	<b>Comment</b> Item #3 in the list of minimum geographic scope does not specifically include Lac du Sauvage proper or Duches Lake. The area draining into Lac du Sauvage is included, and the area downstream, but de-watering will have impacts on the lake itself. <b>Recommendation</b> Include Lac du Sauvage proper.	<b>Jan 5:</b> DDEC acknowledges that Lac du Sauvage should be included.	
3	DFO-2 Page 11, Section 3.2.4 - Description of the Existing Environment	<b>Comment</b> Item #6 (the second of two items numbered 6) regarding aquatic habitat and aquatic organisms in the environmental assessment study area does not include waterbodies upstream of the site. With a large portion of Lac du Sauvage being de-watered, fish access to lakes connected to (i.e. upstream of) Lac du Sauvage may be lost. <b>Recommendation</b> Add "upstream" to the sentence "Include water bodies on the site, and downstream to the extent of predicted impacts."	<b>Jan 5:</b> DDEC has no objection to this clarification.	
4	DFO-3 Page - 18 KLI-1 Impacts to water quality from project components	<b>Comment</b> As there is water flow manipulation on this site, "upstream" should be included not just downstream as there may be upstream impacts. <b>Recommendation</b> Add "upstream" so the sentence says "For the locally impacted watershed and impacted upstream/downstream water bodies..."	<b>Jan 5:</b> DDEC has no objection to this clarification.	
5	DFO-4 Page 30 - Appendix B: Guidelines for Monitoring and Management Programs	<b>Comment</b> Fisheries and Oceans Canada has developed a new tool, "Measures to Avoid Causing Harm to Fish and Fish Habitat", available online at: <a href="http://www.dfo-mpo.gc.ca/pnw-ppe/measures-mesures/index-eng.html">http://www.dfo-mpo.gc.ca/pnw-ppe/measures-mesures/index-eng.html</a> . <b>Recommendation</b> Change heading of "Department of Fisheries and Oceans" to the proper format of "Fisheries and Oceans Canada". Add "Measures to Avoid Causing Harm to Fish and Fish Habitat" to the list of reference documents under Fisheries and Oceans Canada.	<b>Jan 5:</b> DDEC acknowledges that the appropriate name for Fisheries and Oceans Canada and the appropriate document reference as provided should be used in the TOR.	
6	TC-1 3.3.2 Impacts on the human environment	<b>Comment</b> Does not address Transport Canada's mandate <b>Recommendation</b> Describe any change in the environment which may in turn impact navigation on navigable waterways.	<b>Jan 5:</b> DDEC acknowledges that such changes should be considered.	
7	TC-2 3.3.2 Impacts on the human environment	<b>Comment</b> Does not address Transport Canada's mandate <b>Recommendation</b> Describe the results of Aboriginal consultation specifically related to navigation on navigable waterways in the project area.	<b>Jan 5:</b> The Record of Engagement will describe the results of all Aboriginal engagement, including any concerns regarding navigation on navigable waterways in the project area. The holistic nature of community engagement discussions on a Project such as Jay-Cardinal support the development of a single Record of Engagement that serves a number of topic areas.	
<b>Environment Canada: Sarah-Lacey McMillan</b>				
<b>ID</b>	<b>Topic</b>	<b>Reviewer Comment/Recommendation</b>	<b>Proponent Response</b>	<b>Board Staff Response</b>
2	General	<b>Comment</b> Editorial: "rational" should be replaced with "rationale" in several instances. <b>Recommendation</b> None	<b>Jan 3:</b> Acknowledged.	
3	Section 3.2.4 Description of the Existing Environment - Biophysical Environment (page 11, item 9.c.)	<b>Comment</b> It states "describe each species in terms of the requirements listed in item #10 above". Is this an error in itemizing, should it read item #8? <b>Recommendation</b> Editorial: clarification required on reference made in item 9.c.	<b>Jan 3:</b> DDEC confirms that this statement should reference item #8, not item #10.	
4	Section 3.3.1.2 Subjects of Note (SoN) - SoN-4 Impacts to wildlife and wildlife habitat	<b>Comment</b> Further additions to the description (incorporating seasonal variation and the sensitivities of specific life cycle stages) of the impacts to all wildlife value components, species-at-risk, and respective habitats from project-related changes. <b>Recommendation</b> SoN-4 should include a sub-bullet outlining the "potential for disruption to predator-prey relationships"	<b>Jan 3:</b> DDEC does not object to this clarification.	

	from project components			
5	Section 3.3.1.2 Subjects of Note (SoN) - SoN-4 Impacts to wildlife and wildlife habitat from project components	<b>Comment</b> Further additions to the description (incorporating seasonal variation and the sensitivities of specific life cycle stages) of the impacts to all wildlife value components, species-at-risk, and respective habitats from project-related changes: fifth bullet "potential for disruption of animal movements and migration patterns" <b>Recommendation</b> SoN-4, fifth bullet should include "population cycles, home ranges distribution and abundance"	<b>Jan 3:</b> DDEC does not object to this clarification. Also see Response to IEMA 10.	
6	Section 2.3 Geographic Scope - (page 5, item 4)	<b>Comment</b> Due to the diversion of water to surrounding water bodies, the quantity of water should be included as a reasonable foreseeable Project-related impact. <b>Recommendation</b> Change the end of this item to "...including those on water quality, water quantity, fisheries, and the human environment."	<b>Jan 3:</b> DDEC does not object to this clarification.	
7	Section 3.2.4 - (page 10, item 5)	<b>Comment</b> The list of parameters is reasonably comprehensive but could be more efficiently expressed. <b>Recommendation</b> Bullets could be organized as follows: Metals (total and dissolved - full suite, including mercury) Physicals (pH, conductivity, turbidity, hardness, alkalinity) Dissolved oxygen Total suspended solids Total dissolved solids Major ions (chloride, calcium, sulphate, fluoride) Total inorganic and organic carbon Nutrients (phosphorus - total, dissolved and orthophosphorus; ammonia, nitrate, nitrite, TKN) Hydrocarbons	<b>Jan 3:</b> DDEC does not object to this clarification.	
8	Section 3.2.4 Description of the Existing Environment - Biophysical Environment (page 11, item 6)	<b>Comment</b> The aquatic habitats and organisms assessed should include those organisms in surrounding water bodies expected to be affected by the influx of water, as well as the water regimes on the project site and downstream. <b>Recommendation</b> Add to the end of the second sentence "...and surrounding water bodies likely to experience changes to water quantity due to the Project." In addition an editorial: correct duplicate numbering.	<b>Jan 3:</b> DDEC does not object to this clarification.	
9	Section 3.2.4 Description of the Existing Environment - Biophysical Environment (page 12, item 12.b)	<b>Comment</b> It would be useful to specify characterization. <b>Recommendation</b> Add "including particle size analysis and total metals..."	<b>Jan 3:</b> DDEC does not object to this clarification.	
10	Section 3.3.1.1 Key Lines of Inquiry (page 18, item KLI-1)	<b>Comment</b> The effects of rewatering of the lake after mining is complete should be included in this section. <b>Recommendation</b> Include a bullet outlining "closure hydrology issues associated with water sources used during rewatering of Lac du Sauvage".	<b>Jan 3:</b> DDEC has no objection to this clarification. Also see Responses to IEMA 29 and 30.	
11	Section 3.3.1.1 Key Lines of Inquiry (page 18, item KLI-2)	<b>Comment</b> Treatment contingencies should be identified for all phases of the water management activities. <b>Recommendation</b> Add a statement in the paragraph: Estimates of predicted contaminant concentrations should include a description of any mitigation or treatment used in predicting levels.	<b>Jan 3:</b> DDEC does not object to this clarification.	
12	Section 3.3.1.1 Key Lines of Inquiry (page 18, item KLI-2)	<b>Comment</b> The rewatering of the lake after mining is complete should be included in this section. <b>Recommendation</b> Include a bullet outlining "water quality during rewatering of Lac du Sauvage".	<b>Jan 3:</b> DDEC does not object to this clarification.	
13	General File	<b>Comment</b>  Cover Letter <b>Recommendation</b> .		
<b>GNWT - Environment and Natural Resources: Joel Holder</b>				
<b>ID</b>	<b>Topic</b>	<b>Reviewer Comment/Recommendation</b>	<b>Proponent Response</b>	<b>Board Staff Response</b>
1	Section 3.2.5 Development Description, Existing infrastructure... (page 14)	<b>Comment</b> The winter road is a contributor to cumulative effects and needs to be assessed. Winter road contributes to access issues associated with caribou hunting <b>Recommendation</b> The developer should provide information on the management and operations of the existing winter road and how operations may change in providing support to the development of the Jay-cardinal Project.	<b>Jan 5:</b> DDEC acknowledges that information on the Project's use of the Tibbett-Contwoyto Winter Road is relevant to the Project Assessment. The TCWR is managed by a Joint Venture, and not by DDEC.	
2	Section 3.3.1.2 SON-1 Impacts to air quality from	<b>Comment</b> •The proponent discuss incineration emissions and the accumulation of emissions (dioxans, furans, metals etc.) temporally over the project's life span. Because Dioxans and furans are a persistent contaminant of concern (which have been shown to be occurring at the EKATI site due to incineration), an additional 20 years of deposition may cause additional loading on the environment if managed improperly. • Emissions from use of heavy equipment, vehicle, and stationary combustion equipment highlighting how these emissions will be minimized. • Emissions from increased temporally due to the extended activities at	<b>Jan 5:</b> DDEC acknowledges that information on emissions from these sources relative to potential	

	project components	existing facilities, including: process emissions, electrical generation emissions, heating/cooking/incineration emissions affiliated with additional persons in camp how will this be minimized over time. <b>Recommendation 1)</b> Proponent quantify emissions (incinerator, heavy equipment etc.) and the accumulation of those emissions in the environment (Dioxins Furans, metals, etc), and demonstrate the manner in which the Proponent will minimize these emissions and their impacts to the environment.	environmental effects, and information on management actions to reduce emissions relevant to the Project Assessment.
3	Section 3.3.2.2 SoN-6 Impacts to cultural aspects from project components, Final Bullet (page 23)	<b>Comment</b> "For visual and audible changes:" Sentence is missing the ending after colon. <b>Recommendation</b> Provide completed sentence.	<b>Jan 5:</b> The missing text is as follows "describe any potential impacts, any measures taken to minimize disturbance, and how any remaining sensory changes will affect the traditional users' experience within the potentially affected land use areas."
4	Section 3.3.2.2 SoN-7 Impacts to employment and business opportunities, 2nd bullet (page 24)	<b>Comment</b> Proponent should provide better definition of who NWT aboriginal residents are and what they consider affected communities. This section should also explain not only employment percentage for aboriginal residents but other non-aboriginal residents as well. <b>Recommendation</b> Add the bold underlined words. "An assessment of the likely percentage of direct employment for Northwest Territories Aboriginal residents and other NWT residents at the project for the extent of the life of the mine and for each phase."	<b>Jan 5:</b> DDEC has no objection to this clarification. Projections of future hiring possibilities is dependent on many factors, many of which are outside of the Company's direct control.
5	Section 3.3.2.2 SoN-7 Impacts to employment and business opportunities, final bullet (page 24)	<b>Comment</b> The focus should not only be on maximizing local and regional business capacity but also local and regional employment. <b>Recommendation</b> Add the bold underlined words. "The developer's future commitments for any training, education, or other improvements necessary to maximize local and regional employment and business capacity to benefit from the project."	<b>Jan 5:</b> DDEC sees no need for this additional wording as local and regional employment commitments are fully captured in the other bullets immediately above this item in Sec 3.3.2.2. Economic capacity building in northern communities includes all of business, contracting and employment opportunities with appropriate training and support. DDEC cautions against a specific focus on employment at the expense of other aspects of economic capacity building and the bullets as currently written are intended to provide appropriate information on all these aspects as part of the EA.
6	Section 3.3.2.3 Human environment monitoring and management plans	<b>Comment</b> The developer should also provide information on the success of recruiting local and regional residents and Aboriginal people. <b>Recommendation</b> Include the bullet, "employee recruitment"	<b>Jan 5:</b> DDEC has no objection to this clarification.
7	Appendix B: Guidelines for Monitoring and Management	<b>Comment</b> Indian and Northern Affairs Canada <b>Recommendation</b> This should be changed to "Aboriginal Affairs and Northern Development Canada"	<b>Jan 5:</b> DDEC acknowledges that the appropriate name for AANDC should be used in the TOR.

Programs (page 30)			
Independent Environmental Monitoring Agency: Bill Ross			
ID	Topic	Reviewer Comment/Recommendation	Proponent Response Board Staff Response
1	Origins of the Draft Terms of Reference	<p><b>Comment</b> It would be helpful to know whether DDEC used other Terms of Reference as a model in drafting the version presented in its Project Description.</p> <p><b>Recommendation</b> DDEC is requested to provide information on how it drafted the Terms of Reference and whether any specific models were used.</p>	<p><b>Jan 5:</b> TOR issued by the MVRB for other recent northern mining developments (e.g., Fortune Minerals Ltd. NICO Cobalt-Gold-Bismuth-Copper Project, Avalon Rare Metals Incorporated's Thor Lake Rare Earth Element Project, DeBeers Gahcho Kué Project) were reviewed and used as a template for the Jay-Cardinal Project. DDEC provided the Draft TOR with the intent of further explaining its approach to the Jay-Cardinal Project and, possibly, as a helpful aid for the MVRB in issuing the TOR.</p>
2	s. 1.2 Referral to Environmental Assessment, footnote 1	<p><b>Comment</b> In some cases it may be more appropriate to compare project-related changes or impacts to expected conditions without the project rather than compared to baseline conditions. For example, changes in caribou populations where the numbers increase and could be attributed to the project rather than natural trends.</p> <p><b>Recommendation</b> Add "or expected conditions without the project, as may be appropriate to the context" to the end of the footnote."</p>	<p><b>Jan 5:</b> DDEC has no objection to this clarification.</p>
3	s. 2.3 Geographic Scope, item 6	<p><b>Comment</b> This section sets the minimum geographic scope for the EA. For greater certainty the geographic scope for cumulative effects on migratory species and species-at-risk should be set as their home range.</p> <p><b>Recommendation</b> Add the following sentence at the end of item 6, "For the purposes of a cumulative effects assessment (s. 3.3.3), the range of any potentially affected species should be considered."</p>	<p><b>Jan 5:</b> DDEC disagrees with the recommended addition to the TOR. For example, wolverine will be affected, and their range is the entire NWT, encompassing several populations. DDEC suggests adding the following sentence at the end of item 6: "For the purposes of a cumulative effects assessment, the local population of any potentially affected species should be considered."</p>
4	s. 2.3 Geographic Scope, second paragraph from end	<p><b>Comment</b> This paragraph discusses the communities to be considered during the EA, but Bathurst Inlet and Umingmaktok, which use Bathurst caribou, are not included.</p> <p><b>Recommendation</b> The DAR should explain why Bathurst Inlet and Umingmaktok (formerly Bay Chimo) were excluded or the second last sentence should be changed to read "This also included the communities of Kugluktuk, Bathurst Inlet and Umingmaktok, Nunavut."</p>	<p><b>Jan 5:</b> The EA is scoped based on the currently established community linkages to the Ekati Mine. The communities of Umingmaktok and Bathurst Inlet are both considered abandoned according to the most recent census information (2011), which indicates the</p>

5	s. 3.1.3 Assessing the Impacts of the Environment on the Development	<p><b>Comment</b> This section sets out what impacts on the environment are to be assessed from the development. Given the central role that alternative means of carrying out the project should play in this EA, there should be specific reference to assessing the impacts from different alternatives.</p> <p><b>Recommendation</b> The following words should be added at the end of the first sentence "and for the alternative means of carrying out the project as shown in s. 3.5 [or s. 3.3.1.1 Key Lines of Inquiry if the Alternative Means of Carrying Out the Project is move to this part of the ToR as recommended by the Agency below]" to cross-reference the section on Alternative Means of Carrying Out the Project.</p>	<p>population of both is zero.</p> <p><b>Jan 5:</b> DDEC disagrees with this additional wording; this section is for the Impact of the Environment on the Development. The environmental assessment should focus on the selected alternative. A robust alternatives assessment is provided for as per Section 3.5 of the draft TOR.</p>	
6	s. 3.2.1 Summary Materials, item 1	<p><b>Comment</b> The Weledeh dialect should be included in the languages for plain language materials.</p> <p><b>Recommendation</b> Add Weledeh to the list of languages for plain language materials.</p>	<p><b>Jan 5:</b> The Weledeh dialect can be included if requested.</p>	
7	s. 3.2.4 Description of the Existing Environment	<p><b>Comment</b> While the AEMP and WEMP are referenced, there is no mention of the Air Quality Monitoring Program which is an important part of site-wide monitoring for environmental impacts.</p> <p><b>Recommendation</b> Add in "and the Air Quality Monitoring Program" to the end of the third sentence.</p>	<p><b>Jan 5:</b> DDEC has no objection to this clarification.</p>	
8	s. 3.2.4 Description of the Existing Environment	<p><b>Comment</b> There is no mention of the need to properly state or qualify baseline data and information about the existing environment. It would be helpful for the Review Board and other parties to have a good understanding of the adequacy of baseline information to evaluate confidence intervals, uncertainties and related matter when making significance determinations.</p> <p><b>Recommendation</b> Add the following part at the end of the first section: The developer should provide the following assessment of its baseline information in the describing the existing environment: (1) an assessment of the adequacy of the existing baseline dataset in terms of geographic coverage, certainty, how recently it was collected, whether there are any trends apparent, veracity of techniques, QA/QC and any other relevant matter; and, (2) a plan to supplement the baseline information before construction if necessary.</p>	<p><b>Jan 5:</b> DDEC has no objection to this clarification.</p>	
9	s. 3.2.4 Description of the Existing Environment, Biophysical Environment, item 5	<p><b>Comment</b> Total Suspended Solids should be included.</p> <p><b>Recommendation</b> Add Total Suspended Solids to the list.</p>	<p><b>Jan 5:</b> Total Suspended Solids are already on the list (see Sec 3.2.4, pg 10, point #5, bullet #10).</p>	
10	s. 3.2.4 Description of the Existing Environment, Biophysical Environment, item 8, 8c.	<p><b>Comment</b> The movements of wildlife in this area should be documented, not just seasonal migrations. The scale of migration is larger than the scale of localized movements; both are important. Also, special emphasis should be placed on grizzly bears, since they have the ability to negatively interact with development.</p> <p><b>Recommendation</b> Amend the wording of the first and second sentences of this item to read: " 8. Wildlife (including resident and migratory bird species), wildlife habitat, and movement/migration corridors. Special emphasis will be placed on key harvested species including caribou and furbearers, and grizzly bears." Similarly, amend the wording of 8c to read: "c. movement and migration routes, patterns, and timing including typical patterns and the range of known variation".</p>	<p><b>Jan 5:</b> DDEC has no objection to this clarification.</p>	
11	s. 3.2.4 Description of the Existing Environment, Biophysical Environment, item 9(c)	<p><b>Comment</b> There is an error with the "#10" shown in this item.</p> <p><b>Recommendation</b> Correct the number.</p>	<p><b>Jan 5:</b> The number should be #8.</p>	
12	s. 3.2.4 Description of the Existing Environment, Biophysical Environment, item 11(h)	<p><b>Comment</b> Eskers are critical habitat for wildlife denning, migration and insect refuge, and should be clearly identified and discussed in the DAR.</p> <p><b>Recommendation</b> Add the words: "including eskers" at the end of this item.</p>	<p><b>Jan 5:</b> DDEC has no objection to this clarification.</p>	
13	s. 3.2.4 Description of the Existing Environment, Human Environment, item 24	<p><b>Comment</b> It is important to document and understand past economic activities in the study area such as wildlife outfitting camps, fishing camps, mineral exploration sites and other possible disturbance to properly assess cumulative effects.</p> <p><b>Recommendation</b> Amend the wording of this item to read: "24. Other past and current economic activities in the environmental assessment study area; and,"</p>	<p><b>Jan 5:</b> DDEC has no objection to this clarification with the addition of the words "as appropriate" after "area".</p>	

14	s. 3.2.5 Development Description, New Infrastructure, Facilities, and Management Plans Proposed as Part of the Project, item 3	<p><b>Comment</b> It would be helpful to know the status of other regulatory applications a the time of the filing of the DAR to better understand timelines into the future.</p> <p><b>Recommendation</b> At the end of this item, add the following words: "and the status of such instruments at the time of the DAR filing."</p>	<p><b>Jan 5:</b> DDEC has no objection to this clarification with the addition of the words "as publicly available" after "instruments".</p>	
15	s. 3.2.5 Development Description, New Infrastructure, Facilities, and Management Plans Proposed as Part of the Project, item 10	<p><b>Comment</b> The Project Description notes that approximately 30% of the Jay waste rock will be PAG, and that this rock will be encapsulated with non-PAG granite, including a 5 m thick cover. While the volumes of available non-PAG seem adequate, the DAR should provide a schedule of annual waste rock production by waste rock type, such that it is demonstrated that sufficient non-PAG will be available in the final years of production to construct the appropriate cover.</p> <p><b>Recommendation</b> Add the following wording at the end of item 10: "including a schedule that shows annual waste rock production by waste rock type, or other means of ensuring the availability of clean granite when needed".</p>	<p><b>Jan 5:</b> DDEC has no objection to this clarification with the addition of the word "conceptually" between "that" and "shows". Operational scheduling is at a conceptual stage and necessarily evolves as detailed planning and mining proceed.</p>	
16	s. 3.2.5 Development Description, New Infrastructure, Facilities, and Management Plans Proposed as Part of the Project, item 11	<p><b>Comment</b> It is important to know whether the developer intends to construct roads with any specific mitigation design features for wildlife, and to have more specific information on the anticipated vehicle use of the proposed roads.</p> <p><b>Recommendation</b> Amend Item 11 to read as follows: 11. The proposed new site access roads, including construction (width of right-of-way, road bed type, and any specific features to facilitate wildlife movements) and maintenance schedule, required construction material, techniques to minimize erosion and bank instability and the expected number of trips on the road (including number and types of vehicles), water crossings, as well as the type and weight of loads, any related storage, transfer and handling, etc;</p>	<p><b>Jan 5:</b> DDEC has no objection to this clarification.</p>	
17	s. 3.2.5 Development Description, New Infrastructure, Facilities, and Management Plans Proposed as Part of the Project, item 12	<p><b>Comment</b> It is important to understand where the processed kimberlite will be deposited to properly assess alternatives and trade-offs during the EA.</p> <p><b>Recommendation</b> Add the following words to the end of this item: "with locations and schedules for its management and disposal".</p>	<p><b>Jan 5:</b> DDEC has no objection to this clarification with the addition of the word "conceptual" preceding the word "schedules". Operational scheduling, including FPK management, is at a conceptual stage and necessarily evolves as detailed planning and mining proceed.</p>	
18	s. 3.2.5 Development Description, New Infrastructure, Facilities, and Management Plans Proposed as Part of the Project, item 13	<p><b>Comment</b> The Project Description for the Jay-Cardinal Project discusses the need for pipelines and pumping stations and water management structures--additional detail on these should be presented in the DAR. A water treatment plant may be needed for the North Inlet or LLCF as a result of this development--the economic and technical feasibility issues and should be discussed in more detail in the DAR.</p> <p><b>Recommendation</b> Add the following words at the end of this item: "pipelines, pumping stations and potential contingency measures such as water treatment."</p>	<p><b>Jan 5:</b> DDEC has no objection to this clarification.</p>	
19	s. 3.2.5 Development Description, New Infrastructure, Facilities, and Management Plans Proposed as Part of the Project, item 15	<p><b>Comment</b> It is important to know the decommissioning and reclamation plans for construction materials brought to the site.</p> <p><b>Recommendation</b> Add the following words at the end of this item: "and ultimate removal or disposal plans of same".</p>	<p><b>Jan 5:</b> DDEC has no objection to this clarification.</p>	

20	s. 3.2.5 Development Description, New Infrastructure, Facilities, and Management Plans Proposed as Part of the Project, item 20	<p><b>Comment</b> The routing and and general details of the proposed transmission line to the work site should be described.</p> <p><b>Recommendation</b> Add the following words at the end of this item: "including any transmission lines and substations".</p>	<p><b>Jan 5:</b> DDEC has no objection to this clarification.</p>	
21	s. 3.2.5 Development Description; Existing Infrastructure, Facilities, and Management Plans Potential Relevant to the Proposed Extension Project, preamble	<p><b>Comment</b> The developer states in its Project Description that existing facilities at the Ekati Mine will be used to the extent possible but it is necessary to know whether these facilities have the capacity to handle any additional workloads or materials that may come from Jay-Cardinal.</p> <p><b>Recommendation</b> Amend the preamble to read as follows: "For previously assessed, existing, and approved facilities that are to be used as part of the Project, DDEC must provide a full description of the project component, how it will be used in the context of the proposed Project, capacity of existing facilities to handle the proposed Project, and any changes to the existing infrastructure or facilities that will occur as a result of the proposed development."</p>	<p><b>Jan 5:</b> DDEC has no objection to this clarification.</p>	
22	s. 3.2.6 Public Engagement, last bullet	<p><b>Comment</b> Traditional Knowledge holders should be engaged in the design of monitoring programs, not just assessing baseline conditions and potential impacts.</p> <p><b>Recommendation</b> Amend this last bullet to read: "How DDEC has engaged or intends to engage, traditional knowledge holders in order to collect relevant information for establishing baseline conditions and, assessing the effects of potential impacts and the design of monitoring programs, as well as a summary table indicating where and how in subsequent sections (3.3 to 3.7) traditional knowledge was incorporated, and who was consulted (see Review Board's Guidelines for incorporating Traditional Knowledge in Environmental Impact Assessment)."</p>	<p><b>Jan 5:</b> DDEC has no objection to this clarification.</p>	
23	s. 3.3 Impact assessment steps and significance determination factors, fifth bullet in the first list	<p><b>Comment</b> In some cases it may be more appropriate to compare project-related changes or impacts to expected conditions without the project rather than baseline conditions. For example, changes in caribou populations where the numbers increase and could be attributed to the project rather than natural trends.</p> <p><b>Recommendation</b> Amend the first sentence, fifth bullet in the first list, to read: "Compare the predicted impacts to pre-development conditions or conditions without the project, as appropriate."</p>	<p><b>Jan 5:</b> DDEC has no objection to this clarification.</p>	
24	s. 3.3 Impact assessment steps and significance determination factors	<p><b>Comment</b> While this section references the application of mitigation measures to the predicted impacts for purposes of evaluation, it does not explicitly identify assessment of the likely effectiveness of applied mitigation to reduce the impacts. Analysis is required in the DAR for assessors to determine how effective the proposed mitigation and management measures are to be, and identify any limitations or uncertainties about the proponent's ability to effectively implement the proposed measures.</p> <p><b>Recommendation</b> Insert a new #4 bullet to the list of assessment steps in s.3.3, to read as follows: "Identify and evaluate any proposed mitigation measures as to their technical and economic feasibility to reduce the predicted impacts, and discuss constraints, uncertainties, and implementation challenges to the effective use of the proposed measures."</p>	<p><b>Jan 5:</b> DDEC agrees that the effectiveness of mitigation is an important consideration in evaluating the potential for residual effects. This is provided for in the Draft TOR in Sec 3.3. For example, bullet #4 indicates that the DAR will "Predict the likelihood of each impact occurring after mitigation measures are implemented, providing a rationale for the confidence held in the prediction." (emphasis added). In bullet #5 the draft TOR further states "Include a description of any plans, strategies or commitments to avoid, reduce or otherwise manage and mitigate the identified potential adverse impacts, with consideration of best</p>	



			management practices in relation to the valued component or development component in question" (emphasis added). Bullets #6, 7, and 8 also all indicate other aspects of uncertainty that may exist in impact predictions and that should be addressed in the assessment. A unique aspect for determining appropriate mitigation that is available for the Jay-Cardinal Project is the inclusion of currently proven methods already in place at the Ekati Mine. The effectiveness of many mitigation measures has been established on a site-specific basis at the Ekati Mine through the extensive monitoring programs that have been in place for over 15 years. In the assessment of effects, it is assumed that mitigation is effective and implemented as appropriate; therefore, it can be considered to break linkages and reduce effects. Details about mitigation (i.e., how a silt curtain works and is installed, how a culvert should be properly installed, etc.) are not necessary to the assessment.	
25	s. 3.3 Impact assessment steps and significance determination factors	<p><b>Comment</b> Determinations of significance depend on the subjective informed judgement of decision-makers. Hence including such considerations as societal values at the EA stage will be helpful.</p> <p><b>Recommendation</b> Add the following sentence at the end of the second last paragraph in this section, as follows: "The above will be used by the developer as a basis for its justification of significance for potential impacts from this Project. Where the developer is aware of differential impacts on various parties or differences in views of the significance for potential impacts from this Project, the developer should describe these differences."</p>	<p><b>Jan 5:</b> DDEC does not object to this additional wording; however the Record of Engagement already provides for this information.</p>	
26	s. 3.3.1.1 Key Lines of Inquiry	<p><b>Comment</b> The Agency disagrees with the specific list of KLI topics as identified in the draft TOR: i.e., impacts to water quality; impacts to water quantity; and impacts to caribou. First, we agree that impacts to water should be a KLI. However, the category does not explicitly address aquatic resources (such as fish and fish habitat) which will be significantly affected if certain project designs are implemented. Impacts to aquatic life should be a priority subject for assessment and, therefore, a KLI for the DAR. Second, our view would be that water quantity is a lesser area of potential concern than 'water quality', and could justifiably be subsumed under 'water quality' as a KLI.</p> <p><b>Recommendation</b> We recommend that the draft list of KLI topics be changed to: KLI#1 - Water Quality (and Quantity); KLI#2 - Aquatic Life and, KLI#3 - Caribou (See item #29 below regarding proposed KLI#4)</p>	<p><b>Jan 5:</b> DDEC agrees that aquatic life, specifically fish and the trophic chain they depend on are of high importance. Water quality is clearly of importance regarding aquatic life. Either the KLI topics in the Draft TOR or the recommended changes would address this issue.</p>	
27	s. 3.3.1.1 Key Lines of Inquiry	<p><b>Comment</b> The Agency is of the view that the discussion on alternative means to carry out the project (as currently identified in Sec.3.5), for the explicit purpose of managing the effects of the project, is a critical issue for this assessment. It is also a specific requirement under Sec.117(2) of the MVRMA, which states that</p>	<p><b>Jan 5:</b> DDEC agrees that consideration of alternative means of</p>	

		<p>'every environmental assessment and environmental impact review of a proposal for a development shall include a consideration of...(e) any other matter, such as the need for the development and any available alternatives to it, that the Review Board ... determines to be relevant.' The topic should be moved into s.3.3.1.1 as an added KLI.</p> <p><b>Recommendation</b> [1] The DAR should address the topic 'Alternative Means of Carrying Out the Project' as a KLI. [2] The DAR should also provide an assessment of the following additional alternatives to various components of the project: • Alternative waste rock storage areas, and pit backfilling options; and, • Alternative road alignments to minimize caribou disturbance and barriers to movements.</p>	<p>undertaking the project is important and needs to be fully documented in the DAR; this is provided for in the Draft TOR. DDEC disagrees with IEMA's recommendation (1) that "alternatve means of carrying out the project" is appropriate as a KLI, because it is more appropriately addressed elsewhere in the DAR as per the Draft TOR. DDEC does not object to IEMA's second recommendation (2) as a clarification.</p>
28	s. 3.3.1.1 Key Lines of Inquiry	<p><b>Comment</b> Given the extensive environmental footprint of the Project and the potential for significant adverse impacts to fish, water quality and caribou, a key area of concern (definition of a KLI) must be project design. Consequently, the DAR should include a comprehensive and rigorous review of alternative means of carrying out the project, including relative impacts, and the economic and technical feasibility of each identified alternative. This analysis is central to ensuring that differential footprints and impacts are understood, evaluated with explicit explanation of any trade-offs and within limits of acceptable change. The three reports by different engineering firms on alternatives provided with the Project Description use different methodologies and do not provide data or information that readily lend themselves to comparative evaluation. Multiple Accounts Analysis is an industry best practice that can provide a systematic, consistent and comprehensive comparison of alternatives and their trade-offs. ** for guidance see, <a href="http://technology.infomine.com/enviromine/issues/cls_maa.html">http://technology.infomine.com/enviromine/issues/cls_maa.html</a></p> <p><b>Recommendation</b> [1] The DAR should employ a multiple accounts analysis (MAA) of the four alternative means of carrying out the project as currently identified in s. 3.5. [2] The consideration of alternatives (i.e., MAA) should include an economic analysis of capital and operating costs and scheduling, anticipated employment and other socio-economic benefits, and assessment of environmental impacts of each alternative. The DAR should provide a rationale and justification for the proponent's preferred alternative that considers the trade-offs and analysis required above.</p>	<p><b>Jan 5:</b> DDEC's Project Description Report (S.4.4.1.1) describes the "No Project" option and rejects this option outright as it would result in substantive negative socio-economic impacts through closure in 2019 of the Ekati Mine. Thus, DDEC sees no value to the Project EA from further review of the "No Project" approach. Additionally, the Project Description Report (S.4.4.1.2) indicates that a full "Underground Mining" approach to the Jay-Cardinal Project could not likely be made economically feasible; therefore, further assessment of this approach is also of no value to the Project EA. DDEC does not object to providing an MAA assessment that is appropriaily scoped to address reviewer concerns and items that are of value to the Project EA. Reviewers have asked specifically for more information on the approach of Open Pit Mining Within Ring Dikes. It would not be unreasonable for the TOR to include a requirement for additional documentation, through MAA or another appropriate procedure, of the assessment of the</p>

			"Ring Dikes" and the "Diversion and Drawdown" approaches.	
29	s. 3.3.1.1 Key Lines of Inquiry, Impacts to water quantity	<b>Comment</b> The current text does not cover reflooding of any areas that are temporarily drawn down in terms of flow and recharge. <b>Recommendation</b> Add a bullet to this section that reads: "the management of reflooding any areas that were temporarily drained for mining operations".	<b>Jan 5:</b> DDEC has no objection to this clarification but suggests changing the word "reflooding" to "rewatering".	
30	s. 3.3.1.1 Key Lines of Inquiry, Impacts to water quality	<b>Comment</b> The text as drafted does not cover reflooding of any areas that are temporarily drawn down in terms of erosion and resubmergence of vegetation. <b>Recommendation</b> At the end of the third bullet, add the words: "including reflooding".	<b>Jan 5:</b> DDEC has no objection to this clarification but suggests changing the word "reflooding" to "rewatering".	
31	s. 3.3.1.1 Key Lines of Inquiry, Impacts to caribou	<b>Comment</b> Although DDEC identified habitat disruptions, exposure to contaminants and possible changes in predator-prey relationships, there is no reference to disruptions to caribou movements or migration from the numerous roads, dykes and other infrastructure associated with the Jay-Cardinal Project. <b>Recommendation</b> Add a new second bullet as follows: "DDEC must describe the potential for disruption of caribou movements and migration patterns through the proposed project area and quantify possible effects on this species.C30"	<b>Jan 5:</b> DDEC has no objection to this clarification with the word "determine" replacing the word "quantify".	
32	3.3.1.2 Subjects of Note, SoN-1 Impacts to air quality	<b>Comment</b> The listed items do not include emissions from blasting during construction or mining operations. <b>Recommendation</b> Add a new fourth bullet as follows: "the emissions from construction and operations activities, including blasting;"	<b>Jan 5:</b> DDEC has no objection to this clarification.	
33	3.3.1.2 Subjects of Note, SoN-3 Impacts to aquatic life	<b>Comment</b> The impacts to aquatic life from a 10-20 year potential drawdown of major portions of Lac du Sauvage are likely to be significant adverse effects and should be elevated to a Key Line of Inquiry. <b>Recommendation</b> Identify and evaluate 'aquatic life' as a Key Line of Inquiry (see item #29 above).	<b>Jan 5:</b> See response to IEMA item 26 [not 29], above.	
34	s. 3.3.1.3 Biophysical Environmental Monitoring and Management Plans	<b>Comment</b> The current terminology for environmental matters at Ekati uses "monitoring programs" and "management plans" so it is preferable to stick with this wording. <b>Recommendation</b> [1] Amend the last sentence in the first paragraph to read: "Further, the developer will describe the framework for proposed monitoring programs and management plans or amendments to existing programs and plans that will guide their evaluation of and adaptive management for impacts to water quality." [2] Amend the first sentence in the paragraph before the second set of bullets to read: "For all other valued components , describe the framework for proposed monitoring programs and management plans or amendments to existing programs and plans that will guide DDEC's evaluation of and adaptive management for impacts to valued components. "	<b>Jan 5:</b> DDEC has no objection to this clarification.	
35	3.3.2.2 Subjects of Note, SoN-6 Impacts to cultural aspects	<b>Comment</b> The last bullet ends without a complete sentence. <b>Recommendation</b> Please provide the missing text.	<b>Jan 5:</b> The missing text is as follows "describe potential impacts, measures taken to minimize disturbance, and how remaining sensory changes will affect the traditional users' experience within the potentially affected land use areas."	
36	s. 3.3.3 Cumulative Effects	<b>Comment</b> The assessment of cumulative effects on water quantity and quality should include Lac de Gras. The requirement for cumulative effects assessment for wildlife should include other species besides caribou. <b>Recommendation</b> [1] At the end of the first and second bullets, add the words: "including any impacts on Lac de Gras". [2] At the end of the last bullet, add the words: "wolverines, grizzly bears and any species-at-risk".	<b>Jan 5:</b> DDEC has no objection to this clarification.	
37	s. 3.3.3 Cumulative Effects	<b>Comment</b> The DAR should provide a broader context on DDEC's current cumulative effects assessment and management efforts, and more specifically, how it contributes to such efforts. <b>Recommendation</b> Add a final sentence to this section as follows: "Current efforts towards cumulative effects assessment and management should be described, including DDEC's efforts to coordinate its monitoring and management to contribute towards a regional approach."	<b>Jan 5:</b> DDEC disagrees that the proposed wording would be a valuable addition to the TOR as it is not a Project-specific consideration. The cumulative effects assessment for the Jay-Cardinal Project will necessarily build on previous work at the Ekati	

38	s. 3.4 Accidents and Malfunctions, item 1	<p><b>Comment</b> The coverage of accidents and malfunctions should include the use of Failure Modes and Effects Analysis (FMEA) as an industry best practice in assessing risks and consequences of failure, including the use of scenarios to describe reasonably conceivable future outcomes. * The FMEA should include the failure of water containment systems as a one of the accidents or malfunctions considered. * See, for guidance <a href="http://www.infomine.com/library/publications/docs/Robertson2012b.pdf">http://www.infomine.com/library/publications/docs/Robertson2012b.pdf</a></p> <p><b>Recommendation</b> [1] Amend the 3rd sentence in s.3.4 to read: "This analysis will be conducted as a Failure Modes and Effects Analysis, and will include..." [2] Amend the wording of item 1 to read: "Develop and describe reasonably conceivable scenarios for the FMEA to describe likelihood and consequences of accidents, malfunctions, or "impacts of the environment on the development" that may affect water quantity and quality and the ability of the water management system to function." [3] Add a new item 1(c) as follows: "failure of water containment facilities and pumping systems."</p>	Mine and elsewhere (as available).	<p><b>Jan 5:</b> The use of FMEA is more appropriate to detailed design following the EA. A construction risk assessment will be conducted as part of the EA. DDEC disagrees with wording additions to points 1 and 2 where they refer to FMEA. However, DDEC has no objection to the additional wording in point 3.</p>
39	s. 3.5 Alternative Means to Carrying Out the Project	<p><b>Comment</b> See comments for item #29.</p> <p><b>Recommendation</b> See recommendation #29 above.</p>		<p><b>Jan 5:</b> See response to IEMA items 27 and 28 [not 29], above.</p>
40	s. 3.6 Closure and Reclamation	<p><b>Comment</b> The reference at the end of the first paragraph has been superseded with the release of the new MVLW-AANDC closure guidelines.</p> <p><b>Recommendation</b> Amend the second sentence in the first paragraph to read: "The developer will be guided by existing guidance, in particular the Mackenzie Valley Land and Water Board-AANDC Guidelines for the Reclamation of Advanced Mineral Exploration and Mine Sites in the NWT when developing its reclamation plan for the Jay-Cardinal Project, (<a href="http://mvlwb.com/sites/default/files/documents/wg/WLWB_5363_Guidelines_Closure_Reclamation_WR.pdf">http://mvlwb.com/sites/default/files/documents/wg/WLWB_5363_Guidelines_Closure_Reclamation_WR.pdf</a>)."</p>		<p><b>Jan 5:</b> DDEC has no objection to this clarification.</p>
41	s. 3.6 Closure and Reclamation	<p><b>Comment</b> There may be aspects of the Jay-Cardinal Project that differ markedly from the rest of the Ekati mining operations--for example, reflooding a lakebed that has been exposed for 10-20 years. These novel aspects may require special closure planning and entail new uncertainties that do not lend themselves easily to the existing ICRP. The DAR should identify any such special aspects of the Jay-Cardinal Project, describe the closure planning and any uncertainties that may be associated with these special aspects.</p> <p><b>Recommendation</b> Add a new bullet 4 that reads as follows: "Identify and describe any unique, novel or experimental aspects of the development that are distinct from the rest of the Ekati project components or conventional industry experience with respect to reclamation, and discuss any uncertainties posed and how these will be resolved in the closure planning process."</p>		<p><b>Jan 5:</b> DDEC has no objection to this clarification.</p>
42	s.4 Conclusion	<p><b>Comment</b> The paragraph provided is significantly limited in describing the scope of the information to be provided in the DAR--it focuses only on impact prediction and the Board's ability to evaluate the predictions. In addition to impact prediction, the Board also has to evaluate the proponent's mitigation measures and management plans in order to determine that these will be effective, as well as economically and technically achievable, in mitigating the predicted impacts to an acceptable level. If this is the correct expectation, then it is worth capturing it in the concluding section.</p> <p><b>Recommendation</b> Replace the provided sentence with..."The Review Board expects that the requirements described in this document will result in a Developer's Assessment Report that clearly describes DDEC's predictions of impacts from the Jay-Cardinal Project, and the likely effectiveness of proposed mitigation and management plans that are demonstrably viable both economically and technically, while providing sufficient detailed information and analysis for the Review Board and parties to analyze and evaluate the environmental acceptability of the proposed development.</p>		<p><b>Jan 5:</b> While DDEC does not object to this clarification, it finds the proposed wording unnecessary.</p>
43	Appendix A - Scope of Development	<p><b>Comment</b> Underground mining is an element of the project, but is not explicitly identified in the scope of the development.</p> <p><b>Recommendation</b> To the construction section of the table in Appendix A add a new line item: construction of underground mining and associated infrastructure.</p>		<p><b>Jan 5:</b> DDEC has no objection to this clarification.</p>
<b>Yellowknives Dene First Nation: Todd Slack</b>				
ID	Topic	Reviewer Comment/Recommendation	Proponent Response	Board Staff Response
1	2.1 Scope of Development	<p><b>Comment</b> The project must scope in the impacts from existing infrastructure – it is not sensible to pretend that because the currently exist they are not part of the project. Simply limiting the scoping to new activities or impacts as a consequence of the change will not allow a proper assessment of impacts. This applies to both operations and closure.</p> <p><b>Recommendation</b> Include ongoing and existing impacts as well as future. Secondly, Ekati has ongoing exploration and drilling programs which should be addressed within the scope of development.</p>	<p><b>Jan 5:</b> The Baseline Case of the EA is proposed to consider existing conditions (i.e., current physical, biological, and social conditions); therefore, this will consider existing disturbances and infrastructure. The Application Case of the EA is proposed</p>	

			<p>to consider the cumulative effects of the Baseline Case, plus the Jay-Cardinal Project. The Reasonably Foreseeable Development Case would represent the cumulative effects of the Application Case, plus other reasonably foreseeable developments that have been publicly considered.</p> <p>Therefore, the initial concern is addressed. With respect to exploration and drilling programs, a Land Use Permit has been issued by the WLWB that requires, among other conditions, an annual plan submitted for each year that exploration work is to be undertaken. The "Exploration LUP" is for the entire Ekati Mine mineral lease block and, therefore, contemplates exploration work in areas other than the Jay-Cardinal Project. Exploration activities conducted under the LUP are not part of the assessment of the Jay-Cardinal Project.</p>	
2	2.3 Geographic Scope	<p><b>Comment</b> YKDFN agrees with the geographic scope – it must be considered from the impacted values perspective, not the project.</p> <p><b>Recommendation</b> To this end, item #6 should be amended from "the habitat of any potentially affected species" to the "the annual habitat range of any potentially affected species."</p>	<p><b>Jan 5:</b> DDEC disagrees with the proposed additional wording. See Response to IEMA 3.</p>	
3	2.4 Temporal Boundaries	<p><b>Comment</b> The project should utilize a similar timeline to that which was used at Gahcho Kue, where the re-establishment of fish and fish habitat (Particularly Lake Trout) in the impacted zone was the principal driver.</p> <p><b>Recommendation</b> We believe that this was set at 75 years as a conservative limit (i.e. the company and parties accept that it would likely see progress prior to that).</p>	<p><b>Jan 5:</b> DDEC fundamentally disagrees with the suggestion that specific assessment requirements can be transferred from one project to another; this negates the intended project-specific approach to environmental assessment. In addition to this basic approach to EA, the Jay-Cardinal Project, specifically, has many unique aspects that preclude the transfer of specific assessment requirements as suggested. DDEC disagrees with the recommendation. As per Section 2.4 of the Draft TOR, the temporal boundaries</p>	

4	2.5 Other Scope of Assessment Considerations	<p><b>Comment</b> The project uses the phrase reasonably foreseeable future developments, but does not provide a definition. In previous environmental assessments, the project's consultant has said that having a physical footprint is part of the test as to whether a potential project should be included for consideration. This approach lacks credibility and results in few projects being incorporated within this approach. YKDFN would rather base reasonably foreseeable both based on proposed projects but also historical trends.</p> <p><b>Recommendation</b> Road traffic associated with the continued operation of the site should be part of the project scope. Without this project the TCWR would have no traffic other than De Beers, thus this part of the road, with its impacts, necessarily forms part of the scope.</p>	<p>for the EA are proosed to be based on the potential for long-term impacts on VCs, rather than on a single generic timeline, which DDEC considers more appropriate for the Jay-Cardinal Project.</p> <p><b>Jan 5:</b> A project EA cannot reasonably include speculative future possibilities as there would be no basis for defining that project, its effects, or interactions with the Project under review. This would be an unfair and unreasonable burden on the Project proponent. Reasonably foreseeable developments generally include projects that are reasonably foreseeable as of six months prior to the EA submission date. This would include projects that are under application review, or have officially entered a regulatory application process. In this way, these 'other' projects are defined to a point that the proponent of the Project under review can reasonably be expected to consider cumulative effects.</p>	
5	3.1.4 Use of Appropriate Media	<p><b>Comment</b> None</p> <p><b>Recommendation</b> In addition to the user-friendly approach, YKDFN recommend that the project supply a printed copy to all interveners in the process. The Gahcho Kue EIR was many thousands of pages, which would have been a significant cost to the First Nation to print</p>	<p><b>Jan 5:</b> Printed copies can be provided upon request.</p>	
6	3.1.4 Use of Appropriate Media	<p><b>Comment</b> While it has generally been the case (and we acknowledge that Ekati's approach in the past has been very open), DDEC should be required to submit all electronic documents in a manner that allows ease of access</p> <p><b>Recommendation</b> for '.pdfs' they should be unsecured, allowing parties to copy and paste sections. For tables, the project should be prepared to provide excel spreadsheets upon request</p>	<p><b>Jan 5:</b> Electronic documents can be provided in a manner that allows ease of access; Excel spreadsheets can be provided as appropriate upon request following discussions regarding their use.</p>	
7	3.2.2 Developer	<p><b>Comment</b> None</p> <p><b>Recommendation</b> Within Item #2, the project should complete a comprehensive analysis of the proponent's compliance with the Socio-Economic Agreement over the life of its project. This should be done in a way that looks at a project specific approach but also relative to its peers. It should include a listing all consequences, penalties and punitive actions taken as a result of non-compliance and a review of all adaptive management actions undertaken in response to non compliance.</p>	<p><b>Jan 5:</b> DDEC publishes an annual report on its performance under the Socio-Economic Agreement, including comprehensive data listings. The TOR for Assessment of the Jay-Cardinal Project must, by definition,</p>	

8	3.2.2 Developer	<p><b>Comment</b> None</p> <p><b>Recommendation</b> Within Item #3, the project should be required to submit a comprehensive analysis of accidents and malfunctions from their historical operations. This should review the project spills in terms of absolute number of occurrences, but also an analysis of trends using both a life of mine approach and a 'rolling average' approach. It should evaluate performance relative to other NWT amines and identify mitigations and management approaches undertaken in response to any incidents.</p>	<p>be specific to the Project. Past performance at the Ekati Mine should not be assessed in and of itself, but used as a platform for assessment of the Project at hand. The Draft TOR provides for a compilation and analysis of socio-economic data and management that DDEC suggests is appropriate and specific to the Jay-Cardinal Project.</p>	
			<p><b>Jan 5:</b> DDEC reports on spills and other incidents at the Ekati Mine annually through the Water Licence Annual Report. The TOR for Assessment of the Jay-Cardinal Project must, by definition, be specific to the Project. Past performance at the Ekati Mine should not be assessed in and of itself, but used as a platform for assessment of the Project at hand. The Draft TOR provides for a compilation and analysis of data on spills, accidents and malfunctions that DDEC suggests is appropriate and specific to the Jay-Cardinal Project.</p>	
9	3.2.2 Developer	<p><b>Comment</b> None</p> <p><b>Recommendation</b> Also within Item #3 (but perhaps it fits elsewhere) the project should review the environmental predictions made as part of previous Environmental Assessments and evaluate their value and accuracy in terms the actual impact and the significance predictions. In addition, one section should review the unforeseen or unpredicted impacts (ie. impacts reaching Great Slave Impacts).</p>	<p><b>Jan 5:</b> The EKATI Mine has been operated in an environmentally responsible manner for 15 years. Routine monitoring and analysis (e.g., AEMP annual reports, and the 3-year Environmental Impact Report) assess and report on performance versus predictions. The TOR for Assessment of the Jay-Cardinal Project must, by definition, be specific to the Project. Past performance at the Ekati Mine should not be assessed in and of itself, but used as a platform for assessment of the Project at hand. The Draft TOR provides for a compilation and</p>	

			analysis of data on spills, accidents and malfunctions that DDEC suggests is appropriate and specific to the Jay-Cardinal Project.	
10	3.2.4 Description of the Existing Environment	<b>Comment</b> This section should have a particular focus that considers the both the existing environment and the 'pre-development' environment. This project is taking place environment that is already impacted, but the degree of change from 'baseline' should be the metric that should be considered (i.e. not the change from the impacted environment). <b>Recommendation</b> The area effected by the TCWR should be evaluated as well	<b>Jan 5:</b> See Response to YKDFN 1.	
11	3.2.4 Description of the Existing Environment – Biophysical Environment	<b>Comment</b> None <b>Recommendation #3</b> - Baseline ambient noise should be done in all four seasons – both in terms of distribution/range and strength.	<b>Jan 5:</b> DDEC has considered baseline ambient noise during winter and summer, the two climatic extremes, and suggests that this provides appropriate seasonal coverage.	
12	3.2.4 Description of the Existing Environment – Biophysical Environment	<b>Comment</b> None <b>Recommendation #5</b> – At a minimum the list of parameters analyzed should be the same as what exists within the current license.	<b>Jan 5:</b> This is what has been proposed.	
13	3.2.4 Description of the Existing Environment – Biophysical Environment	<b>Comment</b> None <b>Recommendation #8</b> – Caribou crossing locations in the Lac de Gras (LdG) area and in the vicinity of the TCWR should be a matter of focus within migration routes	<b>Jan 5:</b> Caribou crossing locations and sensitivities to disturbance are already captured in Items b, c, d and e.	
14	3.2.4 Description of the Existing Environment – Biophysical Environment	<b>Comment</b> None <b>Recommendation #12b</b> – Add the concentrations of Furan and Dioxins within water body sediments, as well as the deposition structure/timeline.	<b>Jan 5:</b> Contaminants of potential concern in sediments are proposed to be assessed including dioxins and furans; note that dioxins and furans come from many sources, not just in the NWT. Assessment of deposition structure/timeline is neither reasonably possible nor necessary.	
15	3.2.4 Description of the Existing Environment – Human Environment	<b>Comment</b> A fulsome description of the human environment will further the assessment and development of effective mitigation efforts. For example, if there are 100 unemployed residents within an affected community, how many are unable to work at remote sites because they have family obligations? How many have criminal records or life skill challenges? <b>Recommendation #15</b> – Availability should also be considerate of the ability of those 'available' to take advantage of the employment being offered with this development. General unemployment metrics present a misleading picture which does not allow parties, governments and the proponent to consider the true benefits of a project	<b>Jan 5:</b> To the extent reasonably possible, DDEC has proposed to evaluate the availability of Aboriginal and other Northern residents, barriers to their employment at the mine and to rotational employment, and skills mismatch in the NWT labour force.	
16	3.2.4 Description of the Existing Environment – Human Environment	<b>Comment</b> None <b>Recommendation #17</b> – The project should present evidence that evaluates the repeated concerns from communities on family health and structure (tied to project ToR 3.2.4 #21), drug and alcohol abuse rates, employment rates, job satisfaction/quality and standard of living. This should consider the status of communities prior to 1998 and in the current day.	<b>Jan 5:</b> To the extent possible, DDEC has proposed to evaluate current socio-economic conditions and trends in the potentially-affected communities and in the region against socio-economic	



			conditions prior to diamond mining. Indicators, such as those developed for the Socio-economic Agreements and Communities and Diamonds follow-up program, will be used to measure changes in well-being and quality of life.	
17	3.2.4 Description of the Existing Environment – Human Environment	<p><b>Comment</b> Provision of training opportunities is only one step towards broadening the pool of labour able to take advantage at the minesite, if we are to truly assess the benefits being offered we need to take the next step</p> <p><b>Recommendation</b> #18 - YKDFN agree that the project should evaluate the availability of training, but also the effectiveness of programs such as the Mine Training Society.</p>	<p><b>Jan 5:</b> It is unreasonable to expect DDEC to evaluate the effectiveness of joint industry/governments training programs in the NWT. The Mine Training Society and other training delivery agents evaluate their training programs as part of their mandates.</p>	
18	3.2.5 Development Description – Existing Infrastructure	<p><b>Comment</b> None</p> <p><b>Recommendation</b> Add a description of the noise levels and distributions (by season); add TCWR</p>	<p><b>Jan 5:</b> See Response to YKDFN 1 and 11. Noise levels and the winter road are proposed to be considered in the EA.</p>	
19	3.3 Impact Assessment Steps	<p><b>Comment</b> None</p> <p><b>Recommendation</b> The impact assessment should start with a review of the of the impacts and significance to date (linking back to the proposed inclusion in section 3.2.2)</p>	<p><b>Jan 5:</b> DDEC publishes a 3-year Environmental Impact Report (EIR) that undergoes broad-based review under the Environmental Agreement. The 3-year EIR assesses project effects to date. The TOR for Assessment of the Jay-Cardinal Project must, by definition, be specific to the Project. Past performance at the Ekati Mine should not be assessed in and of itself, but used as a platform for assessment of the Project at hand. The Draft TOR provides for a compilation and analysis of socio-economic data and management that DDEC suggests is appropriate and specific to the Jay-Cardinal Project.</p>	
20	3.3 Impact Assessment Steps - Bullet 5	<p><b>Comment</b> None</p> <p><b>Recommendation</b> As mentioned, this should consider both pre-development and pre-mine conditions, with an emphasis on the latter in terms of impact assessment</p>	<p><b>Jan 5:</b> See Response to YKDFN 1.</p>	
21	3.3 Impact Assessment Steps - Bullet 7	<p><b>Comment</b> None</p> <p><b>Recommendation</b> Prior to evaluation of residual adverse impacts, the project should look at mitigation measures with the previous Ekati EA's and evaluate their efficacy</p>	<p><b>Jan 5:</b> DDEC's adaptive management approach builds on learnings from previous mitigation</p>	

22	3.3 Impact Assessment Steps - Bullet 8	<p><b>Comment</b> None</p> <p><b>Recommendation</b> Prior to placing our reliance in 'Adaptive Management', the project should identify existing adaptive management plans, when they were triggered/utilized, and what the end result was</p>	<p>measures. Potential interactions (linkages) between Project components or activities, and the corresponding potential changes to measurement endpoints of the environment are proposed to be identified during the development of the EA. If a linkage is determined to be valid, it would be assessed for residual effects. See also Response to YKDFN 9.</p> <p><b>Jan 5:</b> Existing adaptive management plans are proposed to be considered relative to this Project; see Response to YKDFN 21.</p>	
23	3.3.1.1 Key Lines of Inquiry	<p><b>Comment</b> In the past, environmental assessments have focused almost exclusively on evaluating impacts to the environment. Socio-Cultural impacts and benefits have been considered, but the consequences are poorly understood. For example, are we really benefiting communities by providing employment on a 2 week rotation if its contributing to weaker family structures and a generation less able to take advantage of the opportunities that exist</p> <p><b>Recommendation</b> Key Line of Inquiry #4 – Impacts and Benefits to Communities</p>	<p><b>Jan 5:</b> DDEC has previously and will continue to provide benefits to communities beyond employment. DDEC supports joint industry/governments programs that evaluate the general response of northern communities to mining projects.</p>	
24	3.3.1.1 KLI-2	<p><b>Comment</b> The physical characteristics of the waters in the area must remain similar to pre-development. For instance, does the changing salinity or chemical loadings alter the freeze dates or thermal properties of the water bodies</p> <p><b>Recommendation</b> Include a section that evaluates any physical changes to the area (ice thickness, freeze up timing etc) that may result from changes to the chemical loadings or thermal properties of the local water bodies</p>	<p><b>Jan 5:</b> The Draft TOR provides for evaluating water quality before, during and after the Jay-Cardinal Project. DDEC does not see need for additional wording or clarification in this topic area.</p>	
25	3.3.1.1 KLI-3	<p><b>Comment</b> The direction within this KLI must be for the project to demonstrate that they are not impacting caribou. Given the low herd population and the Federal Government's 2011 declaration that Barren Ground Caribou are in danger of extinction, the project must show how they have reduced their impacts to the herd</p> <p><b>Recommendation</b> Part of the KLI should evaluate how impacts have been reduced from past Ekati operations</p>	<p><b>Jan 5:</b> Existing Ekati operations are proposed to be considered as part of the Baseline Case, and cumulatively as part of the Application Case. See Response to YKDFN 1. A summary, relevant to the Jay-Cardinal Project, of how DDEC has mitigated effects to caribou is proposed to be provided as part of the basis for proposed future mitigation measures.</p>	
26	3.3.1.1 KLI-3	<p><b>Comment</b> Caribou migration must be a particular focus within this KLI as the proposal will effectively block off one of the important water crossings (between LdG and LdS) for the area and the ZOI will encompass others on LdS with unknown implications. On simple measurement, there is no unaffected caribou crossing for almost 70 km</p>	<p><b>Jan 5:</b> See Response to YKDFN 13. Effects to caribou migration routes are a</p>	

		<p><b>Recommendation</b> The KLI should focus on where and how caribou crossed historically and where they are able to move through the area now</p>	<p>component of non-direct disturbance effects. The proposed project design was selected, in part, specifically to avoid physical disturbance at the Lac du Sauvage outlet stream and immediate area, and to enable continued caribou movement through the area.</p>	
27	3.3.1.1 SoN-1 – Air Quality	<p><b>Comment</b> Given the projects previous contamination within the local area</p> <p><b>Recommendation</b> this SoN should include discussions on Furans and Dioxins</p>	<p><b>Jan 5:</b> Dioxins and furans are proposed to be considered. See Response to YKDFN 14.</p>	
28	3.3.1.1 SoN-3 – Fish Habitat	<p><b>Comment</b> This should be addressed within a greater KLI. The project is going to destroy a significant part of this lake, with a likely significant impact on the remainder and unknown downstream effects.</p> <p><b>Recommendation</b> The bullets here should form part of a greater response to the KLI, with a particular focus on closure and re-establishment of the aquatic ecosystem</p>	<p><b>Jan 5:</b> Effects to fish and fish habitat are proposed to be assessed in the EA; this will include the effects from drawing down Lac du Sauvage and the resulting effects on the downstream environment. Closure and successful re-establishment of the aquatic ecosystem within Lac du Sauvage will be a key component of the evaluation. The proposed Project design was selected, in part, to work beneficially with the natural conditions of the Lac du Sauvage watershed to enable a temporary drawdown of part of Lac du Sauvage for the duration of mining activities.</p>	
29	3.3.1.1 SoN-3 – Fish Habitat	<p><b>Comment</b> This should be addressed within a greater KLI. The project is going to destroy a significant part of this lake, with a likely significant impact on the remainder and unknown downstream effects.</p> <p><b>Recommendation</b> The Project should evaluate the amount of habitat it is destroying and prepare an initial fish habitat compensation plan. YKDFN recommend that the project approach communities to collaboratively develop the objective to guide this plan.</p>	<p><b>Jan 5:</b> Fish habitat loss is proposed to be evaluated in the Project EA. A preliminary offsetting plan will be developed during the EA process, in consultation with DFO, and with input from local communities on potential offsetting options.</p>	
30	3.3.1.1 SoN- New – Alternatives	<p><b>Comment</b> YKDFN believe that the alternatives assessment should be an important subject of note. The destruction of a lake should be done as a last resort, not just as the cheapest option.</p> <p><b>Recommendation</b> A new SoN should be added, which recognizes and incorporates the importance of conserving pristine land and water.</p>	<p><b>Jan 5:</b> DDEC disagrees that a new SoN is necessary in this regard and suggests that alternatives are adequately provided for in the Draft TOR. Also see Response to IEMA 28.</p>	
31	3.3.1.3 Biophysical	<p><b>Comment</b> The future reporting approach is uncertain and the current approach to comprehensively considering wildlife data can be more certain</p>	<p><b>Jan 5:</b> Wildlife monitoring data are</p>	

	Environmental Monitoring	<b>Recommendation</b> In addition to the discussion surrounding the plans, the proponent should identify a comprehensive analysis of wildlife monitoring data as part of the system (Currently similar to the EIR report under the Environmental Agreement)	assessed and analyzed annually under the WEMP and every 3 years as part of the Environmental Impact Report. The EA for the Jay-Cardinal Project should refer to and draw from these documents but not repeat data summaries or analyses, and this is proposed in the Draft TOR. DDEC works cooperatively with ENR and other mining companies on regional wildlife monitoring programs.	
32	3.3.2.1 Human Environment – Key Line of Inquiry	<b>Comment</b> YKDFN do not agree that there are no key lines of inquiry to be pursued. While we support the efforts to date, we don't know to what degree they have been effective or how the community has been affected since the mine opening. By looking back over the last 15 years to evaluate successes and failures, we should be able to improve the lasting positives for the north. <b>Recommendation</b> Established a KLI to consider: Past impacts and benefits to affected communities and the expected benefits to impacted communities	<b>Jan 5:</b> DDEC disagrees that an additional KLI is necessary as proposed. See Response to YKDFN 23.	
33	3.3.2.2 Subjects of Note – impacts to employment	<b>Comment</b> The competition for northern employees will continue to increase as Gahcho Kue and other projects come on line, making it much more difficult for this mine to meet its commitments with regards to northern and aboriginal participation. If the project has already had difficulty meeting commitments, new methods and increased efforts must be made <b>Recommendation</b> The company should identify ways and means of increasing retention, northern hiring, and promoting residency	<b>Jan 5:</b> DDEC has made and will continue to make all reasonable efforts to hire Aboriginal and other Northern residents; further, DDEC strives to improve employee retention, particularly Aboriginal and other Northern residents. The Draft TOR includes provision for DDEC to describe its approach to these issues specific to the Jay-Cardinal project (Sections 3.3.2.2 [SoN -7] and 3.3.2.3 of the Draft TOR).	
34	3.3.2.2 Subjects of Note – impacts to employment	<b>Comment</b> The project has a history that reviewers should be able to understand and evaluate. Understanding where the project has encountered difficulty and how they will respond in the future, in more difficult conditions, gives reviewers more information to evaluate the merit and value of the commitments. <b>Recommendation</b> The project should develop a response framework that seeks to improve compliance to company commitments wherever possible, and when not possible, develop new ways and means to provide support for community health and employment	<b>Jan 5:</b> DDEC has proposed, in the Draft TOR, to describe its proposed approaches to providing socio-economic benefits and mitigating socio-economic risks associated with the Jay-Cardinal Project. This will necessarily reference past practices as a basis for the proposed approaches. The Jay-Cardinal Project is unique in that the Project can make beneficial use of the continuation of existing effective practices as opposed to needing to initiate all new programs and practices.	

35	3.3.2.2 Subjects of Note – impacts to employment	<p><b>Comment</b> Previous Socio-Ec submissions can be improved to better reflect the conditions that exist within the effected communities</p> <p><b>Recommendation</b> This SoN should consider changing labour demands, demographics and population factors over the lifespan of the mine</p>	<p><b>Jan 5:</b> See Responses to YKDFN 23 and 33. DDEC will consider all available, relevant information.</p>
36	3.3.3 Cumulative Effects, Bullet 6	<p><b>Comment</b> Any cumulative effects analysis must focus both on the distribution/habitat and population of the Bathurst Caribou herd. It is the latter that represents the end consideration for harvesters. Additionally, this analysis must consider the relative impacts during different stages of the caribou's life cycle. For example, the projects occurring on/near the calving grounds (Hacket River, Izok Corridor, Back River) will have a more significant impact than those at the periphery of the caribou range (Fortune, Nechalacho).</p> <p><b>Recommendation</b> The items for consideration should be expanded to clarify that the impacts on Barren-Ground Caribou is to include population analysis. Secondly, the analysis must develop a peer reviewed approach that takes into account the relative sensitivity of caribou with their lifestage and seasonal range.</p>	<p><b>Jan 5:</b> DDEC disagrees that it is appropriate or responsible for a single mine operator or project proponent to provide population analysis of barren ground caribou. It is not reasonable that a single operator/proponent has the information to conduct such an analysis. See Responses to YKDFN 1 and 13. DDEC has proposed to consider both the incremental and cumulative effect of the impacts included in KLI-3, Impacts to Caribou in the Draft TOR. DDEC will use existing peer-reviewed approaches for modelling population-level effects.</p>
37	3.4 Accidents and Malfunctions, #1, bullet 3	<p><b>Comment</b> Concerned parties are routinely assured of the safety of tailings dams and water retention structures.</p> <p><b>Recommendation</b> The proponent should prepare an analysis of past tailings/water retention dam/dykes across Canada (including the recent Obed Mtn incident), looking at the causes and evaluating if they are applicable to concerns at Ekati.</p>	<p><b>Jan 5:</b> See Response to IEMA 38.</p>
38	3.6 Closure and Reclamation	<p><b>Comment</b> YKDFN suggest that the easiest and most utilitarian approach to meeting this section would be to extend the current ICRP structure to address the Jay-C project.</p> <p><b>Recommendation</b> The project should use the current ICRP format to address the requirements of this section</p>	<p><b>Jan 5:</b> DDEC agrees; this is the intent. The current ICRP is proposed to be adapted to include the Jay-Cardinal Project.</p>
39	3.6 Closure and Reclamation	<p><b>Comment</b> None</p> <p><b>Recommendation</b> The project should identify how they will remove/decommission newly constructed/imported infrastructure</p>	<p><b>Jan 5:</b> See Responses to IEMA 40 and YKDFN 38.</p>
40	3.6 Closure and Reclamation #7	<p><b>Comment</b> the Closure and Reclamation section needs to have a particular focus on fish habitat establishment and a return of the existing aquatic ecosystem in a similar abundance.</p> <p><b>Recommendation</b> Amend #7 to consider not just sustainability, but also also look at the return of an aquatic ecosystem in similar abundance and diversity, with a focus on and utilization of habitat by lake trout (top trophic level)</p>	<p><b>Jan 5:</b> DDEC suggests that this issue is adequately provided for in the Draft TOR. Additionally, DDEC suggests that specific success criteria such as sustainability, abundance, or diversity should follow from the Environmental Assessment and not be pre-determined in the TOR. This approach ensures that specific criteria are based on robust analysis and review.</p>