

**GENERAL INSTRUCTIONS FOR EXCEL TEMPLATE:**

1. Do not leave blank rows above or between comments.
2. Do not modify or delete the instructions or the column headings (i.e. the grey areas).
3. Each comment must have an associated topic and recommendation.
4. All formatting (i.e. bullets) will be lost when this file is uploaded to the Online Comment Table.
5. If necessary, adjust the cell width and height in order to view all text.
6. Cutting and pasting comments from WORD documents cannot include hard returns (spaces between paragraphs).
7. If you would like to create paragraphs within a single cell, please use a proper carriage return (ALT & ENTER).

<b><u>TOPIC</u></b>	<b><u>COMMENT</u></b>	<b><u>RECOMMENDATION</u></b>
<i>Be as specific as you think is appropriate; for example a section or page of the document, a recommendation #, general comment, etc.</i>	<i>Comments should contain all the information needed for the proponent and the Board to understand the rationale for the accompanying recommendation.</i>	<i>Recommendations can be for the proponent or for the Board. Recommendations should be as specific as possible, relating the issues raised in the "comment" column to an action that you believe is necessary.</i>

<b>Item Number</b>	<b>Topic</b>	<b>Comment</b>	<b>Recommendation</b>
1	Cover Letter and Thermal Modelling Report (pgs. 10-11), Plans to Gather More Data from the Waste Rock Piles	Concerns about the long-term behaviour of both the Fox and Misery WRSAs have been expressed for several years now, by the Agency and by the WLWB. DDEC states that it is developing a work plan for completion of thermal modelling for the Fox Waste Rock Storage Area. No date is provided for submission of this plan and there is no discussion of how it relates to the second phase submission in November 2015. It is not clear whether DDEC is planning further GTCs in Fox or other Waste Rock Storage Areas. The EBA report	As there is some urgency to this issue, the WLWB should direct DDEC to submit a plan for [1] evaluating the effectiveness of its current ground temperature monitoring system for the Ekati WRSAs, especially for the Fox and Misery WRSAs; and, [2] the immediate upgrading of the monitoring system (i.e., new GTCs), at the earliest possible time, with a view to implementing the upgrade as soon as possible (i.e., summer of 2015). Please note that this is the most important recommendation from the Agency in reviewing this submission.

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		<p>notes that data from the Misery WRSA "...may indicate that internal heat (possibly due to sulphide oxidation) may be generated in localized areas (possible schist layers) in the pile." Unfortunately, there have been no data from this location since 2007. EBA also recommends that DDEC "evaluate requirements for new GTCs in the areas where either no GTC exists or the existing GTCs are no longer operational, especially in the central areas of the piles where the expected ground temperatures are among the warmest." There is no response or plan from DDEC to this recommendation from its consultants.</p>	
2	<p>Ecological Risk Assessment, Potential for Seeps to Act as Mineral Licks</p>	<p>The Agency could not find any discussion in the Ecological Risk Assessment of the potential for the seeps from the various Waste Rock Storage Areas (WRSAs) to act as mineral licks for animals. We recognize that this is not likely the case now but this topic should be covered in the second phase of the work for the long-term. The concern is around the potential for mineral residues to contain metals that may be harmful to wildlife.</p>	<p>For the closure ERA, DDEC should consider the potential for the seeps to act as mineral licks for wildlife over the long-term.</p>

Item Number	Topic	Comment	Recommendation
3	Thermal Modelling Report, Period of Operation for Ground Temperature Cables (s. 4.0, pgs. 3-5)	The Agency notes the discussion of the various ground temperature cables (GTCs) in WRSAs at Ekati. It would be helpful to have a single table that lists all GTC identifier numbers, locations, periods of operation, comments about function at various depths, and the dates when readings have been taken.	DDEC should provide a single table that lists all GTC identifier numbers, locations, periods of operation, comments about function at various depths, and the dates when readings have been taken.
4	Thermal Modelling Report, Period of Operation for the Waste Rock Storage Areas and GTCs (s. 4.0, pgs. 3-5)	There does not appear to be any discussion of how long the WRSAs will remain in operation or how long the GTCs are expected to remain in operation in order to provide the necessary information to properly manage the WRSAs. This may be part of the second phase of this work but DDEC should provide some clarity around what will be done in the second phase.	DDEC should indicate how long the WRSAs will remain in operation and how long the GTCs are expected to remain in operation in order to provide the necessary information to properly manage the WRSAs. DDEC should provide some clarity around what will be done in the second phase in terms of thermal modelling.
5	Thermal Modelling, Modelling and Thermal Analyses (s. 5.1, pg. 5 and 5.6.1, 5.6.2, 5.6.3, pgs. 9-10)	The EBA report states that a “two-dimensional finite element computer model, GEOTHERM” was used. The thermal analyses presented for the Panda/Koala, Coarse PK Storage Area and Misery are “one-dimensional”. Given the scale and size of the waste rock piles at the site and their proximity to waterbodies, it is not clear why three-dimensional modelling might be more appropriate.	DDEC should clarify whether one or two-dimensional modelling was conducted, how that relates to the analyses presented, and provide a detailed explanation as to why three-dimensional modelling has not been conducted. The merits of various modelling approaches and implications for the ecological risk assessment work should also be discussed.

