

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).

TOPIC	COMMENT	RECOMMENDATION
<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>
Permafrost around Beartooth Pit	Pg. 5-2 and 5-3, 5.3 Beartooth Pit, there is no discussion of whether the filling of Beartooth with FPK would influence the maintenance of the permafrost around the pit any differently than the existing deposition of minewater. Was this covered in the 2009 EBA study mentioned, but not referenced (the study is referenced in Appendix D and should be made available by BHPB available)? Was any data collected from the thermistor cable between Beartooth and Panda before it no longer worked and did that data support the EBA study?	The Board should examine the issue of whether an operating thermistor string between Beartooth and Panda is required and, if so, direct the company to replace the failed one.

Adaptive Management	<p>Pg. 4-16, 4.9 Operating Uncertainties and Mitigation Strategies, states the following: “The very nature of these uncertainties precludes a pre-determined response plan because one does not know what the risk is until it is identified. Instead, the ongoing cycle of monitoring and review of information will be used to identify trends and to then develop the most appropriate response plan based on the circumstances at hand.” The approach described here is not consistent with adaptive management which, by definition, attempts to identify the uncertainties and make testable predictions for future performance. By ‘precluding a pre-determined response plan’ because of unknown risks, BHPB is rationalizing why a contingency plan cannot be prepared. Instead, it proposes to craft a response on an ad hoc basis as the upset condition develops. This approach is at odds with prevailing industry standards and with best practices, and should not be permitted.</p>	<p>This section of the WPKMP should be revised to reflect the principles of adaptive management and the precautionary principle.</p>
FPK Deposition Options	<p>Pg. 4-11, 4.8.3 Recommended Deposition Plan, did BHPB consider thickening the FPK before disposal to provide for additional space in the available capacity?</p>	<p>BHPB should provide an explanation as to whether FPK thickening was considered an option during its internal evaluation of LLCF options and why thickening was rejected.</p>

<p>Beartooth Pit Water</p>	<p>Pg. 4-7, 4.7 Beartooth Pit, the description of how long Beartooth Pit may be used as a sump is helpful but a more detailed discussion of the criteria or key factors in deciding when minewater may be returned to the LLCF or used in ore processing should be provided. This information would be helpful in understanding and modelling LLCF water quality as the Beartooth minewater may be moved into the LLCF.</p>	<p>BHPB should provide an explanation as to when Beartooth pit water will be removed to allow for PK deposition and the factors or criteria that will be used to determine whether the water will be reclaimed for ore processing or sent to the LLCF.</p>
<p>Beartooth Pit Water</p>	<p>Appendix D, Pg. 43, 3.4.1.3 Environment [Beartooth], the third paragraph discusses the environmental benefit of diverting minewater to Beartooth but this water may be put through the LLCF as Beartooth is filled with PK. BHPB has expended significant resources to manage nitrate and chloride in the LLCF but the 2011 WPKMP may see Beartooth pit water moved to the LLCF. The implications of the movement of Beartooth pit water for water quality in the LLCF is not discussed.</p>	<p>BHPB should discuss how and to what extent LLCF water quality may change as a result of the addition of Beartooth pit water, and any management measures that may be necessary.</p>

<p>Beartooth Pit Water</p>	<p>Appendix D, Pg. 44-45, 3.4.1.4 Closure [Beartooth], this section discusses the effects on closure of using Beartooth for PK deposition but the assumption is that water quality within Beartooth will allow for the pit to be reconnected. Assuming that some minewater will continue to be stored in Beartooth, predictions of water quality with and without PK would be helpful. This information would be helpful in assessing the risks of PK deposition into Beartooth and better evaluating environmental benefits and costs.</p>	<p>BHPB should provide some explanation of what the Beartooth pit water quality will be with and without the addition of PK.</p>
<p>Beartooth Pit Water Quality Monitoring</p>	<p>Pg. 5-2 and 5-3, 5.3 Beartooth Pit, monitoring does not appear to include any objectives related to whether meromixis is taking place or to verify pit water modelling that might be done (see pg. 6-3, bullet 6).</p>	<p>BHPB should clarify whether the objectives of Beartooth pit water monitoring include whether meromixis is taking place and verification of pit water modelling (water quality and water stability).</p>
<p>Beartooth Pit Water Quality Monitoring</p>	<p>Appendix D, Pg. 59, 4.3 Environment recommends quarterly pit water monitoring (water column profiles) inside Beartooth but notes safety concerns and that this may not be possible or only in winter. Pit water modelling was supposed to be completed in 2007 under the approved Pit Lakes Studies Terms of Reference.</p>	<p>BHPB should begin pit water modelling for Beartooth as quickly as possible and make efforts to verify the results and recalibrate the model using monitoring data. The results of this modelling should be reported to the WLWB.</p>