

Subject: Follow up to August 25 BHP Meeting

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Thank you for your participation at the BHP environmental assessment pre-consultation meeting on August 25, 1999. Attached are two tables and our request for supplemental information from BHP on their development description.

Some clarification before continuing. By "Development Description" we mean "the nuts and bolts" of the development without discussion of environmental impacts.

The development description should describe all components (physical works and activities) that will happen over the lifetime of the three kimberlite pipe mine extension and how those components fit into the existing mine. This includes existing infrastructure and facilities to be used for the extraction, processing, disposal, storage and transportation and activities associated with the development of the Beartooth, Pigeon and Sable pipes. It also includes proposed ancillary developments such as power distribution and buildings necessary to operate the three pits. The MVRMA adds a little twist in that it places greater emphasis than CEAA on "people" (general public and Aboriginal). So, the development description should consequentially reflect this emphasis.

The first table summarizes the components of the proposed development as reported in BHP's Project Description dated February 1999. The second table summarizes components of BHP's development as reported in their 1995 EIS report.

Please prepare and e-mail me a bullet list of items you would like to see added to BHP's development description. A clear and comprehensive development description (project description) should help us prepare better guidelines.

Also, please provide guideline items you have already prepared based on BHP's February project description. That will help us get started on a draft set of guidelines.

Please provide the information by Friday September 3, 1999.

Supplementary information request
BHP Sable, Pigeon and Beartooth kimberlite pipe development
Prepared by the MVEIRB

- Koala North in relation to proposed development and by implication, on other components (physical works and activities) of the mine, e.g., waste rock dumps, processed kimberlite dumps.
- Leslie kimberlite pipe in relation to the development and other components of the mine.
- Other undertakings on the claim block expected to happen and their relation to components of the mine
- Describe reclamation works and activities at the Panda and Koala pits in relation to the Beartooth kimberlite pipe, e.g., flooding times.
- Describe the Panda/Koala waste rock dump with proposed additional material.
- Describe the Panda till dump area with proposed additional material.
- Describe employment and employment structure including contract personnel.
- Describe road to the Sable kimberlite pit.
- Describe volume and type of traffic expected on proposed Sable and Pigeon road.
- Describe ore stockpiles
- Describe the sedimentation pond to be constructed adjacent to the Sable Pit.
- Describe the Ursula quarry.
- Describe overall mining schedule including previously approved kimberlite pipes.

Ekati Expansion Project Description	
Development	Beartooth Pipe
Latitude	64 43.9'N
Longitude	110 30.4'W
Mining Method	Open pit
Start of Open Pit Mining	
End of Open Pit Mining	
Kimberlite (million tonnes)	
Waste Rock (million tonnes)	
Waste Rock Type	Primarily biotite granite
Potential acid rock drainage	Essentially benign
Waste Rock Storage	Panda/Koala Waste Rock Dump
Waste Rock Dump Capacities (million m ³)	

Till/Lake Bottom Sediment Storage	Panda Till Dump area
Ore Stockpile	Primary crusher ore stockpile
Ore Stockpile Height	
Ore Stockpile Capacity (t)	
Pit volume (million m3)	
Pit Depth (m below grade)	
Water Displaced (m3)	
Time to Dewater (months)	
Time of Dewatering	October & November
Dewatering Pump rate (m3/h)	
Water Outflow	Upper Panda Lake via Beartooth/Panda Stream
Water Inflow	Bearclaw Lake
Catchment (km2)	
Water Diversion	Pumping of Bearclaw lake to Beartooth/Panda Stream
Water Use	Drilling/pit operations - 2000L/day
Source for Water Use	Hauled from main Ekati site or from pit sump
Destination of Pit Sump Water	Panda/Koala Settlement pond (to be constructed), then to Cell C o
Wastewater Management	None
Fisheries Resource	Small
Flooding Time for Fisheries Replacement (years)	

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	21.5 - 15.5
Road	3 km all weather haul road to main Ekati site
Laydown/Truck Ready Line Area	None
Haul Trucks	
Shovels	
Buildings	None
Fuel Storage	None
Explosives Magazine	None
Power Source	
Archaeological Sites	
Wildlife Use	
Potential Impact 1	Loss of fish habitat within Beartooth Lake
Mitigation Strategy 1	Replacement of littoral zone habitat within the exhausted pit & re-
Potential Impact 2	Poor quality discharge from Beartooth dewatering operation
Mitigation Strategy 2	

	Redirection of dewatering discharge to Long Lake Containment A required
Potential Impact 3	Entrainment of fish during Bearclaw diversion pumping
Mitigation Strategy 3	Installation of fish screens on pump intakes
Potential Impact 4	Erosion at pump discharge points in Beartooth-Panda Stream
Mitigation Strategy 4	Discharge into concrete baffle boxes to distribute flow energy
Potential Impact 5	Injury to wildlife due to blasting
Mitigation Strategy 5	Continue to use, improve and investigate methods for removing a
Source	Project Description: Proposed Development of Sable, Pigeon, and

Development	Panda	Misery	Koala	Fox	Total
Latitude					
Longitude					
Mining Method	Open pit/underground	Open pit	Open pit/underground	Open pit	
Start of Open Pit Mining	1998	2001	2001	2007	0
End of Open Pit Mining	2003	2013	2008	2015	0
Start of Underground Mining	2000		2007		0
End of Underground Mining	2009		2014		0
Kimberlite (million tonnes)	13.4	5.5	17.4	16.7	0
Waste Rock (million tonnes)					0
Waste Rock Type	Primarily biotite granite	Biotite schist and granite	Primarily biotite granite	Primarily biotite granite, some diabase	
Potential acid rock drainage	No	Yes	No	Yes	
Waste Rock Storage	Panda/Koala Waste Rock Dump	Misery Waste Rock Dump	Panda/Koala Waste Rock Dump	Fox Waste Rock Dump	
Waste Rock Dump Capacities (m3)	105	50	105	145	0
Till/Lake Bottom Sediment Storage	Panda/Koala Lake Bottom Sediments Impoundment	Misery Lake Bottom Sediments Impoundment	Panda/Koala Lake Bottom Sediments Impoundment	Fox Lake Bottom Sediments Impoundment	
Rate of Ore Production/d					
Ore Stockpile	Primary crusher ore stockpile	Misery ore stockpile	Primary crusher ore stockpile	Primary crusher ore stockpile	
Ore stockpile height					
Ore Stockpile Capacity (t)	200000		200000	200000	0
Pit Volume (million m3)	53	30	30.5	91	0
Pit Depth (m)					0
Water Displaced (m3)	2000000	1700000	3000000	4300000	0
Time to Dewater (months)	1.8	1.5	2.6	3.8	0
Dewatering Pump Rate (m3/h)	1600	1600	1600	1600	
Water Outflow	Kodiak Lake via diversion	Lac de Gras	Kodiak Lake	Fox 2 Lake	