

### TRADITIONAL KNOWLEDGE Inclusion at the EKATI Diamond Mine



Charles Klengenberg Environment Advisor-Traditional Knowledge

Charles Klengenberg, Environment Advisor-Traditional Knowledge, HSEC, TK&P, December 7, 2011.





In the 1995, Environmental Assessment of the EKATI Diamond Mine, the Environmental Assessment Review Panel charged BHP to give Aboriginal TK full and equal consideration with engineering and scientific knowledge.

Phase 1 Studies:This study consisted of defining roles of participating parties and initiating workshops in<br/>the communities to document the environmental and socioeconomic concerns that<br/>Aboriginal people may have with respect to the EKATI Mine Project.

Environmental Agreement: In 1997, the Environmental Agreement was signed which established an on-going role and use of traditional Aboriginal knowledge in the environmental management of the EKATI Diamond Mine.

Phase 2 Studies:This study was intended to assist Aboriginal groups with the opportunity to bring<br/>relevant TK to EKATI's environmental management process, and in turn assist BHP<br/>Billiton environmental monitoring of impacts.

#### **Community Based Projects:**

- -A Tlicho Perspective on Biodiversity
- -A Traditional Knowledge Study of EK'TI"
- -A GIS database was developed in Lutsel K"e, GIS Technician position was funded by BHP Billiton.
- -Naonaiyaotit Traditional Knowledge Project
- -Caribou and Roads Project

### WHERE WE ARE



1997 Environmental Agreement (Article XI, Item 11.3)

BHP shall incorporate all available traditional knowledge in the Environmental Plans and Programs and shall give all available traditional knowledge full consideration along with other scientific knowledge as the Environmental Plans and Programs are developed and revised.

**BHP Billiton's Sustainable Development Policy** 

Engage regularly, openly and honestly with people affected by our operations, and take their views and concerns in account in our decision making.

BHP Billiton considers the need to integrate Traditional Knowledge into its environmental monitoring programs as important today as when the EKATI mine first started operations.

The EKATI Traditional Knowledge Strategy defines...

- Where We Want To Go

- How Do We Get There

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# EKATI Traditional Knowledge Strategy

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### VISION

The Vision of the Traditional Knowledge program at EKATI is to build and sustain a meaningful, healthy and interactive relationship with the aboriginal people of the north, with a common goal of preserving, sharing and the promotion of northern aboriginal Traditional Knowledge.









**BHP Billiton will...** 

- will continue its history of developing meaningful, lasting and mutually beneficial Traditional Knowledge relationships with the IBA Communities...
- will work directly with community representatives to identify, develop, and implement ideas for Traditional Knowledge initiatives...
- will identify, develop and implement ideas for Traditional Knowledge incorporation into environmental monitoring and reclamation programs...
- will travel to communities and invite aboriginal people to EKATI, with the goal of fostering open and productive dialogue, demonstrating the principles of sustainable development and providing face-to-face interactions.

### **GUIDING PRINCIPALS**



#### **EKATI Traditional Knowledge Strategy**



#### **EKATI Traditional Knowledge Strategy**



• Have discussions with each Impact Benefit Community to identify and prioritize Traditional Knowledge Projects.

• Enhance feedback to communities on Traditional Knowledge initiatives.

• Provide Traditional Knowledge input to Community Development Projects.

Provide Traditional Knowledge input to Reclamation Planning.



GOALS

### PRIORITIES

 BHP Billiton will continue to facilitate discussions and lead process that will generate forward looking *ideas*.

 BHP Billiton will assist the communities to *implement* ideas as well planned projects, and community participation in site-based programs.

 BHP Billiton will support the on-going *sustainability* of Traditional Knowledge initiatives and completed projects.







### **Community Based TK Projects**



#### 2008-2009 TK Ideas Project Workshops

• BHP Billiton invited each of the IBA communities to take part in a process to develop ideas for TK projects in their communities.



#### 2011 Community Based TK Projects

• The on-going strategy is to continue to engage each community to focus on projects of most immediate interest/value to them, and assist with development, implementation, and funding plans.

### **Criteria for Community Based Projects**



#### Community based projects are focused on the preservation, sharing and advancement...

- Each project will have its own schedule, reports, and outputs, developed by and with the community that will have...
  - Plans of Action Context for past, present and future...
  - Milestones Measurements of success
  - Roles & Responsibilities Commitment to the project
  - Deliverables Show what you have proposed
  - Meaningful Benefit Benefit to your community

### **2011 Community Based Projects**



Stage 1- To create a comprehensive and workable database of TK. The first phase is to consolidate their TK within a digital archive that combines multiple types of data. (Completed October 31, 2011)

Stage 2 - Continuation of the TK Archive digitization/GIS/data base development. (Under review)

#### • Tlicho Government - Digitizing Tapes & Database Project

To ensure harvesters' and elders' observations and narratives are documented and digitized, enhancement of the data base management to new technologies, and the key concepts are tied to the GIS of the Tlicho Land Protection Department. (Approved November 21, 2011)

#### NSMA - Community Heritage Project

A project that will see a genealogical research process combined with the organization and proper cataloguing of existing archives, and a series of workshops to develop an accepted definition of the Metis community (Under Review)

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### **2011 Community Based Projects**



#### • YKDFN - Goyatiko Language Society – Digitization of Elders Stories

Digitize and preserve metadata, provide a brief summary of each digitized tape, and produce a database/catalogue of the material. (Under review)

#### KIA - Content Development for the Naonaiyaotit Traditional Knowledge Project (NTKP) Publication

A proposal for the development of content based on material within the NTKP which will be used in future publications that are intended for beneficiaries of the KIA. (Under review



### **EKATI Site Based Programs**



The goal of these engagement programs is to advance the development of EKATI-specific traditional knowledge and to use that knowledge in improving and modifying the environmental management and monitoring programs.



As for traditional knowledge inclusion, we realize, the community members own and control their traditional knowledge, and BHP Billiton will only utilize traditional knowledge that is communicated to the company for the benefit of the EKATI Diamond Mine.

We recognize, this may include stories and personal reflections not directly related to the environmental monitoring and management programs, but reflect the values and traditions of the traditional knowledge stakeholder.

### **Our Approach to EKATI Site Based Programs**





Listening to their ideas, knowledge and concerns



#### Talking with Traditional Knowledge Holders



#### Sharing our ideas, results and issues

### **2011 EKATI Site Based Programs**



The 2011 Wildlife Effects Monitoring Program (WEMP) Community Engagement Program was to demonstrate and provide hands-on-experience on how the Environment Department conducts its day-to-day site-based environmental monitoring programs.



Over a week, the community representatives participated with wildlife observations and behavioral scans, site management surveys, and other environment site activities that are based on programs designed to determine whether mine activities have effects on wildlife and their habitat.



Charles Klengenberg, Environment Advisor-Traditional Knowledge, HSEC, TK&P, December 7, 2011.

### 2011 WEMP Community Engagement Program bhpbilliton





**Accommodation Skirting Surveys** 



Waste Bin Surveys



**Fence Monitoring** 



**Incidental Bird Observations** 

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## 2011 WEMP Community Engagement Program

#### Wildlife Effects Monitoring Program



**Caribou Behavioral Survey** 



**Caribou on Haul Roads Survey** 



**Wildlife Motion Cameras** 



Wildlife Incident Response

### **Other Environmental Programs**



#### 2011 Grizzly Bear DNA Program

Traditional Knowledge reconnaissance of suitable Grizzly Bear habitats for 2012 DNA Program.



Assist, participate, and observe the 2011 Grizzly Bear DNA Program.

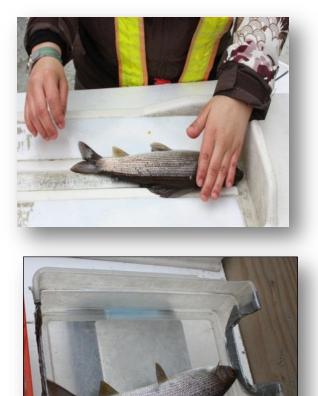


### Monitoring



#### PDC Fish Box Monitoring





### Inspections



LLCF Tailings Run

**Pump Inspections** 



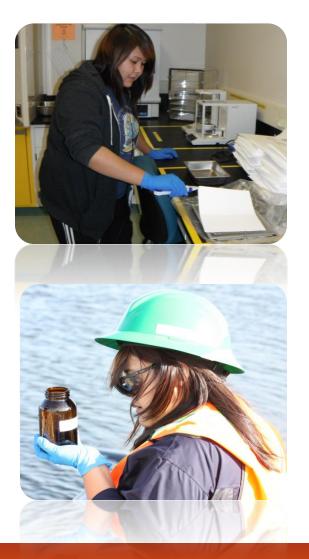
Panda Diversion Channel





### Sampling





AQMP

AEMP







#### Haul Truck Tour





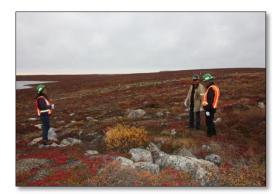
**Open Pits** 

Fay Bay







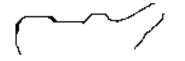


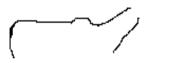
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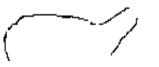
### **Community Comments**



John-KIA: When hunting caribou, you have to make the time to look at the caribou...You can get an indication of the general health of a caribou by observing the profile of the backside of the caribou and by how the caribou is walking. If the caribou is limping, it is a clear sign that it is in distress.







**Healthy Caribou** 

Fat Caribou

Poor Caribou (Rounded Profile)

Baptiste-LKDFN: These roads, the rocks are too sharp and high for Caribou, they need wide roads, they will be hanging around here for ever.

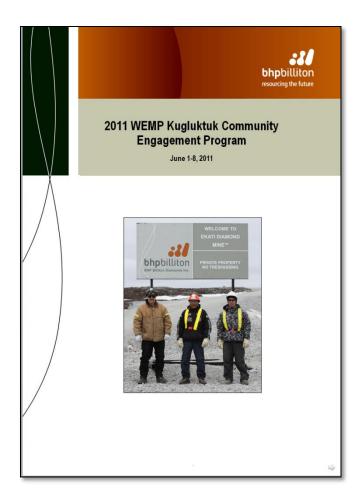
- Jessica-YKDFN: Jessica indicated that she was interested in the environmental field, and this engagement program provided her with the basis and experience to pursue her interest in post-secondary education.
- Philip-YKDFN: Philip recommended we continue this program to get more community youth involved in future environmental monitoring activities. Provide the experience to open their eyes. Continue what we are doing to educate the First Nation communities with these environmental monitoring programs.

Ed & Wayne-NSMA: They got a better understanding of other mine related operations and how they work and support each other. Most informative mine tour they ever had.

### **Community Reports**



### **2011WEMP Community Engagement Reports**



### **TK Incorporation in Reclamation Planning**



#### BHP Billiton is planning for the inclusion of TK to meet its reclamation goals.

**Research Objectives of the ICRP:** 

- **1.** Identify opportunities for inclusion of TK in reclamation and closure of EKATI.
- 2. Develop methods and approaches to involve and encourage TK input from communities.

<u>Short Term Tasks</u>	<u>2012</u>
1. Literature Review	-Colomac Mine and Tlicho Involvement
2. Past and Current TK Projects	-Lessons learned
3. Community Meeting Plan and Schedule	-Terms of Reference for TK for Closure & Reclamation Planning
	-Establish TK Working Group for ICRP
4. TK Reclamation Strategy Outline	-EKATI TK Strategy



#### Lessons Learned

-Community Comments

-Community Contacts

#### **Fish Sampling**

-AEMP Fish Sampling

#### **DNA** sampling

-2012 Grizzly Bear DNA Sampling Program

#### **Pigeon Pit**

-Pigeon Diversion Channel

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