

## **ELSA RECLAMATION AND DEVELOPMENT COMPANY**

IN PARTICIPATION WITH:



Affaires indiennes et du Nord Canada





# Keno Hill Mines EXISTING STATE OF MINE RECLAMATION PLAN SCOPING DOCUMENT

FINAL DRAFT

July 16 2007

# **Existing State of Mine Scoping Document**

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#### 1.0 CONTEXT / BACKGROUND

United Keno Hill Mines Ltd., the previous owner of the properties located on and around Galena Hill, Keno Hill and Sourdough Hill, ceased operations in 1989. For a depiction of the general location and property, see Figure 1 and Figure 2.

In January 2001, The Minister of the Department of Indian and Northern Affairs Canada (INAC) exercised his authority under the Yukon Waters Act by issuing a determination that the mine had been abandoned. INAC took over care and maintenance (C&M) of the site after this time. In October 2001, the site was declared a Type II Site under the Devolution Transfer Agreement, which meant that Yukon would manage the property, but environmental liability would remain with the Government of Canada.

On June 26, 2003, Yukon Government (YG) declared the properties and the works on these sites abandoned once again. YG subsequently took over C&M and water treatment activities at the site.

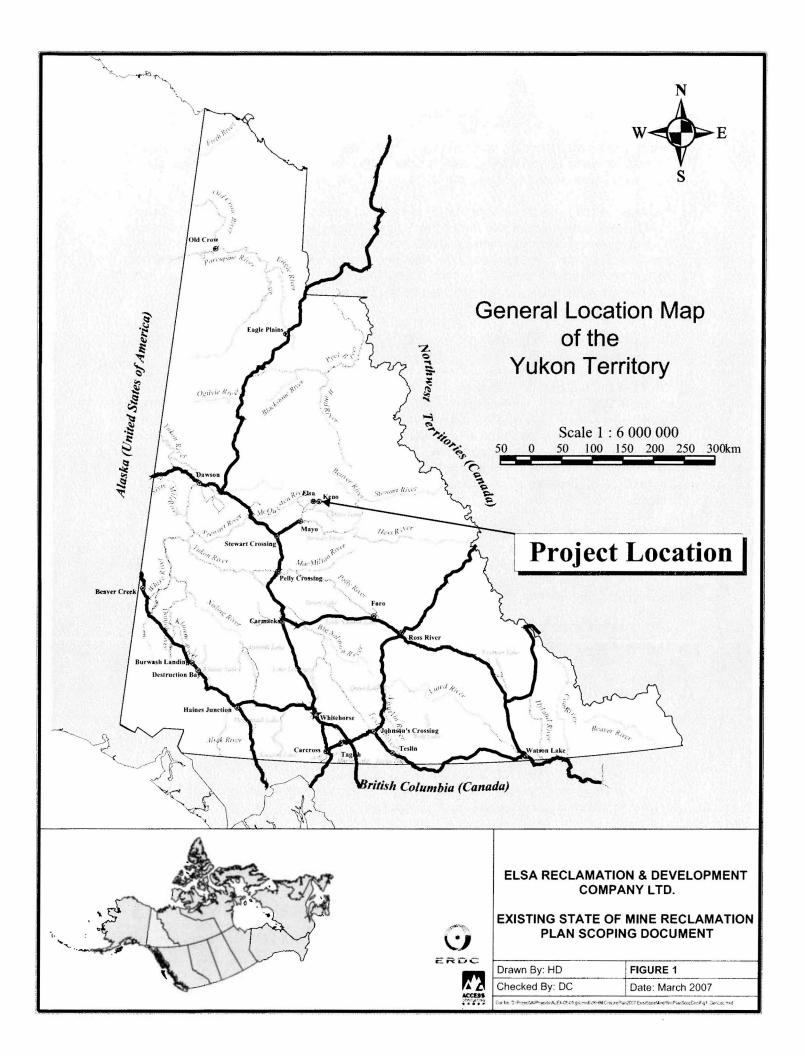
The Court appointed PricewaterhouseCoopers Inc. as Interim Receiver and Receiver-Manager of United Keno Hill Mines Limited and UKH Minerals Limited (collectively known as "UKHM") on April 6, 2004, and through a selection process Alexco Resource Corp. (Alexco) became the preferred purchaser of the UKHM assets (June 24, As per the Court arranged sale, Alexco created Elsa Reclamation and Development Company Ltd. a wholly owned subsidiary of Alexco (hereinafter referred to as ERDC) to provide a project-specific legal vehicle to undertake ownership and management of the site.

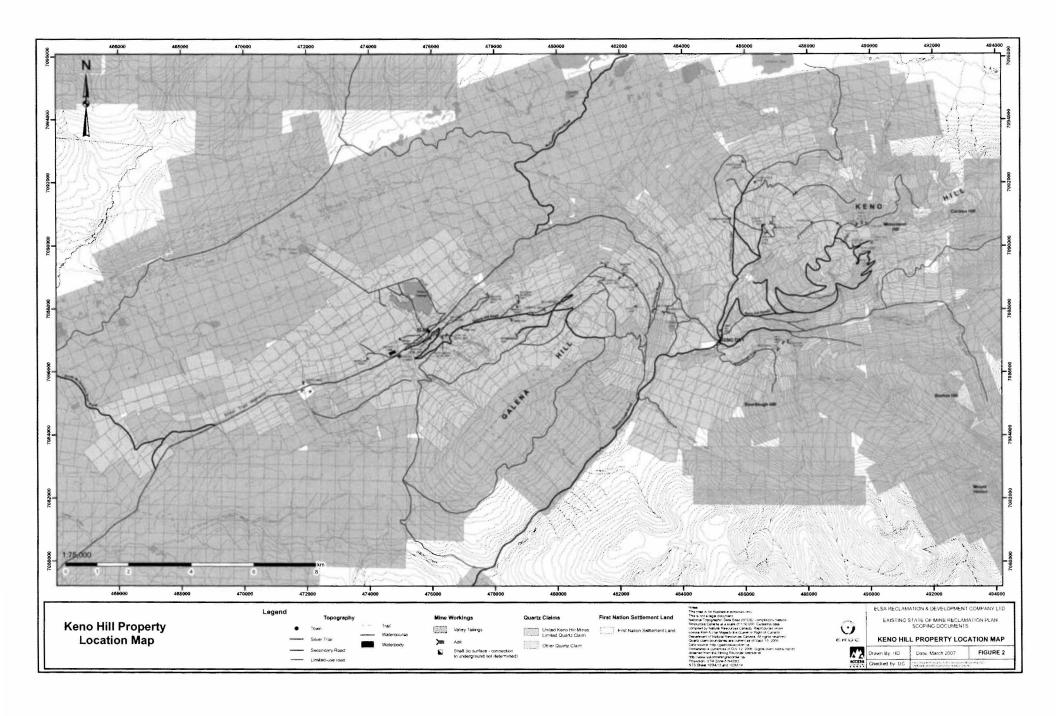
YG has entered into a contractual arrangement with ERDC to perform environmental care and maintenance at the site. The agreement further provides for ERDC to develop an Existing State of Mine Reclamation Plan (ESM Closure Plan) for the site to address long term site liabilities, plan implementation, and allows Alexco to continue to develop the exploration potential of the property.

As part of the ESM Closure Plan there are a variety of tasks to be considered and a diverse group of stakeholders and interested public to be consulted. Scoping these components will ensure appropriate boundaries are set and a proper framework is adhered to. Planning the closure of Keno Hill Mines will require the following:

- Working with governments and community to address environmental issues on
- Conducting various studies and test programs in support of site closure;
- Developing Closure Plan objectives with community and government;
- Developing a cost effective closure plan for the property;
- Reviewing of Closure Plan with community and seeking regulatory approval; and
- Implementation of on site closure activities.

The above actions will be taken to ensure public, wildlife, and aquatic resources safety by providing long-term environmental protection with a focus on protecting water quality. The goal of the ESM Closure Plan is to remediate and reclaim previous site disturbances.





#### 2.0 PURPOSE OF THIS DOCUMENT

The purpose of this document is to outline the scope for development of the ESM Closure Plan, administrative procedures and consultation. This scoping document will outline what elements will be considered with the Closure Plan and what environmental components are likely to be affected and how they will be considered. The scoping of the ESM Closure Plan outlines the relevant issues and concerns with the site. This will in turn reduce the risk of including inappropriate components or excluding components which should be assessed. The following tasks are the intent of this document:

- Identify the project's description and physical location;
- Identify relevant stakeholders and their respective involvement in the closure of Keno Hill Mines;
- Outline the administrative responsibilities for the ESM closure plan;
- Detail the closure tasks to determine their boundaries;
- Establish the objectives of the closure plan and corresponding valued ecosystem components;
- Outline the framework for a consultation plan, so that the affected communities, public and stakeholders may comment on the accessible and transparent information; and
- Establish the closure issues that will subsequently influence the plans for closure.

Supporting documentation relevant to this scoping document includes:

- Access Mining Consultants Ltd., June 3, 1996. United Keno Hill Mines Limited, Report No. UKH/96/01, Site Characterization.
- Access Mining Consultants Ltd., June 6, 1996. United Keno Hill Mines Limited, Report No. UKH/96/02, Closure Plan for Current Conditions
- United Keno Hill Mines Ltd., August 15, 1996. Mine Re-opening Operating Plan, Report No. UKH/96/03
- Access Consulting Group, et al, June 2005. 2004-05 Final Project Report for Care and Maintenance of Keno Hill Mining Property, Keno Hill, Yukon. Prepared for Yukon Government, Department of Energy Mines and Resources.
- Access Consulting Group, et al, June 2006. 2005-06 Final Report for Care and Maintenance of Keno Hill Mining Property, Keno Hill, Yukon. Prepared for Yukon Government, Department of Energy Mines and Resources.
- SRK Consulting. 2007. Baseline Environmental Report: United Keno Hill Mines Property. Prepared for Alexco Resource Corp.

#### 3.0 PROJECT AREA

The project area is located in the north-central Yukon Territory and is comprised of approximately 827 mineral claims covering three adjacent mountain ranges (Galena Hill, Keno Hill and Sourdough Hill) located approximately 354 km due north of Whitehorse. The property covered by claims and leases is approximately 15,000 ha. (37,000 acres) in a roughly east-west belt approximately 29 km (18 miles) long and up to 8 km (5 miles wide).

Access to the property is by a two-lane paved road from Whitehorse to Mayo, and an all weather gravel road running 45 km (28 miles) northeast from Mayo; a total distance of 452 km (281 miles). The property lies along the broad McQuesten River valley and three prominent hills to the south of the valley. The elevation of the valley is approximately 700 m (2,300 feet) above sea level. Galena Hill, Keno Hill and Sourdough Hill rise to elevations of approximately 1,400 m (4,600 feet), 1,825 m (6,000 feet) and 1,370 m (4,500 feet), respectively.

The old Elsa town site, previously owned by UKHM, is situated on the property. It has been on "care and maintenance" since the cessation of production in 1989. All the silver deposits are located within a 12 mile radius of Elsa. Facilities in Elsa include houses, bunkhouses, mine dry, offices, warehouse, transport shop, machine shop, carpentry shop and assay laboratory. A 544 tonne per day (600 ton per day) concentrator and small silver refinery are also located in Elsa. Power is supplied from a Yukon Energy Corporation 5 megawatt hydro dam located near Mayo.

The Elsa and Keno City area were the focus of previous mining activity from the 1920's through the 1980's, when many independent miners along with a number of corporations were prospecting quartzite veins for silver. For a detailed summary of development and explored sites see Table 1 and Table 2, respectively.

#### 4.0 PROJECT SETUP

#### Participant Roles and Responsibilities

The various project participants and their roles and responsibilities are listed below:

#### Elsa Reclamation and Development Company (ERDC)

- Manage the Closure Plan;
- Coordinate studies:
- Prepare reports;
- Conduct consultation in conjunction with YG/INAC/NND; and
- Work closely with YG/INAC and NND

#### **INAC**

- Work with ERDC, NND and YG to ensure that required consultation and closure planning is undertaken;
- Work closely with YG/ERDC/NND to review reports and prepare/provide comments;
- Provide funding through contribution agreement to YG

Table 1 Summary of Development

Summary of D								
Mine	Open Pit	Underground # levels	Shafts, Raises Portals, Adits	Bldgs and Equip.	Rock Piles waste, ore	Mill Tailings	Other	Adit Discharge & Drainage
Galena Hill					L			
Bermingham	2	3 for 250 ft	8 shaft	3 bldg @adit	3 continuous		***************************************	KV-18 No Cash Creek drainage
	178,512 t	depth	1 adit		1,000,000t@pit			
	mined	7,754 t mined			7,000@adit			
Calumet	3	1300 ft depth	1 shaft	none	3@pits,1@adit		head of	No discharge
	108,547 t	extensive UG,	1 adit		1,110,000@pits		tramway	_
	mined	many lev,2.6Mt			198,000t@adit		town removed	
C-structure	1	0			1			No discharge
	2,392 t				28,000 t			
Dixie		1	1 adit	1 bldg	1 @ adit			No discharge
		23,872 t	1 shaft		19,800 t			
Elsa		7@+50,100,200	6 adits		3	mill & dams	existing town	No discharge
		200,400,525,650	1 internal shaft		51,650 t	existing		
***************************************		&775; 491,009t	>2 raises		<b></b>	+ old tigs		
Galkeno		6@100,200,300	5 adits	old bldgs	4	3,000 to	treatment	KV-27 Galkeno 300 level Adit
		400,500,900	2 internal shaft		total 171,400t	5,000 t	plus ponds	Christal Creek and Lake
			1 external shaft			old Makeno	900 level	KV-31 Galkeno 900 level Adit
Į.						mill removed		Christal Creek and Lake
Husky		4@125, 250,375	1 shaft	H.frame	1WR			
<del>-</del>		&450; 429,367 t			4,600 t			
Husky SW		3 @ 250, 400,	1shaft	H.frame, blast.	1WR, 1Ore			KV-17 Husky SW Adit
		&530; 10,461 t			17,000 t			No discharge
Miller	1	1 in open pit	1 old shaft		1 @ pit			
	9,263 t	minimal prdn.	(open pitted)		63,000 t	L		
No Cash		4@100,200,300	1 raise, 1 shaft	h. frame,	1		tram station	KV-20 No Cash 500 level Adit
		300 & 500 levels	2 adits	bldg	138,100@500L	]		
		166,530 t mined			6,500 @ 100 L			
Ruby		1 @400 level	1 raise, 1 adit	1 bldg	1 WR, cribbing		power, tracks	KV-19 Ruby Adit
,	1	40,652 t mined			29,800 t			l to raby rain
Silver King	1	3 for 325 ft	2 shafts, 4 adits		2 rock, 1 ore		treatment	KV-13 Silver King Adit
o	6,631 t	200,982 t	3 raises		43,000t@adit		u odamoni	Flat Creek drainage
	mined	mined	O Taises		120,000t@pit		plus ponds	I lat Greek diamage
Sime	3	0			3		pius ponus	
Oline	47,304 t	(see Galkeno)			450,000 t			
Townsite	47,3041	1 adit	1 adit	1 bldg	450,000 (	<del> </del>	cribbing	Seasonal discharge
TOWNSILE		18,570 t	1	1 blug	14,300 t			Seasonal discharge
UN	<b></b>	16,570 t	1 raise		14,300 t	<u> </u>	one bldg	Carana Nation I
ON		[	I M		2 200 4			Seasonal discharge
Summary of D	avalopman	(no ore mined)			3,200 t			
Mine	Open Pit		Chaffe Daiges	Distance	Deels Diles	Bazis	Other	Adia Disease e
wine	Open Pit	Underground # levels	Shafts, Raises	Bldgs	Rock Piles	Mill	Other	Adit Discharge &
Carrelares Hill	-	# levels	Portals, Adits	and Equip.	waste, ore	Tailings		Drainage
Sourdough Hill		9	4 malita	@00E ===#=!				10/ 40 Dallalana 000 Adii
Bellekeno			4 adits	@625 portal	4		treatment	KV-42 Bellekeno 600 Adit
	<b> </b>	40,502 t mined		<u> </u>	63,950 t			Lightning Creek drainage
W 180								
Keno Hill	<del> </del>		0 - 44-					
Black Cap	1	2 ?	2 adits		1			
	47,497 t	1,079 t			390,000 t @ pit			
Flame & Moth	1 1	1	1 adit		1 small		remaining	KV-36 Flame & Moth
	1,590 t	(small)					reserves	No discharge
Comstock-Keno	1	3	3 adits	2 @portals	2			
Porcupine	4,253 t	22,863 t?	1 raise		1@pit, 1@UG			
					6,500 t			
Keno 700 &		8	4 adits, 2 shafts	several	2		several veins	KV-33 Keno 700 level Adit
Shamrock "J"		283,517 t	several raises		42,100 t total		mined, old camp	Lightning Creek drainage
Lucky Queen	1	4	1 shaft, 1 adit	1 @500 portal	2			KV-34 Lucky Queen Adit
	(small pit)	123,530 t mined			66,900 t			Cristal Creek drainage
Onek	1	4 for 400 ft	2 shafts		3; 7,500 @ adit			KV-45 Adit flow to ground
	62,254 t	33,036 t	1 adit		600,000 t @ pit			Cristal Creek drainage
Sadie Ladue	1	6	1 adit	1	2	1	loadout	KV-35 Sadie Ladue 600 level Ad
		244,330 t mined			44,000 t	'		20 2000 2000 000 10701 710
Shamrock	2	3	1 shaft	shaft bldg	2			
	1 '	35 pit + UG	2 adits	Silan blug	9,000 t			No discharge
Valley Tailings	<del>- 5,0</del> 5	70 Pit : 00	2 auno		3,000 (		3 ponds	KV-12 Pond #3 decant
vancy rannys							o ponds	
	<u> </u>							Flat Creek drainage

Summary of Exploration						
Site	Open Pit	Shafts, Raises Portals, Adits	Bldgs and Equip.	Rock Piles waste, ore	Other	Adit Discharge & Drainage
Galena Hill						
Betty		3 shafts	2 bldg 1 pole			no discharge
Bluebird		4 shafts	3 bldg	1 waste rock pile		no discharge
Coral & Wigwam	1	2 shafts	3 bldg			no discharge
Dragon (UN) & Miller	1	1 adit		4 waste rock piles		no discharge
Eagle		1 shaft				no discharge
Gerlitski				1 waste rock pile		no discharge
Rico		1 adit 1 shaft	1 bldg	1 waste rock pile		no discharge
Tin Can	1 hwy pit	3 shafts	1 bldg			no discharge
Summary of Exploration						
Site	Open Pit	Shafts, Raises Portals, Adits	Bldgs and Equip.	Rock Piles waste, ore	Other	Adit Discharge & Drainage
Sourdough Hill						
Duncan Creek					cut lines placer development	no discharge
Keno Hill						
Apex		1 shaft	2 bldg			no discharge
Cristal (Dorothy)		4 shafts	3 bldg	1 waste rock pile		no discharge
Croesus No.1		3 shafts 4 adits		5 waste rock piles		no discharge
Cub & Bunny	1	4 0010	2 bldg	8 waste rock piles		no discharge
Divide						no discharge
Fox						no discharge
Gold Hill No.2		2 shafts	1 bldg	1 waste rock pile		no discharge
Highlander	1	2 adits	2 bldg	7 waste rock piles		no discharge
Kijo	3	3 adits		1 ore pile		no discharge
Klondike-Keno	<del>                                     </del>	2 adits	7 bldg	3 waste rock piles 4 waste rock piles		no discharge
nonamo mono		a como	. Jiog	1 metal waste pile		no oloonalgo
Lake	1	3 shafts 1 adit	4 bldg	3 waste rock piles		no discharge
Monument & Ladue Fraction		1 adit		1 waste rock pile	-	no discharge
Silver Basin		3 shafts 1 adit	1 bldg	1 waste rock pile		no discharge
Stone		3 adits	2 bldgs	3 waste rock piles		no discharge

#### YG

- Manage contracts and pay invoices;
- Work with ERDC, NND and INAC regarding consultation;
- Work with ERDC and INAC regarding closure planning

#### Na-cho Nyak Dun First Nation

- Participate in consultation;
- Work with ERDC and INAC/YG to establish mutually acceptable closure objectives;
- Provide background information as appropriate;
- Undertake data verification as appropriate; and
- Participate in closure planning.

#### **Administrative Procedures**

Administrative procedures involve research for, and the preparation and submission of, numerous types of environmental reports, preparing complex budget spreadsheets, travel and meeting logistics, and dealing with Insurance, Workers' Compensation and invoicing requirements.

#### 5.0 CONSULTATION/COMMUNICATION STRATEGY

It is not enough to limit consultation to community leaders and Decision Bodies. The consultation plan outlined in Appendix A 'Keno Hill Mines ESM Closure Plan Consultation Plan' provides the framework by which the planning process will encourage and include a diverse group of people directly and indirectly affected by the Keno Hill Mines ESM Closure Plan. While the support of leaders is generally vital to a project's success, the opinions of community members who are more directly affected are also relevant.

The Consultation Plan is designed to be cooperative, whereby information is transparent and accessible. There are a variety of methods for how the closure planning process will be conveyed to the public as well as an assortment of ways for the public to provide feedback. These are listed under Communication Tools in Appendix A of the Consultation Plan. The planning of open houses and presentations and other interactions will be scheduled to accommodate the communities for which they are addressed. The timeline provided within the Consultation Plan is a framework to illustrate the flow and stretch of time during which communication will be necessary. The dates presented in the Consultation Plan are bound to change as communities and interest groups need's change. The communication strategy is intended to provide early and ongoing opportunities for potentially and interested parties to receive information, and express their viewpoints about the Keno Hill Mines ESM Closure Plan.

#### 6.0 CLOSURE TASKS

The following section details the major tasks and sub tasks involved in the closure planning. Refer to Figure 3, Closure Planning Flow Sheet, for a summary that illustrates the interrelationships and phases of closure decision making.

#### Task 1 - Project Setup

Project Setup involves establishing all the roles and responsibilities of involved parties. These must be outlined at the earliest of stages to ensure accountability and dependability. It will also help maintain timelines are met as the roles and responsibilities are outlined in a timeframe in Section 9.0 Project Schedule.

To keep communication open between parties, as well as the public, a consultation plan is established as part of Project Setup. Drawing up the communication plan at an early stage will help the involved parties contributing continuously throughout the entire project decision making process.

Project Setup requires many administrative duties. These include budget preparation, travel logistics, invoicing, and submission of reports. There is an outline of these administrative duties, as well as more detailed description of all roles and responsibilities in Section 4.0 Project Setup.

#### Task 2 - Closure Objectives Identification

A list of closure objectives is required for the project. These objectives will be put together collaboratively with INAC, Yukon Government, and NND. Assistance from local communities will help to develop these objectives further. The final plan will reflect the goals found in the objectives therefore it is especially important to establish them at the beginning cooperatively with interested parties.

#### Task 3 - Issues Identification

The primary stage in the closure planning process is an identification of closure issues. ERDC is responsible for a draft summary of issues related to closure that will be reviewed with INAC, YG and NND. Between ERDC, INAC, YG, NND and community consultation, closure issues will be developed and refined to represent areas of utmost importance to eventual closure implementation.

Issues are identified early on in the closure planning process to ensure these precarious components are kept as high priority throughout decision making development. This will significantly reduce the impact on these areas of higher risk. For an overview of these issues see Section 8 'Closure Issues.'

#### Task 4 - Research Studies

Table 2 'Issues and Research Summary' outlines preliminary studies and tests that will be conducted as part of the technical research for the closure plan. These studies will be reviewed by INAC and YG prior to implementation.

Closure studies will begin in 2007 and continue throughout the closure planning process. For each of the tests and studies conducted, a draft report will be drawn to summarize findings and their significance related to closure. These reports will be reviewed by YG, INAC and NND. Feedback returned with these draft reports will be prepared by ERDC or their contractor's and be analyzed and used to prepare the final reports for each research study.

#### Task 5 - Closure Option Identification

Following research studies the next step is to identify viable options for closure. ERDC will work closely with INAC, YG and NND towards development of closure options. Research studies will be refined and adapted to accommodate the needs of these options. Once technical research has been completed, a fact report will be drawn up to summarize the results of research studies in a reader-friendly manner. At this time it is possible to adequately analyze the risks involved with each of the closure alternatives. This analysis will be done with the help of the technical studies and research, background information and expert examination. Once the options have been outlined and risks assessed, a draft report will be written up to summarize the findings. Community consultation will take place at this point for members of the public and affected groups to have the chance to contribute to the options. After community input has been analyzed and incorporated into the options report, it will be distributed for review. Stakeholders will have the opportunity to provide feedback and amendments will be made accordingly. Once all options have been finalized the selection of the preferred options will be decided upon.

#### Task 6 - Develop ESM Reclamation Plan

At this stage there are important decisions being made that will determine the final outcomes of closure, which necessitates the development of an ESM Reclamation Plan. ERDC will continue to work with INAC, YG and NND on the development of the ESM Reclamation Plan.

ERDC is contractually obligated with the Yukon Government and Government of Canada to submit and implement a Reclamation Plan. A draft plan will be drawn up and the community will have a chance to comment. Once there has been a review by the community and stakeholders the draft will be adapted and finalized.

#### Task 7 - Federal Funding Approvals

Funding for the closure plan will need to have federal funding approval. It is likely that the approval will be required before entering into the regulatory phase.

#### Task 8 - Environmental Assessment

The environmental assessment for the project is subject to the Yukon Environmental Socio-economic Assessment Act process. There are nine stages to the process and they are as follows:

- Proposal submitted to Designated Office (DO);
- Location review:
- Adequacy Review:
- Public review and comment:
- YESAA completes review and notifies the public;
- Receive public input;
- Yukon Environmental Socio-economic Assessment Board assess' public comments:
- Recommendations and referrals; and
- A Project Proposal compromising the related ESM Reclamation Plan will be submitted to YESAB for review.

This process must be completed successfully to meet the rules and regulations of an adequate environmental assessment. From beginning to end the environmental assessment process can take several months.

#### Task 9 - Regulatory Submission and Approvals

Following the completion of technical studies and research, community consultation, and environmental assessment, a Closure Plan is drafted for regulatory approval. This plan will be submitted to the Yukon Water Board (YWB). Following approval by Decision Bodies there may be a YWB public hearing for a final opportunity to comment on the plan. Ultimately this will lead to regulatory authorization and funding of the plan.

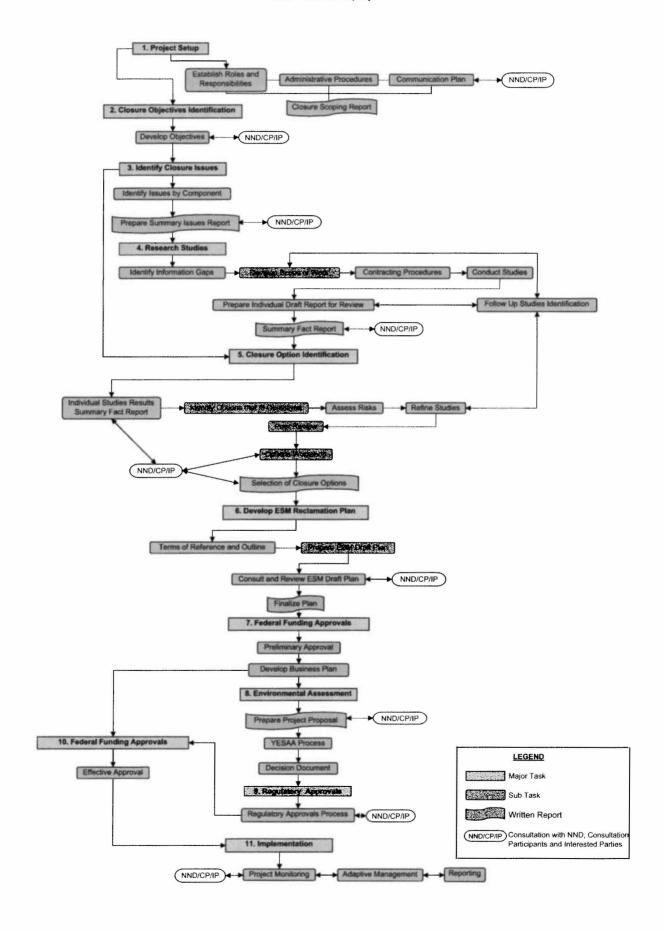
#### Task 10 - Federal Funding Approval

As per regulations, the closure plan requires approval before implementation can begin. This is the last step before implementation.

#### Task 11 - Implementation

Following regulatory authorization the plan will be executed. The current schedule envisions implementation in 2013.

Figure 3 Closure Planning Flow Sheet ERDC - Keno Hill Property



#### 7.0 DEVELOPMENT OF CLOSURE OBJECTIVES

The following are example objectives that are intended to help guide development of the Closure Plan for the Keno Hill Mines property. These objectives will be developed in conjunction with NND, YG, INAC, and the local community and will assist with selection of preferred closure options and implementation of the final plan. Example objectives may include:

#### Public health and safety

Example objectives may include:

Ensure that the health and safety of people using the land and water are protected; and

Protect wildlife health and safety.

#### **Environment**

Example objectives may include:

Identify and alleviate adverse environmental effects by protecting key resources such as aquatic resources in the South McQuesten River;

Mitigate significant adverse environmental effects to identified Valued Ecosystem Components (VEC's) using a risk based approach; and

Minimize or prevent further adverse environmental effects.

#### **Community Land Use**

Example objectives may include:

Consider the relevant expectations of stakeholders for post closure land use;

Use Traditional Knowledge in the planning process to protect the culture and traditional pursuits of local First Nations;

Ensure the continued traditional use of aquatic and terrestrial resources; and

Provide a land use that allows the mine site to continue to be productive in a manner consistent with, although not necessarily identical to local and pre-mining land use.

#### Socio-economic

Example objectives may include:

Provide economic opportunities for the First Nation residents, local residents and Yukoners in general; and

Minimize negative socio-economic effects in the area.

#### **Cost Effective**

Example objectives may include:

Minimizes long-term post-closure care and maintenance where possible; and

Design "passive" (i.e. no active site management) components of a closure plan where possible.

#### 8.0 CLOSURE ISSUES

This section provides a brief overview of the issues that will be paid specific attention to during the closure planning process. For a more comprehensive account of these issues, refer to the "Closure Issues Report: Keno Hill Mines Property" prepared by Access Consulting Group (March 2007) for a discussion of issues on a site by site basis. Note: this report is currently in progress.

#### **Assessment Method**

A review of key documents was conducted that describe the Keno Hill Mines property and characterize individual sites and the environmental conditions present at each site. The following documents were reviewed:

AMC (1996). Project No. UKH/96/01 - Site Characterization, by Access Mining Consultants. This report provides a baseline description of mines on the property, summarizes the regional setting and local environmental setting, and documents historic mine development on the property. In addition, this report also contains summary data on waste rock and mine drainage geochemistry.

PWGSC (2000). Keno Valley/Dublin Gulch Environmental Assessment, by Environmental Services Public Works and Government of Canada. This report, comprised of 5 volumes, describes the Keno Hill/Dublin Gulch environmental setting, land uses other than mining present in the area, hydrology information, and a summary of the assessment methods. The 4 accompanying volumes describe each of 96 sites with figures, photos and analytical results. The numbers for sites created in this report are used in future reports and memorandums.

ACG (2006). Keno Hill Property Physical Hazard Reduction Program, by Access Consulting Group. This report contains background information, describes the site investigation performed and contains a physical hazard registry and rating system. The physical hazard registry rates each site by Severity of Consequence, Likelihood of Exposure, and Likelihood of Probability. Hazards reduced to date for the Keno Hill property are also described as well as plans for remediation work in 2007.

SRK (2007). Project Reference No. SRK 1CA009.000 – Draft Baseline Environmental Report, UKHM Property, by SRK Consulting. This report forms a baseline environmental assessment of the key sites on the property, describes conditions at individual sites mentioned in previous reports, and notes observations pertaining to: physical stability, valley tailings facility structures, water quality, water treatment systems, public access, historic valley tailings spill, Elsa tailings groundwater, soil contamination along haul roads, hydrocarbon-contaminated soils, building contamination and third party interests. Recommendations were also included in this report.

#### Issues

Guidelines and regulations have been developed to assist in the closure planning process to minimize adverse effects in the long term. As part of this goal, addressing issues from the early stages of the planning process is necessary as it will consider the inter-relationships of mine components and potential hazards resulting in a more sustainable outcome. Characterizing risks associated with closure activities helps with the decision making process by comparing which alternatives will be the most advantageous.

A list of closure issues was created by ERDC. These issues are listed in Table 3 'Issues and Research Summary' and will be added to and/or edited as new findings arise. Closure issues will be reviewed by INAC, YG and NND to guide ESM Reclamation Plan development.

#### Information Gaps

The identification of information gaps determines what information is missing and/or unavailable. These gaps come in a number of forms such as - gaps in information, implementation, technological and management tools. ERDC has identified the information gaps pertaining to the Keno Hill Mines ESM Closure Plan and have classified them according to the closure issues categories and corresponding research studies. The summary of information gaps is found in Table 3 "Issues and Research Summary."

**Table 2: Issues and Research Summary** 

RESEARCH STUDIES	CLOSURE ISSUE	INFORMATION GAPS	TIMEFRAME/ PRIORITY	DESCRIPTION
GLOBAL		THE RESIDENCE AND ADDRESS OF		
Mass Balance Model Update	Human and Wildlife Health and Safety Water Management	Need to update and refine model. Incorporate additional WQ sites.	Fall 2007/Medium	A comprehensive mass metal loadings balance for all drainages within entire mine site.
Geotechnical Investigations – site wide	Physical Stability	Confirmation of physical stability of mine components.	Summer 2007/High	Site-wide geotechnical stability inspection and reporting on all pits, dumps, dams etc. Based on the inspection, develop recommended course of action for each pits and dump (i.e. recontoured to 2.5:1, berm around pits, etc.)  Soil/Gravel Investigations - Follow-up investigations to summer 2006 drill program to determine location, approximate volumes & suitability of organic rich soils and gravel substrate for use in soil covers, bioreactor/injection closure alternative. Program will utilize photogrammetry from 2006 aerial photographs, and follow up physical testing.
Adit Discharge Survey	Chemical Control  Human and Wildlife Health and Safety  Water Management	Lack of understanding of adit down gradient flows and receiving environ and effects.	Spring and Summer 2007/High	Survey and document the flowpath, contaminant loading and fate of adit waters emanating from each of the underground adits. Contaminant loading model should include zinc, sulphate, conductivity and at least one tie element to determine ultimate fate of contaminants and recommended final closure alternatives to manage adit waters. Based on the results, update the site-wide mass balance model.
Site Specific Criteria for Zinc	Human and Wildlife Health and Safety Water Management	Present receiving waters exceed CCME criteria. Development of criteria for closure evaluation.	Summer 2007/High	Retain specialist water quality consultant to undertake necessary studies, WQ data review and develop technically sound specific water quality criteria, especially for Zinc.
Water Treatment	Water Management Chemical Control	Lack of detailed plans and options for water management and treatmen for all sites. Lack of test work to support viability of treatment option.	Fall 2007/ Medium t Spring 2007/High	A strategy including routing and transport alternatives, conventional (i.e. HDS) water treatment technologies, capital and operating cost estimates and preliminary design parameters should be prepared for "conventional" treatment approaches for comparison with in-situ, mine pool and ex-situ treatment technologies.  Design and implement suitably sized pilot test for demonstration of in-situ and ex-situ biological treatment technology for managing and treating adit discharge waters and Valley Tailings groundwater/surface water.

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RESEARCH STUDIES	CLOSURE ISSUE	INFORMATION GAPS	TIMEFRAME/ PRIORITY	DESCRIPTION
			Spring 2007/High	Insitu biological treatment test program – Silver King 100 adit. Design pilot test program to test in ground disposal and remediation of adit effluent. Test biological treatment cell and remediation of adit effluent.
Closure Pilot Studies	Water Management Chemical Control	Lack of test work to support viable treatment options.	Summer 2007/High	Review historic wetlands treatment studies and tests completed at site to date and if warranted conduct additional wetlands treatment pilot demonstration at Silver King or Galkeno 900.
			Spring 2007/ High	In mine pool biological treatment – Bellekeno 600 adit mine pool. Design pilot test program to conduct insitu mine pool treatment using redox and / or pH modification (nutrient addition) in controlled dynamic modes (pumping down, recycling and filling).
Hydrological/ Meteorological Update and Assessment	Water Management	Refinement of existing site hydrological and meteorological parameters for use and input into mass balance loading model.	Spring 2007/High	Retain specialist hydrological consultant to undertake necessary studies to review and update site hydrological and meteorological parameters. Assess existing hydrological inputs to mass balance loading model and update loading model.
Additional Receiving Water Quality Monitoring	Human and Wildlife Health and Safety Water Management	Lack of current data for mass balance loading inputs. Monitor and sample additional WQ sites for model input.	Spring 2007/High	Expand existing receiving water quality monitoring program and sample historic and new sites for WQ and flow to help refine comprehensive mass metal loadings balance model for all drainages within entire mine site.
Aquatic Resource	Human and Wildlife Health and Safety	Lack of current aquatic resources monitoring data	Fall 2007/Medium	Existing sediment and benthos monitoring programs in local receiving water drainages will be sampled in conjunction with receiving water quality program and historical results compiled for assessment.
Assessment	Water Management	to enable assessment of receiving water impacts	Winter 2007/Low	Historical aquatic resources dataset will be reviewed by aquatic specialist for effects assessment.
Fisheries	Human and Wildlife Health and Safety	Lack of physical habitat data on Christal and Flat Creek. No chronic or sub		Undertake follow up fisheries physical habitat assessment studies on Christal and Flat Creek to identify physical barriers.
Assessment and Update	Water Management	acute toxicity testing on effluents or receiving streams	Fall 2007/Medium	Develop and conduct chronic toxicity testing program – in conjunction with SSWQO – to assess chronic effects to local receiving waters for risk and aquatic effects assessment.

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RESEARCH STUDIES	CLOSURE ISSUE	INFORMATION GAPS	TIMEFRAME/ PRIORITY	DESCRIPTION
Human Health and Ecological Risk Assessment	Community Concerns  Human and Wildlife Health and Safety	Systematic human health and ecological risk assessment no available for entire property	Winter 2007/ Low	Develop study design for human health and ecological risk assessment and conduct preliminary assessment and possible data gaps.
Mackeno Tailings Assessment	Human and Wildlife Health and Safety Water Management	Extents of old mine tailings effects to local terrestrial and aquatic environ in Christal Creek has not been undertaken.	Summer and Fall 2007/ Medium to High	Develop assessment methodology and undertaken program to document extent of historic tailings and effects to local environ.
Traditional Knowledge	Community Concerns Human and Wildlife Health and Safety	Lack of documented local use patterns for the property area.	Winter 2007/ Low	Local knowledge and land use information will be collected by NND and used for closure planning and assessment purposes. Integration of local knowledge and land use by NND for the site.
Socio-economic Update	Community Concerns	Lack of updated socio- economic information for the area.	Winter 2007/ Low	Update socio-economic base conditions and effects from project and used for closure planning and assessment purposes. Retain specialist socio-economic consultant to undertake necessary study.
Community Consultation	Community Concerns	Community input into closure planning process and option evaluation.	Spring 2007/High	Implementation Community Consultation Strategy to ensure that communities are consulting on closure planning process, objectives identification, alternative evaluations and closure plan selection.
VALLEY TAILINGS				
Valley Tailings		Understanding of previous revegetation studies and	Summer 2007/High	A review to assess historic revegetation efforts in the Valley Tailings to determine if additional field work and test plots are required.
Revegetation Test	Physical Stability	integration into new test program	Fall 2007/Medium	Depending on above a number of test plots should be developed on the Elsa Tailings, comparing optimum to marginal growing conditions for soil cover, moisture, existing volunteer revegetation and other parameters.
Valley Tailings Dam Decant Structures	Physical Stability Water Management	Physical dam stability and water management	Summer 2007/High	A review of previous engineering assessments and design for dam decant structure water management. Refine engineering tailings decant structure designs and implement.

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RESEARCH STUDIES	CLOSURE ISSUE	INFORMATION GAPS	TIMEFRAME/ PRIORITY	DESCRIPTION
			Spring 2007/High	Conduct a synoptic sampling event for all pertinent surface and groundwater points within the Flat Creek basin at least twice in 2007 for zinc, sulfate, conductivity and for selected tie elements, and use these data points to update and close the mass balance on each synoptic event for each analyte.
Groundwater Investigation	Chemical Control  Human and Wildlife Health and Safety  Water Management	Refine data inputs for groundwater and seepage estimates for loading model and closure option analyses.	Spring 2007/High	Recommend that a systematic study be devised to assess the organic levels, metals/sulfate contamination and groundwater flow velocities along transects up-gradient (within the upper tailings) and down-gradient between MDP1 and VT1. The purpose of this type of study will be to determine how closure strategies can be implemented to enhance natural processes already ongoing in the groundwater/tailings system, and to provide a baseline for measuring the effectiveness of various types of cover systems and water treatment methodologies to reduce the magnitude of surface water loading from groundwater transport pathways once the selected closure methods are deployed in final closure.
			Summer 2007/High	A follow-up to this study is the evaluation of the impact of modified organic carbon levels on soluble metals levels in hot-spots found to be transmitting from tailings to surface waters via interfacial and ground water pathways.
			Summer 2007/High	A filtration and lab analysis study on selected samples taken to identify if and the extent to which colloidal particles (iron / manganese hydrous oxides for example) are substantially involved in the transport of lead, zinc and other contaminants within groundwater or surface water.
C	Chemical Control			Davider and implement a second victor maritaring program Installation of
Groundwater monitoring Well Installation Program	Human and Wildlife Health and Safety	Lack of sub surface and groundwater monitoring data for valley tailings area	Summer 2007/High	Develop and implement a ground water monitoring program. Installation of groundwater monitoring wells up and down gradient and within tailings area to assess groundwater flow and quality. Implement groundwater well monitoring.
	Water Management			3
Tailings Terrestrial Effects Assessment	Chemical Control  Human and Wildlife Health and Safety	Lack of soils metal data to enable effects assessment from wind blown dispersion of old tailings.	Summer 2007/High	Develop and conduct a field sampling program to assess soil and vegetation metals levels to determine potential extend of wind blown tailings and environ effects.

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RESEARCH STUDIES	CLOSURE ISSUE	INFORMATION GAPS	TIMEFRAME/ PRIORITY	DESCRIPTION
			Summer2007/High	Drilling and/or backhoe testing of tailings to determine potential for metals leachate/Acid Mine Drainage, including stratigraphic depth testing to determine effects of weathering, if any.
ABA Assessment – Tailings	Human and Wildlife Health and Safety Water Management	Strengthen ARD database to reconfirm historic sampling and further understand tailings geochemistry	Summer 2007/High	Evaluate effects of placement of lime and iron-rich treatment sludges on upland tailings; assess levels of volunteer vegetation, evaluate metals geochemistry of tailings with and without treatment sludge cover in kinetic test columns
			Fall 2007/Medium	Compilation of historic testing data and review of data source to update geochemical assessment of tailings and closure planning. Geochemical specialist review of data and recommend follow up and mitigation.
OPEN PITS				
Open Pits	Water Management	Lack of closure strategy for mine components	Summer 2007/High	Inventory and develop closure strategy for each open pit. Closure strategy should consider public safety issues, ABA and metal leaching potential and connection and effects on adit ice plugs
		mine components		Evaluate storage of treatment sludge in pits and incremental benefits / costs to closure
WASTE ROCK STO	RAGE AREAS			
ABA Assessment –		Refine geochemical understanding of old mine		Incorporate ABA testing results from 2006 samples into existing site wide database.
Pits & Waste Rock Dumps	Water Management	components for closure planning	Summer 2007/High	Determine necessity for additional sampling and static ABA testing and follow-up kinetic testing based on results of static testing. Geochemical specialist review of data and recommend follow up and mitigation.
UNDERGROUND AD	DITS			
Adit Plug Design	Water Management	Hydraulic engineering designs not available	Summer 2007/High	Engineering design work to develop design for permanent plugs for all mine openings, if necessary, or alternatively engineered structures for water management, transport and sealing off access. Includes specialist site visit, surveying, mapping and figure production. Evaluate if there is an incremental benefit from gas-tracer and sealing technologies to minimize oxidation above mine pools in unsaturated workings.
Hydrogeological Modeling	Water Management	Refine hydrogeological understanding of old mine workings and hydraulic connections for closure planning	Fall 2007/Medium	Comprehensive hydrogeology model for underground mine water and closure option assessment

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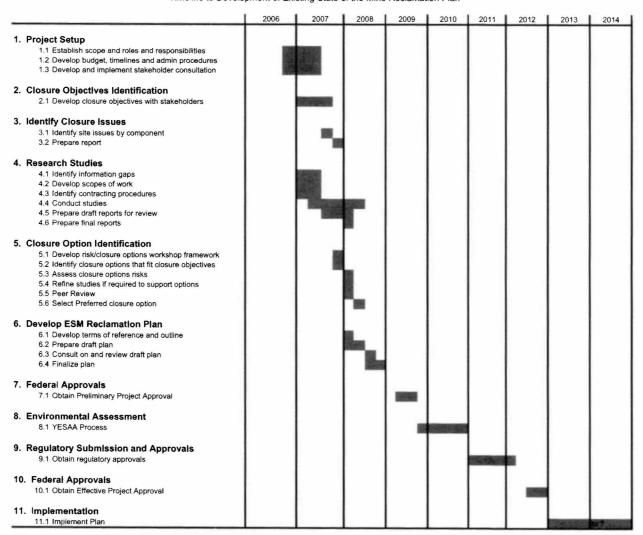
RESEARCH STUDIES	CLOSURE ISSUE	INFORMATION GAPS	TIMEFRAME/ PRIORITY	DESCRIPTION
BUILDINGS/INFRAS	TRUCTURE			
Landfill Requirements	Chemical Control Human and Wildlife Health and Safety	Lack of volumetric data and hazardous materials for individual buildings	Fall 2007/Medium	Develop estimated quantities of materials including volumes and types necessary to be land filled or handled as hazardous wastes during decommissioning.  Identify suitable location for closure landfill or alternative closure approaches (i.e. landfill at each separate location).  Develop closure alternatives and recommendations for managing hazardous materials including PCB transformers, lead paint siding, asbestos siding, etc.
Decommissioning Requirements	Community Concerns	Closure strategy	Summer 2007/High	Develop inventory list with recommended decommissioning approach for each site such as demolition, salvage, heritage, etc.
CLOSURE REPORT	ING			
Closure Scoping Study	Addresses all Issues	Closure planning	Spring 2007/High	Develop closure scoping document to identify closure plan implementation process for government and ERDC. Includes community consultation strategy.
Closure Issues Report	Addresses all Issues	Closure planning	Spring 2007/High	Prepare summary report that identifies each site history/background and site issues and information gaps. Document provides a basis for closure plan.
Closure Studies Reporting	Addresses all Issues	Closure planning	Winter 2007/Low	Annual report documenting results of all closure related studies and activities.
BASELINE ASSESS	MENT FOLLOW UP S	TUDIES		进行。1917年中国共和国共和国共和国共和国共和国共和国共和国共和国共和国共和国共和国共和国共和国
Tailings Dam and Treatment Pond Geotechnical Inspection	Physical Stability Water Management	Annual geotechnical assessment	Spring 2007/High	Conduct annual geotechnical assessment of tailings facility dams and related structures and settling pond facilities at adit treatment sites for geotechnical, physical stability assessment, and report findings.
Hydrocarbon Contamination	Chemical Control	Extent of individual site contamination	Fall 2007/Medium	Conduct sampling program at specific sites and identify areas for possible land treatment facility construction.
WQ Data Review	Chemical Control Water Management	Independent assessment of WQ database for closure planning studies	Summer 2007/High	Independent review and assessment of site wide water quality database for QA/QC. Provide recommendations for data management and assessment.
Hydrological Model Assessment	Water Management	Refine hydrogeological understanding of old mine workings and hydraulic connections for closure planning	Fall 2007/Medium	See adit workings hydrological assessment.

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### 9.0 PROJECT SCHEDULE

The following schedule outlines the timeline goals and objectives broken down by task. This schedule is subject to change as certain tasks may require more or less time as new findings surface. This is the framework from which all task's timelines will be evaluated.

# Keno Hill Mine Site Timeline to Development of Existing State of the Mine Reclamation Plan



# Appendix A

# Keno Hill Mines Existing State of Mine Communication Plan



# ELSA RECLAMATION AND DEVELOPMENT CORPORATION KENO HILL MINES

# **ESM Reclamation Plan Consultation Plan**

**Draft** 

Prepared: March 2007

#### INTRODUCTION

Elsa Reclamation and Development Company Ltd. (ERDC) is currently developing an Existing State of Mine Reclamation Plan (ESM Closure Plan) for the Keno Hill Mines. The Environmental Assessment and permitting process for this project will be conducted in cooperation and consultation with Yukon Government (YG), INAC, First Nation of Na-cho Nyak Dun (NND) and other stakeholders. ERDC has signed a Memorandum of Understanding (MOU) with NND. The MOU commits ERDC to protecting the traditions and social well-being of NND, while encouraging participation in mutually beneficial activities in and around the Keno Hill properties.

Honest, forthright consultation and a co-operative approach with NND, government and local communities are essential to ensuring a successful ESM closure plan. Community and stakeholder consultations are ongoing and additional public meetings and/or open house/meeting formats are planned as an ongoing basis for consultation during the development of the ESM closure plan. ERDC will remain flexible with respect to scheduling open houses and closure presentations in additional communities if a specific request is made.

#### Objective of Consultation Plan:

- Coordinate ERDC/YG/INAC communications activities to ensure consistent messaging.
- Provide transparent and accessible information about the Keno Hills Mines and ESM closure plan development to the communities directly affected by the site.
- To seek input from the affected communities and stakeholders about proposed alternatives for closure of the Keno Hill mine site.
- Inform the various levels of government and the broader Yukon public and other stakeholders about closure plan alternatives.

This consultation plan is designed specifically for the consultation and selection of a preferred closure alternative for an ESM closure plan for the entire site, during the time period 2007 - 2009.

#### **COMMUNICATION CONTACTS & MEDIA SPOKESPERSONS**

Each party is responsible for identifying a communication contact person. This person will be part of an informal communications contact group. All communication related information will be sent directly to these individuals and they will be responsible for circulating the information within their organizations for review, comments and final distribution.

#### **Communication Contacts**

- ERDC: Brad Thrall/Dan CornettFederal Government: Robert Bolton
- Yukon Government: Frank Patch
- INAC/Yukon Government: Communications Officer Katie Mead
- Na-cho Nyak Dun First Nation: Stephen Buyck

#### Media Spokespersons

All Keno Hill Mines closure media inquiries will be directed through appropriate communication contact person. Other government spokespersons will respond to broader issues such as integrated resources or specific government policy or programs. ERDC will keep the communication contacts informed about any media requests and interviews.

#### **Identified Consultation Participants**

The identified participants are listed as follows:

- Closure Planning Participants ERDC, INAC, YG, NND
- Consultation Participants Community members in Mayo, Keno City, Stewart Crossing, Mayo Renewable Resource Council (MMRC), Yukon Salmon Committee, Media, Environment Canada, DFO, Village of Mayo and Keno City.
- Interest Parties: Association of Yukon Communities, Yukon Chamber of Mines, Yukon Minerals Advisory Board, Yukon Chamber of Commerce, Canadian Parks and Wilderness Society, Yukon Conservation Society, Yukon River Inter-Tribal Watershed Committee.

#### THE COMMUNICATION APPROACH

A tentative schedule for consultation has been developed though it is anticipated to change to reflect both community needs as well as forthcoming information. Attached as Appendix A, it details the general proposed process, procedure and order of events. Please refer to the consultation narrative for additional information.

#### Phase 1 Consultation

Initially, ERDC will be out in the communities and visiting the interested parties to develop concurrent closure objectives, discuss the closure planning process, and closure options. Present some examples of various technically sound closure alternatives addressing the many

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site issues that may impact the environment or local communities as a result of the past mining operations. The first level of consultation is tentatively scheduled for April through June 2007 and will be flexible to reflect the needs of the communities. ERDC will work closely with YG/INAC and NND to plan session's specific to community's needs.

Several community visits to Mayo and Keno City are planned. The focus of the first level of consultation is to give preliminary information about the process and objectives and let citizens know about the opportunity to provide feedback, as part of the process. The second series of presentations is to provide detailed information and answer questions about the process and studies. The focus of these subsequent visits is to present closure alternatives and to collect feedback on the preferred alternatives and answer any remaining questions.

ERDC will make presentations to the appropriate governments and other stakeholders to request their feedback and keep people informed.

#### Phase II Consultation

Following these initial community visits, meetings and presentations comprising the first phase of the consultation process, ERDC will consolidate the comments and prepare a proposed site wide alternatives approach.

ERDC will then return to the communities to report on the outcome of the early consultation, present their suggested site-wide closure plan for further discussion and feedback and address outstanding issues identified by community members. This comprises the second phase of the consultation process.

#### **Phase III Consultation**

Phase II consultation will be followed by another phase where ERDC will consolidate feedback and comments from earlier work into consultation summary. The preferred closure plan will be adjusted based on feedback and a final plan will be presented to YG/INAC and NND for their support to deliver the plan into the regulatory process. Additional meetings will then be held in the communities and with stakeholders to describe the final plan and the next steps in the assessment and regulatory process.

The interested parties and methods utilized in this phase are as follows:

- Key interested parties include: Na-cho Nyak Dun First Nation, Mayo RRC, YSC, Yukon Mining Advisory Board, Yukon Conservation Society/Canadian Parks and Wilderness Society, Yukon Chamber of Mines, and Chambers of Commerce.
- Government Briefings: host briefing sessions specifically for various levels government (Federal, Territorial, First Nation and municipal, YESAB D.O) in the Yukon. These briefings may be more technical in nature.
- Media Briefings: invite media to a tour of the site where experts can explain the specific issues for the mine site. This will help in getting accurate coverage and keeping the public well informed of the closure process.

#### **KEY MESSAGES**

The key messages outlined will be reviewed after the project closure objectives are identified and agreed upon. The following messages will be of principal importance during all phases of consultation:

- Our first concern is the health and safety of the people and the environment. This is why we
  are seeking the input of the communities and stakeholders to select the most appropriate
  closure options.
- Keno is a Type II mine site currently under care and maintenance by ERDC and is jointly managed by ERDC, the Yukon and federal governments with participation from NND.
- Based on in-depth technical studies and analysis, ERDC is investigating a variety of options for closing the site. Only technically sound options will be presented along with risks.
- Gather traditional knowledge in the planning development process to safeguard the culture and traditional interests of local First Nation.
- There are several options for consideration and input is requested to guide the closure planning process. Community comments and feedback are important to guiding the process.
- Create economic opportunity for the NND residents and Yukoners.
- A preferred closure plan will be created with consideration of the feedback received in the community input sessions.

#### PROPOSED COMMUNICATION TOOLS AND ACTIVITIES

#### **Local Community Communication Tools**

Effective communication involves keeping the local communities and affected First Nations fully informed of the process and key decisions, particularly as related to their identified concerns in this plan.

ERDC intends to use the following activities and tools to communicate and present the closure alternatives to stakeholders, local communities and interested public:

- Community presentations and/or workshops by a technical team on the alternatives;
- · Elders' workshops;
- Presentations to high school students (grades 9 and 10);
- Tours of the Keno Hill mines site for community members;
- Newsletters from ERDC:
- Library of key documents at Access Consulting Group and/or ERDC in Whitehorse and in Elsa for access to community members;
- Diagrams and other visual aids demonstrating closure technologies of closure alternatives as prepared by ERDC;
- Advertised open houses:

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- Joint Mayo/NND Council Meeting;
- Regular meetings with chief and council of Na-cho Nyak Dun First Nation;
- Meeting with Mayo Renewable Resource Council and Town Councils; and
- YG/INAC will participate as appropriate.

#### **Broad Communication Activities and Tools**

ERDC will coordinate the joint communication activities and tools for the broader communication activities. A variety of means will be used to keep the public and communities well informed:

- **Posters:** A series of posters to pictorially present the various alternatives are in use. These posters will be updated and used in the presentations and will be left in each community for subsequent internal use and reference. The communications group would review the posters and offer suggestions, prior to publication.
- FAQ sheet: based on the posters, a simple "Frequently Asked Questions" sheet about the alternatives will be prepared with similar visual elements.
- Summary Report: A simple document that describes the technical details of the alternatives will be prepared. This document will be helpful for people with greater interest in understanding the details of the alternatives. Additionally, there are technical studies to provide more information.
- Community Meetings: PowerPoint presentations will be customized for the community/audience. Information will be concise and not too technical; ideally, primarily visuals such as photos and maps. Potentially, maps and three-dimensional displays can also be used to help the communities visualize the site and understand the issues.
- **Web site:** an external web site with current information about alternatives, closure objectives and plans should be considered. All relevant information will be posted on the web site.
- **Site visits:** in the summer months, there will be site visits coordinated with the community offices and with the potential for involving the media.
- Video: Alexco already has a video for the site. The possibility of updating the video of the site and key messages will be investigated and coordinated with the site visits. Video could include history, a site overview, identification of main issues, closure alternatives, review process and timing.

#### **Evaluation**

Public Consultation is vital to the functions of environmental management and assessment. It improves the quality of decisions and is an important part of ERDC being responsive to community and stakeholder needs. It fosters the exchange of information between stakeholders and responsible authorities to facilitate a shared understanding of issues.

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The Keno Hill Mines public consultation process will be documented and evaluated to ensure its effectiveness on an ongoing basis. It is expected that a budget will be allocated in support of the consultation plan, with these resources adjusted over the life of the activities as needs change. The preparation of receiving and analyzing responses in a summary report will assist with project assessment. Communication activities will be assessed during closure planning and implementation. Stakeholder input and feedback will be analyzed and reviewed. Consultation will be documented and considered as part of the closure plan. In this way public consultation will provide early and ongoing opportunities for potentially affected and interested parties to receive information on, and obtain their views about closure alternatives and measures to mitigate risks.

## APPENDIX A Communication/Consultation Timeline

asks	Date								
	2007	2008	2009	2010	2011	2012	2013	2014	
reliminary Consultation		<b>在中国共享的</b>			Marie Control				
resent closure planning process									
resent process									
Pevelop objectives									
resent studies									
resentation of Initial Alternatives and collection of Review Comments									
Present alternatives									
acilitate discussion and review									
acilitate collection of preferred alternatives									
Prepare the summary for the alternatives review rocess	w								
Organize the proposed preferred alternative									
Consultation of Proposed Preferred Alternati	ve .								
Presentation of proposed alternative, a ollection of feedback and input	nd								
Communities and interest groups submit their fir comments on proposed plan	al								
Presentation of consultation outcomes									
Presentation of the Closure Plan prior to submission to YESAB & the Water Board									
Review of Proposed Plan									
Selection of closure option									
Closure Implementation									