



December 28, 2011

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Dear Tony,

**Re: Ulu Gold Project – Elgin Mining Inc.  
Reclamation Cost Review**

1.0 Introduction

This letter presents an estimate of the cost for decommissioning the Ulu project. The site, which was previously owned by Echo Bay Mines and is currently owned by Elgin Mining Inc. The Ulu Gold project is located 155 km north of Lupin, which is 567 km north of Yellowknife. The site includes a camp, site roads, bulk fuel storage areas, underground workings, waste rock pad and ore pad, air strip and accommodation buildings. At the conclusion of mine operations, it is to be decommissioned.

The site was granted a water license by the Nunavut Water Board (NWB) on October 8, 2009 (2BM-ULU0914). BCL completed a cost estimate in 1999.

Information on the site was obtained from AANDC and KIA including site photographs.

It should be noted that a site inspection has not been conducted to support the cost estimate. The estimate presented here is based entirely on a scope of work developed from review of the available documentation, 2007 AANDC site inspection report and the site photographs.

It is understood that Elgin Mining Inc. has posted a reclamation bond. The Ulu Gold project is entirely on KIA lands. It is the policy of AANDC to hold security for water-related liabilities. The approach which has been taken on numerous northern mining-related projects is to determine the cost for the reclamation of the entire site, and then to segregate that amount into land and water related components. The land component is the KIA lands. This methodology has been applied to this work.

The RECLAIM model has been used to develop this estimate. This model has been applied on numerous northern sites and incorporates unit costs derived from actual projects involving comparable work. Appendix A includes details on assumptions and procedures of the RECLAIM model.

## **2.0 Description of Proposed Reclamation Measures and Assumptions**

The project description includes the current site disturbance. It is not clear if additional site activities are envisioned.

### **Site Access**

The Ulu project is located 155 km north of Lupin, which is 567 km north of Yellowknife. Access to Lupin is by the existing winter road. It is assumed that no road existed between Ulu and Lupin so a winter road will be constructed and used over a 2 year period.

### **Closure Planning**

The existing closure plan is conceptual and is based upon moving equipment to High Lake. It is assumed here that an improved closure planning process would be required. This would involve: site assessment, reporting, permitting and Water Licence hearing, preparation of tender documents.

## **Portal Access**

When the site was put into care and maintenance the portal was blocked with 400 m<sup>3</sup> of material. This material needs to be removed. The portal is also blocked with ice. There is no indication how much so the assumption is 30 m. Prior to accessing the portal for use to dispose of on-site infrastructure the portal requires ventilation and other infrastructure. The assumption is 6 days on site to complete the work. The current water license requires a geotechnical inspection prior to using the underground. The assumption is 3 days for a site visit and report.

## **Equipment for Reclamation work**

Since the Ulu site has been under care and maintenance with little activity the assumption is all the equipment on site is in poor condition and not useable. To complete the reclamation work efficiently it is assumed that 2 scoop trams, 2 dozers, excavator, dump truck, front end loader, and barrel crusher will be mobilized to site from Yellowknife using the winter road to Lupin and the constructed road from Lupin to Ulu.

## **Camp and Accommodations**

There is an existing camp which we have assumed will be used once it is updated for housing workers during the reclamation work. It is assumed that 10 men will be required for 45 days.

## **Buildings and Equipment**

There is a 60 man weatherhaven camp on site which is assumed to be 4800 m<sup>2</sup> (110829 2BM-ULU0914 Interim Abandonment and Reclamation Plan page 3). There is a weatherhaven shop on site which is assumed to be 40 m x 80 m (110829 2BM-ULU0914 Interim Abandonment and Reclamation Plan page 3). Using the site photographs provided by the AANDC inspector, KIA and in the Elgin Reclamation estimate it is assumed there are 10 trailers on site 10 m x 20 m. Provisions have been made for the other miscellaneous metal debris and equipment on site. All buildings and inert metal

debris will be crushed and disposed of underground. It is assumed that the crushed volume is 25% of the original volume.

## **Fuel**

For reclamation purposes fuel will be brought to site. It is assumed that 130,000 litres of fuel will be required. There are 11 14,000 USG fuel tanks and 2 350,000 USG fuel tanks on site (110829 2BM-ULU0914 Interim Abandonment and Reclamation Plan page 6-7 and Elgin Reclamation estimate). These tanks will be thoroughly cleaned and disposed of underground. It is assumed that 15% of the total volume of fuel is still in the tanks. It is assumed that the existing fuel is not useable due to water content and venting of volatile fraction. Fuel tank capacity on site 3,221,788 litres, assume 15% full – 483,268 litres. The fuel will be trucked to Lupin. The number of barrels on site was assumed to be 450 which were determined from site photographs provided by the 2007 AANDC site inspection.

## **Ore and Waste Rock disposal**

From documentation (110829 2BM-ULU0914 Interim Abandonment and Reclamation Plan page 11 and Elgin 2011 Reclamation Cost Estimate) there is 1222 m<sup>3</sup> of ore on the ore pad. This material is PAG or ML so it is disposed of underground. The process is done using an excavator and dump truck to haul the ore to the portal and then a scoop tram to take it underground. This will be a slow process and has a high unit cost associated with it. There is 42,000 m<sup>3</sup> of waste rock sitting on surface (Ulu Mine Waste Rock and Ore Storage Plan, March 21, 2005 page 4). Documentation indicates that some of the waste rock is PAG and ML (Ulu Mine Waste Rock and Ore Storage Plan, March 21, 2005 page 7-8). No documentation was found to suggest that the waste rock was segregated. It is assumed that 50% of the material is PAG and ML which needs disposal underground. A geologist should be on site to assist with the visual identification of materials.

### **Hydrocarbon contaminated soil**

From documentation 1074 m<sup>3</sup> of hydrocarbon contaminated soil was identified in Elgin 2011 Reclamation Cost Estimate. This will be disposed of underground which is the same assumption of the company. In a northern setting land farming is not practical and will take many years. The use of placing hydrocarbon contaminated soils underground has been done at many northern sites. As the area underground will be frozen then there is no impact to the environment.

### **Roads and Airstrip**

There are 14 km of roads and 1200 m airstrip which will be required to be scarified (110829 2BM-ULU0914 Interim Abandonment and Reclamation Plan page 7). Some of the roads have culverts. It is assumed 6 culverts will be removed (Elgin 2011 Reclamation Cost Estimate).

### **Portal and Vent Raise**

At the completion of disposal of the infrastructure underground the portal “box cut” will be graded and backfilled with 800 m<sup>3</sup> of material (Elgin 2011 Reclamation Cost Estimate). The vent raise will be capped with a precast concrete slab as per Ontario regulations of 3 m x 3 m x 1 m.

### **3.0 Description of Additional Reclamation Measures**

The reclamation activities described are based on the previous mine plan developed and no additional work is done on site. The activities assume that the footprint and disturbances remain the same.

Reclamation measures for the project are assumed to include the following:

- All fuel and waste oil will be removed for off-site disposal to Lupin and used or burned,
- Fuel tanks will be disposed underground
- Demolition and consolidation of buildings and inert industrial waste for disposal underground

- Loosening of compacted surfaces and flattening of side slopes on all elevated pads and roads
- Removal of all culverts
- Restore drainage patterns by creating cross-drainage as necessary.
- Seeding of disturbed areas

AANDC policy is not to consider the potential salvage value of material or equipment. This is assumed here.

### **Post Closure Monitoring and Maintenance**

Within the post closure phase the reclamation cost estimate included:

- Closure and permit plan
- Final site audit
- Final geotechnical inspection
- Inspection one year later

The work and activities described above were to be completed to minimize the post closure liability. No long term monitoring is required of the waste rock or ore pads as the problematic material has been relocated underground. No other geotechnical instabilities exist on site. Upon completion of the assumed scope of work there will be no residual structures remaining on site which are must perform for the closure plan to be effective.

### **Contingency**

Based on limited and incomplete information a 25% contingency has been added to the cost estimate.

#### **4.0 Estimated Reclamation Cost**

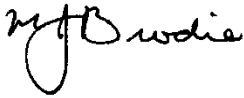
The estimated cost for reclaiming the Ulu Gold project is approximately \$3.363 M. The land liability is \$1.588M and the water liability is \$1.805M.

Table 1 Summary of Costs presents a breakdown of the cost estimate for the decommissioning of the Ulu Gold Project.

I trust that this letter addresses your requirements for this project. Please call if you have any questions.

Yours truly,  
Cassandra Hall  
Cassandra Hall, P.Geo, EIT

Reviewed by,

A handwritten signature in black ink, appearing to read 'M. J. Brodie'.

M. J. Brodie, P.Eng.

Table 1 Summary of Costs for  
Reclamation of Ulu Site

SUMMARY OF COSTS					
CAPITAL COSTS					
COMPONENT TYPE	COMPONENT NAME	TOTAL COST	LAND LIABILITY	WATER LIABILITY	
OPEN PIT	0	\$0	\$0	\$0	
UNDERGROUND MINE	0	\$255,282	\$27,822	\$227,461	
TAILINGS	0	\$0	\$0	\$0	
ROCK PILE	0	\$248,275	\$20,630	\$227,645	
BUILDINGS AND EQUIPMENT	0	\$601,179	\$539,791	\$61,388	
CHEMICALS AND SOIL MANAGEMENT		\$55,643	\$0	\$55,643	
WATER MANAGEMENT		\$354	\$0	\$354	
POST-CLOSURE MONITORING AND MAINTENANCE		\$109,000	\$0	\$109,000	
SUBTOTAL		\$1,269,734	\$588,242	\$681,492	
		PERCENTAGES	46%	54%	
MOBILIZATION/DEMobilIZATION		\$1,556,599	721,141	835,458	
PROJECT MANAGEMENT	5%	\$63,487	\$29,412	\$34,075	
Site Assessment, closure plan, & permitting	(from Mob sheet)	\$92,400	\$42,807	\$49,593	
Taxes (GST on supplies) - est.	allowance	\$0	\$0	\$0	
Insurance	0%	\$0	\$0	\$0	
ENGINEERING	5%	\$63,487	\$29,412	\$34,075	
CONTINGENCY	25%	\$317,433	\$147,061	\$170,373	
Market Price Factor Adjustment	0%	\$0	\$0	\$0	
GRAND TOTAL - CAPITAL COSTS		\$3,363,140	\$1,558,075	\$1,805,064	



## Appendix A – General Assumptions on Reclamation Cost Estimating

This Reclaim estimate is based on the following assumptions:

- The company goes bankrupt or abandons the property,
- No allowance for progressive reclamation,
- All work is based on independent contractor rates,
- All costs are 2011 Canadian dollars, respectively,
- The cost estimate does not include revenue from recovery of assets,
- The mine is developed substantially as planned,
- The estimate does not include costs for catastrophic events such as failure of dams, dikes or dump slope.

The RECLAIM model, version 6.1, was used in the preparation of this estimate. This incorporated the most current unit cost information available. Unit costs are regularly updated, based upon third party cost information from actual northern remediation work, where possible. The unit costs include equipment, operator, fuel, consumables, maintenance, plus supervision, profit, insurance, and bonding.

It is important to note that the RECLAIM model is not a statistical model. It relies solely upon user entry values and does not manipulate those entry values other than to multiply or add the values for the user. Ideally, an engineer with earthworks and reclamation experience would complete the reclamation cost estimate.

The RECLAIM model is broken down into a series of mine components (e.g. Open Pit), and then into a series of activities (i.e. “line items”). A unit value is entered within each line item, and then the user must decide the unit cost code which applies to that activity. The model will then multiply the unit value by the unit code for the user. The sum of the mine components is added to generate a subtotal, and as a final step, the user must decide values for project management, engineering, and contingency. These values are calculated as a percentage of the subtotal and then added to the subtotal.

The final calculation provides an estimate of the total reclamation cost. This total reclamation cost amount may be segregated into water related reclamation cost and land related reclamation cost.

Where possible information provided by the proponent is utilized, in an effort to minimize the need to make assumptions within the cost estimate. However, it must be clear that should insufficient information exist or the level of detail be lacking, a “precautionary approach” is utilized. Should additional detailed information become available at a later date the estimate can be revisited.