## Appendix D

## **Maze Lake Project**

### **Abandonment and Restoration Plan**

Placer Dome (CLA) Limited

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# Maze Lake Project Abandonment and Restoration Plan Placer Dome (CLA) Limited

#### 1. Preamble

This Abandonment and Restoration Plan is effective from June 1, 2004 to July 16, 2006 and applies to the Maze Lake Project operated by Placer Dome (CLA) Limited in the Kivalliq District of Nunavut, latitude 62° 16′ 33″ and longitude 93° 37′ 39″. See map 1, 2 and 3 in the Detailed Project Description-Appendix B. The project is under agreement with Nunavut Tunngavik Incorporated (NTI). A Land Use permit application to the Kivalliq Inuit Association (KIA) and a Nunavut Water Board (NWB) permit have been submitted.

The following formal distribution has been made of this plan:

KIA, NWB, Jacques Simoneau (Project Manager-Placer Dome), Hervé Thiboutot (Regional Exploration Manager-Placer Dome).

#### 2. Introduction

This abandonment and restoration plan has been prepared for the Maze Lake Camp to be built mid July 2004 and for the drilling program to be carried in the southern and northern areas of the project. The fly-in camp will be located 45 km west of Whale Cove and 90 km southwest of Rankin Inlet and will host between 10 to 15 people between the 16<sup>th</sup> of July and 21<sup>st</sup> of September 2004.

The project is at an early stage and no camp or drilling activities by Placer Dome have taken place before. The plans are for a summer temporary camp, rented from a camp supplier, to be fully dismantled at the end of the 2004 field season as detailed in Section 1. Section 2 details the Seasonal Shutdown and Restoration Plan. This plan would be used if the preliminary exploration results were strong enough to suggest the project is likely to continue in 2005. In this case, wood frame buildings would be preserved for the 2005 program. An amendment will be submitted to KIA, NWB, NPC and NIRB if it is decided to use the Seasonal Shutdown Plan.

No buildings, equipment or waste will be left on the project area pass the expiration date of the Land Use or NWB permits, unless new ones have been obtained.

#### 3. Schedule

The abandonment and restoration of the camp site should take 5 days to complete and will take place after the drilling activities have ceased. It should be conducted between the 15 and 21 of September and no later than October 31, if the 2004 exploration program was to be extended.

The plan will be applied with the help of the Camp Supplier employees and the Maze Lake project personnel under the supervision of the field supervisor.

#### 4. Infrastructures to be built

- 1 wood frame kitchen, 16x16, wood floor, hot and cold running water, stove, refrigerator.
- 1 dry tent, 14x16, wood floor, hot and cold running water, hot water tank, washing machine
- 1 core-logging tent, 14x16, wood floor
- 1 office tent, 14x16, wood floor
- 4 sleep tents, 14x16, wood floor
- 1 Generator shack housing 12 Kw generator
- 2 wood frame outhouses
- 1 drill foreman shed
- 1 wooden emergency shelter, 2x2x2 m, travels with the drill.

#### Section 1: Final Abandonment and Restoration Plan

#### 1.1 Buildings and Content

All the rented and reusable equipment like tents, tent metal frames, stoves, matresses, kitchen stove, refrigerator, other kitchen appliances and equipment, showers, hot water tank, etc...will be packaged and flown out from project site to respective owners.

Wood structures like the kitchen, outhouses, generator shed, tent wood floors, bunk beds and table will be dismantled and burned. Nails, screws, anchors and other non combustible parts will be recovered, packaged and flow out to an approved municipal discharged.

#### 1.2 Water System

Pump, tanks and hoses will be drained, dismantled, packaged and flown out to owner. Any wooden shed built to protect the pump will be burned as for the other wood structures.

#### 1.3 Electrical System

The generator shed will be inspected for remaining hazardous waste (oil, grease) and will be drained of its fuel. Remaining waste fuel and oil will be collected in the containers labeled for that usage and used through the summer.

The shed will be dismantled and burned. The soil will be inspected for contamination.

Electrical wires, sockets, etc...will be taken down and either returned with camp material to the Camp Supplier, given to anyone willing to take them or flown out to an approved municipal discharge.

#### 1.4 Fuel and Chemical Storage Facilities

The fuel storage area will consist of segregated groups of drums with empties apart from full drums. At the end of the field season, an inventory of remaining fuel will be made

and full drums will be inspected. Full and empty drums will be flow out back to source or to an interested buyer. Propane cylinders will be flown out as well to source.

Remaining waste fuel, stored in properly labeled drums will be flown out to a fuel outlet or discharge that accepts this type of fuel.

Chemical stored on site will consists of drill additives, oil, grease and household cleaners. All drill additives will be stored in or by the drill foreman shed. Household cleaners will mainly be stored in the kitchen. Upon camp closure, any unused drilling additive, oil or grease will be returned to the drilling company warehouse. Half empty containers will be taken off site to be properly disposed in an approved discharge. Empty containers will be disposed with regular garbage.

#### 1.5 Waste Facility and Incinerator

Once the camp is entirely dismantled, all remaining combustible waste stored at this site will be burned. The incinerator will be dismantled, reusable parts will be returned to owner's warehouse and the barrel will be discarded in an approved municipal discharge.

#### 1.6 Greywater Sump

The kitchen-dry greywater sump will be filled back and leveled.

#### 1.7 Blackwater Sump

Not applicable. The outhouses will not have an underneath pit but waste will be collected in a plastic bag lined pail and content burned on a daily basis.

#### 1.8 Helicopter pad

The helicopter pad will likely consist of sand and gravel patch. Soil will be inspected for contamination.

#### 1.9 Camp site

The camp site will have a final inspection. Areas showing too much wearing evidences will be covered with a layer of peat moss and lightly fertilized to promote natural growth.

Drill core to be left on site will be properly stored and secured.

#### 1.10 Drilling areas restoration

The drill will be dismantled into its main components as per the drilling contractor procedure, packaged and secured along with its ancillary equipment and rods. The drill will be flown out to another project or to a storage site designated by the drilling contractor.

All drill sites will be inspected for soil contamination. Any remaining waste will be taken to camp to be burned if possible or to be flown out to an approved municipal discharge.

Greywater and sludge sumps will be filled and leveled. A layer of peat moss will be spread on top and slightly fertilized to promote natural growth.

As much as possible, drill sites will be restored immediately after the drill has been moved to the next site and sumps have drained enough to be leveled.

#### 1.11 Documentation and Inspection

If soil has been contaminated, Placer Dome environmental consultant will be consulted on the best way to disposed of them. Soil contaminated by hydrocarbons and unnoticed before abandonment will be treated as per the spill contingency plan. The soil will likely been removed, stored in containers and flown out to approved disposal facilities. If a large quantity of soil has been contaminated, the same consultant would organize to have the necessary equipment and personnel send to the site to complete the clean-up. The excavated area will then be level to natural contours.

Photos of camp and drill sites prior to building of drilling will be taken. Monitoring will be done during occupancy and photos taken. Once the site restored, it will again be documented with photos.

A final site inspection visit with community representatives, Land Use Inspector and in collaboration with NWB staff will be organized by the permit holder.

#### Section 2: Seasonal Shutdown and Restoration Plan

#### 2.1 Buildings and Content

All the rented and reusable equipment like tents, tent metal frames, stoves, matresses, kitchen stove, refrigerator, other kitchen appliances and equipment, showers, hot water tank, etc...will be packaged and flown out from project site to respective owners or to a warehouse.

Wood structures like the kitchen buildings, outhouses and generator shed will not be dismantled but secured for the winter. Tent's wood floors will also be kept and secured to the ground. Wood bunk beds, tables, benches will be stored in the kitchen.

#### 2.2 Water System

Pump, tanks and hoses will be drained and dismantled. Rented equipment will be flown out to owner. Hoses will be rolled and stored in the kitchen. Any wooden shed built to protect the pump will be stored in the kitchen.

#### 2.3 Electrical System

The generator shed will be inspected for remaining hazardous waste (oil, grease) and will be drained of its fuel. Remaining waste fuel and oil will be collected in the containers labeled for that usage and used through the summer.

The rented generator will be returned to owner. If possible, the generator shed will be moved adjacent to the kitchen building and secured for winter. The soil will be inspected for contamination.

Electrical wires, plugs and sockets will be stored in the kitchen.

#### 2.4 Fuel and Chemical Storage Facilities

An inventory of remaining fuel will be made and full drums will be inspected and secured for the winter. Empty drums will be flown out to source. Empty propane cylinders will be flown out to source.

Chemical stored on site will consists of drill additives, oil, grease and household cleaners. All drill additives will be stored in or by the drill foreman shed and secured for the winter. Empty containers will be disposed with regular garbage. The soil of the areas will be inspected for contamination

#### 2.5 Waste Facility and Incinerator

Once the camp dismantled and remaining buildings secured, all remaining combustible waste stored at this site will be burned. The incinerator will be dismantled and stored in the kitchen. The soil will be inspected for contamination.

#### 2.6 Greywater Sump

The greywater sump wood cover will be secured for winter.

#### 2.7 Blackwater Sump

Not applicable. The outhouses will not have an underneath pit but waste will be collected in a plastic bag lined pail and content burned on a daily basis.

#### 2.8 Helicopter pad

The helicopter pad will likely consist of sand and gravel patch. Soil will be inspected for contamination.

#### 2.9 Camp site

Areas showing too much wearing evidences will be covered with a layer of peat moss and lightly fertilized to promote natural growth.

Soil contaminated by hydrocarbons and unnoticed before abandonment will be treated as per the spill contingency plan.

Drill core to be left on site will be properly stored and secured.

#### 2.10 Drilling areas restoration

The drill will be dismantled into its main components as per the drilling contractor procedure, packaged and secured along with its ancillary equipment and rods. The drill will be left on solid ground until next season.

All drill sites will be inspected for soil contamination. Any remaining waste will be taken to camp to be burned if possible to be flown out to an approved municipal discharge.

Greywater and sludge sumps will be filled and leveled. A layer of peat moss will be spread on top and slightly fertilized to promote natural growth.

As much as possible, drill sites will be restored immediately after the drill has been moved to the next site and sumps have drained enough to be leveled.

#### 2.11 Documentation

If soil has been contaminated, Placer Dome environmental consultant will be consulted on the best way to disposed of them. Soil contaminated by hydrocarbons and unnoticed before abandonment will be treated as per the spill contingency plan. The soil will likely been removed, stored in containers and flown out to approved disposal facilities. If a large quantity of soil has been contaminated, the same consultant would organize to have the necessary equipment and personnel send to the site to complete the clean-up. The excavated area will then be level to natural contours.

Equipment and buildings left on site will be inventoried. Photos of camp and drill sites prior to building of drilling will be taken. Monitoring will be done during occupancy and photos taken. Once the site secured for the winter, it will again be documented with photos.