

Community Summary

The Polaris Mine is located on Little Cornwallis Island. It is an underground zinc-lead mine which is owned by Cominco and has been in continuous operation since 1981. It is planned that the Polaris Mine will stop producing zinc and lead in 2002. An important part of closing this mine will be ensuring that the site is returned to a condition that protects the health and safety of Nunavut residents and the environment around the Polaris Mine. Cominco is committed to ensuring that this occurs through the preparation of a complete Mine Closure Plan that takes into account the historic uses of this area by Inuit people. This plan will be approved by the Nunavut Water Board, DIAND, the Nunavut Government and Inuit communities such as Resolute Bay and Grise Fiord.

The following is a summary of some of the planned reclamation measures for the Polaris Mine:

1. Upon completion of mining all underground equipment and machinery will be either shipped from the Polaris site for use at another mine or will be cleaned and dismantled and stored permanently underground. The Polaris Mine is up to 300 m deep below the ground surface in very cold continuous permafrost. This will act as a permanent vault for the disposal of equipment in mined out areas and all mine entrances will be sealed.
2. Cominco has completed an extensive environmental investigation at the Polaris Mine to determine areas where there is metal contaminated soil and hydrocarbon contaminated soil. These areas of contaminated soil will be cleaned up to a level that protects both the environment and Inuit people. It is proposed that contaminated soil also be put underground where the depth and the cold permafrost will ensure that the soil will remain in isolation from the surrounding environment for all time.
3. The tailings that have been generated from the mining at Polaris have been put in Garrow Lake since the mine opened in 1981. Garrow Lake contains water that is very dense at the bottom of the lake. This means there is no movement of water from the bottom of Garrow Lake to the surface. This has allowed Cominco to put the mine tailings at the bottom of Garrow Lake with the assurance that the tailings will remain there. Since the opening of the mine, Cominco has monitored the water quality at Garrow Lake and at the bottom of the lake to ensure that the tailings are stable and remain in place.
4. There is a barge at the Polaris Mine that contains the mill, warehouse, powerhouse, maintenance shops, change rooms and offices. It is proposed that this barge be cleaned, dismantled and buried in Little Red Dog Pit. This will ensure that any contamination around the Barge will not be introduced into the marine environment during the excavation of this facility.
5. All the buildings will be demolished and all chemicals and other hazardous materials will be collected and transported to a southern disposal facility or will be re-used.
6. The Operational Landfill at the Polaris Mine will be covered with soil and contoured in such a way that surface erosion does not occur. In addition all the material within the landfill will re-freeze due to the re-establishment of permafrost.
7. The Little Red Dog Quarry will be used to dispose of buildings that have been demolished and other surface material such as cables and pipelines. All the material that is buried will be cleaned and Cominco will provide a photographic record of this buried material.

Polaris Mine Decommissioning and Reclamation Plan

8. Cominco will monitor the Polaris Site until 2011 to ensure there are no environmental problems. Cominco will also consult with communities during this monitoring period.

Cominco will ensure that residents of Nunavut Territory are part of the closure activities at the Polaris Site and will identify northern opportunities where possible. Cominco will also consult with the communities through all phases of this Mine Site Closure Plan.