



Teck Cominco
Polaris Mine

the challenge

Teck Cominco's Polaris Mine, which began production in 1980, operated as the world's northernmost base metal mine until its closure in 2002.



The mine site was on Little Cornwallis Island in the Canadian High Arctic. This region experiences continuous permafrost and has a mean annual temperature of -17°C . The mine's owner, Teck Cominco, committed to full decommissioning and restoration of the site at the end of the Operations Phase. The closure plan, dictated that all structures were to be dismantled and removed. The heating systems of the buildings contained large quantities of glycol antifreeze. In addition, there were residual fuels to be disposed of. The quantities of liquids were in the hundreds of thousands of litres. An analysis of options concluded that on-site destruction with a liquid waste incinerator was the most practical and safe solution. □

our solution

Eco Waste Solutions' Liquid Waste Oxidizer was deployed to the site for the 2-year clean-up as part of the award-winning mine reclamation project.



Stringent regulations were imposed by the agencies involved in approvals of the decommissioning plans. As a result, the engineers involved stipulated that the equipment would need to process the liquids continually at a high rate but without compromising local air quality. These objectives needed to be met by a low-cost, dependable system. Of the four potential suppliers Eco Waste Solutions was selected. The Liquid Waste Oxidizer had proven performance and the added benefit of being able to handle some of the residual solids expected to be processed. □



the results

Cost Avoidance

The liquid wastes were destroyed on-site eliminating the need to ship them south for destruction, avoiding hundreds of thousands of dollars in transportation costs. □

Environmental Protection

The process was carried out without adverse affects on local air quality and concerns regarding the shipment of liquid waste over arctic waters were averted. □

project information

Location:	Polaris Mine, Nunavut, Canada
Model:	ECO 115LPH
Capacity:	40 US gallons per hour
Waste Type:	Glycol and Diesel
Installation:	2002