PLAIN LANGUAGE SUMMARY OF THE DEVELOPER'S ASSESSMENT REPORT FOR THE JAY PROJECT

Prepared for: Dominion Diamond Ekati Corporation

Prepared by: Golder Associates Ltd.

October 2014

Table of Contents

Maps

Figures

Photos

INTRODUCTION

Dominion Diamond Ekati Corporation (Dominion Diamond) is proposing to extend the life of the Ekati Mine by 10 or more years by mining the Jay kimberlite pipe, or the Jay pipe. A kimberlite pipe is a body of rock that contains diamonds. The Jay pipe is covered by Lac du Sauvage.

This project is called the Jay Project and it is located to the southeast of the existing Ekati Mine's main facilities. The Ekati Mine is about 300 kilometres northeast of Yellowknife, Northwest Territories.

Photo 1: View of the Project area, 2014

The Ekati Mine was the first surface and underground diamond mine in Canada. Two other diamond mines are also operating in the Northwest Territories, the Diavik Diamond Mine and Snap Lake Diamond Mine, while the Gahcho Kué Project has now received permits to go ahead. The locations of these mines are shown in Map 1.

The two largest mines (Ekati and Diavik) will likely stop producing diamonds in the next 5 to 8 years because the areas that they are licenced to mine will have been used up. The Diavik Mine will likely close around 2023. The Ekati Mine started producing diamonds in October 1998, and has been operating for 16 years. The Ekati Mine has only five more years of mining left, and then the mine will have to close in 2019 because the current mine areas will have all been used. However, if the Jay Project is approved, it will keep the mine open for 10 or more years.

The Jay pipe is located in the southeastern part of the Ekati claim block, which is publicly owned land that Dominion Diamond has leased from the Government of the Northwest Territories. Before a mine can be developed on a claim block, the company that holds the claim block must obtain a mining lease.

The Jay pipe is about 25 kilometres southeast of the Ekati Mine's main facilities, and about 7 kilometres to the northeast of the Misery Pit, which is currently being mined. The proposed area (footprint) that the Jay Project will use is shown in Map 2.

The proposed Jay Project is located on lands that have traditionally been used by Tlicho, Akaitcho, Inuit, and Metis people.

LEGEND

- JAY PROJECT
- EXISTING MINE
- PROPOSED MINE
- TERRITORIAL CAPITAL
- POPULATED PLACE
- HIGHWAY
- ALL-SEASON ROAD
- WINTER ROAD
- TIBBITT TO CONTWOYTO WINTER ROAD
- NORTHERN PORTION OF TIBBITT TO CONTWOYTO WINTER ROAD
- TERRITORIAL/PROVINCIAL BOUNDARY
- TREELINE
- WATERCOURSE
- WATERBODY

150 0 150

SCALE 1:6,000,000 KILOMETRES

REFERENCE

WATER OBTAINED FROM ATLAS OF CANADA
NATURAL RESOURCES CANADA, CENTRE FOR TOPOGRAPHIC INFORMATION, 2012
PROJECTION: CANADA LAMBERT CONFORMAL CONIC

DOCUMENT

DEVELOPER'S ASSESSMENT REPORT

PROJECT

DOMINION DIAMOND

JAY PROJECT
NORTHWEST TERRITORIES, CANADA

TITLE

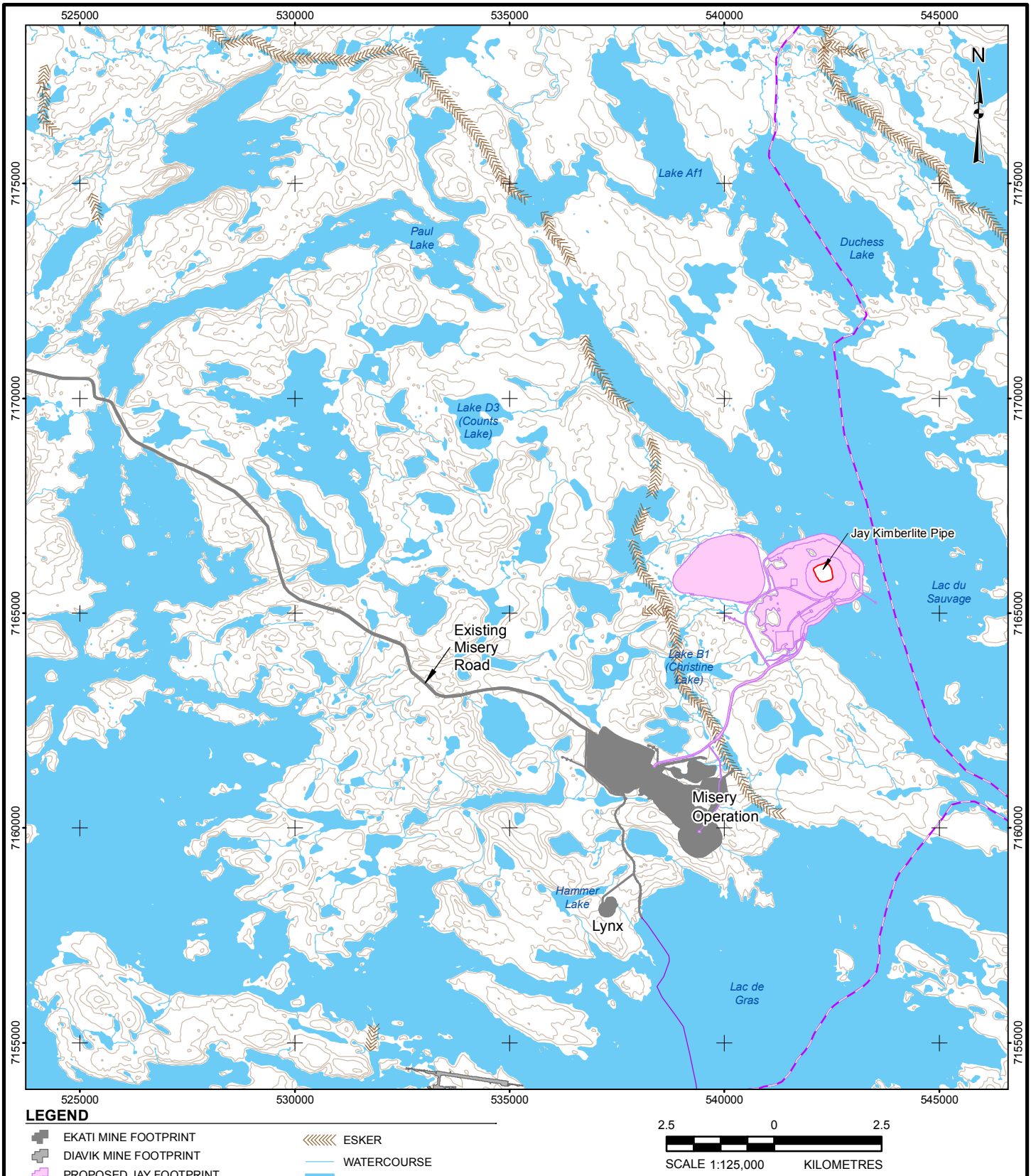
LOCATION OF THE JAY PROJECT

Golder Associates

PROJECT 1407256			FILE No. DAR_PLS_001_GIS	
DESIGN	MJ	18/09/14	SCALE AS SHOWN	REV. 0
GIS	JG	16/10/14		
CHECK	MJ	16/10/14		
REVIEW	MR	16/10/14		

MAP 1

G:\CLIENTS\DOMINION\DDEC Jay and Lynx Projects\Figures\13-1328-0041 Jay & Lynx EA\DAR Other\DAR PlainLangSum\DAR_PLS_001_GIS.mxd



LEGEND

- EKATI MINE FOOTPRINT
- DIAVIK MINE FOOTPRINT
- PROPOSED JAY FOOTPRINT
- KIMBERLITE PIPE
- WINTER ROAD
- NORTHERN PORTION OF TIBBITT TO CONTWOYTO WINTER ROAD
- ELEVATION CONTOUR (10 m INTERVAL)
- ESKER
- WATERCOURSE
- WATERBODY

2.5 0 2.5

SCALE 1:125,000 KILOMETRES

REFERENCE

CANVEC © NATURAL RESOURCES CANADA, 2012
NATURAL RESOURCES CANADA, CENTRE FOR TOPOGRAPHIC INFORMATION, 2012
DATUM: NAD83 PROJECTION: UTM ZONE 12N

DOCUMENT

DEVELOPER'S ASSESSMENT REPORT

PROJECT

DOMINION DIAMOND™

JAY PROJECT
NORTHWEST TERRITORIES, CANADA

TITLE

PROPOSED JAY PROJECT FOOTPRINT

Golder Associates

PROJECT 1407256			FILE No. DAR_PLS_002_GIS	
DESIGN	MJ	18/09/14	SCALE AS SHOWN	REV. 0
GIS	ANK	16/10/14	MAP 2	
CHECK	MJ	16/10/14		
REVIEW	MR	16/10/14		

G:\CLIENTS\DOMINION\DDEC Jay and Lynx Projects\Figures\13-1328-0041 Jay & Lynx EA\DAR Other\DAR PlainLangSum\DAR_PLS_002_GIS.mxd

Regulatory Requirements for the Project

Dominion Diamond must obtain permits and licences from the Government of the Northwest Territories and the Government of Canada before the Jay Project can be developed. Dominion Diamond must also provide the governments with information about the Jay Project, and about what effects the Jay Project might have on the environment. This information will be used by the governments to help them decide if the Jay Project will be approved. Information about the Jay Project is provided in the Developer's Assessment Report.

Photo 2: Aerial view of the Misery Pit, summer 2014

The Mackenzie Valley Review Board looks at proposed developments to make sure there are no harmful changes to the land, water, air, or living things. The Review Board held workshops with Aboriginal peoples within the Tłı̨chǫ and Akaitcho regions, government officials, and the general public, to find out what people wanted to know about the Jay Project, and what potential environmental changes (effects) concerned them the most. The Tłı̨chǫ and Akaitcho regions encompass the Project area as they are located in the southeastern part of the Northwest Territories. The groups that contributed in the workshops included the Łutselk'e Dene First Nation, North Slave Métis Alliance, Tłı̨chǫ Government, and Yellowknives Dene First Nation. Dominion Diamond provided the Review Board with the questions it had heard from the Inuit people of Kugluktuk as well. The Review Board used input from the people to tell Dominion Diamond what information about the Jay Project should be included in the Developer's Assessment Report.

After Dominion Diamond gives the Review Board the Developer's Assessment Report for the Jay Project, Dominion Diamond will continue to discuss issues of interest with Aboriginal peoples, government, regulators, and the general public.

The Mackenzie Valley Review Board will then consider the information presented in the Developer's Assessment Report. The Review Board will also consider information and opinions provided by people who make presentations and ask questions at public hearings. After it has considered this input, the Review Board will make a recommendation to the governments about whether the Jay Project should be allowed to proceed and, if so, under what conditions.

Plain Language Summary

This document is a summary of the Developer's Assessment Report for the Jay Project. It is shorter than the Developer's Assessment Report because it is a Plain Language Summary that focuses on the most important topics.

Readers are encouraged to review the full assessment if they wish a more complete description of the Jay Project and its effects on the environment. The Developer's Assessment Report and the Plain Language Summary can be accessed at the Mackenzie Valley Environmental Impact Review Board web page and searching the public registry (http://www.reviewboard.ca/)

CURRENT ENVIRONMENTAL AND SOCIO-ECONOMIC CONDITIONS FOR THE JAY PROJECT

The Jay pipe is located about 1.2 kilometres from the western shoreline of Lac du Sauvage in about 35 metres of water at its deepest spot. The location of the Jay pipe is shown in Figure 1.

Dominion Diamond is proposing to mine the Jay pipe by separating the area of Lac du Sauvage that is over the Jay pipe from the rest of the lake with a dike that will hold the lake water back. The water in this isolated area, with a surface area of about 4 square kilometres, will then be pumped out so that an open-pit mine can be used to access the diamonds in the Jay pipe.

This is a technique that has been used successfully at other mines in the Northwest Territories and Nunavut, such as the Diavik Mine and Meadowbank Mine (near Baker Lake).

Because the Jay Project will involve draining part of Lac du Sauvage, the water environment is particularly important for the Jay Project. Potential changes to the water environment were therefore a focus for the assessment.

Because caribou are of concern to Northern and Aboriginal people, it is also important to understand how caribou use the area and how this may be affected by the Jay Project.

As the Jay Project will employ many people, and will influence communities and economies, (in other words, the socio-economic conditions), the assessment looked at these potential changes.

Figure 1 Location of the Jay Pipe at Lac du Sauvage

To understand what changes the Jay Project might have on the environment and people, the following sections provide a summary of the current conditions in the Jay Project area. For a more complete description of the current or baseline conditions near the Jay Project, please see the Developer's Assessment Report.

Water, Lakes, and Fish in the Jay Project Area

Waterbodies

The Jay Project is within the Lac de Gras watershed, which is an area of land surrounding Lac de Gras that is drained by a number of lakes and streams. This watershed includes Lac du Sauvage, Paul Lake, and smaller lakes and streams that connect these lakes or flow into them. For example, water from Paul Lake flows south into Lac de Gras. Water from Lac du Sauvage flows south into Lac de Gras. All water from the watershed goes to the Coppermine River at the west end of Lac de Gras.

Photo 3: Lac du Sauvage, fall 2014

Waterbodies near the Jay Project are shown in Map 2.

Lac du Sauvage is about 86 square kilometres in size, or surface area. At its deepest, it is 40 metres deep. However, most of the lake is much shallower and is not more than 8 metres deep.

The water level of Lac du Sauvage can change, but the range between normal high and low water is about 0.6 metres. This level depends on the downstream water levels in Lac de Gras, and whether it is a wet or dry year. The highest flow months between the lakes are July and August. Water flows from Lac du Sauvage into Lac de Gras all year, with lower flows in winter.

Water Quality in Lakes and Streams

The water quality in Lac du Sauvage is about the same as in neighbouring lakes. Water quality in Lac du Sauvage tends to be the same throughout the lake including at depth.

Small salt particles from soils and rocks can become mixed with water. The amount of these particles in water (referred to as concentrations of total dissolved solids) tend to be low during both winter (under-ice) and summer (open-water) conditions in Lac du Sauvage. Total dissolved solids are an indication of how hard or soft water is. Soft water, as found for the lake, has low dissolved solids.

The amount of solid particles floating in water, or concentrations of total suspended solids, also tend to be low year round in Lac du Sauvage. Low suspended solids generally means that water is clear.

Nitrogen and phosphorus are nutrients that are necessary for the growth and development of

plants and animals. Lac du Sauvage and other lakes in the area have low levels of these nutrients, which means that not much grows in the lakes, and that there are few fish for the size of the lake. This is normal for lakes in the barrenlands.

Metals in water can affect the plants and fish that live in the water, or aquatic life. Guidelines for water quality, and levels of metals in water, have been established to protect aquatic life. The water in Lac du Sauvage has low metals concentrations compared to the water quality guidelines. The alkalinity, or degree of acidity of the water in Lac du Sauvage, is also low and within water quality guidelines. The water in the lake is safe for fish, people, and wildlife.

Fish

Lac du Sauvage contains different kinds of fish. Nine species of fish have been captured in Lac du Sauvage: Arctic Grayling, Burbot, Cisco, Lake Trout, Lake Whitefish, Ninespine Stickleback, Northern Pike, Round Whitefish, and Slimy Sculpin.

Photo 4: Fish survey, summer 2014

Lake Trout was the species that were captured the most in Lac du Sauvage, but there were also lots of Lake Whitefish and Round Whitefish. This is normal for lakes in the barrenlands.

These fish species eat small (microscopic) floating plants and animals (phytoplankton and zooplankton), as well as small animals that live in the lake bottom (benthic invertebrates). Large, predatory fish also feed on smaller fish, such as Slimy Sculpin and Ninespine Stickleback. These same fish species were found in lakes close by.

Caribou and Other Wildlife

Photo 5: Caribou

Caribou travel through the Lac du Sauvage area during their migrations north in the spring, and then south again after calving. There are three different caribou herds that can potentially be found in the area near the Project. Most of the caribou near the Project are from the Bathurst herd, although the range of the Ahiak (Queen Maud) herd and the Beverly herd also overlap with the Project site. The estimated areas that these herds move on a yearly basis are 306,000 square kilometres for the Bathurst herd, 345,000 square kilometres for the Ahiak herd, and, 282,000 square kilometres for the Beverly herd.

The Bathurst herd typically ranges over an area that extends from Bathurst Inlet to the northern

boreal forest of the Northwest Territories, and occasionally into northern Saskatchewan and Alberta. Observations of current and historical numbers suggest that number of caribou in the Bathurst herd is currently low.

Caribou regularly travel through the area of Lac de Gras during the spring and fall as they normally calve in the barrengrounds to the north of the diamond mine developments in the Northwest Territories and spend the winters south of the mines. The number of caribou that pass by the Ekati Mine, and how close they come to the mine, varies from year to year.

Other wildlife that can be seen in the area include barren-ground grizzly bears, wolves, red foxes, arctic foxes, wolverines, muskoxen, and, occasionally, moose. Waterfowl live on the lakes in summer and small birds live on the uplands. Eagles, hawks, falcons, and owls are also seen.

During Project-specific surveys, the following birds were observed: 10 raptor species; 28 species of songbirds, shorebirds, and ptarmigan; 22 waterbird species; and ravens.

Photo 6: Red fox near Project site, summer 2014

Human Environment

Population

The population of the Northwest Territories has increased slightly over the past 20 years. In the 1990s, prior to diamond mining activity, the population of the territory was in decline, with many northerners choosing to move south. In the early 2000s, mining created a demand for employment, which helped to change the pattern of population loss. Some people are still choosing to leave the Northwest Territories; however, more people have been coming to the north, resulting in a small amount of population growth. Today, the Northwest Territories population is over 40,000, and is made up of about equal numbers of Aboriginal and non-Aboriginal people.

Economy

The economy of the Northwest Territories relies heavily on the mining industry for private investment. Diamond mining began in the late 1990s, and continues to be the main mineral development activity in the territory. Oil and gas and tourism are also important contributors to the Northwest Territories economy. Employment rates in the territory are high compared to the rest of Canada, with many jobs coming from the mining industry.

Community Well-Being

Health care, education and social services are available in the Northwest Territories, and are largely supported by government funding. Most of the infrastructure for these services is located in Yellowknife, though smaller communities do have some services available. There are also police and emergency services in the territory. Many communities are only accessible by winter roads, or by plane, given their remote nature.

Photo 7: Kugluktuk Heritage Centre opening

Traditional Land Use

There are over 200 archaeological sites and countless stories and memories that attest to the traditional and ongoing use of the Ekati claim block. The Project is located within lands that have been used by Tlicho, Akaitcho, Inuit, and Metis people. Traditionally, these groups supported themselves by harvesting resources from the land through activities such as hunting, fishing, trapping, and plant gathering. The fall caribou hunt was the most important harvesting activity for the Inuit, Dene, and Métis as it provided an important source of fat, food, and thick, warm furs needed during winter. This hunt occurred in various areas, including Lac du Sauvage and Lac de Gras. Fishing was also an important activity that provided food that could be dried and eaten during winter. Fishing occurred at various locations including Lac de Gras and at the stream between Lac de Gras and Lac du Sauvage. Current and ongoing use of the general Ekati area has been documented by Aboriginal groups, and concerns about the continued ability to use this area and its resources have been expressed.

Heritage

People have lived and travelled across portions of the Northwest Territories since the last ice age, approximately 10,000 years ago. Heritage resources provide information about the human past of the Northwest Territories, and may include archaeological or historical sites, burial sites, artifacts and other objects of historical, cultural, or religious significance. Tools, found throughout the Athabasca Lake region, Great Slave Lake, and Lac de Gras, provide evidence of the early use and occupancy of the land by ancestral Inuit and Dene peoples. Previous archaeological research identified many sites within the general region of the Ekati mine, particularly in the vicinity of the Lac du Sauvage - Lac de Gras Narrows (the stream where Lac du Sauvage flows into Lac de Gras). The potential for more sites in this area is considered high. Therefore, two heritage field programs designed to identify new heritage sites were completed for the Project and seven new sites were identified.

Project Description

Project Overview

The Jay Project is not a new mine. The Ekati Mine camp, airstrip, processing plant, and most of the other facilities needed to run a mine are already there. The Jay Project is for extending the life of the Ekati Mine so that it does not need to close in 2019.

If Dominion Diamond receives the necessary approvals for the Jay Project, the Ekati Mine will be extended to mine the Jay pipe. The Jay Project will take about three years to build. It will include construction of a horseshoe-shaped dike in Lac du Sauvage, and pumping out part of Lac du Sauvage behind the dike so that workers can

access the rock that contains the diamonds. After construction, the Project will then operate for about 10 years while diamonds are removed from the rock that is mined from the Jay pipe.

The water that is pumped out from the area behind the dike in Lac du Sauvage will go through a system of water pipes and pumps to Lac du Sauvage, and then nearby Misery and Lynx pits, which will be mined out (finished) at that time. When the Jay Project is closed, the drained area will be refilled, and parts of the dike will be removed to reconnect the drained area with Lac du Sauvage.

Photo 8: Land close to the Project, summer 2014

Existing Facilities Will be Used for the Project

The Jay Project is an extension of the Ekati Mine, which is a large, stable, and successful mining operation. Thus, most of the required Jay Project facilities are already present at the site. The Ekati Mine includes the main mine site, which is located about 25 kilometres northwest of the Jay Project, and the Misery site, which is located about 7 kilometres southwest of the Jay Project.

Existing Ekati facilities that will be used are described below, and their locations are shown in Maps 3 and 4.

Housing for workers: Workers will stay in the existing housing camps at the main Ekati and Misery sites. These camps have enough room for workers during operations. The Misery camp might need to be expanded for the extra people required for construction.

Processing plant: The processing plant is located at the Ekati main camp and will be used to separate diamonds from the kimberlite rock mined from the Jay Pit. Some changes to the process plant may be required to make sure the diamond separation process is as good as it can be. This helps Dominion Diamond to provide the jobs and other benefits of the Project.

Administration office: Administration offices are available in the warehouse complexes at the main Ekati and Misery sites that will be used for Jay Project.

Maintenance complex and warehouse: Mining equipment will be serviced in the existing maintenance complexes that are located at the main camp and Misery sites The existing truck shop at the Misery site might be expanded to accommodate the larger haul trucks that are required for the Jay Project. Warehouses are located at both the main Ekati Mine site and the Misery site that will be used for Jay Project.

Power system: A power distribution line will be built from the Misery line to Lac du Sauvage for the Jay Project, providing power from the central Ekati powerhouse.

LEGEND

- EKATI MINE FOOTPRINT
- DIAVIK MINE FOOTPRINT
- PROPOSED JAY FOOTPRINT
- KIMBERLITE PIPE
- WINTER ROAD
- TIBBITT TO CONTWOYTO WINTER ROAD
- NORTHERN PORTION OF TIBBITT TO CONTWOYTO WINTER ROAD
- ELEVATION CONTOUR (10 m INTERVAL)
- ESKER
- WATERCOURSE
- WATERBODY

REFERENCE

CANVEC © NATURAL RESOURCES CANADA, 2012
NATURAL RESOURCES CANADA, CENTRE FOR TOPOGRAPHIC INFORMATION, 2012
DATUM: NAD83 PROJECTION: UTM ZONE 12N

DOCUMENT

DEVELOPER'S ASSESSMENT REPORT

3 0 3
SCALE 1:150,000 KILOMETRES

PROJECT
DOMINION DIAMOND
JAY PROJECT
NORTHWEST TERRITORIES, CANADA

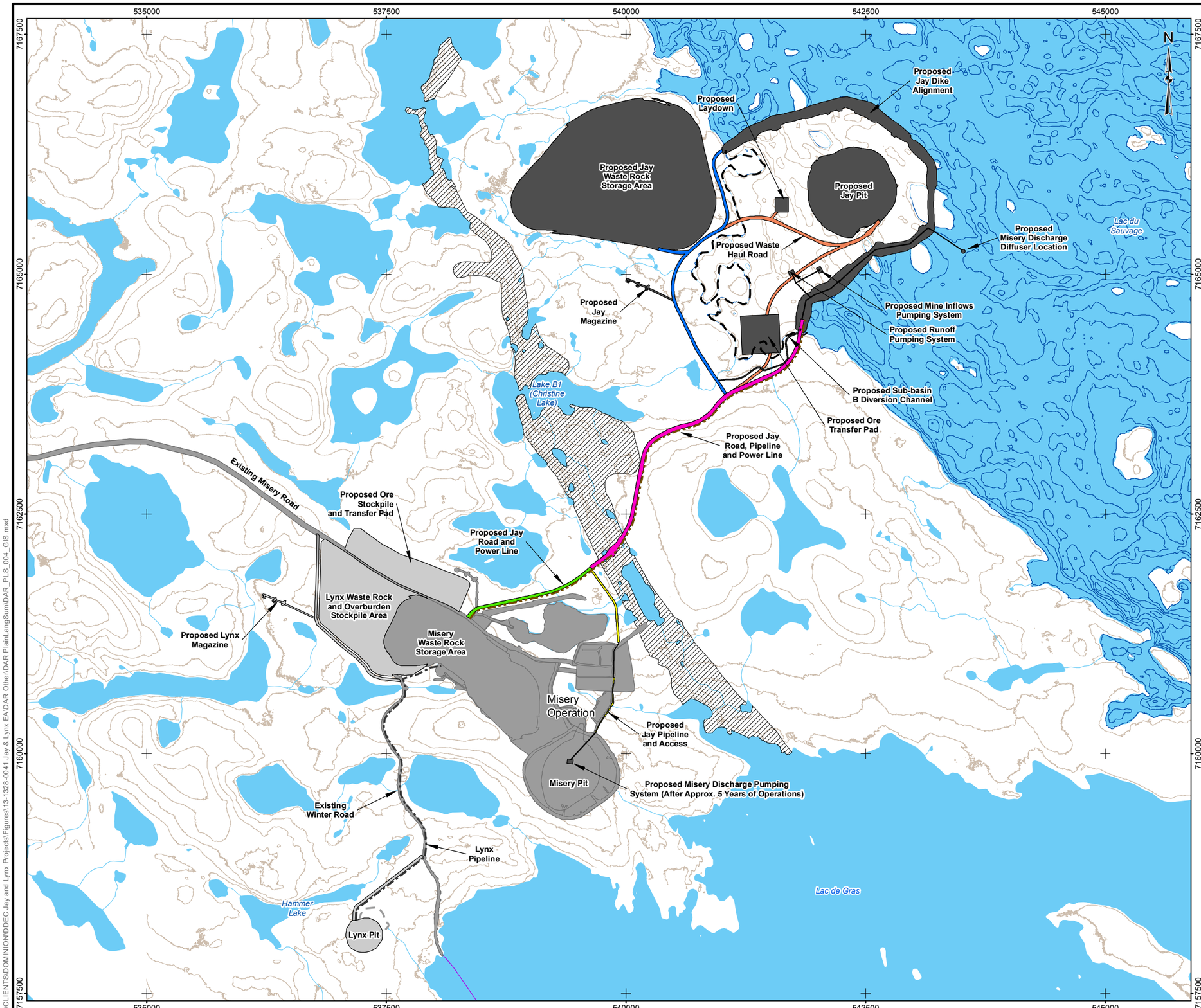
TITLE

EXISTING AND PROPOSED MINE FOOTPRINTS

Golder Associates

PROJECT		13-1328-0041	FILE No. DAR_PLS_003_GIS	
DESIGN	RK	12/08/14	SCALE AS SHOWN	REV 0
GIS	ANK	16/10/14	MAP 3	
CHECK	MJ	16/10/14		
REVIEW	MR	16/10/14		

G:\CLIENTS\DOMINION\DDEC Jay and Lynx Projects\Figures\13-1328-0041 Jay & Lynx EA\DAR Other\DAR PlainLandSum\DAR_PLS_003_GIS.mxd



LEGEND

- EKATI MINE FOOTPRINT (MISERY OPERATION)
- WINTER ROAD
- BATHYMETRY CONTOUR (5 m INTERVAL)
- ELEVATION CONTOUR (10 m INTERVAL)
- WATERCOURSE
- WATERBODY
- ESKER

JAY PROJECT FOOTPRINT

- EXISTING SHORELINE OF DEWATERED AREA
- POWER LINE
- PROPOSED JAY PROJECT INFRASTRUCTURE
- PROPOSED JAY ROAD NORTH (HAUL ROAD)
- PROPOSED JAY ROAD (HAUL ROAD AND POWER LINE)
- PROPOSED JAY ROAD (HAUL ROAD, PIPELINE AND POWER LINE)
- PROPOSED JAY PIPELINE ROAD (ACCESS ROAD AND PIPELINE)
- PROPOSED OPERATION ROADS

LYNX PROJECT FOOTPRINT

- EXISTING SHORELINE OF DEWATERED LYNX LAKE
- LYNX PIPELINE
- LYNX PROJECT INFRASTRUCTURE

NOTES

ROAD, PIPELINES, AND POWER LINE ARRANGEMENT TO BE DETAILED AS PART OF FURTHER PRE-FEASIBILITY DESIGN. APPROXIMATE CORRIDOR WIDTHS ARE SHOWN.

REFERENCE

JAY PROJECT CONCEPTUAL ENGINEERING REPORT, EKATI MINE, DOC#: 1313280041-E14037-R-REV0-4060, DATED: MAY 13, 2014
JAY PROJECT DESIGN BASIS MEMORANDUM FOR PRE-FEASIBILITY DESIGN OF PROJECT ROADS AND PIPELINE BENCHES, DOC#: 1313280041-E14031-TM-REVD-2020, DATED: AUGUST 1, 2014
LIDAR AND BATHYMETRIC DATA OBTAINED FROM AURORA, 2013
WATER OBTAINED FROM CANVEC © NATURAL RESOURCES CANADA, 2012
DATUM: NAD83 PROJECTION: UTM ZONE 12N

DOCUMENT

DEVELOPER'S ASSESSMENT REPORT

1 0 1
SCALE 1:40,000 KILOMETRES

PROJECT
DOMINION DIAMOND™
JAY PROJECT
NORTHWEST TERRITORIES, CANADA

TITLE

JAY PROJECT SITE LAYOUT

Golder Associates

PROJECT	13-1328-0041	FILE No. DAR_PLS_004_GIS	
DESIGN	RK 17/07/14	SCALE AS SHOWN	REV 0
GIS	ANK 16/10/14	MAP 4	
CHECK	MJ 16/10/14		
REVIEW	MR 16/10/14		

G:\CLIENTS\DOMINION\DDEC_Jay and Lynx Projects\Figures\13-1328-0041 Jay & Lynx EA\DAR Other\DAR PlainLangSum\DAR_PLS_004_GIS.mxd

Fuel storage: A bulk fuel farm that contains 8 tanks is located at the Ekati main camp. Smaller fuel farms are located at the Fox and Misery sites. The fuel tanks are stored in areas that are surrounded by berms and double-lined with a material that will prevent leaks. It might be necessary to expand the Misery site tank farm because of the bigger trucks being used for Jay Project.

Explosives storage: Explosives and other blasting material will be stored and manufactured in the existing buildings and on storage pads located at the Misery site. Some new storage locations may be required closer to the Jay pit.

Site roads: The existing Misery Haul Road will be used by long-distance haul trucks to transport the diamond-rich rock from the Jay open pit to the processing plant at the Ekati Mine site.

Airstrip: An all-weather gravel airstrip is located at the main Ekati Mine site. The airstrip includes an aircraft control building, runway lighting and approach system, navigational aids, radio transmitters, and weather observation equipment. The airstrip currently handles freight shipments and passenger transportation daily. The airstrip will continue to be used for the Jay Project.

Winter Access Road: The existing Tibbitt to Contwoyto Winter Road provides winter road access to the Ekati Mine, as shown in Map 1. During operations, about 4,000 trucks per year will use this road to get to the Ekati Mine. The trucks will be hauling materials needed for the Jay Project, such as fuel and large equipment.

Photo 9: Typical truck used to haul mine rock

Misery and Lynx pits: Water from the behind the dike in Lac du Sauvage that is high in sediment will be pumped to the Lynx pit or the Misery Pit to allow the sediment to settle. Minewater and runoff from the Jay pit and mining operation will be pumped to the Misery Pit. Mining in the Misery and Lynx pits will be complete by the time they are needed for the Jay Project.

Panda and Koala pits: The processed kimberlite from the Project will be stored in the mined-out Panda and Koala pits, similar to the current use of the Beartooth pit.

The Long Lake Containment Facility: Recycled water for the processing plant will come from this facility.

Photo 10: Misery mine site, spring 2014

Jay Project Mining Plan

The first step in mining diamonds is to get access to kimberlite, which is the type of rock where diamonds are found. The Jay pipe is a kimberlite deposit that contains enough diamonds to be worth mining at this time. It is located beneath Lac du Sauvage, as shown in Figure 1.

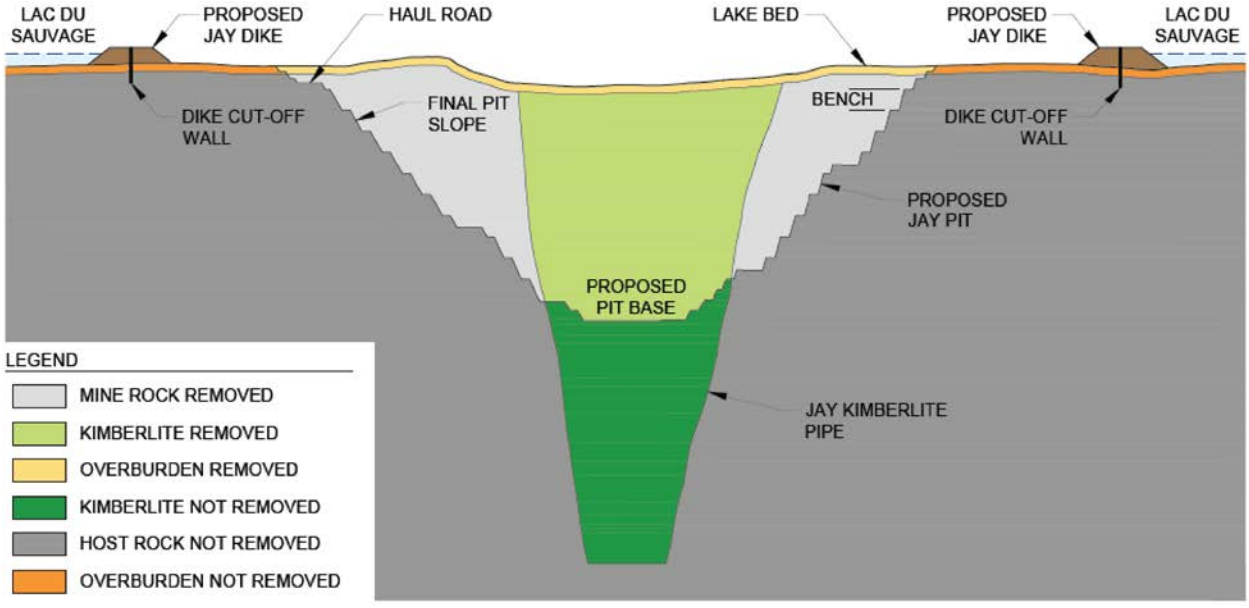
To access the deposit, the area of Lac du Sauvage that is over the Jay pipe will be isolated with a dike that holds back water. Water in this area will then be pumped out.

When the lake bed is exposed, heavy, earth-moving machinery will be used to dig a large, open pit around the Jay pipe. The first layer of rock that will be removed is called overburden. It does not contain kimberlite or diamonds and will be hauled away and placed at the Jay waste rock storage area.

When the overburden has been removed, the kimberlite will be exposed. The kimberlite will be removed using trucks and shovels. At this time, all mining is proposed to be from an open pit, and some kimberlite will extend deeper below the open pit. It is possible that in the future more kimberlite could be mined by underground mining, as is being done now in the deeper parts of the Koala kimberlite pipe.

Figure 2 shows a diagram of what the Jay Pit will look like.

Figure 2 Jay Pit Conceptual Diagram, Shown in a Cross-Section View



The Jay open pit will be one of the largest at the Ekati Mine, about the same as size as the Fox pit. The pit will extend over a large area on the surface because the pit walls need to be sloped so that they do not collapse. The pit walls will be a series of horizontal layers or benches that will be blasted into the rock.

A road for haul trucks and heavy equipment will be built. The road will be a ramp that spirals downwards around the inside wall of the pit. The Jay pit is expected to be about 370 metres deep.

When the kimberlite is exposed, holes will be drilled into the rock and filled with explosives. After blasting, the broken rock will be loaded into haul trucks and removed from the pit.

The kimberlite will be trucked to the processing plant at the main Ekati Mine site and processed in the same manner as for current Ekati operations.

The processed kimberlite left over after removal of the diamonds will be deposited in the mined-out Panda and Koala pits. Waste rock will be placed in the Jay waste rock storage area or used in construction.

Project Schedule

Once Dominion Diamond has obtained the approvals, it will take about three years, starting from the summer of 2016, to construct the Jay Project. During the construction period, the Jay Project infrastructure, such as the dike, roads, and laydown areas, will be prepared, and the part of Lac du Sauvage behind the dike will be pumped out.

After the water above the Jay pipe has been pumped out, the overburden will be removed and mining will begin in 2019.

The construction period will be followed by a ten-year operational period, from 2019 to 2029. During this period, the kimberlite will be mined and processed. If additional kimberlite with sufficient diamond content is identified, mining may continue past 2029.

In about four years after mining has been completed, most of the closure work will be complete.

The Jay Project site will be monitored until the site and Lac du Sauvage meet all regulatory conditions.

The various stages of development for the Jay Project are shown in Figures 3 to 6, which are pictures that have been created to show how the Jay Project will be mined and then closed. Figure 3 shows Lac du Sauvage before construction begins. Figure 6 shows Lac du Sauvage after the mining is finished and the mine has been closed.

Figure 3 Lac du Sauvage Before Construction

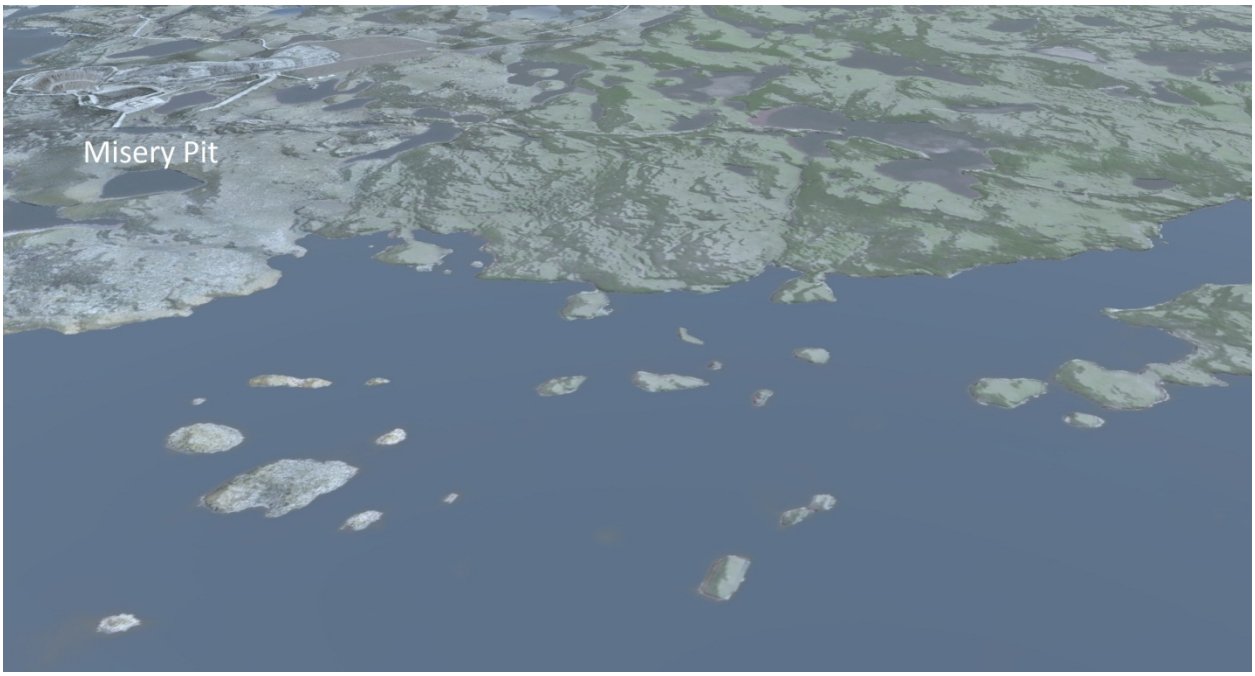


Figure 4 Lac du Sauvage After Dike Construction

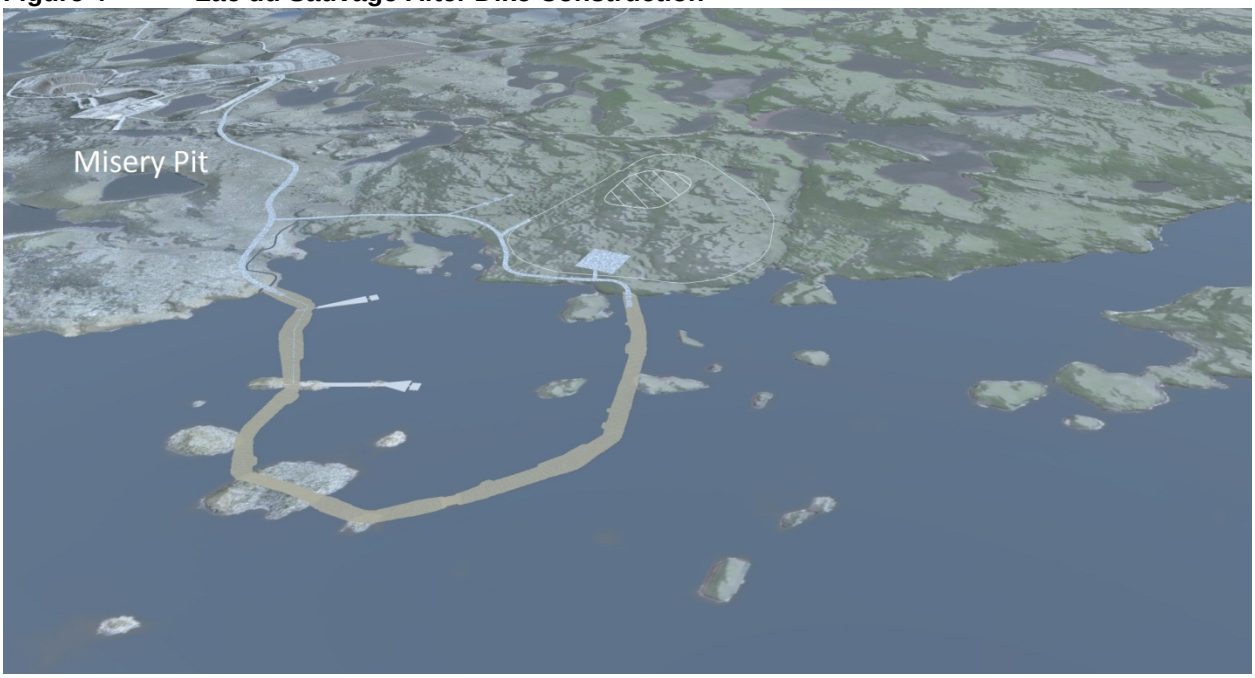


Figure 5 The Project Site During Operations, After Being Fully Developed

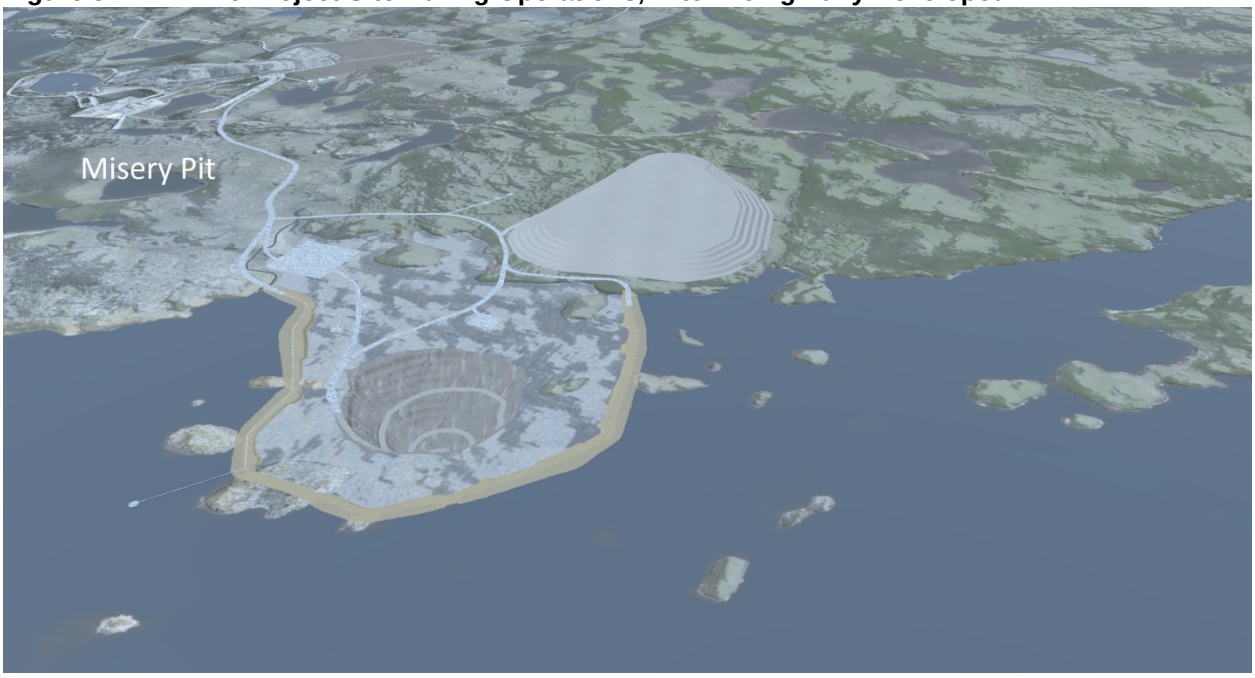
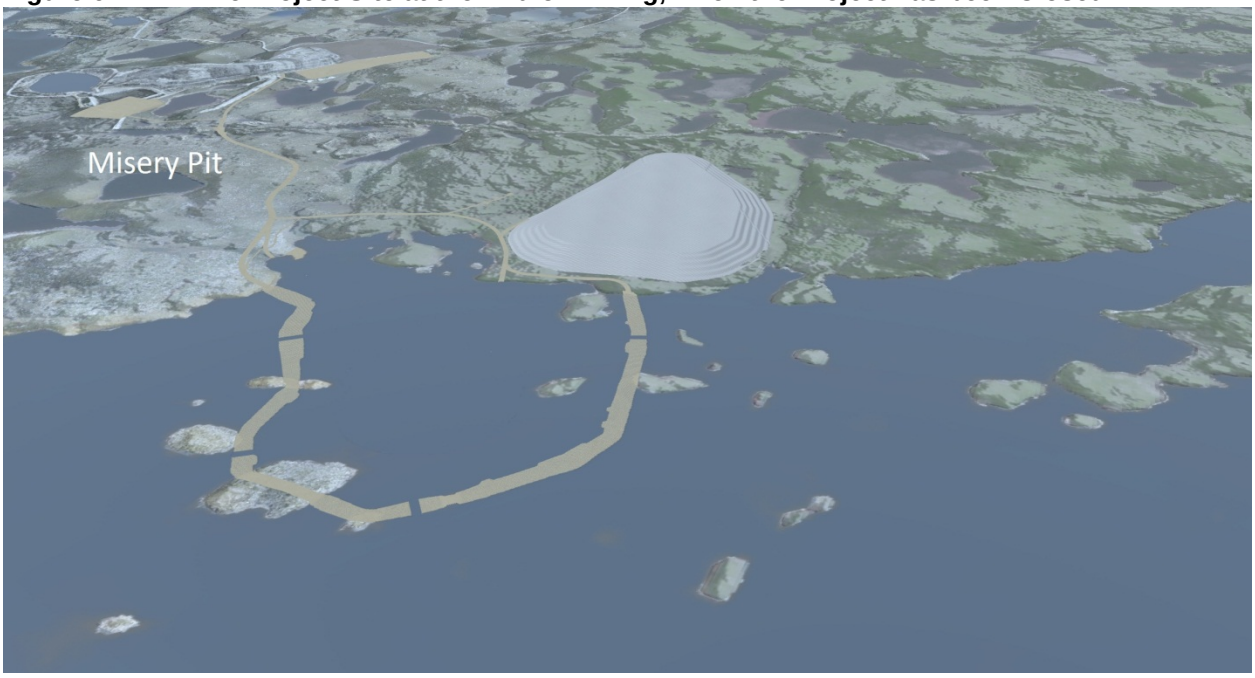


Figure 6 The Project Site at the End of Mining, when the Project has been Closed



How Wastes will be Managed

The Ekati Mine already has excellent waste management programs and procedures that will be used at the Jay Project.

Mine Wastes

Overburden

The Jay pipe lies beneath a layer of lake-bottom sediment and till. This soil covering the Jay pipe is 5 to 10 metres thick, and must be removed before mining. It will be deposited in the Jay waste rock storage area, which will be located on the shore of Lac du Sauvage, northwest of the Jay pit.

Waste Rock

Waste rock includes the bedrock (mostly granite) that is mined out from around the kimberlite, and some kimberlite that does not contain diamonds.

The waste rock will be placed in the Jay waste rock storage area. This storage area will be similar to the other waste rock storage areas at the Ekati Mine, using Ekati Mine experience. The construction methods used have been shown to be effective. The maximum height of the waste rock storage area will be about 65 metres.

Some of the waste rock is called metasediment (or schist). This type of rock is different than granite and could result in harm to the environment if it is not managed properly. Experience at the Ekati Mine has shown that placing this rock inside the waste rock storage area and covering it with 5 metres of granite is a good way to manage it properly. The metasediment rock then becomes frozen into permafrost.

Waste from the Processing Plant

Processed Kimberlite

Processed kimberlite is the material that is left after the diamonds have been removed from the kimberlite during crushing and processing. There are no chemicals used in diamond mines that are like the chemicals used in other types of mines. The processed kimberlite is kimberlite rock that has been crushed to the size of fine sand and has had the diamonds removed.

Processed kimberlite will be deposited in the mined-out Panda and Koala pits, because mining activities for these pits will be completed when the Jay kimberlite is processed.

Using mined-out open pits as a place to deposit processed kimberlite has been agreed as a good approach by regulators. This approach has been recommended since 1996 when the original Environmental Assessment for the Ekati Mine was submitted.

Photo 11: Fox waste rock storage area, summer 2014

Process Water

The water used in the processing plant will continue to be re-circulated and recycled.

The current practices of recycling water within the processing plant and recycling of water pumped back from the Long Lake Containment Facility will be continued. This approach reduces the amount of freshwater used at the Ekati Mine.

Process Materials

The process of extracting diamonds from kimberlite at the Ekati Mine is mechanical, meaning that it is based on crushing and gravity separation rather than chemical additions as in other types of mines. As a result, there will be only a small amount of process materials that go to the Panda and Koala pits with the processed kimberlite.

The processed kimberlite needs to settle and thicken before it is sent out as waste. This is so that more process water can be recycled and so that the waste can be stored in a smaller space. Flocculents create larger particles in the water to help the kimberlite settle out.

Small amounts of grease and solvents will also be used in the diamond recovery process. These wastes will be recycled as much as possible, but it is expected that some will need to be stored in appropriate containers and removed from site for disposal.

General Waste

In addition to the waste rock from the mining operation, and processing plant wastes, other waste will include food waste, non-reactive bulk waste (e.g., wood, metal and concrete), and hazardous waste. A Waste Management Plan is already in place at the Ekati Mine that has been approved by the Wek'eezhii Land and Water Board. Food wastes will be incinerated. Non-reactive bulk wastes will be placed in the site landfill. Hazardous materials will be sealed into steel or plastic drums and shipped off-site for disposal or recycling.

Liquid wastes will include waste oil and antifreeze. These will be sealed into steel or plastic drums and shipped off-site for disposal. Sewage sludge will be dewatered and placed in the on-site landfill.

On-Site Services and Facilities for Workers

During the construction of the Jay Project, the accommodation complexes at the main Ekati Mine site and at the Misery site will be used to house the workforce.

Eating and sleeping areas will be non-smoking for all workers. Food services will include country foods when available. Recreational facilities will be provided in the camp.

Photo 12: Ekati main camp entrance, summer 2014

Dominion Diamond will have a safe working policy for the Jay Project. The workers and worksite will be required to be drug- and alcohol-free.

Dominion Diamond practices zero tolerance towards harassment, fighting, or bullying on-site.

Workers will not be allowed to hunt or fish while at the Project site during the Jay Project. No personal firearms will be allowed on-site during the Jay Project.

Medical personnel will be on-site and available to provide medical aid 24 hours a day, seven days a week. Medical emergencies will be evacuated to Yellowknife.

Staffing

During operations, most of the workforce will work 12-hour shifts in a two weeks on and two weeks off rotation.

Traditional pursuits of Aboriginal employees will be accommodated within work schedules when that is possible.

Dominion Diamond will provide employees with return air transportation between the Jay Project and designated pick-up points in Northwest Territories and Nunavut communities.

When Dominion Diamond looks for or trains new employees, their goal is to maximize the employment opportunities that are available to local residents, particularly Aboriginal people.

Dominion Diamond also works with local schools, colleges, and other post-secondary education institutions to establish work experience and job placement programs.

Keeping and supporting northern Aboriginal employees is important to Dominion Diamond. Dominion Diamond wants to ensure that employees have the opportunity to grow, develop, and progress in their jobs and careers. To help with this goal, training, counselling, family support, mentoring, and performance incentives will be provided for employees.

Dominion Diamond also supports and encourages the participation of women on an equal basis with men in all aspects of work related to the Jay Project.

Dominion Diamond encourages the use of Aboriginal languages at the Jay Project site when it does not compromise health and safety. Dominion Diamond will continue to work with Aboriginal communities to incorporate cultural value systems in training programs.

Photo 13: Worker at Ekati

Water Management

Because the Jay pipe is located under Lac du Sauvage, water management is a key component of the Jay Project.

The main objective for water management at the Jay Project is to separate the mine area from the surrounding environment so that no harm comes to the lake.

To meet this objective, the following two goals will be achieved.

1. A dike will be constructed in Lac du Sauvage to hold back the lake water so that it does not flow into the mine area.

2. Water within the active mine area will be captured and pumped out. This water will not be put back into the environment until it is tested and meets the requirements of the Water Licence that is written by the Wek'eezhii Land and Water Board.

Dike Construction and Dewatering

Dikes are man-made structures that are built to prevent water from flowing either into the area behind the dike.

A horseshoe-shaped dike will be built around the Jay pipe. This dike will isolate the mine site, and keep it dry and safe to operate. This dike design has been proven to work. It has been used at the Meadowbank Mine, which is a gold mine in Nunavut, and it is similar to the Diavik Mine dikes.

A diversion channel will be built from the Christine Lake watershed to Lac du Sauvage so that two small streams do not flow into the drained area behind the dike. This will keep the natural water clean and separate from the mine area.

Photo 14: Typical open pit design

After the dike is built, the area behind the dike that is over the Jay pipe will be pumped out. The water will be pumped into Lac du Sauvage at first. The water will be tested during pumping. The amount of lake bottom particles suspended in the water will be checked. As the water level inside the diked area is pumped down, there will be more suspended particles in the water. This water will then be pumped into the mined-out Lynx and Misery pits so that it does not affect the water quality in Lac du Sauvage.

Operations

The Misery pit will be used as a water management facility during the operation of the Jay Project. Water will be kept in the Misery Pit for 5 years. Then when the Misery Pit is nearly full, water will be pumped to Lac du Savage from the top of the Misery Pit. All water pumped to Lac du Sauvage will be checked to make sure it is safe for people, wildlife and fish as per the Water Licence.

Experience at the Ekati Mine and other mines shows that the deep groundwater entering Jay Pit will contain chloride (salt). This is the natural condition of the deep groundwater, but it can be dangerous for fish if it gets into the surface lakes. The salty water from Jay pit will be pumped to the bottom of the mined-out Misery Pit where it will stay on the bottom of the pit as it is heavier than freshwater. Because the salty water will not mix with freshwater at the top of the pit, the freshwater from the top of the Misery Pit will be able to be safely put back in Lac du Sauvage.

Water being pumped to Lac du Sauvage will be tested to make sure it meet limits set by the Wek'eezhii Land and Water Board. This plan for managing water will protect the lakes and fish from water that may be unsafe or too salty.

Closure

Closure activities for the Project fit into the existing Ekati Mine Interim Closure and Reclamation Plan that was approved by the Wek'eezhii Land and Water Board.

Reclamation of the Jay pit will first involve removal of equipment and hazardous materials. All equipment within the diked area of Lac du Sauvage will also be removed. The bottom of the pit will then be filled with water from Misery Pit and the top and area behind the dike will be filled with water from Lac du Sauvage. Once the water level in the area behind the dike and Lac du Sauvage is the same, the dike will be opened to allow water to circulate and fish to move into and out of the area.

The diversion channel will reclaimed so that water flows along the natural channels to Lac du Sauvage.

The top of the Misery Pit will be covered with freshwater and then will flow to Lac de Gras. The processed kimberlite in the mined-out Panda and Koala pits will also be covered with freshwater.

The waste rock pile will be part of the land near the shore of Lac du Sauvage. The pile will have slopes that are stable so that landslides do not occur. The waste rock pile will also be covered in at least 5 metres of granite rock that keeps the buried rocks frozen. This cover will insulate the rock below from the environment, and make sure it is safe for wildlife.

Buildings and infrastructure, including roads, pads, and on-land portions of the dike, will be reclaimed. The overhead power line and power poles will be removed. Shoreline areas will be reclaimed to allow for the natural regrowth of plants.

Some areas of the Ekati Mine that have no future uses will be reclaimed while the Jay Project is underway. An example of this is the LLCDF, where grass and plant growth on the kimberlite will continue to be studied for reclamation.

Monitoring in all areas will be conducted to confirm that closure and reclamation objectives are met.

Photo 15: Survey effort, summer 2014

ALTERNATIVES TO THE PROJECT

Dominion Diamond looked at other ways of mining the Jay Pipe to extend the life of the Ekati Mine. These different ways were looked at from technical, economic, environmental and social views so that the best way could be chosen.

Different mining methods were considered for developing the Jay Project, including having no project, underground mining, diversion and drawdown, open-pit mining within a single dike, and other alternatives (e.g., underwater mining). These are described in the Main DAR Report.

At the beginning of this process, Dominion Diamond had first suggested a larger project that would have included a second kimberlite pipe in Lac du Sauvage called Cardinal.

This larger project would have affected a much larger area of Lac du Sauvage. However, Dominion Diamonds' community engagement sessions identified questions from community members about whether the project needed to affect such a large area of Lac du Sauvage. Based mainly on this feedback, Dominion Diamond re-designed the Project to be smaller by mining only the Jay kimberlite pipe.

Once the approach to the Project was identified, the dike design and alignment alternatives were assessed.

Analysis of different designs for the Project roads, waste rock management, and energy sources was also conducted.

Photo 16: Ekati Mine, summer 2014

ENVIRONMENTAL EFFECTS

The Jay Project will use as much existing infrastructure, such as buildings and roads, as possible. The Project footprint, or the area that is needed for the mine, will also be kept as small as possible. Because the open pit is under Lac du Sauvage, the Jay Project will have a smaller effect on the land than some other projects.

A small part of Lac du Sauvage will be drained while the diamonds are being mined. How the Jay Project might affect the amount and quality of water, as well as fish in the lake (the aquatic environment) are important considerations that are assessed in the Developer's Assessment Report.

Caribou were identified as the most important concern related to the land environment by communities. How the Jay Project might affect caribou is assessed in the Developer's Assessment Report.

Effects of the Project on people, culture, and the economy are important considerations. These potential effects are also assessed in the Developer's Assessment Report.

Water Quantity

Higher Flows

Flows into the watersheds immediately downstream of Lac du Sauvage will be increased when water is pumped from inside the dike around the Jay pipe to Lac du Sauvage.

When the portion of the lake that is behind the dike is being dewatered, flows will be held at the natural high flow at the outlet of the lake during the summer and fall of 2019.

These short flows in downstream streams will not be strong enough to change the habitat downstream of Lac du Sauvage or affect the fish that use these streams for spawning and rearing.

Because the rise and fall of stream levels will be gradual when the pumping is started or stopped, fish will not be flushed out or stranded.

Pumping will have only a very small effect in Lac de Gras, because Lac de Gras is so large and is farther away and below Lac du Sauvage. The volume of water pumped into Lac du Sauvage will be controlled to prevent erosion of the Coppermine River downstream of Lac de Gras, and will result in only very small changes in downstream lakes.

Photo 17: **The Narrows where Lac du Sauvage flows into Lac de Gras, summer 2014**

Lower Flows

The total annual water flows from Lac du Sauvage during operations and closure will change very little from the water flow prior to the Project.

Water levels of lakes downstream of Lac du Sauvage will be reduced flows during operations and closure, but the changes will be very small. The effect of water level changes in these lakes to fish habitat will be minor.

The amount of water that is pumped from Lac du Sauvage to fill the Jay pit and area behind the dike at closure will be controlled so that that the decrease in flows and levels do not cause damage to fish habitat.

Water Quality

Water from Lac du Sauvage will be safe for fish, wildlife, and people during all phases of the Jay Project.

The Project will release dust and other substances (called air emissions) into the air as a result of activities. These releases will occur mainly during construction and operation and can include exhaust from vehicles, dust from roads, and emissions from the processing plant and power generation. These substances will travel through the air and might settle onto the water, or onto land where they may be washed into the lakes and streams by snowmelt or runoff. Most of these emissions will fall out of the air close to the Project. Dominion Diamond has evaluated dust generated from the Jay Project and found that effects to the lakes and streams and aquatic health from the dust and other substances will be be low

The water that is pumped out of the diked area of Lac du Sauvage over the Jay pipe will be tested often by the Ekati Mine. At first, water from inside the diked area will be pumped to Lac du Sauvage outside the diked area. When the area being pumped-out gets close to bottom, the water might have higher amounts of lake bottom particles and become muddy. That water will be pumped to the mined-out Lynx pit and the mined-out Misery pit where the particles will naturally fall out of the water and the water will become clear. The Wek'eezhii Land and Water Board will write a Water Licence that says when the water pumping needs to switch from Lac du Sauvage to the mined-out pits.

Photo 18: Water sampling near Lac du Sauvage, summer 2014

Over the course of mining, water will collect in the Jay pit as a result of seeps through rock layers beneath the ground surface and from under the pit. The deep groundwater is more salty (water high in total dissolved solids) than the lake water on the surface. Therefore, water from the Jay pit will be pumped to the mined-out Misery Pit for water management. It will take at least 5 years for the Misery pit to get close to full from this pumping and there is no plan to pump water to the environment during this time. When the Misery Pit is nearly full, some water will be pumped from the Misery pit to Lac du Sauvage to prevent the pit

from overflowing before it is ready to be closed. All water pumped to Lac du Sauvage will be tested to make sure it is safe to be pumped to Lac du Sauvage. It will be discharged into Lac du Sauvage in such a manner so that it is well mixed in close distance from the discharge location. A Water Licence will be written by the Wek'eezhii Land and Water Board that makes sure that water is tested and safe, indicating the types of testing that will be required to show the water is safe, before being pumped out of the Misery Pit to Lac du Sauvage.

At closure, some of the Misery Pit water will be pumped to the bottom half of the Jay pit. The top half of the Jay pit and the area behind the dike will be filled with clean water from Lac du Sauvage. The top half of the Misery Pit will also be filled with clean water. In this way, the saltier water (water with high total dissolved solids) will be returned to the deep areas of the two mined-out pits. The natural clean lake water will sit on top of the saltier water and the two layers will be unable to mix together. Water quality will be tested while the Misery Pit and the Jay Pit and the area behind the dike are being filled. When the water level behind the dike is equal to the level in Lac du Sauvage, and the quality of the water is good, parts of the dike will be removed at several locations to break it open and join it to the rest of Lac du Sauvage.

Photo 19: Environmental survey, summer 2014

Photo 20: Water near Lac du Sauvage, summer 2014

Computer models were used to assess how the Jay Project could affect water quality in Lac du Sauvage and Lac de Gras. Project activities such as mining the pit, placing rock in the Jay waste rock storage area, pumping water from Misery Pit to Lac du Sauvage, depositing processed kimberlite in the Panda and Koala pits, and refilling the area behind the dike were included in the models. The models considered the water quality of the lakes before the Project, including the natural levels of minerals, nutrients, and metals in the lakes, and estimated the changes to these substances due to effects from the Project. This included runoff from the Project site to the lake and the influence of different water types when pumped to the lakes, such as groundwater from the pits, which is much saltier than the water in the lakes. The results from the models were also used to identify substances in the water of Lac du Sauvage and Lac de Gras, due to the Project, that could potentially affect aquatic life, wildlife such as birds, wolverine, bears, and caribou, and human uses. The results of the assessment showed that the water in Lac du Sauvage will change a little while the Jay Project is operating, but the water will still be safe for fish, wildlife, and people. When the Jay Project is finished, the water in Lac du Sauvage will return to conditions similar to what

they were before the Jay Project started. Some of the details of the scientific assessment are:

- Minerals, such as salts, in Lac du Sauvage will increase during open pit mining, but decrease after mine closure. However, the change in the minerals will not affect fisheries or the populations of other animals that live in the lake.
- Nutrient concentrations in Lac du Sauvage, such as phosphorus and nitrogen, will increase during operations but decrease during closure. Levels of nitrogen will remain slightly above background concentrations, but these levels are not expected to affect the health of aquatic life that live in the lake. Levels of phosphorus will return to levels similar to what they were before the Jay Project started.
- Metals, such as chromium, iron, nickel, zinc, copper, and lead, occur naturally in water, and are also in groundwater. Water quality guidelines have been established to identify levels of these metals that may present a concern to aquatic life if their levels are high enough. During mining operations and after the Project has been closed, however, no metals in Lac du Sauvage are expected to be higher than those water quality guidelines.
- As Lac de Gras is downstream of Lac du Sauvage, concentrations of minerals, phosphorus and nitrogen, and metals will be less than in Lac du Sauvage. The concentrations will not affect the health of aquatic life that live in Lac de Gras.

In summary, the potential for effects to the water and sediment quality in Lac du Sauvage and Lac de Gras, as a result of Project activities are low.

Effects to Aquatic Health

Changes to water quality could potentially affect the health of fish and other aquatic organisms such as phytoplankton and benthic invertebrates Chronic effect benchmarks are considered to be levels where the long-term health of some aquatic plants and animals may be affected if the amount a particular substance is above a certain amount in the water. No potentially harmful substances, including metals, were identified as having concentrations that exceeded these benchmarks. Thus, the predicted levels of substances during the life of the Project are not expected to harm the aquatic life in Lac du Sauvage and Lac de Gras.

Photo 21: Grizzly bear spotted during surveys in Lac du Sauvage, summer 2014

Fish and Aquatic Life

Lac du Sauvage and Lac de Gras provide habitat for Lake Trout, Lake Whitefish, Round Whitefish, Slimy Sculpin, Cisco, Burbot, Arctic Grayling, Northern Pike, Ninespine Stickleback, Lake Chub, and Longnose Sucker. Care will be taken during all phases of the Jay Project to preserve the fish populations in these lakes. Curtains will be placed around the Jay dike while it is being constructed during summer to prevent suspended solids from affecting fish in the lake. The size of the part of Lac du Sauvage inside the dike that will be pumped-out is about 4 square kilometres. Fish habitat will be lost in the portion of Lac du Sauvage that is right under the dike and the area of the Jay pit. Fish habitat in the rest of the pumped-out area behind the dike will not be available to fish while mining is underway. Dominion Diamond will work with Fisheries and Oceans Canada and local

Aboriginal communities on an offsetting plan to balance the effects of the Jay Project on fish.

Photo 22: Fish spawning location near Lac du Sauvage, summer 2014

A small stream (Christine Creek) that flows into Lac du Sauvage near the Jay pit will be moved while mining is underway so that the water stays clean by staying outside the Jay dike. The new stream will be built so that fish such as Arctic Grayling can still move through it. The stream will be returned to its natural location after mining is complete.

Before the water is pumped out of the diked area, fish will be removed (fished-out). Because the area to be fished-out is small compared to the entire area of Lac du Sauvage (about 86 square kilometres) and Lac de Gras (570 square kilometres), this would not affect the fish populations in the lakes. Dominion Diamond will work with Fisheries and Oceans Canada and local Aboriginal communities on a fish-out plan.

Any water that is pumped out from the area behind the dike will be tested to make sure it is safe for fish and other aquatic life. The amount of water will be controlled so that flows do not damage fish habitat downstream in Lac du Sauvage, at the Narrows, or in Lac de Gras.

The change in water quality while the Jay Project is operating would not affect the health of fish that live in Lac du Sauvage and Lac de Gras, and therefore, would not change the populations of fish in the lakes. A small increase in nutrients would not be harmful for fish and aquatic life, but may increase the amount of food for fish (plankton and benthic invertebrates).

When the drained area behind the dike is being refilled, the amount of water that is pumped from Lac du Sauvage will be controlled so that decrease in depths and stream flows do not damage fish habitat in Lac du Sauvage, at the Narrows, or in Lac de Gras. Fish will still be able to move through the Narrows.

Once parts of the dike are removed when the mine is closed, fish will be able to move in and out of the area.

Barren-Ground Caribou

Background

People have hunted caribou for as long as people and caribou have shared the land. Caribou are important to the culture of Aboriginal peoples and residents of the Northwest Territories.

Caribou are an important part of the diet of many northerners. Caribou are also the most important resource harvested by Aboriginal groups with traditional lands near the Jay Project.

How the Jay Project might affect caribou is likely the biggest concern that people have about the Project. People are also concerned because many herds of barren-ground caribou in the Northwest

Territories and Nunavut have become smaller over the past 5 to 10 years.

Caribou are migratory. Each year caribou from the Bathurst herd travel from their wintering grounds in the boreal forest northwards to calving grounds near the Arctic coast. Then the caribou return to the wintering grounds in the fall. The travel routes used by caribou change, but some of the Bathurst herd often travels through the area of the Ekati Mine.

Because caribou move long distances during their annual migration between wintering areas and calving grounds, they can encounter many human developments. For example, the caribou may travel past communities, lodges, mines, and exploration camps.

Developments can affect caribou by taking up space that the caribou might use for finding food, resting, or travelling. Some caribou may want to avoid a development. Caribou may be nervous and may not feed normally when they are close to human activity. They may use up energy if they are disturbed and run away from a development area.

Caribou and the Jay Project

With mitigation, the changes to the environment that will result from the Project are expected to have negative, but low magnitude effects on the Bathurst and other caribou herds.

Government studies suggest that caribou change their distribution around diamond mine developments to a degree. This shows that caribou are typically more likely to be found further from the mine than closer to the mine.

The protection of caribou for the Jay Project will build on experience and lessons learned at the Ekati Mine, and other mines, over the past 16 years of mine operations. The Ekati Mine has watched the caribou every year, has brought community members to the mine to help, and has taken part in larger studies as a way of learning and improving on how best to protect caribou when they move through the Ekati Mine.

Photo 23: Caribou spotted near Ekati Mine, spring 2014

The size of the area of land that will be used for the Jay Project for new buildings and roads and other things is about 12 square kilometres, Caribou will not be able to use these areas. The loss of habitat will be a small area compared to the amount of existing caribou habitat. The magnitude of cumulative direct disturbance from the Project and from all previous, existing, and reasonably foreseeable future developments is predicted to be less than one percent of the total area in each seasonal range. The Project and other developments decreased the amount of preferred habitat (high and good quality) in the seasonal ranges of the Bathurst herd by 2 percent to 13 percent.

The Tibbitt to Contwoyto Winter Road (from Yellowknife to the Ekati Mine) is only used for about 2 months every year (February and March, sometimes extending into April). The road has been used for many years with an excellent environmental record that will be continued for the Jay Project. There will be more traffic during the construction period than later during operations, which is normal for mining projects. The predicted number of trucks using the road each year is not as many as in the past.

The Jay Project is not expected to cause enough disturbance to caribou to make a noticeable difference to a female's ability to produce a healthy calf. Effects from the Jay Project will not be a major contributing factor to changes in the abundance and distribution of the caribou herds. Changes in water, soils, and plants from the Project will not affect the health of caribou, or the health of people that eat caribou.

Dominion Diamond knows that it must not allow increased traffic on the Misery Road and the new Jay Road, which crosses an esker, to block caribou from moving through the area as the caribou need to do. This has been talked about many times with governments and local communities, including the powerline that runs beside the roads. Dominion Diamond will make sure that caribou can move safely through the Ekati Mine area as the caribou have been doing for the past 16 years of mine operations. Dominion Diamond has made use of that experience to plan the Jay Project in a way that will give priority to caribou when they wish to move through the area.

For example, Dominion Diamond will construct the new Jay road with caribou crossings built into it right from the start, rather than having to make caribou crossings afterwards as was done for the Misery road. Also, Dominion Diamond will store the diamond-rich kimberlite in several places so that different parts of the road could be closed for caribou to move through without having to shut down the process plant.

The Ekati Mine Environment and Wildlife staff watch caribou when they are around the Misery road. Environment staff bring community visitors to the Ekati Mine every summer to help, and, since 2012, use motion detection cameras. Dominion Diamond truck drivers and other employees call the Environmental Department on the radio when they see caribou beside or on the road, and the Environment staff go to the area to make sure the caribou are protected. Environment staff close the road if that is necessary, but that is not usually needed. Dominion Diamond also uses the government's caribou collar maps to get early warning on when caribou are getting close to the Ekati Mine. All of these caribou monitoring and protection programs will continue for the Jay Project.

Dominion Diamond's studies and the Traditional Knowledge that has been shared with Dominion

Diamond show that caribou sometimes want to cross the area of the Misery road, and that sometimes caribou want to cross the Narrows where Lac du Sauvage flows into Lac de Gras (this is displayed in Map 12.4-3 within the Barren-Ground Caribou section of the Developer's Assessment Report).

Monitoring, mitigation, and improvements to mitigation using the results from monitoring will reduce the effects on caribou movements and distribution from the Misery and Jay Roads.

Human Environment

Socio-economic Effects

The Project will extend the life of the Ekati Mine by 10 or more years, and will provide employment during construction and operations similar to the current mine. The Project will not result in an abundance of new positions, and so will not encourage migration to the Northwest Territories from southern communities. Instead, the Project will limit migration out of the Northwest Territories by workers who would otherwise lose mining employment when the existing Ekati Mine closes in 2019. After 2019, migration out of the Northwest Territories will still occur as the Diavik, Snap Lake, and the proposed Gahcho Kué mines close over the course of the next two decades. The Project will; however, soften the effect of this out migration.

The Project will pay taxes to the Northwest Territories, and will contribute to the territory's economy. The Project will continue to use local business wherever possible, and will maintain community contributions through the Ekati Mine's existing Impact Benefit Agreements.

The Project is not expected to result in increased prices of goods in communities. As with its effect on migration, the Project will act to soften the negative economic effect of the closure of the Diavik, Snap Lake, and Gahcho Kué mines over the next two decades.

The Project will provide employment and incomes similar to those paid at the existing Ekati Mine. Dominion Diamond will continue to hire northern workers for positions that come up at the mine during construction, and will move the existing Ekati Mine workforce to Project positions. The Project will maintain existing pick-up points in communities, and will continue to work towards meeting hiring targets identified in Impact Benefit Agreements and the Socio-Economic Agreement with the Government of the Northwest Territories.

The Project may affect some aspects of the health and wellbeing of employees including changing involvement in traditional activities and the challenges of rotational work. Employees and their immediate families will benefit from health and wellness programs provided by the Project, and employees will have access to medical and recreational services on site.

Given that the Project is not expected to result in immigration to the Northwest Territories from the south, it will not cause additional demand for public services and infrastructure, or change commercial land use in the area. Rather, it will continue to provide funding and demand for existing services and infrastructure, and will partially offset the effect of the closure of the other Northwest Territories diamond mines over the next two decades.

Traditional Land Use Effects

Effects on Traditional Land Use can occur through multiple Project effects. These include potential changes in the availability of traditionally harvested resources, changes in access to preferred harvesting or other cultural use areas, increased sensory disturbance, changing social and economic factors that may affect participation in Traditional Land Use, and increased concerns regarding human or environmental health. While changes to Traditional Land Use are expected to occur due to the Project and other developments, opportunities to participate in traditional wildlife harvesting, fishing, plant gathering, and other cultural uses of the land are expected to continue to be available for Aboriginal peoples.

Heritage Resources Effects

The preferred mitigation for effects on heritage resources is avoidance or the erection of barriers to protect the resource. If these mitigations cannot be done, a controlled documentation or recovery of the resource may be completed. Eight heritage resource sites were recorded in the immediate area of the Project footprint. Of these, two have been previously mitigated and require no further work and four are to be avoided. The remaining two sites have been documented, and one is recommended for further mitigation before construction of the Jay Project.

Photo 24: Tłı̨chǫ caribou engagement, summer 2014

MONITORING AND FOLLOW-UP

Dominion Diamond will monitor the Project site and the environment around the Project as part of the Jay Project. Because the Ekati Mine has been operating for 16 years, many programs and plans are already in place to monitor and manage effects on the environment. These programs will help Dominion Diamond, the government regulators, and local communities to know what is happening at the Jay Project. The baseline studies will provide a picture of what the environment is currently like, and the monitoring will show if there are any changes over time.

Many of the monitoring programs and management plans that are being used for the Ekati Mine will be expanded to include the Jay Project. New monitoring programs will also be developed with the input from Aboriginal communities, government, regulators, and the Independent Environmental Monitoring Agency.

All phases of the Jay Project will be monitored. Some aspects of the Project will be monitored for a longer time to make sure the closure and reclamation goals are met.

Monitoring will be used to determine if the effects that were outlined in the Developer's Assessment Report were predicted correctly. Monitoring will also be used to identify any effects that were not expected, and determine the success of mitigation.

Examples of monitoring for the Project include the following:

- Monitoring for compliance, or to make sure the Project is following the rules from the regulators and government. Examples of this type of monitoring include how the Project is built, dike structure, and testing the water before being released into the environment.

- Follow-up monitoring to determine effects on the environment and to make sure that effects predicted in the Developer's Assessment Report are accurate. Examples of this type of monitoring include effects on the plants and animals that live in the water, effects on caribou and other wildlife, and monitoring of practices for employing people at the Project.

These monitoring programs are part of a system that will manage effects on the environment from the Project. If monitoring finds that effects from the Project are different from the effects that were predicted in the Developer's Assessment Report or the effects were not expected, a process will be in place to gather more information, or manage or change these effects. This process may mean more monitoring, changes in monitoring plans, changes to how the Project is designed, or using a new or better mitigation. This process is called adaptive management.

Photo 25: Water sampling in Lac du Sauvage, summer 2014