

## *Appendix 4.7-E*

### *Informational Materials*

AJAX PROJECT

**Environmental Assessment Certificate Application / Environmental Impact Statement  
for a Comprehensive Study**

# Ajax Copper-Gold Project Fact Booklet



KGHM Ajax Mining Inc. is committed to exploring areas of community concern about the proposed Ajax project and will design it in a way that protects the local environment, safeguards the health of people and maximizes social and economic benefits in the region.

## The Ajax Copper-Gold Project: Building on a History of Mining

Mining and mineral exploration have contributed to the growth and prosperity of the Kamloops region for more than a century and this resource-rich district hosts several historic and operating mines, along with many active exploration and development projects such as the Ajax project.

Mineral exploration began in the Thompson Nicola region in the 1880s when copper, gold and iron mineralization was discovered at the Iron Mask Mine near Kamloops.

The original Afton copper deposit was found by Chester F. Millar in the mid-1960s and was operated as the Afton Mine following Teck's acquisition of Millar's company. Teck operated the Afton mine – including two satellite pits, Crescent and Pothook – and the East and West Ajax pits from 1987 until 1997 when the mine closed.

Exploration began at the Ajax deposit in 2005 and resulted in the discovery of a large low-grade copper-gold deposit. The project has been pursued ever since; firstly by Abacus Mining & Exploration Corp. and beginning in 2010, by KGHM Ajax Mining Inc.

# PROJECT DESCRIPTION

The proposed Ajax project infrastructure includes: an open pit, a processing plant, a thickened tailings storage facility, two waste rock facilities, explosives storage and access roads.

## Ajax Pit

Design size of 261 hectares at life of mine.

The project will use conventional blast, load and haul methods.

Initially, mined ore will be moved by truck but later in the mine life, in-pit crushing, conveyance and waste stacking systems will partially replace trucks moving the ore.

## Processing Plant

Will be built in a valley to form a natural barrier from Kamloops and Jacko Lake.

Copper and gold are separated from the ore using a conventional flotation process.

## Tailings Storage Facility

3.0km L x 1.4km W x 150m H

Size of up to a maximum of 376 hectares at life of mine.

Proposed design is a single free standing compound with raised embankments.

Thickened tailings require less fresh water than conventional tailings.

Rock will be used to construct the surface erosion cover and provide a solid base for concurrent reclamation.

## Waste Rock

### Management Facilities

North Waste Dump:

1.9km L x 2.3km W x 140m H

East Waste Dump:

1.5km L x 1.9km W x 100m H

Dust will be minimized using water and binding agents.

In later mine life, trucks will partially be replaced by conveyance and stacking systems, which reduce noise and dust.

## Explosives Storage

Will be built on the south side of the mine property.

Trucks will transport and load blast agents for once-daily blasting.

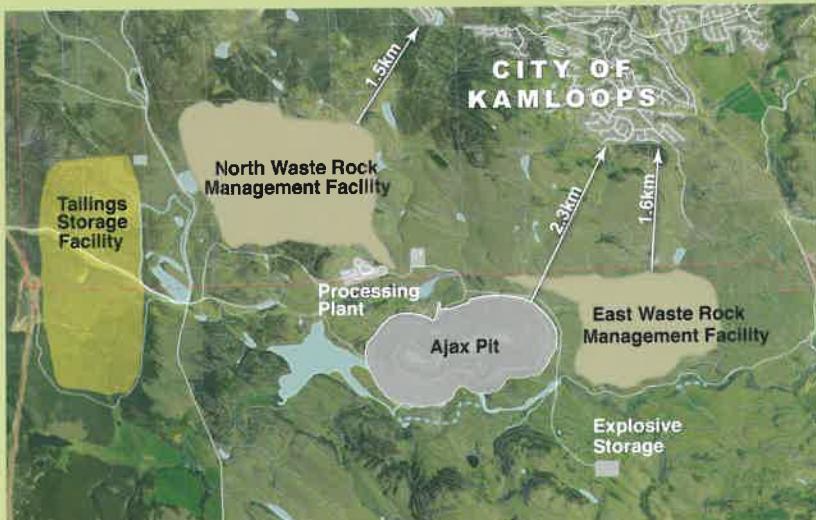
Vibration and noise will be reduced using computer-timed detonation.

## Access Roads

Currently accessed via the existing Afton Mine haul road.

Jacko Lake view will be protected by building a new access road from the mine area to Lac Le Jeune Highway.

Concentrate will be transported via Lac Le Jeune Highway to the Port of Vancouver.



Many mines around the world are located near towns and cities, including several successful projects in Canada. In Ontario, Goldcorp operates its combined underground and open-pit Porcupine Joint Venture within the city limits of Timmins; and 12 mines are in operation today within Sudbury city limits. In Quebec, the Dubuisson Gold Property – currently under development by Metanor Resources – will be located entirely within the city limits of Val-d'Or.



# MINING THE AJAX COPPER-GOLD PROJECT

KGHM Ajax will design its mine plan to ensure any adverse environmental effects resulting from the disturbance of naturally occurring elements are mitigated.

The proposed Ajax project will extract copper and gold - which occur as sulphides - from the open pit. As is typical in the region, rocks within the project footprint contain only two percent sulphide mineralization. The bulk of the rock mass is composed of common elements such as oxygen, silicon, aluminum, iron, calcium, sodium, potassium and magnesium.

## Extracting Ore from the Ground

The mining process begins with blasting the rock to loosen it from the ground. KGHM Ajax will blast once a day, which will last less than five seconds. As an explosive for blasting, mines commonly use ANFO, a mixture of 94-percent ammonium nitrate and six-percent fuel oil. ANFO is a blasting agent, not a high explosive. It will be safely transported and stored at the site and will be handled by certified blasters.

After the ore is blasted, it will be crushed in two separate stages prior to grinding and flotation.

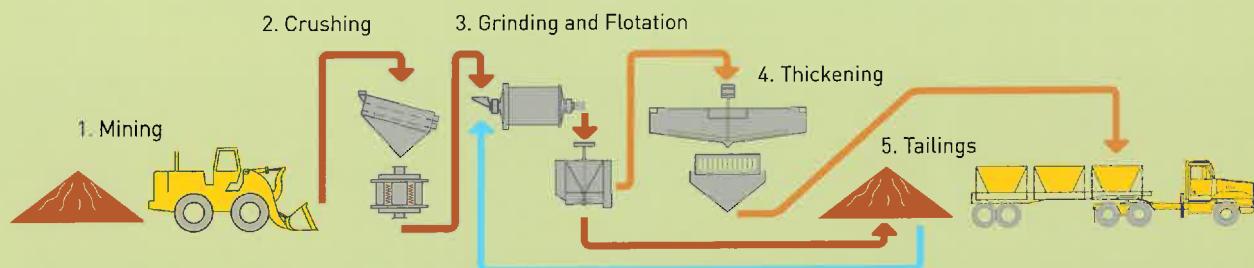
## Chemicals Used in the Mining Process

All mines use chemicals to separate the desired minerals from the waste materials. The Ajax project will use the same chemicals found in copper mines locally and around the world, including:

- **Methyl Isobutyl Carbional (MIBC)** – Creates a stable flotation process.
- **Potassium Amyl Xanthate (PAX)** - Allows the valuable metal particles to separate from other less valuable particles.
- **Lime** – Keeps the solution at the correct level of acidity.
- **Flocculent** – A clarifying agent that promotes liquid/solid separation.

## Removing the Copper

Following the crushing process, the ore will be ground into very fine particles to separate the valuable copper and gold minerals from waste materials. The particles will be mixed with water and chemicals to undergo a process called 'froth flotation', which creates a copper concentrate containing recoverable gold.



## Copper Concentrate

Copper concentrate will be thickened and filtered to remove excess water and then transported by sealed transport trucks in preparation for shipment to overseas markets for smelting and refining.

## Tailings

The waste materials remaining after the copper concentrate is removed is known as 'tailings'. The Ajax tailings will contain naturally-occurring trace levels of sulphides and will be thickened with a chemical binder before being stored in the Tailings Storage Facility. All water that comes in contact with the tailings will be diverted to the Inks Lake catchment area for re-use back through the process plant.

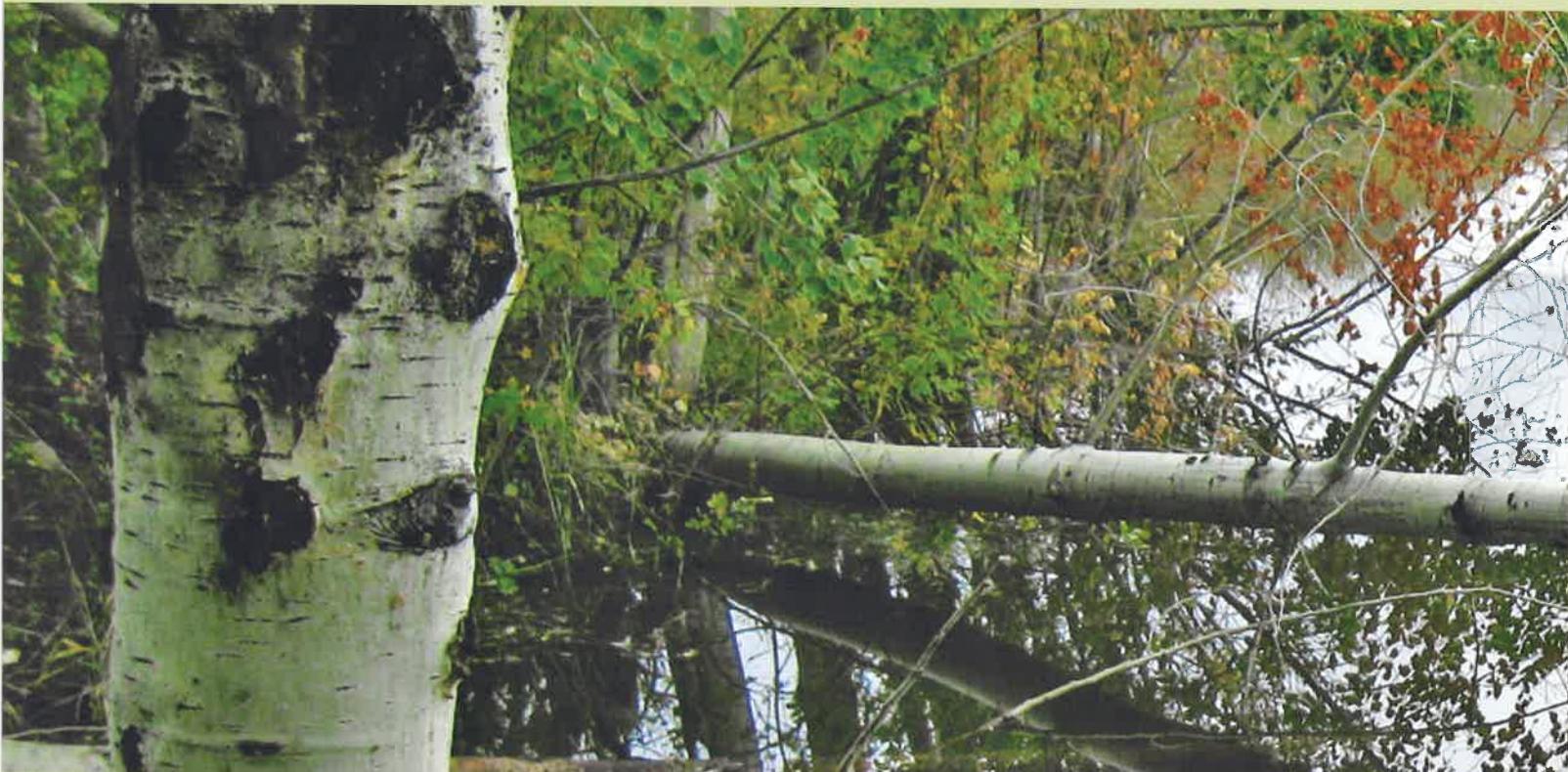


**There will be no cyanide or mercury used on the Ajax site or produced as a by-product of any part of the Ajax mining or concentrate-producing process.**

## WATER USE AND WATER QUALITY

The proposed Ajax project is a 'zero discharge' facility. This means all water that comes in contact with the mine is captured on site and recycled back to the mining and milling process.

The project lies within the Peterson Creek and Cherry Creek watersheds, both of which flow into Kamloops Lake. Ajax has been studying fisheries and aquatic resources in this area since 2007. To date, data collected includes stream flow measurements, seasonal fluctuations of groundwater levels, water quality samples, fish species and fish habitats.



### Benefits of a Zero Discharge Facility

- Minimizes the need for 'new' water from sources outside the mine site.
- Contributes to the preservation of water quality in the local watersheds.

KGHM Ajax will use this data to examine how the project could affect the local fisheries and aquatic resources. The Ajax project will be designed in such a way that protects fisheries and aquatic resources and mitigates any adverse environmental impacts.

Jacko Lake is a popular fishing lake that is stocked annually with rainbow trout. KGHM Ajax will adhere to all regulations and will work to preserve the lake, the fish stocks and the recreational fishing opportunities in Jacko Lake.

Peterson Creek currently runs through the proposed mine site area next to the existing open pits. In the current Ajax project plan, a 1,500 metre section will be diverted to minimize any potential impacts to the creek. KGHM Ajax is compiling baseline data to ensure the integrity of the water quality remains consistent or improves over the life of the Ajax project.

Cherry Creek watershed flows northwest from Greenstone Mountain into Kamloops Lake – which is primarily used for irrigation and stock watering. No diversion or disturbance is planned for Cherry Creek.

Naturally-occurring sulphates tend to be highly concentrated in Inks Lake, making it uninhabitable by fish and other aquatic life. In the current Ajax project plan, Inks Lake will be used as a catchment for surface run off and a source of water for the mine process plant.



In the current Ajax project plan, water will be pumped from Kamloops Lake for use in the mining process. However, the mine will only use 0.2% of the Kamloops Lake water flow.

Ranchers and other local residents hold water-use licences on Peterson Creek. KGHM Ajax will protect the volume and quality of water in Peterson Creek.



## DUST FALL

By its very nature, mining produces dust. In open-pit mining, dust is a result of blasting, crushing and dumping rock. The speed and distance dust travels is affected by wind, weather and the size of dust particles.

### Studying Dust

KGHM Ajax is studying existing dust fall and air quality in the project area. To better understand how much more dust the mine will produce, KGHM Ajax is collecting weather and climate data, working with industry experts and using the highest level of dust study models available to predict dust fall.

KGHM Ajax will develop a dust mitigation plan that meets or exceeds current best management practices. The project will be designed in such a way that mitigates environmental and health issues related to dust.

### Managing Dust

KGHM Ajax will use best practices for dust management by identifying and controlling dust at its source during all phases of the mining operations. Dust control methods include:

- Watering and applying binding agents to roads.
- Watering and applying binding agents to waste rock piles.
- Enclosing stockpiles.
- Enclosing crushing facilities and conveyor transfer points.
- Using water sprays where necessary.
- Using best available reclamation techniques.



#### Binders Used in Dust Control

Magnesium chloride and calcium chloride are typical chemicals used to bind dust and keep it from becoming airborne. Both of these compounds absorb moisture from the air and cause dust particles to stick to one another. These compounds can also be used as food additives and are not found to harm humans, animals or plants.

## **BLASTING IN MINING**

In both underground and open-pit mining, blasting is necessary to recover the metal-containing ore. Blasting typically results in both ground vibration and noise. The level of noise and vibration and the degree to which it is felt by an individual depends on many factors such as time of day, weather, frequency of occurrence and individual sensitivity.

KGHM Ajax conducted site-specific test blasts in February 2011. The blast vibrations were found to be below the vibration limit adopted by many North American municipalities. As such, blast vibrations for the Ajax project are expected to be below a level typically felt or heard by people and the vibration will not cause structural problems to the surrounding residential areas.

### **Blasting and Noise Control**

KGHM Ajax recognizes it will need to control blasting and the resulting vibration and noise. The Ajax project will use high-precision computer-controlled blasting techniques to control vibration and noise.

As the Environmental Assessment process continues and the Ajax project plan is further refined, KGHM Ajax will identify measures that can be implemented to reduce noise and vibration levels including:

- Elimination of noise sources.
- Purchasing equipment with improved noise characteristics.
- Proper maintenance of equipment.
- Enclosure or shielding sources of noise.
- Suppression of the noise at source.

# BRINGING SIGNIFICANT BENEFITS TO THE KAMLOOPS REGION

Over its two-year construction phase and 23-year mine life, the proposed Ajax project will provide a significant economic boost to the City of Kamloops in the form of jobs, local spending and tax revenues. The project is expected to provide lasting economic benefits even after the project is completed.

## JOBs

Average annual jobs during the construction phase.



Average annual jobs during operation.



The average annual salary for a mining job is \$100,000.

## ECONOMIC STIMULUS

\$1.1 million to be spent per day during construction.



\$180 million to be spent per year during operation.



## ESTIMATED TAX REVENUE OVER THE MINE'S LIFETIME



## ABOUT THE AJAX COPPER-GOLD PROJECT

The Ajax project is a proposed open-pit copper-gold mine located near Kamloops, British Columbia.

Plans call for a 60,000-tonne-per-day mine expected to produce 109 million pounds of copper and 99,000 ounces of gold annually. Mine life is estimated to be 23 years. If the project is approved, it would generate 580 construction jobs, 380 full-time jobs during operations, plus significant tax revenue, royalties and benefits for governments, local communities and First Nations, including the Tk’emlúps and Skeetchestn Indian Bands.



The project is a joint venture between Vancouver-based Abacus Mining and Exploration Corporation and KGHM Polska Miedz S.A., a leading global copper and silver producer.



The proposed project will undergo a single coordinated assessment as provided for in the Canada-BC Agreement on Environmental Assessment Cooperation. The Application for the proposed project will be assessed by the Canadian Environmental Assessment Agency (CEA Agency) and the BC Environmental Assessment Office (EAO). Additional information about the environmental assessment process is available on the CEA Agency's website at [www.ceaa-acee.gc.ca](http://www.ceaa-acee.gc.ca) and the EAO's website at [www.eao.gov.bc.ca](http://www.eao.gov.bc.ca).

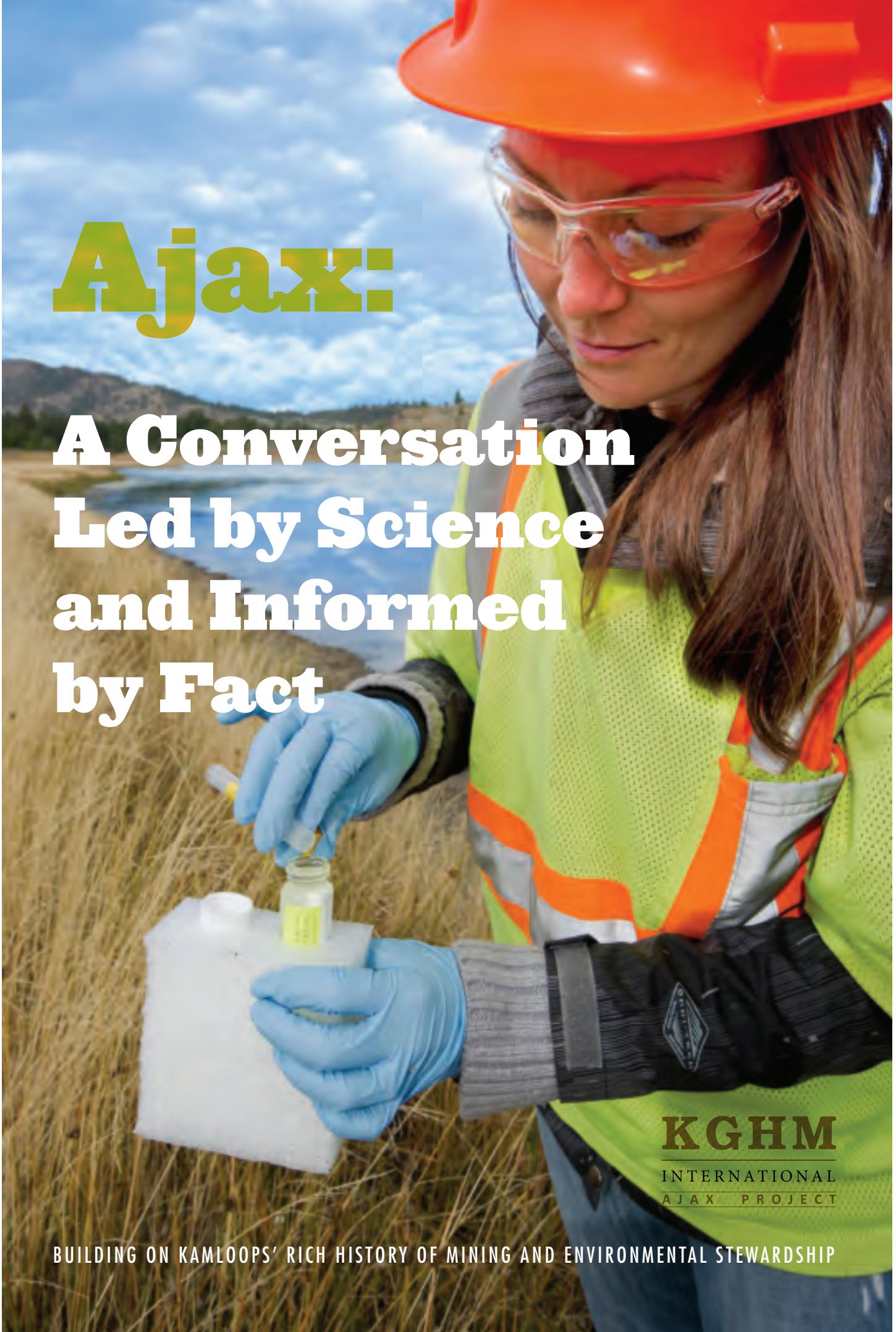
**KGHM Ajax Mining Inc.**

330 Seymour Street  
Kamloops, BC, V2C 2G2

T (250) 374-KGHM (5446)

E [info@ajaxmine.ca](mailto:info@ajaxmine.ca)

W [www.ajaxmine.ca](http://www.ajaxmine.ca)



# Ajax:

## A Conversation Led by Science and Informed by Fact

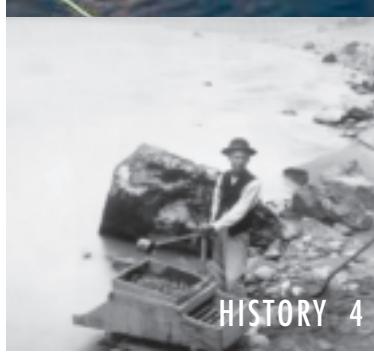
**KGHM**  
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AJAX PROJECT

BUILDING ON KAMLOOPS' RICH HISTORY OF MINING AND ENVIRONMENTAL STEWARDSHIP



*Active outdoor lifestyles have always thrived alongside mining in Kamloops.*

*Cover: Ajax environmental technician Nicole Anderson taking water samples at Inks Lake.*



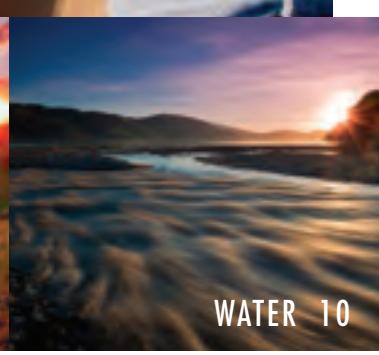
HISTORY 4



TECHNOLOGY 6



SCIENCE 8



WATER 10

# LET'S HAVE A CONVERSATION BASED ON THE FACTS

As we embark on a comprehensive environmental assessment process for Ajax, we would like to share how – with Kamloops residents as our neighbours – we have the opportunity to begin a new chapter in Kamloops' mining history.

The following pages describe how we are applying the world's most advanced technology and science to ensure the highest standards of sensitivity in our operations.

We hope you'll join us in a discussion about this opportunity to produce critically needed copper while creating well-paying jobs, providing tax revenue for local services, and supporting a vibrant supply and service sector in Kamloops.



NOISE & VIBRATION 12



AIR QUALITY 14



COPPER 18



JOBS 20

# KAMLOOPS' HISTORY IS GROUNDED IN MINING

Mining has always been a workhorse of the local economy. It's in Kamloops' DNA, and we know how to do it well.

## MILESTONES

1858

Fraser Canyon  
Gold Rush

1888

Coal Hill

1896

Iron Mask Area

1906

Exploration and  
development activities  
on the Ajax property  
begin

1908

200 tonnes of copper  
ore per day extracted  
at site of present day  
Iron Mask Trailer Park  
near Costco

1928 - 1967

Exploration





1973	1989	1995	1997	2004	2012
Mining operations begin at Afton	Ajax open pit operations begin	Ajax production reaches 11,824 tonnes of copper, 830 kg of gold and 1559 kg of silver	Mining ends	Abacus Mining acquires 100% mining rights	KGHM International becomes the operator of Ajax by acquiring 80% of the project



# WITH 21<sup>ST</sup>-CENTURY TECHNOLOGY AJAX WILL REDEFINE MINING

While Kamloops has had a rich history of mining, there's a good chance the proposed Ajax project isn't mining as you might know it. Thanks to 21<sup>st</sup>-century technology and techniques, we're redefining what mining looks, feels and sounds like.



*After more than 60 years of exploration activity, mining began at Ajax in 1989 and stopped in 1997. The existing open pit is shown here with Ajax engineer Rob Maciak and geologist Renee Potvin looking on.*



## APPLYING ENVIRONMENTAL SCIENCE

In the past, environmental scientists had at best a limited role in the mine planning process. Today, mine planning is driven by environmental study, with engineers and environmental scientists working hand in hand.



## LOCATING FACILITIES

Modern mines carefully place facilities to reduce impacts, not just achieve operational efficiency.



## PLANNING FOR CLOSURE

Mines used to be built with little if any regard for how they were closed. Today, mines are planned from the start so they can be safely and sensitively closed.



## RECLAMATION

Modern mines don't wait to begin reclamation. Reclamation starts right away, with full bonding in place so that funds are always available.



## ENSURING COMPLIANCE

Today, rigorous standards are continually upheld and enforced by regulatory agencies.

# A COMPREHENSIVE PROCESS WILL LEAVE NO STONE UNTURNED

The approval process, just underway, involves both the Canadian Environmental Assessment Agency and the B.C. Environmental Assessment Office working together.

## ENVIRONMENTAL STUDIES:

Greenhouse Gas Management, Geology, Landforms and Soils, Surface Water Quality, Surface Water Quantity, Groundwater Quality, Groundwater Quantity, Fish Populations and Fish Habitat, Rare Plants, Rare and Sensitive Ecological Communities, Grasslands, Terrestrial Invertebrates, Amphibians, Reptiles, Migratory Birds, Raptors, Non-Migratory Gamebirds, Mammals

## HERITAGE STUDIES:

Heritage Objects, Heritage Sites



## SOCIAL STUDIES:

Community Health and Well-being, Infrastructure, Public Facilities and Services, Dark Sky, Visual Impact/Aesthetic Features, Land and Resource Use, Outdoor Recreation



## HEALTH STUDIES:

Air Quality, Domestic Water Quality, Country Foods, Noise and Vibration, Healthy Living and Health Education



## ECONOMIC STUDIES:

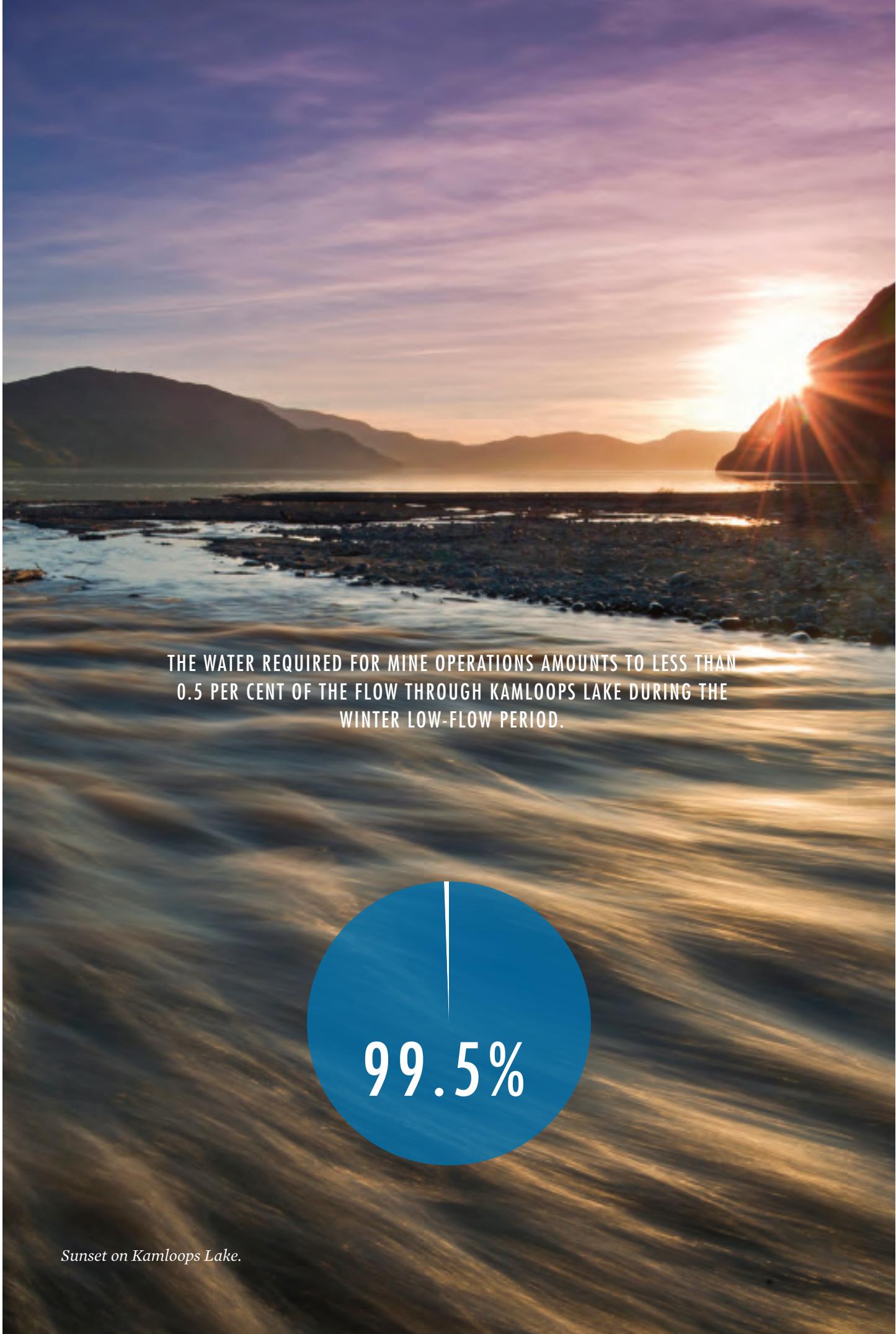
Economic Growth, Labour Force, Employment and Training, Income, Business, Property Values, Economic Diversification



# MAXIMIZED WATER RECYCLING AND ZERO DISCHARGE

WE ARE PLANNING TO OPERATE A ZERO-DISCHARGE FACILITY,  
MEANING THAT NO WASTEWATER WILL BE DISCHARGED  
INTO THE ENVIRONMENT.





THE WATER REQUIRED FOR MINE OPERATIONS AMOUNTS TO LESS THAN 0.5 PER CENT OF THE FLOW THROUGH KAMLOOPS LAKE DURING THE WINTER LOW-FLOW PERIOD.



99.5%

*Sunset on Kamloops Lake.*

# BLASTS 1,000 TIMES SMALLER THAN WHAT COULD CAUSE DAMAGE

As with the previous operation at the site, blasts will not have any noticeable adverse effect. In fact, the blasts will be 1,000 times smaller than a blast required to cause damage in drywall in Aberdeen.

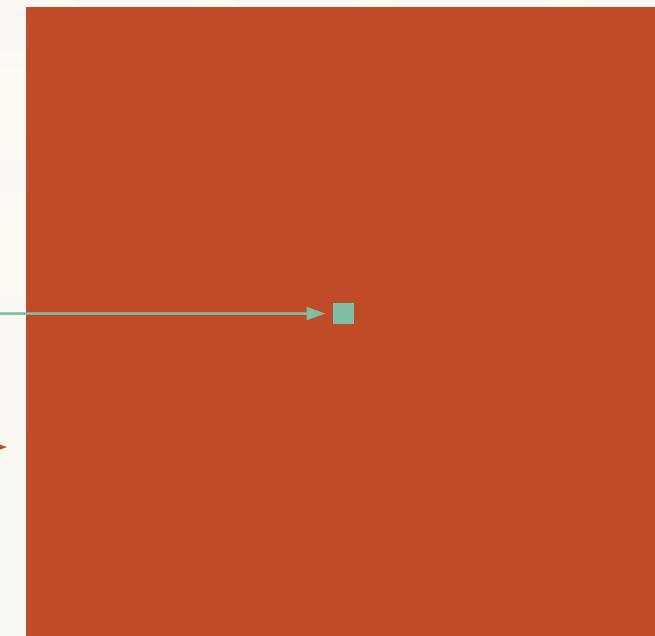
New mines always start with small blasts and work up to larger production blasts over time, always monitoring for intended effect to ensure compliance with regulatory standards for both noise and vibration.

# WILL MEET STRINGENT STANDARDS FOR NOISE CONTROL

Noise regulations require that sound reaching inside the nearest homes at night must be no louder than 40 decibels, or the noise level of a quiet library.

DRYWALL IS THE WEAKEST PART OF A HOME'S STRUCTURE SO STANDARDS ARE BASED ON POTENTIAL DRYWALL DAMAGE.

## VIBRATION



■ RED = AMOUNT OF EXPLOSIVE REQUIRED TO CAUSE DAMAGE TO DRYWALL (1,000 TIMES MORE)

■ GREEN = MAXIMUM AMOUNT OF EXPLOSIVE AT AJAX

*Source: R. Frank Chiappetta, BSc., MSc., Blasting Analysis International*

# OUR COMMITMENT TO THE AIR WE SHARE

We all take responsibility for protecting air quality in Kamloops.

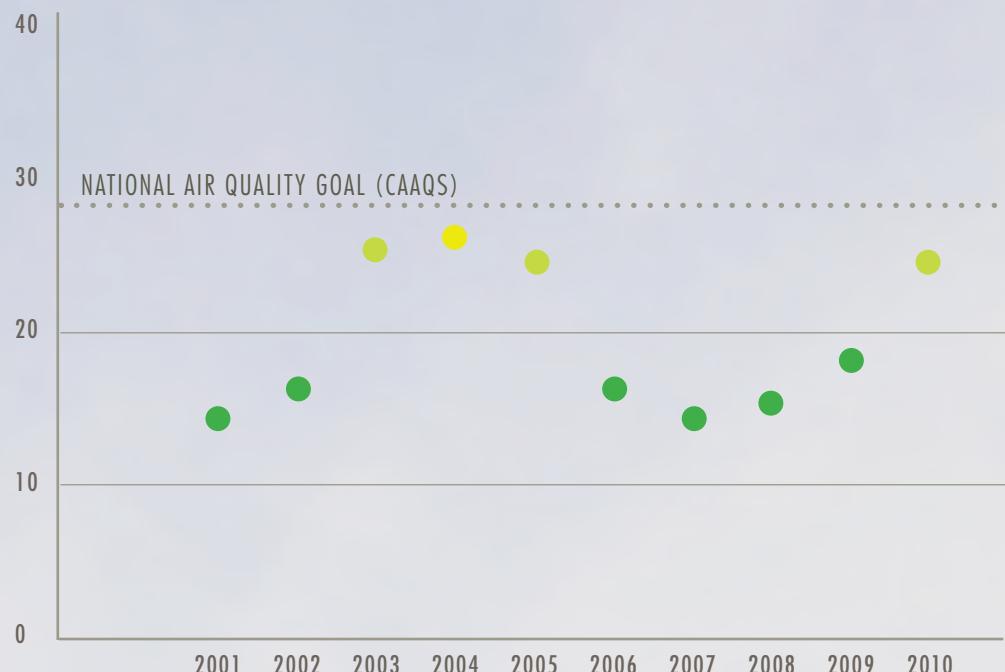
Usually, the Air Quality Health Index for Kamloops is in the lowest risk (1-3) range. Yet at times, particulate pollution levels rise above standards due to fires, weather, wood burning, dust, and vehicle use.

Not only will Ajax meet all applicable standards for ambient air quality, we are committed to helping Kamloops meet its airshed management goals. Ajax is not building a smelter. We will ship “concentrate” (a sand/clay mixture with about 25 per cent copper) in enclosed tanker trucks. To control dust, our ore stockpile will be covered, and we will use state-of-the art controls throughout our operations.



## KAMLOOPS' AIR QUALITY RARELY EXCEEDS NATIONAL STANDARDS FOR PARTICULATE POLLUTION

LEVELS OF RESPIRABLE PARTICULATE MATTER  
(PM<sub>2.5</sub>) by Year in Kamloops



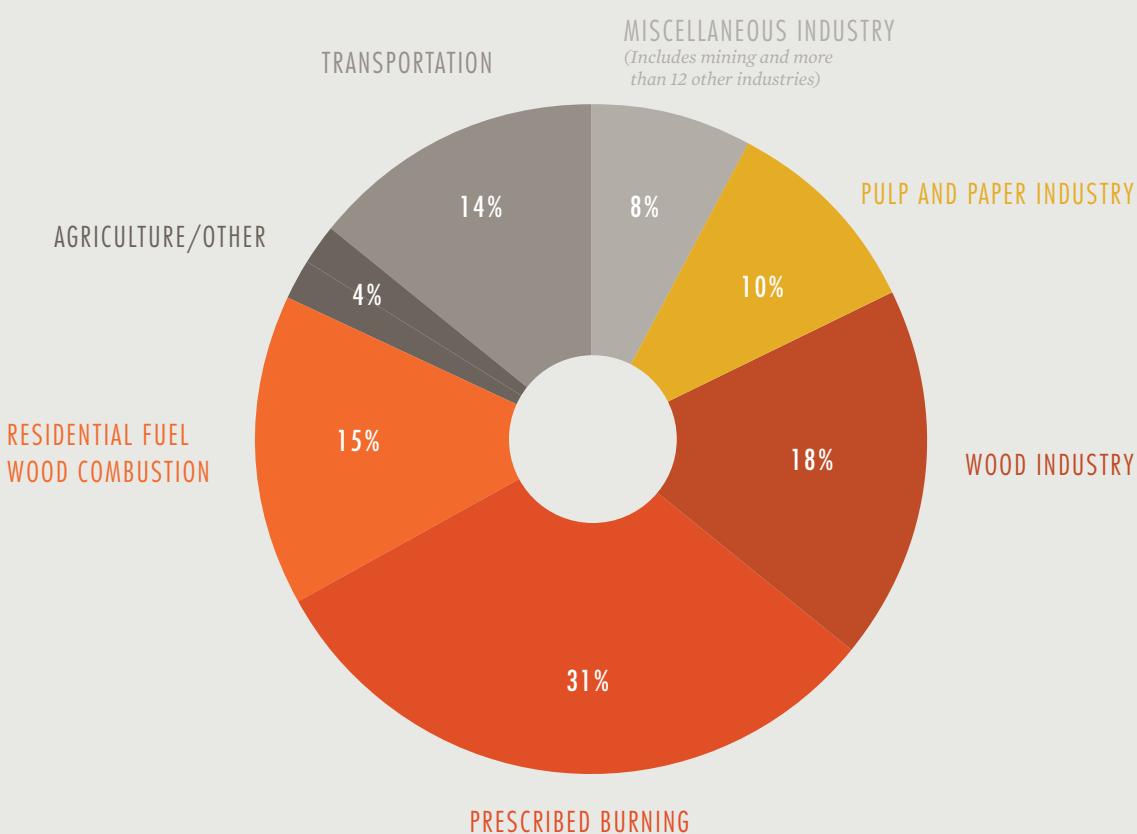
Source: BC Ministry of Environment PM<sub>2.5</sub> Summary for Kamloops Brocklehurst.

TYPICALLY, PARTICULATE LEVELS HAVE ONLY EXCEEDED PROVINCIAL STANDARDS AS A RESULT OF MAJOR FOREST FIRES.

# AJAX WILL MEET STRINGENT AIR QUALITY STANDARDS

Kamloops' airshed management plan has looked at all man-made sources of particulate pollution in a comprehensive effort to ensure healthy air. Ajax's share of new particulate pollution in Kamloops will be minimal when all sources are considered. We plan to meet the highest standards for controls on diesel emissions and fugitive dust.

## SOURCES OF MAN-MADE PARTICULATE POLLUTION IN BRITISH COLUMBIA (PM<sub>2.5</sub>)



Source: BC Air Action Plan 2008

# ROBUST MONITORING AND COMPLIANCE

As a new mine, Ajax will be one of the most closely monitored and thoroughly mitigated industrial operations in British Columbia. Science-based monitoring systems using the most advanced technology available in the world will ensure that mining won't negatively affect our neighbors.



# COPPER: CRITICAL FOR A RENEWABLE FUTURE

Copper is not just for cookware and pipes; it is an essential conductor that is the metal of choice for most electrical wiring applications.

As we move toward more green energy technologies like geothermal, wind and solar energy, electricity distribution and hybrid vehicles, we'll require more copper. For example, one large wind turbine requires more than four tonnes of copper, while electric vehicles require about twice as much copper as their conventional counterparts.

Copper is the most recycled metal. More than 80 percent of the copper that's been mined is still in use today.



*Not only is copper valued for its conductivity, hospitals use it extensively for its anti-microbial properties.*



*A modern wind turbine uses more than four tonnes of copper.*



HYBRID CARS



GREEN ENERGY



ELECTRONICS



CELL PHONES

# A VIBRANT CONTRIBUTION TO KAMLOOPS

## MINING CREATES GOOD-PAYING FAMILY JOBS

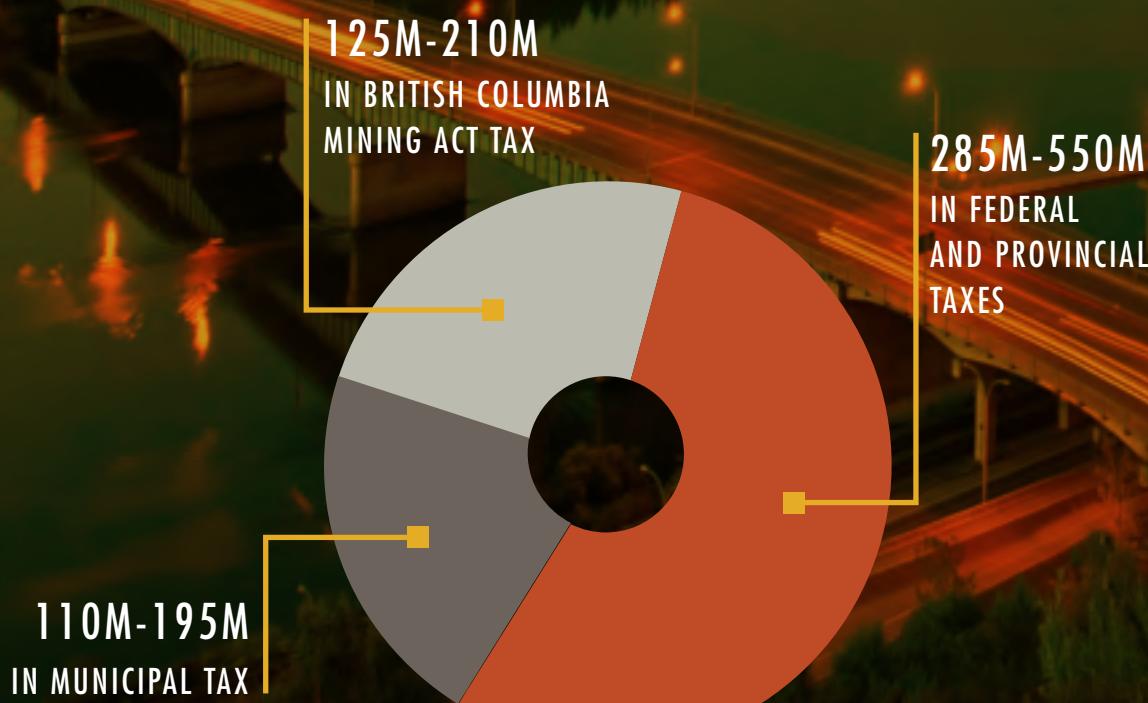
We estimate 500 full-time employees will be needed to operate the mine, including technical, health, safety and administrative positions. We also estimate thousands more indirect jobs created by the mine's need for manufacturing and supplies will be generated.

## LOCAL HIRING

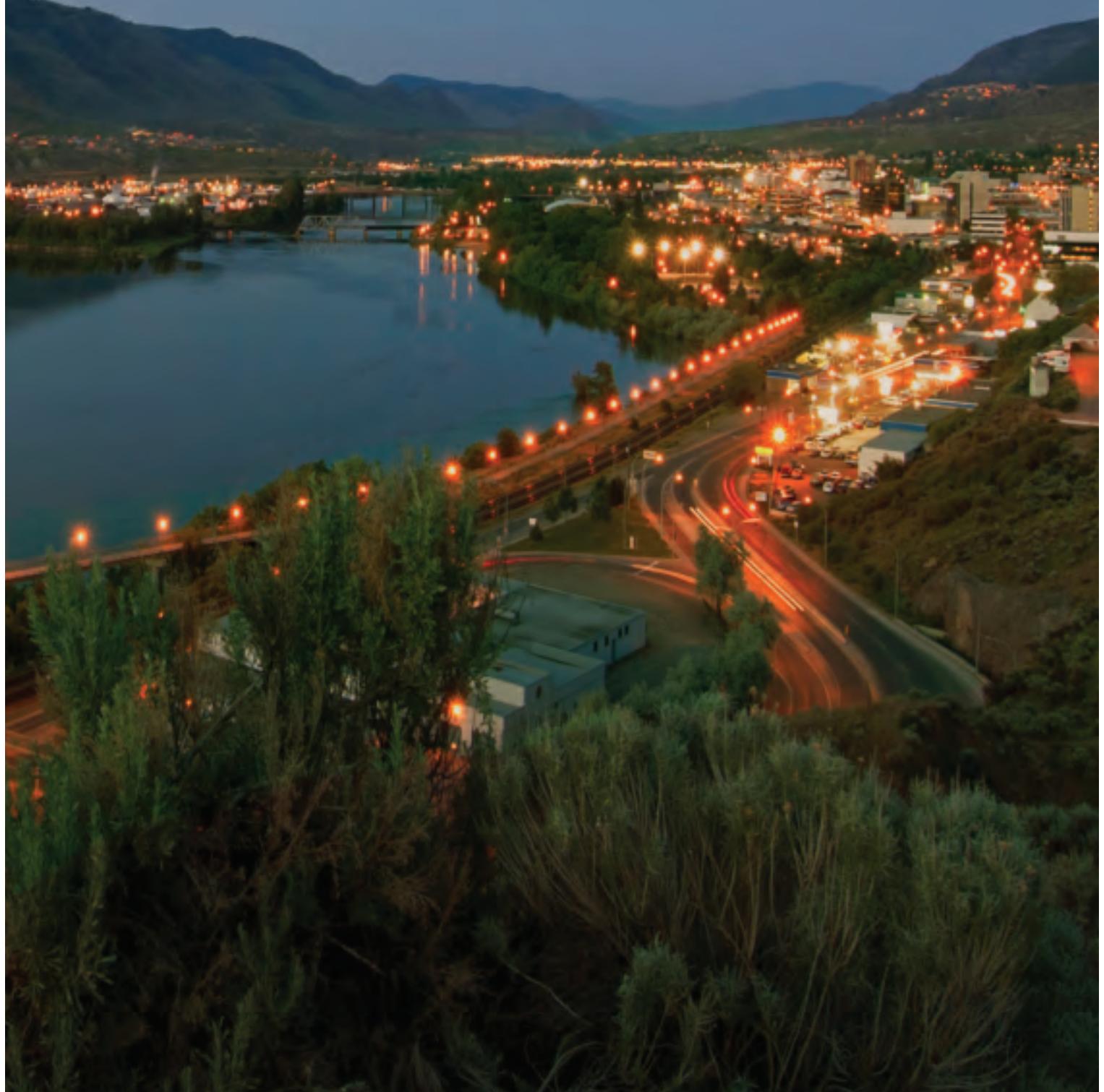
We have a commitment to hiring locally and will continue to uphold it. Ajax employees live here and breathe the same air, walk the same trails and drink the same water as all of us. Every direct mining job creates 2-3 additional jobs.

## MORE THAN \$500 MILLION IN ESTIMATED TAX REVENUE

(based on current predictions)



THE MINE WILL CREATE 500 DIRECT JOBS  
AND TENS OF MILLIONS IN TAX REVENUE  
AND ROYALTIES ANNUALLY.



# OUR PHILOSOPHY: DRIVEN BY SCIENCE

Wherever we operate, KGHM International and KGHM Polska Miedź S.A embraces scientific review. We invest in opportunities in places like British Columbia where science and common sense define the decision-making process.



**KGHM**  
INTERNATIONAL  
AJAX PROJECT

We believe in the integrity of the environmental assessment process. With regular public participation we intend to plan a mine that will be a model for the rest of the province and the country.



*Ajax geologist Renee Potvin inspects  
a core sample for mineralization.*



# We want to hear from you.

**KGHM INTERNATIONAL LTD.**

Ajax Project Office  
330 Seymour Street

Kamloops, BC V2C 2G2

T: 250-374-5446

[ajaxmine.ca](http://ajaxmine.ca)

[www.placespeak.com/ajaxproject](http://www.placespeak.com/ajaxproject)

*Logistics officer Trevor Fulcher  
organizing drilling core samples.*

# We've Listened



CHANGES TO THE AJAX MINE  
BASED ON COMMUNITY INPUT

**KGHM**  
INTERNATIONAL  
AJAX PROJECT



# WE'VE TAKEN YOUR CONCERNS SERIOUSLY.

Over the past several months we have heard from many of our neighbours in Kamloops who have stated concerns about the proximity of proposed Ajax facilities.

We took all of the comments, concerns and suggestions provided by the community at town hall forums, face-to-face small group community sessions and through our website to heart.

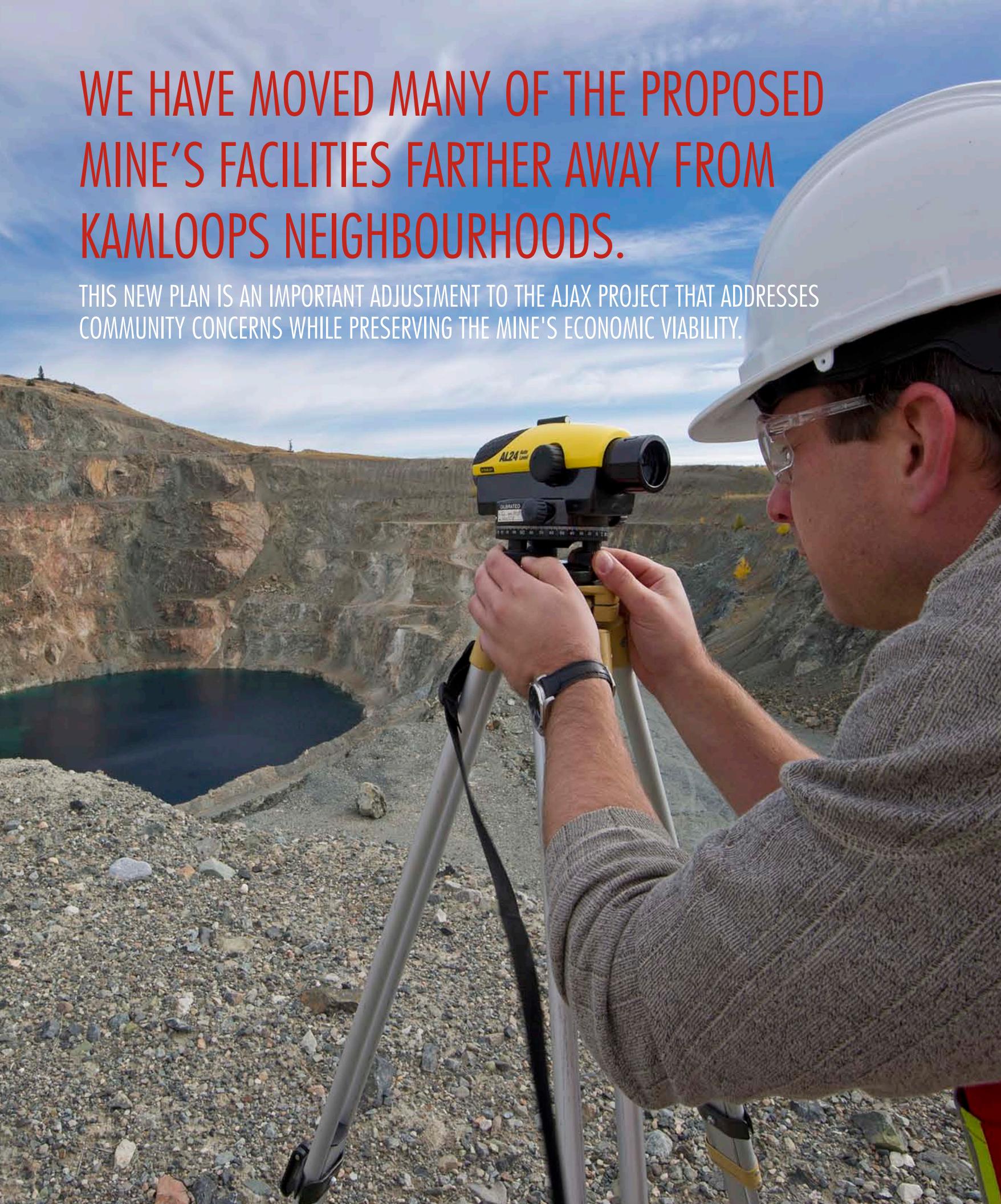
# OUR GOAL IS TO DEVELOP A WORLD-CLASS MINE THAT IS SAFE, PROFITABLE AND ENVIRONMENTALLY RESPONSIBLE;

A PROJECT THAT WILL create economic benefit and lasting positive legacies for First Nations, governments and the people of Kamloops, British Columbia and Canada. The Ajax team will deliver an economically viable project in a safe, socially accountable and environmentally responsible manner.



# WE HAVE MOVED MANY OF THE PROPOSED MINE'S FACILITIES FARTHER AWAY FROM KAMLOOPS NEIGHBOURHOODS.

THIS NEW PLAN IS AN IMPORTANT ADJUSTMENT TO THE AJAX PROJECT THAT ADDRESSES COMMUNITY CONCERN WHILE PRESERVING THE MINE'S ECONOMIC VIABILITY.



## KEY CHANGES INCLUDE:

### RELOCATION OF FACILITIES AWAY FROM THE COMMUNITY:

Relocation of the tailings storage facility more than five kilometres southeast to a new location closer to mine operations. As well, we have redesigned the facility from a dry stack tailings storage facility to a conventional storage facility that uses proven mining technology. The new facility takes advantage of the unique nature of the local terrain and topography.

Relocation of the north rock storage facility, mine processing plant and ore stockpiles more than two kilometres south from their formerly proposed locations. The sites will now be more than four kilometres from Aberdeen and Pineview Valley.

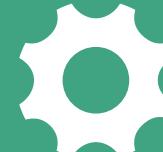
The primary crusher will also move south of the pit, 3½ kilometres from the closest city neighbourhood.

The new plan clusters mine activities to the south and east of the pit. We believe bringing key facilities closer together will reduce emissions and dust.



### AIR QUALITY PROTECTION:

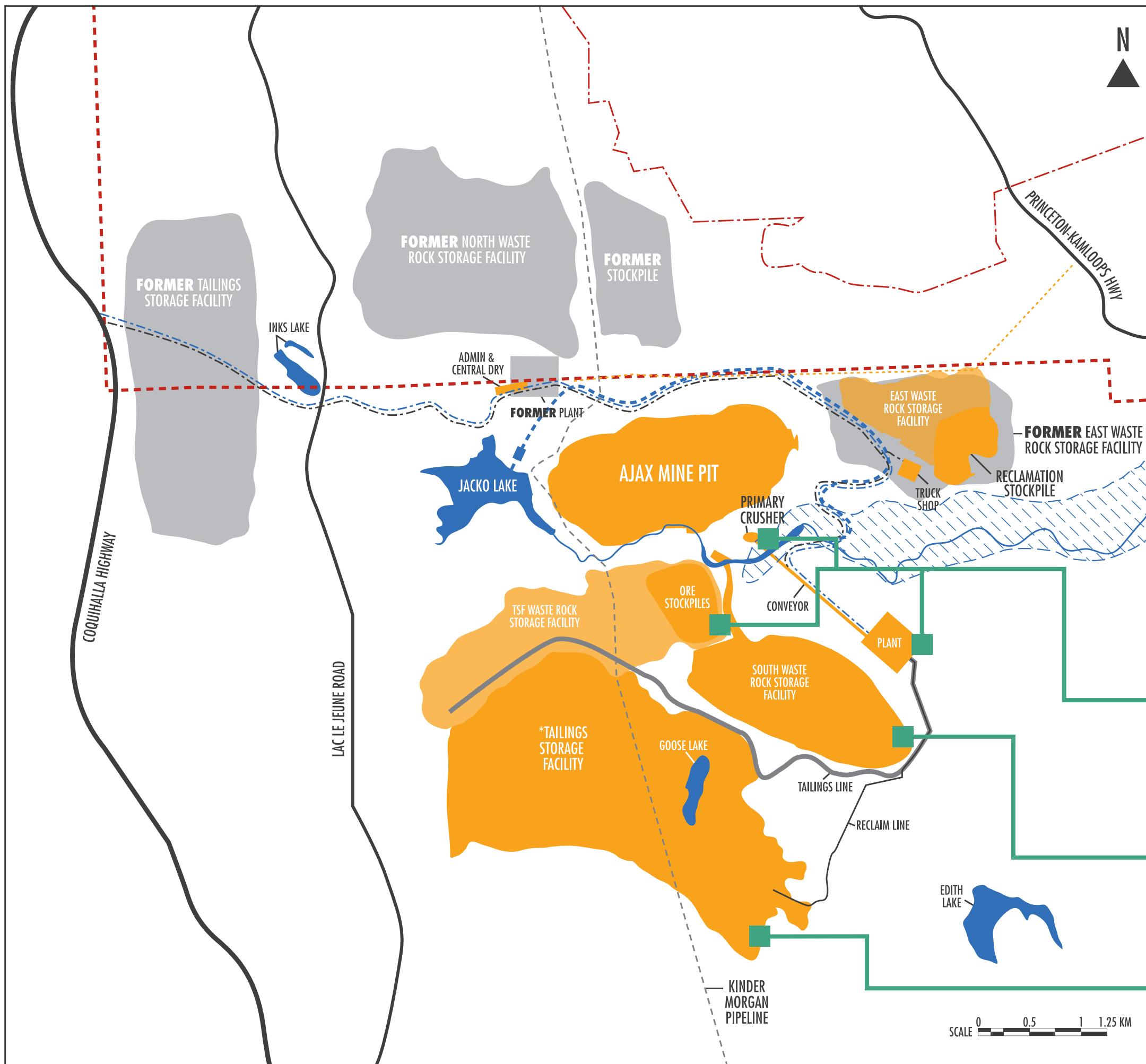
We plan to use the latest generations of diesel-powered equipment; engines that meet EPA standards for particulate and nitrogen oxide emissions. We will also use a smaller fleet of larger trucks to further save fuel, reduce emissions and lessen road dust.



### ADVANCED RECLAMATION:

The Ajax Project is being planned with closure in mind. Reclamation planning will guide operational decision making. Our goal is to return most of the mine site to natural states that support the same agricultural and recreational uses in place today.





### LEGEND:

- URBAN GROWTH BOUNDARY
- CITY OF KAMLOOPS BOUNDARY
- POWERLINE PROPOSED
- ROADS PROPOSED
- WATERLINE PROPOSED
- PETERSON CREEK DIVERSION
- PETERSON CREEK
- PETERSON CREEK AQUIFER
- FORMER FACILITY LOCATIONS
- NEW FACILITY LOCATIONS

## KEY LOCATION CHANGES:

PROCESSING PLANT, CRUSHERS AND TEMPORARY ORE STOCKPILES HAVE MOVED MORE THAN TWO KILOMETRES FARTHER AWAY FROM THE CITY. MOVING THESE FACILITIES CLOSER TO THE PIT WILL ALSO REDUCE HAUL TRUCK USE.

THE WASTE ROCK STORAGE FACILITY HAS MOVED 4½ KILOMETRES FROM ABERDEEN NEIGHBOURHOODS. THE ORIGINAL LOCATION WAS PREVIOUSLY LOCATED 1½ KILOMETRES FROM THE COMMUNITY.

THE TAILINGS STORAGE FACILITY MOVES 2½ KILOMETRES AWAY FROM THE COQUIHALLA HIGHWAY. OUR CONVENTIONAL TAILINGS STORAGE FACILITY WAS PREVIOUSLY PROPOSED TO BE LOCATED AT INKS LAKE.

\*PENDING KGHM AJAX BEING IN A POSITION TO RELEASE THE RESULTS OF ITS CONDEMNATION DRILLING PROGRAM.

# HERE'S MORE DETAIL ABOUT THE CHANGES TO THE OPERATIONAL SITE PLAN:

**THE TAILINGS STORAGE FACILITY:** The Ajax Project's conventional tailings storage facility will be located 2 ½ kilometres from the Coquihalla Highway, closer to mine operations. It moves five kilometres southeast from its previously proposed location at Inks Lake.

Wet tailings storage facilities are common at mining operations, including in B.C., and are easier to build and maintain than the previously proposed dry tailings facility. A conventional tailings storage facility gives the Ajax Project more ability to manage water on the site.

The dams needed to contain the water and tailings will be built with rock left over from mining operations, making more efficient use of the by-products of our operations. The dams will be engineered to strict federal standards. The science behind this kind of dam construction is well proven.

The dams will take advantage of the rolling nature of the local topography, meaning containment berms are not needed on all sides. The tailings storage facility will be synthetically lined in places where the underlying rock and soil might be permeable. The facility will be built to limit impact to birds, animals and humans.

Conventional tailings facilities are easier to reclaim once mining operations are complete. A full reclamation plan is being developed that will see the tailings facility returned to natural states. Topsoil removed as part of the construction process will be saved and used for reclamation.

Tailings will be transferred to the storage facility from the processing plant by pipeline. Protective spillways will safeguard against the remote possibility of pipe leakages.

The tailings storage facility will be built to guard against 200-year weather events. Spillways will be built to safely divert extra water if extreme weather events raise water levels behind the dams.

**THE NORTH WASTE ROCK STORAGE FACILITY:** Moving this facility to the southeast moves a potential source of noise and dust away from Aberdeen and Pineview Valley. The facility, previously planned to be 1 ½ kilometres from Aberdeen neighbourhoods, will be about 4 ½ kilometres from Aberdeen, closer to mine operations. As a result, trucks will drive shorter distances, reducing emissions and lessening dust.





**THE PROCESSING PLANT, CRUSHERS AND TEMPORARY ORE STOCKPILE:** Moving these facilities south of the pit means haul trucks will drive less distance. The crushed ore stockpile will be covered.

**DUST SUPPRESSION:** All aspects of the Ajax Project will be designed with suppression of dust in mind. Covering the crushed ore stockpile eliminates a major source of fugitive dust in mine operations. Spray/misting and vacuum systems will be used to minimize the opportunity for dust to escape from key ore transfer points in the operation.

KGHM International will use high-capacity water tankers to wet roads in the pit while smaller tankers will wet other roads. The concentrated mine foot print proposed by this general arrangement means there will be fewer roads. Vehicle speed limits will help control dust in the air.

**WATER USAGE:** The Ajax Project is planned to operate as a zero-discharge facility during mine operations, meaning no effluent from the mine processing plant or other operations will be discharged to the environment. All water used in mine processes — including in the tailings storage facility and on-site truck wash stations — will be recycled and reused.

We are also exploring the possibility of drawing wastewater from the City of Kamloops's water treatment plant for use in mine operations.

**ADVANCED DIESEL ENGINES:** The Ajax Project will use EPA-rated diesel engine technology in the mine's haul trucks, heavy equipment and other vehicles. Such engines meet regulated standards for emissions of particulate and nitrogen oxide.

**VISUAL IMPACT/RECREATION:** The south and eastward shift of the mine's major industrial structures means views from the Coquihalla Highway and Lac Le Jeune Road will be protected. The mine's facilities will be much less visible from most prominent viewpoints as they move away from the city and local roads.

The new plan opens the possibility of redeveloping our lands to the north of mine operations for recreational use. For example, the company is already working with local riding clubs to secure, protect and enhance the existing network of informal mountain bike trails through the area.

**ISO 14001 ENVIRONMENTAL CERTIFICATION:** The Ajax Project will work to achieve certification to the ISO 14001 standard, an international standard that governs environmental management. Certification will ensure the Ajax Project conforms to recognized practices and standards for monitoring environmental aspects such as noise, air, water and the soil.

THANK YOU FOR  
YOUR FEEDBACK.

Keep the  
conversation  
going...

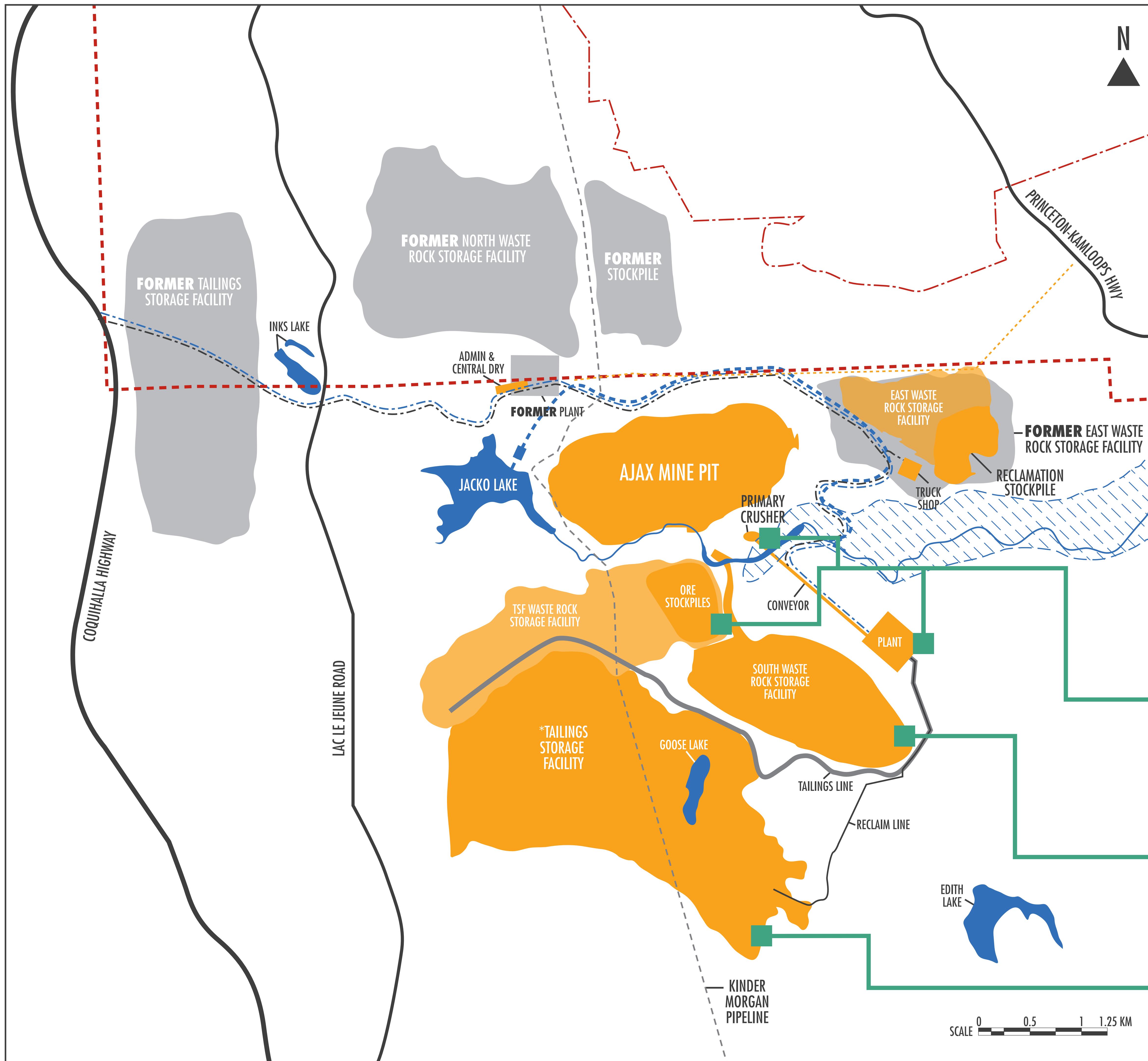
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# NEW AJAX MINE GENERAL ARRANGEMENT



## LEGEND:

- URBAN GROWTH BOUNDARY
- CITY OF KAMLOOPS BOUNDARY
- PETERSON CREEK DIVERSION
- PETERSON CREEK
- POWERLINE PROPOSED
- ROADS PROPOSED
- WATERLINE PROPOSED
- FORMER FACILITY LOCATIONS
- NEW FACILITY LOCATIONS

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- PETERSON CREEK AQUIFER
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